

MASTER CATALOG 2018

VOLUME ONE | **TURNING TOOLS**



ISO/ANSI TURNING | GROOVING & CUT-OFF | THREADING | APPLICATION SPECIFIC

Beyond™ Evolution™ — Grooving, Cut-off, and Multi-directional Turning Made EASY

Choosing the right tooling can be complicated and time-consuming. Built on simplicity, we have engineered a new tool that makes every machine operator's life EASY.

Beyond™ Evolution™

See pages C2–C85.

Since its inception in 1938, Kennametal has understood precisely how to improve manufacturing performance and profitability — by introducing unparalleled products and services to reduce operating costs and lead times.

These 1000+ pages bring you the latest in turning products and superior services — specifically engineered to enhance overall productivity, even in the most challenging metalworking applications.

Rely on Kennametal to significantly boost manufacturing competitiveness. To learn more, contact your Kennametal Representative or Authorized Kennametal Distributor.

Visit us at kennametal.com.

POWERED BY



Volume I • Turning Tools

This Catalog Consists of Two Volumes — Vol. I: Turning Tools / Vol. II: Rotating Tools

Turning Tools

Introduction	ii–xi
Services and Support	xiv
Turning	A1–E71
Turning Introduction	A2–A3
ISO/ANSI Turning	B1–B410
Grooving and Cut-Off	C1–C204
Threading	D1–D105
Application Specific	E1–E71
Ordering Information	Y2–Y237
Index by Order Number	Y2–Y102
Index by Catalog Number	Y103–Y201
Global Contacts	Y202–Y203
Icon Legend	Y204–Y208
Material Overview	Y210–Y211
Workpiece Material Overview Listing	Y212–Y237

Rotating Tools • See Volume II

Holemaking	F1–K220
Solid Carbide Drills	G1–G145
Modular Drills	H1–H133
Combination Tools	I1–I30
Indexable Drills	J1–J117
Hole Finishing	K1–K220
Tapping	L1–M216
Spiral-Point/Left-Hand Spiral-Flute Taps	M1–M41
Spiral-Flute Taps	M42–M104
Straight-Flute Taps	M106–M134
Forming Taps	M136–M148
Pipe Taps	M150–M158
Solid Carbide Thread Mills	M160–M177
Technical Information	M178–M216
Solid End Milling	N1–Q47
Duo-Lock Modular Milling	O1–O57
High-Performance Solid Carbide End Mills	P1–P171
General Purpose Solid Carbide End Mills	Q1–Q47
Indexable Milling	R1–X37
Face Milling	S1–S126
Shoulder Milling	T1–T136
Slot Milling	U1–U41
Copy Milling	V1–V159
Thread Milling	W1–W55
Technical Information • Recommended Starting Speeds	X1–X37

Turning

PRODUCT HIGHLIGHTS

➤ **BEYOND™ EVOLUTION™**

See section C for more details.

Kennametal proudly introduces the Beyond™ Evolution™ platform. This innovative platform is built on simplicity and challenges today's approach to grooving and cut-off. Selecting the right tool is easy with the Beyond™ Evolution™ platform because this high-performance system is versatile and flexible. It is the first portfolio in the market to compete in all grooving and cut-off applications, with up to 35% less tooling than current competitors.

The proprietary coolant delivery system directs coolant precisely to the cutting edges underneath the chip, which is the best method for heat removal in grooving and cut-off applications.



beyond™ EVOLUTION™

➤ **BEYOND™ DRIVE™**

See section B for more details.

Beyond™ Drive™ ISO turning inserts provide up to 50% improved insert edge utilization. The advanced surface treatment reduces coating stress and improves coating adhesion. The bronze outer layer simplifies wear detection and increases insert utilization. PVD grades KCU10™ and KCU25™ with Beyond™ technology resist the high temperatures of machining in tough alloys. Achieve up to 30–40% longer tool life for more profitability in general engineering, transportation, aerospace, energy, and earthworks markets. The PVD coating helps to maintain consistent chip control and minimize insert edge wear in turning, grooving, and cut-off operations in a wide range of materials and applications.



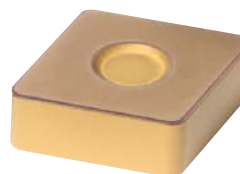
beyond™ DRIVE™



➤ CAST IRON TURNING WITH KBK45™

See section B for more details.

KBK45 is a new high-content PcBN grade designed for high-performance machining of gray cast iron, such as brake discs and fly wheels. It is designed for reducing waste of unused corners, reducing cost-per-part (CPP) by maintaining tool changes between shifts, and enhancing output by using more reliable products. KBK45 grade provides an excellent CPP value.



➤ HARD TURNING WITH KBH20™

See section B for more details.

KBH20 is the ideal PcBN hard turning grade in continuous to lightly interrupted applications with up to medium-severity interruption. The structure and different edge preparations enable tight and repeatable workpiece tolerances, excellent surface finishes, and surface integrity — even at elevated speeds.

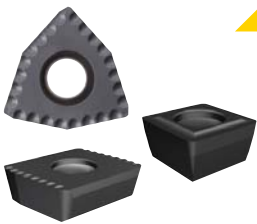
KBH20 grade is a new substrate for applications like case-hardened components, including gears, shafts, and other drive-train components.

The nano-composite coating enhances speed capabilities and tool life. The improved edge preparation promotes longer tool life, reliable performance, and better surface finish.



Holemaking

PRODUCT HIGHLIGHTS



DRILL FIX™ DFSP™ INDEXABLE DRILLS WITH DS AND LP INSERTS

See section J (Volume II) for more details.

DFSP is the renamed expanded Drill Fix DFS™ indexable drilling platform. The standard diameter range is now .551–2.125" (14–55mm) in L/D ratios 2 x D, 3 x D, 4 x D, and 5 x D. The DFSP platform combines the economical squared outboard insert with the superior centering capabilities of the trigon inboard insert. These indexable drills offer increased metal removal rates and high surface quality and hole straightness.

Use new DS and LP chipbreaker insert designs with Drill Fix DFSP, DFT™, and HTS indexable drills, and KSEM PLUS™ modular drills. These inserts enable excellent chip formation on low-carbon steels and other long-chipping materials.



KENTIP™ FS THE PERFECT FUSION OF A SOLID CARBIDE AND AN INDEXABLE DRILL

See section H (Volume II) for more details.

The new modular drill KenTIP FS covers more applications and provides better performance than any other modular system, delivering substantial cost savings and process simplifications on your shop floor.

- 3-point geometries, 3 high-performance grades, 3 different shank styles.
- 6–26mm diameter range.
- Up to 12 x D drilling depths.
- Applicable in steel, stainless steel, and cast iron.



COUNTERFIX MICRO SMALL INSERTS THAT MAKE A BIG DIFFERENCE!

See section H (Volume II) for more details.

New CounterFix Micro (CFM) tangential inserts offer a new way to enhance drilling, chamfering, and counterboring operations. They enable very small incremental steps on tailor-made step drills, longer tool life per edge, and improved surface finish.

CFM inserts can be used on KenTIP, KSEM™, and Drill Fix products, as well as for made-to-order indexable countersinking tools.

CounterFix Micro will be available for KenTIP FS tailor-made drills in 2018 upon request.



NEW SGL DRILLS WITH THROUGH COOLANT FOR STAINLESS STEEL

See section G (Volume II) for more details.

The all-new B21_SGL series solid carbide drills are designed specifically for stainless steel applications, offering high performance and long tool life in high-temperature alloys and regular steel, also.

By combining unique Kennametal features, such as the all-new SGL-point-geometry with patented gashing, a unique flute design, and a best-in-class coating into one tool, the B21_SGL drill is the ultimate high-volume production tool.

The all-new B27_SGL series is designed specifically for deep-hole drilling up to 40 x D applications in stainless steel and high-temperature alloys.





NEW!



NEW KMH DRILLS FOR HARD MATERIALS

See section G (Volume II) for more details.

The all-new KMH solid carbide drills are engineered for hard material applications up to 65 HRC. The B94_drill series without through coolant is specifically designed to machine hardened and surface-hardened materials using flood coolant. With its 145° point angle, it is also perfectly suited as a pilot drill for the B95_drill series with through coolant and 140° point for deeper applications.

Both series come with an increased core to strengthen the drill, feature a curved cutting edge with corner chamfer to avoid chipping on the margin lands and increased tool life in these challenging materials.

RMR™ AND RHR™ DISC-STYLE REAMERS

See section K (Volume II) for more details.

Performance, quality, and regrindability, like solid carbide reamers for diameters .5512–1.6732" (14–42,5mm).

Common reamers have single tips brazed onto a steel body. The new Kennametal RMR and RHR reamers have a solid carbide disc brazed onto the steel body. This enables more regrinds than a regular tipped reamer, reducing the cost-per-hole significantly. The new KCU05 coating holds the surface finish more than twice as long as conventional reamer coatings, depending on the workpiece material.



GOTAP™ MULTIPURPOSE HSS-E TAPS

See section M (Volume II) for more details.

GOTap is our multipurpose line of taps that include optimized geometries and PVD coatings capable of tapping a wide range of ductile materials, such as stainless steels, carbon and alloy steels, cast aluminum, and ductile iron. GOTap taps versatility extends beyond the part, as it can be used in a wide range of machine tools and application conditions. The new GOTap TC multipurpose taps enable blind-hole tapping with tension/compression holders without sizing problems due to over-feeding. The versatility of GOTap taps means lower inventory costs with no loss of productivity, consistent tool life, and high-quality thread finish.

Solid End Milling

PRODUCT HIGHLIGHTS



DUO-LOCK®

See section O (Volume II) for more details.

Duo-Lock™ is a revolutionary new coupling for solid carbide end milling applications. This replaceable-head design combines high accuracy in runout and length repeatability with maximum stability, making it a precise and virtually unbreakable interface for challenging milling applications.

- Up to 1 x D full slotting increases metal removal rates for significantly higher productivity.
- 1.5 x D standard cutting edge length enables fewer passes.
- Cutting data and tool life comparable to high-performance solid carbide tools.



DUO-LOCK®
by HAIMER® and Kennametal



HARVI™ III FAMILY

See section P (Volume II) for more details.

HARVI III end mills are the first choice for high-temperature alloy machining, profiling, semi-finishing, and finishing. Beyond grade KCSM15™ delivers maximum metal removal rates and exceptional tool life in titanium and stainless steel, as well as excellent surface finishes.

- Taper ball nose for complex 5-axis machining.
- Ball nose for 3D profiling.
- Square end for semi-finishing/finishing operations.

beyond



BEYOND™ EADE SOLID CERAMIC END MILLS

See section P (Volume II) for more details.

Beyond™ EADE solid ceramic end mills offer higher productivity in roughing nickel-based high-temperature alloys. With reduced machining time, EADE ceramic end mills also achieve significantly longer tool life compared to carbide tooling.

— Beyond grade KYS40™ enables cutting speeds up to 3.300 SFM.



beyond

GOMILL™ GP PLATFORM

See section Q (Volume II) for more details.

GOMill GP tools enable plunging, slotting, and profiling, plus longer tool life, on a wide range of workpiece materials. They are designed to provide higher metal removal rates (MRR) and good surface finishes at an excellent cost-benefit ratio.

- Roughing and finishing with one tool.
- Excellent cost-benefit ratio.
- Multilayer KC633M™ grades for longer tool life.



Indexable Milling

PRODUCT HIGHLIGHTS

➤ **MILL 4-11™ AND MILL 4-15™**

See section T (Volume II) for more details.

The Mill 4-11™ and Mill 4-15™ series tools are specially engineered to achieve excellent surface quality and higher metal removal rates in shoulder milling applications. The unique design enables multiple passes (stepping down) with outstanding results.

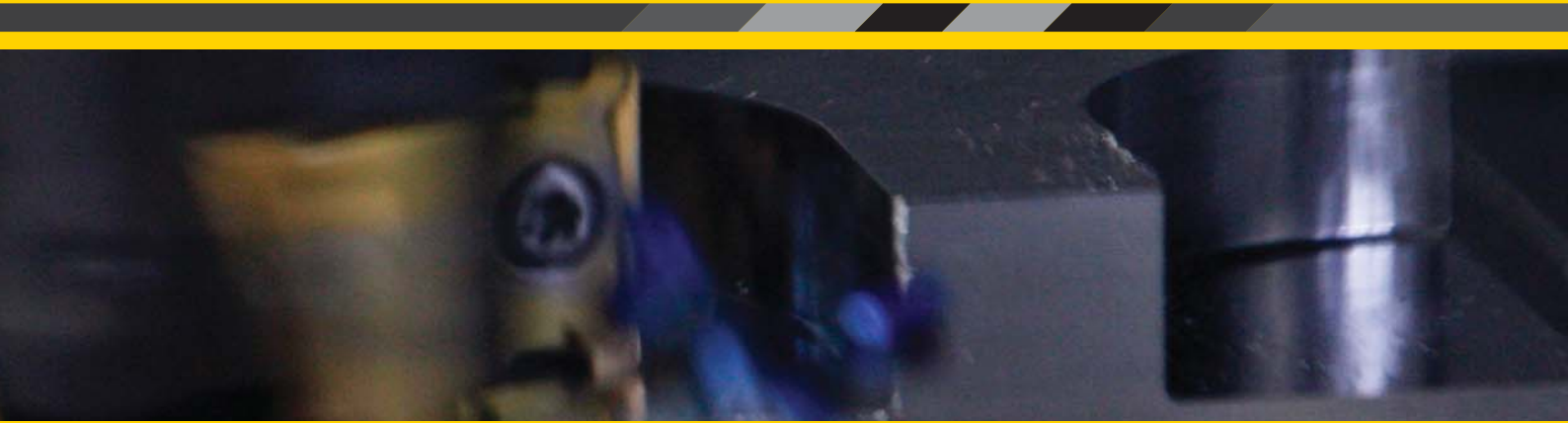
Use Mill 4-11 in roughing to finishing applications in steel, cast iron, stainless steel, non-ferrous materials, and high-temp alloys. Use Mill 4-15 for roughing to finishing in steel, cast iron, stainless steel, and titanium.



➤ **MILL 16™**

See section S (Volume II) for more details.

The new Mill 16™ series is a tailor-made platform for rough milling of components like engine heads and blocks, housings and gear boxes in cast iron materials (CGI, DCI, GCI), and all other cast iron face milling jobs.



KCSM40™

NEW MILLING GRADE FOR TITANIUM MACHINING

Breakthrough indexable milling grade for roughing and semi-finishing operations in titanium and stainless steels — S40, M30 application range.

Available in these indexable milling platforms: Mill 1-10™, Mill 1-14™, Mill 1-18™, Mill 4-11™, Mill 4-15™, Dodeka™ Mini, Dodeka™ MAX™, MEGA™, KSOM™ Mini, KSOM™, KSRM™, NGE™, KSSM™ 0, KSSM8+™, Rodeka™, Stellram® 5230, Stellram 7713, and Stellram 7792.



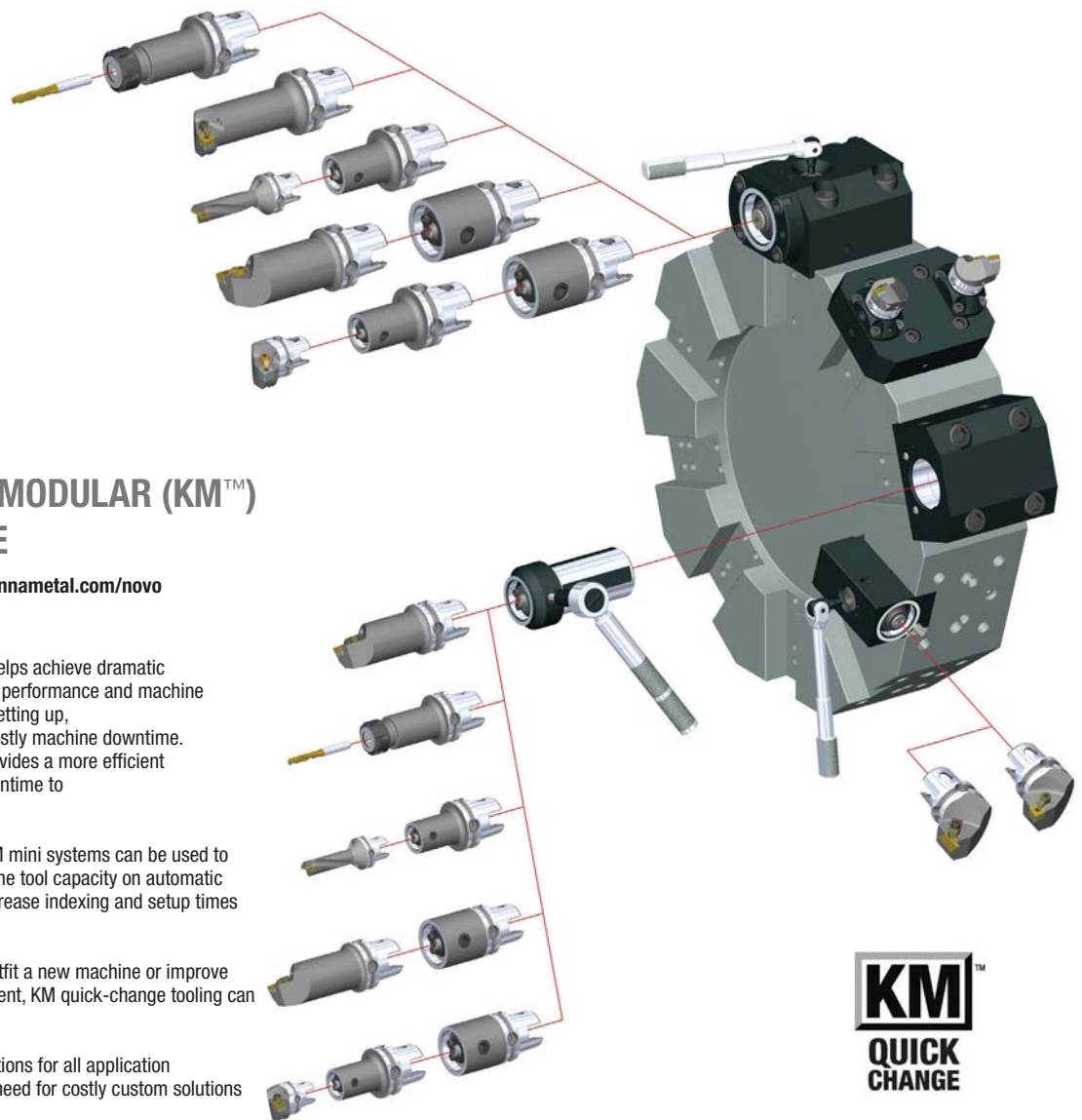
STELLRAM® 7792VX HIGH-FEED SERIES

See section V (Volume II) for more details.

The 7792VX cutter series is designed for high-feed milling applications with superior surface generation. The 7792VX cutters are designed for a wide range of applications, including facing, pocketing, ramping, helical interpolation, and plunging. They are capable of machining all materials, including steel, stainless steel, cast iron, and high-temperature and aluminum alloys.

Tooling Systems

PRODUCT HIGHLIGHTS



➤ KENNAMETAL MODULAR (KM™) QUICK CHANGE

Visit kennametal.com or kennametal.com/novo for more details.

KM™ quick-change tooling helps achieve dramatic improvements in cutting tool performance and machine output. Frequent changing, setting up, and gaging of tools create costly machine downtime. KM quick-change tooling provides a more efficient process that can reduce downtime to increase productivity.

In addition, KM micro and KM mini systems can be used to considerably increase machine tool capacity on automatic and universal lathes and decrease indexing and setup times by up to 66%.

Whether you're looking to outfit a new machine or improve the output of current equipment, KM quick-change tooling can maximize production.

The KM portfolio includes options for all application requirements and limits the need for costly custom solutions due to system modularity.





➤ KM4X™

Visit kenametal.com or kenametal.com/novo for more details.

The KM4X spindle interface is designed for heavy-duty machining applications. It's especially suited for machining large structural components. These rotating and static tool adapters handle 3x more bending capacity than similar competitive models.

- Rigid configuration through higher clamping force.
- Design enables front-loaded spindle configurations.
- High spindle speed capability.
- Designed for use in most applications.
- Use in a wide range of high and low speeds and torques.
- Can upgrade to the KM4X system on spindles that use HSK format.
- Maintain taper contact in higher speeds.



➤ DRIVEN TOOLING AND STATIC TOOL BLOCKS

Visit kenametal.com or kenametal.com/novo for more details.

Turn your CNC lathe into a multi-task solution provider with turret-adapted driven clamping units for rotating applications and static tool blocks for maximum quick change flexibility. Whether it's for milling, drilling, tapping, boring, or non-rotating applications, you can maximize machine utilization by employing Kennametal tooling and solutions. Available in multiple KM™ format sizes to allow for versatility and productivity.

- 0 and 90° options available as standard.
- Up to 12,000 RPM speeds for high metal removal rates.
- 1:1 and 1:2 gear ratios available for added speed or torque.
- Standard configurations for multiple manufactures and customizable to fit most turrets.
- Quick change solutions for static and rotating applications to maximize machine effectiveness.

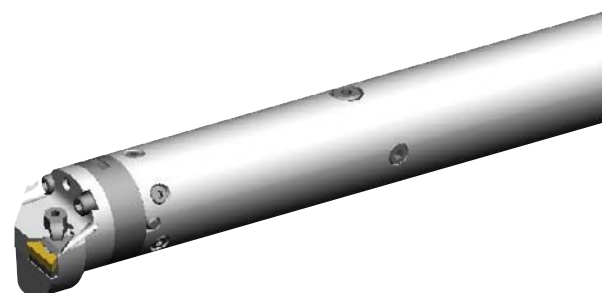
➤ TUNABLE BORING

Visit kenametal.com or kenametal.com/novo for more details.

Kenametal tunable boring bars can increase productivity and solve chatter and other issues in long-boring operations.

Several key improvements to our current tunable boring bar portfolio include:

- Enhanced tuning process at the manufacturing plant ensures accurate tuning at the maximum overhang.
- Nitriding of steel tunable boring bars eliminates the effects of chip wash.
- Elimination of flats on tunable boring bars enhances stability and proper toolholding.
- Addition of a small flat on the connection collar enables the use of a center-height tool.
- Enhanced assembly process.



Kennametal on the Web

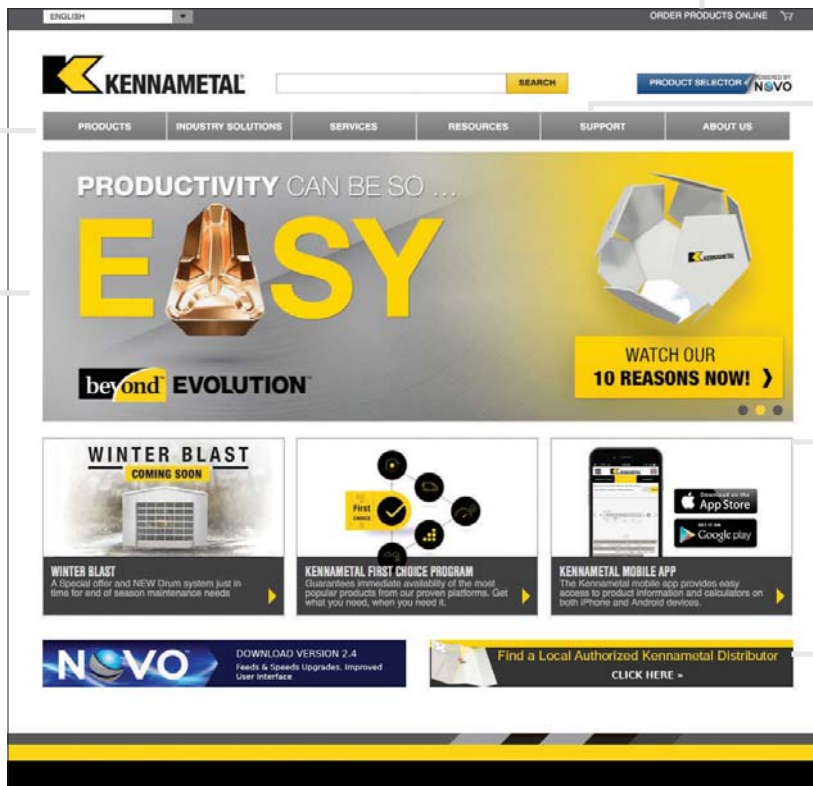
kennametal.com

FIND THE LATEST PRODUCT INFORMATION

Whether your operation is turning, milling, or holmaking, Kennametal brands are the high-performance tooling you need. We offer standard and custom solutions for a wide range of applications.

Find information about our most current campaigns and catalogs.

Register on Konnect for the full functionality of the Kennametal online ordering website.



CONTACT US

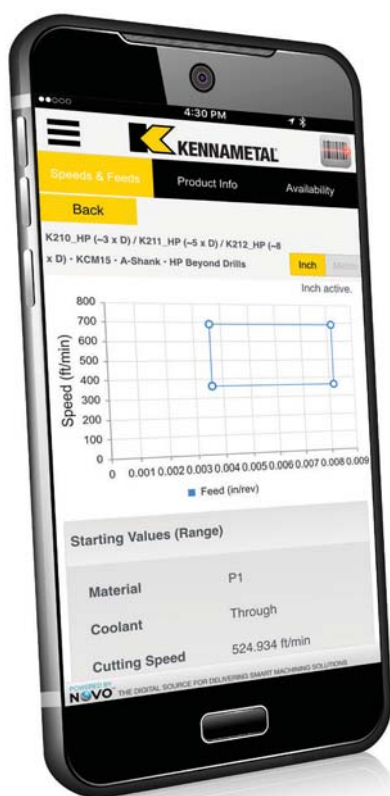
Our customers are important to us. We want to provide you the best customer service in the industry. If you have a comment or question, please send it to us. We strive to respond to all inquiries within 24 hours.

FIND A LOCAL AUTHORIZED DISTRIBUTOR IN YOUR AREA

Kennametal offers world-class products and services globally. Our distributors know us, and more importantly, they know you. They know better than anyone in the industry how to put the global power of Kennametal to work for you — in your industry, in your region, and for your business.

Mobile App

The Kennametal mobile app makes it easy to access product information, calculators, and much more from iPhone® and Android™ devices.



FEATURES

Scan a Kennametal tool package barcode or search a product catalog number to access complete product information.

Product information includes tool image, dimensions, grades, and product highlights.

View product availability at global locations.

Get speed and feed information in inch and metric values for all metalcutting products.

View tech tips for helpful solutions to common machining questions.

Contact Customer Support directly from the app.

MACHING CALCULATORS

View data for milling and drilling applications.

Inch and metric values calculated.

ORDERING

Login using your Konnect credentials to complete a purchase.

WHERE TO FIND IT

Download the free app today from iTunes® or the Google Play™ store.



Service and Support


Customer Application Support (CAS)

Get Fast and Reliable Answers to Your Toughest Metalcutting Problems

Our Customer Application Support (CAS) Team is the metalworking industry's leading help desk resource for tooling application solutions and problem resolution.

Easy Access to Proven Metalworking Expertise!

Kennametal Customer Application Engineers assist customers and engineering groups throughout the world with expert tool selection and application recommendations for the entire range of Kennametal tooling.

SERVICE LEVEL EXCELLENCE	Fast telephone response. Quick technical solutions. Efficient case management.	
SERVICES	Operating parameters. Process optimization. Hardware support. Tooling selection. Troubleshooting.	
BEST-IN-CLASS SUPPORT TOOLS AND TECHNOLOGY	Materials database. Application calculators. Tooling performance experts.	

Originating Country	Language	Phone	E-mail
Australia	English	1800 666 667	ap-kmt.techsupport@kennametal.com
Austria	German	0800 202873	eu.techsupport@kennametal.com
Belgium	English/French	0800 80850	eu.techsupport@kennametal.com
China	Chinese	400 889 2238	k-cn.techsupport@kennametal.com
Denmark	English	808 89298	na.techsupport@kennametal.com
Finland	English	0800 919412	na.techsupport@kennametal.com
France	French	080 5540 367	eu.techsupport@kennametal.com
Germany	German	0800 0006651	eu.techsupport@kennametal.com
India	English	1 800 103 5227	in.techsupport@kennametal.com
Israel	English	1809 449889	na.techsupport@kennametal.com
Italy	Italian	800 916561	eu.techsupport@kennametal.com
Japan	English	03 3820 2855	ap-kmt.techsupport@kennametal.com
Korea (South)	English	+82 2 2100 6100	ap-kmt.techsupport@kennametal.com
Malaysia	English	1800 812 990	ap-kmt.techsupport@kennametal.com
Mexico	Spanish	1800 253 0758	na.techsupport@kennametal.com
Netherlands	English	0800 0201 130	eu.techsupport@kennametal.com
New Zealand	English	0800 450 941	ap-kmt.techsupport@kennametal.com
Norway	English	800 10080	na.techsupport@kennametal.com
Poland	Polish	0080 0441 1887	eu.techsupport@kennametal.com
Russia (landline)	Russian	8800 5556394	eu.techsupport@kennametal.com
Russia (cell phone)	Russian	+7 8005556394	eu.techsupport@kennametal.com
Singapore	English	1800 6221031	ap-kmt.techsupport@kennametal.com
South Africa	English	0800 981643	na.techsupport@kennametal.com
Sweden	English	020799246	na.techsupport@kennametal.com
Taiwan	English	0800 666 197	ap-kmt.techsupport@kennametal.com
Thailand	English	1800 4417820	ap-kmt.techsupport@kennametal.com
UK	English	0800 032 8339	na.techsupport@kennametal.com
Ukraine	Russian	0800502664	eu.techsupport@kennametal.com
USA	English	800 835 3668	na.techsupport@kennametal.com

NOVO KNOWS SEARCH

Searching for a tool has been enhanced by Advise and Select functions from NOVO™ applications — saving you time and money.

ADVISE

Uses a rules-based approach to provide cutting tool recommendations:

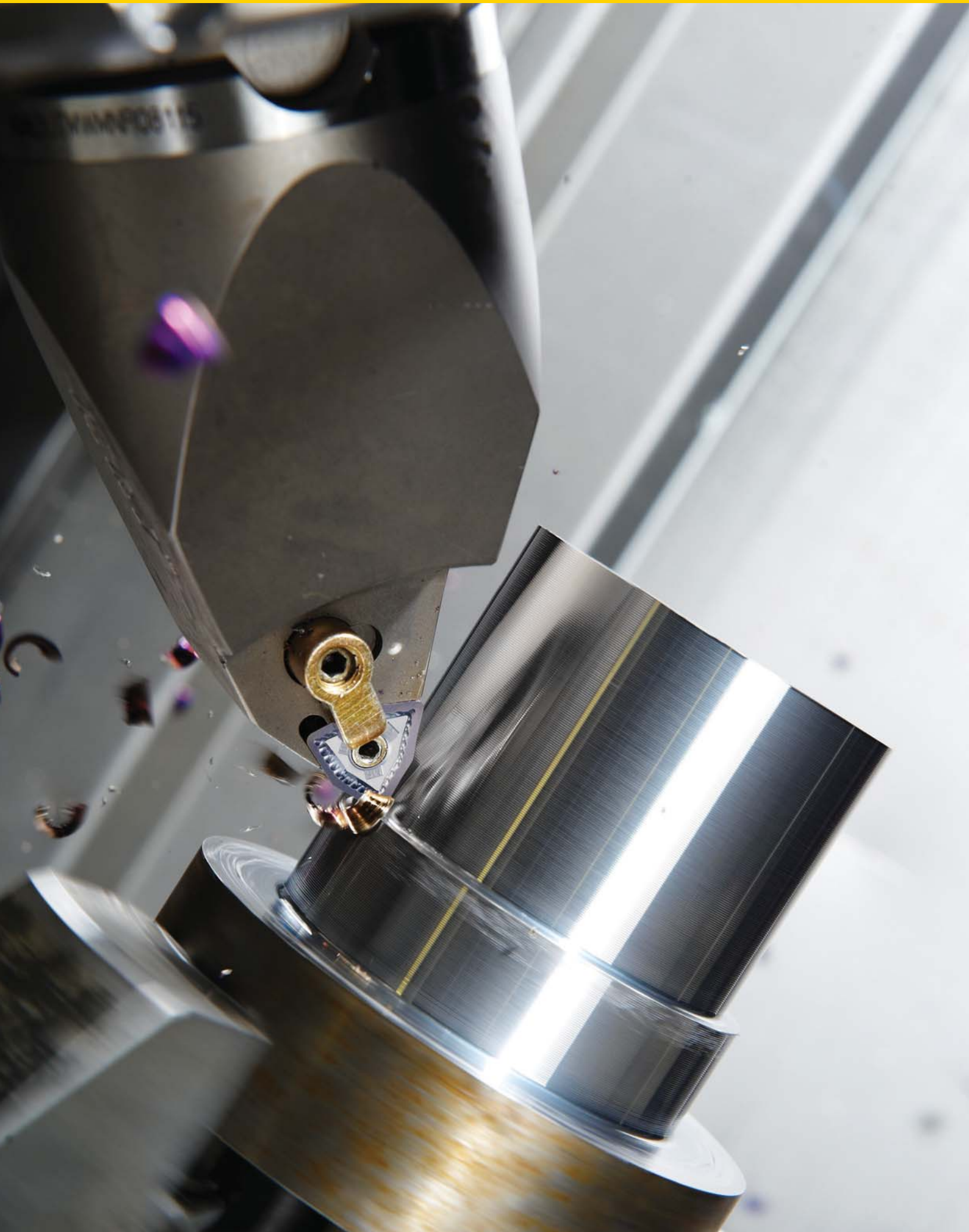
- Define Machining Feature (face milling, slotting, blind hole, etc.)
- Apply Constraint Requirements (geometric, material, tolerance, etc.)
- Set Machining Sequence (single or multi-step operations, rough then finish, etc.)
- Receive Ranked Results

SELECT

A method of selecting cutting tools from a tree structure via a hierarchy or parametric search:

- If you know which product you are looking for, a quick search can be performed by just the catalog number or product description.
- Smart filters significantly reduce the amount of potential tooling solutions.
- After the tool is selected, NOVO also provides cutting and adaptive item options that fit with your solution.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximizes every shift. kennametal.com/novo



Turning

Turning Introduction.....	A2–A3
ISO/ANSI Turning.....	B1–B410
Grooving and Cut-Off.....	C1–C204
Threading.....	D1–D105
Application Specific.....	E1–E71



Turning Products

Our latest Metalcutting Innovations are designed to deliver higher productivity, longer tool life, and increased application versatility.

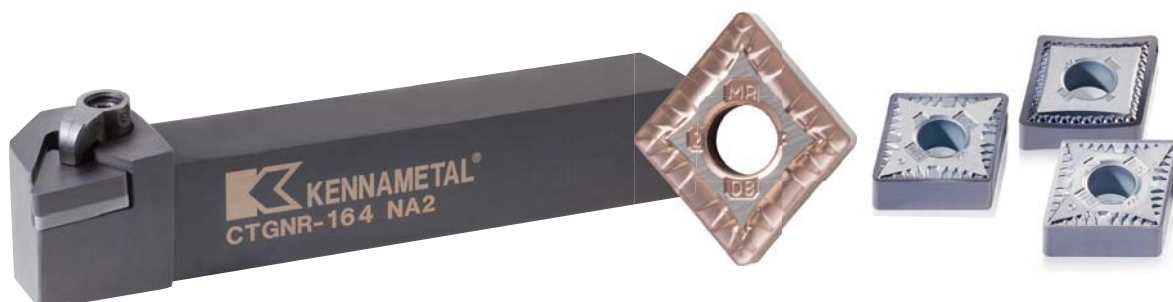
For more information about the latest products and services from Kennametal, please contact your Kennametal Representative or Authorized Kennametal Distributor, or visit kennametal.com.

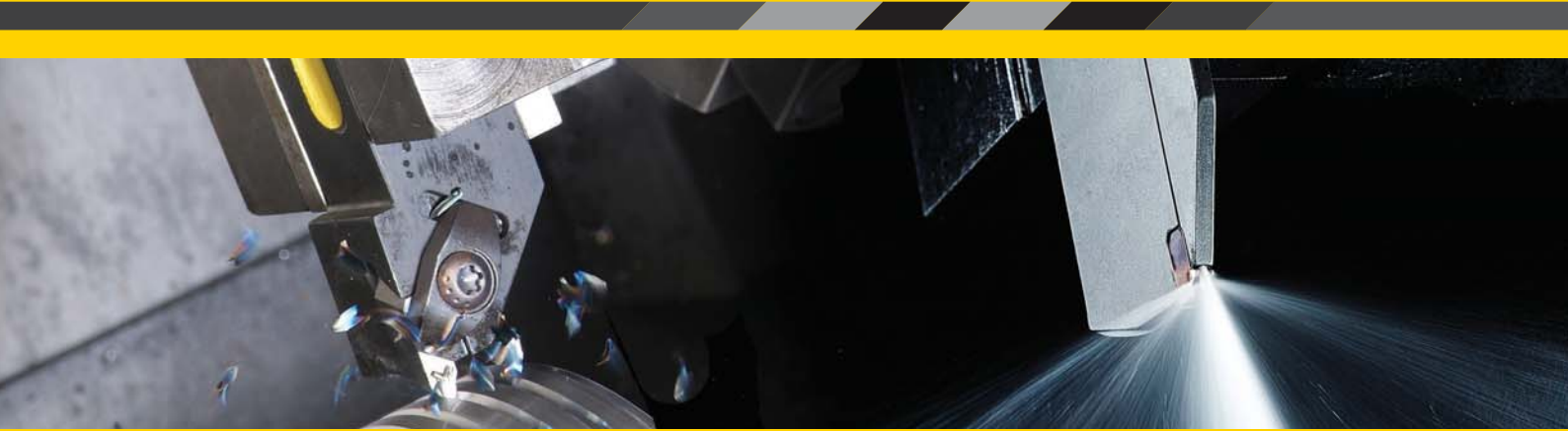


ISO/ANSI TURNING

See Section B for more details.

- Negative-style inserts.
- Toolholders, boring bars, cartridges, and bolt-on heads for negative-style inserts.
- Positive-style inserts.
- Toolholders, boring bars, cartridges, and bolt-on heads for positive-style inserts.
- Advanced material inserts for machining:
 - Cast iron
 - Hardened steels
 - High-temperature alloys
- PCD inserts.
- Toolholders, boring bars, cartridges, and bolt-on heads for use with advanced material inserts.
- Tunable bars.

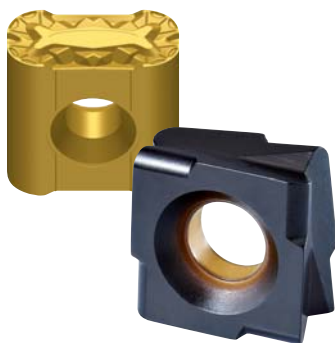




THREADING, GROOVING, AND CUT-OFF

See Sections C and D for more details.

- Beyond™ Evolution™ Grooving, Cut-Off, and Side Turning
- A4™ Grooving and Side Turning
- Top Notch™ Grooving
- Top Notch™ Threading
- Laydown Threading



APPLICATION SPECIFIC

See Section E for more details.

- Fix-Perfect™ Turning
- Top Notch™ Profiling
- Tools for Railroad and Wheel Machining
- K-Lock™





ISO/ANSI Turning

Kennametal Insert Selection System	B2–B21
Kennametal Grades and Grade Descriptions/Application Areas	B22–B29
Chip Control Geometries, Feed Rates, Depth of Cut, and Application Areas	B30–B35
Toolholder, Boring Bar, and Cartridge Overview; ISO/ANSI Codes	B36–B45
Kenloc Negative Style Inserts, Toolholders, Boring Bars, Cartridges, and Bolt-On Heads	B46–B163
Kendex Positive Style Inserts, Toolholders, Boring Bars, Cartridges, and Bolt-On Heads	B164–B188
Screw-On Positive Style Inserts, Toolholders, Boring Bars, Cartridges, and Bolt-On Heads	B189–B292
Advanced Material Inserts, Toolholders, Boring Bars, Cartridges, and Bolt-On Heads	B294–B398
Advanced Materials for Cast Iron Machining.....	B298–B321
Advanced Materials for Hard Turning.....	B322–B343
Advanced Materials for High-Temperature Machining.....	B344–B355
PCD Inserts.....	B356–B370
Toolholders, Boring Bars, Cartridges, and Bolt-On Heads.....	B371–B398
Tunable Bars	B400–B410

Mobile Apps

The Kennametal mobile app makes it easy to access product information and calculators on both iPhone® and Android™ devices. We've highlighted a few of the key features...

There's an app for that.

SPEEDS & FEEDS

View speeds and feeds information for metalworking products.

PRODUCT AVAILABILITY

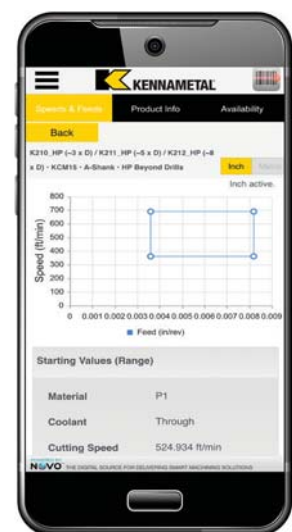
Check global availability of products. View available quantities by providing your Konnect login credentials.

CALCULATORS

Utilize our machining calculators for milling and drilling applications.

➔ **By just scanning the bar code on the insert packet, you can find the most productive cutting conditions for tool life, process time, and chip control.**

NOTE: The app is currently only available in the English-language version. We have plans to translate the app in different languages with future releases.



➤ ISO/ANSI Turning Inserts, Toolholders, and Boring Bars

Modern CNC machines and flexible production facilities require tools with application versatility. Kennametal high-performance inserts, toolholders, and boring bars are designed to handle any turning application. Whether you're cutting steel or titanium, or doing light finishing or heavy roughing, we have the tooling solution to meet your needs.

beyond

beyond **DRIVE™**

Features and Benefits

Beyond™ Drive™ Inserts

- Designed for increased productivity.
- Post-coat treatment reduces stress, improves coating adhesion.
- Excellent toughness and wear resistance.
- Better insert wear detection.

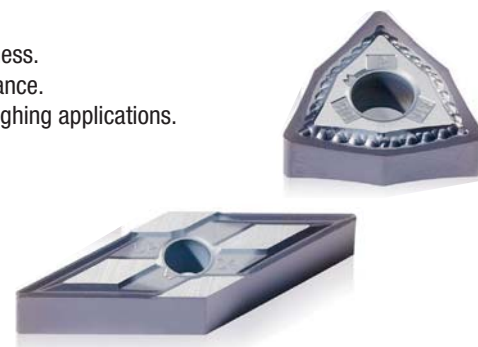
Beyond™ PVD Grades

KCU10™ Grade

- Superior wear resistance and faster cutting speeds at higher temperatures.
- Ideal for stainless steels and high-temp alloys.
- Improved depth-of-cut notch resistance.
- Use in finishing to medium applications.

KCU25™ Grade

- Superior edge toughness.
- Excellent wear resistance.
- Use in medium to roughing applications.



Kennametal Turning Solutions by Material

P Steel	Carbide or Cermet Inserts
M Stainless Steel	Carbide Inserts
K Cast Iron	Carbide, Ceramic, or PcBN Inserts
N Non-Ferrous	Carbide or PCD Inserts
S High-Temp Alloys	Carbide, Ceramic, PcBN, or PCD Inserts
H Hardened Materials	Ceramic or PcBN Inserts

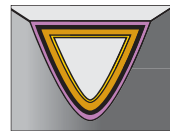
Beyond™ Drive™ Inserts • Technology Details

Post-Coat Grinding — Top and Bottom

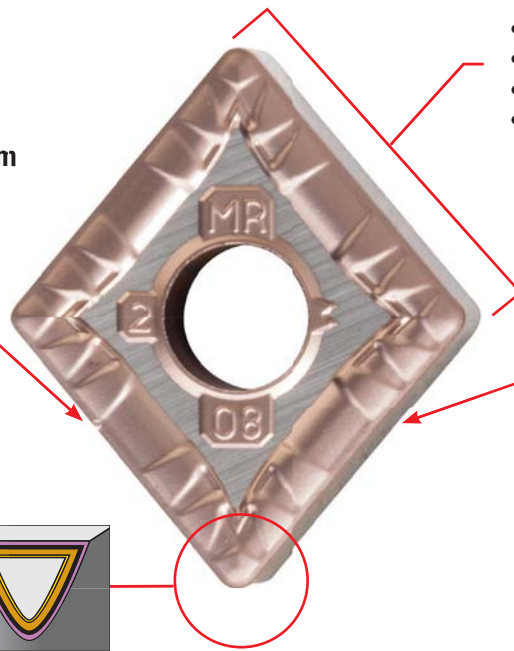
- Provides secure seating surface.

Fine-Grained Alumina Layer

- Provides coating integrity at elevated speeds.
- Higher productivity and dependability at high-cutting temperatures.



TiN/MT-TiCN/TiCN/Al₂O₃/TiCN



Post-Coat Treatment

- Improves edge toughness.
- Long predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.

Micro-Polished Edges

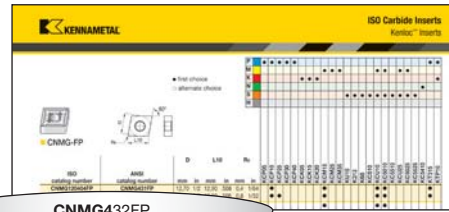
- Improves edge toughness.
- Provides smooth outer surface to reduce forces, friction, and workpiece sticking.

Toolholders, Boring Bars, and Cartridges



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

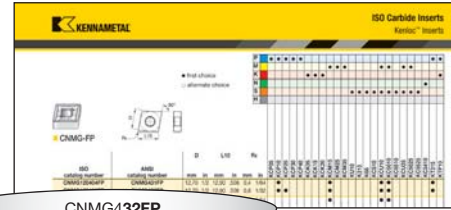


CNMG432FP

C		N		M		G		4																																																																																																																																																																																																																								
Insert Shape		Insert Clearance Angle		Tolerance Class		Insert Features		Size																																																																																																																																																																																																																								
H	Hexagon 120°	A	3°	<p>Tolerances apply prior to edge prep and coating</p> <p>D = Theoretical diameter of the insert inscribed circle S = Thickness B = See figures below</p>	N	<p>Code for inch cutting edge length "L10"</p> <table border="1"> <thead> <tr> <th>inch</th> <th>"D"</th> <th>C</th> <th>D</th> <th>R</th> <th>S</th> <th>T</th> <th>V</th> <th>W</th> </tr> </thead> <tbody> <tr> <td>1.2 (5)</td> <td>5/32</td> <td>S4</td> <td>04</td> <td>03</td> <td>03</td> <td>06</td> <td>—</td> <td>—</td> </tr> <tr> <td>1.5 (6)</td> <td>3/16</td> <td>04</td> <td>05</td> <td>04</td> <td>04</td> <td>08</td> <td>08</td> <td>S3</td> </tr> <tr> <td>1.8 (7)</td> <td>7/32</td> <td>05</td> <td>06</td> <td>05</td> <td>05</td> <td>09</td> <td>09</td> <td>03</td> </tr> <tr> <td>—</td> <td>.236</td> <td>—</td> <td>—</td> <td>06</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>2</td> <td>1/4</td> <td>06</td> <td>07</td> <td>06</td> <td>06</td> <td>11</td> <td>11</td> <td>04</td> </tr> <tr> <td>2.5</td> <td>5/16</td> <td>08</td> <td>09</td> <td>07</td> <td>07</td> <td>13</td> <td>13</td> <td>05</td> </tr> <tr> <td>—</td> <td>.315</td> <td>—</td> <td>—</td> <td>08</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>3</td> <td>3/8</td> <td>09</td> <td>11</td> <td>09</td> <td>09</td> <td>16</td> <td>16</td> <td>06</td> </tr> <tr> <td>—</td> <td>.394</td> <td>—</td> <td>—</td> <td>10</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>3.5</td> <td>7/16</td> <td>11</td> <td>13</td> <td>11</td> <td>11</td> <td>19</td> <td>19</td> <td>07</td> </tr> <tr> <td>—</td> <td>.472</td> <td>—</td> <td>—</td> <td>12</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>4</td> <td>1/2</td> <td>12</td> <td>15</td> <td>12</td> <td>12</td> <td>22</td> <td>22</td> <td>08</td> </tr> <tr> <td>4.5</td> <td>9/16</td> <td>14</td> <td>17</td> <td>14</td> <td>14</td> <td>24</td> <td>24</td> <td>09</td> </tr> <tr> <td>5</td> <td>5/8</td> <td>16</td> <td>19</td> <td>15</td> <td>15</td> <td>27</td> <td>27</td> <td>10</td> </tr> <tr> <td>—</td> <td>.630</td> <td>—</td> <td>—</td> <td>16</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>5.5</td> <td>11/16</td> <td>17</td> <td>21</td> <td>17</td> <td>17</td> <td>30</td> <td>30</td> <td>11</td> </tr> <tr> <td>6</td> <td>3/4</td> <td>19</td> <td>23</td> <td>19</td> <td>19</td> <td>33</td> <td>33</td> <td>13</td> </tr> <tr> <td>—</td> <td>.787</td> <td>—</td> <td>—</td> <td>20</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>7</td> <td>7/8</td> <td>22</td> <td>27</td> <td>22</td> <td>22</td> <td>38</td> <td>38</td> <td>15</td> </tr> <tr> <td>—</td> <td>.984</td> <td>—</td> <td>—</td> <td>25</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> <tr> <td>8</td> <td>1</td> <td>25</td> <td>31</td> <td>25</td> <td>25</td> <td>44</td> <td>44</td> <td>17</td> </tr> <tr> <td>10</td> <td>1-1/4</td> <td>32</td> <td>38</td> <td>31</td> <td>31</td> <td>54</td> <td>54</td> <td>21</td> </tr> <tr> <td>—</td> <td>1.260</td> <td>—</td> <td>—</td> <td>32</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> </tr> </tbody> </table>	inch	"D"	C	D	R	S	T	V	W	1.2 (5)	5/32	S4	04	03	03	06	—	—	1.5 (6)	3/16	04	05	04	04	08	08	S3	1.8 (7)	7/32	05	06	05	05	09	09	03	—	.236	—	—	06	—	—	—	—	2	1/4	06	07	06	06	11	11	04	2.5	5/16	08	09	07	07	13	13	05	—	.315	—	—	08	—	—	—	—	3	3/8	09	11	09	09	16	16	06	—	.394	—	—	10	—	—	—	—	3.5	7/16	11	13	11	11	19	19	07	—	.472	—	—	12	—	—	—	—	4	1/2	12	15	12	12	22	22	08	4.5	9/16	14	17	14	14	24	24	09	5	5/8	16	19	15	15	27	27	10	—	.630	—	—	16	—	—	—	—	5.5	11/16	17	21	17	17	30	30	11	6	3/4	19	23	19	19	33	33	13	—	.787	—	—	20	—	—	—	—	7	7/8	22	27	22	22	38	38	15	—	.984	—	—	25	—	—	—	—	8	1	25	31	25	25	44	44	17	10	1-1/4	32	38	31	31	54	54	21	—	1.260	—	—	32	—	—	—	—	4	
inch	"D"	C	D		R		S	T	V	W																																																																																																																																																																																																																						
1.2 (5)	5/32	S4	04		03		03	06	—	—																																																																																																																																																																																																																						
1.5 (6)	3/16	04	05		04		04	08	08	S3																																																																																																																																																																																																																						
1.8 (7)	7/32	05	06		05		05	09	09	03																																																																																																																																																																																																																						
—	.236	—	—		06		—	—	—	—																																																																																																																																																																																																																						
2	1/4	06	07		06		06	11	11	04																																																																																																																																																																																																																						
2.5	5/16	08	09		07		07	13	13	05																																																																																																																																																																																																																						
—	.315	—	—		08		—	—	—	—																																																																																																																																																																																																																						
3	3/8	09	11		09		09	16	16	06																																																																																																																																																																																																																						
—	.394	—	—	10	—	—	—	—																																																																																																																																																																																																																								
3.5	7/16	11	13	11	11	19	19	07																																																																																																																																																																																																																								
—	.472	—	—	12	—	—	—	—																																																																																																																																																																																																																								
4	1/2	12	15	12	12	22	22	08																																																																																																																																																																																																																								
4.5	9/16	14	17	14	14	24	24	09																																																																																																																																																																																																																								
5	5/8	16	19	15	15	27	27	10																																																																																																																																																																																																																								
—	.630	—	—	16	—	—	—	—																																																																																																																																																																																																																								
5.5	11/16	17	21	17	17	30	30	11																																																																																																																																																																																																																								
6	3/4	19	23	19	19	33	33	13																																																																																																																																																																																																																								
—	.787	—	—	20	—	—	—	—																																																																																																																																																																																																																								
7	7/8	22	27	22	22	38	38	15																																																																																																																																																																																																																								
—	.984	—	—	25	—	—	—	—																																																																																																																																																																																																																								
8	1	25	31	25	25	44	44	17																																																																																																																																																																																																																								
10	1-1/4	32	38	31	31	54	54	21																																																																																																																																																																																																																								
—	1.260	—	—	32	—	—	—	—																																																																																																																																																																																																																								
R	Round —	B	5°		R																																																																																																																																																																																																																											
S	Square 90°	C	7°		F																																																																																																																																																																																																																											
T	Triangular 60°	D	15°		A																																																																																																																																																																																																																											
C	Rhomboid 80°	E	20°		M																																																																																																																																																																																																																											
D	80°	F	25°		G																																																																																																																																																																																																																											
E	55°	G	30°		W																																																																																																																																																																																																																											
M	75°	N	0°		T																																																																																																																																																																																																																											
V	86°	P	11°		Q																																																																																																																																																																																																																											
W	35°				U																																																																																																																																																																																																																											
	Trigon 80° with enlarged corner angles				B																																																																																																																																																																																																																											
L	Rectangular 90°				H																																																																																																																																																																																																																											
A	Parallelogram 85°				C																																																																																																																																																																																																																											
B	82°				J																																																																																																																																																																																																																											
N/K	55°				X	Special Design																																																																																																																																																																																																																										
		O	Indicated for other clearance angles requiring descriptions.																																																																																																																																																																																																																													

tolerance class	tolerance on "D"	tolerance on "B"	tolerance on "S"
C	±.0010"	±.0005"	±.001"
H	±.0005"	±.0005"	±.001"
E	±.0010"	±.0010"	±.001"
G	±.0010"	±.0010"	±.005"
M	See tables on next page		±.005"
U	See tables on next page		±.005"

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



CNMG432FP

3	2			FP																																																												
Thickness S	Corner Radius "Rε"	Hand of Insert (optional)	Cutting Edge (optional)	Chipbreaker (optional)																																																												
<table border="1"> <thead> <tr> <th>symbol</th> <th>thickness</th> </tr> <tr> <th>inch</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>.5 (1)</td><td>1/32</td></tr> <tr><td>.6</td><td>.040</td></tr> <tr><td>1 (2)</td><td>1/16</td></tr> <tr><td>1.2</td><td>5.64</td></tr> <tr><td>1.5</td><td>3/32</td></tr> <tr><td>2</td><td>1/8</td></tr> <tr><td>2.5</td><td>5/32</td></tr> <tr><td>3</td><td>3/16</td></tr> <tr><td>3.5</td><td>7/32</td></tr> <tr><td>4</td><td>1/4</td></tr> <tr><td>5</td><td>5/16</td></tr> <tr><td>6</td><td>3/8</td></tr> <tr><td>7</td><td>7/16</td></tr> <tr><td>18</td><td>1/2</td></tr> </tbody> </table>	symbol	thickness	inch	inch	.5 (1)	1/32	.6	.040	1 (2)	1/16	1.2	5.64	1.5	3/32	2	1/8	2.5	5/32	3	3/16	3.5	7/32	4	1/4	5	5/16	6	3/8	7	7/16	18	1/2	<table border="1"> <thead> <tr> <th>symbol</th> <th>corner radius</th> </tr> <tr> <th>inch</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>X0</td><td>.0015</td></tr> <tr><td>0</td><td>.004</td></tr> <tr><td>.5</td><td>.008</td></tr> <tr><td>1</td><td>1/64</td></tr> <tr><td>2</td><td>1/32</td></tr> <tr><td>3</td><td>3/64</td></tr> <tr><td>4</td><td>1/16</td></tr> <tr><td>5</td><td>5/64</td></tr> <tr><td>6</td><td>3/32</td></tr> <tr><td>7</td><td>7/64</td></tr> <tr><td>8</td><td>1/8</td></tr> <tr><td>—</td><td>round insert</td></tr> </tbody> </table>	symbol	corner radius	inch	inch	X0	.0015	0	.004	.5	.008	1	1/64	2	1/32	3	3/64	4	1/16	5	5/64	6	3/32	7	7/64	8	1/8	—	round insert	<p>R = Right hand</p> <p>L = Left hand</p> <p>N = Neutral</p>	<p>F = Sharp</p> <p>E = Rounded</p> <p>T = Chamfered</p> <p>S = Chamfered and Rounded</p> <p>K = Double-Chamfered</p> <p>P = Double-Chamfered and Rounded</p>	<p>F = Sharp</p> <p>FF = Fine Finishing</p> <p>FN = Finishing Negative</p> <p>MN = Medium Negative</p> <p>MR = Medium Roughing</p> <p>RN = Roughing Negative</p> <p>UN = Universal Medium</p> <p>FP = Finishing Positive</p> <p>MP = Medium Positive</p> <p>RP = Roughing Positive</p> <p>RM = Roughing Medium</p> <p>RH = Roughing Heavy</p> <p>FW = Finishing Wiper</p> <p>MW = Medium Wiper</p> <p>FS = Finishing Sharp</p> <p>MS = Medium Sharp</p> <p>RW = Roughing Wiper</p> <p>HP = High Positive</p> <p>UP = Universal Positive</p> <p>K = Light-Feed Chip Control</p> <p>UF = Ultra-Fine Finishing</p> <p>LF = Light Finishing</p> <p>MF = Medium Finishing</p> <p>E = Hone Only</p> <p>T = Negative Land</p> <p>S = Negative Land Plus Hone</p> <p>MP-K = Medium Positive</p> <p>MG-P = Medium Positive</p>
symbol	thickness																																																															
inch	inch																																																															
.5 (1)	1/32																																																															
.6	.040																																																															
1 (2)	1/16																																																															
1.2	5.64																																																															
1.5	3/32																																																															
2	1/8																																																															
2.5	5/32																																																															
3	3/16																																																															
3.5	7/32																																																															
4	1/4																																																															
5	5/16																																																															
6	3/8																																																															
7	7/16																																																															
18	1/2																																																															
symbol	corner radius																																																															
inch	inch																																																															
X0	.0015																																																															
0	.004																																																															
.5	.008																																																															
1	1/64																																																															
2	1/32																																																															
3	3/64																																																															
4	1/16																																																															
5	5/64																																																															
6	3/32																																																															
7	7/64																																																															
8	1/8																																																															
—	round insert																																																															

"D"	± Tolerance on "D"				"D"	± Tolerance on "B"			
	Class M Tolerance			Class U Tolerance		Class M Tolerance			Class U Tolerance
	Shapes S, T, C, R, & W	Shape D	Shape V	Shapes S, T, & C		Shapes S, T, C, R, & W	Shape D	Shape V	Shapes S, T, & C
inch	inch	inch	inch	inch	inch	inch	inch	inch	
5/32	.002	—	—	—	5/32	.003	—	—	—
3/16	.002	—	—	.003	3/16	.003	—	—	.005
7/32	.002	.002	.002	.003	7/32	.003	.004	—	.005
1/4	.002	.002	.002	.003	1/4	.003	.004	—	.005
5/16	.002	.002	.002	.003	5/16	.003	.004	—	.005
3/8	.002	.002	.002	.003	3/8	.003	.004	.007	.005
7/16	.003	.003	.003	.005	7/16	.005	.006	—	—
1/2	.003	.003	.003	.005	1/2	.005	.006	.010	.008
9/16	.003	.003	.003	.005	9/16	.005	.006	—	—
5/8	.004	.004	.004	.007	5/8	.006	.007	—	.011
11/16	.004	.004	.004	.007	11/16	.006	.007	—	.011
3/4	.004	.004	.004	.007	3/4	.006	.007	—	.011
7/8	.005	—	—	.010	7/8	.006	—	—	.015
1	.005	—	—	.010	1	.007	—	—	.015
1 1/4	.006	—	—	.010	1 1/4	.008	—	—	.015

A system of grades, geometries, and application guidelines to provide optimal solutions for your metalcutting needs. It's easy to determine which Kennametal chip-control cutting tool will work best in your specific workpiece materials and applications!

■ Grade • Beyond™ • Beyond™ Drive™



K	C	P	M	25	B													
Brand	Insert Material	Primary Workpiece Material <i>(ISO 513)</i>	Secondary Workpiece Material <i>(optional)</i>	Application Range	Future Upgrades <i>(optional)</i>													
<p>K = Kennametal</p>	<p>Blank = Carbide, uncoated C = Carbide, coated T = Cermet Y = Ceramic D = PCD B = PcBN</p>	<table border="1"> <tr><td>P</td><td>Steel</td></tr> <tr><td>M</td><td>Stainless Steel</td></tr> <tr><td>K</td><td>Cast Iron</td></tr> <tr><td>N</td><td>Non-Ferrous</td></tr> <tr><td>S</td><td>High-Temp Alloys</td></tr> <tr><td>H</td><td>Hardened Materials</td></tr> <tr><td>U</td><td>Universal Machining</td></tr> </table>	P	Steel	M	Stainless Steel	K	Cast Iron	N	Non-Ferrous	S	High-Temp Alloys	H	Hardened Materials	U	Universal Machining	<p>Hardest</p> <p>↑</p> <p>5 fine finishing 10 finishing 15 20 medium to roughing 25 30 roughing 35 40 45 heaviest roughing 50</p> <p>↓</p> <p>Toughest</p>	<p>B = Beyond™ Drive™ C = Generation 3 etc.</p>
P	Steel																	
M	Stainless Steel																	
K	Cast Iron																	
N	Non-Ferrous																	
S	High-Temp Alloys																	
H	Hardened Materials																	
U	Universal Machining																	

NOTE: Application range does not apply to PcBN grades.

Positive Inserts



Screw-On Inserts

- Screw-On inserts are your first choice for I.D. turning of all materials and O.D. turning on small to medium lathes.
- Available in flat-top and chip-control geometries with both molded and ground peripheries. Suitable for all workpiece materials.

See pages:

Carbide: B189–B292

Advanced Materials: B294–B398



Kendex™ and V-Bottom Inserts

- Kendex positive and V-bottom inserts are your first choice for productive machining of high-temperature alloys on medium to large lathes.
- Available in flat-top geometries with ground periphery.

See pages:

Carbide: B164–B188

Advanced Materials: B294–B398



Top Notch™ Profiling Inserts

- First choice for high-production profiling.
- Unique insert clamping design offers superior rigidity.
- Available in chip-control geometries with both molded and ground peripheries. Suitable for all workpiece materials.

See pages E24–E49 for product listing.



K-Lock™ Inserts

- K-Lock inserts are ideal for deep grooving and profiling.
- A unique insert clamping system allows for unimpeded chip flow.
- Available in molded and ground peripheries.

See page E68–E71 for product listing.

Negative Inserts



Kenloc™ Inserts

- Kenloc inserts are your first choice for general machining of all materials on medium to large lathes.
- Kenloc inserts offer the best economy for high metal removal rates.
- Available in flat-top and chip-control geometries with both molded and ground peripheries. Suitable for all workpiece materials.

See pages:

Carbide: B46–B163

Advanced Materials: B294–B398



Kendex Inserts

- Ceramic Kendex inserts are a great choice for productive machining of high-temp alloys.
- Kendex negative rake inserts are also recommended for the machining of hardened materials and cast irons.
- Available in flat-top geometries with molded and ground peripheries.
- Wide selection of standard toolholders are offered.

See pages B294–B398 for product listing.



Top Notch Turning Inserts

- Ceramic Top Notch turning inserts are your first choice for high-speed roughing and finishing of cast iron parts.
- Available in flat-top geometries with molded and ground peripheries.

See pages B294–B398 for product listing.



Fix-Perfect™ Inserts

- Tangential design and rigid clamping system.

See pages E2–E23 for product listing.



Railroad Inserts

- Designed for the machining of railway wheels and axles.

See pages E50–E67 for product listing.

Insert Selection System

How to Use


The Kennametal three-step insert selection system makes choosing and applying the most productive tool as easy as 1, 2, 3. Tool recommendations are based on six workpiece material groups, optimizing selection accuracy.

Example: Six workpiece material groups


■ Step 1 • Select the insert geometry

Given: depths of cut = .040" (1mm)
feed = .016 IPR (0,4mm)
Unknown: insert geometry
Solution: -MN

■ Step 2 • Select the grade

Given: cutting conditions: 
lightly interrupted cut
Geometry: -MN
Unknown: grade
Solution: KCP25B

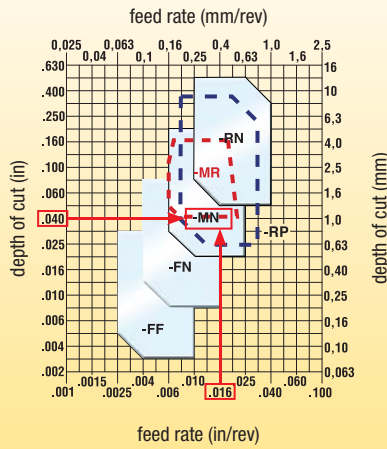
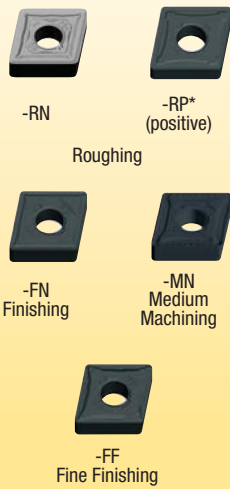
■ Step 3 • Select the cutting speed

Given: grade KCP25B 
cutting conditions
material CK15
Unknown: cutting speed
Solution: 925 SFM (280 m/min)

Need help in selecting a product?
Additional information can be obtained by contacting
The Kennametal Customer Application Support Team.
Go to kennametal.com for your country's phone number.

Step 1 • Select the insert geometry

Negative Inserts



*-RP – Supplemental geometry for high-strength materials

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials



Step 2 • Select the grade

cutting condition	-FF	-FN	-MN	-RN	-RP	-11	-UF	-LF	-FP	-MF	-MP
heavily interrupted cut	KCP10B/ KCP10	KCP25B/ KCP25	KCP30B/ KCP30	KCP30B/ KCP30/ KCP40B/ KCP40	KCP30B/ KCP30/ KCP40B/ KCP40	-	KCU10/ KCP25B/ KCP25	KCP25B/ KCP25	KCU25/ KCP25B/ KCP25	KCP40B/ KCP40B	KCP40B/ KCP40B
lightly interrupted cut	KCP10B/ KCP10	KCP25B/ KCP25	KCP25B/ KCP25	KCP30B/ KCP30/ KCP40B/ KCP40	KCP30B/ KCP30/ KCP40B/ KCP40	-	KCU10/ KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25
varying depth of cut, casting, or forging skin	KCP05B/ KCP05/ KT315	KCP10B/ KCP10	KCP10B/ KCP10	KCP30B/ KCP30/ KCP40B/ KCP40	KCP30B/ KCP30/ KCP40B/ KCP40	KT315	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10

Step 3 • Selecting the cutting speed

Low-Carbon (<0.3% C) and Free-Machining Steel

material group	grade	speed — m/min (SFM)									Starting Conditions	
		135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P1	KCP05B/KCP05/KTP10										435	1450
	KCP10B/KCP10										395	1320
	KCP25B/KCP25										275	925
	KCP30B/KCP30/KCP40B/KCP40										210	700

New Beyond™ Material Group Selection Guide:

To optimize speed recommendations, Beyond material subgroups have been added to each of the six workpiece material groups.

material	material group ISO code	number of material subgroups
steel	P	1-6
stainless steel	M	1-3
cast iron	K	1-3
non-ferrous materials	N	1-8
high-temp alloys	S	1-4
hardened materials	H	1

Step 1 • Select the insert geometry

Negative Wiper Inserts



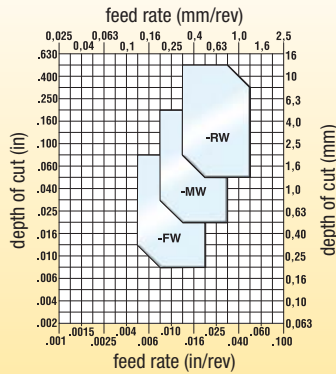
-RW
Rough Wiper



-MW
Medium Wiper



-FW
Finishing Wiper



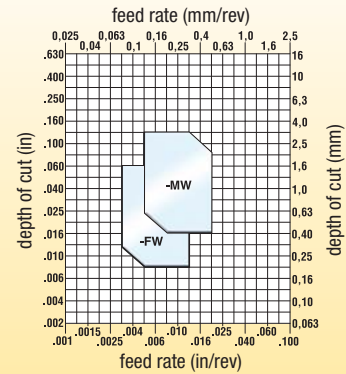
Positive Wiper Inserts



-MW
Medium Wiper



-FW
Finishing Wiper



Step 2 • Select the grade

cutting condition	Negative Insert Geometry			Positive Insert Geometry	
	-FW	-MW	-RW	-FW	-MW
heavily interrupted cut		-	-	KCP25B/KCP25	KCP25B/KCP25
lightly interrupted cut		KCP10B/KCP10	KCP25B/KCP25	KCP25B/KCP25	KCP25B/KCP25
varying depth of cut, casting, or forging skin		KCP05B/KCP05/ KT315	KCP10B/KCP10	KCP10B/KCP10/ KCK20B/KCK20	KCP10B/KCP10
smooth cut, pre-turned surface		KCP05B/KCP05/ KT315	KCP05B/KCP05	KCP10B/KCP10/ KT315	KT315

Step 1 • Select the insert geometry

Negative Inserts



-RN



-RP*
(positive)



-MR
Medium
Roughing



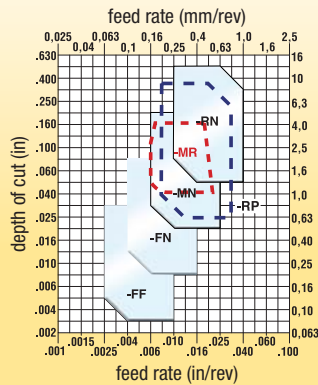
-MN
Medium
Machining



-FN
Finishing



-FF
Fine Finishing



*-RP – Supplemental geometry for high-strength materials

Positive Inserts



-MF



-MP
Positive



-LF



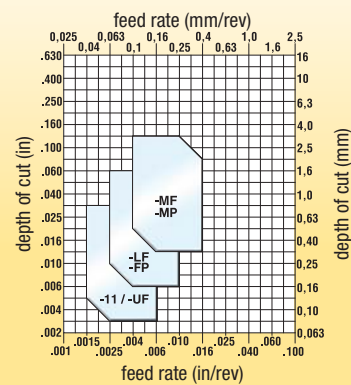
-FP
Positive



-11



-UF
Fine Finishing



Step 2 • Select the grade

cutting condition	Negative Insert Geometry						Positive Insert Geometry						
	-FF	-FN	-MN	-MR	-RN	-RP	-11	-UF	-LF	-FP	-MF	-MP	
heavily interrupted cut		KCP10B/ KCP10	KCP25B/ KCP25	KCP30B/ KCP30	-	KCP30B/ KCP40B	KCP30B/ KCP40B	-	KCU10/ KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP40B/ KCP40	KCM25B/ KCM25
lightly interrupted cut		KCP10B/ KCP10	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	-	KCU10/ KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25	KCP25B/ KCP25
varying depth of cut, casting, or forging skin		KCP05B/ KCP05/ KT315	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KT315	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10
smooth cut, pre-turned surface		KCP05B/ KCP05/ KT315	KCP05B/ KCP05	KCP05B/ KCP05	KCP10B/ KCP10/ KCK15B	KCP05B/ KCP10	KCP05B/ KCP10	KT315	KCP05B/ KCP05	KCP05B/ KCP05/ KT315	KCP05B/ KCP05/ KTP10	KCP05B/ KCP05	KCP05B/ KCP05

Step 3 • Selecting the cutting speed
Low-Carbon (<0.3% C) and Free-Machining Steel

material group	grade	speed — m/min (SFM)									Starting Conditions ◊	
		135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P0/P1	KCP05B/KCP05/KCPK05	◊									435	1450
	KCP10B/KCP10	◊									395	1320
	KCP25B/KCP25	◊									275	925
	KCP30B/KCP30/KCP40B/KCP40	◊									210	700
	KT315/KTP10	◊									440	1450
	KCU10	◊									280	925

Medium- and High-Carbon Steels (>0.3% C)

material group	grade	speed — m/min (SFM)									Starting Conditions ◊	
		135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P2	KCP05B/KCP05/KCPK05	◊									240	800
	KCP10B/KCP10	◊									265	880
	KCP25B/KCP25	◊									195	650
	KCP30B/KCP30/KCP40B/KCP40	◊									150	500
	KT315/KTP10	◊									270	880
	KCU10	◊									200	650

Alloy Steels and Tool Steels (≤330 HB) (≤35 HRC)

material group	grade	speed — m/min (SFM)									Starting Conditions ◊	
		135 (450)	180 (600)	225 (800)	275 (900)	320 (1050)	360 (1200)	410 (1350)	455 (1500)	495 (1650)	m/min	SFM
P3	KCP05B/KCP05/KCPK05	◊									205	680
	KCP10B/KCP10	◊									190	630
	KCP25B/KCP25	◊									155	510
	KCP30B/KCP30/KCP40B/KCP40	◊									120	400
	KT315/KTP10	◊									210	680
	KCU10	◊									155	510

Alloy Steels and Tool Steels (340–450 HB) (36–48 HRC)

material group	grade	speed — m/min (SFM)									Starting Conditions ◊	
		60 (200)	90 (300)	120 (400)	150 (500)	180 (600)	210 (700)	240 (800)	270 (900)	300 (1000)	m/min	SFM
P4	KCP05B/KCP05/KCPK05	◊									160	530
	KCP10B/KCP10	◊									145	480
	KCP25B/KCP25	◊									105	360
	KCP30B/KCP30/KCP40B/KCP40	◊									95	325
	KT315/KTP10	◊									210	530
	KCU10	◊									110	360

Ferritic, Martensitic, and PH Stainless Steels (≤330 HB) (≤35 HRC)

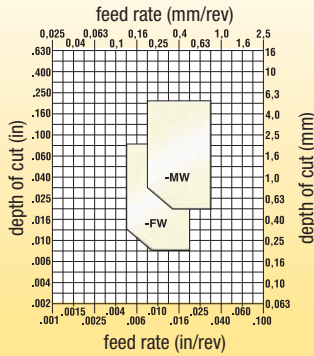
material group	grade	speed — m/min (SFM)									Starting Conditions ◊	
		120 (400)	150 (500)	180 (600)	210 (700)	240 (800)	270 (900)	300 (1000)	330 (1100)	360 (1200)	m/min	SFM
P5	KCP05B/KCP05/KCPK05	◊									240	800
	KCP10B/KCP10	◊									215	720
	KCP25B/KCP25	◊									195	650
	KCP30B/KCP30/KCP40B/KCP40	◊									135	450
	KT315/KTP10	◊									250	800
	KCU10	◊									200	660

Ferritic, Martensitic, and PH Stainless Steels (340–450 HB) (36–48 HRC)

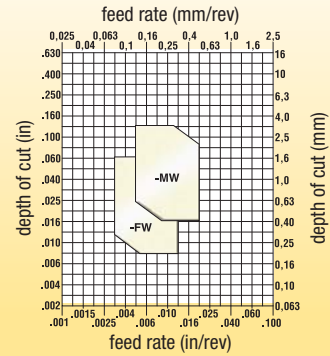
material group	grade	speed — m/min (SFM)									Starting Conditions ◊	
		105 (350)	135 (450)	165 (550)	195 (650)	225 (750)	255 (850)	285 (950)	315 (1050)	345 (1150)	m/min	SFM
P6	KCP05B/KCP05/KCPK05	◊									200	660
	KCP10B/KCP10	◊									180	600
	KCP25B/KCP25	◊									150	500
	KCP30B/KCP30/KCP40B/KCP40	◊									105	350
	KT315/KTP10	◊									200	660
	KCU10	◊									150	500

Step 1 • Select the insert geometry

Negative Wiper Inserts



Positive Wiper Inserts

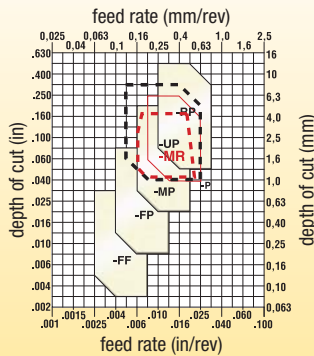


Step 2 • Select the grade

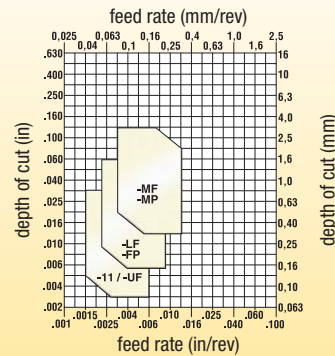
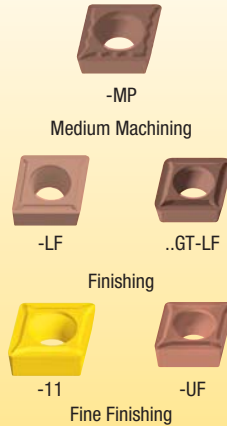
cutting condition	Negative Insert Geometry		Positive Insert Geometry	
	-FW	-MW	-FW	-MW
heavily interrupted cut	-	-	-	-
lightly interrupted cut	KCM15B/KCM15	KCM25B/KCM25	KCM15B/KCM15	KCM15B/KCM15
varying depth of cut, casting, or forging skin	KCM15B/KCM15/KCU10	KCM15B/KCM15	KCU10	KCU10
smooth cut, pre-turned surface	KCM15B/KCM15/KT315	KCM15B/KCM15	KT315	KT315

Step 1 • Select the insert geometry

Negative Inserts



Positive Inserts



Step 2 • Select the grade

cutting condition	Negative Insert Geometry				
	-FF	-FP	-MP/-UP	-P/-RP	-MR
heavily interrupted cut	KCU10	KCM15B/KCM15	KCM35B/KCM35	KCM35B/KCM35	KCM35B/KCM35
lightly interrupted cut	KCU10	KCM15B/KCM15	KCM25B/KCM25	KCM25B/KCM25	KCM25B/KCM25
varying depth of cut, casting, or forging skin	KT315	KCM15B/KCM15/KCU10	KCM15B/KCM15	KCM15B/KCM15/KCM25B/KCM25	KCM15B/KCM15
smooth cut, pre-turned surface	KT315	KCM15B/KCM15/KT315	KCM15B/KCM15/KCU10	KCU10	KCM15B/KCM15

(continued)

Step 2 • Select the grade *(continued)*

cutting condition		Positive Insert Geometry					
		-11	-UF	-LF	-MP/-MF	-FP	..GT-LF
heavily interrupted cut		-	KCU25	KCM35B/KCM35	KCM25B/KCM25	KCU25/KCM25B/ KCM25	KCU25
lightly interrupted cut		-	KCU10	KCM25B/KCM25	KCM25B/KCM25	KCM15B/KCM15	KCU25
varying depth of cut, casting, or forging skin		KT315	-	KCM15B/KCU10	KCM15B/KCM15	KCU10	KCU10
smooth cut, pre-turned surface		KT315	-	KCM15B/KCM15/ KT315	KCM15B/KCM15	KTP10	KCU10

Step 3 • Selecting the cutting speed
Austenitic Stainless Steel

speed — m/min (SFM)

Starting Conditions

material group	grade	90 (300)	135 (450)	180 (600)	225 (800)	270 (900)	315 (1050)	360 (1200)	405 (1350)	450 (1500)	m/min	SFM
M1	KCM15B/KCM15										180	600
	KCM25B/KCM25										150	500
	KCM35B/KCM35										120	400
	KT315										230	750
	KCU10										215	700
	KCU25										180	550

Austenitic Stainless Steel

speed — m/min (SFM)

Starting Conditions

material group	grade	90 (300)	135 (450)	180 (600)	225 (800)	270 (900)	315 (1050)	360 (1200)	405 (1350)	450 (1500)	m/min	SFM
M2	KCM15B/KCM15										165	550
	KCM25B/KCM25										140	450
	KCM35B/KCM35										105	350
	KT315										215	700
	KCU10										200	650
	KCU25										165	500

Austenitic Stainless Steel: Duplex (Ferritic and Austenitic Mixture)

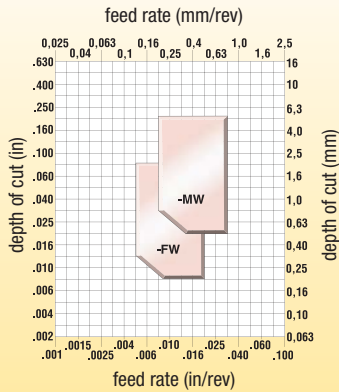
speed — m/min (SFM)

Starting Conditions

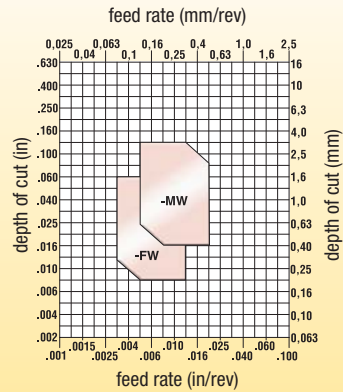
material group	grade	90 (300)	135 (450)	180 (600)	225 (800)	270 (900)	315 (1050)	360 (1200)	405 (1350)	450 (1500)	m/min	SFM
M3	KCM15B/KCM15										150	500
	KCM25B/KCM25										120	400
	KCM35B/KCM35										90	300
	KT315										200	650
	KCU10										185	600
	KCU25										150	450

Step 1 • Select the insert geometry

Negative Wiper Inserts



Positive Wiper Inserts



Step 2 • Select the grade


Gray Iron

cutting condition	Image	Negative Insert Geometry			Positive Insert Geometry	
		-FW	-T-20FW	-S...MW...	-FW	-MW
heavily interrupted cut		-	KY3500	KB1345	-	KCK15B/KCK15/ KCK20B/KCK20
lightly interrupted cut		KCK15B/KCK15	KY3500	KB1345	KCK20B/KCK20	KCK15B/KCK15/ KCK20B/KCK20
varying depth of cut, casting, or forging skin		KCK05B/KCK05/ KT315	KYK10	KB1345	KCK20B/KCK20	KCK15B/KCK15/ KCK20B/KCK20
smooth cut, pre-turned surface		KCK05B/KCK05/ KT315	KYK25	KB1345	KCK20B/ KT315	KCK15B/KCK15/ KCK20B/KCK20/KT315


Ductile Iron

cutting condition	Image	Negative Insert Geometry		Positive Insert Geometry	
		-FW	-T-20FW	-FW	-MW
heavily interrupted cut		-	-	-	-
lightly interrupted cut		KCK15B/ KCK15	KY3500	KCK20B/ KCK20	KCK20B/ KCK20
varying depth of cut, casting, or forging skin		KCK05B/KCK05/ KT315	KYK10	KCK20B/ KCK20	KCK20B/ KCK20
smooth cut, pre-turned surface		KCK05B/KCK05/ KT315	KYK25	KCK20B/KCK20/ KT315	KCK20B/KCK20/ KT315


■ Step 3 • Selecting the cutting speed

Gray Cast Iron speed — m/min (SFM) Starting Conditions 

material group	grade	60 (200)	150 (500)	240 (800)	330 (1100)	420 (1400)	510 (1700)	600 (2000)	690 (2300)	780 (2600)	m/min	SFM
K1	KCK05B/KCK05										450	1500
	KCK15B/KCK15										360	1200
	KCK20B/KCK20/KCPK05										300	1000
	KT315										275	900

Ductile, Compacted Graphite, and Malleable Cast Irons (<80 KSI tensile strength) speed — m/min (SFM) Starting Conditions 

material group	grade	60 (200)	150 (500)	240 (800)	330 (1100)	420 (1400)	510 (1700)	600 (2000)	690 (2300)	780 (2600)	m/min	SFM
K2	KCK05B/KCK05										360	1200
	KCK15B/KCK15										270	900
	KCK20B/KCK20/KCPK05										240	800
	KT315										275	900

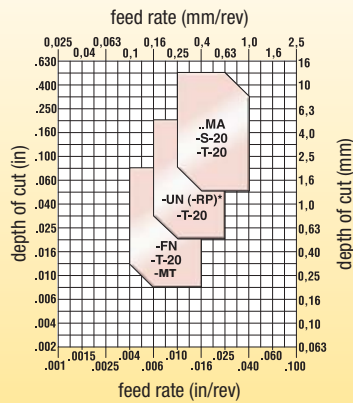
Ductile, Compacted Graphite, and Malleable Cast Irons (>80 KSI tensile strength) speed — m/min (SFM) Starting Conditions 

material group	grade	60 (200)	150 (500)	240 (800)	330 (1100)	420 (1400)	510 (1700)	600 (2000)	690 (2300)	780 (2600)	m/min	SFM
K3	KCK05B/KCK05										240	800
	KCK15B/KCK15										215	725
	KCK20B/KCK20/KCPK05										210	700
	KT315										230	750

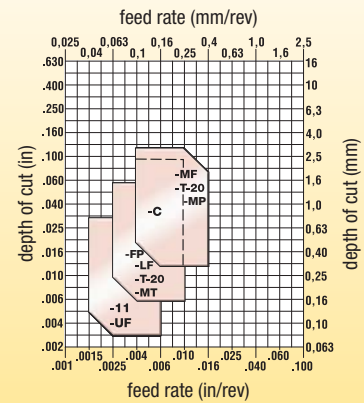
Step 1 • Select the insert geometry



Negative Inserts



Positive Inserts



*Geometry can be used in medium machining operations to reduce tool pressure in high-strength metals.

Step 2 • Select the grade

Gray Iron

cutting condition	Negative Insert Geometry				Positive Insert Geometry			
	-FN	-MR	-UN(-RP)	-MA	-LF	-FP	-MF	-MP
heavily interrupted cut	KCK15B/ KCK15	KCP25B/ KCP25/ KCP10B/KCP10	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20
lightly interrupted cut	KCK15B/ KCK15	KCP10B/ KCP10/ KCP25B/KCP25	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20
varying depth of cut, casting, or forging skin	KCK05B/ KCK05/ KT315	KCK15B/ KCK15	KCK15B/ KCK15	KCK15B/ KCK15	KCK15B/ KCK15	KCK20B/ KCK20	KCK15B/ KCK15	KCK20B/ KCK20
smooth cut, pre-turned surface	KCK05B/ KCK05/ KT315	KCK15B/ KCK15	KCK05B/ KCK05	KCK05B/ KCK05	KCK05B/ KCK05	KCK20B/ KCK20	KCK15B/ KCK15	KCK20B/ KCK20

Ductile Iron

cutting condition	Negative Insert Geometry				Positive Insert Geometry			
	-FN	-UN(-RP)	-MA	-11/-UF	-LF	-MF	-FP	-MP
heavily interrupted cut	KCK15B/ KCK15	KCK20B/ KCK20	KCK20B/ KCK20	-	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20
lightly interrupted cut	KCK15B/ KCK15	KCK20B/ KCK20	KCK20B/ KCK20	KCU10	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20	KCK20B/ KCK20
varying depth of cut, casting, or forging skin	KCK05B/ KCK05/ KT315	KCK15B/ KCK15	KCK15B/ KCK15	KCU10	KCK15B/ KCK15	KCK15B/ KCK15	KCK20B/ KCK20	KCK20B/ KCK20
smooth cut, pre-turned surface	KCK05B/ KCK05/ KT315	KCK05B/ KCK05	KCK05B/ KCK05	KT315	KCU10	KCK15B/ KCK15	KCK20B/ KCK20	KCK20B/ KCK20

(continued)

■ Step 3 • Selecting the cutting speed *(continued)* (Optimal speed depends on casting quality and disposition.)

Gray Cast Iron		speed — m/min (SFM)											Starting Conditions	
material group	grade	60 (200)	180 (600)	305 (1000)	430 (1400)	550 (1800)	675 (2200)	800 (2600)	920 (3000)	1040 (3400)	1160 (3800)	m/min	SFM	
K1	KT315	◊											275	900
	KB1340/KB1345	◊											760	2500
	KCK05B/KCK05	◊											450	1500
	KCK15B/KCK15	◊											360	1200
	KCK20B/KCK20/KCPK05	◊											300	1000

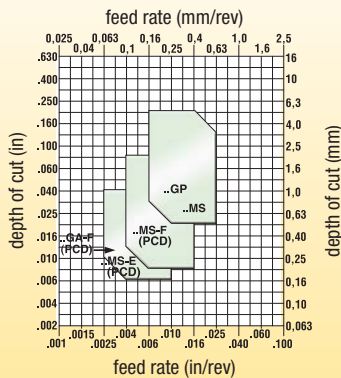
Ductile, Compacted Graphite, and Malleable Cast Irons (<600 MPa tensile strength)		speed — m/min (SFM)											Starting Conditions		
material group	grade	90 (300)	135 (450)	180 (600)	225 (750)	275 (900)	320 (1050)	360 (1200)	410 (1350)	460 (1500)	500 (1650)	550 (1800)	600 (1950)	m/min	SFM
K2	KT315	◊											275	900	
	KCU10	◊											200	650	
	KCK05B/KCK05	◊											360	1200	
	KCK15B/KCK15	◊											270	900	
	KCK20B/KCK20/KCPK05	◊											240	800	

Ductile, Compacted Graphite, and Malleable Cast Irons (>600 MPa tensile strength)		speed — m/min (SFM)											Starting Conditions		
material group	grade	90 (300)	135 (450)	180 (600)	225 (750)	275 (900)	320 (1050)	360 (1200)	410 (1350)	460 (1500)	500 (1650)	550 (1800)	600 (1950)	m/min	SFM
K3	KT315	◊											230	750	
	KCU10	◊											150	500	
	KCK05B/KCK05	◊											240	800	
	KCK15B/KCK15	◊											215	725	
	KCK20B/KCK20/KCPK05	◊											210	700	

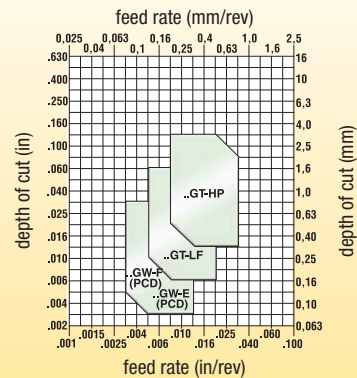
Step 1 • Select the insert geometry



Negative Inserts



Positive Inserts



Step 2 • Select the grade

cutting condition	Negative Insert Geometry		Positive Insert Geometry	
	..GP	..MS	..GT-LF	..GT-HP
heavily interrupted cut	KC5410/K313	KC5410	—	KC5410
lightly interrupted cut	KC5410/K313	KC5410	KC5410	KC5410
varying depth of cut, casting, or forging skin	KC5410/K313	KC5410	KC5410	KC5410
smooth cut, pre-turned surface	KC5410/K313	KC5410	KC5410	KC5410

Step 3 • Selecting the cutting speed

Low-Silicon Aluminum Alloys


(hypo-eutectic <12.2% Si) and Magnesium Alloys



speed — m/min (SFM)


Starting Conditions


material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	1250 (4000)	1500 (4800)	1750 (5600)	2000 (6400)	2250 (7200)	2500 (8000)	m/min	SFM
N1	KC5410											550	1800


■ Additional cutting speed recommendations for miscellaneous workpiece materials


Copper-, Brass-, Zinc-Based on a Machinability Index Range of 70–100 speed — m/min (SFM) Starting Conditions 


material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N4	KC5410					275	900
	K313					260	850



Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass, and Glass speed — m/min (SFM) Starting Conditions 

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N5	KC5410					170	550

Carbon and Graphite Composites: Brush Alloys, Kevlar, and Graphite (280–400 HB) (30–43 HRC) speed — m/min (SFM) Starting Conditions 

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N6	KC5410					200	650

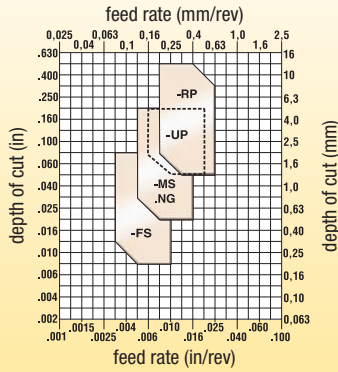
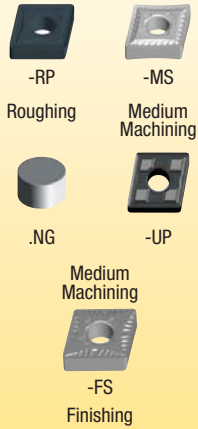
Tin Alloys, Cast: ASTM 823, Alloys 1, 2, 3, 11 speed — m/min (SFM) Starting Conditions 

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N8	KC5410					215	700
	K313					180	600

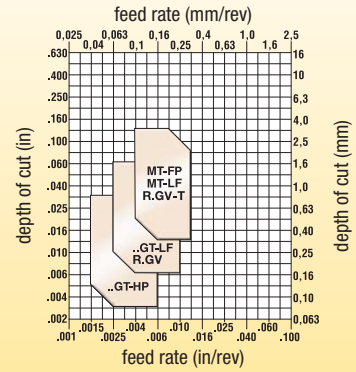
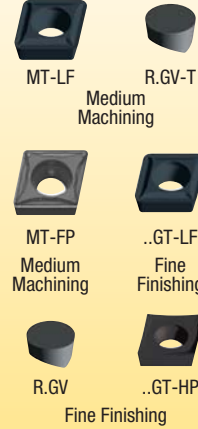
■ Step 1 • Select the insert geometry



Negative Inserts



Positive Inserts



■ Step 2 • Select the grade

cutting condition	Negative Insert Geometry			
	-FS	-MS	-UP	-RP
heavily interrupted cut	KCU25	KCU25	KCM35B	KCM25B/ KCM35B
lightly interrupted cut	KCU10	KCU25	KCM25B	KCM15B
varying depth of cut, casting, or forging skin	KCU10	KCU10	KCM15B	KCU25
smooth cut, pre-turned surface	KCU10/K313	KCU10/K313	KCU10	KCU10

cutting condition	Positive Insert Geometry			
	MT-FP	..GT-HP	MT-LF	..GT-LF
heavily interrupted cut	KCU25	-	KCU25	KCU25
lightly interrupted cut	KCU25	KCU25	KCU25	KCU25
varying depth of cut, casting, or forging skin	KCU10/KU10	KCU10	KCU10	KCU10
smooth cut, pre-turned surface	KCU10/KU10	KCU10/K313	KCU10/K313	KCU10/K313

■ Step 3 • Select the cutting speed

Iron-Based, Heat-Resistant Alloys (135–320 HB) (≤34 HRC)

speed — m/min (SFM)

Starting Conditions ◊

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S1	K313/KU10	◊												30	100	
	KCU10	◊												55	180	
	KCU25	◊												40	125	
	KCM15B/KCM15	◊												55	180	
	KCM25B/KCM25/KCM35B/KCM35	◊												40	125	

Cobalt-Based, Heat-Resistant Alloys (150–425 HB) (≤45 HRC)

speed — m/min (SFM)

Starting Conditions ◊

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S2	K313/KU10	◊												35	110	
	KCU10	◊												60	195	
	KCU25	◊												30	100	
	KCM15B/KCM15	◊												60	195	
	KCM25B/KCM25/KCM35B/KCM35	◊												30	100	

Nickel-Based, Heat-Resistant Alloys (140–475 HB) (≤48 HRC)

speed — m/min (SFM)

Starting Conditions ◊

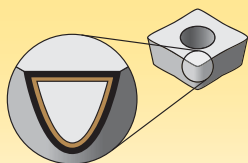
material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S3	K313/KU10	◊												40	125	
	KCU10	◊												70	225	
	KCU25	◊												40	125	
	KCM15B/KCM15	◊												70	225	
	KCM25B/KCM25/KCM35B/KCM35	◊												40	125	

Titanium and Titanium Alloys (110–450 HB) (≤48 HRC)

speed — m/min (SFM)

Starting Conditions ◊

material group	grade	15 (50)	45 (150)	75 (250)	105 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	290 (950)	310 (1050)	350 (1150)	380 (1250)	m/min	SFM
S4	K313/KU10	◊												45	150	
	KCU10	◊												70	225	
	KCU25	◊												55	175	
	KCM15B/KCM15	◊												70	225	
	KCM25B/KCM25/KCM35B/KCM35	◊												55	175	



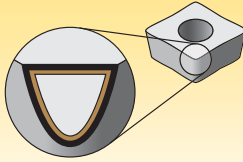
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Coating		Grade Description		05	10	15	20	25	30	35	40	45			
Uncoated Carbide Grades	<p>K313</p>	<p>Composition: A hard, low binder content, unalloyed WC/Co fine-grain grade. Application: Exceptional edge wear resistance combined with very high strength for machining titanium, cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and most high-temp alloys. Superior thermal deformation and depth-of-cut notch resistance. The grain structure is well controlled for minimal pits and flaws, which contributes to long, reliable service.</p>													
			M												
			K												
			N												
Uncoated Carbide Grades	<p>K68</p>	<p>Composition: A hard, low binder content, alloyed grade WC/Co fine-grain grade. Application: The K68 grade has excellent abrasion resistance for machining cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and as an alternative to the K313 grade on high-temperature alloys. Use as a general-purpose grade for non-ferrous materials.</p>													
			M												
			K												
			N												
PVD-Coated Carbide Grades	<p>KCS10</p>	<p>Composition: An advanced PVD-AlTiN coated, fine-grained tungsten carbide grade. Application: The KCS10 grade specifically engineered for the productive machining of high-temperature alloys. The fine-grained tungsten carbide substrate has excellent toughness and deformation resistance while the advanced PVD coating allows metalcutting speeds double those of conventional PVD-coated cutting tools.</p>	P												
			M												
			K												
			N												
PVD-Coated Carbide Grades	<p>KCU10</p>	<p>Composition: An advanced multilayer PVD coating over a very deformation-resistant unalloyed carbide substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities. Application: The KCU10™ grade is ideal for finishing to general machining of most workpiece materials at a wide range of speed and feed capabilities. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and high-temp alloys with improved edge toughness, notch resistance, and higher cutting speed/feed capability.</p>	P												
			M												
			K												
			N												



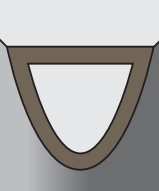
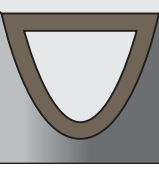
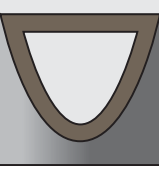



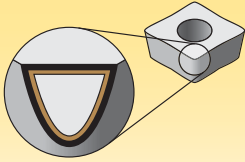
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

PVD-Coated Carbide Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45		
KCU25  —	Composition: An advanced PVD grade with hard AlTiN coating and fine-grain unalloyed substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities. Application: The KCU25™ grade is ideal for general machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials in a wide range of speeds and feeds with improved edge toughness for interrupted cut and high feed rates.	P											
		M											
		K											
		N											
		S											
		beyond											
KC5010  —	Composition: An advanced PVD AlTiN coating over a very deformation-resistant unalloyed carbide substrate. Application: The KC5010™ grade is ideal for finishing to general machining of most workpiece materials at higher speeds. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and high-temp alloys under stable conditions. It also performs well machining hardened and short chipping materials.	P											
		M											
		K											
		N											
		S											
		H											
KC5025  —	Composition: An advanced PVD-AlTiN-coated grade with a tough, ultra-fine-grain unalloyed substrate. Application: For general-purpose machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials. Speeds may vary from low to medium and will handle interruptions and high feed rates.	P											
		M											
		K											
		N											
		S											
KC5410  —	Composition: A PVD TiB ₂ coating over a very deformation-resistant unalloyed substrate. Application: Designed for roughing, semi-finishing, and finishing of free machining (hypoeutectic <12.2% Si) aluminum, aluminum alloys, and magnesium alloys. The TiB ₂ coating is harder than TiN and TiAlN coatings and has an extremely smooth surface, resulting in reduced surface friction, speedy chip flow, and outstanding wear resistance. Built-up edge is prevented because this coating has a very low affinity for aluminum. The substrate is unalloyed and fine grained and offers sharp edges, smooth surfaces, and excellent thermal deformation resistance and edge integrity. Inserts with a ground periphery are polished before coating and have a sharp edge. Molded inserts have a light hone.												
		N											



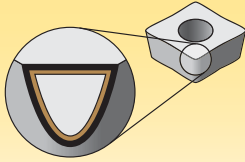
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

CVD-Coated Carbide Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45
KCP05B	<p>Composition: An innovative, highly deformation-resistant, cobalt-enriched substrate with a specially designed, adherent MTCVD TiCN-Al₂O₃-TiOCN coating.</p> <p>Application: For finishing to semi-finishing of most steels, ferritic, martensitic, and PH stainless steels and cast irons. Provides excellent combination of deformation resistance and insert edge strength. The new coating combined with a state-of-the-art post-coat treatment provides high-productivity with long predictable tool life and superior workpiece surface finish.</p> <p style="text-align: right;">beyond DRIVE™</p>	P									
		K									
KCP05	<p>Composition: An innovative, highly deformation-resistant, cobalt-enriched substrate with a specially designed, adherent MTCVD TiCN-Al₂O₃ coating.</p> <p>Application: For finishing to semi-finishing of most steels, ferritic, martensitic, and PH stainless steels and cast irons. Provides excellent combination of deformation resistance and insert edge strength. The new coating combined with a state-of-the-art post-coat treatment provides high-productivity with long predictable tool life and superior workpiece surface finish.</p> <p style="text-align: right;">beyond</p>	P									
		K									
KCPK05	<p>Composition: A deformation-resistant, cobalt-enriched substrate combined with thick MTCVD TiCN-Al₂O₃ coating.</p> <p>Application: For high productivity turning of steels and PH stainless steels in continuous to lightly interrupted cuts. This grade provides excellent combination of toughness and high speed wear resistance allowing the fastest steel part production. Its unique combination of substrate and coating also make it an ideal roughing grade for cast iron where chipping resistance is required.</p> <p style="text-align: right;">beyond</p>	P									
		K									
KCP10B	<p>Composition: A specially engineered cobalt-enriched carbide grade with thick MTCVD TiCN-Al₂O₃-TiOCN coating for maximum wear resistance.</p> <p>Application: An excellent finishing to medium machining grade for a variety of workpiece materials, including most steels, ferritic, martensitic, and PH stainless steels, and cast irons. The cobalt-enriched substrate offers a balanced combination of deformation resistance and edge toughness, while the thick coating layers offer outstanding abrasion resistance and crater wear resistance for high-speed machining. Smooth coating provides resistance to edge build-up and microchipping and produces excellent surface finishes.</p> <p style="text-align: right;">beyond DRIVE™</p>	P									
		K									
KCP10	<p>Composition: A specially engineered cobalt-enriched carbide grade with thick MTCVD TiCN-Al₂O₃ coating for maximum wear resistance.</p> <p>Application: An excellent finishing to medium machining grade for a variety of workpiece materials, including most steels, ferritic, martensitic, and PH stainless steels, and cast irons. The cobalt-enriched substrate offers a balanced combination of deformation resistance and edge toughness, while the thick coating layers offer outstanding abrasion resistance and crater wear resistance for high-speed machining. Smooth coating provides resistance to edge build-up and microchipping and produces excellent surface finishes.</p> <p style="text-align: right;">beyond</p>	P									
		K									



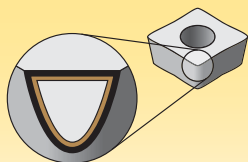
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

CVD-Coated Carbide Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45
KCP25B	<p>Composition: A tough cobalt-enriched carbide grade with a multilayer MTCVD TiCN-Al₂O₃-TiOCN coating with superior interlayer adhesion.</p> <p>Application: Best general-purpose turning grade for most steels and ferritic and martensitic stainless steels. The substrate design ensures adequate deformation resistance with excellent insert edge strength. Coating layers offer good wear resistance over a wide range of machining conditions and the post-coat treatment minimizes microchipping and improves coating adhesion to substrate leading to long tool life and improved workpiece finishes.</p>	P									
		K									
beyond DRIVE™											
KCP25	<p>Composition: A tough cobalt-enriched carbide grade with a multilayer MTCVD TiCN-Al₂O₃ coating with superior interlayer adhesion.</p> <p>Application: Best general-purpose turning grade for most steels and ferritic and martensitic stainless steels. The substrate design ensures adequate deformation resistance with excellent insert edge strength. Coating layers offer good wear resistance over a wide range of machining conditions and the post-coat treatment minimizes microchipping and improves coating adhesion to substrate leading to long tool life and improved workpiece finishes.</p>	P									
		K									
beyond											
KCP30B	<p>Composition: A tough cobalt-enriched carbide grade with an advanced multilayer MTCVD TiCN-Al₂O₃-TiOCN coating.</p> <p>Application: For medium to rough machining of all carbon, alloy, and stainless steels. The substrate design provides superior insert strength that is required for this application, and the multilayer coating adds wear resistance to the insert resulting in long tool life.</p>	P									
		M									
beyond DRIVE™											
KCP30	<p>Composition: A tough cobalt-enriched carbide grade with an advanced multilayer MTCVD TiCN-Al₂O₃ coating.</p> <p>Application: For medium to rough machining of all carbon, alloy, and stainless steels. The substrate design provides superior insert strength that is required for this application, and the multilayer coating adds wear resistance to the insert resulting in long tool life.</p>	P									
		M									
beyond											



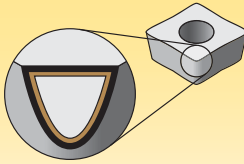
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

CVD-Coated Carbide Grades

Coating		Grade Description		05	10	15	20	25	30	35	40	45
KCP40B		<p>Composition: A tough carbide grade with a thin MTCVD TiCN-Al₂O₃-TiOCN coating.</p> <p>Application: For heavy roughing of carbon, alloy, and stainless steels. The substrate-coating combination provides unbelievable toughness and operational security allowing high metal removal rates even in most demanding interrupted cuts.</p>	P									
	—											
			beyond DRIVE™									
KCP40		<p>Composition: A tough carbide grade with a thin MTCVD TiCN-Al₂O₃ coating.</p> <p>Application: For heavy roughing of carbon, alloy, and stainless steels. The substrate-coating combination provides unbelievable toughness and operational security allowing high metal removal rates even in most demanding interrupted cuts.</p>	P									
	—											
			beyond									
KCK05B		<p>Composition: A multilayered coating with moderately thick MTCVD TiCN-Al₂O₃-TiOCN layers over a highly deformation-resistant carbide substrate.</p> <p>Application: Designed for high-speed machining of gray and ductile irons. The substrate and coating architecture together with post-coat treatment ensure a tremendous tool life advantage, especially when cutting higher tensile strength ductile and gray irons where workpiece size consistency and reliability of tool life are critical. Excellent both in continuous cuts and varied depths of cut.</p>	P									
	—											
			beyond DRIVE™									
KCK05		<p>Composition: A multilayered coating with moderately thick MTCVD TiCN-Al₂O₃ layers over a highly deformation-resistant carbide substrate.</p> <p>Application: Designed for high-speed machining of gray and ductile irons. The substrate and coating architecture together with post-coat treatment ensure a tremendous tool life advantage, especially when cutting higher tensile strength ductile and gray irons where workpiece size consistency and reliability of tool life are critical. Excellent both in continuous cuts and varied depths of cut.</p>	P									
	—											
			beyond									
KCK15B		<p>Composition: A multilayered coating with thick MTCVD TiCN-Al₂O₃-TiOCN layers applied over a carbide substrate specifically engineered for cast irons.</p> <p>Application: Delivers consistent performance in high-speed machining of gray and ductile irons. The substrate design permits the insert to stay in the cut for a long time at high speeds with minimum deformation. The thick CVD coating and post-coat treatment provide superior wear resistance ensuring long and consistent tool life. Can be applied both in continuous and lightly interrupted cuts.</p>	P									
	—											
			beyond DRIVE™									



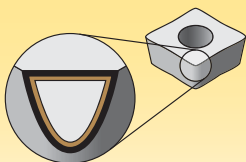
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

CVD-Coated Carbide Grades

Coating		Grade Description		05	10	15	20	25	30	35	40	45
KCK15		<p>Composition: A multilayered coating with thick MTCVD TiCN-Al₂O₃ layers applied over a carbide substrate specifically engineered for cast irons.</p> <p>Application: Delivers consistent performance in high-speed machining of gray and ductile irons. The substrate design permits the insert to stay in the cut for a long time at high speeds with minimum deformation. The thick CVD coating and post-coat treatment provide superior wear resistance ensuring long and consistent tool life. Can be applied both in continuous and lightly interrupted cuts.</p>	P									
	—											
KCK20B		<p>Composition: A specially toughened MTCVD TiCN-Al₂O₃-TiOCN coating over a wear-resistant substrate.</p> <p>Application: Specifically engineered to maximize coating adhesion and edge strength making this grade ideal in wet interrupted cutting of gray and ductile irons. It can be used in a wide range of applications from finishing to roughing to maximize productivity wherever strength and reliability are needed.</p>	P									
	—											
KCK20		<p>Composition: A specially toughened MTCVD TiCN-Al₂O₃ coating over a wear-resistant substrate.</p> <p>Application: Specifically engineered to maximize coating adhesion and edge strength making this grade ideal in wet interrupted cutting of gray and ductile irons. It can be used in a wide range of applications from finishing to roughing to maximize productivity wherever strength and reliability are needed.</p>	P									
	—											
KCM15B		<p>Composition: A multilayer MTCVD TiCN-Al₂O₃ coated carbide grade.</p> <p>Application: An excellent finishing to medium machining grade for austenitic stainless steels at higher speeds and covers a broad range of steel applications in the P20–P25 range. KCM15B grade in combination with unique geometries have been designed to resist depth-of-cut notching and minimize bur formation. The post-coat treatment reduces coating stresses, improves coating adhesion, minimizes microchipping and edge build-up, and improves workpiece finish.</p>	P									
	—											



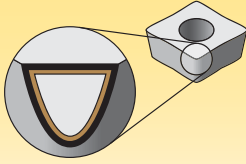
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

CVD-Coated Carbide Grades

Coating		Grade Description		05	10	15	20	25	30	35	40	45
KCM15		<p>Composition: A multilayer MTCVD TiCN-Al₂O₃ coated carbide grade.</p> <p>Application: An excellent finishing to medium machining grade for austenitic stainless steels at higher speeds and covers a broad range of steel applications in the P20–P25 range. KCM15 grade in combination with unique geometries have been designed to resist depth-of-cut notching and minimize bur formation. The post-coat treatment reduces coating stresses, improves coating adhesion, minimizes microchipping and edge build-up, and improves workpiece finish.</p>	P									
	—		M									
			beyond									
KCM25B		<p>Composition: A multilayer MTCVD TiCN-Al₂O₃-TiOCN coated carbide grade.</p> <p>Application: This CVD-coated grade is designed for general-purpose machining of austenitic stainless steels at moderate speeds and feeds. This grade offers an extraordinary combination of toughness, built-up edge resistance, and wear resistance in stainless steel applications.</p>	P									
	—		M									
			beyond DRIVE™									
KCM25		<p>Composition: A multilayer CVD coating comprised of MTCVD TiCN-Al₂O₃ layers over a tough, cobalt-enriched carbide substrate.</p> <p>Application: This CVD-coated grade is designed for general-purpose machining of austenitic stainless steels at moderate speeds and feeds. This grade offers an extraordinary combination of toughness, built-up edge resistance, and wear resistance in stainless steel applications.</p>	P									
	—		M									
			beyond									
KCM35B		<p>Composition: A multilayer MTCVD TiCN-Al₂O₃-TiOCN coating over a super-tough substrate.</p> <p>Application: Engineered to take on the most brutal cast stainless steel machining applications. The substrate withstands heavy interruptions, while the coating provides the wear resistance needed for long tool life. The polished surface resists edge build-up, even at slow cutting speeds. Available in insert sizes and geometries appropriate for heavy feeds and large depths of cut.</p>	P									
	—		M									
			beyond DRIVE™									
KCM35		<p>Composition: A multilayer MTCVD TiCN-Al₂O₃ coating over a super-tough substrate.</p> <p>Application: Engineered to take on the most brutal cast stainless steel machining applications. The substrate withstands heavy interruptions, while the coating provides the wear resistance needed for long tool life. The polished surface resists edge build-up, even at slow cutting speeds. Available in insert sizes and geometries appropriate for heavy feeds and large depths of cut.</p>	P									
	—		M									
			beyond									



Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

PVD-Coated Cermet Grades

Coating		Grade Description		05	10	15	20	25	30	35	40	45
KT315		Composition: A multilayer PVD TiN/TiCN/TiN-coated cermet turning grade. Application: Ideal for high-speed finishing to medium machining of most carbon and alloy steels and stainless steels. Performs very well in cast and ductile iron applications, too. Provides long and consistent tool life and will produce excellent workpiece finishes.	P									
	—		M									
KTP10		Composition: A multilayer PVD TiN/TiCN/TiN-coated cermet turning grade. Application: Ideal for high-speed finishing to medium machining of most carbon and alloy steels and stainless steels. Performs very well in cast and ductile iron applications, too. Provides long and consistent tool life and will produce excellent workpiece finishes.	P									
	—		M									

■ Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)										
				.0015 (0,04)	.0025 (0,063)	.004 (0,1)	.006 (0,16)	.010 (0,25)	.016 (0,4)	.025 (0,63)	.040 (1,0)	.060 (1,6)	.100 (2,5)	.200 (5,0)
				depth of cut — in (mm)										
				.004 (0,1)	.006 (0,16)	.010 (0,25)	.016 (0,4)	.025 (0,63)	.040 (1,0)	.060 (1,6)	.100 (2,5)	.160 (4,0)	.250 (6,3)	.500 (10,0)
medium machining	MG-MP			<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px;">.006–.020 (0,2–0,5)</div> <div style="border: 1px solid black; padding: 2px;">.030–.200 (0,8–5,1)</div> </div>										

Pictorial View of Insert

Depth-of-Cut Range — for all inserts in the program, select smaller inserts for lighter cuts and larger inserts for heavy cuts

Chipbreaker Geometry — section is through nose radius of insert

Feed Rate Range — for best results, use the center 60% of the range

Primary Workpiece Material Group

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

Chip Control Geometry Designation — example: MG-MP = CNMG-432MP

Machining Operation — for what the insert geometry is designed

NOTE: For detailed grade and geometry recommendations, reference the Kennametal Beyond™ Selection System on pages B8–B21.

■ Select the geometry – based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate – in (mm)											
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	
				(0,04)	(0,063)	(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(5,0)	
				depth of cut – in (mm)											
				.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500	
				(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(4,0)	(6,3)	(10,0)	
wiper finishing	MG-FW			.008–.016 (0,2–0,4) .010–.080 (0,25–2,0)											
wiper medium machining	MG-MW			.012–.024 (0,3–0,6) .030–.200 (0,8–5,1)											
wiper roughing	MM-RW			.010–.050 (0,3–1,3) .050–.500 (1,3–12,7)											
fine finishing	MG-FF			.002–.010 (0,05–0,25) .003–.080 (0,08–2,0)											
finishing sharp	GG-FS precision ground			.003–.010 (0,07–0,25) .008–.080 (0,20–2,0)											
finishing	GG-LF precision ground			.005–.020 (0,1–0,5) .020–.120 (0,5–3,0)											

■ Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)											
				.0015 (0,04)	.0025 (0,063)	.004 (0,1)	.006 (0,16)	.010 (0,25)	.016 (0,4)	.025 (0,63)	.040 (1,0)	.060 (1,6)	.100 (2,5)	.200 (5,0)	
				depth of cut — in (mm)											
				.004 (0,1)	.006 (0,16)	.010 (0,25)	.016 (0,4)	.025 (0,63)	.040 (1,0)	.060 (1,6)	.100 (2,5)	.160 (4,0)	.250 (6,3)	.500 (10,0)	
finishing	MG-FP			.004–.012 (0,1–0,3)											
				.010–.100 (0,25–2,5)											
finishing	MG-FN			.005–.012 (0,1–0,3)											
				.010–.100 (0,3–2,5)											
finishing	MP-K			.004–.012 (0,1–0,3)											
				.008–.100 (0,2–2,5)											
medium sharp	MG-MS			.005–.014 (0,12–0,35)											
				.030–.200 (0,76–5,0)											
medium machining	MG-UP			.008–.025 (0,2–0,6)											
				.040–.250 (1–6,4)											

■ Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)										
				.0015 (0,04)	.0025 (0,063)	.004 (0,1)	.006 (0,16)	.010 (0,25)	.016 (0,4)	.025 (0,63)	.040 (1,0)	.060 (1,6)	.100 (2,5)	.200 (5,0)
				depth of cut — in (mm)										
medium machining	-GP*			.012–.020 (0,3–0,5) .020–.125 (0,5–3,2)										
	MG-MP			.006–.020 (0,15–0,5) .030–.200 (0,8–5,1)										
	MG-P			.006–.020 (0,15–0,5) .030–.200 (0,75–5,0)										
	MG-MN			.006–.020 (0,15–0,5) .020–.200 (0,5–5,1)										
	MG-MR			.06–.2 (0,15–0,55) .06–.25 (1,5–6,3)										
	MG-CT O.D. turning			.005–.020 (0,13–0,5) .040–.115 (1,0–3,0)										
	MG-CT outward facing			.010–.020 (0,25–0,5) .010–.040 (0,25–1,0)										
	-MS single sided			.006–.015 (0,15–0,4) .025–.090 (0,6–2,3)										
	MG-UN			.008–.020 (0,2–0,5) .030–.150 (0,8–3,8)										

*35° and 55° geometries are single sided.

■ Select the geometry – based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)												
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200		
				(0,04)	(0,063)	(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(5,0)		
				depth of cut — in (mm)												
				.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500		
				(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(4,0)	(6,3)	(10,0)		
roughing	MG-RP			.008–.025 (0,2–0,6)												
				.045–.250 (1,1–6,4)												
heavy roughing	MG-RN			.010–.025 (0,3–0,63)												
								.045–.250 (1,1–5,7)								
	MG			.012–.030 (0,3–0,8)												
								.045–.225 (1,1–5,7)								
	MM-RM single sided			.010–.040 (0,3–1,0)												
								.050–.500 (1,3–12,7)								
MM-RP single sided			.008–.030 (0,2–1,0)													
							.050–.400 (1,3–10,0)									
MM-RH single sided			.015–.050 (0,4–1,3)													
							.050–.500 (1,3–12,7)									
wiper finishing	MT-FW			.003–.013 (0,08–0,35)												
								.008–.060 (0,2–1,5)								
wiper, medium finishing	MT-MW			.005–.020 (0,12–0,5)												
								.016–.130 (0,4–3,3)								

■ Select the geometry – based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

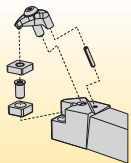
operation	insert style application	insert geometry	profile	feed rate – in (mm)											
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	
				(0,04)	(0,063)	(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(5,0)	
				depth of cut – in (mm)											
				.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500	
				(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(4,0)	(6,3)	(10,0)	
fine finishing	_GM precision ground			.002–.008 (0,05–0,2)											
	MT-11			.003–.010 (0,08–0,25)											
				.008–.050 (0,2–1,3)											
.MT-UF			.002–.010 (0,05–0,25)												
			.005–.050 (0,1–1,3)												
finishing	GT-HP precision ground			.007–.015 (0,15–0,4)											
	GT-LF precision ground			.007–.015 (0,2–0,4)											
				.030–.090 (0,8–2,3)											
	MT-FP			.0025–.010 (0,063–0,25)											
MT-LF			.007–.015 (0,2–0,4)												
			.030–.090 (0,8–2,3)												
medium machining	MT-MP			.004–.016 (0,15–0,4)											
	MT-MF			.016–.130 (0,4–2,3)											
				.009–.017 (0,2–0,4)											
				.045–.090 (1,1–2,3)											

tool path	insert shape	clamping style	Turning	Profiling	Facing	Plunging	Chamfering	page(s)
0° Lead Angle								
		Kenloc™	•	•				B60
		Screw-On	•	•				B193, B209
		Screw-On	•	•				B227
		Screw-On	•	•				B282
		Kenloc	•	•	•	•	•	B132
		Kenclamp	•	•				B131
		Kendex™	•	•				B179
		Screw-On	•					B259, B269
-3° Lead Angle								
		Kenloc	•	•				B89
		Kenclamp	•	•				B87
		Screw-On	•	•				B228
		TNT	•	•				—
		Kenloc	•	•				B152
		Kenclamp	•	•				B150
		Screw-On	•	•				B282
		Screw-On	•	•				—
		Kenloc	•	•				B136
		Kenclamp	•					B131
		Screw-On	•					B261
		Wedglock	•	•				—

tool path	insert shape	clamping style	Turning	Profiling	Facing	Plunging	Chamfering	page(s)
-5° Lead Angle								
		Kenloc	•	•	•			B63
		Kenclamp™	•	•	•			B59
		Screw-On	•	•	•			B194
		TNT	•	•	•			B383
		Kenloc	•	•	•			—
		Kenclamp	•	•	•			B163
		Screw-On	•	•	•			B287
		TNT	•	•	•			B384
		Wedglock™	•	•	•			—
15° and -15° Lead Angle								
		Kenloc	•	•				B62
		Kenclamp	•	•				B60
		Kendex	•					B383
		Screw-On	•	•				B196, B212
		TNT	•					—
		Kenloc	•	•				B111
		Kenclamp	•	•				B109
		Kendex	•	•				B384
		Kenloc	•	•				B138
		Kendex	•					B179
	-15° lead angle	Wedglock	•	•	•			—
17.5° and -17.5° Lead Angle								
		Kenloc	•	•				B90
		Kenclamp	•	•				B88
		TNT	•	•				—
		Screw-On	•	•				—
		Kenloc	•	•				B153
	-17.5° lead angle	Kenclamp	•	•				B151

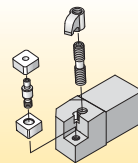
tool path	insert shape	clamping style	Turning	Profiling	Facing	Plunging	Chamfering	page(s)
■ 27.5° Lead Angle								
		Kenloc™	•	•				B90
		Kenclamp™	•	•				B88
		Screw-On		•				B229
■ 30° Lead Angle								
		Kenloc	•	•				B134
		Kendex	•	•				B187
		Wedgelock™	•	•				—
■ 40° Lead Angle								
		Kenloc	•	•	•			B64
		Screw-On	•	•	•			B195, B211
■ 117.5° Lead Angle								
		Kenclamp	•		•			B151
■ 45° Lead Angle								
		Kenloc	•	•	•			B111
		Kenclamp	•	•	•			B109
		Kendex™	•	•	•			B172
		TNT	•	•	•			B383
■ 50° Lead Angle								
		Kenloc	•	•	•			B61
		Kendex	•	•	•			—
		Kenloc	•	•	•			B98
		Kenclamp	•	•	•			B98
		Kendex	•	•	•			B168
		Screw-On	•	•	•			B243
		V-Bottom	•	•	•			B168

Clamping Styles



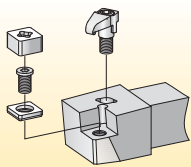
Kenclamp Style

- Uses Kenloc negative style inserts.
- Unique clamp design provides rigid clamping.
- Ensures insert repeatability and seating.
- Reduced chatter and improved tool life.



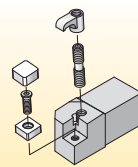
Kenloc Style

- Uses Kenloc negative style inserts.
- Lock pin and top clamp provide rigid clamping.
- Wide variety of insert styles may be used.
- Tools may be used with or without clamp.



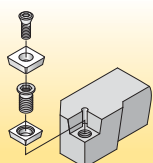
Top Notch™ Turning Style

- Proven superior system in holding ceramic inserts rigidly in turning and profiling operations.
- Uses standard insert sizes — 80°, 75°, 55°, square, and trigon.
- This system offers the added versatility of using optional hardware to hold standard Kendex and Kenloc inserts.



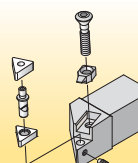
Kendex Style

- Uses Kendex inserts.
- Chipbreaker option available for ceramic inserts.
- Wide variety of insert styles may be used.



Screw-On Style

- Top clamping by screw for Screw-On inserts.

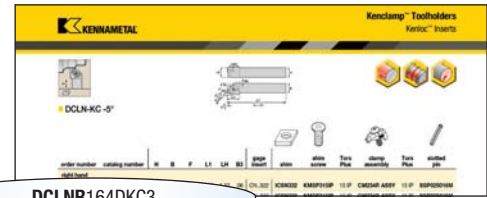


Wedgelock™ Style

- Top and hole clamping for inserts with hole.

How Do Catalog Numbers Work?

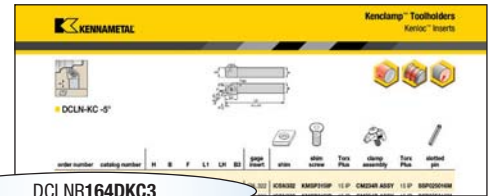
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



DCLNR164DKC3

D	C	L	N	R	
Insert Holding Method	Insert Shape	Tool Style or Lead Angle	Insert Clearance Angle	Hand of Tool	Additional Information
<p>D</p> <p>Kenclamp™</p> <p>M</p> <p>Kenloc™</p> <p>C</p> <p>Kendex™</p> <p>N</p> <p>Top Notch™ Profiling</p> <p>S</p> <p>Screw-On</p>	<p>A 85°</p> <p>B 82°</p> <p>C 80°</p> <p>D 55°</p> <p>E 75°</p> <p>H 120°</p> <p>K 55°</p> <p>L 90°</p> <p>M 86°</p> <p>O 135°</p> <p>P 108°</p> <p>R 90°</p> <p>S 90°</p> <p>T 60°</p> <p>V 35°</p> <p>W 80°</p>	<p>A 0° L 5°</p> <p>B 15° M 40°</p> <p>C 0° P 27.5°</p> <p>D 45° Q 27.5°</p> <p>E 30° R 15°</p> <p>F 0° S 45°</p> <p>G 0° U 3°</p> <p>H 50° V 17.5°</p> <p>J 3° Y 5°</p> <p>K 15°</p>	<p>N 0°</p> <p>B 5°</p> <p>C 7°</p> <p>P 11°</p> <p>D 15°</p> <p>E 20°</p> <p>F 25°</p>	<p>R = Right hand</p> <p>L = Left hand</p> <p>N = Neutral</p>	<p>C = Deep pocket for ceramic insert</p> <p>S = Single pocket locating wall</p> <p>F = Straight shank, no offset</p>

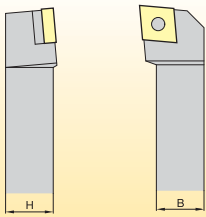
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



DCLNR164DKC3

1

Shank Dimensions



This two-digit number indicates the holder cross section.

- For shanks 5/8" square and larger, the number represents the number of sixteenths of width and height.
- For shanks under 5/8" square, the number of sixteenths of cross section are preceded by zero.
- For rectangular holders, the first digit represents the number of eighths of width "B" and the second digit the number of quarters of height "H," except for a toolholder 1-1/4" x 1-1/2", which is given the number 91.

- 06 = 0.375
- 08 = 0.500
- 10 = 0.625
- 12 = 0.750
- 16 = 1.000
- 20 = 1.250
- 24 = 1.500
- 32 = 2.000

6

4

Insert Size

Insert IC

Number of 1/8ths of "D"

D

Qualified Surface and Length

- A** = Qualified back and end, 4" long
- B** = Qualified back and end, 4.5" long
- C** = Qualified back and end, 5" long
- D** = Qualified back and end, 6" long
- E** = Qualified back and end, 7" long
- F** = Qualified back and end, 8" long
- G*** = Qualified back and end, 5.5" long
- H*** = Qualified back and end, 5.625" long
- I*** = Qualified back and end, 3" long
- J*** = Qualified back and end, 5.3" long
- K*** = Qualified back and end, 14" long
- L*** = Qualified back and end, 6.8" long
- M** = Qualified front and end, 4" long
- N** = Qualified front and end, 4.5" long
- P** = Qualified front and end, 5" long
- R** = Qualified front and end, 6" long
- S** = Qualified front and end, 7" long
- T** = Qualified front and end, 8" long
- U*** = Qualified front and end, 5.5" long
- V*** = Qualified back and end, 3.5" long
- W*** = Qualified front and end, 3.5" long
- Y*** = Qualified back and end, 3.75" long
- Z*** = Qualified back and end, 3.250" long

* Kennametal standard only.

KC

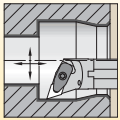
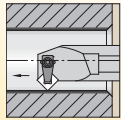
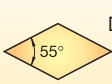



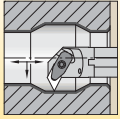
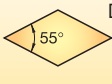
Additional Information

- R** = Radial clearance for 4" minimum bore
- S** = 3.00 minimum bore
- KC** = Kenclamp™
- H4** = Wedglock™ clamping system
- M..** = TNT/MTS clamping system for ceramic and PcBN inserts

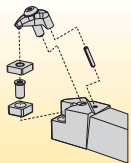
3

Insert Thickness (optional)

- 3** = .188"
- 4** = .250"

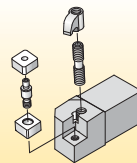
tool path	insert shape	clamping style	Boring	Back Boring	Profiling	page(s)	tool path	insert shape	clamping style	Boring	Back Boring	Profiling	page(s)
■ -17.5° Lead Angle 							■ 45° Lead Angle 						
		Kenloc™	•	•		B92			Kenloc	•			—
		Kenclamp™	•	•		B91							
		Screw-On	•	•		B284			Kendex™	•	•		B388
									TNT	•	•		B391
■ 27.5° Lead Angle 													
		Kenloc	•	•		B92							
		Kenclamp	•	•		B91							

Clamping Styles



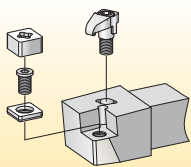
Kenclamp Style

- Uses Kenloc negative style inserts.
- Unique clamp design provides rigid clamping.
- Ensures insert repeatability and seating.
- Reduced chatter and improved tool life.



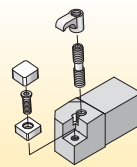
Kenloc Style

- Uses Kenloc negative style inserts.
- Lock pin and top clamp provide rigid clamping.
- Wide variety of insert styles may be used.
- Tools may be used with or without clamp.



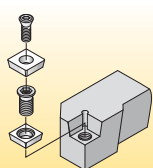
Top Notch™ Turning Style

- Proven superior system in holding ceramic inserts rigidly in turning and profiling operations.
- Uses standard insert sizes — 80°, 75°, 55°, square, and trigon.
- This system offers the added versatility of using optional hardware to hold standard Kendex and Kenloc inserts.



Kendex Style

- Uses Kendex inserts.
- Chipbreaker option available for ceramic inserts.
- Wide variety of insert styles may be used.

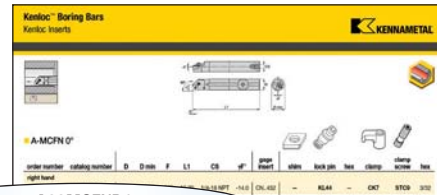


Screw-On Style











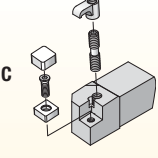
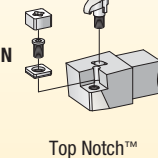
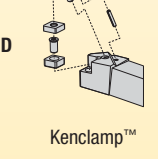
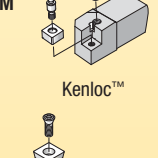
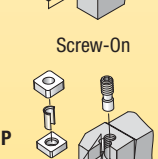













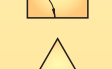



- Top clamping by screw for Screw-On inserts.

How Do Catalog Numbers Work?

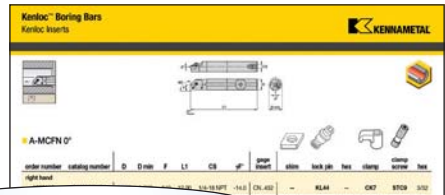
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



A32MCFNR4

A	32		M	C
Bar Type	Bar Diameter	Bar Length**	Insert Holding Method	Insert Shape
<p>A  Steel bar with coolant</p> <p>S  Steel bar without coolant</p> <p>C  Carbide bar</p> <p>D  DeVibrator bar with coolant</p> <p>D  Tunable bar with coolant</p> <p>E  Carbide bar with coolant</p> <p>B  DeVibrator</p> <p>H  Interchangeable head</p> <p>L  Heavy metal bar with coolant</p>	<p></p> <p>Inch: A two-digit number indicates the bar diameter in 1/16" increments</p>	<p>3 = F 3.5 = G 4 = H 4.5 = J 5 = K 5.5 = L 6 = M 6.5 = N 7 = Q 8 = R 10 = S 12 = T 14 = U 16 = V 18 = W 20 = Y</p> <p>**Used only when more than one length is available or a special length is required.</p>	<p>C  Kenloc™</p> <p>N  Top Notch™ Profiling</p> <p>D  Kenclamp™</p> <p>M  Kenloc™</p> <p>S  Screw-On</p> <p>P  Kenlever™</p>	<p>A  85°</p> <p>B  82°</p> <p>C  80°</p> <p>D  55°</p> <p>E  75°</p> <p>H  120°</p> <p>K  55°</p> <p>L  90°</p> <p>M  86°</p> <p>O  135°</p> <p>P  108°</p> <p>R </p> <p>S  90°</p> <p>T  60°</p> <p>V  35°</p> <p>W  80°</p>

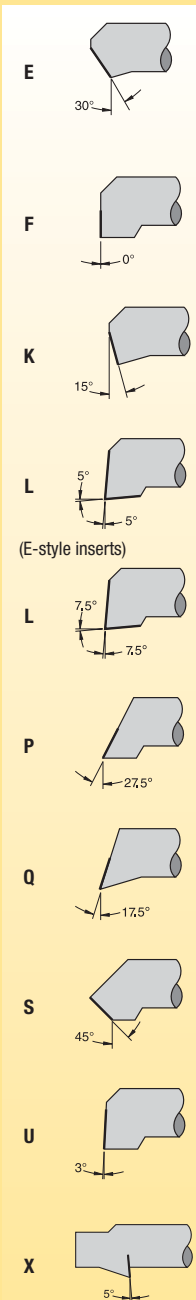
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



A32MCFNR4

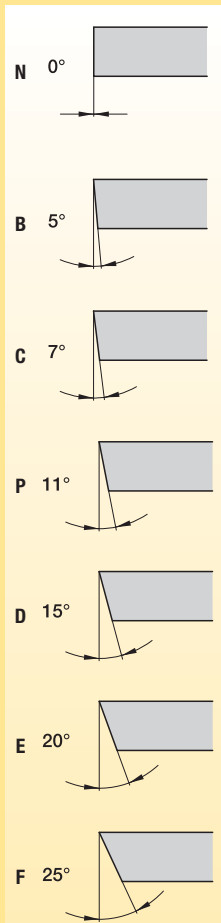
F

Bar Style or Lead Angle



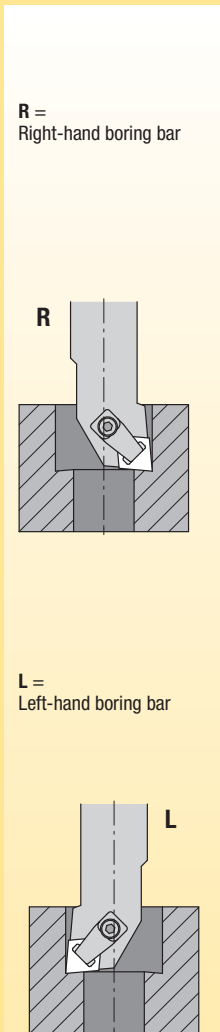
N

Insert Clearance Angle



R

Hand of Tool



4

Insert Size

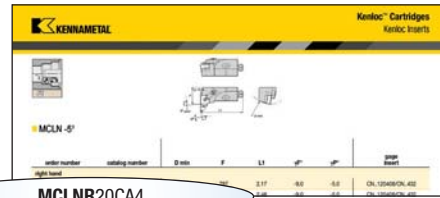
Insert IC
Number of 1/8ths of "D"

Additional Information

- M...** = TNT/MTS clamping systems for ceramic and PcBN inserts
- D** = Dual pocket
- AP5** = Axial positive
- KC** = Kenclamp™
- +** = Insert Thickness

How Do Catalog Numbers Work?

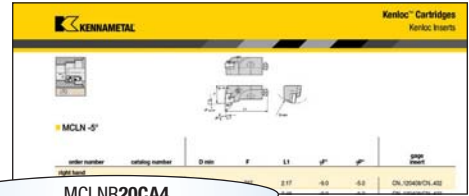
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



MCLNR20CA4

M	C	L	N	R
<p>Insert Clamping System</p>	<p>Insert Shape</p>	<p>Tool Style or Lead Angle</p>	<p>Insert Clearance Angle</p>	<p>Hand of Tool</p>

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.

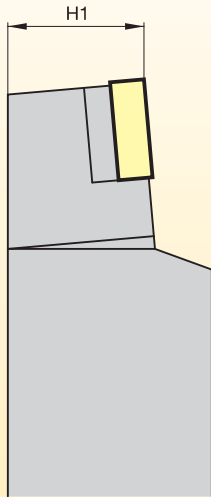


MCLNR20CA4

20

Cartridge Size

H1 = Cutting edge height of cartridge, in inches



C

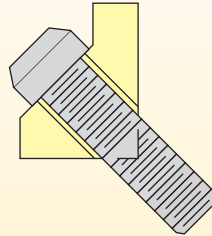
Identifying Code of Cartridge

C = Cartridge

A

Mounting Design of Cartridge

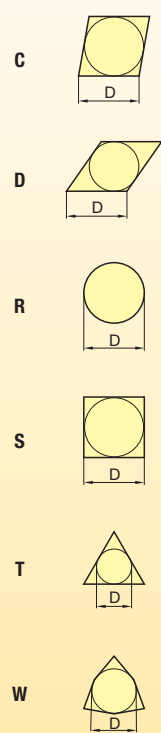
A = Angular acc. ISO 5611



4

Insert Size

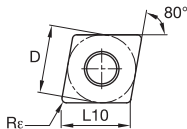
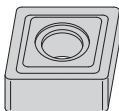
Insert IC
Number of 1/8ths of "D"





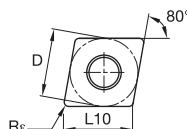
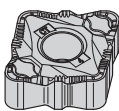
ISO/ANSI Turning

- first choice
- alternate choice



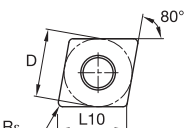
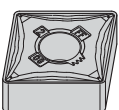
■ CNMG-33

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
		mm	in	mm	in	mm	in																																
CNMG12040833	CNMG43233	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●



■ CNMG-CT

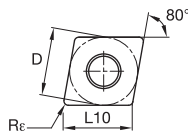
ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315										
		mm	in	mm	in	mm	in																																									
CNMG120408CT	CNMG432CT	12,70	1/2	12,90	.508	0,8	1/32	-	●	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●						
CNMG120412CT	CNMG433CT	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG120416CT	CNMG434CT	12,70	1/2	12,90	.508	1,6	1/16	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ CNMG-FF

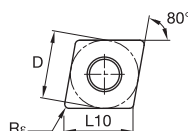
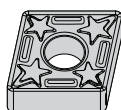
ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315														
		mm	in	mm	in	mm	in																																													
CNMG090304FF	CNMG321FF	9,53	3/8	9,67	.381	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
CNMG090308FF	CNMG322FF	9,53	3/8	9,67	.381	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG120404FF	CNMG431FF	12,70	1/2	12,90	.508	0,4	1/64	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
CNMG120408FF	CNMG432FF	12,70	1/2	12,90	.508	0,8	1/32	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- first choice
- alternate choice



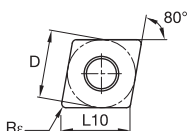
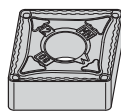
■ CNMG-FM

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
		mm	in	mm	in	mm	in																																	
CNMG120412FM	CNMG433FM	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ CNMG-LF

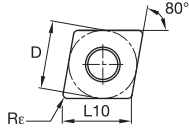
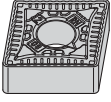
ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
		mm	in	mm	in	mm	in																																		
CNMG120402LF	CNMG4305LF	12,70	1/2	12,90	.508	0,2	.008	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG120404LF	CNMG431LF	12,70	1/2	12,90	.508	0,4	1/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120408LF	CNMG432LF	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ CNMG-MN

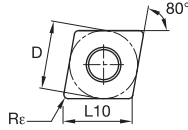
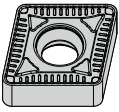
ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
		mm	in	mm	in	mm	in																																		
CNMG090304MN	CNMG321MN	9,53	3/8	9,67	.381	0,4	1/64	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG090308MN	CNMG322MN	9,53	3/8	9,67	.381	0,8	1/32	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG090312MN	CNMG323MN	9,53	3/8	9,67	.381	1,2	3/64	-	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120404MN	CNMG431MN	12,70	1/2	12,90	.508	0,4	1/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120408MN	CNMG432MN	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120412MN	CNMG433MN	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120416MN	CNMG434MN	12,70	1/2	12,90	.508	1,6	1/16	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG160608MN	CNMG542MN	15,88	5/8	16,12	.635	0,8	1/32	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG160612MN	CNMG543MN	15,88	5/8	16,12	.635	1,2	3/64	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG160616MN	CNMG544MN	15,88	5/8	16,12	.635	1,6	1/16	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG190608MN	CNMG642MN	19,05	3/4	19,34	.762	0,8	1/32	-	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG190612MN	CNMG643MN	19,05	3/4	19,34	.762	1,2	3/64	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG190616MN	CNMG644MN	19,05	3/4	19,34	.762	1,6	1/16	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG190624MN	CNMG646MN	19,05	3/4	19,34	.762	2,4	3/32	-	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- first choice
- alternate choice



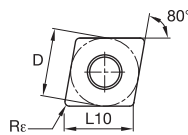
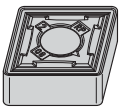
■ CNMG-RN

ISO catalog number	ANSI catalog number	D		L10		Re																																			
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KCU5010	KC5025	KC5410	KT315			
CNMG120408RN	CNMG432RN	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG120412RN	CNMG433RN	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG120416RN	CNMG434RN	12,70	1/2	12,90	.508	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG160608RN	CNMG542RN	15,88	5/8	16,12	.635	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG160612RN	CNMG543RN	15,88	5/8	16,12	.635	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG160616RN	CNMG544RN	15,88	5/8	16,12	.635	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG190608RN	CNMG642RN	19,05	3/4	19,34	.762	0,8	1/32	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG190612RN	CNMG643RN	19,05	3/4	19,34	.762	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG190616RN	CNMG644RN	19,05	3/4	19,34	.762	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG190624RN	CNMG646RN	19,05	3/4	19,34	.762	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



■ CNMU-RN

ISO catalog number	ANSI catalog number	D		L10		Re																																		
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KCU5010	KC5025	KC5410	KT315		
CNMG120412RN	CNMG433RN	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



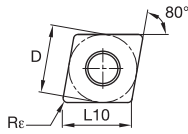
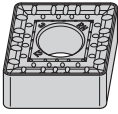
■ CNMG-RP

ISO catalog number	ANSI catalog number	D		L10		Re																																			
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KCU5010	KC5025	KC5410	KT315			
CNMG120404RP	CNMG431RP	12,70	1/2	12,90	.508	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG120408RP	CNMG432RP	12,70	1/2	12,90	.508	0,8	1/32	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120412RP	CNMG433RP	12,70	1/2	12,90	.508	1,2	3/64	-	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG120416RP	CNMG434RP	12,70	1/2	12,90	.508	1,6	1/16	-	-	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMG160608RP	CNMG542RP	15,88	5/8	16,12	.635	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG160612RP	CNMG543RP	15,88	5/8	16,12	.635	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG160616RP	CNMG544RP	15,88	5/8	16,12	.635	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG190612RP	CNMG643RP	19,05	3/4	19,34	.762	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMG190616RP	CNMG644RP	19,05	3/4	19,34	.762	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		



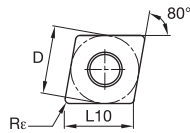
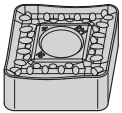
ISO/ANSI Turning

- first choice
- alternate choice



■ CNMM-RH

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
CNMM190612RH	CNMM643RH	19,05	3/4	19,34	.762	1,2	3/64
CNMM190616RH	CNMM644RH	19,05	3/4	19,34	.762	1,6	1/16
CNMM190624RH	CNMM646RH	19,05	3/4	19,34	.762	2,4	3/32
CNMM250924RH	CNMM866RH	25,40	1	25,79	1.015	2,4	3/32



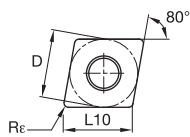
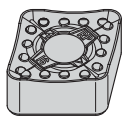
■ CNMM-RM

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
CNMM120408RM	CNMM432RM	12,70	1/2	12,90	.508	0,8	1/32
CNMM120412RM	CNMM433RM	12,70	1/2	12,90	.508	1,2	3/64
CNMM160612RM	CNMM543RM	15,88	5/8	16,12	.635	1,2	3/64
CNMM160616RM	CNMM544RM	15,88	5/8	16,12	.635	1,6	1/16
CNMM160624RM	CNMM546RM	15,88	5/8	16,12	.635	2,4	3/32
CNMM190612RM	CNMM643RM	19,05	3/4	19,34	.762	1,2	3/64
CNMM190616RM	CNMM644RM	19,05	3/4	19,34	.762	1,6	1/16
CNMM190624RM	CNMM646RM	19,05	3/4	19,34	.762	2,4	3/32
CNMM250924RM	CNMM866RM	25,40	1	25,79	1.015	2,4	3/32

	P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
CNMM190612RH	●	●	○	○	○	○	-	-	-	-	●	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM190616RH	○	○	○	○	○	○	-	-	-	-	●	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM190624RH	○	○	○	○	○	○	-	-	-	-	●	●	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM250924RH	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM120408RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM120412RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM160612RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM160616RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM160624RM	○	○	○	○	○	○	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM190612RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM190616RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM190624RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM250924RM	○	○	○	○	○	○	-	-	-	-	●	●	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

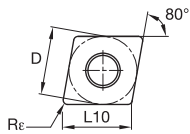
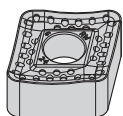


● first choice
○ alternate choice



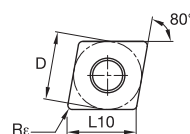
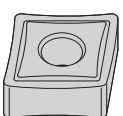
■ CNMM-RP

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315									
		mm	in	mm	in	mm	in																																								
CNMM120408RP	CNMM432RP	12,70	1/2	12,90	.508	0,8	1/32	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
CNMM120412RP	CNMM433RP	12,70	1/2	12,90	.508	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
CNMM120416RP	CNMM434RP	12,70	1/2	12,90	.508	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM160608RP	CNMM542RP	15,88	5/8	16,12	.635	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM160612RP	CNMM543RP	15,88	5/8	16,12	.635	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM160616RP	CNMM544RP	15,88	5/8	16,12	.635	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM160624RP	CNMM546RP	15,88	5/8	16,12	.635	2,4	3/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM190612RP	CNMM643RP	19,05	3/4	19,34	.762	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM190616RP	CNMM644RP	19,05	3/4	19,34	.762	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM190624RP	CNMM646RP	19,05	3/4	19,34	.762	2,4	3/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMM250924RP	CNMM866RP	25,40	1	25,79	1.015	2,4	3/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ CNMM-RW

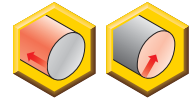
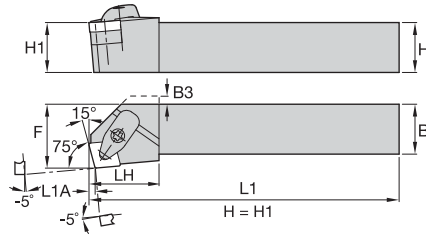
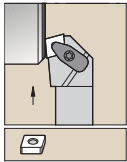
ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315									
		mm	in	mm	in	mm	in																																								
CNMM190624RW	CNMM646RW	19,05	3/4	19,34	.762	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CNMM250924RW	CNMM866RW	25,40	1	25,79	1.015	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ CNMP

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315									
		mm	in	mm	in	mm	in																																								
CNMP120404	CNMP431	12,70	1/2	12,90	.508	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
CNMP120408	CNMP432	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMP120412	CNMP433	12,70	1/2	12,90	.508	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMP160608	CNMP542	15,88	5/8	16,12	.635	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CNMP190612	CNMP643	19,05	3/4	19,34	.762	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

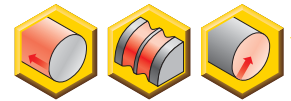
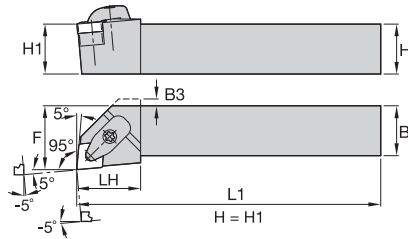
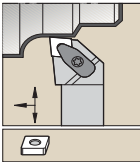
ISO/ANSI Turning



■ **DCKN-KC 15°**



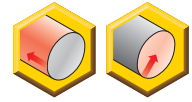
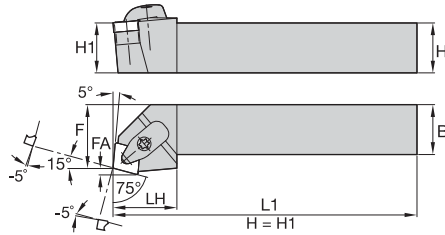
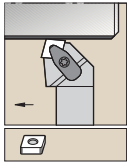
order number	catalog number	H	B	F	L1	LH	L1A	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand															
2273073	DCKNR124BKC3	.75	.75	1.000	4.50	1.25	.122	.22	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273063	DCKNR164CKC3	1.00	1.00	1.250	5.00	1.25	.122	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273004	DCKNR164DKC3	1.00	1.00	1.250	5.00	1.25	.122	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273006	DCKNR204DKC3	1.00	1.00	1.250	6.00	1.25	.122	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273059	DCKNR205DKC4	1.25	1.25	1.500	6.00	1.25	.122	—	CN..432	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
2273061	DCKNR206DKC4	1.25	1.25	1.500	6.00	1.25	.150	—	CN..543	ICSN643	KMSP625IP	25 IP	CM210R ASSY	15 IP	SSP025016M
left hand															
2273005	DCKNL164DKC3	1.00	1.00	1.250	6.00	1.25	.122	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273007	DCKNL204DKC3	1.25	1.25	1.500	6.00	1.25	.122	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M


■ DCLN-KC -5°


ISO/ANSI Turning

order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand														
2417292	DCLNR123BKC3	.75	.75	1.000	4.50	1.12	.06	CN..322	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2417294	DCLNR163DKC3	1.00	1.00	1.250	6.00	1.12	—	CN..332	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875137	DCLNR124BKC3	.75	.75	1.000	4.50	1.25	.15	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875134	DCLNR164CKC3	1.00	1.00	1.250	5.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1874862	DCLNR164DKC3	1.00	1.00	1.250	6.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875141	DCLNR204DKC3	1.25	1.25	1.500	6.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875157	DCLNR244DKC3	1.50	1.50	2.000	6.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875161	DCLNR165CKC4	1.00	1.00	1.250	5.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
1875145	DCLNR165DKC4	1.00	1.00	1.250	6.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
1875150	DCLNR205DKC4	1.25	1.25	1.500	6.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
1908809	DCLNR245DKC4	1.50	1.50	2.000	6.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
2273008	DCLNR166DKC4	1.00	1.00	1.250	6.00	1.38	—	CN..643	ICSN633	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M
2273010	DCLNR206DKC4	1.25	1.25	1.500	6.00	1.63	—	CN..643	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M
2273012	DCLNR246DKC4	1.50	1.50	2.000	6.00	1.63	—	CN..643	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M
left hand														
2417293	DCLNL123BKC3	.75	.75	1.000	4.50	1.12	.06	CN..322	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2417295	DCLNL163DKC3	1.00	1.00	1.250	6.00	1.12	—	CN..322	ICSN332	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875142	DCLNL124BKC3	.75	.75	1.000	4.50	1.25	.15	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875135	DCLNL164CKC3	1.00	1.00	1.250	5.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875133	DCLNL164DKC3	1.00	1.00	1.250	6.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875146	DCLNL204DKC3	1.25	1.25	1.500	6.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875160	DCLNL244DKC3	1.50	1.50	2.000	6.00	1.25	—	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875173	DCLNL165CKC4	1.00	1.00	1.250	5.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
1875147	DCLNL165DKC4	1.00	1.00	1.250	6.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
1875153	DCLNL205DKC4	1.25	1.25	1.500	6.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
1908811	DCLNL245DKC4	1.50	1.50	2.000	6.00	1.38	—	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
2273011	DCLNL206DKC4	1.25	1.25	1.500	6.00	1.63	—	CN..643	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M
2273013	DCLNL246DKC4	1.50	1.50	2.000	6.00	1.63	—	CN..643	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M

ISO/ANSI Turning

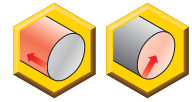
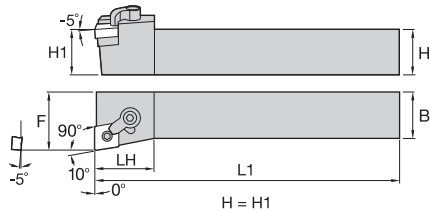
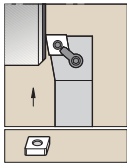


■ **DCRN-KC 15°**



order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand														
1875164	DCRNR124BK3	.75	.75	.878	4.50	1.25	.12	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875156	DCRNR164DK3	1.00	1.00	1.128	6.00	1.25	.12	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875165	DCRNR204DK3	1.25	1.25	1.378	6.00	1.25	.12	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875180	DCRNR245DK4	1.50	1.50	1.851	6.00	1.38	.15	CN..543	ICSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M
2273081	DCRNR206DK4	1.25	1.25	1.501	6.00	1.38	.18	CN..643	ICSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M
left hand														
1875159	DCRNL164DK3	1.00	1.00	1.128	6.00	1.25	.12	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875169	DCRNL204DK3	1.25	1.25	1.378	6.00	1.25	.12	CN..432	ICSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M

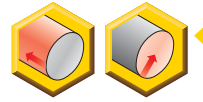
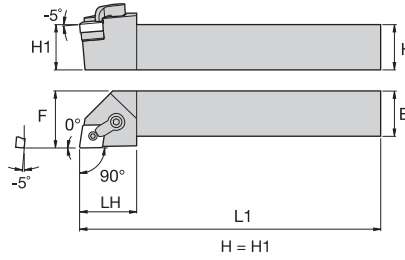
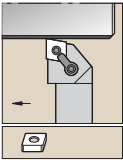
Kenloc Toolholders



■ **MCFN 0°**

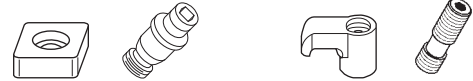


order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096032	MCFNR124B	.75	.75	1.000	4.50	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096033	MCFNR164C	1.00	1.00	1.250	5.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096034	MCFNR164D	1.00	1.00	1.250	6.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
left hand													
1096037	MCFNL164D	1.00	1.00	1.250	6.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8

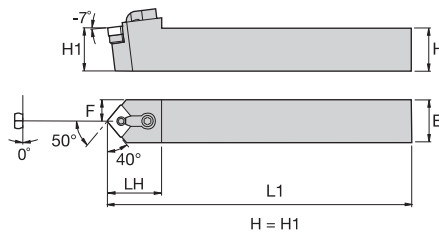
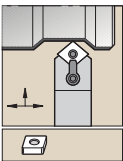


ISO/ANSI Turning

■ **MCGN 0°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096110	MCGNR124B	.75	.75	1.000	4.50	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096111	MCGNR164C	1.00	1.00	1.250	5.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096112	MCGNR164D	1.00	1.00	1.250	6.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
left hand													
1096113	MCGNL124B	.75	.75	1.000	4.50	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096114	MCGNL164C	1.00	1.00	1.250	5.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096115	MCGNL164D	1.00	1.00	1.250	6.00	1.25	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8



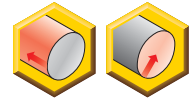
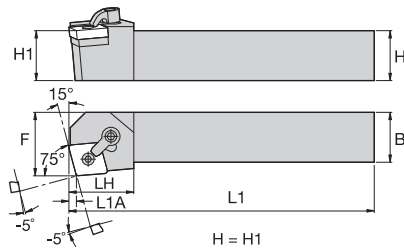
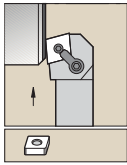
■ **MCHN 50°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1808120	MCHNN164C	1.00	1.00	.500	5.00	1.25	CN..432	ICSN433	KL46	3/32	CK21	STC20	1/8
1808121	MCHNN205D	1.25	1.25	.625	6.00	1.38	CN..543	ICSN533	KL58	1/8	CK21	STC20	1/8
1808122	MCHNN246D	1.50	1.50	.750	6.00	1.60	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32



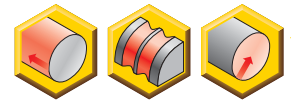
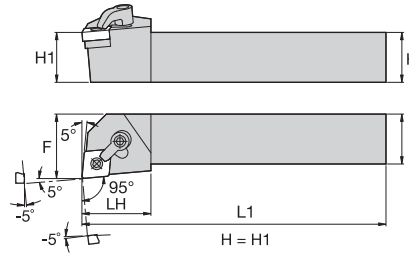
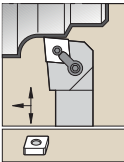
ISO/ANSI Turning



■ **MCKN 15°**



order number	catalog number	H	B	F	L1	LH	L1A	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1096132	MCKNR124B	.75	.75	1.000	4.50	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1096133	MCKNR164C	1.00	1.00	1.250	5.00	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1096134	MCKNR164D	1.00	1.00	1.250	6.00	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1339151	MCKNR165D	1.00	1.00	1.250	6.00	1.25	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096135	MCKNR204D	1.25	1.25	1.500	6.00	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1808138	MCKNR205D	1.25	1.25	1.500	6.00	1.25	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096136	MCKNR206D	1.25	1.25	1.500	6.00	1.47	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1808139	MCKNR245D	1.50	1.50	2.000	6.00	1.25	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1808140	MCKNR246D	1.50	1.50	2.000	6.00	1.47	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
left hand															
1096137	MCKNL124B	.75	.75	1.000	4.50	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1096138	MCKNL164C	1.00	1.00	1.250	5.00	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1096139	MCKNL164D	1.00	1.00	1.250	6.00	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1808134	MCKNL165D	1.00	1.00	1.250	6.00	1.25	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096140	MCKNL204D	1.25	1.25	1.500	6.00	1.21	.12	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8	
1808135	MCKNL205D	1.25	1.25	1.500	6.00	1.25	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096141	MCKNL206D	1.25	1.25	1.500	6.00	1.47	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1863283	MCKNL245D	1.50	1.50	2.000	6.00	1.25	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1843886	MCKNL246D	1.50	1.50	2.000	6.00	1.47	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	



■ **MCLN -5°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096086	MCLNR083A	.50	.50	.750	4.00	1.00	CN..322	—	KL33	5/64	CK6	STC5	3/32
1096087	MCLNR103A	.63	.63	.875	4.00	1.00	CN..322	—	KL33	5/64	CK6	STC5	3/32
1096066	MCLNR123B	.75	.75	1.000	4.50	1.00	CN..322	ICSN332	KL34L	5/64	CK6	STC5	3/32
1808149	MCLNR124A	.75	.75	1.000	4.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096067	MCLNR124B	.75	.75	1.000	4.50	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096068	MCLNR163C	1.00	1.00	1.250	5.00	1.00	CN..322	ICSN332	KL34L	5/64	CK6	STC5	3/32
1096069	MCLNR163D	1.00	1.00	1.250	6.00	1.00	CN..322	ICSN332	KL34L	5/64	CK6	STC5	3/32
1083005	MCLNR164C	1.00	1.00	1.250	5.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096070	MCLNR164D	1.00	1.00	1.250	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096071	MCLNR165C	1.00	1.00	1.250	5.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096072	MCLNR165D	1.00	1.00	1.250	6.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1808150	MCLNR166C	1.00	1.00	1.250	5.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096073	MCLNR166D	1.00	1.00	1.250	6.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096075	MCLNR204D	1.25	1.25	1.500	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096076	MCLNR205D	1.25	1.25	1.500	6.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096077	MCLNR206D	1.25	1.25	1.500	6.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096079	MCLNR244D	1.50	1.50	2.000	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808151	MCLNR245D	1.50	1.50	2.000	6.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096080	MCLNR245E	1.50	1.50	2.000	7.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096081	MCLNR246D	1.50	1.50	2.000	6.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096082	MCLNR246E	1.50	1.50	2.000	7.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1808152	MCLNR248E	1.50	1.50	2.000	7.00	1.49	CN..866	ICSN846	KL810	5/32	CK24	STC19	3/16
1808153	MCLNR326F	2.00	2.00	2.500	8.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096083	MCLNR854D	1.25	1.00	1.250	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096084	MCLNR856D	1.25	1.00	1.250	6.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096085	MCLNR866E	1.50	1.00	1.250	7.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
left hand													
1096108	MCLNL083A	.50	.50	.750	4.00	1.00	CN..322	—	KL33	5/64	CK6	STC5	3/32
1096109	MCLNL103A	.63	.63	.875	4.00	1.00	CN..322	—	KL33	5/64	CK6	STC5	3/32
1096088	MCLNL123B	.75	.75	1.000	4.50	1.00	CN..322	ICSN332	KL34L	5/64	CK6	STC5	3/32
1808143	MCLNL124A	.75	.75	1.000	4.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096089	MCLNL124B	.75	.75	1.000	4.50	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1016432	MCLNL164C	1.00	1.00	1.250	5.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096092	MCLNL164D	1.00	1.00	1.250	6.00	1.20	CNMA432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096093	MCLNL165C	1.00	1.00	1.250	5.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096094	MCLNL165D	1.00	1.00	1.250	6.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1808144	MCLNL166C	1.00	1.00	1.250	5.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096095	MCLNL166D	1.00	1.00	1.250	6.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096097	MCLNL204D	1.25	1.25	1.500	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8

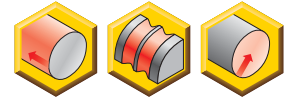
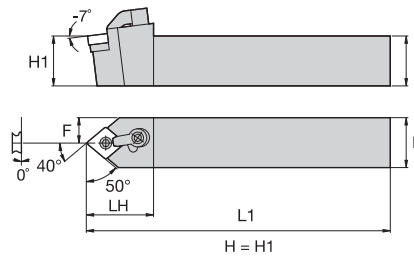
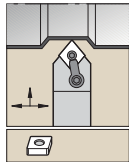
(continued)

(MCLN -5° – continued)

ISO/ANSI Turning



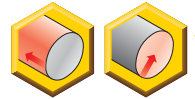
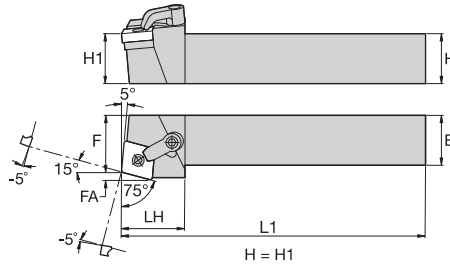
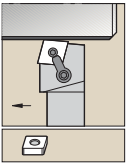
order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096101	MCLNL244D	1.50	1.50	2.000	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808145	MCLNL245D	1.50	1.50	2.000	6.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096102	MCLNL245E	1.50	1.50	2.000	7.00	1.37	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096103	MCLNL246D	1.50	1.50	2.000	6.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096104	MCLNL246E	1.50	1.50	2.000	7.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1808146	MCLNL248E	1.50	1.50	2.000	7.00	1.49	CN..866	ICSN846	KL810	5/32	CK24	STC19	3/16
1808147	MCLNL326F	2.00	2.00	2.500	8.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096105	MCLNL854D	1.25	1.00	1.250	6.00	1.20	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096107	MCLNL866E	1.50	1.00	1.250	7.00	1.49	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32



■ MCMN 40°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096142	MCMNN124B	.75	.75	.375	4.50	1.39	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096143	MCMNN164C	1.00	1.00	.500	5.00	1.39	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096144	MCMNN164D	1.00	1.00	.500	6.00	1.39	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096146	MCMNN204D	1.25	1.25	.625	6.00	1.39	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096145	MCMNN166D	1.00	1.00	.500	6.00	1.67	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096147	MCMNN206D	1.25	1.25	.625	6.00	1.67	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1808156	MCMNN246D	1.50	1.50	.750	6.00	1.67	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1808157	MCMNN246E	1.50	1.50	.750	7.00	1.67	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32



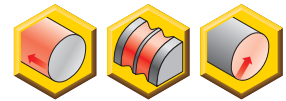
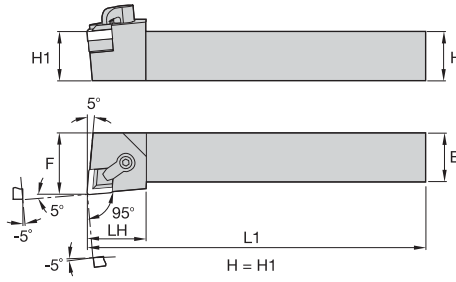
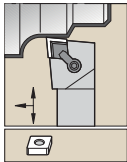
■ MCRN 15°



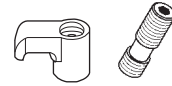
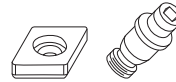
order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1096116	MCRNR124B	.75	.75	.751	4.50	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1096117	MCRNR164C	1.00	1.00	1.251	5.00	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1096118	MCRNR164D	1.00	1.00	1.251	6.00	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1096119	MCRNR165D	1.00	1.00	1.251	6.00	1.34	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096120	MCRNR166D	1.00	1.00	1.251	6.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1096121	MCRNR204D	1.25	1.25	1.500	6.00	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1808163	MCRNR205D	1.25	1.25	1.501	6.00	1.34	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096122	MCRNR206D	1.25	1.25	1.501	6.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1808165	MCRNR246D	1.50	1.50	2.001	6.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1096123	MCRNR246E	1.50	1.50	2.001	7.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
left hand															
1096124	MCRNL124B	.75	.75	.751	4.50	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1096125	MCRNL164C	1.00	1.00	1.251	5.00	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1096126	MCRNL164D	1.00	1.00	1.251	6.00	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1096127	MCRNL165D	1.00	1.00	1.251	6.00	1.34	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096128	MCRNL166D	1.00	1.00	1.251	6.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1096129	MCRNL204D	1.25	1.25	1.500	6.00	1.24	.12	CN..432	ICSN433	KL46	3/32	CK9	STC4	5/32	
1808160	MCRNL205D	1.25	1.25	1.501	6.00	1.34	.15	CN..543	ICSN533	KL58	1/8	CK9	STC4	5/32	
1096130	MCRNL206D	1.25	1.25	1.501	6.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1808162	MCRNL246D	1.50	1.50	2.001	6.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	
1096131	MCRNL246E	1.50	1.50	2.001	7.00	1.49	.18	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32	



ISO/ANSI Turning



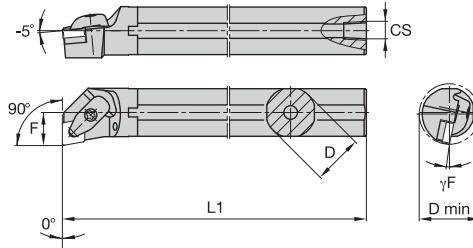
■ **MCLN-C -5°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand 1096643	MCLNRC164D	1.00	1.00	1.250	6.00	1.25	CN..432	ICSN442	KL46L	3/32	CK21	STC20	1/8



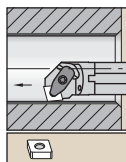
Steel shank with through coolant.



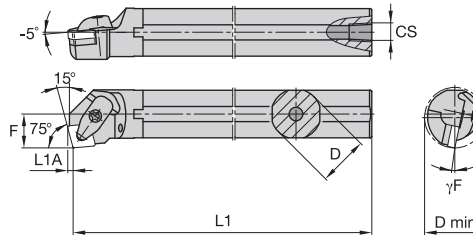
ISO/ANSI Turning

■ A-DCFN-KC 0°


order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
right hand														
2408503	A16TDCFNR4KC3	1.000	1.200	.640	12.00	1/4-18 NPT	-12.0	CN..432	—	—	—	CM234RLP ASSY	SSP025016M	15 IP
2408505	A24UDCFNR4KC3	1.500	1.760	.890	14.00	1/4-18 NPT	-10.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP

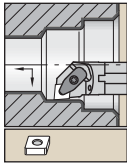


Steel shank with through coolant.

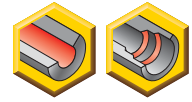
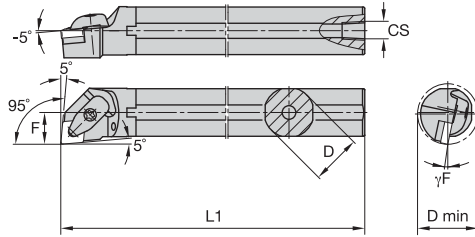

■ A-DCKN-KC 15°


order number	catalog number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
left hand															
2408487	A32VDCKNL4KC3	2.000	2.400	1.281	16.00	—	1/4-18 NPT	-8.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408488	A32VDCKNL5KC4	2.000	2.400	1.281	16.00	.15	1/4-18 NPT	-10.0	CN..543	ICSN533	KMSP515IP	15 IP	CM209R ASSY	SSP025018M	15 IP

ISO/ANSI Turning



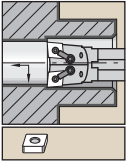
Steel shank with through coolant.



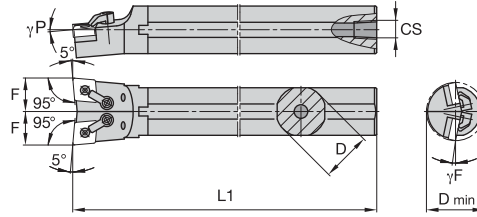
■ **A-DCLN-KC -5°**



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
right hand														
2408517	A16TDCLNR3KC2	1.000	1.200	.640	12.00	1/4-18 NPT	-10.0	CN..322	—	—	—	CM234RLP ASSY	SSP025016M	15 IP
2408518	A16TDCLNR4KC3	1.000	1.200	.640	12.00	1/4-18 NPT	-12.0	CN..432	—	—	—	CM234RLP ASSY	SSP025016M	15 IP
2408519	A20UDCLNR4KC3	1.250	1.470	.765	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP4S15IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408520	A24UDCLNR4KC3	1.500	1.760	.890	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408521	A24UDCLNR5KC4	1.500	1.760	.890	14.00	1/4-18 NPT	-14.0	CN..543	ICSN533	KMSP5S15IP	15 IP	CM209R ASSY	SSP025018M	15 IP
2408522	A28UDCLNR4KC3	1.750	2.010	1.015	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408523	A32VDCLNR4KC3	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408524	A32VDCLNR5KC4	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..543	ICSN533	KMSP515IP	15 IP	CM209R ASSY	SSP025018M	15 IP
2408526	A40VDCLNR4KC3	2.500	3.030	1.531	16.00	1/4-18 NPT	-8.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408527	A40VDCLNR6KC4	2.500	3.030	1.531	16.00	1/4-18 NPT	-10.0	CN..643	ICSN633	KMSP625IP	25 IP	CM210R ASSY	SSP025018M	25 IP
left hand														
2408507	A16DCLNL4KC3	1.000	1.200	.640	12.00	1/4-18 NPT	-12.0	CN..432	—	—	—	CM234RLP ASSY	SSP025016M	15 IP
2408508	A20UDCLNL4KC3	1.250	1.470	.765	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP4S15IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408509	A24UDCLNL4KC3	1.500	1.760	.890	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408511	A28UDCLNL4KC3	1.750	2.010	1.015	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408512	A32VDCLNL4KC3	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408514	A32VDCLNL6KC4	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..643	ICSN633	KMSP625IP	25 IP	CM210R ASSY	SSP025018M	25 IP
2408515	A40VDCLNL4KC3	2.500	3.030	1.531	16.00	1/4-18 NPT	-8.0	CN..432	ICSN433	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408516	A40VDCLNL6KC4	2.500	3.030	1.531	16.00	1/4-18 NPT	-10.0	CN..643	ICSN633	KMSP625IP	25 IP	CM210R ASSY	SSP025018M	25 IP



Steel shank with through coolant.

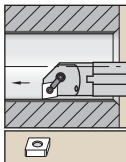


ISO/ANSI Turning

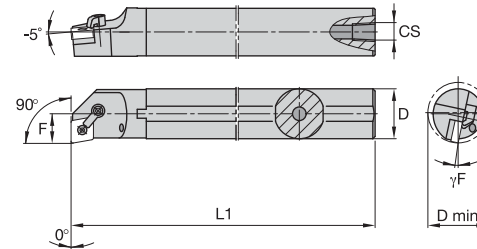
■ **A-MCLN-D -5°**



order number	catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1096369	A16MCLNR4D	1.000	1.625	.640	12.00	1/4-18 NPT	-10.0	-5.0	CN..432	—	KL44	—	CK7	STC9	3/32
1096370	A20MCLNR4D	1.250	1.875	.765	14.00	1/4-18 NPT	-10.0	-5.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096371	A24MCLNR4D	1.500	2.125	.890	14.00	1/4-18 NPT	-10.0	-5.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096372	A32MCLNR4D	2.000	2.592	1.281	16.00	1/4-18 NPT	-12.0	-5.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096373	A32MCLNR5D	2.000	2.592	1.281	16.00	1/4-18 NPT	-12.0	-5.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32



Steel shank with through coolant.



■ **A-MCFN 0°**



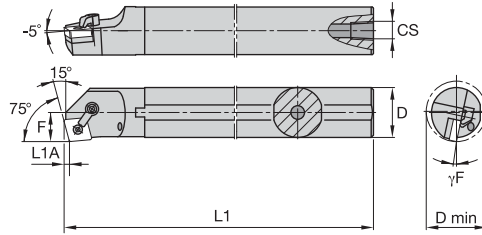
order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1808110	A16MCFNR4	1.000	1.200	.640	12.00	1/4-18 NPT	-14.0	CN..432	—	KL44	—	CK7	STC9	3/32	
1808112	A20MCFNR4	1.250	1.470	.765	14.00	1/4-18 NPT	-14.0	CN..432	ICSN433	KL46	3/32	CK21	STC20	1/8	
1808206	A24MCFNR4	1.500	1.760	.890	14.00	1/4-18 NPT	-10.0	CN..432	ICSN433	KL46	3/32	CK21	STC20	1/8	
left hand															
1808109	A16TMCFNL4	1.000	1.200	.640	12.00	1/4-18 NPT	-14.0	CN..432	—	KL44	—	CK7	STC9	3/32	
1808205	A24MCFNL4	1.500	1.760	.890	14.00	1/4-18 NPT	-10.0	CN..432	ICSN433	KL46	3/32	CK21	STC20	1/8	



ISO/ANSI Turning



Steel shank with through coolant.



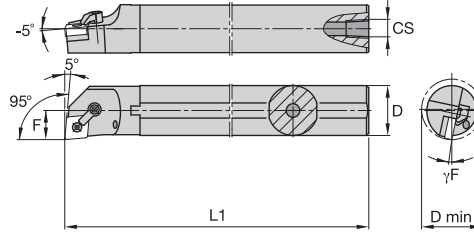
■ **A-MCKN 15°**



order number	catalog number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1096440	A20MCKNR4	1.250	1.470	.765	14.00	.12	1/4-18 NPT	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096441	A24UMCKNR4	1.500	1.770	.885	14.00	.12	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808212	A32MCKNR4	2.000	2.400	1.281	16.00	.12	1/4-18 NPT	-8.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
left hand															
1096442	A20MCKNL4	1.250	1.470	.765	14.00	.12	1/4-18 NPT	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096443	A24MCKNL4	1.500	1.760	.890	14.00	.12	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8



Steel shank with through coolant.



ISO/ANSI Turning

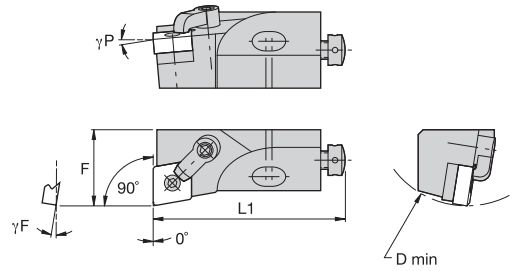
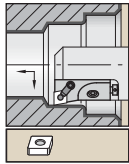
■ **A-MCLN -5°**



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand														
1096415	A16MCLNR3	1.000	1.200	.640	12.00	1/4-18 NPT	-10.0	CN..322	—	KL33	5/64	CK6	STC5	3/32
1016456	A16TMCLNR4	1.000	1.200	.640	12.00	1/4-18 NPT	-14.0	CN..432	—	KL44	3/32	CK20	STC11	1/8
1096418	A20UMCLNR4	1.250	1.470	.765	14.00	1/4-18 NPT	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096422	A24MCLNR5	1.500	2.000	.890	14.00	1/4-18 NPT	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096419	A24UMCLNR4	1.500	1.760	.890	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096420	A28UMCLNR4	1.750	2.010	1.015	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096423	A32MCLNR5	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096421	A32VMCLNR4	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096424	A32VMCLNR6	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096367	A40VMCLNR4	2.500	3.030	1.531	16.00	1/4-18 NPT	-8.0	CNMA432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808228	A40VMCLNR5	2.500	3.030	1.531	16.00	1/4-18 NPT	-8.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096426	A40VMCLNR6	2.500	3.030	1.531	16.00	1/4-18 NPT	-10.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
left hand														
1096427	A16MCLNL3	1.000	1.200	.640	12.00	1/4-18 NPT	-10.0	CN..322	—	KL33	5/64	CK6	STC5	3/32
1096430	A16TMCLNL4	1.000	1.200	.640	12.00	1/4-18 NPT	-14.0	CN..432	—	KL44	3/32	CK20	STC11	1/8
1096431	A20UMCLNL4	1.250	1.470	.765	14.00	1/4-18 NPT	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096435	A24MCLNL5	1.500	2.000	.890	14.00	1/4-18 NPT	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096432	A24UMCLNL4	1.500	1.760	.890	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096433	A28UMCLNL4	1.750	2.010	1.015	14.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096436	A32MCLNL5	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1096434	A32VMCLNL4	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1096437	A32VMCLNL6	2.000	2.400	1.281	16.00	1/4-18 NPT	-12.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
1096368	A40MCLNL4	2.500	3.030	1.531	16.00	1/4-18 NPT	-8.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808227	A40VMCLNL5	2.500	3.030	1.531	16.00	1/4-18 NPT	-8.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32



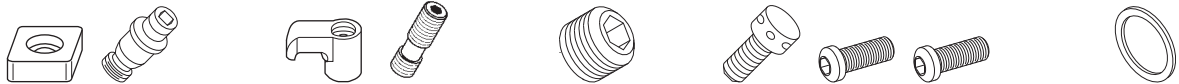
ISO/ANSI Turning



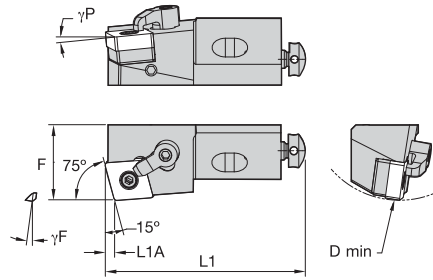
■ **MCFN 0°**

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
3331146	MCFNR10CA3	1.575	.551	1.97	-9.0	-9.0	CN..090308/CN..322
3346236	MCFNR12CA4	1.969	.787	2.17	-9.0	-5.0	CN..120408/CN..432
2074433	MCFNR16CA4	2.362	.984	2.48	-9.0	-5.0	CN..120408/CN..432
3330195	MCFNR20CA4	2.756	.984	2.76	-9.0	-5.0	CN..120408/CN..432
left hand							
3331145	MCFNL10CA3	1.575	.551	1.97	-9.0	-9.0	CN..090308/CN..322
1906272	MCFNL12CA4	1.969	.787	2.17	-9.0	-5.0	CN..120408/CN..432

■ **Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	4 mm	CSWM 060 050
2.362	ICSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm	CSWM 080 050
2.756	ICSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm	CSWM 080 050


MCKN 15°

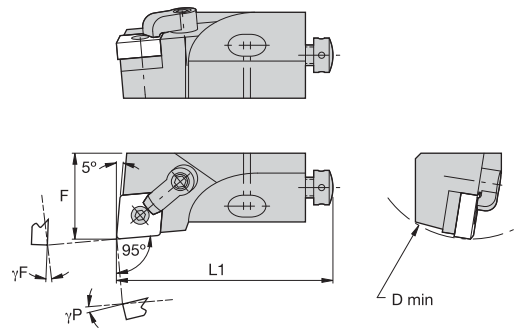
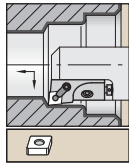
order number	catalog number	D min	F	L1	L1A	γF°	γP°	gage insert
right hand								
3346238	MCKNR12CA4	1.969	.787	2.17	.12	-9.0	-5.0	CN..120408/CN..432
3330222	MCKNR16CA4	2.362	.984	2.48	.12	-9.0	-5.0	CN..120408/CN..432
left hand								
3346237	MCKNL12CA4	1.969	.787	2.17	.12	-9.0	-5.0	CN..120408/CN..432

Spare Parts


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	ICSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



ISO/ANSI Turning



■ **MCLN -5°**

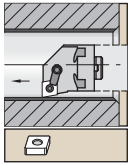
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1100493	MCLNR12CA4	1.969	.787	2.17	-9.0	-5.0	CN..120408/CN..432
1282100	MCLNR16CA4	2.362	.984	2.48	-9.0	-5.0	CN..120408/CN..432
3330197	MCLNR20CA4	2.756	.984	2.76	-9.0	-5.0	CN..120408/CN..432
3332803	MCLNR25CA4	3.937	1.260	3.94	-9.0	-5.0	CN..120408/CN..432
3332804	MCLNR25CA5	3.937	1.260	3.94	-9.0	-5.0	CN..160612/CN..543
3332805	MCLNR25CA6	3.937	1.260	3.94	-9.0	-5.0	CN..190612/CN..643
left hand							
2077947	MCLNL12CA4	1.969	.787	2.17	-9.0	-5.0	CN..120408/CN..432
3330273	MCLNL16CA4	2.362	.984	2.48	-9.0	-5.0	CN..120408/CN..432
3330196	MCLNL20CA4	2.756	.984	2.76	-9.0	-5.0	CN..120408/CN..432
3332362	MCLNL25CA6	3.937	1.260	3.94	-9.0	-5.0	CN..190612/CN..643

NOTE: Select spare parts based off of D min and insert size selected.

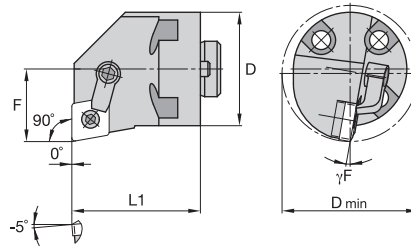
■ **Spare Parts**



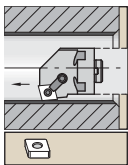
D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	—	4 mm	CSWM 060 050
2.362	ICSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	—	5 mm	CSWM 080 050
2.756	ICSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	—	5 mm	CSWM 080 050
3.937	ICSN432	KLM46	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	—	MS364	8 mm	CSWM 100 080
3.937	ICSN533	KLM58	3 mm	CKM41	STCM20	3 mm	KUAM26	3 mm	KUAM32	—	MS364	8 mm	CSWM 100 080
3.937	ICSN633	KLM68	4 mm	CKM35	STCM8	4 mm	KUAM27	4 mm	KUAM32	—	MS364	8 mm	CSWM 100 080



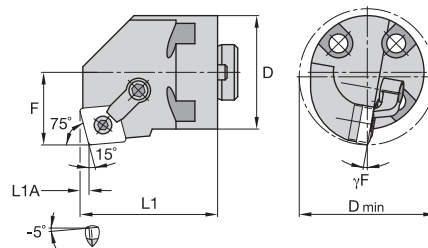
With through coolant.


H-MCFN 0°


order number	catalog number	D	D min	F	L1	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1808097	H20MCFNR4	1.250	1.470	.765	1.63	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808100	H24MCFNR4	1.500	1.760	.890	1.63	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1808102	H32MCFNR5	2.000	2.400	1.281	1.63	-10.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1808531	H40MCFNR6	2.500	3.030	1.531	1.63	-10.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32

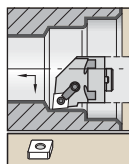


With through coolant.

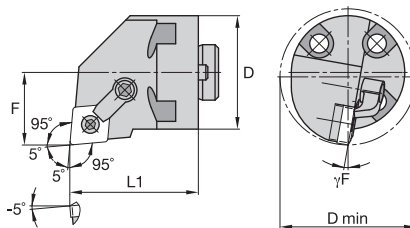

H-MCKN 15°


order number	catalog number	D	D min	F	L1	L1A	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand														
1095369	H24MCKNR4	1.500	1.760	.890	1.63	.12	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095464	H32MCKNR4	2.000	2.400	1.281	1.63	.12	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095540	H40MCKNR5	2.500	3.030	1.531	1.63	.15	-10.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095291	H40MCKNR6	2.500	3.030	1.531	1.63	.18	-10.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
left hand														
1095541	H40MCKNL5	2.500	3.030	1.531	1.63	.15	-10.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32

ISO/ANSI Turning



With through coolant.

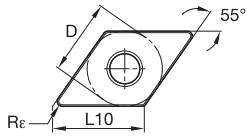
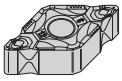


H-MCLN -5°



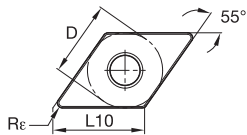
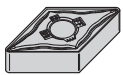
order number	catalog number	D	D min	F	L1	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1095308	H16MCLNR4	1.000	1.200	.640	1.63	-14.0	CN..432	—	KL44	3/32	CK7	STC9	3/32
1095325	H20MCLNR4	1.250	1.470	.765	1.63	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095377	H24MCLNR4	1.500	1.760	.890	1.63	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095379	H24MCLNR5	1.500	1.760	.890	1.63	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095429	H28MCLNR4	1.750	2.010	1.015	1.63	-10.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095469	H32MCLNR4	2.000	2.400	1.281	1.63	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095474	H32MCLNR5	2.000	2.400	1.281	1.63	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095476	H32MCLNR6	2.000	2.400	1.281	1.63	-12.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
2384973	H40MCLNR4	2.500	3.030	1.531	1.63	-8.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095548	H40MCLNR5	2.500	3.030	1.531	1.63	-8.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095550	H40MCLNR6	2.500	3.030	1.531	1.63	-10.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
left hand													
1095309	H16MCLNL4	1.000	1.200	.640	1.63	-14.0	CN..432	—	KL44	3/32	CK7	STC9	3/32
1095326	H20MCLNL4	1.250	1.470	.765	1.63	-14.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095378	H24MCLNL4	1.500	1.760	.890	1.63	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095380	H24MCLNL5	1.500	1.760	.890	1.63	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095430	H28MCLNL4	1.750	2.010	1.015	1.63	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095472	H32MCLNL4	2.000	2.400	1.281	1.63	-12.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095475	H32MCLNL5	2.000	2.400	1.281	1.63	-12.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095477	H32MCLNL6	2.000	2.400	1.281	1.63	-12.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32
2384961	H40MCLNL4	2.500	3.030	1.531	1.63	-8.0	CN..432	ICSN433	KL46	3/32	CK20	STC20	1/8
1095549	H40MCLNL5	2.500	3.030	1.531	1.63	-8.0	CN..543	ICSN533	KL58	1/8	CK12	STC4	5/32
1095551	H40MCLNL6	2.500	3.030	1.531	1.63	-10.0	CN..643	ICSN633	KL68	9/64	CK12	STC4	5/32

- first choice
- alternate choice



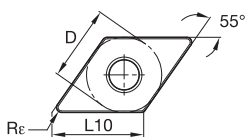
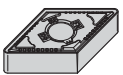
■ DNMG-CT

ISO catalog number	ANSI catalog number	D		L10		Rε	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315				
		mm	in	mm	in																																	mm	in		
DNMG110412CT	DNMG333CT	9,53	3/8	11,62	.458	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
DNMG110408CT	DNMG332CT	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
DNMG150604CT	DNMG441CT	12,70	1/2	15,50	.610	0,3	.013	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150404CT	DNMG431CT	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150408CT	DNMG432CT	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150608CT	DNMG442CT	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150412CT	DNMG433CT	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150612CT	DNMG443CT	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



■ DNMG-FF

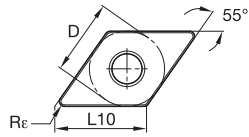
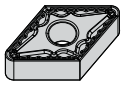
ISO catalog number	ANSI catalog number	D		L10		Rε	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315					
		mm	in	mm	in																																	mm	in			
DNMG110404FF	DNMG331FF	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
DNMG110408FF	DNMG332FF	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150404FF	DNMG431FF	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150604FF	DNMG441FF	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150408FF	DNMG432FF	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150608FF	DNMG442FF	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



■ DNMG-FN

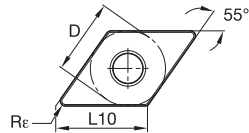
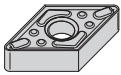
ISO catalog number	ANSI catalog number	D		L10		Rε	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315						
		mm	in	mm	in																																	mm	in				
DNMG110404FN	DNMG331FN	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
DNMG110408FN	DNMG332FN	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
DNMG110412FN	DNMG333FN	9,53	3/8	11,63	.458	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
DNMG150404FN	DNMG431FN	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150604FN	DNMG441FN	12,70	1/2	15,50	.610	0,4	1/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150408FN	DNMG432FN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150608FN	DNMG442FN	12,70	1/2	15,50	.610	0,8	1/32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150412FN	DNMG433FN	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DNMG150612FN	DNMG443FN	12,70	1/2	15,50	.610	1,2	3/64	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

- first choice
- alternate choice



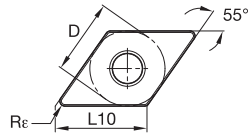
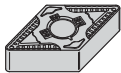
■ DNMG-MG

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
DNMG150612MG	DNMG443MG	12,70	1/2	15,50	.610	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150616MG	DNMG444MG	12,70	1/2	15,50	.610	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ DNMG-P

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
DNMG150404P	DNMG431P	12,70	1/2	15,50	.610	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150408P	DNMG432P	12,70	1/2	15,50	.610	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150608P	DNMG442P	12,70	1/2	15,50	.610	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

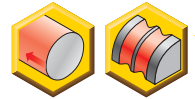
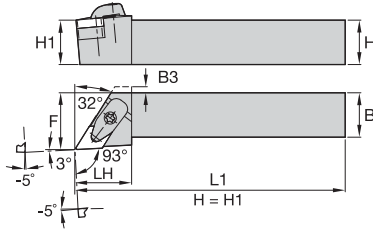
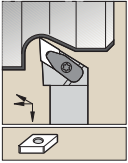


■ DNMG-RN

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
DNMG150408RN	DNMG432RN	12,70	1/2	15,50	.610	0,8	1/32	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150608RN	DNMG442RN	12,70	1/2	15,50	.610	0,8	1/32	-	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150412RN	DNMG433RN	12,70	1/2	15,50	.610	1,2	3/64	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150612RN	DNMG443RN	12,70	1/2	15,50	.610	1,2	3/64	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150416RN	DNMG434RN	12,70	1/2	15,50	.610	1,6	1/16	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG150616RN	DNMG444RN	12,70	1/2	15,50	.610	1,6	1/16	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG190608RN	DNMG542RN	15,88	5/8	19,38	.763	0,8	1/32	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DNMG190612RN	DNMG543RN	15,88	5/8	19,38	.763	1,2	3/64	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



ISO/ANSI Turning



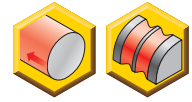
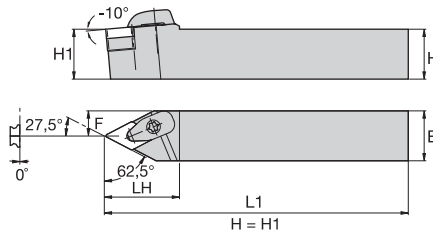
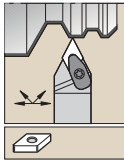
ISO/ANSI Turning

■ DDJN-KC -3°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	
right hand															
2273014	DDJNR123BKC3	.75	.75	1.000	4.50	1.25	.06	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
2273065	DDJNR163CKC3	1.00	1.00	1.250	5.00	1.25	—	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
2273016	DDJNR163DKC3	1.00	1.00	1.250	6.00	1.25	—	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
2273018	DDJNR203DKC3	1.25	1.25	1.500	6.00	1.25	—	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875140	DDJNR164CKC3	1.00	1.00	1.250	5.00	1.25	—	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875136	DDJNR164DKC3	1.00	1.00	1.250	6.00	1.25	—	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875148	DDJNR204DKC3	1.25	1.25	1.500	6.00	1.25	—	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875170	DDJNR165DKC4	1.00	1.00	1.250	6.00	1.38	.15	DN..543	IDSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	
1875178	DDJNR245DKC4	1.50	1.50	2.000	6.00	1.38	—	DN..543	IDSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	
left hand															
2273015	DDJNL123BKC3	.75	.75	1.000	4.50	1.25	.06	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
2273066	DDJNL163CKC3	1.00	1.00	1.250	5.00	1.25	—	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
2273017	DDJNL163DKC3	1.00	1.00	1.250	6.00	1.25	—	DN..332	IDSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875149	DDJNL164CKC3	1.00	1.00	1.250	5.00	1.25	—	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875139	DDJNL164DKC3	1.00	1.00	1.250	6.00	1.25	—	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875151	DDJNL204DKC3	1.25	1.25	1.500	6.00	1.25	—	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M	
1875167	DDJNL165DKC4	1.00	1.00	1.250	6.00	1.38	.15	DN..543	IDSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	
1875177	DDJNL205DKC4	1.25	1.25	1.500	6.00	1.38	—	DN..543	IDSN543	KMSP515IP	15 IP	CM209R ASSY	15 IP	SSP025016M	

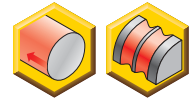
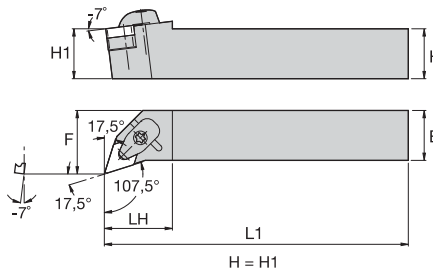
ISO/ANSI Turning



■ **DDPN-KC 27.5°**



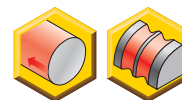
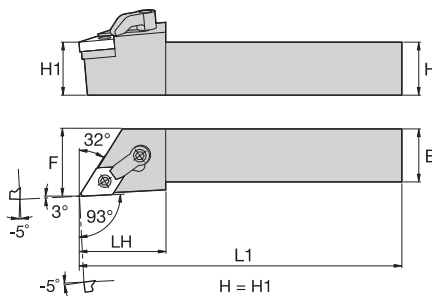
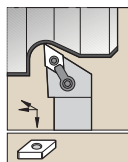
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
1875186	DDPNN164DKC3	1.00	1.00	.497	6.00	1.62	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M



■ **DDQN-KC -17.5°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand													
1893421	DDQNR164CKC3	1.00	1.00	1.250	5.00	1.38	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273020	DDQNR164DKC3	1.00	1.00	1.250	6.00	1.38	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273022	DDQNR204DKC3	1.25	1.25	1.500	6.00	1.38	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
left hand													
1893422	DDQNL164CKC3	1.00	1.00	1.250	5.00	1.38	DNMA432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273021	DDQNL164DKC3	1.00	1.00	1.250	6.00	1.38	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273023	DDQNL204DKC3	1.25	1.25	1.500	6.00	1.38	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M



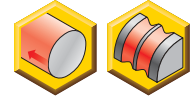
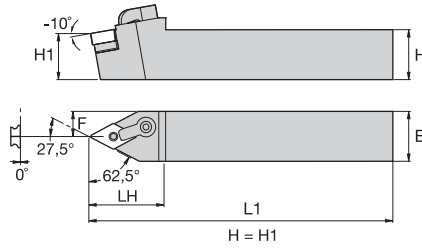
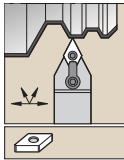
ISO/ANSI Turning

MDJN -3°

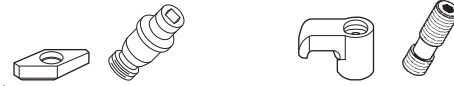

order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096240	MDJNR123B	.75	.75	1.000	4.50	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096242	MDJNR163C	1.00	1.00	1.250	5.00	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096243	MDJNR163D	1.00	1.00	1.250	6.00	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096247	MDJNR203D	1.25	1.25	1.500	6.00	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1808169	MDJNR124A	.75	.75	1.000	4.00	1.38	DN..432	IDSN443	KL46L	3/32	CK23	STC20	1/8
1096241	MDJNR124B	.75	.75	1.000	4.50	1.38	DN..432	IDSN443	KL46L	3/32	CK23	STC20	1/8
1096244	MDJNR164C	1.00	1.00	1.250	5.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096245	MDJNR164D	1.00	1.00	1.250	6.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096251	MDJNR854D	1.25	1.00	1.250	6.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1016454	MDJNR204D	1.25	1.25	1.500	6.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096246	MDJNR165D	1.00	1.00	1.250	6.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
1096248	MDJNR205D	1.25	1.25	1.500	6.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
1096250	MDJNR245D	1.50	1.50	2.000	6.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
1808170	MDJNR245E	1.50	1.50	2.000	7.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
left hand													
1096252	MDJNL123B	.75	.75	1.000	4.50	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096254	MDJNL163C	1.00	1.00	1.250	5.00	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096255	MDJNL163D	1.00	1.00	1.250	6.00	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096259	MDJNL203D	1.25	1.25	1.500	6.00	1.25	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1808167	MDJNL124A	.75	.75	1.000	4.00	1.38	DN..432	IDSN443	KL46L	3/32	CK23	STC20	1/8
1096253	MDJNL124B	.75	.75	1.000	4.50	1.38	DN..432	IDSN443	KL46L	3/32	CK23	STC20	1/8
1096256	MDJNL164C	1.00	1.00	1.250	5.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096257	MDJNL164D	1.00	1.00	1.250	6.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096260	MDJNL204D	1.25	1.25	1.500	6.00	1.24	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096261	MDJNL205D	1.25	1.25	1.500	6.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
1096263	MDJNL245D	1.50	1.50	2.000	6.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
1808168	MDJNL245E	1.50	1.50	2.000	7.00	1.47	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32



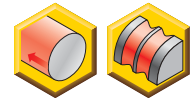
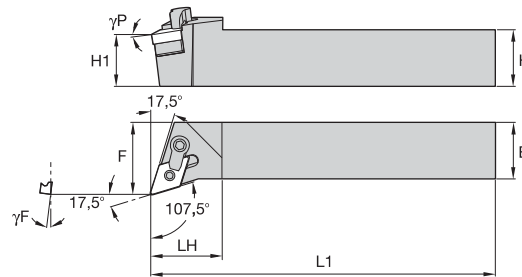
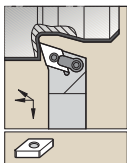
ISO/ANSI Turning



■ **MDPN 27.5°**



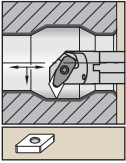
order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096277	MDPNN123B	.75	.75	.375	4.50	1.50	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096279	MDPNN163D	1.00	1.00	.500	6.00	1.50	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1096280	MDPNN164D	1.00	1.00	.500	6.00	1.63	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1096282	MDPNN205D	1.25	1.25	.625	6.00	1.92	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32
1096284	MDPNN245D	1.50	1.50	.750	6.00	1.92	DN..543	IDSN533	KL58	1/8	CK12	STC4	5/32



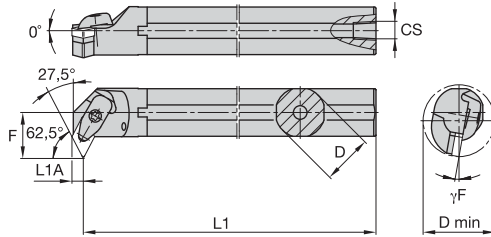
■ **MDQN -17.5°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096265	MDQNR124B	.75	.75	1.000	4.50	1.37	DN..432	IDSN443	KL46L	3/32	CK23	STC20	1/8
1096266	MDQNR164C	1.00	1.00	1.250	5.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096267	MDQNR164D	1.00	1.00	1.250	6.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096268	MDQNR204D	1.25	1.25	1.500	6.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096269	MDQNR244D	1.50	1.50	2.000	6.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096270	MDQNR244E	1.50	1.50	2.000	7.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
left hand													
1096271	MDQNL124B	.75	.75	1.000	4.50	1.37	DN..432	IDSN443	KL46L	3/32	CK23	STC20	1/8
1096272	MDQNL164C	1.00	1.00	1.250	5.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096273	MDQNL164D	1.00	1.00	1.250	6.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096274	MDQNL204D	1.25	1.25	1.500	6.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096275	MDQNL244D	1.50	1.50	2.000	6.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8
1096276	MDQNL244E	1.50	1.50	2.000	7.00	1.37	DN..432	IDSN443	KL46L	3/32	CK20	STC20	1/8



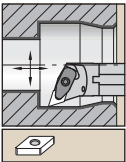
Steel shank with through coolant.



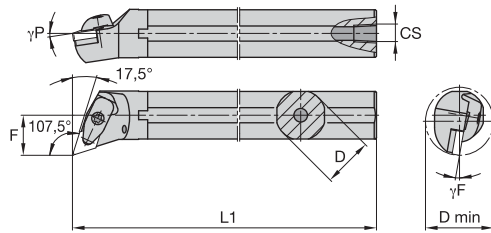
ISO/ANSI Turning

A-DDPN-KC 27.5°


order number	catalog number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
right hand															
2408545	A20UDDPNR4KC3	1.250	1.705	1.000	14.00	.26	1/4-18 NPT -13.0	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP	15 IP
2408546	A24UDDPNR4KC3	1.500	2.000	1.125	14.00	.26	1/4-18 NPT -10.0	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP	15 IP
left hand															
2408544	A24UDDPNL4KC3	1.500	2.000	1.125	14.00	.26	1/4-18 NPT -10.0	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP	15 IP

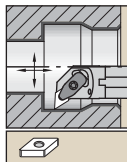


Steel shank with through coolant.

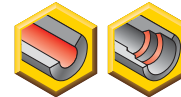
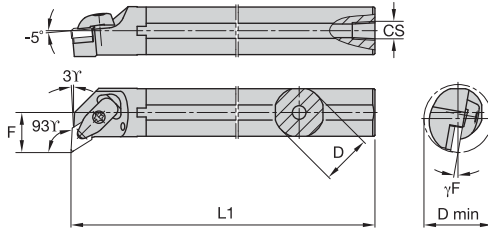

A-DDQN-KC -17.5°


order number	catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
right hand															
2408549	A20UDDQNR4KC3	1.250	1.705	1.000	14.00	1/4-18 NPT	-10.0	-12.0	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408550	A24UDDQNR4KC3	1.500	2.000	1.125	14.00	1/4-18 NPT	-8.5	-8.5	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
left hand															
2408547	A20UDDQNL4KC3	1.250	1.705	1.000	14.00	1/4-18 NPT	-10.0	-12.0	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408548	A24UDDQNL4KC3	1.500	2.000	1.125	14.00	1/4-18 NPT	-8.5	-8.5	DN.432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP

ISO/ANSI Turning



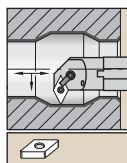
Steel shank with through coolant.



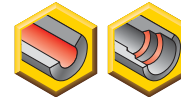
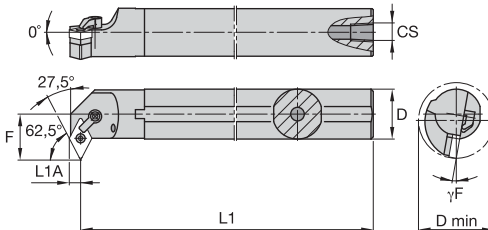
■ **A-DDUN-KC -3°**



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
right hand														
2408389	A16TDDUNR3KC3	1.000	1.300	.750	12.00	1/4-18 NPT	-12.0	DN..332	—	—	—	CM234RLP ASSY	SSP025016M	9 IP
2408390	A20UDDUNR3KC3	1.250	1.705	1.000	14.00	1/4-18 NPT	-10.0	DN..332	IDSN322	KMSP315IP	9 IP	CM234R ASSY	SSP025016M	9 IP
2408391	A20UDDUNR4KC3	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408392	A24UDDUNR4KC3	1.500	2.000	1.125	14.00	1/4-18 NPT	-10.0	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2408464	A32VDDUNR4KC3	2.000	2.500	1.375	16.00	1/4-18 NPT	-8.0	DN..432	IDSN443	KMSP415IP	15 IP	CM234R ASSY	SSP025016M	15 IP
left hand														
2408528	A16TDDUNL3KC3	1.000	1.300	.750	12.00	1/4-18 NPT	-12.0	DN..332	—	—	—	CM234RLP ASSY	SSP025016M	15 IP



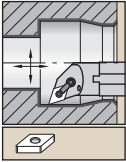
Steel shank with through coolant.



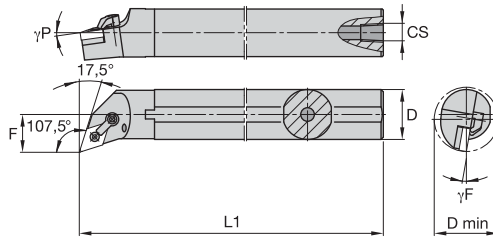
■ **A-MDPN 27.5°**



order number	catalog number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1808204	A20MDPNR4	1.250	1.705	1.000	14.00	.26	1/4-18 NPT	-13.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8
1808208	A24MDPNR4	1.500	2.000	1.125	14.00	.26	1/4-18 NPT	-10.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8
left hand															
1808203	A20MDPNL4	1.250	1.705	1.000	14.00	.26	1/4-18 NPT	-13.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8
1808207	A24MDPNL4	1.500	2.000	1.125	14.00	.26	1/4-18 NPT	-10.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8



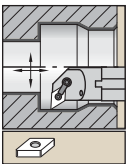
Steel shank with through coolant.



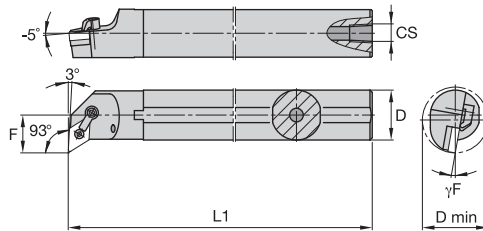
ISO/ANSI Turning

A-MDQN -17.5°


order number	catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1096470	A20MDQNR4	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1096471	A24MDQNR4	1.500	2.000	1.125	14.00	1/4-18 NPT	-8.5	-8.5	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
left hand															
1096472	A20MDQNL4	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1096473	A24MDQNL4	1.500	2.000	1.125	14.00	1/4-18 NPT	-8.5	-8.5	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32



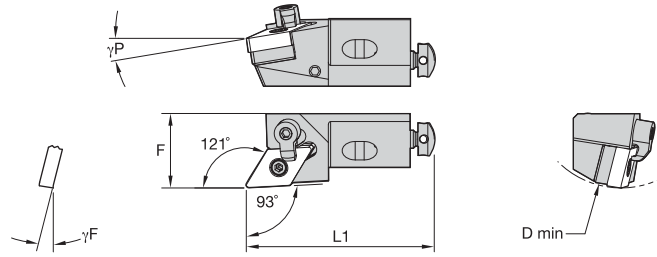
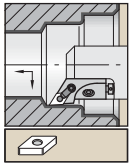
Steel shank with through coolant.


A-MDUN -3°


order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1096444	A16MDUNR3	1.000	1.300	.750	12.00	1/4-18 NPT	-12.0	DN..332	—	KL33L	5/64	CK7	STC5	3/32	
1096447	A20UMDUNR4	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
1096448	A24UMDUNR4	1.500	2.000	1.125	14.00	1/4-18 NPT	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
1096449	A28MDUNR4	1.750	2.250	1.250	14.00	1/4-18 NPT	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
1096450	A32VMDUNR4	2.000	2.500	1.375	16.00	1/4-18 NPT	-8.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
left hand															
1096455	A16MDUNL3	1.000	1.300	.750	12.00	1/4-18 NPT	-12.0	DN..332	—	KL33L	5/64	CK7	STC5	3/32	
1096458	A20UMDUNL4	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
1096459	A24UMDUNL4	1.500	2.000	1.125	14.00	1/4-18 NPT	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
1096460	A28MDUNL4	1.750	2.250	1.250	14.00	1/4-18 NPT	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	
1096461	A32VMDUNL4	2.000	2.500	1.375	16.00	1/4-18 NPT	-8.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32	



ISO/ANSI Turning



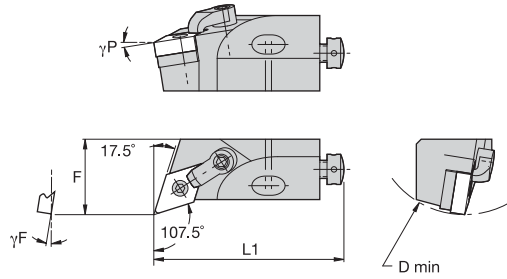
■ MDJN-3°

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
3346241	MDJNR12CA3	1.969	.787	2.17	-9.0	-9.0	DN..110408/DN..322
3330275	MDJNR16CA4	2.362	.984	2.48	-9.0	-9.0	DN..150408/DN..432
3330199	MDJNR20CA4	2.756	.984	2.76	-8.5	-8.5	DN..150408/DN..3.532
left hand							
3346240	MDJNL12CA3	1.969	.787	2.17	-9.0	-9.0	DN..110408/DN..322
3330274	MDJNL16CA4	2.362	.984	2.48	-9.0	-9.0	DN..150408/DN..432

■ Spare Parts



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	IDSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
2.756	IDSN432	KLM46	2.5 mm	CKM41	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050

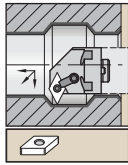

MDQN -17.5°

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
3330277	MDQNR16CA4	2.362	.984	2.48	-9.0	-6.0	DN..150408/DN..432
3330201	MDQNR20CA4	2.756	.984	2.76	-9.0	-8.0	DN..150408/DN..432
left hand							
3330276	MDQNL16CA4	2.362	.984	2.48	-9.0	-6.0	DN..150408/DN..432
3330200	MDQNL20CA4	2.756	.984	2.76	-9.0	-8.0	DN..150408/DN..432

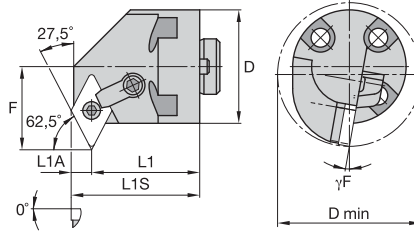
Spare Parts


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
2.362	IDSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
2.756	IDSN432	KLM46	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050

ISO/ANSI Turning

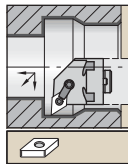


With through coolant.

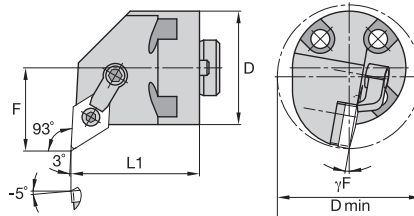


■ H-MDPN 27.5°

order number	catalog number	D	D min	F	L1	L1A	L1S	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1095383	H24MDPNR4	1.500	2.000	1.125	1.37	.26	1.625	-10.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8



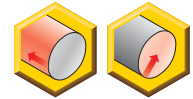
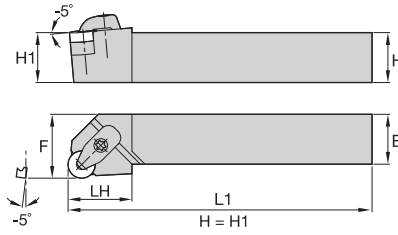
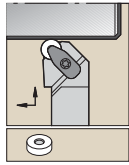
With through coolant.



■ H-MDUN -3°

order number	catalog number	D	D min	F	L1	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096484	H16MDUNR3	1.000	1.300	.750	1.63	-11.0	DN..332	—	KL33L	5/64	CK7	STC5	3/32
1095334	H20MDUNR4	1.250	1.705	1.000	1.63	-10.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8
1095385	H24MDUNR3	1.500	2.000	1.125	1.63	-10.0	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1095388	H24MDUNR4	1.500	2.000	1.125	1.63	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1095436	H28MDUNR4	1.750	2.250	1.250	1.63	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1095479	H32MDUNR3	2.000	2.500	1.325	1.63	-8.0	DN..332	IDSN322	KL34L	5/64	CK7	STC5	3/32
1095480	H32MDUNR4	2.000	2.500	1.375	1.63	-8.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1095553	H40MDUNR4	2.500	3.250	1.750	1.63	-8.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
left hand													
1096481	H16MDUNL3	1.000	1.300	.750	1.63	-11.0	DN..332	—	KL33L	5/64	CK7	STC5	3/32
1095335	H20MDUNL4	1.250	1.705	1.000	1.63	-10.0	DN..432	IDSN443	KL46L	3/32	CK22	STC20	1/8
1095389	H24MDUNL4	1.500	2.000	1.125	1.63	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1095437	H28MDUNL4	1.750	2.250	1.250	1.63	-10.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1095483	H32MDUNL4	2.000	2.500	1.375	1.63	-8.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32
1095556	H40MDUNL4	2.500	3.250	1.750	1.63	-8.0	DN..432	IDSN443	KL46L	3/32	CK12	STC4	5/32

ISO/ANSI Turning

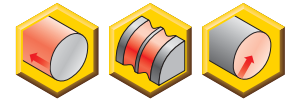
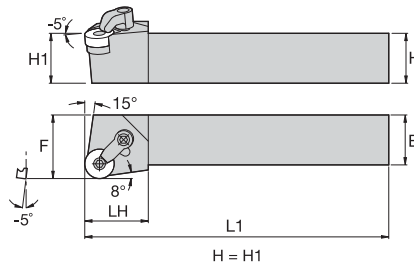
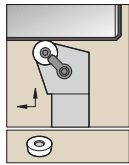


DRGN-KC



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin
right hand												
2397697	DRGNR164DKC3	1.00	1.00	1.250	6.00	1.25	RN..43	IRSN44	KMSP415IP	15 IP	CM234R ASSY	SSP025016M
2397707	DRGNR206DKC4	1.25	1.25	1.500	6.00	1.38	RN..64	IRSN64	KMSP625IP	25 IP	CM210R ASSY	SSP025016M
left hand												
2397698	DRGNL164DKC3	1.00	1.00	1.250	6.00	1.25	RN..43	IRSN44	KMSP415IP	15 IP	CM234R ASSY	SSP025016M
2397700	DRGNL204DKC3	1.25	1.25	1.500	6.00	1.25	RN..43	IRSN44	KMSP415IP	15 IP	CM234R ASSY	SSP025016M

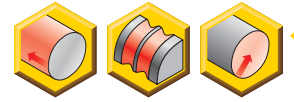
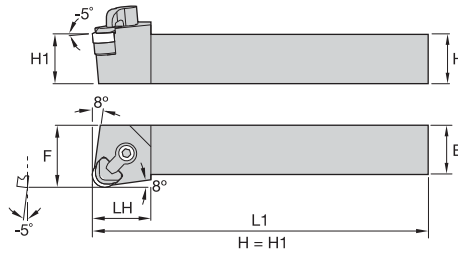
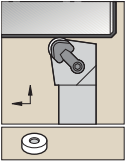
Kenloc™ Toolholders



MRGN



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096304	MRGNR123B	.75	.75	1.000	4.50	.88	RN..32	IRSN33	KL34L	5/64	CK6	STC5	3/32
1096305	MRGNR124B	.75	.75	1.000	4.50	1.00	RN..43	IRSN43	KL46	3/32	CK21	STC20	1/8
1095975	MRGNR163D	1.00	1.00	1.250	6.00	.88	RN..32	IRSN33	KL34L	5/64	CK6	STC5	3/32
1096306	MRGNR164C	1.00	1.00	1.250	5.00	1.00	RN..43	IRSN43	KL46	3/32	CK9	STC4	5/32
1096307	MRGNR164D	1.00	1.00	1.250	6.00	1.00	RN..43	IRSN43	KL46	3/32	CK9	STC4	5/32
1095981	MRGNR166D	1.00	1.00	1.250	6.00	1.31	RN..64	IRSN63	KL68	9/64	CK12	STC4	5/32
1096308	MRGNR204D	1.25	1.25	1.500	6.00	1.00	RN..43	IRSN43	KL46	3/32	CK9	STC4	5/32
1096309	MRGNR206D	1.25	1.25	1.500	6.00	1.31	RN..64	IRSN63	KL68	9/64	CK12	STC4	5/32
1808177	MRGNR246D	1.50	1.50	2.000	6.00	1.31	RN..64	IRSN63	KL68	9/64	CK12	STC4	5/32
1808179	MRGNR248E	1.50	1.50	2.000	7.00	1.56	RN..86	IRSN84	KL810	5/32	CK24	STC19	3/16
left hand													
1096314	MRGNL164D	1.00	1.00	1.250	6.00	1.00	RN..43	IRSN43	KL46	3/32	CK9	STC4	5/32
1095982	MRGNL166D	1.00	1.00	1.250	6.00	1.31	RN..64	IRSN63	KL68	9/64	CK12	STC4	5/32
1096315	MRGNL204D	1.25	1.25	1.500	6.00	1.00	RN..43	IRSN43	KL46	3/32	CK9	STC4	5/32
1096316	MRGNL206D	1.25	1.25	1.500	6.00	1.31	RN..64	IRSN63	KL68	9/64	CK12	STC4	5/32
1808175	MRGNL246D	1.50	1.50	2.000	6.00	1.31	RN..64	IRSN63	KL68	9/64	CK12	STC4	5/32
1808176	MRGNL248E	1.50	1.50	2.000	7.00	1.56	RN..86	IRSN84	KL810	5/32	CK24	STC19	3/16

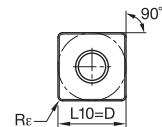
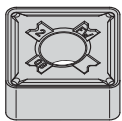


ISO/ANSI Turning

MRGN-C


order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096647	MRGNRC164D	1.00	1.00	1.250	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096648	MRGNRC204D	1.25	1.25	1.500	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096646	MRGNRC244D	1.50	1.50	2.000	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
left hand													
1096673	MRGNLC164D	1.00	1.00	1.250	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096674	MRGNLC204D	1.25	1.25	1.500	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096672	MRGNLC244D	1.50	1.50	2.000	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8

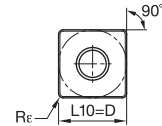
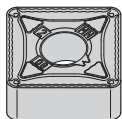
ISO/ANSI Turning



● first choice
○ alternate choice

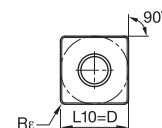
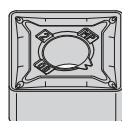
■ SNMG-FW

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
SNMG120408FW	SNMG432FW	12,70	1/2	12,70	.500	0,8	1/32	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120412FW	SNMG433FW	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●



■ SNMG-MN

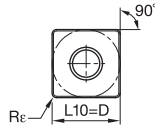
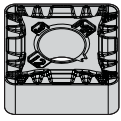
ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
SNMG090308MN	SNMG322MN	9,53	3/8	9,53	.375	0,8	1/32	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG090312MN	SNMG323MN	9,53	3/8	9,53	.375	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120404MN	SNMG431MN	12,70	1/2	12,70	.500	0,4	1/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG120408MN	SNMG432MN	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG120412MN	SNMG433MN	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG120416MN	SNMG434MN	12,70	1/2	12,70	.500	1,6	1/16	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG150612MN	SNMG543MN	15,88	5/8	15,88	.625	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG150616MN	SNMG544MN	15,88	5/8	15,88	.625	1,6	1/16	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG190612MN	SNMG643MN	19,05	3/4	19,05	.750	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG190616MN	SNMG644MN	19,05	3/4	19,05	.750	1,6	1/16	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



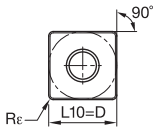
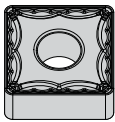
■ SNMG-MP

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
SNMG120408MP	SNMG432MP	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120412MP	SNMG433MP	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120416MP	SNMG434MP	12,70	1/2	12,70	.500	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150608MP	SNMG542MP	15,88	5/8	15,88	.625	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150612MP	SNMG543MP	15,88	5/8	15,88	.625	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG150616MP	SNMG544MP	15,88	5/8	15,88	.625	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG190612MP	SNMG643MP	19,05	3/4	19,05	.750	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG190616MP	SNMG644MP	19,05	3/4	19,05	.750	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

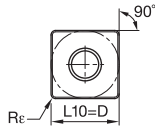
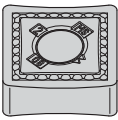
- first choice
- alternate choice


■ SNMG-MR

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
SNMG120408MR	SNMG432MR	12,70	1/2	12,70	.500	0,8	1/32
SNMG120412MR	SNMG433MR	12,70	1/2	12,70	.500	1,2	3/64
SNMG150612MR	SNMG543MR	15,88	5/8	15,88	.625	1,2	3/64


■ SNMG-MG

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
SNMG120416MG	SNMG434MG	12,70	1/2	12,70	.500	1,6	1/16


■ SNMG-MS

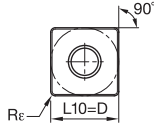
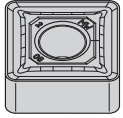
ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
SNMG120408MS	SNMG432MS	12,70	1/2	12,70	.500	0,8	1/32
SNMG120412MS	SNMG433MS	12,70	1/2	12,70	.500	1,2	3/64
SNMG150608MS	SNMG542MS	15,88	5/8	15,88	.625	0,8	1/32
SNMG150612MS	SNMG543MS	15,88	5/8	15,88	.625	1,2	3/64
SNMG190612MS	SNMG643MS	19,05	3/4	19,05	.750	1,2	3/64

	P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
SNMG120408MR	●	●	○	○	○	○	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120412MR	○	○	○	○	○	○	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150612MR	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-
SNMG120416MG	○	○	○	○	○	○	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120408MS	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120412MS	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150608MS	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150612MS	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190612MS	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



ISO/ANSI Turning

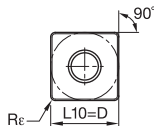
ISO/ANSI Turning



● first choice
○ alternate choice

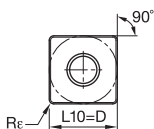
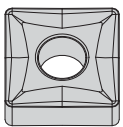
SNMG-MW

ISO catalog number	ANSI catalog number	D		L10		Rε																																
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315
SNMG120408MW	SNMG432MW	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120412MW	SNMG433MW	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



SNMG-P

ISO catalog number	ANSI catalog number	D		L10		Rε																																
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315
SNMG120412P	SNMG433P	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

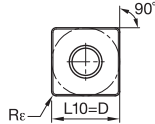
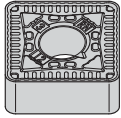


SNMG-RM

ISO catalog number	ANSI catalog number	D		L10		Rε																																
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315
SNMG250924RM	SNMG866RM	25,40	1	25,40	1.000	2,4	3/32	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

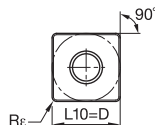
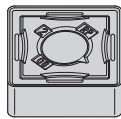
P	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M																																						
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N																																						
S																																						
H																																						

● first choice
○ alternate choice



SNMG-RN

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
		mm	in	mm	in	mm	in																																
SNMG090412RN	SNMG333RN	9,53	3/8	9,53	.375	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG120408RN	SNMG432RN	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120412RN	SNMG433RN	12,70	1/2	12,70	.500	1,2	3/64	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120416RN	SNMG434RN	12,70	1/2	12,70	.500	1,6	1/16	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150608RN	SNMG542RN	15,88	5/8	15,88	.625	0,8	1/32	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150612RN	SNMG543RN	15,88	5/8	15,88	.625	1,2	3/64	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150616RN	SNMG544RN	15,88	5/8	15,88	.625	1,6	1/16	-	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190608RN	SNMG642RN	19,05	3/4	19,05	.750	0,8	1/32	-	-	-	-	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190612RN	SNMG643RN	19,05	3/4	19,05	.750	1,2	3/64	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190616RN	SNMG644RN	19,05	3/4	19,05	.750	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190624RN	SNMG646RN	19,05	3/4	19,05	.750	2,4	3/32	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG250924RN	SNMG866RN	25,40	1	25,40	1.000	2,4	3/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



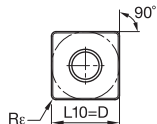
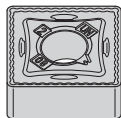
SNMG-RP

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
		mm	in	mm	in	mm	in																																	
SNMG120408RP	SNMG432RP	12,70	1/2	12,70	.500	0,8	1/32	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMG120412RP	SNMG433RP	12,70	1/2	12,70	.500	1,2	3/64	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG120416RP	SNMG434RP	12,70	1/2	12,70	.500	1,6	1/16	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150612RP	SNMG543RP	15,88	5/8	15,88	.625	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG150616RP	SNMG544RP	15,88	5/8	15,88	.625	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190612RP	SNMG643RP	19,05	3/4	19,05	.750	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMG190616RP	SNMG644RP	19,05	3/4	19,05	.750	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
M																																										
K	○	○	○	○	○																																					
N																																										
S																																										
H																																										

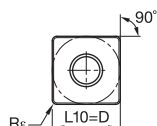
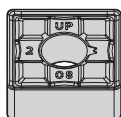
ISO/ANSI Turning

● first choice
○ alternate choice



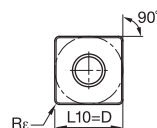
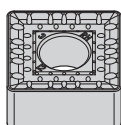
■ SNMG-UN

ISO catalog number	ANSI catalog number	D		L10		Re
		mm	in	mm	in	
SNMG120408UN	SNMG432UN	12,70	1/2	12,70	.500	0,8 1/32
SNMG120412UN	SNMG433UN	12,70	1/2	12,70	.500	1,2 3/64
SNMG120416UN	SNMG434UN	12,70	1/2	12,70	.500	1,6 1/16
SNMG150612UN	SNMG543UN	15,88	5/8	15,88	.625	1,2 3/64
SNMG150616UN	SNMG544UN	15,88	5/8	15,88	.625	1,6 1/16
SNMG190612UN	SNMG643UN	19,05	3/4	19,05	.750	1,2 3/64
SNMG190616UN	SNMG644UN	19,05	3/4	19,05	.750	1,6 1/16



■ SNMG-UP

ISO catalog number	ANSI catalog number	D		L10		Re
		mm	in	mm	in	
SNMG120408UP	SNMG432UP	12,70	1/2	12,70	.500	0,8 1/32
SNMG120412UP	SNMG433UP	12,70	1/2	12,70	.500	1,2 3/64
SNMG150612UP	SNMG543UP	15,88	5/8	15,88	.625	1,2 3/64

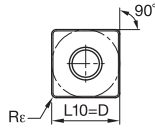
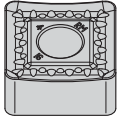


■ SNMM-RH

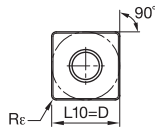
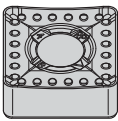
ISO catalog number	ANSI catalog number	D		L10		Re
		mm	in	mm	in	
SNMM190612RH	SNMM643RH	19,05	3/4	19,05	.750	1,2 3/64
SNMM190616RH	SNMM644RH	19,05	3/4	19,05	.750	1,6 1/16
SNMM190624RH	SNMM646RH	19,05	3/4	19,05	.750	2,4 3/32
SNMM250724RH	SNMM856RH	25,40	1	25,40	1.000	2,4 3/32
SNMM250924RH	SNMM866RH	25,40	1	25,40	1.000	2,4 3/32

P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315				
●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

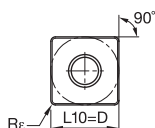
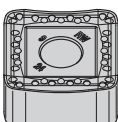
- first choice
- alternate choice


■ SNMM-RM

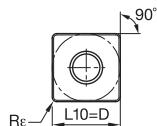
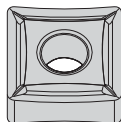
ISO catalog number	ANSI catalog number	D		L10		Rr																																		
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
SNMM120408RM	SNMM432RM	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMM120412RM	SNMM433RM	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMM150612RM	SNMM543RM	15,88	5/8	15,88	.625	1,2	3/64	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM150616RM	SNMM544RM	15,88	5/8	15,88	.625	1,6	1/16	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM190612RM	SNMM643RM	19,05	3/4	19,05	.750	1,2	3/64	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM190616RM	SNMM644RM	19,05	3/4	19,05	.750	1,6	1/16	-	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM190624RM	SNMM646RM	19,05	3/4	19,05	.750	2,4	3/32	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM250724RM	SNMM856RM	25,40	1	25,40	1.000	2,4	3/32	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM250924RM	SNMM866RM	25,40	1	25,40	1.000	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-


■ SNMM-RP

ISO catalog number	ANSI catalog number	D		L10		Rr																																		
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
SNMM120408RP	SNMM432RP	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM120412RP	SNMM433RP	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM150612RP	SNMM543RP	15,88	5/8	15,88	.625	1,2	3/64	-	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM150616RP	SNMM544RP	15,88	5/8	15,88	.625	1,6	1/16	-	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM190612RP	SNMM643RP	19,05	3/4	19,05	.750	1,2	3/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM190616RP	SNMM644RP	19,05	3/4	19,05	.750	1,6	1/16	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM190624RP	SNMM646RP	19,05	3/4	19,05	.750	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMM250724RP	SNMM856RP	25,40	1	25,40	1.000	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SNMM250924RP	SNMM866RP	25,40	1	25,40	1.000	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	


■ SNMM-RW

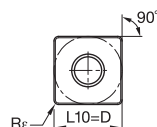
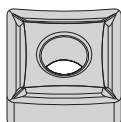
ISO catalog number	ANSI catalog number	D		L10		Rr																																		
		mm	in	mm	in	mm	in	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
SNMM190624RW	SNMM646RW	19,05	3/4	19,05	.750	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SNMM250724RW	SNMM856RW	25,40	1	25,40	1.000	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ SNMP

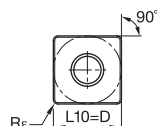
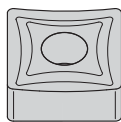
- first choice
- alternate choice

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
SNMP190612	SNMP643	19,05	3/4	19,05	.750	1,2	3/64



■ SNMP-K

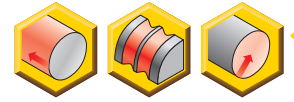
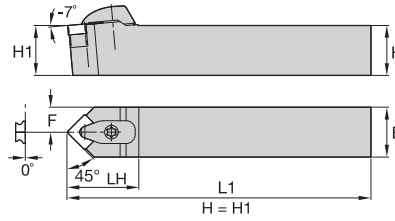
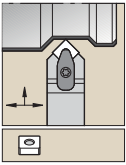
ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
SNMP120408K	SNMP432K	12,70	1/2	12,70	.500	0,8	1/32



■ SNMS

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
SNMS120408	SNMS432	12,70	1/2	12,70	.500	0,8	1/32
SNMS190612	SNMS643	19,05	3/4	19,05	.750	1,2	3/64

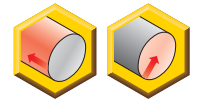
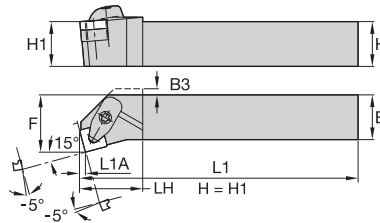
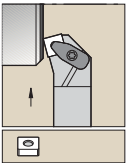
P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
●	●	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	-



ISO/ANSI Turning

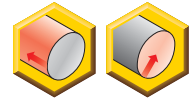
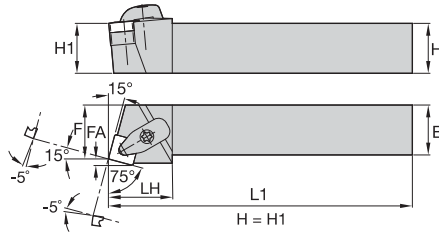
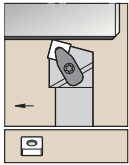
■ DSDN-KC 45°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
2273072	DSDNN124KC3	.75	.75	.375	4.50	1.44	SN..432	ISSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1908834	DSDNN164KC3	1.00	1.00	.500	6.00	1.44	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1908835	DSDNN204KC3	1.25	1.25	.625	6.00	1.44	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273024	DSDNN206KC4	1.25	1.25	.625	6.00	1.75	SN..643	ISSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M


■ DSKN-KC 15°


order number	catalog number	H	B	F	L1	LH	L1A	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand															
2273070	DSKNR164CKC3	1.00	1.00	1.250	5.00	1.25	.12	.12	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
left hand															
2273071	DSKNL164CKC3	1.00	1.00	1.250	5.00	1.25	.12	.12	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M

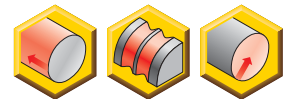
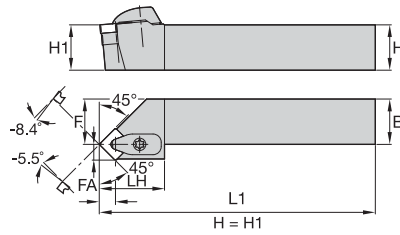
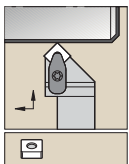
ISO/ANSI Turning



■ **DSRN-KC 15°**



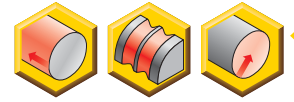
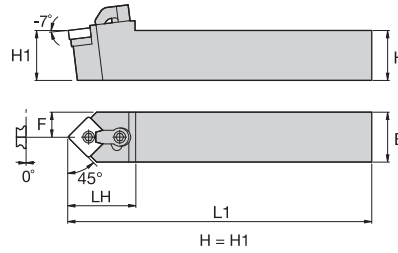
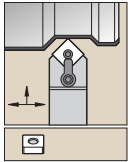
order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
left hand														
1875168	DSRNL164DKC3	1.00	1.00	1.130	6.00	1.25	.12	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875184	DSRNL204DKC3	1.25	1.25	1.380	6.00	1.25	.12	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273027	DSRNL206DKC4	1.25	1.25	1.321	6.00	1.50	.18	SN..643	ISSN643	KMSP625IP	25 IP	CM210R ASSY	25 IP	SSP025016M



■ **DSSN-KC 45°**



order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand														
1875163	DSSNR164DKC3	1.00	1.00	.912	6.00	1.50	.34	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
left hand														
1875179	DSSNL164DKC3	1.00	1.00	.912	6.00	1.50	.34	SN..432	ISSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M

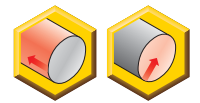
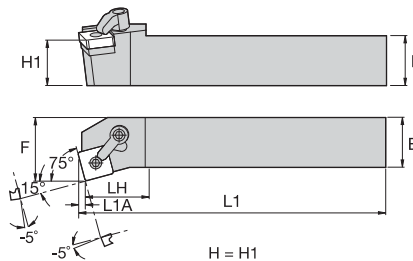
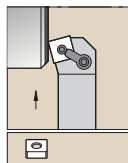


ISO/ANSI Turning

■ **MSDN 45°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096180	MSDNN083	.50	.50	.250	4.50	1.14	SN..322	ISSN322	KL34	5/64	CK6	STC5	3/32
1096181	MSDNN103	.63	.63	.312	4.50	1.14	SN..322	ISSN322	KL34	5/64	CK6	STC5	3/32
1096182	MSDNN123	.75	.75	.375	4.50	1.14	SN..322	ISSN322	KL34	5/64	CK6	STC5	3/32
1096183	MSDNN124	.75	.75	.375	4.50	1.39	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096184	MSDNN164	1.00	1.00	.500	6.00	1.39	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096185	MSDNN854	1.25	1.00	.500	6.00	1.39	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096186	MSDNN855	1.25	1.00	.500	6.00	1.62	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32
1096187	MSDNN856	1.25	1.00	.500	6.00	1.62	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32
1808182	MSDNN206	1.25	1.25	.625	7.00	1.63	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32
1808183	MSDNN246	1.50	1.50	.750	7.00	1.63	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32



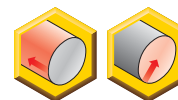
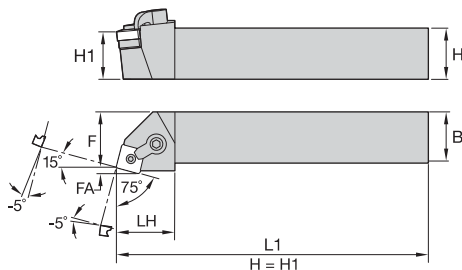
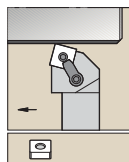
■ **MSKN 15°**



order number	catalog number	H	B	F	L1	LH	L1A	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand														
1096169	MSKNR124B	.75	.75	1.000	4.50	1.25	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096170	MSKNR164C	1.00	1.00	1.250	5.00	1.25	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096171	MSKNR164D	1.00	1.00	1.250	6.00	1.25	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1808189	MSKNR205D	1.25	1.25	1.500	6.00	1.34	.15	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32
1808190	MSKNR206D	1.25	1.25	1.500	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32
1808191	MSKNR248	1.50	1.50	2.000	8.00	1.62	.23	SN..866	ISSN846	KL810	5/32	CK24	STC19	3/16
left hand														
1808185	MSKNL205D	1.25	1.25	1.500	6.00	1.34	.15	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32
1808186	MSKNL206D	1.25	1.25	1.500	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32
1808187	MSKNL246D	1.50	1.50	2.000	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32



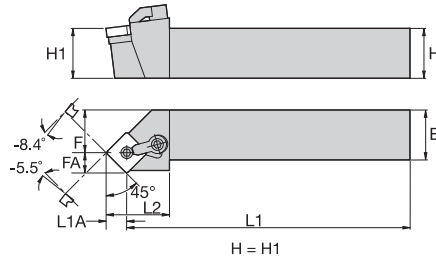
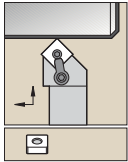
ISO/ANSI Turning



■ **MSRN 15°**



order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1096149	MSRNR124B	.75	.75	.880	4.50	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1096150	MSRNR164C	1.00	1.00	1.130	5.00	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1096151	MSRNR164D	1.00	1.00	1.130	6.00	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1808196	MSRNR165C	1.00	1.00	1.103	5.00	1.46	.15	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32	
1096152	MSRNR205D	1.25	1.25	1.353	6.00	1.46	.15	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32	
1096156	MSRNR856D	1.25	1.00	1.071	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	
1096153	MSRNR206D	1.25	1.25	1.321	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	
1096154	MSRNR246D	1.50	1.50	1.821	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	
1096155	MSRNR246E	1.50	1.50	1.821	7.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	
1808197	MSRNR248	1.50	1.50	1.770	8.00	1.62	.23	SN..866	ISSN846	KL810	5/32	CK24	STC19	3/16	
1808198	MSRNR328	2.00	2.00	2.270	18.00	1.62	.23	SN..866	ISSN846	KL810	5/32	CK24	STC19	3/16	
left hand															
1096159	MSRNL124B	.75	.75	.880	4.50	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1096160	MSRNL164C	1.00	1.00	1.130	5.00	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1096161	MSRNL164D	1.00	1.00	1.130	6.00	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1808195	MSRNL854D	1.25	1.00	1.130	6.00	1.23	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1096029	MSRNL204D	1.25	1.25	1.380	6.00	1.25	.12	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32	
1808194	MSRNL165C	1.00	1.00	1.103	5.00	1.46	.15	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32	
1096162	MSRNL205D	1.25	1.25	1.353	6.00	1.46	.15	SN..543	ISSN533	KL58	1/8	CK12	STC4	5/32	
1096163	MSRNL206D	1.25	1.25	1.321	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	
1096164	MSRNL246D	1.50	1.50	1.821	6.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	
1096165	MSRNL246E	1.50	1.50	1.821	7.00	1.50	.18	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	

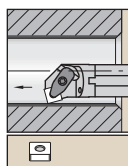


ISO/ANSI Turning

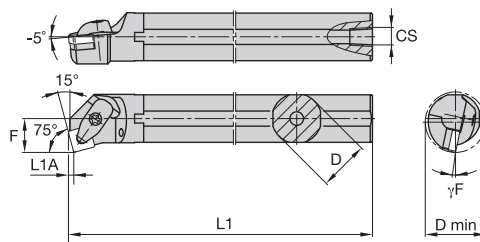
■ **MSSN 45°**



order number	catalog number	H	B	F	L1	LH	FS	FA	L1A	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand																
1096038	MSSNR123B	.75	.75	.641	4.50	1.12	.89	.25	.25	SN..322	ISSN322	KL34	5/64	CK6	STC5	3/32
1096039	MSSNR124B	.75	.75	.662	4.50	1.24	1.00	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096040	MSSNR164C	1.00	1.00	.912	5.00	1.24	—	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096041	MSSNR164D	1.00	1.00	.912	6.00	1.24	1.25	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1808448	MSSNR854D	1.25	1.00	.912	6.00	1.24	1.25	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1808384	MSSNR165D	1.00	1.00	.828	6.00	1.38	1.25	.42	.42	SN..543	ISSN533	KL58	1/8	CK9	STC4	5/32
1808445	MSSNR205D	1.25	1.25	1.078	6.00	1.38	1.50	.42	.42	SN..543	ISSN533	KL58	1/8	CK9	STC4	5/32
1096042	MSSNR206D	1.25	1.25	.992	6.00	1.48	1.50	.51	.53	SN..643	ISSN633	KL68	9/64	CK9	STC4	5/32
1756488	MSSNR246D	1.50	1.50	1.511	6.00	1.48	—	.52	.53	SN..643	ISSN633	KL68	9/64	CK9	STC4	5/32
left hand																
1096047	MSSNL164C	1.00	1.00	.912	5.00	1.24	—	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1096048	MSSNL164D	1.00	1.00	.912	6.00	1.24	1.25	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1808341	MSSNL854D	1.25	1.00	.912	6.00	1.24	1.25	.34	.33	SN..432	ISSN433	KL46	3/32	CK9	STC4	5/32
1808338	MSSNL165D	1.00	1.00	.828	6.00	1.38	1.25	.42	.42	SN..543	ISSN533	KL58	1/8	CK9	STC4	5/32
1808339	MSSNL205D	1.25	1.25	1.078	6.00	1.38	1.50	.42	.42	SN..543	ISSN533	KL58	1/8	CK9	STC4	5/32
1096049	MSSNL206D	1.25	1.25	.992	6.00	1.48	1.50	.51	.53	SN..643	ISSN633	KL68	9/64	CK9	STC4	5/32
1756489	MSSNL246D	1.50	1.50	1.511	6.00	1.48	—	.52	.53	SN..643	ISSN633	KL68	9/64	CK9	STC4	5/32



Steel shank with through coolant.



■ **A-DSKN-KC 15°**

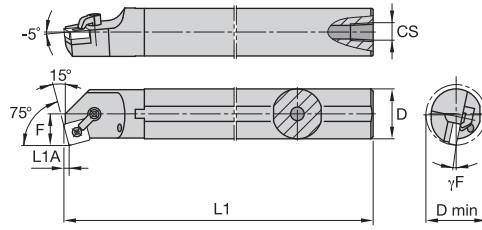


order number	catalog number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
left hand															
2408494	A20UDSKNL3KC2	1.250	1.470	.765	14.00	.09	1/4-18 NPT	-10.0	SN..322	ISSN332	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP

ISO/ANSI Turning



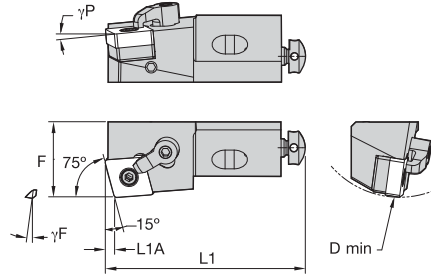
Steel shank with through coolant.



■ **A-MSKN 15°**



order number	catalog number	D	D min	F	L1	L1A	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1096403	A20MSKNR4	1.250	1.470	.765	14.00	.12	1/4-18 NPT	-14.0	SN..432	—	KL44	3/32	CK9	STC4	5/32
1096408	A40MSKNR6	2.500	3.030	1.531	16.00	.18	1/4-18 NPT	-10.0	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32


MSKN 15°

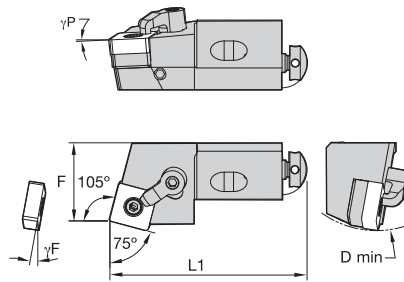
order number	catalog number	D min	F	L1	L1A	γ^F	γ^P	gage insert
right hand								
2114011	MSKNR10CA3	1.575	.551	1.97	.09	-9.0	-5.0	SN..090308/SN..322
2114013	MSKNR12CA4	1.969	.787	2.17	.12	-9.0	-5.0	SN..120408/SN..432
2074430	MSKNR16CA4	2.362	.984	2.48	.12	-9.0	-5.0	SN..120408/SN..432
2072222	MSKNR20CA5	2.756	.984	2.76	.15	-9.0	-5.0	SN..150612/SN..543
2987166	MSKNR25CA6	3.937	1.260	3.94	.18	-9.0	-5.0	SN..190612/SN..543
left hand								
3346242	MSKNL12CA4	1.969	.787	2.17	.12	-9.0	-5.0	SN..120408/SN..432
3330202	MSKNL20CA5	2.756	.984	2.76	.15	-9.0	-5.0	SN..150612/SN..543

NOTE: Select spare parts based off of D min and insert size selected.

Spare Parts


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	mounting screw	hex	washer
1.575	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	—	4 mm	CSWM 060 050
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	—	4 mm	CSWM 060 050
2.362	ISSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	—	5 mm	CSWM 080 050
2.756	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	—	5 mm	CSWM 080 050
3.937	ISSN633	KLM68	4 mm	CKM35	STCM8	4 mm	KUAM27	4 mm	KUAM32	—	—	MS364	8 mm	CSWM 100 080

ISO/ANSI Turning



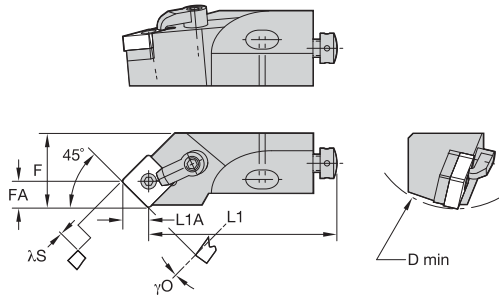
■ **MSRN 15°**

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098436	MSRNR10CA3	1.575	.551	1.97	-9.0	-5.0	SN..090308/SN..322
2078231	MSRNR12CA4	1.969	.787	2.17	-9.0	-5.0	SN..120408/SN..432
2074432	MSRNR16CA4	2.362	.984	2.48	-9.0	-5.0	SN..120408/SN..432
left hand							
1282803	MSRNL12CA4	1.969	.787	2.17	-9.0	-5.0	SN..120408/SN..432
3330279	MSRNL16CA4	2.362	.984	2.48	-9.0	-5.0	SN..120408/SN..432
3330203	MSRNL20CA5	2.756	.984	2.76	-9.0	-5.0	SN..150612/SN..543

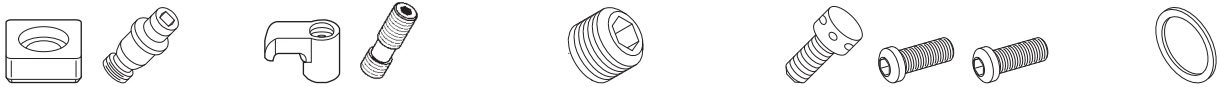
■ **Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	4 mm	CSWM 060 050
2.362	ISSN432	KLM46S	2.5 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm	CSWM 080 050
2.756	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm	CSWM 080 050

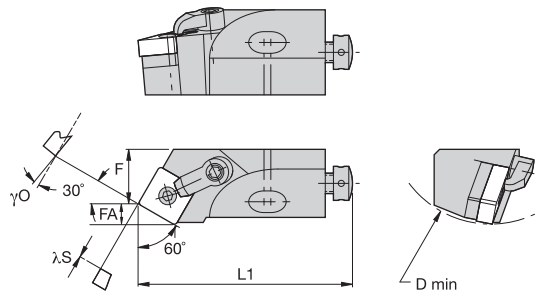

MSSN 45°

order number	catalog number	D min	F	FA	L1	L1A	λS°	γO°	gage insert
right hand									
1339367	MSSNR10CA3	1.575	.551	.252	1.73	.24	-13.0	.0	SN..090308/SN..322
1282807	MSSNR12CA4	1.969	.787	—	1.85	.33	-13.0	.0	SN..120408/SN..432
3330281	MSSNR16CA4	2.362	.984	.343	2.09	.33	-13.0	.0	SN..120408/SN..432
3330206	MSSNR20CA5	2.756	.984	.560	2.36	.40	-13.0	.0	SN..150612/SN..543
left hand									
2071758	MSSNL10CA3	1.575	.551	.252	1.73	.24	-13.0	.0	SN..090308/SN..322
2071739	MSSNL12CA4	1.969	.787	—	1.85	.33	-13.0	.0	SN..120408/SN..432

Spare Parts


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	4 mm CSWM 060 050
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	4 mm CSWM 060 050
2.362	ISSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm CSWM 080 050
2.756	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm CSWM 080 050

ISO/ANSI Turning



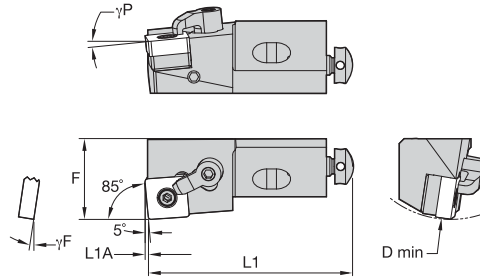
■ **MSTN 30°**

order number	catalog number	D min	F	FA	L1	λS°	γ0°	gage insert
right hand								
3331149	MSTNR10CA3	1.575	.354	.524	1.97	-11.0	.0	SN..090308/SN..322
2074904	MSTNR12CA4	1.969	.512	.231	2.17	-11.0	.0	SN..120408/SN..432

■ **Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	4 mm	CSWM 060 050


MSYN 5°

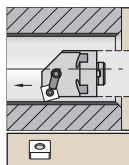
order number	catalog number	D min	F	L1	L1A	γF°	γP°	gage insert
right hand								
2114015	MSYNR10CA3	1.575	.551	1.97	.03	-9.0	-5.0	SN..090308/SN..322
3346274	MSYNR12CA4	1.969	.787	2.17	.04	-9.0	-5.0	SN..120408/SN..432
3330283	MSYNR16CA4	2.362	.984	2.48	.04	-9.0	-5.0	SN..120408/SN..432
1098465	MSYNR25CA19	3.937	1.260	3.94	.06	-9.0	-5.0	SN..190612/SN..643
left hand								
3331150	MSYNL10CA3	1.575	.551	1.97	.03	-9.0	-5.0	SN..090308/SN..322
3346273	MSYNL12CA4	1.969	.787	2.17	.04	-9.0	-5.0	SN..120408/SN..432
1098691	MSYNL20CA15	2.756	.984	2.76	.05	-9.0	-5.0	SN..150612/SN..543

NOTE: Select spare parts based off of D min and insert size selected.

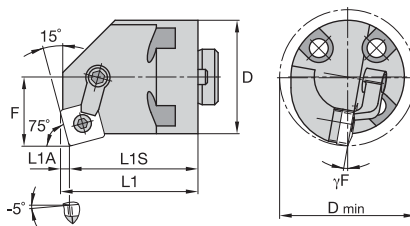
Spare Parts


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	mounting screw	hex	washer
1.575	—	KLM33	2 mm	CKM36	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	—	4 mm	CSWM 060 050
1.969	—	KLM43	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	—	4 mm	CSWM 060 050
2.362	ISSN432	KLM46S	2.5 mm	CKM36	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	—	191.407	—	5 mm	CSWM 080 050
2.756	SKSN566K	KLM54	2.5 mm	CKM37	STCM40	2.5 mm	KUAM25	2.5 mm	KUAM33	—	191.407	—	6 mm	CSWM 080 050
3.937	ISSN633	KLM68	4 mm	CKM34	STCM8	4 mm	KUAM27	4 mm	KUAM33	—	—	MS364	8 mm	CSWM 100 080

ISO/ANSI Turning



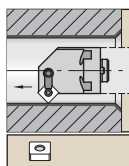
With through coolant.



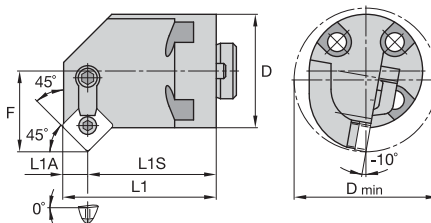
H-MSKN 15°



order number	catalog number	D	D min	F	L1	L1A	L1S	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1095392	H24MSKNR4	1.500	1.760	.890	1.63	.12	1.744	-10.0	SN..432	ISSN433	KL46	3/32	CK21	STC20	1/8
1095485	H32MSKNR4	2.000	2.400	1.281	1.63	.12	1.744	-12.0	SN..432	ISSN433	KL46	3/32	CK21	STC20	1/8
1095558	H40MSKNR6	2.500	3.030	1.531	1.63	.18	1.804	-10.0	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32
left hand															
1095560	H40MSKNL6	2.500	3.030	1.531	1.63	.18	1.804	-10.0	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32



With through coolant.

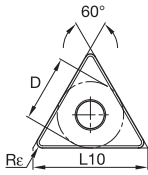
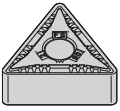


H-MSSN 45°



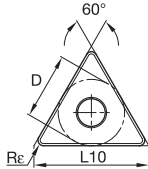
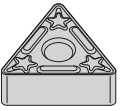
order number	catalog number	D	D min	F	L1	L1A	L1S	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand															
1095360	H24MSSNR4	1.500	2.000	1.125	1.63	.34	1.287	SN..432	ISSN433	KL46	3/32	CK21	STC20	1/8	
1095531	H40MSSNR6	2.500	3.250	1.750	1.63	.51	1.118	SN..643	ISSN633	KL68	9/64	CK12	STC4	5/32	

● first choice
○ alternate choice



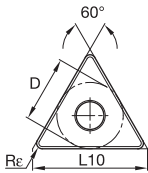
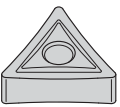
■ TNGG-FS

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNGG160402FS	TNGG3305FS	9,53	3/8	16,50	.650	0,2	.008
TNGG160404FS	TNGG331FS	9,53	3/8	16,50	.650	0,4	1/64
TNGG220408FS	TNGG432FS	12,70	1/2	22,00	.866	0,8	1/32



■ TNGG-LF

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNGG160402LF	TNGG3305LF	9,53	3/8	16,50	.650	0,2	.008
TNGG160404LF	TNGG331LF	9,53	3/8	16,50	.650	0,4	1/64
TNGG160408LF	TNGG332LF	9,53	3/8	16,50	.650	0,8	1/32



■ TNGP

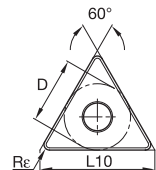
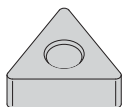
ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNGP160402	TNGP3305	9,53	3/8	16,50	.650	0,2	.008
TNGP160404	TNGP331	9,53	3/8	16,50	.650	0,4	1/64
TNGP160408	TNGP332	9,53	3/8	16,50	.650	0,8	1/32

P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315							
●	●	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



ISO/ANSI Turning

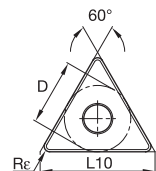
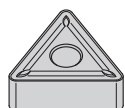
ISO/ANSI Turning



● first choice
○ alternate choice

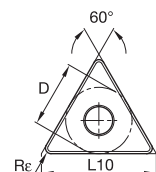
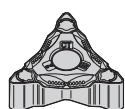
■ TNMA

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
		mm	in	mm	in	mm	in																																	
TNMA160408	TNMA332	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TNMA160412	TNMA333	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TNMA160416	TNMA334	9,53	3/8	16,50	.650	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TNMA220408	TNMA432	12,70	1/2	22,00	.866	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TNMA220412	TNMA433	12,70	1/2	22,00	.866	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TNMA270616	TNMA544	15,88	5/8	27,50	1.083	1,6	1/16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ TNMG

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
		mm	in	mm	in	mm	in																																	
TNMG220412	TNMG433	12,70	1/2	22,00	.866	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TNMG330924	TNMG666	19,05	3/4	33,00	1.299	2,4	3/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

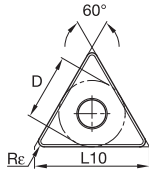
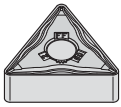


■ TNMG-CT

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	
		mm	in	mm	in	mm	in																																
TNMG160408CT	TNMG332CT	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

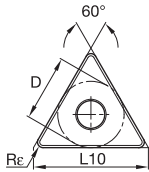
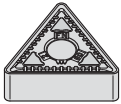
P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M																		○	○																			
K	○	○	○	○	○	○																																
N																																						
S																																						
H																																						

- first choice
- alternate choice



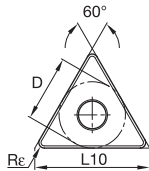
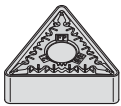
TNMG-FF

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG110304FF	TNMG221FF	6,35	1/4	11,00	.433	0,4	1/64
TNMG110308FF	TNMG222FF	6,35	1/4	11,00	.433	0,8	1/32
TNMG160404FF	TNMG331FF	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408FF	TNMG332FF	9,53	3/8	16,50	.650	0,8	1/32



TNMG-FN

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG110304FN	TNMG221FN	6,35	1/4	11,00	.433	0,4	1/64
TNMG110308FN	TNMG222FN	6,35	1/4	11,00	.433	0,8	1/32
TNMG160404FN	TNMG331FN	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408FN	TNMG332FN	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412FN	TNMG333FN	9,53	3/8	16,50	.650	1,2	3/64
TNMG220404FN	TNMG431FN	12,70	1/2	22,00	.866	0,4	1/64
TNMG220408FN	TNMG432FN	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412FN	TNMG433FN	12,70	1/2	22,00	.866	1,2	3/64



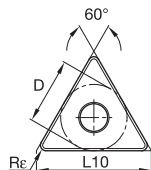
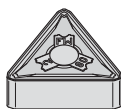
TNMG-FP

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG160404FP	TNMG331FP	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408FP	TNMG332FP	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412FP	TNMG333FP	9,53	3/8	16,50	.650	1,2	3/64
TNMG220404FP	TNMG431FP	12,70	1/2	22,00	.866	0,4	1/64
TNMG220408FP	TNMG432FP	12,70	1/2	22,00	.866	0,8	1/32

	P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315							
TNMG110304FF	●	●	●	●	●	●																																						
TNMG110308FF																																												
TNMG160404FF										●																																		
TNMG160408FF								●	●																																			
TNMG110304FN										●																																		
TNMG110308FN										●																																		
TNMG160404FN										●																																		
TNMG160408FN										●																																		
TNMG160412FN										●																																		
TNMG220404FN																																												
TNMG220408FN										●																																		
TNMG220412FN										●																																		
TNMG160404FP																																												
TNMG160408FP											●																																	
TNMG160412FP																																												
TNMG220404FP																																												
TNMG220408FP																																												

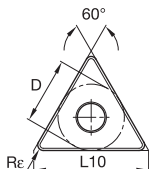
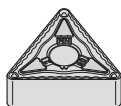


ISO/ANSI Turning



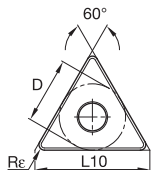
■ TNMG-FW

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNMG160404FW	TNMG331FW	9,53	3/8	16,50	.650	0,2	.007
TNMG160408FW	TNMG332FW	9,53	3/8	16,50	.650	0,4	.016
TNMG160412FW	TNMG333FW	9,53	3/8	16,50	.650	1,2	3/64



■ TNMG-MN

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNMG160404MN	TNMG331MN	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408MN	TNMG332MN	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412MN	TNMG333MN	9,53	3/8	16,50	.650	1,2	3/64
TNMG220404MN	TNMG431MN	12,70	1/2	22,00	.866	0,4	1/64
TNMG220408MN	TNMG432MN	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412MN	TNMG433MN	12,70	1/2	22,00	.866	1,2	3/64



■ TNMG-MP

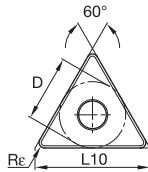
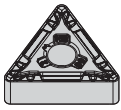
ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNMG160404MP	TNMG331MP	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408MP	TNMG332MP	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412MP	TNMG333MP	9,53	3/8	16,50	.650	1,2	3/64
TNMG220408MP	TNMG432MP	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412MP	TNMG433MP	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416MP	TNMG434MP	12,70	1/2	22,00	.866	1,6	1/16

● first choice
○ alternate choice

	P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315				
TNMG160404FW	●	●	○	○	○	○	-	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
TNMG160408FW	○	○	○	○	○	○	-	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160412FW	○	○	○	○	○	○	-	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160404MN	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160408MN	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160412MN	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220404MN	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220408MN	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220412MN	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160404MP	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160408MP	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG160412MP	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220408MP	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220412MP	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
TNMG220416MP	○	○	○	○	○	○	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

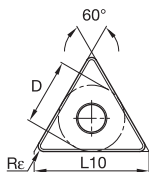
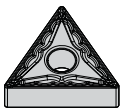


● first choice
○ alternate choice



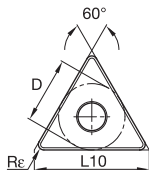
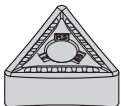
■ TNMG-MR

ISO catalog number	ANSI catalog number	D		L10		Rε			
		mm	in	mm	in	mm	in	KCP05B	KCP05
TNMG160408MR	TNMG332MR	9,53	3/8	16,50	.650	0,8	1/32	-	-
TNMG160412MR	TNMG333MR	9,53	3/8	16,50	.650	1,2	3/64	-	●
TNMG220408MR	TNMG432MR	12,70	1/2	22,00	.866	0,8	1/32	-	●
TNMG220412MR	TNMG433MR	12,70	1/2	22,00	.866	1,2	3/64	-	●
TNMG270612MR	TNMG543MR	15,88	5/8	27,50	1.083	1,2	3/64	-	●



■ TNMG-MG

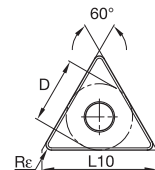
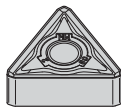
ISO catalog number	ANSI catalog number	D		L10		Rε			
		mm	in	mm	in	mm	in	KCP05B	KCP05
TNMG160408MG	TNMG332MG	9,53	3/8	16,50	.650	0,8	1/32	-	●



■ TNMG-MS

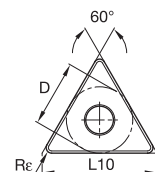
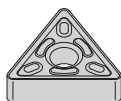
ISO catalog number	ANSI catalog number	D		L10		Rε			
		mm	in	mm	in	mm	in	KCP05B	KCP05
TNMG160402MS	TNMG3305MS	9,53	3/8	16,50	.650	0,2	.008	-	-
TNMG160404MS	TNMG331MS	9,53	3/8	16,50	.650	0,4	1/64	-	-
TNMG160408MS	TNMG332MS	9,53	3/8	16,50	.650	0,8	1/32	-	-
TNMG220404MS	TNMG431MS	12,70	1/2	22,00	.866	0,4	1/64	-	-
TNMG220408MS	TNMG432MS	12,70	1/2	22,00	.866	0,8	1/32	-	-
TNMG220412MS	TNMG433MS	12,70	1/2	22,00	.866	1,2	3/64	-	-
TNMG270608MS	TNMG542MS	15,88	5/8	27,50	1.083	0,8	1/32	-	-
TNMG270616MS	TNMG544MS	15,88	5/8	27,50	1.083	1,6	1/16	-	-

	P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315				
TNMG160408MR	●	●	●	●	●	●	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		
TNMG160412MR	●	●	●	●	●	●	-	-	●	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	
TNMG220408MR	●	●	●	●	●	●	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
TNMG220412MR	●	●	●	●	●	●	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
TNMG270612MR	●	●	●	●	●	●	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●



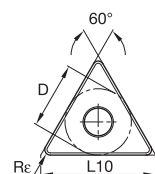
TNMG-MW

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG160408MW	TNMG332MW	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412MW	TNMG333MW	9,53	3/8	16,50	.650	1,2	3/64



TNMG-P

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG160404P	TNMG331P	9,53	3/8	16,50	.650	0,4	.016
TNMG160408P	TNMG332P	9,53	3/8	16,50	.650	0,8	1/32
TNMG220404P	TNMG431P	12,70	1/2	22,00	.866	0,4	1/64
TNMG220408P	TNMG432P	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412P	TNMG433P	12,70	1/2	22,00	.866	1,2	3/64

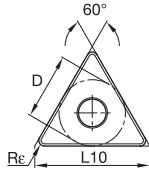
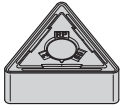


TNMG-RN

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG160408RN	TNMG332RN	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412RN	TNMG333RN	9,53	3/8	16,50	.650	1,2	3/64
TNMG220408RN	TNMG432RN	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412RN	TNMG433RN	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416RN	TNMG434RN	12,70	1/2	22,00	.866	1,6	1/16
TNMG270608RN	TNMG542RN	15,88	5/8	27,50	1.083	0,8	1/32
TNMG270612RN	TNMG543RN	15,88	5/8	27,50	1.083	1,2	3/64
TNMG270616RN	TNMG544RN	15,88	5/8	27,50	1.083	1,6	1/16
TNMG330924RN	TNMG666RN	19,05	3/4	33,00	1.299	2,4	3/32

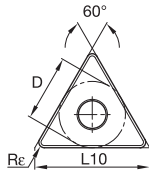
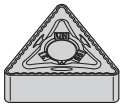
P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
●	●	○					●	●	●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

● first choice
○ alternate choice



■ TNMG-RP

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG160408RP	TNMG332RP	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412RP	TNMG333RP	9,53	3/8	16,50	.650	1,2	3/64
TNMG160416RP	TNMG334RP	9,53	3/8	16,50	.650	1,6	1/16
TNMG220408RP	TNMG432RP	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412RP	TNMG433RP	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416RP	TNMG434RP	12,70	1/2	22,00	.866	1,6	1/16
TNMG220432RP	TNMG438RP	12,70	1/2	22,00	.866	3,2	1/8
TNMG270612RP	TNMG543RP	15,88	5/8	27,50	1.083	1,2	3/64
TNMG270616RP	TNMG544RP	15,88	5/8	27,50	1.083	1,6	1/16
TNMG330924RP	TNMG666RP	19,05	3/4	33,00	1.299	2,4	3/32

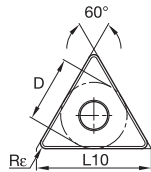


■ TNMG-UN

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMG160408UN	TNMG332UN	9,53	3/8	16,50	.650	0,8	1/32
TNMG160412UN	TNMG333UN	9,53	3/8	16,50	.650	1,2	3/64
TNMG160416UN	TNMG334UN	9,53	3/8	16,50	.650	1,6	1/16
TNMG220408UN	TNMG432UN	12,70	1/2	22,00	.866	0,8	1/32
TNMG220412UN	TNMG433UN	12,70	1/2	22,00	.866	1,2	3/64
TNMG220416UN	TNMG434UN	12,70	1/2	22,00	.866	1,6	1/16

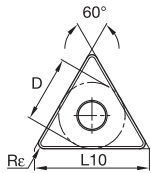
P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
●	●	●	○	○	○	●	●	●	○	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO/ANSI Turning



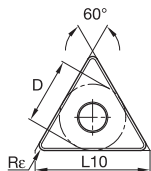
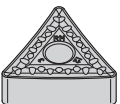
■ TNMG-UP

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNMG160404UP	TNMG331UP	9,53	3/8	16,50	.650	0,4	1/64
TNMG160408UP	TNMG332UP	9,53	3/8	16,50	.650	0,8	1/32
TNMG220408UP	TNMG432UP	12,70	1/2	22,00	.866	0,8	1/32



■ TNMM-MR

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNMM330924MR	TNMM666MR	19,05	3/4	33,00	1.299	2,4	3/32

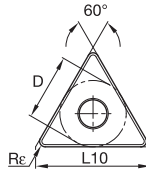
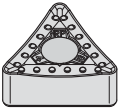


■ TNMM-RM

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
TNMM160408RM	TNMM332RM	9,53	3/8	16,50	.650	0,8	1/32
TNMM160412RM	TNMM333RM	9,53	3/8	16,50	.650	1,2	3/64
TNMM220408RM	TNMM432RM	12,70	1/2	22,00	.866	0,8	1/32
TNMM220412RM	TNMM433RM	12,70	1/2	22,00	.866	1,2	3/64
TNMM220416RM	TNMM434RM	12,70	1/2	22,00	.866	1,6	1/16
TNMM270612RM	TNMM543RM	15,88	5/8	27,50	1.083	1,2	3/64
TNMM270616RM	TNMM544RM	15,88	5/8	27,50	1.083	1,6	1/16

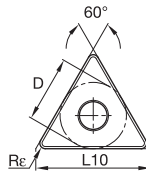
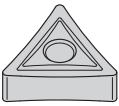
P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- first choice
- alternate choice



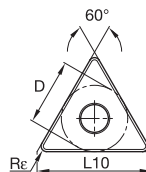
TNMM-RP

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMM220408RP	TNMM432RP	12,70	1/2	22,00	.866	0,8	1/32
TNMM220412RP	TNMM433RP	12,70	1/2	22,00	.866	1,2	3/64
TNMM220416RP	TNMM434RP	12,70	1/2	22,00	.866	1,6	1/16



TNMP

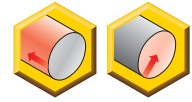
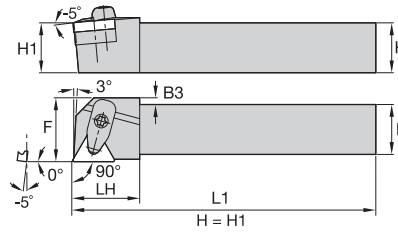
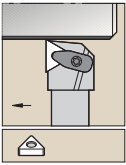
ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMP160404	TNMP331	9,53	3/8	16,50	.650	0,4	1/64
TNMP160408	TNMP332	9,53	3/8	16,50	.650	0,8	1/32
TNMP220416	TNMP434	12,70	1/2	22,00	.866	1,6	1/16



TNMP-K

ISO catalog number	ANSI catalog number	D		L10		Rε	
		mm	in	mm	in	mm	in
TNMP160404K	TNMP331K	9,53	3/8	16,50	.650	0,4	1/64
TNMP160408K	TNMP332K	9,53	3/8	16,50	.650	0,8	1/32
TNMP220408K	TNMP432K	12,70	1/2	22,00	.866	0,8	1/32

P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
●	●	○	○	○	○	-	-	●	●	-	-	-	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

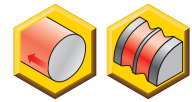
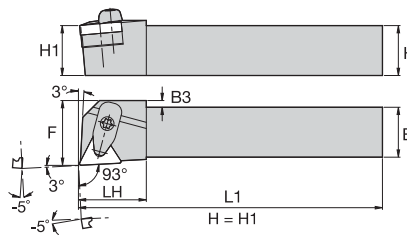
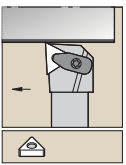


ISO/ANSI Turning

■ DTGN-KC 0°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand														
2273035	DTGNR123BKC3	.75	.75	1.000	4.50	1.12	.25	TN..332	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875152	DTGNR164DKC3	1.00	1.00	1.250	6.00	1.25	.09	TN..432	ITSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
left hand														
2273038	DTGNL163DKC3	1.00	1.00	1.250	6.00	1.12	—	TN..332	ITSN323	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M



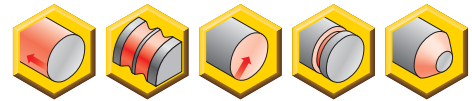
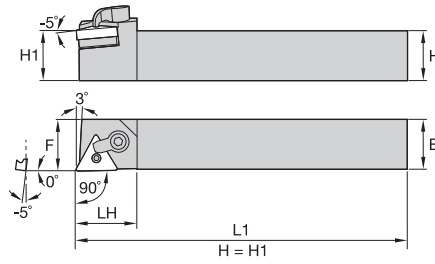
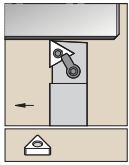
■ DTJN-KC -3°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand														
1893419	DTJNR164DKC3	1.00	1.00	1.250	6.00	1.25	.12	TN..432	ITSN443	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M



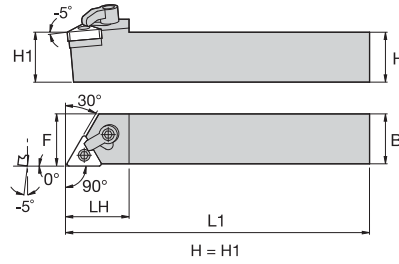
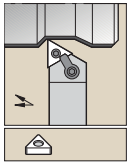
ISO/ANSI Turning



■ **MTAN 0°**



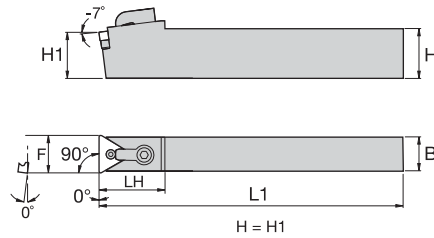
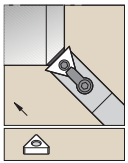
order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096056	MTANR082B	.50	.50	.500	4.50	.96	TN..221	—	KL23	1/16	CK19	STC9	3/32
1096058	MTANR103B	.63	.63	.625	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096052	MTANR123B	.75	.75	.750	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096053	MTANR164D	1.00	1.00	1.000	6.00	1.21	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
left hand													
1096065	MTANL103B	.63	.63	.625	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096059	MTANL123B	.75	.75	.750	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096060	MTANL164D	1.00	1.00	1.000	6.00	1.21	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32



■ **MTAN-S 0°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1808498	MTANRS123	.75	.75	.750	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1808499	MTANRS163	1.00	1.00	1.000	6.00	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1808500	MTANRS164	1.00	1.00	1.000	6.00	1.21	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1808501	MTANRS205	1.25	1.25	1.250	6.00	1.46	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
left hand													
1808452	MTANLS123	.75	.75	.750	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1808493	MTANLS163	1.00	1.00	1.000	6.00	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1808494	MTANLS164	1.00	1.00	1.000	6.00	1.21	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1808495	MTANLS205	1.25	1.25	1.250	6.00	1.46	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32



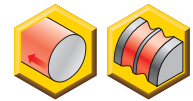
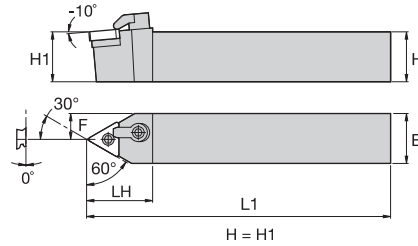
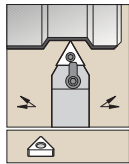
■ **MTCN 0°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096318	MTCNN083	.50	.50	.542	4.50	1.13	TN..332	ITSN323	KL34L	5/64	CK7	STC9	3/32
1096320	MTCNN443	1.00	.50	.542	8.00	1.13	TN..332	ITSN323	KL34L	5/64	CK7	STC9	3/32
1096319	MTCNN124	.75	.75	.775	6.00	1.43	TN..432	ITSN433	KL46	3/32	CK12	STC4	5/32
1096321	MTCNN644	1.00	.75	.775	8.00	1.43	TN..432	ITSN433	KL46	3/32	CK12	STC4	5/32



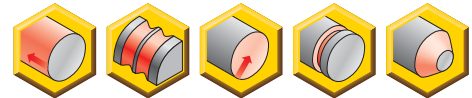
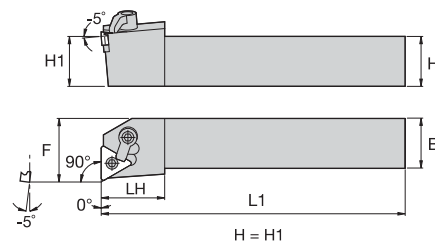
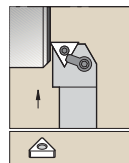
ISO/ANSI Turning



■ **MTEN-S 30°**



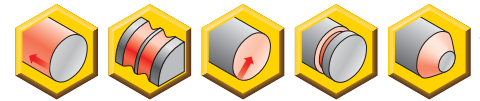
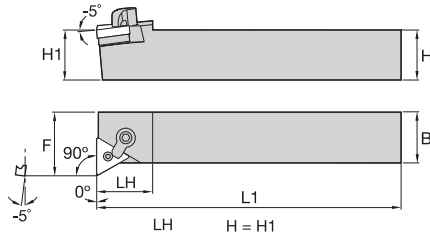
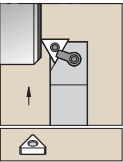
order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096350	MTENNS082	.50	.50	.250	4.50	.99	TN..221	—	KL23	1/16	CK6	STC5	3/32
1096351	MTENNS103	.63	.63	.312	4.50	1.16	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096352	MTENNS123	.75	.75	.375	4.50	1.16	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096353	MTENNS163	1.00	1.00	.500	5.00	1.16	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096354	MTENNS164	1.00	1.00	.500	6.00	1.40	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1808504	MTENNS854	1.25	1.00	.500	6.00	1.41	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096355	MTENNS205	1.25	1.25	.625	6.00	1.64	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
1096356	MTENNS246	1.50	1.50	.750	7.00	1.95	TN..663	ITSN636	KL68L	9/64	CK12	STC4	5/32



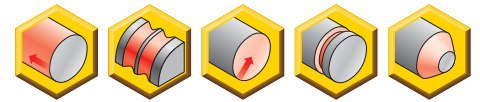
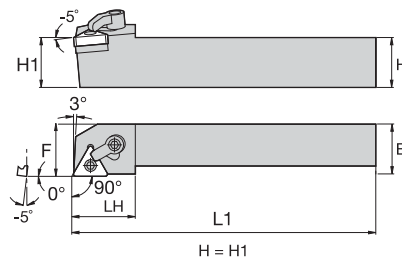
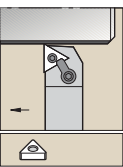
■ **MTFN 0°**



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand														
1096212	MTFNR123B	.75	.75	1.000	4.50	.94	—	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096216	MTFNR164C	1.00	1.00	1.250	5.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096217	MTFNR164D	1.00	1.00	1.250	6.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096218	MTFNR204D	1.25	1.25	1.500	6.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096219	MTFNR205D	1.25	1.25	1.500	6.00	1.43	—	TN..432	ITSN534	KL58	3/32	CK12	STC4	5/32
1096221	MTFNR246E	1.50	1.50	2.000	7.00	1.50	—	TN..663	ITSN636	KL68L	9/64	CK12	STC4	5/32
left hand														
1096226	MTFNL123B	.75	.75	1.000	4.50	.94	—	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096230	MTFNL164C	1.00	1.00	1.250	5.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096231	MTFNL164D	1.00	1.00	1.250	6.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096232	MTFNL204D	1.25	1.25	1.500	6.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1863297	MTFNL854D	1.25	1.00	1.250	6.00	1.22	—	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096234	MTFNL245D	1.50	1.50	2.000	6.00	1.43	.25	TN..543	ITSN534	KL58	1/8	CK12	STC4	5/32
1096235	MTFNL246E	1.50	1.50	2.000	7.00	1.50	—	TN..663	ITSN636	KL68L	9/64	CK12	STC4	5/32


MTFN-S 0°

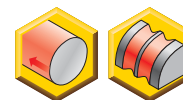
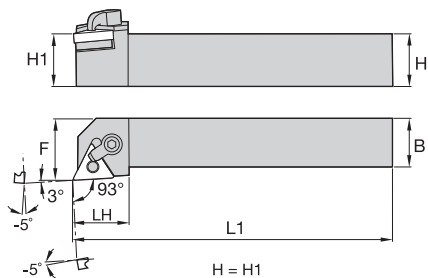
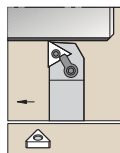

order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1808512	MTFNRS164	1.00	1.00	1.250	6.00	1.22	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
left hand													
1808506	MTFNLS164	1.00	1.00	1.250	6.00	1.22	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32


MTGN 0°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096197	MTGNR082B	.50	.50	.625	4.50	.96	TN..221	—	KL23	1/16	CK19	STC9	3/32
1096199	MTGNR103B	.63	.63	.875	4.50	1.12	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096188	MTGNR123B	.75	.75	1.000	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096189	MTGNR124B	.75	.75	1.000	4.50	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096192	MTGNR164C	1.00	1.00	1.250	5.00	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1808515	MTGNR165C	1.00	1.00	1.250	5.00	1.38	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
1096193	MTGNR164D	1.00	1.00	1.250	6.00	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096194	MTGNR204D	1.25	1.25	1.500	6.00	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096195	MTGNR205D	1.25	1.25	1.500	6.00	1.44	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
left hand													
1096211	MTGNL103B	.63	.63	.875	4.50	1.12	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096200	MTGNL123B	.75	.75	1.000	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096201	MTGNL124B	.75	.75	1.000	4.50	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096204	MTGNL164C	1.00	1.00	1.250	5.00	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096205	MTGNL164D	1.00	1.00	1.250	6.00	1.20	TN..432	ITSN433	KL46	3/32	CK6	STC4	5/32
1096206	MTGNL204D	1.25	1.25	1.500	6.00	1.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096207	MTGNL205D	1.25	1.25	1.500	6.00	1.44	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32



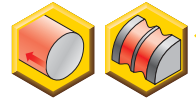
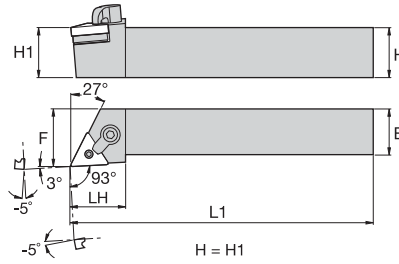
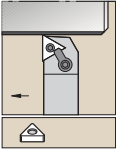
ISO/ANSI Turning



■ **MTJN -3°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096008	MTJNR082B	.50	.50	.625	4.50	.72	TN..221	—	KL23	1/16	CK19	STC9	3/32
1096012	MTJNR103B	.63	.63	.875	4.50	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096014	MTJNR123B	.75	.75	1.000	4.50	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096016	MTJNR163C	1.00	1.00	1.250	5.00	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096018	MTJNR163D	1.00	1.00	1.250	6.00	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096022	MTJNR164D	1.00	1.00	1.250	6.00	1.12	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096024	MTJNR204D	1.25	1.25	1.500	6.00	1.12	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096026	MTJNR205D	1.25	1.25	1.500	6.00	1.25	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
left hand													
1096009	MTJNL082B	.50	.50	.625	4.50	.72	TN..221	—	KL23	1/16	CK19	STC9	3/32
1096013	MTJNL103B	.63	.63	.875	4.50	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096015	MTJNL123B	.75	.75	1.000	4.50	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096017	MTJNL163C	1.00	1.00	1.250	5.00	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096019	MTJNL163D	1.00	1.00	1.250	6.00	.88	TN..322	ITSN333	KL34L	5/64	CK6	STC5	3/32
1096023	MTJNL164D	1.00	1.00	1.250	6.00	1.12	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096025	MTJNL204D	1.25	1.25	1.500	6.00	1.12	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096027	MTJNL205D	1.25	1.25	1.500	6.00	1.23	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32

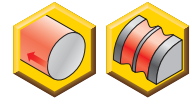
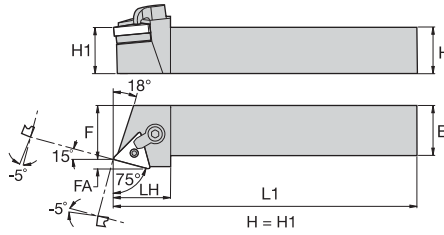
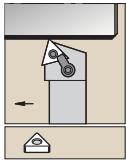


■ **MTJN-S -3°**

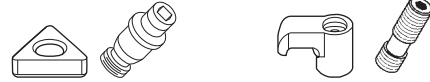


order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096336	MTJNRS123	.75	.75	1.000	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096338	MTJNRS163	1.00	1.00	1.250	6.00	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096341	MTJNRS204	1.25	1.25	1.250	6.00	1.19	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096337	MTJNRS124	.75	.75	1.000	4.50	1.19	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1808522	MTJNRS864	1.50	1.00	1.250	6.00	1.19	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096339	MTJNRS164	1.00	1.00	1.250	6.00	1.32	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096340	MTJNRS165	1.00	1.00	1.250	6.00	1.44	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
1096342	MTJNRS205	1.25	1.25	1.500	6.00	1.44	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
1808518	MTJNRS246	1.50	1.50	2.000	7.00	1.63	TN..663	ITSN636	KL68L	9/64	CK12	STC4	5/32
left hand													
1096343	MTJNLS123	.75	.75	1.000	4.50	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096345	MTJNLS163	1.00	1.00	1.250	6.00	1.12	TN..332	ITSN323	KL34L	5/64	CK6	STC5	3/32
1096348	MTJNLS204	1.25	1.25	1.250	6.00	1.19	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096344	MTJNLS124	.75	.75	1.000	4.50	1.19	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096346	MTJNLS164	1.00	1.00	1.250	6.00	1.32	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1096347	MTJNLS165	1.00	1.00	1.250	6.00	1.44	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
1096349	MTJNLS205	1.25	1.25	1.500	6.00	1.44	TN..543	ITSN534	KL58	1/8	CK9	STC4	5/32
1808516	MTJNLS246	1.50	1.50	2.000	7.00	1.63	TN..663	ITSN636	KL68L	9/64	CK12	STC4	5/32

ISO/ANSI Turning

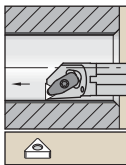


■ MTRN 15°

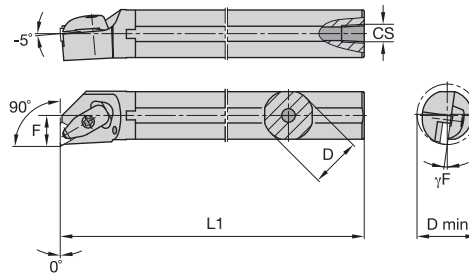


order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand 1096324	MTRNR164D	1.00	1.00	1.040	6.00	1.24	.20	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32

Kenclamp™ Boring Bars



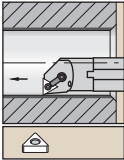
Steel shank with through coolant.



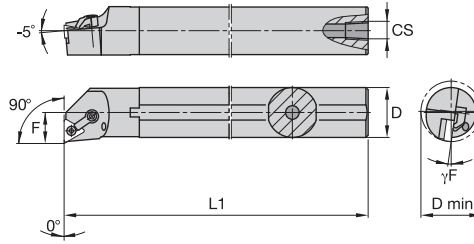
■ A-DTFN-KC 0°



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	clamp assembly	slotted pin	Torx Plus
right hand 2408469	A16TDTFNR3KC3	1.000	1.200	.640	12.00	1/4-18 NPT	-12.0	TN..332	CM234RLP ASSY	SSP025016M	9 IP



Steel shank with through coolant.

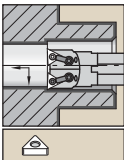


ISO/ANSI Turning

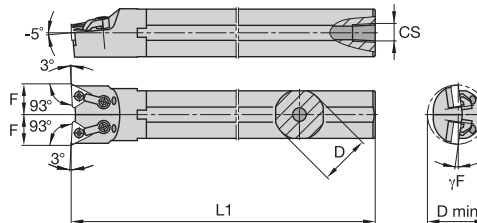
■ **A-MTFN 0°**



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1096385	A16MTFNR3	1.000	1.220	.640	12.00	1/4-18 NPT	-12.0	TN..332	—	KL33L	5/64	CK7	STC9	3/32	
1096386	A20UMTFNR3	1.250	1.470	.765	14.00	1/4-18 NPT	-12.0	TN..332	—	KL33L	5/64	CK7	STC9	3/32	
1096387	A24UMTFNR3	1.500	1.760	—	14.00	1/4-18 NPT	-10.0	TN..332	ITSN323	KL34L	5/64	CK7	STC9	3/32	
1096389	A24UMTFNR4	1.500	1.760	.890	14.00	1/4-18 NPT	-10.0	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32	
1096388	A28MTFNR3	1.750	2.010	1.015	14.00	1/4-18 NPT	-10.0	TN..332	ITSN323	KL34L	5/64	CK7	STC9	3/32	
1096390	A28MTFNR4	1.750	2.010	1.015	14.00	1/4-18 NPT	-10.0	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32	
1096391	A32MTFNR4	2.000	2.400	1.281	16.00	1/4-18 NPT	-8.0	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32	
left hand															
1096394	A16MTFNL3	1.000	1.220	.640	12.00	1/4-18 NPT	-12.0	TN..332	—	KL33L	5/64	CK7	STC9	3/32	



Steel shank with through coolant.

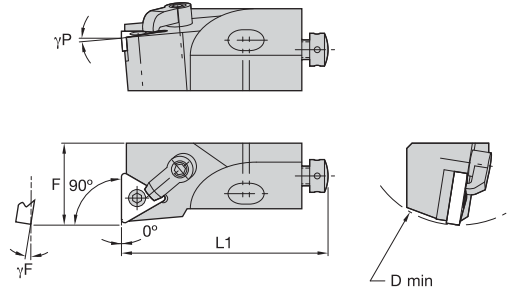
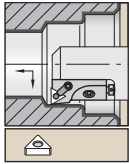


■ **A-MTUN-D -3°**



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	lock pin	hex	clamp	clamp screw	hex
1096381	A20MTUNR3D	1.250	1.550	.765	14.00	1/4-18 NPT	-10.0	TN..332	KL33L	5/64	CK7	STC9	3/32

ISO/ANSI Turning



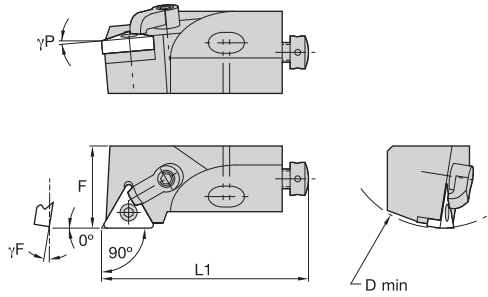
■ **MTFN 0°**

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
2078236	MTFNR12CA3	1.969	.787	2.17	-9.0	-5.0	TN..160408/TN..332
2074429	MTFNR16CA3	2.362	.984	2.48	-9.0	-5.0	TN..160408/TN..332
3330208	MTFNR20CA4	2.756	.984	2.76	-9.0	-5.0	TN..220408/TN..432
left hand							
2057426	MTFNL12CA3	1.969	.787	2.17	-9.0	-5.0	TN..160408/TN..332
2193621	MTFNL16CA3	2.362	.984	2.48	-9.0	-5.0	TN..160408/TN..332
3330207	MTFNL20CA4	2.756	.984	2.76	-9.0	-5.0	TN..220408/TN..432

■ **Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	ITSN322	KLM34L	2 mm	CKM34	STCM9	2 mm	KUAM25	2 mm	KUAM32	191.407	5 mm	CSWM 080 050
2.756	ITSN433	KLM46	2.5 mm	CKM35	STCM37	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050


■ MTGN 0°

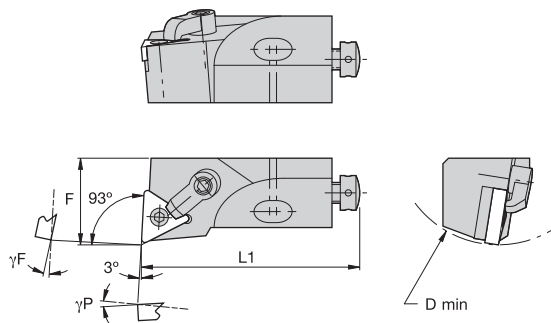
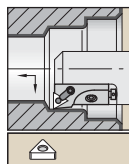
order number	catalog number	D min	F	L1	γ_F°	γ_P°	gage insert
right hand							
2114041	MTGNR12CA3	1.969	.787	2.17	-9.0	-5.0	TN..160408/TN..332
3330285	MTGNR16CA3	2.362	.984	2.48	-9.0	-5.0	TN..160408/TN..332
left hand							
3346275	MTGNL12CA3	1.969	.787	2.17	-9.0	-5.0	TN..160408/TN..332
3330209	MTGNL20CA4	2.756	.984	2.76	-9.0	-5.0	TN..220408/TN..432

■ Spare Parts


D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	ITSN322	KLM34L	2 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
2.756	ITSN433	KLM46	2.5 mm	CKM35	STCM37	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050



ISO/ANSI Turning



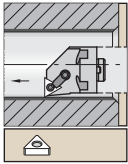
■ **MTUN -3°**

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098536	MTUNR20CA4	2.756	.984	2.76	-9.0	-5.0	TN..220408/TN..432
left hand							
1098529	MTUNL12CA3	1.969	.787	2.17	-9.0	-5.0	TN..160408/TN..332
1098535	MTUNL16CA3	2.362	.984	2.48	-9.0	-5.0	TN..160408/TN..332

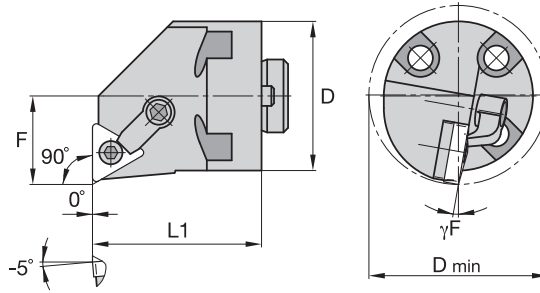
■ **Spare Parts**



D min	shim	lock pin	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	KLM33L	2 mm	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	ITSN322	KLM34L	2 mm	CKM34	STCM9	2.5 mm	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050
2.756	ITSN433	KLM46	—	CKM35	STCM37	2.5 mm	KUAM25	2.5 mm	KUAM33	191.407	5 mm	CSWM 080 050



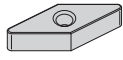
With through coolant.



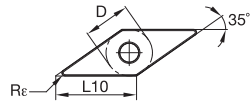
■ H-MTFN 0°



order number	catalog number	D	D min	F	L1	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1095313	H20MTFNR3	1.250	1.470	.765	1.63	-12.0	TN..332	—	KL33L	5/64	CK7	STC9	3/32
1095361	H24MTFNR3	1.500	1.760	.890	1.63	-10.0	TN..332	ITSN323	KL34L	5/64	CK7	STC9	3/32
1095417	H28MTFNR3	1.750	2.010	1.015	1.63	-10.0	TN..332	ITSN323	KL34L	5/64	CK7	STC9	3/32
1095514	H32MTFNR4	2.000	2.400	1.281	1.63	-8.0	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32
1095573	H40MTFNR4	2.500	3.030	1.531	1.63	-6.0	TN..432	ITSN433	KL46	3/32	CK9	STC4	5/32

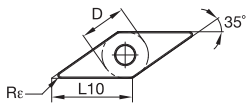
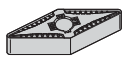


● first choice
○ alternate choice



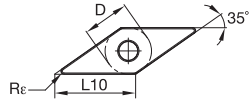
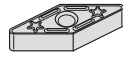
VNGA

ISO catalog number	ANSI catalog number	D mm in	L10 mm in	Re mm in
VNGA160404	VNGA331	9,53 3/8	16,61 .654	0,4 1/64
VNGA160408	VNGA332	9,53 3/8	16,61 .654	0,8 1/32



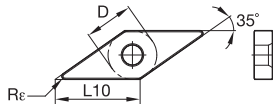
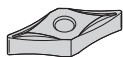
VNGG-FS

ISO catalog number	ANSI catalog number	D mm in	L10 mm in	Re mm in
VNGG160401FS	VNGG330FS	9,53 3/8	16,61 .654	0,1 .004
VNGG160402FS	VNGG3305FS	9,53 3/8	16,61 .654	0,2 .008
VNGG160404FS	VNGG331FS	9,53 3/8	16,61 .654	0,4 1/64
VNGG160408FS	VNGG332FS	9,53 3/8	16,61 .654	0,8 1/32



VNGG-LF

ISO catalog number	ANSI catalog number	D mm in	L10 mm in	Re mm in
VNGG160402LF	VNGG3305LF	9,53 3/8	16,61 .654	0,2 .008
VNGG160404LF	VNGG331LF	9,53 3/8	16,61 .654	0,4 1/64
VNGG160408LF	VNGG332LF	9,53 3/8	16,61 .654	0,8 1/32
VNGG220408LF	VNGG432LF	12,70 1/2	22,14 .872	0,8 1/32

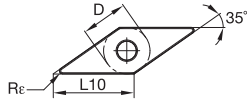
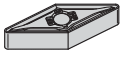


VNGP

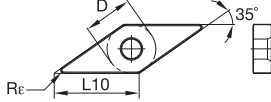
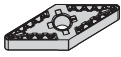
ISO catalog number	ANSI catalog number	D mm in	L10 mm in	Re mm in
VNGP160401	VNGP330	9,53 3/8	16,61 .654	0,1 .004
VNGP160402	VNGP3305	9,53 3/8	16,61 .654	0,2 .008
VNGP220404	VNGP431	12,70 1/2	22,14 .872	0,4 1/64
VNGP220408	VNGP432	12,70 1/2	22,14 .872	0,8 1/32

	P	M	K	N	S	H
KCP05B	●					
KCP05						
KCP10B	●					
KCP10						
KCP25B	●					
KCP25						
KCP30B	●					
KCP30						
KCP40B	●					
KCP40						
KCK05B		○				
KCK05						
KCK15B	○					
KCK15						
KCK20B	○					
KCK20						
KCM15B	○					
KCM15						
KCM25B	○					
KCM25						
KCM35B	○					
KCM35						
KCPK05			●			
K313			●			
K68			●			
KCU10			●			
KCU25			●			
KC5010			●			
KC5025			●			
KC5410			●			
KT315			●			

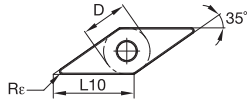
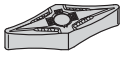
● first choice
○ alternate choice


VNMG-MP

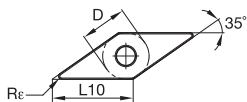
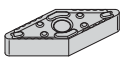
ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
		mm	in	mm	in	mm	in																																	
VNMG160404MP	VNMG331MP	9,53	3/8	16,61	.654	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
VNMG160408MP	VNMG332MP	9,53	3/8	16,61	.654	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
VNMG160412MP	VNMG333MP	9,53	3/8	16,61	.654	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●


VNMG-MR

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
		mm	in	mm	in	mm	in																																		
VNMG160412MR	VNMG333MR	9,52	3/8	16,61	.654	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
VNMG160408MR	VNMG332MR	9,53	3/8	16,61	.654	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●


VNMG-MS

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315		
		mm	in	mm	in	mm	in																																	
VNMG160401MS	VNMG330MS	9,53	3/8	16,61	.654	0,1	.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VNMG160402MS	VNMG3305MS	9,53	3/8	16,61	.654	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VNMG160404MS	VNMG331MS	9,53	3/8	16,61	.654	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VNMG160408MS	VNMG332MS	9,53	3/8	16,61	.654	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VNMG220404MS	VNMG431MS	12,70	1/2	22,14	.872	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VNMG220408MS	VNMG432MS	12,70	1/2	22,14	.872	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-


VNMG-P

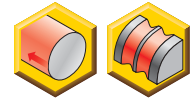
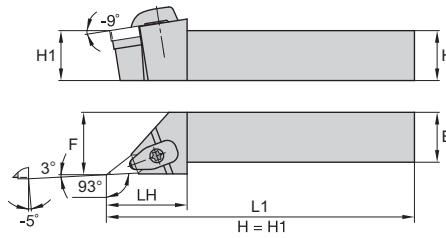
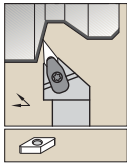
ISO catalog number	ANSI catalog number	D		L10		Re		KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
		mm	in	mm	in	mm	in																																		
VNMG160404P	VNMG331P	9,53	3/8	16,61	.654	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VNMG160408P	VNMG332P	9,53	3/8	16,61	.654	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



ISO/ANSI Turning



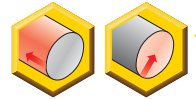
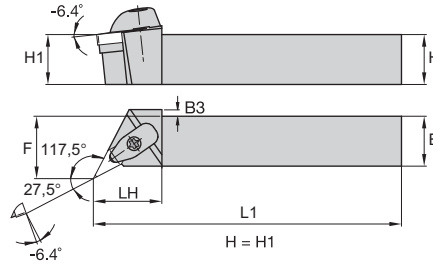
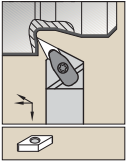
ISO/ANSI Turning



■ DVJN-KC -3°



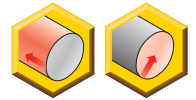
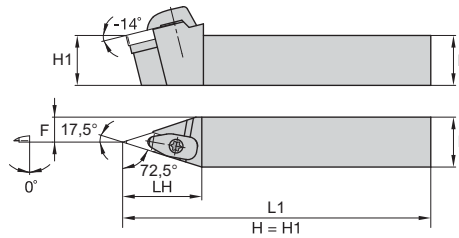
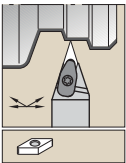
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand													
2503996	DVJNR123CKC3	.75	.75	1.000	5.00	1.82	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2503998	DVJNR163DKC3	1.00	1.00	1.250	6.00	1.82	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504000	DVJNR853DKC3	1.25	1.00	1.250	6.00	1.82	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504002	DVJNR164DKC3	1.00	1.00	1.250	6.00	2.15	VN..432	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M
2504004	DVJNR854DKC3	1.25	1.00	1.250	6.00	2.15	VN..432	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M
left hand													
2503997	DVJNL123CKC3	.75	.75	1.000	5.00	1.82	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2503999	DVJNL163DKC3	1.00	1.00	1.250	6.00	1.82	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504001	DVJNL853DKC3	1.25	1.00	1.250	6.00	1.82	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504003	DVJNL164DKC3	1.00	1.00	1.250	6.00	2.15	VN..432	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M
2504005	DVJNL854DKC3	1.25	1.00	1.250	6.00	2.15	VN..432	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M



ISO/ANSI Turning

■ DVON-KC -117.5°

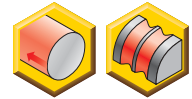
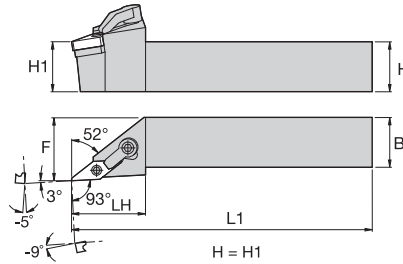
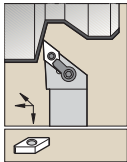

order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin	
right hand															
2504006	DVONR123CKC3	.75	.75	1.000	5.00	1.50	.25	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	
2504008	DVONR163DKC3	1.00	1.00	1.250	6.00	1.47	—	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	
2504010	DVONR853DKC3	1.25	1.00	1.250	6.00	1.47	—	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	
left hand															
2504007	DVONL123CKC3	.75	.75	1.000	5.00	1.50	.25	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	
2504009	DVONL163DKC3	1.00	1.00	1.250	6.00	1.47	—	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	
2504011	DVONL853DKC3	1.25	1.00	1.250	6.00	1.47	—	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M	


■ DVVN-KC 17.5°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
2504012	DVVNN123CKC3	.75	.75	.371	5.00	1.94	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504013	DVVNN163DKC3	1.00	1.00	.496	6.00	1.97	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504014	DVVNN853DKC3	1.25	1.00	.496	6.00	1.88	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	15 IP	SSP025016M
2504015	DVVNN164DKC3	1.00	1.00	.496	6.00	2.28	VN..432	IVSN432	KMSP415IP	15 IP	CM235R ASSY	15 IP	SSP025016M



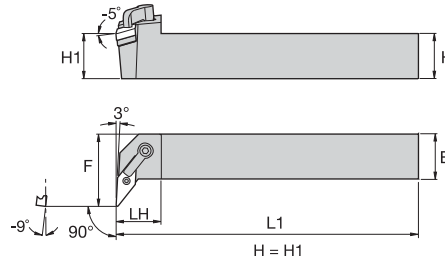
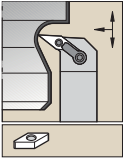
ISO/ANSI Turning



■ **MVJN -3°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1863299	MVJNR123A	.75	.75	1.000	4.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096286	MVJNR123B	.75	.75	1.000	4.50	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096288	MVJNR163C	1.00	1.00	1.250	5.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096289	MVJNR163D	1.00	1.00	1.250	6.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096292	MVJNR203D	1.25	1.25	1.500	6.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1808563	MVJNR243D	1.50	1.50	2.000	6.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096287	MVJNR124B	.75	.75	1.000	4.50	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096290	MVJNR164C	1.00	1.00	1.250	5.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096291	MVJNR164D	1.00	1.00	1.250	6.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096293	MVJNR204D	1.25	1.25	1.500	6.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096294	MVJNR244D	1.50	1.50	2.000	6.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
left hand													
1808550	MVJNL123A	.75	.75	1.000	4.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096295	MVJNL123B	.75	.75	1.000	4.50	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096297	MVJNL163C	1.00	1.00	1.250	5.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096298	MVJNL163D	1.00	1.00	1.250	6.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096301	MVJNL203D	1.25	1.25	1.500	6.00	1.66	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096299	MVJNL164C	1.00	1.00	1.250	5.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096300	MVJNL164D	1.00	1.00	1.250	6.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096302	MVJNL204D	1.25	1.25	1.500	6.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096303	MVJNL244D	1.50	1.50	2.000	6.00	2.00	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32

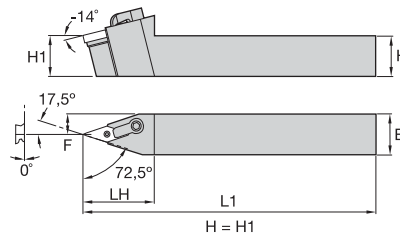
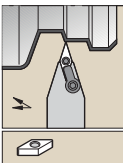


ISO/ANSI Turning

■ **MVUN -3°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1863302	MVUNR204C	1.25	1.25	2.000	5.00	1.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1808556	MVUNR204D	1.25	1.25	2.000	6.00	1.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1808555	MVUNR244D	1.50	1.50	2.250	6.00	1.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
left hand													
1808557	MVUNL204D	1.25	1.25	2.000	6.00	1.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1843889	MVUNL244D	1.50	1.50	2.250	6.00	1.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32

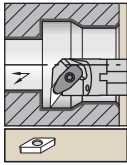


■ **MVVN 17.5°**

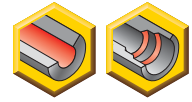
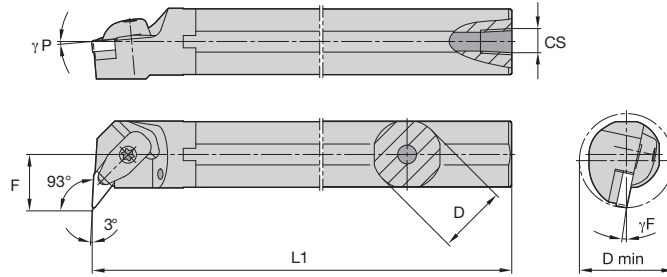


order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
1096002	MVVNN123B	.75	.75	.375	4.50	1.77	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096003	MVVNN163C	1.00	1.00	.500	5.00	1.77	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096004	MVVNN163D	1.00	1.00	.500	6.00	1.77	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096006	MVVNN203D	1.25	1.25	.625	6.00	1.77	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32
1096005	MVVNN164D	1.00	1.00	.500	6.00	2.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1096007	MVVNN204D	1.25	1.25	.625	6.00	2.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
1808554	MVVNN244E	1.50	1.50	.750	7.00	2.25	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32

ISO/ANSI Turning



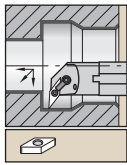
Steel shank with through coolant.



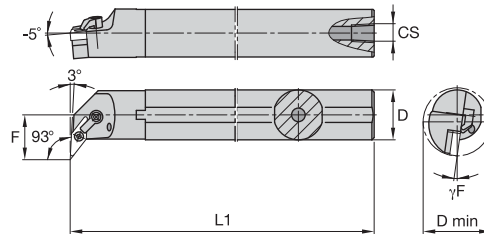
■ **A-DVU-KC 3°**



order number	catalog number	D	D min	F	L1	CS	γP°	γF°	gage insert	shim	shim screw	Torx Plus	clamp assembly	slotted pin	Torx Plus
right hand															
2659293	A20UDVUNR3KC3	1.250	1.705	1.000	14.00	1/4-18 NPT	-5.0	-9.0	VN..332	IVSN322	KMSP315IP	15 IP	CM234R ASSY	SSP025016M	15 IP
2659295	A24UDVUNR3KC3	1.500	2.000	1.125	14.00	1/4-18 NPT	-5.0	-8.0	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	SSP025016M	15 IP
left hand															
2659294	A24UDVUNL3KC3	1.500	2.000	1.125	14.00	1/4-18 NPT	-5.0	-8.0	VN..332	IVSN322	KMSP315IP	15 IP	CM215R ASSY	SSP025016M	15 IP



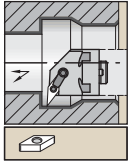
Steel shank with through coolant.



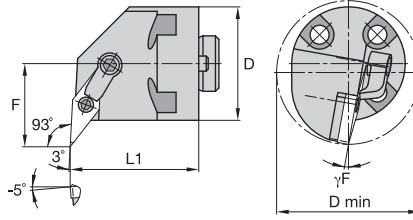
■ **A-MVUN -3°**



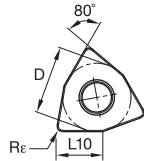
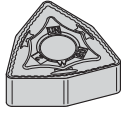
order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex	
right hand															
1096466	A20UMVUNR3	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32	
1096467	A24UMVUNR3	1.500	2.000	1.125	14.00	1/4-18 NPT	-12.0	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32	
1808226	A32MVUNR4	2.000	2.500	1.325	16.00	1/4-18 NPT	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32	
1808230	A40MVUNR4	2.500	3.250	1.750	16.00	1/4-18 NPT	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32	
left hand															
1096468	A20UMVUNL3	1.250	1.705	1.000	14.00	1/4-18 NPT	-12.0	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32	
1096469	A24UMVUNL3	1.500	2.000	1.125	14.00	1/4-18 NPT	-12.0	VN..332	IVSN322	KL34L	5/64	CK43	STC4	5/32	
1808225	A32MVUNL4	2.000	2.500	1.325	16.00	1/4-18 NPT	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32	
1808229	A40MVUNL4	2.500	3.250	1.750	16.00	1/4-18 NPT	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32	



With through coolant.


■ H-MVUN -3°

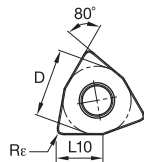
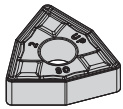

order number	catalog number	D	D min	F	L1	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1095317	H20MVUNR3	1.250	1.705	1.000	1.63	-12.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
1095365	H24MVUNR3	1.500	2.000	1.125	1.63	-10.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
2384979	H32MVUNR3	2.000	2.650	1.325	1.63	-10.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
1095461	H32MVUNR4	2.000	2.500	1.375	1.63	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
2384977	H40MVUNR3	2.500	3.250	1.750	1.63	-10.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
1095538	H40MVUNR4	2.500	3.250	1.750	1.63	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
left hand													
1095318	H20MVUNL3	1.250	1.705	1.000	1.63	-12.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
1095366	H24MVUNL3	1.500	2.000	1.125	1.63	-12.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
2384980	H32MVUNL3	2.000	2.650	1.325	1.63	-10.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
1095515	H32MVUNL4	2.000	2.500	1.375	1.63	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32
2384978	H40MVUNL3	2.500	3.250	1.750	1.63	-10.0	VN..332	IVSN322	KL34L	5/64	CK22	STC20	1/8
1095539	H40MVUNL4	2.500	3.250	1.750	1.63	-10.0	VN..432	IVSN433	KL46	3/32	CK43	STC4	5/32



- first choice
- alternate choice

■ WNMG-UN

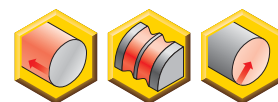
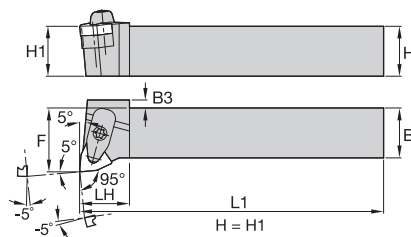
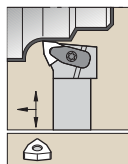
ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
WNMG060408UN	WNMG332UN	9,53	3/8	6,52	.257	0,8	1/32
WNMG080404UN	WNMG431UN	12,70	1/2	8,69	.342	0,4	1/64
WNMG080408UN	WNMG432UN	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412UN	WNMG433UN	12,70	1/2	8,69	.342	1,2	3/64
WNMG080416UN	WNMG434UN	12,70	1/2	8,69	.342	1,6	1/16



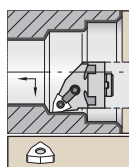
■ WNMG-UP

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
WNMG060408UP	WNMG332UP	9,53	3/8	6,52	.257	0,8	1/32
WNMG080408UP	WNMG432UP	12,70	1/2	8,69	.342	0,8	1/32
WNMG080412UP	WNMG433UP	12,70	1/2	8,69	.342	1,2	3/64

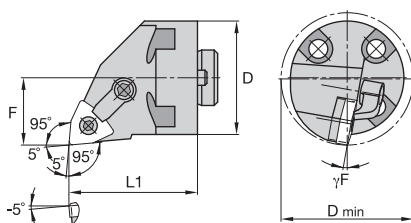
	P	M	K	N	S	H	KCP05B	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30B	KCP30	KCP40B	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35B	KCM35	KCPK05	K313	K68	KCU10	KCU25	KC5010	KC5025	KC5410	KT315			
WNMG060408UN	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
WNMG080404UN	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
WNMG080408UN	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WNMG080412UN	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WNMG080416UN	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WNMG060408UP	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
WNMG080408UP	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
WNMG080412UP	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	


■ DWLN-KC -5°


order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	clamp assembly	Torx Plus	slotted pin
right hand														
2273045	DWLN123BKC3	.75	.75	1.000	4.50	1.00	.28	WN..332	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273047	DWLN163CKC3	1.00	1.00	1.250	5.00	1.00	.06	WN..332	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273049	DWLN163DKC3	1.00	1.00	1.250	6.00	1.00	.06	WN..332	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875144	DWLN164CKC3	1.00	1.00	1.250	5.00	1.00	.15	WN..432	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875138	DWLN164DKC3	1.00	1.00	1.250	6.00	1.00	.15	WN..432	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875166	DWLN204DKC3	1.25	1.25	1.500	6.00	1.00	—	WN..432	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
left hand														
2273046	DWLN123BKC3	.75	.75	1.000	4.50	1.00	.28	WN..332	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
2273048	DWLN163CKC3	1.00	1.00	1.250	5.00	1.00	.06	WN..332	IWSN322	KMSP315IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875155	DWLN164CKC3	1.00	1.00	1.250	5.00	1.00	.15	WN..432	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875143	DWLN164DKC3	1.00	1.00	1.250	6.00	1.00	.15	WN..432	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M
1875172	DWLN204DKC3	1.25	1.25	1.500	6.00	1.00	—	WN..432	IWSN433	KMSP415IP	15 IP	CM234R ASSY	15 IP	SSP025016M

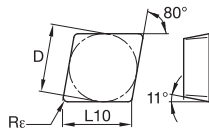
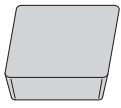
Kenloc™ Boring Heads


With through coolant.


■ H-MWLN -5°


order number	catalog number	D	D min	F	L1	γF°	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1095341	H20MWLNR4	1.250	1.470	.765	1.63	-14.0	WN..432	IWSN433	KL46	3/32	CK20	STC20	1/8
1095395	H24MWLNR4	1.500	1.760	.890	1.63	-14.0	WN..432	IWSN433	KL46	3/32	CK20	STC20	1/8
1095442	H28MWLNR4	1.750	2.010	1.015	1.63	-14.0	WN..432	IWSN433	KL46	3/32	CK20	STC20	1/8
1095489	H32MWLNR4	2.000	2.400	1.281	1.63	-14.0	WN..432	IWSN433	KL46	3/32	CK20	STC20	1/8
left hand													
1096482	H16MWLNL3	1.000	1.200	.640	1.63	-12.0	WN..332	—	KL33L	5/64	CK6	STC5	3/32
1095400	H24MWLNL4	1.500	1.760	.890	1.63	-14.0	WN..432	IWSN433	KL46	3/32	CK20	STC20	1/8
1095495	H32MWLNL4	2.000	2.400	1.281	1.63	-14.0	WN..432	IWSN433	KL46	3/32	CK20	STC20	1/8

ISO/ANSI Turning

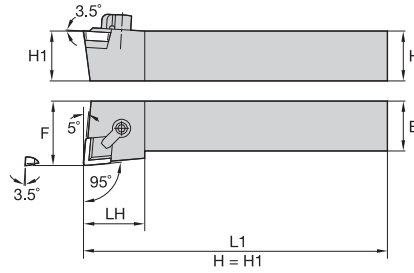
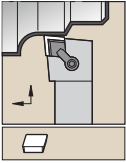


■ CPGN/CPG

● first choice
○ alternate choice

P	●	○	○	●	●	●	●	●
M	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●	●
S	●	●	●	●	●	●	●	●
H	●	●	●	●	●	●	●	●

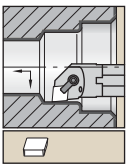
ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
CPGN120304	CPG421	12,70	1/2	12,90	.508	0,4	1/64	-	-	-	●	●	-	-	-
CPGN120308	CPG422	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	●	●	-	-	-



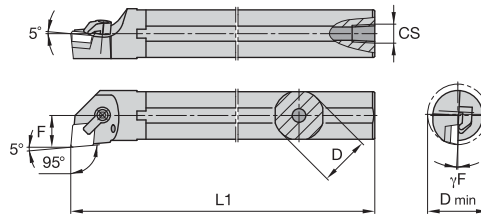
ISO/ANSI Turning

■ CCLP -5°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096902	CCLPR084V	.50	.50	.750	3.50	1.00	CP.422	SM369	S19	1/16	CK7	STC9	3/32
1096903	CCLPR124B	.75	.75	1.000	4.50	1.25	CP.422	SM369	S111	1/16	CK13	STC8	5/32
1096904	CCLPR164C	1.00	1.00	1.250	5.00	1.25	CP.422	SM369	S111	1/16	CK12	STC4	5/32
left hand													
1096898	CCLPL124B	.75	.75	1.000	4.50	1.25	CP.422	SM369	S111	1/16	CK13	STC8	5/32
1096899	CCLPL164C	1.00	1.00	1.250	5.00	1.25	CP.422	SM369	S111	1/16	CK12	STC4	5/32

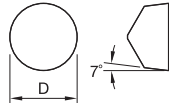
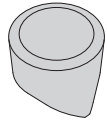
Kendex Boring Bars


Steel shank with through coolant.


■ A-CCLP-5°


order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand														
1094896	A16CCLPR4	1.000	1.200	.640	12.00	1/4-18 NPT	-3.0	CP.422	SM369	S19	1/16	CK20	STC11	1/8
1094900	A24CCLPR4	1.500	1.760	.890	14.00	1/4-18 NPT	.0	CP.422	SM369	S19	1/16	CK22	STC26	1/8

ISO/ANSI Turning

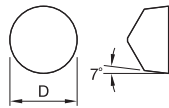
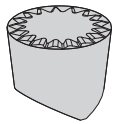


■ RCGV

● first choice
○ alternate choice

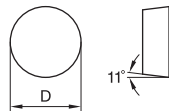
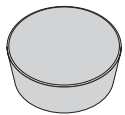
P	●	○	○	●	●	●	●	●	●
M	●	○	○	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●
N	○	○	○	●	●	●	●	●	●
S	○	○	○	●	●	●	●	●	●
H	○	○	○	○	○	○	○	○	○

ISO catalog number	ANSI catalog number	D		L10		R _e		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
RCGV060400	RCGV23	6,35	1/4	—	—	—	—	—	—	—	—	—	—	—	—
RCGV090700	RCGV35	9,53	3/8	—	—	—	—	—	—	—	—	—	—	—	—
RCGV120700	RCGV45	12,70	1/2	—	—	—	—	—	—	—	●	—	—	—	—



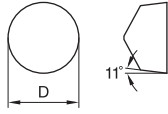
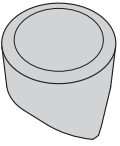
■ RCGV-MP

ISO catalog number	ANSI catalog number	D		L10		R _e		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
RCGX060400MP	RCGV23MP	6,35	1/4	—	—	—	—	—	—	—	—	—	—	—	—
RCGX120700MP	RCGV45MP	12,70	1/2	—	—	—	—	—	—	—	—	—	●	—	—



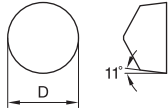
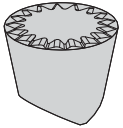
■ RPGN/RPG

ISO catalog number	ANSI catalog number	D		L10		R _e		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
RPGN120300	RPG42	12,70	1/2	—	—	—	—	—	—	—	●	—	—	—	—



■ RPGV

ISO catalog number	ANSI catalog number	D		L10		R _e	
		mm	in	mm	in	mm	in
RPGV060400	RPGV23	6,35	1/4	—	—	—	—
RPGV090700	RPGV35	9,53	3/8	—	—	—	—
RPGV120700	RPGV45	12,70	1/2	—	—	—	—



■ RPGV-MP

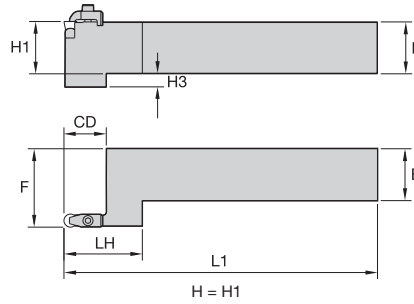
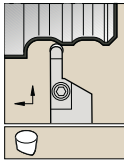
ISO catalog number	ANSI catalog number	D		L10		R _e	
		mm	in	mm	in	mm	in
RPGX060400MP	RPGV23MP	6,35	1/4	—	—	—	—
RPGX090700MP	RPGV35MP	9,53	3/8	—	—	—	—
RPGV120700MP	RPGV45MP	12,70	1/2	—	—	—	—
RPGX120700MP	RPGV45MP	12,70	1/2	—	—	—	—

● first choice
○ alternate choice

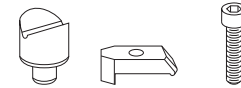
P	M	K	N	S	H	KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●
●	○	○	●	●	●	—	—	—	—	—	—	—	●

ISO/ANSI Turning

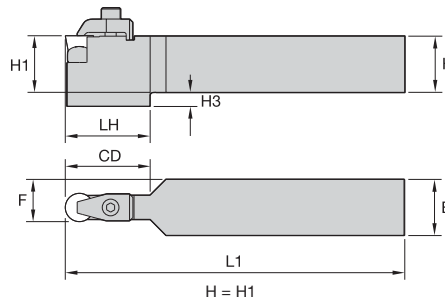
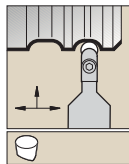
ISO/ANSI Turning



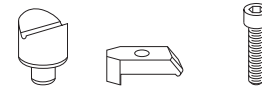
411-VRS



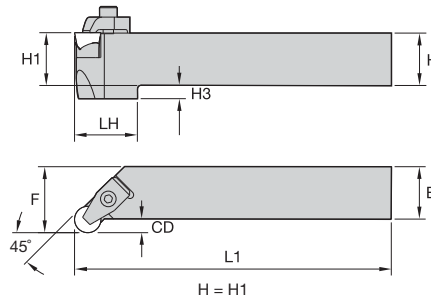
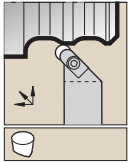
order number	catalog number	H	B	F	L1	LH	CD	H3	gage insert	nest	clamp	clamp screw	hex
right hand													
1298873	4111492VRS	1.00	1.00	1.500	6.00	1.50	.75	.25	R..V23	NST1	CM214	MS1321	2.5 mm
1298876	4111573VRS	1.00	1.00	1.000	6.00	1.19	1.13	.25	R..V35	NST2	CM219	CS412	3.5 mm
1156449	4111593VRS	1.25	1.25	1.250	6.00	1.19	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
1298882	4111654VRS	1.00	1.00	1.000	6.00	1.56	1.50	.25	R..V45	NST3	CM216	CS412	3.5 mm
1298884	4111674VRS	1.25	1.25	1.250	6.00	1.56	1.50	—	R..V45	NST3	CM216	CS412	3.5 mm
left hand													
1298879	4111603VRS	1.25	1.25	1.250	6.00	1.19	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
1298883	4111664VRS	1.00	1.00	1.000	6.00	1.50	1.50	.25	R..V45	NST3	CM216	CS412	3.5 mm



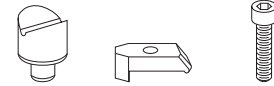
CRDP



order number	catalog number	H	B	F	L1	LH	CD	H3	gage insert	nest	clamp	clamp screw	hex
3641572	CRDPN162DV	1.00	1.00	.496	6.00	—	.75	—	R..V23	NST1	CM214	MS1321	2.5 mm
3641593	CRDPN163DV	1.00	1.00	.496	6.00	—	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
3641594	CRDPN203DV	1.25	1.25	.621	6.00	—	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
3641595	CRDPN164DV	1.00	1.00	.496	6.00	1.50	1.50	.25	R..V45	NST3	CM216	CS412	3.5 mm
3641597	CRDPN204DV	1.25	1.25	.621	6.00	—	1.50	—	R..V45	NST3	CM216	CS412	3.5 mm



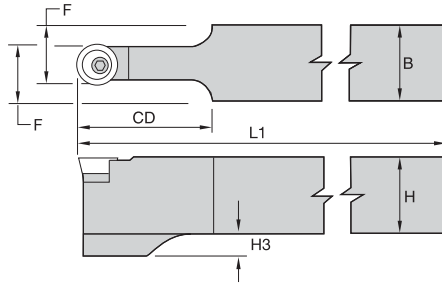
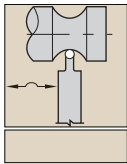
■ CRGP



order number	catalog number	H	B	F	L1	CD	gage insert	nest	clamp	clamp screw	hex
right hand											
3641603	CRGPR162DV	1.00	1.00	1.250	6.00	.25	R..V23	NST1	CM214	MS1321	2.5 mm
3641611	CRGPR204DV	1.25	1.25	1.500	6.00	.25	R..V45	NST3	CM216	CS412	3.5 mm
left hand											
3641604	CRGPL162DV	1.00	1.00	1.250	6.00	.25	R..V23	NST1	CM214	MS1321	2.5 mm
3641608	CRGPL203DV	1.25	1.25	1.500	6.00	.25	R..V35	NST2	CM219	CS412	3.5 mm

NOTE: CRGP toolholders are able to use RPGX and RCGX insert styles.

ISO/ANSI Turning



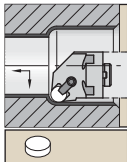
■ Bevel Lock



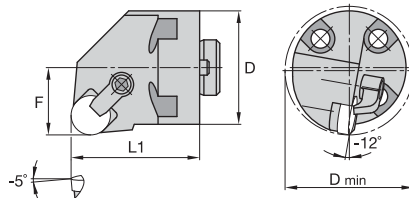
order number	catalog number	H	B	F	L1	CD	H3	gage insert	shim	lock pin	hex
1095802	PROON164D	1.00	1.00	.750	6.00	1.86	—	RC..43	SMRN42B	BP46	3/32
1095803	PROON204D	1.25	1.25	.875	6.00	1.88	—	RC..43	SMRN42B	BP46	3/32
1095806	PROON244D	1.50	1.50	1.000	6.00	1.88	—	RC..43	SMRN42B	BP46	3/32
1095804	PROON206D	1.25	1.25	1.000	6.00	2.36	—	RC..64	SMRN63B	BP68	1/8
1095808	PROON246	1.50	1.50	1.125	8.00	2.37	—	RC..64	SMRN63B	BP68	1/8
1095805	PROON208D	1.25	1.25	1.125	6.00	2.32	.25	RC..86	SMRN84B	BP812	9/64

NOTE: Order numbers 1095802, 1095803, and 1095806 accept RCGH-43 inserts only. RCMH-43 inserts will not fit.

Kendex™ Boring Heads • Kendex Positive Inserts



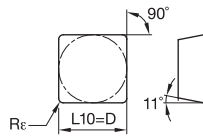
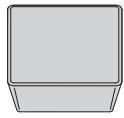
With through coolant.



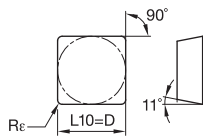
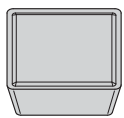
■ H-CRGN



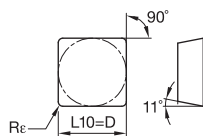
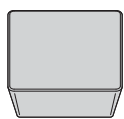
order number	catalog number	D	D min	F	L1	gage insert	shim	shim screw	clamp	clamp screw	hex
right hand											
1095001	H24CRGNR4	1.500	1.760	.890	1.63	RN.42	SM437	SL344	CK7LP	STC9	3/32
1095003	H32CRGNR4	2.000	2.400	1.281	1.63	RN.42	SM437	SL344	CK7LP	STC9	3/32


■ SPGN/SPG

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
SPGN090304	SPG321	9,53	3/8	9,53	.375	0,4	1/64	●	○	○	○	○	○	○	○
SPGN090308	SPG322	9,53	3/8	9,53	.375	0,8	1/32	-	-	●	○	○	○	○	○
SPGN120304	SPG421	12,70	1/2	12,70	.500	0,4	1/64	-	-	-	-	●	○	○	○
SPGN120308	SPG422	12,70	1/2	12,70	.500	0,8	1/32	-	-	●	○	○	○	○	○
SPGN120312	SPG423	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	●	○	○	○
SPGN120412	SPG433	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	-	-	●	○
SPGN120316	SPG424	12,70	1/2	12,70	.500	1,6	1/16	-	-	-	-	-	-	-	●
SPGN190408	SPG632	19,05	3/4	19,05	.750	0,8	1/32	-	-	-	-	●	○	○	○
SPGN190412	SPG633	19,05	3/4	19,05	.750	1,2	3/64	-	-	●	○	-	-	●	○


■ SPGR-K/SPGF

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
SPGR090308K	SPGF322	9,53	3/8	9,53	.375	0,8	1/32	-	-	-	-	-	-	●	○
SPGR120308K	SPGF422	12,70	1/2	12,70	.500	0,8	1/32	●	-	-	-	-	-	-	-


■ SPUN/SPU

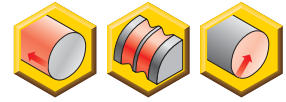
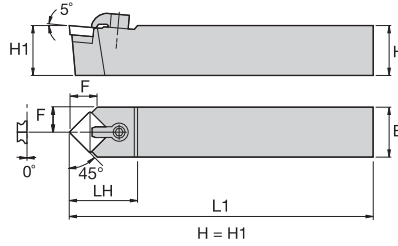
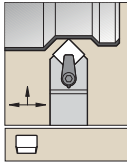
ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
SPUN120304	SPU421	12,70	1/2	12,70	.500	0,4	1/64	●	-	-	-	●	-	-	-
SPUN120308	SPU422	12,70	1/2	12,70	.500	0,8	1/32	●	-	-	-	●	-	-	-
SPUN120312	SPU423	12,70	1/2	12,70	.500	1,2	3/64	●	-	-	-	-	-	-	-

● first choice
○ alternate choice

P	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO/ANSI Turning

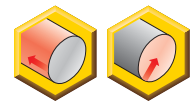
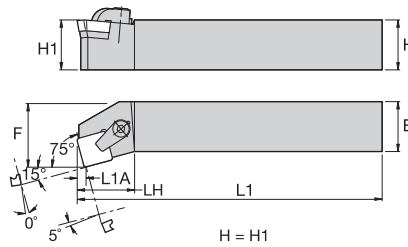
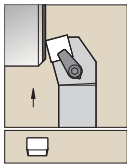
ISO/ANSI Turning



■ **CSDP 45°**



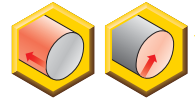
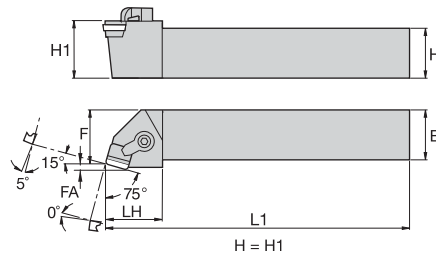
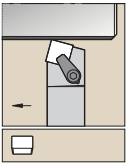
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
1096909	CSDPN103	.63	.63	.312	4.50	.94	SP.322	SM120	SL344	—	CK7	STC5	3/32
1096910	CSDPN124	.75	.75	.375	4.50	1.38	SP.422	SM40	S111	1/16	CK10	STC8	5/32
1096912	CSDPN644	1.00	.75	.375	6.00	1.38	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096911	CSDPN164	1.00	1.00	.500	6.00	1.38	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096914	CSDPN856	1.25	1.00	.500	6.00	1.82	SP.633	SM36	S125	3/32	CK29	STC19	3/16



■ **CSKP 15°**



order number	catalog number	H	B	F	L1	LH	L1A	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand														
1096920	CSKPR164D	1.00	1.00	1.250	6.00	1.13	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32
left hand														
1096917	CSKPL164D	1.00	1.00	1.250	6.00	1.13	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32

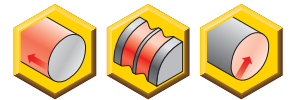
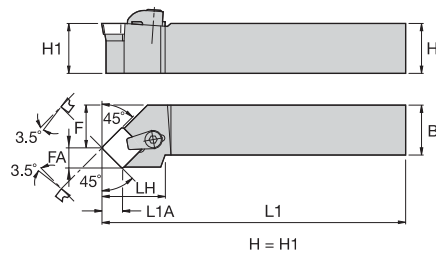
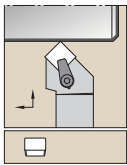


ISO/ANSI Turning

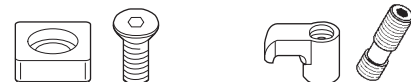
■ CSR 15°



order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	clamp	clamp screw	hex	
right hand															
1096932	CSRPR164D	1.00	1.00	1.048	6.00	1.19	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32	
1096934	CSRPR866E	1.50	1.00	1.060	7.00	1.50	.18	SP.633	SM36	S125	3/32	CK9	STC4	5/32	
left hand															
1096925	CSRPL124B	.75	.75	.855	4.50	1.19	.12	SP.422	SM40	S111	1/16	CK10	STC8	5/32	
1096926	CSRPL164D	1.00	1.00	1.048	6.00	1.19	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32	
1096927	CSRPL856D	1.25	1.00	1.060	6.00	1.50	.18	SP.633	SM36	S125	3/32	CK9	STC4	5/32	
1096928	CSRPL866E	1.50	1.00	1.060	7.00	1.50	.18	SP.633	SM36	S125	3/32	CK9	STC4	5/32	



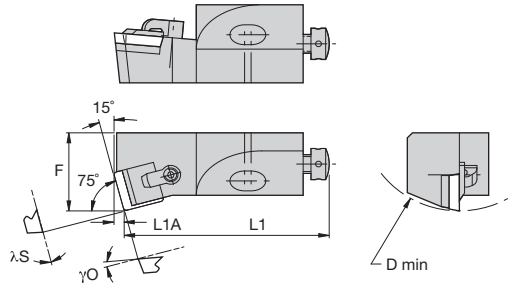
■ CSSP 45°



order number	catalog number	H	B	F	L1	LH	FA	L1A	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand															
1085234	CSSPR164D	1.00	1.00	1.170	6.00	1.44	.34	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096937	CSSPR854D	1.25	1.00	1.170	6.00	1.44	.34	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
left hand															
1096691	CSSPL164D	1.00	1.00	1.170	6.00	1.44	.33	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096935	CSSPL854D	1.25	1.00	1.170	6.00	1.44	.33	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096693	CSSPL856D	1.25	1.00	1.020	6.00	1.50	.48	.53	SP.633	SM36	S125	3/32	CK9	STC4	5/32



ISO/ANSI Turning



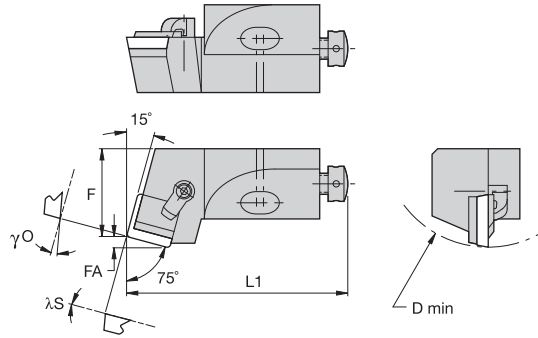
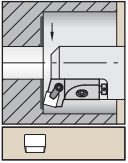
■ CSKP 15°

order number	catalog number	D min	F	L1	L1A	λS°	γ0°	gage insert
right hand 1261328	CSKPR12CA4	1.969	.787	2.17	.12	.0	5.0	SP..120308/SP..422

■ Spare Parts



D min	shim	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050



ISO/ANSI Turning

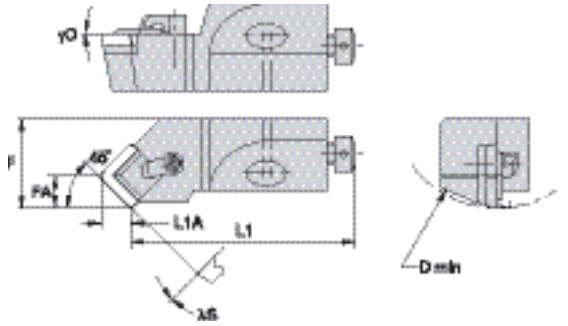
CSRPR -15°

order number	catalog number	D min	F	FA	L1	λS°	γ0°	gage insert
right hand								
3331132	CSRPR10CA3	1.575	.551	.087	1.97	.0	.0	SP..090308/SP..322

Spare Parts


D min	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050

ISO/ANSI Turning



■ **CSSP 45°**

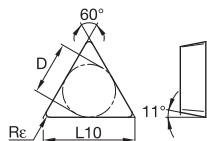
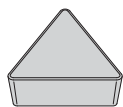
order number	catalog number	D min	F	FA	L1	L1A	λS°	γ0°	gage insert
right hand									
1261379	CSSPR10CA3	1.575	.551	.254	1.73	.24	.0	.0	SP..090308/SP..322
left hand									
3331143	CSSPL10CA3	1.575	.551	.254	1.73	.24	.0	.0	SP..090308/SP..322

NOTE: Select spare parts based off of D min and insert size selected.

■ **Spare Parts**



D min	shim	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	—	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050

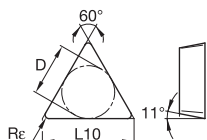
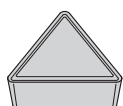


● first choice
○ alternate choice

P	●	○	○	●	●	●	●	●	●
M	●	○	○	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●
N	○	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○

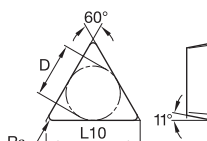
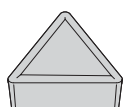
TPGN/TPG

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
TPGN110304	TPG221	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	●	●	-	●	●
TPGN110308	TPG222	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	●	●	-	●	●
TPGN160302	TPG3205	9,53	3/8	16,50	.650	0,2	.008	-	-	-	●	●	-	-	●
TPGN160304	TPG321	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	●	●	-	-	●
TPGN160308	TPG322	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●	●	-	-	●
TPGN160312	TPG323	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	●	●	-	-	●
TPGN160316	TPG324	9,53	3/8	16,50	.650	1,6	1/16	-	-	-	●	●	-	-	●
TPGN220404	TPG431	12,70	1/2	22,00	.866	0,4	1/64	-	-	-	●	●	-	-	●
TPGN220408	TPG432	12,70	1/2	22,00	.866	0,8	1/32	●	-	-	●	●	-	-	●
TPGN220412	TPG433	12,70	1/2	22,00	.866	1,2	3/64	-	-	-	●	●	-	-	●
TPGN220416	TPG434	12,70	1/2	22,00	.866	1,6	1/16	-	-	-	●	●	-	-	●



TPGR-K/TPGF

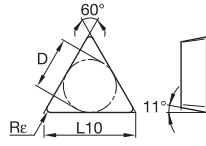
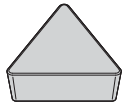
ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
TPGR110304K	TPGF221	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	-	-	-	-	●
TPGR110308K	TPGF222	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	-	-	-	-	●
TPGR160304K	TPGF321	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	-	-	-	-	●
TPGR160308K	TPGF322	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	-	-	-	-	●
TPGR220404K	TPGF431	12,70	1/2	22,00	.866	0,4	1/64	●	-	-	-	-	-	-	●
TPGR220408K	TPGF432	12,70	1/2	22,00	.866	0,8	1/32	-	-	-	-	-	-	-	●



TPMR

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
TPMR110304	TPMR221	6,35	1/4	11,00	.433	0,4	1/64	●	●	-	-	-	-	-	-
TPMR110308	TPMR222	6,35	1/4	11,00	.433	0,8	1/32	●	-	-	-	-	-	-	-
TPMR160304	TPMR321	9,53	3/8	16,50	.650	0,4	1/64	●	●	-	-	-	-	-	-
TPMR160308	TPMR322	9,53	3/8	16,50	.650	0,8	1/32	●	●	-	-	-	-	-	-
TPMR220408	TPMR432	12,70	1/2	22,00	.866	0,8	1/32	●	-	-	-	-	-	-	-

ISO/ANSI Turning

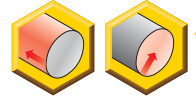
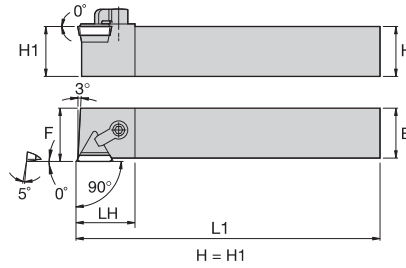
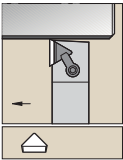


● first choice
○ alternate choice

■ TPUN/TPU

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP25B	KCK15B	KCK15	K313	K68	KCS10	KCU10	KC5010
		mm	in	mm	in	mm	in								
TPUN110304	TPU221	6,35	1/4	11,00	.433	0,4	1/64	-	●	-	-	-	-	-	-
TPUN110308	TPU222	6,35	1/4	11,00	.433	0,8	1/32	-	●	-	-	-	-	-	-
TPUN160304	TPU321	9,53	3/8	16,50	.650	0,4	1/64	●	●	-	-	●	-	-	-
TPUN160308	TPU322	9,53	3/8	16,50	.650	0,8	1/32	●	●	-	-	●	-	-	-
TPUN220408	TPU432	12,70	1/2	22,00	.866	0,8	1/32	●	●	-	-	●	-	-	-
TPUN220412	TPU433	12,70	1/2	22,00	.866	1,2	3/64	●	●	-	-	●	-	-	-

P	●	○	○	●	●	●	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

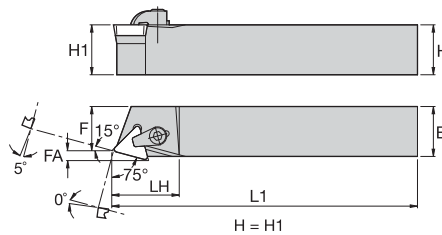
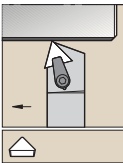


ISO/ANSI Turning

■ CTAP 0°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096948	CTAPR082B	.50	.50	.500	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1096949	CTAPR102B	.63	.63	.625	4.50	.75	TP.221	SM119	SL344	—	CK19	STC5	3/32
1096950	CTAPR123B	.75	.75	.750	4.50	1.06	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096951	CTAPR163D	1.00	1.00	1.000	6.00	1.06	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1096952	CTAPR854D	1.25	1.00	1.000	6.00	1.12	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand													
1096941	CTAPL123B	.75	.75	.750	4.50	1.06	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096946	CTAPL854D	1.25	1.00	1.000	6.00	1.12	TP.432	SM37	S125	3/32	CK9	STC4	5/32



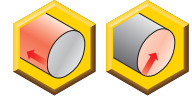
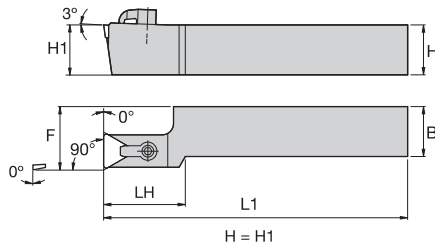
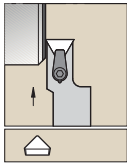
■ CTBP 15°



order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand														
1096959	CTBPR123B	.75	.75	.600	4.50	1.19	.15	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096960	CTBPR163D	1.00	1.00	.850	6.00	1.19	.15	TP.322	SM41	S111	1/16	CK9	STC4	5/32
left hand														
1096955	CTBPL123B	.75	.75	.600	4.50	1.19	.15	TP.322	SM41	S111	1/16	CK10	STC8	5/32



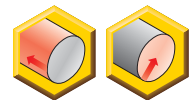
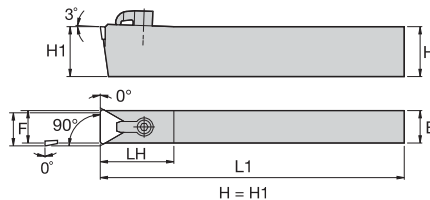
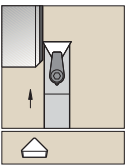
ISO/ANSI Turning



■ **CTCP 0°**



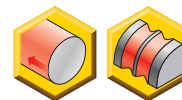
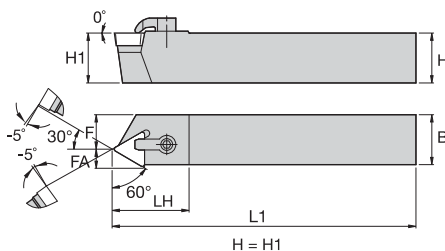
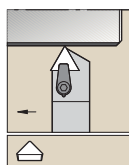
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096976	CTCPR123B	.75	.75	1.000	4.50	1.50	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096977	CTCPR163C	1.00	1.00	1.250	5.00	1.50	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096978	CTCPR164C	1.00	1.00	1.250	5.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096979	CTCPR164D	1.00	1.00	1.250	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096980	CTCPR204D	1.25	1.25	1.500	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096982	CTCPR244D	1.50	1.50	2.000	6.00	3.00	TP.432	SM37	S125	3/32	CK13	STC4	5/32
left hand													
1096963	CTCPL163C	1.00	1.00	1.250	5.00	1.50	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096965	CTCPL164D	1.00	1.00	1.250	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096966	CTCPL204D	1.25	1.25	1.500	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096968	CTCPL244D	1.50	1.50	2.000	6.00	3.00	TP.432	SM37	S125	3/32	CK13	STC4	5/32



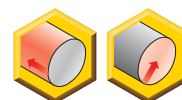
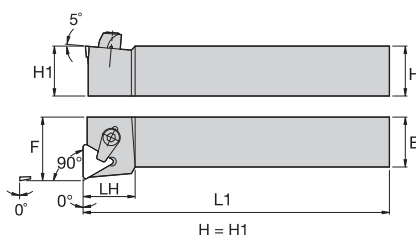
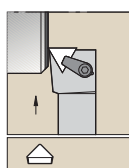
■ **CTCPN 0°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
1096972	CTCPN443	1.00	.50	.542	8.00	1.19	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096971	CTCPN124	.75	.75	.782	6.00	1.31	TP.432	SM37	S125	3/32	CK13	STC8	5/32
1096973	CTCPN644	1.00	.75	.782	8.00	1.31	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096974	CTCPN664	1.50	.75	.782	8.00	1.31	TP.432	SM37	S125	3/32	CK13	STC4	5/32


CTEP 30°

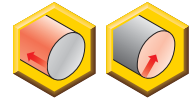
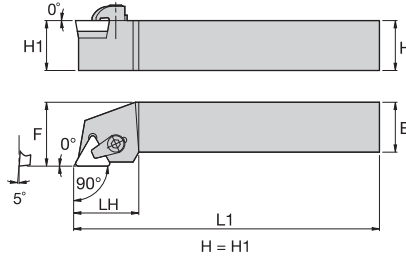
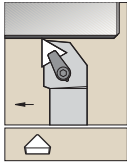

order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	clamp	clamp screw	hex	
right hand															
1096985	CTEPR123B	.75	.75	.460	4.50	1.25	.28	TP.322	SM41	S111	1/16	CK10	STC8	5/32	
1096992	CTEPR163D	1.00	1.00	.700	6.00	1.25	.28	TP.322	SM41	S111	1/16	CK9	STC4	5/32	
1096993	CTEPR854D	1.25	1.00	.610	6.00	1.31	.39	TP.432	SM37	S125	3/32	CK9	STC4	5/32	
left hand															
1096989	CTEPL854D	1.25	1.00	.610	6.00	1.31	.39	TP.432	SM37	S125	3/32	CK9	STC4	5/32	


CTFP 0°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1097008	CTFPR082V	.50	.50	.750	3.50	.56	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097011	CTFPR123B	.75	.75	1.000	4.50	1.12	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097013	CTFPR163D	1.00	1.00	1.250	6.00	1.12	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097014	CTFPR164C	1.00	1.00	1.250	5.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097015	CTFPR164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097018	CTFPR854D	1.25	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097016	CTFPR204D	1.25	1.25	1.500	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand													
1096997	CTFPL123B	.75	.75	1.000	4.50	1.12	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096999	CTFPL163D	1.00	1.00	1.250	6.00	1.12	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097001	CTFPL164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097004	CTFPL854D	1.25	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32



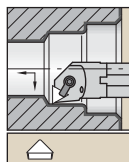
ISO/ANSI Turning



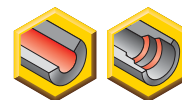
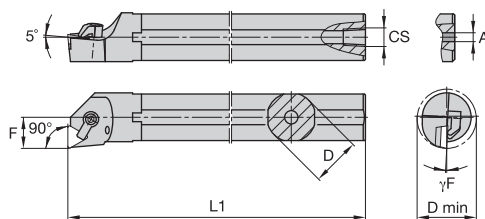
■ CTGP 0°



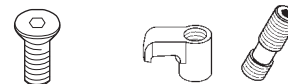
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096696	CTGPR082B	.50	.50	.750	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097035	CTGPR102B	.63	.63	.875	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097036	CTGPR123A	.75	.75	1.000	4.00	1.13	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097037	CTGPR123B	.75	.75	1.000	4.50	1.13	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097038	CTGPR163C	1.00	1.00	1.250	5.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097039	CTGPR163D	1.00	1.00	1.250	6.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097041	CTGPR164C	1.00	1.00	1.250	5.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097042	CTGPR164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097043	CTGPR204D	1.25	1.25	1.500	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand													
1097021	CTGPL102B	.63	.63	.875	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097022	CTGPL123B	.75	.75	1.000	4.50	1.13	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097023	CTGPL163C	1.00	1.00	1.250	5.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097024	CTGPL163D	1.00	1.00	1.250	6.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097026	CTGPL164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097027	CTGPL204D	1.25	1.25	1.500	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32



Steel shank with through coolant.

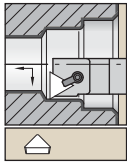


ISO/ANSI Turning

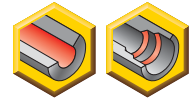
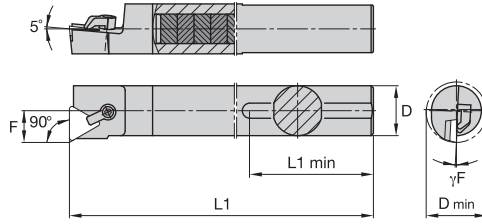
■ A-CTFP 0°


order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand															
1094872	A06RCTFPR2	.375	.480	.250	6.00	.13	—	-3.0	TPG.2151	—	—	—	CK27	STC27	5/64
1094874	A08RCTFPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	—	—	—	CK27	STC27	5/64
1094876	A10SCTFPR2	.625	.770	.406	10.00	.16	1/8-27 NPT	-4.0	TP.221	—	—	—	CK19	STC9	3/32
1094878	A12SCTFPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	—	—	—	CK7	STC9	3/32
1094880	A16TCTFPR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	.0	TP.322	—	—	—	CK20	STC11	1/8
1094882	A20UCTFPR3	1.250	1.470	.765	14.00	.25	1/4-18 NPT	-3.0	TP.322	SM41	S19	1/16	CK10	STC8	5/32
1094884	A24CTFPR3	1.500	1.760	.890	14.00	.25	1/4-18 NPT	-3.0	TP.322	SM41	S19	1/16	CK10	STC8	5/32
1094888	A24CTFPR4	1.500	1.760	.890	14.00	.25	1/4-18 NPT	-3.0	TP.432	SM37	S125	3/32	CK10	STC8	5/32
1094892	A32CTFPR4	2.000	2.400	1.281	16.00	.25	1/4-18 NPT	-3.0	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand															
1094875	A08RCTFPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	—	—	—	CK27	STC27	5/64
1094877	A10CTFPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	-4.0	TP.221	—	—	—	CK19	STC9	3/32
1094879	A12SCTFPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	—	—	—	CK7	STC9	3/32
1094889	A24CTFPL4	1.500	1.760	.890	14.00	—	1/4-18 NPT	-3.0	TP.432	SM37	S125	3/32	CK10	STC8	5/32

ISO/ANSI Turning



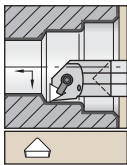
DeVibrator shank.



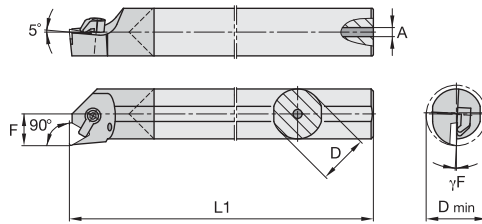
■ **B-CTFP 0°**



order number	catalog number	D	D min	F	L1	L1 min	γF°	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
1095829	B10CTFPR2	.625	.770	.406	10.00	5.25	.0	TP.221	—	—	—	CK19	STC9	3/32
1095830	B12CTFPR3	.750	.930	.500	10.00	5.75	.0	TP.322	—	—	—	CK7	STC9	3/32
1095831	B14CTFPR3	.875	1.060	.516	10.00	6.25	.0	TP.322	—	—	—	CK20	STC11	1/8
1095832	B16CTFPR3	1.000	1.200	.640	12.00	6.50	.0	TP.322	—	—	—	CK20	STC11	1/8
1095833	B20CTFPR3	1.250	1.470	.765	14.00	8.25	-3.0	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1095834	B24CTFPR4	1.500	1.760	.890	15.50	9.75	-3.0	TP.432	SM37	S125	3/32	CK10	STC8	5/32
1095836	B32CTFPR4	2.000	2.400	1.281	21.50	12.25	-3.0	TP.432	SM37	S125	3/32	CK9	STC4	5/32



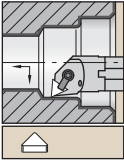
Carbide shank with through coolant.



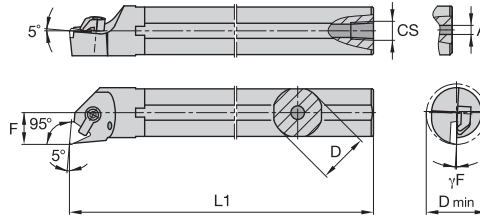
■ **E-CTFP 0°**



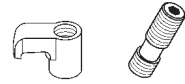
order number	catalog number	D	D min	F	L1	A	γF°	gage insert	clamp	clamp screw	hex
right hand											
1152584	E08KCTFPR2	.500	.600	.312	5.00	.19	-3.0	TP.221	CK27	STC27	5/64
1152586	E08RCTFPR2	.500	.600	.312	8.00	.19	-3.0	TP.221	CK27	STC27	5/64
1152588	E10MCTFPR2	.625	.770	.406	6.00	.22	.0	TP.221	CK19	STC9	3/32
1152590	E10SCTFPR2	.625	.770	.406	10.00	.22	.0	TP.221	CK19	STC9	3/32
1152592	E12QCTFPR3	.750	.930	.500	7.00	.28	.0	TP.322	CK7	STC9	3/32
1152594	E12SCTFPR3	.750	.930	.500	10.00	.28	.0	TP.322	CK7	STC9	3/32
1152598	E16TCTFPR3	1.000	1.200	.640	12.00	.31	.0	TP.322	CK20	STC11	1/8
left hand											
1152593	E12QCTFPL3	.750	.930	.500	7.00	.28	.0	TP.322	CK7	STC9	3/32
1152595	E12SCTFPL3	.750	.930	.500	10.00	.28	.0	TP.322	CK7	STC9	3/32



Steel shank with through coolant.

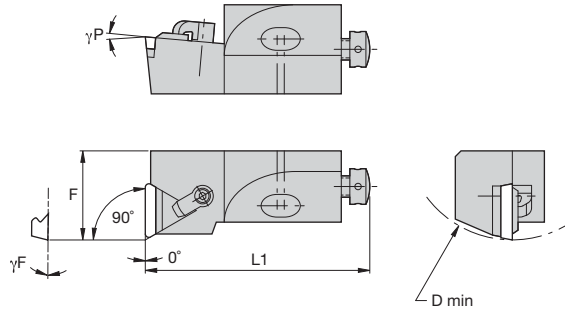
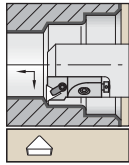


ISO/ANSI Turning

A-CTLP -5°


order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	clamp	clamp screw	hex
right hand												
1094904	A06MCTLPR2	.375	.480	.250	6.00	.13	—	-3.0	TP.2151	CK27	STC27	5/64
1094906	A08RCTLPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	CK27	STC27	5/64
1094908	A12SCTLPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	CK7	STC9	3/32
1094910	A16CTLPR3	1.000	1.220	.640	12.00	—	1/4-18 NPT	.0	TP.322	CK20	STC11	1/8
left hand												
1094907	A08RCTLPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	CK27	STC27	5/64
3994022	A10SCTLPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	-3.0	TP.221	CK19	STC9	3/32
1094909	A12SCTLPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	CK7	STC9	3/32
1094863	A16CTLPL3	1.000	1.220	.640	12.00	—	1/4-18 NPT	.0	TP.322	CK20	STC11	1/8

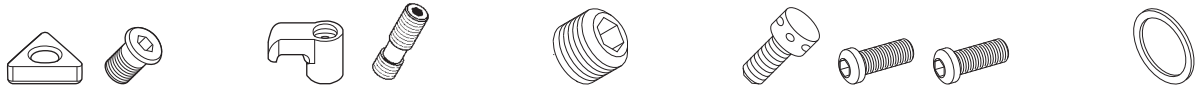
ISO/ANSI Turning



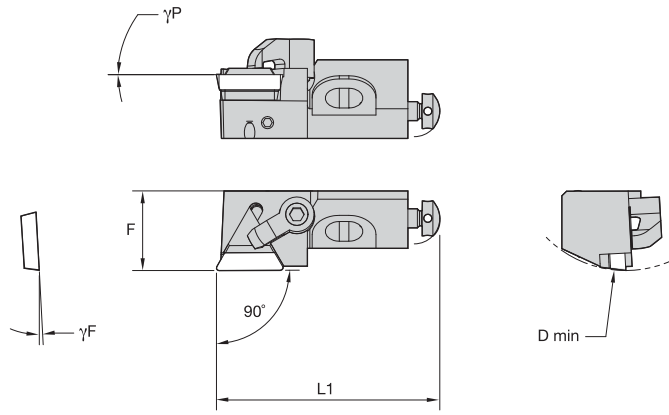
■ **CTFP 0°**

order number	catalog number	D min	F	L1	γ^F	γ^P	gage insert
right hand							
2116588	CTFPR10CA2	1.575	.551	1.97	.0	5.0	TP..110304/TP..221
1746442	CTFPR12CA3	1.969	.787	2.17	.0	5.0	TP..160308/TP..322
2582207	CTFPR20CA4	2.756	.984	2.76	.0	5.0	TP..220408/TP..432
left hand							
2114034	CTFPL10CA2	1.575	.551	1.97	.0	5.0	TP..110304/TP..221

■ **Spare Parts**



D min	shim	shim screw	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	—	—	—	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	—	—	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	4 mm	CSWM 060 050
2.756	SM837	MS125	2.5 mm	CKM35	STCM8	4 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm	CSWM 080 050

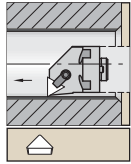

CTGP 0°

order number	catalog number	D min	F	L1	γ^F	γ^P	gage insert
right hand 3330191	CTGPR12CA3	1.969	.787	2.17	3.0	.0	TP..160308/TP..322

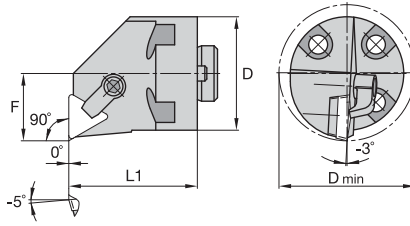
Spare Parts


D min	shim	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050

ISO/ANSI Turning



With through coolant.

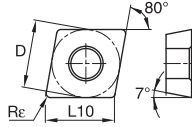
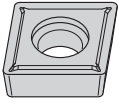


■ H-CTFP 0°



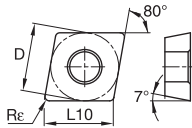
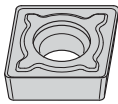
order number	catalog number	D	D min	F	L1	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand												
1095321	H20CTFPR3W	1.250	1.470	.765	1.63	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1095542	H40CTFPR4W	2.500	3.030	1.531	1.63	TP.432	SM37	S125	3/32	CK10	STC4	5/32

● first choice
○ alternate choice



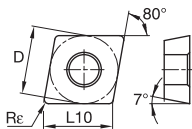
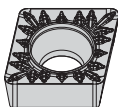
■ CCMT-LF

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
CCMT060202LF	CCMT21505LF	6,35	1/4	6,45	.254	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCMT060204LF	CCMT2151LF	6,35	1/4	6,45	.254	0,4	1/64	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT060208LF	CCMT2152LF	6,35	1/4	6,45	.254	0,8	1/32	●	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T302LF	CCMT32505LF	9,53	3/8	9,67	.381	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T304LF	CCMT3251LF	9,53	3/8	9,67	.381	0,4	1/64	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T308LF	CCMT3252LF	9,53	3/8	9,67	.381	0,8	1/32	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120404LF	CCMT431LF	12,70	1/2	12,90	.508	0,4	1/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120408LF	CCMT432LF	12,70	1/2	12,90	.508	0,8	1/32	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120412LF	CCMT433LF	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ CCMT-MF

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
CCMT060204MF	CCMT2151MF	6,35	1/4	6,45	.254	0,4	1/64	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T304MF	CCMT3251MF	9,53	3/8	9,67	.381	0,4	1/64	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T308MF	CCMT3252MF	9,53	3/8	9,67	.381	0,8	1/32	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T312MF	CCMT3253MF	9,53	3/8	9,67	.381	1,2	3/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120408MF	CCMT432MF	12,70	1/2	12,90	.508	0,8	1/32	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120412MF	CCMT433MF	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

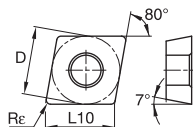
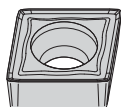


■ CCMT-MP

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
CCMT060204MP	CCMT2151MP	6,35	1/4	6,45	.254	0,4	1/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T304MP	CCMT3251MP	9,53	3/8	9,67	.381	0,4	1/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T308MP	CCMT3252MP	9,53	3/8	9,67	.381	0,8	1/32	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT09T312MP	CCMT3253MP	9,53	3/8	9,67	.381	1,2	3/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120408MP	CCMT432MP	12,70	1/2	12,90	.508	0,8	1/32	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCMT120412MP	CCMT433MP	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

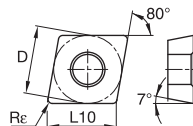
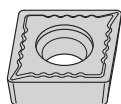
ISO/ANSI Turning



- first choice
- alternate choice

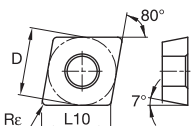
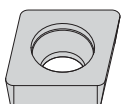
■ CCMT-MW

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
CCMT09T304MW	CCMT3251MW	9,53	3/8	9,67	.381	0,4	1/64
CCMT09T308MW	CCMT3252MW	9,53	3/8	9,67	.381	0,8	1/32
CCMT120404MW	CCMT431MW	12,70	1/2	12,90	.508	0,4	1/64
CCMT120408MW	CCMT432MW	12,70	1/2	12,90	.508	0,8	1/32



■ CCMT-UF

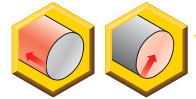
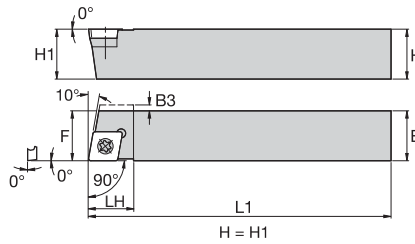
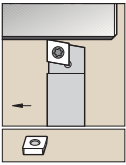
ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
CCMT060204UF	CCMT2151UF	6,35	1/4	6,45	.254	0,4	1/64
CCMT09T302UF	CCMT32505UF	9,53	3/8	9,67	.381	0,2	.008
CCMT09T304UF	CCMT3251UF	9,53	3/8	9,67	.381	0,4	1/64
CCMT09T308UF	CCMT3252UF	9,53	3/8	9,67	.381	0,8	1/32



■ CCMW

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
CCMW060204	CCMW2151	6,35	1/4	6,45	.254	0,4	1/64
CCMW09T308	CCMW3252	9,53	3/8	9,67	.381	0,8	1/32
CCMW120408	CCMW432	12,70	1/2	12,90	.508	0,8	1/32
CCMW120412	CCMW433	12,70	1/2	12,90	.508	1,2	3/64

	P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10							
CCMT09T304MW	●																																									
CCMT09T308MW																																										
CCMT120404MW																																										
CCMT120408MW																																										
CCMT060204UF																																										
CCMT09T302UF																																										
CCMT09T304UF																																										
CCMT09T308UF																																										
CCMW060204																																										
CCMW09T308																																										
CCMW120408																																										
CCMW120412																																										

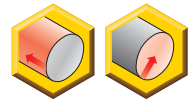
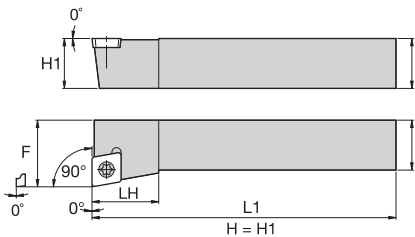
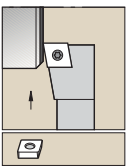


ISO/ANSI Turning

■ SCAC 0°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	Torx Plus	wrench size insert screw
right hand												
1094433	SCACR052D	.31	.31	.313	6.00	.44	.09	CC..2151	—	—	—	MS1153
1094435	SCACR062D	.38	.38	.375	6.00	.44	—	CC..2151	—	—	—	MS1153
1094437	SCACR083D	.50	.50	.500	6.00	.62	—	CC..3252	—	—	—	MS1155
1094589	SCACR103B	.63	.63	.625	4.50	.62	—	CC..3252	SKCP343	SRS3	3.5 mm	MS1156
left hand												
1094436	SCACL062D	.38	.38	.375	6.00	.44	—	CC..2151	—	—	—	MS1153
1094438	SCACL083D	.50	.50	.500	6.00	.62	—	CC..3252	—	—	—	MS1155
1094590	SCACL103B	.63	.63	.625	4.50	.62	—	CC..3252	SKCP343	SRS3	3.5 mm	MS1156

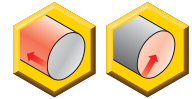
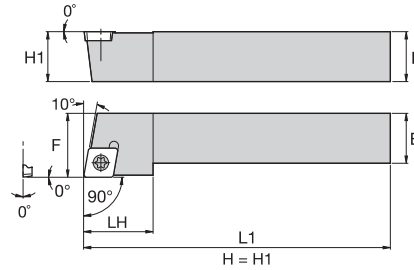
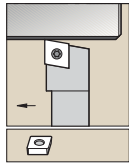


■ SCFC 0°



order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx
right hand									
1094443	SCFCR082	.50	.50	.625	3.50	.50	CC..2151	MS1153	T7
left hand									
1094444	SCFCL082	.50	.50	.625	3.50	.50	CC..2151	MS1153	T7

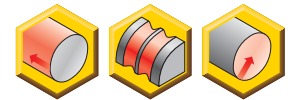
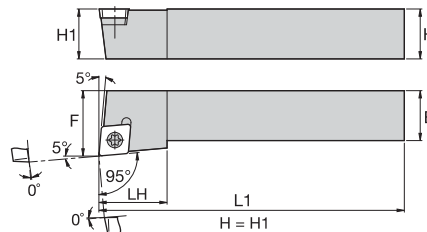
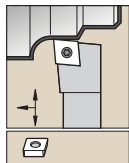
ISO/ANSI Turning



■ SCGC 0°



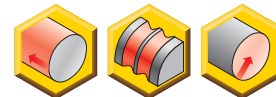
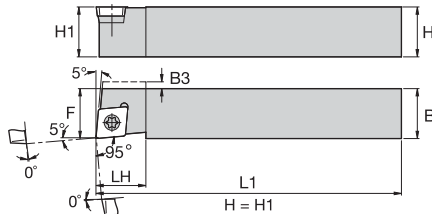
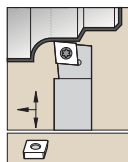
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1094453	SCGCR062	.38	.38	.500	2.50	.50	CC..2151	—	—	—	MS1153	T7
1094455	SCGCR082	.50	.50	.625	3.50	.50	CC..2151	—	—	—	MS1153	T7
1094457	SCGCR102	.63	.63	.750	4.00	.50	CC..2151	—	—	—	MS1153	T7
1094459	SCGCR103	.63	.63	.750	4.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094461	SCGCR123	.75	.75	1.000	4.50	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094572	SCGCR163	1.00	1.00	1.250	6.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
left hand												
1094462	SCGCL123	.75	.75	1.000	4.50	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094573	SCGCL163	1.00	1.00	1.250	6.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15



■ SCLC -5°



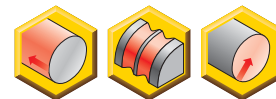
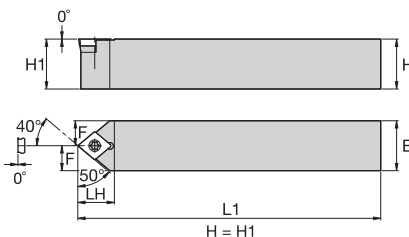
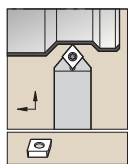
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1094475	SCLCR052	.31	.31	.375	2.50	.50	CC..2151	—	—	—	MS1153	T7
1094477	SCLCR062	.38	.38	.500	2.50	.50	CC..2151	—	—	—	MS1153	T7
1094479	SCLCR082	.50	.50	.625	3.50	.50	CC..2151	—	—	—	MS1153	T7
1094481	SCLCR102	.63	.63	.750	4.00	.50	CC..2151	—	—	—	MS1153	T7
1094483	SCLCR103	.63	.63	.750	4.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094485	SCLCR123	.75	.75	1.000	4.50	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094576	SCLCR163	1.00	1.00	1.250	6.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1843875	SCLCR124B	.75	.75	1.000	4.50	.75	CC..432	SKCP453	SRS4	4 mm	MS1158	T15
1843877	SCLCR164D	1.00	1.00	1.250	6.00	.75	CC..432	SKCP453	SRS4	4 mm	MS1158	T15
left hand												
1094476	SCLCL052	.31	.31	.375	2.50	.50	CC..2151	—	—	—	MS1153	T7
1094478	SCLCL062	.38	.38	.500	2.50	.50	CC..2151	—	—	—	MS1153	T7
1094480	SCLCL082	.50	.50	.625	3.50	.50	CC..2151	—	—	—	MS1153	T7
1094482	SCLCL102	.63	.63	.750	4.00	.50	CC..2151	—	—	—	MS1153	T7
1094484	SCLCL103	.63	.63	.750	4.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094486	SCLCL123	.75	.75	1.000	4.50	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094577	SCLCL163	1.00	1.00	1.250	6.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1843874	SCLCL124B	.75	.75	1.000	4.50	.75	CC..432	SKCP453	SRS4	4 mm	MS1158	T15
1843876	SCLCL164D	1.00	1.00	1.250	6.00	.75	CC..432	SKCP453	SRS4	4 mm	MS1158	T15



■ SCLC-F -5°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	hex	insert screw	Torx
right hand													
1094491	SCLCRF062D	.38	.38	.375	6.00	.50	—	CC..2151	—	—	—	MS1153	T7
1094493	SCLCRF082D	.50	.50	.500	6.00	.50	—	CC..2151	—	—	—	MS1153	T7
1094495	SCLCRF083D	.50	.50	.500	6.00	.62	.09	CC..3252	—	—	—	MS1155	T15
1094591	SCLCRF523Z	.50	.63	.625	3.25	.62	—	CC..3252	—	—	—	MS1155	T15
1094593	SCLCRF103B	.63	.63	.625	4.50	.62	—	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
left hand													
1094492	SCLCLF062D	.38	.38	.375	6.00	.50	—	CC..2151	—	—	—	MS1153	T7
1094494	SCLCLF082D	.50	.50	.500	6.00	.50	—	CC..2151	—	—	—	MS1153	T7
1094496	SCLCLF083D	.50	.50	.500	6.00	.62	.09	CC..3252	—	—	—	MS1155	T15
1094594	SCLCLF103B	.63	.63	.625	4.50	.62	—	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15

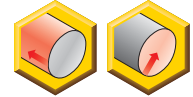
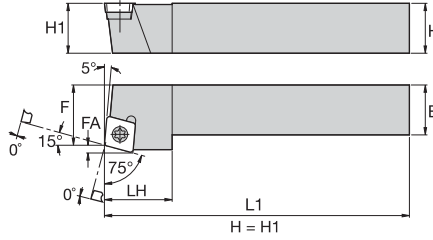
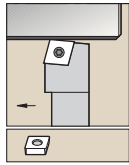


■ SCMC 40°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
1094497	SCMCN062	.38	.38	.188	2.50	.50	CC..2151	—	—	—	MS1153	T7
1094498	SCMCN082	.50	.50	.250	3.50	.50	CC..2151	—	—	—	MS1153	T7
1094500	SCMCN083	.50	.50	.250	3.50	.62	CC..3252	—	—	—	MS1155	T15
1094501	SCMCN103	.63	.63	.313	4.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094502	SCMCN123	.75	.75	.375	4.50	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
1094578	SCMCN163	1.00	1.00	.500	6.00	.62	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15

ISO/ANSI Turning

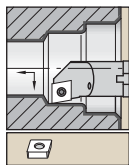


■ SCRC 15°

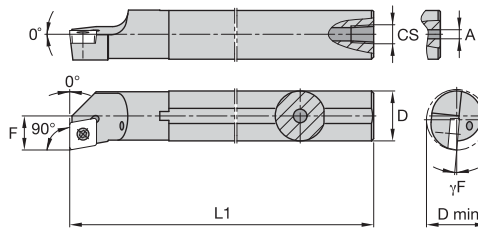


order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	insert screw	Torx
right hand													
1094511	SCRCR083	.50	.50	.548	3.50	.62	.09	CC..3252	—	—	—	MS1155	T15
1094513	SCRCR103	.63	.63	.673	4.00	.62	.09	CC..3252	SKCP343	SRS3	3.5 mm	MS1156	T15
left hand													
1094512	SCRCL083	.50	.50	.548	3.50	.62	.09	CC..3252	—	—	—	MS1155	T15

Screw-On Boring Bars



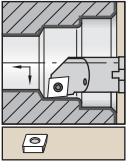
Steel shank with through coolant.



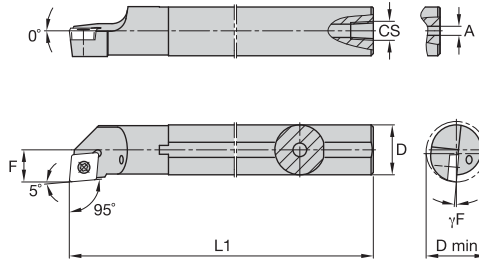
■ A-SCFC 0°



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1328560	A06MSCFCR2	.375	.480	.250	6.00	.13	—	-8.0	CC..2151	MS1153	T7
1328572	A08RSCFCR2	.500	.600	.312	8.00	—	1/16-27 NPT	-7.0	CC..2151	MS1153	T7
1328575	A10SSCFCR2	.625	.770	.406	10.00	—	1/8-27 NPT	-5.0	CC..2151	MS1153	T7
1328578	A12SSCFCR3	.750	.930	.500	10.00	—	1/8-27 NPT	-5.0	CC..3252	MS1155	T15
1328580	A16TSCFCR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	CC..3252	MS1155	T15
left hand											
1328577	A10SSCFL2	.625	.770	.406	10.00	—	1/8-27 NPT	-5.0	CC..2151	MS1153	T7
1328579	A12SSCFL3	.750	.930	.500	10.00	—	1/8-27 NPT	-5.0	CC..3252	MS1155	T15



Steel shank with through coolant.

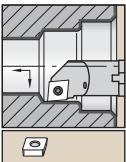


ISO/ANSI Turning

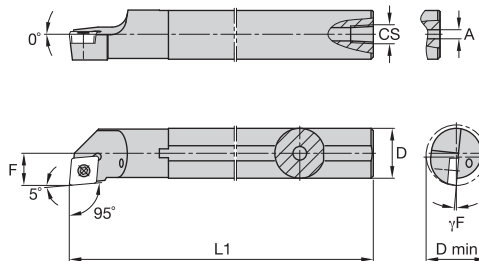
■ A-SCLC -5°



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1328582	A06MSCLCR2	.375	.480	.250	6.00	.13	—	-8.0	CC..2151	MS1939	T7
1328584	A08RSCLCR2	.500	.600	.312	8.00	—	1/16-27 NPT	-7.0	CC..2151	MS1153	T7
1328586	A10SSCLCR2	.625	.770	.406	10.00	—	1/8-27 NPT	-5.0	CC..2151	MS1153	T7
1328588	A10SSCLCR3	.625	.770	.406	10.00	—	1/8-27 NPT	-8.0	CC..3252	MS1155	T15
1328590	A12SSCLCR3	.750	.930	.500	10.00	—	1/8-27 NPT	-5.0	CC..3252	MS1155	T15
1328592	A16TSCLCR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	CC..3252	MS1155	T15
left hand											
1328583	A06MSCLCL2	.375	.480	.250	6.00	.13	—	-8.0	CC..2151	MS1939	T7
1328585	A08RSCLCL2	.500	.600	.312	8.00	—	1/16-27 NPT	-7.0	CC..2151	MS1153	T7
1328587	A10SSCLCL2	.625	.770	.406	10.00	—	1/8-27 NPT	-5.0	CC..2151	MS1153	T7
1328589	A10SSCLCL3	.625	.770	.406	10.00	—	1/8-27 NPT	-8.0	CC..3252	MS1155	T15
1328591	A12SSCLCL3	.750	.930	.500	10.00	—	1/8-27 NPT	-5.0	CC..3252	MS1155	T15
1328593	A16TSCLCL3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	CC..3252	MS1155	T15



Steel shank with through coolant.



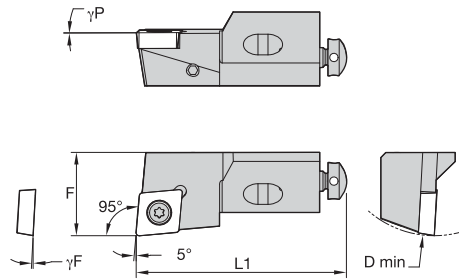
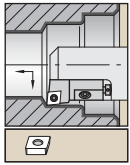
■ E-SCLC -5°



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
2598552	E06MSCLCR2	.375	.480	.250	6.00	.13	—	-8.0	CC..2151	MS2066	7 IP
2598694	E08RSCLCR2	.500	.600	.312	8.00	.19	—	-7.0	CC..2151	MS2066	7 IP
2598696	E10SSCLCR2	.625	.770	.406	10.00	.22	—	-4.0	CC..2151	MS2066	7 IP
2598698	E10SSCLCR3	.625	.770	.406	10.00	.22	—	-7.0	CC..3252	MS2055	15 IP
2598700	E12SSCLCR3	.750	.930	.500	10.00	.28	—	-5.0	CC..3252	MS2055	15 IP
2598702	E16TSCLCR3	1.000	1.200	.640	12.00	.31	—	-4.0	CC..3252	MS2055	15 IP
left hand											
2598551	E06MSCLCL2	.375	.480	.250	6.00	.13	—	-8.0	CC..2151	MS2066	7 IP
2598697	E10SSCLCL3	.625	.770	.406	10.00	.22	—	-7.0	CC..3252	MS2055	15 IP
2598699	E12SSCLCL3	.750	.930	.500	10.00	.28	—	-5.0	CC..3252	MS2055	15 IP



ISO/ANSI Turning



■ SCLC -5°

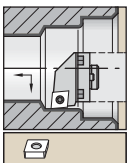
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098544	SCLCR12CA12	1.969	.787	2.17	-3.0	.0	CC..120408/CC..432
1098545	SCLCR16CA12	2.362	.984	2.48	-3.0	.0	CC..120408/CC..432
left hand							
1098732	SCLCL12CA12	1.969	.787	2.17	-3.0	.0	CC..120408/CC..432

■ Spare Parts

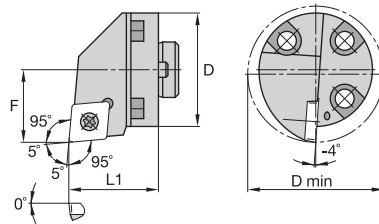


D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	MS1157	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	MS1157	T15	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050

Screw-On Boring Heads



With through coolant.

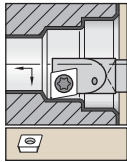


■ H-SCLC -5°

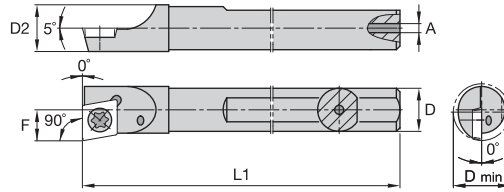


order number	catalog number	D	D min	F	L1	gage insert	insert screw	Torx
right hand								
1581442	H16SCLCR3	1.000	1.200	.640	.79	CC..3252	MS1155	T15

ISO/ANSI Turning



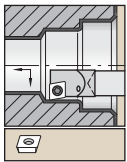
Steel shank with through coolant.



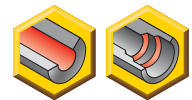
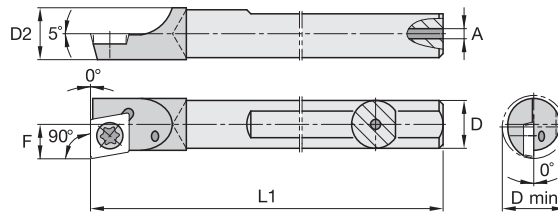
■ A-SCFD 0°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
1288861	A03XSCFDR12	.188	.244	.203	.122	2.50	.04	CD..120605	CC11	T6
1288869	A04FSCFDR12	.250	.292	.260	.152	3.00	.04	CD..120605	CC11	T6



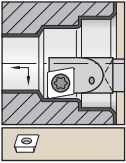
Carbide shank with through coolant.



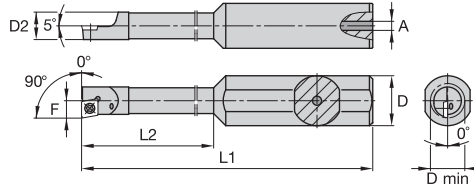
■ E-SCFD 0°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1270939	E03HSCFDR12	.187	.224	—	.117	4.00	.04	CD..120605	CC09	T6
1270946	E03MSCFDR12	.188	.224	—	.117	6.00	.04	CD..120605	CC09	T6
1270952	E04HSCFDR12	.250	.292	.273	.152	4.00	.05	CD..120605	CC11	T6
1270960	E04MSCFDR12	.250	.292	—	.152	6.00	.05	CD..120605	CC11	T6
1937955	E05MSCFDR12	.312	.356	—	.185	6.00	.09	CD..120605	CC09	T6
left hand										
1937946	E04HSCFDL12	.250	.292	—	.152	4.00	.05	CD..120605	CC11	T6



Necked steel shank with through coolant.

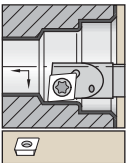


ISO/ANSI Turning

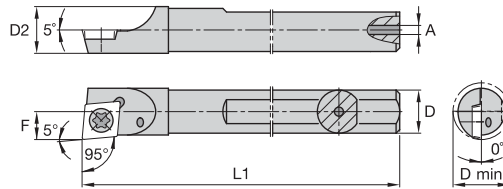
■ A-SCFD-S 0°



order number	catalog number	D	D min	D2	F	L1	L2	A	gage insert	insert screw	Torx
right hand											
1937976	A0406XSCFDR12125	.375	.292	.260	.152	2.50	1.25	.04	CD..120605	CC11	T6
1937992	A0408XSCFDR12075	.500	.292	.260	.152	2.75	.75	.04	CD..120605	CC11	T6



Steel shank with through coolant.



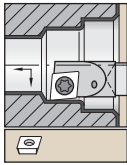
■ A-SCLD -5°



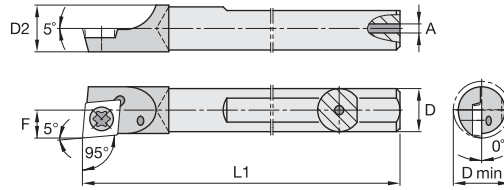
order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx	
right hand											
1288863	A03XSCLDR12	.188	.228	.203	.116	2.50	.04	CD..120605	CC09	T6	
1289024	A03XSCLDR12A	.188	.204	—	.104	2.50	.04	CD..120605	CC09	T6	
1288871	A04FSCLDR12	.250	.285	.260	.145	3.00	.04	CD..120605	CC11	T6	
left hand											
1288862	A03XSCLDL12	.188	.228	.203	.116	2.50	.04	CD..120605	CC09	T6	
1288870	A04FSCLDL12	.250	.285	.260	.145	3.00	.04	CD..120605	CC11	T6	



ISO/ANSI Turning



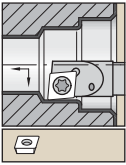
Carbide shank with through coolant.



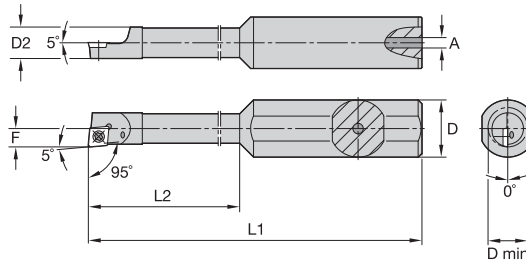
■ E-SCLD -5°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1271038	E03HSCLDR12	.187	.224	—	.117	4.00	.04	CD..120605	CC09	T6
1270941	E03HSCLDR12A	.188	.218	—	.111	4.00	.04	CD..120605	CC09	T6
1270947	E03MSCLDR12A	.188	.218	—	.111	6.00	.04	CD..120605	CC09	T6
1271040	E03MSCLDR12	.188	.224	.195	.117	6.00	.04	CD..120605	CC09	T6
1270954	E04HSCLDR12	.250	.285	.260	.145	4.00	.05	CD..120605	CC11	T6
1270962	E04MSCLDR12	.250	.285	—	.145	6.00	.05	CD..120605	CC11	T6
1937957	E05MSCLDR12	.312	.356	—	.185	6.00	.09	CD..120605	CC11	T6
left hand										
1270940	E03HSCLDL12A	.188	.218	—	.111	4.00	.04	CD..120605	CC09	T6
1937958	E03MSCLDL12A	.188	.218	—	.111	6.00	.04	CD..120605	CC09	T6
1270953	E04HSCLDL12	.250	.285	.263	.145	4.00	.05	CD..120605	CC11	T6
1270961	E04MSCLDL12	.250	.285	—	.145	6.00	.05	CD..120605	CC11	T6
1937956	E05MSCLDL12	.313	.356	—	.185	6.00	.09	CD..120605	CC11	T6



Necked steel shank with through coolant.

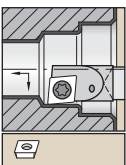


ISO/ANSI Turning

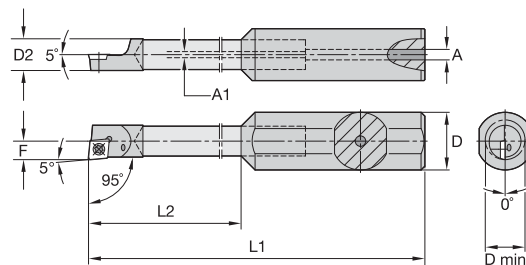
■ A-SCLD-S -5°



order number	catalog number	D	D min	D2	F	L1	L2	A	gage insert	insert screw	Torx
right hand											
1937960	A2906XSCLDR1205	.375	.204	—	.104	2.50	.50	.04	CD..120605	CC09	T6
1937962	A2906XSCLDR121	.375	.204	—	.104	2.50	1.00	.04	CD..120605	CC09	T6
1937970	A3206XSCLDR121	.375	.228	—	.116	2.50	1.00	.04	CD..120605	CC11	T6
1937966	A3206XSCLDR1205	.375	.230	—	.116	2.50	.50	.04	CD..120605	CC09	T6
1094663	A0306GSCLDR12	.375	.243	.230	.126	3.50	1.02	.08	CD..12061	MS1454	T5
1937974	A0406XSCLDR12075	.375	.285	—	.145	2.50	.75	.04	CD..120605	CC11	T6
1937978	A0406XSCLDR12125	.375	.285	—	.145	2.50	1.25	.04	CD..120605	CC11	T6
1094665	A0406HSCLDR12	.375	.300	—	.156	4.00	1.25	.08	CD..12061	MS1454	T5
1937982	A2908XSCLDR121	.500	.204	—	.104	2.75	1.00	.04	CD..120605	CC09	T6
1937990	A3208XSCLDR121	.500	.228	—	.116	2.75	1.00	.04	CD..120605	CC09	T6
left hand											
1094664	A0306GSCLDL12	.375	.243	.230	.126	3.50	1.02	.08	CD..12061	MS1454	T5
1094666	A0406HSCLDL12	.375	.300	—	.156	4.00	1.25	.08	CD..12061	MS1454	T5



Necked carbide shank with through coolant.

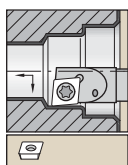


■ E-SCLD -5° • Stepped

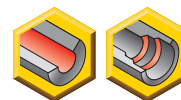
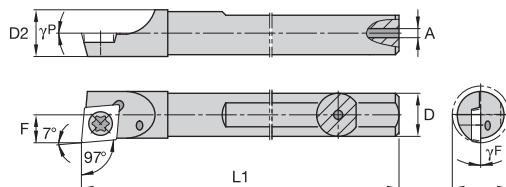


order number	catalog number	D	D min	D2	F	L1	L2	A	A1	gage insert	insert screw	Torx
right hand												
1938018	E2908XSCLDR12088	.500	.208	.195	.104	2.38	.88	.04	.047	CD..120605	CC09	T6
1938022	E3208XSCLDR121	.500	.234	—	.119	2.50	1.00	.13	.047	CD..120605	CC09	T6
1950263	E0408HSCLDR1225	.500	.285	—	.145	4.00	2.50	.13	.047	CD..120605	CC11	T6
1938000	E2910XSCLDR12088	.625	.208	.195	.104	3.38	.88	.13	.047	CD..120605	CC09	T6
1938010	E3210KSCLDR122	.625	.234	—	.119	4.50	2.00	.13	.047	CD..120605	CC11	T6
1938013	E0410HSCLDR12125	.625	.285	—	.145	3.75	1.25	.13	.047	CD..120605	CC11	T5

ISO/ANSI Turning



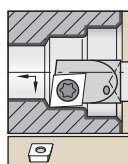
Steel shank with through coolant.



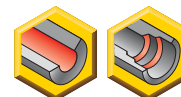
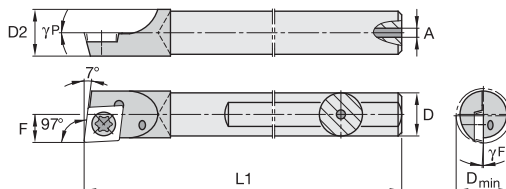
A-SC7D -7°



order number	catalog number	D	D min	D2	F	L1	A	γF°	γP°	gage insert	insert screw	Torx
right hand 1289016	A03XSC7DR12	.188	.180	.166	.095	2.50	.04	.0	.0	CD..120605	CC09	T6
left hand 1289015	A03XSC7DL12	.188	.180	.166	.095	2.50	.04	.0	.0	CD..120605	CC09	T6



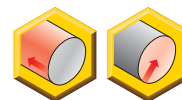
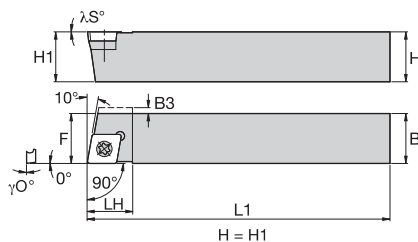
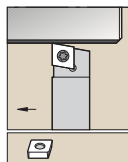
Carbide shank with through coolant.



E-SC7D -7°



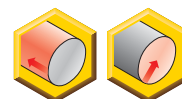
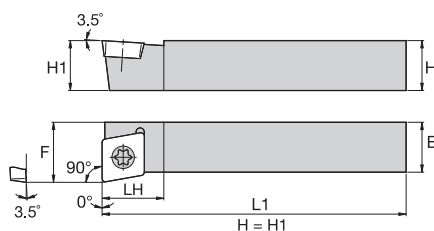
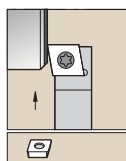
order number	catalog number	D	D min	D2	F	L1	A	γF°	γP°	gage insert	insert screw	Torx
right hand 1271036	E25MSC7DR12	.156	.180	.164	.095	6.00	.04	.0	.0	CD..120605	CC09	T6



■ SCAP 0°



order number	catalog number	H	B	F	L1	LH	$\gamma 0^\circ$	λS°	B3	gage insert	insert screw	Torx
right hand												
1095661	SCAPR052D	.31	.31	.312	6.00	.44	3.50	3.50	.06	CP..2151	MS1153	T7
1095662	SCAPR062D	.38	.38	.375	6.00	.44	3.50	3.50	—	CP..2151	MS1153	T7
1095663	SCAPR083D	.50	.50	.500	6.00	.62	3.00	4.00	—	CP..3252	MS1027	T9
left hand												
1095665	SCAPL052D	.31	.31	.312	6.00	.44	3.50	3.50	.06	CP..2151	MS1153	T7
1095667	SCAPL083D	.50	.50	.500	6.00	.62	3.00	4.00	—	CP..3252	MS1027	T9



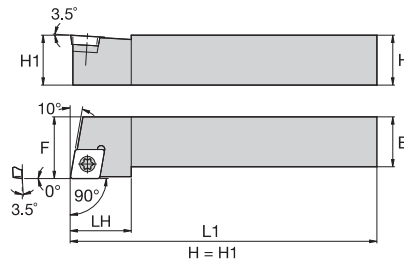
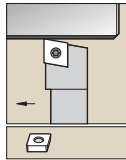
■ SCFP 0°



order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx
right hand									
1095600	SCFPR083V	.50	.50	.625	3.50	.62	CP..3252	MS1027	T9
left hand									
1095692	SCFPL083V	.50	.50	.625	3.50	.62	CP..3252	MS1027	T9

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPMT/CPGM/CPGT/CPGW-21.5_ inserts.
90° countersunk hole insert (i.e., CPGM/CPGB-32.5_). ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.

ISO/ANSI Turning

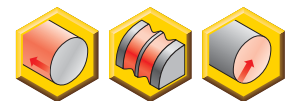
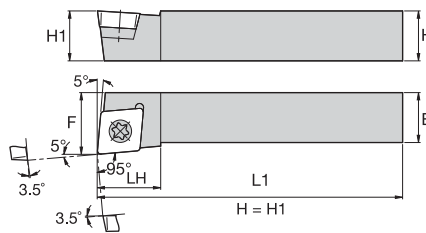
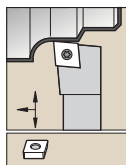


■ SCGP 0°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1095597	SCGPR062	.38	.38	.500	2.50	.44	CP..2151	—	—	—	MS1153	T7
1095598	SCGPR083V	.50	.50	.625	3.50	.62	CP..3252	—	—	—	MS1027	T9
1095596	SCGPR123B	.75	.75	1.000	4.50	.63	CP..3252	SM417	MS1028	3/32 IN	MS1027	T9
left hand												
1095689	SCGPL062	.38	.38	.500	2.50	.44	CP..2151	—	—	—	MS1153	T7
1095690	SCGPL083V	.50	.50	.625	3.50	.62	CP..3252	—	—	—	MS1027	T9
1095688	SCGPL123B	.75	.75	1.000	4.50	.63	CP..3252	SM417	MS1028	3/32 IN	MS1027	T9

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPMT/CPGM/CPGT/CPGW-21.5_inserts.
90° countersunk hole insert (i.e., CPGM/CPGB-32.5_). ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.

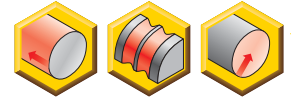
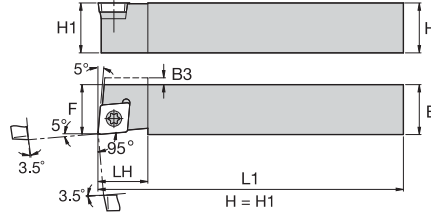
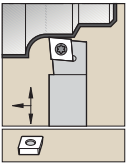


■ SCLP -5°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1095594	SCLPR062	.38	.38	.500	2.50	.44	CP..2151	—	—	—	MS1153	T7
1095595	SCLPR083V	.50	.50	.625	3.50	.62	CP..3252	—	—	—	MS1027	T9
1095592	SCLPR123B	.75	.75	1.000	4.50	.62	CP..3252	SM417	MS1028	3/32 IN	MS1027	T9
left hand												
1095686	SCLPL062	.38	.38	.500	2.50	.44	CP..2151	—	—	—	MS1153	T7
1095687	SCLPL083V	.50	.50	.625	3.50	.62	CP..3252	—	—	—	MS1027	T9
1095685	SCLPL123B	.75	.75	1.000	4.50	.62	CP..3252	SM417	MS1028	3/32 IN	MS1027	T9

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPMT/CPGM/CPGT/CPGW-21.5_inserts.
90° countersunk hole insert (i.e., CPGM/CPGB-32.5_). ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.

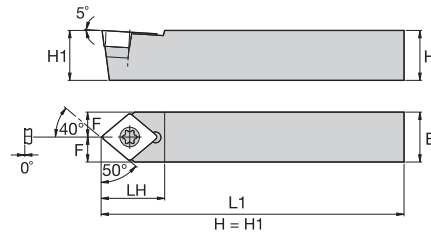
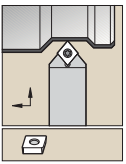


■ SCLP-F -5°



order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx
right hand									
1095654	SCLPRF062D	.38	.38	.375	6.00	.44	CP..2151	MS1153	T7
1095655	SCLPRF083D	.50	.50	.500	6.00	.62	CP..3252	MS1027	T9
left hand									
1095658	SCLPLF062D	.38	.38	.375	6.00	.44	CP..2151	MS1153	T7
1095659	SCLPLF083D	.50	.50	.500	6.00	.62	CP..3252	MS1027	T9

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPMT/CPGM/CPGT/CPGW-21.5_inserts.
90° countersunk hole insert (i.e., CPGM/CPGB-32.5_). ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.



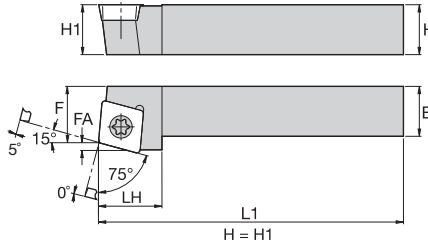
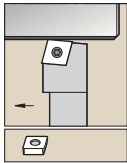
■ SCMP 40°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
1095606	SCMPN062	.38	.38	.188	2.50	.45	CP..2151	—	—	—	MS1153	T7
1095607	SCMPN083V	.50	.50	.250	3.50	.62	CP..3252	—	—	—	MS1027	T9
1095605	SCMPN123B	.75	.75	.375	4.50	.75	CP..3252	SM417	MS1028	3/32 IN	MS1027	T9

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPMT/CPGM/CPGT/CPGW-21.5_inserts.
90° countersunk hole insert (i.e., CPGM/CPGB-32.5_). ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.

ISO/ANSI Turning



■ SCRP 15°

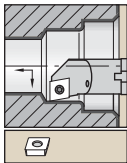


order number	catalog number	H	B	F	L1	LH	FA	gage insert	insert screw	Torx
right hand										
1095601	SCRPR062	.38	.38	.439	2.50	.44	.06	CP..2151	MS1153	T7
1095602	SCRPR083V	.50	.50	.537	3.50	.62	.09	CP..3252	MS1027	T9
left hand										
1095693	SCRPL062	.38	.38	.439	2.50	.44	.06	CP..2151	MS1153	T7
1095694	SCRPL083V	.50	.50	.537	3.50	.62	.09	CP..3252	MS1027	T9

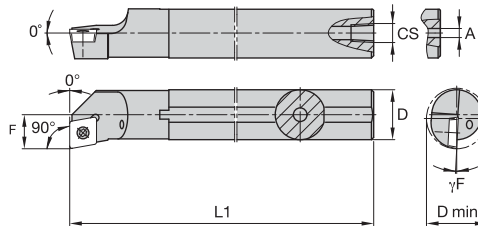
NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPMT/CPGM/CPGT/CPGW-21.5_inserts.

90° countersunk hole insert (i.e., CPGM/CPGB-32.5_). ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.

Screw-On Boring Bars



Steel shank with through coolant.



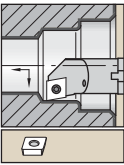
■ A-SCFP 0°



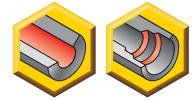
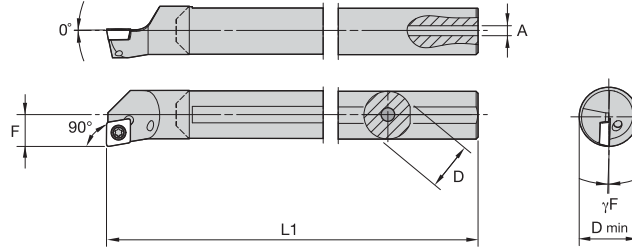
order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1094725	A06MSCFPR2	.375	.480	.250	6.00	.13	—	-4.0	CPMT2151	MS1939	T7
1094727	A08RSCFPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-2.0	CPMT2151	MS1153	T7
1094729	A10SSCFPR2	.625	.770	.406	10.00	.16	1/8-27 NPT	.0	CPMT2151	MS1153	T7
1094731	A12SSCFPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	CPMT3252	MS1155	T15
1094733	A16SCFPR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	.0	CP..3252	MS1155	T15
left hand											
1094726	A06MSCFPL2	.375	.480	.250	6.00	.13	—	-4.0	CPMT2151	MS1939	T7
1094728	A08RSCFPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-2.0	CPMT2151	MS1153	T7
1094730	A10SSCFPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	.0	CPMT2151	MS1153	T7
1094732	A12SSCFPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	CPMT3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPGM/CPGT/CPGW-21.5_inserts.

60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_). 90° countersunk hole inserts (i.e., CPGM/CPGB-32.5_) do not fit this tool.



Heavy metal bar with through coolant.



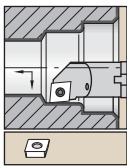
■ **L-SCFP 0°**



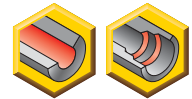
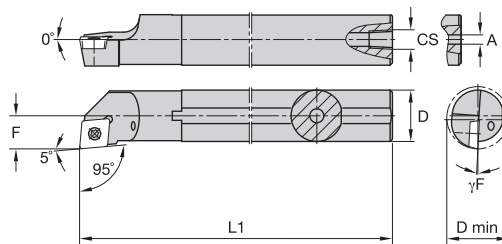
order number	catalog number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
right hand										
3330999	L06MSCFPR2	.375	.480	.250	6.06	.13	-4.0	CP..2151..	MS1939	T7
3331000	L08RSCFPR2	.500	.600	.312	7.93	.16	-2.0	CP..2151..	MS1153	T7
3331001	L10RSCFPR2	.625	.770	.406	7.99	.16	.0	CP..2151..	MS1153	T7
3331002	L12RSCFPR3	.750	.930	.500	7.96	.16	-2.0	CP..3252..	MS1155	T15
3331033	L16SSCFPR3	1.000	1.200	.640	9.94	.25	.0	CP..3252..	MS1155	T15
left hand										
3330995	L08RSCFPL2	.500	.600	.312	7.93	.16	-2.0	CP..2151..	MS1153	T7

NOTE: ANSI/ISO compatible 68° countersunk hole insert. This tool will accept CPGM/CPGT/CPGW 21.5°_inserts.

ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW 32.5). 90° countersunk hole inserts (i.e., CPGM/CPGB 32.5) do not fit this tool.



Steel shank with through coolant.



■ **A-SCLP -5°**

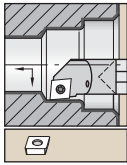


order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1094669	A06MSCLPR2	.375	.480	.250	6.00	.13	—	-6.0	CP..2151	MS1939	T7
1094671	A08RSCLPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	CPMT2151	MS1153	T7
1094675	A10SSCLPR3	.625	.770	.406	10.00	.16	1/8-27 NPT	-2.0	CPMT3252	MS1155	T15
1094677	A12SSCLPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	CPMT3252	MS1155	T15
1094679	A16TSCLPR3	1.000	1.200	.640	12.00	.25	1/4-18 NPT	.0	CP..3252	MS1155	T15
left hand											
1094670	A06MSCLPL2	.375	.480	.250	6.00	.13	—	-6.0	CPMT2151	MS1939	T7
1094672	A08RSCLPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	CPMT2151	MS1153	T7
1094674	A10SSCLPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	-2.0	CPMT2151	MS1153	T7
1094676	A10SSCLPL3	.625	.770	.406	10.00	.16	1/8-27 NPT	-2.0	CPMT3252	MS1155	T15
1094673	A10SSCLPR2	.625	.770	.406	10.00	.16	1/8-27 NPT	-2.0	CPMT2151	MS1153	T7
1094678	A12SSCLPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	CPMT3252	MS1155	T15
1094680	A16SCLPL3	1.000	1.200	.640	12.00	.25	1/4-18 NPT	.0	CP..3252	MS1155	T15

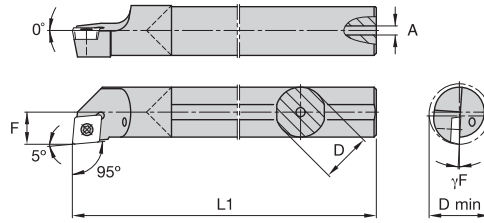
NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPGM/CPGT/CPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_). 90° countersunk hole inserts (i.e., CPGM/CPGB-32.5_) do not fit this tool.

ISO/ANSI Turning



Carbide shank with through coolant.

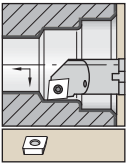


■ E-SCLP -5°

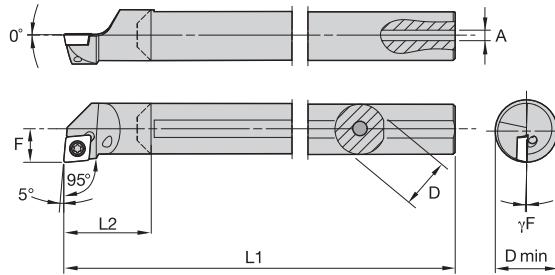


order number	catalog number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
right hand										
1152722	E05KSCLPR18	.313	.415	.219	5.00	.09	-5.0	CP..18151	MS1933	T7
1152724	E06SCLPR2	.375	.480	.250	6.00	.13	-6.0	CP..2151	MS1939	T7
1152726	E08SCLPR2	.500	.600	.312	8.00	.19	-2.0	CP..2151	MS1153	T7
1152728	E10SCLPR2	.625	.770	.406	10.00	.22	-2.0	CP..2151	MS1153	T7
1152732	E10SCLPR3	.625	.770	.406	10.00	.22	-2.0	CP..3252	MS1155	T15
1152730	E12SCLPR2	.750	.930	.500	10.00	.28	-2.0	CP..2151	MS1153	T7
1152734	E12SCLPR3	.750	.930	.500	10.00	.28	-2.0	CP..3252	MS1155	T15
1152736	E16SCLPR3	1.000	1.200	.640	12.00	.31	.0	CP..3252	MS1155	T15
left hand										
1152723	E05KSCLPL18	.313	.415	.219	5.00	.09	-5.0	CP..18151	MS1933	T7
1152725	E06SCLPL2	.375	.480	.250	6.00	.13	-6.0	CP..2151	MS1939	T7
1152727	E08SCLPL2	.500	.600	.312	8.00	.19	-2.0	CP..2151	MS1153	T7
1152729	E10SCLPL2	.625	.770	.406	10.00	.22	-2.0	CP..2151	MS1153	T7
1152733	E10SCLPL3	.625	.770	.406	10.00	.22	-2.0	CP..3252	MS1155	T15
1152731	E12SCLPL2	.750	.930	.500	10.00	.28	-2.0	CP..2151	MS1153	T7
1152735	E12SCLPL3	.750	.930	.500	10.00	.28	-2.0	CP..3252	MS1155	T15
1152737	E16SCLPL3	1.000	1.200	.640	12.00	.31	.0	CP..3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPGM/CPGT/CPGW-21.5_ inserts.
 ANSI/ISO compatible 60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_). 90° countersunk hole inserts (i.e., CPGM/CPGB-32.5_) do not fit this tool.



Heavy metal bar with through coolant.



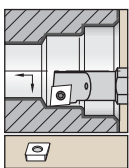
ISO/ANSI Turning

■ L-SCLP -5°

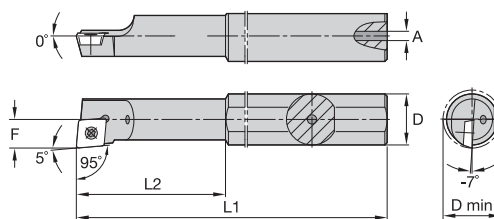


order number	catalog number	D	D min	F	L1	L2	A	γF°	gage insert	insert screw	Torx
right hand											
3331042	L05MSCLPR2	.313	.415	.219	6.00	.76	.09	-6.0	CP..2151..	MS1939	T7
3331043	L06MSCLPR2	.375	.480	.250	6.06	.91	.13	-6.0	CP..2151..	MS1939	T7
3331041	L08RSCLPR2	.500	.600	.312	7.93	.93	.16	-2.0	CP..2151..	MS1153	T7
3331044	L10RSCLPR2	.625	.770	.406	7.99	1.03	.16	-2.0	CP..2151..	MS1153	T7
3331045	L10RSCLPR3	.625	.770	.406	8.01	1.05	.16	-2.0	CP..3252..	MS1155	T15
3331046	L12RSCLPR3	.750	.930	.500	7.96	1.30	.16	-2.0	CP..3252..	MS1155	T15
3331047	L16SSCLPR3	1.000	1.200	.640	9.94	1.41	.25	.0	CP..3252..	MS1155	T15
left hand											
3331036	L05MSCLPL2	.313	.415	.219	6.00	.76	.09	-6.0	CP..2151..	MS1939	T7
3331035	L06MSCLPL2	.375	.480	.250	6.06	.91	.13	-6.0	CP..2151..	MS1939	T7
3331034	L08RSCLPL2	.500	.600	.312	7.93	.93	.16	-2.0	CP..2151..	MS1153	T7
3331039	L10RSCLPL3	.625	.770	.406	8.01	1.05	.16	-2.0	CP..3252..	MS1155	T15
3331038	L12RSCLPL3	.750	.930	.500	7.96	1.30	.16	-2.0	CP..3252..	MS1155	T15
3331040	L16SSCLPL3	1.000	1.200	.640	9.94	1.41	.25	.0	CP..3252..	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPGM/CPGT/CPGW-21.5_ inserts.
ANSI/ISO compatible 60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_). 90° countersunk hole inserts (i.e., CPGM/CPGB-32.5_) do not fit this tool.



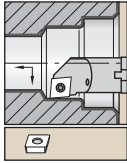
Necked steel shank with through coolant.



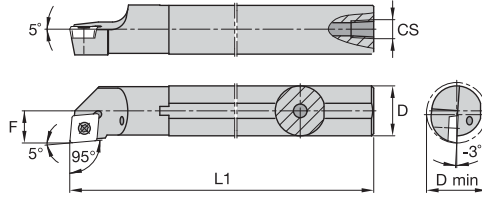
■ A-SCLP-06



order number	catalog number	D	D min	F	L1	L2	A	gage insert	insert screw	Torx
right hand										
1094667	A0506KSCLPR18	.375	.415	.214	5.00	1.63	.09	CPMT18151	MS1933	T7



Steel shank with through coolant.



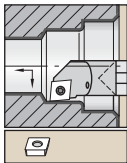
■ A-SCLP-AP -5°



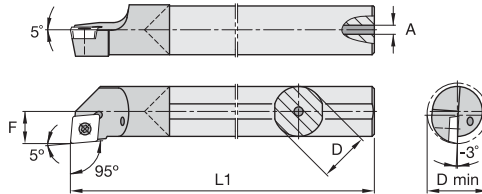
order number	catalog number	D	D min	F	L1	CS	gage insert	insert screw	Torx
right hand									
1094953	A10SSCLPR3AP5	.625	.770	.406	10.00	1/8-27 NPT	CP..3252	MS1027	T9
1094954	A12SSCLPR3AP5	.750	.930	.500	10.00	1/8-27 NPT	CP..3252	MS1027	T9
1094955	A16SCLPR3AP5	1.000	1.190	.625	12.00	1/4-18 NPT	CP..3252	MS1027	T9
left hand									
1094956	A10SSCLPL3AP5	.625	.770	.406	10.00	1/8-27 NPT	CP..3252	MS1027	T9
1094957	A12SSCLPL3AP5	.750	.930	.500	10.00	1/8-27 NPT	CP..3252	MS1027	T9
1094958	A16SCLPL3AP5	1.000	1.190	.625	12.00	1/4-18 NPT	CP..3252	MS1027	T9

NOTE: 90° countersunk hole insert (i.e., CPGM/CPGB-32.5_)

ANSI/ISO compatible 60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.



Carbide shank with through coolant.



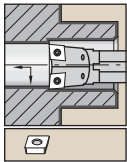
■ E-SCLP-AP -5°



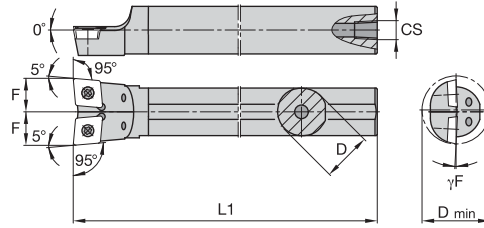
order number	catalog number	D	D min	F	L1	A	gage insert	insert screw	Torx
right hand									
1152692	E12SCLPR3AP5	.750	1.000	.500	10.00	.28	CP..3252	MS1027	T9
1152693	E16SCLPR3AP5	1.000	1.190	.625	12.00	.31	CP..3252	MS1027	T9
left hand									
1152694	E12SCLPL3AP5	.750	1.000	.500	10.00	.28	CP..3252	MS1027	T9
1152695	E16SCLPL3AP5	1.000	1.190	.625	12.00	.31	CP..3252	MS1027	T9

NOTE: 90° countersunk hole insert (i.e., CPGM/CPGB-32.5_)

ANSI/ISO compatible 60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_) do not fit this tool.



Steel shank with through coolant.



ISO/ANSI Turning

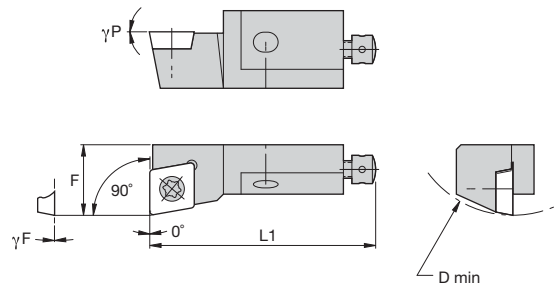
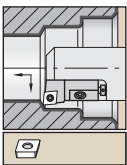
■ A-SCLP-D -5°



order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	insert screw	Torx
1094757	A08SCLPR2D	.500	.650	.312	8.00	1/16-27 NPT	-3.0	CP..2151	MS1153	T7
1094758	A10SCLPR2D	.625	.842	.406	10.00	1/8-27 NPT	-2.0	CP..2151	MS1153	T7
1094759	A12SCLPR3D	.750	1.030	.500	10.00	1/8-27 NPT	-2.0	CP..3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept CPGM/CPGT/CPGW-21.5_ inserts.
ANSI/ISO compatible 60° countersunk hole insert (i.e., CPMT/CPGT/CPGW-32.5_). 90° countersunk hole inserts (i.e., CPGM/CPGB-32.5_) do not fit this tool.

Screw-On Cartridges



■ SCFP 0°

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098551	SCFPR06CA05	.787	.315	.98	.0	.0	CP..050204/CP..18151
1082671	SCFPR08CA06	.984	.394	1.26	.0	.0	CP..060204/CP..2151
1797235	SCFPR10CA09	1.575	.551	1.97	.0	.0	CP..09T308/CP..3252
left hand							
1098766	SCFPL08CA06	.984	.394	1.26	.0	.0	CP..060204/CP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

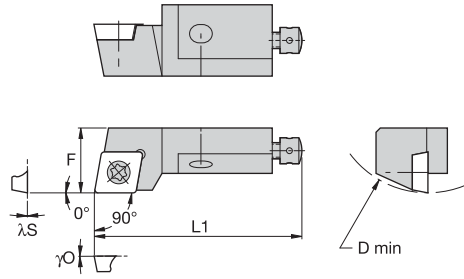
■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.787	MS1933	T7	KUAM34	1.5 mm	KUAM35	MS2173	2 mm	CSWM 035 040
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050
1.575	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



ISO/ANSI Turning



■ SCGP 0°

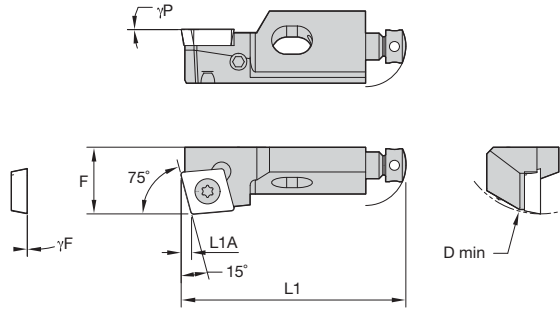
order number	catalog number	D min	F	L1	λS°	γ0°	gage insert
right hand							
1098554	SCGPR08CA06	.984	.394	1.26	.0	.0	CP..060204/CP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



■ SCKP 15°

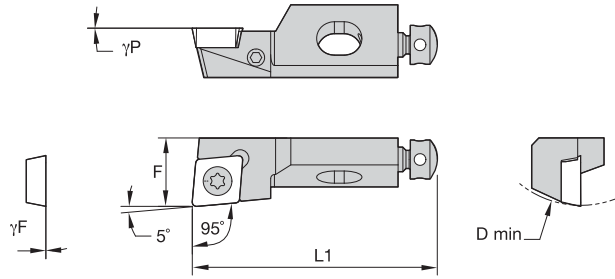
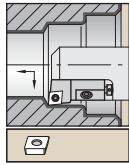
order number	catalog number	D min	F	L1	L1A	γF°	γP°	gage insert
right hand 1098552	SCKPR08CA06	.984	.394	1.26	.061	.0	.0	CP..060204/CP..2151
left hand 1098763	SCKPL08CA06	.984	.394	1.26	.061	.0	.0	CP..060204/CP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

■ Spare Parts

D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050

ISO/ANSI Turning



■ SCLP -5°

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098541	SCLPR06CA05	.787	.315	.98	.0	.0	CP..050204/CP..18151
1098542	SCLPR08CA06	.984	.394	1.26	.0	.0	CP..060204/CP..2151
1098543	SCLPR10CA09	1.575	.551	1.97	.0	.0	CP..09T308/CP..3252
left hand							
1098730	SCLPL08CA06	.984	.394	1.26	.0	.0	CP..060204/CP..2151
1098731	SCLPL10CA09	1.575	.551	1.97	.0	.0	CP..09T308/CP..3252

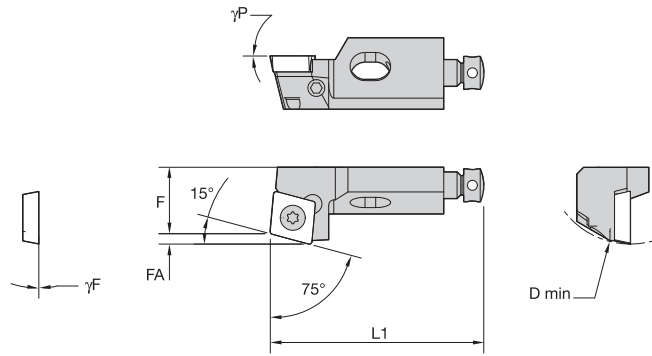
NOTE: ANSI/ISO compatible 60° countersunk hole inserts. This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole inserts (i.e., CPMT/CPGT/CPGW-32.5_), 90° countersunk hole inserts (i.e., CPGM/CPGB-32.5_) do not fit this tool.

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.787	MS1933	T7	KUAM34	1.5 mm	KUAM35	MS2173	2 mm	CSWM 035 040
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050
1.575	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



■ **SCRPR 15°**

order number	catalog number	D min	F	FA	L1	γF°	γP°	gage insert
right hand								
1098555	SCRPR08CA06	.984	.394	.059	1.26	.0	.0	CP..060204/CP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

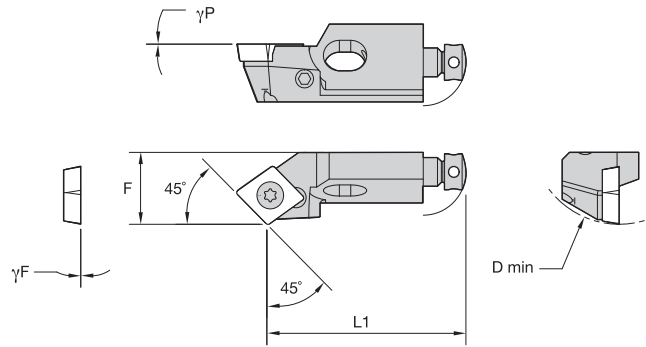
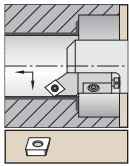
■ **Spare Parts**



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



ISO/ANSI Turning



SCSP 45°

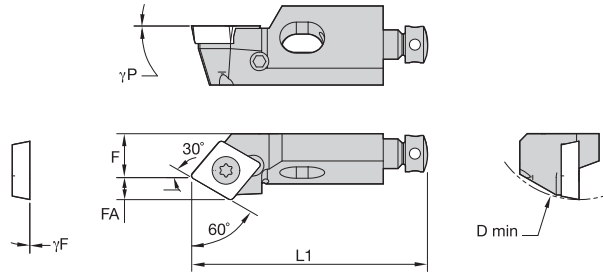
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098328	SCSPR06CA05	.787	.315	.83	.0	.0	CP..050204/CP..18151
1086536	SCSPR08CA06	.984	.394	1.10	.0	.0	CP..060204/CP..2151
left hand							
1098548	SCSPL06CA05	.787	.315	.83	.0	.0	CP..050204/CP..18151
1098549	SCSPL08CA06	.984	.394	1.10	.0	.0	CP..060204/CP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.787	MS1933	T7	—	—	KUAM35	MS2173	2 mm	CSWM 035 040
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



■ SCTP 30°

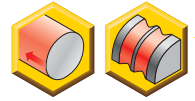
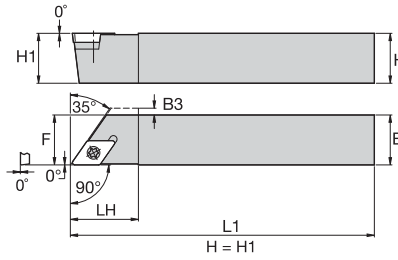
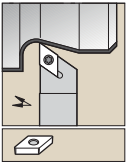
order number	catalog number	D min	F	FA	L1	γF°	γP°	gage insert
right hand								
1098556	SCTPR06CA05	.787	.217	.102	.98	.0	.0	CP..050204/CP..18151
1098557	SCTPR08CA06	.984	.236	.116	1.26	.0	.0	CP..060204/CP..2151
left hand								
1098736	SCTPL08CA06	.984	.236	.116	1.26	.0	.0	CP..060204/CP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts CPGM/CPGT/CPGW-21.5_ inserts.

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
.787	MS1933	T7	—	—	KUAM35	MS2173	2 mm	CSWM 035 040
.984	MS1153	T7	KUAM34	1.5 mm	KUAM20	MS2175	2.5 mm	CSWM 040 050



ISO/ANSI Turning

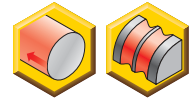
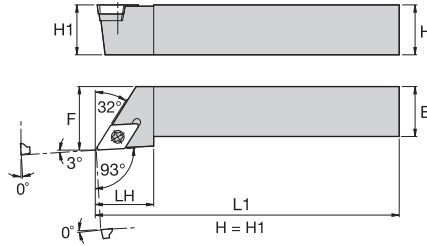
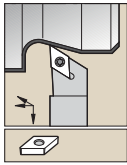
■ SDAC 0°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	hex	insert screw	Torx
right hand													
1094595	SDACR062D	.38	.38	.375	6.00	.62	—	DC..2151	—	—	—	MS1153	T7
1094597	SDACR082D	.50	.50	.500	6.00	.62	—	DC..2151	—	—	—	MS1153	T7
1094599	SDACR103B	.63	.63	.625	4.50	.88	—	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
1771940	SDACR083D	.50	.50	.500	6.00	.88	.06	DC..3252	—	—	—	MS1155	T15
left hand													
1094596	SDACL062D	.38	.38	.375	6.00	.62	—	DC..2151	—	—	—	MS1153	T7
1094598	SDACL082D	.50	.50	.500	6.00	.62	—	DC..2151	—	—	—	MS1153	T7
1094600	SDACL103B	.63	.63	.625	4.50	.88	—	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
1771941	SDACL083D	.50	.50	.500	6.00	.88	.06	DC..3252	—	—	—	MS1155	T15



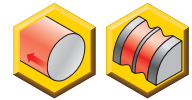
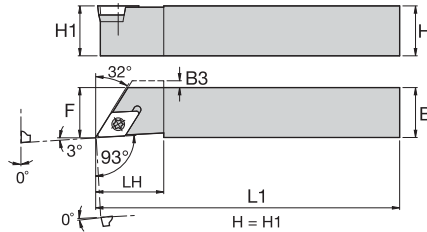
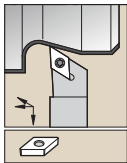
ISO/ANSI Turning



■ SDJC -3°



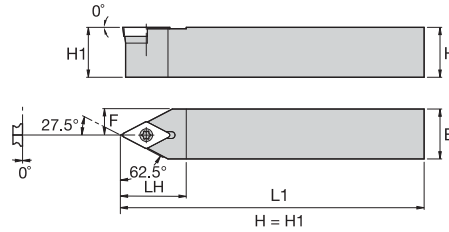
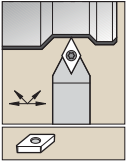
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1094519	SDJCR062	.38	.38	.500	2.50	.62	DC..2151	—	—	—	MS1153	T7
1094521	SDJCR082	.50	.50	.625	3.50	.62	DC..070204	—	—	—	MS1153	T7
1094523	SDJCR102	.63	.63	.750	4.00	.62	DC..2151	—	—	—	MS1153	T7
1094525	SDJCR083	.50	.50	.625	3.50	.88	DC..3252	—	—	—	MS1155	T15
1094527	SDJCR103	.63	.63	.750	4.00	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
1094529	SDJCR123	.75	.75	1.000	4.50	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
1094531	SDJCR163	1.00	1.00	1.250	6.00	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
left hand												
1094520	SDJCL062	.38	.38	.500	2.50	.62	DC..2151	—	—	—	MS1153	T7
1094522	SDJCL082	.50	.50	.625	3.50	.62	DC..2151	—	—	—	MS1153	T7
1094524	SDJCL102	.63	.63	.750	4.00	.62	DC..2151	—	—	—	MS1153	T7
1094526	SDJCL083	.50	.50	.625	3.50	.88	DC..3252	—	—	—	MS1155	T15
1094528	SDJCL103	.63	.63	.750	4.00	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
1094530	SDJCL123	.75	.75	1.000	4.50	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
1094532	SDJCL163	1.00	1.00	1.250	6.00	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15



■ SDJC-F -3°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1094601	SDJCRF062D	.38	.38	.375	6.00	.62	DC..2151	—	—	—	MS1153	T7
1094603	SDJCRF082D	.50	.50	.500	6.00	.62	DC..2151	—	—	—	MS1153	T7
1232019	SDJCRF083D	.50	.50	.500	6.00	.88	DC..3252	—	—	—	MS1155	T15
1094605	SDJCRF103B	.63	.63	.625	4.50	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
left hand												
1094602	SDJCLF062D	.38	.38	.375	6.00	.62	DC..2151	—	—	—	MS1153	T7
1094604	SDJCLF082D	.50	.50	.500	6.00	.62	DC..2151	—	—	—	MS1153	T7
1886490	SDJCLF083D	.50	.50	.500	6.00	.88	DC..3252	—	—	—	MS1155	T15
1094606	SDJCLF103B	.63	.63	.625	4.50	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15

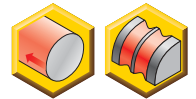
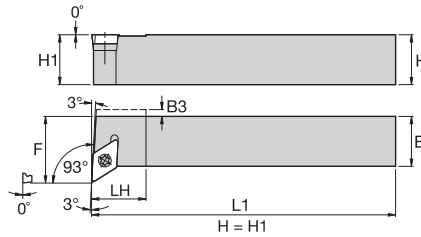
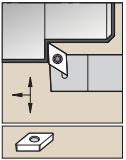


ISO/ANSI Turning

■ SDPC 27.5°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
1771942	SDPCN062D	.38	.38	1.875	6.00	.62	DC..2151	—	—	—	MS1153	T7
1772113	SDPCN082D	.50	.50	.250	6.00	.62	DC..2151	—	—	—	MS1153	T7
1772114	SDPCN083D	.50	.50	.250	6.00	.88	DC..3252	—	—	—	MS1155	T15
1772115	SDPCN103B	.63	.63	.313	4.50	.88	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15

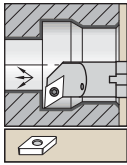


■ SDUC -3°

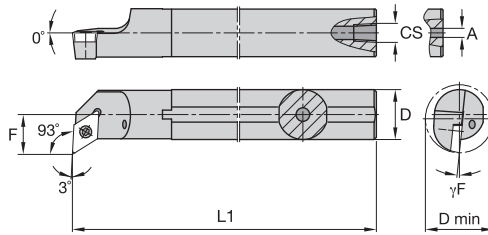


order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	hex	insert screw	Torx
right hand													
1095645	SDUCR082	.50	.50	.670	3.50	.50	—	DC..2151	—	—	—	MS1153	T7
1095644	SDUCR083	.50	.50	.746	3.50	.62	.12	DC..3252	—	—	—	MS1155	T15
1095647	SDUCR103	.63	.63	.871	4.00	.62	—	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15
left hand													
1095649	SDUCL082	.50	.50	.670	3.50	.50	—	DC..2151	—	—	—	MS1153	T7
1095648	SDUCL083	.50	.50	.746	3.50	.62	.12	DC..3252	—	—	—	MS1155	T15
1095651	SDUCL103	.63	.63	.871	4.00	.62	—	DC..3252	SKDP343	SRS3	3.5 mm	MS1156	T15

ISO/ANSI Turning



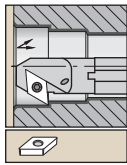
Steel shank with through coolant.



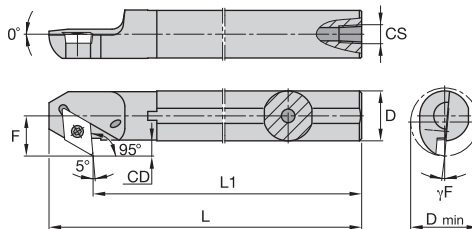
■ A-SDUC -3°



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1328616	A06MSDUCR2	.375	.600	.375	6.00	.13	—	-7.0	DC..2151	MS1153	T7
1328619	A08RSDUCR2	.500	.730	.437	8.00	.16	1/16-27 NPT	-5.0	DC..2151	MS1153	T7
1328623	A10SSDUCR2	.625	.850	.500	10.00	.16	1/8-27 NPT	-4.0	DC..2151	MS1153	T7
1328625	A12SSDUCR3	.750	.980	.562	10.00	—	1/8-27 NPT	-5.0	DC..3252	MS1155	T15
1328628	A16TSDUCR3	1.000	1.300	.750	12.00	—	1/4-18 NPT	-3.0	DC..3252	MS1155	T15
left hand											
1328617	A06MSDUCL2	.375	.600	.375	6.00	.13	—	-7.0	DC..2151	MS1153	T7
1328621	A08RSDUCL2	.500	.730	.437	8.00	.16	1/16-27 NPT	-5.0	DC..2151	MS1153	T7
1328624	A10SSDUCL2	.625	.850	.500	10.00	.16	1/8-27 NPT	-4.0	DC..2151	MS1153	T7
1328626	A12SSDUCL3	.750	.980	.562	10.00	—	1/8-27 NPT	-5.0	DC..3252	MS1155	T15
1328629	A16TSDUCL3	1.000	1.300	.750	12.00	—	1/4-18 NPT	-3.0	DC..3252	MS1155	T15



Steel shank with through coolant.

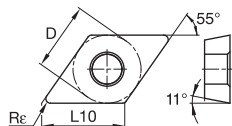
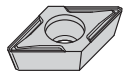


■ A-SDXC -5°



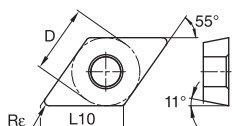
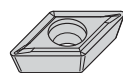
order number	catalog number	D	D min	F	L1	CD	L	CS	γF°	gage insert	insert screw	Torx
right hand												
1328630	A08RSDXCR2	.500	.730	.437	8.00	.187	8.50	1/16-27 NPT	-6.0	DC..2151	MS1153	T7
1328637	A12SSDXCR3	.750	.980	.562	10.00	.187	10.63	1/8-27 NPT	-5.0	DC..3252	MS1155	T15
1328639	A16TSDXCR3	1.000	1.300	.750	12.00	.250	12.63	1/4-18 NPT	-3.0	DC..3252	MS1155	T15
left hand												
1328632	A08RSDXCL2	.500	.730	.437	8.00	.187	8.50	1/16-27 NPT	-6.0	DC..2151	MS1153	T7
1328640	A16TSDXCL3	1.000	1.300	.750	12.00	.250	12.63	1/4-18 NPT	-3.0	DC..3252	MS1155	T15

● first choice
○ alternate choice



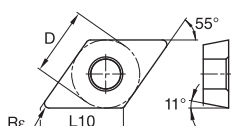
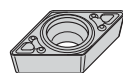
■ DPMT-FW

ISO catalog number	ANSI catalog number	D		L10		Re																																	
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
DPMT070204FW	DPMT2151FW	6,35	1/4	7,75	.305	0,4	1/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPMT070208FW	DPMT2152FW	6,35	1/4	7,75	.305	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



■ DPMT-LF

ISO catalog number	ANSI catalog number	D		L10		Re																																		
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10				
DPMT070202LF	DPMT21505LF	6,35	1/4	7,75	.305	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DPMT070204LF	DPMT2151LF	6,35	1/4	7,75	.305	0,4	1/64	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DPMT11T302LF	DPMT32505LF	9,53	3/8	11,63	.458	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DPMT11T304LF	DPMT3251LF	9,53	3/8	11,63	.458	0,4	1/64	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DPMT11T308LF	DPMT3252LF	9,53	3/8	11,63	.458	0,8	1/32	-	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

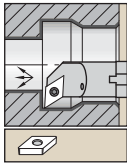


■ DPMT-MF

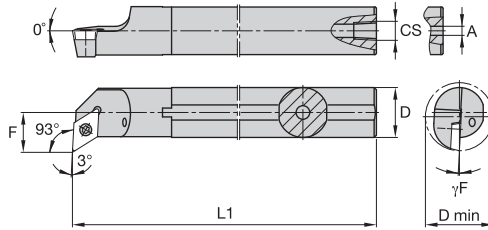
ISO catalog number	ANSI catalog number	D		L10		Re																																		
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10				
DPMT11T308MF	DPMT3252MF	9,53	3/8	11,63	.458	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	M	K	N	S	H																																			
●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

ISO/ANSI Turning



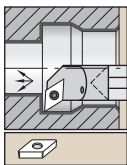
Steel shank with through coolant.



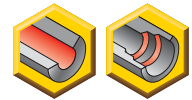
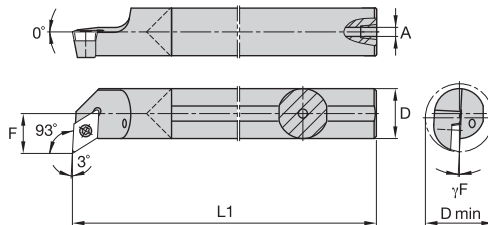
■ A-SDUP -3°



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1094689	A06MSDUPR2	.375	.600	.375	6.00	.13	—	-3.0	DP..2151	MS1153	T7
1094691	A08RSDUPR2	.500	.730	.437	8.00	.13	1/16-27 NPT	.0	DP..2151	MS1153	T7
1094693	A10SSDUPR2	.625	.850	.500	10.00	.13	1/8-27 NPT	.0	DP..2151	MS1153	T7
1094695	A12SSDUPR3	.750	.980	.562	10.00	.16	1/8-27 NPT	.0	DP..3252	MS1155	T15
1094697	A16TSDUPR3	1.000	1.300	.750	12.00	.25	1/4-18 NPT	.0	DP..3252	MS1155	T15
left hand											
1094690	A06MSDUPL2	.375	.600	.375	6.00	.13	—	-3.0	DP..2151	MS1153	T7
1094692	A08RSDUPL2	.500	.730	.437	8.00	.13	1/16-27 NPT	.0	DP..2151	MS1153	T7
1094694	A10SSDUPL2	.625	.850	.500	10.00	.13	1/8-27 NPT	.0	DP..2151	MS1153	T7
1094696	A12SSDUPL3	.750	.980	.562	10.00	.16	1/8-27 NPT	.0	DP..3252	MS1155	T15
1094698	A16TSDUPL3	1.000	1.300	.750	12.00	.25	1/4-18 NPT	.0	DP..3252	MS1155	T15



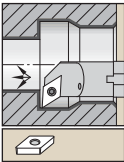
Carbide shank with through coolant.



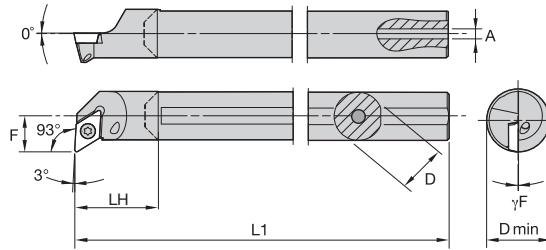
■ E-SDUP -3°



order number	catalog number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
right hand										
1152738	E06SDUPR2	.375	.600	.375	6.00	.13	-2.0	DP..2151	MS1153	T7
1152740	E08SDUPR2	.500	.730	.437	8.00	.19	.0	DP..2151	MS1153	T7
1152742	E10SDUPR2	.625	.850	.500	10.00	.22	.0	DP..2151	MS1153	T7
1152744	E12SDUPR2	.750	.980	.562	10.00	.28	.0	DP..2151	MS1153	T7
1152746	E12SSDUPR3	.750	.980	.562	10.00	.28	.0	DP..3252	MS1155	T15
1152748	E16TSDUPR3	1.000	1.300	.750	12.00	.31	.0	DP..3252	MS1155	T15
left hand										
1152739	E06SDUPL2	.375	.600	.375	6.00	.13	-2.0	DP..2151	MS1153	T7
1152741	E08SDUPL2	.500	.730	.437	8.00	.19	.0	DP..2151	MS1153	T7
1152743	E10SDUPL2	.625	.850	.500	10.00	.22	.0	DP..2151	MS1153	T7
1152747	E12SSDUPL3	.750	.980	.562	10.00	.28	.0	DP..3252	MS1155	T15
1152749	E16TSDUPL3	1.000	1.300	.750	12.00	.31	.0	DP..3252	MS1155	T15



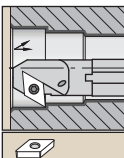
Heavy metal bar with through coolant.



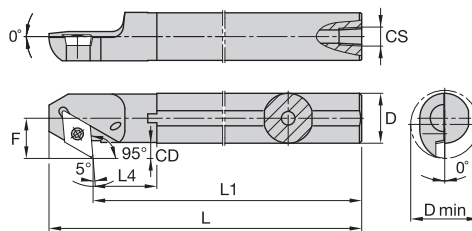
■ L-SDUP -3°



order number	catalog number	D	D min	F	L1	LH	A	γF°	gage insert	insert screw	Torx
right hand											
3331052	L06MSDUPR2	.375	.600	.375	6.06	.91	.13	-2.0	DP..2151..	MS1153	T7
3331073	L08RSDUPR2	.500	.730	.437	7.93	.93	.16	.0	DP..2151..	MS1153	T7
3331074	L10RSDUPR2	.625	.850	.500	7.99	1.03	.16	.0	DP..2151..	MS1153	T7
3331075	L12RSDUPR3	.750	.980	.562	7.96	1.30	.16	.0	DP..3252..	MS1155	T15
left hand											
3331048	L06MSDUPL2	.375	.600	.375	6.06	.91	.13	-2.0	DP..2151..	MS1153	T7
3331049	L08RSDUPL2	.500	.730	.437	7.93	.93	.16	.0	DP..2151..	MS1153	T7



Steel shank with through coolant.



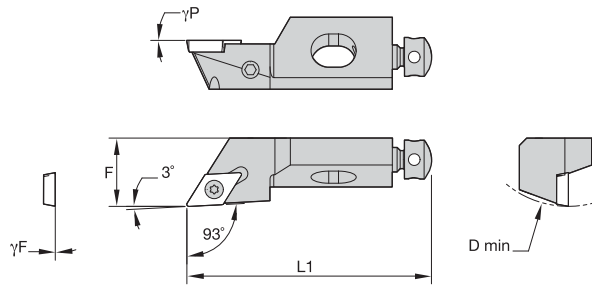
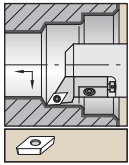
■ A-SDXP-5°



order number	catalog number	D	D min	F	L1	L	L4	CD	CS	gage insert	insert screw	Torx
right hand												
1094681	A08RSDXPR2	.500	.730	.437	8.00	8.50	—	.187	1/16-27 NPT	DP..2151	MS1153	T7
1094683	A10SSDXPR2	.625	.850	.500	10.00	10.50	—	.187	1/8-27 NPT	DP..2151	MS1153	T7
1094685	A12SSDXPR3	.750	.980	.562	10.00	10.63	—	.187	1/8-27 NPT	DP..3252	MS1155	T15
1094687	A16TSDXPR3	1.000	1.300	.750	12.00	12.66	—	.250	1/4-18 NPT	DP..3252	MS1155	T15
left hand												
1094682	A08RSDXPL2	.500	.730	.437	8.00	8.50	2.79	.187	1/16-27 NPT	DP..2151	MS1153	T7
1094684	A10SSDXPL2	.625	.850	.500	10.00	10.50	—	.187	1/8-27 NPT	DP..2151	MS1153	T7
1094688	A16TSDXPL3	1.000	1.300	.750	12.00	12.66	—	.250	1/4-18 NPT	DP..3252	MS1155	T15



ISO/ANSI Turning



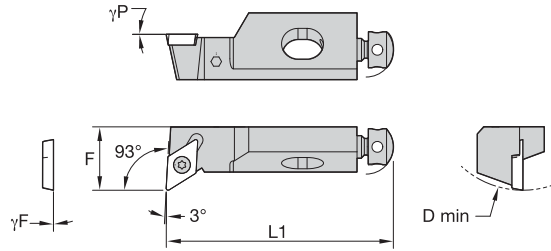
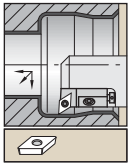
■ SDJP -3°

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand 1098757	SDJPR10CA07	1.575	.551	1.97	.0	.0	DP..070204/DP..2151
left hand 1098758	SDJPL10CA07	1.575	.551	1.97	.0	.0	DP..070204/DP..2151

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



■ SDUP -3°

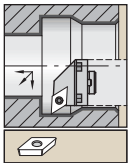
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand 1098728	SDUPR10CA07	1.575	.551	1.97	.0	.0	DP..070204/DP..2151

■ Spare Parts

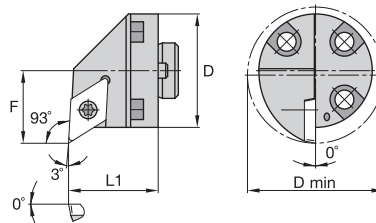


D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050

Screw-On Boring Heads



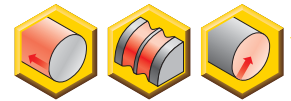
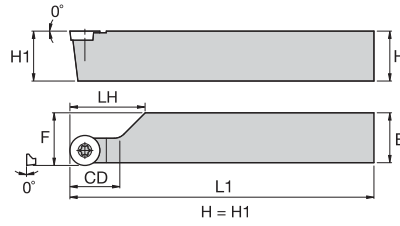
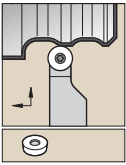
With through coolant.



■ H-SDUP -3°



order number	catalog number	D	D min	F	L1	gage insert	insert screw	Torx
right hand 1581689	H16SDUPR3	1.000	1.200	.640	.79	DP..3252	MS1155	T15
left hand 1606537	H16SDUPL3	1.000	1.200	.640	.79	DP..3252	MS1155	T15

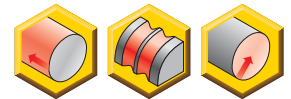
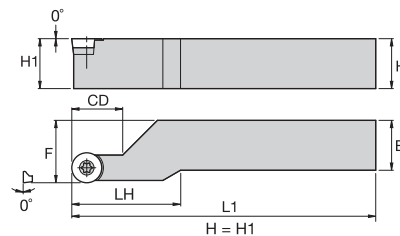
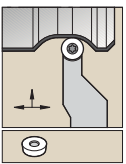


ISO/ANSI Turning

■ SRAC



order number	catalog number	H	B	F	L1	LH	CD	gage insert	shim	insert screw	Torx Plus
right hand											
1808538	SRACR162D	1.00	1.00	1.020	6.00	1.00	1.00	RC..215	—	MS1153	T7
1808542	SRACR202D	1.25	1.25	1.270	6.00	1.25	1.00	RC..215	—	MS1153	T7
1808536	SRACR163D	1.00	1.00	1.020	6.00	1.00	1.00	RC..325	SR3	MS1156	T15
1808540	SRACR203D	1.25	1.25	1.270	6.00	1.00	1.00	RC..325	SR3	MS1156	T15
1808532	SRACR164D	1.00	1.00	1.020	6.00	1.00	1.00	RC..43	SR4	MS1158	T15
1808534	SRACR204D	1.25	1.25	1.270	6.00	1.00	1.00	RC..43	SR4	MS1158	T15
1909005	SRACR244D	1.50	1.50	1.520	6.00	1.00	1.00	RC..43	SR4	MS1158	T15
left hand											
1808539	SRACL162D	1.00	1.00	1.020	6.00	1.25	1.00	RC..215	—	MS1153	T7
1808543	SRACL202D	1.25	1.25	1.270	6.00	1.25	1.00	RC..215	—	MS1153	T7
1808541	SRACL203D	1.25	1.25	1.270	6.00	1.00	1.00	RC..325	SR3	MS1156	T15
1808533	SRACL164D	1.00	1.00	1.020	6.00	1.00	1.00	RC..43	SR4	MS1158	T15
1808535	SRACL204D	1.25	1.25	1.270	6.00	1.00	1.00	RC..43	SR4	MS1158	T15
1909006	SRACL244D	1.50	1.50	1.520	6.00	1.00	1.00	RC..43	SR4	MS1158	T15

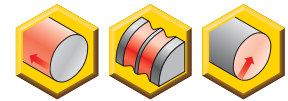
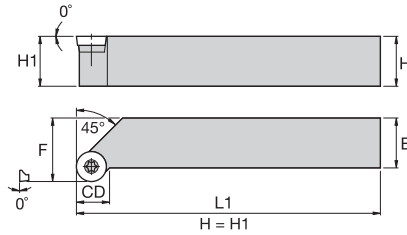
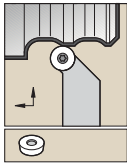


■ SRCC



order number	catalog number	CD	H	B	F	L1	LH	gage insert	shim	insert screw	Torx
right hand											
1908976	SRCCR122B	.81	.75	.75	1.000	4.50	1.66	RC..215	—	MS1153	T7
1908978	SRCCR162D	.81	1.00	1.00	1.250	6.00	1.66	RC..215	—	MS1153	T7
1908981	SRCCR123B	1.02	.75	.75	1.000	4.50	1.88	RC..325	SR3	MS1156	T15
1908994	SRCCR163D	1.02	1.00	1.00	1.250	6.00	1.88	RC..325	SR3	MS1156	T15
1908996	SRCCR203D	1.02	1.25	1.25	1.500	6.00	1.88	RC..325	SR3	MS1156	T15
left hand											
1908980	SRCCL162D	.81	1.00	1.00	1.250	6.00	1.66	RC..215	—	MS1153	T7
1908995	SRCCL163D	1.02	1.00	1.00	1.250	6.00	1.88	RC..325	SR3	MS1156	T15
1909002	SRCCL203D	1.02	1.25	1.25	1.500	6.00	1.88	RC..325	SR3	MS1156	T15

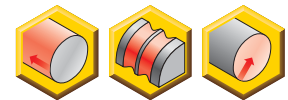
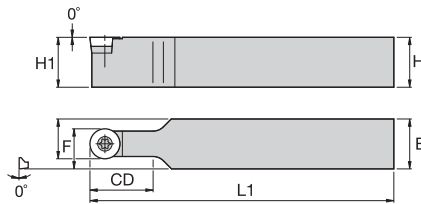
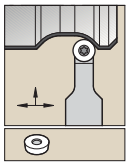
ISO/ANSI Turning



SRGC



order number	catalog number	H	B	F	L1	CD	gage insert	shim	insert screw	Torx
right hand										
1094548	SRGCR122	.75	.75	1.000	4.50	.40	RC..215	—	MS1153	T7
1094550	SRGCR162	1.00	1.00	1.250	6.00	.40	RC..215	—	MS1153	T7
1094554	SRGCR163	1.00	1.00	1.250	6.00	.41	RC..325	SR3	MS1156	T15
1094556	SRGCR203	1.25	1.25	1.500	6.00	.43	RC..325	SR3	MS1156	T15
left hand										
1094551	SRGCL162	1.00	1.00	1.250	6.00	.40	RC..215	—	MS1153	T7
1094557	SRGCL203	1.25	1.25	1.500	6.00	.43	RC..325	SR3	MS1156	T15

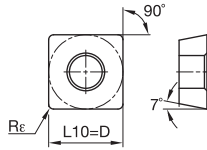
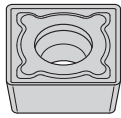


SROC



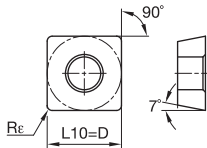
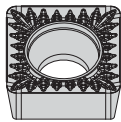
order number	catalog number	H	B	F	L1	LH	CD	gage insert	shim	insert screw	Torx
1094543	SROCN102	.63	.63	.438	4.00	—	.62	RC..215	—	MS1153	T7
1094544	SROCN122	.75	.75	.500	4.50	—	.75	RC..215	—	MS1153	T7
1094545	SROCN162	1.00	1.00	.625	6.00	—	1.00	RC..215	—	MS1153	T7
1094546	SROCN123	.75	.75	.562	4.50	—	.75	RC..325	SR3	MS1156	T15
1094547	SROCN163	1.00	1.00	.688	6.00	—	1.00	RC..325	SR3	MS1156	T15
1094621	SROCN203	1.25	1.25	.813	6.00	1.25	1.25	RC..325	SR3	MS1156	T15

● first choice
○ alternate choice



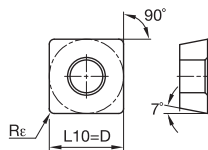
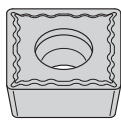
■ SCMT-MF

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
SCMT09T312MF	SCMT3253MF	9,53	3/8	9,52	.375	1,2	3/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SCMT09T308MF	SCMT3252MF	9,53	3/8	9,53	.375	0,8	1/32	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCMT120408MF	SCMT432MF	12,70	1/2	12,70	.500	0,8	1/32	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCMT120412MF	SCMT433MF	12,70	1/2	12,70	.500	1,2	3/64	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ SCMT-MP

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
SCMT09T304MP	SCMT3251MP	9,53	3/8	9,53	.375	0,4	1/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SCMT09T308MP	SCMT3252MP	9,53	3/8	9,53	.375	0,8	1/32	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SCMT120404MP	SCMT431MP	12,70	1/2	12,70	.500	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SCMT120408MP	SCMT432MP	12,70	1/2	12,70	.500	0,8	1/32	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SCMT120412MP	SCMT433MP	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

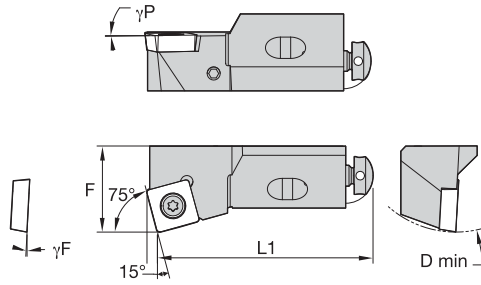
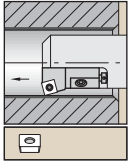


■ SCMT-UF

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10
		mm	in	mm	in	mm	in																													
SCMT09T308UF	SCMT3252UF	9,53	3/8	9,53	.375	0,8	1/32	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
●	●	○	○	○		-	-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
○	○	○	○	○		-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
○	○	○	○	○		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ISO/ANSI Turning



■ SSKC 15°

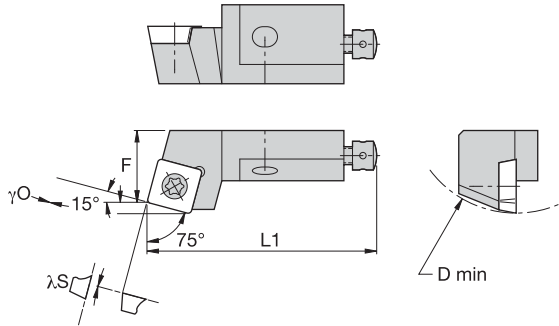
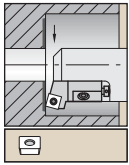
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098719	SSKCR12CA12	1.969	.787	2.17	-3.0	.0	SC..120408/SC..432
1098720	SSKCR16CA12	2.362	.984	2.48	-3.0	.0	SC..120408/SC..432
left hand							
1098721	SSKCL12CA12	1.969	.787	2.17	-3.0	.0	SC..120408/SC..432

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	MS1157	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050
2.362	MS1157	T15	KUAM25	2.5 mm	KUAM32	191.407	5 mm	CSWM 080 050

ISO/ANSI Turning



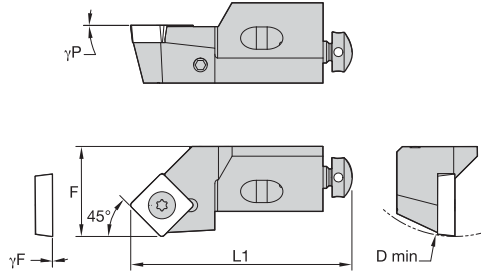
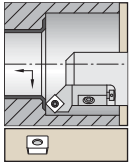
■ SSRC 15°

order number	catalog number	D min	F	L1	λS°	γO°	gage insert
right hand 1098723	SSRCR12CA12	1.969	.787	2.17	-3.0	.0	SC..120408/SC..432
left hand 1098725	SSRCL12CA12	1.969	.787	2.17	-3.0	.0	SC..120408/SC..432

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	MS1157	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050



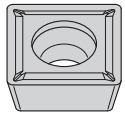
■ SSSC 45°

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098737	SSSCR12CA12	1.969	.787	1.85	-3.0	.0	SC..120408/SC..432
left hand							
1098739	SSSCL12CA12	1.969	.787	1.85	-3.0	.0	SC..120408/SC..432

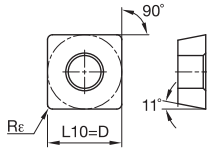
■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	MS1157	T15	KUAM23	2.5 mm	KUAM31	191.406	4 mm	CSWM 060 050

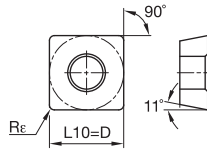
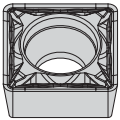


● first choice
○ alternate choice



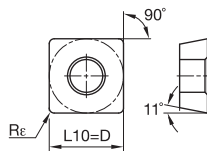
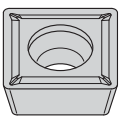
■ SPGT-LF

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
		mm	in	mm	in	mm	in																															
SPGT09T304LF	SPGT3251LF	9,53	3/8	9,53	.375	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SPGT09T308LF	SPGT3252LF	9,53	3/8	9,53	.375	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



■ SPMT-FP

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
		mm	in	mm	in	mm	in																																
SPMT09T304FP	SPMT3251FP	9,53	3/8	9,53	.375	0,4	1/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SPMT09T308FP	SPMT3252FP	9,53	3/8	9,53	.375	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



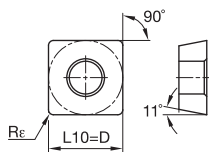
■ SPMT-LF

ISO catalog number	ANSI catalog number	D		L10		Rε		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
		mm	in	mm	in	mm	in																															
SPMT09T304LF	SPMT3251LF	9,53	3/8	9,53	.375	0,4	1/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPMT09T308LF	SPMT3252LF	9,53	3/8	9,53	.375	0,8	1/32	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

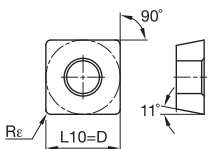
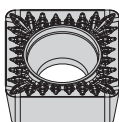


● first choice
○ alternate choice



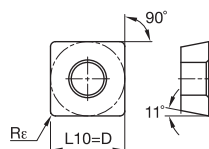
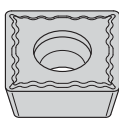
■ SPMT-MF

ISO catalog number	ANSI catalog number	D		L10		Rε																																
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
SPMT09T308MF	SPMT3252MF	9,53	3/8	9,53	.375	0,8	1/32	-	-	●	-	●	-	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPMT120408MF	SPMT432MF	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-



■ SPMT-MP

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
SPMT09T308MP	SPMT3252MP	9,53	3/8	9,53	.375	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SPMT120408MP	SPMT432MP	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-



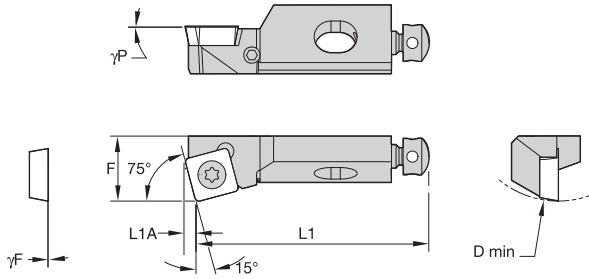
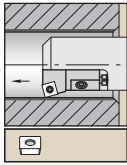
■ SPMT-UF

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
SPMT09T304UF	SPMT3251UF	9,53	3/8	9,53	.375	0,4	1/64	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10							
●	●	●	●	●	●																																				
		○	○	○	○																																				



ISO/ANSI Turning



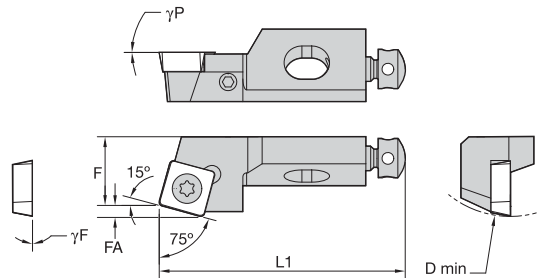
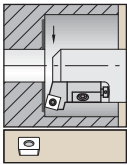
SSKP 15°

order number	catalog number	D min	F	L1	L1A	γF°	γP°	gage insert
right hand 1098570	SSKPR10CA09	1.575	.551	1.97	.09	.0	.0	SP..09T308/SP..3252

Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



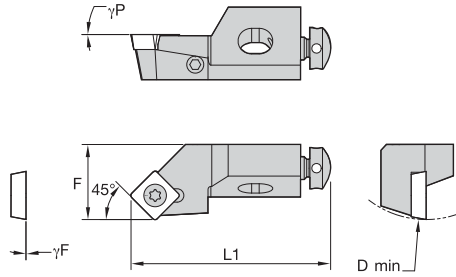
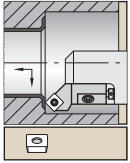
SSRP 15°

order number	catalog number	D min	F	FA	L1	γF°	γP°	gage insert
right hand 1098574	SSRPR10CA09	1.575	.551	.088	1.97	.0	.0	SP..09T308/SP..3252

Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050



■ SSSP 45°

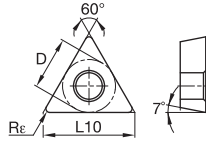
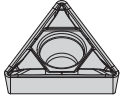
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098572	SSSPR10CA09	1.575	.551	1.73	.0	.0	SP..09T308/SP..3252
left hand							
1098764	SSSPL10CA09	1.575	.551	1.73	.0	.0	SP..09T308/SP..3252

■ Spare Parts



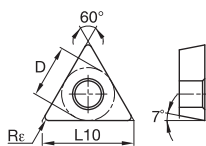
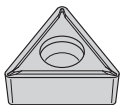
D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	MS1155	T15	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050

● first choice
○ alternate choice



TCMT-FP

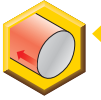
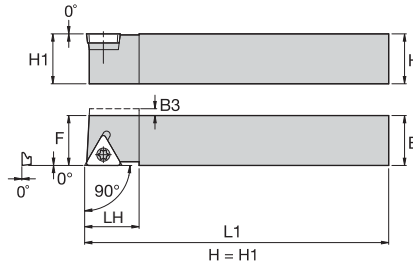
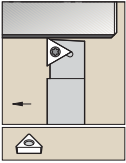
ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
TCMT090204FP	TCMT18151FP	5,56	7/32	9,63	.379	0,4	1/64	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT090208FP	TCMT18152FP	5,56	7/32	9,63	.379	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110202FP	TCMT21505FP	6,35	1/4	11,00	.433	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110204FP	TCMT2151FP	6,35	1/4	11,00	.433	0,4	1/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110304FP	TCMT221FP	6,35	1/4	11,00	.433	0,4	1/64	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110208FP	TCMT2152FP	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110308FP	TCMT222FP	6,35	1/4	11,00	.433	0,8	1/32	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110312FP	TCMT223FP	6,35	1/4	11,00	.433	1,2	3/64	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T304FP	TCMT3251FP	9,53	3/8	16,50	.650	0,4	1/64	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T308FP	TCMT3252FP	9,53	3/8	16,50	.650	0,8	1/32	-	-	●	-	●	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T312FP	TCMT3253FP	9,53	3/8	16,50	.650	1,2	3/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT220408FP	TCMT432FP	12,70	1/2	22,00	.866	0,8	1/32	●	-	-	-	●	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TCMT-LF

ISO catalog number	ANSI catalog number	D		L10		Rε																																	
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
TCMT110202LF	TCMT21505LF	6,35	1/4	11,00	.433	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110204LF	TCMT2151LF	6,35	1/4	11,00	.433	0,4	1/64	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT110208LF	TCMT2152LF	6,35	1/4	11,00	.433	0,8	1/32	-	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T302LF	TCMT32505LF	9,53	3/8	16,50	.650	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T304LF	TCMT3251LF	9,53	3/8	16,50	.650	0,4	1/64	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T308LF	TCMT3252LF	9,53	3/8	16,50	.650	0,8	1/32	-	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TCMT16T312LF	TCMT3253LF	9,53	3/8	16,50	.650	1,2	3/64	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TCMT220408LF	TCMT432LF	12,70	1/2	22,00	.866	0,8	1/32	-	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

ISO/ANSI Turning

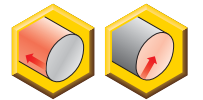
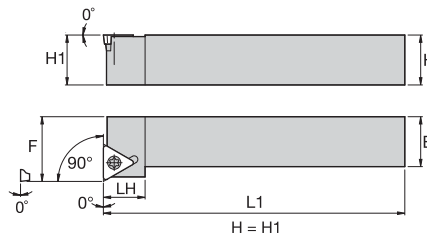
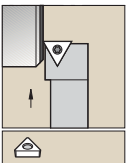


ISO/ANSI Turning

■ STAC 0°



order number	catalog number	H	B	F	L1	LH	B3	gage insert	shim	shim screw	hex	insert screw	Torx Plus
right hand													
1772116	STACR062D	.38	.38	.375	6.00	.62	.09	TC..2151	—	—	—	MS1153	T7
1772118	STACR082D	.50	.50	.500	6.00	.62	—	TC..2151	—	—	—	MS1153	T7
1772122	STACR103B	.63	.63	.625	4.50	.75	—	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15



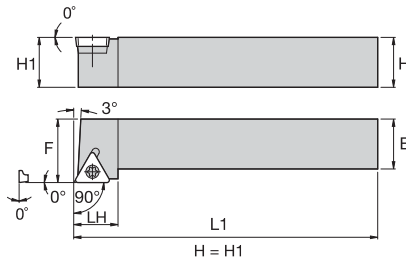
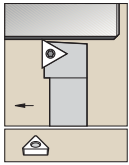
■ STFC 0°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx Plus
right hand												
1094409	STFCR062	.38	.38	.500	2.50	.62	TC..2151	—	—	—	MS1153	T7
1094581	STFCR163	1.00	1.00	1.250	6.00	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15
left hand												
1094410	STFCL062	.38	.38	.500	2.50	.62	TC..2151	—	—	—	MS1153	T7



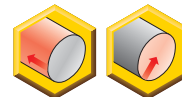
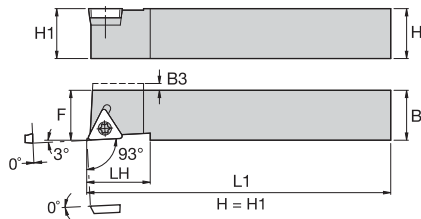
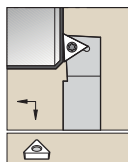
ISO/ANSI Turning



■ STGC 0°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1094421	STGCR062	.38	.38	.500	2.50	.62	TC..2151	—	—	—	MS1153	T7
1094423	STGCR082	.50	.50	.625	3.50	.62	TC..2151	—	—	—	MS1153	T7
1094427	STGCR103	.63	.63	.750	4.00	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15
1094429	STGCR123	.75	.75	1.000	4.50	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15
1094583	STGCR163	1.00	1.00	1.250	6.00	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15
left hand												
1094422	STGCL062	.38	.38	.500	2.50	.62	TC..2151	—	—	—	MS1153	T7
1094424	STGCL082	.50	.50	.625	3.50	.62	TC..2151	—	—	—	MS1153	T7
1094428	STGCL103	.63	.63	.750	4.00	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15
1094430	STGCL123	.75	.75	1.000	4.50	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15
1094584	STGCL163	1.00	1.00	1.250	6.00	.75	TC..3252	SKTP343	SRS3	3.5 mm	MS1156	T15



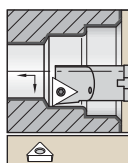
ISO/ANSI Turning

■ STJC-F -3°

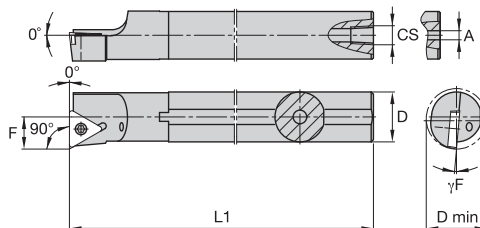


order number	catalog number	H	B	F	L1	LH	B3	gage insert	insert screw	Torx
right hand										
1772124	STJCRF062D	.38	.38	.375	6.00	.62	.09	TC..2151	MS1153	T7
1772126	STJCRF082D	.50	.50	.500	6.00	.62	—	TC..2151	MS1153	T7
1772128	STJCRF102B	.63	.63	.625	4.50	.62	—	TC..2151	MS1153	T7

Screw-On Boring Bars



Steel shank with through coolant.



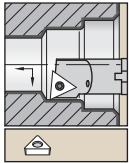
■ A-STFC 0°



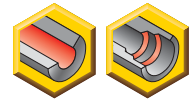
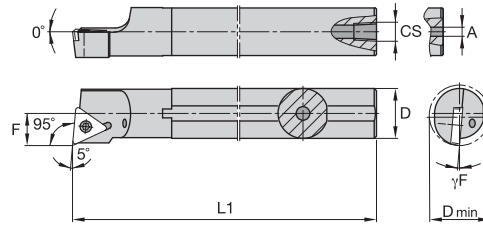
order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1328594	A06MSTFCR2	.375	.480	.250	6.00	.13	—	-8.0	TC..2151	MS1153	T7
1328596	A08RSTFCR2	.500	.600	.312	8.00	—	1/16-27 NPT	-7.0	TC..2151	MS1153	T7
1328599	A10SSTFCR2	.625	.770	.406	10.00	—	1/8-27 NPT	-5.0	TC..2151	MS1153	T7
1328601	A12SSTFCR3	.750	.930	.500	10.00	—	1/8-27 NPT	-5.0	TC..3252	MS1155	T15
1328603	A16STFCR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	TC..3252	MS1155	T15
left hand											
1328598	A08RSTFCL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-7.0	TC..2151	MS1153	T7
1328602	A12SSTFCL3	.750	.930	.500	10.00	.16	1/8-27 NPT	-5.0	TC..3252	MS1155	T15
1328604	A16STFCL3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	TC..3252	MS1155	T15



ISO/ANSI Turning



Steel shank with through coolant.

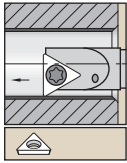


■ A-STLC -5°

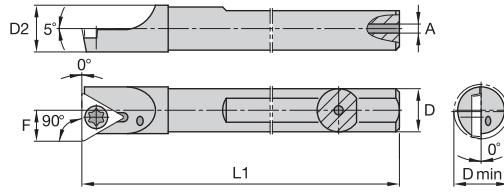


order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1328605	A06MSTLCR2	.375	.480	.250	6.00	.13	—	-8.0	TC..2151	MS1153	T7
1328607	A08RSTLCR2	.500	.600	.312	8.00	—	1/16-27 NPT	-7.0	TC..2151	MS1153	T7
1328610	A10SSTLCR2	.625	.770	.406	10.00	—	1/8-27 NPT	-5.0	TC..2151	MS1153	T7
1328612	A12SSTLCR3	.750	.930	.500	10.00	.16	1/8-27 NPT	-5.0	TC..3252	MS1155	T15
1328614	A16STLCR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	TC..3252	MS1155	T15
left hand											
1328606	A06MSTLCL2	.375	.480	.250	6.00	.13	—	-8.0	TC..2151	MS1153	T7
1328608	A08RSTLCL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-7.0	TC..2151	MS1153	T7
1328611	A10SSTLCL2	.625	.770	.406	10.00	.16	1/8-27 NPT	-5.0	TC..2151	MS1153	T7
1328613	A12SSTLCL3	.750	.930	.500	10.00	.16	1/8-27 NPT	-5.0	TCMT3252	MS1155	T15
1328615	A16STLCL3	1.000	1.200	.640	12.00	—	1/4-18 NPT	-4.0	TC..3252	MS1155	T15

ISO/ANSI Turning



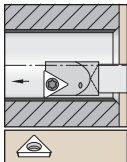
Steel shank with through coolant.



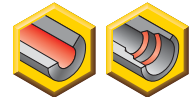
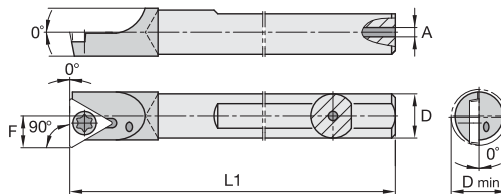
A-STFD 0°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1288873	A04HSTFDR128	.250	.296	.260	.156	4.00	.04	TDHB12807505	FC14	T7



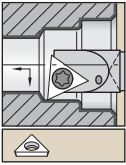
Carbide shank with through coolant.



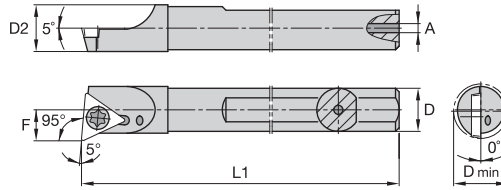
E-STFD 0°



order number	catalog number	D	D min	F	L1	A	gage insert	insert screw	Torx
right hand									
1270956	E04HSTFDR128	.250	.296	.156	4.00	.05	TD..130805	FC14	T7
1270968	E05HSTFDR128	.313	.358	.187	4.00	.09	TD..130805	FC14	T7
1270971	E05MSTFDR128	.313	.358	.187	6.00	.09	TDHB12807505	FC14	T7



Steel shank with through coolant.

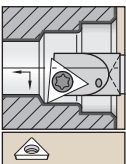


ISO/ANSI Turning

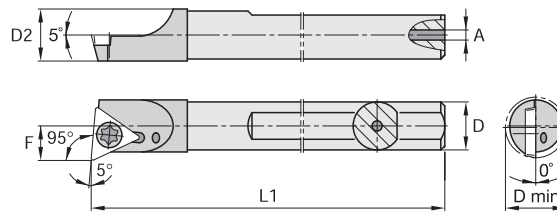
■ A-STLD -5°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1288867	A03GSTLDR128	.188	.275	—	.123	3.50	.04	TDHB12807505	FC11	T7
1288875	A04HSTLDR128	.250	.296	.260	.156	4.00	.04	TDHB12807505	FC14	T7
1288881	A05HSTLDR128	.313	.358	.322	.187	4.00	.06	TDHB12807505	FC14	T7



Carbide shank with through coolant.



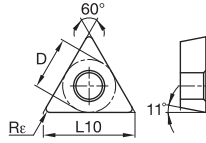
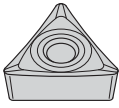
■ E-STLD -5°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1270944	E03HSTLDR128	.187	.275	.236	.126	4.00	.04	TD..12807505	FC11	T7
1270950	E03MSTLDR128	.187	.275	—	.126	6.00	.04	TD..12807505	FC11	T7
1270982	E06MSTLDR07	.236	.280	—	.146	6.00	.05	TD..07S102	FC11	T7
1270958	E04HSTLDR128	.250	.296	.260	.156	4.00	.05	TD..130805	FC14	T7
1270965	E04MSTLDR128	.250	.296	.000	.156	6.00	.05	TD..12807505	FC14	T7
1270970	E05HSTLDR128	.312	.358	—	.187	4.00	.09	TD..12807505	FC14	T7
1270973	E05MSTLDR128	.312	.358	—	.187	6.00	.09	TD..12807505	FC14	T7
1270992	E08MSTLDR07	.315	.362	—	.189	6.00	.09	TD..07S102	FC11	T7
1950413	E06SSTLDR2	.375	.438	—	.228	10.00	.13	TP..21505	QC21	T9
left hand										
1270981	E06MSTLDL07	.236	.278	—	.146	6.00	.05	TD..130805	FC11	T7
1270964	E04MSTLDL128	.250	.296	—	.156	6.00	.05	TD..12807505	FC14	T7
1270991	E08MSTLDL07	.315	.360	—	.189	6.00	.09	TD..07S102	FC14	T7

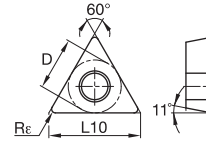
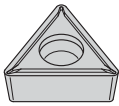
ISO/ANSI Turning

● first choice
○ alternate choice



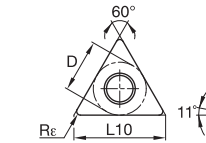
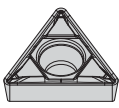
TPGT-HP

ISO catalog number	ANSI catalog number	D		L10		Re																																		
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10				
TPGT110202HP	TPGT21505HP	6,35	1/4	11,00	.433	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TPGT110204HP	TPGT2151HP	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TPGT110208HP	TPGT2152HP	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT16T302HP	TPGT32505HP	9,53	3/8	16,50	.650	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT16T304HP	TPGT3251HP	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT16T308HP	TPGT3252HP	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



TPGT-LF

ISO catalog number	ANSI catalog number	D		L10		Re																																		
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10				
TPGT090204LF	TPGT18151LF	5,56	7/32	9,62	.379	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT090202LF	TPGT181505LF	5,56	7/32	9,63	.379	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT110201LF	TPGT2150LF	6,35	1/4	11,00	.433	0,1	.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT110202LF	TPGT21505LF	6,35	1/4	11,00	.433	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT110204LF	TPGT2151LF	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT110208LF	TPGT2152LF	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT16T304LF	TPGT3251LF	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPGT16T308LF	TPGT3252LF	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

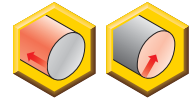
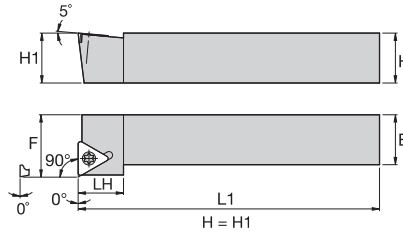
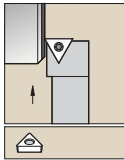


TPMT-FP

ISO catalog number	ANSI catalog number	D		L10		Re																																		
		mm	in	mm	in	mm	in	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10				
TPMT090204FP	TPMT18151FP	5,56	7/32	9,63	.379	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPMT090208FP	TPMT18152FP	5,56	7/32	9,63	.379	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPMT110202FP	TPMT21505FP	6,35	1/4	11,00	.433	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPMT110204FP	TPMT2151FP	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPMT110304FP	TPMT221FP	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TPMT110208FP	TPMT2152FP	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPMT110308FP	TPMT222FP	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TPMT16T304FP	TPMT3251FP	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TPMT16T308FP	TPMT3252FP	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



ISO/ANSI Turning

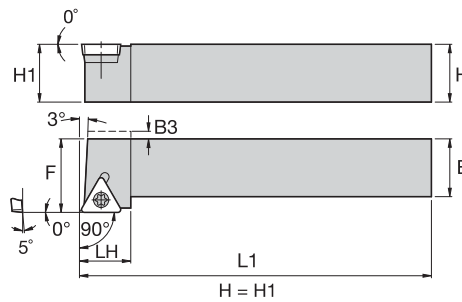
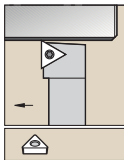


■ STFP 0°



order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx
right hand									
1095590	STFPR062	.38	.38	.500	2.50	.44	TP..2151	MS1153	T7

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPMT/TPGM/TPGT/TPGW-21.5_inserts.

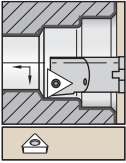


■ STGP 0°

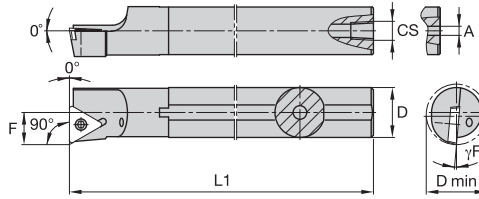


order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx
right hand									
1095588	STGPR062	.38	.38	.500	2.50	.56	TP..2151	MS1153	T7
1095589	STGPR082V	.50	.50	.625	3.50	.56	TP..2151	MS1153	T7
left hand									
1095681	STGPL062	.38	.38	.500	2.50	.56	TP..2151	MS1153	T7
1095682	STGPL082V	.50	.50	.625	3.50	.56	TP..2151	MS1153	T7

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPMT/TPGM/TPGT/TPGW-21.5_inserts.



Steel shank with through coolant.



ISO/ANSI Turning

■ A-STFP 0°

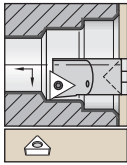


order number	catalog number	D	D min	F	L1	L2	A	CS	γF°	gage insert	insert screw	Torx
right hand												
1094755	A05KSTFPR18	.313	.415	.219	5.00	.73	.09	—	-8.0	TP..18151	MS1933	T7
1094653	A06MSTFPR2	.375	.480	.250	6.00	—	.13	—	-4.0	TPMT2151	MS1153	T7
1094655	A08RSTFPR2	.500	.600	.312	8.00	—	.16	1/16-27 NPT	-2.0	TP..2151	MS1153	T7
1094657	A10SSTFPR2	.625	.770	.406	10.00	—	.16	1/8-27 NPT	.0	TPMT2151	MS1153	T7
1094659	A12SSTFPR3	.750	.930	.500	10.00	1.35	.16	1/8-27 NPT	-2.0	TP..3252	MS1155	T15
1094661	A16STFPR3	1.000	1.200	.640	12.00	—	—	1/4-18 NPT	.0	TP..3252	MS1155	T15
left hand												
1094654	A06MSTFPL2	.375	.480	.250	6.00	—	.13	—	-4.0	TPMT2151	MS1153	T7
1094656	A08RSTFPL2	.500	.600	.312	8.00	—	.16	1/16-27 NPT	-2.0	TP..2151	MS1153	T7
1094660	A12SSTFPL3	.750	.930	.500	10.00	1.35	.16	1/8-27 NPT	-2.0	TP..3252	MS1155	T15

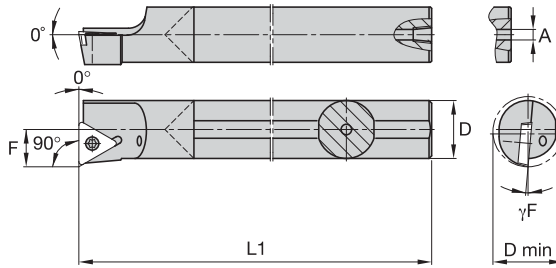
NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPGM/TPGT/TPGW-21.5_ inserts.
ANSI/ISO compatible 60° countersunk hole insert (i.e., TPMT/TPGT/TPGW-32.5_). 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.



ISO/ANSI Turning



Carbide shank with through coolant.



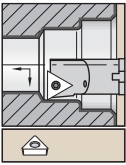
■ E-STFP 0°



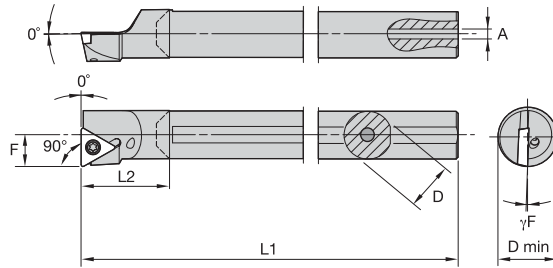
order number	catalog number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
right hand										
1152707	E05STFPR18	.313	.415	.219	5.00	.09	-5.0	TP..18151	MS1933	T7
1152709	E06STFPR2	.375	.480	.250	6.00	.13	-4.0	TP..2151	MS1153	T7
1152711	E08STFPR2	.500	.600	.312	8.00	.19	-2.0	TP..2151	MS1153	T7
1152713	E10STFPR2	.625	.770	.406	10.00	.22	.0	TP..2151	MS1153	T7
1102784	E12STFPR3	.750	.930	.500	10.00	.28	-2.0	TP..3252	MS1155	T15
1152716	E16STFPR3	1.000	1.200	.640	12.00	.31	.0	TP..3252	MS1155	T15
left hand										
1152708	E05STFPL18	.313	.415	.219	5.00	.09	-5.0	TP..18151	MS1933	T7
1152710	E06STFPL2	.375	.480	.250	6.00	.13	-4.0	TP..2151	MS1153	T7
1152712	E08STFPL2	.500	.600	.312	8.00	.19	-2.0	TP..2151	MS1153	T7
1152714	E10STFPL2	.625	.770	.406	10.00	.22	.0	TP..2151	MS1153	T7
1152715	E12STFPL3	.750	.930	.500	10.00	.28	-2.0	TP..3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole insert (i.e., TPMT/TPGT/TPGW-32.5_) 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.



Heavy metal bar with through coolant.



ISO/ANSI Turning

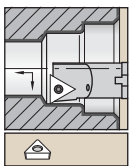
■ L-STFP 0°



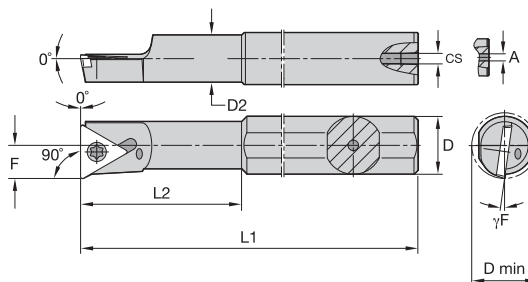
order number	catalog number	D	D min	F	L1	L2	A	γF°	gage insert	insert screw	Torx
right hand											
3331081	L06MSTFPR2	.375	.480	.250	6.06	.91	.13	-4.0	TP..2151	MS1153	T7
3331079	L08RSTFPR2	.500	.600	.312	7.93	.93	.16	-2.0	TP..2151	MS1153	T7
3331080	L10RSTFPR2	.625	.770	.406	8.08	1.12	.16	.0	TP..2151	MS1153	T7
3331082	L12RSTFPR3	.750	.930	.500	8.05	1.39	.16	-2.0	TP..3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole insert (i.e., TPMT/TPGT/TPGW-32.5_). 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.



Steel shank with through coolant.



■ A-STFP 0° Necked

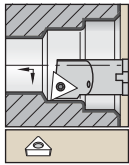


order number	catalog number	D	D min	F	L1	L2	A	γF°	gage insert	insert screw	Torx
right hand											
1094651	A0506STFPR18	.375	.415	.219	5.00	1.63	.09	-8.0	TP..18151	MS1152	T7

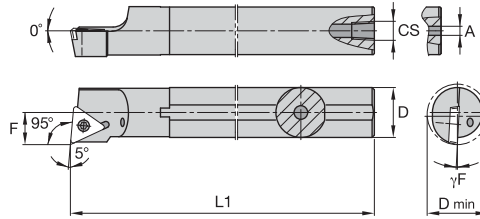
NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole insert (i.e., TPMT/TPGT/TPGW-32.5_). 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.

ISO/ANSI Turning



Steel shank with through coolant.



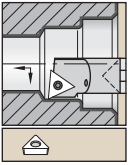
■ A-STLP -5°



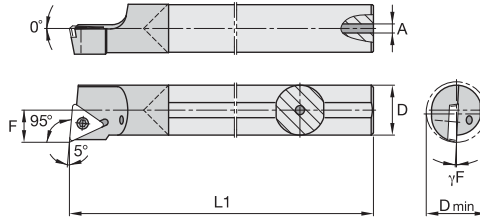
order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1094745	A06MSTLPR2	.375	.480	.250	6.00	.13	—	-4.0	TPMT2151	MS1153	T7
1094747	A08RSTLPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-2.0	TPMT2151	MS1153	T7
1094749	A10SSTLPR2	.625	.770	.406	10.00	.16	1/8-27 NPT	.0	TPMT2151	MS1153	T7
1094751	A12SSTLPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	TP..3252	MS1155	T15
1094753	A16STLPR3	1.000	1.220	.640	12.00	.25	1/4-18 NPT	.0	TP..3252	MS1155	T15
left hand											
1094746	A06MSTLPL2	.375	.480	.250	6.00	.13	—	-4.0	TPMT2151	MS1153	T7
1094748	A08RSTLPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-2.0	TPMT2151	MS1153	T7
1094750	A10SSTLPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	.0	TPMT2151	MS1153	T7
1094752	A12SSTLPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	TP..3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole insert (i.e., TPMT/TPGT/TPGW-32.5_). 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.



Carbide shank with through coolant.



ISO/ANSI Turning

■ E-STLP -5°



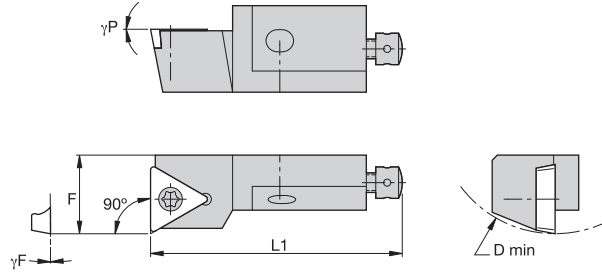
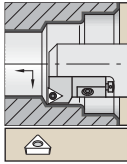
order number	catalog number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
right hand										
1152767	E06STLPR2	.375	.480	.250	6.00	.13	-4.0	TP..2151	MS1153	T7
1152769	E08STLPR2	.500	.600	.312	8.00	.19	-2.0	TP..2151	MS1153	T7
1152771	E10STLPR2	.625	.770	.406	10.00	.22	.0	TP..2151	MS1153	T7
1152704	E12STLPR3	.750	.930	.500	10.00	.28	-2.0	TP..3252	MS1155	T15
1152706	E16STLPR3	1.000	1.220	.640	12.00	.31	.0	TP..3252	MS1155	T15
left hand										
1152768	E06STLPL2	.375	.480	.250	6.00	.13	-4.0	TP..2151	MS1153	T7
1152770	E08STLPL2	.500	.600	.312	8.00	.19	-2.0	TP..2151	MS1153	T7
1152772	E10STLPL2	.625	.770	.406	10.00	.22	.0	TP..2151	MS1153	T7
1152705	E12STLPL3	.750	.930	.500	10.00	.28	-2.0	TP..3252	MS1155	T15
1152766	E16STLPL3	1.000	1.220	.640	12.00	.31	.0	TP..3252	MS1155	T15

NOTE: ANSI/ISO compatible 60° countersunk hole insert. This tool will also accept TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole insert (i.e., TPMT/TPGT/TPGW-32.5_). 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.



ISO/ANSI Turning



STFP

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098565	STFPR08CA09	.984	.394	1.26	.0	.0	TP..090204/TP..18151
1098563	STFPR10CA11	1.575	.551	1.97	.0	.0	TP..110204/TP..2151
1098562	STFPR12CA16	1.969	.787	2.17	.0	.0	TP..16T308/TP..3252
left hand							
1098561	STFPL08CA09	.984	.394	1.26	.0	.0	TP..090204/TP..18151
1098559	STFPL10CA11	1.575	.551	1.97	.0	.0	TP..110204/TP..2151
1098558	STFPL12CA16	1.969	.787	2.17	.0	.0	TP..16T308/TP..3252

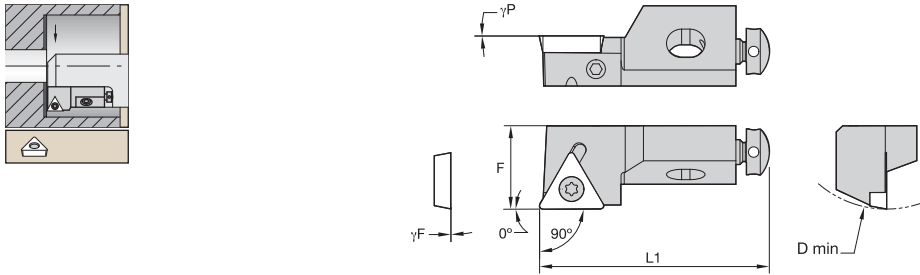
NOTE: ANSI/ISO compatible 60° countersunk hole inserts. This tool also accepts TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole inserts (i.e., TPMT/TPGT/TPGW-32.5_).90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.

Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
.984	MS1152	T7	KUAM34	1.5 mm	KUAM20	MS2175	—	2.5 mm	CSWM 040 050
1.575	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	MS1155	T15	KUAM23	2.5 mm	KUAM31	—	191.406	4 mm	CSWM 060 050



■ STGP

order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098567	STGPR10CA11	1.575	.551	1.97	.0	.0	TP..110204/TP..2151
1098566	STGPR12CA16	1.969	.787	2.17	.0	.0	TP..16T308/TP..3252
left hand							
1098762	STGPL08CA09	.984	.394	1.26	.0	.0	TP..090204/TP..18151
1098760	STGPL10CA11	1.575	.551	1.97	.0	.0	TP..110204/TP..2151

NOTE: ANSI/ISO compatible 60° countersunk hole inserts. This tool also accepts TPGM/TPGT/TPGW-21.5_ inserts.

ANSI/ISO compatible 60° countersunk hole inserts (i.e., TPMT/TPGT/TPGW-32.5_) 90° countersunk hole inserts (i.e., TPGM/TPGB-32.5_) do not fit this tool.

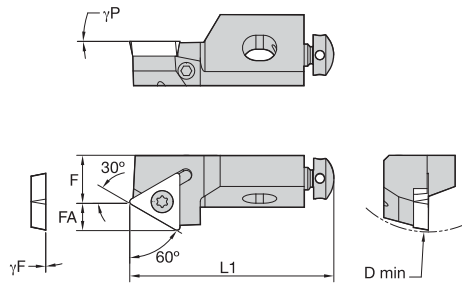
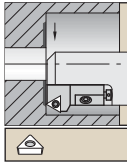
■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
.984	MS1152	T7	KUAM34	1.5 mm	KUAM20	MS2175	—	2.5 mm	CSWM 040 050
1.575	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	MS1155	T15	KUAM23	2.5 mm	KUAM31	—	191.406	4 mm	CSWM 060 050



ISO/ANSI Turning



■ STTP 30°

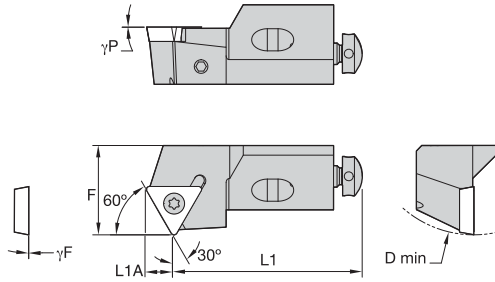
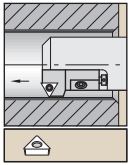
order number	catalog number	D min	F	FA	L1	γF°	γP°	gage insert
right hand								
1098744	STTPR08CA09	.984	.236	.167	1.26	.0	.0	TP..090204/TP..18151
1098742	STTPR10CA11	1.575	.354	.195	1.97	.0	.0	TP..110204/TP..2151
1098741	STTPR12CA16	1.969	.512	.282	2.17	.0	.0	TP..16T308/TP..3252

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts TPGM/TPGT/TPGW-21.5_ inserts.

■ Spare Parts



D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
.984	MS1152	T7	KUAM34	1.5 mm	KUAM20	MS2175	—	2.5 mm	CSWM 040 050
1.575	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	MS1155	T15	KUAM23	2.5 mm	KUAM31	—	191.406	4 mm	CSWM 060 050



■ STWP 30°

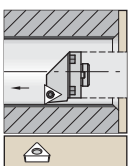
order number	catalog number	D min	F	L1	γF°	γP°	gage insert
right hand							
1098750	STWPR10CA11	1.575	.551	1.73	.0	.0	TP..110204/TP..2151
1098749	STWPR12CA16	1.969	.787	1.85	.0	.0	TP..16T308/TP..3252

NOTE: ANSI/ISO compatible 60° countersunk hole inserts.
This tool also accepts TPGM/TPGT/TPGW-21.5_ inserts.

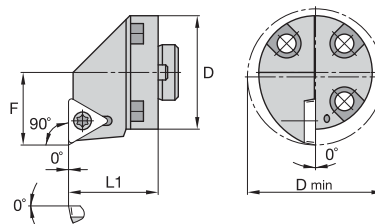
■ Spare Parts

D min	insert screw	Torx	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	MS1153	T7	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	MS1155	T15	KUAM23	2.5 mm	KUAM31	—	191.406	4 mm	CSWM 060 050

Screw-On Boring Heads



With through coolant.

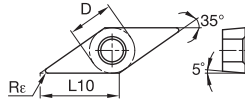
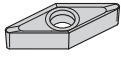


■ H-STFP 0°

order number	catalog number	D	D min	F	L1	gage insert	insert screw	Torx
right hand								
1581444	H16STFPR2	1.000	1.200	.640	.79	TP..2151	MS1153	T7

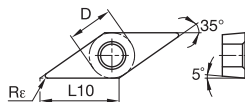
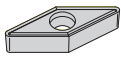


● first choice
○ alternate choice



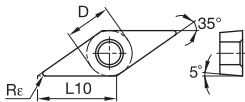
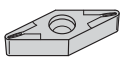
■ VBGT-HP

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
VBGT110302HP	VBGT2205HP	6,35	1/4	11,07	.436	0,2	.008
VBGT110304HP	VBGT221HP	6,35	1/4	11,07	.436	0,4	1/64
VBGT160404HP	VBGT331HP	9,53	3/8	16,61	.654	0,4	1/64
VBGT160408HP	VBGT332HP	9,53	3/8	16,61	.654	0,8	1/32



■ VBGT-LF

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
VBGT1103X0LF	VBGT22X0LF	6,35	1/4	11,07	.436	0,0	.0015
VBGT110301LF	VBGT220LF	6,35	1/4	11,07	.436	0,1	.004
VBGT110302LF	VBGT2205LF	6,35	1/4	11,07	.436	0,2	.008
VBGT110304LF	VBGT221LF	6,35	1/4	11,07	.436	0,4	1/64
VBGT1604X0LF	VBGT33X0LF	9,53	3/8	16,61	.654	0,0	.0015
VBGT160401LF	VBGT330LF	9,53	3/8	16,61	.654	0,1	.004
VBGT160402LF	VBGT3305LF	9,53	3/8	16,61	.654	0,2	.008
VBGT160404LF	VBGT331LF	9,53	3/8	16,61	.654	0,4	1/64

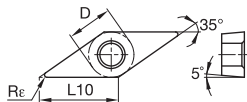
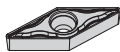


■ VBMT-11

ISO catalog number	ANSI catalog number	D		L10		Re	
		mm	in	mm	in	mm	in
VBMT11030211	VBMT220511	6,35	1/4	11,07	.436	0,2	.008
VBMT11030411	VBMT22111	6,35	1/4	11,07	.436	0,4	1/64
VBMT16040411	VBMT33111	9,53	3/8	16,61	.654	0,4	1/64
VBMT16040811	VBMT33211	9,53	3/8	16,61	.654	0,8	1/32

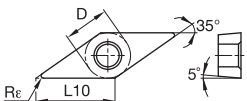
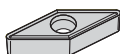
P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

● first choice
○ alternate choice



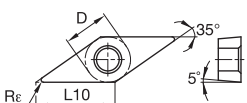
■ VBMT-FP

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
VBMT110302FP	VBMT2205FP	6,35	1/4	11,07	.436	0,2	.008	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VBMT110304FP	VBMT221FP	6,35	1/4	11,07	.436	0,4	1/64	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
VBMT110308FP	VBMT222FP	6,35	1/4	11,07	.436	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VBMT160402FP	VBMT3305FP	9,53	3/8	16,61	.654	0,2	.008	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
VBMT160404FP	VBMT331FP	9,53	3/8	16,61	.654	0,4	1/64	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
VBMT160408FP	VBMT332FP	9,53	3/8	16,61	.654	0,8	1/32	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●
VBMT160412FP	VBMT333FP	9,53	3/8	16,61	.654	1,2	3/64	-	●	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●



■ VBMT-LF

ISO catalog number	ANSI catalog number	D		L10		Re		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10		
		mm	in	mm	in	mm	in																															
VBMT110302LF	VBMT2205LF	6,35	1/4	11,07	.436	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VBMT110304LF	VBMT221LF	6,35	1/4	11,07	.436	0,4	1/64	-	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VBMT110308LF	VBMT222LF	6,35	1/4	11,07	.436	0,8	1/32	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VBMT160402LF	VBMT3305LF	9,53	3/8	16,61	.654	0,2	.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VBMT160404LF	VBMT331LF	9,53	3/8	16,61	.654	0,4	1/64	-	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VBMT160408LF	VBMT332LF	9,53	3/8	16,61	.654	0,8	1/32	●	●	●	●	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VBMT160412LF	VBMT333LF	9,53	3/8	16,61	.654	1,2	3/64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



■ VBMT-MP

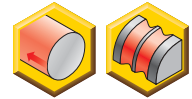
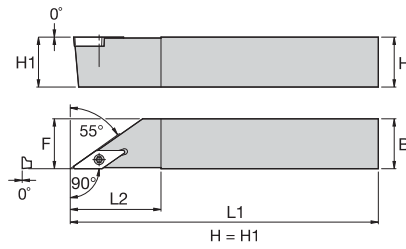
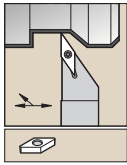
ISO catalog number	ANSI catalog number	D		L10		Re		KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10	
		mm	in	mm	in	mm	in																														
VBMT160404MP	VBMT331MP	9,53	3/8	16,61	.654	0,4	1/64	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VBMT160408MP	VBMT332MP	9,53	3/8	16,61	.654	0,8	1/32	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

P	M	K	N	S	H	KCP05	KCP10B	KCP10	KCP25B	KCP25	KCP30	KCP40	KCK05B	KCK05	KCK15B	KCK15	KCK20B	KCK20	KCM15B	KCM15	KCM25B	KCM25	KCM35	KU10	K313	K68	KCS10	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KTP10			
●	●	○	○	○	○																																

ISO/ANSI Turning



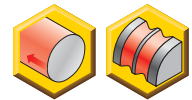
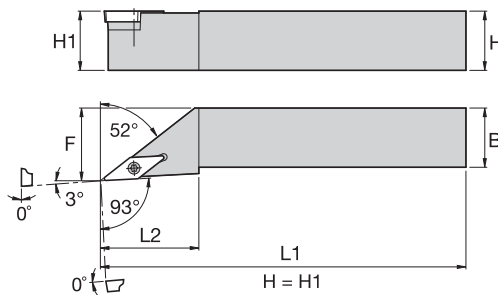
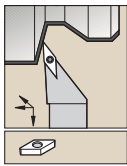
ISO/ANSI Turning



■ SVAB -0°



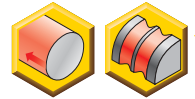
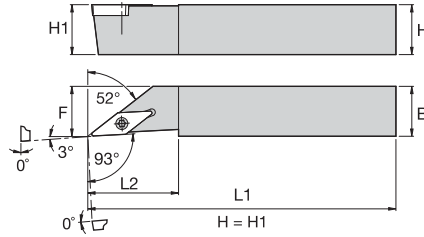
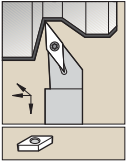
order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx Plus
right hand									
1094607	SVABR062D	.38	.38	.375	6.00	.88	VB..221	MS1153	T7
1094609	SVABR082D	.50	.50	.500	6.00	.88	VB..221	MS1153	T7
1094611	SVABR103B	.63	.63	.625	4.50	1.38	VB..332	MS1155	T15
left hand									
1094608	SVABL062D	.38	.38	.375	6.00	.88	VB..221	MS1153	T7
1094610	SVABL082D	.50	.50	.500	6.00	.88	VB..221	MS1153	T7
1094612	SVABL103B	.63	.63	.625	4.50	1.38	VB..332	MS1155	T15



■ SVJB -3°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	insert screw	Torx
right hand												
1094533	SVJBR062	.38	.38	.500	2.50	.88	VB..221	—	—	—	MS1153	T7
1094535	SVJBR082	.50	.50	.625	3.50	.88	VB..221	—	—	—	MS1153	T7
1094537	SVJBR102	.63	.63	.750	4.00	.88	VB..221	—	—	—	MS1153	T7
1094539	SVJBR123	.75	.75	1.000	4.50	1.38	VB..332	SKVN343	SRS3	3.5 mm	MS1156	T15
1094541	SVJBR163	1.00	1.00	1.250	6.00	1.38	VB..332	SKVN343	SRS3	3.5 mm	MS1156	T15
left hand												
1094534	SVJBL062	.38	.38	.500	2.50	.88	VB..221	—	—	—	MS1153	T7
1094536	SVJBL082	.50	.50	.625	3.50	.88	VB..221	—	—	—	MS1153	T7
1094538	SVJBL102	.63	.63	.750	4.00	.88	VB..221	—	—	—	MS1153	T7
1094540	SVJBL123	.75	.75	1.000	4.50	1.38	VB..332	SKVN343	SRS3	3.5 mm	MS1156	T15
1094542	SVJBL163	1.00	1.00	1.250	6.00	1.38	VB..332	SKVN343	SRS3	3.5 mm	MS1156	T15

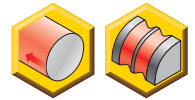
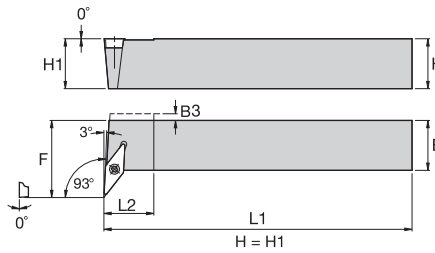
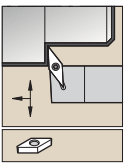


ISO/ANSI Turning

■ SVJB-F -3°



order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx Plus
right hand									
1094615	SVJBRF062D	.38	.38	.375	6.00	.93	VB..221	MS1153	T7
1094617	SVJBRF082D	.50	.50	.500	6.00	.93	VB..221	MS1153	T7
1094613	SVJBRF103B	.63	.63	.625	4.50	1.43	VB..332	MS1155	T15
left hand									
1094616	SVJBLF062D	.38	.38	.375	6.00	.93	VB..221	MS1153	T7
1094618	SVJBLF082D	.50	.50	.500	6.00	.93	VB..221	MS1153	T7
1094614	SVJBLF103B	.63	.63	.625	4.50	1.43	VB..332	MS1155	T15

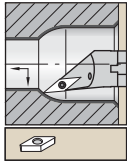


■ SVUB -3°

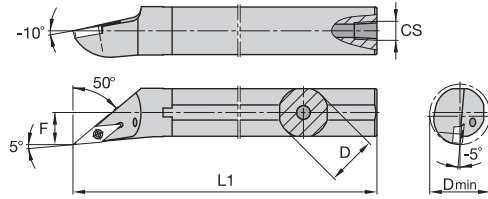


order number	catalog number	H	B	F	L1	LH	B3	gage insert	insert screw	Torx
right hand										
1095632	SVUBR082	.50	.50	.830	3.50	.50	.12	VB..221	MS1153	T7
1095633	SVUBR102	.63	.63	.955	4.00	.50	—	VB..221	MS1153	T7
left hand										
1095634	SVUBL082	.50	.50	.830	3.50	.50	.12	VB..221	MS1153	T7
1095635	SVUBL102	.63	.63	.955	4.00	.50	—	VB..221	MS1153	T7

ISO/ANSI Turning



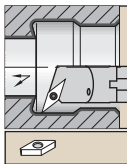
Steel shank with through coolant.



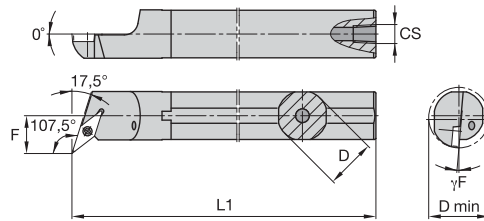
■ A-SVMB -5°



order number	catalog number	D	D min	F	L1	CS	gage insert	insert screw	Torx
right hand									
1236002	A08RSVMBR2E	.500	.980	.312	8.00	1/16-27 NPT	VB..221	MS1153	T7
1236006	A10SSVMBR2E	.625	.980	.406	10.00	1/8-27 NPT	VB..221	MS1153	T7
1236007	A12SSVMBR3E	.750	1.286	.500	10.00	1/8-27 NPT	VB..332	MS1155	T15
1236018	A16TSVMBR3E	1.000	1.286	.640	12.00	1/4-18 NPT	VB..332	MS1155	T15



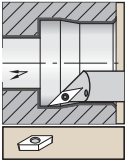
Steel shank with through coolant.



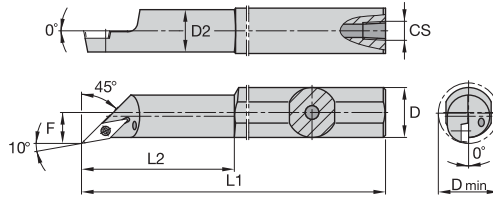
■ A-SVQB -17.5°



order number	catalog number	D	D min	F	L1	CS	gage insert	insert screw	Torx
right hand									
1094719	A10SSVQBR2	.625	.850	.500	10.00	1/8-27 NPT	VB..221	MS1153	T7
1094721	A12SSVQBR2	.750	.980	.562	10.00	1/8-27 NPT	VB..221	MS1153	T7
1094723	A16TSVQBR3	1.000	1.300	.750	12.00	1/4-18 NPT	VB..332	MS1155	T15
left hand									
1094720	A10SSVQBL2	.625	.850	.500	10.00	1/8-27 NPT	VB..221	MS1153	T7
1094722	A12SSVQBL2	.750	.980	.562	10.00	1/8-27 NPT	VB..221	MS1153	T7
1094724	A16TSVQBL3	1.000	1.300	.750	12.00	1/4-18 NPT	VB..332	MS1155	T15



Necked steel shank with through coolant.

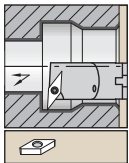


ISO/ANSI Turning

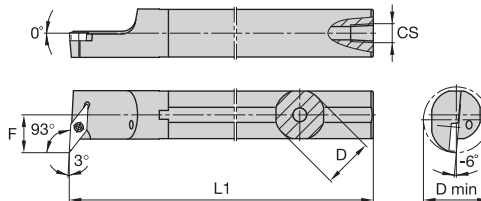
■ A-SVSP -10°



order number	catalog number	D	D min	F	L1	L4	CS	gage insert	insert screw	Torx
1106715	A2732SVSPRW4	2.000	2.200	1.080	14.00	5.31	1/4-18 NPT	VP..443K	S411	5/32



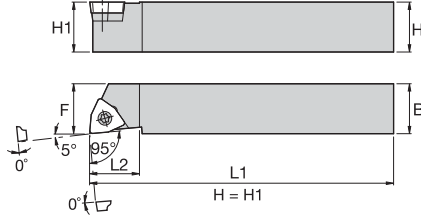
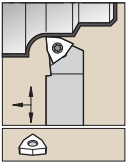
Steel shank with through coolant.



■ A-SVUB -3°



order number	catalog number	D	D min	F	L1	CS	gage insert	insert screw	Torx	
right hand										
1094699	A12SSVUBR2	.750	.980	.562	10.00	1/8-27 NPT	VB..221	MS1153	T7	
1094701	A16TSVUBR3	1.000	1.300	.750	12.00	1/4-18 NPT	VBMT332	MS1155	T15	
left hand										
1094700	A12SSVUBL2	.750	.980	.562	10.00	1/8-27 NPT	VB..221	MS1153	T7	
1094702	A16TSVUBL3	1.000	1.300	.750	12.00	1/4-18 NPT	VBMT332	MS1155	T15	



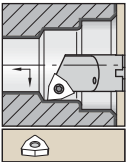
ISO/ANSI Turning

■ SWLC-F -5°

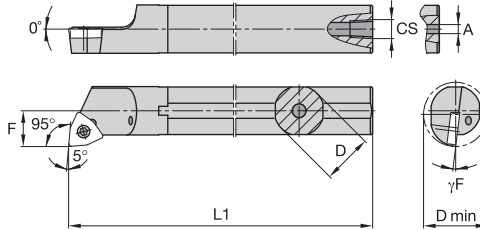


order number	catalog number	H	B	F	L1	LH	gage insert	insert screw	Torx
right hand 1772144	SWLCRF082D	.50	.50	.500	6.00	.50	WC..2151	MS1153	T7

Screw-On Boring Bars



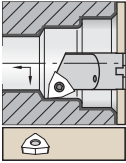
Steel shank with through coolant.



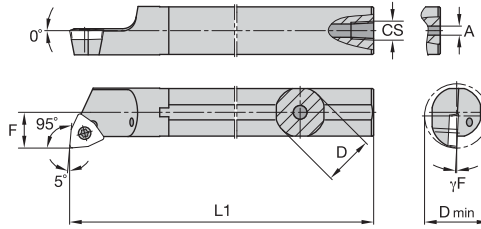
■ A-SWLC -5°



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand 1328642	A06MSWLCR2	.375	.480	.250	6.00	.13	—	-8.0	WC..2151	MS1939	T7
1328644	A08RSWLCR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-6.0	WC..2151	MS1153	T7
1328646	A10SSWLCR3	.625	.770	.406	10.00	.16	1/8-27 NPT	-7.0	WC..3252	MS1155	T15



Steel shank with through coolant.



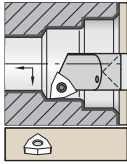
■ A-SWLP -5°



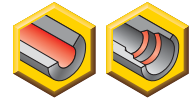
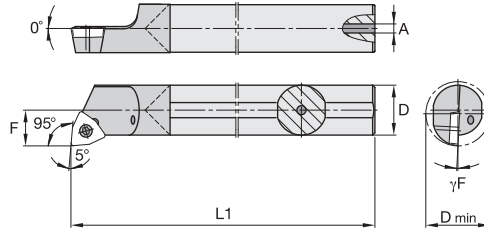
order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	insert screw	Torx
right hand											
1094709	A06MSWLPR2	.375	.490	.250	6.00	.13	—	-7.0	WP..2151	MS1939	T7
1094711	A08RSWLPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-2.0	WPMT2151	MS1153	T7
1094713	A10SSWLPR3	.625	.770	.406	10.00	.16	1/8-27 NPT	-3.0	WP..3252	MS1155	T15
1094715	A12SSWLPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	-2.0	WP..3252	MS1155	T15
1094717	A16SWLPR3	1.000	1.200	.640	12.00	.25	1/4-18 NPT	.0	WP..3252	MS1155	T15
left hand											
1094712	A08RSWLPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-2.0	WP..2151	MS1153	T7
1094714	A10SSWLPL3	.625	.770	.406	10.00	.16	1/8-27 NPT	-3.0	WP..3252	MS1155	T15
1094716	A12SSWLPL3	.750	.930	.500	10.00	—	1/8-27 NPT	-2.0	WP..3252	MS1155	T15



ISO/ANSI Turning



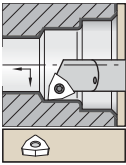
Carbide shank with through coolant.



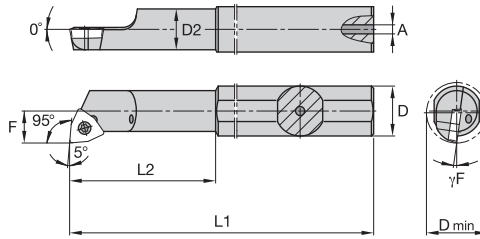
■ E-SWLP -5°



order number	catalog number	D	D min	F	L1	A	γF°	gage insert	insert screw	Torx
right hand										
1152750	E03HSWLPR15	.188	.260	.260	4.00	.04	-10.0	WP..15121	MS1438	T5
1152752	E04HSWLPR15	.250	.321	.156	4.00	.05	-8.0	WP..15121	MS1438	T5
1152754	E05SWLPR15	.313	.415	.219	5.00	.09	-4.0	WP..15121	MS1438	T5
1152756	E06SWLPR2	.375	.480	.250	6.00	.13	-4.0	WP..2151	MS1153	T7
1152758	E08SWLPR2	.500	.600	.312	8.00	.19	-2.0	WP..2151	MS1153	T7
1152760	E10SWLPR3	.625	.770	.406	10.00	.22	-3.0	WP..3252	MS1155	T15
1152762	E12SWLPR3	.750	.930	.500	10.00	.28	-2.0	WP..3252	MS1155	T15
1152764	E16SWLPR3	1.000	1.200	.640	12.00	.31	.0	WP..3252	MS1155	T15
left hand										
1152753	E04HSWLPL15	.250	.321	.156	4.00	.05	-8.0	WP..15121	MS1438	T5
1152755	E05SWLPL15	.313	.415	.219	5.00	.09	-4.0	WP..15121	MS1438	T5
1152757	E06SWLPL2	.375	.480	.250	6.00	.13	-4.0	WP..2151	MS1153	T7
1152759	E08SWLPL2	.500	.600	.312	8.00	.19	-2.0	WP..2151	MS1153	T7
1152761	E10SWLPL3	.625	.770	.406	10.00	.22	-3.0	WP..3252	MS1155	T15



Necked steel shank with through coolant.

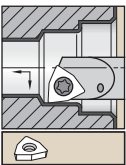


ISO/ANSI Turning

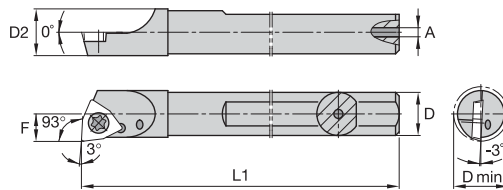
■ A-SWLP -5° • Stepped



order number	catalog number	D	D min	D2	F	L1	L2	A	γF°	gage insert	insert screw	Torx
right hand												
1094703	A0306SWLPR15	.375	.260	.250	.126	3.50	1.00	.08	-10.0	WP..15121	MS1438	T5
1094705	A0406SWLPR15	.375	.321	—	.156	4.00	1.25	.08	-8.0	WP..15121	MS1438	T5
1094707	A0506KSWLPR15	.375	.415	—	.214	5.00	1.61	.09	-4.0	WP..15121	MS1438	T5
left hand												
1094704	A0306SWLPL15	.375	.260	.250	.126	3.50	1.00	.08	-10.0	WP..15121	MS1438	T5



Steel shank with through coolant.



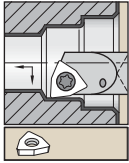
■ A-SWUP -3°



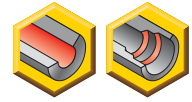
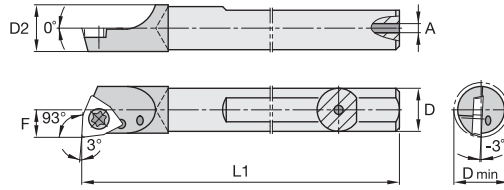
order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1950374	A04HSWUPR15	.250	.285	.260	.112	4.00	.04	WP..1511	CT11	T6
1950376	A05HSWUPR15	.313	.347	.322	.174	4.00	.04	WP..1511	CT15	T6



ISO/ANSI Turning



Carbide shank with through coolant.



■ E-SWUP -3°



order number	catalog number	D	D min	D2	F	L1	A	gage insert	insert screw	Torx
right hand										
1950378	E03MSWUPR15	.188	.260	.236	.126	6.00	.04	WP..1511	CT11	T6
1950380	E04MSWUPR15	.250	.285	—	.143	6.00	.05	WP..1511	CT11	T6
1950382	E05MSWUPR15	.312	.347	—	.174	6.00	.09	WP..1511	CT15	T6
1950388	E06MSWUPR2	.375	.413	—	.211	6.00	.13	WPMT21505	MS1153	T7
1950390	E08RSWUPR2	.500	.538	—	.273	8.00	.19	WP..2151	QTM20	T7

Beyond™ PVD Grades



Beyond™ advanced PVD coatings are well suited to resist high temperatures associated with machining tough alloys. These coatings offer increased tool life and a boost in productivity to the general engineering, transportation, aerospace, energy, and earthworks markets. Use the strength of Beyond PVD coatings and the broad product offering to perform turning, grooving, and cut-off operations in a wide array of materials and applications. Beyond PVD coatings help to maintain consistent chip control and minimize insert edge wear.



KCU10™ Grade

- PVD-coated grade with excellent wear resistance. Finishing to medium applications.
- Use in all materials, especially stainless steels and high-temp alloys.

KCU25™ Grade

- PVD-coated grade with superior edge toughness and excellent wear resistance. Medium to roughing applications.
- Use in all materials.

Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.



kennametal.com

➤ Turning with Advanced Material Inserts

Ceramic, PcBN, and PCD Inserts

Turning inserts made from advanced materials, such as ceramics, PcBN (polycrystalline cubic boron nitride), and PCD (polycrystalline diamond), can be applied in hard-part turning and machining of cast irons, hardened materials, high-temp alloys, and non-ferrous materials.

Ceramic, PcBN, and PCD inserts offer:

- Improved performance.
- Greater wear resistance.



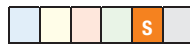
Ceramic Inserts

- Silicon-nitride based ceramic for cast iron machining.
- Mixed ceramic for hard machining and finishing of cast iron.
- Whisker ceramic for high-temp alloys and hard machining.

KYK25



KYS30™



PcBN

Solid Inserts

- Inserts are made only from PcBN.
- No material joint.
- Best heat-absorption capacity.
- Can work at highest temperatures.

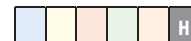
KBK45



Tipped Inserts

- Require a carrier and a PcBN tip.
- The tips are brazed to a carrier.
- The substrate has to have a pocket that will accommodate and support the tip.

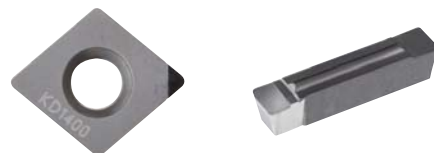
KBH20™



PCD

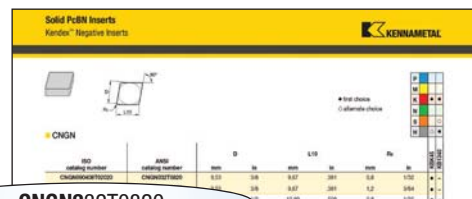
- Targeted machining of non-ferrous materials.
- Significant advantage in hardness over carbide tools.
- Increased productivity through higher speeds and longer tool life.
- Best used in processing materials that are un-machinable with conventional tooling.

KD1400



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



C

N

G

N

3

Insert Shape

H Hexagon 120°

O Octagon 135°

P Pentagon 108°

R Round

S Square 90°

T Triangular 60°

C D E M V Rhomboid 80° 55° 75° 86° 35°

W Trigon 80° with enlarged corner angles

L Rectangular 90°

A B N/K Parallelogram 85° 82° 55°

Insert Clearance Angle

A 3°

B 5°

C 7°

D 15°

E 20°

F 25°

G 30°

N 0°

P 11°

O For other clearance angles requiring descriptions.

Tolerance Class

Tolerances apply prior to edge prep and coating

D = Theoretical diameter of the insert inscribed circle
S = Thickness
B = See figures below

Insert Features

N

R

F

A

M

G

W

T

Q

U

B

H

C

J

X V Special Design

Size

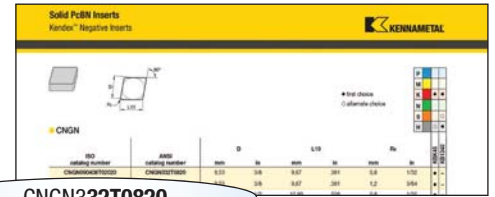
Code for inch cutting edge length "L10"

"p"		Code for inch cutting edge length "L10"						
inch	inch	C	D	R	S	T	V	W
1.2 (5)	5/32	S4	04	03	03	06	—	—
1.5 (6)	3/16	04	05	04	04	08	08	S3
1.8 (7)	7/32	05	06	05	05	09	09	03
—	.236	—	—	06	—	—	—	—
2	1/4	06	07	06	06	11	11	04
2.5	5/16	08	09	07	07	13	13	05
—	.315	—	—	08	—	—	—	—
3	3/8	09	11	09	09	16	16	06
—	.394	—	—	10	—	—	—	—
3.5	7/16	11	13	11	11	19	19	07
—	.472	—	—	12	—	—	—	—
4	1/2	12	15	12	12	22	22	08
4.5	9/16	14	17	14	14	24	24	09
5	5/8	16	19	15	15	27	27	10
—	.630	—	—	16	—	—	—	—
5.5	11/16	17	21	17	17	30	30	11
6	3/4	19	23	19	19	33	33	13
—	.787	—	—	20	—	—	—	—
7	7/8	22	27	22	22	38	38	15
—	.984	—	—	25	—	—	—	—
8	1	25	31	25	25	44	44	17
10	1-1/4	32	38	31	31	54	54	21
—	1.260	—	—	32	—	—	—	—

tolerance class*	tolerance on "D"	tolerance on "B"	tolerance on "S"
C	±.0010"	±.0005"	±.001"
H	±.0005"	±.0005"	±.001"
E	±.0010"	±.0010"	±.001"
G	±.0010"	±.0010"	±.005"
M	See tables on next page		±.005"
U	See tables on next page		±.005"

*Tolerances apply prior to edge prep and coating.

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



CNGN332T0820

3	2		T	08	20																																																																																															
Thickness "S"	Corner Radius "Re"	Hand of Insert (optional)	Cutting Edge (optional)	T-Land Width (optional)	T-Land Angle (optional)	Tip Style (optional)	Chipbreaker (optional)																																																																																													
<table border="1"> <thead> <tr> <th>symbol</th> <th>thick-ness</th> </tr> <tr> <th>inch</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>.5 (1)</td><td>1/32</td></tr> <tr><td>.6</td><td>.040</td></tr> <tr><td>1 (2)</td><td>1/16</td></tr> <tr><td>1.2</td><td>5.64</td></tr> <tr><td>1.5 (3)</td><td>3/32</td></tr> <tr><td>2</td><td>1/8</td></tr> <tr><td>2.5</td><td>5/32</td></tr> <tr><td>3</td><td>3/16</td></tr> <tr><td>3.5</td><td>7/32</td></tr> <tr><td>4</td><td>1/4</td></tr> <tr><td>5</td><td>5/16</td></tr> <tr><td>6</td><td>3/8</td></tr> <tr><td>7</td><td>7/16</td></tr> <tr><td>8</td><td>1/2</td></tr> </tbody> </table>	symbol	thick-ness	inch	inch	.5 (1)	1/32	.6	.040	1 (2)	1/16	1.2	5.64	1.5 (3)	3/32	2	1/8	2.5	5/32	3	3/16	3.5	7/32	4	1/4	5	5/16	6	3/8	7	7/16	8	1/2	<table border="1"> <thead> <tr> <th>symbol</th> <th>corner radius</th> </tr> <tr> <th>inch</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>X0</td><td>.0015</td></tr> <tr><td>0</td><td>.004</td></tr> <tr><td>.5</td><td>.008</td></tr> <tr><td>1</td><td>1/64</td></tr> <tr><td>2</td><td>1/32</td></tr> <tr><td>3</td><td>3/64</td></tr> <tr><td>4</td><td>1/16</td></tr> <tr><td>5</td><td>5/64</td></tr> <tr><td>6</td><td>3/32</td></tr> <tr><td>7</td><td>7/64</td></tr> <tr><td>8</td><td>1/8</td></tr> <tr><td>—</td><td>round insert</td></tr> <tr><td>—</td><td>round insert</td></tr> </tbody> </table>	symbol	corner radius	inch	inch	X0	.0015	0	.004	.5	.008	1	1/64	2	1/32	3	3/64	4	1/16	5	5/64	6	3/32	7	7/64	8	1/8	—	round insert	—	round insert	<p>R = Right hand</p> <p>L = Left hand</p> <p>N = Neutral</p>	<p>F* Sharp</p> <p>E Rounded</p> <p>T* Chamfered</p> <p>S* Chamfered and Rounded</p> <p>K Double-Chamfered</p> <p>P Double-Chamfered and Rounded</p> <p>*Also available in wiper style.</p>	<table border="1"> <thead> <tr> <th>symbol</th> <th>inch</th> <th>ANSI size</th> </tr> </thead> <tbody> <tr><td>04</td><td>.004</td><td></td></tr> <tr><td>08</td><td>.008</td><td></td></tr> </tbody> </table>	symbol	inch	ANSI size	04	.004		08	.008		<table border="1"> <thead> <tr> <th>symbol</th> <th>size</th> </tr> </thead> <tbody> <tr><td>10</td><td>10°</td></tr> <tr><td>15</td><td>15°</td></tr> <tr><td>20</td><td>20°</td></tr> <tr><td>25</td><td>25°</td></tr> <tr><td>30</td><td>30°</td></tr> </tbody> </table>	symbol	size	10	10°	15	15°	20	20°	25	25°	30	30°	<p>FW = Finishing Wiper</p> <p>MW = Medium Wiper</p>	<table border="1"> <thead> <tr> <th>symbol</th> <th>usage</th> </tr> </thead> <tbody> <tr><td>C</td><td>full top</td></tr> <tr><td>M</td><td>mini tip</td></tr> <tr><td>MT</td><td>multi-tip</td></tr> <tr><td>ST</td><td>single tip</td></tr> </tbody> </table>	symbol	usage	C	full top	M	mini tip	MT	multi-tip	ST	single tip
symbol	thick-ness																																																																																																			
inch	inch																																																																																																			
.5 (1)	1/32																																																																																																			
.6	.040																																																																																																			
1 (2)	1/16																																																																																																			
1.2	5.64																																																																																																			
1.5 (3)	3/32																																																																																																			
2	1/8																																																																																																			
2.5	5/32																																																																																																			
3	3/16																																																																																																			
3.5	7/32																																																																																																			
4	1/4																																																																																																			
5	5/16																																																																																																			
6	3/8																																																																																																			
7	7/16																																																																																																			
8	1/2																																																																																																			
symbol	corner radius																																																																																																			
inch	inch																																																																																																			
X0	.0015																																																																																																			
0	.004																																																																																																			
.5	.008																																																																																																			
1	1/64																																																																																																			
2	1/32																																																																																																			
3	3/64																																																																																																			
4	1/16																																																																																																			
5	5/64																																																																																																			
6	3/32																																																																																																			
7	7/64																																																																																																			
8	1/8																																																																																																			
—	round insert																																																																																																			
—	round insert																																																																																																			
symbol	inch	ANSI size																																																																																																		
04	.004																																																																																																			
08	.008																																																																																																			
symbol	size																																																																																																			
10	10°																																																																																																			
15	15°																																																																																																			
20	20°																																																																																																			
25	25°																																																																																																			
30	30°																																																																																																			
symbol	usage																																																																																																			
C	full top																																																																																																			
M	mini tip																																																																																																			
MT	multi-tip																																																																																																			
ST	single tip																																																																																																			

"D"	± Tolerance on "D"				"D"	± Tolerance on "B"			
	Class M Tolerance			Class U Tolerance		Class M Tolerance			Class U Tolerance
	Shapes S, T, C, R, & W	Shape D	Shape V	Shapes S, T, & C		Shapes S, T, C, R, & W	Shape D	Shape V	Shapes S, T, & C
inch	inch	inch	inch	inch	inch	inch	inch	inch	
5/32	.002	—	—	—	5/32	.003	—	—	—
3/16	.002	—	—	.003	3/16	.003	—	—	.005
7/32	.002	.002	.002	.003	7/32	.003	.004	—	.005
1/4	.002	.002	.002	.003	1/4	.003	.004	—	.005
5/16	.002	.002	.002	.003	5/16	.003	.004	—	.005
3/8	.002	.002	.002	.003	3/8	.003	.004	.007	.005
7/16	.003	.003	.003	.005	7/16	.005	.006	—	—
1/2	.003	.003	.003	.005	1/2	.005	.006	.010	.008
9/16	.003	.003	.003	.005	9/16	.005	.006	—	—
5/8	.004	.004	.004	.007	5/8	.006	.007	—	.011
11/16	.004	.004	.004	.007	11/16	.006	.007	—	.011
3/4	.004	.004	.004	.007	3/4	.006	.007	—	.011
7/8	.005	—	—	.010	7/8	.006	—	—	.015
1	.005	—	—	.010	1	.007	—	—	.015
1 1/4	.006	—	—	.010	1 1/4	.008	—	—	.015

➤ Advanced Materials for Cast Iron Machining



Primary Application

The Kennametal advanced materials, utilizing Beyond™ technology, offer greater wear resistance and toughness, depending on the job.

KYK ceramic inserts are the first choice for high-speed, continuous, and lightly interrupted turning applications in cast iron materials. Benefits include improved fracture toughness, better wear resistance, and an extended application range. Combining grades KYK10™ and CVD-coated KYK25™ with our other ceramic grades for cast iron, Kennametal provides a complete high-performance ceramic portfolio that can reduce machining cycle times and lower manufacturing costs.

The Kennametal SiAlON grades, such as KYK10, can be applied at high cutting speeds up to the PcBN range and at varying cast iron material machinability. Combining SiAlON material science, CVD coating technology, and PcBN grades for cast iron machining, Kennametal provides a complete high-performance portfolio that can reduce cycle time and lower machining costs.

Features and Benefits

Solid PcBN Inserts

KBK45™ Grade

- Designed for elevated abrasion-resistance.
- Go-to grade for cost-per-part manufacturing.
- For roughing and finishing.
- Gold color for improved usage monitoring.

KB1340™ Grade

- Designed for elevated abrasion-resistance.
- High-temperature resistance.
- For roughing and finishing.

Tipped PcBN Inserts

KB5630™ Grade

- Laminated material for fine finishing.
- Excellent edge stability.
- PVD coating for reliable tool life, even at varying material machinability.

KB1345™ Grade

- Abrasion-resistant high CBN content tipped grade.
- Very fine PcBN structure suitable for fine finishing applications.

KBK45™ grade provides the best cost-per-part in cast irons.

KB5630™ grade has greater abrasion resistance for chilled and hardened irons.



Ceramic Inserts

KYK10™ Grade

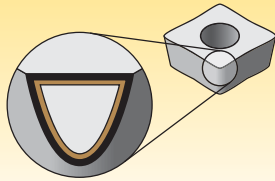
- Improved wear resistance and toughness with up to 20% longer tool life than current KY1310™ grade.
- Best suited for continuous turning of cast iron materials and in lightly interrupted cuts.

KYK25™ Grade

- 12-micron thick coating provides excellent wear resistance, and pre-coat treatment allows for very consistent tool life and performance in cast iron applications.
- Up to 30% longer tool life vs. competitors' CVD-coated ceramic grades.

KY3500™ Grade

- Excellent for roughing to finishing operations in wet or dry cuts with speeds up to 320 SFM (1000 m/min).
- Performs well in difficult interrupted cuts in ductile or malleable cast iron (<70 KSI tensile strength) at speeds of 85–160 SFM (250–450 m/min).



Coatings provide high-speed capability and are engineered for finishing to light roughing.

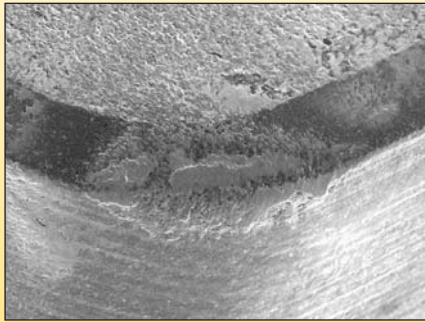
P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

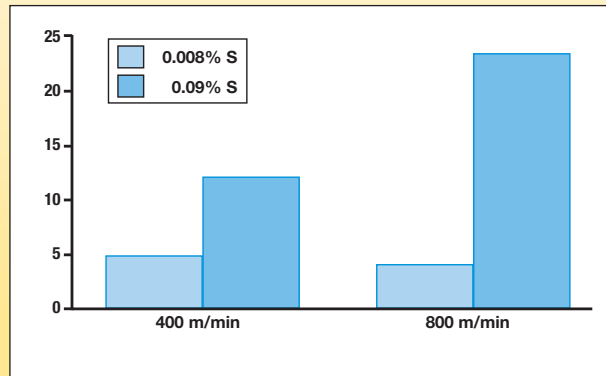
Coating		Grade Description		05	10	15	20	25	30	35	40	45		
Solid Pcbn Grades	 KBK45	<p>Composition: A PVD TiN coated high CBN content, solid Pcbn insert having multiple cutting edges.</p> <p>Application: Applied in roughing to finishing of gray and hard cast irons. Also used for finishing chilled cast iron and fully pearlitic cast iron. The solid Pcbn insert offers better security and shock resistance compared to tipped Pcbn inserts, while also enabling deeper depth-of-cut capabilities.</p>												
				K										
Solid Pcbn Grades	 KB1340	<p>Composition: A high CBN content, solid Pcbn insert having multiple cutting edges.</p> <p>Application: Applied in roughing to finishing of fully pearlitic gray cast iron, chilled irons, high-chrome alloyed steels, and heavy cuts in hardened steels (>45 HRC). The solid Pcbn insert offers better security and shock resistance compared to tipped Pcbn inserts, while also enabling deeper depth-of-cut capabilities.</p>												
				K										
Tipped Pcbn Grades	 KB1345	<p>Composition: A high CBN content, Pcbn tip brazed onto a carbide insert.</p> <p>Application: Applied in roughing to finishing of fully pearlitic gray cast iron, chilled irons, high-chrome alloyed steels, sintered powdered metals, and heavy cuts in hardened steels (>45 HRC). Also used for finishing chilled cast iron and fully pearlitic cast iron. The tipped Pcbn insert is available in a wide range of insert styles including positive rake geometries that are ideally suited for boring applications.</p>												
				K										
				H										
Tipped Pcbn Grades	 KB5630	<p>Composition: A high content Pcbn with a PVD AlTiN coating for added wear resistance.</p> <p>Application: Designed for roughing to finishing of hardened steels (>45 HRC), abrasive workpiece materials such as sintered valve seat materials, powder metallurgy steels, and hard high-alloy cast irons. The PVD coating provides resistance to crater wear and increased resistance to chipping. A wide range of styles are available, including Screw-On geometries that are ideal for boring applications.</p>												
				K										
				S										
Ceramic Grades	 KYK10	<p>Composition: An advanced SiAlON ceramic grade.</p> <p>Application: Provides maximum wear resistance. Used for high-speed continuous turning of gray cast iron, including through scale. To be used for varying cast iron machinability.</p>												
				K										
Ceramic Grades	 KYK25	<p>Composition: Pure silicon nitride ceramic with an alumina CVD coating.</p> <p>Application: Excellent combination of toughness and edge wear resistance. Used for general purpose machining of gray, ductile, or nodular cast irons. To be used for varying cast iron machinability.</p>												
				K										
Ceramic Grades	 KY3500	<p>Composition: Pure silicon nitride grade.</p> <p>Application: Maximum toughness. Used at high feed rates for rough machining of gray cast iron, including machining through interruptions.</p>												
				K										

■ Machinability of Cast Iron

- Unaged casting is difficult to machine and leads to shorter tool life.
- Low sulfur content leads to shorter tool life.
- High titanium content decreases the tool life significantly.
- Increased ferrite content leads to high chemical wear and a substantially shorter tool life.
- Compacted graphite cast iron shows high chemical wear.



Proper application of KB1340™ — formation of protective layer; tool life should exceed 70 km sliding distance.

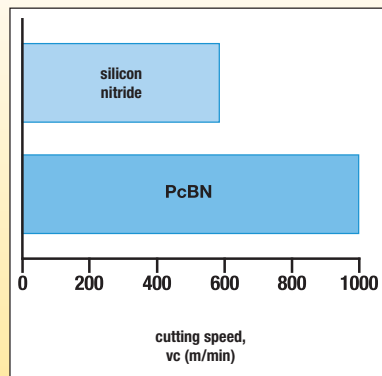


Comparison of the life of PcBN cutting tools in machining two different gray cast irons, primarily differing in sulfur content.

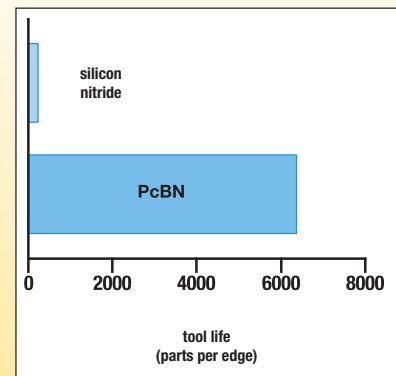
■ Gray Cast Iron Brake Disk Machining • Ceramic vs. PcBN



(a)



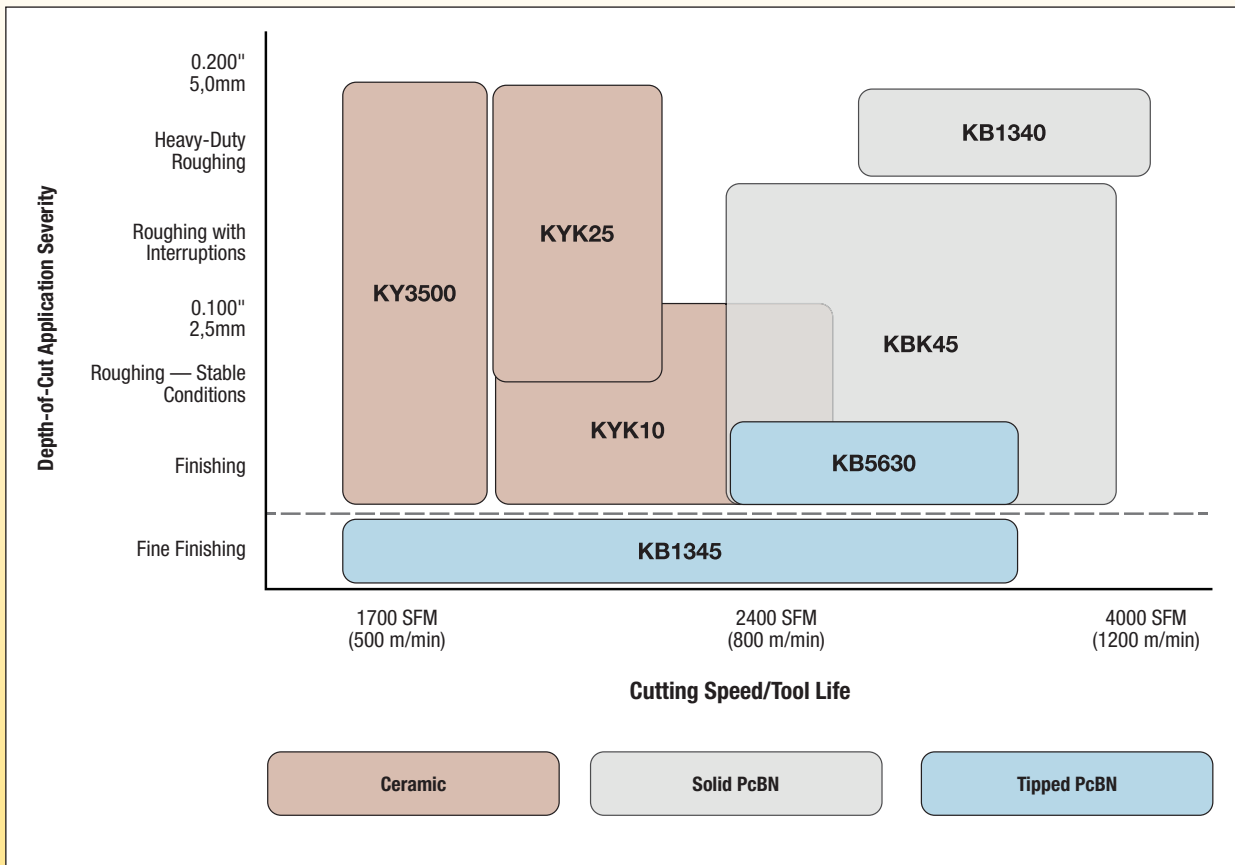
(b)



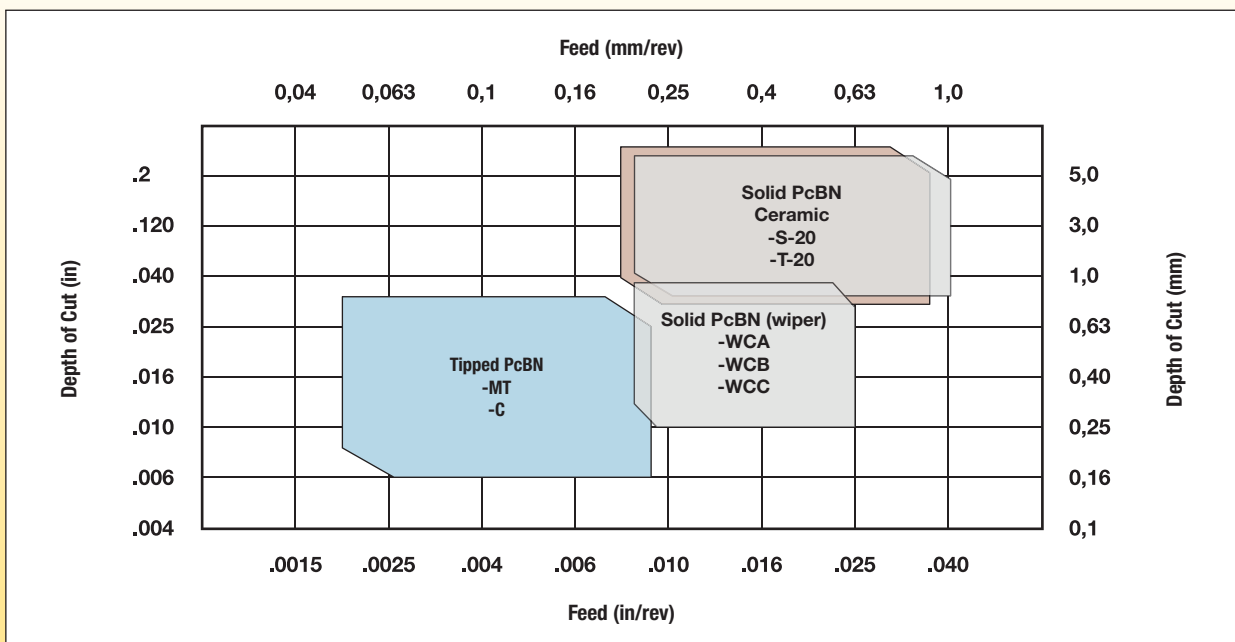
(c)

PcBN increases productivity when machining gray iron brake disks (a) in terms of cutting speed (b) and tool life (c) compared to silicon nitride ceramic.

■ Select the Cutting Material



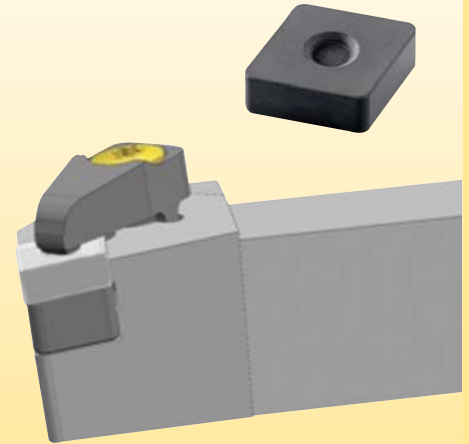
■ Depth of Cut



■ Dimple Clamps for Added Stability

Typical Application

Continuous cost pressures force manufacturers of gray cast iron brake disks to look for cost-cutting solutions. CBN inserts deliver high productivity and long tool life. Kennametal has developed the solid, high-content grade KB1340™, which provides superior performance when machining gray cast iron components, such as brake disks or fly wheels. To ensure secure seating in the toolholder, the inserts are available with dimple-design clamping. The clamps fit Ceramtec holders, which makes the conversion to Kennametal tooling easier.



Higher Productivity and Profitability

- Ensures tight and rigid clamping.
- Dimpled insert with special clamping provides increased stability in the pocket.
- Ideal for use in heavy-duty machining applications.
- Cladded clamps for improved resistance against chip wash are available upon request.
- The shallow dimple design enables the use of less expensive 3/16" (4,76mm) inserts.
- Round dimple design works with custom tooling where clamping direction must be offset due to space limitations.

■ Clamp Selection Chart

insert		clamp	
ANSI Catalog Number	ISO Catalog Number	Catalog Number	Order Number
CNGX433S0415	CNGX120412S01015	551.718-100° Corner	3968904
CNGX433S0415FW	CNGX120412S01015FW	551.718-100° Corner	3968904
CNGX434S0820	CNGX120416S02020	551.718-100° Corner	3968904
CNGF432	CNGF120408	551.718-100° Corner	3968904
DNGX434S0820	DNGX150416S02020	551.720	4094234
SNGX434S0820	SNGX120416S02020	551.718	3968904
SNGX534S0820	SNGX150416S02020	551.718	3968904
VNGX333S0820	VNGX160412S02020	551.721	4094236
TNGX333EFW	TNGX160412EFW	551.733	4094235

■ Wipers for Cast Iron Machining

WCA

Wiper for cast iron machining for a feed rate up to $f = 0.010/\text{rev}$ (0,25mm/rev).

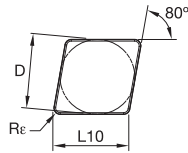
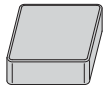
WCB

Wiper for cast iron machining for a feed rate up to $f = 0.018/\text{rev}$ (0,45mm/rev).

WCC

Wiper for cast iron machining for a feed rate up to $f = 0.025/\text{rev}$ (0,65mm/rev).

ISO/ANSI Turning

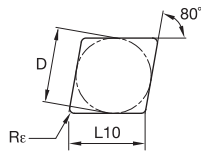
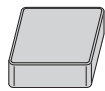


● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	○
S	■	■	○
H	■	○	●

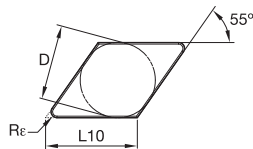
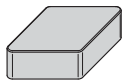
■ CNGN

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
CNGN090408T02020	CNGN332T0820	9,53	3/8	9,67	.381	0,8	1/32	●	-
CNGN090412S02020	CNGN333S0820	9,53	3/8	9,67	.381	1,2	3/64	●	-
CNGN120408T02020	CNGN432T0820	12,70	1/2	12,90	.508	0,8	1/32	●	-
CNGN120412S02020	CNGN433S0820	12,70	1/2	12,90	.508	1,2	3/64	●	-
CNGN120416S02020	CNGN434S0820	12,70	1/2	12,90	.508	1,6	1/16	●	-



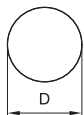
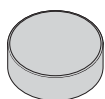
■ CNMN/CNM

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
CNMN120408S02020	CNM432S0820	12,70	1/2	12,90	.508	0,8	1/32	-	●
CNMN120412S02020	CNM433S0820	12,70	1/2	12,90	.508	1,2	3/64	-	●



■ DNGN

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
DNGN120408S02020	DNGN120408S02020	10,00	.394	12,21	.481	0,8	1/32	●	-
DNGN120412S02020	DNGN120412S02020	10,00	.394	12,21	.481	1,2	3/64	●	-



■ RNGN

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
RNGN090400S02020	RNGN33S0820	9,53	3/8	-	-	-	-	●	-
RNGN120400S02020	RNGN43S0820	12,70	1/2	-	-	-	-	●	-



■ RNMN/RNM

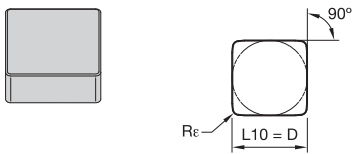
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	○
S	■	○	○
H	○	○	●
	KBK45	KB1340	
	-	●	
	-	●	
	-	●	

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBK45	KB1340
		mm	in	mm	in	mm	in		
RNMN090300S02020	RNM32S0820	9,53	3/8	—	—	—	—	-	●
RNMN120300S02020	RNM42S0820	12,70	1/2	—	—	—	—	-	●
RNMN120400S02020	RNM43S0820	12,70	1/2	—	—	—	—	-	●

ISO/ANSI Turning

Kendex™ Positive Inserts



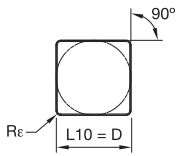
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	○
S	■	○	○
H	○	○	●
	KBK45	KB1340	
	●	-	
	●	-	
	●	-	

■ SNGN

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SNGN120408T02020	SNGN432T0820	12,70	1/2	12,70	.500	0,8	1/32	●	-
SNGN120412S02020	SNGN433S0820	12,70	1/2	12,70	.500	1,2	3/64	●	-
SNGN120416S02020	SNGN434S0820	12,70	1/2	12,70	.500	1,6	1/16	●	-

ISO/ANSI Turning

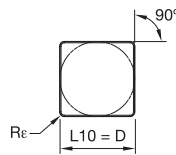


● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	○	●

■ SNGN-WCB

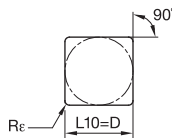
ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SNGN090408S01015WCB	SNGN332S0415WCB	9,53	3/8	9,52	.375	0,8	1/32	●	-



■ SNGN-WCC

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SNGN090408S01015WCC	SNGN332S0415WCC	9,53	3/8	9,53	.375	0,8	1/32	●	-

Kendex™ Negative Inserts

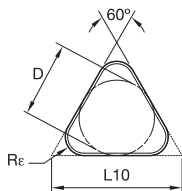


● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	○	●

■ SNMN/SNM

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SNMN090308S02020	SNM322S0820	9,53	3/8	9,53	.375	0,8	1/32	-	●
SNMN090316S02020	SNM324S0820	9,53	3/8	9,53	.375	1,6	1/16	-	●
SNMN120316S02020	SNM424S0820	12,70	1/2	12,70	.500	1,6	1/16	-	●
SNMN120416T02020	SNM434S0820	12,70	1/2	12,70	.500	1,6	1/16	-	●



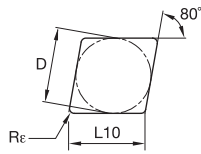
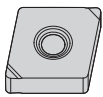
■ TNGN

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
TNGN110416S02020	TNGN234S0820	6,35	1/4	11,00	.433	1,6	1/16	●	-
TNGN160416S02020	TNGN334S0820	9,53	3/8	16,50	.650	1,6	1/16	●	-

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	○	●

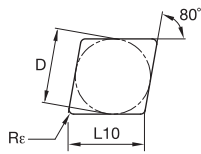
ISO/ANSI Turning

● first choice
○ alternate choice



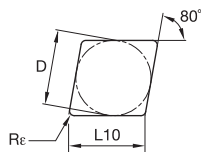
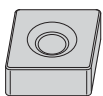
■ CNGF

ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
CNGF120408	CNGF432	12,70	1/2	12,90	.508	0,8	1/32	-	●



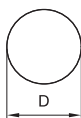
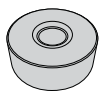
■ CNGX

ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
CNGX120408T02020	CNGX432T0820	12,70	1/2	12,90	.508	0,8	1/32	●	-
CNGX120412S01015	CNGX433S0415	12,70	1/2	12,90	.508	1,2	3/64	-	●
CNGX120412S02020	CNGX433S0820	12,70	1/2	12,90	.508	1,2	3/64	●	-
CNGX120416S02020	CNGX434S0820	12,70	1/2	12,90	.508	1,6	1/16	●	●



■ CNGX-FW

ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
CNGX120412S01015FW	CNGX433S0415FW	12,70	1/2	12,90	.508	1,2	3/64	-	●



■ RNGX

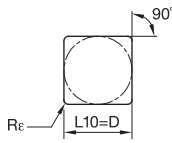
ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
RNGX120400S02020	RNGX43S0820	12,70	1/2	-	-	-	-	●	-

Solid PcBN Inserts

Kendex™ Negative Dimple Inserts



ISO/ANSI Turning

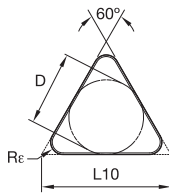
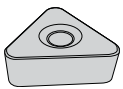


● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	○	●

SNGX

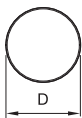
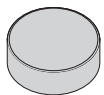
ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
SNGX120408T02020	SNGX432T0820	12,70	1/2	12,70	.500	0,8	1/32	●	-
SNGX120412S02020	SNGX433S0820	12,70	1/2	12,70	.500	1,2	3/64	●	-
SNGX120416S02020	SNGX434S0820	12,70	1/2	12,70	.500	1,6	1/16	●	●



TNGX

ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
TNGX160416S02020	TNGX334S0820	9,53	3/8	16,50	.650	1,6	1/16	●	-

Kendex Positive Inserts

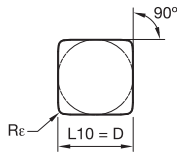


● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	○	●

RCGN

ISO catalog number	ANSI catalog number	D		L10		Re		KBK45	KB1340
		mm	in	mm	in	mm	in		
RCGN090400T01015	RCGN33T0415	9,53	3/8	-	-	-	-	●	-

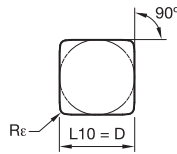


● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	○
S	■	■	○
H	■	○	●

■ SCGN-WCB

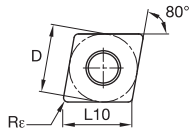
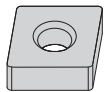
ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SCGN090408S01015WCB	SCGN332S0415WCB	9,53	3/8	9,52	.375	0,8	1/32	●	-



■ SCGN-WCC

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SCGN090408S01015WCC	SCGN332S0415WCC	9,53	3/8	9,52	.375	0,8	1/32	●	-

Kenloc™ Inserts



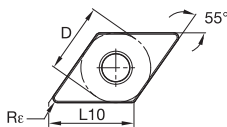
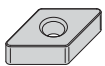
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	○
S	■	■	○
H	■	○	●

■ CNMA

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
CNMA120408S02020	CNMA432S0820	12,70	1/2	12,90	.508	0,8	1/32	-	●
CNMA120412S02020	CNMA433S0820	12,70	1/2	12,90	.508	1,2	3/64	-	●

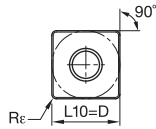
NOTE: For toolholders and boring bars, see pages B58–B76.



■ DNMA

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
DNMA110408S02020	DNMA332S0820	9,53	3/8	11,63	.458	0,8	1/32	-	●
DNMA110412S02020	DNMA333S0820	9,53	3/8	11,63	.458	1,2	3/64	-	●

NOTE: For toolholders and boring bars, see pages B87–B96.



● first choice
○ alternate choice

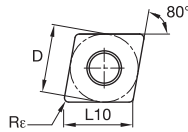
P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	○	●

■ SNMA

ISO catalog number	ANSI catalog number	D		L10		Rε		KBK45	KB1340
		mm	in	mm	in	mm	in		
SNMA120412S02020	SNMA433S0820	12,70	1/2	12,70	.500	1,2	3/64	-	●

NOTE: For toolholders and boring bars, see pages B109–B120.

Advanced Material Inserts • Hard Turning Materials



● first choice
○ alternate choice

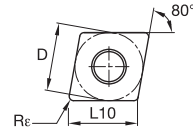
P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	●	●

■ CNGA-FWMT

ISO catalog number	ANSI catalog number	D		L10		Rε		KB1345	KB5630
		mm	in	mm	in	mm	in		
CNGA120404S01025FWMT	CNGA431S0425FWMT	12,70	1/2	12,90	.508	0,4	1/64	-	●
CNGA120408S01025FWMT	CNGA432S0425FWMT	12,70	1/2	12,90	.508	0,8	1/32	-	●

NOTE: For toolholders and boring bars, see pages B87–B96.

Tipped PcBN Inserts • Kenloc™ Inserts



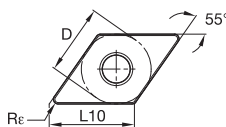
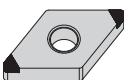
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	○
H	■	●	●

■ CNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KB1345	KB5630
		mm	in	mm	in	mm	in		
CNGA120404S01025MT	CNGA431S0425MT	12,70	1/2	12,90	.508	0,4	1/64	-	●
CNGA120408S01020MT	CNGA432S0420MT	12,70	1/2	12,90	.508	0,8	1/32	●	-
CNGA120408S01025MT	CNGA432S0425MT	12,70	1/2	12,90	.508	0,8	1/32	-	●
CNGA120408S02020MT	CNGA432S0820MT	12,70	1/2	12,90	.508	0,8	1/32	●	-
CNGA120412S01020MT	CNGA433S0420MT	12,70	1/2	12,90	.508	1,2	3/64	-	●
CNGA120412S01025MT	CNGA433S0425MT	12,70	1/2	12,90	.508	1,2	3/64	-	●

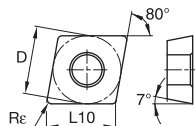
NOTE: For toolholders and boring bars, see pages B87–B96.



■ DNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KB1345	KB5630
		mm	in	mm	in	mm	in		
DNGA150404S01025MT	DNGA431S0425MT	12,70	1/2	15,50	.610	0,4	1/64	-	●
DNGA150408S01020MT	DNGA432S0420MT	12,70	1/2	15,50	.610	0,8	1/32	●	-
DNGA150408S01025MT	DNGA432S0425MT	12,70	1/2	15,50	.610	0,8	1/32	-	●

NOTE: For toolholders and boring bars, see pages B87–B96.



- first choice
- alternate choice

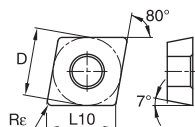
P	■	■	■
M	■	■	■
K	■	●	●
N	■	○	○
S	■	○	○
H	■	●	●

■ CCGW-C

ISO catalog number	ANSI catalog number	D		L10		Re		KB1345	KB5630
		mm	in	mm	in	mm	in		
CCGW060202S01015C	CCGW21505S0415C	6,35	1/4	6,45	.254	0,2	.008	-	●
CCGW060204S01015C	CCGW2151S0415C	6,35	1/4	6,45	.254	0,4	1/64	-	●
CCGW09T308EC	CCGW3252EC	9,53	3/8	9,67	.381	0,8	1/32	●	-

NOTE: For toolholders and boring bars, see pages B193–B198.

Kenloc™ Inserts



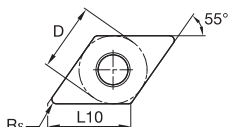
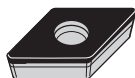
- first choice
- alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	○	○
S	■	○	○
H	■	●	●

■ CCGW-MT

ISO catalog number	ANSI catalog number	D		L10		Re		KB1345	KB5630
		mm	in	mm	in	mm	in		
CCGW09T304S01015MT	CCGW3251S0415MT	9,53	3/8	9,67	.381	0,4	1/64	-	●
CCGW09T308S01015MT	CCGW3252S0415MT	9,53	3/8	9,67	.381	0,8	1/32	-	●

NOTE: For toolholders and boring bars, see pages B193–B198.

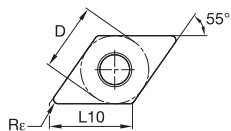
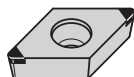


■ DCGW-C

ISO catalog number	ANSI catalog number	D		L10		Re		KB1345	KB5630
		mm	in	mm	in	mm	in		
DCGW070202S01015C	DCGW21505S0415C	6,35	1/4	7,75	.305	0,2	.008	-	●
DCGW070204S01015C	DCGW2151S0415C	6,35	1/4	7,75	.305	0,4	1/64	-	●

NOTE: For toolholders and boring bars, see pages B227–B230.

ISO/ANSI Turning



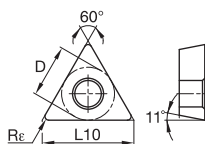
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	■	■
S	■	○	●
H	■	●	●

■ DCGW-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KB1345	KB5630
		mm	in	mm	in	mm	in		
DCGW11T304S01015MT	DCGW3251S0415MT	9,53	3/8	11,63	.458	0,4	1/64	●	●
DCGW11T308S01015MT	DCGW3252S0415MT	9,53	3/8	11,63	.458	0,8	1/32	●	●

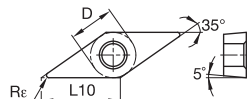
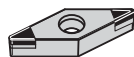
NOTE: For toolholders and boring bars, see pages B227–B230.



■ TPGW-C

ISO catalog number	ANSI catalog number	D		L10		Rε		KB1345	KB5630
		mm	in	mm	in	mm	in		
TPGW110204EC	TPGW2151EC	6,35	1/4	11,00	.433	0,4	1/64	●	–
TPGW110208S01015C	TPGW2152S0415C	6,35	1/4	11,00	.433	0,8	1/32	–	●

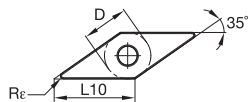
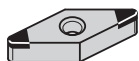
NOTE: For toolholders and boring bars, see pages B270–B279.



■ VBGW-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KB1345	KB5630
		mm	in	mm	in	mm	in		
VBGW160404S01015MT	VBGW331S0415MT	9,53	3/8	16,61	.654	0,4	1/64	–	●
VBGW160408S01015MT	VBGW332S0415MT	9,53	3/8	16,61	.654	0,8	1/32	–	●

NOTE: For toolholders and boring bars, see pages B282–B285.



■ VNGA-MT

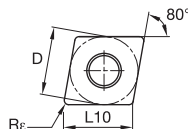
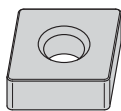
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	○	○
S	■	○	○
H	■	○	○

ISO catalog number	ANSI catalog number	D		L10		Re		KB1345	KB5630
		mm	in	mm	in	mm	in		
VNGA160404S01025MT	VNGA331S0425MT	9,53	3/8	16,61	.654	0,4	1/64	-	●
VNGA160408S01025MT	VNGA332S0425MT	9,53	3/8	16,61	.654	0,8	1/32	-	○

NOTE: For toolholders and boring bars, see pages B282–B285.

ISO/ANSI Ceramic Inserts



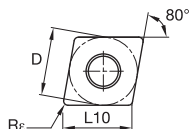
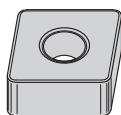
■ CNGA

● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	●	●
N	■	○	○
S	■	○	○
H	■	○	○

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
CNGA120408T02020	CNGA432T0820	12,70	1/2	12,90	.508	0,8	1/32	●	●	●
CNGA120412T02020	CNGA433T0820	12,70	1/2	12,90	.508	1,2	3/64	●	●	●
CNGA120416T02020	CNGA434T0820	12,70	1/2	12,90	.508	1,6	1/16	●	●	●
CNGA160612T02020	CNGA543T0820	15,88	5/8	16,12	.635	1,2	3/64	●	-	●
CNGA160616T02020	CNGA544T0820	15,88	5/8	16,12	.635	1,6	1/16	-	-	●
CNGA190612T02020	CNGA643T0820	19,05	3/4	19,34	.762	1,2	3/64	-	-	●
CNGA190616T02020	CNGA644T0820	19,05	3/4	19,34	.762	1,6	1/16	●	-	●

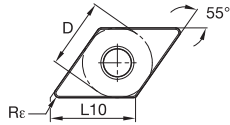
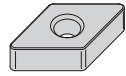
NOTE: For toolholders and boring bars, see pages B58–B76.



■ CNGA-FW

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
CNGA120408T01020FW	CNGA432T0420FW	12,70	1/2	12,90	.508	0,8	1/32	●	-	●
CNGA120412T01020FW	CNGA433T0420FW	12,70	1/2	12,90	.508	1,2	3/64	●	●	●
CNGA120412T02020FW	CNGA433T0820FW	12,70	1/2	12,90	.508	1,2	3/64	-	●	-
CNGA120416T01020FW	CNGA434T0420FW	12,70	1/2	12,90	.508	1,6	1/16	-	-	●

NOTE: For toolholders and boring bars, see pages B58–B76.



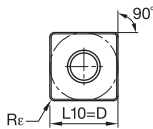
- first choice
- alternate choice

P			
M			
K	●	●	●
N			
S			
H			

■ DNGA

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
DNGA150408T02020	DNGA432T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	●
DNGA150412T02020	DNGA433T0820	12,70	1/2	15,50	.610	1,2	3/64	-	-	●
DNGA150416T02020	DNGA434T0820	12,70	1/2	15,50	.610	1,6	1/16	●	●	●
DNGA150608T02020	DNGA442T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	●
DNGA150612T02020	DNGA443T0820	12,70	1/2	15,50	.610	1,2	3/64	-	-	●

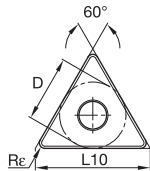
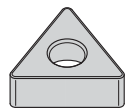
NOTE: For toolholders and boring bars, see pages B87–B96.



■ SNGA

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
SNGA120408T02020	SNGA432T0820	12,70	1/2	12,70	.500	0,8	1/32	●	●	●
SNGA120412T02020	SNGA433T0820	12,70	1/2	12,70	.500	1,2	3/64	●	-	●
SNGA120416T02020	SNGA434T0820	12,70	1/2	12,70	.500	1,6	1/16	-	-	●
SNGA150612T02020	SNGA543T0820	15,88	5/8	15,88	.625	1,2	3/64	●	-	-
SNGA150612T02020	SNGA543T	15,88	5/8	15,88	.625	1,2	3/64	-	-	●
SNGA150616T02020	SNGA544T	15,88	5/8	15,88	.625	1,6	1/16	-	-	●
SNGA190612T02020	SNGA643T0820	19,05	3/4	19,05	.750	1,2	3/64	-	-	●

NOTE: For toolholders and boring bars, see pages B109–B120.



■ TNGA

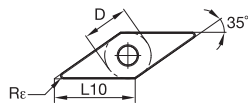
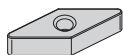
ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
TNGA160408T02020	TNGA332T0820	9,53	3/8	16,50	.650	0,8	1/32	-	●	●
TNGA160412T02020	TNGA333T0820	9,53	3/8	16,50	.650	1,2	3/64	-	-	●
TNGA160416T02020	TNGA334T0820	9,53	3/8	16,50	.650	1,6	1/16	-	-	●

NOTE: For toolholders and boring bars, see pages B131–B143.

P			
M			
K	●	●	●
N			
S			
H			

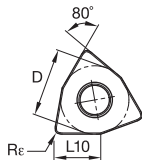
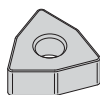
ISO/ANSI Turning

- first choice
- alternate choice


VNGA

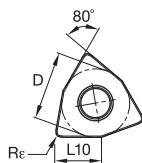
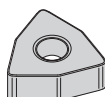
ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
VNGA160408T02020	VNGA332T0820	9,53	3/8	16,61	.654	0,8	1/32	-	-	●
VNGA220408T02020	VNGA432T0820	12,70	1/2	22,14	.872	0,8	1/32	●	-	-

NOTE: For toolholders and boring bars, see pages B150–B155.


WNGA

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
WNGA080408T02020	WNGA432T0820	12,70	1/2	8,69	.342	0,8	1/32	●	-	●
WNGA080412T02020	WNGA433T0820	12,70	1/2	8,69	.342	1,2	3/64	●	-	●
WNGA080416T02020	WNGA434T0820	12,70	1/2	8,69	.342	1,6	1/16	-	-	●

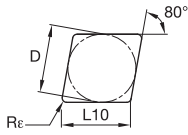
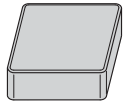
NOTE: For toolholders and boring bars, see page B163.


WNGA-FW

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
WNGA080408T01020FW	WNGA432T0420FW	12,70	1/2	8,69	.342	0,8	1/32	-	-	●

NOTE: For toolholders and boring bars, see page B163.

ISO/ANSI Turning

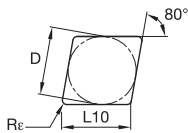
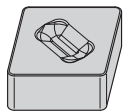


● first choice
○ alternate choice

P				
M				
K	●	●	●	
N				
S				
H				

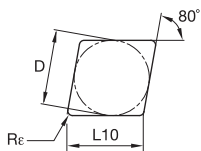
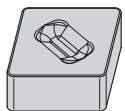
■ CNGN/CNG

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
CNGN120408T02020	CNG432T0820	12,70	1/2	12,90	.508	0,8	1/32	-	-	●
CNGN120412T02020	CNG433T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	●
CNGN120416T02020	CNG434T0820	12,70	1/2	12,90	.508	1,6	1/16	-	-	●
CNGN120712T02020	CNG453T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	●
CNGN120716T02020	CNG454T0820	12,70	1/2	12,90	.508	1,6	1/16	-	●	-



■ CNGX-FW

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
CNGX120708T01020FW	CNGX452T0420FW	12,70	1/2	12,90	.508	0,8	1/32	-	-	●
CNGX120712T01020FW	CNGX453T0420FW	12,70	1/2	12,90	.508	1,2	3/64	-	-	●
CNGX120716T01020FW	CNGX454T0420FW	12,70	1/2	12,90	.508	1,6	1/16	-	-	●

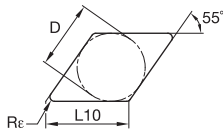
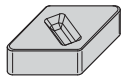


■ CNMX

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
CNMX120708T02020	CNMX452T0820	12,70	1/2	12,90	.508	0,8	1/32	-	-	●
CNMX120712T02020	CNMX453T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	●
CNMX120716T02020	CNMX454T0820	12,70	1/2	12,90	.508	1,6	1/16	-	-	●

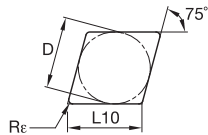
P			
M			
K	●	●	●
N			
S			
H			

- first choice
- alternate choice



■ DNGX

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
DNGX120708T02020	DNGX120708T02020	10,00	.3937	12,21	.481	0,8	1/32	-	-	●
DNGX120712T02020	DNGX120712T02020	10,00	.3937	12,21	.481	1,2	3/64	●	-	●
DNGX120716T02020	DNGX120716T02020	10,00	.3937	12,21	.481	1,6	1/16	-	-	●
DNGX150708T02020	DNGX452T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	●
DNGX150712T02020	DNGX453T0820	12,70	1/2	15,50	.610	1,2	3/64	●	-	●
DNGX150716T02020	DNGX454T0820	12,70	1/2	15,50	.610	1,6	1/16	-	-	●



■ ENGX

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
ENGX130716T02020	ENGX454T0820	12,70	1/2	13,15	.518	1,6	1/16	-	-	●

ISO/ANSI Turning

ISO/ANSI Turning

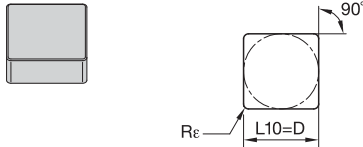


■ RNGN/RNG

ISO catalog number	ANSI catalog number	D		L10		R _e		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
RNGN120400T02020	RNG43T0820	12,70	1/2	—	—	—	—	—	●	●
RNGN120700T02020	RNG45T0820	12,70	1/2	—	—	—	—	—	—	●
RNGN190700T02020	RNG65T0820	19,05	3/4	—	—	—	—	—	—	●

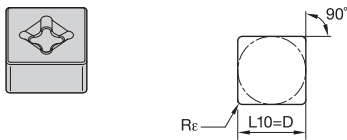
● first choice
○ alternate choice

P			
M			
K	●	●	●
N			
S			
H			



■ SNGN/SNG

ISO catalog number	ANSI catalog number	D		L10		R _e		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
SNGN090308T02020	SNG322T0820	9,53	3/8	9,53	.375	0,8	1/32	—	—	●
SNGN120408T02020	SNG432T0820	12,70	1/2	12,70	.500	0,8	1/32	●	—	●
SNGN120412T02020	SNG433T0820	12,70	1/2	12,70	.500	1,2	3/64	●	—	●
SNGN120416T02020	SNG434T0820	12,70	1/2	12,70	.500	1,6	1/16	—	—	●
SNGN120432T02020	SNG438T0820	12,70	1/2	12,70	.500	3,2	1/8	—	—	●
SNGN120712T02020	SNG453T0820	12,70	1/2	12,70	.500	1,2	3/64	●	—	—
SNGN120716T02020	SNG454T0820	12,70	1/2	12,70	.500	1,6	1/16	—	—	●
SNGN190416T02020	SNG634T0820	19,05	3/4	19,05	.750	1,6	1/16	—	—	●

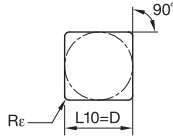
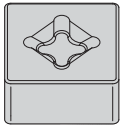


■ SNGX

ISO catalog number	ANSI catalog number	D		L10		R _e		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
SNGX120712T02020	SNGX453T0820	12,70	1/2	12,70	.500	1,2	3/64	●	●	●
SNGX120716T02020	SNGX454T0820	12,70	1/2	12,70	.500	1,6	1/16	●	●	●
SNGX150716T02020	SNGX554T0820	15,88	5/8	15,88	.625	1,6	1/16	—	—	●
SNGX150724T02020	SNGX556T0820	15,88	5/8	15,88	.625	2,4	3/32	—	—	●

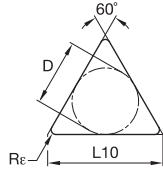
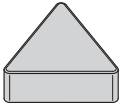
P				
M				
K	●	●	●	
N				
S				
H				

● first choice
○ alternate choice



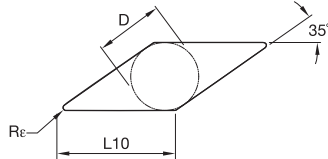
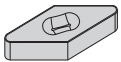
■ SNMX

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
SNMX120712T02020	SNMX453T0820	12,70	1/2	12,70	.500	1,2	3/64	-	-	●
SNMX120716T02020	SNMX454T0820	12,70	1/2	12,70	.500	1,6	1/16	-	-	●
SNMX150716T02020	SNMX554T0820	15,88	5/8	15,88	.625	1,6	1/16	-	-	●



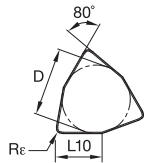
■ TNGN/TNG

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
TNGN160408T02020	TNG332T0820	9,53	3/8	16,50	.650	0,8	1/32	-	-	●
TNGN220416T02020	TNG434T0820	12,70	1/2	22,00	.866	1,6	1/16	-	-	●



■ VNGX

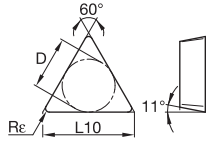
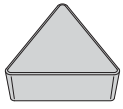
ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
VNGX160712T02020	VNGX353T0820	9,52	3/8	16,61	.654	1,2	3/64	-	-	●
VNGX160716T02020	VNGX354T0820	9,53	3/8	16,61	.654	1,6	1/16	-	-	●



■ WNGX

ISO catalog number	ANSI catalog number	D		L10		Rε		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
WNGX080712T02020	WNGX453T0820	12,70	1/2	8,69	.342	1,2	3/64	-	●	●

ISO/ANSI Turning

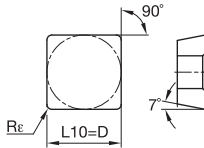
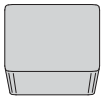


● first choice
○ alternate choice

P				
M				
K	●	●	●	
N				
S				
H				

■ TPGN/TPG

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
TPGN160308T02020	TPG322T0820	9,53	3/8	16,50	.650	0,8	1/32	-	-	●
TPGN160312T02020	TPG323T0820	9,53	3/8	16,50	.650	1,2	3/64	-	●	●
TPGN220408T02020	TPG432T0820	12,70	1/2	22,00	.866	0,8	1/32	-	-	●
TPGN220412T02020	TPG433T0820	12,70	1/2	22,00	.866	1,2	3/64	-	-	●



■ SCGN-FW/SCG-FW

ISO catalog number	ANSI catalog number	D		L10		Re		KYK25	KYK10	KY3500
		mm	in	mm	in	mm	in			
SCGN090408EFW	SCG332FW	9,53	3/8	9,53	.375	0,8	1/32	-	-	●

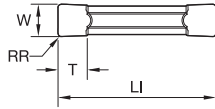
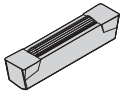
■ Clamp Selection Chart

order number	catalog number	clamp	
3960807	CNGX120412S01015	551.718-100° Corner	551.716-80° Corner
3960808	CNGX120412S01015FW	551.718-100° Corner	551.716-80° Corner
3960806	CNGX120416S02020	551.718-100° Corner	551.716-80° Corner
3960811	DNGX150416S02020	551.720	551.720
3960812	SNGX120416S02020	551.718	551.718
3960823	SNGX150416S02020	551.718	551.718
3876843	CNGF120408	551.718-100° Corner	551.716-80° Corner
3960825	TNGX160412EFW	551.733	551.733

P	●
M	●
K	●
N	●
S	●
H	●



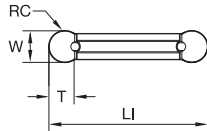
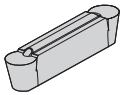
- first choice
- alternate choice



■ A4G-P-T

ISO catalog number	ANSI catalog number	seat size	W		RR		LI		T		KY3500
			mm	in	mm	in	mm	in	mm	in	
A4G0300M03P04T01025	A4G0300M03P04T01025	3	3,00	.118	0,4	.016	20	.79	3,4	.134	●
A4G125I03P1T0425	A4G125I03P1T0425	3	3,18	.125	0,4	.016	20	.79	3,4	.134	●
A4G0400M04P04T01025	A4G0400M04P04T01025	4	4,00	.157	0,4	.016	20	.79	3,4	.134	●
A4G0500M05P08T01025	A4G0500M05P08T01025	5	5,00	.197	0,8	.031	25	.98	4,2	.165	●
A4G0600M06P08T01025	A4G0600M06P08T01025	6	6,00	.236	0,8	.031	30	1.18	4,8	.189	●
A4G250I06P2T0425	A4G250I06P2T0425	6	6,35	.250	0,8	.031	30	1.18	4,9	.193	●
A4G0800M08P08T01025	A4G0800M08P08T01025	8	8,00	.315	0,8	.031	30	1.18	6,4	.250	●

NOTE: For A4 holder, boring bars, and blades, see pages C114–C151.



■ A4R-P-T

ISO catalog number	ANSI catalog number	seat size	W		RC		LI		T		KY3500
			mm	in	mm	in	mm	in	mm	in	
A4R0300M03P00T01025	A4R0300M03P00T01025	3	3,00	.118	1,5	.059	20	.79	2,4	.095	●
A4R0500M05P00T01025	A4R0500M05P00T01025	5	5,00	.197	2,5	.098	25	.98	4,1	.163	●
A4R0600M06P00T01025	A4R0600M06P00T01025	6	6,00	.236	3,0	.118	30	1.18	4,3	.167	●
A4R250I06P00T0425	A4R250I06P00T0425	6	6,35	.250	3,2	.125	30	1.18	4,8	.191	●
A4R0800M08P00T01025	A4R0800M08P00T01025	8	8,00	.315	4,0	.157	30	1.18	6,4	.250	●

NOTE: For toolholders and boring bars, see page B163.

➤ Hard Turning

High- and Low-Content PcBN Inserts

The current global metalcutting climate has put increased focus on high productivity and cost reductions coming from cutting tools. These requirements lead to the rapid growth and implementation of cutting tools using superhard materials. As the name implies, these materials have a significant advantage in hardness over conventional tool materials. For the end user this translates into increased productivity (higher cutting speeds, longer tool life, etc.), lower tooling cost per part, and the ability to process materials that were previously not machinable with conventional tooling.

Kennametal is at the forefront of developing and implementing superhard materials in our standard and special tooling solutions across all our product lines. Our approach to superhard tooling starts with customer needs and constraints. We then develop the best superhard solutions for the customer's specific needs.



PcBN is thermally stable up to approximately 2,190° F and has high resistance to chemical attack. As a result, extreme temperatures like those that occur when machining hard ferrous metals do not cause difficulties and can be used to promote self-induced hot cutting. This adds technical and productivity benefits, especially when compared with grinding. In most cases, performance is significantly better than that attained with conventional tool materials, such as tungsten carbides and ceramics.

There are limitations for PcBN, however, in the machining of austenitic steels and ferritic cast irons, which can cause increased PcBN edge wear.

PcBN Inserts

KBH10™ Grade

High Volume

- A new patented low PcBN content grade for continuous turning operations.
- Excellent performance in the machining of hardened steels with lower carbide inclusion content.
- Available as tipped and solid PcBN inserts.

KBH20™ Grade

Higher Productivity and Profitability

- Newly developed substrate allows application in a wide variety of demanding applications.
- Nano-composite coating enhances speed capabilities and tool life. Improved edge preparation technology for longer tool life, reliable performance, better surface finish, and tighter workpiece tolerances.
- Large standard portfolio.
- CB1 chipbreaker in positive and negative geometry, solving chipbreaking and chip control issues.



KB5630™ Grade

- Best applied in severe cutting conditions and heavy interruptions.
- Excellent abrasion resistance.
- PVD coating provides a thermal barrier to reduce crater wear and extend tool life.
- Excellent performance in machining of hardened steels and powder metals.
- Available as tipped and full face PcBN inserts.



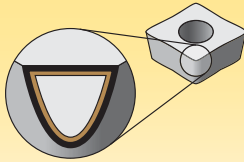
Ceramic Inserts

KY1615 Grade

Low Volume and Higher Process Variations

- Mixed (black) ceramic.
- Excellent wear resistance combined with good toughness properties.
- Excellent performance in the finishing and semi-finishing of hardened steels and iron-based materials.





Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials


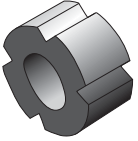
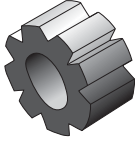
wear resistance ← → toughness


PcBN — Polycrystalline Cubic Boron Nitride Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45	
KBH20	<p>Composition: A low content PcBN grade with a PVD TiN/AlTiN coating for added wear resistance.</p> <p>Application: KBH20™ is the ideal PcBN hard turning grade for continuous to lightly interrupted cutting applications. The structure, as well as the different edge preparations, enable repeatable workpiece tolerances, excellent surface finishes, and surface integrity. Typical applications are case-hardened steel components such as gears, shafts, and other drive-train components.</p>											
		H										
KBH10	<p>Composition: A low content PcBN grade with a patented binder structure.</p> <p>Application: Designed for the precision machining of hardened steels (>45 HRC). It can be effectively applied on bearing steels, hot and cold work tool steels, high speed steels, die steels, case hardened steels, carburized and nitrided irons, and some hard coatings. Available in a multi-tip format with a wide range of edge preps, insert styles, and wiper geometries.</p>											
		H										
KB5630	<p>Composition: A high content PcBN with a PVD AlTiN coating for added wear resistance.</p> <p>Application: Designed for roughing to finishing of hardened steels (>45 HRC), abrasive workpiece materials such as sintered valve seat materials, powder metallurgy steels, and hard high-alloy cast irons. The PVD coating provides resistance to crater wear and increased resistance to chipping. A wide range of styles are available, including Screw-On geometries that are ideal for boring applications.</p>											
		K										
		S										
H												
KY1615	<p>Composition: An advanced lumina/TiC black ceramic grade.</p> <p>Application: Great combination of toughness and wear resistance; used for machining alloy steels, tool steels, and stainless steels to 60 HRC (653 HB). It is also applied in finish turning and boring of cast irons.</p>											
		H										

Ceramic Grades

■ Tool Testing Information

	Grade	Sharp	Light Cut Edge Metric Inch	Standard Cut Edge Metric Inch	Strong Cut Edge Metric Inch
	KBH10*	E	10 15 04 15	12 25 05 25	custom
	KBH20*	custom	10 15 04 15	12 25 05 25	17 35 07 35
	KB5630***	custom	custom	10 25 04 25	17 35 07 35



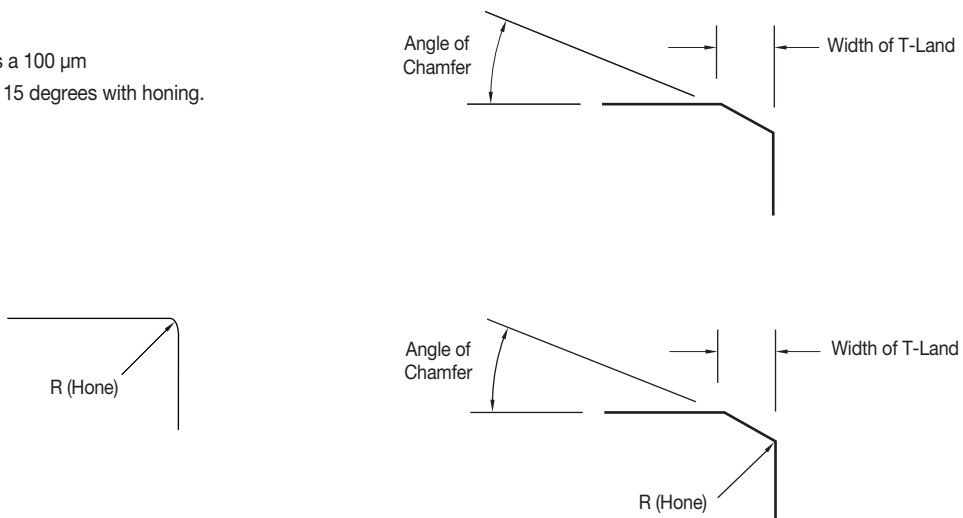
- ✘ Crater Wear
- ✔ Chipping
- ✔ Breakages
- ✔ Stability

- ✔ Crater Wear
- ✘ Chipping
- ✔ Breakages
- ✘ Stability

NOTE: KBH20™ Inserts with 1225 (0525 in inch) are the inserts of choice for initial testing.
 For fine tuning, stay in the same grade but use either sharper edges in light cuts or heavier edges if need to overcome interruptions and variations.
 If KBH20 is failing, change grade to either a more wear-resistant or fracture-resistant grade.
 * Lowest toughness
 ** Medium toughness
 *** Highest toughness

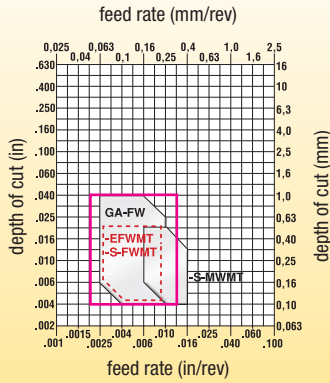
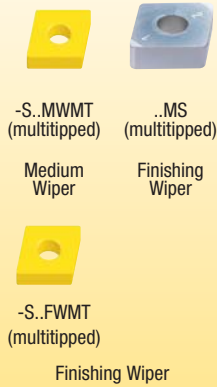
- E = Hone
- T = T-land with angle
- S = T-land with angle and hone

Example : S01015 is a 100 µm
T-land at 15 degrees with honing.

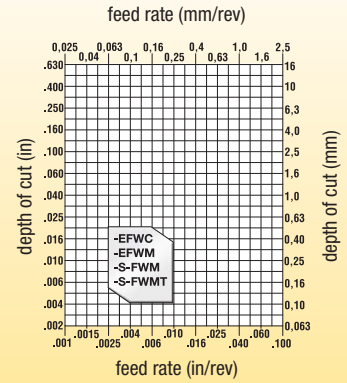
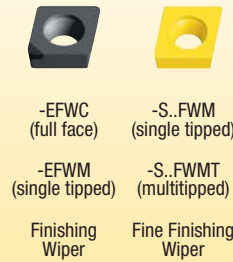


Step 1 • Select the insert geometry

Negative Wiper Inserts



Positive Wiper Inserts

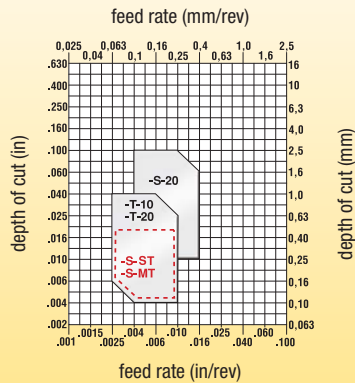
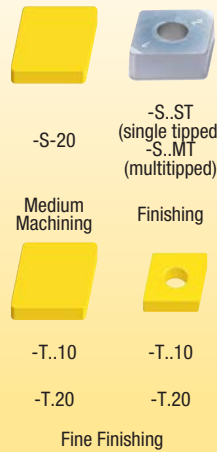


Step 2 • Select the grade

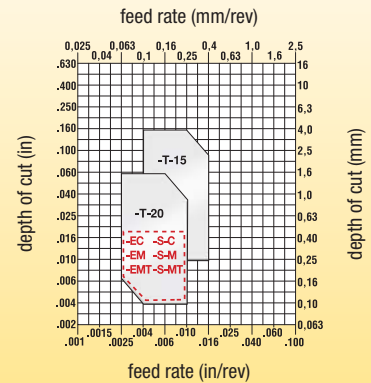
cutting condition	Negative Insert Geometry			Positive Insert Geometry		
	-S..FWMT	-EFWMT	-S..FWMT	-S..FWM	-S..FWMT	-EFCW
heavily interrupted cut	KB5630	KB5630	–	–	–	–
lightly interrupted cut	KB5630/ KBH20	KBH20	KBH20	KBH20	KBH20	KBH20
varying depth of cut, casting, or forging skin	KBH20	KB1610/ KBH10	KBH20	KBH20	KBH20	KBH20
smooth cut, pre-turned surface	KBH10	KBH10	KBH10	KBH10	KBH10	KBH10

Step 1 • Select the insert geometry

Negative Wiper Inserts



Positive Wiper Inserts



Step 2 • Select the grade

cutting condition	Negative Insert Geometry		Positive Insert Geometry
	-T..10	-T..20	-T-15
heavily interrupted cut	–	–	–
lightly interrupted cut	–	–	KY1615
varying depth of cut, casting, or forging skin	KY1615	KY1615	KY1615
smooth cut, pre-turned surface	KY1615	KY1615	KY1615

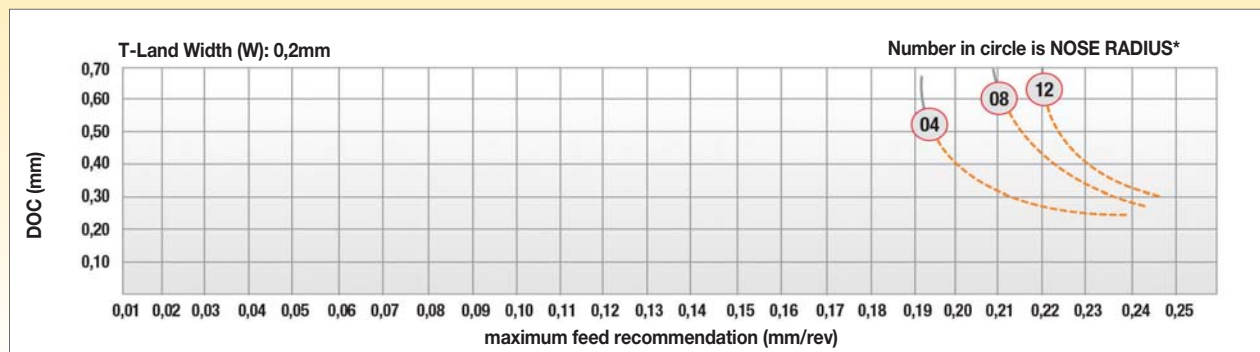
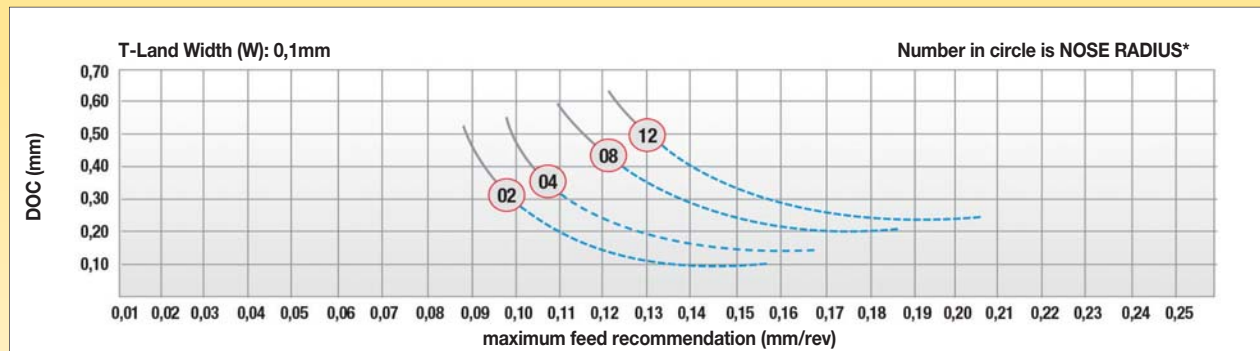
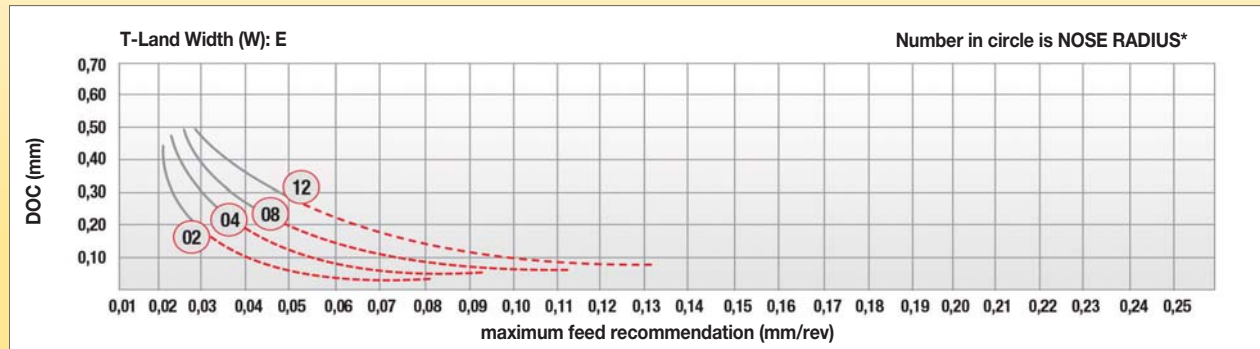
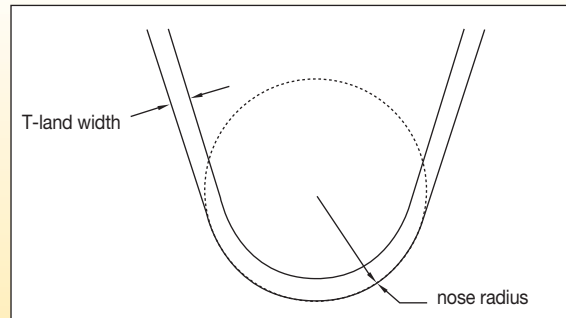
Step 1 • Select the cutting speed

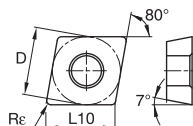
material group	grade	speed — m/min (SFM)										Starting Conditions	
		15 (50)	45 (150)	75 (250)	110 (350)	140 (450)	170 (550)	200 (650)	230 (750)	260 (850)	m/min	SFM	
H1	KBH20	◊										155	510
	KBH10	◊										150	490
	KB5630	◊										105	345
	KY1615	◊										100	325

T-Land Width

Example 1: If the feed, depth of cut, and the tool nose radius are fixed, use these values to see what T-land width should be used.

Example 2: If you want to use a specific T-land width or hone only edge, use the chart below to see what maximum feeds and depths of cut are recommended for different nose radii.





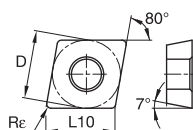
● first choice
○ alternate choice

P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●

■ CCGM

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CCGM09T304S01325MTCB1	CCGM3251S0525MTCB1	9,53	3/8	9,67	.381	0,4	1/64	-	●	-	-
CCGM09T308S01325MTCB1	CCGM3252S0525MTCB1	9,53	3/8	9,67	.381	0,8	1/32	-	●	-	-

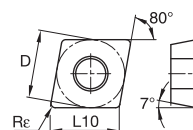
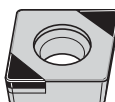
NOTE: For toolholders and boring bars, see pages B193–B198.



■ CCGW-C

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CCGW060202S01015C	CCGW21505S0415C	6,35	1/4	6,45	.254	0,2	.008	-	-	●	-
CCGW060204S01015C	CCGW2151S0415C	6,35	1/4	6,45	.254	0,4	1/64	-	-	●	-

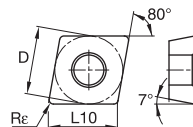
NOTE: For toolholders and boring bars, see pages B193–B198.



■ CCGW-FWMT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CCGW09T304S01015FWMT	CCGW3251S0415FWMT	9,53	3/8	9,67	.381	0,4	1/64	-	●	-	-
CCGW09T308S01015FWMT	CCGW3252S0415FWMT	9,53	3/8	9,67	.381	0,8	1/32	●	●	-	-

NOTE: For toolholders and boring bars, see pages B193–B198.



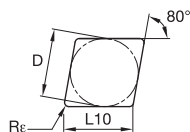
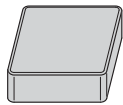
■ CCGW-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CCGW060202S01015MT	CCGW21505S0415MT	6,35	1/4	6,45	.254	0,2	.008	●	-	-	-
CCGW060202S01225MT	CCGW21505S0525MT	6,35	1/4	6,45	.254	0,2	.008	-	●	-	-
CCGW060204S01015MT	CCGW2151S0415MT	6,35	1/4	6,45	.254	0,4	1/64	●	-	-	-
CCGW060204S01225MT	CCGW2151S0525MT	6,35	1/4	6,45	.254	0,4	1/64	-	●	-	-
CCGW09T302S01015MT	CCGW32505S0415MT	9,53	3/8	9,67	.381	0,2	.008	●	-	-	-
CCGW09T302S01225MT	CCGW32505S0525MT	9,53	3/8	9,67	.381	0,2	.008	-	●	-	-
CCGW09T304S01015MT	CCGW3251S0415MT	9,53	3/8	9,67	.381	0,4	1/64	●	●	●	-
CCGW09T304S01225MT	CCGW3251S0525MT	9,53	3/8	9,67	.381	0,4	1/64	●	●	-	-
CCGW09T308S01015MT	CCGW3252S0415MT	9,53	3/8	9,67	.381	0,8	1/32	●	●	●	-
CCGW09T308S01225MT	CCGW3252S0525MT	9,53	3/8	9,67	.381	0,8	1/32	●	●	-	-
CCGW120408S01015MT	CCGW432S0415MT	12,70	1/2	12,90	.508	0,8	1/32	-	●	-	-

NOTE: For toolholders and boring bars, see pages B193–B198.

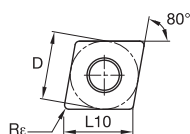
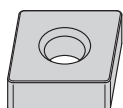
P	●				●
M	●				
K	●				●
N	●				
S	●				●
H	●	●	●	●	●

● first choice
○ alternate choice



■ CNGN/CNG

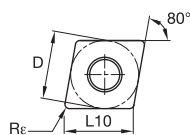
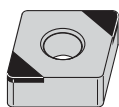
ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CNGN120404T02020	CNG431T0820	12,70	1/2	12,90	.508	0,4	1/64	-	-	-	●
CNGN120408T02020	CNG432T0820	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	●
CNGN120708T02020	CNG452T0820	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	●
CNGN120412T02020	CNG433T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	-	●
CNGN120712T02020	CNG453T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	-	●
CNGN120716T02020	CNG454T0820	12,70	1/2	12,90	.508	1,6	1/16	-	-	-	●
CNGN160716T02020	CNG554T0820	15,88	5/8	16,12	.635	1,6	1/16	-	-	-	●
CNGN160716T05015	CNG554T2015	15,88	5/8	16,12	.635	1,6	1/16	-	-	-	●



■ CNGA

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CNGA120404T02020	CNGA431T0820	12,70	1/2	12,90	.508	0,4	1/64	-	-	-	●
CNGA120408T00520	CNGA432T0220	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	●
CNGA120408T02020	CNGA432T0820	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	●
CNGA120412T02020	CNGA433T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	-	●
CNGA120416T02020	CNGA434T0820	12,70	1/2	12,90	.508	1,6	1/16	-	-	-	●
CNGA160612T02020	CNGA543T0820	15,88	5/8	16,12	.635	1,2	3/64	-	-	-	●
CNGA190612T02020	CNGA643T0820	19,05	3/4	19,34	.762	1,2	3/64	-	-	-	●
CNGA190616T02020	CNGA644T0820	19,05	3/4	19,34	.762	1,6	1/16	-	-	-	●

NOTE: For toolholders and boring bars, see pages B58–B76.



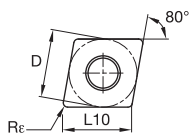
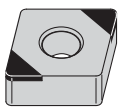
● first choice
○ alternate choice

P	●	○	○	○
M	●	○	○	○
K	●	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○

■ CNGA-FWMT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CNGA120404S01015FWMT	CNGA431S0415FWMT	12,70	1/2	12,90	.508	0,4	1/64	●	●	-	-
CNGA120404S01025FWMT	CNGA431S0425FWMT	12,70	1/2	12,90	.508	0,4	1/64	-	-	●	-
CNGA120408S01015FWMT	CNGA432S0415FWMT	12,70	1/2	12,90	.508	0,8	1/32	●	●	-	-
CNGA120408S01025FWMT	CNGA432S0425FWMT	12,70	1/2	12,90	.508	0,8	1/32	-	-	●	-
CNGA120408S01225FWMT	CNGA432S0525FWMT	12,70	1/2	12,90	.508	0,8	1/32	●	-	-	-
CNGA120412S01015FWMT	CNGA433S0415FWMT	12,70	1/2	12,90	.508	1,2	3/64	-	●	-	-
CNGA120412S01225FWMT	CNGA433S0525FWMT	12,70	1/2	12,90	.508	1,2	3/64	●	-	-	-

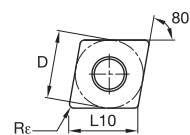
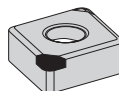
NOTE: For toolholders and boring bars, see pages B58–B76.



■ CNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CNGA120404S01015MT	CNGA431S0415MT	12,70	1/2	12,90	.508	0,4	1/64	●	●	-	-
CNGA120404S01025MT	CNGA431S0425MT	12,70	1/2	12,90	.508	0,4	1/64	-	-	●	-
CNGA120404S01225MT	CNGA431S0525MT	12,70	1/2	12,90	.508	0,4	1/64	-	●	-	-
CNGA120404S01735MT	CNGA431S0735MT	12,70	1/2	12,90	.508	0,4	1/64	-	●	-	-
CNGA120408S01015MT	CNGA432S0415MT	12,70	1/2	12,90	.508	0,8	1/32	●	●	-	-
CNGA120408S01025MT	CNGA432S0425MT	12,70	1/2	12,90	.508	0,8	1/32	-	-	●	-
CNGA120408S01225MT	CNGA432S0525MT	12,70	1/2	12,90	.508	0,8	1/32	●	●	-	-
CNGA120408S01735MT	CNGA432S0735MT	12,70	1/2	12,90	.508	0,8	1/32	●	●	-	-
CNGA120412S01015MT	CNGA433S0415MT	12,70	1/2	12,90	.508	1,2	3/64	●	●	-	-
CNGA120412S01020MT	CNGA433S0420MT	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	-
CNGA120412S01025MT	CNGA433S0425MT	12,70	1/2	12,90	.508	1,2	3/64	-	-	●	-
CNGA120412S01225MT	CNGA433S0525MT	12,70	1/2	12,90	.508	1,2	3/64	●	●	-	-
CNGA120412S01735MT	CNGA433S0735MT	12,70	1/2	12,90	.508	1,2	3/64	●	●	-	-

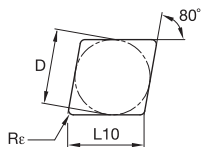
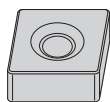
NOTE: For toolholders and boring bars, see pages B58–B76.



■ CNGM-CB1

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CNGM120404S01325MTCB1	CNGM431S0525MTCB1	12,70	1/2	12,90	.508	0,4	1/64	-	●	-	-
CNGM120408S01325MTCB1	CNGM432S0525MTCB1	12,70	1/2	12,90	.508	0,8	1/32	-	●	-	-
CNGM120412S01325MTCB1	CNGM433S0525MTCB1	12,70	1/2	12,90	.508	1,2	3/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B58–B76.



● first choice
○ alternate choice

P	●			●
M	●			●
K	●			●
N	●			●
S	●			●
H	●	●	●	●

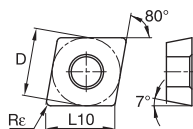


ISO/ANSI Turning

■ CNGX

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CNGX120708T02020	CNGX452T0820	12,70	1/2	12,90	.508	0,8	1/32	-	-	-	●
CNGX120712T02020	CNGX453T0820	12,70	1/2	12,90	.508	1,2	3/64	-	-	-	●

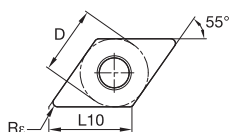
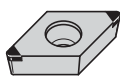
NOTE: For toolholders and boring bars, see pages B58–B76.



■ CPGW-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
CPGW09T304S01015MT	CPGW3251S0415MT	9,53	3/8	9,67	.381	0,4	1/64	-	-	●	-
CPGW09T308S01015MT	CPGW3252S0415MT	9,53	3/8	9,67	.381	0,8	1/32	-	-	●	-

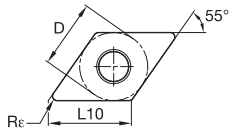
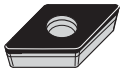
NOTE: For toolholders and boring bars, see pages B209–B223.



■ DCGM

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DCGM11T304S01325MTCB1	DCGM3251S0525MTCB1	9,53	3/8	11,63	.458	0,4	1/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B227–B230.



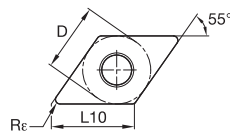
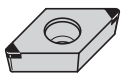
● first choice
○ alternate choice

P	●	○	○	○
M	○	○	○	○
K	○	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○

■ DCGW-C

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DCGW070202S01015C	DCGW21505S0415C	6,35	1/4	7,75	.305	0,2	.008	-	-	●	-
DCGW070204S01015C	DCGW2151S0415C	6,35	1/4	7,75	.305	0,4	1/64	-	-	●	-

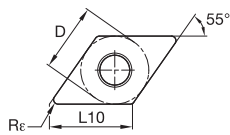
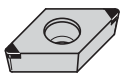
NOTE: For toolholders and boring bars, see pages B227–B230.



■ DCGW-FWMT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DCGW11T308S01015FWMT	DCGW3252S0415FWMT	9,53	3/8	11,63	.458	0,4	.016	●	●	-	-
DCGW11T308S01225FWMT	DCGW3252S0525FWMT	9,53	3/8	11,63	.458	0,4	1/64	●	-	-	-

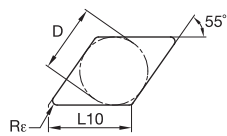
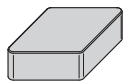
NOTE: For toolholders and boring bars, see pages B227–B230.



■ DCGW-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DCGW070202S01225MT	DCGW21505S0525MT	6,35	1/4	7,75	.305	0,2	.008	-	●	-	-
DCGW70202S01015MT	DCGW21505S0415MT	6,35	1/4	7,75	.305	0,4	.0156	●	-	-	-
DCGW70204S01015MT	DCGW2151S0415MT	6,35	1/4	7,75	.305	0,4	1/64	●	-	-	-
DCGW070204S01015MT	DCGW2151S0415MT	6,35	1/4	7,75	.305	0,4	1/64	-	●	-	-
DCGW70204S01225MT	DCGW2151S0525MT	6,35	1/4	7,75	.305	0,4	1/64	●	-	-	-
DCGW070204S01225MT	DCGW2151S0525MT	6,35	1/4	7,75	.305	0,4	1/64	-	●	-	-
DCGW11T302S01015MT	DCGW32505S0415MT	9,53	3/8	11,63	.458	0,2	.008	●	-	-	-
DCGW11T302S01225MT	DCGW32505S0525MT	9,53	3/8	11,63	.458	0,2	.008	-	●	-	-
DCGW11T304S01015MT	DCGW3251S0415MT	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	-
DCGW11T304S01225MT	DCGW3251S0525MT	9,53	3/8	11,63	.458	0,4	1/64	●	●	●	-
DCGW11T308S01015MT	DCGW3252S0415MT	9,53	3/8	11,63	.458	0,8	1/32	●	●	●	-
DCGW11T308S01225MT	DCGW3252S0525MT	9,53	3/8	11,63	.458	0,8	1/32	●	●	-	-

NOTE: For toolholders and boring bars, see pages B227–B230.

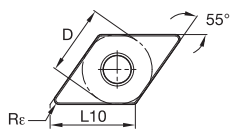
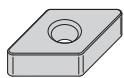


● first choice
○ alternate choice

P	●	○	○	○
M	○	○	○	○
K	○	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○

■ DNGN/DNG

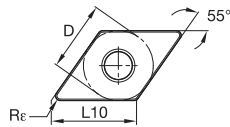
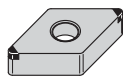
ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DNGN150704T02020	DNG451T0820	12,70	1/2	15,50	.610	0,4	1/64	-	-	-	●
DNGN150708T02020	DNG452T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	-	●
DNGN150712T02020	DNG453T0820	12,70	1/2	15,50	.610	1,2	3/64	-	-	-	●
DNGN150716T02020	DNG454T0820	12,70	1/2	15,50	.610	1,6	1/16	-	-	-	●



■ DNGA

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DNGA150404T02020	DNGA431T0820	12,70	1/2	15,50	.610	0,4	1/64	-	-	-	●
DNGA150604T02020	DNGA441T0820	12,70	1/2	15,50	.610	0,4	1/64	-	-	-	●
DNGA150408T02020	DNGA432T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	-	●
DNGA150608T02020	DNGA442T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	-	●
DNGA150412T02020	DNGA433T0820	12,70	1/2	15,50	.610	1,2	3/64	-	-	-	●
DNGA150612T02020	DNGA443T0820	12,70	1/2	15,50	.610	1,2	3/64	-	-	-	●
DNGA150416T02020	DNGA434T0820	12,70	1/2	15,50	.610	1,6	1/16	-	-	-	●

NOTE: For toolholders and boring bars, see pages B87–B96.

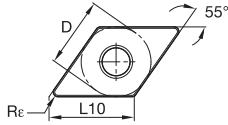
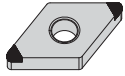


■ DNGA-FWMT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DNGA150408S01015FWMT	DNGA432S0415FWMT	12,70	1/2	15,50	.610	0,4	1/64	●	●	-	-
DNGA150408S01225FWMT	DNGA432S0525FWMT	12,70	1/2	15,50	.610	0,4	1/32	●	-	-	-
DNGA150412S01015FWMT	DNGA433S0415FWMT	12,70	1/2	15,50	.610	0,8	1/32	-	●	-	-
DNGA150412S01225FWMT	DNGA433S0525FWMT	12,70	1/2	15,50	.610	0,8	3/64	●	-	-	-

NOTE: For toolholders and boring bars, see pages B87–B96.





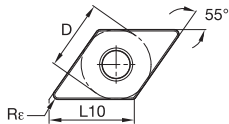
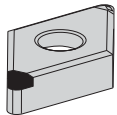
● first choice
○ alternate choice

P	●			●
M	●			
K	●			●
N	●			
S	●			●
H	●	●	●	●

■ DNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DNGA150404S01015MT	DNGA431S0415MT	12,70	1/2	15,50	.610	0,4	1/64	●	●	-	-
DNGA150404S01025MT	DNGA431S0425MT	12,70	1/2	15,50	.610	0,4	1/64	-	-	●	-
DNGA150404S01225MT	DNGA431S0525MT	12,70	1/2	15,50	.610	0,4	1/64	-	●	-	-
DNGA150404S01735MT	DNGA431S0735MT	12,70	1/2	15,50	.610	0,4	1/64	-	●	-	-
DNGA150604S01015MT	DNGA441S0415MT	12,70	1/2	15,50	.610	0,4	1/64	●	●	-	-
DNGA150604S01225MT	DNGA441S0525MT	12,70	1/2	15,50	.610	0,4	1/64	-	●	-	-
DNGA150604S01735MT	DNGA441S0735MT	12,70	1/2	15,50	.610	0,4	1/64	-	●	-	-
DNGA150408S01735MT	DNGA432S0735MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150408S01015MT	DNGA432S0415MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150408S01225MT	DNGA432S0525MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150408S01025MT	DNGA432S0425MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150608S01225MT	DNGA442S0525MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150608S01015MT	DNGA442S0415MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150608S01225MT	DNGA442S0525MT	12,70	1/2	15,50	.610	0,8	1/32	●	●	-	-
DNGA150608S01735MT	DNGA442S0735MT	12,70	1/2	15,50	.610	0,8	1/32	-	●	-	-
DNGA150412S01015MT	DNGA433S0415MT	12,70	1/2	15,50	.610	1,2	3/64	●	●	-	-
DNGA150412S01225MT	DNGA433S0525MT	12,70	1/2	15,50	.610	1,2	3/64	●	●	-	-
DNGA150412S01735MT	DNGA433S0735MT	12,70	1/2	15,50	.610	1,2	3/64	●	●	-	-
DNGA150612S01015MT	DNGA443S0415MT	12,70	1/2	15,50	.610	1,2	3/64	●	●	-	-
DNGA150612S01225MT	DNGA443S0525MT	12,70	1/2	15,50	.610	1,2	3/64	●	●	-	-
DNGA150612S01735MT	DNGA443S0735MT	12,70	1/2	15,50	.610	1,2	3/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B87–B96.



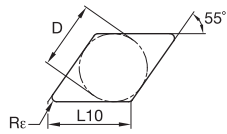
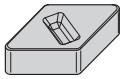
■ DNGM-CB1

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DNGM150408S01325MTCB1	DNGM432S0525MTCB1	12,70	1/2	15,50	.610	0,8	1/32	-	●	-	-
DNGM150412S01325MTCB1	DNGM433S0525MTCB1	12,70	1/2	15,50	.610	1,2	3/64	-	●	-	-
DNGM150608S01325MTCB1	DNGM442S0525MTCB1	12,70	1/2	15,50	.610	0,8	1/32	-	●	-	-
DNGM150612S01325MTCB1	DNGM443S0525MTCB1	12,70	1/2	15,50	.610	1,2	3/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B87–B96.

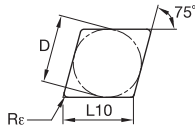
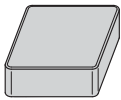
P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●

● first choice
○ alternate choice



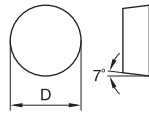
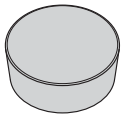
■ DNGX

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
DNGX150708T02020	DNGX452T0820	12,70	1/2	15,50	.610	0,8	1/32	-	-	-	●



■ ENGN/ENG

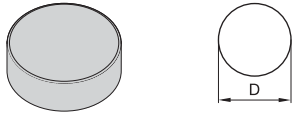
ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
ENGN130704T02020	ENG451T0820	12,70	1/2	13,15	.518	0,4	1/64	-	-	-	●
ENGN130708T02020	ENG452T0820	12,70	1/2	13,15	.518	0,8	1/32	-	-	-	●
ENGN130712T02020	ENG453T0820	12,70	1/2	13,15	.518	1,2	3/64	-	-	-	●
ENGN130716T02020	ENG454T0820	12,70	1/2	13,15	.518	1,6	1/16	-	-	-	●



■ RCGX/RCGV

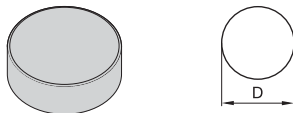
ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
RCGX090700T01020	RCGV35T0420	9,53	3/8	-	-	-	-	-	-	-	●
RCGX090700T02020	RCGV35T0820	9,53	3/8	-	-	-	-	-	-	-	●
RCGX090700T10015	RCGV35T4015	9,53	3/8	-	-	-	-	-	-	-	●
RCGX090700T20015	RCGV35T8015	9,53	3/8	-	-	-	-	-	-	-	●
RCGX120700T02020	RCGV45T0820	12,70	1/2	-	-	-	-	-	-	-	●
RCGX120700T10015	RCGV45T4015	12,70	1/2	-	-	-	-	-	-	-	●
RCGX120700T20015	RCGV45T8015	12,70	1/2	-	-	-	-	-	-	-	●
RCGX151000T20015	RCGX151000T20015	15,88	5/8	-	-	-	-	-	-	-	●
RCGX191000T20015	RCGX191000T20015	19,05	3/4	-	-	-	-	-	-	-	●
RCGX251200T20015	RCGV88T8015	25,40	1	-	-	-	-	-	-	-	●





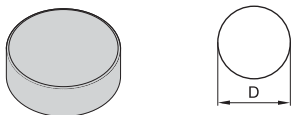
■ RCGW-T

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
RCGW1204M0T01020	RCGW1204M0T01020	12,00	—	—	—	—	—	—	—	—	●



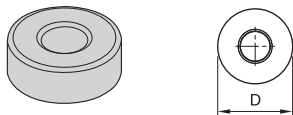
■ RCGX

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
RCGX0907-001	RCGX0907-001	9,53	3/8	—	—	—	—	—	—	—	●



■ RNGN/RNG

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
RNGN090300T02020	RNG32T0820	9,53	3/8	—	—	—	—	—	—	—	●
RNGN090400T02020	RNG33T0820	9,53	3/8	—	—	—	—	—	—	—	●
RNGN120300T02020	RNG42T0820	12,70	1/2	—	—	—	—	—	—	—	●
RNGN120400T02020	RNG43T0820	12,70	1/2	—	—	—	—	—	—	—	●
RNGN120700T02020	RNG45T0820	12,70	1/2	—	—	—	—	—	—	—	●
RNGN120700T10015	RNG45T4015	12,70	1/2	—	—	—	—	—	—	—	●
RNGN120700T20015	RNG45T8015	12,70	1/2	—	—	—	—	—	—	—	●
RNGN190700T02020	RNG65T0820	19,05	3/4	—	—	—	—	—	—	—	●



■ RNGA

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
RNGA090300T02020	RNGA32T0820	9,53	3/8	—	—	—	—	—	—	—	●
RNGA120400T02020	RNGA43T0820	12,70	1/2	—	—	—	—	—	—	—	●

NOTE: For toolholders and boring bars, see pages B98–B99.

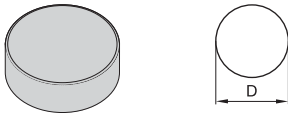
P	●						
M	●						
K	●						
N	●						
S	●						
H	●	●	●	●	●	●	●

● first choice
○ alternate choice



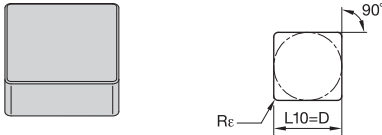
P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●

● first choice
○ alternate choice



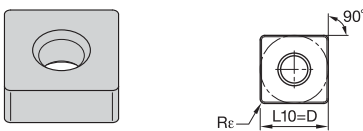
■ RNGN-C/RNG-C

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
RNGN090300S02015C	RNG32S0815C	9,53	3/8	—	—	—	—	—	—	●	—



■ SNGN/SNG

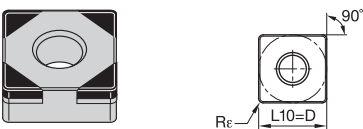
ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
SNGN090308T02020	SNG322T0820	9,53	3/8	9,53	.375	0,8	1/32	—	—	—	●
SNGN120704T02020	SNG451T0820	12,70	1/2	12,70	.500	0,4	1/64	—	—	—	●
SNGN120408T00520	SNG432T0220	12,70	1/2	12,70	.500	0,8	1/32	—	—	—	●
SNGN120408T02020	SNG432T0820	12,70	1/2	12,70	.500	0,8	1/32	—	—	—	●
SNGN120708T02020	SNG452T0820	12,70	1/2	12,70	.500	0,8	1/32	—	—	—	●
SNGN120412T02020	SNG433T0820	12,70	1/2	12,70	.500	1,2	3/64	—	—	—	●
SNGN120712T02020	SNG453T0820	12,70	1/2	12,70	.500	1,2	3/64	—	—	—	●
SNGN120416T02020	SNG434T0820	12,70	1/2	12,70	.500	1,6	1/16	—	—	—	●
SNGN120716T02020	SNG454T0820	12,70	1/2	12,70	.500	1,6	1/16	—	—	—	●
SNGN120720T02020	SNG455T0820	12,70	1/2	12,70	.500	2,0	5/64	—	—	—	●
SNGN120720T10015	SNG455T4015	12,70	1/2	12,70	.500	2,0	5/64	—	—	—	●
SNGN120720T20015	SNG455T8015	12,70	1/2	12,70	.500	2,0	5/64	—	—	—	●
SNGN150716T02020	SNG554T0820	15,88	5/8	15,88	.625	1,6	1/16	—	—	—	●



■ SNGA

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
SNGA120408T02020	SNGA432T0820	12,70	1/2	12,70	.500	0,8	1/32	—	—	—	●
SNGA120412T02020	SNGA433T0820	12,70	1/2	12,70	.500	1,2	3/64	—	—	—	●

NOTE: For toolholders and boring bars, see pages B109–B120.

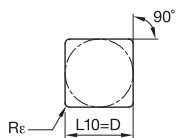
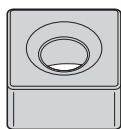


■ SNGA-MT

ISO catalog number	ANSI catalog number	D		L10		R _ε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
SNGA120408S01015MT	SNGA432S0415MT	12,70	1/2	12,70	.500	0,8	1/32	●	—	—	—
SNGA120408S01225MT	SNGA432S0525MT	12,70	1/2	12,70	.500	0,8	1/32	●	●	—	—
SNGA120412S01225MT	SNGA433S0525MT	12,70	1/2	12,70	.500	1,2	3/64	●	●	—	—

NOTE: For toolholders and boring bars, see pages B109–B120.

ISO/ANSI Turning



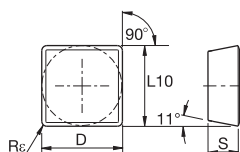
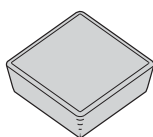
● first choice
○ alternate choice

P	●	○	○	○
M	○	○	○	○
K	○	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○

■ SNGX

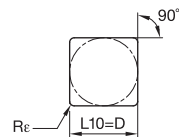
ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
SNGX120712T02020	SNGX453T0820	12,70	1/2	12,70	.500	1,2	3/64	-	-	-	●

NOTE: For toolholders and boring bars, see pages B109–B120.



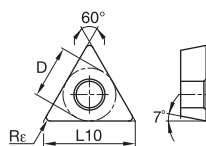
■ SPG-T

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
SPGN090308T01020	SPG322T0420	9,53	3/8	9,53	.375	0,8	1/32	-	-	-	●
SPGN120308T01020	SPG422T0420	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	●



■ SPU-T

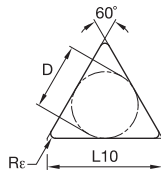
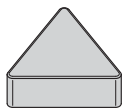
ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
SPUN120308T00520	SPU422T0220	12,70	1/2	12,70	.500	0,8	1/32	-	-	-	●



■ TCGW-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TCGW090202S01015MT	TCGW181505S0415MT	5,56	7/32	9,62	.379	0,2	.008	-	●	-	-
TCGW090204S01015 MT	TCGW18151S0415MT	5,56	7/32	9,62	.379	0,4	1/64	-	●	-	-
TCGW110202S01015MT	TCGW21505S0415MT	6,35	1/4	11,00	.433	0,2	.008	●	●	-	-
TCGW110204S01015MT	TCGW2151S0415MT	6,35	1/4	11,00	.433	0,4	1/64	●	●	-	-
TCGW110204S01225MT	TCGW2151S0525MT	6,35	1/4	11,00	.433	0,4	1/64	●	-	-	-
TCGW110208S01015MT	TCGW2152S0415MT	6,35	1/4	11,00	.433	0,8	1/32	●	●	-	-
TCGW110208S01225MT	TCGW2152S0525MT	6,35	1/4	11,00	.433	0,8	1/32	●	-	-	-

NOTE: For toolholders and boring bars, see pages B259–B262.



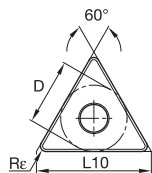
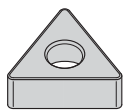
● first choice
○ alternate choice

P	●	○	○	○
M	○	○	○	○
K	○	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○



■ TNGN/TNG

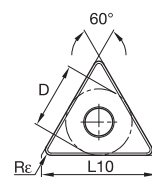
ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TNGN110308T02020	TNG222T0820	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	●
TNGN160404T02020	TNG331T0820	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	●
TNGN160408T02020	TNG332T0820	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●
TNGN160708T02020	TNG352T0820	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●
TNGN160412T02020	TNG333T0820	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	●
TNGN160712T02020	TNG353T0820	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	●
TNGN160416T02020	TNG334T0820	9,53	3/8	16,50	.650	1,6	1/16	-	-	-	●
TNGN220408T02020	TNG432T0820	12,70	1/2	22,00	.866	0,8	1/32	-	-	-	●



■ TNGA

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TNGA160408T02020	TNGA332T0820	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●
TNGA160412T02020	TNGA333T0820	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	●
TNGA220408T02020	TNGA432T0820	12,70	1/2	22,00	.866	0,8	1/32	-	-	-	●
TNGA220412T02020	TNGA433T0820	12,70	1/2	22,00	.866	1,2	3/64	-	-	-	●

NOTE: For toolholders and boring bars, see pages B131–B143.

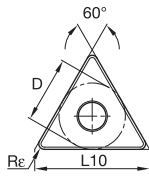
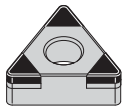


■ TNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TNGA160404S01015MT	TNGA331S0415MT	9,53	3/8	16,50	.650	0,4	1/64	●	●	-	-
TNGA160404S01225MT	TNGA331S0525MT	9,53	3/8	16,50	.650	0,4	1/64	-	●	-	-
TNGA160404S01735MT	TNGA331S0735MT	9,53	3/8	16,50	.650	0,4	1/64	-	●	-	-
TNGA160408S01015MT	TNGA332S0415MT	9,53	3/8	16,50	.650	0,8	1/32	●	●	-	-
TNGA160408S01225MT	TNGA332S0525MT	9,53	3/8	16,50	.650	0,8	1/32	●	●	-	-
TNGA160408S01735MT	TNGA332S0735MT	9,53	3/8	16,50	.650	0,8	1/32	●	●	-	-
TNGA160412S01015MT	TNGA333S0415MT	9,53	3/8	16,50	.650	1,2	3/64	●	●	-	-
TNGA160412S01225MT	TNGA333S0525MT	9,53	3/8	16,50	.650	1,2	3/64	●	●	-	-
TNGA160412S01735MT	TNGA333S0735MT	9,53	3/8	16,50	.650	1,2	3/64	●	●	-	-

NOTE: For toolholders and boring bars, see pages B131–B143.

ISO/ANSI Turning



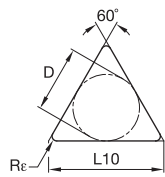
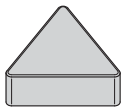
● first choice
○ alternate choice

P	●					●
M	●					
K	●					●
N	●					
S	●					●
H	●	●	●	●	●	●

■ TNGM • Medium Machining

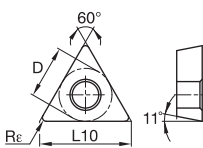
ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TNGM160408S01325MTCB1	TNGM332S0525MTCB1	9,53	3/8	16,50	.650	0,8	1/32	-	●	-	-

NOTE: For toolholders and boring bars, see pages B131–B143.



■ TPGN/TPG

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TPGN110304T01020	TPG221T0420	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	●
TPGN110308T01020	TPG222T0420	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	●
TPGN110312T01020	TPG223T0420	6,35	1/4	11,00	.433	1,2	3/64	-	-	-	●
TPGN160304T00520	TPG321T0220	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	●
TPGN160304T01020	TPG321T0420	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	●
TPGN160308T00520	TPG322T0220	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●
TPGN160308T01020	TPG322T0420	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●
TPGN160312T01020	TPG323T0420	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	●



■ TPGW-C

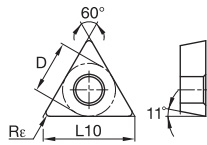
ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TPGW110208S01015C	TPGW2152S0415C	6,35	1/4	11,00	.433	0,8	1/32	-	-	●	-

NOTE: For toolholders and boring bars, see pages B270–B279.

P	●			●
M	●			●
K	●			●
N	●			●
S	●			●
H	●	●	●	●

ISO/ANSI Turning

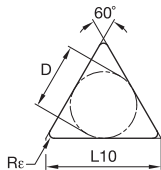
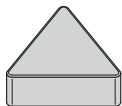
- first choice
- alternate choice



■ TPGW-MT

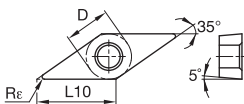
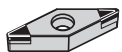
ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TPGW110308S01225MT	TPGW222S0525MT	6,35	1/4	10,96	.432	0,8	1/32	●	-	-	-
TPGW110202S01015MT	TPGW2150S0415MT	6,35	1/4	11,00	.433	0,2	.008	-	●	-	-
TPGW110304S01015MT	TPGW221S0415MT	6,35	1/4	11,00	.433	0,4	1/64	●	-	-	-
TPGW110304S01225MT	TPGW221S0525MT	6,35	1/4	11,00	.433	0,4	1/64	●	-	-	-
TPGW110204S01015MT	TPGW2151S0415MT	6,35	1/4	11,00	.433	0,4	1/64	-	●	-	-
TPGW110208S01015MT	TPGW2152S0415MT	6,35	1/4	11,00	.433	0,8	1/32	-	●	-	-
TPGW16T304S01015MT	TPGW3251S0415MT	9,53	3/8	16,50	.650	0,4	1/64	-	●	-	-
TPGW160404S01015MT	TPGW331S0415MT	9,53	3/8	16,50	.650	0,4	1/64	●	-	-	-
TPGW160404S01225MT	TPGW331S0525MT	9,53	3/8	16,50	.650	0,4	1/64	●	-	-	-
TPGW16T308S01015MT	TPGW3252S0415MT	9,53	3/8	16,50	.650	0,8	1/32	-	●	-	-
TPGW16T308S01225MT	TPGW3252S0525MT	9,53	3/8	16,50	.650	0,8	1/32	-	●	-	-
TPGW160408S01015MT	TPGW332S0415MT	9,53	3/8	16,50	.650	0,8	1/32	●	-	-	-
TPGW160408S01225MT	TPGW332S0525MT	9,53	3/8	16,50	.650	0,8	1/32	●	-	-	-

NOTE: For toolholders and boring bars, see pages B270–B279.



■ TPU-T

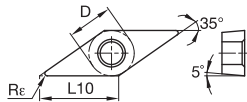
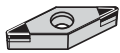
ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
TPUN110304T00520	TPU221T0220	6,35	1/4	11,00	.433	0,4	1/64	-	-	-	●
TPUN110308T00520	TPU222T0220	6,35	1/4	11,00	.433	0,8	1/32	-	-	-	●
TPUN160304T00520	TPU321T0220	9,53	3/8	16,50	.650	0,4	1/64	-	-	-	●
TPUN160308T00520	TPU322T0220	9,53	3/8	16,50	.650	0,8	1/32	-	-	-	●
TPUN160312T00520	TPU323T0220	9,53	3/8	16,50	.650	1,2	3/64	-	-	-	●



■ VBGW-MT

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
VBGW110304S01015MT	VBGW221S0415MT	6,35	1/4	11,07	.436	0,4	1/64	●	●	-	-
VBGW110304S01225MT	VBGW221S0525MT	6,35	1/4	11,07	.436	0,4	1/64	-	●	-	-
VBGW110308S01015MT	VBGW222S0415MT	6,35	1/4	11,07	.436	0,8	1/32	●	-	-	-
VBGW110308S01225MT	VBGW222S0525MT	6,35	1/4	11,07	.436	0,8	1/32	-	●	-	-
VBGW160404S01015MT	VBGW331S0415MT	9,53	3/8	16,61	.654	0,4	1/64	●	-	●	-
VBGW160408S01015MT	VBGW332S0415MT	9,53	3/8	16,61	.654	0,8	1/32	●	●	●	-
VBGW160412S01015MT	VBGW333S0415MT	9,53	3/8	16,61	.654	1,2	3/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B282–B285.



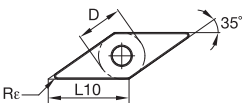
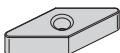
● first choice
○ alternate choice

P	●	○	○	○
M	○	○	○	○
K	○	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○

■ VCGW • Light Machining

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
VCGW160404S01015MT	VCGW331S0415MT	9,53	3/8	16,61	.654	0,4	1/64	-	●	-	-
VCGW160404S01225MT	VCGW331S0525MT	9,53	3/8	16,61	.654	0,4	1/64	-	●	-	-
VCGW160408S01015MT	VCGW332S0415MT	9,53	3/8	16,61	.654	0,8	1/32	-	●	-	-
VCGW160408S01225MT	VCGW332S0525MT	9,53	3/8	16,61	.654	0,8	1/32	-	●	-	-

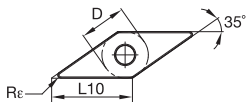
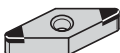
NOTE: For toolholders and boring bars, see pages B270–B279.



■ VNGA

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
VNGA160404T02020	VNGA331T0820	9,53	3/8	16,61	.654	0,4	1/64	-	-	-	●
VNGA160408T02020	VNGA332T0820	9,53	3/8	16,61	.654	0,8	1/32	-	-	-	●
VNGA160412T02020	VNGA333T0820	9,53	3/8	16,61	.654	1,2	3/64	-	-	-	●
VNGA220408T02020	VNGA432T0820	12,70	1/2	22,14	.872	0,8	1/32	-	-	-	●

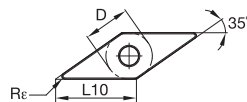
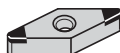
NOTE: For toolholders and boring bars, see pages B150–B155.



■ VNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
VNGA160404S01015MT	VNGA331S0415MT	9,53	3/8	16,61	.654	0,4	1/64	●	●	-	-
VNGA160404S01025MT	VNGA331S0425MT	9,53	3/8	16,61	.654	0,4	1/64	-	-	●	-
VNGA160404S01225MT	VNGA331S0525MT	9,53	3/8	16,61	.654	0,4	1/64	●	●	-	-
VNGA160404S01735MT	VNGA331S0735MT	9,53	3/8	16,61	.654	0,4	1/64	-	●	-	-
VNGA160408S01015MT	VNGA332S0415MT	9,53	3/8	16,61	.654	0,8	1/32	●	●	-	-
VNGA160408S01025MT	VNGA332S0425MT	9,53	3/8	16,61	.654	0,8	1/32	-	-	●	-
VNGA160408S01225MT	VNGA332S0525MT	9,53	3/8	16,61	.654	0,8	1/32	●	●	-	-
VNGA160408S01735MT	VNGA332S0735MT	9,53	3/8	16,61	.654	0,8	1/32	-	●	-	-
VNGA160412S01225MT	VNGA333S0525MT	9,53	3/8	16,61	.654	1,2	3/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B150–B155.



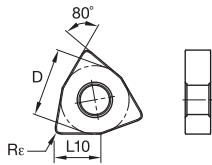
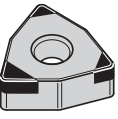
■ VNGM

ISO catalog number	ANSI catalog number	D		L10		Re		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
VNGM160408S01325MTCB1	VNGM332S0525MTCB1	9,53	3/8	16,61	.654	0,8	1/32	-	●	-	-
VNGM160412S01325MTCB1	VNGM333S0525MTCB1	9,53	3/8	16,61	.654	1,2	3/64	-	●	-	-

NOTE: For toolholders and boring bars, see pages B150–B155.

P	●			●
M	●			●
K	●			●
N	●			●
S	●			●
H	●	●	●	●

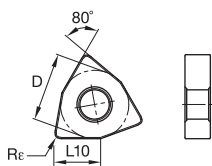
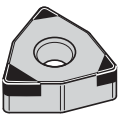
- first choice
- alternate choice



■ WNGA

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
WNGA080408S01015FWMT	WNGA432S0415FWMT	12,70	1/2	8,69	.342	0,8	1/32	-	●	-	-

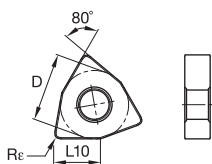
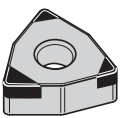
NOTE: For toolholders and boring bars, see page B163.



■ WNGA-FWMT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
WNGA080408S01015FWHBMT	WNGA432S0415FWHBMT	12,70	1/2	8,69	.342	0,8	1/32	-	●	-	-

NOTE: For toolholders and boring bars, see page B163.



■ WNGA-MT

ISO catalog number	ANSI catalog number	D		L10		Rε		KBH10	KBH20	KB5630	KY1615
		mm	in	mm	in	mm	in				
WNGA080404S01015MT	WNGA431S0415MT	12,70	1/2	8,69	.342	0,4	1/64	-	●	-	-
WNGA80408S01015MT	WNGA432S0415MT	12,70	1/2	8,69	.342	0,8	1/32	●	-	-	-
WNGA080408S01015MT	WNGA432S0415MT	12,70	1/2	8,69	.342	0,8	1/32	-	●	-	-
WNGA80408S01225MT	WNGA432S0525MT	12,70	1/2	8,69	.342	0,8	1/32	●	-	-	-
WNGA080408S01225MT	WNGA432S0525MT	12,70	1/2	8,69	.342	0,8	1/32	-	●	-	-
WNGA080408S01735MT	WNGA432S0735MT	12,70	1/2	8,69	.342	0,8	1/32	-	●	-	-

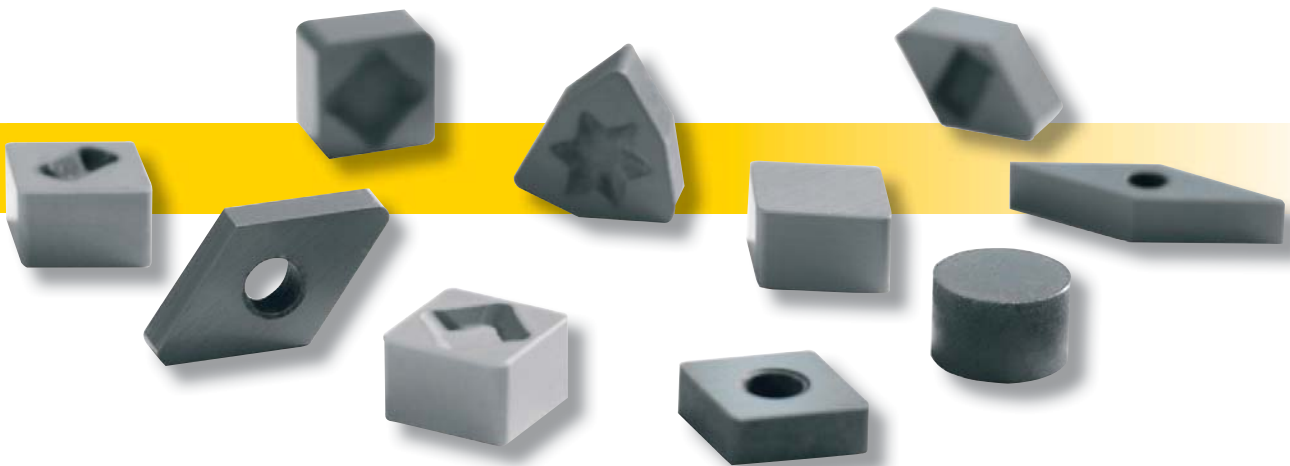
NOTE: For toolholders and boring bars, see page B163.



➤ Machining High-Temp Alloys with **Ceramics** and **PcBN**

Kennametal advanced materials, utilizing Beyond™ technology, offer greater wear resistance and toughness, depending on the job.

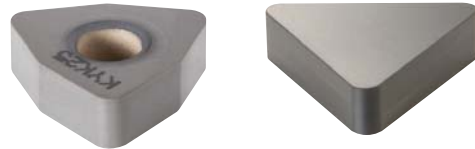
KYS ceramic inserts are the first choice for high-speed applications in high-temp alloys. The multilayer coating offers enhanced chemical wear resistance versus uncoated grades. A superior SiAlON ceramic substrate provides excellent depth of cut notching resistance versus whisker-reinforced ceramics.



Ceramic Inserts

KYS25™ Grade

- Excellent surface finish, lower cutting forces, and higher speeds.
- Advanced CVD coating provides excellent chemical and depth-of-cut notch resistance.



KYS30™ Grade

- Long, consistent tool life.
- Excellent toughness and depth-of-cut notch resistance.
- Performs in a wide variety of machining conditions, including interrupted cuts and applications involving scale.

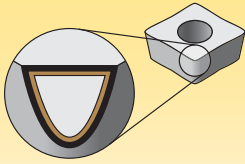


Tipped PcBN Inserts

KB1630 Grade

- Long, consistent tool life.
- Excellent toughness and depth-of-cut notch resistance.
- Performs in a wide variety of machining conditions, including interrupted cuts and applications involving scale.





Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Coating		Grade Description		05	10	15	20	25	30	35	40	45
Ceramic Grades	KYS25	Composition: SiAlON ceramic with a multilayered alumina-TiCN CVD coating. Application: Complements the KYS30™ grade when machining high-temp and nickel-based alloys and cast materials with high Brinell hardness. This advanced CVD coating provides excellent chemical and depth-of-cut notch resistance compared to whisker ceramics.										
PcBN – Polycrystalline Cubic Boron Nitride Grades	KB1630	Composition: An uncoated high content PcBN grade. PcBN tips are brazed onto a carbide insert. Application: Designed for roughing to finishing in interrupted cuts on hardened steels (>45 HRC). It can also be applied on gray cast iron, chilled irons, high chrome alloyed steels, high temp alloys and sintered powder metals. The tipped PcBN inserts are available in a wide range of insert styles, including Top Notch™ and Screw-On geometries.										

NOVO KNOWS SEARCH

Searching for a tool has been enhanced by Advise and Select functions from NOVO™ applications — saving you time and money.

ADVISE

Uses a rules-based approach to provide cutting tool recommendations:

- Define Machining Feature (face milling, slotting, blind hole, etc.)
- Apply Constraint Requirements (geometric, material, tolerance, etc.)
- Set Machining Sequence (single or multi-step operations, rough then finish, etc.)
- Receive Ranked Results

SELECT

A method of selecting cutting tools from a tree structure via a hierarchy or parametric search:

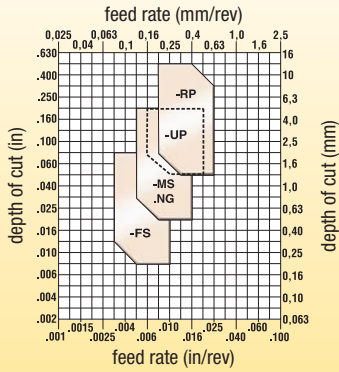
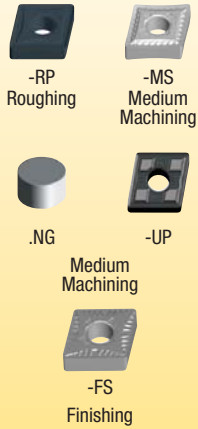
- If you know which product you are looking for, a quick search can be performed by just the catalog number or product description.
- Smart filters significantly reduce the amount of potential tooling solutions.
- After the tool is selected, NOVO also provides cutting and adaptive item options that fit with your solution.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximizes every shift. kennametal.com/novo

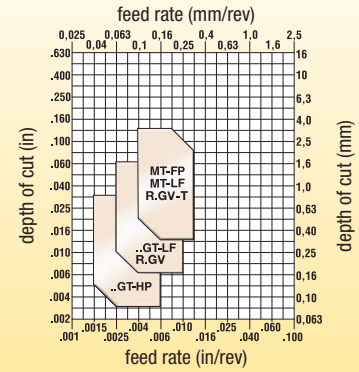
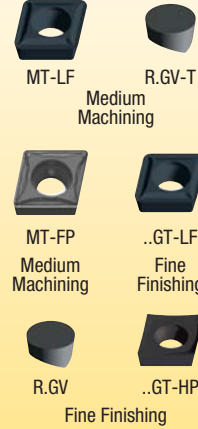
Step 1 • Select the insert geometry



Negative Inserts



Positive Inserts



Step 2 • Select the grade

		Negative Insert Geometry
		.NG
cutting condition		
heavily interrupted cut		-
lightly interrupted cut		KYS30/KY1540
varying depth of cut, casting, or forging skin		KYS30/KY1540/KYS25/KY4300
smooth cut, pre-turned surface		KYS25/KY4300
		Positive Insert Geometry
		R.GV-T
cutting condition		
heavily interrupted cut		-
lightly interrupted cut		KYS30/KY1540
varying depth of cut, casting, or forging skin		KYS30/KY1540/KYS25/KY4300
smooth cut, pre-turned surface		KYS25/KY4300

■ Step 3 • Select the cutting speed

Iron-Based, Heat-Resistant Alloys (135–320 HB) (≤34 HRC)

speed — m/min (SFM)

Starting Conditions

material group	grade	15	45	75	105	140	170	200	230	260	290	310	350	380	m/min	SFM
		(50)	(150)	(250)	(350)	(450)	(550)	(650)	(750)	(850)	(950)	(1050)	(1150)	(1250)		
S1	KB1630	◊												260	850	
	KYS25/KY4300	◊												200	650	
	KYS30/KY1540	◊												170	550	

Cobalt-Based, Heat-Resistant Alloys (150–425 HB) (≤45 HRC)

speed — m/min (SFM)

Starting Conditions

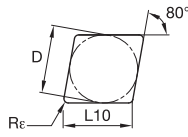
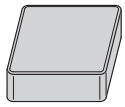
material group	grade	15	45	75	105	140	170	200	230	260	290	310	350	380	m/min	SFM
		(50)	(150)	(250)	(350)	(450)	(550)	(650)	(750)	(850)	(950)	(1050)	(1150)	(1250)		
S2	KB1630	◊												260	850	
	KYS25/KY4300	◊												220	720	
	KYS30/KY1540	◊												185	600	

Nickel-Based, Heat-Resistant Alloys (140–475 HB) (≤48 HRC)

speed — m/min (SFM)

Starting Conditions

material group	grade	15	45	75	105	140	170	200	230	260	290	310	350	380	m/min	SFM
		(50)	(150)	(250)	(350)	(450)	(550)	(650)	(750)	(850)	(950)	(1050)	(1150)	(1250)		
S3	KB1630	◊												260	850	
	KYS25/KY4300	◊												250	820	
	KYS30/KY1540	◊												215	700	

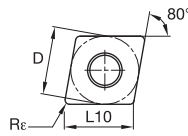
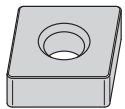


● first choice
○ alternate choice

P				
M				
K				
N				
S	●	●	○	
H	○	●	●	

■ CNGN/CNG

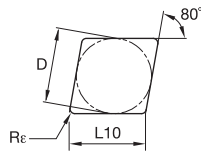
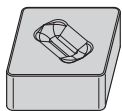
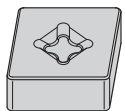
ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
CNGN120416T01020	CNG434T0420	12,70	1/2	12,90	.508	1,6	1/16	●	-	-
CNGN120712T01020	CNG453T0420	12,70	1/2	12,90	.508	1,2	3/64	●	●	-
CNGN120716T01020	CNG454T0420	12,70	1/2	12,90	.508	1,6	1/16	-	●	-



■ CNGA

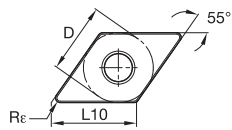
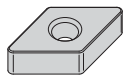
ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
CNGA120408E	CNGA432E	12,70	1/2	12,90	.508	0,8	1/32	●	●	-
CNGA120408T01020	CNGA432T0420	12,70	1/2	12,90	.508	0,8	1/32	●	●	-
CNGA120412T01020	CNGA433T0420	12,70	1/2	12,90	.508	1,2	3/64	●	●	-

NOTE: For toolholders and boring bars, see pages B58–B76.



■ CNGX

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
CNGX120708T01020	CNGX452T0420	12,70	1/2	12,90	.508	0,8	1/32	●	●	-
CNGX120712T01020	CNGX453T0420	12,70	1/2	12,90	.508	1,2	3/64	●	●	-
CNGX120716E	CNGX454E	12,70	1/2	12,90	.508	1,6	1/16	-	●	-



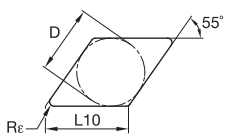
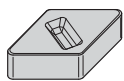
- first choice
- alternate choice

P				
M				
K				
N				
S	●	●	○	
H	○		●	

■ DNGA

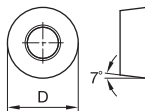
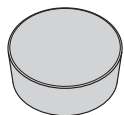
ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
DNGA150408T01020	DNGA432T0420	12,70	1/2	15,50	.610	0,8	1/32	-	●	-
DNGA150412T01020	DNGA433T0420	12,70	1/2	15,50	.610	1,2	3/64	-	●	-

NOTE: For toolholders and boring bars, see pages B87–B96.



■ DNGX

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
DNGX150708T01020	DNGX452T0420	12,70	1/2	15,50	.610	0,8	1/32	●	-	-
DNGX150712T01020	DNGX453T0420	12,70	1/2	15,50	.610	1,2	3/64	●	●	-
DNGX150716T01020	DNGX454T0420	12,70	1/2	15,50	.610	1,6	1/16	-	●	-

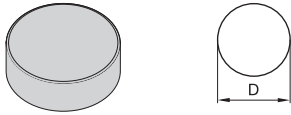


■ RCGX/RCGV

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
RCGX060400E	RCGV23E	6,35	1/4	-	-	-	-	●	●	-
RCGX090700E	RCGV35E	9,53	3/8	-	-	-	-	●	●	-
RCGX090700T00525	RCGV35T0225	9,53	3/8	-	-	-	-	-	●	-
RCGX090700T01020	RCGV35T0420	9,53	3/8	-	-	-	-	●	●	-
RCGX120700E	RCGV45E	12,70	1/2	-	-	-	-	●	●	-
RCGX120700T01020	RCGV45T0420	12,70	1/2	-	-	-	-	●	●	-
RCGX120700T01025	RCGV45T0425	12,70	1/2	-	-	-	-	●	●	-



ISO/ANSI Turning

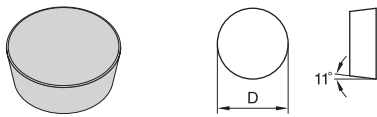


■ RNGN/RNG

● first choice
○ alternate choice

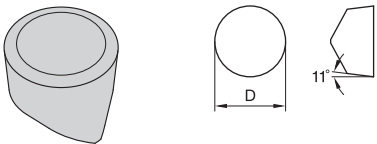
P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	■	■	■	■
S	●	●	○	○
H	○	○	○	○

ISO catalog number	ANSI catalog number	D		L10		R _ε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
RNGN120400T01020	RNG43T0420	12,70	1/2	—	—	—	—	—	●	—
RNGN120700T00525	RNG45T0225	12,70	1/2	—	—	—	—	—	●	—
RNGN120700T01020	RNG45T0420	12,70	1/2	—	—	—	—	—	●	—
RNGN120700T01025	RNG45T0425	12,70	1/2	—	—	—	—	—	●	—
RNGN190700T01020	RNG65T0420	19,05	3/4	—	—	—	—	—	●	—



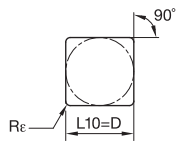
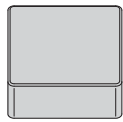
■ RPGN/RPG

ISO catalog number	ANSI catalog number	D		L10		R _ε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
RPGN060200E	RPG2150E	6,35	1/4	—	—	—	—	—	●	—
RPGN090300E	RPG32E	9,53	3/8	—	—	—	—	—	●	—
RPGN090300T01020	RPG32T0420	9,53	3/8	—	—	—	—	—	●	—
RPGN120400E	RPG43E	12,70	1/2	—	—	—	—	—	●	—
RPGN120400T01020	RPG43T0420	12,70	1/2	—	—	—	—	—	●	—



■ RPGX/RPGV

ISO catalog number	ANSI catalog number	D		L10		R _ε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
RPGX090700E	RPGV35E	9,53	3/8	—	—	—	—	●	●	—
RPGX090700T01020	RPGV35T0420	9,53	3/8	—	—	—	—	—	●	—
RPGX120700E	RPGV45E	12,70	1/2	—	—	—	—	●	●	—
RPGX120700T01020	RPGV45T0420	12,70	1/2	—	—	—	—	—	●	—

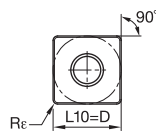
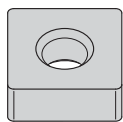


- first choice
- alternate choice

P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	■	■	■	■
S	●	●	○	○
H	○	○	○	○

■ SNGN/SNG

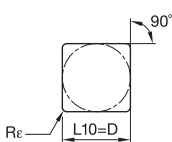
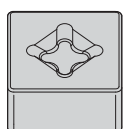
ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
SNGN120408T01020	SNG432T0420	12,70	1/2	12,70	.500	0,8	1/32	-	●	-
SNGN120412T01020	SNG433T0420	12,70	1/2	12,70	.500	1,2	3/64	-	●	-
SNGN120416T01020	SNG434T0420	12,70	1/2	12,70	.500	1,6	1/16	●	●	-
SNGN120716T01020	SNG454T0420	12,70	1/2	12,70	.500	1,6	1/16	-	●	-
SNGN190616E	SNG644E	19,05	3/4	19,05	.750	1,6	1/16	●	●	-
SNGN190616T01020	SNG644T0420	19,05	3/4	19,05	.750	1,6	1/16	-	●	-
SNGN190724E	SNG656E	19,05	3/4	19,05	.750	2,4	3/32	-	●	-



■ SNGA

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
SNGA120412T01020	SNGA433T0420	12,70	1/2	12,70	.500	1,2	3/64	●	●	-

NOTE: For toolholders and boring bars, see pages B109–B120.

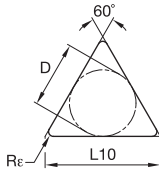
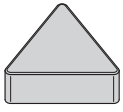


■ SNGX

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
SNGX120712T01020	SNGX453T0420	12,70	1/2	12,70	.500	1,2	3/64	-	●	-
SNGX120716T01020	SNGX454T0420	12,70	1/2	12,70	.500	1,6	1/16	-	●	-



ISO/ANSI Turning

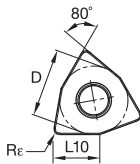
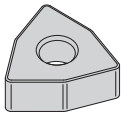


- first choice
- alternate choice

P			
M			
K			
N			
S	●	●	○
H	○		●

■ TNGN/TNG

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
TNGN220412T01020	TNG433T0420	12,70	1/2	22,00	.866	1,2	3/64	●	-	-
TNGN220416T01020	TNG434T0420	12,70	1/2	22,00	.866	1,6	1/16	●	-	-



■ WNGA

ISO catalog number	ANSI catalog number	D		L10		Rε		KYS25	KYS30	KB1630
		mm	in	mm	in	mm	in			
WNGA080408T01020	WNGA432T0420	12,70	1/2	8,69	.342	0,8	1/32	-	●	-
WNGA080416T01020	WNGA434T0420	12,70	1/2	8,69	.342	1,6	1/16	-	●	-

NOTE: For toolholders and boring bars, see page B163.

➤ Polycrystalline Diamond Inserts



Polycrystalline Diamond (PCD) Inserts

- Use for machining high-temperature alloys and in targeted machining of non-ferrous materials.
- Significant hardness advantage compared to carbide inserts.
- Increased productivity through higher speeds and longer tool life.
- Best used in processing materials that cannot be machined with conventional tooling.

KD1400™ Grade

- Ideal for general-purpose turning of non-ferrous materials.
- Use on low to medium silicon-content aluminum alloys, non-metallics, copper, and brass- and zinc-based alloys.
- Excellent mechanical shock resistance.
- Use in a wide range of continuous to interrupted cuts where superior surface finished is needed.



KD1405™ Grade

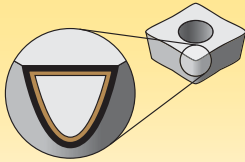
- The most abrasion-resistant tool material for non-ferrous and non-metallic materials from Kennametal.
- Use when abrasion resistance is needed in the application.
- CVD diamond grade.



KD1425™ Grade

- Engineered for extreme abrasion resistance.
- Good edge strength in demanding applications.
- Ideal choice for high-silicon aluminum alloys, bi-metallic materials, carbon-fiber reinforced plastics, and other abrasive non-metallic materials.





Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

PCD — Polycrystalline Diamond Grades

Coating		Grade Description		05	10	15	20	25	30	35	40	45	
KD1400		<p>Composition: An ultra-fine-grain, polycrystalline diamond (PCD) tip brazed onto a carbide substrate.</p> <p>Application: Designed for general-purpose turning of primarily non-ferrous materials. It can be applied over a wide range of continuous to interrupted cuts where superior surface finish is needed. Use on low to medium silicon-content aluminum alloys, non-metallics, copper, and brass- and zinc-based alloys. The ultra-fine-grain diamond particle size enables superior surface finishes while ensuring the best mechanical shock resistance of any PCD cutting tool.</p>											
	—												
KD1405		<p>Composition: A pure CVD-deposited diamond-sheet tool brazed directly to a carbide substrate.</p> <p>Application: KD1405™ is the best Kennametal abrasion-resistant tool material for non-ferrous and non-metallic materials. Best applied when abrasion resistance is the desired benefit.</p>											
	—												
KD1425		<p>Composition: A multimodal PCD grade with a range of grain sizes brazed onto a carbide substrate.</p> <p>Application: Engineered for extreme abrasion resistance, combined with good edge strength for demanding applications. An ideal choice for high-silicon aluminum alloys, bi-metallic (AL/GC) materials, MMC, carbon-fiber reinforced plastics, and other abrasive non-metallic materials.</p>											
	—												

Beyond™ PVD Grades



Beyond™ advanced PVD coatings are well suited to resist high temperatures associated with machining tough alloys. These coatings offer increased tool life and a boost in productivity to the general engineering, transportation, aerospace, energy, and earthworks markets. Use the strength of Beyond PVD coatings and the broad product offering to perform turning, grooving, and cut-off operations in a wide array of materials and applications. Beyond PVD coatings help to maintain consistent chip control and minimize insert edge wear.



KCU10™ Grade

- PVD-coated grade with excellent wear resistance. Finishing to medium applications.
- Use in all materials, especially stainless steels and high-temp alloys.

KCU25™ Grade

- PVD-coated grade with superior edge toughness and excellent wear resistance. Medium to roughing applications.
- Use in all materials.

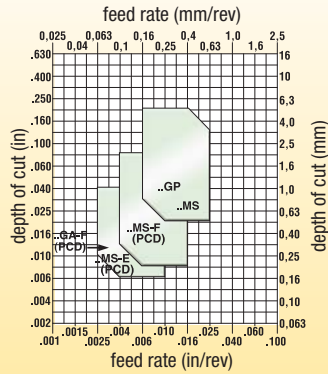
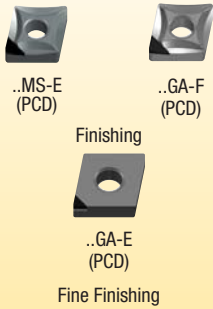
Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.



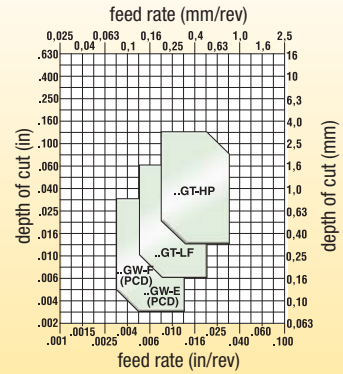
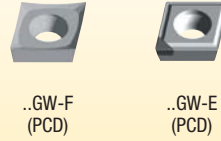
kennametal.com

Step 1 • Select the insert geometry

Negative Inserts



Positive Inserts



Step 2 • Select the grade

cutting condition		Negative Insert Geometry			Positive Insert Geometry	
		..GA-E (PCD)	..MS-E (PCD)	..GA-F (PCD)	..GW-E (PCD)	..GW-F (PCD)
heavily interrupted cut		-	-	KD1400	-	KD1400
lightly interrupted cut		KD1405	KD1405	KD1400	KD1405	KD1400
varying depth of cut, casting, or forging skin		KD1405	KD1405	KD1425	KD1405	KD1425
smooth cut, pre-turned surface		KD1405	KD1405	KD1425	KD1405	KD1425

Step 3 • Selecting the cutting speed

Low-Silicon Aluminum Alloys

(hypoeutectic <12.2% Si) and Magnesium Alloys

material group	grade	speed — m/min (SFM)										Starting Conditions	
		250 (800)	500 (1600)	750 (2400)	1000 (3200)	1250 (4000)	1500 (4800)	1750 (5600)	2000 (6400)	2250 (7200)	2500 (8000)	m/min	SFM
N1	KD1400	◊										765	2500

High-Silicon Aluminum Alloys

(hypereutectic >12.2% Si) and Magnesium Alloys

material group	grade	speed — m/min (SFM)				Starting Conditions	
		250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N3	KD1405	◊				550	1800
	KD1425	◊				765	2500

■ Additional cutting speed recommendations for miscellaneous workpiece materials

Copper-, Brass-, Zinc-Based on a Machinability Index Range of 70–100 speed — m/min (SFM) Starting Conditions ◊

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N4	KD1400/KD1405	◊				520	1700
	KD1425	◊				500	1600

Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass, and Glass speed — m/min (SFM) Starting Conditions ◊

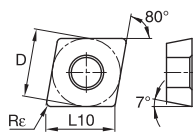
material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N5	KD1400/KD1405	◊				400	1300
	KD1425	◊				365	1200

**Carbon and Graphite Composites:
Brush Alloys, Kevlar, and Graphite (280–400 HB) (30–43 HRC)** speed — m/min (SFM) Starting Conditions ◊

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N6	KD1400/KD1405	◊				760	2500

MMCs (Aluminum-Based Metal Matrix Composites) speed — m/min (SFM) Starting Conditions ◊

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	m/min	SFM
N7	KD1405	◊				460	1500
	KD1400	◊				365	1200



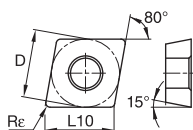
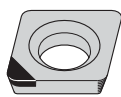
● first choice
○ alternate choice

P	■	■	■
M	■	■	■
K	■	■	■
N	●	○	●
S	■	■	■
H	■	■	■

■ CCGW-FST

ISO catalog number	ANSI catalog number	D		L10		Re		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CCGW060204FST	CCGW2151FST	6,35	1/4	6,45	.254	0,4	1/64	●	-	●
CCGW09T304FST	CCGW3251FST	9,53	3/8	9,67	.381	0,4	1/64	●	-	●
CCGW09T308FST	CCGW3252FST	9,53	3/8	9,67	.381	0,8	1/32	●	-	●

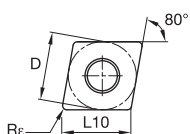
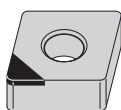
NOTE: For toolholders and boring bars, see pages B193–B198.



■ CDHB-FST

ISO catalog number	ANSI catalog number	D		L10		Re		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CDHBS4T002FST	CDHB120605FST	3,97	.1562	4,03	.159	0,2	.007	●	-	●
CDHBS4T0X0FST	CDHB1206X0FST	3,97	5/32	4,03	.159	0,1	.002	●	-	-

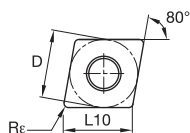
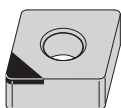
NOTE: For toolholders and boring bars, see pages B200–B204.



■ CNGA

ISO catalog number	ANSI catalog number	D		L10		Re		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CNGA120404E	CNGA431E	12,70	1/2	12,90	.508	0,4	1/64	-	●	-
CNGA120408E	CNGA432E	12,70	1/2	12,90	.508	0,8	1/32	-	●	-

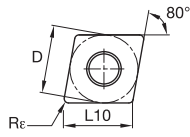
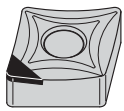
NOTE: For toolholders and boring bars, see pages B58–B76.



■ CNGA-FST

ISO catalog number	ANSI catalog number	D		L10		Re		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CNGA120404FST	CNGA431FST	12,70	1/2	12,90	.508	0,4	1/64	●	-	●
CNGA120408FST	CNGA432FST	12,70	1/2	12,90	.508	0,8	1/32	●	-	●

NOTE: For toolholders and boring bars, see pages B58–B76.



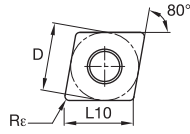
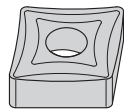
- first choice
- alternate choice

P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	●	○	○	○
S	○	○	○	○
H	■	■	■	■

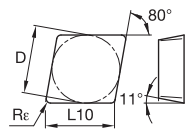
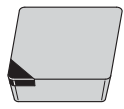
ISO/ANSI Turning

■ CNMS-E

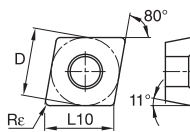
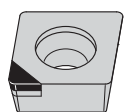
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CNMS120408E	CNMS432E	12,70	1/2	12,90	.508	0,8	1/32	-	●	-


■ CNMS-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CNMS120404FST	CNMS431FST	12,70	1/2	12,90	.508	0,4	1/64	●	-	-
CNMS120408FST	CNMS432FST	12,70	1/2	12,90	.508	0,8	1/32	●	-	●

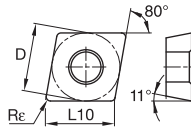
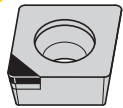

■ CPGN/CPG

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CPGN120304F	CPG421F	12,70	1/2	12,90	.508	0,4	1/64	-	-	●
CPGN120308F	CPG422F	12,70	1/2	12,90	.508	0,8	1/32	-	-	●


■ CPGW-E-F

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CPGW060204E	CPGW2151E	6,35	1/4	6,45	.254	0,4	1/64	-	●	-
CPGW09T304E	CPGW3251E	9,53	3/8	9,67	.381	0,4	1/64	-	●	-

NOTE: For toolholders and boring bars, see pages B209–B223.



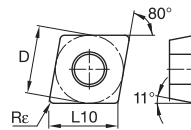
- first choice
- alternate choice

P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	●	○	○	○
S	■	■	■	■
H	■	■	■	■

■ CPGW-FWST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CPGW060204FWST	CPGW2151FWST	6,35	1/4	6,45	.254	0,4	1/64	●	-	●
CPGW09T308FWST	CPGW3252FWST	9,53	3/8	9,67	.381	0,8	1/32	●	-	●
CPGW120408FWST	CPGW432FWST	12,70	1/2	12,90	.508	0,8	1/32	●	-	●

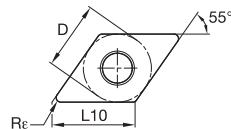
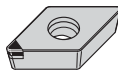
NOTE: For toolholders and boring bars, see pages B209–B223.



■ CPGW-ST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
CPGW060202FST	CPGW21505FST	6,35	1/4	6,45	.254	0,2	.008	●	-	●
CPGW060204FST	CPGW2151FST	6,35	1/4	6,45	.254	0,4	1/64	●	-	●
CPGW060208FST	CPGW2152FST	6,35	1/4	6,45	.254	0,8	1/32	●	-	●
CPGW09T304FST	CPGW3251FST	9,53	3/8	9,67	.381	0,4	1/64	●	-	●
CPGW09T308FST	CPGW3252FST	9,53	3/8	9,67	.381	0,8	1/32	●	-	●

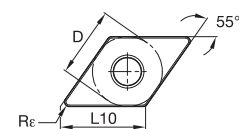
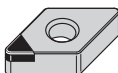
NOTE: For toolholders and boring bars, see pages B209–B223.



■ DCGW-ST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DCGW070204FST	DCGW2151FST	6,35	1/4	7,75	.305	0,4	1/64	●	-	●
DCGW11T304FST	DCGW3251FST	9,53	3/8	11,63	.458	0,4	1/64	●	-	●

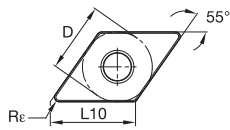
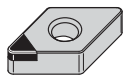
NOTE: For toolholders and boring bars, see pages B227–B230.



■ DNGA

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DNGA150404E	DNGA431E	12,70	1/2	15,50	.610	0,4	1/64	-	●	-

NOTE: For toolholders and boring bars, see pages B87–B96.



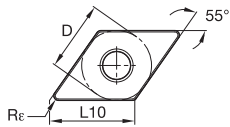
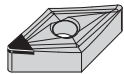
- first choice
- alternate choice

P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	●	○	○	○
S	■	■	■	■
H	■	■	■	■

■ DNGA-FST

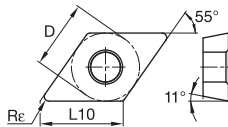
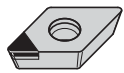
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DNGA150404FST	DNGA431FST	12,70	1/2	15,50	.610	0,4	1/64	●	-	●
DNGA150408FST	DNGA432FST	12,70	1/2	15,50	.610	0,8	1/32	●	-	●

NOTE: For toolholders and boring bars, see pages B87–B96.


■ DNMS-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DNMS150404FST	DNMS431FST	12,70	1/2	15,50	.610	0,4	1/64	●	-	-
DNMS150408FST	DNMS432FST	12,70	1/2	15,50	.610	0,8	1/32	●	-	●

NOTE: For toolholders and boring bars, see pages B87–B96.

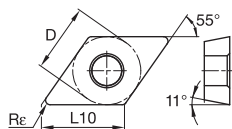

■ DPGW-E

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DPGW11T304E	DPGW3251E	9,53	3/8	11,63	.458	0,4	1/64	-	●	-

NOTE: For toolholders and boring bars, see pages B234–B237.



ISO/ANSI Turning



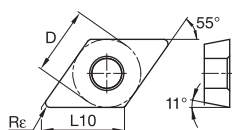
- first choice
- alternate choice

P	■	■	■
M	■	■	■
K	■	■	■
N	●	○	●
S	■	■	■
H	■	■	■

■ DPGW-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DPGW070202FST	DPGW21505FST	6,35	1/4	7,75	.305	0,2	.008	●	-	●
DPGW070204FST	DPGW2151FST	6,35	1/4	7,75	.305	0,4	1/64	●	-	●
DPGW11T304FST	DPGW3251FST	9,53	3/8	11,63	.458	0,4	1/64	●	-	●

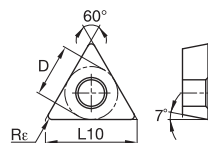
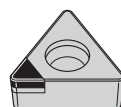
NOTE: For toolholders and boring bars, see pages B234–B237.



■ DPGW-FWST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
DPGW11T304FWST	DPGW3251FWST	9,53	3/8	11,63	.458	0,2	.007	-	-	●

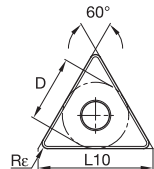
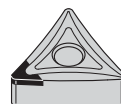
NOTE: For toolholders and boring bars, see pages B234–B237.



■ TCGW-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
TCGW110204FST	TCGW2151FST	6,35	1/4	11,00	.433	0,4	1/64	●	-	●
TCGW16T304FST	TCGW3251FST	9,53	3/8	16,50	.650	0,4	1/64	●	-	-

NOTE: For toolholders and boring bars, see pages B259–B262.



■ TNMS-FST

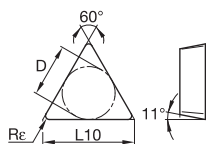
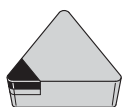
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
TNMS160404FST	TNMS331FST	9,53	3/8	16,50	.650	0,4	1/64	●	-	●
TNMS160408FST	TNMS332FST	9,53	3/8	16,50	.650	0,8	1/32	●	-	●

NOTE: For toolholders and boring bars, see pages B131–B143.

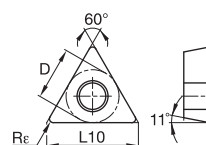
P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	●	○	●	○
S	■	■	■	■
H	■	■	■	■

ISO/ANSI Turning

- first choice
- alternate choice

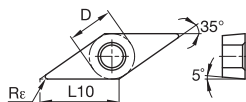
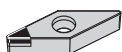

TPGN/TPG

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
TPGN110304F	TPG221F	6,35	1/4	11,00	.433	0,4	1/64	-	-	●
TPGN160304F	TPG321F	9,53	3/8	16,50	.650	0,4	1/64	-	-	●
TPGN160308F	TPG322F	9,53	3/8	16,50	.650	0,8	1/32	-	-	●
TPGN220408F	TPG432F	12,70	1/2	22,00	.866	0,8	1/32	-	-	●


TPGW-FST

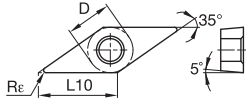
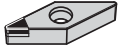
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
TPGW110204FST	TPGW2151FST	6,35	1/4	11,00	.433	0,4	1/64	●	-	●
TPGW110208FST	TPGW2152FST	6,35	1/4	11,00	.433	0,8	1/32	●	-	-
TPGW16T304FST	TPGW3251FST	9,53	3/8	16,50	.650	0,4	1/64	-	-	●
TPGW16T308FST	TPGW3252FST	9,53	3/8	16,50	.650	0,8	1/32	●	-	●

NOTE: For toolholders and boring bars, see pages B270–B279.


VBGW-E

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VBGW160408E	VBGW332E	9,53	3/8	16,61	.654	0,8	1/32	-	●	-

NOTE: For toolholders and boring bars, see pages B282–B285.



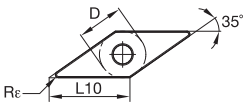
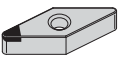
- first choice
- alternate choice

P	■	■	■
M	■	■	■
K	■	■	■
N	●	○	○
S	■	■	■
H	■	■	■

■ VBGW-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VBGW110304FST	VBGW221FST	6,35	1/4	11,07	.436	0,4	1/64	●	-	●
VBGW160404FST	VBGW331FST	9,53	3/8	16,61	.654	0,4	1/64	●	-	●

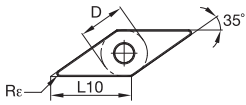
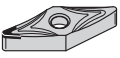
NOTE: For toolholders and boring bars, see pages B282–B285.



■ VNGA-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VNGA160404FST	VNGA331FST	9,53	3/8	16,61	.654	0,4	1/64	●	-	-
VNGA160408FST	VNGA332FST	9,53	3/8	16,61	.654	0,8	1/32	●	-	●

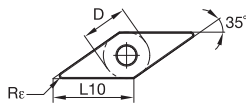
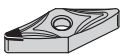
NOTE: For toolholders and boring bars, see pages B150–B155.



■ VNMS-E

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VNMS160404E	VNMS331E	9,53	3/8	16,61	.654	0,4	1/64	-	●	-
VNMS160408E	VNMS332E	9,53	3/8	16,61	.654	0,8	1/32	-	●	-

NOTE: For toolholders and boring bars, see pages B150–B155.



■ VNMS-FST

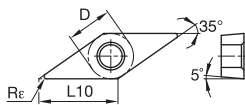
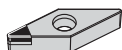
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VNMS160404FST	VNMS331FST	9,53	3/8	16,61	.654	0,4	1/64	●	-	●
VNMS160408FST	VNMS332FST	9,53	3/8	16,61	.654	0,8	1/32	●	-	●

NOTE: For toolholders and boring bars, see pages B150–B155.

P	■	■	■	■
M	■	■	■	■
K	■	■	■	■
N	●	○	○	○
S	■	■	■	■
H	■	■	■	■

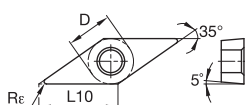
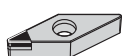


- first choice
- alternate choice


■ VPGN

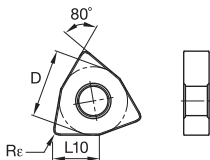
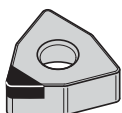
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VCGN160404	VPGN331	9,53	3/8	16,61	.654	0,4	1/64	-	-	●
VCGN160408	VPGN332	9,53	3/8	16,61	.654	0,8	1/32	-	-	●

NOTE: For toolholders and boring bars, see pages B282–B285.


■ VPGR

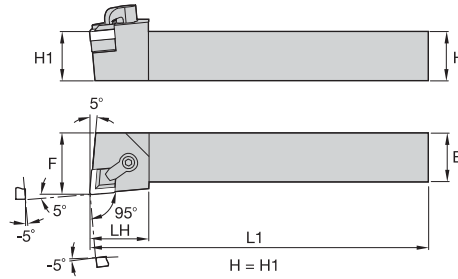
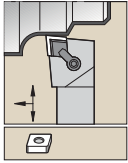
ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
VCGR160404	VPGR331	9,53	3/8	16,61	.654	0,4	1/64	-	-	●
VCGR160408	VPGR332	9,53	3/8	16,61	.654	0,8	1/32	-	-	●
VCGR160412	VPGR333	9,53	3/8	16,61	.654	1,2	3/64	-	-	●

NOTE: For toolholders and boring bars, see pages B282–B285.

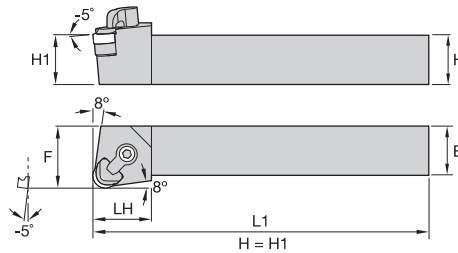
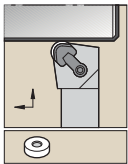

■ WNGA-FST

ISO catalog number	ANSI catalog number	D		L10		Rε		KD1400	KD1405	KD1425
		mm	in	mm	in	mm	in			
WNGA080408FST	WNGA432FST	12,70	1/2	8,69	.342	0,8	1/32	-	-	●

NOTE: For toolholders and boring bars, see page B163.


MCLN-C -5°

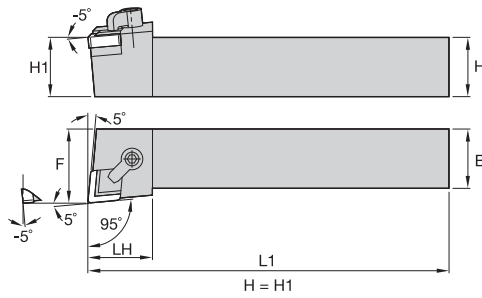
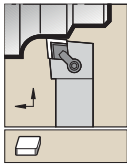

order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096643	MCLNRC164D	1.00	1.00	1.250	6.00	1.25	CN..432	ICSN442	KL46L	3/32	CK21	STC20	1/8


MRGN-C


order number	catalog number	H	B	F	L1	LH	gage insert	shim	lock pin	hex	clamp	clamp screw	hex
right hand													
1096647	MRGNRC164D	1.00	1.00	1.250	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096648	MRGNRC204D	1.25	1.25	1.500	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096646	MRGNRC244D	1.50	1.50	2.000	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
left hand													
1096673	MRGNLC164D	1.00	1.00	1.250	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096674	MRGNLC204D	1.25	1.25	1.500	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8
1096672	MRGNLC244D	1.50	1.50	2.000	6.00	1.25	RN..43	IRSN44	KL46L	3/32	CK21	STC20	1/8



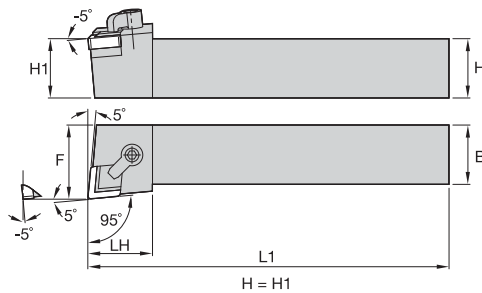
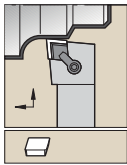
ISO/ANSI Turning



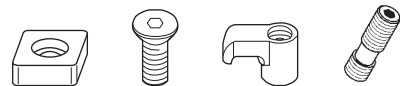
■ **CCLN -5°**



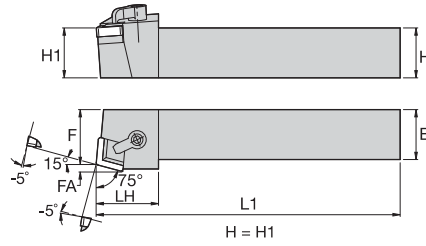
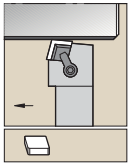
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand 1096722	CCLNR164	1.00	1.00	1.250	6.00	1.00	CN.422	SM396	S111	1/16	CK21	STC20	1/8
left hand 1096717	CCLNL164	1.00	1.00	1.250	6.00	1.00	CN.422	SM396	S111	1/16	CK21	STC20	1/8



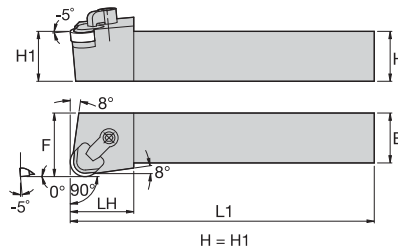
■ **CCLN-P -5°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	clamp	clamp screw	hex
right hand 1096699	CCLNRP163D	1.00	1.00	1.250	6.00	1.25	CN.322	SM432	SL344	CK20	STC11	1/8
left hand 1096698	CCLNLP163D	1.00	1.00	1.250	6.00	1.25	CN.322	SM432	SL344	CK20	STC11	1/8

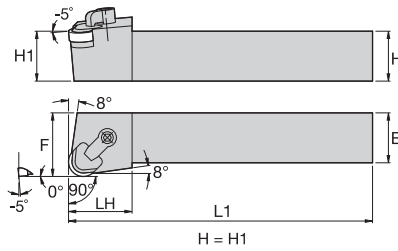
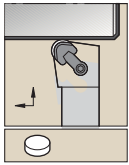

■ CCRN-P 15°


order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	clamp	clamp screw	hex
right hand 1096701	CCRNRP163D	1.00	1.00	1.161	6.00	1.25	.09	CN.322	SM432	SL344	CK20	STC11	1/8


■ CRGN


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand 1096733	CRGNR123	.75	.75	.875	4.50	.75	RN.32	SM46	S111	1/16	CK6	STC5	3/32
1096734	CRGNR163	1.00	1.00	1.125	6.00	.75	RN.32	SM46	S111	1/16	CK6	STC5	3/32
1096735	CRGNR164	1.00	1.00	1.125	6.00	1.00	RN.42	SM218	S111	1/16	CK12	STC4	5/32
3870038	CRGNR244F	1.50	1.50	2.000	8.00	1.25	RNG45	SM45	S111	1/16	CK12	STC4	5/32
left hand 1096728	CRGNL123	.75	.75	.875	4.50	.75	RN.32	SM46	S111	1/16	CK6	STC5	3/32
1096729	CRGNL163	1.00	1.00	1.125	6.00	.75	RN.32	SM46	S111	1/16	CK6	STC5	3/32
1096730	CRGNL164	1.00	1.00	1.125	6.00	1.00	RN.42	SM218	S111	1/16	CK12	STC4	5/32

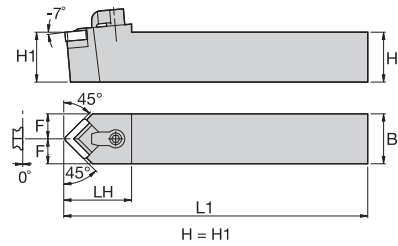
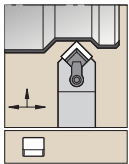
ISO/ANSI Turning



CRGN-P



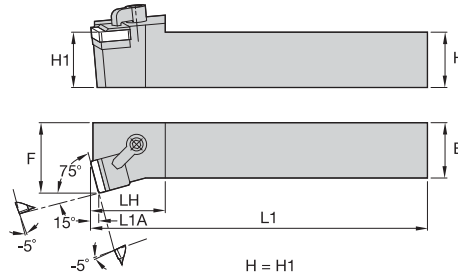
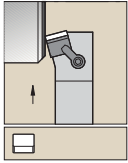
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	clamp	clamp screw	hex
right hand												
1096703	CRGNRP163D	1.00	1.00	1.250	6.00	.75	RNM32	SM434	SL344	CK20	STC20	1/8
1096705	CRGNRP164D	1.00	1.00	1.250	6.00	1.13	RN.42	SM437	SL344	CK28	STC4	5/32
1096707	CRGNRP204D	1.25	1.25	1.500	6.00	1.13	RN.42	SM437	SL344	CK28	STC4	5/32
left hand												
1096706	CRGNLP204D	1.25	1.25	1.500	6.00	1.13	RN.42	SM437	SL344	CK28	STC4	5/32



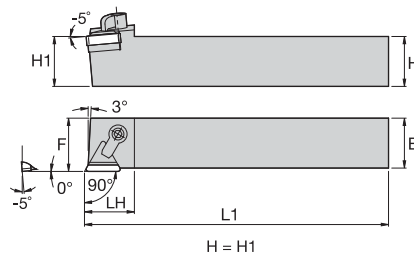
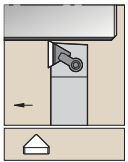
CSDN 45°



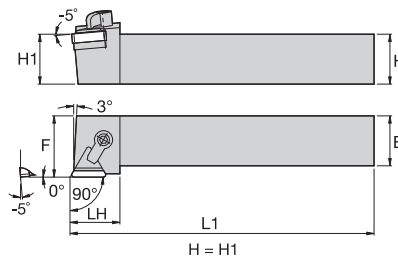
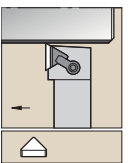
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
1096772	CSDNN124	.75	.75	.375	4.50	1.31	SN.422	SM47	S111	1/16	CK10	STC4	5/32
1096739	CSDNN164	1.00	1.00	.500	6.00	1.31	SN.422	SM47	S111	1/16	CK9	STC4	5/32


CSKN 15°


order number	catalog number	H	B	F	L1	LH	L1A	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand 1096750	CSKNR856	1.25	1.00	1.190	6.00	1.50	.18	SN.633	SM216	S125	3/32	CK9	STC4	5/32


CTAN 0°

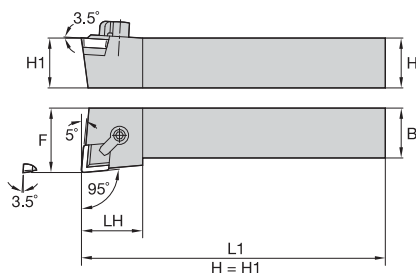
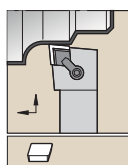

order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand 1096798	CTANR123	.75	.75	.75	4.50	1.06	TN.322	SM48	S111	1/16	CK10	STC4	5/32


CTGN 0°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand 1096887	CTGNR164	1.00	1.00	1.250	6.00	1.19	TN.432	SM26	S125	3/32	CK9	STC4	5/32



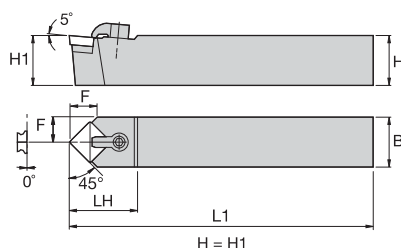
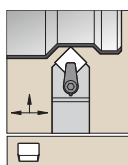
ISO/ANSI Turning



■ **CCLP -5°**



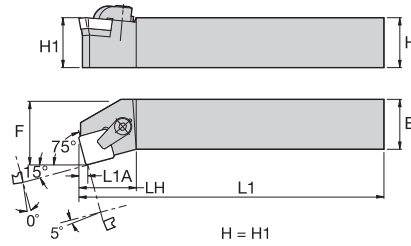
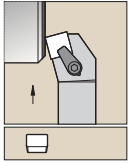
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096902	CCLPR084V	.50	.50	.750	3.50	1.00	CP.422	SM369	S19	1/16	CK7	STC9	3/32
1096903	CCLPR124B	.75	.75	1.000	4.50	1.25	CP.422	SM369	S111	1/16	CK13	STC8	5/32
1096904	CCLPR164C	1.00	1.00	1.250	5.00	1.25	CP.422	SM369	S111	1/16	CK12	STC4	5/32
left hand													
1096898	CCLPL124B	.75	.75	1.000	4.50	1.25	CP.422	SM369	S111	1/16	CK13	STC8	5/32
1096899	CCLPL164C	1.00	1.00	1.250	5.00	1.25	CP.422	SM369	S111	1/16	CK12	STC4	5/32



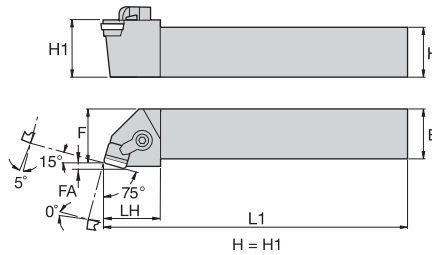
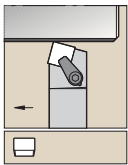
■ **CSDP 45°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
1096909	CSDPN103	.63	.63	.312	4.50	.94	SP.322	SM120	SL344	—	CK7	STC5	3/32
1096910	CSDPN124	.75	.75	.375	4.50	1.38	SP.422	SM40	S111	1/16	CK10	STC8	5/32
1096912	CSDPN644	1.00	.75	.375	6.00	1.38	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096911	CSDPN164	1.00	1.00	.500	6.00	1.38	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096914	CSDPN856	1.25	1.00	.500	6.00	1.82	SP.633	SM36	S125	3/32	CK29	STC19	3/16

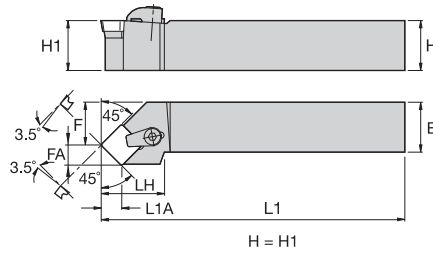
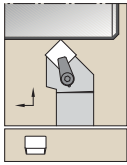

CSKP 15°


order number	catalog number	H	B	F	L1	LH	L1A	gage insert	shim	shim screw	hex	clamp	clamp screw	hex	
right hand															
1096920	CSKPR164D	1.00	1.00	1.250	6.00	1.13	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32	
left hand															
1096917	CSKPL164D	1.00	1.00	1.250	6.00	1.13	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32	


CSR 15°


order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	clamp	clamp screw	hex	
right hand															
1096932	CSRPR164D	1.00	1.00	1.048	6.00	1.19	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32	
1096934	CSRPR866E	1.50	1.00	1.060	7.00	1.50	.18	SP.633	SM36	S125	3/32	CK9	STC4	5/32	
left hand															
1096925	CSRPL124B	.75	.75	.855	4.50	1.19	.12	SP.422	SM40	S111	1/16	CK10	STC8	5/32	
1096926	CSRPL164D	1.00	1.00	1.048	6.00	1.19	.12	SP.422	SM40	S111	1/16	CK9	STC4	5/32	
1096927	CSRPL856D	1.25	1.00	1.060	6.00	1.50	.18	SP.633	SM36	S125	3/32	CK9	STC4	5/32	
1096928	CSRPL866E	1.50	1.00	1.060	7.00	1.50	.18	SP.633	SM36	S125	3/32	CK9	STC4	5/32	

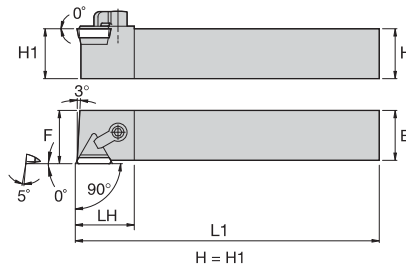
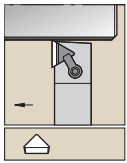
ISO/ANSI Turning



■ **CSSP 45°**



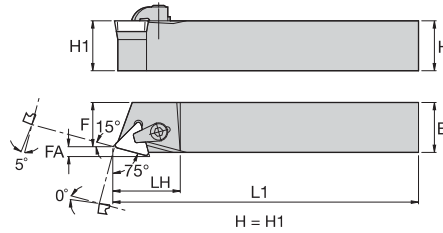
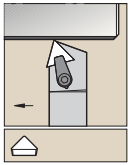
order number	catalog number	H	B	F	L1	LH	FA	L1A	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand															
1085234	CSwSPR164D	1.00	1.00	1.170	6.00	1.44	.34	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096937	CSSPR854D	1.25	1.00	1.170	6.00	1.44	.34	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
left hand															
1096691	CSSPL164D	1.00	1.00	1.170	6.00	1.44	.33	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096935	CSSPL854D	1.25	1.00	1.170	6.00	1.44	.33	.35	SP.422	SM40	S111	1/16	CK9	STC4	5/32
1096693	CSSPL856D	1.25	1.00	1.020	6.00	1.50	.48	.53	SP.633	SM36	S125	3/32	CK9	STC4	5/32



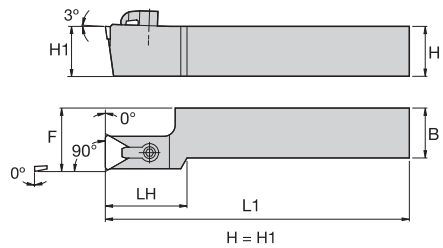
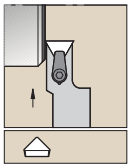
■ **CTAP 0°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096948	CTAPR082B	.50	.50	.500	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1096949	CTAPR102B	.63	.63	.625	4.50	.75	TP.221	SM119	SL344	—	CK19	STC5	3/32
1096950	CTAPR123B	.75	.75	.750	4.50	1.06	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096951	CTAPR163D	1.00	1.00	1.000	6.00	1.06	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1096952	CTAPR854D	1.25	1.00	1.000	6.00	1.12	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand													
1096941	CTAPL123B	.75	.75	.750	4.50	1.06	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096946	CTAPL854D	1.25	1.00	1.000	6.00	1.12	TP.432	SM37	S125	3/32	CK9	STC4	5/32

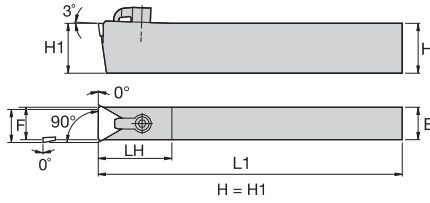
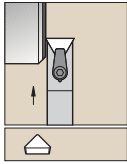

CTBP 15°


order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	clamp	clamp screw	hex	
right hand															
1096959	CTBPR123B	.75	.75	.600	4.50	1.19	.15	TP.322	SM41	S111	1/16	CK10	STC8	5/32	
1096960	CTBPR163D	1.00	1.00	.850	6.00	1.19	.15	TP.322	SM41	S111	1/16	CK9	STC4	5/32	
left hand															
1096955	CTBPL123B	.75	.75	.600	4.50	1.19	.15	TP.322	SM41	S111	1/16	CK10	STC8	5/32	


CTCPL 0°


order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096976	CTCPR123B	.75	.75	1.000	4.50	1.50	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096977	CTCPR163C	1.00	1.00	1.250	5.00	1.50	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096978	CTCPR164C	1.00	1.00	1.250	5.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096979	CTCPR164D	1.00	1.00	1.250	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096980	CTCPR204D	1.25	1.25	1.500	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096982	CTCPR244D	1.50	1.50	2.000	6.00	3.00	TP.432	SM37	S125	3/32	CK13	STC4	5/32
left hand													
1096963	CTCPL163C	1.00	1.00	1.250	5.00	1.50	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096965	CTCPL164D	1.00	1.00	1.250	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096966	CTCPL204D	1.25	1.25	1.500	6.00	1.62	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096968	CTCPL244D	1.50	1.50	2.000	6.00	3.00	TP.432	SM37	S125	3/32	CK13	STC4	5/32

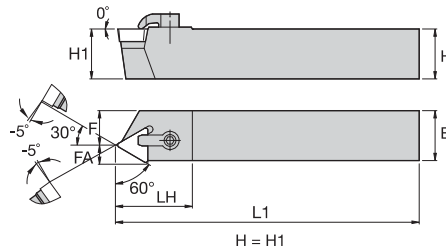
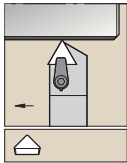
ISO/ANSI Turning



■ **CTCPN 0°**



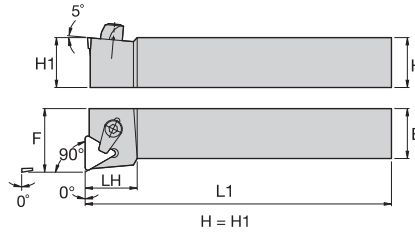
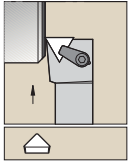
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
1096972	CTCPN443	1.00	.50	.542	8.00	1.19	TP.322	SM41	S111	1/16	CK23	STC11	1/8
1096971	CTCPN124	.75	.75	.782	6.00	1.31	TP.432	SM37	S125	3/32	CK13	STC8	5/32
1096973	CTCPN644	1.00	.75	.782	8.00	1.31	TP.432	SM37	S125	3/32	CK13	STC4	5/32
1096974	CTCPN664	1.50	.75	.782	8.00	1.31	TP.432	SM37	S125	3/32	CK13	STC4	5/32



■ **CTEP 30°**



order number	catalog number	H	B	F	L1	LH	FA	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand														
1096985	CTEPR123B	.75	.75	.460	4.50	1.25	.28	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096992	CTEPR163D	1.00	1.00	.700	6.00	1.25	.28	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1096993	CTEPR854D	1.25	1.00	.610	6.00	1.31	.39	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand														
1096989	CTEPL854D	1.25	1.00	.610	6.00	1.31	.39	TP.432	SM37	S125	3/32	CK9	STC4	5/32



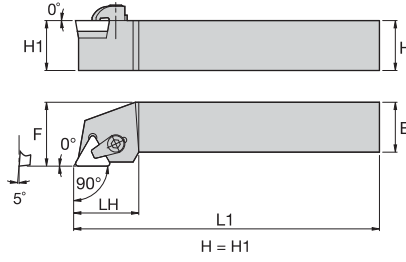
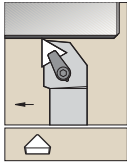
■ CTFP 0°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1097008	CTFPR082V	.50	.50	.750	3.50	.56	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097011	CTFPR123B	.75	.75	1.000	4.50	1.12	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097013	CTFPR163D	1.00	1.00	1.250	6.00	1.12	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097014	CTFPR164C	1.00	1.00	1.250	5.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097015	CTFPR164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097018	CTFPR854D	1.25	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097016	CTFPR204D	1.25	1.25	1.500	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand													
1096997	CTFPL123B	.75	.75	1.000	4.50	1.12	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1096999	CTFPL163D	1.00	1.00	1.250	6.00	1.12	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097001	CTFPL164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097004	CTFPL854D	1.25	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32



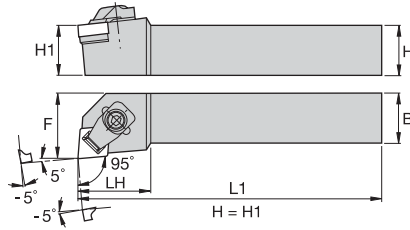
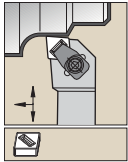
ISO/ANSI Turning



■ CTGP 0°



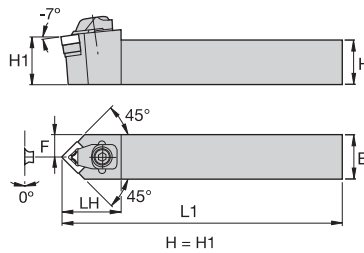
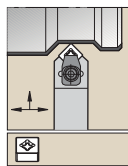
order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand													
1096696	CTGPR082B	.50	.50	.750	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097035	CTGPR102B	.63	.63	.875	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097036	CTGPR123A	.75	.75	1.000	4.00	1.13	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097037	CTGPR123B	.75	.75	1.000	4.50	1.13	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097038	CTGPR163C	1.00	1.00	1.250	5.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097039	CTGPR163D	1.00	1.00	1.250	6.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097041	CTGPR164C	1.00	1.00	1.250	5.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097042	CTGPR164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097043	CTGPR204D	1.25	1.25	1.500	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand													
1097021	CTGPL102B	.63	.63	.875	4.50	.75	TP.221	SM119	SL344	—	CK19	STC9	3/32
1097022	CTGPL123B	.75	.75	1.000	4.50	1.13	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1097023	CTGPL163C	1.00	1.00	1.250	5.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097024	CTGPL163D	1.00	1.00	1.250	6.00	1.13	TP.322	SM41	S111	1/16	CK9	STC4	5/32
1097026	CTGPL164D	1.00	1.00	1.250	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32
1097027	CTGPL204D	1.25	1.25	1.500	6.00	1.25	TP.432	SM37	S125	3/32	CK9	STC4	5/32



■ CCLN-MX -5°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx	clamp assembly	Torx
right hand												
1540438	CCLNR164DMX5	1.00	1.00	1.250	6.00	1.25	CN.X452	552.221	554.260	T20	551.326	T25
1540445	CCLNR204DMX5	1.25	1.25	1.500	6.00	1.25	CN.X452	552.221	554.260	T20	551.326	T25
left hand												
1540443	CCLNL164DMX5	1.00	1.00	1.250	6.00	1.25	CN.X452	552.221	554.260	T20	551.326	T25
1540447	CCLNL204DMX5	1.25	1.25	1.500	6.00	1.25	CN.X452	552.221	554.260	T20	551.326	T25

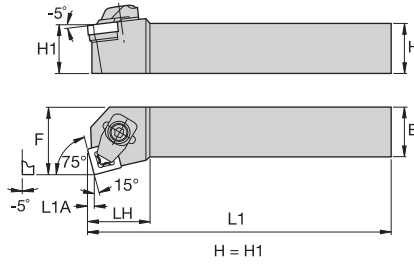
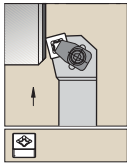


■ CSDN-MX 45°



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx	clamp assembly	Torx
1540492	CSDNN164DMX5	1.00	1.00	.500	6.00	1.38	SN.X452	552.232	554.260	T20	551.326	T25

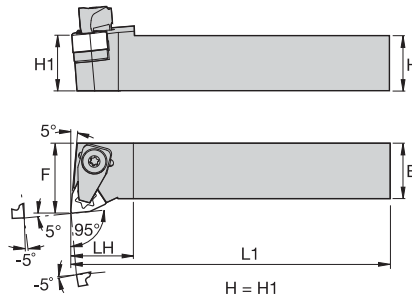
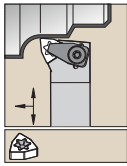
ISO/ANSI Turning



■ **CSKN-MX 15°**



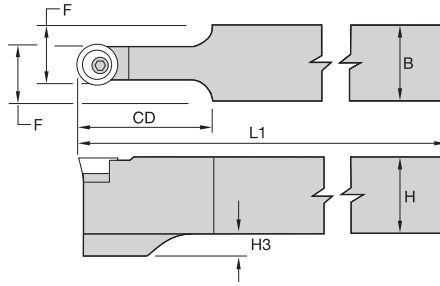
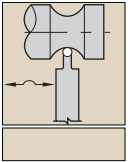
order number	catalog number	H	B	F	L1	LH	L1A	gage insert	shim	shim screw	Torx	clamp assembly	Torx
right hand													
1540495	CSKNR164DMX5	1.00	1.00	1.250	6.00	1.06	.12	SN.X452	552.232	554.260	T20	551.326	T25
left hand													
1541374	CSKNL164DMX5	1.00	1.00	1.250	6.00	1.06	.12	SN.X452	552.232	554.260	T20	551.326	T25



■ **CWLN-MX -5°**



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx	clamp assembly	Torx
right hand												
1873125	CWLN164DMX5	1.00	1.00	1.250	6.00	1.12	WN.X452	552.210	554.260	T20	551.326	T25
1873184	CWLN204DMX5	1.25	1.25	1.500	6.00	1.12	WN.X452	552.210	554.260	T20	551.326	T25
left hand												
1873128	CWLN164DMX5	1.00	1.00	1.250	6.00	1.12	WN.X452	552.210	554.260	T20	551.326	T25
1873185	CWLN204DMX5	1.25	1.25	1.500	6.00	1.12	WN.X452	552.210	554.260	T20	551.326	T25



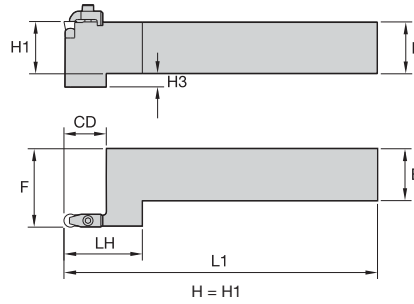
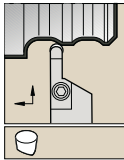
■ Bevel Lock



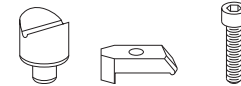
order number	catalog number	H	B	F	L1	CD	H3	gage insert	shim	lock pin	hex
1095802	PROON164D	1.00	1.00	.750	6.00	1.86	—	RC..43	SMRN42B	BP46	3/32
1095803	PROON204D	1.25	1.25	.875	6.00	1.88	—	RC..43	SMRN42B	BP46	3/32
1095806	PROON244D	1.50	1.50	1.000	6.00	1.88	—	RC..43	SMRN42B	BP46	3/32
1095804	PROON206D	1.25	1.25	1.000	6.00	2.36	—	RC..64	SMRN63B	BP68	1/8
1095808	PROON246	1.50	1.50	1.125	8.00	2.37	—	RC..64	SMRN63B	BP68	1/8
1095805	PROON208D	1.25	1.25	1.125	6.00	2.32	.25	RC..86	SMRN84B	BP812	9/64

NOTE: Order numbers 1095802, 1095803, and 1095806 accept RCGH-43 inserts only. RCMH-43 inserts will not fit.

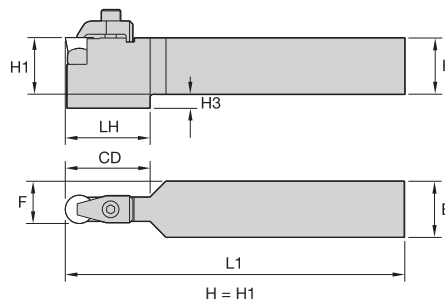
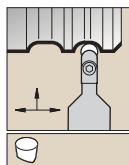
ISO/ANSI Turning



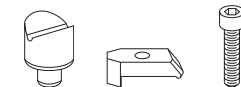
411-VRS



order number	catalog number	H	B	F	L1	LH	CD	H3	gage insert	nest	clamp	clamp screw	hex
right hand													
1298873	4111492VRS	1.00	1.00	1.500	6.00	1.50	.75	.25	R..V23	NST1	CM214	MS1321	2.5 mm
1298876	4111573VRS	1.00	1.00	1.000	6.00	1.19	1.13	.25	R..V35	NST2	CM219	CS412	3.5 mm
1156449	4111593VRS	1.25	1.25	1.250	6.00	1.19	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
1298882	4111654VRS	1.00	1.00	1.000	6.00	1.56	1.50	.25	R..V45	NST3	CM216	CS412	3.5 mm
1298884	4111674VRS	1.25	1.25	1.250	6.00	1.56	1.50	—	R..V45	NST3	CM216	CS412	3.5 mm
left hand													
1298879	4111603VRS	1.25	1.25	1.250	6.00	1.19	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
1298883	4111664VRS	1.00	1.00	1.000	6.00	1.50	1.50	.25	R..V45	NST3	CM216	CS412	3.5 mm

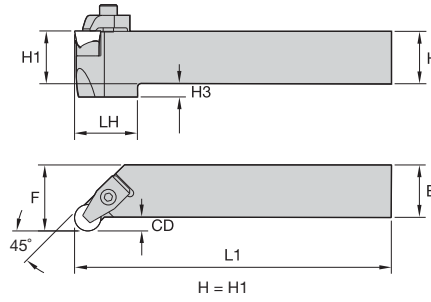
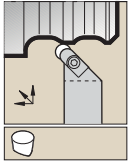


CRDP

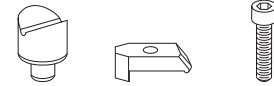


order number	catalog number	H	B	F	L1	LH	CD	H3	gage insert	nest	clamp	clamp screw	hex
3641572	CRDPN162DV	1.00	1.00	.496	6.00	—	.75	—	R..V23	NST1	CM214	MS1321	2.5 mm
3641593	CRDPN163DV	1.00	1.00	.496	6.00	—	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
3641594	CRDPN203DV	1.25	1.25	.621	6.00	—	1.13	—	R..V35	NST2	CM219	CS412	3.5 mm
3641595	CRDPN164DV	1.00	1.00	.496	6.00	1.50	1.50	.25	R..V45	NST3	CM216	CS412	3.5 mm
3641597	CRDPN204DV	1.25	1.25	.621	6.00	—	1.50	—	R..V45	NST3	CM216	CS412	3.5 mm

NOTE: CRDP toolholders are able to use RPGX and RCGX insert styles.

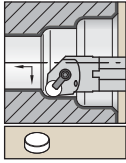


■ CRGP

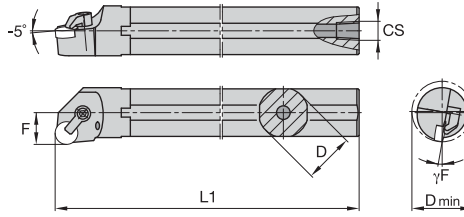


order number	catalog number	H	B	F	L1	CD	gage insert	nest	clamp	clamp screw	hex
right hand											
3641603	CRGPR162DV	1.00	1.00	1.250	6.00	.25	R..V23	NST1	CM214	MS1321	2.5 mm
3641611	CRGPR204DV	1.25	1.25	1.500	6.00	.25	R..V45	NST3	CM216	CS412	3.5 mm
left hand											
3641604	CRGPL162DV	1.00	1.00	1.250	6.00	.25	R..V23	NST1	CM214	MS1321	2.5 mm
3641608	CRGPL203DV	1.25	1.25	1.500	6.00	.25	R..V35	NST2	CM219	CS412	3.5 mm

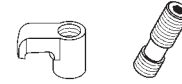
NOTE: CRGP toolholders are able to use RPGX and RCGX insert styles.



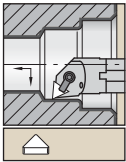
Steel shank with through coolant.



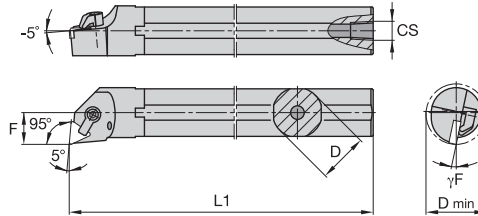
■ **A-CRGN**



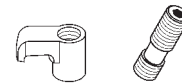
order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	clamp	clamp screw	hex
right hand 1094792	A16CRGNR3	1.000	1.200	.640	12.00	1/4-18 NPT	-10.0	RN.32	CK7LP	STC9	3/32
left hand 1094793	A16CRGNL3	1.000	1.200	.640	12.00	1/4-18 NPT	-10.0	RN.32	CK7LP	STC9	3/32



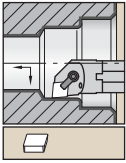
Steel shank with through coolant.



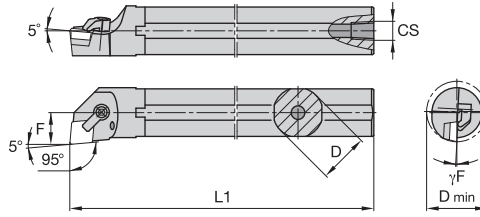
■ **A-CTLN-5°**



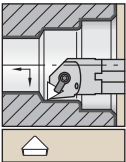
order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	clamp	clamp screw	hex
right hand 1094818	A10SCTLNR2	.625	.770	.406	10.00	1/8-27 NPT	-12.0	TN.221	CK7LP	STC9	3/32
left hand 1094816	A08RCTLNR2	.500	.600	.312	8.00	1/16-27 NPT	-14.0	TN.221	CK27	STC27	5/64
1094819	A10CTLNL2	.625	.770	.406	10.00	1/8-27 NPT	-12.0	TN.221	CK7LP	STC9	3/32



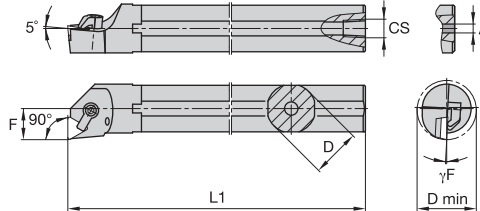
Steel shank with through coolant.


A-CCLP-5°


order number	catalog number	D	D min	F	L1	CS	γF°	gage insert	shim	shim screw	hex	clamp	clamp screw	hex	
right hand															
1094896	A16CCLPR4	1.000	1.200	.640	12.00	1/4-18 NPT	-3.0	CP.422	SM369	S19	1/16	CK20	STC11	1/8	
1094900	A24CCLPR4	1.500	1.760	.890	14.00	1/4-18 NPT	.0	CP.422	SM369	S19	1/16	CK22	STC26	1/8	

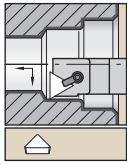


Steel shank with through coolant.

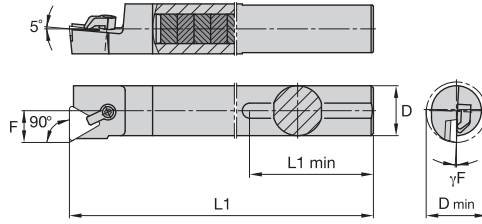

A-CTFP 0°


order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand															
1094872	A06RCTFPR2	.375	.480	.250	6.00	.13	—	-3.0	TPG.2151	—	—	—	CK27	STC27	5/64
1094874	A08RCTFPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	—	—	—	CK27	STC27	5/64
1094876	A10SCTFPR2	.625	.770	.406	10.00	.16	1/8-27 NPT	-4.0	TP.221	—	—	—	CK19	STC9	3/32
1094878	A12SCTFPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	—	—	—	CK7	STC9	3/32
1094880	A16TCTFPR3	1.000	1.200	.640	12.00	—	1/4-18 NPT	.0	TP.322	—	—	—	CK20	STC11	1/8
1094882	A20UCTFPR3	1.250	1.470	.765	14.00	.25	1/4-18 NPT	-3.0	TP.322	SM41	S19	1/16	CK10	STC8	5/32
1094884	A24CTFPR3	1.500	1.760	.890	14.00	.25	1/4-18 NPT	-3.0	TP.322	SM41	S19	1/16	CK10	STC8	5/32
1094888	A24CTFPR4	1.500	1.760	.890	14.00	.25	1/4-18 NPT	-3.0	TP.432	SM37	S125	3/32	CK10	STC8	5/32
1094892	A32CTFPR4	2.000	2.400	1.281	16.00	.25	1/4-18 NPT	-3.0	TP.432	SM37	S125	3/32	CK9	STC4	5/32
left hand															
1094875	A08RCTFPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	—	—	—	CK27	STC27	5/64
1094877	A10CTFPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	-4.0	TP.221	—	—	—	CK19	STC9	3/32
1094879	A12SCTFPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	—	—	—	CK7	STC9	3/32
1094889	A24CTFPL4	1.500	1.760	.890	14.00	—	1/4-18 NPT	-3.0	TP.432	SM37	S125	3/32	CK10	STC8	5/32

ISO/ANSI Turning



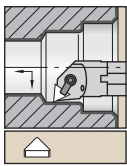
DeVibrator shank.



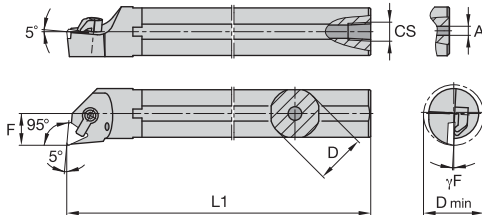
■ **B-CTFP 0°**



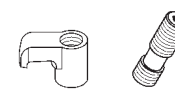
order number	catalog number	D	D min	F	L1	L1 min	γF°	gage insert						
									shim	shim screw	hex	clamp	clamp screw	hex
1095829	B10CTFPR2	.625	.770	.406	10.00	5.25	.0	TP.221	—	—	—	CK19	STC9	3/32
1095830	B12CTFPR3	.750	.930	.500	10.00	5.75	.0	TP.322	—	—	—	CK7	STC9	3/32
1095831	B14CTFPR3	.875	1.060	.516	10.00	6.25	.0	TP.322	—	—	—	CK20	STC11	1/8
1095832	B16CTFPR3	1.000	1.200	.640	12.00	6.50	.0	TP.322	—	—	—	CK20	STC11	1/8
1095833	B20CTFPR3	1.250	1.470	.765	14.00	8.25	-3.0	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1095834	B24CTFPR4	1.500	1.760	.890	15.50	9.75	-3.0	TP.432	SM37	S125	3/32	CK10	STC8	5/32
1095836	B32CTFPR4	2.000	2.400	1.281	21.50	12.25	-3.0	TP.432	SM37	S125	3/32	CK9	STC4	5/32



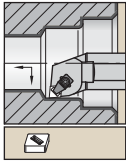
Steel shank with through coolant.



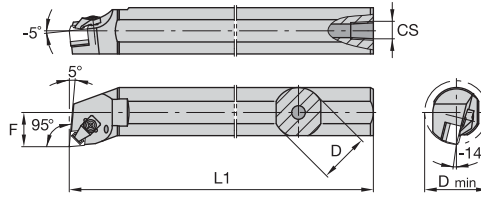
■ **A-CTLP -5°**



order number	catalog number	D	D min	F	L1	A	CS	γF°	gage insert			
										clamp	clamp screw	hex
right hand												
1094904	A06MCTLPR2	.375	.480	.250	6.00	.13	—	-3.0	TP.2151	CK27	STC27	5/64
1094906	A08RCTLPR2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	CK27	STC27	5/64
1094908	A12SCTLPR3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	CK7	STC9	3/32
1094910	A16CTLPR3	1.000	1.220	.640	12.00	—	1/4-18 NPT	.0	TP.322	CK20	STC11	1/8
left hand												
1094907	A08RCTLPL2	.500	.600	.312	8.00	.16	1/16-27 NPT	-3.0	TP.221	CK27	STC27	5/64
3994022	A10SCTLPL2	.625	.770	.406	10.00	.16	1/8-27 NPT	-3.0	TP.221	CK19	STC9	3/32
1094909	A12SCTLPL3	.750	.930	.500	10.00	.16	1/8-27 NPT	.0	TP.322	CK7	STC9	3/32
1094863	A16CTLPL3	1.000	1.220	.640	12.00	—	1/4-18 NPT	.0	TP.322	CK20	STC11	1/8



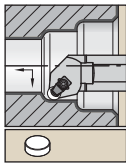
Steel shank with through coolant.



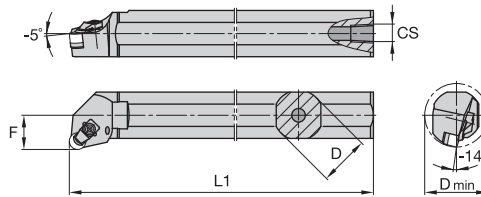
■ A-CCLN-MX -5°



order number	catalog number	D	D min	F	L1	CS	gage insert	shim	shim screw	Torx	clamp assembly	Torx
right hand												
1540531	A24CCLNR4MX5	1.500	2.165	.890	14.00	1/4-18 NPT	CN.X452	552.221	554.260	T20	551.326	T25
1540552	A32CCLNR4MX5	2.000	2.323	1.281	16.00	1/4-18 NPT	CN.X452	552.221	554.260	T20	551.326	T25
left hand												
1541742	A24CCLNL4MX5	1.500	2.165	.890	14.00	1/4-18 NPT	CN.X452	552.221	554.260	T20	551.326	T25
1541743	A32CCLNL4MX5	2.000	2.323	1.281	16.00	1/4-18 NPT	CN.X452	552.221	554.260	T20	551.326	T25



Steel shank with through coolant.



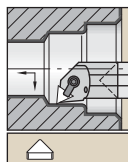
■ A-CRGN-MN



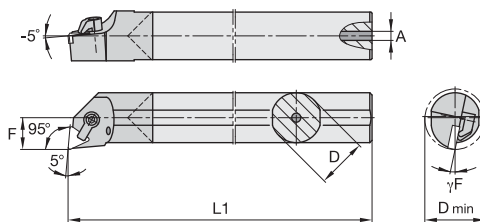
order number	catalog number	D	D min	F	L1	CS	gage insert	shim	shim screw	Torx	clamp assembly	Torx
right hand												
1558021	A32CRGNR4MN5	2.000	2.559	1.281	16.00	1/4-18 NPT	RN.45	552.230	554.260	T20	551.343	T25



ISO/ANSI Turning



Carbide shank with through coolant.

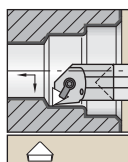


■ E-CTLN-5°

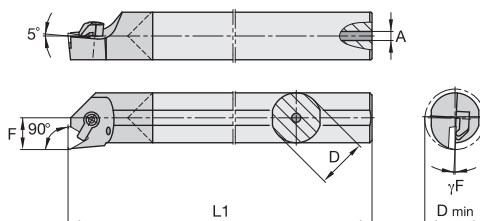


order number	catalog number	D	D min	F	L1	A	gage insert	clamp	clamp screw	hex
right hand										
1152668	E12CTLNR2	.750	.930	.500	10.00	.28	TN.221	CK7LP	STC9	3/32

Kendex Positive Inserts



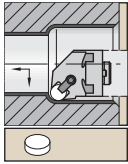
Carbide shank with through coolant.



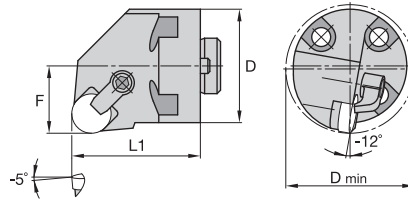
■ E-CTFP 0°



order number	catalog number	D	D min	F	L1	A	γF°	gage insert	clamp	clamp screw	hex
right hand											
1152584	E08KCTFPR2	.500	.600	.312	5.00	.19	-3.0	TP.221	CK27	STC27	5/64
1152586	E08RCTFPR2	.500	.600	.312	8.00	.19	-3.0	TP.221	CK27	STC27	5/64
1152588	E10MCTFPR2	.625	.770	.406	6.00	.22	.0	TP.221	CK19	STC9	3/32
1152590	E10SCTFPR2	.625	.770	.406	10.00	.22	.0	TP.221	CK19	STC9	3/32
1152592	E12QCTFPR3	.750	.930	.500	7.00	.28	.0	TP.322	CK7	STC9	3/32
1152594	E12SCTFPR3	.750	.930	.500	10.00	.28	.0	TP.322	CK7	STC9	3/32
1152598	E16TCTFPR3	1.000	1.200	.640	12.00	.31	.0	TP.322	CK20	STC11	1/8
left hand											
1152593	E12QCTFPL3	.750	.930	.500	7.00	.28	.0	TP.322	CK7	STC9	3/32
1152595	E12SCTFPL3	.750	.930	.500	10.00	.28	.0	TP.322	CK7	STC9	3/32



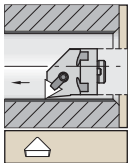
With through coolant.



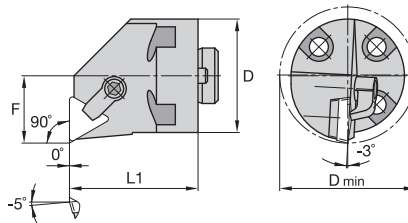
■ **H-CRGN**



order number	catalog number	D	D min	F	L1	gage insert	shim	shim screw	clamp	clamp screw	hex
right hand											
1095001	H24CRGNR4	1.500	1.760	.890	1.63	RN.42	SM437	SL344	CK7LP	STC9	3/32
1095003	H32CRGNR4	2.000	2.400	1.281	1.63	RN.42	SM437	SL344	CK7LP	STC9	3/32



With through coolant.



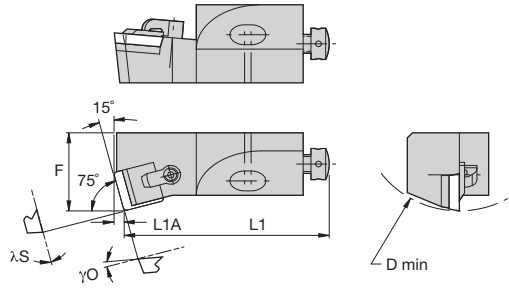
■ **H-CTFP 0°**



order number	catalog number	D	D min	F	L1	gage insert	shim	shim screw	hex	clamp	clamp screw	hex
right hand												
1095321	H20CTFPR3W	1.250	1.470	.765	1.63	TP.322	SM41	S111	1/16	CK10	STC8	5/32
1095542	H40CTFPR4W	2.500	3.030	1.531	1.63	TP.432	SM37	S125	3/32	CK10	STC4	5/32



ISO/ANSI Turning



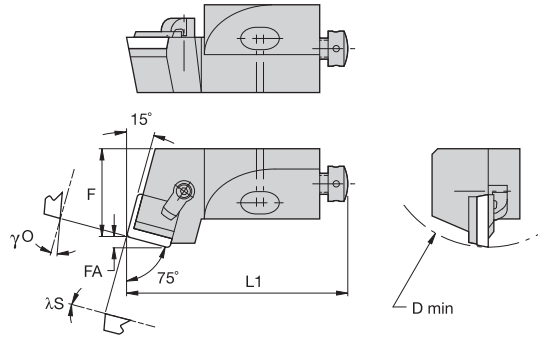
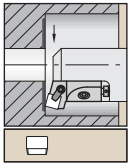
■ CSKP 15°

order number	catalog number	D min	F	L1	L1A	λS°	γ0°	gage insert
right hand 1261328	CSKPR12CA4	1.969	.787	2.17	.12	.0	5.0	SP..120308/SP..422

■ Spare Parts



D min	shim	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050

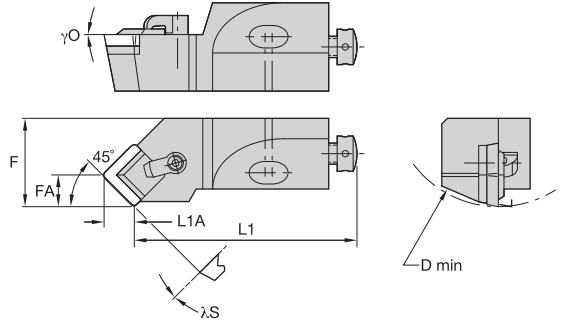

CSRPR -15°

order number	catalog number	D min	F	FA	L1	λS°	γO°	gage insert
right hand 3331132	CSRPR10CA3	1.575	.551	.087	1.97	.0	.0	SP..090308/SP..322

Spare Parts


D min	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050

ISO/ANSI Turning



■ **CSSP 45°**

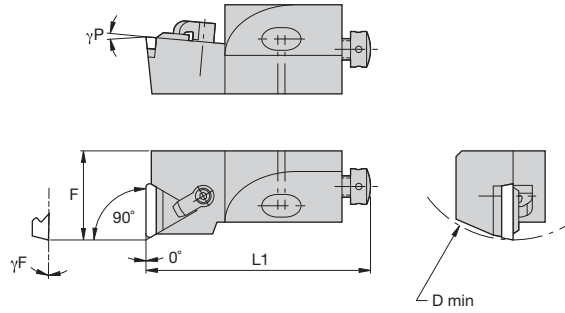
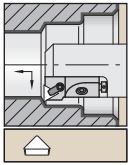
order number	catalog number	D min	F	FA	L1	L1A	λS°	γ0°	gage insert
right hand 1261379	CSSPR10CA3	1.575	.551	.254	1.73	.24	.0	.0	SP..090308/SP..322
left hand 3331143	CSSPL10CA3	1.575	.551	.254	1.73	.24	.0	.0	SP..090308/SP..322

NOTE: Select spare parts based off of D min and insert size selected.

■ **Spare Parts**



D min	shim	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.575	—	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	4 mm	CSWM 060 050

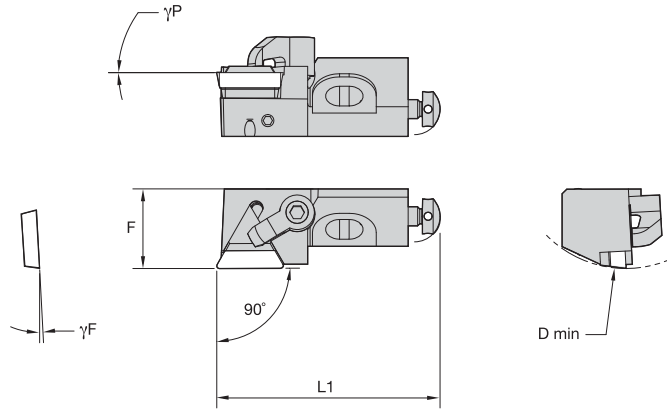

CTFP 0°

order number	catalog number	D min	F	L1	γ_F°	γ_P°	gage insert
right hand							
2116588	CTFPR10CA2	1.575	.551	1.97	.0	5.0	TP..110304/TP..221
1746442	CTFPR12CA3	1.969	.787	2.17	.0	5.0	TP..160308/TP..322
2582207	CTFPR20CA4	2.756	.984	2.76	.0	5.0	TP..220408/TP..432
left hand							
2114034	CTFPL10CA2	1.575	.551	1.97	.0	5.0	TP..110304/TP..221

Spare Parts


D min	shim	shim screw	hex	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	mounting screw	hex	washer
1.575	—	—	—	CKM34	STCM38	2 mm	KUAM28	2 mm	KUAM30	191.405	—	4 mm	CSWM 060 050
1.969	—	—	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	—	191.406	4 mm	CSWM 060 050
2.756	SM837	MS125	2.5 mm	CKM35	STCM8	4 mm	KUAM25	2.5 mm	KUAM32	—	191.407	5 mm	CSWM 080 050

ISO/ANSI Turning



■ CTGP 0°

order number	catalog number	D min	F	L1	γ_F°	γ_P°	gage insert
right hand 3330191	CTGPR12CA3	1.969	.787	2.17	3.0	.0	TP..160308/TP..322

■ Spare Parts



D min	shim	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	mounting screw	hex	washer
1.969	—	CKM34	STCM38	2 mm	KUAM22	2 mm	KUAM31	191.406	4 mm	CSWM 060 050

Kennametal on the Web

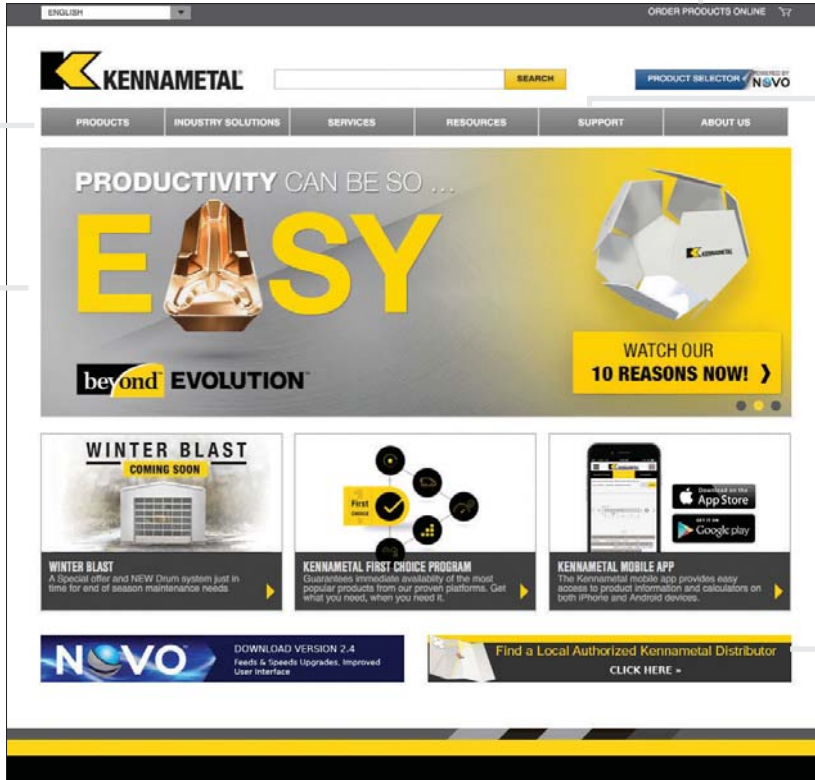
kennametal.com

FIND THE LATEST PRODUCT INFORMATION

Whether your operation is turning, milling, or holemaking, Kennametal brands are the high-performance tooling you need. We offer standard and custom solutions for a wide range of applications.

Find information about our most current campaigns and catalogs.

Register on Konnect for the full functionality of the Kennametal online ordering website.



CONTACT US

Our customers are important to us. We want to provide you the best customer service in the industry. If you have a comment or question, please send it to us. We strive to respond to all inquiries within 24 hours.

FIND A LOCAL AUTHORIZED DISTRIBUTOR IN YOUR AREA

Kennametal offers world-class products and services globally. Our distributors know us, and more importantly, they know you. They know better than anyone in the industry how to put the global power of Kennametal to work for you — in your industry, in your region, and for your business.

➤ Tunable Boring Bars

With Front End KM™ Quick-Change Adapter

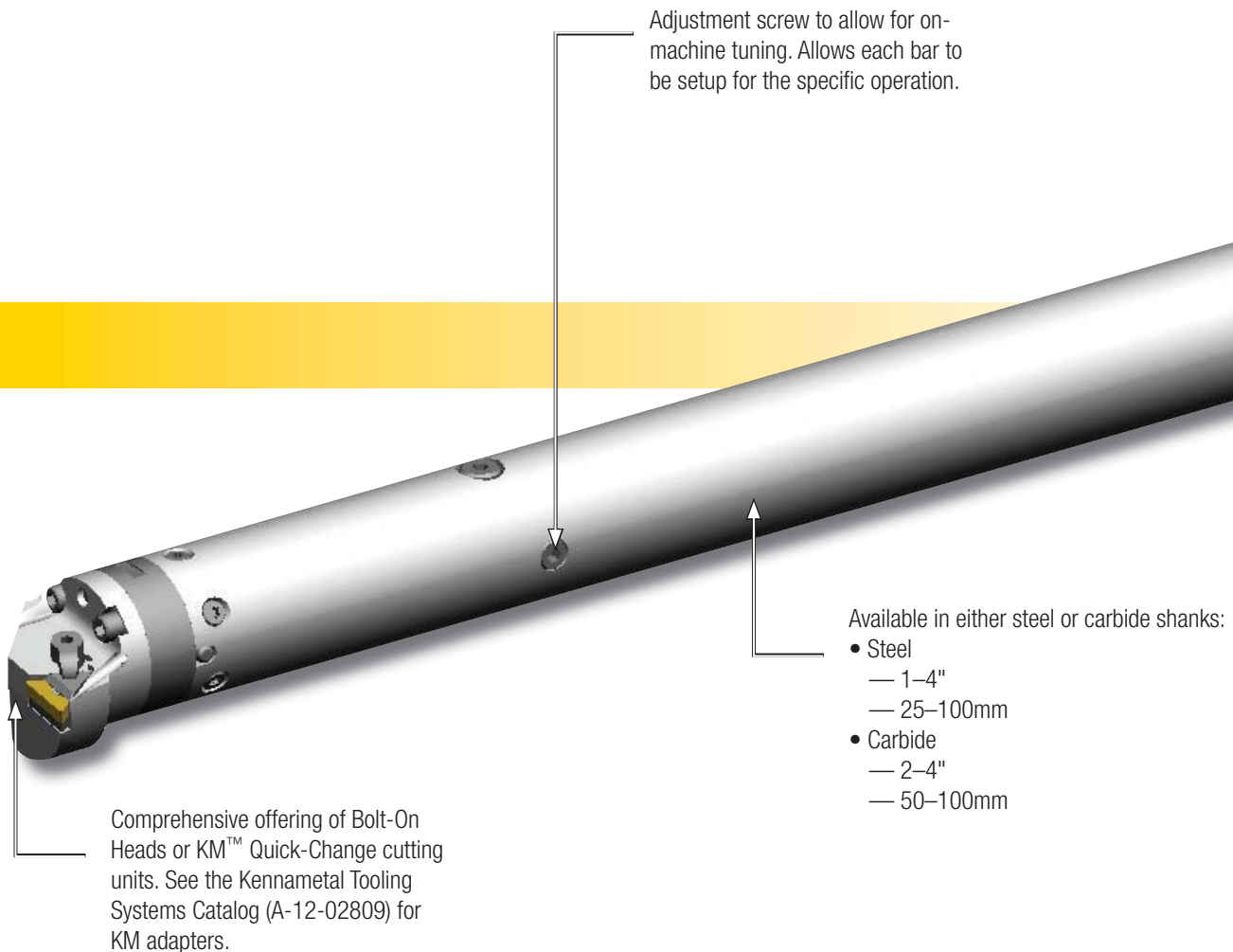
Kennametal offers a portfolio of tunable boring bars to increase productivity and solve chatter and other issues in long-boring operations.

Features, Functions, and Benefits

Features	Functions	Benefits
Robust internal clamping package	<ul style="list-style-type: none"> • Eliminates chatter and vibration. • Higher metal removal rate. • Larger depths of cut. 	<ul style="list-style-type: none"> • High surface quality. • Low scrap rate. • Increased productivity. • Reduced noise exposure.
Tunable clamping mechanism	Bar can be tuned on the machine with just the turn of a screw.	Optimized damping characteristics for all kinds of machining conditions.
KM Quick-Change front end adapter	<ul style="list-style-type: none"> • Ridged clamping system. • Wide selection of KM Quick-Change cutting units. 	Flexible system reduces tooling inventory and setup times.

Kennametal has made several key improvements to our current tunable boring bar portfolio:

- Enhanced standardized tuning process at the manufacturing plant ensures bars are accurately tuned at the maximum overhang.
- Nitriding of steel tunable boring bars to eliminate the effects of chip wash.
- Elimination of flats on tunable boring bars enhances stability and promotes proper toolholding.
- Addition of a small flat on the connection collar enables the use of a center-height tool.
- Enhanced assembly process.



■ Appearance of the Tunable Boring Bars

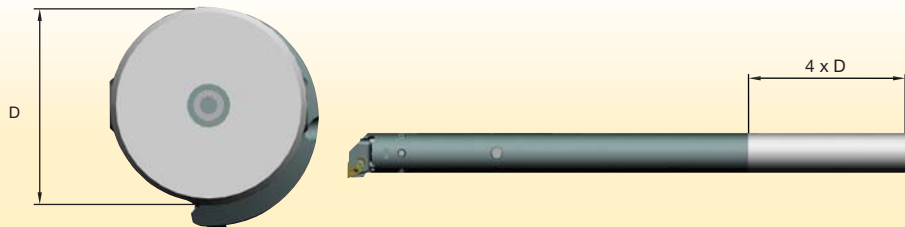
- NEW All tunable boring bars are tuned at the manufacturing plant and delivered to the customer with the tune specified at the maximum overhang of the bar.
- NEW All steel tunable bars undergo a nitriding process to help prevent chip wash damage to the bar and extend the bar's tool life.
- The nitride process of the black oxide steel tunable boring bars gives the shanks a bluish tint. These bars are through-coolant capable and use bolt-on heads or KM™ Quick-Change cutting adapters. There is a set screw to tune the bar.
- Tunable boring bars with carbide shanks will appear gray in color. They are through-coolant capable and use KM Quick-Change cutting adapters. There is a set screw to tune the bar.

■ Application Recommendations

- Choose a boring bar as big as possible, but make sure there is adequate space for the chip evacuation.
- Balance the machining settings to avoid uncontrollable vibrations.
- Keep the L/D ratio as small as possible.
- Bar comes pre-tuned, but can be adjusted by hand.

1 Holding the Bar

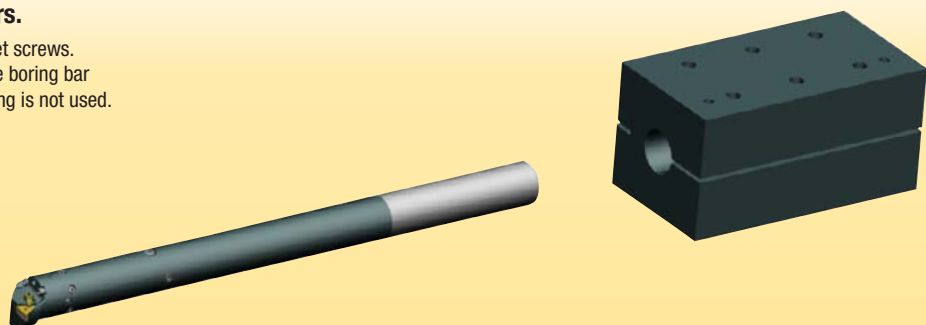
- Hold the bar correctly. Kennametal recommends holding the bar at $4 \times D$.



2 Kennametal recommends holding the boring bar in a split-style holder, with a split-style reducer if needed, with an ISO H7 diametral tolerance.

3 NEW: All flats have been removed from steel tunable boring bars.

- Do not clamp the bars with set screws.
- Kennametal cannot guarantee boring bar performance if proper clamping is not used.

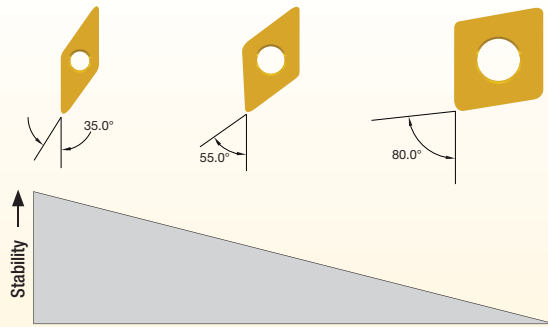


4 Tunable boring bars are designed and pre-tuned at the maximum overhang.

- Steel bars: pre-tuned to $10 \times D$; use as low as $6 \times D$.
- Carbide composite bars: pre-tuned to $15 \times D$; use as low as $12 \times D$.
- Re-tuning may be necessary if the boring bar is not used at its pre-tuned overhang.
- Never clamp or use the boring bar below its minimum overhang.

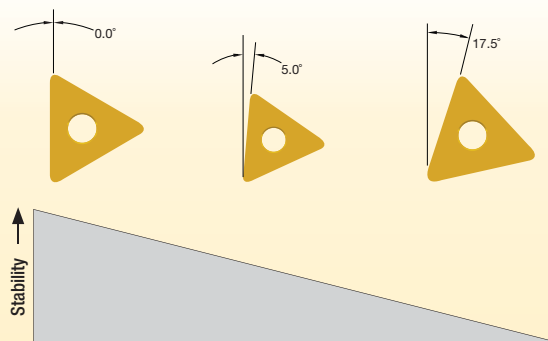
5 Insert Angle

- Smaller point angles produce consistent chip sizes and increase bore clearance for better chip evacuation.
- Larger point angles may cause rubbing due to larger cutting edge, which can result in vibration.



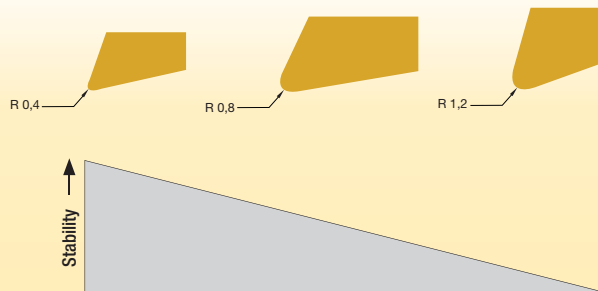
6 Lead Angle

- Choose a lead angle as close to 0° as possible for increased stability.



7 Nose Radius

- Choose a small nose radius for better stability.
- Depth of cut should be larger than the nose radius.



8 Insert Geometries

- Use positive, free-flowing insert geometries and sharp edge preps to reduce cutting forces.
- Use PVD inserts as a first choice because thinner coating keeps edge prep smaller.

9 Center Cutting Height

- Cutting height tolerances are +/- .005".
- Kennametal recommends using our new center height alignment tool kit. The kit includes a magnet, a seat, and an angle finder that can be mounted onto a small flat located on the connection collar of the tunable boring bar.

10 Chip Evacuation

- Chip packing and re-cutting can cause unwanted vibration while boring.
- Use coolant to flush out chips and to keep the damping element cool.
- Use insert geometries and cutting parameters that produce small chips.
- The boring bar can be used upside down to improve chip evacuation.

Tuning Recommendations

- Loosen the two locking screws on the bar.
- Turn the adjusting screw clockwise until the screw stops turning freely and the mass is in the locked-down position.
- You are now ready to tune the bar.
- Turn the adjusting screw in the counter-clockwise direction in quarter turn increments to adjust.
- After the adjustment has been completed, tighten the locking screws.

■ Kennametal Tunable Boring Bar Center Height Alignment Procedure

The following procedure will walk the user through setting up a tunable boring bar on center without the use of flats on the shank.

Equipment

- Digital angle finder
- Angle finder seat
- Boring bar to be used



Figure 1: Angle finder seat (left) and digital angle finder (right)

Assembly

- Clean any dirt, chips, debris, etc. from the mounting surfaces of the digital angle finder and the corresponding surfaces of the angle finder seat.
- Assemble the digital angle finder onto the angle finder seat, making sure it is flush against the back of the angle finder seat.

Calibration

- Clean an area on the X-axis of the lathe to create a reference surface for calibration.
- Clean any dirt, chips, debris, etc. from the magnet on the bottom of the angle finder seat.
- Place the angle finder assembly onto the X-axis of the lathe.
 - Keep the angle finder assembly parallel to the axis.
 - It is helpful to butt the assembly up against the turret housing to keep it parallel to the X-axis.
- Turn the digital angle finder on by pressing the on/off button.
- Zero the digital angle finder by pressing the zero button.

NOTE: The angle finder is now calibrated to the X-axis of the lathe and will measure angles corresponding to this axis.



Figure 2: X-axis calibration

Boring Bar Alignment

- With the boring bar already placed in the holder and set to the correct overhang, clean any dirt, chips, debris, etc. from the small flat on the collar of the boring bar.
- Place the angle finder assembly onto the boring bar by aligning the small magnet on the bottom of the assembly with the small flat on the collar of the boring bar.
 - Be sure the angle finder assembly is perpendicular to the axis of the boring bar.
 - Be sure the angle finder assembly is oriented in the same direction it was when it was calibrated to the X-axis of the lathe.



Figure 3: Boring bar collar flat

- Rotate the boring bar until the digital angle finder reads zero degrees.



Figure 4: Aligning the boring bar

- Tighten the boring bar holder to lock the boring bar position.
 - Be sure the digital angle finder still reads zero after clamping the bar.
- The boring bar should now be on center.

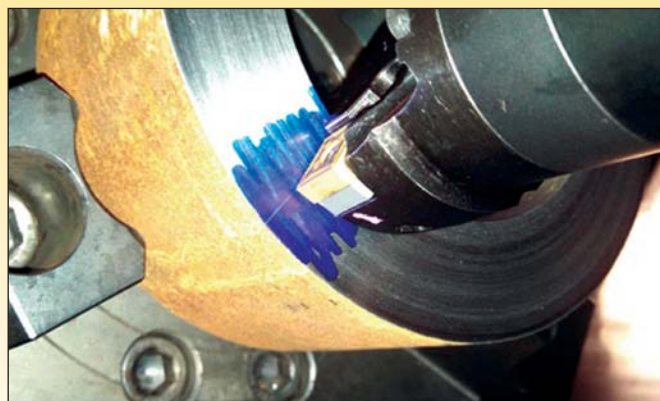
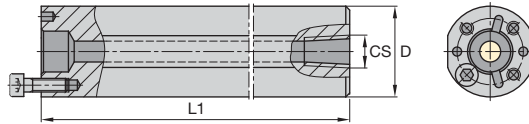


Figure 5: Boring bar center height

Order the Kennametal Center Height Alignment Tool Kit

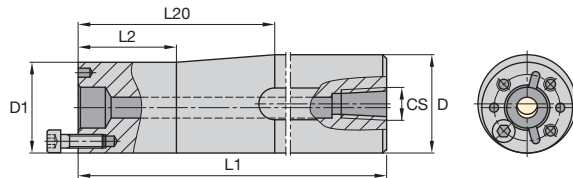
The center height alignment tool kit is available to order. Use order number 6141867, or catalog number KIT-BB-AF.



Steel shank with through coolant.
Max 4:1 overhang ratio.

■ S-4400W

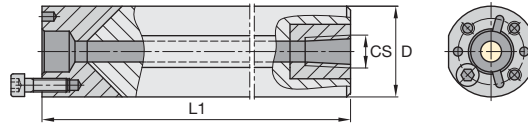
order number	catalog number	D	L1	CS	screw 3 required	screw	hex
1094941	S4416W	1.000	9.00	1/4-18 NPT	S319PKG	S322	9/64
1094942	S4420W	1.250	9.00	1/4-18 NPT	S327	S330	5/32
1094943	S4424W	1.500	10.00	1/4-18 NPT	S327	S330	5/32
1094944	S4428W	1.750	12.00	1/4-18 NPT	S337	S340	3/16
1094945	S4432W	2.000	13.00	1/4-18 NPT	S337	S340	3/16
1080487	S4440W	2.500	17.00	1/4-18 NPT	S350	S353	1/4



Steel shank with through coolant.
Max 4:1 overhang ratio.

■ S-4400W48

order number	catalog number	D	L1	CS	L2	L20	D1	screw 3 required	screw	hex
1094947	S4440W48	3.000	18.00	3/8-18 NPT	3.00	6.00	2.50	S350	S353	1/4



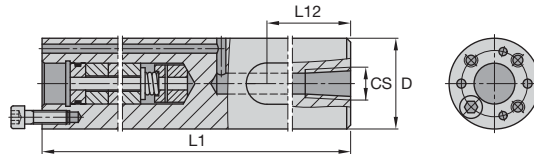
Carbide shank with through coolant.
Max 6:1 overhang ratio.



ISO/ANSI Turning

■ C-11800W

order number	catalog number	D	L1	CS	screw		
					3 required	screw	hex
1152783	C11816W	1.000	11.00	1/4-18 NPT	S319PKG	S322	9/64
1152784	C11820W	1.250	11.00	1/4-18 NPT	S412	S415	5/32

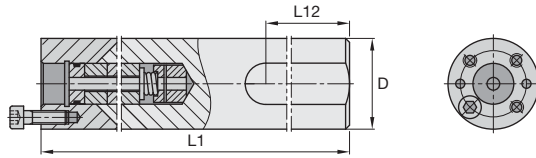


Steel shank DeVibrator with through coolant.
Max 6:1 overhang ratio.



■ D-5400W

order number	catalog number	D	L1	CS	L12	L1 min	screw		
							3 required	screw	hex
1095839	D5420W	1.250	10.00	3/8-18 NPT	7.75	7.00	S327	S330	5/32
1095840	D5424W	1.500	12.00	3/8-18 NPT	9.25	8.00	S327	S330	5/32
1095841	D5428W	1.750	14.00	3/8-18 NPT	10.12	9.00	S337	S340	3/16
1095842	D5432W	2.000	16.00	3/8-18 NPT	12.75	10.00	S337	S340	3/16
1095844	D5440W	2.500	20.00	3/8-18 NPT	14.87	12.00	S350	S353	1/4

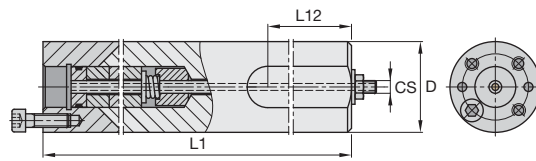


Carbide shank DeVibrator without through coolant.
Max 8:1 overhang ratio.

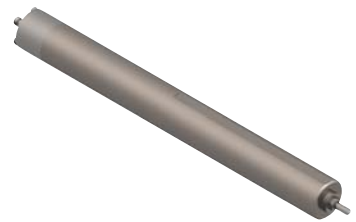


■ C-6400

order number	catalog number	D	L1	L12	L1 min	screw 3 required	screw	hex
1152790	C6420	1.250	11.00	8.75	7.00	S412	S415	5/32

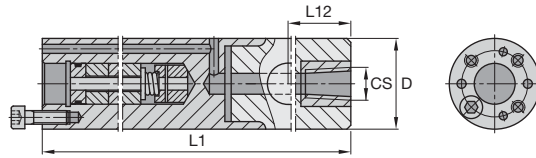


Carbide shank DeVibrator with through coolant.
Max 8:1 overhang ratio.

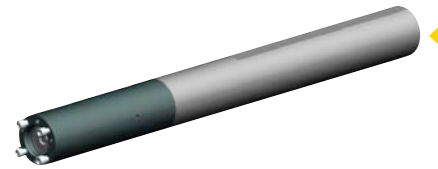


■ C-6400W

order number	catalog number	D	L1	CS	L12	L1 min	screw 3 required	screw	hex
1152777	C6420W	1.250	11.00	1/4-28 UNF	8.75	7.00	S412	S415	5/32
1152778	C6424W	1.500	14.00	1/4-28 UNF	11.25	8.00	S412	S415	5/32
1152779	C6428W	1.750	16.00	3/8-24UNF	11.38	9.00	S422	S425	3/16
1152780	C6432W	2.000	19.00	3/8-24UNF	15.75	10.00	S422	S425	3/16
1152782	C6440W	2.500	24.00	3/8-24UNF	18.00	12.00	S432	S435	1/4



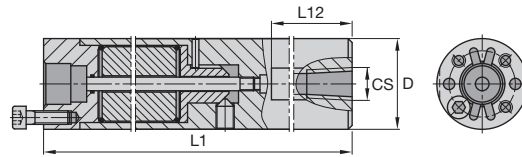
Composite shank DeVibrator with through coolant.
Max 10:1 overhang ratio.



ISO/ANSI Turning

■ C-11900W

order number	catalog number	D	L1	CS	L12	screw 3 required	screw	hex
1152787	C11932W	2.000	20.00	3/8-18 NPT	9.75	S337	S340	3/16
1152789	C11940W	2.500	25.00	3/8-18 NPT	11.75	S350	S353	1/4



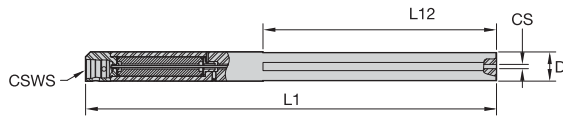
Tunable steel shank with through coolant.



■ D...TTB • Inch

order number	catalog number	D	L1	CS	L12	L1 min	screw 3 required	screw	hex
1091551	D16TTB16	1.000	15.00	1/4-18 NPT	8.00	9.09	S316	S321	9/64
1085914	D20TTB18	1.250	16.13	1/4-18 NPT	10.00	9.59	S325	S329	5/32
1082075	D24TTB21	1.500	19.38	1/4-18 NPT	12.00	11.04	S327	S330	5/32
1086694	D28TTB25	1.750	23.38	1/4-18 NPT	15.75	12.35	S337	S340	3/16
1024853	D32TTB28	2.000	26.37	1/4-18 NPT	18.50	12.27	S337	S340	3/16
1091555	D40TTB35	2.500	33.38	1/4-18 NPT	24.75	14.88	S350	S353	1/4
1309256	D48TTB42	3.000	40.37	1/4-18 NPT	24.00	20.00	S350	S353	1/4
1909159	D64TTB56	4.000	54.48	3/8-18 NPT	20.00	25.76	S350	S353	1/4

NOTE: Order number 1309256 and order number 1909159 use 2.5" diameter heads.

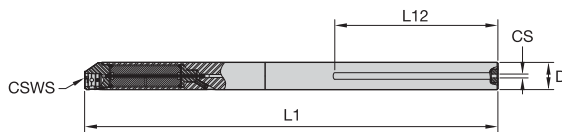


Tunable steel shank with through coolant and front end KM™ clamping unit.



■ D...TTB-KM • Inch

order number	catalog number	D	L1	CS	L12	L1 min	CSWS system size
3637915	D28TTB26KM40	1.750	24.44	1/4-18 NPT	15.75	13.50	KM40
3637916	D32TTB29KM40	2.000	27.44	1/4-18 NPT	18.50	13.38	KM40
3637917	D40TTB36KM40	2.500	34.45	1/4-18 NPT	24.75	16.00	KM40
3638033	D48TTB45KM63	3.000	42.23	1/4-18 NPT	24.00	21.70	KM63
3638034	D64TTB58KM63	4.000	56.24	3/8-18 NPT	20.00	27.62	KM63



Carbide tunable boring bar with KM™ Quick-Change connection.



■ G-TTB-KM • Inch

order number	catalog number	D	L1	CS	L12	CSWS system size
3954294	G32TTB41KM40	2.000	39.45	3/8-18 NPT	12.00	KM40
3954295	G40TTB51KM40	2.500	49.45	3/8-18 NPT	15.00	KM40
3954296	G48TTB63KM63	3.000	58.56	3/8-18 NPT	18.00	KM63

Beyond™ Drive™ Inserts

- Designed for increased productivity.
- Post-coat treatment reduces stress, improves coating adhesion.
- Excellent toughness and wear resistance.
- Better insert wear detection.

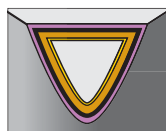
beyond DRIVE™

Post-Coat Grinding — Top and Bottom

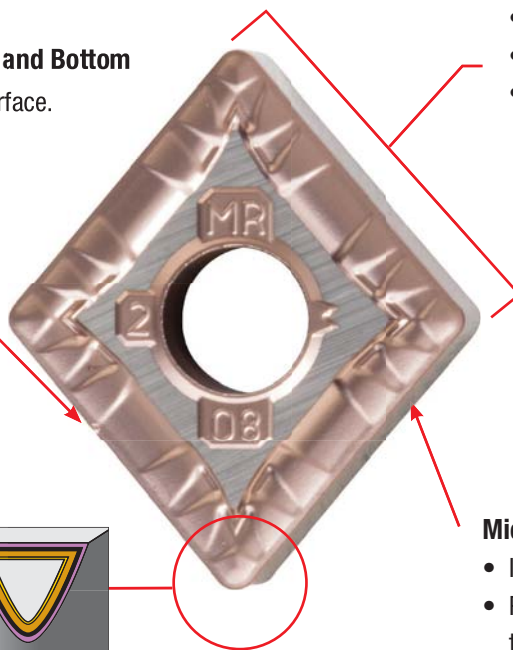
- Provides secure seating surface.

Fine-Grained Alumina Layer

- Provides coating integrity at elevated speeds.
- Higher productivity and dependability at high-cutting temperatures.



TiN/MT-TiCN/TiCN/Al₂O₃/TiCN



Post-Coat Treatment

- Improves edge toughness.
- Long predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.

Micro-Polished Edges

- Improves edge toughness.
- Provides smooth outer surface to reduce forces, friction, and workpiece sticking.

Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.

KENNAMETAL®

kennametal.com



Grooving and Cut-Off

Beyond Evolution • Grooving, Turning, and Cut-Off	C2–C85
Application Guidelines	C84–C85
A4 Groove and Turn	C86–C151
Top Notch • Shallow Grooving.....	C152–C204
Application Guidelines	C197–C204

Getting started made **EASY**

beyond™ EVOLUTION™

Your day made **EASY**

Choosing the right tooling can be complicated and time-consuming. Built on simplicity, we have engineered a new tool that makes every machine operator's life EASY.

Unwilling to sacrifice performance or applications, Kennametal introduces Beyond™ Evolution™.

Beyond™ Evolution™ is the new single-side grooving and cut-off tool that also performs multi-directional turning.

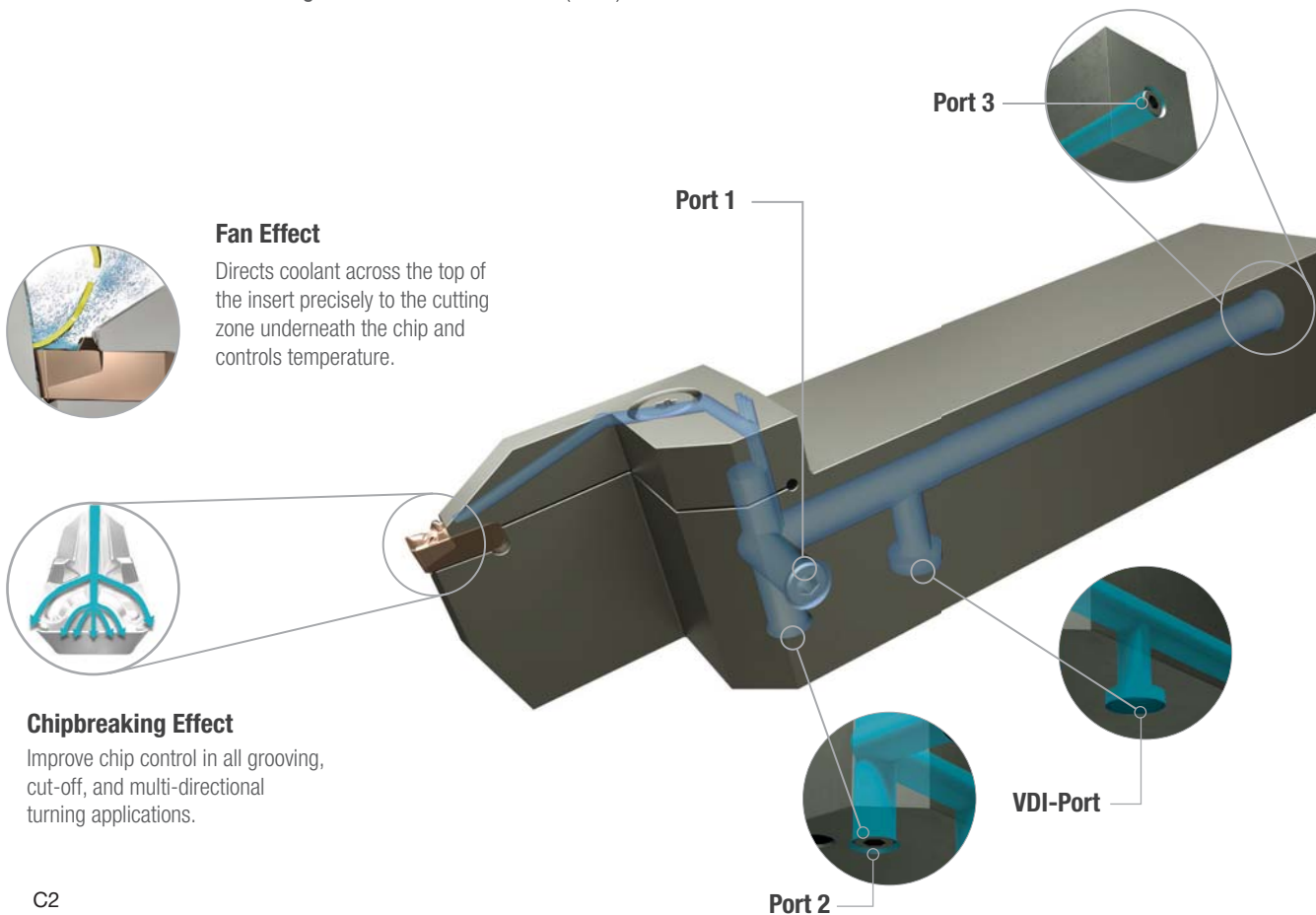


Productivity made **EASY**

Active Coolant Control

If your coolant delivery is typical to the market, you may be applying more heat to the cutting edge than you think. This reduces tool life and increases cycle time.

With Beyond™ Evolution™, you won't have to change your existing equipment. Whether you are using a high-pressure or low-pressure coolant supply, Beyond™ Evolution™, featuring Active Coolant Control, delivers more tool life and higher Metal Removal Rates (MRR).



Fan Effect

Directs coolant across the top of the insert precisely to the cutting zone underneath the chip and controls temperature.

Chipbreaking Effect

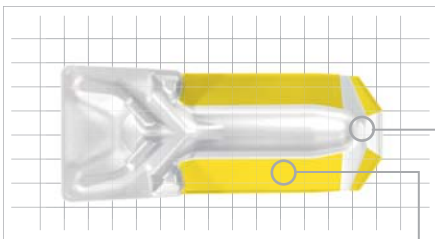
Improve chip control in all grooving, cut-off, and multi-directional turning applications.

Smooth surface finish made EASY Triple-V Seating

Problem: Traditional single-sided grooving and cut-off systems cannot deliver smooth surface finish due to lack of stability.

Solution: The Beyond™ Evolution™ proprietary new Triple-V Seating feature provides functional stability and minimizes vibration.

Three contact surfaces provide unmatched stability:
When combined with GUP and CF chipbreakers, Triple-V Seating provides excellent surface finish.

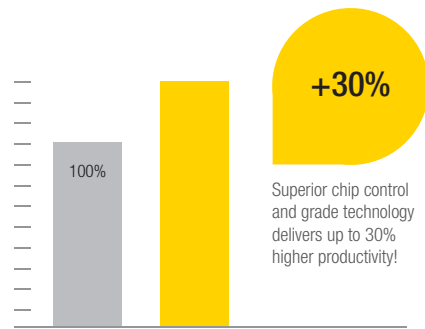
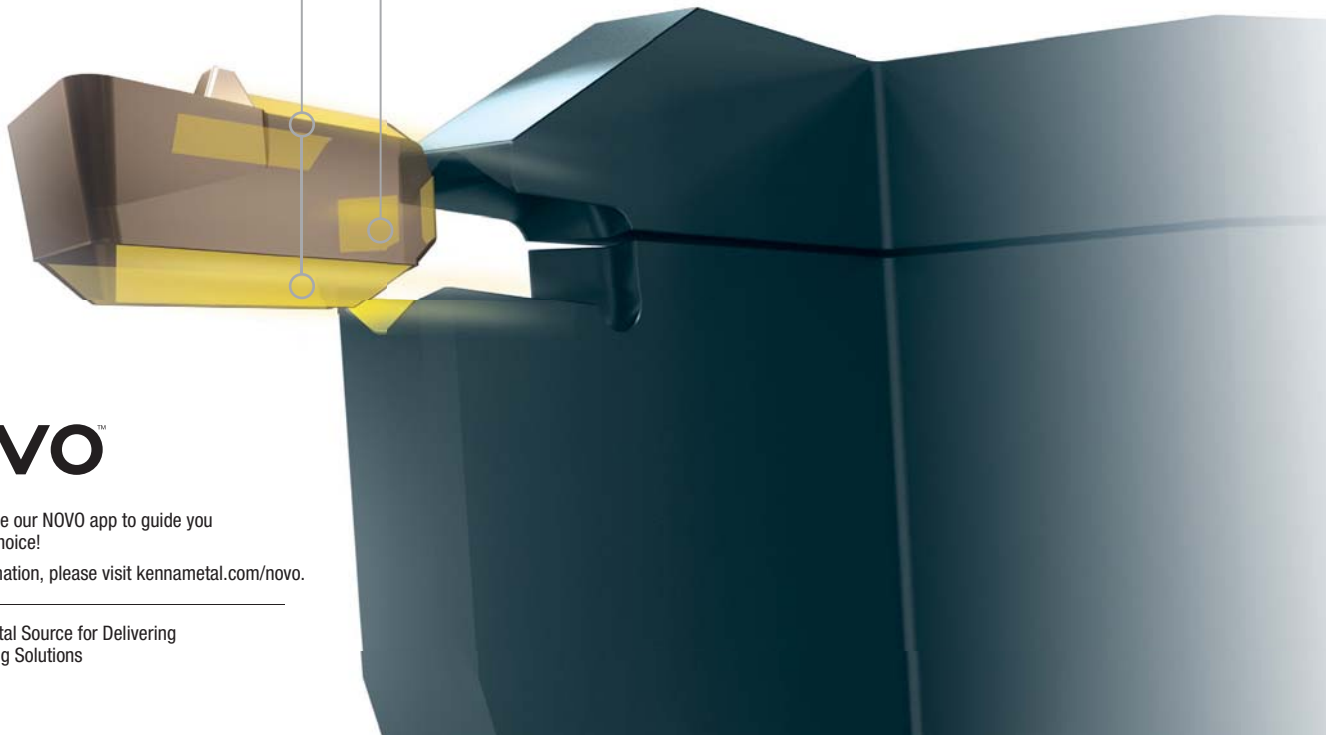


Top and Bottom-V

Precise and secure insert positioning for increased rigidity and dimensional accuracy.

V-Back Design

Unsurpassed grooving, cut-off, and multi-directional turning load stability.



Saving money made EASY

Beyond™ Evolution™, featuring Active Coolant Control, Triple-V Seating, and Beyond™ Drive™ grades with Wear Detection Technology, provides longer tool life, maximum stability, and higher Metal Removal Rates (MRR), resulting in up to 30% higher productivity.



You can also use our NOVO app to guide you to the correct choice!

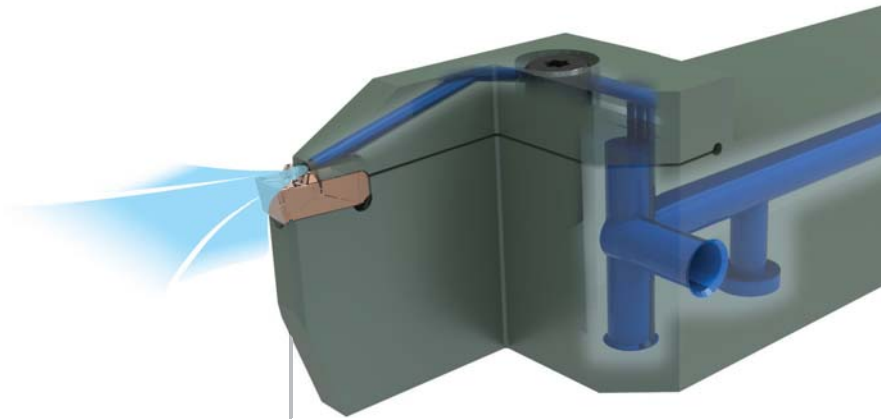
For more information, please visit kenametal.com/novo.

NOVO: The Digital Source for Delivering Smart Machining Solutions

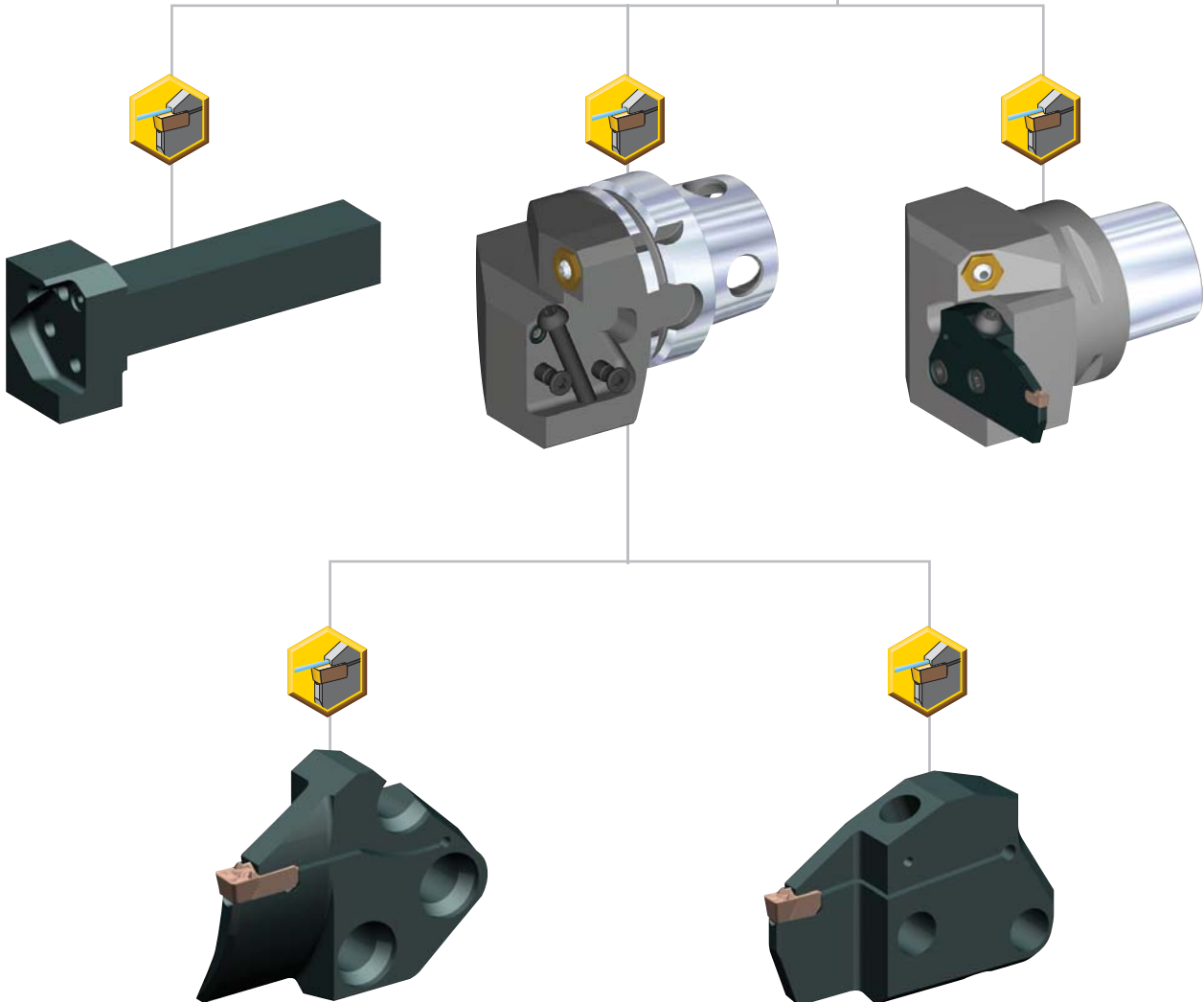
Your day made **EASY** —



Efficient coolant delivery.
Available in seat sizes
3 and higher.



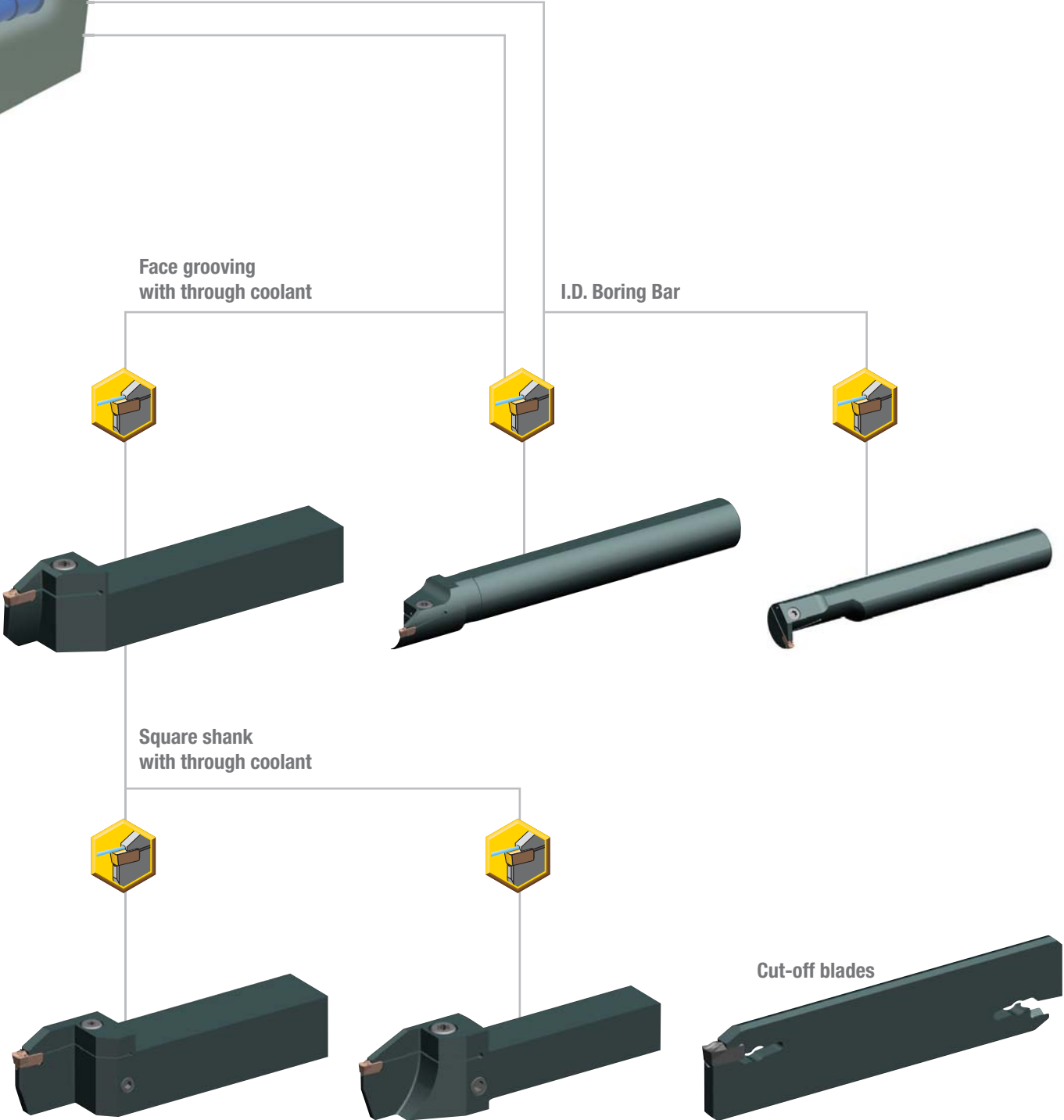
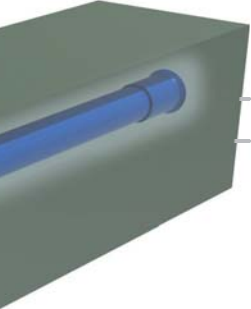
Modular with
through coolant





EVOLUTION™

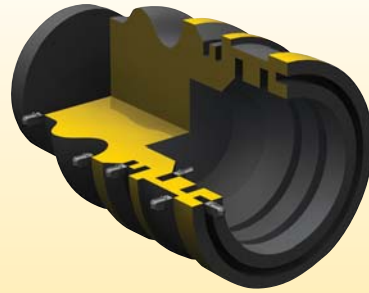
high-performance system.



Step 1 • Identify your grooving or cut-off application

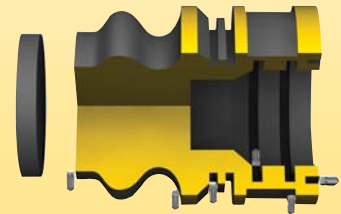
What you need to know:

- Groove depth, width, and profile.
- Material being machined.
- Application to be performed (O.D. and I.D. grooving, turning, face grooving, and cut-off).
- Shank size requirements of the machine.



General Recommendation to Select the Insert Size

for workpiece diameters	insert seat size
<25mm	3
25–50mm	4
>50mm	5–10



Step 2 • Select chipbreaker style and feed rate

Based on the application and seat size, determine the recommended geometry and starting feed rate.

Plunge feed rates

first choice
 alternate choice

Chip Control	Description	Insert Geometry	Seat Size	Corner Radius	Starting Conditions	Plunge Feed Rates inch/rev (mm/rev)							
						.0020 (0.05)	.0040 (0.10)	.0080 (0.15)	.0080 (0.20)	.0100 (0.25)	.0120 (0.30)	.0140 (0.35)	
-GUP	Positive rake angle for lower cutting forces.		1F	.008 (0.2)	.0024 (0.06)	◀▶							
			2	.008 (0.2)	.0031 (0.08)	◀▶							
			3	.008 (0.2)	.0035 (0.09)	◀▶							
				.016 (0.4)	.0043 (0.11)	◀▶							
			4	.016 (0.4)	.0047 (0.12)	◀▶							
				.031 (0.8)	.0059 (0.15)	◀▶							
				.016 (0.4)	.0059 (0.15)	◀▶							
				.031 (0.8)	.0059 (0.16)	◀▶							
				.016 (0.4)	.0059 (0.15)	◀▶							
				.031 (0.8)	.0071 (0.18)	◀▶							
	.047 (1.2)	.0079 (0.20)	◀▶										
	.031 (0.8)	.0079 (0.20)	◀▶										
	.047 (1.2)	.0087 (0.22)	◀▶										
	.047 (1.2)	.0094 (0.24)	◀▶										
-GUN	Stable negative cutting edge allowing for more aggressive applications.		1F	.008 (0.2)	.0024 (0.06)	◀▶							
			2	.008 (0.2)	.0031 (0.08)	◀▶							
			3	.008 (0.2)	.0035 (0.09)	◀▶							
				.016 (0.4)	.0043 (0.11)	◀▶							
			4	.016 (0.4)	.0047 (0.12)	◀▶							
				.031 (0.8)	.0059 (0.15)	◀▶							
				.016 (0.4)	.0059 (0.15)	◀▶							
				.031 (0.8)	.0059 (0.16)	◀▶							
				.016 (0.4)	.0059 (0.15)	◀▶							
				.031 (0.8)	.0071 (0.18)	◀▶							
	.047 (1.2)	.0079 (0.20)	◀▶										
	.031 (0.8)	.0079 (0.20)	◀▶										
	.047 (1.2)	.0087 (0.22)	◀▶										
	.047 (1.2)	.0094 (0.24)	◀▶										

Material Legend:
 P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous
 S High-Temp Alloys
 H Hardened Materials

Maximum Feed Rate Values

Material Group	Feed Factor
M	.8
N	1.2
S	.8
H	.5

Data above is for P and K material groups. Maximum feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.

I.D. and Face Grooving
For I.D. and face grooving applications, reduce feed rate by 20%.

Step 3 • Select the starting speed

Based on material and grade, identify starting speed (vc). First choice is in **bold** type.

- A Based on material group and grade, identify starting speed (vc).
- B First choice starting speed is in **bold**.

Recommended Starting Speeds [SFM]																						
Material Group	K313			KCU10			KCU25			KCM35B			KCP10B			KCP25B			KCK20B A			
P	0-1	-	-	-	450	925	1180	360	740	880	290	590	700	600	1320	1475	475	925	1200	660	1450	1620
	2	-	-	-	450	650	1000	360	520	880	290	420	510	600	880	1150	475	650	1000	660	970	1260
	3	-	-	-	450	510	800	360	410	800	290	330	510	550	630	850	450	510	800	600	700	920
	4	-	-	-	250	360	550	200	290	540	160	230	350	300	480	650	250	360	600	330	530	710
	5	-	-	-	400	660	850	320	530	680	260	420	540	500	720	1000	400	650	875	550	800	1100
	6	-	-	-	350	500	750	280	400	600	220	320	480	400	600	900	350	500	750	440	660	990
M	1	200	300	400	450	700	940	300	550	800	250	400	450	-	-	-	-	-	-	-	-	-
	2	150	250	350	400	650	800	300	500	800	250	350	450	-	-	-	-	-	-	-	-	-
	3	120	220	320	400	600	800	300	450	700	250	300	450	-	-	-	-	-	-	-	-	-
K	1	100	250	400	400	600	800	320	480	760	-	-	-	560	800	1440	455	650	1170	700	1000	1800
	2	75	225	350	300	500	800	240	400	560	-	-	-	400	640	1120	325	520	910	500	800	1400
	3	65	190	300	200	350	500	160	280	400	-	-	-	400	560	880	325	455	715	500	700	1100
N	1-2	500	1200	2000	500	1800	3200	400	1440	2560	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	400	900	1400	400	1200	2360	320	960	1600	-	-	-	-	-	-	-	-	-	-	-	-
	5	150	300	500	300	550	800	240	440	640	-	-	-	-	-	-	-	-	-	-	-	-
	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Step 4 • Select toolholder based on application

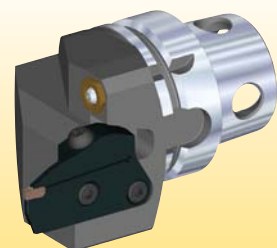
Choose the high-performance holder based on your specific grooving or cut-off application, with the corresponding seat size.

Style		Application
	Boring Bar	• For use in I.D. grooving applications.
	Cut-Off Blade	• Allows user to vary the depth of cut.
	Toolholder – Integral	• Offers the most stability over other styles.
	Toolholder – Modular	• Interchangeable blades for versatility.
	KM™ – Modular KM4X™ – Modular	• Best-in-class KM™ Quick-Change platform.
	PSC – Modular	• The modular system in the PSC Quick-Change platform.

Step 5 • Select the insert and holder from catalog page

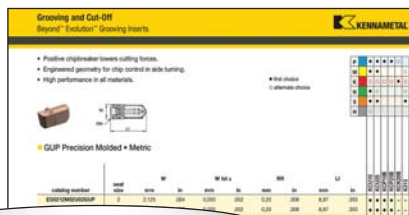
Congratulations!

You have successfully maximized your productivity by selecting the best insert geometry, grade, and cutting specifications for your application!



How Do Catalog Numbers Work?

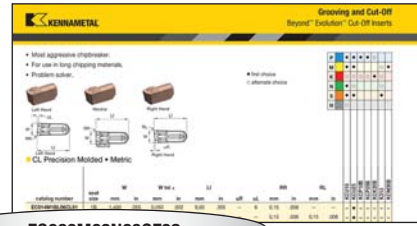
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



EG0312M03U02GUP

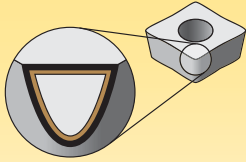
E	G	0312	M	03	U	02	GUP																																																								
Family Name	Insert Type	Groove Width	Unit	Seat Size	Tolerance	Corner Radius	Chipbreaker/ Edge Condition																																																								
Beyond™ Evolution™	G = Square R = Full Radius	Metric = 1/100 mm Inch = 1/1000"	M = Metric I = Inch		U = Precision Molded P = Precision Ground		GUP = Groove-Turn Universal Positive GUN = Groove-Turn Universal Negative FB = Flat Top Blank PB = Positive Chip Control Blank																																																								
				<table border="1"> <thead> <tr> <th rowspan="2">seat size</th> <th colspan="2">groove width</th> </tr> <tr> <th>mm</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>1B</td><td>1,40</td><td>.055</td></tr> <tr><td>1F</td><td>1,60–1,99</td><td>.063–.078</td></tr> <tr><td>02</td><td>2,00–2,99</td><td>.079–.117</td></tr> <tr><td>03</td><td>3,00–3,99</td><td>.118–.156</td></tr> <tr><td>04</td><td>4,00–4,99</td><td>.157–.196</td></tr> <tr><td>05</td><td>5,00–5,99</td><td>.197–.235</td></tr> <tr><td>06</td><td>6,00–7,99</td><td>.236–.314</td></tr> <tr><td>08</td><td>8,00–8,99</td><td>.315–.353</td></tr> <tr><td>10</td><td>9,00–10,12</td><td>.354–.398</td></tr> </tbody> </table> <p>*.312" = seat size 08</p>	seat size	groove width		mm	inch	1B	1,40	.055	1F	1,60–1,99	.063–.078	02	2,00–2,99	.079–.117	03	3,00–3,99	.118–.156	04	4,00–4,99	.157–.196	05	5,00–5,99	.197–.235	06	6,00–7,99	.236–.314	08	8,00–8,99	.315–.353	10	9,00–10,12	.354–.398	<table border="1"> <thead> <tr> <th colspan="2">mm</th> </tr> </thead> <tbody> <tr><td>00</td><td>full radius</td></tr> <tr><td>01</td><td>0,1</td></tr> <tr><td>02</td><td>0,2</td></tr> <tr><td>04</td><td>0,4</td></tr> <tr><td>08</td><td>0,8</td></tr> <tr><td>12</td><td>1,2</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">inch</th> </tr> </thead> <tbody> <tr><td>00</td><td>full radius</td></tr> <tr><td>05</td><td>.008</td></tr> <tr><td>1</td><td>.016</td></tr> <tr><td>2</td><td>.032</td></tr> <tr><td>3</td><td>.047</td></tr> </tbody> </table>	mm		00	full radius	01	0,1	02	0,2	04	0,4	08	0,8	12	1,2	inch		00	full radius	05	.008	1	.016	2	.032	3	.047
seat size	groove width																																																														
	mm	inch																																																													
1B	1,40	.055																																																													
1F	1,60–1,99	.063–.078																																																													
02	2,00–2,99	.079–.117																																																													
03	3,00–3,99	.118–.156																																																													
04	4,00–4,99	.157–.196																																																													
05	5,00–5,99	.197–.235																																																													
06	6,00–7,99	.236–.314																																																													
08	8,00–8,99	.315–.353																																																													
10	9,00–10,12	.354–.398																																																													
mm																																																															
00	full radius																																																														
01	0,1																																																														
02	0,2																																																														
04	0,4																																																														
08	0,8																																																														
12	1,2																																																														
inch																																																															
00	full radius																																																														
05	.008																																																														
1	.016																																																														
2	.032																																																														
3	.047																																																														

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



EC030M03N00CF02

E	C	030	M	03	N	00	CF	02																																																																	
Family Name	Insert Type	Cutting Edge Width	Unit	Seat Size	Hand of Insert	Approach Angle	Chipbreaker	Corner Radius																																																																	
Beyond™ Evolution™	C = Cut-Off		M = Metric I = Inch		N = Neutral L = Left hand R = Right hand	00 = Neutral 06 = 6°	CL = Cut-Off Low Feed CF = Cut-Off Fine CM = Cut-Off Medium CR = Cut-Off Rough																																																																		
		<table border="1"> <thead> <tr> <th>Cutting Edge Width</th> <th>mm</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>014</td><td>1,4</td><td>.055</td></tr> <tr><td>020</td><td>2,0</td><td>.079</td></tr> <tr><td>030</td><td>3,0</td><td>.118</td></tr> <tr><td>040</td><td>4,0</td><td>.157</td></tr> <tr><td>050</td><td>5,0</td><td>.197</td></tr> <tr><td>060</td><td>6,0</td><td>.236</td></tr> <tr><td>070</td><td>7,0</td><td>.279</td></tr> <tr><td>080</td><td>8,0</td><td>.315</td></tr> </tbody> </table>	Cutting Edge Width	mm	inch	014	1,4	.055	020	2,0	.079	030	3,0	.118	040	4,0	.157	050	5,0	.197	060	6,0	.236	070	7,0	.279	080	8,0	.315		<table border="1"> <thead> <tr> <th>Seat Size</th> <th>mm</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>1B</td><td>1,4</td><td>.055</td></tr> <tr><td>1F</td><td>2,0</td><td>.079</td></tr> <tr><td>02</td><td>3,0</td><td>.118</td></tr> <tr><td>03</td><td>4,0</td><td>.157</td></tr> <tr><td>04</td><td>5,0</td><td>.197</td></tr> <tr><td>05</td><td>6,0</td><td>.236</td></tr> <tr><td>06</td><td>7,0</td><td>.279</td></tr> <tr><td>08</td><td>8,0</td><td>.315</td></tr> </tbody> </table>	Seat Size	mm	inch	1B	1,4	.055	1F	2,0	.079	02	3,0	.118	03	4,0	.157	04	5,0	.197	05	6,0	.236	06	7,0	.279	08	8,0	.315		<table border="1"> <thead> <tr> <th>Corner Radius</th> <th>mm</th> <th>inch</th> </tr> </thead> <tbody> <tr><td>01</td><td>0,1</td><td>.004</td></tr> <tr><td>02</td><td>0,2</td><td>.008</td></tr> <tr><td>04</td><td>0,4</td><td>.016</td></tr> </tbody> </table>	Corner Radius	mm	inch	01	0,1	.004	02	0,2	.008	04	0,4	.016	
Cutting Edge Width	mm	inch																																																																							
014	1,4	.055																																																																							
020	2,0	.079																																																																							
030	3,0	.118																																																																							
040	4,0	.157																																																																							
050	5,0	.197																																																																							
060	6,0	.236																																																																							
070	7,0	.279																																																																							
080	8,0	.315																																																																							
Seat Size	mm	inch																																																																							
1B	1,4	.055																																																																							
1F	2,0	.079																																																																							
02	3,0	.118																																																																							
03	4,0	.157																																																																							
04	5,0	.197																																																																							
05	6,0	.236																																																																							
06	7,0	.279																																																																							
08	8,0	.315																																																																							
Corner Radius	mm	inch																																																																							
01	0,1	.004																																																																							
02	0,2	.008																																																																							
04	0,4	.016																																																																							



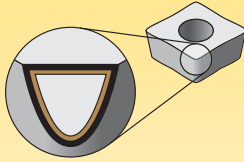
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades

Coating		Grade Description		05	10	15	20	25	30	35	40	45		
K313		<p>Composition: A hard, low binder content, unalloyed WC/Co fine-grain grade.</p> <p>Application: Exceptional edge wear resistance combined with very high strength for machining titanium, cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and most high-temp alloys. Superior thermal deformation and depth-of-cut notch resistance. The grain structure is well controlled for minimal pits and flaws, which contributes to long, reliable service.</p>												
			M											
			K											
			N											
KCU10		<p>Composition: An advanced multilayer PVD coating over a very deformation-resistant unalloyed carbide substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities.</p> <p>Application: The KCU10™ grade is ideal for finishing to general machining of most workpiece materials at a wide range of speed and feed capabilities. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and super alloys with improved edge toughness and higher cutting speed/feed capability.</p>												
			P											
			M											
			K											
			N											
			S											
KCU25		<p>Composition: An advanced PVD grade with hard AlTiN coating and fine-grain unalloyed substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities.</p> <p>Application: The KCU25™ grade is ideal for general machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials in a wide range of speeds and feeds with improved edge toughness for interrupted cuts and high feed rates.</p>												
			P											
			M											
			K											
			N											
			S											



Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

CVD-Coated Carbide Grades

Coating	Grade Description	wear resistance ← → toughness									
		05	10	15	20	25	30	35	40	45	
 KCP10B —	<p>Composition: A specially engineered wear-resistant carbide grade with a newly designed multilayer MTCVD-TiCN-Al₂O₃-TiOCN coating with superior interlayer adhesion.</p> <p>Application: An excellent finishing to medium machining grade for a variety of workpiece materials, including most steels, ferritic, martensitic, and PH stainless steels, and cast irons. The cobalt-enriched substrate offers a balanced combination of deformation resistance and edge toughness, while the thick coating layers offer outstanding abrasion resistance and crater wear resistance for high-speed machining. Smooth coating provides resistance to edge build-up and microchipping and produces excellent surface finishes.</p>	P									
 KCP25B —	<p>Composition: A tough cobalt-enriched carbide grade with a newly designed multilayer MTCVD-TiCN-Al₂O₃-TiOCN coating with superior interlayer adhesion.</p> <p>Application: Best general-purpose turning grade for most steels and ferritic and martensitic stainless steels. The substrate design ensures adequate deformation resistance with excellent insert edge strength. Coating layers offer good wear resistance over a wide range of machining conditions and the post-coat treatment minimizes microchipping and improves coating adhesion to substrate leading to long tool life and improved workpiece finishes.</p>	P									
 KCK20B —	<p>Composition: A multilayered coating with thick MTCVD TiCN-Al₂O₃-TiOCN layers applied over a carbide substrate specifically engineered for cast irons.</p> <p>Application: Delivers consistent performance in high-speed machining of gray and ductile irons. The substrate design permits the insert to stay in the cut for a long time at high speeds with minimum deformation. The thick CVD coating and post-coat treatment provide superior wear resistance ensuring long and consistent tool life. Can be applied both in straight and lightly interrupted cuts.</p>	P									
 KCM35B —	<p>Composition: A multilayer TiN-MT-TiCN-Al₂O₃-TiOCN CVD coating over a super-tough substrate.</p> <p>Application: KCM35B is an excellent general purpose to roughing grade for machining stainless steels and roughing steels in turning and cut-off applications. The substrate provides improved toughness while the coating layers offer improved abrasion resistance and dependability at high cutting temperatures, along with wear identification. The polished surface improves edge toughness and provides a smooth outer surface to reduce forces and resist workpiece build-up on the cutting edge even at low cutting speeds. The grade is available in multiple sizes and geometries appropriate for increased feeds and large depths of cut.</p>	P									

beyond DRIVE™

beyond DRIVE™

beyond DRIVE™

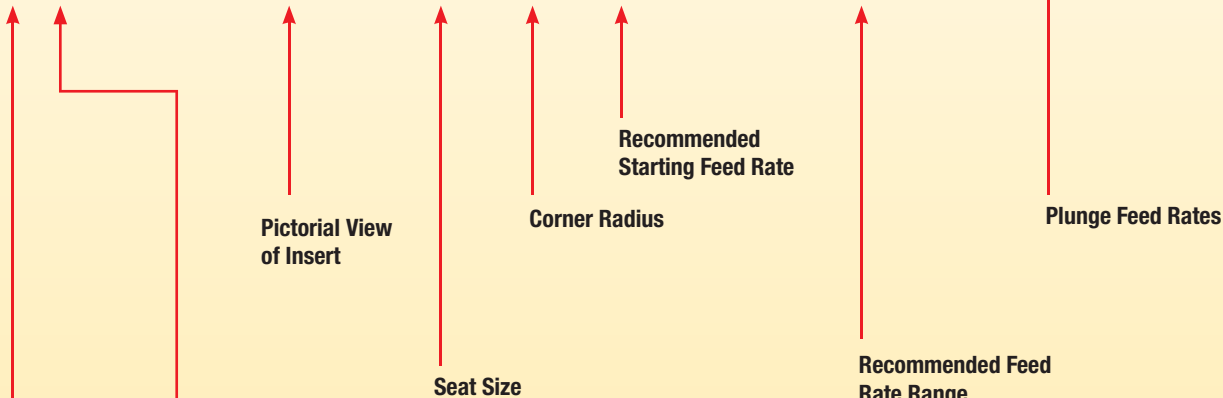
beyond DRIVE™

Select the geometry

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

- first choice
- alternate choice

Chip Control	Description	Insert Geometry	Seat Size	Corner Radius		Plunge Feed Rates inch/rev (mm/rev)					
				in (mm)	in (mm)	.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)	.0100 (0,25)	.0120 (0,30)
-GUP	Positive rake angle for lower cutting forces.		1F	.008 (0,2)	.0024 (0,06)	[Feed Rate Range Bar]					
			2	.008 (0,2)	.0031 (0,08)	[Feed Rate Range Bar]					
			3	.008 (0,2)	.0035 (0,09)	[Feed Rate Range Bar]					
				.016 (0,4)	.0043 (0,11)	[Feed Rate Range Bar]					
			4	.016 (0,4)	.0047 (0,12)	[Feed Rate Range Bar]					
				.031 (0,8)	.0059 (0,15)	[Feed Rate Range Bar]					



Primary Workpiece Material Group

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

- first choice
- alternate choice

Chip Control Geometry Designation

Maximum Feed Rate Values

Data above is for P and K material groups. Maximum feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.	Material Group	Feed Factor
	M	.8
	N	1.2
	S	.8
	H	.5

■ Plunge feed rates

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

- first choice
- alternate choice

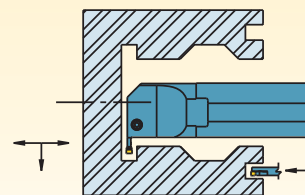
Chip Control	Description	Insert Geometry	Seat Size	Corner Radius	Starting Conditions	Plunge Feed Rates inch/rev (mm/rev)							
				in (mm)	in (mm)	.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)	.0100 (0,25)	.0120 (0,30)	.0140 (0,35)	
-GUP	Positive rake angle for lower cutting forces.		1F	.008 (0,2)	.0024 (0,06)	◆							
			2	.008 (0,2)	.0031 (0,08)		◆						
			3	.008 (0,2)	.0035 (0,09)		◆						
				.016 (0,4)	.0043 (0,11)		◆						
			4	.016 (0,4)	.0047 (0,12)		◆						
				.031 (0,8)	.0059 (0,15)		◆						
			5	.016 (0,4)	.0059 (0,15)		◆						
				.031 (0,8)	.0059 (0,16)		◆						
			6	.016 (0,4)	.0059 (0,15)		◆						
				.031 (0,8)	.0071 (0,18)		◆						
8	.047 (1,2)	.0079 (0,20)		◆									
	.031 (0,8)	.0079 (0,20)		◆									
10	.047 (1,2)	.0087 (0,22)		◆									
	.047 (1,2)	.0094 (0,24)		◆									
-GUN	Stable negative cutting edge allowing for more aggressive applications.		1F	.008 (0,2)	.0024 (0,06)	◆							
			2	.008 (0,2)	.0031 (0,08)		◆						
			3	.008 (0,2)	.0035 (0,09)		◆						
				.016 (0,4)	.0043 (0,11)		◆						
			4	.016 (0,4)	.0047 (0,12)		◆						
				.031 (0,8)	.0059 (0,15)		◆						
			5	.016 (0,4)	.0059 (0,15)		◆						
				.031 (0,8)	.0059 (0,16)		◆						
			6	.016 (0,4)	.0059 (0,15)		◆						
				.031 (0,8)	.0071 (0,18)		◆						
8	.047 (1,2)	.0079 (0,20)		◆									
	.031 (0,8)	.0079 (0,20)		◆									
10	.047 (1,2)	.0087 (0,22)		◆									
	.047 (1,2)	.0094 (0,24)		◆									

Maximum Feed Rate Values

Data above is for P and K material groups. Maximum feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.	Material Group	Feed Factor
	M	.8
	N	1.2
	S	.8
	H	.5

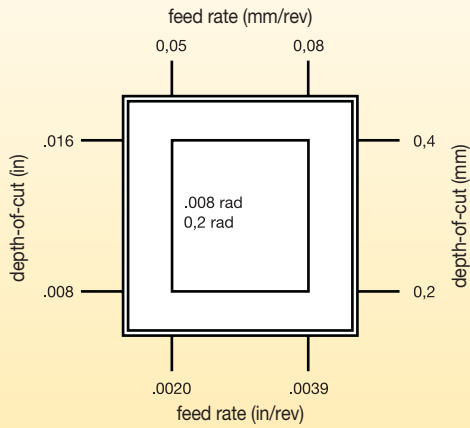
I.D. and Face Grooving

For I.D. and face grooving applications, reduce feed rate by 20%.

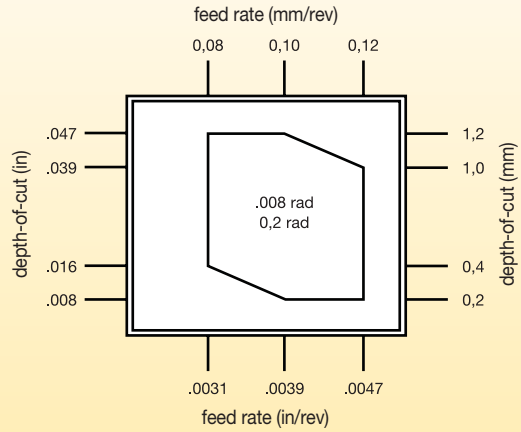


■ Turn and profile feed rates

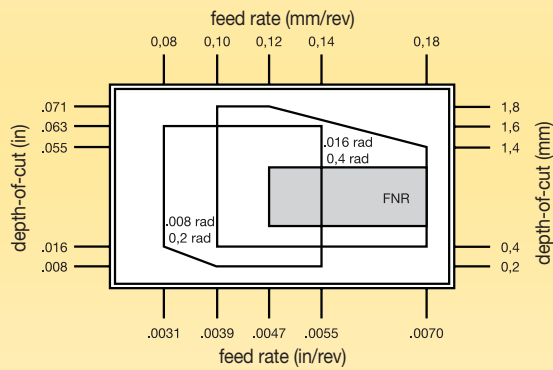
Seat Size 1F



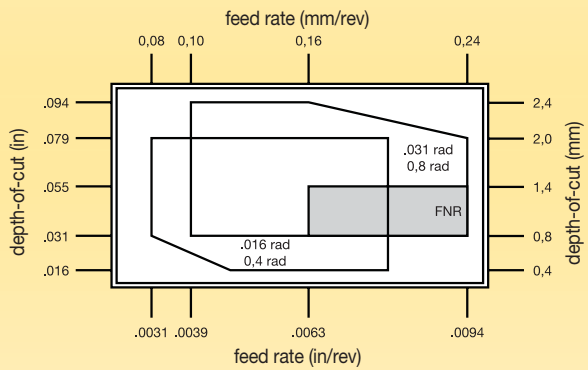
Seat Size 2



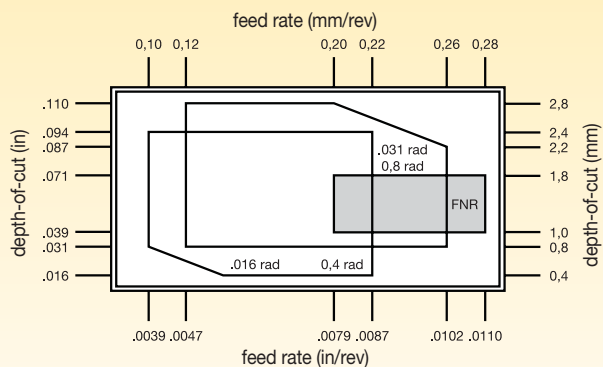
Seat Size 3



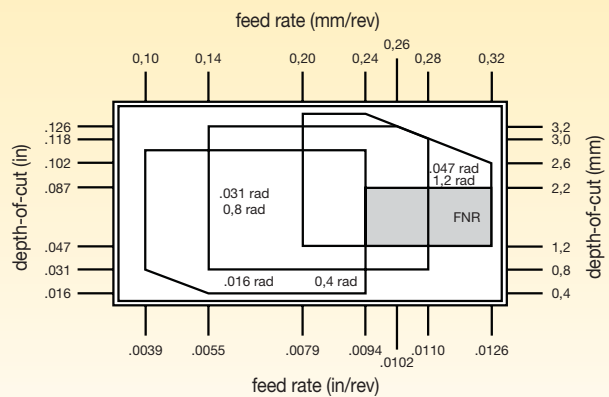
Seat Size 4



Seat Size 5



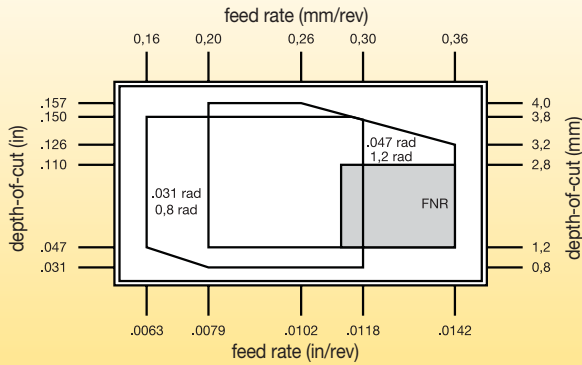
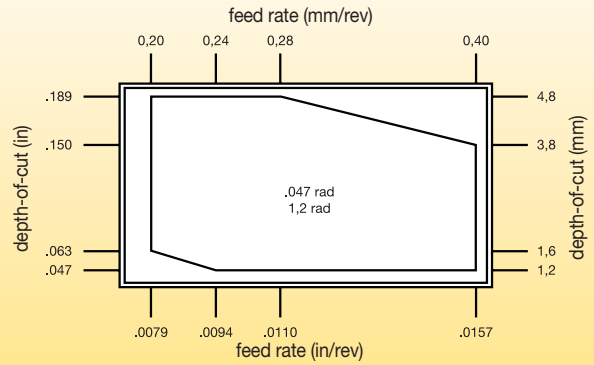
Seat Size 6



* FNR = Full Nose Radius

(continued)

(Turn and profile feed rates — continued)

Seat Size 8

Seat Size 10

Cut-Off Feed Rates
Plunge feed rates

- first choice
- alternate choice

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

Geometry	Description	Insert Geometry	Seat Size	Starting Conditions in (mm)	Cut-Off Feed Rates inch/rev (mm/rev)							
					.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)	.0100 (0,25)	.0120 (0,30)	.0140 (0,35)	.0160 (0,40)
-CL	Aggressive geometry for hard to break chips.		1B	.0024 (0,06)	◊							
			2	.0028 (0,07)	◊							
			3	.0031 (0,08)	◊							
			4	.0035 (0,09)	◊							
-CF	Positive geometry for reduced cutting forces.		1B	.0024 (0,06)	◊							
			2	.0028 (0,07)	◊							
			3	.0035 (0,09)	◊							
			4	.0043 (0,11)	◊							
			5	.0051 (0,13)	◊							
-CM	Stable cutting edge for aggressive feed rates. Primarily in cast iron.		1B	.0024 (0,06)	◊							
			2	.0028 (0,07)	◊							
			3	.0035 (0,09)	◊							
			4	.0043 (0,11)	◊							
			5	.0055 (0,14)	◊							
			6	.0063 (0,16)	◊							
-CR	Most stable cutting edge for steel.		2	.0039 (0,10)	◊							
			3	.0055 (0,14)	◊							
			4	.0063 (0,16)	◊							
			5	.0075 (0,19)	◊							
			6	.0083 (0,21)	◊							
			8	.0090 (0,23)	◊							

NOTE: For cut-off inserts with a lead angle, maximum feed rate should be reduced by up to 40%.

Maximum Feed Rate Values

Data above is for P and K material groups. Maximum feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.	Material Group	Feed Factor
	M	.8
	N	1.2
	S	.8
	H	.5

Recommended Starting Speeds [m/min]

Grooving and Cut-Off

Material Group		K313			KCU10			KCU25			KCM35B			KCP10B			KCP25B			KCK20B		
P	0-1	-	-	-	140	280	350	110	225	270	90	180	213	185	400	450	145	290	365	200	440	490
	2	-	-	-	140	200	300	110	160	260	90	130	155	185	270	350	145	200	305	200	300	380
	3	-	-	-	140	155	245	110	125	235	90	100	155	170	190	260	140	155	245	600	200	280
	4	-	-	-	75	110	170	60	90	160	50	70	110	90	145	200	75	110	180	100	160	220
	5	-	-	-	120	200	260	100	160	210	80	130	165	150	220	305	120	200	270	165	240	330
	6	-	-	-	110	150	230	85	120	185	70	100	145	120	180	275	110	150	230	130	190	300
M	1	60	90	120	140	210	280	90	170	245	75	120	135	-	-	-	-	-	-	-	-	-
	2	45	75	110	120	200	245	90	150	245	75	110	135	-	-	-	-	-	-	-	-	-
	3	35	65	100	120	180	245	90	140	210	75	90	135	-	-	-	-	-	-	-	-	-
K	1	30	75	120	120	180	245	100	145	225	-	-	-	170	245	440	140	200	360	210	305	550
	2	25	70	110	90	150	240	70	120	170	-	-	-	120	195	340	100	160	280	150	245	430
	3	20	60	90	60	110	150	50	85	120	-	-	-	120	170	270	100	140	220	150	210	335
N	1-2	150	370	610	150	550	975	120	440	780	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	120	275	430	120	365	700	100	290	490	-	-	-	-	-	-	-	-	-	-	-	-
	5	45	90	150	90	170	245	70	135	195	-	-	-	-	-	-	-	-	-	-	-	-
	6	40	75	150	120	210	305	100	170	245	-	-	-	-	-	-	-	-	-	-	-	-
	S	1	8	30	75	15	55	135	8	40	60	8	35	60	-	-	-	-	-	-	-	-
2		8	35	75	15	60	135	8	30	75	8	30	60	-	-	-	-	-	-	-	-	-
3		8	40	75	15	70	150	15	40	75	15	35	60	-	-	-	-	-	-	-	-	-
4		8	45	75	15	70	170	8	50	110	15	45	90	-	-	-	-	-	-	-	-	-
H	1	-	-	-	30	45	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	15	30	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Recommended Starting Speeds [SFM]

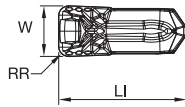
Material Group		K313			KCU10			KCU25			KCM35B			KCP10B			KCP25B			KCK20B		
P	0-1	-	-	-	450	925	1180	360	740	880	290	590	700	600	1320	1475	475	925	1200	660	1450	1620
	2	-	-	-	450	650	1000	360	520	880	290	420	510	600	880	1150	475	650	1000	660	970	1260
	3	-	-	-	450	510	800	360	410	800	290	330	510	550	630	850	450	510	800	600	700	920
	4	-	-	-	250	360	550	200	290	540	160	230	350	300	480	650	250	360	600	330	530	710
	5	-	-	-	400	660	850	320	530	680	260	420	540	500	720	1000	400	650	875	550	800	1100
	6	-	-	-	350	500	750	280	400	600	220	320	480	400	600	900	350	500	750	440	660	990
M	1	200	300	400	450	700	940	300	550	800	250	400	450	-	-	-	-	-	-	-	-	-
	2	150	250	350	400	650	800	300	500	800	250	350	450	-	-	-	-	-	-	-	-	-
	3	120	220	320	400	600	800	300	450	700	250	300	450	-	-	-	-	-	-	-	-	-
K	1	100	250	400	400	600	800	320	480	760	-	-	-	560	800	1440	455	650	1170	700	1000	1800
	2	75	225	350	300	500	800	240	400	560	-	-	-	400	640	1120	325	520	910	500	800	1400
	3	65	190	300	200	350	500	160	280	400	-	-	-	400	560	880	325	455	715	500	700	1100
N	1-2	500	1200	2000	500	1800	3200	400	1440	2560	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	400	900	1400	400	1200	2360	320	960	1600	-	-	-	-	-	-	-	-	-	-	-	-
	5	150	300	500	300	550	800	240	440	640	-	-	-	-	-	-	-	-	-	-	-	-
	6	120	250	500	400	700	1000	320	560	800	-	-	-	-	-	-	-	-	-	-	-	-
	S	1	25	100	250	50	180	450	25	125	200	25	125	200	-	-	-	-	-	-	-	-
2		25	110	250	50	195	450	25	100	250	25	100	200	-	-	-	-	-	-	-	-	-
3		25	125	250	50	225	500	50	125	250	50	125	200	-	-	-	-	-	-	-	-	-
4		25	150	250	50	225	550	25	175	350	50	150	300	-	-	-	-	-	-	-	-	-
H	1	-	-	-	100	150	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	50	100	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE: FIRST choice starting speeds are in bold type.
As the average chip thickness increases, the speed should be decreased.

- Positive chipbreaker lowers cutting forces.
- Engineered geometry for chip control in side turning.
- High performance in all materials.

● first choice
○ alternate choice

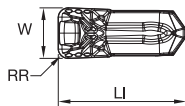
P	●	●	●	●	○				
M	●	●						●	○
K	○	○	○	○	●				○
N	●	○							●
S	●	●							●
H	○								



■ GUP Precision Molded • Metric

catalog number	seat size	W		W tol ±		RR		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
EG0212M02U02GUP	2	2,125	.084	0,050	.002	0,20	.008	8,97	.353	●	●	●	●	-	-	-
EG0251M02U02GUP	2	2,511	.099	0,050	.002	0,20	.008	8,97	.353	●	●	●	●	-	-	-
EG0312M03U02GUP	3	3,125	.123	0,075	.003	0,20	.008	9,60	.378	●	●	●	-	-	-	-
EG0312M03U04GUP	3	3,125	.123	0,075	.003	0,40	.016	9,60	.378	●	●	●	●	-	-	-
EG0412M04U04GUP	4	4,125	.162	0,075	.003	0,40	.016	10,19	.401	●	●	●	●	-	-	-
EG0412M04U08GUP	4	4,125	.162	0,075	.003	0,80	.031	10,19	.401	●	●	●	●	-	-	-
EG0512M05U04GUP	5	5,125	.202	0,075	.003	0,40	.016	12,25	.482	●	●	●	●	-	-	-
EG0512M05U08GUP	5	5,125	.202	0,075	.003	0,80	.031	12,25	.482	●	●	●	●	-	-	-
EG0612M06U04GUP	6	6,125	.241	0,075	.003	0,40	.016	14,60	.575	●	●	●	●	-	-	-
EG0612M06U08GUP	6	6,125	.241	0,075	.003	0,80	.031	14,60	.574	●	●	●	●	-	-	-
EG0712M06U08GUP	6	7,125	.281	0,075	.003	0,80	.032	14,60	.574	●	●	●	●	-	-	-
EG0812M08U08GUP	8	8,125	.320	0,075	.003	0,80	.031	17,47	.688	●	●	●	●	-	-	-
EG0812M08U12GUP	8	8,125	.320	0,075	.003	1,18	.046	17,45	.687	●	●	●	●	-	-	-
EG1012M10U12GUP	10	10,125	.399	0,075	.003	1,20	.047	20,80	.817	●	●	●	●	-	-	-

- More precise widths and better repeatability.



■ GUP Precision Ground • Metric

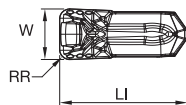
catalog number	seat size	W		W tol ±		RR		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
EG0200M02P02GUP	2	2,000	.079	0,025	.001	0,20	.008	8,80	.347	●	●	-	-	-	-	●
EG0300M03P02GUP	3	3,000	.118	0,025	.001	0,20	.008	9,40	.372	●	●	-	-	-	-	●
EG0300M03P04GUP	3	3,000	.118	0,025	.001	0,40	.016	9,60	.376	●	●	-	-	-	-	●
EG0400M04P04GUP	4	4,000	.157	0,025	.001	0,40	.016	10,10	.399	●	●	-	-	-	-	●
EG0400M04P08GUP	4	4,000	.158	0,025	.001	0,80	.032	10,10	.399	●	●	-	-	-	-	●
EG0500M05P04GUP	5	5,000	.197	0,025	.001	0,40	.016	12,20	.480	●	●	-	-	-	-	●
EG0500M05P08GUP	5	5,000	.197	0,025	.001	0,80	.032	12,20	.480	●	●	-	-	-	-	●
EG0600M06P04GUP	6	6,000	.236	0,025	.001	0,40	.016	14,50	.572	●	●	-	-	-	-	●
EG0600M06P08GUP	6	6,000	.236	0,025	.001	0,80	.031	14,50	.572	●	●	-	-	-	-	●
EG0700M06P08GUP	6	7,000	.276	0,025	.001	0,80	.031	14,50	.572	●	●	-	-	-	-	●
EG0800M08P08GUP	8	8,000	.315	0,025	.001	0,80	.031	17,40	.685	●	●	-	-	-	-	●
EG0800M08P12GUP	8	8,000	.315	0,025	.001	1,20	.047	17,40	.685	●	●	-	-	-	-	●
EG1000M10P12GUP	10	10,000	.394	0,025	.001	1,20	.047	20,70	.815	●	●	-	-	-	-	●

- Positive chipbreaker lowers cutting forces.
- Engineered geometry for chip control in side turning.
- High performance in all materials.

● first choice
○ alternate choice

P	●	●	●	●	○				
M	●	●						●	○
K	○	○	○	○	●				○
N	●	○							●
S	●	●							●
H	○								

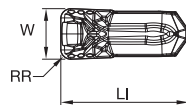
Grooving and Cut-Off



GUP Precision Molded • Inch

catalog number	seat size	W		W tol ±		RR		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
EG130I03U05GUP	3	3,301	.130	0,075	.003	0,20	.008	9,60	.378	●	●	●	●	-	-	-
EG130I03U1GUP	3	3,301	.130	0,075	.003	0,40	.016	9,60	.378	●	●	●	●	-	-	-
EG192I04U1GUP	4	4,877	.192	0,075	.003	0,40	.016	10,19	.401	●	●	●	●	-	-	-
EG192I04U2GUP	4	4,877	.192	0,075	.003	0,79	.031	10,19	.401	●	●	●	●	-	-	-
EG255I06U1GUP	6	6,478	.255	0,075	.003	0,40	.016	14,58	.574	●	●	●	●	-	-	-
EG255I06U2GUP	6	6,478	.255	0,075	.003	0,80	.031	14,58	.574	●	●	●	●	-	-	-
EG317I08U3GUP	8	8,051	.317	0,075	.003	1,19	.047	17,46	.687	●	●	●	●	-	-	-
EG380I10U3GUP	10	9,651	.380	0,075	.003	1,19	.047	20,80	.817	●	●	●	●	-	-	-

- More precise widths and better repeatability.



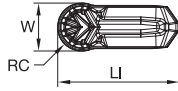
GUP Precision Ground • Inch

catalog number	seat size	W		W tol ±		RR		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
EG063I1FP05GUP	1F	1,600	.063	0,025	.001	0,20	.008	9,00	.353	●	●	-	-	-	-	●
EG094I02P05GUP	2	2,388	.094	0,025	.001	0,20	.008	8,88	.350	●	●	-	-	-	-	●
EG125I03P05GUP	3	3,175	.125	0,025	.001	0,20	.008	9,40	.371	●	●	-	-	-	-	●
EG125I03P1GUP	3	3,175	.125	0,025	.001	0,40	.016	9,40	.372	●	●	-	-	-	-	●
EG187I04P1GUP	4	4,760	.188	0,025	.001	0,40	.016	10,10	.399	●	●	-	-	-	-	●
EG187I04P2GUP	4	4,762	.188	0,025	.001	0,79	.031	10,10	.399	●	●	-	-	-	-	●
EG250I06P1GUP	6	6,350	.250	0,025	.001	0,40	.016	14,50	.572	●	●	-	-	-	-	●
EG250I06P2GUP	6	6,350	.250	0,025	.001	0,80	.031	14,50	.572	●	●	-	-	-	-	●
EG312I08P3GUP	8	7,920	.312	0,025	.001	1,20	.047	17,40	.685	●	●	-	-	-	-	●
EG375I10P3GUP	10	9,525	.375	0,025	.001	1,20	.047	20,70	.815	●	●	-	-	-	-	●

- First choice in profiling.
- >180° cutting edge.
- High performance in all materials.

● first choice
○ alternate choice

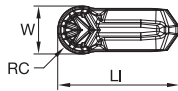
P	●	●	●	●	○				
M	●	●	●	●	●	●	●	○	
K	○	○	○	○	○	●	○	○	
N	●	○	○	○	○	○	○	○	●
S	●	●	○	○	○	○	○	○	●
H	○	○	○	○	○	○	○	○	○



■ GUP Full Radius Precision Molded • Metric

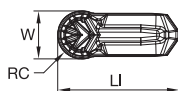
catalog number	seat size	W		W tol ±		RC		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
ER0212M02U00GUP	2	2,120	.084	0,050	.002	1,060	.04	8,97	.353	●	●	●	●	○	○	○
ER0312M03U00GUP	3	3,125	.123	0,075	.003	1,560	.06	9,60	.378	●	●	●	●	○	○	○
ER0412M04U00GUP	4	4,125	.162	0,075	.003	2,060	.08	10,20	.401	●	●	●	●	○	○	○
ER0512M05U00GUP	5	5,125	.202	0,075	.003	2,560	.10	12,20	.482	●	●	●	●	○	○	○
ER0612M06U00GUP	6	6,125	.241	0,075	.003	3,060	.12	14,60	.575	●	●	●	●	○	○	○
ER0812M08U00GUP	8	8,125	.320	0,075	.003	4,060	.16	17,50	.688	●	●	●	●	○	○	○

- More precise widths and better repeatability.



■ GUP Full Radius Precision Ground • Metric

catalog number	seat size	W		W tol ±		RC		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
ER0200M02P00GUP	2	2,000	.079	0,025	.001	1,000	.04	8,91	.351	●	●	○	○	○	○	○
ER0300M03P00GUP	3	3,000	.118	0,025	.001	1,500	.06	9,50	.376	●	●	○	○	○	○	○
ER0400M04P00GUP	4	4,000	.157	0,025	.001	2,000	.08	10,10	.399	●	●	○	○	○	○	○
ER0500M05P00GUP	5	5,000	.197	0,025	.001	2,500	.10	12,20	.480	●	●	○	○	○	○	○
ER0600M06P00GUP	6	6,000	.236	0,025	.001	3,000	.12	14,50	.572	●	●	○	○	○	○	○
ER0800M08P00GUP	8	8,000	.315	0,025	.001	4,000	.16	17,40	.685	●	●	○	○	○	○	○



■ GUP Full Radius Precision Molded • Inch

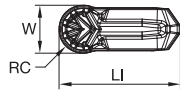
catalog number	seat size	W		W tol ±		RC		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
ER130103U00GUP	3	3,302	.130	0,075	.003	1,650	.07	9,60	.378	●	●	●	●	○	○	○
ER192104U00GUP	4	4,878	.192	0,075	.003	2,440	.10	10,20	.401	●	●	●	●	○	○	○
ER255106U00GUP	6	6,478	.255	0,075	.003	3,240	.13	14,60	.575	●	●	●	●	○	○	○
ER317108U00GUP	8	8,052	.317	0,075	.003	4,030	.16	17,50	.688	●	●	●	●	○	○	○

- First choice in profiling.
- >180° cutting edge.
- High performance in all materials.
- More precise widths and better repeatability.

● first choice
○ alternate choice

P	●	●	●	●	○				
M	●	●	●	●	●	○			
K	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○

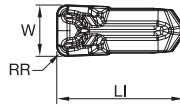
Grooving and Cut-Off



■ GUP Full Radius Precision Ground • Inch

catalog number	seat size	W		W tol ±		RC		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
ER125I03P00GUP	3	3,175	.125	0,025	.001	1,590	.06	9,50	.376	●	●	-	-	-	-	●
ER187I04P00GUP	4	4,762	.187	0,025	.001	2,380	.09	10,10	.399	●	●	-	-	-	-	●
ER250I06P00GUP	6	6,350	.250	0,025	.001	3,170	.13	14,50	.572	●	●	-	-	-	-	●
ER312I08P00GUP	8	7,920	.312	0,025	.001	3,960	.16	17,40	.685	●	●	-	-	-	-	●

- Negative rake face for strongest cutting edge.
- More aggressive applications.
- Advantages in low-feed and depth-of-cut applications.



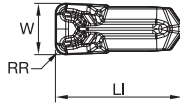
■ GUN Precision Molded • Metric

catalog number	seat size	W		W tol ±		RR		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
EG0212M02U02GUN	2	2,125	.084	0,050	.002	0,20	.008	8,97	.353	●	●	●	●	●	-	-
EG0251M02U02GUN	2	2,510	.099	0,050	.002	0,20	.008	8,97	.353	●	●	●	●	●	-	-
EG0312M03U02GUN	3	3,125	.123	0,075	.003	0,20	.008	9,60	.378	●	●	●	●	●	-	-
EG0312M03U04GUN	3	3,125	.123	0,075	.003	0,40	.016	9,60	.378	●	●	●	●	●	-	-
EG0412M04U04GUN	4	4,125	.162	0,075	.003	0,40	.016	10,19	.401	●	●	●	●	●	-	-
EG0412M04U08GUN	4	4,125	.162	0,075	.003	0,80	.031	10,19	.401	●	●	●	●	●	-	-
EG0512M05U04GUN	5	5,125	.202	0,075	.003	0,40	.016	12,20	.481	●	●	●	●	●	-	-
EG0512M05U08GUN	5	5,125	.202	0,075	.003	0,80	.031	12,20	.481	●	●	●	●	●	-	-
EG0612M06U04GUN	6	6,125	.241	0,075	.003	0,40	.016	14,60	.575	●	●	-	●	●	-	-
EG0612M06U08GUN	6	6,125	.241	0,075	.003	0,80	.031	14,60	.574	●	●	-	●	●	-	-
EG0812M08U08GUN	8	8,125	.320	0,075	.003	0,80	.031	17,50	.687	●	●	●	●	●	-	-
EG0812M08U12GUN	8	8,125	.320	0,075	.003	1,20	.047	17,50	.687	●	●	●	●	●	-	-
EG1012M10U12GUN	10	10,125	.399	0,075	.003	1,20	.047	20,80	.817	●	●	●	●	●	-	-

- Negative rake face for strongest cutting edge.
- More aggressive applications.
- Advantages in low-feed and depth-of-cut applications.

● first choice
○ alternate choice

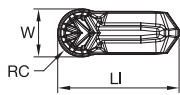
P	●	●	●	●	○				
M	●	●	●	●	●	○			
K	○	○	○	○	●	○			
N	●	○	○	○	○	○			●
S	●	●	○	○	○	○			●
H	○								



■ GUN Precision Molded • Inch

catalog number	seat size	W		W tol ±		RR		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
EG06311FU05GUN	1F	1,600	.063	0,050	.002	0,20	.008	9,00	.355	●	●	●	●	●	-	-
EG094102U05GUN	2	2,388	.094	0,050	.002	0,20	.008	8,97	.353	●	●	●	●	●	-	-
EG125103U05GUN	3	3,175	.125	0,075	.003	0,20	.008	9,60	.378	●	●	●	●	●	-	-
EG125103U1GUN	3	3,175	.125	0,075	.003	0,40	.016	9,60	.378	●	●	●	●	●	-	-
EG130103U05GUN	3	3,302	.130	0,075	.003	0,20	.008	9,60	.378	●	●	●	●	●	-	-
EG130103U1GUN	3	3,302	.130	0,075	.003	0,40	.016	9,60	.378	●	●	●	●	●	-	-
EG187104U1GUN	4	4,750	.187	0,075	.003	0,40	.016	10,20	.401	●	●	●	●	●	-	-
EG187104U2GUN	4	4,750	.187	0,075	.003	0,80	.032	10,19	.401	●	●	●	●	●	-	-
EG192104U1GUN	4	4,877	.192	0,075	.003	0,40	.016	10,19	.401	●	●	●	●	●	-	-
EG192104U2GUN	4	4,878	.192	0,075	.003	0,79	.031	10,19	.401	●	●	●	●	●	-	-
EG250106U1GUN	6	6,350	.250	0,075	.003	0,40	.016	14,58	.574	●	●	●	●	●	-	-
EG250106U2GUN	6	6,350	.250	0,075	.003	0,80	.032	14,58	.574	●	●	●	●	●	-	-
EG255106U1GUN	6	6,477	.255	0,075	.003	0,40	.016	14,58	.574	●	●	●	●	●	-	-
EG255106U2GUN	6	6,477	.255	0,075	.003	0,80	.031	14,58	.574	●	●	●	●	●	-	-
EG312108U3GUN	8	7,925	.312	0,075	.003	1,20	.047	17,46	.687	●	●	●	●	●	-	-
EG317108U3GUN	8	8,052	.317	0,075	.003	1,19	.047	17,46	.687	●	●	●	●	●	-	-
EG375110U3GUN	10	9,525	.375	0,075	.003	1,20	.047	20,80	.817	●	●	●	●	●	-	-
EG380110U3GUN	10	9,651	.380	0,075	.003	1,20	.047	20,80	.817	●	●	●	●	●	-	-

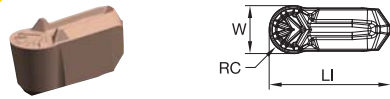
- Negative rake face for strongest cutting edge.
- First choice in profiling.
- >180° cutting edge.
- High performance in all materials.



■ GUN Full Radius Precision Molded • Metric

catalog number	seat size	W		W tol ±		RC		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
ER0212M02U00GUN	2	2,120	.083	0,050	.002	1,060	.04	8,97	.353	●	●	●	●	●	-	-
ER0312M03U00GUN	3	3,125	.123	0,075	.003	1,560	.06	9,60	.378	●	●	●	●	●	-	-
ER0412M04U00GUN	4	4,125	.162	0,075	.003	2,060	.08	10,20	.401	●	●	●	●	●	-	-
ER0512M05U00GUN	5	5,125	.202	0,075	.003	2,560	.10	12,20	.482	●	●	●	●	●	-	-
ER0612M06U00GUN	6	6,125	.241	0,075	.003	3,060	.12	14,60	.575	●	●	●	●	●	-	-
ER0812M08U00GUN	8	8,125	.320	0,075	.003	4,060	.16	17,47	.688	●	●	●	●	●	-	-

- Negative rake face for strongest cutting edge.
- First choice in profiling.
- >180° cutting edge.
- High performance in all materials.



● first choice
○ alternate choice

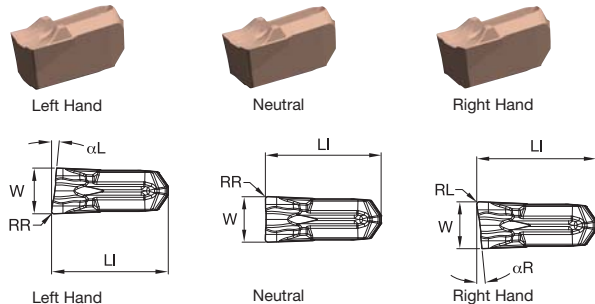
P	●	●	●	●	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○

GUN Full Radius Precision Molded • Inch

catalog number	seat size	W		W tol ±		RC		LI		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	mm	in							
ER094I02U00GUN	2	2,387	.094	0,050	.002	1,190	.05	8,97	.353	●	●	●	●	○	○	○
ER125I03U00GUN	3	3,177	.125	0,075	.003	1,590	.06	9,60	.378	●	●	●	●	○	○	○
ER130I03U00GUN	3	3,300	.130	0,075	.003	1,650	.07	9,60	.378	●	●	●	●	○	○	○
ER187I04U00GUN	4	4,750	.187	0,075	.003	2,370	.09	10,20	.401	●	●	●	●	○	○	○
ER192I04U00GUN	4	4,873	.192	0,075	.003	2,440	.10	10,20	.401	●	●	●	●	○	○	○
ER250I06U00GUN	6	6,346	.250	0,075	.003	3,170	.13	14,60	.575	●	●	●	●	○	○	○
ER255I06U00GUN	6	6,473	.255	0,075	.003	3,240	.13	14,60	.575	●	●	●	●	○	○	○
ER312I08U00GUN	8	7,925	.312	0,075	.003	3,960	.16	17,50	.688	●	●	●	●	○	○	○
ER317I08U00GUN	8	8,052	.317	0,075	.003	4,030	.16	17,50	.688	●	●	●	●	○	○	○

Beyond™ Evolution™ Cut-Off Inserts

- Positive chipbreaker lowers cutting forces.
- First choice for steel and stainless steel.
- Excellent surface finish.



● first choice
○ alternate choice

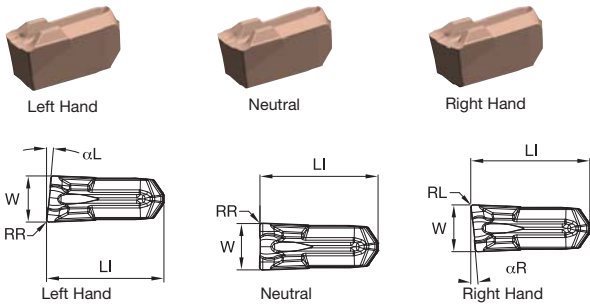
P	●	●	●	●	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○

CF Precision Molded • Metric

catalog number	seat size	W		W tol ±		LI			RR		RL		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in	αR	αL	mm	in	mm								in
EC014M1BL06CF01	1B	1,404	.055	0,050	.002	9,00	.355	—	6	0,15	.006	—	—	—	—	—	—	—	—
EC014M1BN00CF01	1B	1,400	.055	0,050	.002	9,00	.355	—	—	0,15	.006	0,15	.006	—	—	—	—	—	—
EC014M1BR06CF01	1B	1,404	.055	0,050	.002	9,00	.355	6	—	—	—	0,15	.006	—	—	—	—	—	—
EC020M02L06CF02	2	2,000	.079	0,050	.002	8,97	.353	—	6	0,20	.008	—	—	—	—	—	—	—	—
EC020M02N00CF02	2	2,000	.079	0,050	.002	8,97	.353	—	—	0,20	.008	0,20	.008	—	—	—	—	—	—
EC020M02R06CF02	2	2,000	.079	0,050	.002	8,97	.353	6	—	—	—	0,20	.008	—	—	—	—	—	—
EC030M03L06CF02	3	3,000	.118	0,075	.003	9,60	.378	—	6	0,20	.008	—	—	—	—	—	—	—	—
EC030M03N00CF02	3	3,000	.118	0,075	.003	9,60	.378	—	—	0,20	.008	0,20	.008	—	—	—	—	—	—
EC030M03R06CF02	3	3,000	.118	0,075	.003	9,60	.378	6	—	—	—	0,20	.008	—	—	—	—	—	—
EC040M04L06CF02	4	4,000	.157	0,075	.003	10,19	.401	—	6	0,20	.008	—	—	—	—	—	—	—	—
EC040M04N00CF02	4	4,000	.158	0,075	.003	10,19	.401	—	—	0,20	.008	0,20	.008	—	—	—	—	—	—
EC040M04R06CF02	4	4,000	.158	0,075	.003	10,19	.401	6	—	—	—	0,20	.008	—	—	—	—	—	—
EC050M05N00CF03	5	5,000	.197	0,075	.003	12,20	.482	—	—	0,30	.012	0,30	.012	—	—	—	—	—	—

- Most aggressive chipbreaker.
- For use in long chipping materials.
- Problem solver.

- first choice
- alternate choice



CL Precision Molded • Metric

catalog number	seat size	W		W tol ±		LI		RR		RL		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313	
		mm	in	mm	in	mm	in	mm	in	mm	in								
EC014M1BL06CL01	1B	1,400	.055	0,050	.002	9,00	.355	—	6	0,15	.006	—	—	—	—	—	—	—	—
EC014M1BN00CL01	1B	1,400	.055	0,050	.002	9,00	.355	—	—	0,15	.006	0,15	.006	—	—	—	—	—	—
EC014M1BR06CL01	1B	1,400	.055	0,050	.002	9,00	.355	6	—	—	—	0,15	.006	—	—	—	—	—	—
EC020M02L06CL02	2	2,000	.079	0,050	.002	8,96	.353	—	6	0,20	.008	—	—	—	—	—	—	—	—
EC020M02N00CL02	2	2,000	.079	0,050	.002	8,97	.353	—	—	0,20	.008	0,20	.008	—	—	—	—	—	—
EC020M02R06CL02	2	2,000	.079	0,050	.002	8,96	.353	6	—	—	—	0,20	.005	—	—	—	—	—	—
EC030M03L06CL02	3	3,000	.118	0,075	.003	9,59	.378	—	6	0,20	.008	—	—	—	—	—	—	—	—
EC030M03N00CL02	3	3,000	.118	0,075	.003	9,60	.378	—	—	0,20	.008	0,20	.008	—	—	—	—	—	—
EC030M03R06CL02	3	3,000	.118	0,075	.003	9,59	.378	6	—	—	—	0,20	.008	—	—	—	—	—	—
EC040M04L06CL02	4	4,000	.158	0,075	.003	10,19	.401	—	6	0,20	.008	—	—	—	—	—	—	—	—
EC040M04N00CL02	4	4,000	.157	0,075	.003	10,20	.401	—	—	0,20	.008	0,20	.008	—	—	—	—	—	—
EC040M04R06CL02	4	4,000	.158	0,075	.003	10,19	.401	6	—	—	—	0,20	.008	—	—	—	—	—	—

P	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

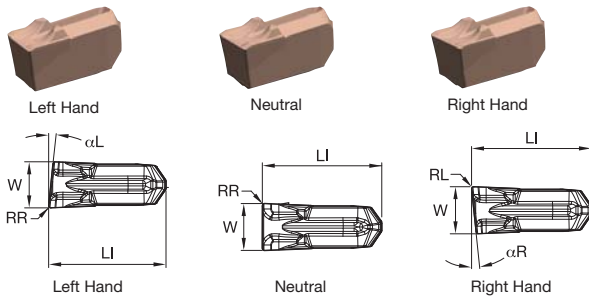
Grooving and Cut-Off

- Ultimate solution in edge stability.
- Leverage for interrupted cuts or hardened skin.
- First choice for cast iron.

● first choice
○ alternate choice

P	●	●	●	○															
M	●	●																	
K	○	○	○	○															
N	●	○																	
S	●	●																	
H	○																		

Grooving and Cut-Off



■ CM Precision Molded • Metric

catalog number	seat size	W		W tol ±		LI		αR	αL	RR		RL		KCU10	KCU25	KCP10B	KCP25B	KCK20B	KCM35B	K313
		mm	in	mm	in	mm	in			mm	in	mm	in							
EC014M1BL06CM01	1B	1,400	.055	0,050	.002	9,00	.355	—	6	0,20	.008	—	—	—	●	—	—	—	—	—
EC014M1BN00CM01	1B	1,400	.055	0,050	.002	9,00	.355	—	—	0,15	.006	0,15	.006	—	●	—	—	—	—	—
EC014M1BR06CM01	1B	1,400	.055	0,050	.002	9,00	.355	6	—	—	—	0,20	.008	—	●	—	—	—	—	—
EC020M02L06CM02	2	2,000	.079	0,050	.002	9,00	.353	—	6	0,20	.008	—	—	—	●	—	—	—	—	—
EC020M02N00CM02	2	2,000	.079	0,050	.002	8,98	.353	—	—	0,20	.008	0,20	.008	—	●	—	—	—	—	—
EC020M02R06CM02	2	2,000	.079	0,050	.002	9,00	.353	6	—	—	—	0,20	.008	—	●	—	—	—	—	—
EC030M03L06CM02	3	3,000	.118	0,075	.003	9,60	.378	—	6	0,20	.008	—	—	—	●	—	—	—	—	—
EC030M03N00CM02	3	3,000	.118	0,075	.003	9,60	.378	—	—	0,20	.008	0,20	.008	—	●	—	—	—	—	—
EC030M03R06CM02	3	3,000	.118	0,075	.003	9,60	.378	6	—	—	—	0,20	.008	—	●	—	—	—	—	—
EC040M04L06CM02	4	4,000	.157	0,075	.003	10,20	.401	—	6	0,20	.008	—	—	—	●	—	—	—	—	—
EC040M04N00CM02	4	4,000	.158	0,075	.003	10,20	.402	—	—	0,20	.008	0,20	.008	—	●	—	—	—	—	—
EC040M04R06CM02	4	4,000	.157	0,075	.003	10,20	.401	6	—	—	—	0,20	.008	—	●	—	—	—	—	—
EC050M05N00CM03	5	5,000	.197	0,075	.003	12,20	.482	—	—	0,30	.012	0,30	.012	—	●	—	—	—	—	—
EC060M06N00CM03	6	6,000	.236	0,075	.003	14,59	.574	—	—	0,30	.012	0,30	.012	—	●	—	—	—	—	—
EC070M06N00CM04	6	7,000	.276	0,075	.003	14,60	.574	—	—	0,40	.016	0,40	.016	—	●	—	—	—	—	—
EC080M08N00CM04	8	8,000	.315	0,075	.003	17,50	.688	—	—	0,40	.016	0,40	.016	—	●	—	—	—	—	—

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



EVSML2525M0316030035C
EVSML160316030035C

Metric									
EV	S	M	L	2525M	03	16	030035	C	
Inch									
EV	S	M	L	16	03	16	030035	C	
Family Name	Tool Style	Support Type	Hand	Shank Size	Seat Size	Max Groove Depth	Face Grooving Diameters	Coolant	
Beyond™ Evolution™	S = Straight mount		L = Left hand R = Right hand		1B 1F 02 03 04 05 06 08 10	in millimeters	030 = Minimum diameter in mm 035 = Maximum diameter in mm	C = Through the pocket coolant capable	

M = Maximum support for specific groove width and straight clearance for unlimited workpiece diameter

A = Face grooving-inboard sweep

B = Face grooving-outboard sweep

Metric = Height x Width in mm letter indicates tool length according to ISO

Inch = Height x Width in 1/16" increments

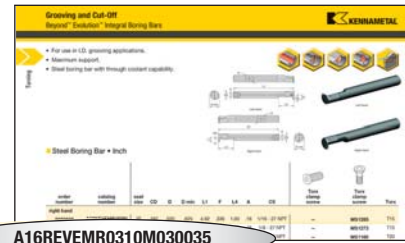
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.


EVSCTL2525M0316C
EVSCTL160316C

Metric								
EV	S	C	T	L	2525M	03	16	C
EV	S	C	T	L	16	03	16	C
Family Name	Tool Style	Support Type	Clamping Screw Position	Hand	Shank Size	Seat Size	Max Groove Depth	Coolant
Beyond™ Evolution™	S = Straight mount		T = Top F = Front	L = Left hand R = Right hand		1B 1F 02 03 04 05 06 08 10	in millimeters	C = Through the pocket coolant capable
C = Reinforced support				Metric = Height x Width in mm letter indicates tool length according to ISO Inch = Height x Width in 1/16" increments				

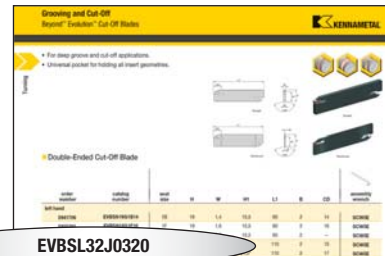
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



A16REVEMR0310M030035

A	16	R	EV	E	M	R	03	10	M	030035																						
Steel Bar with Coolant	Bar Diameter	Bar Length	Platform	Tool Type	Support Type	Hand of Tool	Insert Seat Size	Max Cutting Depth	Tool Units	Face Grooving Diameters																						
Steel boring bar with through coolant capability.			Beyond™ Evolution™	E = End mount (90°) S = Straight Mount	M = Maximum support A = Face Grooving-inboard sweep	R = Right hand L = Left hand	1F 02 03 04 05 06 08 10	in millimeters	M = Metric I = Inch	030 = Minimum diameter in mm 035 = Maximum diameter in mm																						
<p>Metric = Diameter in mm</p> <p>Inch = Diameter in 1/16" increments</p>		<table border="1"> <thead> <tr> <th>symbol</th> <th>mm</th> <th>inch</th> </tr> </thead> <tbody> <tr> <td>K</td> <td>125</td> <td>5</td> </tr> <tr> <td>M</td> <td>150</td> <td>6</td> </tr> <tr> <td>Q</td> <td>180</td> <td>7</td> </tr> <tr> <td>R</td> <td>200</td> <td>8</td> </tr> <tr> <td>S</td> <td>250</td> <td>10</td> </tr> <tr> <td>T</td> <td>300</td> <td>12</td> </tr> </tbody> </table>			symbol	mm	inch	K	125	5	M	150	6	Q	180	7	R	200	8	S	250	10	T	300	12							
symbol	mm	inch																														
K	125	5																														
M	150	6																														
Q	180	7																														
R	200	8																														
S	250	10																														
T	300	12																														



EVBSL32J0320

EV	B	S	L	32	J	03	20
Family Name	Tool Style	Support Type	Hand	Blade Height	Overall Length	Seat Size	Max Cutting Depth
Beyond™ Evolution™	B = 2 pocket blade	S = Standard C = Reinforced	N = Neutral L = Left hand R = Right hand	in millimeters	According to ISO G = 90mm J = 110mm M = 150mm X = Special	1B 1F 02 03 04 05 06 08 10	in millimeters

How Do Catalog Numbers Work?

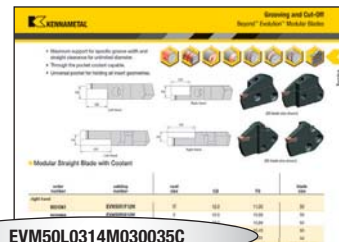
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KGMSL2525M50C

KGMSL1650C

Metric					
KGM	S	L	2525M	50	C
Inch					
KGM	S	L	16	50	C
Family Name	Tool Style	Hand	Shank Size	Blade Size	Coolant
Grooving Modular System	S = Straight mount E = End mount (90°)	L = Left hand R = Right hand	Metric = Height x Width in mm letter indicates tool length according to ISO Inch = Height x Width in 1/16" increments	50 65	C = Through coolant capable

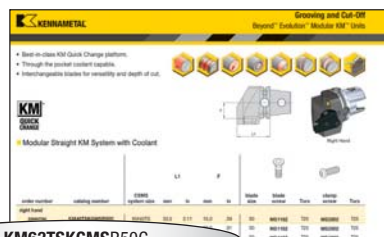


EVM50L0314M030035C

EVM	50	L	03	14	M	030035	C
Family Name	Blade Size	Hand	Seat Size	Max Groove Depth	Support Type	Face Grooving Diameters	Coolant
Beyond™ Evolution™ Modular Blade	50 65	L = Left hand R = Right hand	1B 1F 02 03 04 05 06 08 10	in millimeters	M = Maximum support for specific groove width and straight clearance for unlimited diameter A = Face grooving-inboard sweep B = Face grooving-outboard sweep	030 = Minimum diameter in mm 035 = Maximum diameter in mm	C = Through the pocket coolant capable

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM63TSKGMRS50C

KM

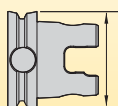
KM™
Quick-Change

KM™
KM4X™
PSC

63

System
Size

40 = 40mm
50 = 50mm
63 = 63mm
80 = 80mm
100 = 100mm



TS

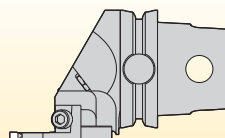
Feature

TS
XMZ

KGM

Insert
Holding Method

KGM



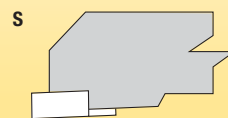
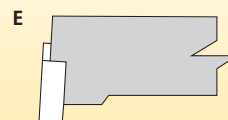
Modular Grooving

S

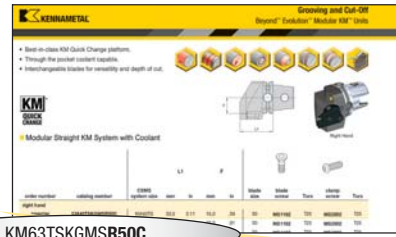
Insert
Location

E = End mount

S = Side mount



By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



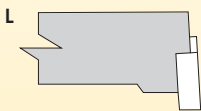
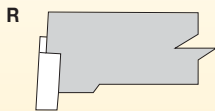
KM63TSGM50C

R

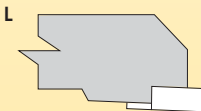
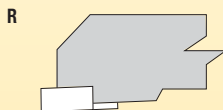
Hand of Tool

R = Right hand
L = Left hand

End Mount



Side Mount



50

Blade Size

50
60

C

Coolant

C = Through the pocket coolant capable

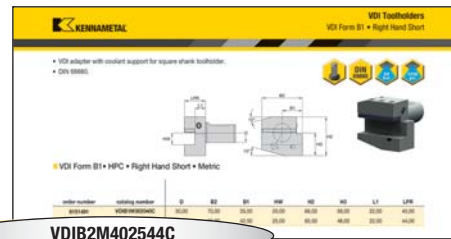
Y

Special Features

Y = Mazak®
INTEGREX®

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



VDIB2M402544C

VDI

Connection

B2

Style

M

Metric

40

VDI Shank Diameter

25

Toolholder Shank Size

44

Projection Length

C

Internal Coolant

NOVO KNOWS SEARCH

Searching for a tool has been enhanced by Advise and Select functions from NOVO™ applications — saving you time and money.

ADVISE

Uses a rules-based approach to provide cutting tool recommendations:

- Define Machining Feature (face milling, slotting, blind hole, etc.)
- Apply Constraint Requirements (geometric, material, tolerance, etc.)
- Set Machining Sequence (single or multi-step operations, rough then finish, etc.)
- Receive Ranked Results

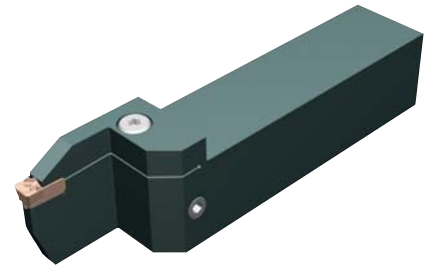
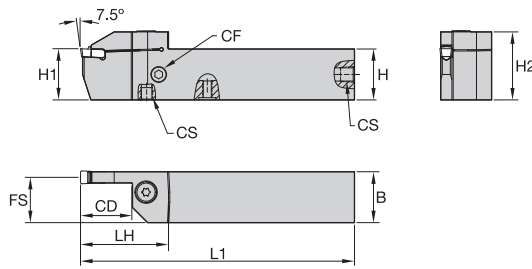
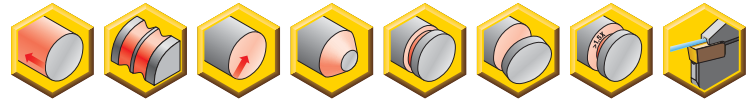
SELECT

A method of selecting cutting tools from a tree structure via a hierarchy or parametric search:

- If you know which product you are looking for, a quick search can be performed by just the catalog number or product description.
- Smart filters significantly reduce the amount of potential tooling solutions.
- After the tool is selected, NOVO also provides cutting and adaptive item options that fit with your solution.

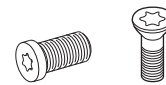
NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximizes every shift. kennametal.com/novo

- Offers the greatest stability.
- Straight clearance for unlimited workpiece diameters.
- Through the pocket coolant capable.



Left Hand

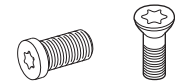
Integral Straight • Inch



order number	catalog number	seat size	CD	H1	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
right hand														
5956542	EVSMR120216	2	.63	.750	.750	1.03	4.50	.71	1.22	—	—	—	MS1160	T20
5956450	EVSMR160216	2	.63	1.000	1.000	1.28	6.00	.96	1.22	—	—	—	MS1160	T20
6401859	EVSMR160216C	2	.63	1.000	1.000	1.33	6.00	.96	1.39	G1/8 - 28	G1/8 - 28	MS2091	—	25 IP
5956541	EVSMR120222	2	.87	.750	.750	1.10	4.50	.71	1.50	—	—	MS2091	—	25 IP
6401860	EVSMR120222C	2	.87	.750	.750	1.09	4.50	.71	1.63	M8X1	M8X1	MS2091	—	25 IP
5956449	EVSMR160226	2	1.02	1.000	1.000	1.35	6.00	.96	1.65	—	—	MS2091	—	25 IP
6401858	EVSMR160226C	2	1.02	1.000	1.000	1.34	6.00	.96	1.78	G1/8 - 28	G1/8 - 28	MS2091	—	25 IP
5939462	EVSMR120316C	3	.63	.750	.750	1.09	4.50	.69	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939458	EVSMR160316C	3	.63	1.000	1.000	1.34	6.00	.94	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939461	EVSMR120322C	3	.87	.750	.750	1.10	4.50	.69	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939457	EVSMR160326C	3	1.02	1.000	1.000	1.35	6.00	.94	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939460	EVSMR120416C	4	.63	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939456	EVSMR160416C	4	.63	1.000	1.000	1.34	6.00	.93	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939459	EVSMR120422C	4	.87	.750	.750	1.10	4.50	.68	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939455	EVSMR160426C	4	1.02	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939454	EVSMR200426C	4	1.02	1.250	1.250	1.62	6.00	1.18	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5939463	EVSMR200432C	4	1.26	1.250	1.250	1.62	6.00	1.18	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955445	EVSMR120516C	5	.63	.750	.750	1.09	4.50	.66	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955441	EVSMR160516C	5	.63	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955444	EVSMR120522C	5	.87	.750	.750	1.10	4.50	.66	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955430	EVSMR160526C	5	1.02	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955446	EVSMR200526C	5	1.02	1.250	1.250	1.62	6.00	1.16	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955447	EVSMR200532C	5	1.26	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955443	EVSMR120616C	6	.63	.750	.750	1.09	4.50	.64	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955429	EVSMR160616C	6	.63	1.000	1.000	1.34	6.00	.89	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955442	EVSMR120622C	6	.87	.750	.750	1.10	4.50	.64	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955428	EVSMR160626C	6	1.02	1.000	1.000	1.35	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955448	EVSMR200626C	6	1.02	1.250	1.250	1.62	6.00	1.14	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955449	EVSMR200632C	6	1.26	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955450	EVSMR240640C	6	1.58	1.500	1.500	1.93	7.00	1.39	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955427	EVSMR160826C	8	1.02	1.000	1.000	1.39	6.00	.86	1.93	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955451	EVSMR200826C	8	1.02	1.250	1.250	1.66	6.00	1.11	1.93	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955452	EVSMR200832C	8	1.26	1.250	1.250	1.66	6.00	1.11	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955453	EVSMR240840C	8	1.58	1.500	1.500	1.93	7.00	1.36	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955454	EVSMR201032C	10	1.26	1.250	1.250	1.69	6.00	1.08	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955455	EVSMR241040C	10	1.58	1.500	1.500	1.94	7.00	1.33	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

(continued)

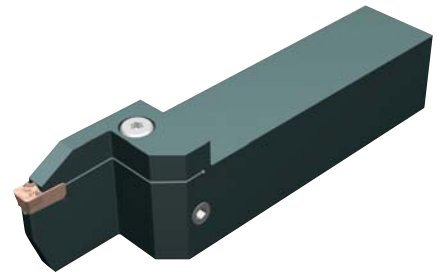
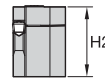
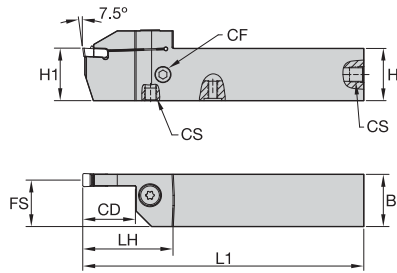
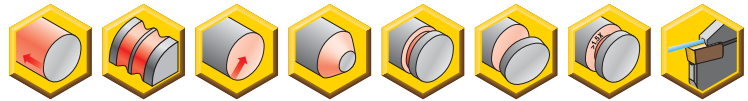
(Integral Straight • Inch — continued)



order number	catalog number	seat size	CD	H1	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
left hand														
5956543	EVSM120216	2	.63	.750	.750	1.03	4.50	.71	1.22	—	—	—	MS1160	T20
5956545	EVSM160216	2	.63	1.000	1.000	1.28	6.00	.96	1.22	—	—	—	MS1160	T20
5956544	EVSM120222	2	.87	.750	.750	1.10	4.50	.71	1.50	—	—	MS2091	—	25 IP
5956546	EVSM160226	2	1.02	1.000	1.000	1.35	6.00	.96	1.65	—	—	MS2091	—	25 IP
5939464	EVSM120316C	3	.63	.750	.750	1.09	4.50	.69	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939466	EVSM160316C	3	.63	1.000	1.000	1.34	6.00	.94	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939465	EVSM120322C	3	.87	.750	.750	1.10	4.50	.69	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939467	EVSM160326C	3	1.02	1.000	1.000	1.35	6.00	.94	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939468	EVSM120416C	4	.63	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939470	EVSM160416C	4	.63	1.000	1.000	1.34	6.00	.93	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939469	EVSM120422C	4	.87	.750	.750	1.10	4.50	.68	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939471	EVSM160426C	4	1.02	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939472	EVSM1200426C	4	1.02	1.250	1.250	1.62	6.00	1.18	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5939453	EVSM1200432C	4	1.26	1.250	1.250	1.62	6.00	1.18	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955456	EVSM120516C	5	.63	.750	.750	1.09	4.50	.66	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955459	EVSM160516C	5	.63	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955457	EVSM120522C	5	.87	.750	.750	1.10	4.50	.66	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955460	EVSM160526C	5	1.02	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955426	EVSM1200526C	5	1.02	1.250	1.250	1.62	6.00	1.16	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955461	EVSM1200532C	5	1.26	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955462	EVSM120616C	6	.63	.750	.750	1.09	4.50	.64	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955464	EVSM160616C	6	.63	1.000	1.000	1.34	6.00	.89	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955463	EVSM120622C	6	.87	.750	.750	1.10	4.50	.64	1.69	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5955465	EVSM160626C	6	1.02	1.000	1.000	1.35	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955466	EVSM1200626C	6	1.02	1.250	1.250	1.62	6.00	1.14	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5955467	EVSM1200632C	6	1.26	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955468	EVSM1240640C	6	1.58	1.500	1.500	1.93	7.00	1.39	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955469	EVSM160826C	8	1.02	1.000	1.000	1.39	6.00	.86	1.93	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955470	EVSM1200826C	8	1.02	1.250	1.250	1.66	6.00	1.11	1.93	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955471	EVSM1200832C	8	1.26	1.250	1.250	1.66	6.00	1.11	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955472	EVSM1240840C	8	1.58	1.500	1.500	1.93	7.00	1.36	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955473	EVSM1201032C	10	1.26	1.250	1.250	1.69	6.00	1.08	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5955474	EVSM1241040C	10	1.58	1.500	1.500	1.94	7.00	1.33	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

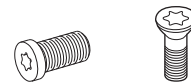
screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- Offers the greatest stability.
- Straight clearance for unlimited workpiece diameters.
- Through the pocket coolant capable.



Left Hand

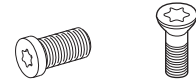
■ Integral Straight • Metric



order number	catalog number	seat size	CD	H1	H	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
right hand															
5953960	EVSMR2020K0216	2	16	20	20	20	27	125	19	31	—	—	—	MS1160	T20
5953958	EVSMR2525M0216	2	16	25	25	25	32	150	24	31	—	—	—	MS1160	T20
6401854	EVSMR2020K0216C	2	16	20	20	20	28	125	19	35	M8X1	M8X1	MS2091	—	25 IP
6401855	EVSMR2525M0216C	2	16	25	25	25	33	150	24	35	G1/8 - 28	G1/8 - 28	MS2091	—	25 IP
5953959	EVSMR2020K0222	2	22	20	20	20	29	125	19	38	—	—	MS2091	—	25 IP
6401857	EVSMR2020K0222C	2	22	20	20	20	29	125	19	41	M8X1	M8X1	MS2091	—	25 IP
5953957	EVSMR2525M0226	2	26	25	25	25	34	150	24	42	—	—	MS2091	—	25 IP
6401856	EVSMR2525M0226C	2	26	25	25	25	34	150	24	45	G1/8 - 28	G1/8 - 28	MS2091	—	25 IP
5939452	EVSMR2020K0316C	3	16	20	20	20	29	125	19	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939448	EVSMR2525M0316C	3	16	25	25	25	34	150	24	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939451	EVSMR2020K0322C	3	22	20	20	20	29	125	19	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939447	EVSMR2525M0326C	3	26	25	25	25	34	150	24	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939450	EVSMR2020K0416C	4	16	20	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939446	EVSMR2525M0416C	4	16	25	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939449	EVSMR2020K0422C	4	22	20	20	20	29	125	18	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939445	EVSMR2525M0426C	4	26	25	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939444	EVSMR3232P0426C	4	26	32	32	32	42	170	30	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5939443	EVSMR3232P0432C	4	32	32	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954258	EVSMR2020K0516C	5	16	20	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954254	EVSMR2525M0516C	5	16	25	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954257	EVSMR2020K0522C	5	22	20	20	20	29	125	18	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954253	EVSMR2525M0526C	5	26	25	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954249	EVSMR3232P0526C	5	26	32	32	32	42	170	30	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954248	EVSMR3232P0532C	5	32	32	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954256	EVSMR2020K0616C	6	16	20	20	20	29	125	20	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954252	EVSMR2525M0616C	6	16	25	25	25	34	150	25	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954255	EVSMR2020K0622C	6	22	20	20	20	29	125	20	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954251	EVSMR2525M0626C	6	26	25	25	25	34	150	25	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954247	EVSMR3232P0626C	6	26	32	32	32	42	170	32	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954246	EVSMR3232P0632C	6	32	32	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954242	EVSMR4040R0640C	6	40	40	40	40	51	200	37	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954250	EVSMR2525M0826C	8	26	25	25	25	35	150	21	49	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954245	EVSMR3232P0826C	8	26	32	32	32	43	170	28	49	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954244	EVSMR3232P0832C	8	32	32	32	32	43	170	28	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954241	EVSMR4040R0840C	8	40	40	40	40	51	200	36	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954243	EVSMR3232P1032C	10	32	32	32	32	43	170	28	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954240	EVSMR4040R1040C	10	40	40	40	40	51	200	36	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

(continued)

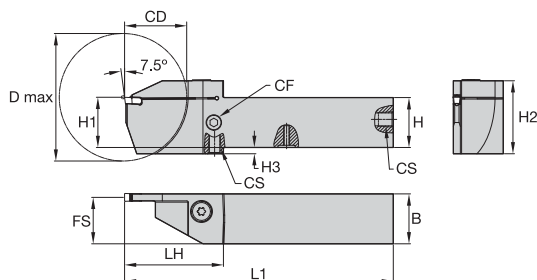
(Integral Straight • Metric — continued)



order number	catalog number	seat size	CD	H1	H	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
left hand															
5953956	EVSML2020K0216	2	16	20	20	20	27	125	19	31	—	—	—	MS1160	T20
5953954	EVSML2525M0216	2	16	25	25	25	32	150	24	31	—	—	—	MS1160	T20
6401881	EVSML2525M0216C	2	16	25	25	25	33	150	24	35	G1/8 - 28	G1/8 - 28	MS2091	—	25 IP
5953955	EVSML2020K0222	2	22	20	20	20	29	125	19	38	—	—	MS2091	—	25 IP
5953953	EVSML2525M0226	2	26	25	25	25	34	150	24	42	—	—	MS2091	—	25 IP
5939442	EVSML2020K0316C	3	16	20	20	20	29	125	19	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939438	EVSML2525M0316C	3	16	25	25	25	34	150	24	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939441	EVSML2020K0322C	3	22	20	20	20	29	125	19	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939437	EVSML2525M0326C	3	26	25	25	25	34	150	24	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939440	EVSML2020K0416C	4	16	20	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939436	EVSML2525M0416C	4	16	25	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939439	EVSML2020K0422C	4	22	20	20	20	29	125	18	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5939435	EVSML2525M0426C	4	26	25	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5939433	EVSML3232P0426C	4	26	32	32	32	42	170	30	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5939432	EVSML3232P0432C	4	32	32	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954239	EVSML2020K0516C	5	16	20	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954235	EVSML2525M0516C	5	16	25	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954238	EVSML2020K0522C	5	22	20	20	20	29	125	18	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954234	EVSML2525M0526C	5	26	25	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954220	EVSML3232P0526C	5	26	32	32	32	42	170	30	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954219	EVSML3232P0532C	5	32	32	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954237	EVSML2020K0616C	6	16	20	20	20	29	125	17	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954233	EVSML2525M0616C	6	16	25	25	25	34	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954236	EVSML2020K0622C	6	22	20	20	20	29	125	17	43	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5954232	EVSML2525M0626C	6	26	25	25	25	34	150	22	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954218	EVSML3232P0626C	6	26	32	32	32	42	170	29	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5954217	EVSML3232P0632C	6	32	32	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954213	EVSML4040R0640C	6	40	40	40	40	51	200	37	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954231	EVSML2525M0826C	8	26	25	25	25	35	150	21	49	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954216	EVSML3232P0826C	8	26	32	32	32	43	170	28	49	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954215	EVSML3232P0832C	8	32	32	32	32	43	170	28	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954212	EVSML4040R0840C	8	40	40	40	40	51	200	36	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954214	EVSML3232P1032C	10	32	32	32	32	43	170	28	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
5954211	EVSML4040R1040C	10	40	40	40	40	51	200	36	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- Through the pocket coolant capable.
- Reinforced for added support in specific workpiece diameters.

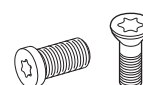


CD = Maximum cut-off depth for solid bars.
D max = Maximum bar diameter for deep grooving or cut-off of tubes.



Left Hand

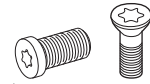
■ Integral Reinforced Straight Top Clamp • Inch



order number	catalog number	seat size	CD	D max	H1	B	H2	H3	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
right hand																
6179398	EVSCTR081B16	1B	.63	1.654	.500	.500	.93	—	4.50	.47	1.22	—	—	—	MS1160	T20
6179399	EVSCTR081F16	1F	.63	1.654	.500	.500	.93	—	4.50	.47	1.22	—	—	—	MS1160	T20
6179400	EVSCTR080216	2	.63	1.654	.500	.500	.93	—	4.50	.46	1.22	—	—	—	MS1160	T20
5980815	EVSCTR100216	2	.63	1.654	.625	.625	.90	—	4.50	.59	1.22	—	—	—	MS1160	T20
5980818	EVSCTR120216	2	.63	1.654	.750	.750	1.03	—	4.50	.71	1.22	—	—	—	MS1160	T20
5980913	EVSCTR160216	2	.63	1.654	1.000	1.000	1.28	—	6.00	.96	1.22	—	—	—	MS1160	T20
5980914	EVSCTR160226	2	1.02	2.441	1.000	1.000	1.35	—	6.00	.96	1.65	—	—	MS2091	—	25 IP
6179721	EVSCTR080316C	3	.63	2.047	.500	.500	.93	.16	4.50	.45	1.32	M8X1.25	M8X1.25	MS1944	—	T25
5980816	EVSCTR100316C	3	.63	2.047	.625	.625	.92	—	4.50	.57	1.42	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5980819	EVSCTR120316C	3	.63	2.047	.750	.750	1.09	—	4.50	.69	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980915	EVSCTR160316C	3	.63	2.441	1.000	1.000	1.34	—	6.00	.94	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980820	EVSCTR120326C	3	1.02	2.441	.750	.750	1.26	.16	4.50	.69	1.85	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980916	EVSCTR160326C	3	1.02	2.441	1.000	1.000	1.35	—	6.00	.94	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980817	EVSCTR100416C	4	.63	2.047	.625	.625	.92	—	4.50	.55	1.42	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5980911	EVSCTR120416C	4	.63	2.047	.750	.750	1.09	—	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980912	EVSCTR120426C	4	1.02	2.441	.750	.750	1.26	.16	4.50	.70	1.85	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980917	EVSCTR160426C	4	1.02	2.441	1.000	1.000	1.35	—	6.00	.92	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980918	EVSCTR160432C	4	1.26	2.520	1.000	1.000	1.51	.16	6.00	.92	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980932	EVSCTR200432C	4	1.26	2.520	1.250	1.250	1.62	—	6.00	1.25	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980919	EVSCTR160526C	5	1.02	2.441	1.000	1.000	1.35	—	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980920	EVSCTR160532C	5	1.26	2.441	1.000	1.000	1.53	.16	6.00	.91	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980933	EVSCTR200540C	5	1.58	3.228	1.250	1.250	1.82	.16	6.00	1.25	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45
left hand																
6179722	EVSCTL081B16	1B	.63	1.654	.500	.500	.93	—	4.50	.47	1.22	—	—	—	MS1160	T20
6179723	EVSCTL081F16	1F	.63	1.654	.500	.500	.93	—	4.50	.47	1.22	—	—	—	MS1160	T20
6179724	EVSCTL080216	2	.63	1.654	.500	.500	.93	—	4.50	.46	1.22	—	—	—	MS1160	T20
5980938	EVSCTL100216	2	.63	1.654	.625	.625	.90	—	4.50	.59	1.22	—	—	—	MS1160	T20

(continued)

(Integral Reinforced Straight Top Clamp • Inch — continued)

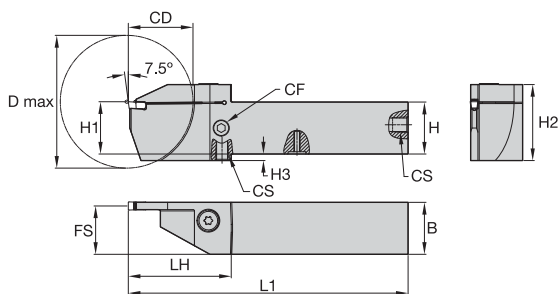


order number	catalog number	seat size	CD	D max	H1	B	H2	H3	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
5981011	EVSCTL120216	2	.63	1.654	.750	.750	1.03	—	4.50	.71	1.22	—	—	—	MS1160	T20
5981016	EVSCTL160216	2	.63	1.654	1.000	1.000	1.28	—	6.00	.96	1.22	—	—	—	MS1160	T20
5981017	EVSCTL160226	2	1.02	2.441	1.000	1.000	1.35	—	6.00	.96	1.65	—	—	MS2091	—	25 IP
6179725	EVSCTL080316C	3	.63	2.047	.500	.500	.93	.16	4.50	.45	1.32	M8X1.25	M8X1.25	MS1944	—	T25
5980939	EVSCTL100316C	3	.63	2.047	.625	.625	.92	—	4.50	.57	1.42	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5981012	EVSCTL120316C	3	.63	2.047	.750	.750	1.09	—	4.50	.69	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5981018	EVSCTL160316C	3	.63	2.441	1.000	1.000	1.34	—	6.00	.94	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5981013	EVSCTL120326C	3	1.02	2.441	.750	.750	1.26	.16	4.50	.69	1.85	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5981019	EVSCTL160326C	3	1.02	2.441	1.000	1.000	1.35	—	6.00	.94	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980940	EVSCTL100416C	4	.63	2.047	.625	.625	.92	—	4.50	.55	1.42	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5981014	EVSCTL120416C	4	.63	2.047	.750	.750	1.09	—	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5981015	EVSCTL120426C	4	1.02	2.441	.750	.750	1.26	.16	4.50	.70	1.85	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5981020	EVSCTL160426C	4	1.02	2.441	1.000	1.000	1.35	—	6.00	.92	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5981021	EVSCTL160432C	4	1.26	2.520	1.000	1.000	1.51	.16	6.00	.92	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5981024	EVSCTL200432C	4	1.26	2.520	1.250	1.250	1.62	—	6.00	1.25	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5981022	EVSCTL160526C	5	1.02	2.441	1.000	1.000	1.35	—	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5981023	EVSCTL160532C	5	1.26	2.520	1.000	1.000	1.53	.16	6.00	.91	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5981025	EVSCTL200540C	5	1.58	3.228	1.250	1.250	1.82	.16	6.00	1.25	2.48	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

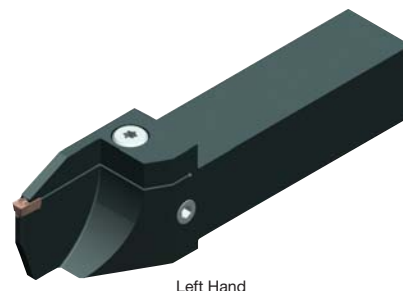
NOTE: Through the pocket coolant available in seat sizes 3 and higher.

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- Through the pocket coolant capable.
- Reinforced for added support in specific workpiece diameters.

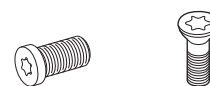


CD = Maximum cut-off depth for solid bars.
D max = Maximum bar diameter for deep grooving or cut-off of tubes.



Grooving and Cut-Off

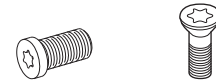
Integral Reinforced Straight Top Clamp • Metric



order number	catalog number	seat size	CD	D max	H1	H	B	H2	H3	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
right hand																	
6179757	EVSCTR1212K1B16	1B	16	42	12	12	12	23	4	125	11	31	—	—	—	MS1160	T20
6179758	EVSCTR1212K1F16	1F	16	42	12	12	12	23	4	125	11	31	—	—	—	MS1160	T20
6179759	EVSCTR1212K0216	2	16	42	12	12	12	23	4	125	11	31	—	—	—	MS1160	T20
5980139	EVSCTR1616K0216	2	16	42	16	16	16	23	—	125	15	31	—	—	—	MS1160	T20
5980762	EVSCTR2020K0216	2	16	42	20	20	20	27	—	125	19	31	—	—	—	MS1160	T20
5980767	EVSCTR2525M0216	2	16	42	25	25	25	32	—	150	24	31	—	—	—	MS1160	T20
5980768	EVSCTR2525M0226	2	26	62	25	25	25	34	—	150	24	42	—	—	MS2091	—	25 IP
6179755	EVSCTR1212K0316C	3	16	52	12	12	12	23	4	125	11	34	M8X1.25	M8X1.25	MS1944	—	T25
5980140	EVSCTR1616K0316C	3	16	52	16	16	16	24	—	125	15	36	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5980763	EVSCTR2020K0316C	3	16	52	20	20	20	29	—	125	19	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980138	EVSCTR2525M0316C	3	16	62	25	25	25	34	—	150	24	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980764	EVSCTR2020K0326C	3	26	62	20	20	20	33	4	125	19	47	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980769	EVSCTR2525M0326C	3	26	62	25	25	25	34	—	150	24	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980761	EVSCTR1616K0416C	4	16	52	16	16	16	24	—	125	14	36	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5980765	EVSCTR2020K0416C	4	16	52	20	20	20	29	—	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980766	EVSCTR2020K0426C	4	26	62	20	20	20	33	—	125	18	47	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980770	EVSCTR2525M0426C	4	26	62	25	25	25	34	—	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980771	EVSCTR2525M0432C	4	32	64	25	25	25	38	4	150	23	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980774	EVSCTR3232P0432C	4	32	64	32	32	32	42	—	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980772	EVSCTR2525M0526C	5	26	62	25	25	25	34	—	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980773	EVSCTR2525M0532C	5	32	64	25	25	25	39	4	150	23	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980775	EVSCTR3232P0540C	5	40	82	32	32	32	47	4	170	30	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

(continued)

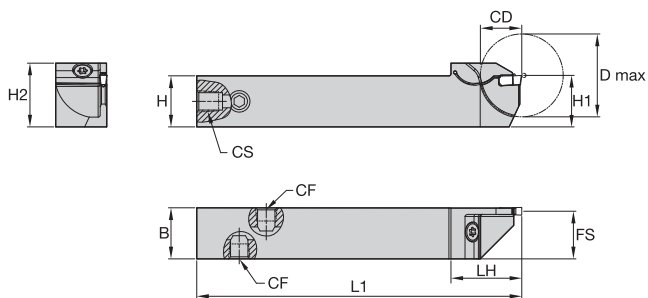
(Integral Reinforced Straight Top Clamp • Metric — continued)



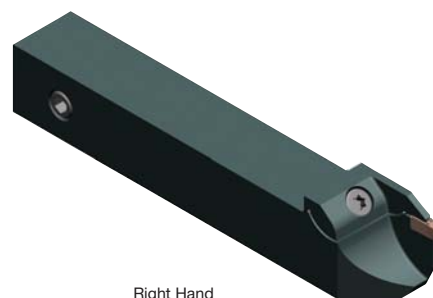
order number	catalog number	seat size	CD	D max	H1	H	B	H2	H3	L1	FS	LH	CF	CS	Torx clamp screw	Torx clamp screw	Torx
															MS2091	MS1160	T25 IP
left hand																	
6179760	EVSCTL1212K1B16	1B	16	42	12	12	12	23	4	125	11	31	—	—	—	MS1160	T20
6179761	EVSCTL1212K1F16	1F	16	42	12	12	12	23	4	125	11	31	—	—	—	MS1160	T20
6179762	EVSCTL1212K0216	2	16	42	12	12	12	23	4	125	11	31	—	—	—	MS1160	T20
5980777	EVSCTL1616K0216	2	16	42	16	16	16	23	—	125	15	31	—	—	—	MS1160	T20
5980780	EVSCTL2020K0216	2	16	42	20	20	20	27	—	125	19	31	—	—	—	MS1160	T20
5980805	EVSCTL2525M0216	2	16	42	25	25	25	32	—	150	24	31	—	—	—	MS1160	T20
5980806	EVSCTL2525M0226	2	26	62	25	25	25	34	—	150	24	42	—	—	MS2091	—	25 IP
6179756	EVSCTL1212K0316C	3	16	52	12	12	12	23	4	125	11	34	M8X1.25	M8X1.25	MS1944	—	T25
5980778	EVSCTL1616K0316C	3	16	52	16	16	16	24	—	125	15	36	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5980801	EVSCTL2020K0316C	3	16	52	20	20	20	29	—	125	19	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980776	EVSCTL2525M0316C	3	16	62	25	25	25	34	—	150	24	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980802	EVSCTL2020K0326C	3	26	62	20	20	20	33	4	125	19	47	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980807	EVSCTL2525M0326C	3	26	62	25	25	25	34	—	150	24	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980779	EVSCTL1616K0416C	4	16	52	16	16	16	24	—	125	14	36	1/16 - 27 NPTF	1/16 - 27 NPTF	MS2091	—	25 IP
5980803	EVSCTL2020K0416C	4	16	52	20	20	20	29	—	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980804	EVSCTL2020K0426C	4	26	62	20	20	20	33	—	125	18	47	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	—	T30
5980808	EVSCTL2525M0426C	4	26	62	25	25	25	34	—	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980809	EVSCTL2525M0432C	4	32	64	25	25	25	38	4	150	23	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1595	—	T30
5980812	EVSCTL3232P0432C	4	32	64	32	32	32	42	—	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980810	EVSCTL2525M0526C	5	26	62	25	25	25	34	—	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980811	EVSCTL2525M0532C	5	32	64	25	25	25	39	4	150	23	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	—	T30
5980813	EVSCTL3232P0540C	5	40	82	32	32	32	47	4	170	30	63	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	—	T45

NOTE: Through the pocket coolant available in seat sizes 3 and higher.

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113



CD = Maximum cut-off depth for solid bars.
D max = Maximum bar diameter for deep grooving or cut-off of tubes.



■ Integral Reinforced Front Clamp • Inch



order number	catalog number	seat size	CD	D max	H1	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
right hand														
6180116	EVSCFR061B10	1B	.39	.787	.375	.375	.53	4.50	.35	.81	—	—	191.916	T15
6180119	EVSCFR081B10	1B	.39	.787	.500	.500	.66	4.50	.47	.81	—	—	191.916	T15
6180120	EVSCFR081B13	1B	.51	1.024	.500	.500	.66	4.50	.47	.93	—	—	191.916	T15
6180129	EVSCFR101B16	1B	.63	1.260	.625	.625	.80	4.50	.60	1.04	—	—	MS1160	T20
6180143	EVSCFR121B16	1B	.63	1.260	.750	.750	.93	4.50	.72	1.04	—	—	MS1160	T20
6180117	EVSCFR061F10	1F	.39	.787	.375	.375	.53	4.50	.34	.81	—	—	191.916	T15
6180121	EVSCFR081F10	1F	.39	.787	.500	.500	.66	4.50	.47	.81	—	—	191.916	T15
6180124	EVSCFR081F13	1F	.51	1.024	.500	.500	.66	4.50	.47	.93	—	—	191.916	T15
6180130	EVSCFR101F16	1F	.63	1.260	.625	.625	.80	4.50	.59	1.04	—	—	MS1160	T20
6180144	EVSCFR121F16	1F	.63	1.260	.750	.750	.93	4.50	.72	1.04	—	—	MS1160	T20
6180118	EVSCFR060210	2	.39	.787	.375	.375	.53	4.50	.34	.81	—	—	191.916	T15
6180125	EVSCFR080210	2	.39	.787	.500	.500	.66	4.50	.46	.81	—	—	191.916	T15
6180126	EVSCFR080216	2	.63	1.260	.500	.500	.66	4.50	.46	1.04	—	—	191.916	T15
6180141	EVSCFR100216	2	.63	1.260	.625	.625	.80	4.50	.59	1.04	—	—	MS1160	T20
6180146	EVSCFR120216	2	.63	1.260	.750	.750	.93	4.50	.71	1.04	—	—	MS1160	T20
6180127	EVSCFR080310C	3	.39	.787	.500	.500	.69	4.50	.44	.85	M8X1.25	M8X1.25	191.916	T15
6180128	EVSCFR080316C	3	.63	1.260	.500	.500	.69	4.50	.44	1.08	M8X1.25	M8X1.25	191.916	T15
6180142	EVSCFR100316C	3	.63	1.260	.625	.625	.81	4.50	.57	1.08	M8X1.25	M8X1.25	MS1160	T20
6180147	EVSCFR120316C	3	.63	1.260	.750	.750	.94	4.50	.69	1.08	M8X1.25	M8X1.25	MS1160	T20

(continued)

(Integral Reinforced Front Clamp • Inch — continued)

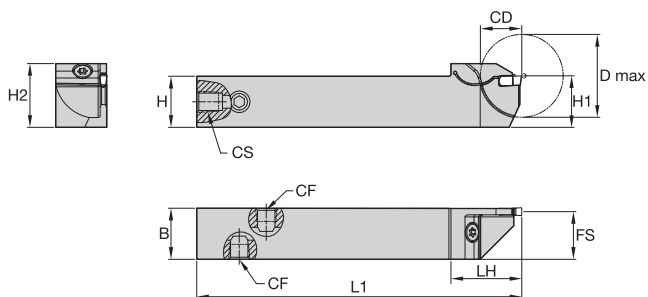


Grooving and Cut-Off

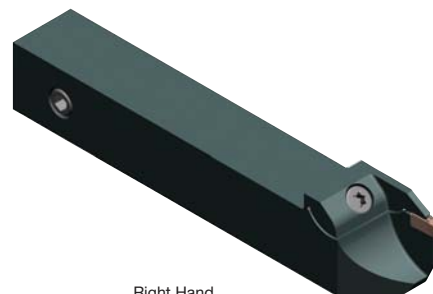
order number	catalog number	seat size	CD	D max	H1	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
left hand														
6179726	EVSCFL061B10	1B	.39	.787	.375	.375	.53	4.50	.35	.81	—	—	191.916	T15
6179729	EVSCFL081B10	1B	.39	.787	.500	.500	.66	4.50	.47	.81	—	—	191.916	T15
6179730	EVSCFL081B13	1B	.51	1.024	.500	.500	.66	4.50	.47	.93	—	—	191.916	T15
6179737	EVSCFL101B16	1B	.63	1.260	.625	.625	.80	4.50	.60	1.04	—	—	MS1160	T20
6179751	EVSCFL121B16	1B	.63	1.260	.750	.750	.93	4.50	.72	1.04	—	—	MS1160	T20
6179727	EVSCFL061F10	1F	.39	.787	.375	.375	.53	4.50	.34	.81	—	—	191.916	T15
6179731	EVSCFL081F10	1F	.39	.787	.500	.500	.66	4.50	.47	.81	—	—	191.916	T15
6179732	EVSCFL081F13	1F	.51	1.024	.500	.500	.66	4.50	.47	.93	—	—	191.916	T15
6179738	EVSCFL101F16	1F	.63	1.260	.625	.625	.80	4.50	.59	1.04	—	—	MS1160	T20
6179752	EVSCFL121F16	1F	.63	1.260	.750	.750	.93	4.50	.72	1.04	—	—	MS1160	T20
6179728	EVSCFL060210	2	.39	.787	.375	.375	.53	4.50	.34	.81	—	—	191.916	T15
6179733	EVSCFL080210	2	.39	.787	.500	.500	.66	4.50	.46	.81	—	—	191.916	T15
6179734	EVSCFL080216	2	.63	1.260	.500	.500	.66	4.50	.46	1.04	—	—	191.916	T15
6179739	EVSCFL100216	2	.63	1.260	.625	.625	.80	4.50	.59	1.04	—	—	MS1160	T20
6179753	EVSCFL120216	2	.63	1.260	.750	.750	.93	4.50	.71	1.04	—	—	MS1160	T20
6179735	EVSCFL080310C	3	.39	.787	.500	.500	.69	4.50	.44	.85	M8X1.25	M8X1.25	191.916	T15
6179736	EVSCFL080316C	3	.63	1.260	.500	.500	.69	4.50	.44	1.08	M8X1.25	M8X1.25	191.916	T15
6179740	EVSCFL100316C	3	.63	1.260	.625	.625	.81	4.50	.57	1.08	M8X1.25	M8X1.25	MS1160	T20
6179754	EVSCFL120316C	3	.63	1.260	.750	.750	.94	4.50	.69	1.08	M8X1.25	M8X1.25	MS1160	T20

NOTE: Through the pocket coolant available in seat sizes 3 and higher.

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113



CD = Maximum cut-off depth for solid bars.
D max = Maximum bar diameter for deep grooving or cut-off of tubes.



■ Integral Reinforced Front Clamp • Metric



order number	catalog number	seat size	CD	D max	H1	H	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
right hand															
6179763	EVSCFR1010K1B10	1B	10	20	10	10	10	14	125	9	21	—	—	191.916	T15
6179766	EVSCFR1212K1B10	1B	10	20	12	12	12	16	125	11	21	—	—	191.916	T15
6179767	EVSCFR1212K1B13	1B	13	26	12	12	12	16	125	11	24	—	—	191.916	T15
6179774	EVSCFR1616K1B16	1B	16	32	16	16	16	21	125	15	27	—	—	MS1160	T20
6179778	EVSCFR2020K1B16	1B	16	32	20	20	20	25	125	19	27	—	—	MS1160	T20
6179764	EVSCFR1010K1F10	1F	10	20	10	10	10	14	125	9	21	—	—	191.916	T15
6179768	EVSCFR1212K1F10	1F	10	20	12	12	12	16	125	11	21	—	—	191.916	T15
6179769	EVSCFR1212K1F13	1F	13	26	12	12	12	16	125	11	24	—	—	191.916	T15
6179775	EVSCFR1616K1F16	1F	16	32	16	16	16	21	125	15	27	—	—	MS1160	T20
6179779	EVSCFR2020K1F16	1F	16	32	20	20	20	25	125	19	27	—	—	MS1160	T20
6179765	EVSCFR1010K0210	2	10	20	10	10	10	14	125	9	21	—	—	191.916	T15
6179770	EVSCFR1212K0210	2	10	20	12	12	12	16	125	11	21	—	—	191.916	T15
6179771	EVSCFR1212K0216	2	16	32	12	12	12	16	125	11	27	—	—	191.916	T15
6179776	EVSCFR1616K0216	2	16	32	16	16	16	21	125	15	27	—	—	MS1160	T20
6179780	EVSCFR2020K0216	2	16	32	20	20	20	25	125	19	27	—	—	MS1160	T20
6179772	EVSCFR1212K0310C	3	10	20	12	12	12	17	125	11	22	M8X1.25	M8X1.25	191.916	T15
6179773	EVSCFR1212K0316C	3	16	32	12	12	12	17	125	11	28	M8X1.25	M8X1.25	191.916	T15
6179777	EVSCFR1616K0316C	3	16	32	16	16	16	21	125	15	28	M8X1.25	M8X1.25	MS1160	T20
6179781	EVSCFR2020K0316C	3	16	32	20	20	20	25	125	19	28	M8X1.25	M8X1.25	MS1160	T20

(continued)

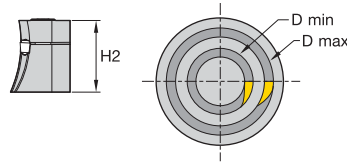
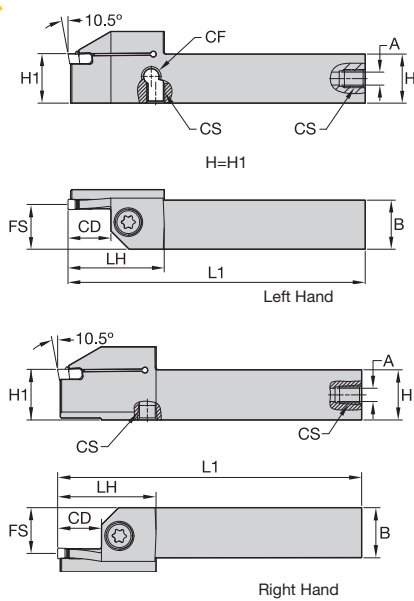
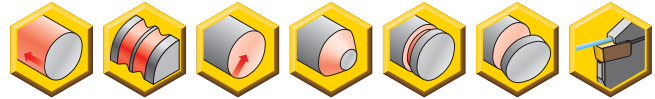
(Integral Reinforced Front Clamp • Metric — continued)



order number	catalog number	seat size	CD	D max	H1	H	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
left hand															
6179709	EVSCFL1010K1B10	1B	10	20	10	10	10	14	125	9	21	—	—	191.916	T15
6179922	EVSCFL1212K1B10	1B	10	20	12	12	12	16	125	11	21	—	—	191.916	T15
6179923	EVSCFL1212K1B13	1B	13	26	12	12	12	16	125	11	24	—	—	191.916	T15
6179930	EVSCFL1616K1B16	1B	16	32	16	16	16	21	125	15	27	—	—	MS1160	T20
6179934	EVSCFL2020K1B16	1B	16	32	20	20	20	25	125	19	27	—	—	MS1160	T20
6179710	EVSCFL1010K1F10	1F	10	20	10	10	10	14	125	9	21	—	—	191.916	T15
6179924	EVSCFL1212K1F10	1F	10	20	12	12	12	16	125	11	21	—	—	191.916	T15
6179925	EVSCFL1212K1F13	1F	13	26	12	12	12	16	125	11	24	—	—	191.916	T15
6179931	EVSCFL1616K1F16	1F	16	32	16	16	16	21	125	15	27	—	—	MS1160	T20
6179935	EVSCFL2020K1F16	1F	16	32	20	20	20	25	125	19	27	—	—	MS1160	T20
6179921	EVSCFL1010K0210	2	10	20	10	10	10	14	125	9	21	—	—	191.916	T15
6179926	EVSCFL1212K0210	2	10	20	12	12	12	16	125	11	21	—	—	191.916	T15
6179927	EVSCFL1212K0216	2	16	32	12	12	12	16	125	11	27	—	—	191.916	T15
6179932	EVSCFL1616K0216	2	16	32	16	16	16	21	125	15	27	—	—	MS1160	T20
6179936	EVSCFL2020K0216	2	16	32	20	20	20	25	125	19	27	—	—	MS1160	T20
6179928	EVSCFL1212K0310C	3	10	20	12	12	12	17	125	11	22	M8X1.25	M8X1.25	191.916	T15
6179929	EVSCFL1212K0316C	3	16	32	12	12	12	17	125	11	28	M8X1.25	M8X1.25	191.916	T15
6179933	EVSCFL1616K0316C	3	16	32	16	16	16	21	125	15	28	M8X1.25	M8X1.25	MS1160	T20
6179937	EVSCFL2020K0316C	3	16	32	20	20	20	25	125	19	28	M8X1.25	M8X1.25	MS1160	T20

NOTE: Through the pocket coolant available in seat sizes 3 and higher.

screw		torque		thread	socket	wrench	
catalog number	order number	Nm	in. lbs.			catalog number	order number
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113



Left Hand



Right Hand

■ Integral Face Grooving Straight Outboard • Inch



order number	catalog number	seat size	CD	D min	D max	H1	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
right hand															
6080418	EVSBR120312035040C	3	.47	1.378	1.575	.751	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117117	EVSBR120312040050C	3	.47	1.575	1.969	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117119	EVSBR120312050060C	3	.47	1.969	2.362	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117351	EVSBR120312060075C	3	.47	2.362	2.953	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117353	EVSBR120312075100C	3	.47	2.953	3.937	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080489	EVSBR160312100180C	3	.47	3.937	7.087	1.000	1.000	1.34	6.00	.95	1.30	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080491	EVSBR160312180250C	3	.47	7.087	9.843	1.000	1.000	1.34	6.00	.95	1.30	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080477	EVSBR160320060075C	3	.79	2.362	2.953	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080479	EVSBR160320075100C	3	.79	2.953	3.937	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080481	EVSBR160320100180C	3	.79	3.937	7.087	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080483	EVSBR160320180250C	3	.79	7.087	9.843	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080419	EVSBR120416040050C	4	.63	1.575	1.969	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080475	EVSBR120416050060C	4	.63	1.969	2.362	.750	.750	1.34	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117355	EVSBR120416060075C	4	.63	2.362	2.953	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117357	EVSBR120416075100C	4	.63	2.953	3.937	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117402	EVSBR160416100180C	4	.63	3.937	7.087	1.000	1.000	1.34	6.00	.93	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117404	EVSBR160416180250C	4	.63	7.087	9.843	1.000	1.000	1.34	6.00	.93	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117359	EVSBR160426060075C	4	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117381	EVSBR160426075100C	4	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117383	EVSBR160426100180C	4	1.02	3.937	7.087	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117386	EVSBR160426180250C	4	1.02	7.087	9.843	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080420	EVSBR160516050060C	5	.63	1.969	2.362	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117166	EVSBR160516060075C	5	.63	2.362	2.953	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117170	EVSBR160516075100C	5	.63	2.953	3.937	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117264	EVSBR160516100180C	5	.63	3.937	7.087	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117268	EVSBR160516180250C	5	.63	7.087	9.843	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117272	EVSBR160516250350C	5	.63	9.843	13.780	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30

(continued)

(Integral Face Grooving Straight Outboard • Inch — continued)



Grooving and Cut-Off

order number	catalog number	seat size												Torx clamp screw	
			CD	D min	D max	H1	B	H2	L1	FS	LH	CF	CS	Torx	
6117276	EVSBR160516350999C	5	.63	13.780	39.331	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117164	EVSBR160526050060C	5	1.02	1.969	2.362	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117168	EVSBR160526060075C	5	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117262	EVSBR160526075100C	5	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117280	EVSBR200532100180C	5	1.26	3.937	7.087	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117282	EVSBR200532180250C	5	1.26	7.087	9.843	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117284	EVSBR200532250350C	5	1.26	9.843	13.780	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117286	EVSBR200532350999C	5	1.26	13.780	39.331	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079180	EVSBR160616060075C	6	.63	2.362	2.953	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079354	EVSBR160616075100C	6	.63	2.953	3.937	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079358	EVSBR160616100180C	6	.63	3.937	7.087	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079362	EVSBR160616180250C	6	.63	7.087	9.843	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079366	EVSBR160616250350C	6	.63	9.843	13.780	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079370	EVSBR160616350999C	6	.63	13.780	39.331	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079352	EVSBR160626060075C	6	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.89	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079356	EVSBR160626075100C	6	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.89	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079374	EVSBR200632100180C	6	1.26	3.937	7.087	1.250	1.000	1.66	6.00	1.14	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6079376	EVSBR200632180250C	6	1.26	7.087	9.843	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6079378	EVSBR200632250350C	6	1.26	9.843	13.780	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6079380	EVSBR200632350999C	6	1.26	13.780	39.331	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
left hand															
6117118	EVSBL120312040050C	3	.47	1.575	1.969	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117120	EVSBL120312050060C	3	.47	1.969	2.362	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117352	EVSBL120312060075C	3	.47	2.362	2.953	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117354	EVSBL120312075100C	3	.47	2.953	3.937	.750	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080472	EVSBL120312035040C	3	.47	1.378	1.575	.751	.750	1.09	4.50	.70	1.30	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080490	EVSBL160312100180C	3	.47	3.937	7.087	1.000	1.000	1.34	6.00	.95	1.30	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080492	EVSBL160312180250C	3	.47	7.087	9.843	1.000	1.000	1.34	6.00	.95	1.30	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080480	EVSBL160320075100C	3	.79	2.953	3.937	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080482	EVSBL160320100180C	3	.79	3.937	7.087	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080484	EVSBL160320180250C	3	.79	7.087	9.843	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080478	EVSBL160320060075C	3	.79	2.362	2.953	1.000	1.000	1.35	6.00	.95	1.61	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080473	EVSBL120416040050C	4	.63	1.575	1.969	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080476	EVSBL120416050060C	4	.63	1.969	2.362	.750	.750	1.34	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117356	EVSBL120416060075C	4	.63	2.362	2.953	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117358	EVSBL120416075100C	4	.63	2.953	3.937	.750	.750	1.09	4.50	.68	1.46	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6117403	EVSBL160416100180C	4	.63	3.937	7.087	1.000	1.000	1.34	6.00	.93	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117405	EVSBL160416180250C	4	.63	7.087	9.843	1.000	1.000	1.34	6.00	.93	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117360	EVSBL160426060075C	4	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117382	EVSBL160426075100C	4	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117384	EVSBL160426100180C	4	1.02	3.937	7.087	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117387	EVSBL160426180250C	4	1.02	7.087	9.843	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080474	EVSBL160516050060C	5	.63	1.969	2.362	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117167	EVSBL160516060075C	5	.63	2.362	2.953	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117261	EVSBL160516075100C	5	.63	2.953	3.937	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117265	EVSBL160516100180C	5	.63	3.937	7.087	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117269	EVSBL160516180250C	5	.63	7.087	9.843	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117273	EVSBL160516250350C	5	.63	9.843	13.780	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117277	EVSBL160516350999C	5	.63	13.780	39.331	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117165	EVSBL160526050060C	5	1.02	1.969	2.362	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117169	EVSBL160526060075C	5	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117263	EVSBL160526075100C	5	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117281	EVSBL200532100180C	5	1.26	3.937	7.087	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117283	EVSBL200532180250C	5	1.26	7.087	9.843	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30

(continued)

(Integral Face Grooving Straight Outboard • Inch — continued)

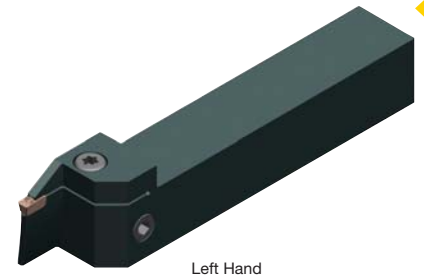
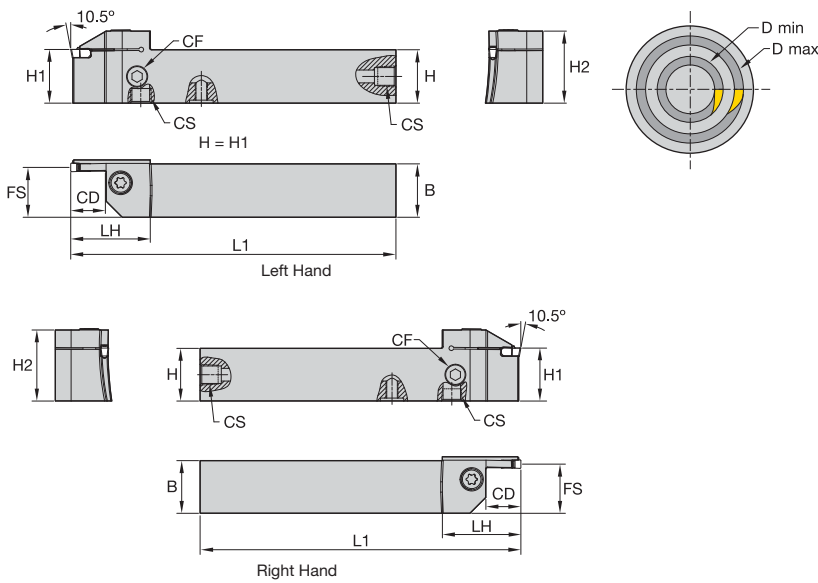


Grooving and Cut-Off

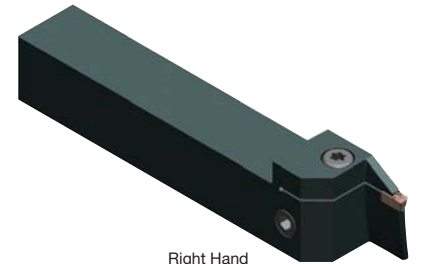
order number	catalog number	seat size	CD	D min	D max	H1	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
6117384	EVSBL160426100180C	4	1.02	3.937	7.087	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117387	EVSBL160426180250C	4	1.02	7.087	9.843	1.000	1.000	1.35	6.00	.93	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080474	EVSBL160516050060C	5	.63	1.969	2.362	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117167	EVSBL160516060075C	5	.63	2.362	2.953	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117261	EVSBL160516075100C	5	.63	2.953	3.937	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117265	EVSBL160516100180C	5	.63	3.937	7.087	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117269	EVSBL160516180250C	5	.63	7.087	9.843	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117273	EVSBL160516250350C	5	.63	9.843	13.780	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117277	EVSBL160516350999C	5	.63	13.780	39.331	1.000	1.000	1.34	6.00	.91	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117165	EVSBL160526050060C	5	1.02	1.969	2.362	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117169	EVSBL160526060075C	5	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117263	EVSBL160526075100C	5	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.91	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117281	EVSBL200532100180C	5	1.26	3.937	7.087	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117283	EVSBL200532180250C	5	1.26	7.087	9.843	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117285	EVSBL200532250350C	5	1.26	9.843	13.780	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6117287	EVSBL200532350999C	5	1.26	13.780	39.331	1.250	1.250	1.62	6.00	1.16	2.09	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079351	EVSBL160616060075C	6	.63	2.362	2.953	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079355	EVSBL160616075100C	6	.63	2.953	3.937	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079359	EVSBL160616100180C	6	.63	3.937	7.087	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079363	EVSBL160616180250C	6	.63	7.087	9.843	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079367	EVSBL160616250350C	6	.63	9.843	13.780	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079371	EVSBL160616350999C	6	.63	13.780	39.331	1.000	1.000	1.34	6.00	.89	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079353	EVSBL160626060075C	6	1.02	2.362	2.953	1.000	1.000	1.35	6.00	.89	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079357	EVSBL160626075100C	6	1.02	2.953	3.937	1.000	1.000	1.35	6.00	.89	1.46	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6079375	EVSBL200632100180C	6	1.26	3.937	7.087	1.250	1.000	1.66	6.00	1.14	1.85	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6079377	EVSBL200632180250C	6	1.26	7.087	9.843	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6079379	EVSBL200632250350C	6	1.26	9.843	13.780	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6079381	EVSBL200632350999C	6	1.26	13.780	39.331	1.250	1.250	1.66	6.00	1.14	2.17	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45

NOTE: Through the pocket coolant available in seat sizes 3 and higher.

screw		torque		thread	socket	wrench	
catalog number	order number	Nm	in. lbs.			catalog number	order number
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113



Left Hand



Right Hand

Grooving and Cut-Off

■ Integral Face Grooving Straight Outboard • Metric

order number	catalog number	seat size	CD	D max	D min	W min	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
right hand															
6080031	EVSBR2020K0312035040C	3	12	40	35	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116561	EVSBR2020K0312040050C	3	12	50	40	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T20
6116563	EVSBR2020K0312050060C	3	12	60	50	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116567	EVSBR2020K0312060075C	3	12	75	60	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116569	EVSBR2020K0312075100C	3	12	100	75	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080067	EVSBR2525M0312100180C	3	12	180	100	25	25	34	150	24	33	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080069	EVSBR2525M0312180250C	3	12	250	180	25	25	34	150	24	33	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080053	EVSBR2525M0320060075C	3	20	75	60	25	25	34	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080055	EVSBR2525M0320075100C	3	20	100	75	25	25	34	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080057	EVSBR2525M0320100180C	3	20	180	100	25	25	34	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080060	EVSBR2525M0320180250C	3	20	250	180	25	25	35	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080033	EVSBR2020K0416040050C	4	16	50	40	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080040	EVSBR2020K0416050060C	4	16	60	50	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116571	EVSBR2020K0416060075C	4	16	75	60	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116573	EVSBR2020K0416075100C	4	16	100	75	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116587	EVSBR2525M0416100180C	4	16	180	100	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116589	EVSBR2525M0416180250C	4	16	250	180	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116575	EVSBR2525M0426060075C	4	26	75	60	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116577	EVSBR2525M0426075100C	4	26	100	75	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116579	EVSBR2525M0426100180C	4	26	180	100	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116581	EVSBR2525M0426180250C	4	26	250	180	25	25	34	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080035	EVSBR2525M0516050060C	5	16	60	50	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124200	EVSBR2525M0516060075C	5	16	60	60	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124214	EVSBR2525M0516075100C	5	16	100	75	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124218	EVSBR2525M0516100180C	5	16	180	100	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124222	EVSBR2525M0516180250C	5	16	250	180	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124226	EVSBR2525M0516250350C	5	16	350	250	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30

(continued)

(Integral Face Grooving Straight Outboard • Metric – continued)



Grooving and Cut-Off

order number	catalog number	seat size	CD	D max	D min	W min	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	Torx
6124230	EVSBR2525M0516350999C	5	16	999	350	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124198	EVSBR2525M0526050060C	5	26	60	50	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124212	EVSBR2525M0526060075C	5	26	60	60	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124216	EVSBR2525M0526075100C	5	26	100	75	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124235	EVSBR3232P0532100180C	5	32	180	100	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124237	EVSBR3232P0532180250C	5	32	250	180	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124239	EVSBR3232P0532250350C	5	32	350	250	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124241	EVSBR3232P0532350999C	5	32	999	350	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124605	EVSBR2525M0616060075C	6	16	75	60	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124609	EVSBR2525M0616075100C	6	16	100	75	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124673	EVSBR2525M0616100180C	6	16	180	100	25	25	31	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124677	EVSBR2525M0616180250C	6	16	250	180	25	25	34	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124681	EVSBR2525M0616250350C	6	16	350	250	25	25	34	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124685	EVSBR2525M0616350999C	6	16	999	350	25	25	34	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124607	EVSBR2525M0626060075C	6	26	75	60	25	25	35	150	22	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124671	EVSBR2525M0626075100C	6	26	100	75	25	25	35	150	22	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124689	EVSBR3232P0632100180C	6	32	180	100	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6124691	EVSBR3232P0632180250C	6	32	250	180	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6124693	EVSBR3232P0632250350C	6	32	350	250	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6124695	EVSBR3232P0632350999C	6	32	999	350	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
left hand															
6080037	EVSBL2020K0312035040C	3	12	40	35	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116562	EVSBL2020K0312040050C	3	12	50	40	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116564	EVSBL2020K0312050060C	3	12	60	50	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116568	EVSBL2020K0312060075C	3	12	75	60	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116570	EVSBL2020K0312075100C	3	12	100	75	20	20	29	125	19	33	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080068	EVSBL2525M0312100180C	3	12	180	100	25	25	34	150	24	33	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080070	EVSBL2525M0312180250C	3	12	250	180	25	25	34	150	24	33	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080054	EVSBL2525M0320060075C	3	20	75	60	25	25	35	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080056	EVSBL2525M0320075100C	3	20	100	75	25	25	35	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080059	EVSBL2525M0320100180C	3	20	180	100	25	25	35	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080061	EVSBL2525M0320180250C	3	20	250	180	25	25	35	150	24	41	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080038	EVSBL2020K0416040050C	4	16	50	40	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6080051	EVSBL2020K0416050060C	4	16	60	50	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116572	EVSBL2020K0416060075C	4	16	75	60	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116574	EVSBL2020K0416075100C	4	16	100	75	20	20	29	125	18	37	1/16 - 27 NPTF	1/16 - 27 NPTF	MS1595	T30
6116588	EVSBL2525M0416100180C	4	16	180	100	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116590	EVSBL2525M0416180250C	4	16	250	180	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116576	EVSBL2525M0426060075C	4	26	75	60	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116578	EVSBL2525M0426075100C	4	26	100	75	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116580	EVSBL2525M0426100180C	4	26	180	100	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6116582	EVSBL2525M0426180250C	4	26	250	180	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6080039	EVSBL2525M0516050060C	5	16	60	50	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124211	EVSBL2525M0516060075C	5	16	60	60	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124215	EVSBL2525M0516075100C	5	16	100	75	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124219	EVSBL2525M0516100180C	5	16	180	100	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124223	EVSBL2525M0516180250C	5	16	250	180	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124227	EVSBL2525M0516250350C	5	16	350	250	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124232	EVSBL2525M0516350999C	5	16	999	350	25	25	34	150	23	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124199	EVSBL2525M0526050060C	5	26	60	50	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124213	EVSBL2525M0526060075C	5	26	60	60	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124217	EVSBL2525M0526075100C	5	26	100	75	25	25	35	150	23	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30

(continued)

(Integral Face Grooving Straight Outboard • Metric — continued)

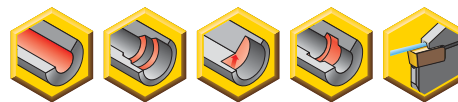


order number	catalog number	seat size	CD	D max	D min	W min	B	H2	L1	FS	LH	CF	CS	Torx clamp screw	
														Torx	Torx
6124236	EVSBL3232P0532100180C	5	32	180	100	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124238	EVSBL3232P0532180250C	5	32	250	180	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124240	EVSBL3232P0532250350C	5	32	350	250	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124242	EVSBL3232P0532350999C	5	32	999	350	32	32	42	170	30	53	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124606	EVSBL2525M0616060075C	6	16	75	60	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124610	EVSBL2525M0616075100C	6	16	100	75	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124674	EVSBL2525M0616100180C	6	16	180	100	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124678	EVSBL2525M0616180250C	6	16	250	180	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124682	EVSBL2525M0616250350C	6	16	350	250	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124686	EVSBL2525M0616350999C	6	16	999	350	25	25	35	150	22	37	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124608	EVSBL2525M0626060075C	6	26	75	60	25	25	35	150	22	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124672	EVSBL2525M0626075100C	6	26	100	75	25	25	35	150	22	47	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1970	T30
6124690	EVSBL3232P0632100180C	6	32	180	100	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6124692	EVSBL3232P0632180250C	6	32	250	180	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6124694	EVSBL3232P0632250350C	6	32	350	250	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45
6124696	EVSBL3232P0632350999C	6	32	999	350	32	32	43	170	29	55	1/8 - 27 NPTF	1/8 - 27 NPTF	MS1490	T45

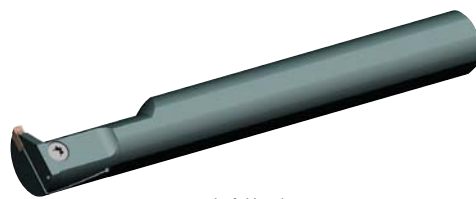
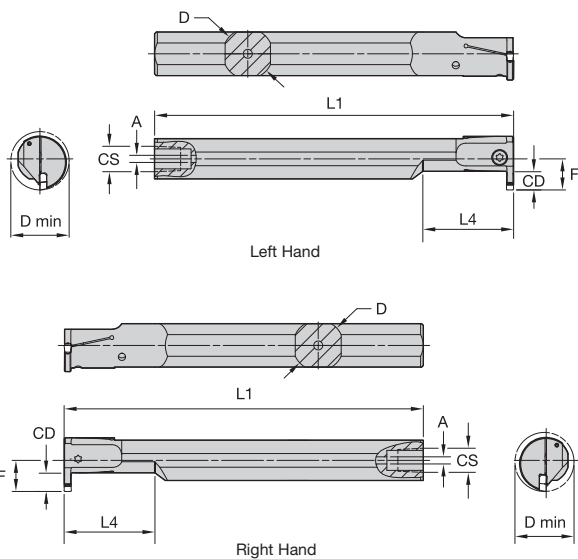
NOTE: Through the pocket coolant available in seat sizes 3 and higher.

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- For use in I.D. grooving applications.
- Maximum support.
- Steel boring bar with through coolant capability.



Grooving and Cut-Off



Left Hand



Right Hand

Steel Boring Bar • Inch

order number	catalog number	seat size	CD	D	D min	L1	F	L4	A	CS	Torx clamp screw	Torx clamp screw	Torx
right hand													
5980635	A08KEVEMR1F05I	1F	.197	.500	.625	4.92	.336	1.00	.16	1/16 - 27 NPT	—	MS1285	T15
5980637	A10MEVEMR1F07I	1F	.276	.625	.787	5.91	.436	1.25	.16	1/8 - 27 NPT	—	MS1273	T15
5980639	A12QEVEMR1F07I	1F	.276	.750	1.000	7.09	.550	1.50	.16	1/8 - 27 NPT	—	MS1160	T20
5980636	A08KEVEMR0205I	2	.197	.500	.625	4.92	.336	1.00	.16	1/16 - 27 NPT	—	MS1285	T15
5980638	A10MEVEMR0207I	2	.276	.625	.787	5.91	.436	1.25	.16	1/8 - 27 NPT	—	MS1273	T15
5980640	A12QEVEMR0207I	2	.276	.750	.984	7.09	.550	1.50	.16	1/8 - 27 NPT	—	MS1160	T20
5980671	A16REVEMR0210I	2	.394	1.000	1.250	7.87	.681	2.00	.16	1/4 - 18 NPT	—	MS1162	T25
5954291	A10MEVEMR0307I	3	.276	.625	.787	5.91	.436	1.25	.16	1/8 - 27 NPT	—	MS1273	T15
5954292	A12QEVEMR0307I	3	.276	.750	.984	7.09	.549	1.50	.16	1/8 - 27 NPT	—	MS1160	T20
5954293	A16REVEMR0310I	3	.394	1.000	1.250	7.87	.681	2.00	.16	1/4 - 18 NPT	—	MS1162	T25
5954295	A20SEVEMR0312I	3	.472	1.250	1.500	9.84	.832	2.00	.25	1/4 - 18 NPT	MS1595	—	T25
5954294	A16REVEMR0410I	4	.394	1.000	1.250	7.87	.681	2.50	.16	1/4 - 18 NPT	—	MS1162	T25
5954296	A20SEVEMR0412I	4	.472	1.250	1.500	9.84	.832	2.50	.25	1/4 - 18 NPT	MS1595	—	T30

(continued)

(Steel Boring Bar • Inch — continued)

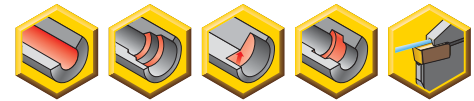


order number	catalog number	seat size	CD	D	D min	L1	F	L4	A	CS	Torx clamp screw	Torx clamp screw	Torx
left hand													
5980672	A08KEVEML1F05I	1F	.197	.500	.625	4.92	.336	1.00	.16	1/16 - 27 NPT	—	MS1285	T15
5980674	A10MEVEML1F07I	1F	.276	.625	.787	5.91	.436	1.25	.16	1/8 - 27 NPT	—	MS1273	T15
5980676	A12QEVEML1F07I	1F	.276	.750	1.000	7.09	.550	1.50	.16	1/8 - 27 NPT	—	MS1160	T20
5980673	A08KEVEML0205I	2	.197	.500	.625	4.92	.336	1.00	.16	1/16 - 27 NPT	—	MS1285	T15
5980675	A10MEVEML0207I	2	.276	.625	.787	5.91	.436	1.25	.16	1/8 - 27 NPT	—	MS1273	T15
5980677	A12QEVEML0207I	2	.276	.750	.984	7.09	.550	1.50	.16	1/8 - 27 NPT	—	MS1160	T20
5980678	A16REVEML0210I	2	.394	1.000	1.250	7.87	.681	2.00	.16	1/4 - 18 NPT	—	MS1162	T25
5954297	A10MEVEML0307I	3	.276	.625	.787	5.91	.436	1.25	.16	1/8 - 27 NPT	—	MS1273	T15
5954298	A12QEVEML0307I	3	.276	.750	.984	7.09	.549	1.50	.16	1/8 - 27 NPT	—	MS1160	T20
5954299	A16REVEML0310I	3	.394	1.000	1.250	7.87	.681	2.00	.16	1/4 - 18 NPT	—	MS1162	T25
5954301	A20SEVEML0312I	3	.472	1.250	1.500	9.84	.832	2.00	.25	1/4 - 18 NPT	MS1595	—	T30
5954300	A16REVEML0410I	4	.394	1.000	1.250	7.87	.681	2.00	.16	1/4 - 18 NPT	—	MS1162	T25
5954302	A20SEVEML0412I	4	.472	1.250	1.500	9.84	.832	2.50	.25	1/4 - 18 NPT	MS1595	—	T30

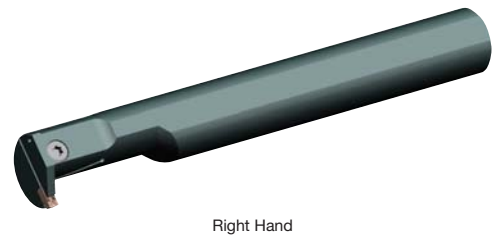
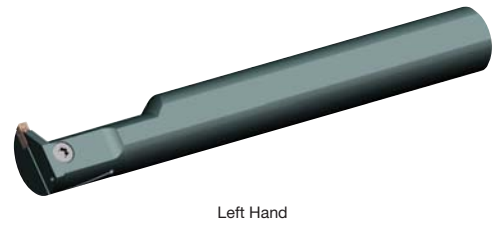
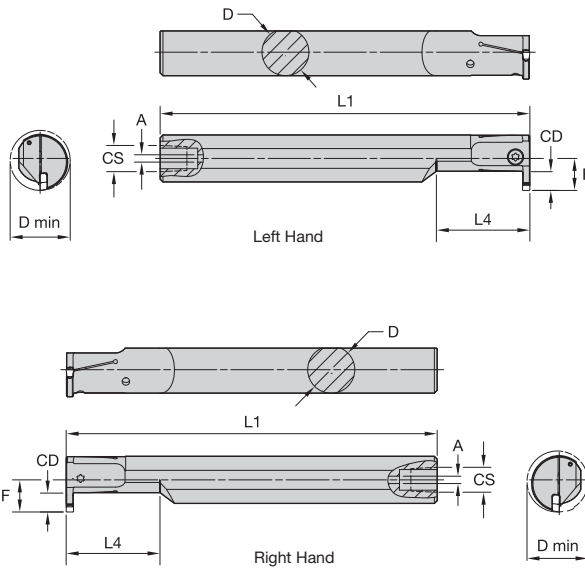
screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

Grooving and Cut-Off

- For use in I.D. grooving applications.
- Maximum support.
- Steel boring bar with through coolant capability.



Grooving and Cut-Off



Steel Boring Bar • Metric

order number	catalog number	seat size	CD	D	D min	L1	F	L4	A	CS	Torx				
											clamp screw	clamp screw	Torx		
right hand															
5980518	A12KEVEMR1F05M	1F	5,00	12	16	125	9	24,0	4,00	1/16 - 27 NPT	—	MS1285	T15		
5980520	A16MEVEMR1F07M	1F	7,00	16	20	150	11	32,0	4,00	1/8 - 27 NPT	—	MS1273	T15		
5980622	A20QEVEMR1F07M	1F	7,00	20	25	180	13	40,0	4,00	1/8 - 27 NPTF	—	MS1160	T20		
5980519	A12KEVEMR0205M	2	5,00	12	16	125	9	24,0	4,00	1/16 - 27 NPTF	—	MS1285	T15		
5980621	A16MEVEMR0207M	2	7,00	16	20	150	11	32,0	4,00	1/8 - 27 NPTF	—	MS1273	T15		
5980623	A20QEVEMR0207M	2	7,00	20	25	180	13	40,0	4,00	1/8 - 27 NPTF	—	MS1160	T20		
5980624	A25REVEMR0210M	2	10,00	25	32	200	18	50,0	6,40	1/4 - 18 NPT	—	MS1162	T25		
5954259	A16MEVEMR0307M	3	7,00	16	20	150	11	40,3	4,00	1/8 - 27 NPT	—	MS1273	T15		
5954260	A20QEVEMR0307M	3	7,00	20	25	180	13	40,3	4,00	1/8 - 27 NPT	—	MS1160	T20		
5954281	A25REVEMR0310M	3	10,00	25	32	200	17	50,3	6,40	1/4 - 18 NPT	—	MS1162	T25		
5954283	A32SEVEMR0312M	3	12,00	32	40	250	22	64,0	6,40	1/4 - 18 NPT	MS1595	—	T30		
5954282	A25REVEMR0410M	4	10,00	25	32	200	17	50,3	6,40	1/4 - 18 NPT	—	MS1162	T25		
5954284	A32SEVEMR0412M	4	12,00	32	40	250	22	64,0	6,40	1/4 - 18 NPT	MS1595	—	T30		

(continued)

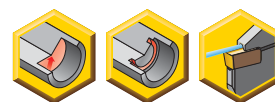
(Steel Boring Bar • Metric — continued)



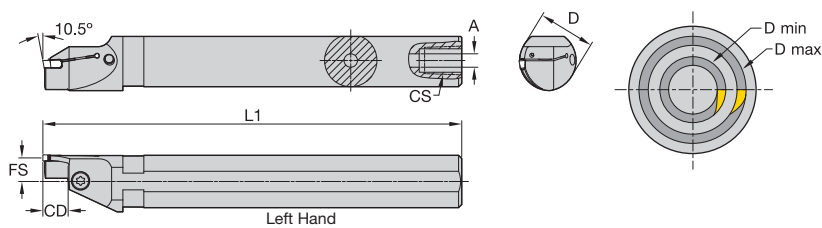
order number	catalog number	seat size	CD	D	D min	L1	F	L4	A	CS	Torx clamp screw	Torx clamp screw	Torx
left hand													
5980625	A12KEVEML1F05M	1F	5,00	12	16	125	9	24,0	4,00	1/16 - 27 NPTF	—	MS1285	T15
5980627	A16MEVEML1F07M	1F	7,00	16	20	150	11	32,0	4,00	1/8 - 27 NPTF	—	MS1273	T15
5980629	A20QEVEML1F07M	1F	7,00	20	25	180	13	40,0	4,00	1/8 - 27 NPTF	—	MS1160	T20
5980626	A12KEVEML0205M	2	5,00	12	16	125	9	24,0	4,00	1/16 - 27 NPTF	—	MS1285	T15
5980628	A16MEVEML0207M	2	7,00	16	20	150	11	32,0	4,00	1/8 - 27 NPTF	—	MS1273	T15
5980630	A20QEVEML0207M	2	7,00	20	25	180	13	40,0	4,00	1/8 - 27 NPTF	—	MS1160	T20
5980631	A25REVEML0210M	2	10,00	25	32	200	18	50,0	6,40	1/4 - 18 NPT	—	MS1162	T25
5954285	A16MEVEML0307M	3	7,00	16	20	150	11	40,3	4,00	1/8 - 27 NPT	—	MS1273	T15
5954286	A20QEVEML0307M	3	7,00	20	25	180	13	40,3	4,00	1/8 - 27 NPT	—	MS1160	T20
5954287	A25REVEML0310M	3	10,00	25	32	200	17	50,3	6,40	1/4 - 27 NPT	—	MS1162	T25
5954289	A32SEVEML0312M	3	12,00	32	40	250	22	64,0	6,40	1/4 - 27 NPT	MS1595	—	T30
5954288	A25REVEML0410M	4	10,00	25	32	200	17	50,3	6,40	1/4 - 18 NPT	—	MS1162	T25
5954290	A32SEVEML0412M	4	12,00	32	40	250	22	64,0	6,40	1/4 - 18 NPT	MS1595	—	T30

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

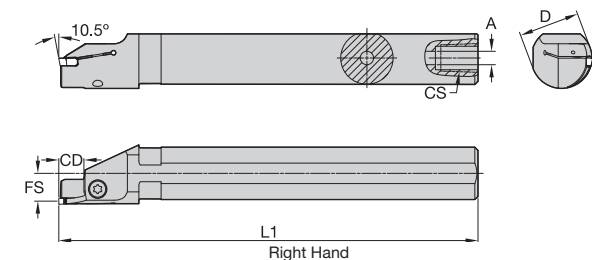
Grooving and Cut-Off



Grooving and Cut-Off



Left Hand



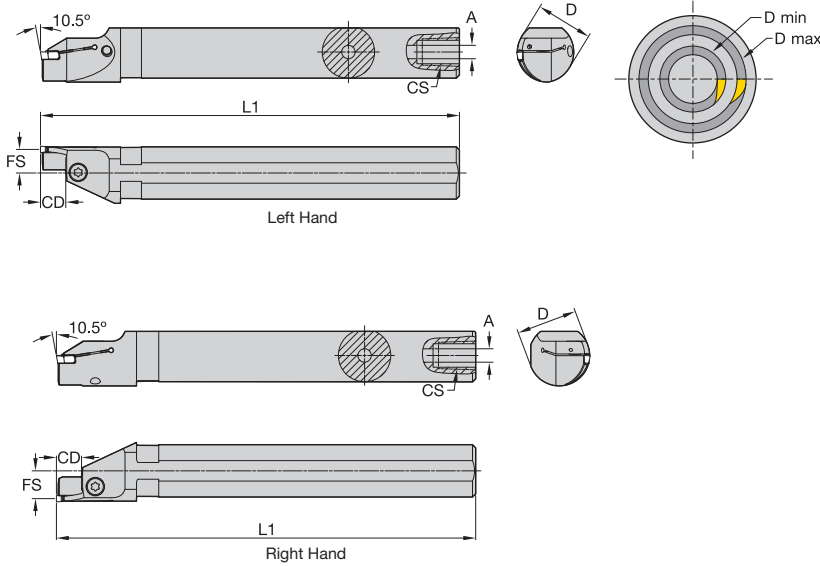
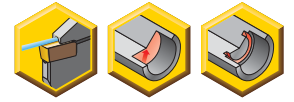
Right Hand

Steel Face Grooving Boring Bar • Inch



order number	catalog number	seat size	CD	D	D min	D max	L1	F	CS	Torx clamp screw	Torx
right hand											
6116533	A16REVSAR0212I026030	2	.472	1.000	1.024	1.181	7.87	.510	1/4-18 NPT	MS1160	T20
6116534	A16REVSAR0312I030035	3	.472	1.000	1.181	1.378	7.87	.510	1/4-18 NPT	MS1162	T25
6116529	A20SEVSAR0312I033042	3	.472	1.250	1.299	1.654	9.84	.635	1/4-18 NPT	MS1162	T25
6116531	A24TEVSAR0312I041050	3	.472	1.500	1.614	1.969	11.81	.760	1/4-18 NPT	MS1162	T25
left hand											
6116539	A16REVSAL0212I026030	2	.472	1.000	1.024	1.181	7.87	.510	1/4-18 NPT	MS1160	T20
6116540	A16REVSAL0312I030035	3	.472	1.000	1.181	1.378	7.87	.510	1/4-18 NPT	MS1162	T25
6116530	A20SEVSAL0312I033042	3	.472	1.250	1.295	1.303	9.84	.635	1/4-18 NPT	MS1162	T25
6116532	A24TEVSAL0312I041050	3	.472	1.500	1.610	1.618	11.81	.760	1/4-18 NPT	MS1162	T25

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113



Left Hand



Right Hand

Grooving and Cut-Off

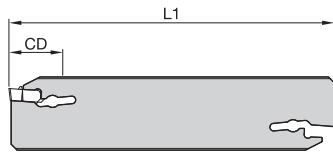
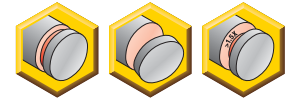
Steel Face Grooving Boring Bar • Metric



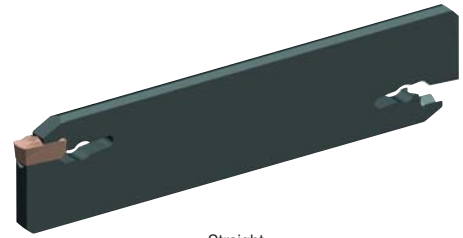
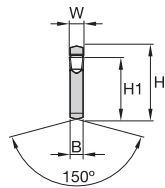
order number	catalog number	seat size	CD	D	D min	D max	L1	F	CS	Torx clamp screw	Torx
right hand											
6116521	A25REVSAR0212M026030	2	12,00	25	26	30	200	13	1/4-18 NPT	MS1160	T20
6116522	A25REVSAR0312M030035	3	12,00	25	30	35	200	13	—	MS1162	T25
6116297	A32SEVSAR0312M033042	3	12,00	32	33	42	250	16	1/4-18 NPT	MS1162	T25
6116299	A40TEVSAR0312M041050	3	12,00	40	41	50	300	20	1/4-18 NPT	MS1162	T25
left hand											
6116527	A25REVSAL0212M026030	2	12,00	25	26	30	200	13	1/4-18 NPT	MS1160	T20
6116528	A25REVSAL0312M030035	3	12,00	25	30	35	200	13	1/4-18 NPT	MS1162	T25
6116298	A32SEVSAL0312M033042	3	12,00	32	33	42	250	16	1/4-18 NPT	—	T25
6116300	A40TEVSAL0312M041050	3	12,00	40	41	50	300	20	1/4-18 NPT	MS1162	T25

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

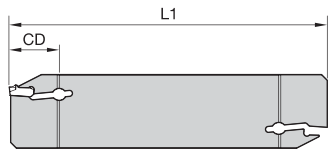
- For deep groove and cut-off applications.
- Universal pocket for holding all insert geometries.



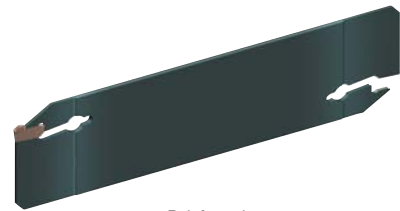
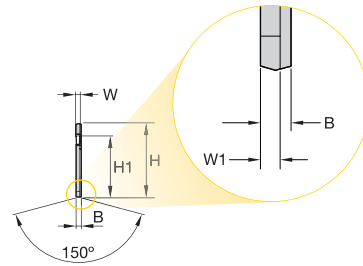
Straight



Straight



Reinforced



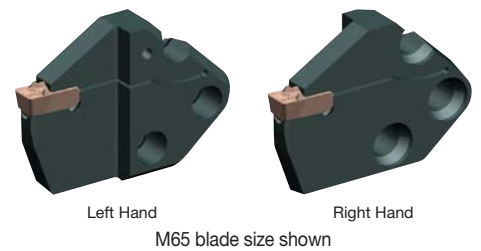
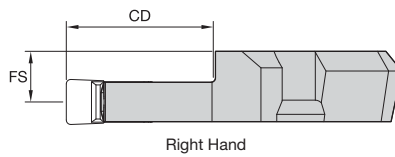
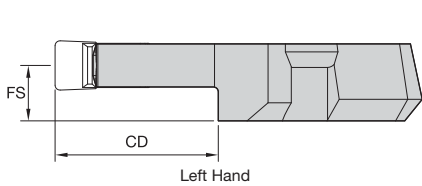
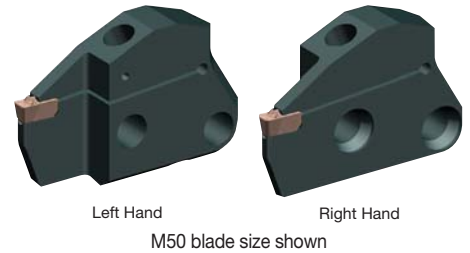
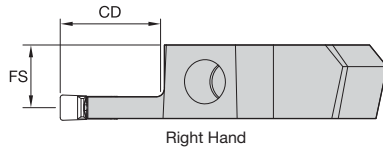
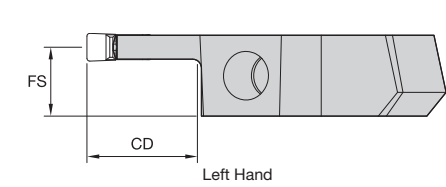
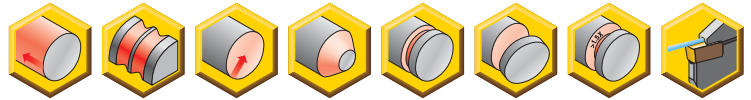
Reinforced

■ Double-Ended Cut-Off Blade

order number	catalog number	seat size	H	W	W1	H1	L1	B	CD	assembly wrench
left hand										
5941706	EVBSN19G1B14	1B	19	1,4	1,15	15,5	90	1,80	14	SCW5E
5941708	EVBSN26J1B15	1B	26	1,4	1,15	21,5	110	1,80	15	SCW5E
5955391	EVBSN19G1F16	1F	19	1,6	1,30	15,5	90	1,80	16	SCW5E
5955392	EVBSN26J1F17	1F	26	1,6	1,30	21,5	110	1,80	17	SCW5E
5941707	EVBSN19G0220	2	19	2,0	—	15,5	90	1,65	—	SCW5E
5941709	EVBSN26J0230	2	26	2,0	—	21,5	110	1,65	—	SCW5E
5941710	EVBSN26M0230	2	26	2,0	—	21,5	150	1,65	—	SCW5E
5941724	EVBSN32M0250	2	32	2,0	—	25,1	150	1,65	—	SCW5E
5941721	EVBSN26J0340	3	26	3,0	—	21,5	110	2,40	—	SCW5E
5941722	EVBSN26M0340	3	26	3,0	—	21,5	150	2,40	—	SCW5E
5941725	EVBSN32M0350	3	32	3,0	—	25,1	150	2,40	—	SCW5E
5941723	EVBSN26J0440	4	26	4,0	—	21,5	110	3,40	—	SCW5E
5941726	EVBSN32M0450	4	32	4,0	—	25,1	150	3,40	—	SCW5E
5977635	EVBSN26J0540	5	26	5,0	—	21,5	110	4,40	—	SCW5E
5977637	EVBSN32M0560	5	32	5,0	—	25,1	150	4,40	—	SCW5E
5977636	EVBSN26J0640	6	26	6,0	—	21,5	110	5,40	—	SCW8E
5977638	EVBSN32M0660	6	32	6,0	—	25,1	150	5,40	—	SCW8E
5977640	EVBSN52X06120	6	53	6,0	—	45,3	260	5,40	—	SCW8E
5977639	EVBSN32M0860	8	32	8,0	—	25,1	150	7,00	—	SCW8E
5977721	EVBSN52X08120	8	53	8,0	—	45,3	260	7,00	—	SCW8E

NOTE: Assembly wrench supplied with blade.

- Maximum support for specific groove width and straight clearance for unlimited diameter.
- Through the pocket coolant capable.
- Universal pocket for holding all insert geometries.



■ Modular Straight Blade with Coolant

order number	catalog number	seat size	CD	FS	blade size
right hand					
6031041	EVM50R1F12M	1F	12,0	11,00	50
6030969	EVM50R0212M	2	12,0	10,88	50
5955423	EVM50R0216M	2	16,0	10,88	50
5979200	EVM50R0312MC	3	12,0	10,43	50
5979010	EVM50R0316MC	3	16,0	10,43	50
5979181	EVM50R0322MC	3	22,0	10,43	50
5979201	EVM50R0412MC	4	12,0	9,93	50
5979182	EVM50R0416MC	4	16,0	9,93	50
5979183	EVM50R0422MC	4	22,0	9,93	50
5979198	EVM50R0426MC	4	26,0	9,93	50
5979184	EVM50R0432MC	4	32,0	9,93	50
6031031	EVM50R0512MC	5	12,0	9,43	50
6031033	EVM50R0516MC	5	16,0	9,43	50
5955415	EVM50R0526MC	5	26,0	9,43	50
5955416	EVM50R0532MC	5	32,0	9,43	50
6031035	EVM65R0616MC	6	16,0	9,88	65
5955417	EVM65R0626MC	6	26,0	9,88	65
6031037	EVM65R0632MC	6	32,0	9,88	65
6031039	EVM65R0816MC	8	16,0	9,00	65
5955418	EVM65R0826MC	8	26,0	9,00	65

(continued)

(Modular Straight Blade with Coolant — continued)

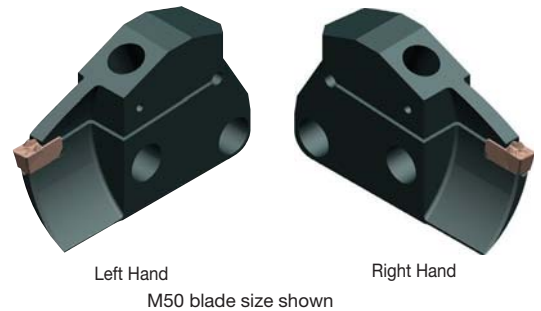
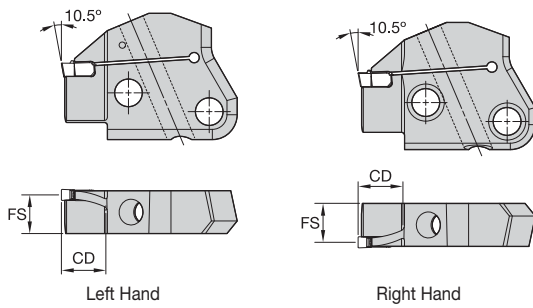
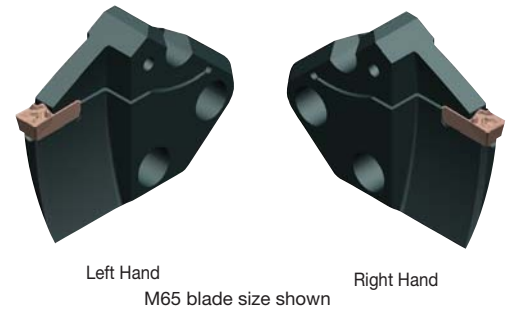
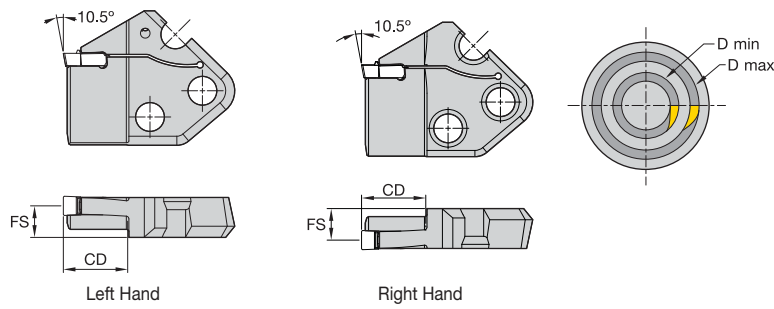
Grooving and Cut-Off

order number	catalog number	seat size	CD	FS	blade size
left hand					
6031042	EVM50L1F12M	1F	12,0	11,00	50
6030970	EVM50L0212M	2	12,0	10,88	50
5955424	EVM50L0216M	2	16,0	10,88	50
5979202	EVM50L0312MC	3	12,0	10,43	50
5979185	EVM50L0316MC	3	16,0	10,43	50
5979186	EVM50L0322MC	3	22,0	10,43	50
5979203	EVM50L0412MC	4	12,0	9,93	50
5979187	EVM50L0416MC	4	16,0	9,93	50
5979188	EVM50L0422MC	4	22,0	9,93	50
5979199	EVM50L0426MC	4	26,0	9,93	50
5979189	EVM50L0432MC	4	32,0	9,93	50
6031032	EVM50L0512MC	5	12,0	9,93	50
6031034	EVM50L0516MC	5	16,0	9,43	50
5955419	EVM50L0526MC	5	26,0	9,43	50
5955420	EVM50L0532MC	5	32,0	9,43	50
6031036	EVM65L0616MC	6	16,0	9,88	65
5955421	EVM65L0626MC	6	26,0	9,88	65
6031038	EVM65L0632MC	6	32,0	9,88	65
6031040	EVM65L0816MC	8	16,0	9,00	65
5955422	EVM65L0826MC	8	26,0	9,00	65

NOTE: Through the pocket coolant available in seat sizes 3 and higher.



Grooving and Cut-Off



Modular Inboard Face Grooving Blade with Coolant

order number	catalog number	seat size	D min		D max		CD	FS	blade size
			in	mm	in	mm			
right hand									
6097181	EVM50R0312A035040C	3	1.378	35	1.575	40	12,0	10,50	50
6097182	EVM50R0312A040050C	3	1.575	40	1.969	50	12,0	10,50	50
6097183	EVM50R0312A050060C	3	1.969	50	2.362	60	12,0	10,50	50
6097184	EVM50R0312A060075C	3	2.362	60	2.953	75	12,0	10,50	50
6116789	EVM50R0312A075100C	3	2.953	75	3.937	100	12,0	10,50	50
6117063	EVM50R0312A100180C	3	3.937	100	7.087	180	12,0	10,50	50
6117067	EVM50R0312A180250C	3	7.087	180	9.843	250	12,0	10,50	50
6117071	EVM50R0312A250350C	3	9.843	250	13.780	350	12,0	10,50	50
6117075	EVM50R0312A350999C	3	13.780	350	39.331	999	12,0	10,50	50
6097185	EVM50R0320A075100C	3	2.953	75	3.937	100	20,0	10,50	50
6097186	EVM50R0320A100180C	3	3.937	100	7.087	180	20,0	10,50	50
6097187	EVM50R0320A180250C	3	7.087	180	9.843	250	20,0	10,50	50
6097188	EVM50R0320A250350C	3	9.843	250	13.780	350	20,0	10,50	50
6097189	EVM50R0320A350999C	3	13.780	350	39.331	999	20,0	10,50	50
6079480	EVM50R0416A040050C	4	1.575	40	1.969	50	16,0	10,00	50
6079481	EVM50R0416A050060C	4	1.969	50	2.362	60	16,0	10,00	50
6079482	EVM50R0416A060075C	4	2.362	60	2.953	75	16,0	10,00	50
6079483	EVM50R0416A075100C	4	2.953	75	3.937	100	16,0	10,00	50
6117079	EVM50R0416A100180C	4	3.937	100	7.087	180	16,0	10,00	50
6117093	EVM50R0416A180250C	4	7.087	180	9.843	250	16,0	10,00	50
6117097	EVM50R0416A250350C	4	9.843	250	13.780	350	16,0	10,00	50
6117101	EVM50R0416A350999C	4	13.780	350	39.331	999	16,0	10,00	50
6079484	EVM50R0426A100180C	4	3.937	100	7.087	180	26,0	10,00	50
6079485	EVM50R0426A180250C	4	7.087	180	9.843	250	26,0	10,00	50
6079486	EVM50R0426A250350C	4	9.843	250	13.780	350	26,0	10,00	50
6079487	EVM50R0426A350999C	4	13.780	350	39.331	999	26,0	10,00	50
6079488	EVM50R0520A050060C	5	1.969	50	2.362	60	20,0	9,50	50

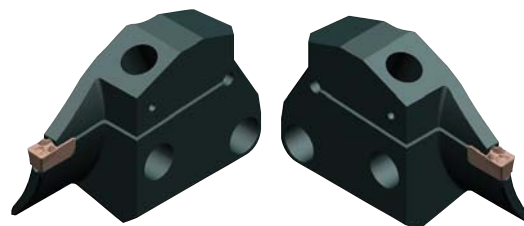
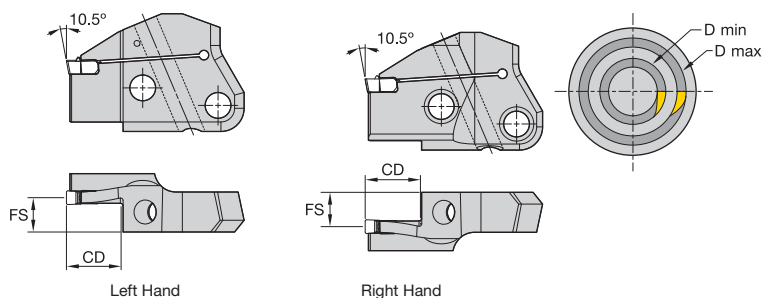
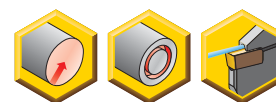
(continued)

(Modular Inboard Face Grooving Blade with Coolant — continued)

Grooving and Cut-Off

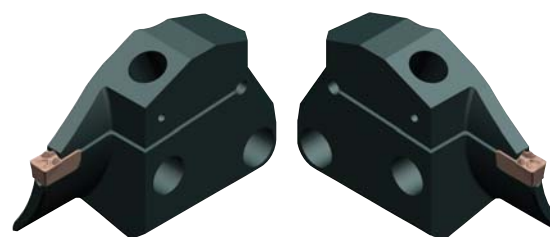
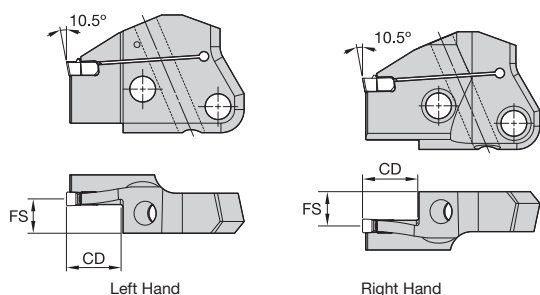
order number	catalog number	seat size	D min		D max		CD	FS	blade size
			in	mm	in	mm			
6079489	EVM50R0520A060075C	5	2.362	60	2.953	75	20,0	9,50	50
6079490	EVM50R0520A075100C	5	2.953	75	3.937	100	20,0	9,50	50
6079491	EVM50R0520A100180C	5	3.937	100	7.087	180	20,0	9,50	50
6079492	EVM50R0520A180250C	5	7.087	180	9.843	250	20,0	9,50	50
6079493	EVM50R0520A250350C	5	9.843	250	13.780	350	20,0	9,50	50
6079494	EVM50R0520A350999C	5	13.780	350	39.331	999	20,0	9,50	50
6079223	EVM65R0620A060075C	6	2.362	60	2.953	75	20,0	9,88	65
6079224	EVM65R0620A075100C	6	2.953	75	3.937	100	20,0	9,88	65
6079225	EVM65R0620A100180C	6	3.937	100	7.087	180	20,0	9,88	65
6079226	EVM65R0620A180250C	6	7.087	180	9.843	250	20,0	9,88	65
6079227	EVM65R0620A250350C	6	9.843	250	13.780	350	20,0	9,88	65
6079228	EVM65R0620A350999C	6	13.780	350	39.331	999	20,0	9,88	65
6079229	EVM65R0820A080180C	8	3.150	80	7.087	180	20,0	9,00	65
6079230	EVM65R0820A180999C	8	7.087	180	39.331	999	20,0	9,00	65
left hand									
6097190	EVM50L0312A035040C	3	1.378	35	1.575	40	12,0	10,50	50
6097191	EVM50L0312A040050C	3	1.575	40	1.969	50	12,0	10,50	50
6097192	EVM50L0312A050060C	3	1.969	50	2.362	60	12,0	10,50	50
6097193	EVM50L0312A060075C	3	2.362	60	2.953	75	12,0	10,50	50
6116790	EVM50L0312A075100C	3	2.953	75	3.937	100	12,0	10,50	50
6117064	EVM50L0312A100180C	3	3.937	100	7.087	180	12,0	10,50	50
6117068	EVM50L0312A180250C	3	7.087	180	9.843	250	12,0	10,50	50
6117072	EVM50L0312A250350C	3	9.843	250	13.780	350	12,0	10,50	50
6117076	EVM50L0312A350999C	3	13.780	350	39.331	999	12,0	10,50	50
6097194	EVM50L0320A075100C	3	2.953	75	3.937	100	20,0	10,50	50
6097195	EVM50L0320A100180C	3	3.937	100	7.087	180	20,0	10,50	50
6097196	EVM50L0320A180250C	3	7.087	180	9.843	250	20,0	10,50	50
6097197	EVM50L0320A250350C	3	9.843	250	13.780	350	20,0	10,50	50
6097198	EVM50L0320A350999C	3	13.780	350	39.331	999	20,0	10,50	50
6079495	EVM50L0416A040050C	4	1.575	40	1.969	50	16,0	10,00	50
6079496	EVM50L0416A050060C	4	1.969	50	2.362	60	16,0	10,00	50
6079497	EVM50L0416A060075C	4	2.362	60	2.953	75	16,0	10,00	50
6079498	EVM50L0416A075100C	4	2.953	75	3.937	100	16,0	10,00	50
6117080	EVM50L0416A100180C	4	3.937	100	7.087	180	16,0	10,00	50
6117094	EVM50L0416A180250C	4	7.087	180	9.843	250	16,0	10,00	50
6117098	EVM50L0416A250350C	4	9.843	250	13.780	350	16,0	10,00	50
6117102	EVM50L0416A350999C	4	13.780	350	39.331	999	16,0	10,00	50
6079499	EVM50L0426A100180C	4	3.937	100	7.087	180	26,0	10,00	50
6079500	EVM50L0426A180250C	4	7.087	180	9.843	250	26,0	10,00	50
6079501	EVM50L0426A250350C	4	9.843	250	13.780	350	26,0	10,00	50
6079502	EVM50L0426A350999C	4	13.780	350	39.331	999	26,0	10,00	50
6079503	EVM50L0520A050060C	5	1.969	50	2.362	60	20,0	9,50	50
6079504	EVM50L0520A060075C	5	2.362	60	2.953	75	20,0	9,50	50
6079505	EVM50L0520A075100C	5	2.953	75	3.937	100	20,0	9,50	50
6079506	EVM50L0520A100180C	5	3.937	100	7.087	180	20,0	9,50	50
6079507	EVM50L0520A180250C	5	7.087	180	9.843	250	20,0	9,50	50
6079508	EVM50L0520A250350C	5	9.843	250	13.780	350	20,0	9,50	50
6079509	EVM50L0520A350999C	5	13.780	350	39.331	999	20,0	9,50	50
6079234	EVM65L0620A060075C	6	2.362	60	2.953	75	20,0	9,88	65
6079235	EVM65L0620A075100C	6	2.953	75	3.937	100	20,0	9,88	65
6079236	EVM65L0620A100180C	6	3.937	100	7.087	180	20,0	9,88	65
6079237	EVM65L0620A180250C	6	7.087	180	9.843	250	20,0	9,88	65
6079238	EVM65L0620A250350C	6	9.843	250	13.780	350	20,0	9,88	65
6079239	EVM65L0620A350999C	6	13.780	350	39.331	999	20,0	9,88	65
6079240	EVM65L0820A080180C	8	3.150	80	7.087	180	20,0	9,00	65
6079241	EVM65L0820A180999C	8	7.087	180	39.331	999	20,0	9,00	65

NOTE: Through the pocket coolant available in seat sizes 3 and higher.



Left Hand Right Hand

M65 blade size shown



Left Hand Right Hand

M50 blade size shown

Grooving and Cut-Off

Modular Outboard Face Grooving Blade with Coolant

order number	catalog number	seat size	D min		D max		CD	FS	blade size
			in	mm	in	mm			
right hand									
6079340	EVM50R0312B035040C	3	1.378	35	1.575	40	12,0	10,50	50
6079411	EVM50R0312B040050C	3	1.575	40	1.969	50	12,0	10,50	50
6079412	EVM50R0312B050060C	3	1.969	50	2.362	60	12,0	10,50	50
6079413	EVM50R0312B060075C	3	2.362	60	2.953	75	12,0	10,50	50
6117061	EVM50R0312B075100C	3	2.953	75	3.937	100	12,0	10,50	50
6117065	EVM50R0312B100180C	3	3.937	100	7.087	180	12,0	10,50	50
6117069	EVM50R0312B180250C	3	7.087	180	9.843	250	12,0	10,50	50
6117073	EVM50R0312B250350C	3	9.843	250	13.780	350	12,0	10,50	50
6117077	EVM50R0312B350999C	3	13.780	350	39.331	999	12,0	10,50	50
6079414	EVM50R0320B075100C	3	2.953	75	3.937	100	20,0	10,50	50
6079415	EVM50R0320B100180C	3	3.937	100	7.087	180	20,0	10,50	50
6079416	EVM50R0320B180250C	3	7.087	180	9.843	250	20,0	10,50	50
6079417	EVM50R0320B250350C	3	9.843	250	13.780	350	20,0	10,50	50
6079418	EVM50R0320B350999C	3	13.780	350	39.331	999	20,0	10,50	50
6079429	EVM50R0416B040050C	4	1.575	40	1.969	50	16,0	10,00	50
6079430	EVM50R0416B050060C	4	1.969	50	2.362	60	16,0	10,00	50
6079451	EVM50R0416B060075C	4	2.362	60	2.953	75	16,0	10,00	50
6079452	EVM50R0416B075100C	4	2.953	75	3.937	100	16,0	10,00	50
6117091	EVM50R0416B100180C	4	3.937	100	7.087	180	16,0	10,00	50
6117095	EVM50R0416B180250C	4	7.087	180	9.843	250	16,0	10,00	50
6117099	EVM50R0416B250350C	4	9.843	250	13.780	350	16,0	10,00	50
6117103	EVM50R0416B350999C	4	13.780	350	39.331	999	16,0	10,00	50
6079453	EVM50R0426B100180C	4	3.937	100	7.087	180	26,0	10,00	50
6079454	EVM50R0426B180250C	4	7.087	180	9.843	250	26,0	10,00	50
6079455	EVM50R0426B250350C	4	9.843	250	13.780	350	26,0	10,00	50
6079456	EVM50R0426B350999C	4	13.780	350	39.331	999	26,0	10,00	50
6079457	EVM50R0520B050060C	5	1.969	50	2.362	60	20,0	9,50	50

(continued)

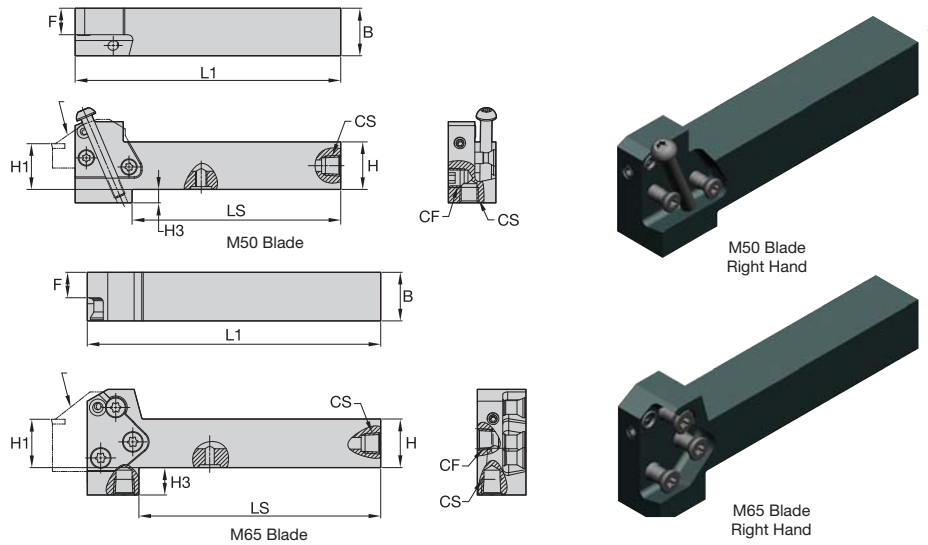
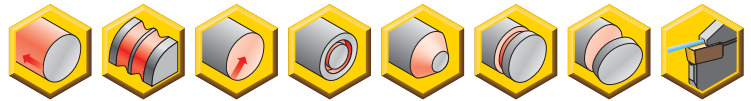
(Modular Outboard Face Grooving Blade with Coolant — continued)

Grooving and Cut-Off

order number	catalog number	seat size	D min		D max		CD	FS	blade size
			in	mm	in	mm			
6079458	EVM50R0520B060075C	5	2.362	60	2.953	75	20,0	9,50	50
6079459	EVM50R0520B075100C	5	2.953	75	3.937	100	20,0	9,50	50
6079460	EVM50R0520B100180C	5	3.937	100	7.087	180	20,0	9,50	50
6079461	EVM50R0520B180250C	5	7.087	180	9.843	250	20,0	9,50	50
6079462	EVM50R0520B250350C	5	9.843	250	13.780	350	20,0	9,50	50
6079463	EVM50R0520B350999C	5	13.780	350	39.331	999	20,0	9,50	50
6079246	EVM65R0620B060075C	6	2.362	60	2.953	75	20,0	9,88	65
6079247	EVM65R0620B075100C	6	2.953	75	3.937	100	20,0	9,88	65
6079248	EVM65R0620B100180C	6	3.937	100	7.087	180	20,0	9,88	65
6079249	EVM65R0620B180250C	6	7.087	180	9.843	250	20,0	9,88	65
6079250	EVM65R0620B250350C	6	9.843	250	13.780	350	20,0	9,88	65
6079261	EVM65R0620B350999C	6	13.780	350	39.331	999	20,0	9,88	65
6079262	EVM65R0820B080180C	8	3.150	80	7.087	180	20,0	9,00	65
6079263	EVM65R0820B180999C	8	7.087	180	39.331	999	20,0	9,00	65
left hand									
6079420	EVM50L0312B035040C	3	1.378	35	1.575	40	12,0	10,50	50
6079421	EVM50L0312B040050C	3	1.575	40	1.969	50	12,0	10,50	50
6079422	EVM50L0312B050060C	3	1.969	50	2.362	60	12,0	10,50	50
6079423	EVM50L0312B060075C	3	2.362	60	2.953	75	12,0	10,50	50
6117062	EVM50L0312B075100C	3	2.953	75	3.937	100	12,0	10,50	50
6117066	EVM50L0312B100180C	3	3.937	100	7.087	180	12,0	10,50	50
6117070	EVM50L0312B180250C	3	7.087	180	9.843	250	12,0	10,50	50
6117074	EVM50L0312B250350C	3	9.843	250	13.780	350	12,0	10,50	50
6117078	EVM50L0312B350999C	3	13.780	350	39.331	999	12,0	10,50	50
6079424	EVM50L0320B075100C	3	2.953	75	3.937	100	20,0	10,50	50
6079425	EVM50L0320B100180C	3	3.937	100	7.087	180	20,0	10,50	50
6079426	EVM50L0320B180250C	3	7.087	180	9.843	250	20,0	10,50	50
6079427	EVM50L0320B250350C	3	9.843	250	13.780	350	20,0	10,50	50
6079428	EVM50L0320B350999C	3	13.780	350	39.331	999	20,0	10,50	50
6079464	EVM50L0416B040050C	4	1.575	40	1.969	50	16,0	10,00	50
6079465	EVM50L0416B050060C	4	1.969	50	2.362	60	16,0	10,00	50
6079466	EVM50L0416B060075C	4	2.362	60	2.953	75	16,0	10,00	50
6079467	EVM50L0416B075100C	4	2.953	75	3.937	100	16,0	10,00	50
6117092	EVM50L0416B100180C	4	3.937	100	7.087	180	16,0	10,00	50
6117096	EVM50L0416B180250C	4	7.087	180	9.843	250	16,0	10,00	50
6117100	EVM50L0416B250350C	4	9.843	250	13.780	350	16,0	10,00	50
6117104	EVM50L0416B350999C	4	13.780	350	39.331	999	16,0	10,00	50
6079468	EVM50L0426B100180C	4	3.937	100	7.087	180	26,0	10,00	50
6079469	EVM50L0426B180250C	4	7.087	180	9.843	250	26,0	10,00	50
6079470	EVM50L0426B250350C	4	9.843	250	13.780	350	26,0	10,00	50
6079471	EVM50L0426B350999C	4	13.780	350	39.331	999	26,0	10,00	50
6079472	EVM50L0520B050060C	5	1.969	50	2.362	60	20,0	9,50	50
6079473	EVM50L0520B060075C	5	2.362	60	2.953	75	20,0	9,50	50
6079474	EVM50L0520B075100C	5	2.953	75	3.937	100	20,0	9,50	50
6079475	EVM50L0520B100180C	5	3.937	100	7.087	180	20,0	9,50	50
6079476	EVM50L0520B180250C	5	7.087	180	9.843	250	20,0	9,50	50
6079477	EVM50L0520B250350C	5	9.843	250	13.780	350	20,0	9,50	50
6079478	EVM50L0520B350999C	5	13.780	350	39.331	999	20,0	9,50	50
6079266	EVM65L0620B060075C	6	2.362	60	2.953	75	20,0	9,88	65
6079267	EVM65L0620B075100C	6	2.953	75	3.937	100	20,0	9,88	65
6079268	EVM65L0620B100180C	6	3.937	100	7.087	180	20,0	9,88	65
6079269	EVM65L0620B180250C	6	7.087	180	9.843	250	20,0	9,88	65
6079270	EVM65L0620B250350C	6	9.843	250	13.780	350	20,0	9,87	65
6079271	EVM65L0620B350999C	6	13.780	350	39.331	999	20,0	9,88	65
6079272	EVM65L0820B080180C	8	3.150	80	7.087	180	20,0	9,00	65
6079273	EVM65L0820B180999C	8	7.087	180	39.331	999	20,0	9,00	65

NOTE: Through the pocket coolant available in seat sizes 3 and higher.

- Interchangeable blades for versatility and depth of cut.
- Through the pocket coolant capable.



Grooving and Cut-Off

■ Modular Straight Toolholder with Coolant • Inch

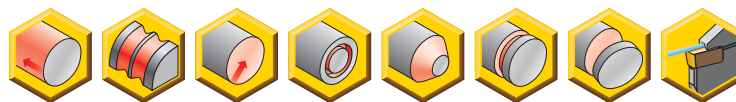


order number	catalog number	H	H1	B	L1	LS	F	CS	CF	H2	H3	blade size	blade screw	Torx	clamp screw	Torx
right hand																
5979194	KGMSR1650C	1.00	1.00	1.00	5.5	4.27	.56	1/8 - 27 NPTF	1/8 - 27 NPTF	1.67	0.25	50	—	T25	—	T25
5979801	KGMSR1665C	1.00	1.00	1.00	6.0	4.62	.53	1/8 - 27 NPTF	1/8 - 27 NPTF	2.09	0.50	65	MS1163	T30	—	—
5979802	KGMSR2050C	1.25	1.25	1.25	5.5	4.72	.81	1/8 - 27 NPTF	1/8 - 27 NPTF	1.78	—	50	MS1162	T25	MS2002	T25
5979803	KGMSR2065C	1.25	1.25	1.25	6.0	4.88	.78	1/8 - 27 NPTF	1/8 - 27 NPTF	2.09	0.25	65	MS1163	T30	—	—
5979804	KGMSR2450C	1.50	1.50	1.50	5.5	4.72	1.06	1/8 - 27 NPTF	1/8 - 27 NPTF	2.03	—	50	MS1162	T25	MS2002	T25
5979805	KGMSR2465C	1.50	1.50	1.50	7.0	5.90	1.03	1/8 - 27 NPTF	1/8 - 27 NPTF	2.09	—	65	MS1163	T30	—	—
left hand																
5979195	KGMSL1650C	1.00	1.00	1.00	5.5	4.27	.56	1/8 - 27 NPTF	1/8 - 27 NPTF	1.67	0.25	50	—	T25	—	T25
5979806	KGMSL1665C	1.00	1.00	1.00	6.0	4.62	.52	1/8 - 27 NPTF	1/8 - 27 NPTF	2.10	0.50	65	MS1163	T30	—	—
5979807	KGMSL2050C	1.25	1.25	1.25	5.5	4.52	.81	1/8 - 27 NPTF	1/8 - 27 NPTF	1.67	—	50	MS1162	T25	MS2002	T25
5979808	KGMSL2065C	1.25	1.25	1.25	6.0	4.88	.78	1/8 - 27 NPTF	1/8 - 27 NPTF	2.09	0.25	65	MS1163	T30	—	—
5979809	KGMSL2450C	1.50	1.50	1.50	5.5	4.74	1.06	1/8 - 27 NPTF	1/8 - 27 NPTF	2.03	—	50	MS1162	T25	MS2002	T25
5979810	KGMSL2465C	1.50	1.50	1.50	7.0	5.90	1.03	1/8 - 27 NPTF	1/8 - 27 NPTF	2.09	—	65	MS1163	T30	—	—

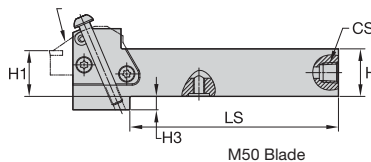
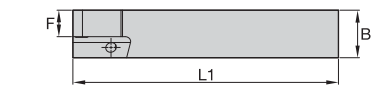
NOTE: KGMS...: Right-hand holder uses right-hand blades.
 KGME...: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

screw		torque		thread	socket	wrench	
catalog number	order number	Nm	in. lbs.			catalog number	order number
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

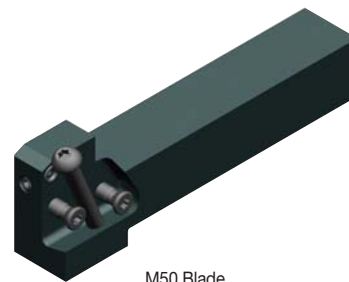
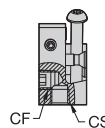
- Interchangeable blades for versatility and depth of cut.
- Through the pocket coolant capable.



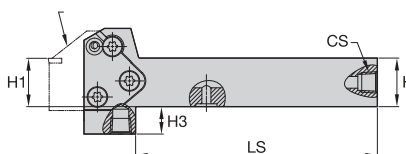
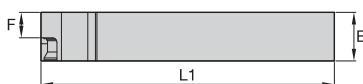
Grooving and Cut-Off



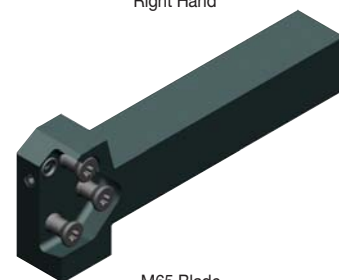
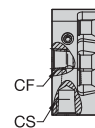
M50 Blade



M50 Blade
Right Hand



M65 Blade



M65 Blade
Right Hand

■ Modular Straight Toolholder with Coolant • Metric

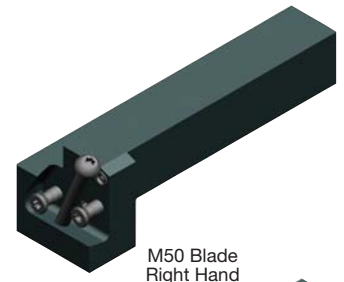
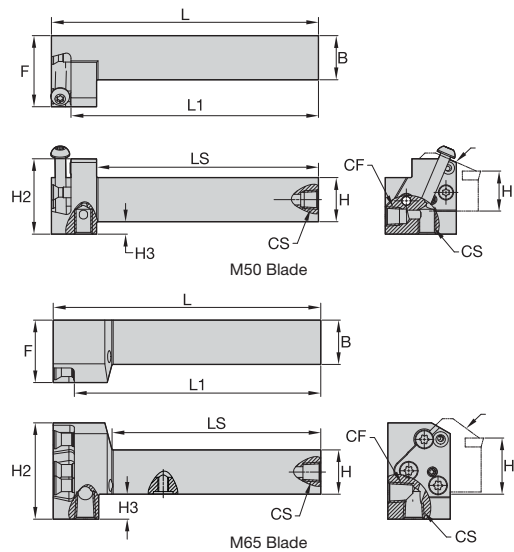
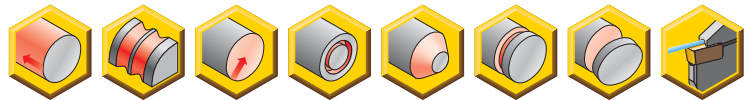


order number	catalog number	B	H	H1	L1	F	CS	CF	LS	H3	blade size	blade screw	Torx	clamping screw	Torx
right hand															
5979190	KGMSR2525M50C	25	25	25	138,75	13,84	G 1/8	G 1/8	109,00	7,00	50	MS1162	T25	MS2002	T25
5979745	KGMSR2525M65C	25	25	25	150,00	13,00	G 1/8	G 1/8	122,00	14,00	65	MS1163	T30	—	—
5979746	KGMSR3232P50C	32	32	32	158,75	20,81	G 1/8	G 1/8	133,62	—	50	MS1162	T25	MS2002	T25
5979747	KGMSR3232P65C	32	32	32	170,00	20,00	G 1/8	G 1/8	138,50	7,00	65	MS1163	T30	—	—
left hand															
5979191	KGMSL2525M50C	25	25	25	138,75	13,84	G 1/8	G 1/8	109,00	7,00	50	MS1162	T25	MS2002	T25
5979748	KGMSL2525M65C	25	25	25	150,00	13,00	G 1/8	G 1/8	122,00	14,00	65	MS1163	T30	—	—
5979749	KGMSL3232P50C	32	32	32	158,75	20,80	G 1/8	G 1/8	133,62	—	50	MS1162	T25	MS2002	T25
5979750	KGMSL3232P65C	32	32	32	170,00	20,00	G 1/8	G 1/8	142,00	7,00	65	MS1163	T30	—	—

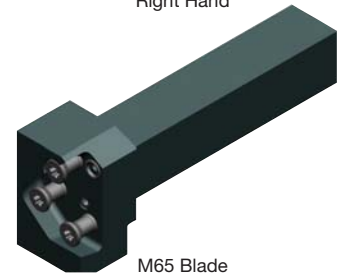
NOTE: KGMS...: Right-hand holder uses right-hand blades.
 KGME...: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- Interchangeable blades for versatility and depth of cut.
- Through the pocket coolant capable.



M50 Blade
Right Hand



M65 Blade
Right Hand

Grooving and Cut-Off

Modular End Mount Toolholder with Coolant • Inch

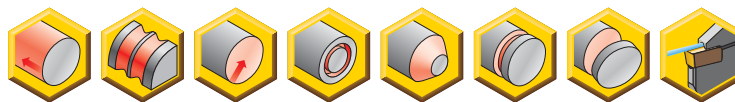


order number	catalog number	H	H1	B	L1	LS	F	H2	H3	blade size	blade screw	Torx	clamp screw	Torx
right hand														
5979196	KGMER1650C	1.00	1.00	1.00	5.5	4.96	1.58	1.67	0.25	50	—	T25	—	T25
5979814	KGMER1665C	1.00	1.00	1.00	5.5	4.70	1.38	2.09	0.50	65	MS1163	T30	—	—
5979815	KGMER2050C	1.25	1.25	1.25	5.5	4.96	1.58	1.67	—	50	—	T25	—	T25
5979816	KGMER2065C	1.25	1.25	1.25	5.5	4.70	1.38	2.09	0.25	65	MS1163	T30	—	—
5979817	KGMER2450C	1.50	1.50	1.50	5.5	4.96	1.58	1.92	—	50	MS1162	T25	MS2002	T25
5979818	KGMER2465C	1.50	1.50	1.50	6.5	5.70	1.49	2.09	—	65	MS1163	T30	—	—
left hand														
5979197	KGME1650C	1.00	1.00	1.00	5.5	4.96	1.58	1.67	0.25	50	—	T25	—	T25
5979819	KGME1665C	1.00	1.00	1.00	5.5	4.70	1.38	2.09	0.50	65	MS1163	T30	—	—
5979820	KGME12050C	1.25	1.25	1.25	5.5	4.96	1.58	1.67	—	50	—	T25	—	T25
5979881	KGME12065C	1.25	1.25	1.25	5.5	4.70	1.38	2.09	0.25	65	MS1163	T30	—	—
5979882	KGME12450C	1.50	1.50	1.50	5.5	4.96	1.58	1.92	—	50	MS1162	T25	MS2002	T25
5979883	KGME12465C	1.50	1.50	1.50	6.5	5.70	1.49	2.09	—	65	MS1163	T30	—	—

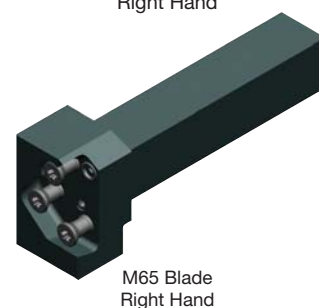
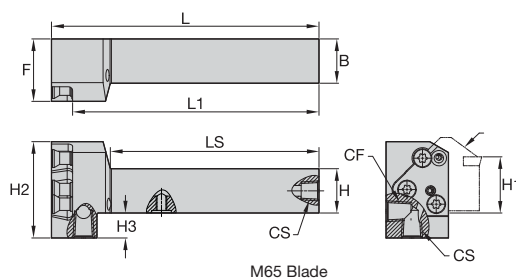
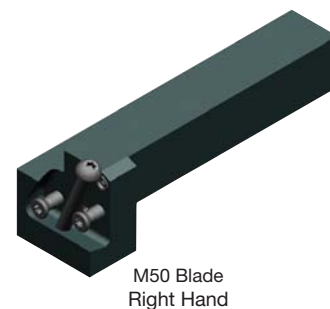
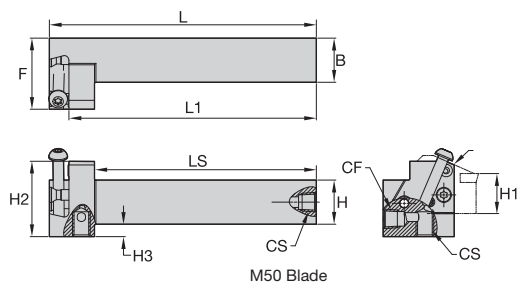
NOTE: KGMS...: Right-hand holder uses right-hand blades.
 KGME...: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm)
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm)

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- Interchangeable blades for versatility and depth of cut.
- Through the pocket coolant capable.



Grooving and Cut-Off



■ Modular End Mount Toolholder with Coolant • Metric

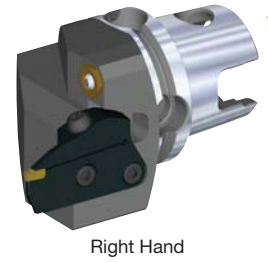
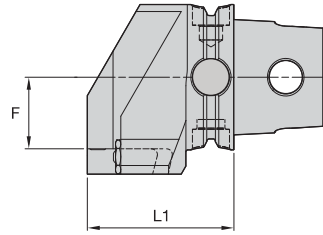
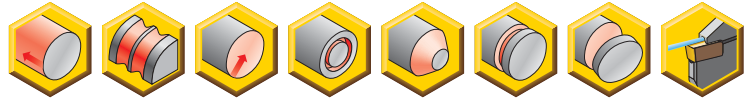


order number	catalog number	B	H	H1	L1	F	CS	CF	LS	H3	blade size	blade screw	Torx	clamping screw	Torx
right hand															
5979765	KGMER2525M65C	25	25	25	138,15	35,00	G 1/8	G 1/8	117,00	14,00	65	MS1163	T30	—	—
5979192	KGMER2525M50C	25	25	25	139,25	40,00	G 1/8	G 1/8	124,85	7,00	50	MS1162	T25	MS2002	T25
5979767	KGMER3232P65C	32	32	32	158,15	35,00	G 1/8	G 1/8	137,00	7,00	65	MS1163	T30	—	—
5979766	KGMER3232P50C	32	32	32	159,25	40,00	G 1/8	G 1/8	145,25	—	50	MS1162	T25	MS2002	T25
left hand															
5979768	KGME2525M65C	25	25	25	138,15	35,00	G 1/8	G 1/8	117,00	14,00	65	MS1163	T30	—	—
5979193	KGME2525M50C	25	25	25	139,25	40,00	G 1/8	G 1/8	124,85	7,00	50	MS1162	T25	MS2002	T25
5979770	KGME3232P65C	32	32	32	158,15	35,00	G 1/8	G 1/8	137,00	7,00	65	MS1163	T30	—	—
5979769	KGME3232P50C	32	32	32	159,25	40,00	G 1/8	G 1/8	145,25	—	50	MS1162	T25	MS2002	T25

NOTE: KGMS.: Right-hand holder uses right-hand blades.
 KGME.: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

screw catalog number	screw order number	torque		thread	socket	wrench catalog number	wrench order number
		Nm	in. lbs.				
MS1160	1099645	7	62	M5	T20	KT20	1022703
MS1162	1127019	9	80	M6	T25	KT25	1022725
MS1163	1124104	18	159	M8	T30	KT30L	1099676
MS1273	1020977	4	35.4	M4	T15	KT15	1022701
MS1490	2263299	17	151	M8	T45	KT45	1018227
MS1595	1094300	12	106	M6	T30	KT30	1099676
MS1970	1106668	12	106	M6	T30	KT30	1099676
MS2002	1621087	9	80	M6	T25	KT25	1022725
MS2091	1931147	9	80	M5	25IP	K25IP	2050113

- Best-in-class KM Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



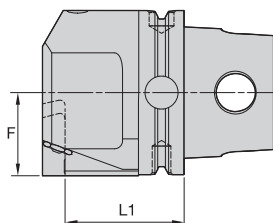
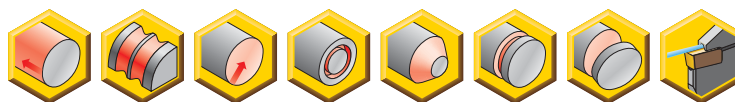
■ Modular Straight KM System with Coolant



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
5999790	KM40TSKGMSR50C	KM40TS	53,5	2.11	15,0	.59	50	MS1162	T25	MS2002	T25
6000422	KM50TSKGMSR65C	KM50TS	53,5	2.11	22,0	.87	65	MS1163	T30	—	—
5999864	KM50TSKGMSR50C	KM50TS	58,5	2.30	23,0	.91	50	MS1162	T25	MS2002	T25
6000431	KM63TSKGMSR65C	KM63TS	58,5	2.30	30,0	1.18	65	MS1163	T30	—	—
5999948	KM63TSKGMSR50C	KM63TS	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
5999972	KM63XMZKGMSR50CY	KM63XMZ	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
6017695	KM80TSKGMSR65C	KM80TS	63,5	2.50	40,0	1.58	65	MS1163	T30	—	—
6000018	KM80ATCKGMSR50C	KM80ATC	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25
6000014	KM80TSKGMSR50C	KM80TS	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25
left hand											
5999861	KM40TSKGMSL50C	KM40TS	53,5	2.11	15,0	.59	50	MS1162	T25	MS2002	T25
6000424	KM50TSKGMSL65C	KM50TS	53,5	2.11	22,0	.87	65	MS1163	T30	—	—
5999865	KM50TSKGMSL50C	KM50TS	58,5	2.30	23,0	.91	50	MS1162	T25	MS2002	T25
6000433	KM63TSKGMSL65C	KM63TS	58,5	2.30	30,0	1.18	65	MS1163	T30	—	—
5999949	KM63TSKGMSL50C	KM63TS	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
5999973	KM63XMZKGMSLF50CY	KM63XMZ	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
6017696	KM80TSKGMSL65C	KM80TS	63,5	2.50	40,0	1.58	65	MS1163	T30	—	—
6000019	KM80ATCKGMSL50C	KM80ATC	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25
6000015	KM80TSKGMSL50C	KM80TS	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25

NOTE: KGMS.: Right-hand holder uses right-hand blades.
 KGME.: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

- Best-in-class KM Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



Right Hand



Grooving and Cut-Off

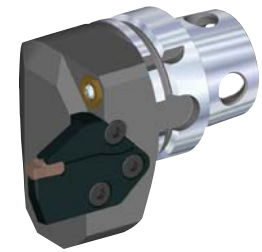
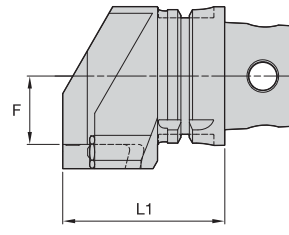
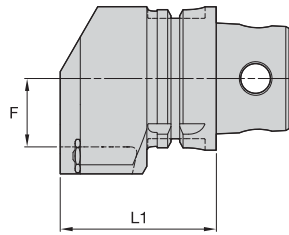
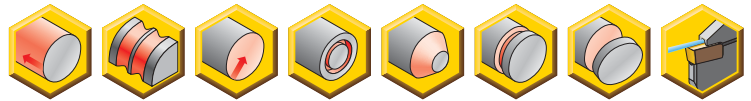
Modular End Mount KM System with Coolant • Metric



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
5999788	KM40TSKGMER50C	KM40TS	28,0	1.10	20,50	0.81	50	MS1162	T25	MS2002	T25
5999862	KM50TSKGMER50C	KM50TS	38,0	1.50	25,50	1.00	50	MS1162	T25	MS2002	T25
6000410	KM50TSKGMER65C	KM50TS	47,0	1.85	25,50	1.00	65	MS1163	T30	—	—
6000425	KM63TSKGMER65C	KM63TS	47,0	1.85	32,52	1.28	65	MS1163	T30	—	—
5999946	KM63TSKGMER50C	KM63TS	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6000434	KM63XMZKGMER65CY	KM63XMZ	47,0	1.85	32,50	1.28	65	MS1163	T30	—	—
5999950	KM63XMZKGMER50CY	KM63XMZ	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6017697	KM80ATCKGMER65C	KM80ATC	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000016	KM80ATCKGMER50C	KM80ATC	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25
6017693	KM80TSKGMER65C	KM80TS	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000012	KM80TSKGMER50C	KM80TS	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25
left hand											
5999789	KM40TSKGMEL50C	KM40TS	28,0	1.10	20,50	0.81	50	MS1162	T25	MS2002	T25
5999863	KM50TSKGMEL50C	KM50TS	38,0	1.50	25,50	1.00	50	MS1162	T25	MS2002	T25
6000421	KM50TSKGMEL65C	KM50TS	47,0	1.85	25,50	1.00	65	MS1163	T30	—	—
6000430	KM63TSKGMEL65C	KM63TS	47,0	1.85	32,52	1.28	65	MS1163	T30	—	—
5999947	KM63TSKGMEL50C	KM63TS	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6000436	KM63XMZKGMELF65CY	KM63XMZ	47,0	1.85	32,50	1.28	65	MS1163	T30	—	—
5999971	KM63XMZKGMELF50CY	KM63XMZ	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6017698	KM80ATCKGMEL65C	KM80ATC	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000017	KM80ATCKGMEL50C	KM80ATC	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25
6017694	KM80TSKGMEL65C	KM80TS	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000013	KM80TSKGMEL50C	KM80TS	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25

NOTE: KGMS... Right-hand holder uses right-hand blades.
 KGME... Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (81–10 Nm).
 M65 blade and clamp screw torque equals 1591–177 in. lbs. (181–20 Nm).

- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



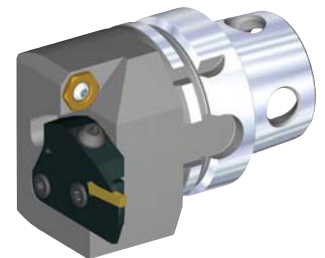
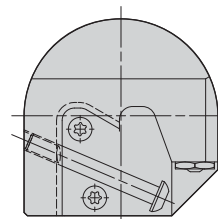
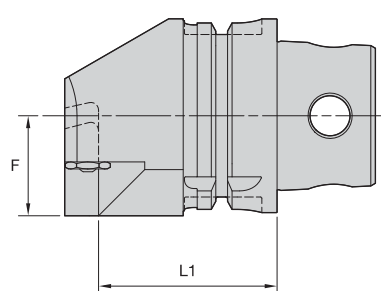
Right Hand

Grooving and Cut-Off

■ Modular Straight KM4X™ System with Coolant

order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
5543560	KM4X63KGMSR65C	KM4X63	68,5	2.70	30,0	1.18	65	MS1163	T30	—	—
6000407	KM4X63KGMSR50C	KM4X63	73,5	2.89	31,0	1.22	50	MS1162	T25	MS2002	T25
left hand											
5543558	KM4X63KGMSL65C	KM4X63	68,5	2.70	30,0	1.18	65	MS1163	T30	—	—
6000408	KM4X63KGMSL50C	KM4X63	73,5	2.89	31,0	1.22	50	MS1162	T25	MS2002	T25

NOTE: KGMS.: Right-hand holder uses right-hand blades.
 KGME.: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

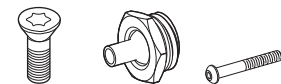


Right Hand

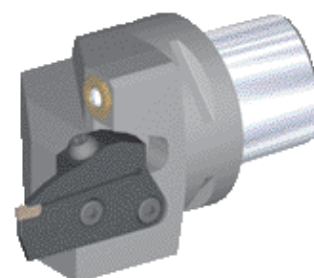
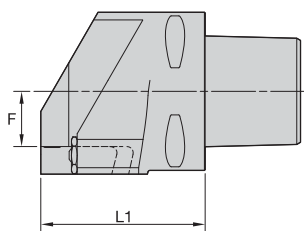
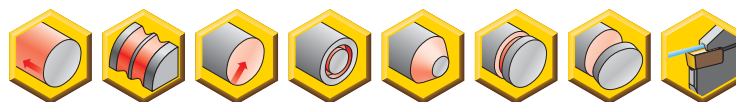


■ Modular End Mount KM4X System with Coolant

order number	catalog number	CSMS system size	L1		F		cartridge size	blade screw	nozzle	clamp screw	kg	lbs
			mm	in	mm	in						
right hand												
5543555	KM4X63KGMER65C	KM4X63	57,0	2.244	32,5	1.280	65	MS1163	PMT04525	—	1,87	4.13
6000404	KM4X63KGMER50C	KM4X63	58,0	2.283	32,5	1.280	50	MS1162	PMT04525	MS2002	1,85	4.08
6000407	KM4X63KGMSR50C	KM4X63	73,5	2.894	31,0	1.220	50	MS1162	PMT04525	MS2002	1,86	4.11
left hand												
5543553	KM4X63KGMEML65C	KM4X63	57,0	2.244	32,5	1.280	65	MS1163	PMT04525	—	1,87	4.13
6000405	KM4X63KGMEML50C	KM4X63	58,0	2.283	32,5	1.280	50	MS1162	PMT04525	MS2002	1,85	4.08
6000408	KM4X63KGMSL50C	KM4X63	73,5	2.894	31,0	1.220	50	MS1162	PMT04525	MS2002	1,86	4.11



- Standard PSC Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



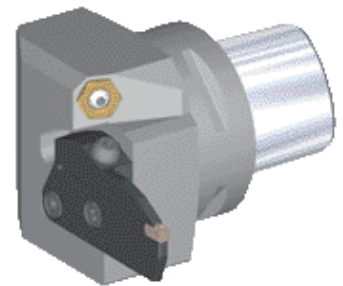
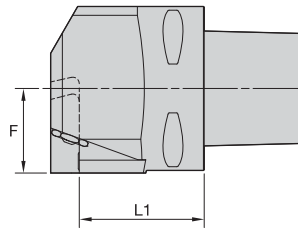
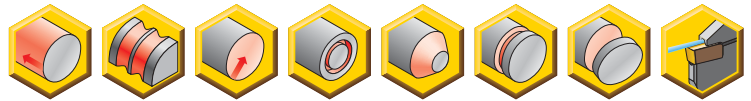
Right Hand

■ Modular Straight PSC System with Coolant



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
6000028	PSC40KGMSR50C	PSC40	63,5	2.50	10,0	.39	50	MS1162	T25	MS2002	T25
5405654	PSC50KGMSR65C	PSC50	49,0	1.93	25,5	1.00	65	MS1163	T30	—	—
6000152	PSC50KGMSR50C	PSC50	63,5	2.50	15,0	.59	50	MS1162	T25	MS2002	T25
6000464	PSC63KGMSR65C	PSC63	60,5	2.38	21,0	.83	65	MS1163	T30	—	—
6000211	PSC63KGMSR50C	PSC63	65,5	2.58	22,0	.87	50	MS1162	T25	MS2002	T25
6000468	PSC80KGMSR65C	PSC80	68,5	2.70	29,0	1.14	65	MS1163	T30	—	—
6000216	PSC80KGMSR50C	PSC80	73,5	2.89	30,0	1.18	50	MS1162	T25	MS2002	T25
left hand											
6000029	PSC40KGMSL50C	PSC40	63,5	2.50	10,0	.39	50	MS1162	T25	MS2002	T25
5405655	PSC50KGMSL65C	PSC50	49,0	1.93	25,5	1.00	65	MS1163	T30	—	—
6000153	PSC50KGMSL50C	PSC50	63,5	2.50	15,0	.59	50	MS1162	T25	MS2002	T25
6000465	PSC63KGMSL65C	PSC63	60,5	2.38	21,0	.83	65	MS1163	T30	—	—
6000213	PSC63KGMSL50C	PSC63	65,5	2.58	22,0	.87	50	MS1162	T25	MS2002	T25
6000469	PSC80KGMSL65C	PSC80	68,5	2.70	29,0	1.14	65	MS1163	T30	—	—
6000217	PSC80KGMSL50C	PSC80	73,5	2.89	30,0	1.18	50	MS1162	T25	MS2002	T25

- Standard PSC Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



Right Hand

Grooving and Cut-Off

■ Modular End Mount PSC System with Coolant

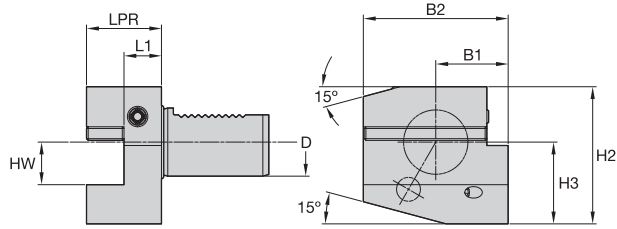


order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
6000026	PSC40KGMER50C	PSC40	33,0	1.30	20,5	.81	50	MS1162	T25	MS2002	T25
6000030	PSC50KGMER50C	PSC50	43,0	1.69	25,5	1.00	50	MS1162	T25	MS2002	T25
5405652	PSC50KGMER65C	PSC50	55,5	2.19	22,0	.87	65	MS1163	T30	—	—
6000159	PSC63KGMER50C	PSC63	48,0	1.89	32,5	1.28	50	MS1162	T25	MS2002	T25
6000462	PSC63KGMER65C	PSC63	49,0	1.93	32,5	1.28	65	MS1163	T30	—	—
6000466	PSC80KGMER65C	PSC80	57,0	2.24	40,5	1.59	65	MS1163	T30	—	—
6000214	PSC80KGMER50C	PSC80	58,0	2.28	40,5	1.59	50	MS1162	T25	MS2002	T25
left hand											
6000027	PSC40KGMEL50C	PSC40	33,0	1.30	20,5	.81	50	MS1162	T25	MS2002	T25
6000151	PSC50KGMEL50C	PSC50	43,0	1.69	25,5	1.00	50	MS1162	T25	MS2002	T25
5405653	PSC50KGMEL65C	PSC50	55,5	2.19	22,0	.87	65	MS1163	T30	—	—
6000160	PSC63KGMEL50C	PSC63	48,0	1.89	32,5	1.28	50	MS1162	T25	MS2002	T25
6000463	PSC63KGMEL65C	PSC63	49,0	1.93	32,5	1.28	65	MS1163	T30	—	—
6000467	PSC80KGMEL65C	PSC80	57,0	2.24	40,5	1.59	65	MS1163	T30	—	—
6000215	PSC80KGMEL50C	PSC80	58,0	2.28	40,5	1.59	50	MS1162	T25	MS2002	T25

➤ VDI Toolholders



- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.



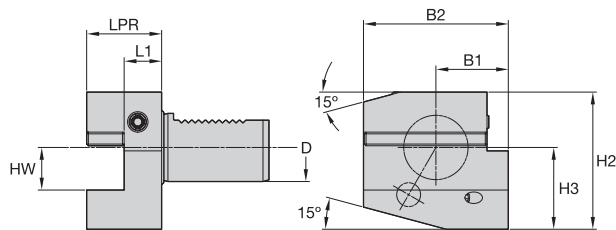
Grooving and Cut-Off

■ VDI Form B1 • HPC • Right Hand Short • Metric

order number	catalog number	D	B2	B1	HW	H2	H3	L1	LPR
6151491	VDIB1M302040C	30,00	70,00	35,00	20,00	66,00	38,00	22,00	40,00
6151492	VDIB1M402544C	40,00	85,00	42,50	25,00	80,50	48,00	22,00	44,00

VDI Form B2 • Left Hand Short

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.

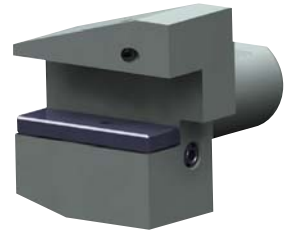
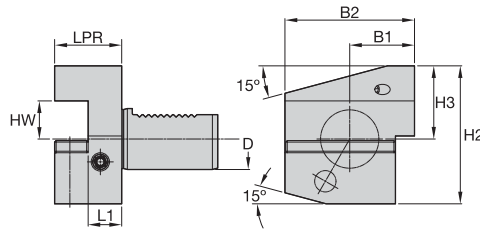


Artwork shows right hand tool. Left hand tool mirror inverted.

■ VDI Form B2 • HPC • Left Hand Short • Metric

order number	catalog number	D	B2	B1	HW	H2	H3	L1	LPR
6151493	VDIB2M302040C	30,00	70,00	35,00	20,00	66,00	38,00	22,00	40,00
6151494	VDIB2M402544C	40,00	85,00	42,50	25,00	80,50	48,00	22,00	44,00

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.



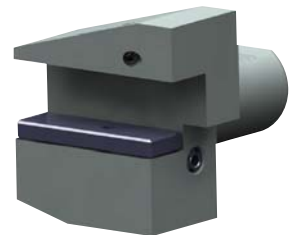
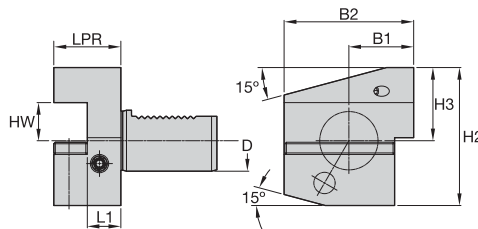
Grooving and Cut-Off

■ VDI Form B3 • HPC • Right Hand Short Inverted • Metric

order number	catalog number	D	B2	B1	HW	H2	H3	L1	LPR
6151495	VDIB3M302040C	30,00	70,00	35,00	20,00	73,00	38,00	22,00	40,00
6151497	VDIB3M402544C	40,00	85,00	42,50	25,00	90,50	48,00	22,00	44,00

VDI Form B4 • Left Hand Short Inverted

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.

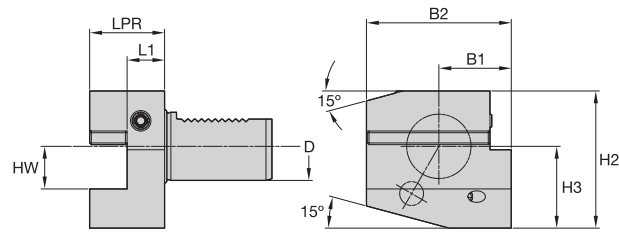


Artwork shows right hand tool.
Left hand tool mirror inverted.

■ VDI Form B4 • HPC • Left Hand Short Inverted • Metric

order number	catalog number	D	B2	B1	HW	H2	H3	L1	LPR
6151498	VDIB4M302040C	30,00	70,00	35,00	20,00	73,00	38,00	22,00	40,00
6151499	VDIB4M402544C	40,00	85,00	42,50	25,00	90,50	48,00	22,00	44,00

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.



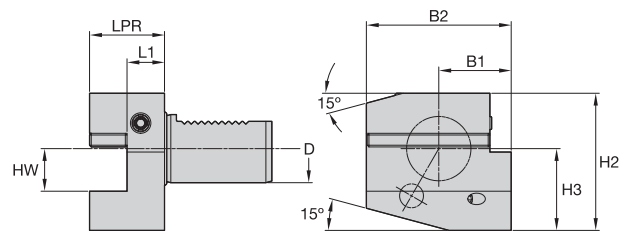
Grooving and Cut-Off

■ VDI Form B5 • HPC • Right Hand Long • Metric

order number	catalog number	D	B2	B1	HW	H2	H3	L1	LPR
6151500	VDIB5M302040C	30,00	100,00	65,00	20,00	66,00	38,00	22,00	40,00
6151511	VDIB5M402544C	40,00	118,00	75,50	25,00	80,50	48,00	22,00	44,00

VDI Form B6 • Left Hand Long

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.

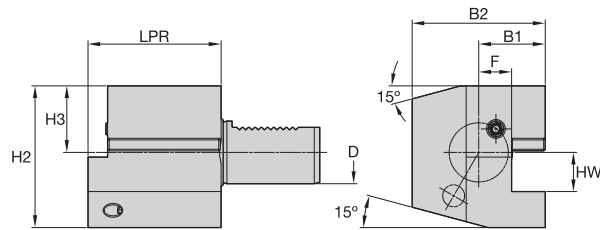


Artwork shows right hand tool.
Left hand tool mirror inverted.

■ VDI Form B6 • HPC • Left Hand Long • Metric

order number	catalog number	D	B2	B1	HW	H2	H3	L1	LPR
6151512	VDIB6M302040C	30,00	100,00	65,00	20,00	66,00	38,00	22,00	40,00
6151513	VDIB6M402544C	40,00	118,00	75,50	25,00	80,50	48,00	22,00	44,00

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.



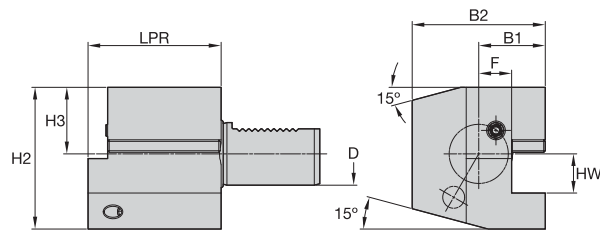
Grooving and Cut-Off

■ VDI Form C1 • HPC • Right Hand • Metric

order number	catalog number	D	B2	B1	F	HW	H2	H3	LPR
6151514	VDIC1M302070C	30,00	70,00	35,00	17,00	20,00	66,00	38,00	70,00
6151515	VDIC1M402585C	40,00	85,00	42,50	21,00	25,00	80,50	48,00	85,00

VDI Form C2 • Left Hand

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.

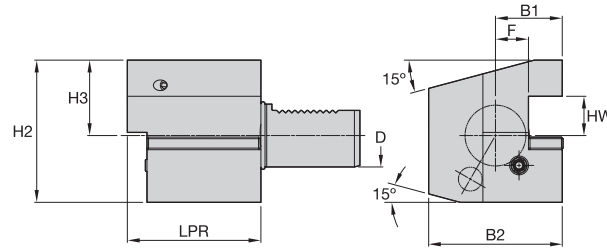


Artwork shows right hand tool.
Left hand tool mirror inverted.

■ VDI Form C2 • HPC • Left Hand • Metric

order number	catalog number	D	B2	B1	F	HW	H2	H3	LPR
6151516	VDIC2M302070C	30,00	76,00	41,00	23,00	20,00	66,00	38,00	70,00
6151517	VDIC2M402585C	40,00	90,00	47,50	25,50	25,00	80,50	48,00	85,00

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.



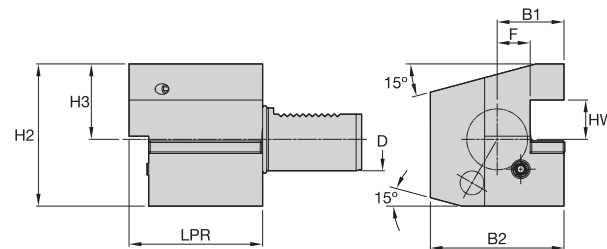
Grooving and Cut-Off

■ VDI Form C3 • HPC • Right Hand Inverted • Metric

order number	catalog number	D	B2	B1	F	HW	H2	H3	LPR
6151518	VDIC3M302070C	30,00	70,00	35,00	17,00	20,00	73,00	38,00	70,00
6151519	VDIC3M402585C	40,00	85,00	42,50	21,00	25,00	90,50	48,00	85,00

VDI Form C4 • Left Hand Inverted

- VDI adapter with coolant support for square shank toolholder.
- ISO 10889.

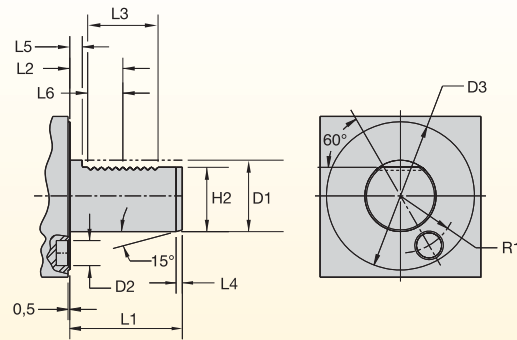


Artwork shows right hand tool.
Left hand tool mirror inverted.

■ VDI Form C4 • HPC • Left Hand Inverted • Metric

order number	catalog number	D	B2	B1	F	HW	H2	H3	LPR
6151520	VDIC4M302070C	30,00	70,00	35,00	17,00	20,00	73,00	38,00	70,00
6151521	VDIC4M402585C	40,00	85,00	42,50	21,00	25,00	90,50	48,00	85,00

■ Shank Specifications



	D1	D2	D3	L1	L2	L3	L4	L5	L6	H2	R1
30	30,00 1.181	14,00 0.551	68,00 2.677	55,00 2.165	29,70 1.169	40,00 1.575	2,00 0.079	7,00 0.276	20,00 0.787	27,00 1.063	25,00 0.984
40	40,00 1.575	14,00 0.551	83,00 3.268	63,00 2.480	29,70 1.169	40,00 1.575	3,00 0.118	7,00 0.276	20,00 0.787	36,00 1.417	32,00 1.260
50	50,00 1.969	16,00 0.630	98,00 3.858	78,00 3.071	35,70 1.406	48,00 1.890	3,00 0.118	8,00 0.315	24,00 0.945	45,00 1.772	37,00 1.457
60	60,00 2.362	16,00 0.630	123,00 4.843	94,00 3.701	43,70 1.720	56,00 2.205	4,00 0.157	10,00 0.394	28,00 1.102	55,00 2.165	48,00 1.890

A4™ Tooling and Beyond™ Inserts



Choose A4 tooling for turning, facing, grooving, face grooving, and cut-off applications across a broad range of workpiece materials. The unique clamping system and versatile insert geometry delivers a very high metal removal rate.

FEATURES AND BENEFITS

A4 Grooving and Turning System

- One tool for turning, facing, grooving, face-grooving, and cut-off in O.D. and I.D. applications means exceptionally fast cycle times, no turret indexes!
- Extra-long clamping area, ground 120° bottom prism seating surface, and an exclusive top guide rail combine to deliver unsurpassed grooving and side-turning stability!
- Precise insert positioning is ensured for accurate cuts!
- Rigid clamping securely locks insert in place through the toughest cuts.
- Versatile design enables one system to handle O.D. and I.D. grooving, face grooving, back turning, undercutting, and even threading operations.
- Chip control inserts provide excellent chip evacuation in grooving, and offer better chip control in multidirectional turning.

Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.



kennametal.com



beyond™ EVOLUTION™

Connecting the tool to your machine is easy. Just select one of the two available hose packages, and Active Coolant Control will be keeping you cool in no time!

➤ Don't know exactly what you need?

To connect Beyond™ Evolution™ tooling to the industry's most common machines. The Kennametal universal coolant packs are ideal! Each pack contains the most common thread sizes with a variety of fitting styles for maximum flexibility.

■ Universal 200mm Coolant Pack

order number	catalog number	quantity	description
6145372	COOL-KIT-101	1	1/16 NPTF male to 7/16 JIC male fitting
		1	1/8 NPTF male to 7/16 JIC male fitting
		1	G1/8 male to 7/16 JIC male fitting
		1	M10 x 1,5 male to 7/16 JIC male fitting
		2	Male JIC to Swivel Female JIC Elbow
		1	200mm Hose Female JIC to Female JIC

■ Universal 300mm Coolant Pack

order number	catalog number	quantity	description
6145373	COOL-KIT-201	1	1/16 NPTF male to 7/16 JIC male fitting
		1	1/8 NPTF male to 7/16 JIC male fitting
		1	G1/8 male to 7/16 JIC male fitting
		1	M10 x 1,5 male to 7/16 JIC male fitting
		2	Male JIC to Swivel Female JIC Elbow
		1	300mm Hose Female JIC to Female JIC

➤ Know what you need?

Every component is individually available, including less common fittings.
Knowing the precise components required will allow you to choose only the fittings you need!

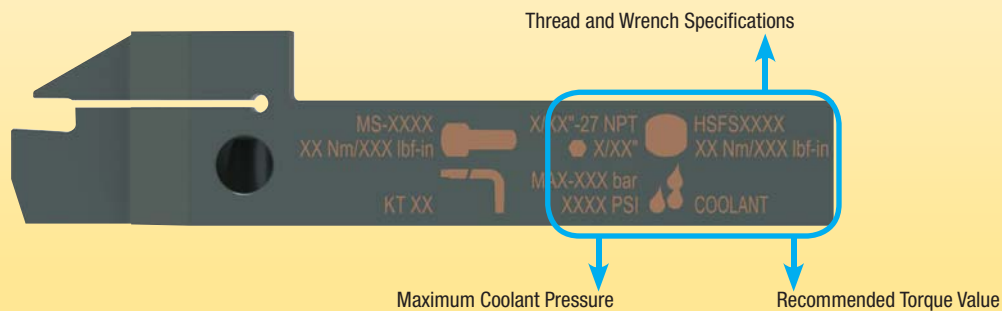
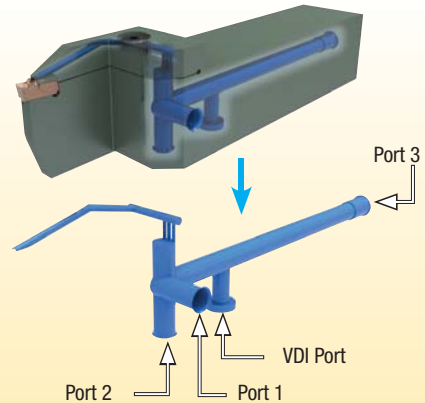
■ Coolant Hose Accessories

order number	catalog number	description
6145374	1-16NPTF-JIC	1/16 NPTF male to 7/16 JIC male fitting
6145375	1-8NPTF-JIC	1/8 NPTF male to 7/16 JIC male fitting
6145376	G18-JIC	G1/8 male to 7/16 JIC male fitting
6145377	M10-JIC	M10 x 1,5 male to 7/16 JIC male fitting
6145379	JICM-JICF-ELB	Male JIC to Swivel Female JIC Elbow
6145380	COOL-HOSE-200	200mm Female JIC to Female JIC
6145381	COOL-HOSE-300	300mm Female JIC to Female JIC
6145382	M6-JIC	M6 x 1,0 male to 7/16 JIC male fitting
6145378	M8-JIC	M8 x 1,25 male to 7/16 JIC male fitting
6145383	JICM-JICM-STR	7/16 JIC male to 7/16 JIC male adapter
6145386	G14-G18-RED	Male G1/4 to Female G1/8 reducer
6432549	COOL-HOSE-200-FLEX	Universal 200mm Flex Coolant Hose
6432550	COOL-HOSE-300-FLEX	Universal 300mm Flex Coolant Hose



Active Coolant Control Guidelines

1. Beyond™ Evolution™ system capable of 5076 psi (350 bar).
2. Toolholder delivered with four entry holes.
3. A quality filtration system is necessary to prevent blockages in the toolholder that will effect coolant flow and performance.
4. Machines without a proper filtering system may require modification or an inline filter.
 - For pressure >1015 psi [70 bar], use 10–20 µm filter.
 - For pressure <1015 psi [70 bar], 50–100 µm.
 - Using fine filters in low-pressure applications may affect flow rate.



General Safety Guidelines

1. All safety doors and mechanisms must be in place before trying out the internal coolant to avoid any danger to the operator in the event of a failure.
2. Use the correct pipe fittings to connect the holders to the system. Ensure the maximum pressure recommended for the fittings are not exceeded.
3. While implementing pressure >1160 psi [80 bar], increase the pressure in steps to ensure proper functioning of insert clamping and leak-free joints.
4. While indexing inserts, ensure the pocket is free from chips and/or dirt. Also, inspect the insert and make sure there are no blockages in the coolant canal.
5. Periodically check all hoses and fittings for damage and wear for proper functioning of the system. This check should also include filters.

Active Coolant Control Performance

Internal coolant offers a clear advantage in tool life and chip forming/evacuation vs. external coolant in difficult conditions and in high-pressure coolant.

Example: Chipbreaking in plunging of steel.

Flood Coolant



Internal Coolant



1,087 psi
(75 bar)



2,900 psi
(200 bar)

Material steel ST52;
Insert size 6mm; f = 0,25 mm/U

Low Pressure — If performance is at risk due to low coolant pressure, apply internal coolant in combination with external coolant to increase volume.

Recommendation to improve tool life and/or productivity: Apply high pressure coolant: 80–350 bar recommended.

VDI Assemblies

The Beyond™ Evolution™ Active Coolant Control can be leveraged with VDI holding systems with both traditional or Quick-Change coolant connections.



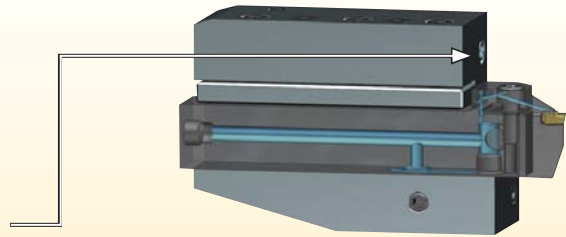
Coolant flow transfer from VDI adapter to toolholder

A marker on the toolholder must remain within the coolant range indicated on the VDI system for uninterrupted coolant transfer.

■ **Technical Details**

Pressure limit 1160 psi [lbf/in²] (80 bar).

Nozzle set comes pre-assembled.
For the holder application with internal coolant only nozzle can be plugged by M5 screw (delivered). Use LocTite light, medium strength, or thread sealant.



Holder	Slide Area	Max. Pressure	Torque (Pressure Screws)
VDI 30	0.87" (22mm)	1160 psi [lbf/in ²] (80 bar)	14.75 ft. lb. (20 Nm)
VDI 40	1.18" (30mm)	1160 psi [lbf/in ²] (80 bar)	25.81 ft. lb. (35 Nm)

Spare sets	
Nozzle	PKGNLAL 1205M
Set Pressure Screw, Pressure Plate, Spring	See separately for each type in BOM

➤ A4™ Tooling and Beyond™ Inserts

For All Your O.D. and I.D. Applications

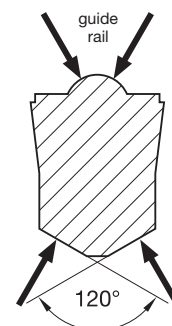
Primary Application

Choose A4 tooling for turning, facing, grooving, face grooving, and cut-off applications across a broad range of workpiece materials. The unique clamping system and versatile insert geometry delivers a very high metal removal rate.

Features and Benefits

A4 Grooving and Turning System

- One tool for turning, facing, grooving, face-grooving, and cut-off in O.D. and I.D. applications means exceptionally fast cycle times, no turret indexes!
- Extra-long clamping area, ground 120° bottom prism seating surface, and an exclusive top guide rail combine to deliver unsurpassed grooving and side-turning stability!
- Precise insert positioning is ensured for accurate cuts!
- Rigid clamping securely locks insert in place through the toughest cuts.
- Versatile design enables one system to handle O.D. and I.D. grooving, face grooving, back turning, undercutting, and even threading operations.
- Chip control inserts provide excellent chip evacuation in grooving, and offer better chip control in multidirectional turning.



A4 Chipbreakers



GMN Chipbreaker



GMP Chipbreaker



GMN Chipbreaker



GMP Chipbreaker



GUP Chipbreaker



The A4™ System Increases Productivity

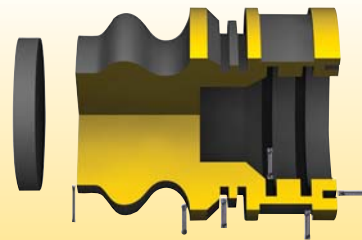
- Covers multiple applications.
- Reduces tool cost.
- Minimizes machining time.



■ Step 1 • Select A4 size for grooving and turning application

What you need to know:

- Groove depth, width, and profile.
- Material being machined.
- Application to be performed (O.D. and I.D. grooving, turning, face grooving, and cut-off).



General Recommendation to Select the Insert Size

for workpiece diameters	insert seat size
<25mm	3
25–50mm	4
>50mm	5–10

■ Step 2 • Select chipbreaker style and feed rate

Based on the application and seat size, determine the recommended geometry and starting feed rate.

Plunge Feed Rates

● first choice
○ alternate choice

Chip Control	Description	Insert Geometry	Seat Size	Corner Radius In (mm)	Starting Conditions In (mm)	Plunge Feed Rates inch/rev (mm/rev)								
						.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)	.0100 (0,25)	.0120 (0,30)	.0140 (0,35)		
-GUP	<ul style="list-style-type: none"> • Groove and turn inserts in new Beyond™ grades. • Available in molded and precision-ground styles. • Positive rake angle with enhanced chip control. • Available in metric widths only. 		2	.008 (0,2)	.0031 (0,08)	▶								
			3	.008 (0,2)	.0035 (0,09)	▶								
			4	.016 (0,4)	.0043 (0,11)	▶								
			5	.016 (0,4)	.0047 (0,12)	▶								
			6	.031 (0,8)	.0059 (0,15)	▶								
			8	.016 (0,4)	.0059 (0,15)	▶								
			10	.031 (0,8)	.0059 (0,16)	▶								
			10	.016 (0,4)	.0059 (0,16)	▶								
			10	.031 (0,8)	.0071 (0,18)	▶								
			10	.047 (1,2)	.0079 (0,20)	▶								
-GMP	<ul style="list-style-type: none"> • Groove and turn inserts. • Available in molded and precision-ground styles. • Positive rake angle. • Available in metric widths only. 		2	.008 (0,2)	.0031 (0,08)	▶								
			3	.008 (0,2)	.0035 (0,09)	▶								
			4	.016 (0,4)	.0043 (0,11)	▶								
			5	.016 (0,4)	.0047 (0,12)	▶								
			6	.031 (0,8)	.0059 (0,15)	▶								
			8	.016 (0,4)	.0059 (0,16)	▶								
			10	.031 (0,8)	.0059 (0,16)	▶								
			10	.016 (0,4)	.0059 (0,16)	▶								
			10	.031 (0,8)	.0071 (0,18)	▶								
			10	.047 (1,2)	.0079 (0,20)	▶								
-GMN	<ul style="list-style-type: none"> • Groove and turn molded and precision ground inserts. • Stable cutting edge. • Available in metric and inch widths. 		2	.008 (0,2)	.0031 (0,08)	▶								
			3	.008 (0,2)	.0035 (0,09)	▶								
			4	.016 (0,4)	.0043 (0,11)	▶								
			5	.016 (0,4)	.0047 (0,12)	▶								
			6	.031 (0,8)	.0059 (0,15)	▶								
			8	.016 (0,4)	.0059 (0,16)	▶								
			10	.031 (0,8)	.0059 (0,16)	▶								
			10	.016 (0,4)	.0059 (0,16)	▶								
			10	.031 (0,8)	.0071 (0,18)	▶								
			10	.047 (1,2)	.0079 (0,20)	▶								

Material Legend:
 P Steel
 M Stainless Steel
 K Cast Iron
 N Non-Ferrous
 S High-Temp Alloys
 H Hardened Materials

Maximum Feed Rate Values

Material Group	Feed Factor
M	.8
N	.8
S	.5
H	1.2

Data is for P and K material groups. Maximum feed rates should be adjusted by multiplying feed rates by following factors for other material groups.

I.D. and Face Grooving
 For I.D. and face grooving applications, reduce feed rate by 20%.

Step 3 • Select the starting speed

Based on material and grade, identify starting speed (vc). First choice is in **bold** type.

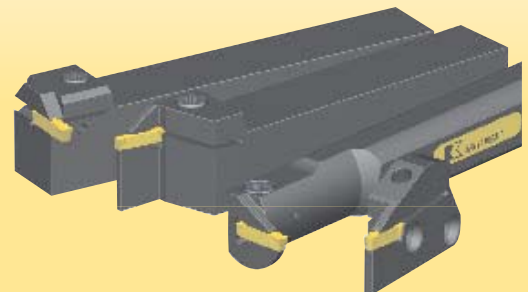
- A** Based on material group and grade, identify starting speed (vc).
- B** First choice starting speed is in **bold**.

Recommended Starting Speeds [m/min]																						
Material Group	K313			KCU10/KC5010		KCU25/KC5025			KCP10		KCP25		KCK20B		KY3500							
P	0-1	-	-	140	280	335	110	225	270	185	400	450	145	290	365	200	440	490	-	-	A	
	2	-	-	140	200	245	110	160	195	185	270	350	145	200	305	200	300	380	-	-	-	
	3	-	-	140	155	245	110	125	195	170	190	260	140	155	245	600	200	280	-	-	-	
	4	-	-	75	110	170	60	90	135	90	145	200	75	110	180	100	160	220	-	-	-	
	5	-	-	120	200	260	100	160	210	150	220	305	120	200	270	165	240	330	-	-	-	
	6	-	-	110	150	230	85	120	185	120	180	275	110	150	230	130	190	300	-	-	-	
M	1	60	90	120	140	210	260	90	170	245	-	-	-	-	-	-	-	-	-	-	-	
	2	45	75	110	120	200	245	90	150	245	-	-	-	-	-	-	-	-	-	-	-	
	3	35	65	100	120	180	245	90	140	210	-	-	-	-	-	-	-	-	-	-	-	
K	1	30	75	120	120	180	245	100	145	195	170	245	440	140	200	360	210	305	550	180	760	1040
	2	25	70	110	90	150	210	70	120	170	120	195	340	100	160	280	150	245	430	275	365	500
	3	20	60	90	60	110	150	50	85	120	120	170	270	100	140	220	150	210	335	-	-	-
N	1-2	150	370	610	150	550	975	120	440	780	-	-	-	-	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	120	275	430	120	365	610	100	290	490	-	-	-	-	-	-	-	-	-	-	-	
	5	45	90	150	90	170	245	70	135	195	-	-	-	-	-	-	-	-	-	-	-	
6	40	75	150	120	210	305	100	170	245	-	-	-	-	-	-	-	-	-	-	-		
S	1	8	30	75	15	55	135	8	40	60	-	-	-	-	-	-	-	-	-	-	-	
	2	8	35	75	15	60	135	8	30	75	-	-	-	-	-	-	-	-	-	-	-	
	3	8	40	75	15	70	135	15	40	75	-	-	-	-	-	-	-	-	-	-	-	
	4	8	45	75	15	70	170	8	50	110	-	-	-	-	-	-	-	-	-	-	-	
H	1	-	-	-	-	30	45	60	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	-	-	-	-	15	30	45	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Step 4 • Select toolholder based on application

Choose the high-performance holder based on your specific grooving or cut-off application, with the corresponding seat size.

	conventional toolholders	modular blades
O.D. Grooving, Cut-Off, and Turning	1st Choice	2nd Choice
Face Grooving	1st Choice	2nd Choice
I.D. Grooving, Cut-Off, and Turning	1st Choice	—



NOTE: Insert seat size must match the seat size of the toolholder.

Step 5 • Select the insert and holder from catalog page

Congratulations!

You have successfully maximized your productivity by selecting the best insert geometry, grade, and cutting specifications for your application!



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

A4G0405M04U04GMN

Grooving and Turning Inserts

A4

Tooling System

A4 = Grooving and Turning

G

Insert Type

G = Square
R = Full radius
C = Cut-off

0405

Groove Width

Expressed in 1/100mm or .00"

M

Unit of Measurement for Grooving Width

M = Metric
N = Inch

04

Seat Size

U

Insert Tolerance

04

Corner Radii

GMN

Chipbreaker Type/Edge Prep

GMN = Grooving and turning medium machining stable cutting edge

GMP = Grooving and turning medium machining positive rake angle

GUP = Grooving and turning high positive geometry. Especially in stainless steels and high-temp alloys

B = Flat top for special forms and applications

E = Flat top, slight honed edge

S = Negative land plus hone

ST = Single tip

pocket seat size	cutting width	
	in	mm
02	.079-.103	2,00-2,62
2B	.094-.103	2,39-2,62
03	.118-.120	3,0-3,05
04	.157-.159	4,0-4,05
05	.197-.199	5,0-5,05
06	.236-.199	6,0-6,05
08	.315-.238	8,0-8,05
10	.394-.317	10,0-10,05
2S	.079-.396	2,00-2,62
3S	.118-.120	3,00-3,05
4S	.157-.159	4,00-4,05
5S	.197-.199	5,00-5,05

P = Precision ground
grooving width tolerance:
± .001" (0,025mm)

U = Utility molded
grooving width tolerance:

3,05-4,05: $\frac{+.006"}{-0}$ $\frac{(+0,15mm)}{-0}$

5,05-10,05: $\frac{+.010"}{-0}$ $\frac{(+0,25mm)}{-0}$

in	mm
0 = .004	01 = 0,1
05 = .008	02 = 0,2
1 = .016	04 = 0,4
2 = .032	08 = 0,8
3 = .047	12 = 1,2

full radius = 00

A4C0305N00CF02

Grooving and Cut-Off

A4

Tooling System

A4 = Grooving and Turning

C

Insert Type

C = Cut-off

0305

Cutting Width

Expressed in 1/100mm

N

Hand of Insert

R = Right hand
L = Left hand
N = Neutral

00

Main Cutting Edge Lead Angle

00 = Neutral
06 = 6°
10 = 10°

CF

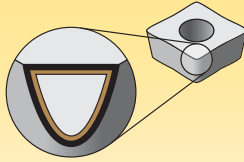
Chipbreaker Type

CF = Cut-off fine positive rake

02

Corner Radius

in	mm
.008	02 = 0,2

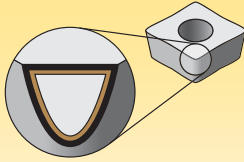


Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades	Coating	Grade Description	Material																		
			P	M	K	N	S	H	05	10	15	20	25	30	35	40	45				
KCUI10		<p>Composition: An advanced multilayer PVD coating over a very deformation-resistant unalloyed carbide substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities.</p> <p>Application: The KCUI10™ grade is ideal for finishing to general machining of most workpiece materials at a wide range of speed and feed capabilities. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and high-temp alloys with improved edge toughness, notch resistance, and higher cutting speed/feed capability.</p>	P																		
	—																				
KCUI25		<p>Composition: An advanced PVD grade with hard AlTiN coating and fine-grain unalloyed substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities.</p> <p>Application: The KCUI25™ grade is ideal for general machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials in a wide range of speeds and feeds with improved edge toughness for interrupted cut and high feed rates.</p>	P																		
	—																				
KCP10		<p>Composition: A specially engineered cobalt-enriched carbide grade with thick MTCVD TiCN-Al₂O₃ coating for maximum wear resistance.</p> <p>Application: An excellent finishing to medium machining grade for a variety of workpiece materials, including most steels, ferritic, martensitic, and PH stainless steels, and cast irons. The cobalt-enriched substrate offers a balanced combination of deformation resistance and edge toughness, while the thick coating layers offer outstanding abrasion resistance and crater wear resistance for high-speed machining. Smooth coating provides resistance to edge build-up and microchipping and produces excellent surface finishes.</p>	P																		
	—																				
KCP25		<p>Composition: A tough cobalt-enriched carbide grade with a multilayer MTCVD TiCN-Al₂O₃ coating with superior interlayer adhesion.</p> <p>Application: Best general-purpose turning grade for most steels and ferritic and martensitic stainless steels. The substrate design ensures adequate deformation resistance with excellent insert edge strength. Coating layers offer good wear resistance over a wide range of machining conditions and the post-coat treatment minimizes microchipping and improves coating adhesion to substrate leading to long tool life and improved workpiece finishes.</p>	P																		
	—																				
KCK20		<p>Composition: A specially toughened MTCVD TiCN-Al₂O₃ coating over a wear-resistant substrate.</p> <p>Application: Specifically engineered to maximize coating adhesion and edge strength making this grade ideal in wet interrupted cutting of gray and ductile irons. It can be used in a wide range of applications from finishing to roughing to maximize productivity wherever strength and reliability are needed.</p>	P																		
	—																				

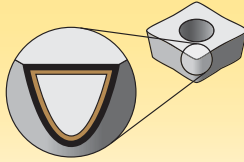


Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades	Coating	Grade Description	Performance Matrix																					
				05	10	15	20	25	30	35	40	45												
K313		<p>Composition: A hard, low binder content, unalloyed WC/Co fine-grain grade.</p> <p>Application: Exceptional edge wear resistance combined with very high strength for machining titanium, cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and most high-temp alloys. Superior thermal deformation and depth-of-cut notch resistance. The grain structure is well controlled for minimal pits and flaws, which contributes to long, reliable service.</p>																						
			M																					
			K																					
			N																					
			S																					
KC5010		<p>Composition: An advanced PVD AlTiN coating over a very deformation-resistant unalloyed carbide substrate.</p> <p>Application: The KC5010™ grade is ideal for finishing to general machining of most workpiece materials at higher speeds. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and high-temp alloys under stable conditions. It also performs well machining hardened and short chipping materials.</p>	P																					
			M																					
			K																					
			N																					
			S																					
			H																					
KC5025		<p>Composition: An advanced PVD-AlTiN-coated grade with a tough, ultra-fine-grain unalloyed substrate.</p> <p>Application: For general-purpose machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials. Speeds may vary from low to medium and will handle interruptions and high feed rates.</p>	P																					
			M																					
			K																					
			N																					
			S																					

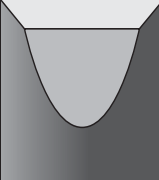
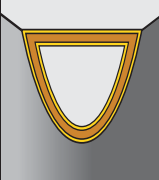
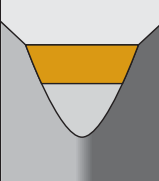
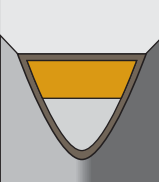
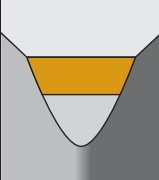


Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades

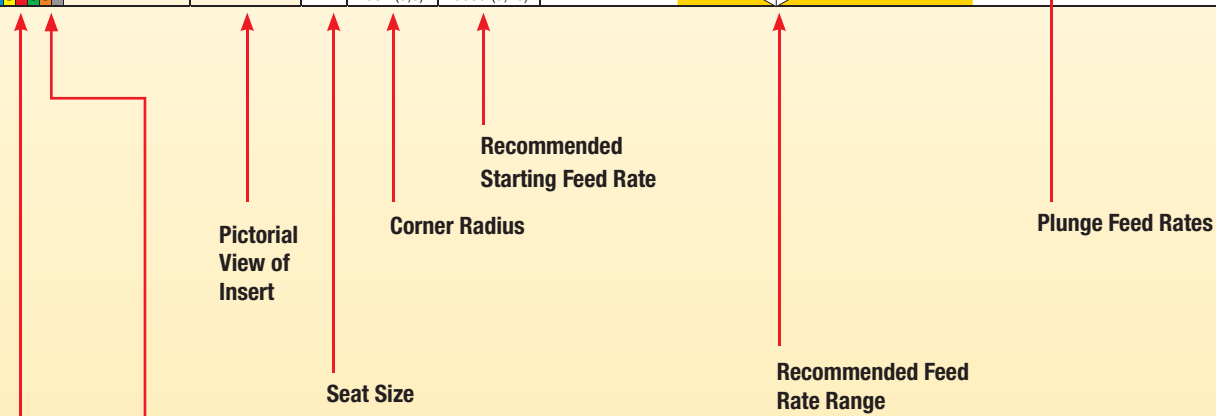
Coating	Grade Description		05	10	15	20	25	30	35	40	45
KY3500	 Composition: Pure silicon nitride grade. Application: Maximum toughness. Used at high feed rates for rough machining of gray cast iron, including machining through interruptions.										
		K									
KT315	 Composition: A multilayer PVD TiN/TiCN/TiN-coated cermet turning grade. Application: Ideal for high-speed finishing to medium machining of most carbon and alloy steels and stainless steels. Performs very well in cast and ductile iron applications, too. Provides long and consistent tool life and will produce excellent workpiece finishes.	P									
		K									
KB1630	 Composition: An uncoated high content PcBN grade. PcBN tips are brazed onto a carbide insert. Application: Designed for roughing to finishing in interrupted cuts on hardened steels (>45 HRC). It can also be applied on gray cast iron, chilled irons, high chrome alloyed steels, high temp alloys and sintered powder metals. The tipped PcBN inserts are available in a wide range of insert styles, including Top Notch™ and Screw-On geometries.										
		K									
KB5625	 Composition: A medium content PcBN with a PVD-TiN/AlTiN coating for added wear resistance. Application: Designed for roughing to finishing of hardened steels (>45 HRC). Use on bearing steels, hot and cold work steels, die steels, case hardened steels, carburized and nitrided irons and some hard coatings.										
		H									
KD1405	 Composition: A pure CVD-deposited diamond-sheet tool brazed directly to a carbide substrate. Application: KD1405™ is the best Kennametal abrasion-resistant tool material for non-ferrous and non-metallic materials. Best applied when abrasion resistance is the desired benefit.										
		N									

Select the geometry

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

- first choice
- alternate choice

Chip Control	Description	Insert Geometry	Seat Size	Corner Radius	Starting Conditions	Plunge Feed Rates inch/rev (mm/rev)						
						.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)	.0100 (0,25)	.0120 (0,30)	.0140 (0,35)
-GUP	Groove and turn inserts in new Beyond™ grades.		2	.008 (0,2)	.0031 (0,08)							
			3	.008 (0,2)	.0035 (0,09)							
			4	.016 (0,4)	.0043 (0,11)							
			4	.016 (0,4)	.0047 (0,12)							
			4	.031 (0,8)	.0059 (0,15)							



Primary Workpiece Material Group

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

- first choice
- alternate choice

Chip Control Geometry Designation

Maximum Feed Rate Values

Data above is for P and K material groups. Maximum feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.	Material Group	Feed Factor
	M	.8
	N	1.2
	S	.8
	H	.5

Plunge Feed Rates

- first choice
- alternate choice

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

Chip Control	Description	Insert Geometry	Seat Size	Corner Radius	Starting Conditions	Plunge Feed Rates inch/rev (mm/rev)											
						.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)	.0100 (0,25)	.0120 (0,30)	.0140 (0,35)					
-GUP	<ul style="list-style-type: none"> • Groove and turn inserts in new Beyond™ grades. • Available in molded and precision-ground styles. • Positive rake angle with enhanced chip control. • Available in metric widths only. 		2	.008 (0,2)	.0031 (0,08)	●	○										
				.008 (0,2)	.0035 (0,09)	○	○										
			3	.016 (0,4)	.0043 (0,11)		○	○									
				.016 (0,4)	.0047 (0,12)			○	○								
			4	.031 (0,8)	.0059 (0,15)				○	○							
				.031 (0,8)	.0059 (0,16)					○	○						
			5	.016 (0,4)	.0059 (0,16)						○	○					
				.031 (0,8)	.0059 (0,16)							○	○				
			6	.016 (0,4)	.0059 (0,16)								○	○			
				.031 (0,8)	.0071 (0,18)									○	○		
			8	.016 (0,4)	.0067 (0,17)										○	○	
				.031 (0,8)	.0079 (0,20)											○	○
10	.047 (1,2)	.0087 (0,22)												○	○		
	.016 (0,4)	.0071 (0,18)													○	○	
-GMP	<ul style="list-style-type: none"> • Groove and turn inserts. • Available in molded and precision-ground styles. • Positive rake angle. • Available in metric widths only. 		2	.008 (0,2)	.0031 (0,08)	●	○										
				.008 (0,2)	.0035 (0,09)	○	○										
			3	.016 (0,4)	.0043 (0,11)		○	○									
				.016 (0,4)	.0047 (0,12)			○	○								
			4	.031 (0,8)	.0059 (0,15)				○	○							
				.031 (0,8)	.0059 (0,16)					○	○						
			5	.016 (0,4)	.0059 (0,16)						○	○					
				.031 (0,8)	.0059 (0,16)							○	○				
			6	.016 (0,4)	.0059 (0,16)								○	○			
				.031 (0,8)	.0071 (0,18)									○	○		
			8	.016 (0,4)	.0067 (0,17)											○	○
				.031 (0,8)	.0079 (0,20)												○
10	.047 (1,2)	.0087 (0,22)													○	○	
	.016 (0,4)	.0071 (0,18)														○	○
-GMN	<ul style="list-style-type: none"> • Groove and turn molded and precision ground inserts. • Stable cutting edge. • Available in metric and inch widths. 		2	.008 (0,2)	.0031 (0,08)	●	○										
				.008 (0,2)	.0035 (0,09)	○	○										
			3	.016 (0,4)	.0043 (0,11)		○	○									
				.016 (0,4)	.0047 (0,12)			○	○								
			4	.031 (0,8)	.0059 (0,15)				○	○							
				.031 (0,8)	.0059 (0,16)					○	○						
			5	.016 (0,4)	.0059 (0,16)						○	○					
				.031 (0,8)	.0059 (0,16)							○	○				
			6	.016 (0,4)	.0059 (0,16)								○	○			
				.031 (0,8)	.0071 (0,18)									○	○		
			8	.016 (0,4)	.0067 (0,17)											○	○
				.031 (0,8)	.0079 (0,20)												○
10	.047 (1,2)	.0087 (0,22)													○	○	
	.016 (0,4)	.0071 (0,18)														○	○

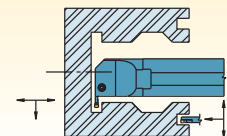
Maximum Feed Rate Values

Data above is for P and K material groups. **Maximum** feed rates should be adjusted by multiplying max feed rate values by following factors for shown material groups.

Material Group	Feed Factor
M	.8
N	.8
S	.5
H	1.2

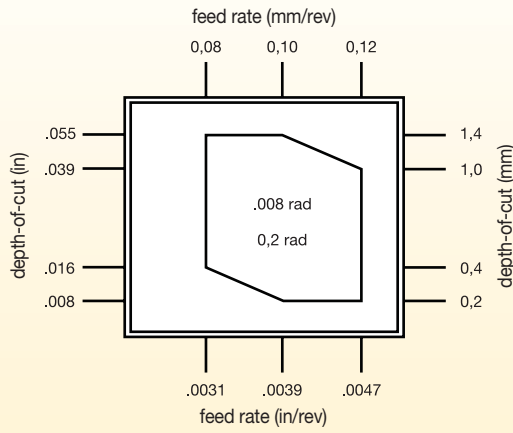
I.D. and Face Grooving

For I.D. and face grooving applications, reduce feed rate by 20%.

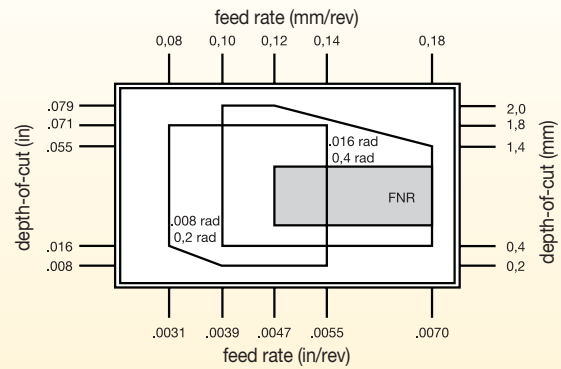


■ Turn and profile feed rates • GUP/GMP Geometries

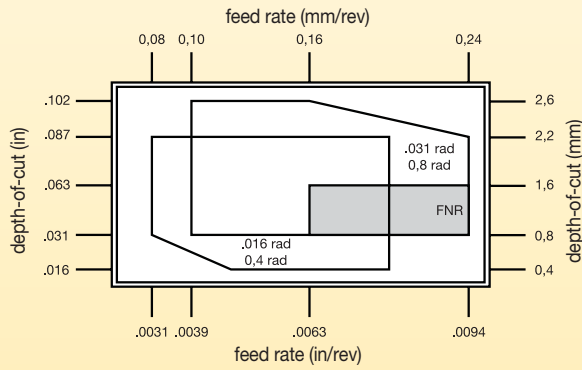
Seat Size 2



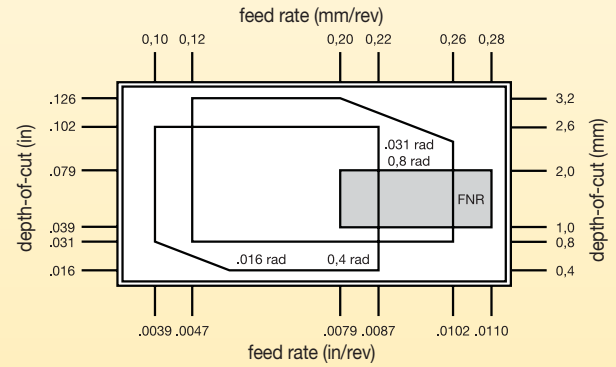
Seat Size 3



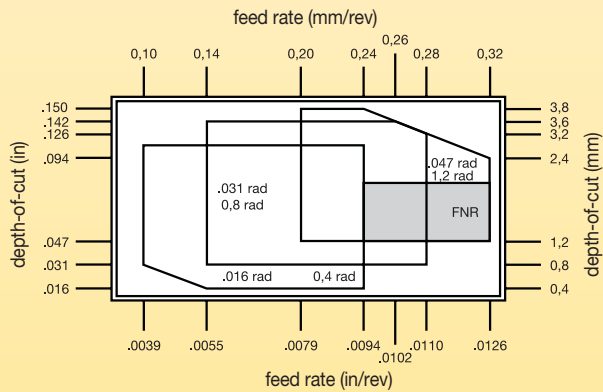
Seat Size 4



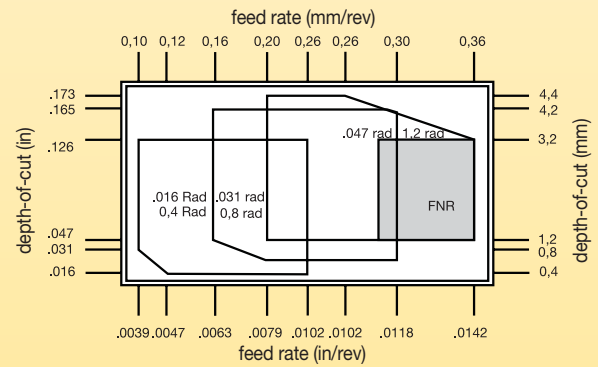
Seat Size 5



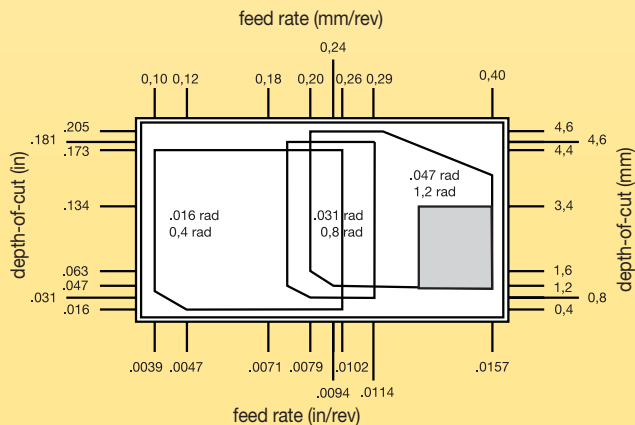
Seat Size 6



Seat Size 8

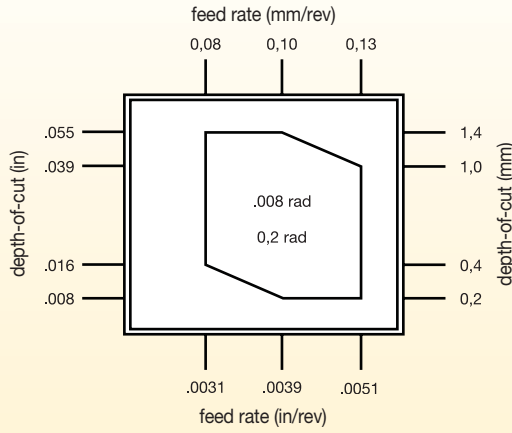


Seat Size 10

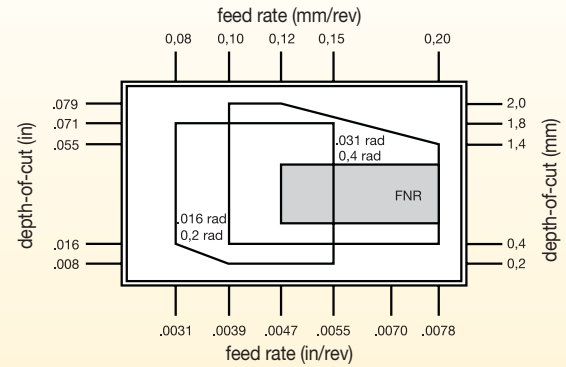


■ Turn and profile feed rates • GMN Geometries

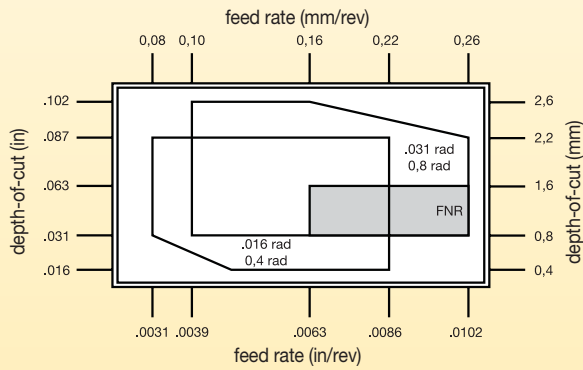
Seat Size 2



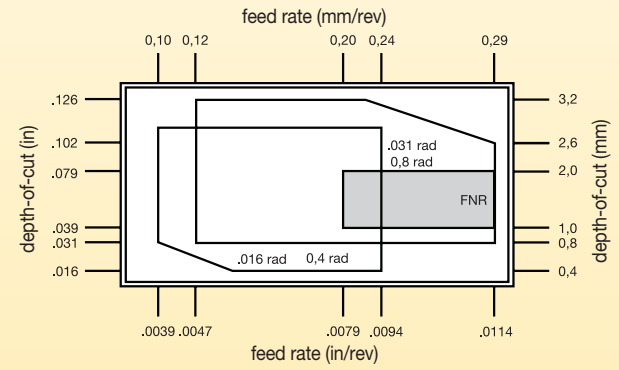
Seat Size 3



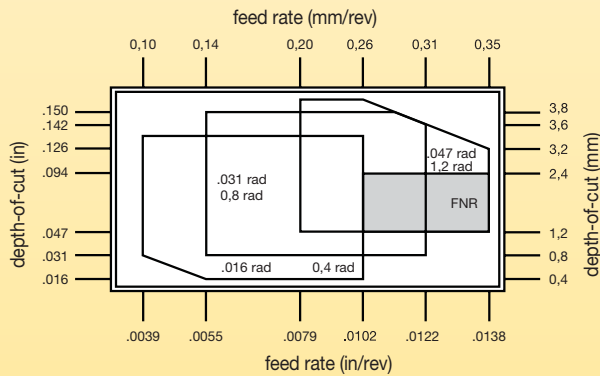
Seat Size 4



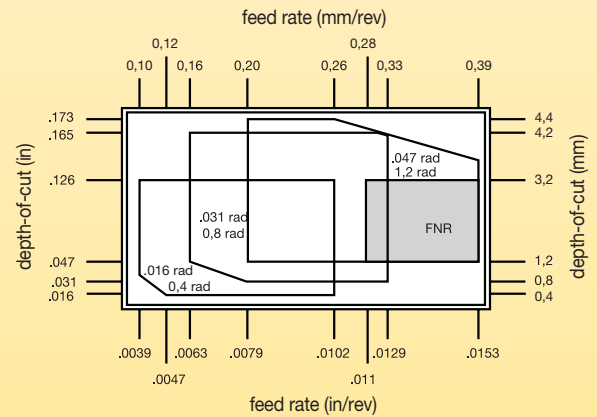
Seat Size 5



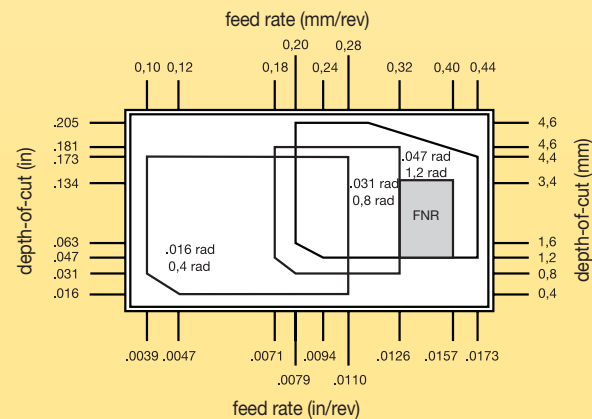
Seat Size 6



Seat Size 8



Seat Size 10



■ Cut-Off Feed Rates

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

- first choice
- alternate choice

Chip Control	Description	Insert Geometry	Seat Size	Starting Conditions in (mm)	Cut-Off Feed Rates inch/rev (mm/rev)			
					.0020 (0,05)	.0040 (0,10)	.0060 (0,15)	.0080 (0,20)
-A4C-CF 	<ul style="list-style-type: none"> • High positive rake angle. • Sharp cutting edge. • Available in neutral lead angle in 6° and 10° right- and left-hand styles. 		1B	.0024 (0,06)				
			2/2B	.0028 (0,07)				
			3	.0035 (0,09)				
			4	.0043 (0,11)				

Maximum Feed Rate Values

Data is for P and K material groups. Maximum feed rates should be adjusted by multiplying feed rate values by following factors for other material groups.	Material Group	Feed Factor
	M	.8
	N	.8
	S	.5
	H	1.2

Mobile Apps

The Kennametal mobile app makes it easy to access product information and calculators on both iPhone® and Android™ devices. We've highlighted a few of the key features...

There's an app for that.

SPEEDS & FEEDS

View speeds and feeds information for metalworking products.

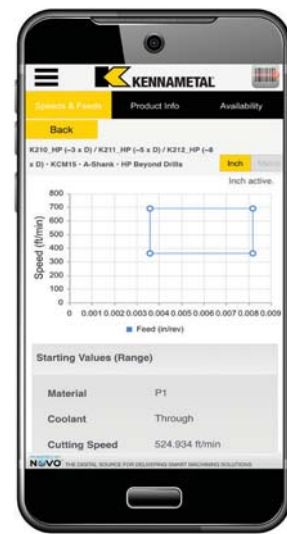
PRODUCT AVAILABILITY

Check global availability of products. View available quantities by providing your Konnect login credentials.

CALCULATORS

Utilize our machining calculators for milling and drilling applications.

➔ By just scanning the bar code on the insert packet, you can find the most productive cutting conditions for tool life, process time, and chip control.



NOTE: The app is currently only available in the English-language version. We have plans to translate the app in different languages with future releases.



Recommended Starting Speeds [m/min]

Material Group		K313			KCU10/KC5010			KCU25/KC5025			KCP10			KCP25			KCK20B			KY3500		
P	0-1	-	-	-	140	280	335	110	225	270	185	400	450	145	290	365	200	440	490	-	-	-
	2	-	-	-	140	200	245	110	160	195	185	270	350	145	200	305	200	300	380	-	-	-
	3	-	-	-	140	155	245	110	125	195	170	190	260	140	155	245	600	200	280	-	-	-
	4	-	-	-	75	110	170	60	90	135	90	145	200	75	110	180	100	160	220	-	-	-
	5	-	-	-	120	200	260	100	160	210	150	220	305	120	200	270	165	240	330	-	-	-
	6	-	-	-	110	150	230	85	120	185	120	180	275	110	150	230	130	190	300	-	-	-
M	1	60	90	120	140	210	260	90	170	245	-	-	-	-	-	-	-	-	-	-	-	-
	2	45	75	110	120	200	245	90	150	245	-	-	-	-	-	-	-	-	-	-	-	-
	3	35	65	100	120	180	245	90	140	210	-	-	-	-	-	-	-	-	-	-	-	-
K	1	30	75	120	120	180	245	100	145	195	170	245	440	140	200	360	210	305	550	180	760	1040
	2	25	70	110	90	150	210	70	120	170	120	195	340	100	160	280	150	245	430	275	365	500
	3	20	60	90	60	110	150	50	85	120	120	170	270	100	140	220	150	210	335	-	-	-
N	1-2	150	370	610	150	550	975	120	440	780	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	120	275	430	120	365	610	100	290	490	-	-	-	-	-	-	-	-	-	-	-	-
	5	45	90	150	90	170	245	70	135	195	-	-	-	-	-	-	-	-	-	-	-	-
	6	40	75	150	120	210	305	100	170	245	-	-	-	-	-	-	-	-	-	-	-	-
S	1	8	30	75	15	55	135	8	40	60	-	-	-	-	-	-	-	-	-	-	-	-
	2	8	35	75	15	60	135	8	30	75	-	-	-	-	-	-	-	-	-	-	-	-
	3	8	40	75	15	70	135	15	40	75	-	-	-	-	-	-	-	-	-	-	-	-
	4	8	45	75	15	70	170	8	50	110	-	-	-	-	-	-	-	-	-	-	-	-
H	1	-	-	-	30	45	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	15	30	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Grooving and Cut-Off

Material Group		KT315			KB5625			KB1630			KD1405		
P	0-1	180	440	475	-	-	-	-	-	-	-	-	-
	2	195	270	400	-	-	-	-	-	-	-	-	-
	3	180	210	275	-	-	-	-	-	-	-	-	-
	4	75	160	210	-	-	-	-	-	-	-	-	-
	5	150	250	310	-	-	-	-	-	-	-	-	-
	6	140	200	300	-	-	-	-	-	-	-	-	-
M	1	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-
K	1	60	275	550	-	-	-	180	760	1040	-	-	-
	2	135	275	360	-	-	-	-	-	-	-	-	-
	3	180	230	360	-	-	-	-	-	-	-	-	-
N	1-2	-	-	-	-	-	-	-	-	-	365	610	1040
	3	-	-	-	-	-	-	-	-	-	275	480	800
	4	-	-	-	-	-	-	-	-	-	300	550	920
	5	-	-	-	-	-	-	-	-	-	275	610	1070
	6	-	-	-	-	-	-	-	-	-	150	460	760
	S	1	-	-	-	-	-	-	120	200	275	-	-
2		-	-	-	-	-	-	120	215	275	-	-	-
3		-	-	-	-	-	-	120	250	275	-	-	-
4		-	-	-	-	-	-	-	-	-	-	-	-
H	1	-	-	-	45	150	230	45	120	170	-	-	-
	2	-	-	-	45	140	230	45	110	170	-	-	-
	3	-	-	-	45	130	230	45	100	170	-	-	-
	4	-	-	-	45	120	230	45	90	170	-	-	-

NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

(continued)

(Recommended Starting Speeds — continued)

■ Recommended Starting Speeds [SFM]

Grooving and Cut-Off

Material Group		K313	KCU10/KC5010	KCU25/KC5025	KCP10	KCP25	KCK20B	KY3500
P	0-1	- - -	450 925 1100	360 740 880	600 1320 1475	475 925 1200	660 1450 1620	- - -
	2	- - -	450 650 800	360 520 640	600 880 1150	475 650 1000	660 970 1260	- - -
	3	- - -	450 510 800	360 410 640	550 630 850	450 510 800	600 700 920	- - -
	4	- - -	250 360 550	200 290 440	300 480 650	250 360 600	330 530 710	- - -
	5	- - -	400 660 850	320 530 680	500 720 1000	400 650 875	550 800 1100	- - -
	6	- - -	350 500 750	280 400 600	400 600 900	350 500 750	440 660 990	- - -
M	1	200 300 400	450 700 850	300 550 800	- - -	- - -	- - -	- - -
	2	150 250 350	400 650 800	300 500 800	- - -	- - -	- - -	- - -
	3	120 220 320	400 600 800	300 450 700	- - -	- - -	- - -	- - -
K	1	100 250 400	400 600 800	320 480 640	560 800 1440	455 650 1170	700 1000 1800	600 2500 3400
	2	75 225 350	300 500 700	240 400 560	400 640 1120	325 520 910	500 800 1400	900 1200 1650
	3	65 190 300	200 350 500	160 280 400	400 560 880	325 455 715	500 700 1100	- - -
N	1-2	500 1200 2000	500 1800 3200	400 1440 2560	- - -	- - -	- - -	- - -
	3	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	4	400 900 1400	400 1200 2000	320 960 1600	- - -	- - -	- - -	- - -
	5	150 300 500	300 550 800	240 440 640	- - -	- - -	- - -	- - -
	6	120 250 500	400 700 1000	320 560 800	- - -	- - -	- - -	- - -
S	1	25 100 250	50 180 450	25 125 200	- - -	- - -	- - -	- - -
	2	25 110 250	50 195 450	25 100 250	- - -	- - -	- - -	- - -
	3	25 125 250	50 225 450	50 125 250	- - -	- - -	- - -	- - -
	4	25 150 250	50 225 550	25 175 350	- - -	- - -	- - -	- - -
H	1	- - -	100 150 200	- - -	- - -	- - -	- - -	- - -
	2	- - -	50 100 150	- - -	- - -	- - -	- - -	- - -
	3	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	4	- - -	- - -	- - -	- - -	- - -	- - -	- - -

Material Group		KT315	KB5625	KB1630	KD1405
P	0-1	600 1450 1600	- - -	- - -	- - -
	2	650 880 1300	- - -	- - -	- - -
	3	600 680 900	- - -	- - -	- - -
	4	300 530 725	- - -	- - -	- - -
	5	500 800 1025	- - -	- - -	- - -
	6	475 660 975	- - -	- - -	- - -
M	1	- - -	- - -	- - -	- - -
	2	- - -	- - -	- - -	- - -
	3	- - -	- - -	- - -	- - -
K	1	200 900 1800	- - -	600 2500 3400	- - -
	2	450 900 1200	- - -	- - -	- - -
	3	600 750 1200	- - -	- - -	- - -
N	1-2	- - -	- - -	- - -	1200 2000 3400
	3	- - -	- - -	- - -	900 1600 2600
	4	- - -	- - -	- - -	1000 1800 3000
	5	- - -	- - -	- - -	900 2000 3500
	6	- - -	- - -	- - -	500 1500 2500
S	1	- - -	- - -	400 650 900	- - -
	2	- - -	- - -	400 700 900	- - -
	3	- - -	- - -	400 810 900	- - -
	4	- - -	- - -	- - -	- - -
H	1	- - -	150 500 760	150 400 560	- - -
	2	- - -	150 460 760	150 360 560	- - -
	3	- - -	150 430 760	150 330 560	- - -
	4	- - -	150 400 760	150 300 560	- - -

NOTE: FIRST choice starting speeds are in bold type.
As the average chip thickness increases, the speed should be decreased.

NOVO KNOWS SEARCH

Searching for a tool has been enhanced by Advise and Select functions from NOVO™ applications — saving you time and money.

ADVISE

Uses a rules-based approach to provide cutting tool recommendations:

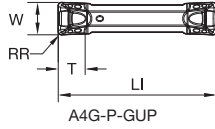
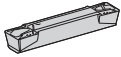
- Define Machining Feature (face milling, slotting, blind hole, etc.)
- Apply Constraint Requirements (geometric, material, tolerance, etc.)
- Set Machining Sequence (single or multi-step operations, rough then finish, etc.)
- Receive Ranked Results

SELECT

A method of selecting cutting tools from a tree structure via a hierarchy or parametric search:

- If you know which product you are looking for, a quick search can be performed by just the catalog number or product description.
- Smart filters significantly reduce the amount of potential tooling solutions.
- After the tool is selected, NOVO also provides cutting and adaptive item options that fit with your solution.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximizes every shift. kennametal.com/novo

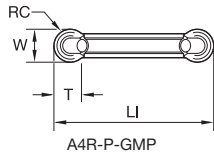
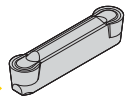


● first choice
○ alternate choice

	P	M	K	N	S	H	KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
P	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

■ GUP Precision Ground

catalog number	seat size	W		RR		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405
		mm	in	mm	in	mm	in	mm	in													
A4G0200M02P02GUP	2	2,00	.079	0,2	.008	20	.79	1,9	.075	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G094I2BP05GUP	2B	2,38	.094	0,2	.008	20	.79	1,9	.075	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G0300M03P02GUP	3	3,00	.118	0,2	.008	20	.79	2,9	.115	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0300M03P04GUP	3	3,00	.118	0,4	.016	20	.79	2,9	.115	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G125I03P05GUP	3	3,18	.125	0,2	.008	20	.79	2,9	.115	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G125I03P1GUP	3	3,18	.125	0,4	.016	20	.79	2,9	.115	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G0400M04P02GUP	4	4,00	.157	0,2	.008	20	.79	3,3	.130	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0400M04P04GUP	4	4,00	.157	0,4	.016	20	.79	3,3	.130	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0400M04P08GUP	4	4,00	.157	0,8	.031	20	.79	3,3	.130	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G187I04P1GUP	4	4,76	.187	0,4	.016	20	.79	3,3	.130	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G0500M05P04GUP	5	5,00	.197	0,4	.016	25	.98	4,1	.163	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0500M05P08GUP	5	5,00	.197	0,8	.031	25	.98	4,1	.163	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0600M06P04GUP	6	6,00	.236	0,4	.016	30	1.18	4,5	.176	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0600M06P08GUP	6	6,00	.236	0,8	.031	30	1.18	4,5	.176	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G250I06P1GUP	6	6,35	.250	0,4	.016	30	1.18	4,4	.175	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G250I06P2GUP	6	6,35	.250	0,8	.031	30	1.18	4,4	.175	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G312I08P1GUP	8	7,94	.312	0,4	.016	30	1.18	5,9	.233	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G0800M08P08GUP	8	8,00	.315	0,8	.031	30	1.18	6,0	.235	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G0800M08P12GUP	8	8,00	.315	1,2	.047	30	1.18	6,0	.236	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G375I10P1GUP	10	9,53	.375	0,4	.016	30	1.18	5,9	.233	-	●	-	-	-	-	-	-	-	-	-	-	-
A4G1000M10P08GUP	10	10,00	.394	0,8	.031	30	1.18	6,0	.235	●	●	-	-	-	-	-	-	-	-	-	-	-
A4G1000M10P12GUP	10	10,00	.394	1,2	.047	30	1.18	6,0	.235	●	●	-	-	-	-	-	-	-	-	-	-	-

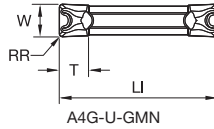
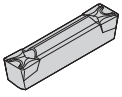


● first choice
○ alternate choice

P	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

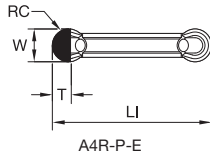
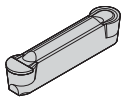
■ GMP Full Radius Precision Ground

catalog number	seat size	W		RC		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405
		mm	in	mm	in	mm	in	mm	in													
A4R0200M02P00GMP	2	2,00	.079	1,0	.039	20	.78	1,7	.065	●	●	-	-	-	-	●	●	-	-	-	-	-
A4R0300M03P00GMP	3	3,00	.118	1,5	.059	20	.78	2,5	.098	●	●	-	-	-	-	●	●	-	-	-	-	-
A4R0400M04P00GMP	4	4,00	.157	2,0	.079	20	.78	-	-	●	●	-	-	-	-	●	●	-	-	-	-	-
A4R0500M05P00GMP	5	5,00	.197	2,5	.098	25	.98	4,1	.160	●	●	-	-	-	-	●	●	-	-	-	-	-
A4R0600M06P00GMP	6	6,00	.236	3,0	.118	30	1.18	4,8	.189	●	●	-	-	-	-	●	●	-	-	-	-	-
A4R0800M08P00GMP	8	8,00	.315	4,0	.158	30	1.18	6,4	.252	●	●	-	-	-	-	●	●	-	-	-	-	-



■ GMN Precision Molded

catalog number	seat size	W		RR		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405
		mm	in	mm	in	mm	in	mm	in													
A4G0205M02U02GMN	2	2,05	.081	0,2	.008	20	.79	2,0	.079	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0255M2BU02GMN	2B	2,62	.103	0,2	.008	20	.79	2,0	.079	-	-	-	-	-	-	-	-	-	-	-	-	-
A4G0305M03U02GMN	3	3,05	.120	0,2	.008	20	.79	3,5	.138	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0305M03U04GMN	3	3,05	.120	0,4	.016	20	.79	3,5	.138	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0405M04U04GMN	4	4,05	.159	0,4	.016	20	.79	3,4	.134	●	●	-	-	-	-	●	●	-	-	-	-	-
A4G0405M04U08GMN	4	4,05	.159	0,8	.031	20	.79	3,4	.134	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0505M05U04GMN	5	5,05	.199	0,4	.016	25	.98	4,2	.165	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0505M05U08GMN	5	5,05	.199	0,8	.031	25	.98	4,2	.165	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0605M06U04GMN	6	6,05	.238	0,4	.016	30	1.18	4,9	.193	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0605M06U08GMN	6	6,05	.238	0,8	.031	30	1.18	4,9	.193	●	●	●	●	-	-	●	●	-	-	-	-	-
A4G0605M06U12GMN	6	6,05	.238	1,2	.047	30	1.18	4,9	.193	-	-	-	-	-	-	●	●	-	-	-	-	-
A4G0805M08U08GMN	8	8,05	.317	0,8	.031	30	1.18	6,4	.252	-	-	●	●	-	-	●	●	-	-	-	-	-
A4G0805M08U12GMN	8	8,05	.317	1,2	.047	30	1.18	6,4	.252	-	-	●	●	-	-	●	●	-	-	-	-	-
A4G1005M10U08GMN	10	10,05	.396	0,8	.031	30	1.18	8,1	.319	-	-	●	●	-	-	●	●	-	-	-	-	-
A4G1005M10U12GMN	10	10,05	.396	1,2	.047	30	1.18	8,1	.319	-	-	●	●	-	-	●	●	-	-	-	-	-



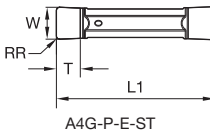
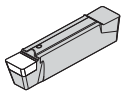
A4R-P-E

■ Flat Top Full Radius Precision Ground • PCD

catalog number	seat size	W		RC		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
		mm	in	mm	in	mm	in	mm	in														
A4R0500M05P00E	5	5,00	.197	2,5	.099	25	.98	3,0	.118	-	-	-	-	-	-	-	-	-	-	-	-	-	●

● first choice
○ alternate choice

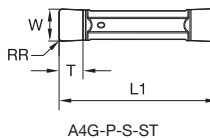
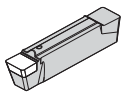
P	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



A4G-P-E-ST

■ Flat Top Precision Ground • PcBN

catalog number	seat size	W		RR		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
		mm	in	mm	in	mm	in	mm	in														
A4G0300M03P04EST	3	3,00	.118	0,4	.016	20	.78	3,0	.118	-	-	-	-	-	-	-	-	-	-	●	-	-	-
A4G0500M05P08EST	5	5,00	.197	0,8	.031	25	.98	3,5	.138	-	-	-	-	-	-	-	-	-	-	●	-	-	-
A4G0600M06P08EST	6	6,00	.236	0,8	.031	30	1.18	4,0	.157	-	-	-	-	-	-	-	-	-	-	●	-	-	-

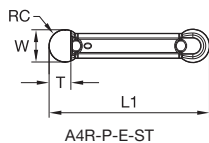
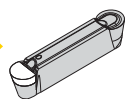


A4G-P-S-ST

■ Flat Top Precision Ground • T Land • PcBN

catalog number	seat size	W		RR		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
		mm	in	mm	in	mm	in	mm	in														
A4G0300M03P04S02025ST	3	3,00	.118	0,4	.016	20	.78	3,0	.118	-	-	-	-	-	-	-	-	-	-	●	●	-	-
A4G0400M04P04S02025ST	4	4,00	.157	0,4	.016	20	.78	3,3	.130	-	-	-	-	-	-	-	-	-	-	●	●	-	-
A4G0500M05P08S02025ST	5	5,00	.197	0,8	.031	25	.98	3,5	.138	-	-	-	-	-	-	-	-	-	-	●	●	-	-
A4G0600M06P08S02025ST	6	6,00	.236	0,8	.031	30	1.18	4,0	.157	-	-	-	-	-	-	-	-	-	-	●	●	-	-





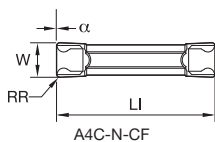
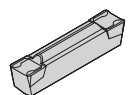
● first choice
○ alternate choice

	P	M	K	N	S	H	KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
● first choice	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○ alternate choice	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

■ Flat Top Full Radius Precision Ground • PcBN

catalog number	seat size	W		RC		LI		T		KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
		mm	in	mm	in	mm	in	mm	in														
A4R0300M03P00EST	3	3,00	.118	1,5	.059	20	.78	2,2	.087	-	-	-	-	-	-	-	-	-	-	●	-	-	-
A4R0400M04P00EST	4	4,00	.157	2,0	.079	20	.78	2,9	.114	-	-	-	-	-	-	-	-	-	-	●	-	-	-
A4R0500M05P00EST	5	5,00	.197	2,5	.099	25	.98	3,7	.146	-	-	-	-	-	-	-	-	-	-	●	-	-	-
A4R0600M06P00EST	6	6,00	.236	3,0	.118	30	1.18	4,4	.173	-	-	-	-	-	-	-	-	-	-	●	-	-	-

A4™ Cut-off Inserts

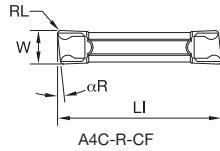
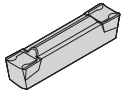


● first choice
○ alternate choice

	P	M	K	N	S	H	KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
● first choice	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
○ alternate choice	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

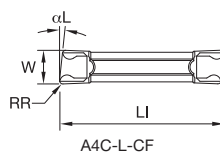
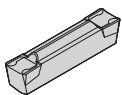
■ CF Precision Molded • Neutral

catalog number	seat size	W		RR		LI		α	KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405	
		mm	in	mm	in	mm	in															
A4C0155N00CF01	1	1,50	.059	0,2	.006	16	.61	—	-	●	-	-	-	-	-	-	-	-	-	-	-	-
A4C0205N00CF02	2	2,05	.081	0,2	.008	20	.79	—	-	●	-	-	-	-	-	-	-	-	-	-	-	-
A4C0255N00CF02	2B	2,50	.098	0,2	.008	20	.79	—	-	●	-	-	-	-	-	-	-	-	-	-	-	-
A4C0305N00CF02	3	3,05	.120	0,2	.008	20	.79	—	-	●	-	-	-	-	-	-	-	-	-	-	-	-
A4C0405N00CF02	4	4,05	.159	0,2	.008	20	.79	—	-	●	-	-	-	-	-	-	-	-	-	-	-	-



■ CF Precision Molded • Right Hand

catalog number	seat size	W		RL		LI		αR	KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405
		mm	in	mm	in	mm	in														
A4C0155R06CF01	1	1,50	.059	0,2	.006	16	.61	6.0	-	-	-	-	-	-	-	●	-	-	-	-	-
A4C0155R10CF01	1	1,50	.059	0,2	.006	16	.61	10.0	-	●	-	-	-	-	-	-	-	-	-	-	-
A4C0155R16CF01	1	1,50	.059	0,2	.006	16	.61	16.0	-	-	-	-	-	-	●	-	-	-	-	-	-
A4C0205R06CF02	2	1,99	.078	0,2	.008	20	.79	6.0	-	●	-	-	-	-	●	-	-	-	-	-	-
A4C0205R10CF02	2	1,99	.078	0,2	.008	20	.79	10.0	-	●	-	-	-	-	-	-	-	-	-	-	-
A4C0255R06CF02	2B	2,49	.098	0,2	.008	20	.79	6.0	-	-	-	-	-	-	●	-	-	-	-	-	-
A4C0305R06CF02	3	3,05	.120	0,2	.008	20	.79	6.0	-	●	-	-	-	-	●	-	-	-	-	-	-
A4C0305R10CF02	3	3,05	.120	0,2	.008	20	.79	10.0	-	●	-	-	-	-	●	-	-	-	-	-	-
A4C0405R06CF02	4	4,05	.159	0,2	.008	20	.79	6.0	-	●	-	-	-	-	-	-	-	-	-	-	-
A4C0405R10CF02	4	4,05	.159	0,2	.008	20	.79	10.0	-	●	-	-	-	-	●	-	-	-	-	-	-



■ CF Precision Molded • Left Hand

catalog number	seat size	W		RR		LI		αL	KCU10	KCU25	KCP10	KCP25	KCK20	K313	KC5010	KC5025	KY3500	KT315	KB1630	KB5625	KD1405
		mm	in	mm	in	mm	in														
A4C0155L06CF01	1	1,50	.059	0,2	.006	16	.61	6.0	-	-	-	-	-	-	-	●	-	-	-	-	-
A4C0205L06CF02	2	1,99	.078	0,2	.008	20	.79	6.0	-	●	-	-	-	-	-	-	-	-	-	-	-
A4C0205L10CF02	2	1,99	.078	0,2	.008	20	.79	10.0	-	-	-	-	-	-	●	-	-	-	-	-	-
A4C0305L06CF02	3	3,05	.120	0,2	.008	20	.79	6.0	-	●	-	-	-	-	●	-	-	-	-	-	-
A4C0305L10CF02	3	3,05	.120	0,2	.008	20	.79	10.0	-	●	-	-	-	-	-	-	-	-	-	-	-
A4C0405L06CF02	4	4,05	.159	0,2	.008	20	.79	6.0	-	●	-	-	-	-	-	-	-	-	-	-	-
A4C0405L10CF02	4	4,05	.159	0,2	.008	20	.79	10.0	-	●	-	-	-	-	-	-	-	-	-	-	-

● first choice
○ alternate choice

P	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

Grooving and Cut-Off
A4 - Integral Toolholders

Order number	Tooling number	Seat	ISO	W. Shank	H	R	ISO	L1	R1	L2	R2	Tooling number	Tooling number
2017000	A4SMR100214	0	02	020	020	000	000	000	000	000	000	000	000
2017000	A4SMR100214	0	03	020	020	000	000	000	000	000	000	000	000
2017000	A4SMR100214	0	04	020	020	000	000	000	000	000	000	000	000
2017000	A4SMR100214	0	05	020	020	000	000	000	000	000	000	000	000
2017000	A4SMR100214	0	06	020	020	000	000	000	000	000	000	000	000
2017000	A4SMR100214	0	08	020	020	000	000	000	000	000	000	000	000
2017000	A4SMR100214	0	10	020	020	000	000	000	000	000	000	000	000

A4SMR100214

A4

Tooling System

A4 = Grooving and Turning

S

Tool Style



S = Straight



E = End mounted 90°

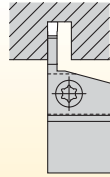
M

Support Type

M = Maximum support for specific groove widths and straight clearance for unlimited workpiece diameters
E = No steel support for face grooving
C = Reinforced Support

R

Hand of Tool



R = Right hand
L = Left hand
N = Neutral

10

Shank Size

inch:
For square shanks, the number indicates the height and width in 1/16-inch increments (rectangular: 1st digit = width in 1/8-inch increments, 2nd digit = height in 1/4-inch increments)

metric:
Height x width in mm, letter indicates tool length according to ISO

metric tool length (mm)

K = 125

M = 150

P = 170

02

Seat Size

02
03
04
05
06
08
10

14

Max Grooving Depth

in millimeters

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.

Grooving and Cut-Off
A4™ Integral Boring Bars

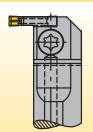
Steel Boring Bar • Inch

order number	catalog number	inch diam	CD	W	CD	CD	L1	F	L10	A	grooving	support
right hand												
000001	A12RA4EMR027N	2	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000002	A12RA4EMR027N	3	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000003	A12RA4EMR027N	4	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000004	A12RA4EMR027N	5	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000005	A12RA4EMR027N	6	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000006	A12RA4EMR027N	8	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000007	A12RA4EMR027N	10	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0
000008	A12RA4EMR027N	12	2.76	2.76	7.62	304	6.02	3.02	7.86	16	M0206	20.0

A12RA4EMR027N

A

Steel Bar with Coolant



12

Bar Diameter

R

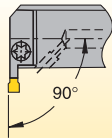
Bar Length

A4

A4™ Groove and Turn System

E

Tool Style



E = End mounted (90°)

M

Support Type

R

Hand of Tool

02

Insert Seat Size

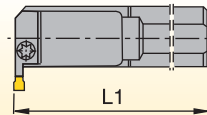
07

Grooving Depth in mm

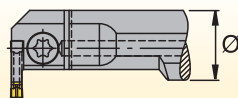
N

Tool Units

N = Inch
M = Metric

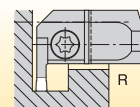


inch bars:	metric bars:
R = 8"	R = 200mm
S = 10"	S = 150mm
T = 12"	T = 300mm

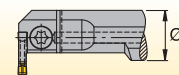


inch bars:
A two-digit number which indicates the bar diameter in 1/16" increments.

metric bars:
Bar diameter in millimeters



R = Right hand



L = Left hand

pocket seat size	cutting width (mm)
02	2,00–2,62
2B	2,39–2,62
03	3,0–3,05
04	4,0–4,05
05	5,0–5,05
06	6,0–6,05
08	8,0–8,05
10	10,0–10,05

M = Maximum support

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KGMSL2525M50C

KGMSL1650C

Metric					
KGM	S	L	2525M	50	C
Inch					
KGM	S	L	16	50	C
Family Name	Tool Style	Hand	Shank Size	Blade Size	Coolant
Grooving Modular System	S = Straight mount E = End mount (90°)	L = Left hand R = Right hand	Metric = Height x Width in mm letter indicates tool length according to ISO Inch = Height x Width in 1/16" increments	50 65	C = Through coolant capable

Kennametal on the Web

kennametal.com

FIND THE LATEST PRODUCT INFORMATION

Whether your operation is turning, milling, or holemaking, Kennametal brands are the high-performance tooling you need. We offer standard and custom solutions for a wide range of applications.

Find information about our most current campaigns and catalogs.

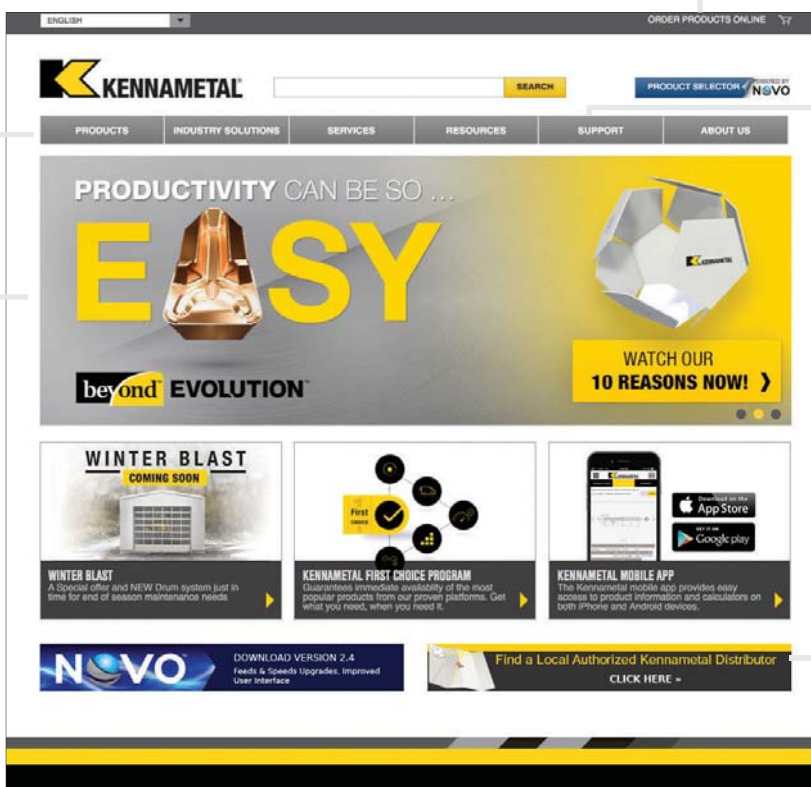
Register on Konnect for the full functionality of the Kennametal online ordering website.

CONTACT US

Our customers are important to us. We want to provide you the best customer service in the industry. If you have a comment or question, please send it to us. We strive to respond to all inquiries within 24 hours.

FIND A LOCAL AUTHORIZED DISTRIBUTOR IN YOUR AREA

Kennametal offers world-class products and services globally. Our distributors know us, and more importantly, they know you. They know better than anyone in the industry how to put the global power of Kennametal to work for you — in your industry, in your region, and for your business.



By referencing this easy-to-use guide, you can identify the correct product to meet your needs.

A4M50R0414B048-072

04

Seat Size

pocket seat size	cutting width	
	in	mm
02	0.08–0.10	2,00–2,62
2B	0.09–0.10	2,39–2,62
03	0.12–0.12	3,0–3,05
04	0.16–0.16	4,0–4,05
05	0.20–0.20	5,0–5,05
06	0.24–0.24	6,0–6,05
08	0.31–0.32	8,0–8,05
10	0.39–0.40	10,0–10,05

14

Maximum Groove Depth

conversions:

mm	inch
14mm	.55"
19mm	.75"
20mm	.79"
26mm	1.02"

B

Tool Style

M = Maximum support for specific groove widths and straight clearance for unlimited workpiece diameters

A = Inboard sweep face grooving toolholder

B = Outboard sweep face grooving toolholder

048-072

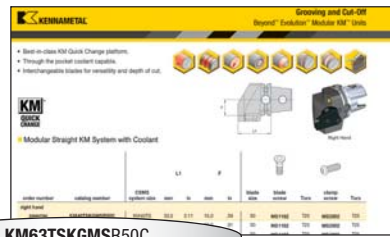
Face Grooving Diameter Range


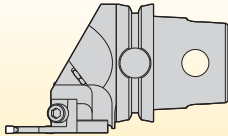

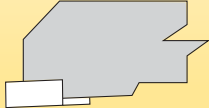
D min
D max

diameters are min and max for outer face groove dia.
999 = unlimited D max

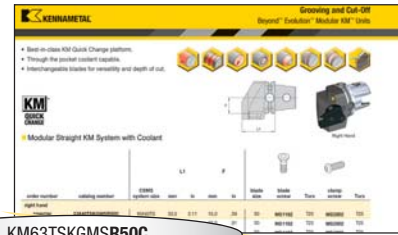
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM	63	TS	KGM	S
KM™ Quick-Change	System Size	Feature	Insert Holding Method	Insert Location
KM KM4X™ PSC	40 = 40mm 50 = 50mm 63 = 63mm 80 = 80mm 100 = 100mm 	TS XMZ	KGM  Modular Grooving	E = End mount S = Side mount  

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



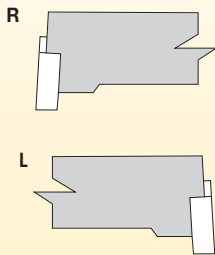
KM63TSGM50C

R

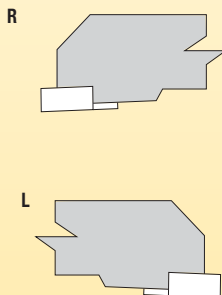
Hand of Tool

R = Right hand
 L = Left hand

End Mount



Side Mount



50

Blade Size

50
 60

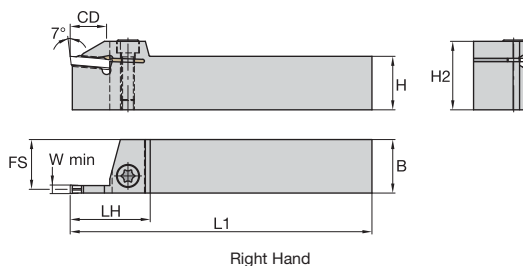
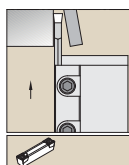
C

Coolant

C = Through the pocket coolant capable

Special Features

Y = Mazak®
 INTEGREX®



Grooving and Cut-Off

■ Integral Straight • Inch



order number	catalog number	seat size	CD	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	Torx
right hand													
2976495	A4SMR100214	2	.55	.079	.625	.625	.98	5.00	.59	1.18	—	MS1160	T20
2976496	A4SMR120214	2	.55	.079	.750	.750	.95	5.00	.71	1.18	—	MS1160	T20
2976497	A4SMR120217	2	.67	.079	.750	.750	1.18	5.00	.71	1.34	MS1944	—	T25
2976498	A4SMR160217	2	.67	.079	1.000	1.000	1.24	6.00	.96	1.34	MS1944	—	T25
1953177	A4SMR100314	3	.55	.118	.625	.625	1.03	5.00	.57	1.38	MS2091	—	T25
1953179	A4SMR120314	3	.55	.118	.750	.750	1.06	5.00	.69	1.38	MS1595	—	T30
1953181	A4SMR160317	3	.67	.118	1.000	1.000	1.26	6.00	.94	1.46	MS1970	—	T30
1957224	A4SMR100414	4	.55	.157	.625	.625	1.03	5.00	.55	1.38	MS2091	—	T25
1953323	A4SMR120414	4	.55	.157	.750	.750	1.06	5.00	.67	1.38	MS1595	—	T30
1953325	A4SMR160417	4	.67	.157	1.000	1.000	1.26	6.00	.92	1.46	MS1970	—	T30
1957226	A4SMR200417	4	.67	.157	1.250	1.250	1.54	6.00	1.17	1.46	MS1970	—	T30
1953327	A4SMR120519	5	.75	.197	.750	.750	1.10	5.00	.65	1.57	MS1595	—	T30
1953329	A4SMR160520	5	.79	.197	1.000	1.000	1.30	6.00	.90	1.57	MS1970	—	T30
1957228	A4SMR200522	5	.87	.197	1.250	1.250	1.54	6.00	1.15	1.65	MS1970	—	T30
2263175	A4SMR120620	6	.79	.236	.750	.750	1.06	5.00	.64	1.57	MS1595	—	T30
2263176	A4SMR160620	6	.79	.236	1.000	1.000	1.30	6.00	.89	1.57	MS1970	—	T30
2263177	A4SMR160624	6	.94	.236	1.000	1.000	1.30	6.00	.89	1.69	MS1970	—	T30
2263178	A4SMR200626	6	1.02	.236	1.250	1.250	1.57	6.00	1.14	1.77	MS1970	—	T30
2263179	A4SMR240626	6	1.02	.236	1.500	1.500	1.81	7.00	1.39	1.77	MS1970	—	T30
2263185	A4SMR160820	8	.79	.315	1.000	1.000	1.34	6.00	.86	1.69	MS1490	—	T45
2263186	A4SMR160824	8	.94	.315	1.000	1.000	1.34	6.00	.86	1.81	MS1490	—	T45
2263187	A4SMR200826	8	1.02	.315	1.250	1.250	1.61	6.00	1.11	1.85	MS1490	—	T45
2263188	A4SMR240826	8	1.02	.315	1.500	1.500	1.85	7.00	1.36	1.85	MS1490	—	T45
2263193	A4SMR201026	10	1.02	.394	1.250	1.250	1.61	6.00	1.08	1.85	MS1490	—	T45

(continued)

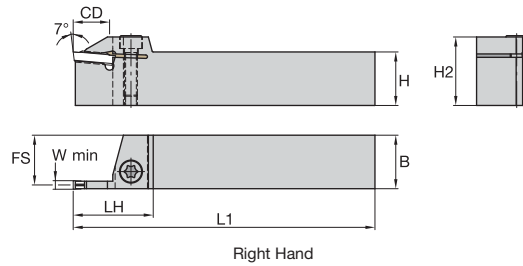
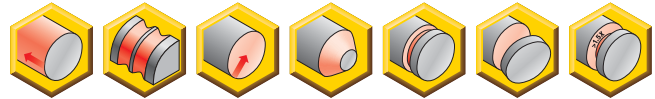
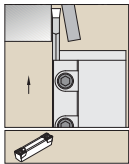
(Integral Straight • Inch — continued)



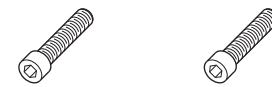
order number	catalog number	seat size	CD	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	Torx
left hand													
2976491	A4SML100214	2	.55	.079	.625	.625	.98	5.00	.59	1.18	—	MS1160	T20
2976493	A4SML120217	2	.67	.079	.750	.750	1.18	5.00	.71	1.34	MS1944	—	T25
2976494	A4SML160217	2	.67	.079	1.000	1.000	1.24	6.00	.96	1.34	MS1944	—	T25
1953178	A4SML100314	3	.55	.118	.625	.625	1.03	5.00	.57	1.38	MS2091	—	T25
1953180	A4SML120314	3	.55	.118	.750	.750	1.06	5.00	.69	1.38	MS1595	—	T30
1953182	A4SML160317	3	.67	.118	1.000	1.000	1.26	6.00	.94	1.46	MS1970	—	T30
1953324	A4SML120414	4	.55	.157	.750	.750	1.06	5.00	.67	1.38	MS1595	—	T30
1953326	A4SML160417	4	.67	.157	1.000	1.000	1.26	6.00	.92	1.46	MS1970	—	T30
1957227	A4SML200417	4	.67	.157	1.250	1.250	1.54	6.00	1.17	1.46	MS1970	—	T30
1953328	A4SML120519	5	.75	.197	.750	.750	1.10	5.00	.65	1.57	MS1595	—	T30
1953330	A4SML160520	5	.79	.197	1.000	1.000	1.30	6.00	.90	1.57	MS1970	—	T30
1957229	A4SML200522	5	.87	.197	1.250	1.250	1.54	6.00	1.15	1.65	MS1970	—	T30
2263180	A4SML120620	6	.79	.236	.750	.750	1.06	5.00	.64	1.57	MS1595	—	T30
2263181	A4SML160620	6	.79	.236	1.000	1.000	1.30	6.00	.89	1.57	MS1970	—	T30
2263182	A4SML160624	6	.94	.236	1.000	1.000	1.30	6.00	.89	1.69	MS1970	—	T30
2263183	A4SML200626	6	1.02	.236	1.250	1.250	1.57	6.00	1.14	1.77	MS1970	—	T30
2263184	A4SML240626	6	1.02	.236	1.500	1.500	1.81	7.00	1.39	1.77	MS1970	—	T30
2263190	A4SML160824	8	.94	.315	1.000	1.000	1.34	6.00	.86	1.81	MS1490	—	T45
2263194	A4SML201026	10	1.02	.394	1.250	1.250	1.61	6.00	1.08	1.85	MS1490	—	T45

Grooving and Cut-Off

Grooving and Cut-Off



■ Integral Straight • Metric



order number	catalog number	seat size	CD	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	Torx
right hand													
3017341	A4SMR2020K0214	2	14	—	20	20	25	125	19	30	—	MS1160	T20
3017342	A4SMR1616K0214	2	14	2	16	16	25	125	15	30	—	MS1160	T20
2974425	A4SMR2020K0217	2	17	2	20	20	31	125	19	34	MS1944	—	T25
3017340	A4SMR2525M0214	2	14	2	25	25	30	150	24	30	—	MS1160	T20
3017339	A4SMR2525M0217	2	17	2	25	25	31	150	24	34	MS1944	—	T25
1949633	A4SMR1616K0314	3	14	3	16	16	27	125	15	35	MS2091	—	T25
2503557	A4SMR2016K0317	3	17	3	20	16	32	125	15	37	MS1970	—	T30
1949635	A4SMR2020K0314	3	14	3	20	20	27	125	19	35	MS1595	—	T30
2503551	A4SMR2020K0317	3	17	3	20	20	32	125	19	37	MS1970	—	T30
1949637	A4SMR2525M0317	3	17	3	25	25	32	150	24	37	MS1970	—	T30
2503559	A4SMR2016K0417	4	17	4	20	16	32	125	14	37	MS1970	—	T30
1949639	A4SMR2020K0414	4	14	4	20	20	27	125	18	35	MS1595	—	T30
2503553	A4SMR2020K0417	4	17	4	20	20	32	125	18	37	MS1970	—	T30
1949641	A4SMR2525M0417	4	17	4	25	25	32	150	23	37	MS1970	—	T30
1949643	A4SMR3225P0417	4	17	4	32	25	40	170	23	37	MS1970	—	T30
1949645	A4SMR2020K0519	5	19	5	20	20	28	125	18	40	MS1595	—	T30
1949647	A4SMR2525M0520	5	20	5	25	25	33	150	23	40	MS1970	—	T30
1949649	A4SMR3225P0522	5	22	5	32	25	40	170	23	42	MS1970	—	T30
2503555	A4SMR2020K0620	6	20	6	20	20	33	125	17	40	MS1970	—	T30
2245484	A4SMR2525M0620	6	20	6	25	25	33	150	22	40	MS1970	—	T30
2263089	A4SMR3225P0626	6	26	6	32	25	40	170	22	45	MS1970	—	T30
2245485	A4SMR2525M0820	8	20	8	25	25	34	150	21	43	MS1490	—	T45
2263091	A4SMR3225P0826	8	26	8	32	25	41	170	21	47	MS1490	—	T45
2263173	A4SMR3225P1026	10	26	10	32	25	41	170	21	47	MS1490	—	T45

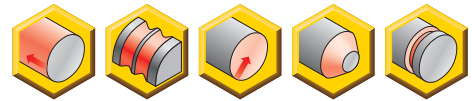
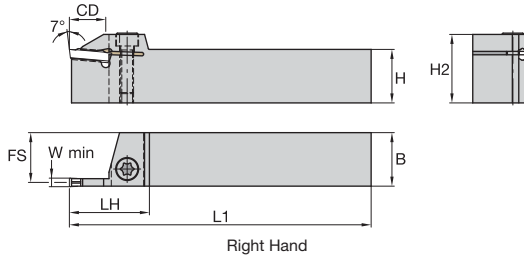
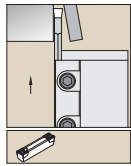
(continued)

(Integral Straight • Metric — continued)



order number	catalog number	seat size	CD	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	Torx
left hand													
3017336	A4SML2020K0214	2	14	—	20	20	25	125	19	30	—	MS1160	T20
3017338	A4SML1616K0214	2	14	2	16	16	25	125	15	30	—	MS1160	T20
3017337	A4SML2020K0217	2	17	2	20	20	31	125	19	34	MS1944	—	T25
3017335	A4SML2525M0214	2	14	2	25	25	30	150	24	30	—	MS1160	T20
3017334	A4SML2525M0217	2	17	2	25	25	31	150	24	34	MS1944	—	T25
1949634	A4SML1616K0314	3	14	3	16	16	27	125	15	35	MS2091	—	T25
2503556	A4SML2016K0317	3	17	3	20	16	32	125	15	37	MS1970	—	T30
1949636	A4SML2020K0314	3	14	3	20	20	27	125	19	35	MS1595	—	T30
2503550	A4SML2020K0317	3	17	3	20	20	32	125	19	37	MS1970	—	T30
1949638	A4SML2525M0317	3	17	3	25	25	32	150	24	37	MS1970	—	T30
1949640	A4SML2020K0414	4	14	4	20	20	27	125	18	35	MS1595	—	T30
2503552	A4SML2020K0417	4	17	4	20	20	32	125	18	37	MS1970	—	T30
1949642	A4SML2525M0417	4	17	4	25	25	32	150	23	37	MS1970	—	T30
1949644	A4SML3225P0417	4	17	4	32	25	40	170	23	37	MS1970	—	T30
1949646	A4SML2020K0519	5	19	5	20	20	28	125	18	40	MS1595	—	T30
1949648	A4SML2525M0520	5	20	5	25	25	33	150	23	40	MS1970	—	T30
1949650	A4SML3225P0522	5	22	5	32	25	40	170	23	42	MS1970	—	T30
2503554	A4SML2020K0620	6	20	6	20	20	33	125	17	40	MS1970	—	T30
2245486	A4SML2525M0620	6	20	6	25	25	33	150	22	40	MS1970	—	T30
2263090	A4SML3225P0626	6	26	6	32	25	40	170	22	45	MS1970	—	T30
2245487	A4SML2525M0820	8	20	8	25	25	34	150	21	43	MS1490	—	T45
2263092	A4SML3225P0826	8	26	8	32	25	41	170	21	47	MS1490	—	T45
2263174	A4SML3225P1026	10	26	10	32	25	41	170	21	47	MS1490	—	T45

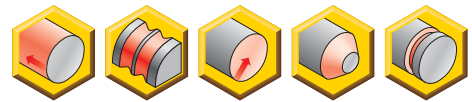
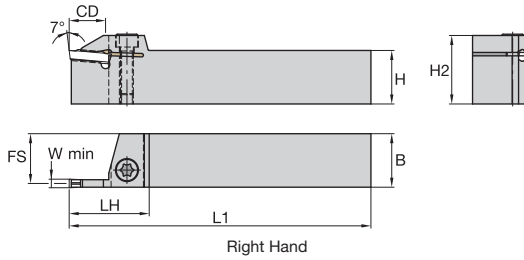
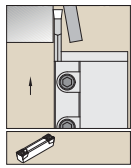
Grooving and Cut-Off



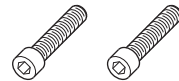
■ Integral Straight • Short Projection Toolholders • Inch



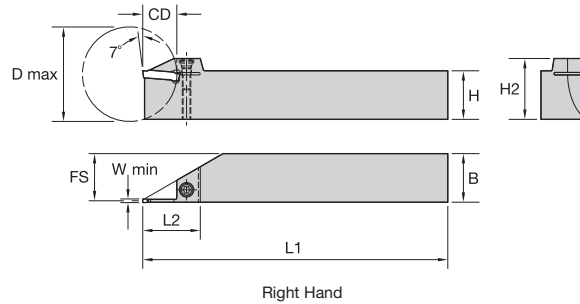
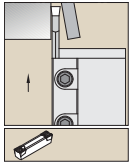
order number	catalog number	seat size	CD	W min	H	B	H2	L1	FS	LH	clamp screw	Torx
right hand												
3854277	A4SMR120308	3	.32	.118	.750	.750	1.01	5.00	.69	1.10	MS1595	T30
3854281	A4SMR160510	5	.39	.197	1.000	1.000	1.30	6.00	.91	1.26	MS1970	T30



■ Integral Straight • Short Projection Toolholders • Metric

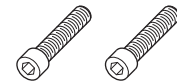


order number	catalog number	seat size	CD	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	Torx
right hand													
3854265	A4SMR2020K0208	2	8	2	20	20	24	125	19	26	—	MS1160	T20
3854267	A4SMR2020K0308	3	8	3	20	20	27	125	19	28	MS1595	—	T30
3854269	A4SMR2020K0408	4	8	4	20	20	27	125	18	28	MS1595	—	T30
3854271	A4SMR2525M0510	5	10	5	25	25	33	150	23	32	MS1970	—	T30
3854273	A4SMR2525M0610	6	10	6	25	25	33	150	22	37	MS1970	—	T30
left hand													
3854266	A4SML2020K0208	2	8	2	20	20	24	125	19	26	—	MS1160	T20
3854268	A4SML2020K0308	3	8	3	20	20	27	125	19	28	MS1595	—	T30
3854270	A4SML2020K0408	4	8	4	20	20	27	125	18	28	MS1595	—	T30
3854272	A4SML2525M0510	5	10	5	25	25	33	150	23	32	MS1970	—	T30
3854274	A4SML2525M0610	6	10	6	25	25	33	150	22	37	MS1970	—	T30

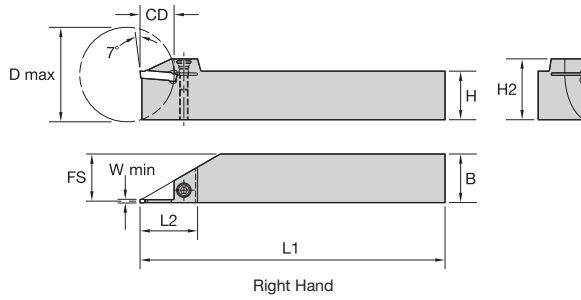
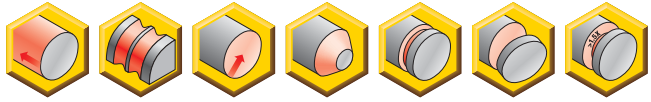
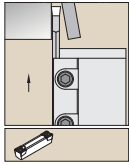


Grooving and Cut-Off

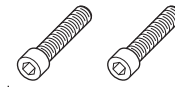
■ Integral Straight Top Clamp • Inch



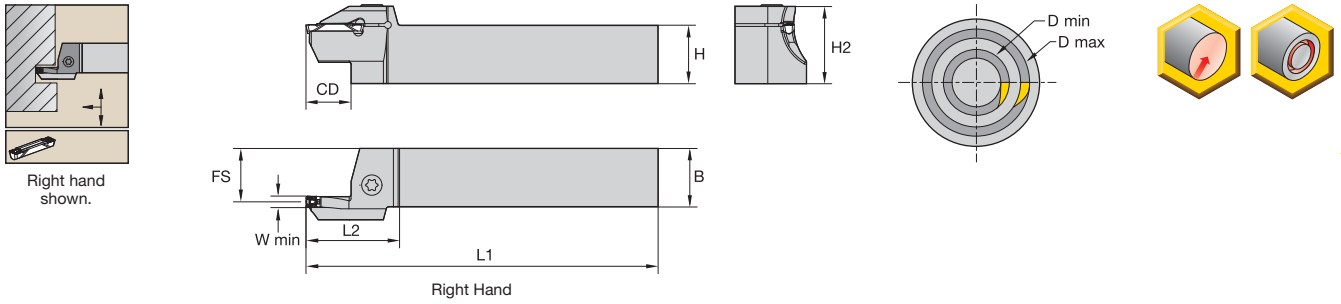
order number	catalog number	seat size	CD	W min	H	B	H2	H3	L1	FS	LH	clamp screw	clamp screw	wrench size clamp screw
right hand														
2981197	A4SCR060113	1	.53	.059	.375	.375	.82	.25	4.50	.35	.98	MS1156	—	T15
2981196	A4SCR080113	1	.53	.059	.500	.500	.82	.13	4.50	.47	.98	MS1156	—	T15
2981195	A4SCR100113	1	.53	.059	.625	.625	.82	—	4.50	.60	.98	MS1156	—	T15
2981194	A4SCR120113	1	.53	.059	.750	.743	.95	—	5.00	.72	.98	MS1156	—	T15
4168856	A4SCR080214	2	.57	.079	.500	.500	.82	.13	4.50	.46	1.10	MS1160	—	T20
4168857	A4SCR100217	2	.69	.079	.625	.625	1.02	.16	4.50	.59	1.22	—	MS1944	T25
4168858	A4SCR080314	3	.57	.118	.500	.500	.90	.13	4.50	.45	1.18	—	MS2091	25 IP
4168859	A4SCR100317	3	.69	.118	.625	.625	1.06	.16	4.50	.57	1.30	—	MS2091	25 IP
left hand														
2981102	A4SCL080113	1	.53	.059	.500	.500	.82	.13	4.50	.47	.98	MS1156	—	T15
2981101	A4SCL100113	1	.53	.059	.625	.625	.82	—	4.50	.60	.98	MS1156	—	T15
2981100	A4SCL120113	1	.53	.059	.750	.750	.95	—	5.00	.72	.98	MS1156	—	T15
4168860	A4SCL080214	2	.57	.079	.500	.500	.82	.13	4.50	.46	1.10	MS1160	—	T20
4168861	A4SCL100217	2	.69	.079	.625	.625	1.02	.16	4.50	.59	1.22	—	MS1944	T25
4168862	A4SCL080314	3	.57	.118	.500	.500	.90	.13	4.50	.45	1.18	—	MS2091	25 IP
4168883	A4SCL100317	3	.69	.118	.625	.625	1.06	.16	4.50	.57	1.30	—	MS2091	25 IP



■ Integral Straight Top Clamp • Metric

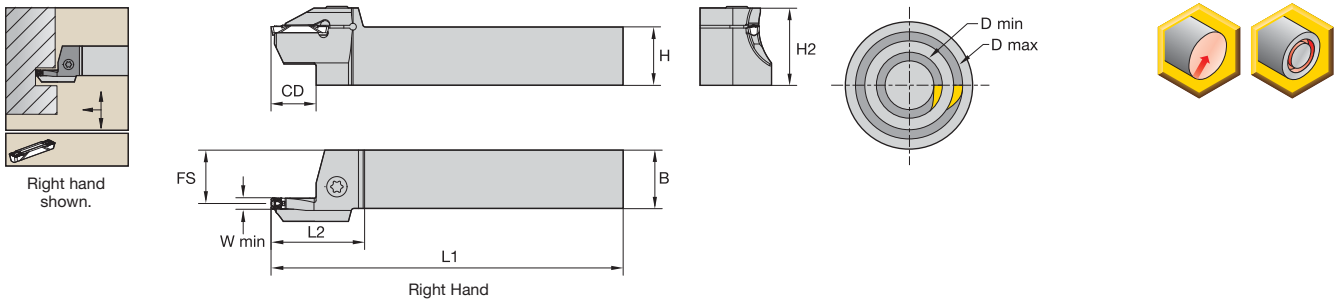


order number	catalog number	seat size	D max	CD	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	wrench size clamp screw
right hand														
2982224	A4SCR1010K0113	1	27	13,500	1,50	10	10	21	125	9,40	25	MS1156	—	T15
2978378	A4SCR1212K0113	1	27	13,500	1,50	12	12	21	125	11,40	25	MS1156	—	T15
2982223	A4SCR1616K0113	1	27	13,500	1,50	16	16	21	125	15,40	25	MS1156	—	T15
2982172	A4SCR2020K0113	1	27	13,500	1,50	20	20	25	125	19,40	25	MS1156	—	T15
4169745	A4SCR1212K0214	2	28	14,000	2,00	12	12	21	125	11,17	28	MS1160	—	T20
4169746	A4SCR1616K0217	2	34	17,000	2,00	16	16	26	125	15,20	31	—	MS1944	T25
4169747	A4SCR1212K0314	3	28	14,000	3,00	12	12	23	125	10,72	30	—	MS2091	25 IP
4169748	A4SCR1616K0317	3	34	17,000	3,00	16	16	27	125	14,72	33	—	MS2091	25 IP
left hand														
2982170	A4SCL1212K0113	1	27	13,500	1,50	12	12	21	125	11,40	25	MS1156	—	T15
2982169	A4SCL1616K0113	1	27	13,500	1,50	16	16	21	125	15,40	25	MS1156	—	T15
2982168	A4SCL2020K0113	1	27	13,500	1,50	20	20	25	125	19,40	25	MS1156	—	T15
4169749	A4SCL1212K0214	2	28	14,000	2,00	12	12	21	125	11,17	28	MS1160	—	T20
4169750	A4SCL1616K0217	2	34	17,000	2,00	16	16	26	125	15,20	31	—	MS1944	T25
4169752	A4SCL1616K0317	3	34	17,000	3,00	16	16	27	125	14,72	33	—	MS2091	25 IP



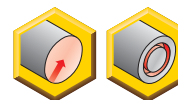
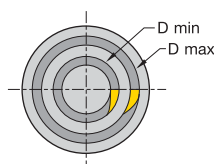
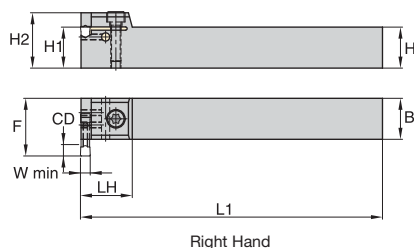
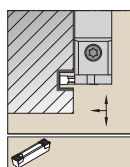
■ Integral Face Grooving • Outboard • Inch

order number	catalog number	seat size	CD	D min	D max	W min	H	B	H2	L1	FS	LH	clamp screw	clamp screw	Torx
right hand															
3865852	A4SBR122S12016020	2S	.47	.630	.787	.079	.750	.750	.95	5.00	.72	1.10	MS1160	—	T20
3865903	A4SBR122S12020025	2S	.47	.787	.984	.079	.750	.750	.95	5.00	.72	1.10	MS1160	—	T20
3865905	A4SBR123S14020025	3S	.55	.787	.984	.118	.750	.750	1.07	5.00	.70	1.18	—	MS1595	T30
3865906	A4SBR123S14025036	3S	.55	.984	1.417	.118	.750	.750	1.07	5.00	.70	1.38	—	MS1595	T30
3865910	A4SBR165S19038058	5S	.75	1.496	2.284	.197	1.000	1.000	1.32	6.00	.91	1.57	—	MS1970	T30
left hand															
3865911	A4SBL122S12016020	2S	.47	.630	.787	.079	.750	.750	.95	5.00	.72	1.10	MS1160	—	T20



■ Integral Face Grooving • Outboard • Metric

order number	catalog number	seat size	CD	D min	D max	W min	H	B	H2	L1	FS	LH	clamp screw	Torx
right hand														
3865920	A4SBR2020K2S12016020	2S	12	16	20	2,00	20	20	25	125	19,20	28	—	T20
3865921	A4SBR2020K2S12020025	2S	12	20	25	2,00	20	20	25	125	19,20	28	—	T20
3865922	A4SBR2020K2S12025036	2S	12	25	36	2,00	20	20	25	125	19,20	28	—	T20
3865923	A4SBR2020K3S14020025	3S	14	20	25	3,00	20	20	28	125	18,70	35	MS1595	T30
3865924	A4SBR2020K3S14025036	3S	14	25	36	3,00	20	20	28	125	18,70	35	MS1595	T30
3865926	A4SBR2020K4S14035048	4S	14	35	48	4,00	20	20	28	125	18,20	35	MS1595	T30
3865927	A4SBR2525M5S19028038	5S	19	28	38	5,00	25	25	33	150	22,70	40	MS1970	T30
3865928	A4SBR2525M5S19038058	5S	19	38	58	5,00	25	25	33	150	22,70	40	MS1970	T30
left hand														
3865929	A4SBL2020K2S12016020	2S	12	16	20	2,00	20	20	25	125	19,20	28	—	T20
3865931	A4SBL2020K2S12025036	2S	12	25	36	2,00	20	20	25	125	19,20	28	—	T20
3865932	A4SBL2020K3S14020025	3S	14	20	25	3,00	20	20	28	125	18,70	35	MS1595	T30
3865934	A4SBL2020K4S14025035	4S	14	25	35	4,00	20	20	28	125	18,20	35	MS1595	T30
3865937	A4SBL2525M5S19038058	5S	19	38	58	5,00	25	25	33	150	22,70	40	MS1970	T30



■ Integral Face Grooving • End Mount • Dual Handed • Inch

order number	catalog number	seat size	CD	W min	D min	H	H1	B	H2	L1	F	LH	clamp screw	Torx	hex seating screw
2414138	A4ENN120305	3	.20	.118	2.756	.750	.75	.750	1.06	5.00	.96	.98	MS2091	T25	MS2090
2414139	A4ENN160305	3	.20	.118	2.756	1.000	1.00	1.000	1.26	6.00	1.21	.98	MS2091	T25	MS2090
1953331	A4ENN120407	4	.28	.157	3.543	.750	.75	.750	1.06	5.00	1.06	.98	MS2091	T25	MS2090
1953332	A4ENN160407	4	.28	.157	3.543	1.000	1.00	1.000	1.26	6.00	1.31	.98	MS2091	T25	MS2090
1953334	A4ENN160509	5	.35	.197	4.724	1.000	1.00	1.000	1.30	6.00	1.40	1.34	MS1970	T30	193.297
2511469	A4ENN160611	6	.43	.236	4.724	1.000	1.00	1.000	1.30	6.00	1.54	1.34	MS1970	T30	193.297
2511470	A4ENN200611	6	.43	.236	4.724	1.250	1.25	1.250	1.57	6.00	1.70	1.34	MS1970	T30	193.297
2511471	A4ENN160811	8	.43	.315	4.724	1.000	1.00	1.000	1.38	6.00	1.54	1.57	MS1490	T45	193.407

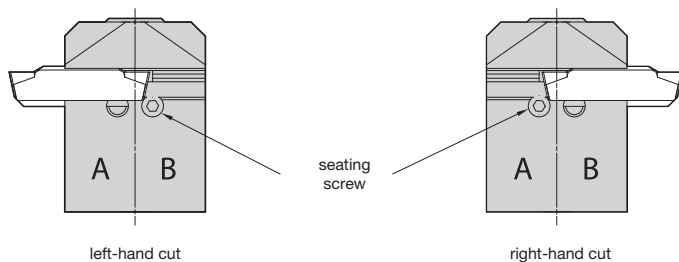
NOTE: D min for face grooving applications.

A4EN-style toolholders are designed without steel support for face grooving capacity. Cutting feed recommendations should be reduced by 25–30%.

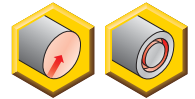
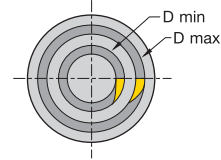
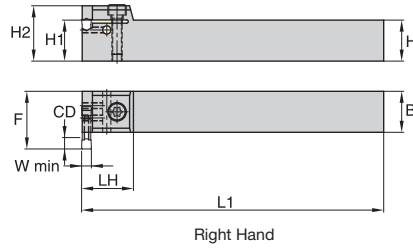
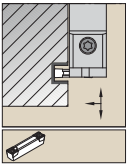
Recommended clamp screw torque, 6–8 Nm (50–70 in. lbs.).

Minimum cutting width supplied for reference only; see insert listing for actual width. Always match seat size of insert to seat size of holder.

A4EN Insert Mounting



A4EN-style holders can be used for either left- or right-hand applications. The seating screw is to be used in position B for a left-hand cut and in position A for a right-hand cut.



■ Integral Face Grooving • End Mount • Dual Handed • Metric



order number	catalog number	seat size	CD	W min	D min	H1	B	H2	L1	F	LH	clamp screw	Torx	hex seating screw	hex (mm)
2414136	A4ENN2020K0305	3	5	3,00	70	20	20	27	125,0	25,4	25	MS2091	T25	MS2090	1.5 mm
2414137	A4ENN2525M0305	3	5	3,00	70	25	25	32	150,0	30,4	25	MS2091	T25	MS2090	1.5 mm
1949651	A4ENN2020K0407	4	7	4,00	90	20	20	27	125,0	27,9	25	MS2091	T25	MS2090	1.5 mm
1949652	A4ENN2525M0407	4	7	4,00	90	25	25	32	150,0	33,1	25	MS2091	T25	MS2090	1.5 mm
1949654	A4ENN2525M0509	5	9	5,00	120	25	25	33	150,0	35,1	34	MS1970	T30	193.297	1.5 mm
2503543	A4ENN2020K0611	6	11	6,00	120	20	20	28	125,0	35,4	34	MS1595	T30	193.297	2 mm
2503544	A4ENN2525M0611	6	11	6,00	120	25	25	33	150,0	38,9	34	MS1970	T30	193.297	2 mm
2503545	A4ENN3232P0611	6	11	6,00	120	32	32	40	170,0	43,4	34	MS1970	T30	193.297	2 mm

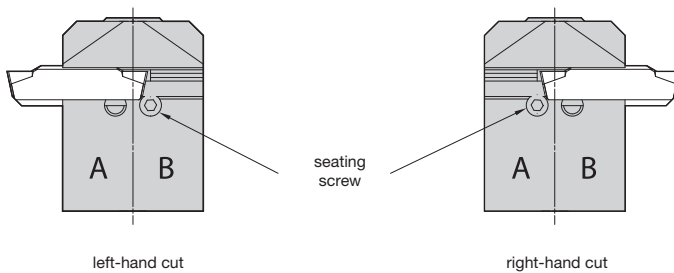
NOTE: D min for face grooving applications.

A4EN-style toolholders are designed without steel support for face grooving capacity. Cutting feed recommendations should be reduced by 25–30%.

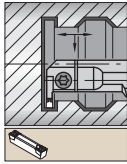
Recommended clamp screw torque, 50–70 in. lbs. (6–8 Nm).

Minimum cutting width supplied for reference only; see insert listing for actual width. Always match seat size of insert to seat size of holder.

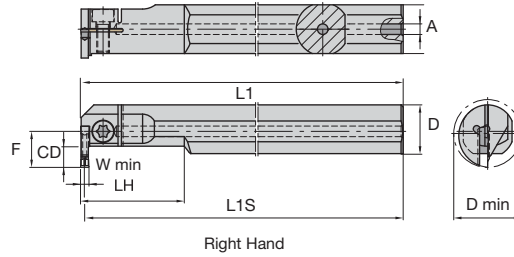
A4EN Insert Mounting



A4EN-style holders can be used for either left- or right-hand applications. The seating screw is to be used in position B for a left-hand cut and in position A for a right-hand cut.



Steel shank with through coolant.

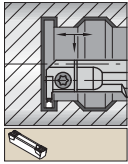


Grooving and Cut-Off

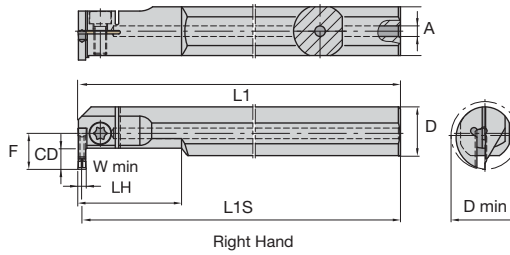
■ Steel Boring Bar • Inch

order number	catalog number	seat size	CD	W min	D	D min	L1	F	L1S	A	clamp screw	wrench size clamp screw
right hand												
2979227	A12RA4EMR0207N	2	.276	.079	.750	.984	8.02	.507	7.98	.16	MS2089	25 IP
1953335	A12RA4EMR0307N	3	.276	.118	.750	.984	8.00	.512	7.94	.16	MS2089	25 IP
1953341	A12RA4EMR0407N	4	.276	.157	.750	.984	8.00	.512	7.92	.16	MS2089	25 IP
2979229	A16RA4EMR0210N	2	.394	.079	1.000	1.260	8.02	.664	7.98	.20	MS2089	25 IP
1953337	A16RA4EMR0310N	3	.394	.118	1.000	1.260	8.02	.669	7.96	.20	MS1595	T30
1953343	A16RA4EMR0410N	4	.394	.157	1.000	1.260	8.02	.669	7.94	.20	MS1595	T30
1953339	A20SA4EMR0312N	3	.472	.118	1.250	1.575	10.00	.866	9.94	.24	MS1595	T30
1953345	A20SA4EMR0412N	4	.472	.157	1.250	1.575	10.00	.866	9.92	.24	MS1595	T30
1953349	A20SA4EMR0516N	5	.630	.197	1.250	1.732	10.00	1.024	9.90	.24	MS1595	T30
2263203	A20SA4EMR0616N	6	.646	.236	1.250	1.732	10.00	1.024	9.88	.24	MS1595	T30
1953347	A24TA4EMR0416N	4	.630	.157	1.500	2.047	12.00	1.181	11.92	.24	MS1970	T30
1953351	A24TA4EMR0516N	5	.630	.197	1.500	2.047	12.00	1.181	11.90	.24	MS1970	T30
2263199	A24TA4EMR0616N	6	.646	.236	1.500	2.047	12.00	1.181	11.88	.24	MS1970	T30
2263200	A32TA4EMR0616N	6	.646	.236	2.000	2.559	12.00	1.378	11.88	.24	MS1970	T30
left hand												
1953336	A12RA4EML0307N	3	.276	.118	.750	.984	8.00	.512	7.94	.16	MS2089	25 IP
1953342	A12RA4EML0407N	4	.276	.157	.750	.984	8.00	.512	7.92	.16	MS2089	25 IP
1953338	A16RA4EML0310N	3	.394	.118	1.000	1.260	8.02	.669	7.96	.20	MS1595	T30
1953344	A16RA4EML0410N	4	.394	.157	1.000	1.260	8.02	.669	7.94	.20	MS1595	T30
1953352	A24TA4EML0516N	5	.646	.197	1.500	2.047	12.00	1.181	11.90	.24	MS1970	T30
2263201	A24TA4EML0616N	6	.646	.236	1.500	2.047	12.00	1.181	11.88	.24	MS1970	T30





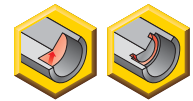
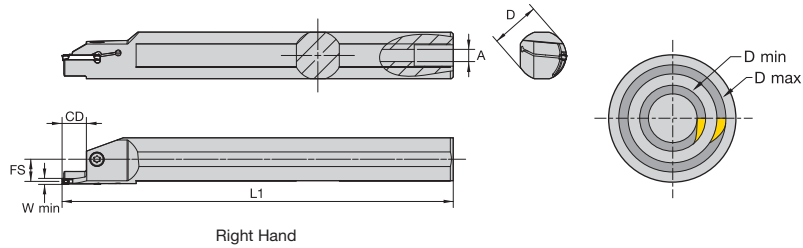
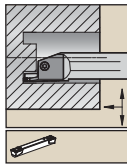
Steel shank with through coolant.



Grooving and Cut-Off

Steel Boring Bar • Metric

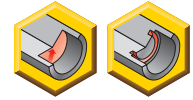
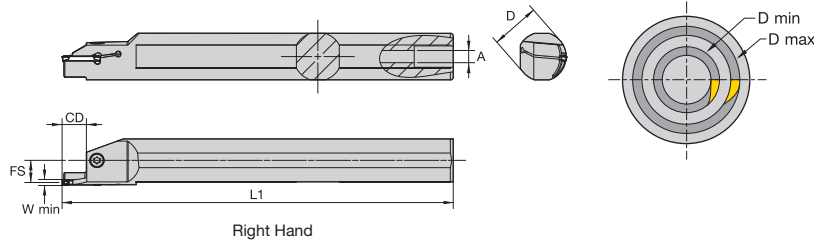
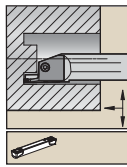

order number	catalog number	seat size	CD	W min	D	D min	L1	F	L1S	A	clamp screw	wrench size clamp screw
right hand												
2979223	A20RA4EMR0207M	2	7,00	2,00	20	25	200	13	199,0	4,00	MS2089	25 IP
2979225	A25RA4EMR0210M	2	10,00	2,00	25	32	200	17	199,0	5,00	MS2089	25 IP
1949655	A20RA4EMR0307M	3	7,00	3,00	20	25	200	13	198,5	4,00	MS2089	25 IP
1949657	A25RA4EMR0310M	3	10,00	3,00	25	32	200	17	198,5	5,00	MS1595	T30
1949659	A32SA4EMR0312M	3	12,00	3,00	32	40	250	22	248,5	6,00	MS1595	T30
1949661	A20RA4EMR0407M	4	7,00	4,00	20	25	200	13	198,0	4,00	MS2089	25 IP
1949663	A25RA4EMR0410M	4	10,00	4,00	25	32	200	17	198,0	5,00	MS1595	T30
1949665	A32SA4EMR0412M	4	12,00	4,00	32	40	250	22	248,0	6,00	MS1595	T30
1949667	A40TA4EMR0416M	4	16,00	4,00	40	52	300	30	298,0	6,00	MS1970	T30
1949669	A32SA4EMR0516M	5	16,00	5,00	32	44	250	26	247,5	6,00	MS1595	T30
1949671	A40TA4EMR0516M	5	16,00	5,00	40	52	300	30	297,5	6,00	MS1970	T30
2263197	A40TA4EMR0616M	6	16,00	6,00	40	52	300	30	297,0	6,00	MS1970	T30
left hand												
2979192	A20RA4EML0207M	2	7,00	2,00	20	25	200	13	199,0	4,00	MS2089	25 IP
2979224	A25RA4EML0210M	2	10,00	2,00	25	32	200	17	199,0	5,00	MS2089	25 IP
1949656	A20RA4EML0307M	3	7,00	3,00	20	25	200	13	198,5	4,00	MS2089	25 IP
1949658	A25RA4EML0310M	3	10,00	3,00	25	32	200	17	198,5	5,00	MS1595	T30
1949660	A32SA4EML0312M	3	12,00	3,00	32	40	250	22	248,5	6,00	MS1595	T30
1949662	A20RA4EML0407M	4	7,00	4,00	20	25	200	13	198,0	4,00	MS2089	25 IP
1949664	A25RA4EML0410M	4	10,00	4,00	25	32	200	17	198,0	5,00	MS1595	T30
1949666	A32SA4EML0412M	4	12,00	4,00	32	40	250	22	248,0	6,00	MS1595	T30
1949668	A40TA4EML0416M	4	16,00	4,00	40	52	300	30	298,0	6,00	MS1970	T30
1949670	A32SA4EML0516M	5	16,00	5,00	32	44	250	26	247,5	6,00	MS1595	T30
1949672	A40TA4EML0516M	5	16,00	5,00	40	52	300	30	297,5	6,00	MS1970	T30
2263198	A40TA4EML0616M	6	16,00	6,00	40	52	300	30	297,0	6,00	MS1970	T30



■ Steel Face Grooving Boring Bar • Inch



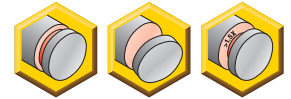
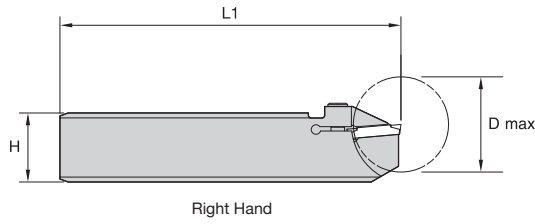
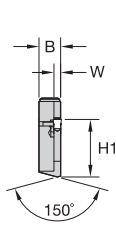
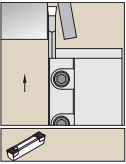
order number	catalog number	seat size	CD	D min	D max	W min	D	L1	FS	A	clamp screw	wrench size clamp screw
right hand												
3871028	A10RA4SAR2S12N017021	2S	.47	.669	.827	.079	.63	8.01	.28	.158	MS1160	T20
3871029	A12RA4SAR2S12N021026	2S	.47	.827	1.024	.079	.75	8.01	.34	.158	MS1160	T20
3871030	A16RA4SAR2S12N026036	2S	.47	1.024	1.417	.079	1.00	8.01	.47	.250	MS1160	T20
3871032	A16RA4SAR3S14N026036	3S	.55	1.024	1.417	.118	1.00	8.01	.45	.250	MS1160	T20
left hand												
3871023	A10RA4SAL2S12N017021	2S	.47	.669	.827	.079	.63	8.01	.28	.158	MS1160	T20
3871027	A16RA4SAL3S14N026036	3S	.55	1.024	1.417	.118	1.00	8.01	.45	.250	MS1160	T20



■ Steel Face Grooving Boring Bar • Metric



order number	catalog number	seat size	CD	D min	D max	W min	D	L1	FS	A	clamp screw	wrench size clamp screw
right hand												
3871038	A16RA4SAR2S12M017021	2S	12,00	17	21	2,00	16	201	7	4,00	MS1160	T20
3871039	A20RA4SAR2S12M021026	2S	12,00	21	23	2,00	20	201	9	4,00	MS1160	T20
3871040	A25RA4SAR2S12M026036	2S	12,00	26	36	2,00	25	201	12	6,35	MS1160	T20
3871041	A20RA4SAR3S14M021026	3S	14,00	21	26	3,00	20	201	9	4,00	MS1160	T20
3871042	A25RA4SAR3S14M026036	3S	14,00	26	36	3,00	25	201	11	6,35	MS1160	T20
left hand												
3871033	A16RA4SAL2S12M017021	2S	12,00	17	21	2,00	16	201	7	4,00	MS1160	T20
3871034	A20RA4SAL2S12M021026	2S	12,00	21	26	2,00	20	201	9	4,00	MS1160	T20
3871035	A25RA4SAL2S12M026036	2S	12,00	26	36	2,00	25	201	12	6,35	MS1160	T20
3871037	A25RA4SAL3S14M026036	3S	14,00	26	36	3,00	25	201	11	6,35	MS1160	T20



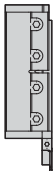
Grooving and Cut-Off

■ Single-Ended Cut-Off Blade • Inch

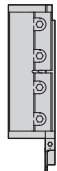


order number	catalog number	seat size	H	W	H1	L1	B	D max	clamp screw	Torx
right hand										
3967127	A4BHCL26K0317R	3	1.024	.118	.843	4.921	.31	1.378	MS1571	T20
3967124	A4BHCL32K0317R	3	1.260	.118	.984	4.921	.31	1.378	MS1571	T20
3967117	A4BHCR32K0217R	2	1.260	.079	.984	4.921	.31	1.378	MS1571	T20
left hand										
3967136	A4BHCL32K0217L	2	1.260	.079	.984	4.921	.31	1.378	MS1571	T20
3967137	A4BHCL32K0317L	3	1.260	.118	.984	4.921	.31	1.378	MS1571	T20
3967134	A4BHCR26K0317L	3	1.024	.118	.843	4.921	.31	1.378	MS1571	T20

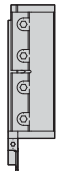
RH Blade
RH Pocket



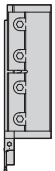
RH Blade
LH Pocket

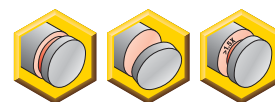
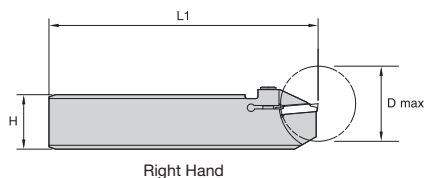
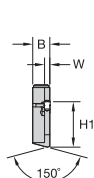
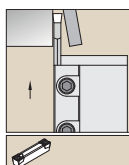


LH Blade
RH Pocket



LH Blade
LH Pocket





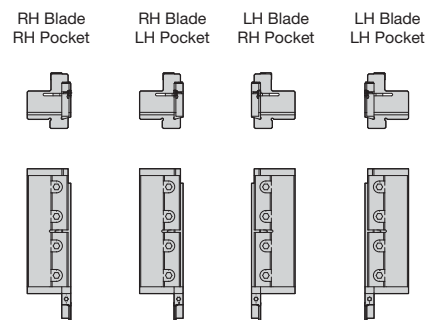
Grooving and Cut-Off

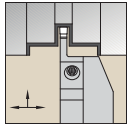
Single-Ended Cut-Off Blade • Metric



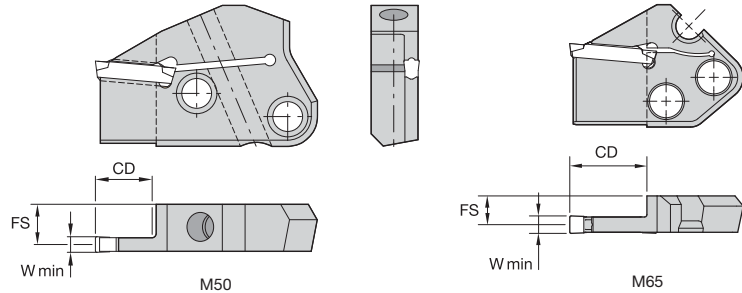
order number	catalog number	seat size	H	W	H1	L1	B	D max	clamp screw	Torx
right hand										
3967127	A4BHCL26K0317R	3	26	3,0	21,4	125	7,95	35	MS1571	T20
3967124	A4BHCL32K0317R	3	32	3,0	25,0	125	7,95	35	MS1571	T20
3967117	A4BHCR32K0217R	2	32	2,0	25,0	125	7,95	35	MS1571	T20
left hand										
3967136	A4BHCL32K0217L	2	32	2,0	25,0	125	7,95	35	MS1571	T20
3967137	A4BHCL32K0317L	3	32	3,0	25,0	125	7,95	35	MS1571	T20
3967134	A4BHCR26K0317L	3	26	3,0	21,4	125	7,95	35	MS1571	T20

NOTE: Seat size 1 blades only.
 Assembly wrenches 170.137 and 170.130 must be ordered separately.



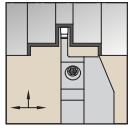


Right hand shown

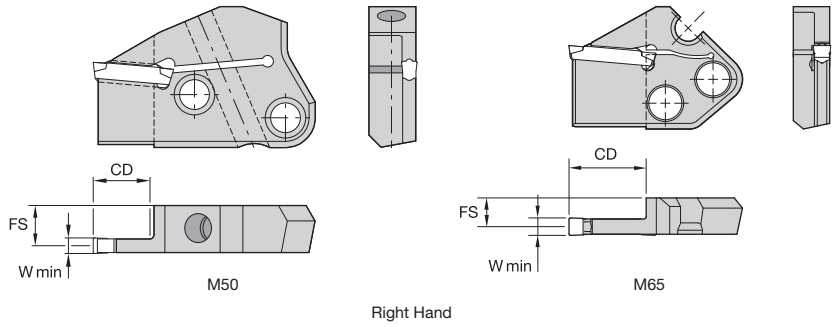


■ Modular Straight Blade with Coolant

order number	catalog number	seat size	CD		FS		blade size
			mm	in	mm	in	
right hand							
6401815	A4M50R0314MC	3	14,0	.55	10,42	.410	50
6401817	A4M50R0414MC	4	14,0	.55	9,92	.391	50
6401819	A4M50R0519MC	5	19,0	.75	9,42	.371	50
6401834	A4M65R0620MC	6	20,0	.79	9,88	.389	65
6401838	A4M65R0820MC	8	20,0	.79	9,00	.354	65
6401852	A4M65R1020MC	10	20,0	.79	8,35	.329	65
6401831	A4M65R0522MC	5	22,0	.87	10,28	.405	65
6401835	A4M65R0626MC	6	26,0	1.02	9,88	.389	65
6401839	A4M65R0826MC	8	26,0	1.02	9,00	.354	65
6401853	A4M65R1026MC	10	26,0	1.02	8,35	.329	65
left hand							
6401814	A4M50L0314MC	3	14,0	.55	10,42	.410	50
6401816	A4M50L0414MC	4	14,0	.55	9,92	.391	50
6401818	A4M50L0519MC	5	19,0	.75	9,43	.371	50
6401832	A4M65L0620MC	6	20,0	.79	9,88	.389	65
6401836	A4M65L0820MC	8	20,0	.79	9,00	.354	65
6401840	A4M65L1020MC	10	20,0	.79	8,35	.329	65
6401820	A4M65L0522MC	5	22,0	.87	10,28	.405	65
6401833	A4M65L0626MC	6	26,0	1.02	9,88	.389	65
6401837	A4M65L0826MC	8	26,0	1.02	9,00	.354	65
6401851	A4M65L1026MC	10	26,0	1.02	8,35	.329	65



Right hand shown.

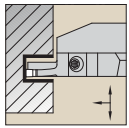


Grooving and Cut-Off

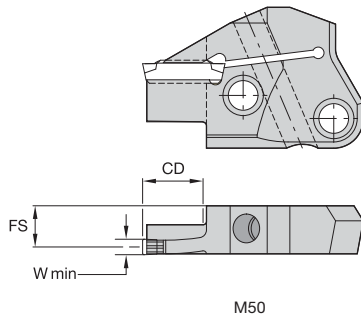
Modular Straight Blade

order number	catalog number	seat size	W min		CD		FS		blade size
			mm	in	mm	in	mm	in	
right hand									
3051624	A4M50R0214M	2	2,00	.079	14,0	.55	10,87	.428	50
1989348	A4M50R0314M	3	3,00	.118	14,0	.55	10,43	.410	50
1989350	A4M50R0414M	4	4,00	.157	14,0	.55	9,93	.391	50
1989352	A4M50R0519M	5	5,00	.197	19,0	.75	9,43	.371	50
3557114	A4M65R0620M	6	6,00	.236	20,0	.79	9,88	.389	65
3557116	A4M65R0626M	6	6,00	.236	26,0	1.02	9,88	.389	65
3557120	A4M65R0826M	8	8,00	.315	26,0	1.02	9,00	.354	65
3557124	A4M65R1026M	10	10,00	.394	26,0	1.02	8,35	.329	65
left hand									
3022625	A4M50L0214M	2	2,00	.079	14,0	.55	10,87	.428	50
1989347	A4M50L0314M	3	3,00	.118	14,0	.55	10,43	.410	50
1989349	A4M50L0414M	4	4,00	.157	14,0	.55	9,93	.391	50
3051623	A4M50L2B14M	2B	2,50	.098	14,0	.55	10,70	.421	50
1989351	A4M50L0519M	5	5,00	.197	19,0	.75	9,43	.371	50
3557115	A4M65L0620M	6	6,00	.236	20,0	.79	9,88	.389	65
3557119	A4M65L0820M	8	8,00	.315	20,0	.79	9,00	.354	65
3557123	A4M65L1020M	10	10,00	.394	20,0	.79	8,35	.329	65
3557117	A4M65L0626M	6	6,00	.236	26,0	1.02	9,88	.389	65
3557121	A4M65L0826M	8	8,00	.315	26,0	1.02	9,00	.354	65
3557125	A4M65L1026M	10	10,00	.394	26,0	1.02	8,35	.329	65

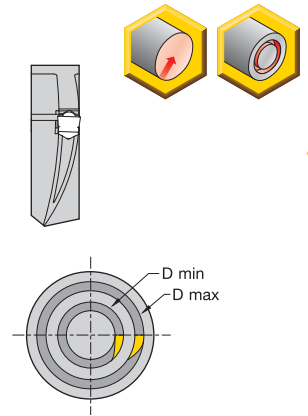
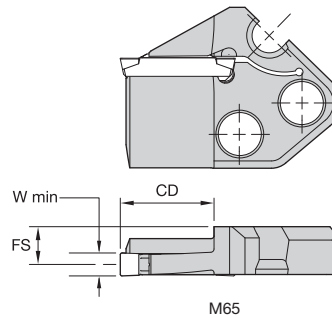
NOTE: Seat size 2B only accepts 2B inserts. Seat size 2 accepts 2 or 2B inserts.



Right hand shown.



Right Hand



Grooving and Cut-Off

■ Modular Face Grooving Blade • Inboard

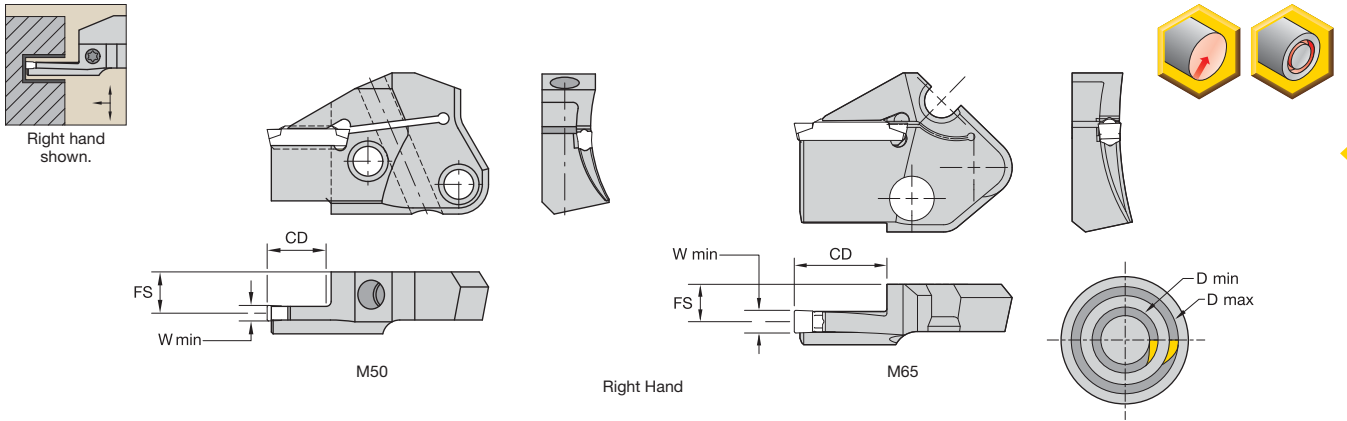
order number	catalog number	seat size	D min		D max		W min	CD	FS	cartridge size
			mm	in	mm	in				
right hand										
3051670	A4M50R0212A036046	2	36	1.417	46	1.811	.079	.47	0.429	50
3051671	A4M50R0212A042054	2	42	1.654	54	2.126	.079	.47	0.429	50
3051672	A4M50R0212A050064	2	50	1.969	64	2.520	.079	.47	0.429	50
3051673	A4M50R0212A060084	2	60	2.362	84	3.307	.079	.47	0.429	50
3051674	A4M50R0212A080124	2	80	3.150	124	4.882	.079	.47	0.429	50
3051675	A4M50R0212A120254	2	120	4.724	254	10.000	.079	.47	0.429	50
3051676	A4M50R0212A250999	2	250	9.843	—	—	.079	.47	0.429	50
2542517	A4M50R0314A036048	3	36	1.417	48	1.890	.118	.55	0.413	50
2542518	A4M50R0314A042058	3	42	1.654	58	2.284	.118	.55	0.413	50
2542519	A4M50R0314A052074	3	52	2.047	74	2.913	.118	.55	0.413	50
2542520	A4M50R0314A068100	3	68	2.677	100	3.937	.118	.55	0.413	50
2542521	A4M50R0314A090160	3	90	3.543	160	6.299	.118	.55	0.413	50
2542522	A4M50R0314A130300	3	130	5.118	300	11.811	.118	.55	0.413	50
2542523	A4M50R0314A290999	3	290	11.417	—	—	.118	.55	0.413	50
2542531	A4M50R0414A048072	4	48	1.890	72	2.835	.157	.55	0.394	50
2542532	A4M50R0414A064100	4	64	2.520	100	3.937	.157	.55	0.394	50
2542533	A4M50R0414A092150	4	92	3.622	150	5.906	.157	.55	0.394	50
2542534	A4M50R0414A132300	4	132	5.197	300	11.811	.157	.55	0.394	50
2542535	A4M50R0414A290999	4	290	11.417	—	—	.157	.55	0.394	50
2542541	A4M50R0519A058094	5	58	2.284	94	3.701	.197	.75	0.374	50
2542542	A4M50R0519A080136	5	80	3.150	136	5.354	.197	.75	0.374	50
2542543	A4M50R0519A120300	5	120	4.724	300	11.811	.197	.75	0.374	50
2542544	A4M50R0519A250999	5	250	9.843	—	—	.197	.75	0.374	50
3557131	A4M65R0624A070-112	6	70	2.756	112	4.409	.236	.94	0.389	65
3557163	A4M65R0624A100-212	6	100	3.937	212	8.347	.236	.94	0.389	65
3557165	A4M65R0624A200-999	6	200	7.874	999	39.331	.236	.94	0.389	65
3557167	A4M65R0824A090-200	8	90	3.543	200	7.874	.315	.94	0.354	65
3557169	A4M65R0824A184-999	8	184	7.244	999	39.331	.315	.94	0.354	65
3557173	A4M65R1024A200-999	10	200	7.874	999	39.331	.394	.94	0.329	65

(continued)

(Modular Face Grooving Blade • Inboard — continued)

Grooving and Cut-Off

order number	catalog number	seat size	D min		D max		W min	CD	FS	cartridge size
			mm	in	mm	in				
left hand										
3051629	A4M50L0212A060084	2	60	2.362	84	3.307	.079	.47	0.429	50
3051631	A4M50L0212A120254	2	120	4.724	254	10.000	.079	.47	0.429	50
3051632	A4M50L0212A250999	2	250	9.843	—	—	.079	.47	0.429	50
2542524	A4M50L0314A036048	3	36	1.417	48	1.890	.118	.55	0.413	50
2542527	A4M50L0314A068100	3	68	2.677	100	3.937	.118	.55	0.413	50
2542528	A4M50L0314A090160	3	90	3.543	160	6.299	.118	.55	0.413	50
2542529	A4M50L0314A130300	3	130	5.118	300	11.811	.118	.55	0.413	50
2542530	A4M50L0314A290999	3	290	11.417	—	—	.118	.55	0.413	50
2542537	A4M50L0414A064100	4	64	2.520	100	3.937	.157	.55	0.394	50
2542538	A4M50L0414A092150	4	92	3.622	150	5.906	.157	.55	0.394	50
2542539	A4M50L0414A132300	4	132	5.197	300	11.811	.157	.55	0.394	50
2542540	A4M50L0414A290999	4	290	11.417	—	—	.157	.55	0.394	50
2542545	A4M50L0519A058094	5	58	2.284	94	3.701	.197	.75	0.374	50
2542546	A4M50L0519A080136	5	80	3.150	136	5.354	.197	.75	0.374	50
2542547	A4M50L0519A120300	5	120	4.724	300	11.811	.197	.75	0.374	50
2542548	A4M50L0519A250999	5	250	9.843	—	—	.197	.75	0.374	50
3557132	A4M65L0624A070-112	6	70	2.756	112	4.409	.236	.94	0.389	65
3557164	A4M65L0624A100-212	6	100	3.937	212	8.347	.236	.94	0.389	65
3557166	A4M65L0624A200-999	6	200	7.874	999	39.331	.236	.94	0.389	65
3557174	A4M65L1024A200-999	10	200	7.874	999	39.331	.394	.94	0.329	65



Grooving and Cut-Off

■ Modular Face Grooving Blade • Outboard

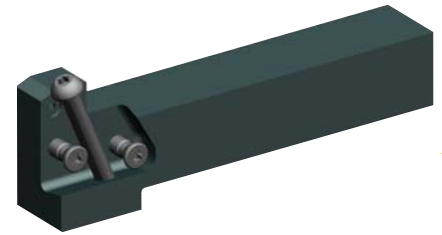
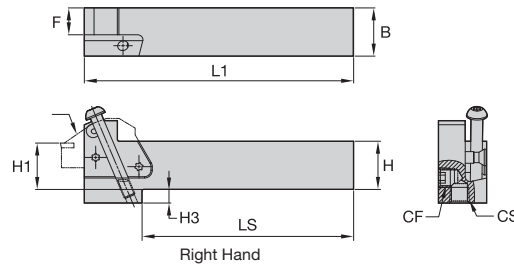
order number	catalog number	seat size	D min		D max		W min	CD		FS		cartridge size
			mm	in	mm	in		mm	in	mm	in	
right hand												
3051677	A4M50R0212B036046	2	36	1.417	46	1.811	.079	12,00	.47	10,900	.429	50
3051678	A4M50R0212B042054	2	42	1.654	54	2.126	.079	12,00	.47	10,900	.429	50
3051679	A4M50R0212B050064	2	50	1.969	64	2.520	.079	12,00	.47	10,900	.429	50
3051680	A4M50R0212B060084	2	60	2.362	84	3.307	.079	12,00	.47	10,900	.429	50
3051681	A4M50R0212B080124	2	80	3.150	124	4.882	.079	12,00	.47	10,900	.429	50
3051682	A4M50R0212B120254	2	120	4.724	254	10.000	.079	12,00	.47	10,900	.429	50
3051683	A4M50R0212B250999	2	250	9.843	—	—	.079	12,00	.47	10,900	.429	50
3867457	A4M50R2S12B016020	2S	16	.630	20	.787	.079	12,00	.47	10,900	.429	50
3867458	A4M50R2S12B020025	2S	20	.787	25	.984	.079	12,00	.47	10,900	.429	50
3867459	A4M50R2S12B025036	2S	25	.984	36	1.417	.079	12,00	.47	10,900	.429	50
2398751	A4M50R0314B036048	3	36	1.417	48	1.890	.118	14,00	.55	10,500	.413	50
2398752	A4M50R0314B042058	3	42	1.654	58	2.284	.118	14,00	.55	10,500	.413	50
2398763	A4M50R0314B052074	3	52	2.047	74	2.913	.118	14,00	.55	10,500	.413	50
2398764	A4M50R0314B068100	3	68	2.677	100	3.937	.118	14,00	.55	10,500	.413	50
2398765	A4M50R0314B090160	3	90	3.543	160	6.299	.118	14,00	.55	10,500	.413	50
2398766	A4M50R0314B130300	3	130	5.118	300	11.811	.118	14,00	.55	10,500	.413	50
2398767	A4M50R0314B290999	3	290	11.417	—	—	.118	14,00	.55	10,500	.413	50
2398775	A4M50R0414B048072	4	48	1.890	72	2.835	.157	14,00	.55	10,000	.394	50
2398776	A4M50R0414B064100	4	64	2.520	100	3.937	.157	14,00	.55	10,000	.394	50
2398777	A4M50R0414B092150	4	92	3.622	150	5.906	.157	14,00	.55	10,000	.394	50
2398778	A4M50R0414B132300	4	132	5.197	300	11.811	.157	14,00	.55	10,000	.394	50
2398779	A4M50R0414B290999	4	290	11.417	—	—	.157	14,00	.55	10,000	.394	50
3867460	A4M50R3S14B020025	3S	20	.787	25	.984	.118	14,00	.55	10,490	.413	50
3867461	A4M50R3S14B025036	3S	25	.984	36	1.417	.118	14,00	.55	10,490	.413	50
3867462	A4M50R4S14B025035	4S	25	.984	35	1.378	.157	14,00	.55	10,000	.394	50
3867464	A4M50R5S17B028038	5S	28	1.102	38	1.496	.197	17,00	.67	9,500	.374	50
2398785	A4M50R0519B058094	5	58	2.284	94	3.701	.197	19,00	.75	9,500	.374	50
2398786	A4M50R0519B080136	5	80	3.150	136	5.354	.197	19,00	.75	9,500	.374	50
2398787	A4M50R0519B120300	5	120	4.724	300	11.811	.197	19,00	.75	9,500	.374	50
2398788	A4M50R0519B250999	5	250	9.843	—	—	.197	19,00	.75	9,500	.374	50
3557175	A4M65R0624B070-112	6	70	2.756	112	4.409	.236	24,00	.94	9,870	.389	65
3557177	A4M65R0624B100-212	6	100	3.937	212	8.347	.236	24,00	.94	9,870	.389	65
3557179	A4M65R0624B200-999	6	200	7.874	999	39.331	.236	24,00	.94	9,870	.389	65
3557181	A4M65R0824B090-200	8	90	3.543	200	7.874	.315	24,00	.94	9,000	.354	65
3557193	A4M65R0824B184-999	8	184	7.244	999	39.331	.315	24,00	.94	9,000	.354	65
3557195	A4M65R1024B100-220	10	100	3.937	220	8.661	.394	24,00	.94	8,350	.329	65
3557197	A4M65R1024B200-999	10	200	7.874	999	39.331	.394	24,00	.94	8,350	.329	65

(continued)

(Modular Face Grooving Blade • Outboard — continued)

Grooving and Cut-Off

order number	catalog number	seat size	D min		D max		W min	CD		FS		cartridge size
			mm	in	mm	in		mm	in	mm	in	
left hand												
3051663	A4M50L0212B036046	2	36	1.417	46	1.811	.079	12,00	.47	10,900	.429	50
3051664	A4M50L0212B042054	2	42	1.654	54	2.126	.079	12,00	.47	10,900	.429	50
3051665	A4M50L0212B050064	2	50	1.969	64	2.520	.079	12,00	.47	10,900	.429	50
3051666	A4M50L0212B060084	2	60	2.362	84	3.307	.079	12,00	.47	10,900	.429	50
3051667	A4M50L0212B080124	2	80	3.150	124	4.882	.079	12,00	.47	10,900	.429	50
3051668	A4M50L0212B120254	2	120	4.724	254	10.000	.079	12,00	.47	10,900	.429	50
3867466	A4M50L2S12B016020	2S	16	.630	20	.787	.079	12,00	.47	10,900	.429	50
3867467	A4M50L2S12B020025	2S	20	.787	25	.984	.079	12,00	.47	10,900	.429	50
3867468	A4M50L2S12B025036	2S	25	.984	36	1.417	.079	12,00	.47	10,900	.429	50
2398768	A4M50L0314B036048	3	36	1.417	48	1.890	.118	14,00	.55	10,500	.413	50
2398769	A4M50L0314B042058	3	42	1.654	58	2.284	.118	14,00	.55	10,500	.413	50
2398770	A4M50L0314B052074	3	52	2.047	74	2.913	.118	14,00	.55	10,500	.413	50
2398771	A4M50L0314B068100	3	68	2.677	100	3.937	.118	14,00	.55	10,500	.413	50
2398772	A4M50L0314B090160	3	90	3.543	160	6.299	.118	14,00	.55	10,500	.413	50
2398773	A4M50L0314B130300	3	130	5.118	300	11.811	.118	14,00	.55	10,500	.413	50
2398774	A4M50L0314B290999	3	290	11.417	—	—	.118	14,00	.55	10,500	.413	50
2398780	A4M50L0414B048072	4	48	1.890	72	2.835	.157	14,00	.55	10,000	.394	50
2398781	A4M50L0414B064100	4	64	2.520	100	3.937	.157	14,00	.55	10,000	.394	50
2398782	A4M50L0414B092150	4	92	3.622	150	5.906	.157	14,00	.55	10,000	.394	50
2398783	A4M50L0414B132300	4	132	5.197	300	11.811	.157	14,00	.55	10,000	.394	50
2398784	A4M50L0414B290999	4	290	11.417	—	—	.157	14,00	.55	10,000	.394	50
3867469	A4M50L3S14B020025	3S	20	.787	25	.984	.118	14,00	.55	10,490	.413	50
3867470	A4M50L3S14B025036	3S	25	.984	36	1.417	.118	14,00	.55	10,490	.413	50
3867472	A4M50L4S14B035048	4S	35	1.378	48	1.890	.157	14,00	.55	10,000	.394	50
3867484	A4M50L5S17B028038	5S	28	1.102	38	1.496	.197	17,00	.67	9,500	.374	50
2398789	A4M50L0519B058094	5	58	2.284	94	3.701	.197	19,00	.75	9,500	.374	50
2398790	A4M50L0519B080136	5	80	3.150	136	5.354	.197	19,00	.75	9,500	.374	50
2398791	A4M50L0519B120300	5	120	4.724	300	11.811	.197	19,00	.75	9,500	.374	50
2398792	A4M50L0519B250999	5	250	9.843	—	—	.197	19,00	.75	9,500	.374	50
3557176	A4M65L0624B070-112	6	70	2.756	112	4.409	.236	24,00	.94	9,870	.389	65
3557178	A4M65L0624B100-212	6	100	3.937	212	8.347	.236	24,00	.94	9,870	.389	65
3557180	A4M65L0624B200-999	6	200	7.874	999	39.331	.236	24,00	.94	9,870	.389	65
3557182	A4M65L0824B090-200	8	90	3.543	200	7.874	.315	24,00	.94	9,000	.354	65
3557194	A4M65L0824B184-999	8	184	7.244	999	39.331	.315	24,00	.94	9,000	.354	65
3557198	A4M65L1024B200-999	10	200	7.874	999	39.331	.394	24,00	.94	8,350	.329	65



Grooving and Cut-Off

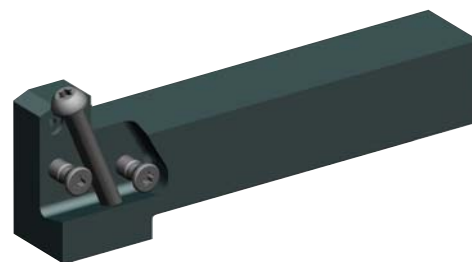
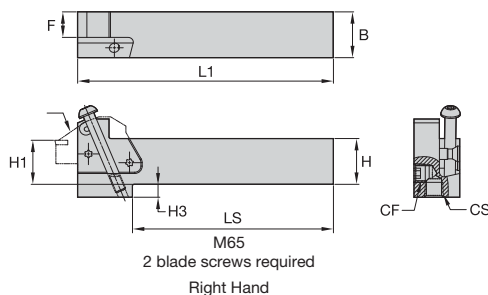
■ Modular Straight Toolholder • Inch

NOTE: For modular straight toolholder with coolant, see page C65.



order number	catalog number	H	B	L1	LS	F	H2	H3	blade size	blade screw	Torx	clamp screw	Torx
right hand													
1600245	KGMSR1650N	1.00	1.00	5.5	4.26	.56	—	6,35	KT25	MS1162	T25	MS2002	T25
3556992	KGMSR1665N	1.00	1.00	6.0	4.82	.53	2.09	12,70	KT30L	MS1163	T30	—	—
1617400	KGMSR2050N	1.25	1.25	5.5	—	.81	—	—	KT25	MS1162	T25	MS2002	T25
3557104	KGMSR2065N	1.25	1.25	6.0	4.90	.78	2.09	6,35	KT30L	MS1163	T30	—	—
1903553	KGMSR2450N	1.50	1.50	5.5	—	1.06	—	—	KT25	MS1162	T25	MS2002	T25
3557106	KGMSR2465N	1.50	1.50	7.0	5.90	1.03	2.09	—	KT30L	MS1163	T30	—	—
left hand													
1600246	KGMSL1650N	1.00	1.00	5.5	4.26	.56	—	6,35	KT25	MS1162	T25	MS2002	T25
3557103	KGMSL1665N	1.00	1.00	6.0	4.82	.53	2.09	12,70	KT30L	MS1163	T30	—	—
1617591	KGMSL2050N	1.25	1.25	5.5	—	.81	—	—	KT25	MS1162	T25	MS2002	T25
3557105	KGMSL2065N	1.25	1.25	6.0	4.90	.78	2.09	6,35	KT30L	MS1163	T30	—	—
1909004	KGMSL2450N	1.50	1.50	5.5	—	1.06	—	—	KT25	MS1162	T25	MS2002	T25
3557107	KGMSL2465N	1.50	1.50	7.0	5.90	1.03	2.09	—	KT30L	MS1163	T30	—	—

NOTE: KGMS.: Right-hand holder uses right-hand blades.
 KGME.: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71-88 in. lbs. (8-10 Nm)
 M65 blade and clamp screw torque equals 159-177 in. lbs. (18-20 Nm)

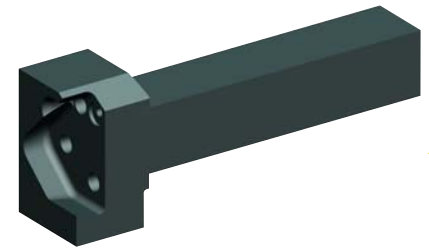
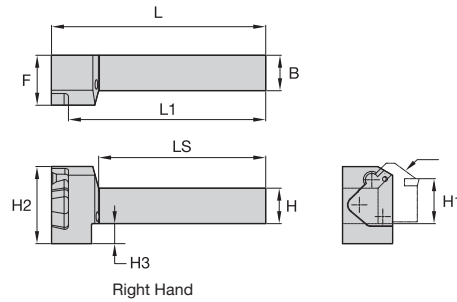


Modular Straight Toolholder • Metric

NOTE: For modular straight toolholder with coolant, see page C66.

order number	catalog number	B	H	L1	F	LS	H3	blade screw	Torx	clamp screw	Torx
right hand											
1600249	KGMSR2525M50	25	25	138,75	13,84	109,00	7,00	MS1162	T25	MS2002	T25
3553429	KGMSR2525M65	25	25	150,00	13,00	120,00	14,00	MS1163	T30	—	—
1621083	KGMSR3232P50	32	32	158,75	20,81	—	—	MS1162	T25	MS2002	T25
3553431	KGMSR3232P65	32	32	170,00	20,79	158,00	7,00	MS1163	T30	—	—
left hand											
1600250	KGMSL2525M50	25	25	138,75	13,84	109,00	7,00	MS1162	T25	MS2002	T25
3553430	KGMSL2525M65	25	25	150,00	13,00	120,00	14,00	MS1163	T30	—	—
1621084	KGMSL3232P50	32	32	158,75	20,81	—	—	MS1162	T25	MS2002	T25
3553432	KGMSL3232P65	32	32	170,00	20,79	158,00	7,00	MS1163	T30	—	—

NOTE: KGMS.: Right-hand holder uses right-hand blades.
 KGME.: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 8–10 Nm (71–88 in. lbs.).
 M65 blade and clamp screw torque equals 18–20 Nm (159–177 in. lbs.).



Grooving and Cut-Off

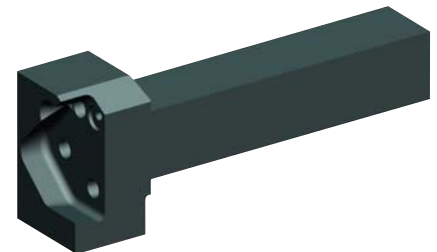
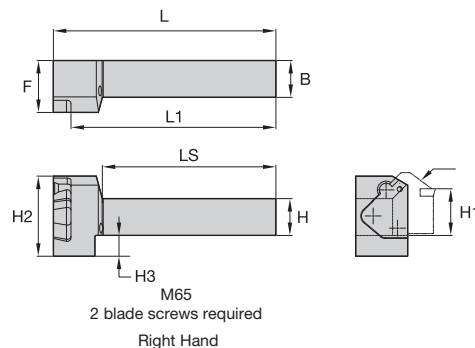
■ Modular End Mount Toolholder • Inch

NOTE: For modular end mount toolholder with coolant, see page C67.



order number	catalog number	H	B	L1	LS	F	H2	H3	blade size	blade screw	Torx	clamp screw	Torx
right hand													
1600263	KGMER1650N	1.00	1.00	5.5	4.96	1.70	—	6,10	KT25	MS1162	T25	MS2002	T25
3557108	KGMER1665N	1.00	1.00	5.5	4.70	1.38	2.09	12,70	KT30L	MS1163	T30	—	—
1617592	KGMER2050N	1.25	1.25	5.5	4.96	1.70	—	—	KT25	MS1162	T25	MS2002	T25
3557110	KGMER2065N	1.25	1.25	5.5	4.70	1.38	2.09	6,35	KT30L	MS1163	T30	—	—
1907344	KGMER2450N	1.50	1.50	5.5	4.96	1.70	—	—	KT25	MS1162	T25	MS2002	T25
left hand													
1600264	KGME1650N	1.00	1.00	5.5	4.96	1.70	—	6,10	KT25	MS1162	T25	MS2002	T25
3557109	KGME1665N	1.00	1.00	5.5	4.70	1.38	2.09	12,70	KT30L	MS1163	T30	—	—
1617593	KGME2050N	1.25	1.25	5.5	4.96	1.70	—	—	KT25	MS1162	T25	MS2002	T25
3557111	KGME2065N	1.25	1.25	5.5	4.70	1.38	2.09	6,35	KT30L	MS1163	T30	—	—
3557113	KGME2465N	1.50	1.50	6.5	5.70	1.50	2.09	—	KT30L	MS1163	T30	—	—

NOTE: KGMS...: Right-hand holder uses right-hand blades.
 KGME...: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm)
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm)



■ Modular End Mount Toolholders • Metric

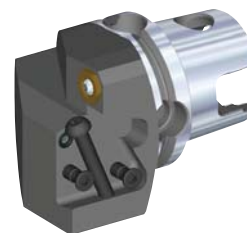
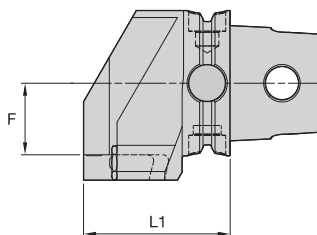
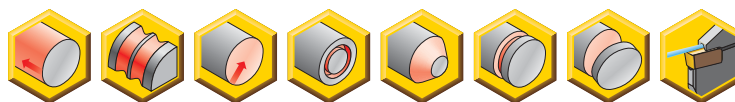
NOTE: For modular end mount toolholder with coolant, see page C68.



order number	catalog number	B	H	L1	F	LS	H3	L	blade screw (2 required)	Torx	clamp screw	Torx
right hand												
1600270	KGMER2525M50	25	25	139,25	42,75	125,25	6,84	150,25	MS1162	T25	MS2002	T25
3553453	KGMER2525M65	25	25	138,15	35,00	129,00	14,00	150,00	MS1163	T30	—	—
1621085	KGMER3232P50	32	32	159,25	42,75	145,25	—	170,25	MS1162	T25	MS2002	T25
3553455	KGMER3232P65	32	32	158,15	35,00	153,00	7,00	170,00	MS1163	T30	—	—
left hand												
1600271	KGME2525M50	25	25	139,25	42,75	125,25	6,84	150,25	MS1162	T25	MS2002	T25
3553454	KGME2525M65	25	25	138,15	35,00	129,00	14,00	150,00	MS1163	T30	—	—
1621086	KGME3232P50	32	32	159,25	42,75	145,25	—	170,25	MS1162	T25	MS2002	T25
3553456	KGME3232P65	32	32	158,15	35,00	153,00	7,00	170,00	MS1163	T30	—	—

NOTE: KGMS...: Right-hand holder uses right-hand blades.
 KGME...: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 8–10 Nm (71–88 in. lbs.).
 M65 blade and clamp screw torque equals 18–20 Nm (159–177 in. lbs.).

- Best-in-class KM Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



Right Hand



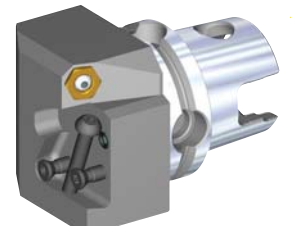
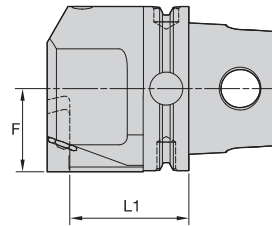
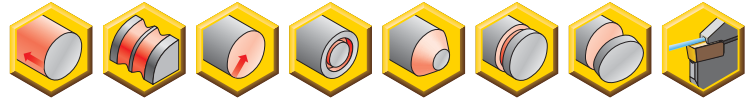
Modular Straight KM System with Coolant



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
5999790	KM40TSKGMSR50C	KM40TS	53,5	2.11	15,0	.59	50	MS1162	T25	MS2002	T25
6000422	KM50TSKGMSR65C	KM50TS	53,5	2.11	22,0	.87	65	MS1163	T30	—	—
5999864	KM50TSKGMSR50C	KM50TS	58,5	2.30	23,0	.91	50	MS1162	T25	MS2002	T25
6000431	KM63TSKGMSR65C	KM63TS	58,5	2.30	30,0	1.18	65	MS1163	T30	—	—
5999948	KM63TSKGMSR50C	KM63TS	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
5999972	KM63XMZKGMSR50CY	KM63XMZ	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
6017695	KM80TSKGMSR65C	KM80TS	63,5	2.50	40,0	1.58	65	MS1163	T30	—	—
6000018	KM80ATCKGMSR50C	KM80ATC	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25
6000014	KM80TSKGMSR50C	KM80TS	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25
left hand											
5999861	KM40TSKGMSL50C	KM40TS	53,5	2.11	15,0	.59	50	MS1162	T25	MS2002	T25
6000424	KM50TSKGMSL65C	KM50TS	53,5	2.11	22,0	.87	65	MS1163	T30	—	—
5999865	KM50TSKGMSL50C	KM50TS	58,5	2.30	23,0	.91	50	MS1162	T25	MS2002	T25
6000433	KM63TSKGMSL65C	KM63TS	58,5	2.30	30,0	1.18	65	MS1163	T30	—	—
5999949	KM63TSKGMSL50C	KM63TS	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
5999973	KM63XMZKGMSLF50CY	KM63XMZ	63,5	2.50	31,0	1.22	50	MS1162	T25	MS2002	T25
6017696	KM80TSKGMSL65C	KM80TS	63,5	2.50	40,0	1.58	65	MS1163	T30	—	—
6000019	KM80ATCKGMSL50C	KM80ATC	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25
6000015	KM80TSKGMSL50C	KM80TS	66,5	2.62	41,0	1.61	50	MS1162	T25	MS2002	T25

NOTE: KGMS...: Right-hand holder uses right-hand blades.
 KGME...: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

- Best-in-class KM Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



Right Hand

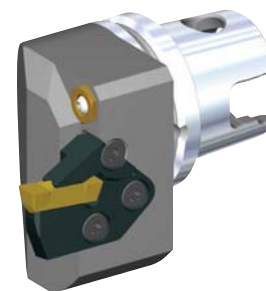
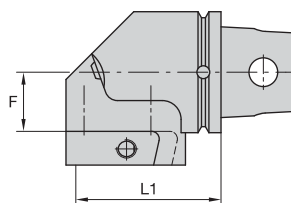
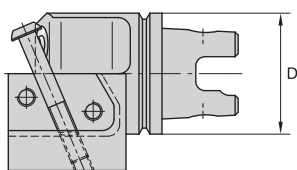
Grooving and Cut-Off

■ Modular End Mount KM System with Coolant • Metric



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
5999788	KM40TSKGMER50C	KM40TS	28,0	1.10	20,50	0.81	50	MS1162	T25	MS2002	T25
5999862	KM50TSKGMER50C	KM50TS	38,0	1.50	25,50	1.00	50	MS1162	T25	MS2002	T25
6000410	KM50TSKGMER65C	KM50TS	47,0	1.85	25,50	1.00	65	MS1163	T30	—	—
6000425	KM63TSKGMER65C	KM63TS	47,0	1.85	32,52	1.28	65	MS1163	T30	—	—
5999946	KM63TSKGMER50C	KM63TS	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6000434	KM63XMZKGMER65CY	KM63XMZ	47,0	1.85	32,50	1.28	65	MS1163	T30	—	—
5999950	KM63XMZKGMER50CY	KM63XMZ	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6017697	KM80ATCKGMER65C	KM80ATC	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000016	KM80ATCKGMER50C	KM80ATC	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25
6017693	KM80TSKGMER65C	KM80TS	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000012	KM80TSKGMER50C	KM80TS	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25
left hand											
5999789	KM40TSKGMEL50C	KM40TS	28,0	1.10	20,50	0.81	50	MS1162	T25	MS2002	T25
5999863	KM50TSKGMEL50C	KM50TS	38,0	1.50	25,50	1.00	50	MS1162	T25	MS2002	T25
6000421	KM50TSKGMEL65C	KM50TS	47,0	1.85	25,50	1.00	65	MS1163	T30	—	—
6000430	KM63TSKGMEL65C	KM63TS	47,0	1.85	32,52	1.28	65	MS1163	T30	—	—
5999947	KM63TSKGMEL50C	KM63TS	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6000436	KM63XMZKGMELF65CY	KM63XMZ	47,0	1.85	32,50	1.28	65	MS1163	T30	—	—
5999971	KM63XMZKGMELF50CY	KM63XMZ	48,0	1.89	32,50	1.28	50	MS1162	T25	MS2002	T25
6017698	KM80ATCKGMEL65C	KM80ATC	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000017	KM80ATCKGMEL50C	KM80ATC	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25
6017694	KM80TSKGMEL65C	KM80TS	57,0	2.24	40,50	1.59	65	MS1163	T30	—	—
6000013	KM80TSKGMEL50C	KM80TS	58,0	2.28	40,50	1.59	50	MS1162	T25	MS2002	T25

NOTE: KGMS.: Right-hand holder uses right-hand blades.
 KGME.: Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).



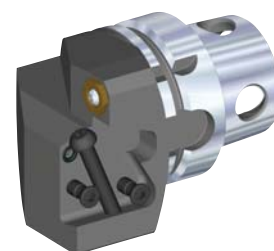
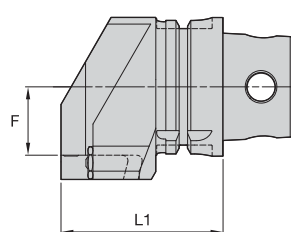
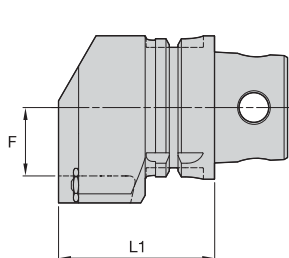
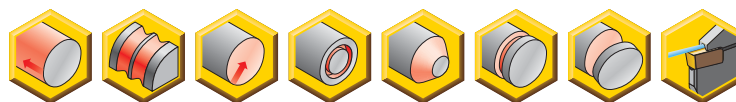
Modular End Mount KM-XMZ System with Coolant



order number	catalog number	D	L1	F	blade screw (2 required)	clamp screw	Torx
right hand							
1756550	KM63XMZKGMSR50Y	2.48	2.50	1.22	MS1162	MS2002	T25
left hand							
1756574	KM63XMZKGMSLF50Y	2.48	2.50	1.22	MS1162	MS2002	T25
3588680	KM63XMZKGMSLF65Y	2.48	2.30	1.18	MS1163	—	—

NOTE: KGMS... Right-hand holder uses right-hand blades.
 KGME... Right-hand holder uses left-hand blades.
 Blade and clamp screw torque 71–88 in. lbs. (8–10 Nm).

- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



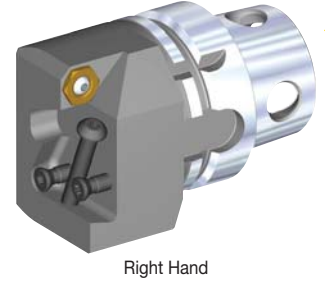
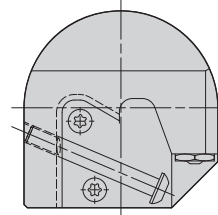
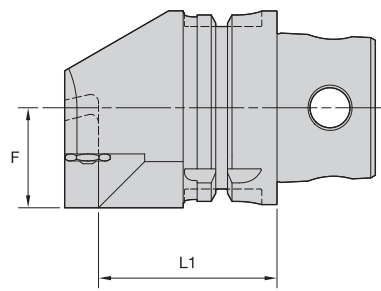
Right Hand

Modular Straight KM4X™ System with Coolant



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
5543560	KM4X63KGMSR65C	KM4X63	68,5	2.70	30,0	1.18	65	MS1163	T30	—	—
6000407	KM4X63KGMSR50C	KM4X63	73,5	2.89	31,0	1.22	50	MS1162	T25	MS2002	T25
left hand											
5543558	KM4X63KGMSL65C	KM4X63	68,5	2.70	30,0	1.18	65	MS1163	T30	—	—
6000408	KM4X63KGMSL50C	KM4X63	73,5	2.89	31,0	1.22	50	MS1162	T25	MS2002	T25

NOTE: KGMS... Right-hand holder uses right-hand blades.
 KGME... Right-hand holder uses left-hand blades.
 M50 blade and clamp screw torque equals 71–88 in. lbs. (8–10 Nm).
 M65 blade and clamp screw torque equals 159–177 in. lbs. (18–20 Nm).

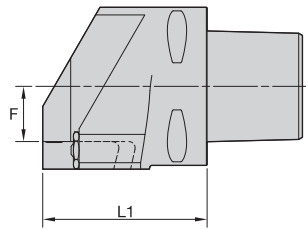
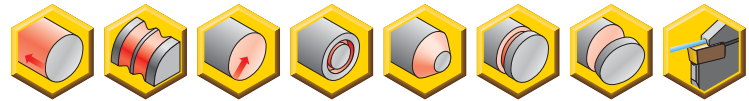


■ Modular End Mount KM4X™ System with Coolant



order number	catalog number	CSMS system size	L1		F		cartridge size	blade screw	nozzle	clamp screw	kg	lbs
			mm	in	mm	in						
right hand												
5543555	KM4X63KGMER65C	KM4X63	57,0	2.244	32,5	1.280	65	MS1163	PMT04525	—	1,87	4.13
6000404	KM4X63KGMER50C	KM4X63	58,0	2.283	32,5	1.280	50	MS1162	PMT04525	MS2002	1,85	4.08
6000407	KM4X63KGMSR50C	KM4X63	73,5	2.894	31,0	1.220	50	MS1162	PMT04525	MS2002	1,86	4.11
left hand												
5543553	KM4X63KGMEL65C	KM4X63	57,0	2.244	32,5	1.280	65	MS1163	PMT04525	—	1,87	4.13
6000405	KM4X63KGMEL50C	KM4X63	58,0	2.283	32,5	1.280	50	MS1162	PMT04525	MS2002	1,85	4.08
6000408	KM4X63KGMSL50C	KM4X63	73,5	2.894	31,0	1.220	50	MS1162	PMT04525	MS2002	1,86	4.11

- Standard PSC Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



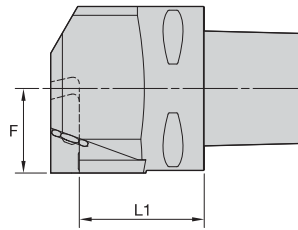
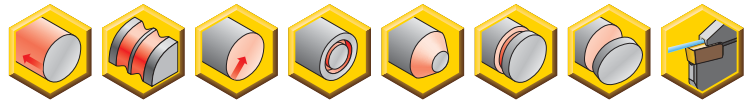
Right Hand

■ Modular Side PSC System with Coolant



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
6000028	PSC40KGMSR50C	PSC40	63,5	2.50	10,0	.39	50	MS1162	T25	MS2002	T25
5405654	PSC50KGMSR65C	PSC50	49,0	1.93	25,5	1.00	65	MS1163	T30	—	—
6000152	PSC50KGMSR50C	PSC50	63,5	2.50	15,0	.59	50	MS1162	T25	MS2002	T25
6000464	PSC63KGMSR65C	PSC63	60,5	2.38	21,0	.83	65	MS1163	T30	—	—
6000211	PSC63KGMSR50C	PSC63	65,5	2.58	22,0	.87	50	MS1162	T25	MS2002	T25
6000468	PSC80KGMSR65C	PSC80	68,5	2.70	29,0	1.14	65	MS1163	T30	—	—
6000216	PSC80KGMSR50C	PSC80	73,5	2.89	30,0	1.18	50	MS1162	T25	MS2002	T25
left hand											
6000029	PSC40KGMSL50C	PSC40	63,5	2.50	10,0	.39	50	MS1162	T25	MS2002	T25
5405655	PSC50KGMSL65C	PSC50	49,0	1.93	25,5	1.00	65	MS1163	T30	—	—
6000153	PSC50KGMSL50C	PSC50	63,5	2.50	15,0	.59	50	MS1162	T25	MS2002	T25
6000465	PSC63KGMSL65C	PSC63	60,5	2.38	21,0	.83	65	MS1163	T30	—	—
6000213	PSC63KGMSL50C	PSC63	65,5	2.58	22,0	.87	50	MS1162	T25	MS2002	T25
6000469	PSC80KGMSL65C	PSC80	68,5	2.70	29,0	1.14	65	MS1163	T30	—	—
6000217	PSC80KGMSL50C	PSC80	73,5	2.89	30,0	1.18	50	MS1162	T25	MS2002	T25

- Standard PSC Quick-Change platform.
- Through the pocket coolant capable.
- Interchangeable blades for versatility and depth of cut.



Right Hand

Grooving and Cut-Off

■ Modular End Mount PSC System with Coolant



order number	catalog number	CSMS system size	L1		F		blade size	blade screw	Torx	clamp screw	Torx
			mm	in	mm	in					
right hand											
6000026	PSC40KGMER50C	PSC40	33,0	1.30	20,5	.81	50	MS1162	T25	MS2002	T25
6000030	PSC50KGMER50C	PSC50	43,0	1.69	25,5	1.00	50	MS1162	T25	MS2002	T25
5405652	PSC50KGMER65C	PSC50	55,5	2.19	22,0	.87	65	MS1163	T30	—	—
6000159	PSC63KGMER50C	PSC63	48,0	1.89	32,5	1.28	50	MS1162	T25	MS2002	T25
6000462	PSC63KGMER65C	PSC63	49,0	1.93	32,5	1.28	65	MS1163	T30	—	—
6000466	PSC80KGMER65C	PSC80	57,0	2.24	40,5	1.59	65	MS1163	T30	—	—
6000214	PSC80KGMER50C	PSC80	58,0	2.28	40,5	1.59	50	MS1162	T25	MS2002	T25
left hand											
6000027	PSC40KGMEL50C	PSC40	33,0	1.30	20,5	.81	50	MS1162	T25	MS2002	T25
6000151	PSC50KGMEL50C	PSC50	43,0	1.69	25,5	1.00	50	MS1162	T25	MS2002	T25
5405653	PSC50KGMEL65C	PSC50	55,5	2.19	22,0	.87	65	MS1163	T30	—	—
6000160	PSC63KGMEL50C	PSC63	48,0	1.89	32,5	1.28	50	MS1162	T25	MS2002	T25
6000463	PSC63KGMEL65C	PSC63	49,0	1.93	32,5	1.28	65	MS1163	T30	—	—
6000467	PSC80KGMEL65C	PSC80	57,0	2.24	40,5	1.59	65	MS1163	T30	—	—
6000215	PSC80KGMEL50C	PSC80	58,0	2.28	40,5	1.59	50	MS1162	T25	MS2002	T25

➤ Top Notch™

Grooving Tools and Beyond™ Inserts for
Your Shallow Groove and Turn Operations

Primary Application

Top Notch Grooving is the proven solution for high productivity. The Top Notch system provides consistent tool performance, accurate indexing, and superior clamping to provide excellent surface finishing and superior tool life.

Features and Benefits

- The Beyond PVD coated grades are designed to cut a variety of workpiece materials.
- Rigid clamping securely locks insert in place through the toughest cuts.
- Versatile design enables one system to handle O.D. and I.D. grooving, face grooving, back turning, undercutting, and even threading operations.
- Chip control inserts provide excellent chip evacuation in grooving, and offer better chip control in multidirectional turning.





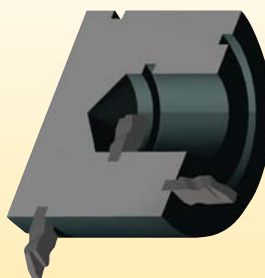
Our rigid clamping design prevents insert movement during high-feed rate applications. This benefit ensures excellent surface finish, improved productivity, and superior tool life and promotes perfect concentricity. The rugged bridge clamp generates locking forces in three directions to provide superior resistance to side thrust and tangential forces.

■ Step 1 • Select system based on the required groove depth

What you need to know

- Groove depth, width, and profile.
- Material to be machined.
- Application to be performed (face, O.D., or I.D. grooving).
- Toolholder requirements (e.g., KM™, square shank, right/left).

Top Notch™

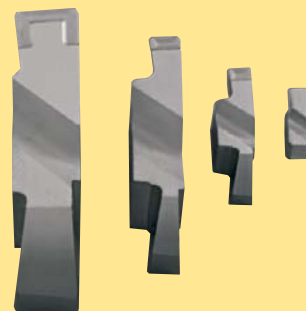


Grooving

For grooving depth $\leq 1.5x$ grooving width, review system capability chart and proceed to Step 2.

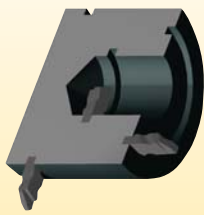
Top Notch Grooving for Internal, External, and Face Grooving Applications

system capabilities		minimum in (mm)	maximum in (mm)
O.D./I.D. grooving	width	0.31 (0,79)	.375 (9,53)
	depth	.050 (1,27)	.375 (9,53)
face grooving	width	.125 (3,18)	.375 (9,53)
	depth	.150 (3,81)	.250 (6,35)
internal grooving	diameter	.440 (11,2)	—
face grooving diameter	standard	.940 (23,9)	—
	deep	1.875 (47,6)	—
deep O.D./I.D. grooving	width	.062 (1,57)	.250 (6,35)
	depth	.125 (3,18)	.500 (12,70)
deep face grooving	width	.125 (3,18)	.250 (6,35)
	depth	.250 (6,35)	.500 (12,70)



■ Step 2 • Select toolholder based on the application

NOTE: Toolholders are available as conventional square shank versions as well as Quick-Change versions. The insert size must match the gage insert of your toolholder selection.

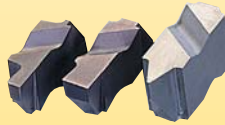
Step 3 • Select chipbreaker style and feed rate
Chipbreaker and Feed Rates • in/rev (mm/rev)


workpiece material and application	P	M	K	N	S	H
first choice	NG-K .003-.011 (0,08-0,28)	NG-K .0025-.008 (0,07-0,20)	NG .004-.012 (0,01-0,30)	NGP .004-.012 (0,01-0,30)	NG-K .0025-.008 (0,07-0,20)	NG-ST CBN tipped .002-.004 (0,05-0,10)
alternate choice	NG .004-.012 (0,10-0,30)	NGP .004-.009 (0,10-0,23)	NG-K .003-.011 (0,08-0,28)	NG-K .003-.012 (0,08-0,30)	NGP .004-.008 (0,10-0,20)	—

_K chipbreaker inserts



flat-top inserts



positive rake inserts


Step 4 • Select grade and speed
Recommendations for Grade

Starting speed chart shown under “Application Guide”

machining condition	workpiece material					
	P	M	K	N	S	H
high-performance for optimal conditions (clean cuts, good machine condition, higher speed capability)	KCP10B 400-1475 (120-450)	KCU10 400-850 (120-260)	KCK20B 500-1800 (150-550)	KD1425 500-5000 (150-1500)	KCU10 50-550 (15-170)	KB5625 150-760 (45-230)
general purpose (first choice for general machining)	KCP25B 350-1200 (110-365)	KCU25 400-800 (120-245)	KCU10 200-800 (60-245)	KCU10 400-3200 (120-975)	KCU10 50-450 (15-135)	KB5625 250-500 (80-150)
unfavorable conditions (roughing, poor machine condition, interrupted cuts, low speed, I.D. grooving)	KCU25 280-880 (85-270)	KCU25 300-700 (90-210)	KCU25 160-640 (50-195)	K313 120-2000 (40-610)	KCU25 25-350 (8-110)	KB1630 150-400 (45-120)

Step 5 • Select insert and holder from catalog page

NOTE: The insert size must match the gage insert size of your toolholder selection.

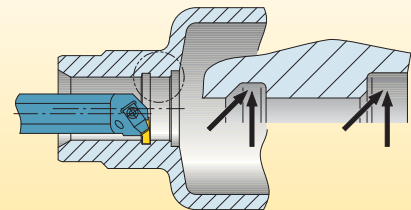
Example for Top Notch • Grooving

Material low-alloyed steel
 Groove depth079" (2mm)
 Groove width118" (3mm)
 Operation..... I.D. cut, limited speed capability,
 plunge groove and chamfer

Recommendation

Insert NG2M300RK
 Grade KC5025
 Insert width118" (3mm)
 Insert size 2

Toolholder A20QNTOL2 (metric)
 A12NEL2 (inch)
 Gage insert N.2R



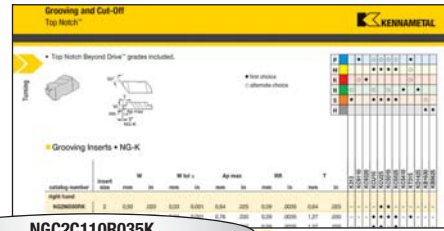
Speed: 400 SFM (120 m/min)
 Feed: .006 in/rev (0,15 mm/rev)

Congratulations!

You have successfully maximized your productivity by selecting the best Top Notch insert geometry, grade, and cutting specifications for your application!

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



NGC2C110R035K

Inch																											
N	G	C	2	C	110	R	035	K																			
Type of Insert	Insert Style	Additional Information	Insert Size	Size Identification	Groove Size**	Hand of Insert	Cutting Depth	Chipbreaker Design	Definition of Inserts																		
<p>N = Top Notch</p>		<p>D = Deep grooving P = Positive C = Groove and chamfer</p>		<p>M = Metric insert groove width C = Circlip groove insert width is nominal circlip size <input type="checkbox"/> = Blank indicates inch width insert</p>		<p>L = Left hand R = Right hand</p>	<p>Shown for groove and chamfer inserts in .0004" increments.</p>	<p>E = Hone only K = Standard chip control S = Land and Hone ST = STD Tip (PcBN)</p>	<p>Groove size "J" or "L" for Poly-Vee inserts "I" indicates internal face grooving</p>																		
<p>B = Blank (for special forms) F = Face grooving G = Grooving P = Back R = Full radius U = Undercutting (or relieving) V = Poly-Vee</p>		<table border="1"> <thead> <tr> <th>insert number</th> <th>W1 (in)</th> <th>W1 (mm)</th> </tr> </thead> <tbody> <tr><td>1</td><td>.100</td><td>2,54</td></tr> <tr><td>2</td><td>.150</td><td>3,81</td></tr> <tr><td>3</td><td>.195</td><td>4,95</td></tr> <tr><td>4</td><td>.255</td><td>6,98</td></tr> <tr><td>5</td><td>.380</td><td>9,65</td></tr> <tr><td>6</td><td>.383</td><td>9,73</td></tr> </tbody> </table>		insert number	W1 (in)	W1 (mm)	1	.100	2,54	2	.150	3,81	3	.195	4,95	4	.255	6,98	5	.380	9,65	6	.383	9,73	<p>Position pertains to groove width for F-, G-, and U-style inserts, radii for R-style grooving inserts, and circlip size for groove and chamfer inserts. Dimension in .001" or 0,01mm.</p> <p>Inch example: 1/32" width groove or radius equals "031" catalog position number.</p> <p>Metric example: 3,25mm width groove or radius equals "325" catalog position number.</p> <p>Width Tolerance: ±.001" (±0,025mm) unless otherwise specified.</p>		
insert number	W1 (in)	W1 (mm)																									
1	.100	2,54																									
2	.150	3,81																									
3	.195	4,95																									
4	.255	6,98																									
5	.380	9,65																									
6	.383	9,73																									

*Kennametal proprietary identification system.
 **Omit position for Top Notch NB-style blanks.

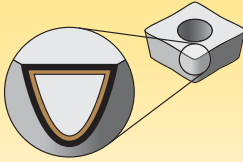
Top Notch Threading and Grooving Insert Dimensions

insert size	S		W1	
	mm	inch	mm	inch
1	2,54	.100	2,54	.100
2	5,56	.219	3,81	.150
3	8,74	.344	4,95	.195
4	11,51	.453	6,48	.255
5	17,48	.688	9,65	.380
6	11,51	.453	9,73	.383
8	7,93	.312	11,13	.438

Top Notch Holder Design

NOTE: Holders are designed to locate insert inclined to 3° to provide back clearance down open side.

Kennametal and Top Notch tooling technology combine to bring you the very best threading and grooving system available in the world today.



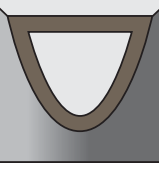









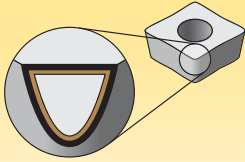
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45
KCU10	 Composition: An advanced multilayer PVD coating over a very deformation-resistant unalloyed carbide substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities. Application: The KCU10™ grade is ideal for finishing to general machining of most workpiece materials at a wide range of speed and feed capabilities. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and high-temp alloys with improved edge toughness, notch resistance, and higher cutting speed/feed capability.	P									
		M									
		K									
		N									
		S									
		H									
											
KCU25	 Composition: An advanced PVD grade with hard AlTiN coating and fine-grain unalloyed substrate. The new and improved coating improves edge stability with wide range speed and feed capabilities. Application: The KCU25™ grade is ideal for general machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials in a wide range of speeds and feeds with improved edge toughness for interrupted cut and high feed rates.	P									
		M									
		K									
		N									
		S									
											
KCP10B	 Composition: A specially engineered cobalt-enriched carbide grade with thick MTCVD TiCN-Al ₂ O ₃ -TiOCN coating for maximum wear resistance. Application: An excellent finishing to medium machining grade for a variety of workpiece materials, including most steels, ferritic, martensitic, and PH stainless steels, and cast irons. The cobalt-enriched substrate offers a balanced combination of deformation resistance and edge toughness, while the thick coating layers offer outstanding abrasion resistance and crater wear resistance for high-speed machining. Smooth coating provides resistance to edge build-up and microchipping and produces excellent surface finishes.	P									
		K									
											
KCP25B	 Composition: A tough cobalt-enriched carbide grade with a multilayer MTCVD TiCN-Al ₂ O ₃ -TiOCN coating with superior interlayer adhesion. Application: Best general-purpose turning grade for most steels and ferritic and martensitic stainless steels. The substrate design ensures adequate deformation resistance with excellent insert edge strength. Coating layers offer good wear resistance over a wide range of machining conditions and the post-coat treatment minimizes microchipping and improves coating adhesion to substrate leading to long tool life and improved workpiece finishes.	P									
		K									
											
KCK20B	 Composition: A specially toughened MTCVD TiCN-Al ₂ O ₃ -TiOCN coating over a wear-resistant substrate. Application: Specifically engineered to maximize coating adhesion and edge strength making this grade ideal in wet interrupted cutting of gray and ductile irons. It can be used in a wide range of applications from finishing to roughing to maximize productivity wherever strength and reliability are needed.	P									
		K									
											



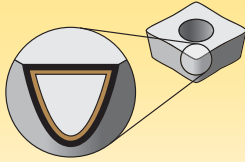
Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45	
K313	<p>Composition: A hard, low binder content, unalloyed WC/Co fine-grain grade.</p> <p>Application: Exceptional edge wear resistance combined with very high strength for machining titanium, cast irons, austenitic stainless steels, non-ferrous metals, non-metals, and most high-temp alloys. Superior thermal deformation and depth-of-cut notch resistance. The grain structure is well controlled for minimal pits and flaws, which contributes to long, reliable service.</p>											
		M										
		K										
		N										
		S										
KC5010	<p>Composition: An advanced PVD AlTiN coating over a very deformation-resistant unalloyed carbide substrate.</p> <p>Application: The KC5010™ grade is ideal for finishing to general machining of most workpiece materials at higher speeds. Excellent for machining most steels, stainless steels, cast irons, non-ferrous materials, and high-temp alloys under stable conditions. It also performs well machining hardened and short chipping materials.</p>	P										
		M										
		K										
		N										
		S										
		H										
KC5025	<p>Composition: An advanced PVD-AlTiN-coated grade with a tough, ultra-fine-grain unalloyed substrate.</p> <p>Application: For general-purpose machining of most steels, stainless steels, high-temp alloys, titanium, irons, and non-ferrous materials. Speeds may vary from low to medium and will handle interruptions and high feed rates.</p>	P										
		M										
		K										
		N										
		S										







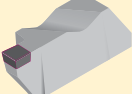














Coatings provide high-speed capability and are engineered for finishing to light roughing.

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

wear resistance ← → toughness

Grades

Coating	Grade Description		05	10	15	20	25	30	35	40	45	
KT315	<p>Composition: A multilayer PVD TiN/TiCN/TiN-coated cermet turning grade.</p> <p>Application: Ideal for high-speed finishing to medium machining of most carbon and alloy steels and stainless steels. Performs very well in cast and ductile iron applications, too. Provides long and consistent tool life and will produce excellent workpiece finishes.</p>	P										
		K										
KB1630	<p>Composition: An uncoated high content PcBN grade. PcBN tips are brazed onto a carbide insert.</p> <p>Application: Designed for roughing to finishing in interrupted cuts on hardened steels (>45 HRC). It can also be applied on gray cast iron, chilled irons, high chrome alloyed steels, high temp alloys and sintered powder metals. The tipped PcBN inserts are available in a wide range of insert styles, including Top Notch™ and Screw-On geometries.</p>											
		K										
		S										
		H										
KB5625	<p>Composition: A medium content PcBN with a PVD-TiN/AlTiN coating for added wear resistance.</p> <p>Application: Designed for roughing to finishing of hardened steels (>45 HRC). Use on bearing steels, hot and cold work steels, die steels, case hardened steels, carburized and nitrided irons, and some hard coatings.</p>											
		H										
KD1425	<p>Composition: A multimodal PCD grade with a range of grain sizes brazed onto a carbide substrate.</p> <p>Application: Engineered for extreme abrasion resistance, combined with good edge strength for demanding applications. An ideal choice for high-silicon aluminum alloys, bi-metallic (AL/GC) materials, MMC, carbon-fiber reinforced plastics, and other abrasive non-metallic materials.</p>											
		N										

insert style	application	rake angle	page(s)	insert style	application	rake angle	page(s)
NG 	<ul style="list-style-type: none"> • General-purpose grooving. • O-ring grooving. • Circlip grooving. 	neutral	C170	NFD-KI 	<ul style="list-style-type: none"> • Internal deep face grooving with chip control. • For use in boring bars for internal face grooves. 	10° positive	C174
NG-K 	<ul style="list-style-type: none"> • Chip control geometry. • General-purpose grooving. • O-ring grooving. • Circlip grooving. • Light turning. 	10° positive	C162	NP-K NPD-K 	<ul style="list-style-type: none"> • Turning. • Back turning positive. • Profiling with chip control. 	10° positive	C167
NG-ST 	<ul style="list-style-type: none"> • Hard turning. 	neutral	C170	NR 	<ul style="list-style-type: none"> • Full radius grooving. • Turning and profiling. 	neutral	C172
NGC-K 	<ul style="list-style-type: none"> • Combined groove and chamfered edge break in one positive plunge with chip control. • Designed for DIN 471/472 standard circlip grooves. 	10° positive	C168	NR-K 	<ul style="list-style-type: none"> • Chip control geometry. • Full radius grooving, turning, and profiling. 	10° positive	C166
NGD 	<ul style="list-style-type: none"> • Deep grooving. 	neutral	C171	NRD 	<ul style="list-style-type: none"> • Deep grooving. • Full radius end-form. 	neutral	C173
NGD-K 	<ul style="list-style-type: none"> • Chip control geometry. • Deep grooving. • Light turning. 	10° positive	C165	NRP 	<ul style="list-style-type: none"> • Full radius grooving. • Light-turning profiling. 	5° positive	C169
NGP 	<ul style="list-style-type: none"> • General-purpose grooving. • O-ring grooving. • Circlip grooving. 	5° positive	C168	NU 	<ul style="list-style-type: none"> • Undercutting. 	neutral	C175
NF 	<ul style="list-style-type: none"> • Face grooving. • Additional side clearance. 	neutral	C175	NV 	<ul style="list-style-type: none"> • Poly-Vee grooving. 	neutral	C176
NF-K 	<ul style="list-style-type: none"> • Face grooving with chip control. • Additional side clearance. 	10° positive	C173	NB/NBD 	<ul style="list-style-type: none"> • Blanks. • Blanks for deep grooving. • Available in uncoated grades only. 	—	C176–C177
NFD-K 	<ul style="list-style-type: none"> • Deep face grooving with chip control. • Additional side clearance. 	10° positive	C174				

NOVO KNOWS CAD/CAM

With the addition of NOVO™ applications to your team, your CAD/CAM capabilities become much more accurate, streamlined, and productive.

Before NOVO: The programmer would be in their CAD/CAM software, programming a part. Using the tedious method of finding a tool in a catalog, and then manually inputting the tooling information from the catalog into the CAD/CAM software.

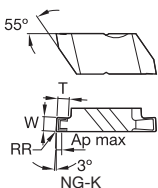
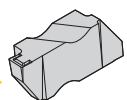
The concern is that assumptions are made, and only partial tooling information is entered.

With NOVO: The powerful digital intelligence of NOVO applications not only help the programmer find the right tool for the metalcutting job, but also automatically integrates all the tooling data into a complete CAD/CAM solution. The integration of all the tooling data increases the viability of the part being programmed, and is delivered quickly — saving you time.

NOVO applications can ensure you have the right tools on your machines, in the right sequence. Resulting in flawless execution that accelerates every job, and maximizes every shift. kenametal.com/novo



• Top Notch Beyond Drive™ grades included.



● first choice
○ alternate choice

P	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Grooving and Cut-Off

■ Groove and Turn • Chip Control

catalog number	insert size	W		W tol ±		Ap max		RR		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425		
		mm	in	mm	in	mm	in	mm	in	mm	in														
right hand																									
NG2M050RK	2	0,50	.020	0,03	.001	0,64	.025	0,09	.0035	0,64	.025	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2031RK	2	0,79	.031	0,03	.001	0,76	.030	0,09	.0035	1,27	.050	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M080RK	2	0,80	.032	0,03	.001	0,76	.030	0,09	.0035	1,27	.050	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M100RK	2	1,00	.039	0,03	.001	0,76	.030	0,09	.0035	1,28	.050	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2047RK	2	1,19	.047	0,03	.001	0,76	.030	0,09	.0035	1,27	.050	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M120RK	2	1,20	.047	0,03	.001	0,76	.030	0,09	.0035	1,27	.050	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M140RK	2	1,40	.055	0,03	.001	0,76	.030	0,09	.0035	1,28	.050	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M150RK	2	1,50	.059	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG2062RK	2	1,56	.062	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M170RK	2	1,70	.067	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M175RK	2	1,75	.069	0,03	.001	1,09	.043	0,19	.0075	2,81	.110	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG2M195RK	2	1,95	.077	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M200RK	2	2,00	.079	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M220RK	2	2,20	.087	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG2M225RK	2	2,25	.088	0,03	.001	1,09	.043	0,19	.0075	2,81	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2094RK	2	2,39	.094	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M250RK	2	2,50	.098	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG2M275RK	2	2,75	.108	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M300RK	2	3,00	.118	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2125RK	2	3,18	.125	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG2M320RK	2	3,20	.126	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG2M325RK	2	3,25	.128	0,03	.001	1,09	.043	0,19	.0075	2,79	.110	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3M100RK	3	1,00	.039	0,03	.001	0,76	.030	0,20	.0080	1,91	.075	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3047RK	3	1,19	.047	0,03	.001	0,76	.030	0,19	.0075	1,91	.075	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG3M120RK	3	1,20	.047	0,03	.001	0,76	.030	0,19	.0075	1,91	.075	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG3M150RK	3	1,50	.059	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3062RK	3	1,58	.062	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG3M175RK	3	1,75	.069	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3072RK	3	1,83	.072	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG3078RK	3	1,98	.078	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG3M200RK	3	2,00	.079	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3M220RK	3	2,20	.087	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3M225RK	3	2,24	.088	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	●	●	●	●	○	○	○	○	○	○	○	○	○	○
NG3094RK	3	2,39	.094	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	○	○	○	○	○	○	○	○	○	○	○
NG3M250RK	3	2,50	.098	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3M275RK	3	2,75	.108	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	○	○	○	○	○	○	○	○	○	○	○
NG3M300RK	3	3,00	.118	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	○	○	○	○	○	○	○	○	○	○	○
NG3125RK	3	3,18	.125	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	○	○	○	○	○	○	○	○	○	○	○
NG3M320RK	3	3,20	.126	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3M325RK	3	3,25	.128	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3M350RK	3	3,50	.138	0,03	.001	2,92	.115	0,32	.0125	3,81	.150	○	○	○	○	○	○	○	○	○	○	○	○	○	○
NG3156RK	3	3,96	.156	0,03	.001	2,92	.115	0,19	.0075	3,81	.150	●	●	●	○	○	○	○	○	○	○	○	○	○	○
NG3M400RK	3	4,00	.157	0,03	.001	2,92	.115	0,32	.0125	3,81	.150	●	●	●	○	○	○	○	○	○	○	○	○	○	○

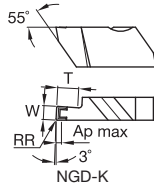
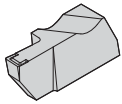
(continued)

(Groove and Turn • Chip Control — continued)

● first choice
○ alternate choice

Grooving and Cut-Off

catalog number	insert size	W		W tol ±		Ap max		RR		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K3T3	KC5010	KC5025	KT315	KB1630	KB5625	KD1425
		mm	in	mm	in	mm	in	mm	in	mm	in												
NG3M220LK	3	2,20	.087	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	●	●	●	●	○	○	○	○	○	○	○	○
NG3M225LK	3	2,25	.089	0,03	.001	1,02	.040	0,19	.0075	2,39	.094	●	●	●	●	○	○	○	○	○	○	○	○
NG3094LK	3	2,39	.094	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M250LK	3	2,50	.098	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M275LK	3	2,75	.108	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M300LK	3	3,00	.118	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3125LK	3	3,18	.125	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M320LK	3	3,20	.126	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M325LK	3	3,25	.128	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M350LK	3	3,50	.138	0,03	.001	2,92	.115	0,32	.0125	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3156LK	3	3,96	.156	0,03	.001	2,92	.115	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M400LK	3	4,00	.158	0,03	.001	2,92	.115	0,32	.0125	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M425LK	3	4,25	.167	0,03	.001	2,92	.115	0,32	.0125	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3M450LK	3	4,50	.177	0,03	.001	2,92	.115	0,32	.0125	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG3189LK	3	4,80	.189	0,03	.001	2,92	.115	0,57	.0225	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG4M300LK	4	3,00	.118	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG4125LK	4	3,18	.125	0,03	.001	1,06	.400	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG4M320LK	4	3,20	.126	0,03	.001	1,02	.040	0,19	.0075	3,81	.150	●	●	●	●	○	○	○	○	○	○	○	○
NG4M350LK	4	3,50	.138	0,03	.001	2,92	.115	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4M400LK	4	4,00	.158	0,03	.001	2,92	.115	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4M450LK	4	4,50	.177	0,03	.001	2,92	.115	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4189LK	4	4,80	.189	0,03	.001	2,92	.115	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4M500LK	4	5,00	.197	0,03	.001	2,92	.115	0,32	.0125	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4M550LK	4	5,50	.217	0,03	.001	3,81	.150	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4M600LK	4	6,00	.236	0,03	.001	3,81	.150	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○
NG4250LK	4	6,35	.250	0,03	.001	3,81	.150	0,57	.0225	6,35	.250	●	●	●	●	○	○	○	○	○	○	○	○



● first choice
○ alternate choice

P	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

■ Groove and Turn • Deep Grooving • Chip Control

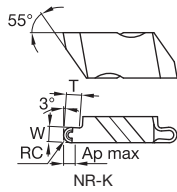
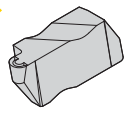
catalog number	insert size	W		W tol ±		Ap max		RR		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425
		mm	in	mm	in	mm	in	mm	in	mm	in												
right hand																							
NGD2M150RK	2	1,50	.059	0,03	0.001	1,09	.043	0,19	.0075	4,06	.160	●	●	-	-	-	-	●	●	-	-	-	-
NGD2M200RK	2	2,00	.079	0,03	0.001	1,09	.043	0,19	.0075	5,08	.200	●	●	-	-	-	-	●	●	-	-	-	-
NGD2M250RK	2	2,50	.098	0,03	0.001	1,09	.043	0,19	.0075	5,08	.200	●	●	-	-	-	-	●	●	-	-	-	-
NGD3062RK	3	1,58	.062	0,03	0.001	1,02	.040	0,19	.0075	3,18	.125	●	●	-	-	-	-	●	●	-	-	-	-
NGD3M200RK	3	2,00	.079	0,03	0.001	1,02	.040	0,19	.0075	4,06	.160	●	●	-	-	-	-	●	●	-	-	-	-
NGD3094RK	3	2,39	.094	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3M250RK	3	2,50	.098	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	-	●	-	-	-	-	●	●	-	-	-	-
NGD3M300RK	3	3,00	.118	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3125RK	3	3,18	.125	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3M400RK	3	4,00	.157	0,03	0.001	2,92	.115	0,32	.0125	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3189RK	3	4,80	.189	0,03	0.001	2,92	.115	0,58	.0225	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD4125RK	4	3,18	.125	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD4189RK	4	4,80	.189	0,03	0.001	2,92	.115	0,57	.0225	9,53	.375	●	●	-	-	-	-	●	●	-	-	-	-
NGD4M550RK	4	5,50	.217	0,03	0.001	3,81	.150	0,57	.0225	12,70	.500	-	●	-	-	-	-	●	●	-	-	-	-
NGD4250RK	4	6,35	.250	0,03	0.001	3,81	.150	0,57	.0225	12,70	.500	●	●	-	-	-	-	●	●	-	-	-	-
left hand																							
NGD2M150LK	2	1,50	.059	0,03	0.001	1,09	.043	0,19	.0075	4,06	.160	●	●	-	-	-	-	●	●	-	-	-	-
NGD2M200LK	2	2,00	.079	0,03	0.001	1,09	.043	0,19	.0075	5,08	.200	●	●	-	-	-	-	●	●	-	-	-	-
NGD2M250LK	2	2,50	.098	0,03	0.001	1,09	.043	0,19	.0075	5,08	.200	●	●	-	-	-	-	●	●	-	-	-	-
NGD3062LK	3	1,57	.062	0,03	0.001	1,02	.040	0,19	.0075	3,18	.125	●	●	-	-	-	-	●	●	-	-	-	-
NGD3M200LK	3	2,00	.079	0,03	0.001	1,02	.040	0,19	.0075	4,06	.160	-	●	-	-	-	-	●	●	-	-	-	-
NGD3094LK	3	2,39	.094	0,03	0.001	1,02	.040	0,19	.0075	6,34	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3M250LK	3	2,50	.098	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	-	●	-	-	-	-	●	●	-	-	-	-
NGD3M300LK	3	3,00	.118	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3125LK	3	3,18	.125	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3M350LK	3	3,50	.138	0,03	0.001	2,92	.115	0,32	.0125	6,35	.250	-	●	-	-	-	-	●	●	-	-	-	-
NGD3M400LK	3	4,00	.157	0,03	0.001	2,92	.115	0,32	.0125	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD3189LK	3	4,80	.189	0,03	0.001	2,92	.115	0,57	.0225	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD4125LK	4	3,18	.125	0,03	0.001	1,02	.040	0,19	.0075	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NGD4M400LK	4	4,00	.157	0,03	0.001	2,92	.115	0,57	.0225	9,53	.375	-	●	-	-	-	-	●	●	-	-	-	-
NGD4189LK	4	4,80	.189	0,03	0.001	2,92	.115	0,57	.0225	9,53	.375	●	●	-	-	-	-	●	●	-	-	-	-
NGD4M500LK	4	5,00	.197	0,03	0.001	2,92	.115	0,57	.0225	12,70	.500	-	●	-	-	-	-	●	●	-	-	-	-
NGD4250LK	4	6,35	.250	0,03	0.001	3,80	.150	0,57	.0225	12,70	.500	●	●	-	-	-	-	●	●	-	-	-	-

NOTE: Inserts have one cutting edge. Right-hand insert shown; left-hand insert is mirror image.
The following inserts are double ended: NGD3062RK, NGD4125RK, NGD3062LK, and NGD4125LK.

- Full radius inserts with chip control.

- first choice
- alternate choice

Grooving and Cut-Off



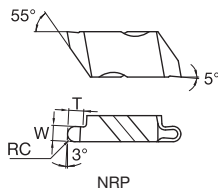
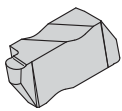
	P	M	K	N	S	H	KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425	
P	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

■ Groove and Turn • Full Radius • Chip Control

catalog number	insert size	W		Ap max		RC		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425
		mm	in	mm	in	mm	in	mm	in												
right hand																					
NR3031RK	3	1,57	.062	1,97	.078	0,79	.0310	2,39	.094	●	●	-	-	-	-	●	●	-	-	-	-
NR3047RK	3	2,39	.094	1,91	.075	1,19	.0470	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR3062RK	3	3,18	.125	2,92	.115	1,59	.0625	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR3078RK	3	3,97	.156	2,54	.100	1,98	.0780	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR4062RK	4	3,18	.125	2,92	.115	1,59	.0625	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR4094RK	4	4,79	.188	3,81	.150	2,39	.0940	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NR4125RK	4	6,35	.250	3,81	.150	3,18	.1250	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
left hand																					
NR3031LK	3	1,58	.062	1,98	.078	0,79	.0310	2,39	.094	●	●	-	-	-	-	●	●	-	-	-	-
NR3047LK	3	2,39	.094	1,91	.075	1,19	.0470	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR3062LK	3	3,18	.125	2,92	.115	1,59	.0625	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR3078LK	3	3,96	.156	2,54	.100	1,98	.0780	3,81	.150	-	●	-	-	-	-	●	●	-	-	-	-
NR4062LK	4	3,18	.125	2,92	.115	1,59	.0625	3,81	.150	●	●	-	-	-	-	●	●	-	-	-	-
NR4094LK	4	4,79	.188	3,81	.150	2,39	.0940	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-
NR4125LK	4	6,36	.250	3,81	.150	3,18	.1250	6,35	.250	●	●	-	-	-	-	●	●	-	-	-	-

NOTE: Right-hand insert shown; left-hand insert is mirror image.

- Full radius positive rake inserts.



- first choice
- alternate choice

■ Groove and Turn • Full Radius • Positive

catalog number	insert size	W		Ap max		RC		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425
		mm	in	mm	in	mm	in	mm	in												
right hand																					
NRP3031R	3	1,58	.062	—	—	0,79	.0310	2,39	.094	•	—	—	—	—	—	•	—	—	—	—	—
NRP3047R	3	2,39	.094	—	—	1,19	.0470	3,81	.150	•	—	—	—	—	•	•	—	—	—	—	—
NRP3062R	3	3,18	.125	—	—	1,59	.0625	3,81	.150	•	—	—	—	—	•	—	—	—	—	—	—
NRP3094R	3	4,78	.188	—	—	2,39	.0940	3,81	.150	•	—	—	—	—	•	—	—	—	—	—	—
left hand																					
NRP3031L	3	1,58	.062	—	—	0,79	.0310	2,39	.094	•	—	—	—	—	•	—	—	—	—	—	—
NRP3047L	3	2,39	.094	—	—	1,19	.0470	3,81	.150	•	—	—	—	—	•	—	—	—	—	—	—
NRP3062L	3	3,18	.125	—	—	1,59	.0625	3,81	.150	—	—	—	—	—	•	—	—	—	—	—	—
NRP3094L	3	4,78	.188	—	—	2,39	.0940	3,81	.150	•	—	—	—	—	•	—	—	—	—	—	—

NOTE: Right-hand insert shown; left-hand insert is mirror image.

P	•	•	•	•	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	•	•	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	•	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	•	•	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Grooving and Cut-Off

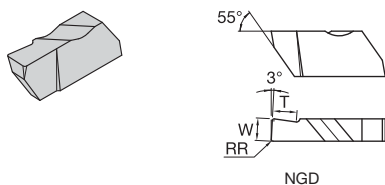
(Groove and Turn • Flat Top — continued)

● first choice
○ alternate choice

P	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

catalog number	insert size	W		W tol ±		Ap max		RR		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425	
		mm	in	mm	in	mm	in	mm	in	mm	in													
NG3097L	3	2,46	.097	0,03	.001	—	—	0,32	.0125	3,81	.150	●	●	—	—	—	—	—	—	—	—	—	—	—
NG3105L	3	2,67	.105	0,03	.001	—	—	0,19	.0075	3,81	.150	●	●	—	—	—	—	—	—	—	—	—	—	—
NG3110L	3	2,79	.110	0,03	.001	—	—	0,32	.0125	3,81	.150	—	●	—	—	—	—	—	—	—	—	—	—	—
NG3122L	3	3,10	.122	0,03	.001	—	—	0,19	.0075	3,81	.150	—	●	—	—	—	—	—	—	—	—	—	—	—
NG3125L	3	3,18	.125	0,03	.001	—	—	0,19	.0075	3,81	.150	●	●	—	—	—	—	—	—	—	—	—	—	—
NG3142L	3	3,61	.142	0,03	.001	—	—	0,32	.0125	3,81	.150	●	●	—	—	—	—	—	—	—	—	—	—	—
NG3156L	3	3,96	.156	0,03	.001	—	—	0,19	.0075	3,81	.150	—	●	—	—	—	—	—	—	—	—	—	—	—
NG3178L	3	4,52	.178	—	.001	—	—	0,19	.0075	3,81	.150	—	●	—	—	—	—	—	—	—	—	—	—	—
NG3185L	3	4,70	.185	0,03	.001	—	—	0,57	.0225	3,81	.150	—	—	—	—	—	—	—	—	—	—	—	—	—
NG3189L	3	4,80	.189	0,03	.001	—	—	0,57	.0225	3,81	.150	●	●	—	—	—	—	—	—	—	—	—	—	—
NG4125L	4	3,18	.125	0,03	.001	—	—	0,19	.0075	3,81	.150	●	●	—	—	—	—	—	—	—	—	—	—	—
NG4189L	4	4,80	.189	0,03	.001	—	—	0,57	.0225	6,35	.250	●	●	—	—	—	—	—	—	—	—	—	—	—
NG4189LEST	4	4,80	.189	0,03	.001	—	—	0,57	.0225	6,35	.250	—	—	—	—	—	—	—	—	—	—	●	—	—
NG4250L	4	6,35	.250	0,03	.001	—	—	0,57	.0225	6,35	.250	●	●	—	—	—	—	—	—	—	—	—	—	—

NOTE: All KD and KB grades are single-ended tipped inserts.
Right-hand insert shown; left-hand insert is mirror image.



■ Groove and Turn • Deep Grooving • Flat Top

catalog number	insert size	W		W tol ±		Ap max		RR		T		KCU10	KCU25	KCP10B	KCP25B	KCK20B	K313	KC5010	KC5025	KT315	KB1630	KB5625	KD1425	
		mm	in	mm	in	mm	in	mm	in	mm	in													
right hand																								
NGD3189R	3	4,80	.189	0,03	0.001	—	—	0,57	.0225	6,35	.250	●	—	—	—	—	—	—	—	—	—	—	—	—
NGD4250R	4	6,35	.250	0,03	0.001	—	—	0,57	.0225	12,70	.500	●	—	—	—	—	—	—	—	—	—	—	—	—
left hand																								
NGD3189L	3	4,80	.189	0,03	0.001	—	—	0,57	.0225	6,35	.250	●	—	—	—	—	—	—	—	—	—	—	—	—
NGD4250L	4	6,35	.250	0,03	0.001	—	—	0,57	.0225	12,70	.500	●	—	—	—	—	—	—	—	—	—	—	—	—

NOTE: Inserts have one cutting edge.
Right-hand insert shown; left-hand insert is mirror image.

Grooving and Cut-Off

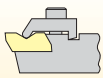
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

NSR164D

N

Insert Holding Method



N = Top Notch*

S

Insert Mounting Location

R

Hand of Tool

Drop Head

16

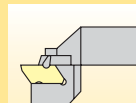
Shank Size

4

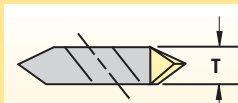
Insert Size

D

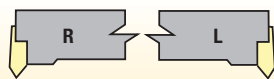
Qualified Surface and Length



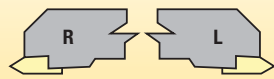
DH = Drop Head



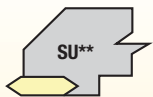
insert size	T	
	in	mm
2	.150	3,81
3	.195	4,95
4	.255	6,98
5	.380	9,65
6	.383	9,73
8	.438	11,13



End mount



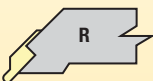
Side mount



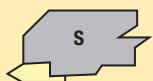
SU = Side mount utility**



E = End



R = Undercut



S = Side mount, offset



AS = Side mount, no offset

inch:

This position will show a significant two-digit number that indicates the holder cross section. For shanks 5/8" square and larger, the number will represent the number of sixteenths of width and height. For shanks under 5/8" square, the number of sixteenths of cross section will be preceded by a zero. For rectangular holders, the first digit represents the number of eighths of width and the second digit the number of quarters of height, except for a toolholder 1-1/4" x 1-1/2", which is given the number 91.

metric:

Shank height and width in millimeters and holder length according to ISO standard.

- A** = Qualified back and end, 4" long
- B** = Qualified back and end, 4.5" long
- C** = Qualified back and end, 5" long
- D** = Qualified back and end, 6" long
- E** = Qualified back and end, 7" long
- V** = Qualified back and end, 3.5" long*
- Q** = Qualified metric holder

* Kennametal proprietary standard only.

** Side mount utility holder can only use NTU inserts.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

NSR2525M4

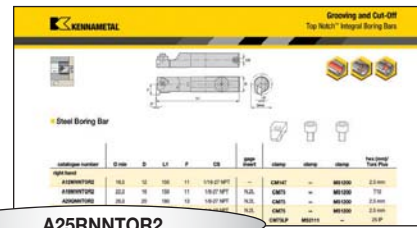
N	S	R	2525	M	4																																																	
Insert Holding Method	Insert Mounting Location	Hand of Tool	Shank size	Tool Length	Insert Size	Qualified Surface and Length																																																
 N = Top Notch		 DH = Drop Head		<table border="1"> <thead> <tr> <th>L1</th> <th>ISO</th> </tr> </thead> <tbody> <tr><td>32</td><td>A</td></tr> <tr><td>40</td><td>B</td></tr> <tr><td>50</td><td>C</td></tr> <tr><td>60</td><td>D</td></tr> <tr><td>70</td><td>E</td></tr> <tr><td>80</td><td>F</td></tr> <tr><td>90</td><td>G</td></tr> <tr><td>100</td><td>H</td></tr> <tr><td>110</td><td>J</td></tr> <tr><td>125</td><td>K</td></tr> <tr><td>140</td><td>L</td></tr> <tr><td>150</td><td>M</td></tr> <tr><td>160</td><td>N</td></tr> <tr><td>170</td><td>P</td></tr> <tr><td>180</td><td>Q</td></tr> <tr><td>200</td><td>R</td></tr> <tr><td>250</td><td>S</td></tr> <tr><td>300</td><td>T</td></tr> <tr><td>350</td><td>U</td></tr> <tr><td>400</td><td>V</td></tr> <tr><td>450</td><td>W</td></tr> <tr><td>500</td><td>Y</td></tr> <tr><td>Special Length</td><td>X</td></tr> </tbody> </table>	L1	ISO	32	A	40	B	50	C	60	D	70	E	80	F	90	G	100	H	110	J	125	K	140	L	150	M	160	N	170	P	180	Q	200	R	250	S	300	T	350	U	400	V	450	W	500	Y	Special Length	X	 End mount Side mount	 Q = Qualified metric holder
L1	ISO																																																					
32	A																																																					
40	B																																																					
50	C																																																					
60	D																																																					
70	E																																																					
80	F																																																					
90	G																																																					
100	H																																																					
110	J																																																					
125	K																																																					
140	L																																																					
150	M																																																					
160	N																																																					
170	P																																																					
180	Q																																																					
200	R																																																					
250	S																																																					
300	T																																																					
350	U																																																					
400	V																																																					
450	W																																																					
500	Y																																																					
Special Length	X																																																					
 SU = Side mount utility	 E = End	 R = Undercut	<p>inch:</p> <p>This position will show a significant two-digit number that indicates the holder cross section. For shanks 5/8" square and larger, the number will represent the number of sixteenths of width and height. For shanks under 5/8" square, the number of sixteenths of cross section will be preceded by a zero. For rectangular holders, the first digit represents the number of eighths of width and the second digit the number of quarters of height, except for a toolholder 1-1/4" x 1-1/2", which is given the number 91.</p> <p>metric:</p> <p>Shank height and width in millimeter and holder length according to ISO standard.</p>	<table border="1"> <thead> <tr> <th rowspan="2">insert size</th> <th colspan="2">W1</th> </tr> <tr> <th>in</th> <th>mm</th> </tr> </thead> <tbody> <tr><td>2</td><td>.150</td><td>3,81</td></tr> <tr><td>3</td><td>.195</td><td>4,95</td></tr> <tr><td>4</td><td>.255</td><td>6,98</td></tr> <tr><td>5</td><td>.380</td><td>9,65</td></tr> <tr><td>6</td><td>.383</td><td>9,73</td></tr> <tr><td>8</td><td>.438</td><td>11,13</td></tr> </tbody> </table>	insert size	W1		in	mm	2	.150	3,81	3	.195	4,95	4	.255	6,98	5	.380	9,65	6	.383	9,73	8	.438	11,13																											
insert size	W1																																																					
	in	mm																																																				
2	.150	3,81																																																				
3	.195	4,95																																																				
4	.255	6,98																																																				
5	.380	9,65																																																				
6	.383	9,73																																																				
8	.438	11,13																																																				
 S = Side mount, offset																																																						
 AS = Side mount, no offset																																																						

* Kennametal proprietary standard only.

** Side mount utility holder can only use NTU inserts.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



A25RNNTOR2

Metric

A	25	R	N	N	T	0	R	2
Bar Type	Bar Diameter	Bar Length	Insert Holding Method	Insert Shape	Insert Location	Rake Angle	Hand of Bar	Insert Size

Bar diameter in millimeters

N* = Top Notch

R = Right hand

L = Left hand

A = Steel with coolant

E = Carbide with coolant

H = Interchangeable head

metric bars:

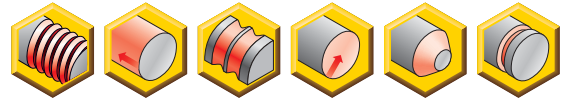
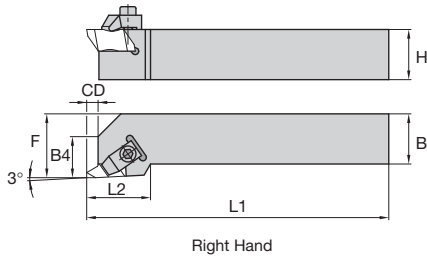
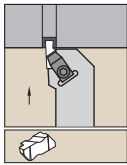
- K = 125mm
- M = 150mm
- Q = 180mm
- R = 200mm
- S = 250mm
- T = 300mm
- U = 350mm

End mount

Straight mount

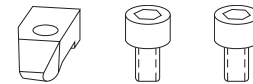
insert size	T	
	mm	in
1	3,54	.100
2	3,81	.150
3	5,35	.195
4	6,40	.255
5	9,65	.380
6	9,73	.383
8	11,13	.438

*Kennametal standard only.



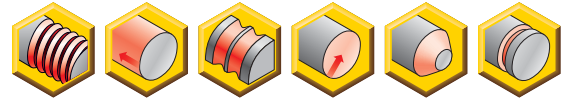
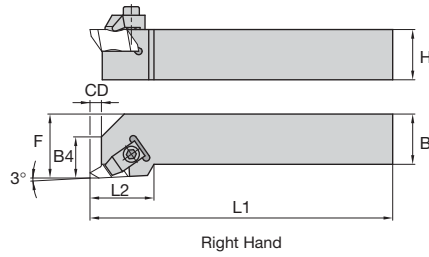
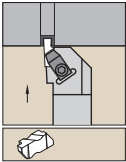
Grooving and Cut-Off

Integral Straight • Inch



order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	clamp	clamp screw	clamp screw	hex/Torx Plus
right hand													
1095583	NSR062	.375	.375	.562	2.50	.75	.35	.138	N.2R	CM74	—	S310	7/64
1097608	NSR082V	.500	.500	.750	3.50	.75	.35	.138	N.2R	CM74	—	S310	7/64
1097609	NSR102B	.625	.625	.875	4.50	.75	.35	.138	N.2R	CM74	—	S310	7/64
1097584	NSR122B	.750	.750	1.000	4.50	.75	.35	.138	N.2R	CM74	—	S310	7/64
1097585	NSR162C	1.000	1.000	1.250	5.00	.75	.35	.138	N.2R	CM74	—	S310	7/64
1097590	NSR123A	.750	.750	1.000	4.00	1.25	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097586	NSR123B	.750	.750	1.000	4.50	1.25	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097587	NSR163C	1.000	1.000	1.250	5.00	1.25	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1016462	NSR163D	1.000	1.000	1.250	6.00	1.25	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097588	NSR203D	1.250	1.250	1.500	6.00	1.25	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097589	NSR243D	1.500	1.500	2.000	6.00	1.38	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097596	NSR243E	1.500	1.500	2.000	7.00	1.38	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097591	NSR853D	1.250	1.000	1.250	6.00	1.25	.50	.210	N.3R	CM72LP	S2112	—	25 IP
1097601	NSR205D	1.250	1.250	1.500	6.00	2.00	.61	.415	N.5R	CM80	—	S352	1/4
1016474	NSR245D	1.500	1.500	2.000	6.00	2.00	.61	.415	N.5R	CM80	—	S352	1/4
left hand													
1095582	NSL062	.375	.375	.562	2.50	.75	.35	.138	N.2L	CM75	—	S310	7/64
1097278	NSL082V	.500	.500	.750	3.50	.75	.35	.138	N.2L	CM75	—	S310	7/64
1097279	NSL102B	.625	.625	.875	4.50	.75	.35	.138	N.2L	CM75	—	S310	7/64
1097254	NSL122B	.750	.750	1.000	4.50	.75	.35	.138	N.2L	CM75	—	S310	7/64
1097255	NSL162C	1.000	1.000	1.250	5.00	.75	.35	.138	N.2L	CM75	—	S310	7/64
1097261	NSL123A	.750	.750	1.000	4.00	1.25	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097256	NSL123B	.750	.750	1.000	4.50	1.25	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097257	NSL163C	1.000	1.000	1.250	5.00	1.25	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097260	NSL163D	1.000	1.000	1.250	6.00	1.25	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097258	NSL203D	1.250	1.250	1.500	6.00	1.25	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097259	NSL243D	1.500	1.500	2.000	6.00	1.38	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097267	NSL243E	1.500	1.500	2.000	7.00	1.38	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097262	NSL853D	1.250	1.000	1.250	6.00	1.25	.50	.210	N.3L	CM73LP	S2112	—	25 IP
1097272	NSL205D	1.250	1.250	1.500	6.00	2.00	.61	.415	N.5L	CM81	—	S352	1/4

NOTE: F dimension measured over sharp point of N-style threading insert.



Grooving and Cut-Off

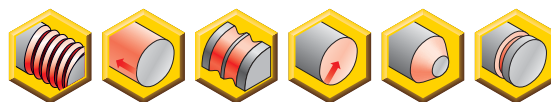
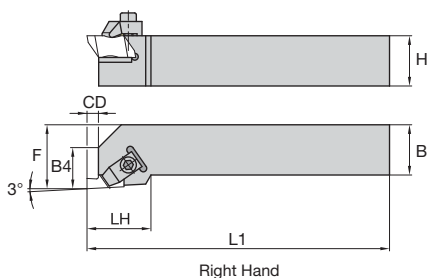
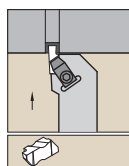
Integral Straight • Metric



order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	clamp	clamp screw	clamp screw	hex (mm)/ Torx Plus
right hand													
1098790	NSR1010E2	10	10	14	70	19	9	3,5	N.2R	CM74	MS1200	—	T10
1098791	NSR1212F2	12	12	16	80	19	9	3,5	N.2R	CM74	MS1200	—	T10
1098792	NSR1616H2	16	16	20	100	19	9	3,5	N.2R	CM74	MS1200	—	T10
1098793	NSR2020K2	20	20	25	125	19	9	3,5	N.2R	CM74	MS1200	—	T10
1098794	NSR2525M2	25	25	32	150	19	9	3,5	N.2R	CM74	MS1200	—	T10
1098795	NSR2020K3	20	20	25	125	32	13	5,3	N.3R	CM72LP	—	MS2111	25 IP
1098796	NSR2525M3	25	25	32	150	32	13	5,3	N.3R	CM72LP	—	MS2111	25 IP
1098797	NSR3225P3	32	25	32	170	32	13	5,3	N.3R	CM72LP	—	MS2111	25 IP
1098798	NSR3232P3	32	32	40	170	32	13	5,3	N.3R	CM72LP	—	MS2111	25 IP
1098799	NSR2525M4	25	25	32	150	35	14	7,5	N.4R	CM72LP	—	MS2111	25 IP
1098800	NSR3225P4	32	25	32	170	35	14	7,5	N.4R	CM72LP	—	MS2111	25 IP
1098801	NSR3232P4	32	32	40	170	35	14	7,5	N.4R	CM72LP	—	MS2111	25 IP
left hand													
1098861	NSL1010E2	10	10	14	70	19	9	3,5	N.2L	CM75	MS1200	—	T10
1098862	NSL1212F2	12	12	16	80	19	9	3,5	N.2L	CM75	MS1200	—	T10
1098863	NSL1616H2	16	16	20	100	19	9	3,5	N.2L	CM75	MS1200	—	T10
1098864	NSL2020K2	20	20	25	125	19	9	3,5	N.2L	CM75	MS1200	—	T10
1098865	NSL2525M2	25	25	32	150	19	9	3,5	N.2L	CM75	MS1200	—	T10
1098866	NSL2020K3	20	20	25	125	32	13	5,3	N.3L	CM73LP	—	MS2111	25 IP
1098867	NSL2525M3	25	25	32	150	32	13	5,3	N.3L	CM73LP	—	MS2111	25 IP
1098868	NSL3225P3	32	25	32	170	32	13	5,3	N.3L	CM73LP	—	MS2111	25 IP
1098869	NSL3232P3	32	32	40	170	32	13	5,3	N.3L	CM73LP	—	MS2111	25 IP
1098870	NSL2525M4	25	25	32	150	35	14	7,5	N.4L	CM73LP	—	MS2111	25 IP
1098871	NSL3225P4	32	25	32	170	35	14	7,5	N.4L	CM73LP	—	MS2111	25 IP
1098872	NSL3232P4	32	32	40	170	35	14	7,5	N.4L	CM73LP	—	MS2111	25 IP

NOTE: F dimension measured over sharp point of N-style threading insert.

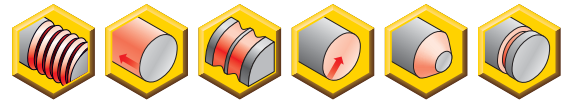
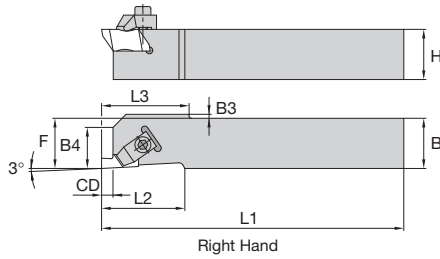
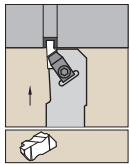
Grooving and Cut-Off



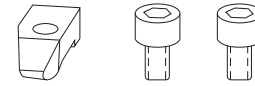
■ Integral Straight w/ Shim • Inch



order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	shim	shim screw	wrench size shim screw	clamp	socket-head cap screw	button-head cap screw	hex/Torx Plus
right hand																
1097592	NSR164C	1.000	1.000	1.250	5.00	1.38	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097595	NSR164D	1.000	1.000	1.250	6.00	1.38	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097600	NSR204C	1.250	1.250	1.500	5.00	1.38	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097593	NSR204D	1.250	1.250	1.500	6.00	1.38	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097594	NSR244D	1.500	1.500	2.000	6.00	1.50	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097597	NSR244E	1.500	1.500	2.000	7.00	1.50	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097598	NSR854D	1.250	1.000	1.250	6.00	1.38	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097599	NSR864E	1.500	1.000	1.250	7.00	1.38	.54	.294	N.4R	SM420	SL344	—	CM72LP	—	S2112	25 IP
1097604	NSR166D	1.000	1.000	1.250	6.00	1.38	.67	.334	N.6R	SM416	S111	1/16	CM120	S412	—	5/32
1097602	NSR206D	1.250	1.250	1.500	6.00	1.38	.67	.334	N.6R	SM416	S111	1/16	CM120	S412	—	5/32
1097603	NSR246D	1.500	1.500	2.000	6.00	1.50	.67	.334	N.6R	SM416	S111	1/16	CM120	S412	—	5/32
1097605	NSR168D	1.000	1.000	1.250	6.00	1.25	.72	.225	N.8R	SM419	S112	1/16	CM144	S422	—	3/16
left hand																
1097263	NSL164C	1.000	1.000	1.250	5.00	1.38	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097266	NSL164D	1.000	1.000	1.250	6.00	1.38	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097271	NSL204C	1.250	1.250	1.500	5.00	1.38	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097264	NSL204D	1.250	1.250	1.500	6.00	1.38	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097265	NSL244D	1.500	1.500	2.000	6.00	1.50	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097268	NSL244E	1.500	1.500	2.000	7.00	1.50	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097269	NSL854D	1.250	1.000	1.250	6.00	1.38	.54	.294	N.4L	SM420	SL344	—	CM73LP	—	S2112	25 IP
1097275	NSL166D	1.000	1.000	1.250	6.00	1.38	.67	.334	N.6L	SM416	S111	1/16	CM121	S412	—	5/32
1097273	NSL206D	1.250	1.250	1.500	6.00	1.38	.67	.334	N.6L	SM416	S111	1/16	CM121	S412	—	5/32
1097274	NSL246D	1.500	1.500	2.000	6.00	1.50	.67	.334	N.6L	SM416	S111	1/16	CM121	S412	—	5/32

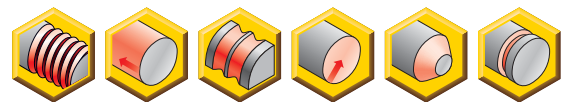
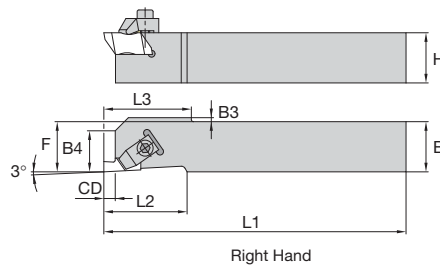
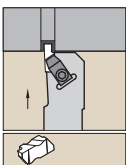


■ Integral Straight • No Offset • Inch



order number	catalog number	H	B	F	L1	LH	B4	CD	B3	L3	gage insert	clamp	clamp screw	clamp screw	hex/Torx Plus
right hand															
1095671	NASR062D	.375	.375	.375	6.00	.75	.35	.700	.070	.875	N.2R	CM182	—	S310	7/64
1095670	NASR082D	.500	.500	.500	6.00	.75	.35	.138	—	—	N.2R	CM182	—	S310	7/64
1095576	NASR102B	.625	.625	.625	4.50	.75	.35	.138	—	—	N.2R	CM74	—	S310	7/64
1095574	NASR083D	.500	.500	.500	6.00	1.25	.50	.210	.125	1.324	N.3R	CM184LP	S2112	—	25 IP
1095668	NASR103B	.625	.625	.625	4.50	1.30	—	.210	—	—	N.3R	CM184LP	S2112	—	25 IP
left hand															
1095675	NASL062D	.375	.375	.375	6.00	.75	.35	.700	.070	.875	N.2L	CM183	—	S310	7/64
1095674	NASL082D	.500	.500	.500	6.00	.75	.35	.138	—	—	N.2L	CM183	—	S310	7/64
1095577	NASL102B	.625	.625	.625	4.50	.75	.35	.138	—	—	N.2L	CM75	—	S310	7/64
1095575	NASL083D	.500	.500	.500	6.00	1.25	.50	.210	.125	1.324	N.3L	CM185LP	S2112	—	25 IP
1095672	NASL103B	.625	.625	.625	4.50	1.30	—	.210	—	—	N.3L	CM185LP	S2112	—	25 IP

NOTE: F dimension measured over sharp point of N-style threading insert.



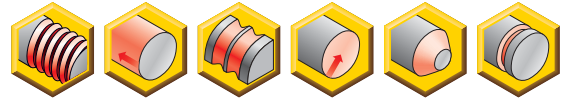
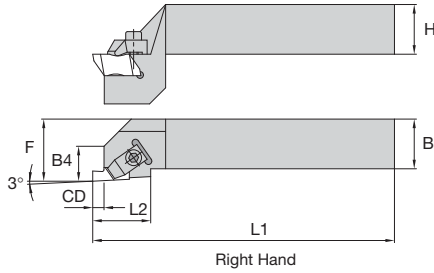
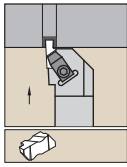
■ Integral Straight • No Offset • Metric



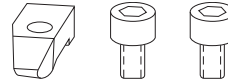
order number	catalog number	H	B	F	L1	LH	B4	CD	B3	L3	gage insert	clamp	clamp screw	clamp screw	hex (mm)/Torx Plus
right hand															
1098788	NASR1010M2Q	10	10	10	150	19	9	3,5	2,03	19	N.2R	CM182	MS1200	—	T10
1098789	NASR1212M2Q	12	12	12	150	19	9	3,5	—	—	N.2R	CM182	MS1200	—	T10
1098786	NASR1616K3Q	16	16	16	125	32	13	5,3	—	—	N.3R	CM184LP	—	MS2111	25 IP
left hand															
1098859	NASL1010M2Q	10	10	10	150	19	9	3,5	2,03	19	N.2L	CM183	MS1200	—	T10
1098860	NASL1212M2Q	12	12	12	150	19	9	6,9	—	—	N.2L	CM183	MS1200	—	T10
1098857	NASL1616K3Q	16	16	16	125	32	13	5,3	—	—	N.3L	CM185LP	—	MS2111	25 IP

NOTE: F dimension measured over sharp point of N-style threading insert.

Grooving and Cut-Off

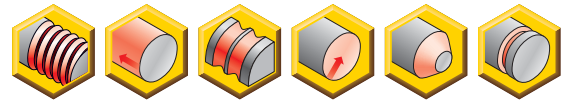
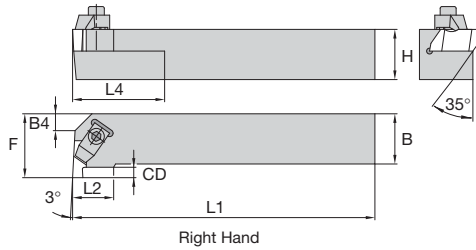


■ Integral Straight • Drop Head • Inch

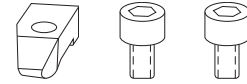


order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	clamp	clamp screw	clamp screw	hex/Torx Plus	wrench size jack screw
right hand														
1097644	NSRDH122B	.750	.750	1.000	4.50	.75	.40	.130	N.2R	CM74	—	S310	7/64	1/8
1097645	NSRDH162C	1.000	1.000	1.250	5.00	.75	.40	.138	N.2R	CM74	—	S310	7/64	1/8
1097649	NSRDH123A	.750	.750	1.250	4.00	1.25	.58	.210	N.3R	CM72LP	S2112	—	25 IP	—
1097646	NSRDH163C	1.000	1.000	1.250	5.00	1.25	.58	.210	N.3R	CM72LP	S2112	—	25 IP	—
1097648	NSRDH163D	1.000	1.000	1.250	6.00	1.25	.58	.210	N.3R	CM72LP	S2112	—	25 IP	—
1097647	NSRDH203D	1.250	1.250	1.500	6.00	1.25	.62	.210	N.3R	CM72LP	S2112	—	25 IP	3/16
1097650	NSRDH204D	1.250	1.250	1.500	6.00	1.38	.62	.294	N.4R	CM72LP	S2112	—	25 IP	3/16
left hand														
1097681	NSLDH203D	1.250	1.250	1.500	6.00	1.25	.62	.210	N.3L	CM73LP	S2112	—	25 IP	3/16

NOTE: F dimension measured over sharp point of N-style threading insert.

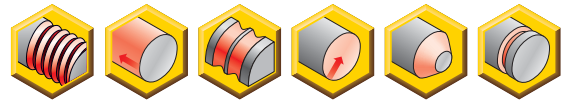
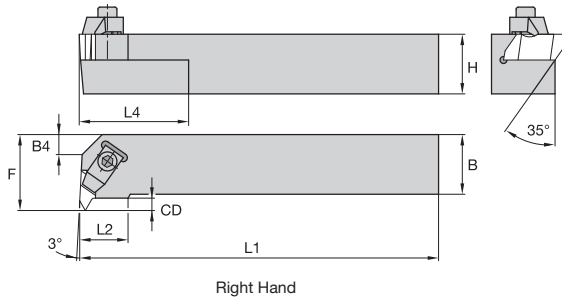


■ Integral End Mount • Inch

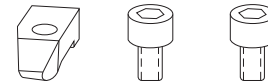


order number	catalog number	H	B	F	L1	LH	B4	CD	L4	gage insert	clamp	clamp screw	clamp screw	hex/Torx Plus
right hand														
1095581	NER062	.375	.375	.750	2.50	.50	—	.138	1.0	N.2L	CM75	—	S310	7/64
1097577	NER082V	.500	.500	.750	3.50	.50	—	.138	1.0	N.2L	CM75	—	S310	7/64
1097578	NER102B	.625	.625	.750	4.50	—	—	.138	1.0	N.2L	CM75	—	S310	7/64
1097559	NER122B	.750	.750	1.000	4.50	.50	.29	.138	1.0	N.2L	CM75	—	S310	7/64
1097560	NER162C	1.000	1.000	1.250	5.00	.50	.41	.138	1.0	N.2L	CM75	—	S310	7/64
1097561	NER123B	.750	.750	1.125	4.50	.75	—	.210	2.0	N.3L	CM73LP	S2112	—	25 IP
1097562	NER163C	1.000	1.000	1.250	5.00	.75	—	.210	2.0	N.3L	CM73LP	S2112	—	25 IP
1097565	NER163D	1.000	1.000	1.250	6.00	.75	—	.210	2.0	N.3L	CM73LP	S2112	—	25 IP
1097563	NER203D	1.250	1.250	1.500	6.00	.75	.26	.210	2.0	N.3L	CM73LP	S2112	—	25 IP
1097564	NER243D	1.500	1.500	2.000	6.00	.75	.76	.210	2.0	N.3L	CM73LP	S2112	—	25 IP
1097566	NER853D	1.250	1.000	1.250	6.00	.75	—	.210	2.0	N.3L	CM73LP	S2112	—	25 IP
1097567	NER164C	1.000	1.000	1.375	5.00	.75	—	.294	2.0	N.4L	CM73LP	S2112	—	25 IP
1097570	NER164D	1.000	1.000	1.375	6.00	.75	—	.294	2.0	N.4L	CM73LP	S2112	—	25 IP
1097568	NER204D	1.250	1.250	1.625	6.00	.75	.27	.294	2.0	N.4L	CM73LP	S2112	—	25 IP
1097569	NER244D	1.500	1.500	2.000	6.00	.75	.65	.294	2.0	N.4L	CM73LP	S2112	—	25 IP
1097575	NER205D	1.250	1.250	2.000	6.00	1.44	—	.415	2.0	N.5L	CM81	—	S352	1/4
1097571	NER206D	1.250	1.250	1.625	6.00	.75	.27	.300	2.0	N.6L	CM121	—	S412	5/32
left hand														
1095580	NEL062	.375	.375	.750	2.50	.50	—	.138	1.0	N.2R	CM74	—	S310	7/64
1097247	NEL082V	.500	.500	.750	3.50	.50	—	.138	1.0	N.2R	CM74	—	S310	7/64
1097248	NEL102B	.625	.625	.750	4.50	—	—	.138	1.0	N.2R	CM74	—	S310	7/64
1097231	NEL122B	.750	.750	1.000	4.50	.50	.29	.138	1.0	N.2R	CM74	—	S310	7/64
1097232	NEL162C	1.000	1.000	1.250	5.00	.50	.41	.138	1.0	N.2R	CM74	—	S310	7/64
1097233	NEL123B	.750	.750	1.125	4.50	.75	—	.210	2.0	N.3R	CM72LP	S2112	—	25 IP
1097234	NEL163C	1.000	1.000	1.250	5.00	.75	—	.210	2.0	N.3R	CM72LP	S2112	—	25 IP
1097237	NEL163D	1.000	1.000	1.250	6.00	.75	—	.210	2.0	N.3R	CM72LP	S2112	—	25 IP
1097235	NEL203D	1.250	1.250	1.500	6.00	.75	.26	.210	2.0	N.3R	CM72LP	S2112	—	25 IP
1097236	NEL243D	1.500	1.500	2.000	6.00	.75	.76	.210	2.0	N.3R	CM72LP	S2112	—	25 IP
1097238	NEL853D	1.250	1.000	1.250	6.00	.75	—	.210	2.0	N.3R	CM72LP	S2112	—	25 IP
1097239	NEL164C	1.000	1.000	1.375	5.00	.75	—	.294	2.0	N.4R	CM72LP	S2112	—	25 IP
1097242	NEL164D	1.000	1.000	1.375	6.00	.75	—	.294	2.0	N.4R	CM72LP	S2112	—	25 IP
1097240	NEL204D	1.250	1.250	1.625	6.00	.75	.27	.294	2.0	N.4R	CM72LP	S2112	—	25 IP
1097241	NEL244D	1.500	1.500	2.000	6.00	.75	.65	.294	2.0	N.4R	CM72LP	S2112	—	25 IP
1097246	NEL205D	1.250	1.250	2.000	6.00	1.44	—	.415	2.0	N.5R	CM80	—	S352	1/4
1097243	NEL206D	1.250	1.250	1.625	6.00	.75	.27	.300	2.0	N.6R	CM120	—	S412	5/32

NOTE: F dimension measured over sharp point of N-style threading insert.

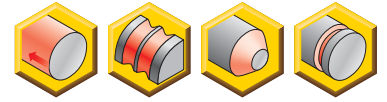
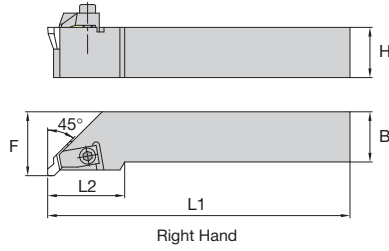
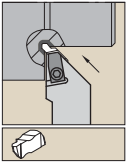


Integral End Mount • Metric



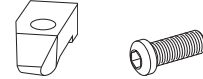
order number	catalog number	H	B	F	L1	LH	CD	gage insert	clamp	clamp screw	clamp screw	Torx/ Torx Plus
right hand												
1098803	NER1616H2	16	16	20	100	15	3,5	N.2L	CM75	MS1200	—	T10
1098804	NER2020K2	20	20	25	125	15	3,5	N.2L	CM75	MS1200	—	T10
1098805	NER2525M2	25	25	32	150	15	3,5	N.2L	CM75	MS1200	—	T10
1098806	NER2525M3	25	25	32	150	22	5,3	N.3L	CM73LP	—	MS2111	25 IP
1098807	NER3225P3	32	25	32	170	22	3,8	N.3L	CM73LP	—	MS2111	25 IP
1098808	NER2525M4	25	25	35	150	24	6,4	N.4L	CM73LP	—	MS2111	25 IP
1098809	NER3225P4	32	25	35	170	24	6,4	N.4L	CM73LP	—	MS2111	25 IP
1098810	NER3232P4	32	32	40	170	24	6,4	N.4L	CM73LP	—	MS2111	25 IP
left hand												
1098874	NEL1616H2	16	16	20	100	15	3,5	N.2R	CM74	MS1200	—	T10
1098875	NEL2020K2	20	20	25	125	15	3,5	N.2R	CM74	MS1200	—	T10
1098876	NEL2525M2	25	25	32	150	15	3,5	N.2R	CM74	MS1200	—	T10
1098877	NEL2525M3	25	25	32	150	22	5,3	N.3R	CM72LP	—	MS2111	25 IP
1098878	NEL3225P3	32	25	32	170	22	3,8	N.3R	CM72LP	—	MS2111	25 IP
1098879	NEL2525M4	25	25	35	150	24	6,4	N.4R	CM72LP	—	MS2111	25 IP
1098880	NEL3225P4	32	25	35	170	24	6,4	N.4R	CM72LP	—	MS2111	25 IP
1098881	NEL3232P4	32	32	40	170	24	6,4	N.4R	CM72LP	—	MS2111	25 IP

NOTE: F dimension measured over sharp point of N-style threading insert.

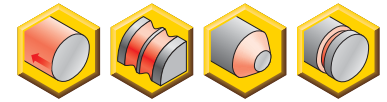
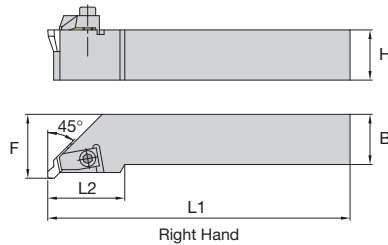
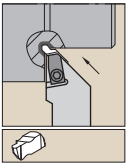


Grooving and Cut-Off

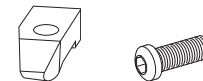
■ Integral 45° Undercut • Inch



order number	catalog number	H	B	F	L1	LH	gage insert	clamp	button-head cap screw	hex/Torx Plus
right hand										
1097579	NRR123B	.750	.750	1.000	4.50	1.25	NU3L	CM73LP	S2112	25 IP
1097580	NRR163C	1.000	1.000	1.250	5.00	1.25	NU3L	CM73LP	S2112	25 IP
1097583	NRR163D	1.000	1.000	1.250	6.00	1.25	NU3L	CM73LP	S2112	25 IP
1097581	NRR203D	1.250	1.250	1.500	6.00	1.25	NU3L	CM73LP	S2112	25 IP
1097582	NRR243D	1.500	1.500	2.000	6.00	1.38	NU3L	CM73LP	S2112	25 IP
left hand										
1097249	NRL123B	.750	.750	1.000	4.50	1.25	NU3R	CM72LP	S2112	25 IP
1097250	NRL163C	1.000	1.000	1.250	5.00	1.25	NU3R	CM72LP	S2112	25 IP
1097253	NRL163D	1.000	1.000	1.250	6.00	1.25	NU3R	CM72LP	S2112	25 IP
1097251	NRL203D	1.250	1.250	1.500	6.00	1.25	NU3R	CM72LP	S2112	25 IP

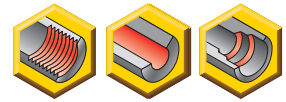
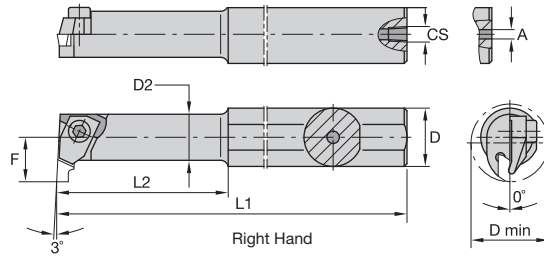
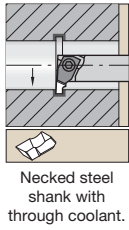


■ Integral 45° Undercut • Metric



order number	catalog number	H	B	F	L1	LH	gage insert	clamp	clamp screw	hex (mm)/Torx Plus
right hand										
1098812	NRR2020K3	20	20	25	125	32	NU3125L	CM73LP	MS2111	25 IP
1098813	NRR2525M3	25	25	32	150	32	NU3125L	CM73LP	MS2111	25 IP
1098814	NRR3225P3	32	25	32	170	32	NU3125L	CM73LP	MS2111	25 IP
left hand										
1098883	NRL2020K3	20	20	25	125	32	NU3125R	CM72LP	MS2111	25 IP
1098884	NRL2525M3	25	25	32	150	32	NU3125R	CM72LP	MS2111	25 IP
1098885	NRL3225P3	32	25	32	170	32	NU3125R	CM72LP	MS2111	25 IP

NOTE: NR-style toolholders are compatible with "NU" style inserts only.

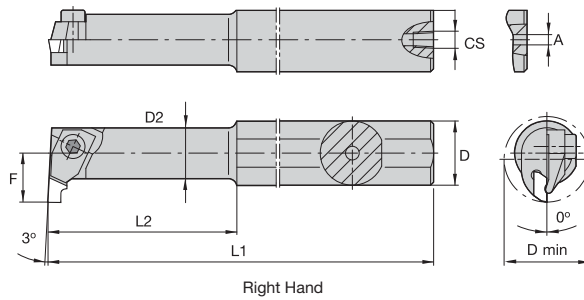
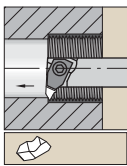


■ Steel Boring Bar • Small ID • Inch



order number	catalog number	D min	D	L1	L2	F	A	CS	gage insert	clamp	clamp screw	hex (inch)/ Torx Plus
right hand												
1094826	A06NER1	.440	.38	6.00	1.250	.26	.13	—	N.1L	CM109	S304	5/64
1094827	A08NER1	.440	.50	8.00	1.290	.26	.09	1/16-27 NPT	N.1L	CM109	S304	5/64
1094828	A10NER1	.800	.63	10.00	—	.41	—	1/8-27 NPT	N.1L	CM109	S304	5/64

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.

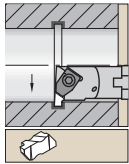


■ Steel Boring Bar • Small ID • Metric

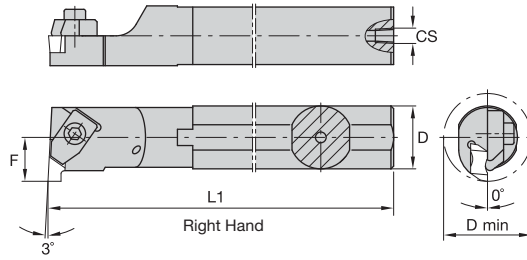


order number	catalog number	D min	D	D2	L1	L2	F	A	CS	gage insert	clamp	clamp screw	hex (mm)
right hand													
1098944	A12MNNTOR1	11,5	12	10,0	150	31,30	7	4,0	1/16-27 NPT	N.1L	CM109	MS1034	1.5 mm
1098943	A10KNNTOR1	11,5	10	10,0	125	—	7	3,2	—	NG1L	CM109	MS1034	1.5 mm

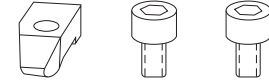
NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.



Steel shank with through coolant.

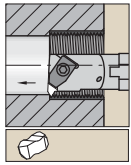


Steel Boring Bar • Inch

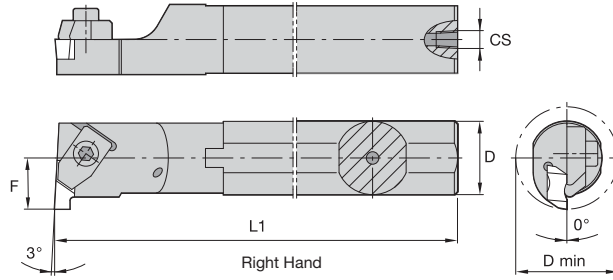


order number	catalog number	D min	D	L1	F	CS	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand											
1094824	A08NER2	.730	.500	8	.437	1/16-27 NPT	N.2L	CM147	—	S39	7/64
1094829	A10SNER2	1.000	.625	10	.500	1/8-27 NPT	N.2L	CM75	—	S310	7/64
1094831	A12SNER2	1.125	.750	10	.562	1/8-27 NPT	N.2L	CM75	—	S310	7/64
1094833	A16TNER2	1.375	1.000	12	.688	1/4-18 NPT	N.2L	CM75	—	S310	7/64
1094835	A16NER3	1.375	1.000	12	.688	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094837	A20NER3	1.750	1.250	14	.875	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094839	A24NER3	2.000	1.500	14	1.000	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094841	A28NER3	2.250	1.750	14	1.125	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094843	A32NER3	2.500	2.000	16	1.250	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094845	A40NER3	3.000	2.500	16	1.500	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094847	A28NER4	2.500	1.750	14	1.250	1/4-18 NPT	N.4L	CM73LP	S2112	—	25 IP
1094849	A32NER4	2.750	2.000	16	1.375	1/4-18 NPT	N.4L	CM73LP	S2112	—	25 IP
1094853	A40NER4	3.250	2.500	16	1.625	1/4-18 NPT	N.4L	CM73LP	S2112	—	25 IP
1094859	A32NER6	2.750	2.000	16	1.375	1/4-18 NPT	N.6L	CM121	S2112	—	5/32
left hand											
1094825	A08NEL2	.730	.500	8	.437	1/16-27 NPT	N.2R	CM146	—	S39	7/64
1094830	A10SNEL2	1.000	.625	10	.500	1/8-27 NPT	N.2R	CM74	—	S310	7/64
1094832	A12NEL2	1.125	.750	10	.562	1/8-27 NPT	N.2R	CM74	—	S310	7/64
1094834	A16TNEL2	1.375	1.000	12	.688	1/4-18 NPT	N.2R	CM74	—	S310	7/64
1094836	A16NEL3	1.375	1.000	12	.688	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094838	A20NEL3	1.750	1.250	14	.875	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094840	A24NEL3	2.000	1.500	14	1.000	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094842	A28NEL3	2.250	1.750	14	1.125	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094844	A32NEL3	2.500	2.000	16	1.250	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094846	A40NEL3	3.000	2.500	16	1.500	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094848	A28NEL4	2.500	1.750	14	1.250	1/4-18 NPT	N.4R	CM72LP	S2112	—	25 IP
1094850	A32NEL4	2.750	2.000	16	1.375	1/4-18 NPT	N.4R	CM72LP	S2112	—	25 IP
1094856	A32NEL5	2.812	2.000	16	1.406	1/4-18 NPT	N.5R	CM80	—	S352	1/4
1094860	A32NEL6	2.750	2.000	16	1.375	1/4-18 NPT	N.6R	CM120	S2112	—	5/32

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.

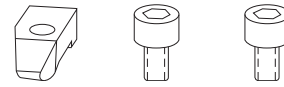


Steel shank with through coolant.



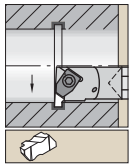
Grooving and Cut-Off

■ **Steel Boring Bar • Metric**

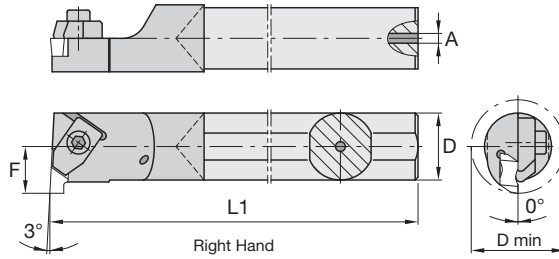


order number	catalog number	D min	D	L1	F	CS	gage insert	clamp	clamp screw	clamp screw	hex (mm)/ Torx Plus
right hand											
1098945	A12MNNTOR2	18,5	12	150	11	1/16-27 NPT	—	CM147	—	MS1200	2.5 mm
1098947	A16MNNTOR2	22,0	16	150	11	1/8-27 NPT	N.2L	CM75	—	MS1200	T10
1098949	A20QNNTOR2	26,0	20	180	13	1/8-27 NPT	N.2L	CM75	—	MS1200	2.5 mm
1098951	A25RNNTOR2	34,0	25	200	17	1/4-18 NPT	N.2L	CM75	—	MS1200	2.5 mm
1098953	A25RNNTOR3	34,0	25	200	17	1/8 - 27 NPT	N.3L	CM73LP	MS2111	—	25 IP
1098955	A32SNNTOR3	44,0	32	250	22	1/4-18 NPT	N.3L	CM73LP	MS2111	—	25 IP
1098957	A40TNNTOR3	54,0	40	300	27	1/4-18 NPT	N.3L	CM73LP	MS2111	—	25 IP
1099001	A40TNNTOR4	54,0	40	300	27	1/4-18 NPT	N.4L	CM73LP	MS2111	—	25 IP
1099003	A50UNNTOR4	70,0	50	350	35	1/4-18 NPT	N.4L	CM73LP	MS2111	—	25 IP
left hand											
1098946	A12MNNTOL2	18,5	12	150	11	1/16-27 NPT	NG2R	CM146	—	MS1200	2.5 mm
1098948	A16MNNTOL2	22,0	16	150	11	1/8-27 NPT	N.2R	CM74	—	MS1200	T10
1098950	A20QNNTOL2	26,0	20	180	13	1/8-27 NPT	NG2R	CM74	—	MS1200	2.5 mm
1098952	A25RNNTOL2	34,0	25	200	17	1/4-18 NPT	N.2R	CM74	—	MS1200	2.5 mm
1098954	A25RNNTOL3	34,0	25	200	17	1/4-18 NPT	N.3R	CM72LP	MS2111	—	25 IP
1098956	A32SNNTOL3	44,0	32	250	22	1/4-18 NPT	N.3R	CM72LP	MS2111	—	25 IP
1098958	A40TNNTOL3	54,0	40	300	27	1/4-18 NPT	N.3R	CM72LP	MS2111	—	25 IP
1099002	A40TNNTOL4	54,0	40	300	27	1/4-18 NPT	N.4R	CM72LP	MS2111	—	25 IP

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.



Carbide shank with through coolant.

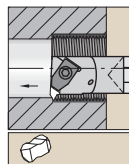


■ Carbide Boring Bar • Inch

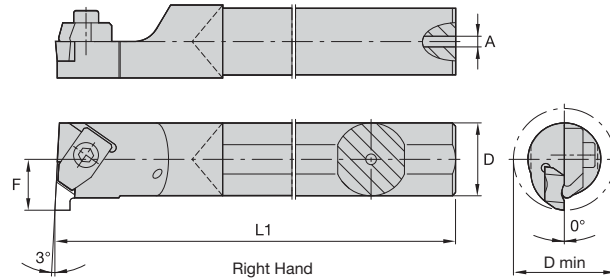


order number	catalog number	D min	D	L1	F	A	gage insert	clamp	clamp screw	hex (inch)/ Torx Plus
right hand										
1152688	E08NER2	.730	.500	8	.437	.19	N.2L	CM147	S39	7/64
1152606	E10NER2	1.000	.625	10	.500	.22	N.2L	CM75	S310	7/64
1152608	E12NER2	1.125	.750	10	.562	.28	N.2L	CM75	S310	7/64
1152610	E16NER3	1.375	1.000	12	.688	.31	N.3L	CM73	S412	25 IP
left hand										
1152689	E08NEL2	.730	.500	8	.437	.19	N.2R	CM146	S39	7/64
1152607	E10NEL2	1.000	.625	10	.500	.22	N.2R	CM74	S310	7/64
1152609	E12NEL2	1.125	.750	10	.562	.28	N.2R	CM74	S310	7/64
1152611	E16NEL3	1.375	1.000	12	.688	.31	N.3R	CM-72	S412	25 IP

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.



Carbide shank with through coolant.

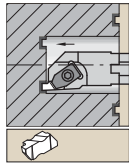


■ Carbide Boring Bar • Metric

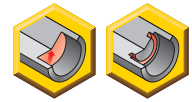
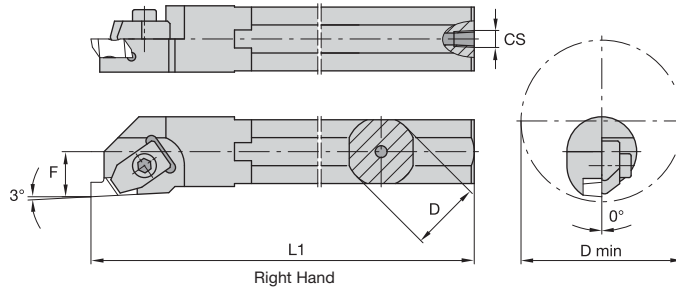


order number	catalog number	D min	D	L1	F	A	gage insert	clamp	clamp screw	Torx/ Torx Plus
right hand										
1152834	E16RNNTOR2	22,0	16	200	11	5,537	N.2L	CM75	MS1200	T10
1152836	E20SNNTOR2	26,0	20	250	13	7,137	N.2L	CM75	MS1200	T10
left hand										
1152835	E16RNNTOL2	22,0	16	200	11	5,537	N.2R	CM74	MS1200	T10

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.



Steel shank with through coolant.



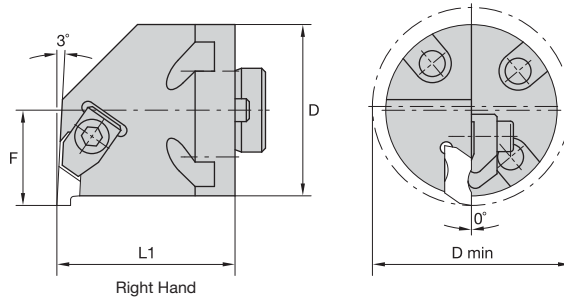
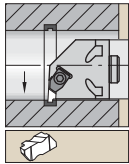
Grooving and Cut-Off

■ Steel Face Grooving Boring Bar • Inch



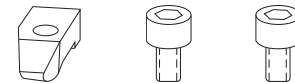
order number	catalog number	D min	D	L1	F	CS	gage insert	clamp	clamp screw	hex (inch)/ Torx Plus
right hand										
1094911	A16TNSR3	2.250	1.000	12	.640	1/4-18 NPT	N.3R	CM72LP	S2112	25 IP
1094913	A20UNSR3	2.250	1.250	14	.765	1/4-18 NPT	N.3R	CM72LP	S2112	25 IP
1094915	A24UNSR3	2.250	1.500	14	.890	1/4-18 NPT	N.3R	CM72LP	S2112	25 IP
1094919	A32VNSR3	2.375	2.000	16	1.281	1/4-18 NPT	N.3R	CM72LP	S2112	25 IP
1094921	A40VNSR3	2.875	2.500	16	1.531	1/4-18 NPT	N.3R	CM72LP	S2112	25 IP
left hand										
1094912	A16TNSL3	2.250	1.000	12	.640	1/4-18 NPT	N.3L	CM73LP	S2112	25 IP
1094916	A24UNSL3	2.250	1.500	14	.890	1/4-18 NPT	N.3L	CM73LP	S2112	25 IP
1094920	A32VNSL3	2.375	2.000	16	1.281	1/4-18 NPT	N.3L	CM73LP	S2112	25 IP

NOTE: Minimum bore applicable only when used with NFD-KI inserts on internal face grooves. See page C197 for machining guidelines when face grooving.



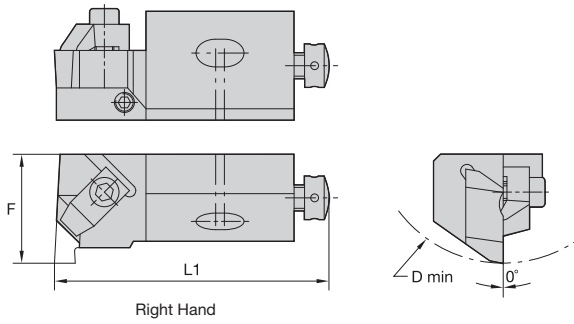
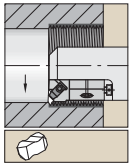
Grooving and Cut-Off

■ Steel Boring Head • Inch



order number	catalog number	D	D min	F	L1	gage insert	clamp	clamp screw	clamp screw	Torx Plus
right hand										
1095314	H20NER3W	1.250	1.750	.875	1.625	N.3L	CM73LP	S2112	—	25 IP
1095362	H24NER3W	1.500	2.000	1.000	1.625	N.3L	CM73LP	S2112	—	25 IP
1095418	H28NER3W	1.750	2.250	1.125	1.625	N.3L	CM73LP	S2112	—	25 IP
1095456	H32NER3W	2.000	2.500	1.250	1.625	N.3L	CM73LP	S2112	—	25 IP
1095533	H40NER3W	2.500	3.000	1.500	1.625	N.3L	CM73LP	S2112	—	25 IP
1095421	H28NER4W	1.750	2.500	1.250	1.625	N.4L	CM73LP	S2112	—	25 IP
1095458	H32NER4W	2.000	2.750	1.375	1.625	N.4L	CM73LP	S2112	—	25 IP
1095516	H36NER4W	2.250	3.000	1.500	1.625	N.4L	CM73LP	S2112	—	25 IP
1095535	H40NER4W	2.500	3.250	1.625	1.625	N.4L	CM73LP	S2112	—	25 IP
1095452	H28NER6W	1.750	2.500	1.250	1.625	N.6L	CM121	—	S412	5/32
1095512	H32NER6W	2.000	2.750	1.375	1.625	N.6L	CM121	—	S412	5/32
1095571	H40NER6W	2.500	3.250	1.625	1.625	N.6L	CM121	—	S412	5/32
1095367	H24NER8W	1.500	2.000	1.000	1.625	N.8L	CM145	—	S422	3/16
left hand										
1095315	H20NEL3W	1.250	1.750	.875	1.625	N.3R	CM72LP	S2112	—	25 IP
1095363	H24NEL3W	1.500	2.000	1.000	1.625	N.3R	CM72LP	S2112	—	25 IP
1095419	H28NEL3W	1.750	2.250	1.125	1.625	N.3R	CM72LP	S2112	—	25 IP
1095457	H32NEL3W	2.000	2.500	1.250	1.625	N.3R	CM72LP	S2112	—	25 IP
1095534	H40NEL3W	2.500	3.000	1.500	1.625	N.3R	CM72LP	S2112	—	25 IP
1095459	H32NEL4W	2.000	2.750	1.375	1.625	N.4R	CM72LP	S2112	—	25 IP
1095536	H40NEL4W	2.500	3.250	1.625	1.625	N.4R	CM72LP	S2112	—	25 IP

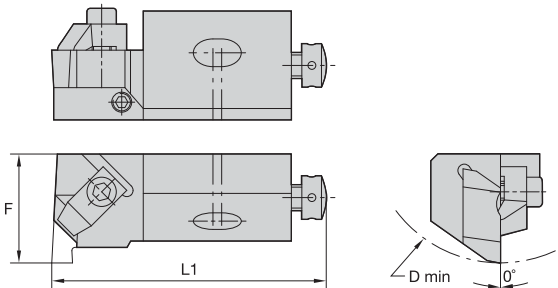
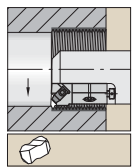
NOTE: For boring adapters, see pages B406–B409.
Minimum bore capability varies with depth of groove. See page C197 for details.



■ **Steel Boring Cartridge • Inch**

order number	catalog number	D min	F	L1	gage insert	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	hex	washer	hold down screw
right hand														
1098380	NER12CA2	1.969	.787	2.19	N.2L	CM75	MS1025	2.5 mm	KUAM23	2.5 mm	KUAM31	4 mm	CSWM 060 050	191.406
left hand														
1098624	NEL12CA2	1.969	.787	2.17	N.2R	CM74	MS1025	2.5 mm	KUAM23	2.5 mm	KUAM31	4 mm	CSWM 060 050	191.406
1098626	NEL25CA3	3.937	1.260	3.94	N.3R	CM72LP	MS412	4 mm	KUAM26	4 mm	KUAM33	6 mm	CSWM 100 080	—

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.



■ **Steel Boring Cartridge • Metric**

order number	catalog number	D min	F	L1	gage insert	clamp	clamp screw	hex (mm)	radial adjusting screw	hex (mm)	axial screw	hex (mm)	washer
right hand													
1098380	NER12CA2	50	20	55,7	N.2L	CM75	MS1025	2.5 mm	KUAM23	2.5 mm	KUAM31	2.5 mm	CSWM 060 050
left hand													
1098624	NEL12CA2	50	20	55,0	N.2R	CM74	MS1025	2.5 mm	KUAM23	2.5 mm	KUAM31	2.5 mm	CSWM 060 050
1098626	NEL25CA3	100	32	100,0	N.3R	CM72LP	MS412	4 mm	KUAM26	4 mm	KUAM33	4 mm	CSWM 100 080

NOTE: Minimum bore diameter (D min) capability varies with thread type and pitch. See page C197 for details.
F dimension measured over sharp point of Top Notch-style threading insert.

■ Machining Guidelines for Chip Control • Grooving

When the proper cutter diameter is not available, proper cutter positioning will provide positive results.

- Center height of insert should be positioned at the center of the workpiece or up to .005" (0,13mm) above.
- Dwell time in the bottom of the groove (more than three revolutions) is not recommended.
- Chip control is feed rate related and should be adjusted to fit the particular situation. Recommended feed range is .003–.012 IPR (0,08–0,3 mm/rev).

■ Groove Limits (Maximum Internal Groove Depth vs. Minimum Bore Diameter)

insert catalog number	maximum internal groove depth		minimum bore diameter	
	inch	mm	inch	mm
NG-1094L	.075	1,91	.800	20,32
—	.040	1,02	.440	11,18
NG-2031R/L	.050	1,27	.730	18,54
NG-2041R/L	—	—	—	—
NG-2047R/L	—	—	—	—
NG-2058R/L	—	—	—	—
—	.110	2,79	2,500	63,50
NG-2062R/L	.102	2,59	1,750	44,45
NG-2094R/L	.098	2,49	1,500	38,10
NG-2125R/L	.080	2,03	1,000	25,40
—	.055	1,40	.730	18,54
NG-3047R/L	—	—	—	—
NG-3062R/L	.094	2,39	1,750	44,45
NG-3072R/L	.090	2,29	1,625	41,28
NG-3078R/L	.075	1,91	1,375	34,93
NG-3088R/L	—	—	—	—
NG-3094R/L	—	—	—	—
NG-3097R/L	.150	3,81	2,375	60,33
NG-3105R/L	—	—	—	—
NG-3110R/L	.145	3,68	2,125	53,98
NG-3122R/L	—	—	—	—
NG-3125R/L	.138	3,51	1,875	47,63
NG-3142R/L	—	—	—	—
NG-3156R/L	.125	3,18	1,625	41,28
NG-3178R/L	—	—	—	—
NG-3185R/L	.110	2,79	1,375	34,93
NG-3189R/L	—	—	—	—
NG-4125R/L	.150	3,81	2,750	69,85
—	.250	6,35	5,750	146,05
NG-4189R/L	.245	6,22	5,000	127,00
NG-4213R/L	.240	6,10	4,500	114,30
NG-4219R/L	.218	5,54	3,250	82,55
NG-4250R/L	.200	5,08	2,500	63,50

NOTE: The same maximum groove depth and minimum bore diameter values also apply to metric, NG-K (chip control), and NR (full radius) inserts of similar size.

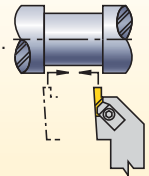
■ Machining Guidelines for Chip Control • Turning/Profiling

Maximum depth of cut for side cutting (turning/profiling) depends on the material being cut and the width of the tool.

- .031–.062" (0,79–1,6mm) wide insert can cut up to .025" (0,6mm) deep.
- .067–.128" (1,7–3,3mm) wide insert can cut up to .040" (1mm) deep.
- .138–.189" (3,5–4,8mm) wide insert can cut up to .080" (2mm) deep.
- .197–.250" (5–6,35mm) wide insert can cut up to .120" (3mm) deep.

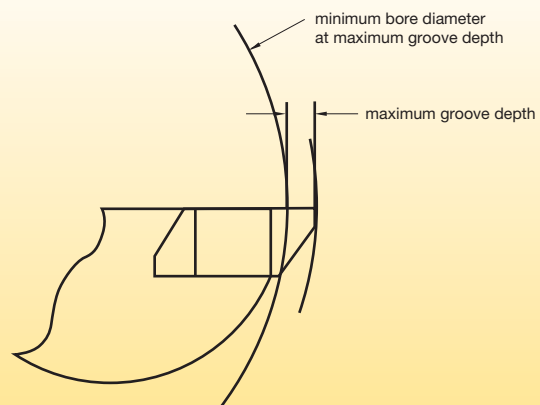
■ Finish Turning the Groove

1. Plunge both sides of groove width.
2. Plunge center area to remove web of material remaining.
3. To avoid insert chipping and to achieve groove wall perpendicularity, follow the tool path outlined.
4. Use the lightest depth of cut that still allows good chipbreaking, tool life, and surface finish.



insert catalog number	maximum internal groove depth		minimum bore diameter	
	inch	mm	inch	mm
—	.375	9,53	28,812	731,82
NG-5250R/L	.361	9,17	15,812	401,62
NG-5281R/L	.344	8,74	10,812	274,62
NG-5312R/L	.327	8,31	7,312	185,72
NG-5344R/L	.294	7,47	4,812	122,22
NG-5375R/L	.257	6,53	3,562	90,47
—	.215	5,46	2,812	71,42
NG-6250R/L	.250	6,35	5,750	146,05
NG-6281R/L	.245	6,22	5,000	127,00
NG-6312R/L	.240	6,10	4,500	114,30
NG-6344R/L	.218	5,54	3,250	82,55
NG-6375R/L	.200	5,08	2,500	63,50

■ Internal Groove Depth versus Bar Interference



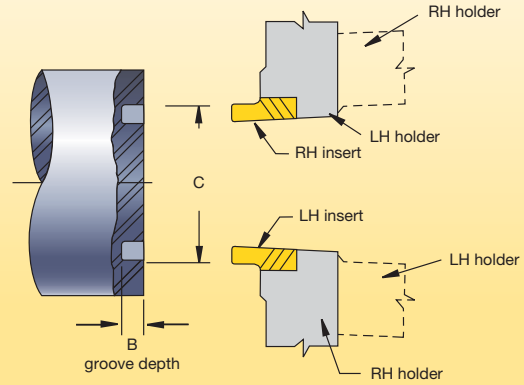
NOTE: Internal grooving depth limits are a function of bar clearance versus bore diameters.

■ Machining Guidelines for Face Grooving Operations • External

Standard NF/NDF Inserts

insert family	maximum groove depth "B"		minimum groove diameter "C"	
	inch	mm	inch	mm
NF-3	.060	1,52	.940	23,90
NF-3	.094	2,39	1.200	30,50
NF-3	.125	3,18	1.420	36,10
NF-3	.150	3,81	1.630	41,30
NFD-3	.250	6,35	1.880	47,60
NF-4/6	.060	1,52	.940	23,90
NF-4/6	.094	2,39	1.200	30,50
NF-4/6	.125	3,18	1.420	36,10
NF-4/6	.150	3,81	1.630	41,30
NF-4/6	.188	4,78	1.880	47,60
NF-4/6	.250	6,35	2.250	57,20
NFD-4	.375	9,53	2.250	57,20
NFD-4	.500	12,70	2.250	57,20

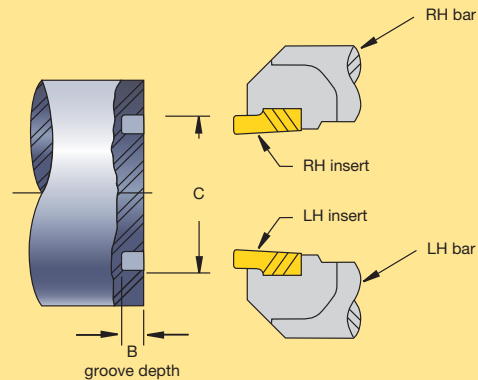
Toolholders



Standard NG/NGD Inserts

insert family	maximum groove depth "B"		minimum groove diameter "C"	
	inch	mm	inch	mm
NG-2	.050	1,27	2.13	54,0
NG-2	.110	2,79	3.50	88,9
NG-3	.094	2,39	4.00	101,6
NG-3	.125	3,18	5.00	127,0
NG-3	.150	3,81	5.50	139,7
NGD-3	.250	6,35	6.88	174,6
NG-4	.150	3,81	6.00	152,4
NG-4	.250	6,35	8.25	209,6
NGD-4	.375	9,53	8.75	222,3
NGD-4	.500	12,70	8.75	222,3
NG-5	.375	9,53	13.00	333,0

Boring Bars

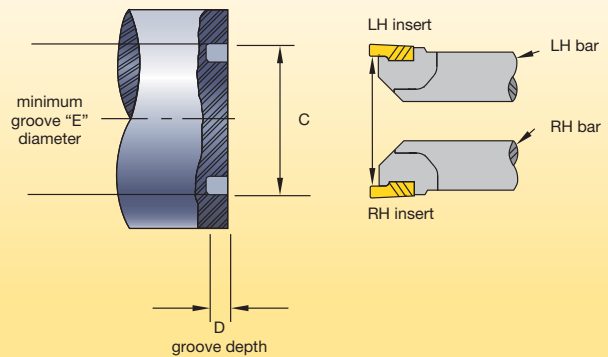


■ Machining Guidelines for Face Grooving Operations • Internal

insert family	maximum groove depth "D"		minimum groove diameter "E"	
	inch	mm	inch	mm
NFD-3-KI	.250	6,35	2.250	57,2

NOTE: For internal applications, use only NFD-KI inserts.

Boring Bars



■ Tool Application Guidelines

- Always use good general machining practices.
- Make the machine and workpiece setup as rigid as possible.
- Integral shank toolholders offer the best rigidity. They should be your first toolholder choice, when possible.
- Use the toolholder with the shortest possible depth of cut for the application ("CD" dimension).
- When changing inserts, make sure the new insert locates securely against the toolholder's positive stop.
- Never tighten the clamping screw without an insert in the pocket.
- Toolholder projection out of the tool block should be as short as possible.
- Inserts should cut as close to center as possible.
- Dwell time in bottom of groove should be less than three revolutions.
- Recommended cutting speed and feeds are a starting point. Adjust, as necessary, for optimum tool life and chip control.

Definitions and Guidelines

1. Width of cut (W) = width of the insert.
2. Lead angle = 0° (neutral); 6° (RH or LH).

Reduce bur of cut-off faces:

- Use lead angle-type inserts (Figures 1 and 2). Lead angle on a cut-off insert reduces the bur that remains on the part but decreases tool life and increases tool side deflection and possibly cycle time.
- If 0° lead angle is mandatory, use the narrowest possible cut-off insert and blade. This will minimize the center stub or cut-off bur length.

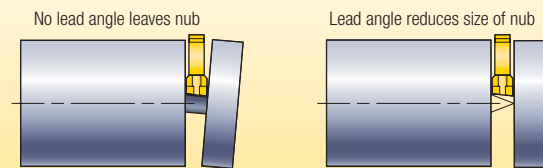
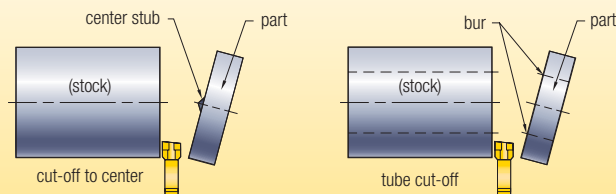


Figure 1

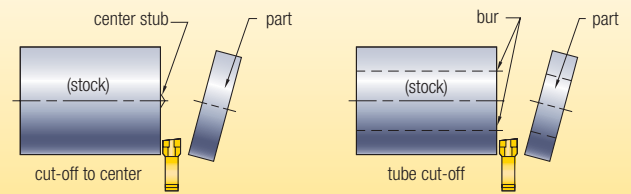
Insert selection left-hand lead



Left-hand lead insert leaves center stub or bur on part and produces clean stock surface.

Figure 2

Insert selection right-hand lead



Reduces nub but decreases tool life and productivity

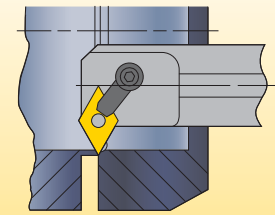
Right-hand lead insert leaves center stub or bur on stock and produces clean part surface.

- Check total height and maintain on center with part diameter.
- The cutting edge height should be within ± 0.004 " (0,1mm) to the center; recommended cutting position is $.002$ " (0,05mm) above center.

■ Tubing

- On tubing-type parts that require a chamfer on the I.D., align I.D. chamfer tool with cut-off surface. This will enable the chamfering operation to actually separate the part from the bar (see Figure 3). Note the part may drop onto the chamfering bar, which, in this case, will act like a catcher for the part.

Figure 3

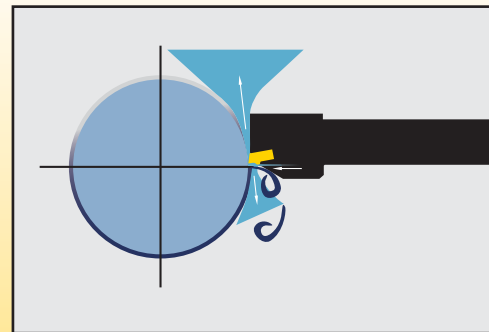


Internal chamfer line up

Improve surface finish of cut-off faces:

- Use insert with 0° lead angle.
- Increase coolant flow or improve application technique, as shown in Figure 4.
- Decrease the feed rate near the break-through point of the cut.
- Check that the grooving tool is set at the correct angle.
- Use blades with the greatest possible face height and smallest possible cutting width.
- Increase the speed.

Figure 4

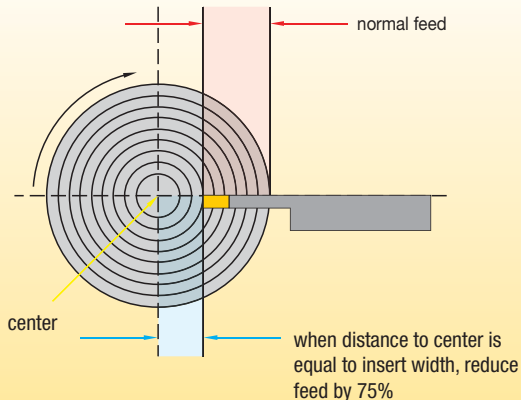


Preferred method for applying coolant

- Mount cut-off tool upside down. This enables gravity to remove chips and avoid cutting the chips twice. Another benefit of mounting the tool upside down is preventing chips from wedging between the tool insert and the groove side walls, which galls the side wall surfaces.

■ Programming Guidelines

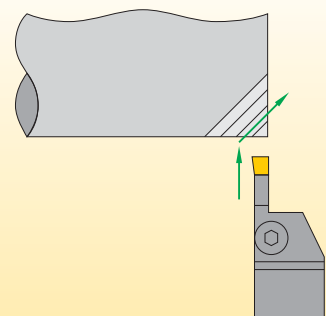
Feed reduction in cut-off



Feed reduction when approaching center = longer tool life

Chamfering

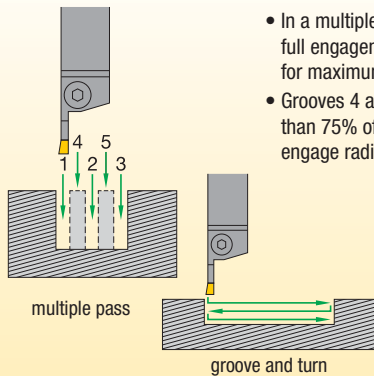
Chamfering with a grooving tool reduced machine index time and tool stations.



(continued)

■ Programming Guidelines (continued)

Pocketing



- In a multiple-pass operation, generate full engagement grooves in 1, 2, and 3 for maximum stability.
- Grooves 4 and 5 should be no more than 75% of insert width, so as not to engage radii.

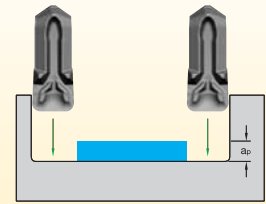
If pocket is deeper than wide = multiple pass

If pocket is wider than deep = groove and turn

Square Pocket

Steps 1 and 2

Plunge the radius and wall on each side to open up two grooves.



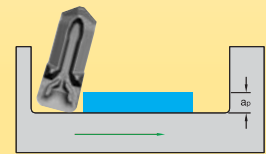
Step 3

Retract tool .004" (0,1mm); this is necessary to create a flat bottom.



Step 4

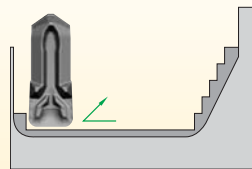
Side turn. This tool is designed to deflect, creating the necessary front clearance.



Profile Pocket

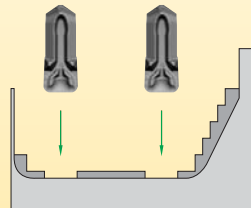
Step 1

Rough to have about the same amount of stock left on all surfaces for finish.



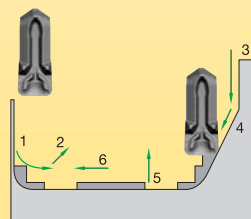
Step 2

Open up two grooves away from wall and radius.



Step 3

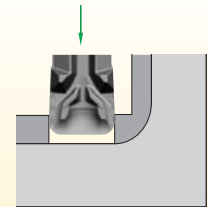
(1 and 2) Finish wall and radius.
 (3 and 4) Finish wall, angle, and radius on opposite side of pocket.
 (5) Retract tool .004" (0,1mm).
 (6) Side turn to finish the floor of the pocket.



Generating a Radius

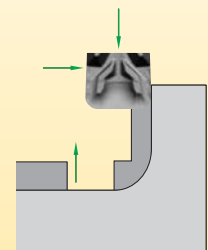
Step 1

Open up a groove away from the radius.



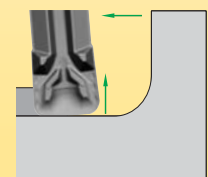
Step 2

Retract and move the material on the wall and generate the radius. By generating the groove in the prior step, only one surface is engaged at a time, reducing the risk of vibrations.



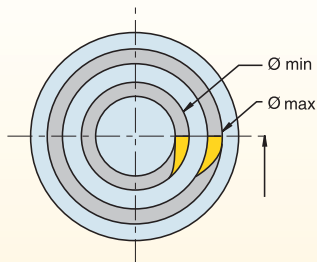
Step 3

Retract the tool .004" (0,1mm) and then side turn.



Grooving Tool Failure and Solution Guide

Face Grooving Application Guidelines



Tool Selection

- When selecting the toolholder, always start at the largest diameter possible and work toward the smaller diameter. This will allow the strongest tool to be used.

Cutting the First Groove

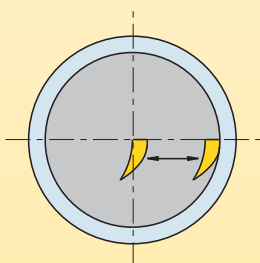
- The outside diameter of the first groove must be between the diameter minimum and diameter maximum capability of the face grooving tool (see illustration above). This creates clearance for the toolholder.

Chip Control

- Adjust speed and feed for good chip control and evacuation from the groove. Chip compaction can cause poor surface finish, tool breakage, and reduced tool life.

Tool Setting

- The tool should be set as close to the center as possible to avoid extreme formation of burs.
- Align the cutting edge square to the workpiece.



Widening a Face Groove

- After the first groove has been cut, the groove width can be widened in either direction using the same tool. The best practice is to work from the O.D. to the I.D.

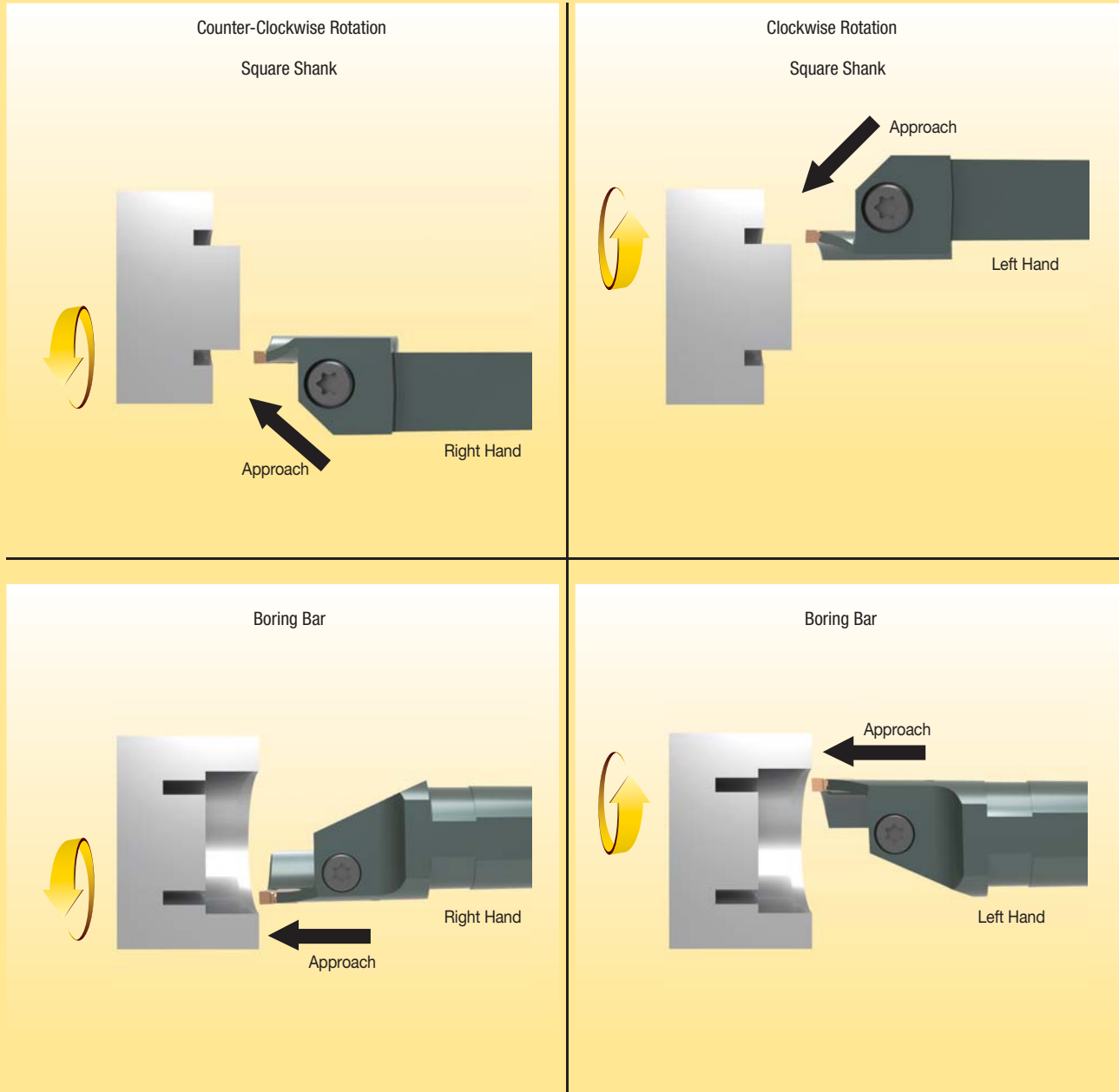
Practical Solutions to Grooving Problems

problem	remedy
bur	<ol style="list-style-type: none"> 1. Verify tool center height. 2. Use sharp tools (index more often). 3. Use positive rake PVD coated insert. 4. Use correct grade for workpiece material. 5. Use correct geometry (e.g., positive rake for workhardening material). 6. Change tool path.
poor surface finish	<ol style="list-style-type: none"> 1. Increase speed. 2. Use sharp tools (index more often). 3. Dwell time in bottom 1–3 revolutions (max). 4. Use proper chip control geometry. 5. Increase coolant flow. 6. Verify proper setup (overhang, shank size). 7. Use correct geometry (e.g., positive rake for workhardening material).
groove bottom not flat	<ol style="list-style-type: none"> 1. Use sharp tools (index more often). 2. Dwell time in bottom 1–3 revolutions (max). 3. Reduce tool overhang (increase rigidity). 4. Reduce feed rate at groove bottom. 5. Use a wider insert. 6. Verify tool center height.
poor chip control	<ol style="list-style-type: none"> 1. Use sharp tools (index more often). 2. Increase coolant concentration. 3. Adjust feed rate (usually increase first).
chatter	<ol style="list-style-type: none"> 1. Reduce tool and workpiece overhang. 2. Adjust speed (usually increase first). 3. Adjust feed (usually increase first). 4. Verify tool center height.
insert chipping	<ol style="list-style-type: none"> 1. Use correct grade for workpiece material. 2. Increase speed. 3. Reduce feed. 4. Use a stronger grade. 5. Increase tool and setup rigidity.
built-up edge	<ol style="list-style-type: none"> 1. Use positive rake PVD coated insert. 2. Increase speed. 3. Reduce feed. 4. Increase coolant flow/concentration. 5. Use cermets.
side walls not straight	<ol style="list-style-type: none"> 1. Check tool alignment for square. 2. Reduce workpiece and tool overhang. 3. Use sharp inserts (index more often).

Steps to proper face grooving tool selection

- Step 1: Select your spindle rotation
- Step 2: Select your angle of approach and toolholder orientation

Integral Tooling

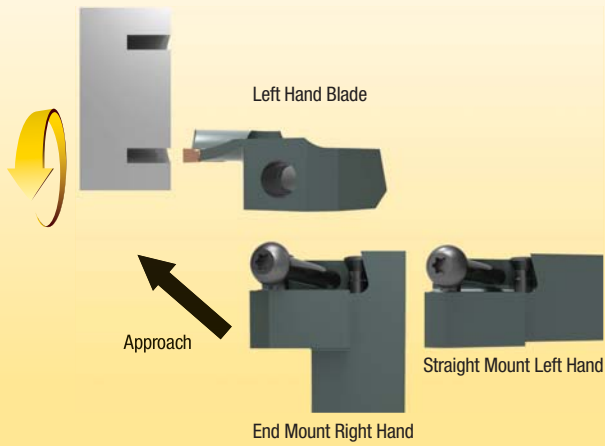


Steps to proper modular face grooving tool selection

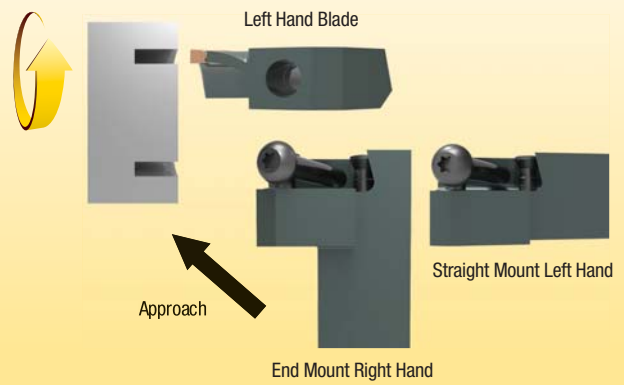
- Step 1: Select your spindle rotation
- Step 2: Select your angle of approach and toolholder orientation
- Step 3: Identify combination of blade and shank tool

Modular Tooling

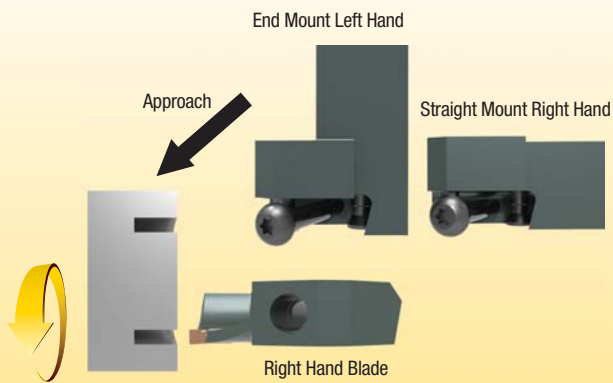
Counter-Clockwise Rotation
Left Hand Outboard Sweep



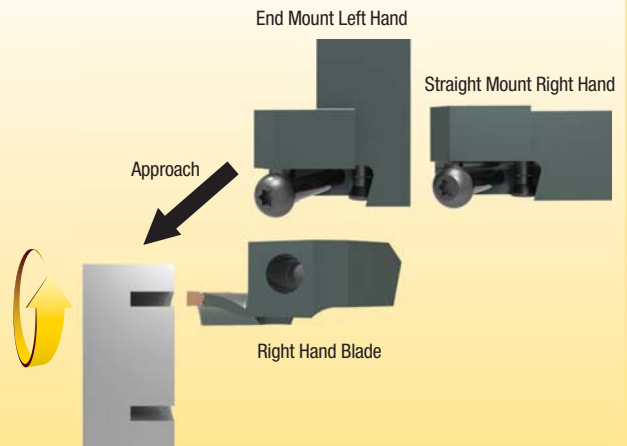
Clockwise Rotation
Left Hand Inboard Sweep



Right Hand Inboard Sweep



Right Hand Outboard Sweep



Beyond™ Drive™ Inserts

- Designed for increased productivity.
- Post-coat treatment reduces stress, improves coating adhesion.
- Excellent toughness and wear resistance.
- Better insert wear detection.

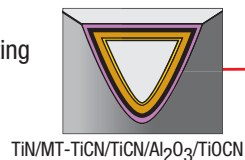
beyond DRIVE™

Post-Coat Grinding — Top and Bottom

- Provides secure seating surface.

Fine-Grained Alumina Layer

- Provides coating integrity at elevated speeds.
- Higher productivity and dependability at high-cutting temperatures.



Post-Coat Treatment

- Improves edge toughness.
- Long predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.

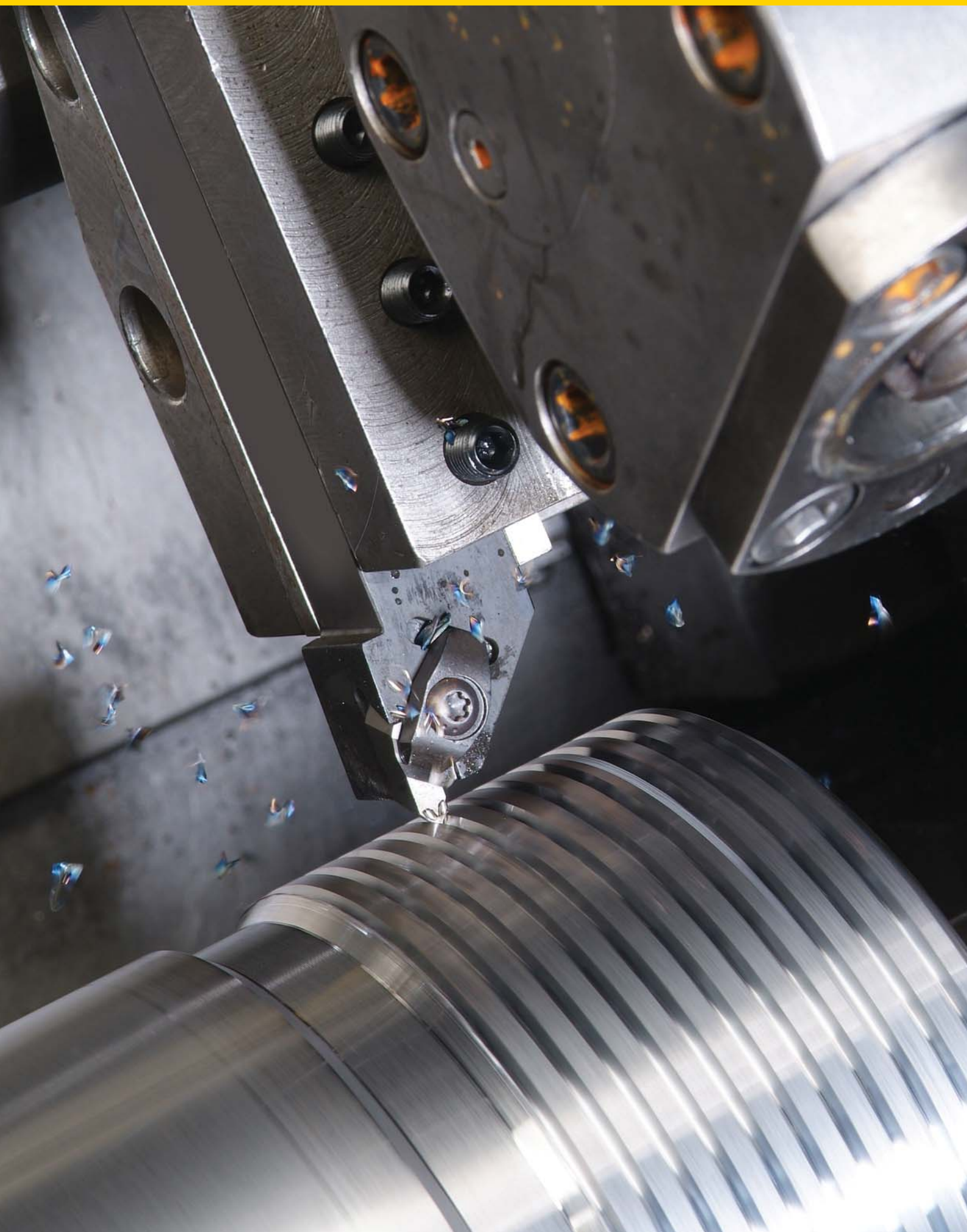
Micro-Polished Edges

- Improves edge toughness.
- Provides smooth outer surface to reduce forces, friction, and workpiece sticking.

Experience the advantages at your Authorized Kennametal
Distributor or at kennametal.com.

KENNAMETAL®

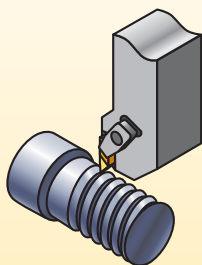
kennametal.com



Threading

Threading Application Guide.....	D2-D3
Top Notch Threading	D4-D42
Laydown Threading.....	D44-D79
Threading Technical Information.....	D81-D105

**Top Notch
External
Threading**



Square Shank Toolholder Sizes:

- Inch — .375–1.5"
- Metric — 10–32mm

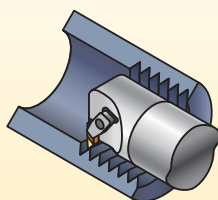
Cresting (Full Profile):

- UN TPI of 32–7
- ISO 1,5–3,0mm pitch

**60° Partial Profile — Flat Top
(NTF and NTK):**

- UN 44–4.5 TPI
- ISO 0,6–5,5mm pitch

**Top Notch
Internal
Threading**



Boring Bar Diameters:

- Inch — .312–2.5"
- Metric — 10–50mm
- Minimum bore — .440" (11,5mm)
- Steel

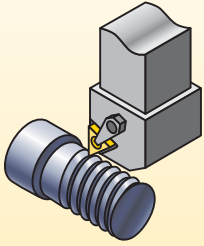
Cresting (Full Profile):

- UN 16–8 TPI
- ISO 1,5–3,0mm pitch

**60° Partial Profile — Flat Top
(NT-1L, NTF, and NTK):**

- UN 24–4.5 TPI
- ISO 1,0–5,5mm pitch

**LT Laydown
External
Threading**



Square Shank Toolholder Sizes:

- Inch — .500–1.25"
- Metric — 8–40mm

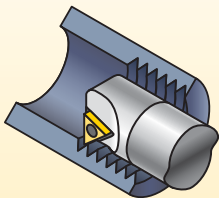
Cresting (Full Profile):

- UN 48–8 TPI
- ISO 0,5–5,0mm pitch

60° Partial Profile:

- UN 48–4 TPI
- ISO 0,5–6,0mm pitch

**LT Laydown
Internal
Threading**



Boring Bar Diameters:

- Inch — .375–1.25"
- Metric — 12–50mm
- Minimum bore — .500" (13mm)
- Steel and carbide

**Cresting (Full Profile)
and Partial Profile:**

- UN 48–8 TPI
- ISO 0,5–5,0mm pitch

60° Partial Profile:

- UN 48–4 TPI
- ISO 0,5–6,0mm pitch

55° Partial Profile:

- UN 48–5 TPI
- ISO 0,5–5,0mm pitch

➤ Top Notch™ Thread Tooling

The Proven High-Productivity Threading Solution

Top Notch threading with Beyond™ insert technology provides consistent tool performance and superior clamping thread to almost any operation. With the largest selection of grades and geometries in the industry, the Top Notch threading system is a proven solution.

Features and Benefits

Choosing the Top Notch Threading System

- A superior choice for heavy-duty applications like machining of Acme, Buttress, and API threads. Top Notch is also the best system for coarse pitch and multitooth threading applications.
- Largest selection of insert geometries and grades in the industry.
- A very rigid insert clamping design ensures best tool life, surface finish, and workpiece quality.
- Simplicity of the Top Notch design does not require shim selection for thread helix angles. This helps to avoid mistakes on the shop floor.
- Reduce inventory by using the same Top Notch toolholders and boring bars with either threading or grooving inserts.
- Top Notch chipbreaker inserts eliminate long troublesome coils.
- An excellent choice for special thread forms and toolholder designs.

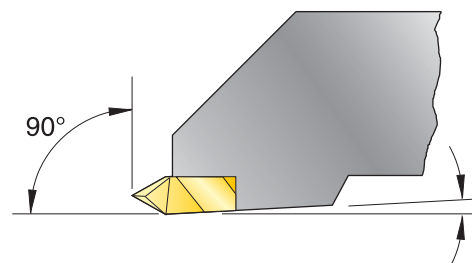


Top Notch inserts are available in KCU10™ and KCU25™ grades to withstand the demands placed on the cutting edge of the threading insert.

The versatility of the Top Notch™ steel enables you to use both threading and grooving inserts in the same toolholder.

Precision-Ground Thread Form

- Minimizes built-up edge.
- Precisely cuts most common materials.
- Reduces cutting forces.
- Ensures accurate high-quality threads.



NOTE: Holders are designed to locate inserts inclined to 3° to provide back clearance down open side.

Superior Chip Control

- Eliminates long, troublesome coils.
- Excellent for internal threading operations.
- Available in partial profile inserts for 60° thread forms.

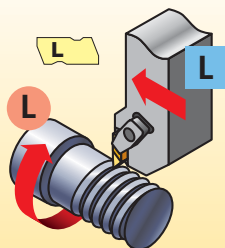
Step 1 • Select Threading Method and Hand of Tooling

Required Information:

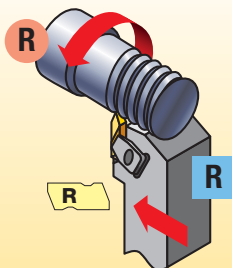
- External/internal operation.
- Spindle rotation/hand of thread.
- Feed direction.



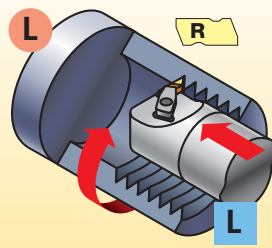
Feed direction toward the chuck • RECOMMENDED



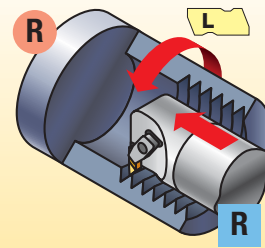
external left-hand thread



external right-hand thread

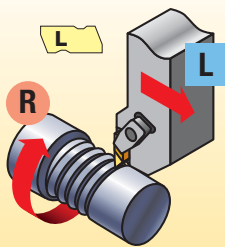


internal left-hand thread

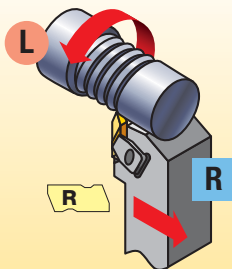


internal right-hand thread

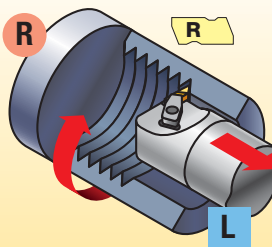
Feed direction away from the chuck



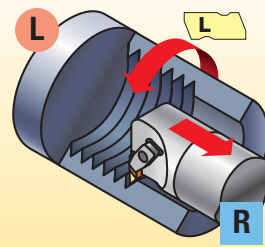
external right-hand thread



external left-hand thread



internal right-hand thread



internal left-hand thread

Step 2 • Select Holder from Catalog Page

The insert size must match the gage insert size of your toolholder selection:

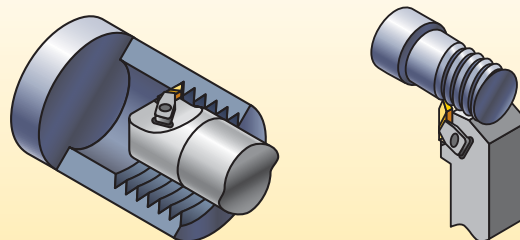
Required Information:

- External/internal operation.
- Minimum bore diameter (for internal operations).
- Hand of tool.
- Insert size (gage insert).

catalog number	gage insert
NSR-163D	N.3R
NSR-164D	N.4R

NOTE: Top Notch toolholders and boring bars are listed with a gage insert to indicate the size and hand required. They are compatible with both grooving and threading inserts of the same size.

Select the appropriate holder for the insert size and hand:



NOTE: Optimize your threading operation by using the proper infeed method and the recommended infeed values.

See the Technical section on pages D82–D105 of this catalog. For internal threading, minimum bore varies depending on thread type. See page D96 for details.

Step 3 • Choose Insert for Application

- See threading insert overview on page D10.
- Select cresting inserts for fully controlled thread form including diameter control. Cresting inserts eliminate the need for deburring.
- Non-cresting partial profile inserts can cut a variety of thread pitches.
- Note insert size for toolholder selection.

	insert size	catalog number	KCU25/ KC5025	KCU10/ KC5010
	2	NT-2RK	•	•
	3	NT-3RK	•	•
	4	NT-4RK	•	•

Step 4 • Select Grade and Speed

Recommendations for Grade and Speed Selection — m/min (SFM)

workpiece material	steel	stainless steel	cast iron	non-ferrous metals	high-temp alloys
insert style	chip control or neutral	chip control or positive	neutral	positive	positive
optimum cutting conditions	KCU10/KC5010 70–260 (240–850)	KCU10/KC5010 90–245 (300–800)	KCU10/KC5010 60–245 (200–800)	KC5410 90–550 (300–1800)	KCU10/KC5010 30–150 (100–500)
first choice	KCU25/KC5025 50–230 (160–750)	KCU25/KC5025 75–230 (250–750)	KCU25/KC5025 50–180 (160–600)	KCU25/KC5025 60–455 (200–1500)	KCU25/KC5025 20–120 (75–400)

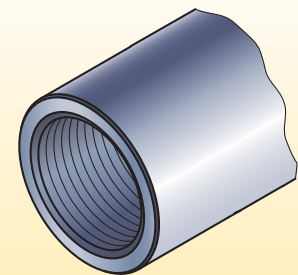
Examples:

- Chip Control:** NT-K or NT-CK (partial profile only)
Neutral: NT, NT-C, NTF, NTC, NJ, NJF, NDC-V, NA, NDC, NTB-A/B
Positive: NTP, NTK, NJP, NJK

Top Notch Threading Example:

application: 8 TPI Acme internal right-hand thread
material: alloy steel
workpiece diameter: 4.5" (114,3mm)
 good cutting conditions
 feed towards the chuck

Recommendation:
insert: NA3L8
grade: KCU10
insert size: 3
boring bar: A40NER3
gage insert: N.3L
speed: 500 SFM (150 m/min)
infeed passes*: 12 passes



*Infeed recommendations provided in technical data section on pages D91–D95.

Recommended Starting Speeds [m/min]

Threading

Material Group		K68			KCU10/KC5010			KCU25/KC5025			KC5410		
P	0-1	-	-	-	135	200	260	105	165	230	-	-	-
	2	-	-	-	130	190	245	100	150	200	-	-	-
	3	-	-	-	105	155	200	75	125	170	-	-	-
	4	-	-	-	70	120	160	60	95	130	-	-	-
	5	-	-	-	105	155	200	75	130	170	-	-	-
	6	-	-	-	70	120	160	50	90	130	-	-	-
M	1	45	75	105	120	180	245	90	170	230	-	-	-
	2	35	65	100	90	165	210	75	140	200	-	-	-
	3	35	65	100	90	165	210	75	135	200	-	-	-
K	1	30	75	120	120	180	245	90	135	180	-	-	-
	2	25	60	100	90	150	210	70	120	170	-	-	-
	3	20	55	90	60	105	150	50	85	120	-	-	-
N	1-2	90	245	365	150	365	550	120	305	455	245	425	610
	3	45	75	105	90	135	180	60	105	150	90	150	210
	4	60	120	180	120	305	455	100	200	305	120	305	455
	5	45	90	150	90	165	245	70	135	195	120	210	305
	6	35	75	120	120	210	305	100	170	245	120	245	365
	S	1	8	25	45	30	70	105	20	40	60	-	-
2		8	24	40	30	65	100	20	35	45	-	-	-
3		8	24	40	30	65	100	20	35	45	-	-	-
4		9	60	105	55	105	150	45	85	120	-	-	-
H	1	-	-	-	30	45	60	-	-	-	-	-	-
	2	-	-	-	15	30	45	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-	-

NOTE: FIRST choice starting speeds are in bold type.

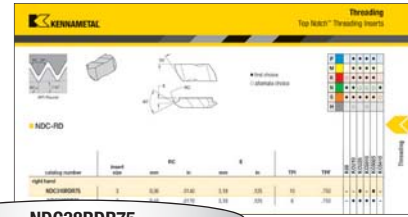
Recommended Starting Speeds [SFM]

Material Group		K68			KCU10/KC5010			KCU25/KC5025			KC5410		
P	0-1	-	-	-	450	650	850	350	550	750	-	-	-
	2	-	-	-	430	630	800	330	500	650	-	-	-
	3	-	-	-	350	520	650	250	420	550	-	-	-
	4	-	-	-	240	400	520	200	310	420	-	-	-
	5	-	-	-	350	520	650	250	420	550	-	-	-
	6	-	-	-	240	400	520	160	300	420	-	-	-
M	1	150	250	350	400	600	800	300	550	750	-	-	-
	2	120	220	320	300	550	700	250	470	650	-	-	-
	3	120	220	320	300	550	700	250	450	650	-	-	-
K	1	100	250	400	400	600	800	300	450	600	-	-	-
	2	80	200	320	300	500	700	240	400	560	-	-	-
	3	60	180	300	200	350	500	160	280	400	-	-	-
N	1-2	300	800	1200	500	1200	1800	400	1000	1500	800	1400	2000
	3	150	250	350	300	450	600	200	350	500	300	500	700
	4	200	400	600	400	1000	1500	320	660	1000	400	1000	1500
	5	150	300	500	300	550	800	240	440	640	400	700	1000
	6	120	250	400	400	700	1000	320	560	800	400	800	1200
	S	1	25	90	150	100	230	350	75	125	200	-	-
2		25	80	130	100	210	320	75	110	150	-	-	-
3		25	80	130	100	210	320	75	110	150	-	-	-
4		30	200	350	180	350	500	150	280	400	-	-	-
H	1	-	-	-	100	150	200	-	-	-	-	-	-
	2	-	-	-	50	100	150	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-	-	-	-


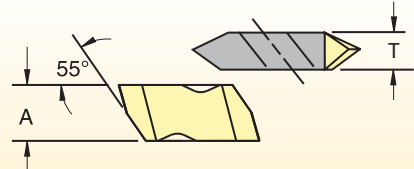


















NOTE: FIRST choice starting speeds are in bold type.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

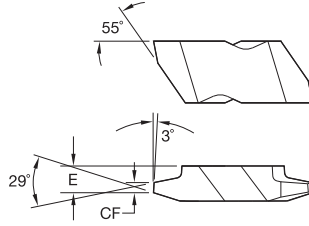
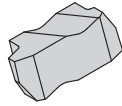
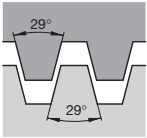


NDC38RDR75

N	D	C	3	8RD	R	75																																										
Type of Insert	Insert	Additional Information	Insert Size	Industry Thread Identification	Hand of Insert	Definition of Insert	Additional Information																																									
<p>N — Top Notch*</p> 		<p>B — Buttress</p> <p>F — Fine pitch</p> <p>S — Stub Acme</p> <p>C — Cresting</p> <p>P — Positive rake</p> <p>K — Fine pitch, positive</p>		<p>Indicates API or drilling industry form designation (e.g., 10RD, 8RD, .038) or controlled root radius threading inserts indicate the root radius in .001" increments (NJ, NJF, NJP, NJK) or M indicates metric ISO thread</p>	<p>R — Right hand</p> <p>L — Left hand</p>																																											
<p>A — Acme</p> <p>D — API or NPT</p> <p>J — UNJ thread</p> <p>T — 60° V thread</p> <p>W — 55° V Whitworth</p>	 <p>Top Notch insert dimensions</p> <table border="1" data-bbox="470 1444 949 1780"> <thead> <tr> <th rowspan="2">insert size</th> <th colspan="2">A</th> <th colspan="2">T</th> </tr> <tr> <th>inch</th> <th>mm</th> <th>inch</th> <th>mm</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>.100</td> <td>2,54</td> <td>.100</td> <td>2,54</td> </tr> <tr> <td>2</td> <td>.219</td> <td>5,56</td> <td>.150</td> <td>3,81</td> </tr> <tr> <td>3</td> <td>.344</td> <td>8,74</td> <td>.195</td> <td>4,95</td> </tr> <tr> <td>4</td> <td>.453</td> <td>11,51</td> <td>.255</td> <td>6,48</td> </tr> <tr> <td>5</td> <td>.688</td> <td>17,48</td> <td>.380</td> <td>9,65</td> </tr> <tr> <td>6</td> <td>.453</td> <td>11,51</td> <td>.383</td> <td>9,73</td> </tr> <tr> <td>8</td> <td>.312</td> <td>7,93</td> <td>.438</td> <td>11,13</td> </tr> </tbody> </table>		insert size	A		T		inch	mm	inch	mm	1	.100	2,54	.100	2,54	2	.219	5,56	.150	3,81	3	.344	8,74	.195	4,95	4	.453	11,51	.255	6,48	5	.688	17,48	.380	9,65	6	.453	11,51	.383	9,73	8	.312	7,93	.438	11,13	<ul style="list-style-type: none"> • Threads per inch or pitch (for metric) • "A" or "B" type Buttress insert • Taper per foot — API threads 	<p>I — Internal thread</p> <p>E — External thread (used only if internal and external thread forms are different)</p> <p>M — Multiple tooth</p> <p>K — Standard chip control</p> <p>C — Coarse pitch</p> <p>D — Dryseal</p>
insert size	A			T																																												
	inch	mm	inch	mm																																												
1	.100	2,54	.100	2,54																																												
2	.219	5,56	.150	3,81																																												
3	.344	8,74	.195	4,95																																												
4	.453	11,51	.255	6,48																																												
5	.688	17,48	.380	9,65																																												
6	.453	11,51	.383	9,73																																												
8	.312	7,93	.438	11,13																																												
<table border="0"> <tr> <td>NJF</td> <td>NDC-V-M</td> <td>NTC</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>NA</td> <td>NT</td> <td>NT-K</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>								NJF	NDC-V-M	NTC				NA	NT	NT-K																																
NJF	NDC-V-M	NTC																																														
																																																
NA	NT	NT-K																																														
																																																

*Kennametal proprietary standard only.
kennametal.com

style			thread profile	standard	tolerance class	cresting	application	page(s)
chip control — K	neutral	positive						
NT-K	NT	NTP	Partial Profile 60°	—	—	N	General use for 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches.	D17, D22
NT-CK			Partial Profile 60° — coarse pitch	—	—	N	Coarse pitch 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches.	D19
	NTF	NTK	Partial Profile 60° — fine pitch	—	—	N	Fine pitch 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches — able to thread close to shoulders.	D21
	NTU		Partial Profile 60° — fine pitch	—	—	N	Four-edged insert for 60° partial profile threading — requires NSU-style toolholder for size 4U insert.	D22
	NTC-M		Metric ISO	ISO R262, DIN 13	6g/6H	Y	Widely used metric 60° V-form for all industries.	D19
	NTC		American UN	ANSI B1.1:74	2A/2B	Y	Widely used inch-based 60° V-form for all industries.	D20
	NJ	NJP	UNJ	MIL-S-8879C	3A/3B	N	Controlled root radius on external threads for military and aerospace industries.	D15–D16
	NJF	NJK	UNJ — fine pitch	MIL-S-8879C	3A/3B	N	Controlled root radius on external threads for military and aerospace industries — able to thread close to shoulders.	D15–D16
	NDC-V		NPT	ANSI/ACME B1.201:1983	Standard NPT	Y	National Pipe Thread standard forms for pipe fittings.	D14
	NDC-V-M		NPT — multitooth	ANSI/ACME B1.201:1983	Standard NPT	Y	High-productivity multi-tooth threading inserts for NPT threads.	D14
	NWC-E		Whitworth, BSW, BSP	BS 84:1956, ISO 228/1:1982, DIN 259	Medium Class A	Y	Widely used 55° form for gas and water connections.	D23
	ND		API Rotary Shoulder Connections — partial profile	API SPEC. 7:1990	Standard API	N	60° V-form used for rotary shoulder pipe connections in the oil and gas industry including V-.038R, V-.040, and V-.050 forms.	D12
	NDC		API Rotary Shoulder Connections — cresting	API SPEC. 7:1990	Standard API	Y	60° V-form used for rotary shoulder pipe connections in the oil and gas industry including V-.038R, V-.040, and V-.050 forms — complete cresting form including taper.	D13
	NDC-RD		API Round	API STD. 5B:1979	Standard API RD	Y	60° V-form with large radius for casing, tubing, and line pipe in the oil and gas industry, including 8 and 10 round forms.	D13
	NDC-RD-M		API Round — multitooth	API STD. 5B:1979	Standard API RD	Y	High productivity multitooth threading inserts for API round threads.	D13
	NA		Acme	ANSI B1.5:1988	3G	N	29° truncated thread form for motion applications in a wide variety of industries.	D11
	NAS		Stub Acme	ANSI B1.8:1988	2G	N	Shallow depth 29° truncated thread form for motion applications in a wide variety of industries.	D12
	NTB-A		American Buttress — 7° clearance flank leading (Push)	ANSI B1.9:1973	Class 2	N	Sawtooth form for axial load bearing applications in a variety of industries — use the “A” style when the 7° clearance flank is the leading flank.	D17
	NTB-B		American Buttress — 45° clearance flank leading (Pull)	ANSI B1.9:1973	Class 2	N	Sawtooth form for axial load bearing applications in a variety of industries — use the “B” style when the 45° clearance flank is the leading flank.	D18



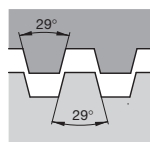
● first choice
○ alternate choice

P	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●
N	●	●	○	○	○	○	●
S	●	●	●	●	●	●	○
H	○	○	○	○	○	○	○

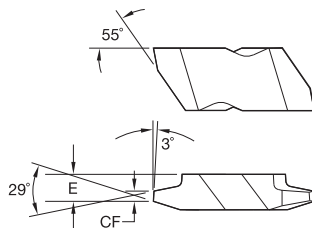
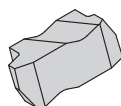
■ NA

catalog number	insert size	RC		E		CF		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in	mm	in								
right hand															
NA3R10	3	—	—	3,79	.149	0,810	.0319	10	—	—	●	●	●	●	—
NA3R12	3	—	—	3,79	.149	0,719	.0283	12	—	—	●	—	—	●	—
NA3R16	3	—	—	3,79	.149	0,523	.0206	16	—	—	●	—	—	—	—
NA3R4	3	—	—	3,38	.133	2,222	.0875	4	—	—	—	●	●	●	—
NA3R5	3	—	—	3,79	.149	1,750	.0689	5	—	—	●	●	●	●	—
NA3R6	3	—	—	3,79	.149	1,438	.0566	6	—	—	●	●	●	●	—
NA3R8	3	—	—	3,79	.149	1,044	.0411	8	—	—	●	●	●	●	—
NA4R4	4	—	—	5,13	.202	2,223	.0875	4	—	—	—	●	●	●	—
NA4R5	4	—	—	5,13	.202	1,750	.0689	5	—	—	—	—	—	●	—
NA4R6	4	—	—	5,13	.202	1,438	.0566	6	—	—	—	—	—	●	—
NA6R25	6	—	—	7,19	.283	3,635	.1431	2.5	—	—	—	—	—	—	—
NA6R2	6	—	—	7,19	.283	4,577	.1802	2	—	—	●	●	●	●	—
NA6R3	6	—	—	7,19	.283	3,007	.1184	3	—	—	—	●	—	●	—
left hand															
NA3L8	3	—	—	3,79	.149	1,044	.0411	8	—	—	●	●	●	●	—
NA3L10	3	—	—	3,79	.149	0,810	.0319	10	—	—	—	●	—	●	—
NA3L12	3	—	—	3,79	.149	0,719	.0283	12	—	—	—	—	●	●	—
NA3L4	3	—	—	3,38	.133	2,222	.0875	4	—	●	●	●	●	●	—
NA3L5	3	—	—	3,79	.149	1,750	.0689	5	—	—	—	●	●	●	—
NA3L6	3	—	—	3,79	.149	1,438	.0566	6	—	—	—	●	●	●	—
NA4L5	4	—	—	5,13	.202	1,750	.0689	5	—	—	—	—	—	●	—
NA4L6	4	—	—	5,13	.202	1,438	.0566	6	—	—	—	—	—	●	—
NA4L8	4	—	—	5,13	.202	1,044	.0411	8	—	—	—	—	—	—	—
NA4L4	4	—	—	5,13	.202	2,223	.0875	4	—	—	●	—	—	●	—
NA6L3	6	—	—	7,19	.283	3,007	.1184	3	—	—	—	●	—	●	—
NA6L25	6	—	—	7,19	.283	3,635	.1431	2.5	—	—	—	●	—	—	—
NA6L2	6	—	—	7,19	.283	4,577	.1802	2	—	—	—	●	●	●	—
NA3L16	3	—	—	3,79	.149	0,523	.0206	16	—	—	●	—	—	—	—





Stub Acme



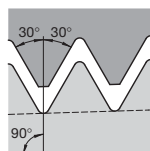
● first choice
○ alternate choice

P	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●
N	●	○	○	○	○	○	○	○	○
S	●	●	●	●	●	●	●	●	○
H	○	○	○	○	○	○	○	○	○

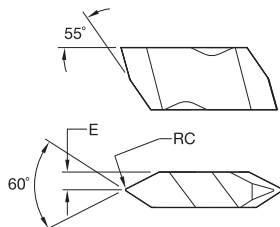
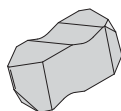
NAS

Threading

catalog number	insert size	RC		E		CF		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in	mm	in								
right hand															
NAS3R10	3	—	—	3,79	.149	0,940	.0370	10	—	—	●	—	●	●	—
NAS3R12	3	—	—	3,79	.149	0,828	.0326	12	—	—	—	●	—	●	—
NAS3R16	3	—	—	3,79	.149	0,605	.0238	16	—	—	—	—	—	●	—
NAS3R4	3	—	—	3,79	.149	2,550	.1004	4	—	—	—	●	—	●	—
NAS3R5	3	—	—	3,79	.149	2,014	.0793	5	—	—	—	—	—	●	—
NAS3R6	3	—	—	3,79	.149	1,656	.0652	6	—	—	—	—	—	●	—
NAS3R8	3	—	—	3,79	.149	1,209	.0476	8	—	—	—	—	—	●	—
left hand															
NAS3L10	3	—	—	3,79	.149	0,940	.0370	10	—	—	●	—	—	●	—
NAS3L12	3	—	—	3,79	.149	0,828	.0326	12	—	—	—	—	—	●	—
NAS3L4	3	—	—	3,79	.149	2,550	.1004	4	—	—	—	●	—	●	—
NAS3L5	3	—	—	3,79	.149	2,014	.0793	5	—	—	—	—	—	●	—
NAS3L6	3	—	—	3,79	.149	1,656	.0652	6	—	—	—	—	—	●	—
NAS3L8	3	—	—	3,79	.149	1,209	.0476	8	—	—	—	—	—	●	—

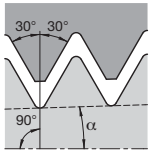


API Rotary Shoulder Connections

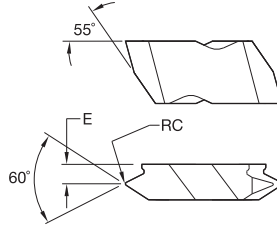
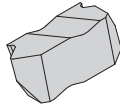


ND • Partial Profile

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
ND3040R	3	0,45	.0175	2,08	.082	5	—	—	—	—	—	●	—
ND3038R	3	0,90	.0355	2,08	.082	4	—	—	—	—	—	●	—
ND4050R	4	0,57	.0225	3,25	.128	4	—	—	●	—	—	—	—
left hand													
ND3038L	3	0,90	.0355	2,08	.082	4	—	—	—	—	—	●	—
ND3040L	3	0,45	.0175	2,08	.082	5	—	—	—	●	—	—	—



$\alpha = 1/2 \arctg (tpf/12)$
API Rotary Shoulder Connections

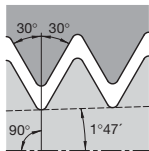


- first choice
- alternate choice

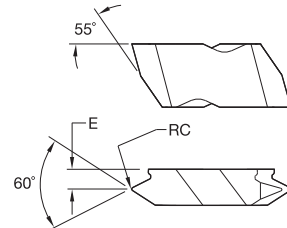
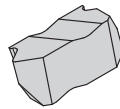
P	●	●	●	●	●	●
M	●	●	●	●	●	●
K	○	●	●	●	●	●
N	●	●	○	○	○	●
S	●	●	●	●	●	○
H	○	○	○	○	○	○

■ NDC • Cresting

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NDC3040R3	3	0,45	.0175	3,73	.147	5	3.000	-	-	-	●	-	-
NDC4040R3	4	0,45	.0175	3,73	.147	5	3.000	-	-	-	●	-	-
NDC4050R2	4	0,57	.0225	4,65	.183	4	2.000	-	-	-	●	-	-
NDC4050R3	4	0,57	.0225	4,65	.183	4	3.000	-	-	-	●	-	-
NDC4038R2	4	0,90	.0355	4,65	.183	4	2.000	-	-	-	●	-	-
left hand													
NDC3040L3	3	0,45	.0175	3,73	.147	5	3.000	-	-	-	●	-	-
NDC4050L2	4	0,57	.0225	4,65	.183	4	2.000	-	-	-	●	-	-
NDC4038L2	4	0,90	.0355	4,65	.183	4	2.000	-	-	-	●	-	-

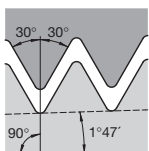


API Round

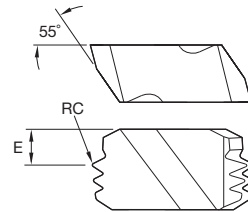
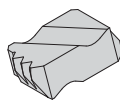


■ NDC-RD

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NDC310RDR75	3	0,36	.0140	3,18	.125	10	.750	-	-	-	●	-	-
NDC38RDR75	3	0,43	.0170	3,18	.125	8	.750	-	-	●	●	●	-
left hand													
NDC310RDL75	3	0,36	.0140	3,18	.125	10	.750	-	-	-	●	-	-
NDC38RDL75	3	0,43	.0170	3,18	.125	8	.750	-	-	●	●	●	-



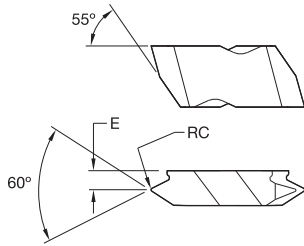
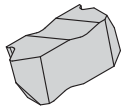
API Round



■ NDC-RD-M • Multitooth

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NDC68RDR75M	6	0,41	.0160	2,62	.103	8	.750	-	●	-	-	-	-





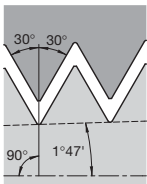
● first choice
○ alternate choice

P	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●
N	●	●	○	○	○	○	●
S	●	●	●	●	●	●	○
H	○	○	○	○	○	○	○

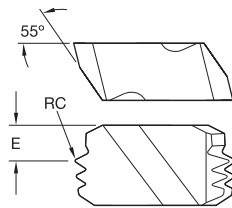
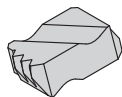
Threading

■ NDC-V

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NDC327VR75	3	0,05	.0020	3,66	.144	27	.750	-	●	-	-	-	-
NDC314VR75	3	0,08	.0030	3,66	.144	14	.750	-	●	-	-	-	-
NDC3115VR75	3	0,10	.0040	3,66	.144	11.5	.750	-	●	-	●	-	-
NDC38VR75	3	0,13	.0050	2,54	.100	8	.750	-	-	-	●	-	-
left hand													
NDC3115VL75	3	0,10	.0040	3,66	.144	11.5	.750	-	●	-	●	-	-
NDC38VL75	3	0,13	.0050	2,54	.100	8	.750	-	-	-	●	-	-

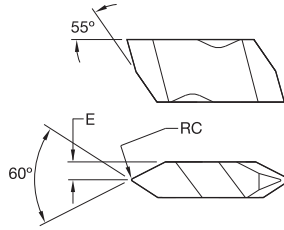
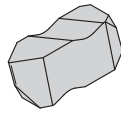
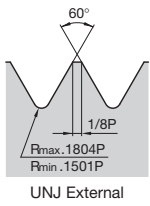


NPT



■ NDC-V-M • Multitooth

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NDC8115VR75M	8	0,10	.0040	2,59	.102	11.5	.750	-	●	-	-	-	-
NDC88VR75M	8	0,13	.0050	2,41	.095	8	.750	-	●	-	●	-	-
left hand													
NDC88VL75M	8	0,13	.0050	2,41	.095	8	.750	-	-	-	●	-	-

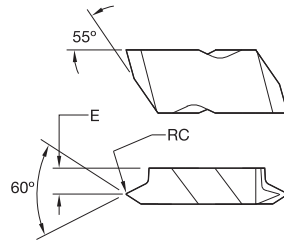
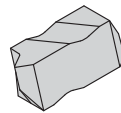
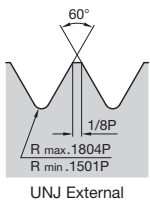


● first choice
○ alternate choice

P	●	●	●	●	●
M	●	●	●	●	●
K	○	●	●	●	●
N	●	○	○	○	●
S	●	●	●	●	○
H	○	○	○	○	○

NJ

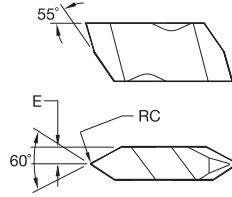
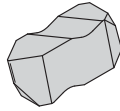
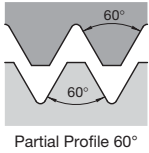
catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NJ3010R16	3	0,25	.0099	2,49	.098	—	—	16	—	●	—	—	—	●	—
NJ3014R12	3	0,33	.0130	2,49	.098	—	—	12	—	—	●	—	●	●	—
NJ3020R8	3	0,49	.0193	2,49	.098	—	—	8	—	—	—	—	●	●	—
left hand															
NJ3010L16	3	0,25	.0099	2,49	.098	—	—	16	—	—	—	—	—	●	—
NJ3014L12	3	0,33	.0130	2,49	.098	—	—	12	—	—	—	—	●	●	—
NJ3020L8	3	0,49	.0193	2,49	.098	—	—	8	—	—	—	—	—	●	—



NJF

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NJF3005R32	3	0,13	.0052	3,58	.141	—	—	32	—	—	●	—	●	—	—
NJF3006R28	3	0,15	.0059	3,58	.141	—	—	28	—	—	—	—	●	●	—
NJF3007R24	3	0,17	.0068	3,58	.141	—	—	24	—	—	—	—	●	●	—
NJF3008R20	3	0,20	.0078	3,58	.141	—	—	20	—	—	—	—	●	●	—
NJF3009R18	3	0,22	.0088	3,58	.141	—	—	18	—	●	—	—	●	●	—
NJF3010R16	3	0,25	.0099	3,58	.141	—	—	16	—	—	—	—	●	●	—
NJF3012R14	3	0,28	.0112	3,58	.141	—	—	14	—	—	—	●	●	●	—
left hand															
NJF3007L24	3	0,17	.0068	3,58	.141	—	—	24	—	—	—	—	●	—	—
NJF3008L20	3	0,20	.0078	3,58	.141	—	—	20	—	—	—	—	●	—	—
NJF3010L16	3	0,25	.0099	3,58	.141	—	—	16	—	—	—	—	●	—	—



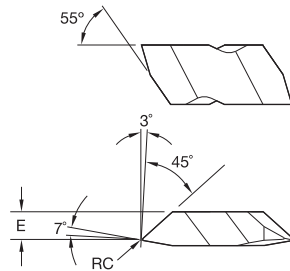
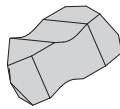
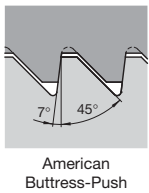


● first choice
○ alternate choice

P	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●
N	●	●	○	○	○	○	○	○	○
S	●	●	●	●	●	●	●	●	○
H	○	○	○	○	○	○	○	○	○

■ NT

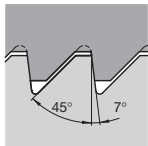
catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NT2R	2	0,10	.0040	1,90	.075	0,70-3,0	1,25-3,5	8-36	7-20	●	●	●	●	●	●
NT3R	3	0,17	.0065	2,49	.098	1,25-4,0	2,0-5,0	6-20	5-12	●	●	●	●	●	●
NT4R	4	0,17	.0065	3,25	.128	1,25-6,25	2,0-6,25	4-20	4-12	●	●	●	●	●	●
left hand															
NT2L	2	0,10	.0040	1,90	.075	0,70-3,0	1,25-3,5	8-36	7-20	●	●	●	●	●	●
NT3L	3	0,17	.0065	2,49	.098	1,25-4,0	2,0-5,0	6-20	5-12	●	●	●	●	●	●
NT4L	4	0,17	.0065	3,25	.128	1,25-6,25	2,0-6,25	4-20	4-12	●	●	●	●	●	●



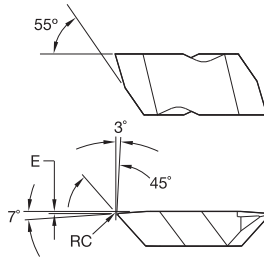
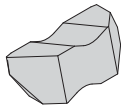
■ NTB-A

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NTB2RA	2	0,08	.0030	3,20	.126	16-20	—	●	—	—	—	—	—
NTB3RA	3	0,17	.0065	4,17	.164	8-16	—	—	●	—	—	●	—
NTB4RA	4	0,25	.0100	5,23	.206	4-6	—	—	●	—	—	—	—
left hand													
NTB3LA	3	0,17	.0065	4,17	.164	8-16	—	●	—	—	●	●	—





American Buttress-Pull

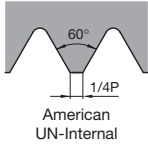


● first choice
○ alternate choice

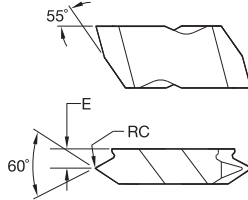
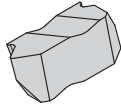
P	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●
N	●	●	○	○	○	○	●
S	●	●	●	●	●	●	○
H	○	○	○	○	○	○	○

■ NTB-B

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NTB2RB	2	0,08	.0030	0,25	.010	16-20	—	—	—	—	●	—	—
NTB3R12B	3	0,16	.0060	2,49	.098	12	—	—	—	—	●	—	—
NTB3RB	3	0,17	.0065	0,31	.012	8-16	—	●	●	●	●	●	—
NTB4RB	4	0,25	.0100	0,41	.016	4-6	—	—	●	—	●	●	—
left hand													
NTB2LB	2	0,08	.0030	0,25	.010	16-20	—	—	●	—	●	—	—
NTB3L12B	3	0,16	.0060	2,49	.098	12	—	—	—	—	●	—	—
NTB3LB	3	0,17	.0065	0,31	.012	8-16	—	●	●	—	●	●	—
NTB4LB	4	0,25	.0100	0,41	.016	4-6	—	—	—	—	●	●	—

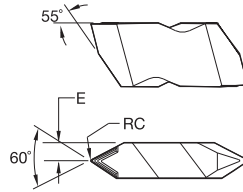
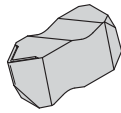
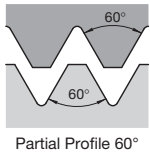


American UN-Internal



■ NTC-I

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NTC3R12I	3	0,10	.0040	3,76	.148	—	—	—	12	—	—	—	—	●	—
left hand															
NTC3L12I	3	0,10	.0040	3,76	.148	—	—	—	12	—	—	—	—	●	—
NTC3L14I	3	0,09	.0037	3,76	.148	—	—	—	14	—	—	—	—	●	—
NTC3L16I	3	0,08	.0030	3,76	.148	—	—	—	16	—	—	—	—	●	—
NTC3L8I	3	0,18	.0070	2,72	.107	—	—	—	8	—	—	—	—	●	—
NTC3L10I	3	0,13	.0052	2,72	.107	—	—	—	10	—	—	—	—	●	—

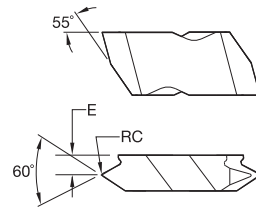
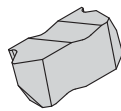
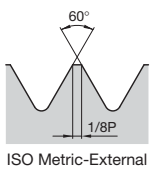


● first choice
○ alternate choice

P	●	●	●	●	●
M	●	●	●	●	●
K	○	●	●	●	●
N	●	●	○	○	○
S	●	●	●	●	○
H	○	○	○	○	○

■ NT-CK

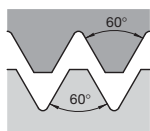
catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NT3RCK	3	0,34	.0135	2,46	.097	2,5-4,0	4,0	6-11	6	-	●	●	●	●	-
NT4RCK	4	0,34	.0135	3,23	.127	2,5-5,5	4,0-5,5	4,5-11	4,5-6	-	-	●	●	●	-
left hand															
NT3LCK	3	0,34	.0135	2,46	.097	2,5-4,0	4,0	6-11	6	-	●	●	●	●	-
NT4LCK	4	0,34	.0135	3,23	.127	2,5-5,5	4,0-5,5	4,5-11	4,5-6	-	-	●	-	●	-



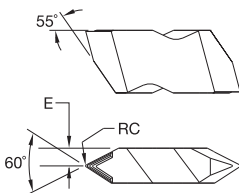
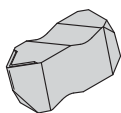
■ NTC-M-E

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NTC3MR150E	3	0,20	.0080	3,68	.145	1,50	-	-	-	-	●	-	●	●	-
NTC3MR200E	3	0,27	.0106	3,68	.145	2,00	-	-	-	-	-	●	-	-	-





Partial Profile 60°

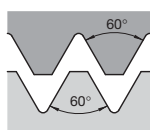


● first choice
○ alternate choice

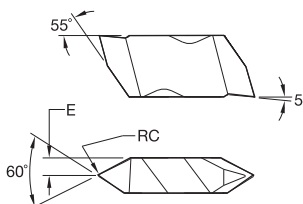
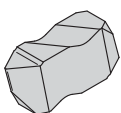
P	●	●	●	●	●	●	●	●	●
M	●	●	●	●	●	●	●	●	●
K	○	●	●	●	●	●	●	●	●
N	●	●	○	○	○	○	○	○	○
S	●	●	●	●	●	●	●	●	○
H	○	○	○	○	○	○	○	○	○

NT-K

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NT2RK	2	0,10	.0040	1,90	.075	0,70-3,0	1,25-3,5	8-36	7-20	-	●	●	●	●	-
NT3RK	3	0,17	.0065	2,49	.098	1,25-4,0	2,0-5,0	6-20	5-12	-	●	●	●	●	-
NT4RK	4	0,16	.0065	3,24	.128	1,25-6,25	2,0-6,25	4-20	4-12	-	●	●	●	●	-
left hand															
NT2LK	2	0,10	.0040	1,90	.075	0,70-3,0	1,25-3,5	8-36	7-20	-	●	●	●	●	-
NT3LK	3	0,17	.0065	2,49	.098	1,25-4,0	2,0-5,0	6-20	5-12	-	●	●	●	●	-
NT4LK	4	0,16	.0065	3,24	.128	1,25-6,25	2,0-6,25	4-20	4-12	-	●	●	●	●	-

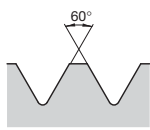


Partial Profile 60°

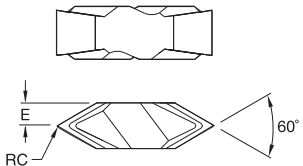
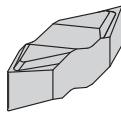


NTP

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NTP2R	2	0,10	.0040	1,91	.075	0,70-3,0	1,25-3,5	8-36	7-20	●	●	●	●	●	-
NTP3R	3	0,17	.0065	2,49	.098	1,25-4,0	2,0-5,0	6-20	5-12	●	●	●	●	●	●
NTP4R	4	0,17	.0065	3,25	.128	1,25-6,25	2,0-6,25	4-20	4-12	-	●	●	●	●	-
left hand															
NTP2L	2	0,10	.0040	1,91	.075	0,70-3,0	1,25-3,5	8-36	7-20	●	●	●	●	●	-
NTP3L	3	0,17	.0065	2,49	.098	1,25-4,0	2,0-5,0	6-20	5-12	●	●	●	●	●	-
NTP4L	4	0,17	.0065	3,25	.128	1,25-6,25	2,0-6,25	4-20	4-12	-	-	-	●	●	-

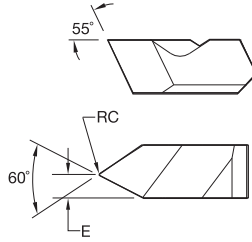
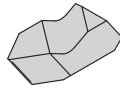
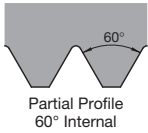


Partial Profile 60° External



NTU

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
right hand															
NTU4R	4U	0,11	.0045	3,18	.125	1,25-6,25	-	4-20	-	-	-	●	-	●	-

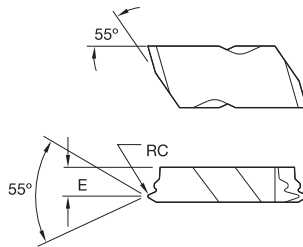
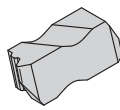
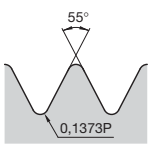


● first choice
○ alternate choice

P	●	●	●	●	●	●
M	●	●	●	●	●	●
K	○	●	●	●	●	●
N	●	●	○	○	○	●
S	●	●	●	●	●	○
H	○	○	○	○	○	○

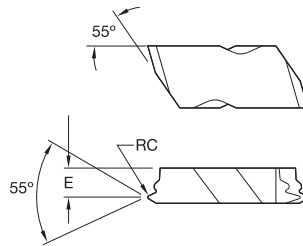
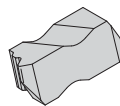
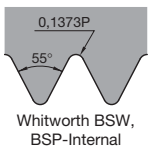
NT-1L

catalog number	insert size	RC		E		external thread pitch mm	internal thread pitch mm	external TPI	internal TPI	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in										
left hand															
NT1L	1	0,08	.0030	1,09	.043	—	1,0-2,0	—	12-24	●	●	●	●	●	—



NWC-E

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
right hand													
NWC3R14E	3	0,24	.0093	3,43	.135	14	—	—	—	●	●	—	—
NWC3R11E	3	0,30	.0118	3,43	.135	11	—	—	—	●	●	—	—



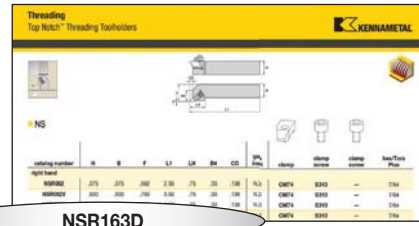
NWC-I

catalog number	insert size	RC		E		TPI	TPF	K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in								
left hand													
NWC3L11I	3	0,30	.0118	3,43	.135	11	—	—	—	—	●	—	—



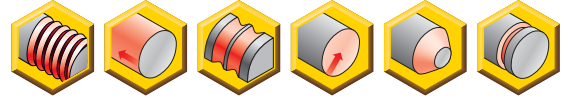
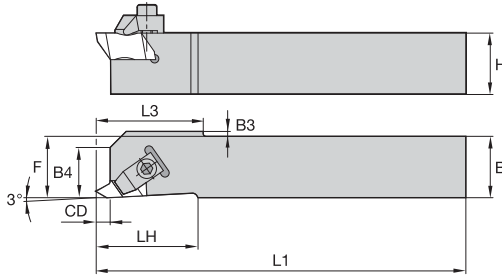
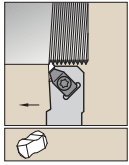
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

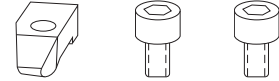


NSR163D

N	S	R	16	3	D														
Insert Holding Method	Insert Mounting Location	Hand of Tool	Drop Head	Shank Size	Qualified Surface and Length														
<p>N – Top Notch</p>	<p>End mount</p> <p>Side mount, offset</p> <p>Side mount, no offset for swiss machining</p> <p>NRR undercut</p>	<p>End mount</p> <p>Side mount</p>	<p>Drop Head</p> <p>Inch: For shanks 5/8" square and larger, the number represents the number of sixteenths of width and height. For shanks under 5/8" square, the number of sixteenths of cross section is preceded by a zero. For rectangular holders, the first digit represents the number of eighths of width and the second digit the number of quarters of height, except for a toolholder 1-1/4" x 1-1/2", which is given the number 91.</p>	<p>Insert Size</p> <table border="1"> <thead> <tr> <th>insert size</th> <th>T</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>.150"</td> </tr> <tr> <td>3</td> <td>.195"</td> </tr> <tr> <td>4</td> <td>.255"</td> </tr> <tr> <td>5</td> <td>.380"</td> </tr> <tr> <td>6</td> <td>.383"</td> </tr> <tr> <td>8</td> <td>.438"</td> </tr> </tbody> </table>	insert size	T	2	.150"	3	.195"	4	.255"	5	.380"	6	.383"	8	.438"	<p>Qualified Surface and Length</p> <ul style="list-style-type: none"> A – Qualified back and end, 4" long B – Qualified back and end, 4.5" long C – Qualified back and end, 5" long D – Qualified back and end, 6" long E – Qualified back and end, 7" long <p>NOTE: Holders are designed to locate insert inclined to 3° to provide back clearance down open side.</p>
insert size	T																		
2	.150"																		
3	.195"																		
4	.255"																		
5	.380"																		
6	.383"																		
8	.438"																		

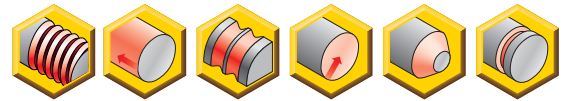
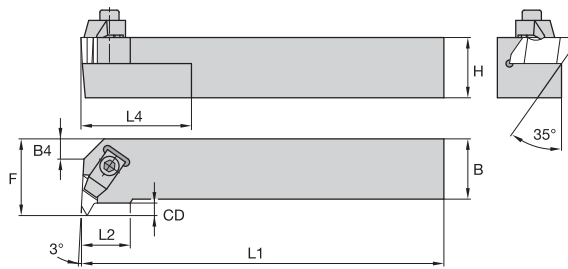
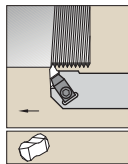


NAS



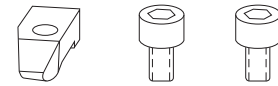
order number	catalog number	H	B	F	L1	LH	B4	CD	B3	L3	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand															
1095671	NASR062D	.375	.375	.375	6.00	.75	.35	.700	.070	.88	N.2R	CM182	S310	—	7/64
1095670	NASR082D	.500	.500	.500	6.00	.75	.35	.138	—	—	N.2R	CM182	S310	—	7/64
1095576	NASR102B	.625	.625	.625	4.50	.75	.35	.138	—	—	N.2R	CM74	S310	—	7/64
1095574	NASR083D	.500	.500	.500	6.00	1.25	.50	.210	.125	1.32	N.3R	CM184LP	—	S2112	25 IP
1095668	NASR103B	.625	.625	.625	4.50	1.30	—	.210	—	—	N.3R	CM184LP	—	S2112	25 IP
left hand															
1095675	NASL062D	.375	.375	.375	6.00	.75	.35	.700	.070	.88	N.2L	CM183	S310	—	7/64
1095674	NASL082D	.500	.500	.500	6.00	.75	.35	.138	—	—	N.2L	CM183	S310	—	7/64
1095577	NASL102B	.625	.625	.625	4.50	.75	.35	.138	—	—	N.2L	CM75	S310	—	7/64
1095575	NASL083D	.500	.500	.500	6.00	1.25	.50	.210	.125	1.32	N.3L	CM185LP	—	S2112	25 IP
1095672	NASL103B	.625	.625	.625	4.50	1.30	—	.210	—	—	N.3L	CM185LP	—	S2112	25 IP

NOTE: F dimension measured over sharp point of N-style threading insert.



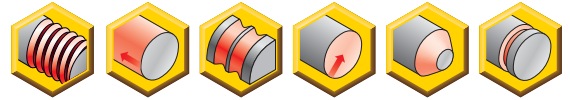
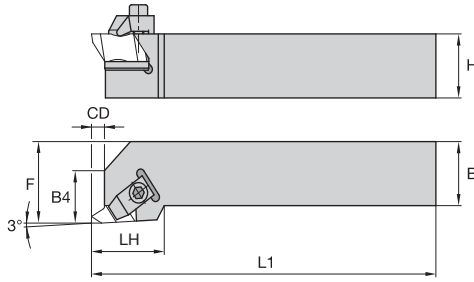
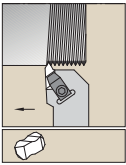
Threading

NE



order number	catalog number	H	B	F	L1	LH	B4	CD	L4	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand														
1095581	NER062	.375	.375	.750	2.50	.50	—	.138	1.000	N.2L	CM75	S310	—	7/64
1097577	NER082V	.500	.500	.750	3.50	.50	—	.138	1.000	N.2L	CM75	S310	—	7/64
1097578	NER102B	.625	.625	.750	4.50	—	—	.138	1.000	N.2L	CM75	S310	—	7/64
1097559	NER122B	.750	.750	1.000	4.50	.50	.29	.138	1.000	N.2L	CM75	S310	—	7/64
1097560	NER162C	1.000	1.000	1.250	5.00	.50	.41	.138	1.000	N.2L	CM75	S310	—	7/64
1097561	NER123B	.750	.750	1.125	4.50	.75	—	.210	2.000	N.3L	CM73LP	—	S2112	25 IP
1097562	NER163C	1.000	1.000	1.250	5.00	.75	—	.210	2.000	N.3L	CM73LP	—	S2112	25 IP
1097565	NER163D	1.000	1.000	1.250	6.00	.75	—	.210	2.000	N.3L	CM73LP	—	S2112	25 IP
1097563	NER203D	1.250	1.250	1.500	6.00	.75	.26	.210	2.000	N.3L	CM73LP	—	S2112	25 IP
1097566	NER853D	1.250	1.000	1.250	6.00	.75	—	.210	2.000	N.3L	CM73LP	—	S2112	25 IP
1097564	NER243D	1.500	1.500	2.000	6.00	.75	.76	.210	2.000	N.3L	CM73LP	—	S2112	25 IP
1097567	NER164C	1.000	1.000	1.375	5.00	.75	—	.294	2.000	N.4L	CM73LP	—	S2112	25 IP
1097570	NER164D	1.000	1.000	1.375	6.00	.75	—	.294	2.000	N.4L	CM73LP	—	S2112	25 IP
1097568	NER204D	1.250	1.250	1.625	6.00	.75	.27	.294	2.000	N.4L	CM73LP	—	S2112	25 IP
1097569	NER244D	1.500	1.500	2.000	6.00	.75	.65	.294	2.000	N.4L	CM73LP	—	S2112	25 IP
1097575	NER205D	1.250	1.250	2.000	6.00	1.44	—	.415	2.000	N.5L	CM81	S352	—	1/4
1097571	NER206D	1.250	1.250	1.625	6.00	.75	.27	.300	2.000	N.6L	CM121	S412	—	5/32
left hand														
1095580	NEL062	.375	.375	.750	2.50	.50	—	.138	1.000	N.2R	CM74	S310	—	7/64
1097247	NEL082V	.500	.500	.750	3.50	.50	—	.138	1.000	N.2R	CM74	S310	—	7/64
1097248	NEL102B	.625	.625	.750	4.50	—	—	.138	1.000	N.2R	CM74	S310	—	7/64
1097231	NEL122B	.750	.750	1.000	4.50	.50	.29	.138	1.000	N.2R	CM74	S310	—	7/64
1097232	NEL162C	1.000	1.000	1.250	5.00	.50	.41	.138	1.000	N.2R	CM74	S310	—	7/64
1097233	NEL123B	.750	.750	1.125	4.50	.75	—	.210	2.000	N.3R	CM72LP	—	S2112	25 IP
1097234	NEL163C	1.000	1.000	1.250	5.00	.75	—	.210	2.000	N.3R	CM72LP	—	S2112	25 IP
1097237	NEL163D	1.000	1.000	1.250	6.00	.75	—	.210	2.000	N.3R	CM72LP	—	S2112	25 IP
1097235	NEL203D	1.250	1.250	1.500	6.00	.75	.26	.210	2.000	N.3R	CM72LP	—	S2112	25 IP
1097238	NEL853D	1.250	1.000	1.250	6.00	.75	—	.210	2.000	N.3R	CM72LP	—	S2112	25 IP
1097236	NEL243D	1.500	1.500	2.000	6.00	.75	.76	.210	2.000	N.3R	CM72LP	—	S2112	25 IP
1097239	NEL164C	1.000	1.000	1.375	5.00	.75	—	.294	2.000	N.4R	CM72LP	—	S2112	25 IP
1097242	NEL164D	1.000	1.000	1.375	6.00	.75	—	.294	2.000	N.4R	CM72LP	—	S2112	25 IP
1097240	NEL204D	1.250	1.250	1.625	6.00	.75	.27	.294	2.000	N.4R	CM72LP	—	S2112	25 IP
1097241	NEL244D	1.500	1.500	2.000	6.00	.75	.65	.294	2.000	N.4R	CM72LP	—	S2112	25 IP
1097246	NEL205D	1.250	1.250	2.000	6.00	1.44	—	.415	2.000	N.5R	CM80	S352	—	1/4
1097243	NEL206D	1.250	1.250	1.625	6.00	.75	.27	.300	2.000	N.6R	CM120	S412	—	5/32

NOTE: F dimension measured over sharp point of N-style threading insert.

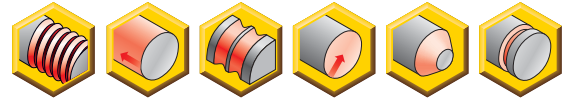
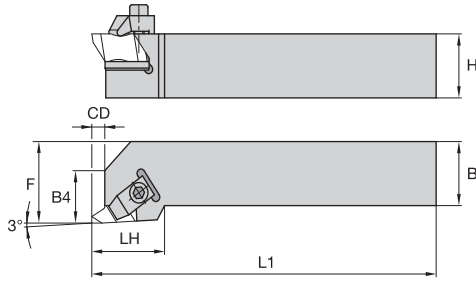
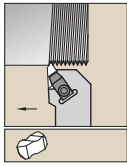


■ NS



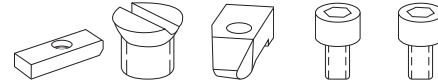
order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand													
1095583	NSR062	.375	.375	.562	2.50	.75	.35	.138	N.2R	CM74	S310	—	7/64
1097608	NSR082V	.500	.500	.750	3.50	.75	.35	.138	N.2R	CM74	S310	—	7/64
1097609	NSR102B	.625	.625	.875	4.50	.75	.35	.138	N.2R	CM74	S310	—	7/64
1097584	NSR122B	.750	.750	1.000	4.50	.75	.35	.138	N.2R	CM74	S310	—	7/64
1097585	NSR162C	1.000	1.000	1.250	5.00	.75	.35	.138	N.2R	CM74	S310	—	7/64
1097590	NSR123A	.750	.750	1.000	4.00	1.25	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097586	NSR123B	.750	.750	1.000	4.50	1.25	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097587	NSR163C	1.000	1.000	1.250	5.00	1.25	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1016462	NSR163D	1.000	1.000	1.250	6.00	1.25	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097588	NSR203D	1.250	1.250	1.500	6.00	1.25	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097591	NSR853D	1.250	1.000	1.250	6.00	1.25	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097589	NSR243D	1.500	1.500	2.000	6.00	1.38	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097596	NSR243E	1.500	1.500	2.000	7.00	1.38	.50	.210	N.3R	CM72LP	—	S2112	25 IP
1097601	NSR205D	1.250	1.250	1.500	6.00	2.00	.61	.415	N.5R	CM80	S352	—	1/4
1016474	NSR245D	1.500	1.500	2.000	6.00	2.00	.61	.415	N.5R	CM80	S352	—	1/4
left hand													
1095582	NSL062	.375	.375	.562	2.50	.75	.35	.138	N.2L	CM75	S310	—	7/64
1097278	NSL082V	.500	.500	.750	3.50	.75	.35	.138	N.2L	CM75	S310	—	7/64
1097279	NSL102B	.625	.625	.875	4.50	.75	.35	.138	N.2L	CM75	S310	—	7/64
1097254	NSL122B	.750	.750	1.000	4.50	.75	.35	.138	N.2L	CM75	S310	—	7/64
1097255	NSL162C	1.000	1.000	1.250	5.00	.75	.35	.138	N.2L	CM75	S310	—	7/64
1097261	NSL123A	.750	.750	1.000	4.00	1.25	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097256	NSL123B	.750	.750	1.000	4.50	1.25	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097257	NSL163C	1.000	1.000	1.250	5.00	1.25	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097260	NSL163D	1.000	1.000	1.250	6.00	1.25	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097258	NSL203D	1.250	1.250	1.500	6.00	1.25	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097262	NSL853D	1.250	1.000	1.250	6.00	1.25	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097259	NSL243D	1.500	1.500	2.000	6.00	1.38	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097267	NSL243E	1.500	1.500	2.000	7.00	1.38	.50	.210	N.3L	CM73LP	—	S2112	25 IP
1097272	NSL205D	1.250	1.250	1.500	6.00	2.00	.61	.415	N.5L	CM81	S352	—	1/4

NOTE: F dimension measured over sharp point of N-style threading insert.



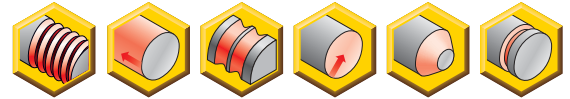
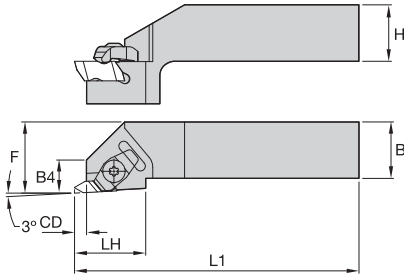
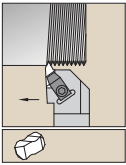
Threading

■ NS (with Shim)



order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	shim	shim screw	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand															
1097592	NSR164C	1.000	1.000	1.250	5.00	1.38	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097595	NSR164D	1.000	1.000	1.250	6.00	1.38	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097600	NSR204C	1.250	1.250	1.500	5.00	1.38	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097593	NSR204D	1.250	1.250	1.500	6.00	1.38	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097594	NSR244D	1.500	1.500	2.000	6.00	1.50	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097597	NSR244E	1.500	1.500	2.000	7.00	1.50	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097598	NSR854D	1.250	1.000	1.250	6.00	1.38	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097599	NSR864E	1.500	1.000	1.250	7.00	1.38	.54	.294	N.4R	SM420	SL344	CM72LP	—	S2112	25 IP
1097604	NSR166D	1.000	1.000	1.250	6.00	1.38	.67	.334	N.6R	SM416	S111	CM120	S412	—	5/32
1097602	NSR206D	1.250	1.250	1.500	6.00	1.38	.67	.334	N.6R	SM416	S111	CM120	S412	—	5/32
1097603	NSR246D	1.500	1.500	2.000	6.00	1.50	.67	.334	N.6R	SM416	S111	CM120	S412	—	5/32
1097605	NSR168D	1.000	1.000	1.250	6.00	1.25	.72	.225	N.8R	SM419	S112	CM144	S422	—	3/16
left hand															
1097263	NSL164C	1.000	1.000	1.250	5.00	1.38	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097266	NSL164D	1.000	1.000	1.250	6.00	1.38	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097271	NSL204C	1.250	1.250	1.500	5.00	1.38	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097264	NSL204D	1.250	1.250	1.500	6.00	1.38	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097265	NSL244D	1.500	1.500	2.000	6.00	1.50	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097268	NSL244E	1.500	1.500	2.000	7.00	1.50	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097269	NSL854D	1.250	1.000	1.250	6.00	1.38	.54	.294	N.4L	SM420	SL344	CM73LP	—	S2112	25 IP
1097275	NSL166D	1.000	1.000	1.250	6.00	1.38	.67	.334	N.6L	SM416	S111	CM121	S412	—	5/32
1097273	NSL206D	1.250	1.250	1.500	6.00	1.38	.67	.334	N.6L	SM416	S111	CM121	S412	—	5/32
1097274	NSL246D	1.500	1.500	2.000	6.00	1.50	.67	.334	N.6L	SM416	S111	CM121	S412	—	5/32

NOTE: F dimension measured over sharp point of N-style threading insert.

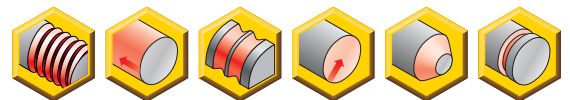
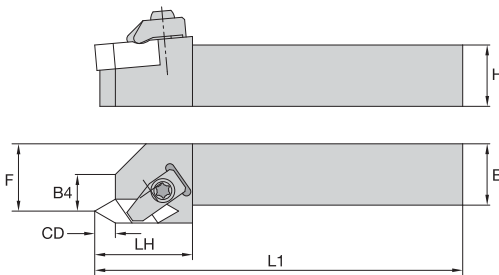
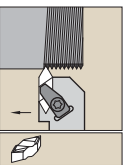


■ NS-DH

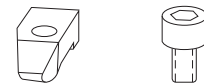


order number	catalog number	H	B	F	L1	L2	B4	CD	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus	jack screw	hex (inch)
right hand															
1097644	NSRDH122B	.750	.750	1.000	4.50	.75	.40	.130	N.2R	CM74	S310	—	7/64	S1020	1/8
1097645	NSRDH162C	1.000	1.000	1.250	5.00	.75	.40	.138	N.2R	CM74	S310	—	7/64	S1020	1/8
1097649	NSRDH123A	.750	.750	1.250	4.00	1.25	.58	.210	N.3R	CM72LP	—	S2112	25 IP	—	—
1097646	NSRDH163C	1.000	1.000	1.250	5.00	1.25	.58	.210	N.3R	CM72LP	—	S2112	25 IP	—	—
1097648	NSRDH163D	1.000	1.000	1.250	6.00	1.25	.58	.210	N.3R	CM72LP	—	S2112	25 IP	—	—
1097647	NSRDH203D	1.250	1.250	1.500	6.00	1.25	.62	.210	N.3R	CM72LP	—	S2112	25 IP	S965	3/16
1097650	NSRDH204D	1.250	1.250	1.500	6.00	1.38	.62	.294	N.4R	CM72LP	—	S2112	25 IP	S965	3/16
left hand															
1097681	NSLDH203D	1.250	1.250	1.500	6.00	1.25	.62	.210	N.3L	CM73LP	—	S2112	25 IP	S965	3/16

NOTE: F dimension measured over sharp point of N-style threading insert.

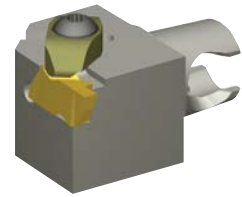
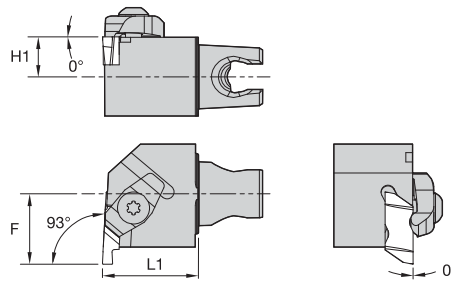


■ NSU



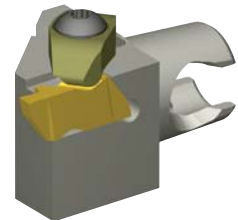
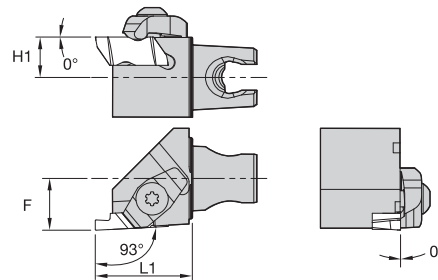
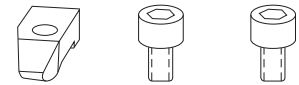
order number	catalog number	H	B	F	L1	LH	B4	CD	gage insert	clamp	clamp screw	hex (inch)/ Torx Plus
right hand												
1097673	NSUR124C	.750	.750	.875	5.00	1.25	.50	.240	NTU4R	CM72LP	S2112	25 IP
1097676	NSUR164D	1.000	1.000	1.125	6.00	1.25	.50	.240	NTU4R	CM72LP	S2112	25 IP
left hand												
1097680	NSUL164D	1.000	1.000	1.125	6.00	1.25	.50	.240	NTU4L	CM73LP	S2112	25 IP

NOTE: Toolholders only for threading inserts NTU4...
F dimension measured over sharp point of Top Notch style threading insert.



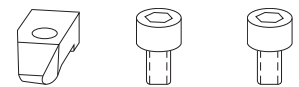
■ NE 93°

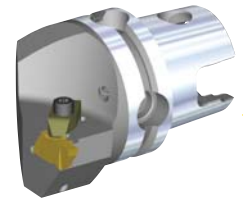
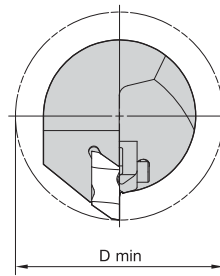
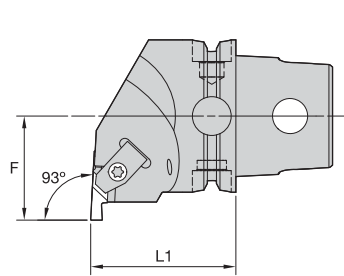
order number	catalog number	L1		F		H1		gage insert	clamp	clamp screw	clamp screw
		mm	in	mm	in	mm	in				
right hand											
2399462	KM25NER230	30	1.181	22	.866	12,5	.492	NG2L	CM75	—	MS1200
2399494	KM25NER330	30	1.181	22	.866	12,5	.492	NG3L	CM73LP	MS2111	—
2399496	KM25NER430	30	1.181	24	.945	12,5	.492	NG4L	CM73LP	MS2111	—
left hand											
2399495	KM25NEL330	30	1.181	22	.866	12,5	.492	NG3R	CM72LP	MS2111	—
2399497	KM25NEL430	30	1.181	24	.945	12,5	.492	NG4R	CM72LP	MS2111	—



■ NS 93°

order number	catalog number	L1		F		H1		gage insert	clamp	clamp screw	clamp screw
		mm	in	mm	in	mm	in				
right hand											
2399498	KM25NSR230	30	1.181	16	.630	12,5	.492	NG2R	CM74	—	MS1200
2399500	KM25NSR330	30	1.181	16	.630	12,5	.492	NG3R	CM72LP	MS2111	—
left hand											
2399499	KM25NSL230	30	1.181	16	.630	12,5	.492	NG2L	CM75	—	MS1200
2399501	KM25NSL330	30	1.181	16	.630	12,5	.492	NG3L	CM73LP	MS2111	—
2399503	KM25NSL430	30	1.181	16	.630	12,5	.492	NG4L	CM213LP	MS2111	—





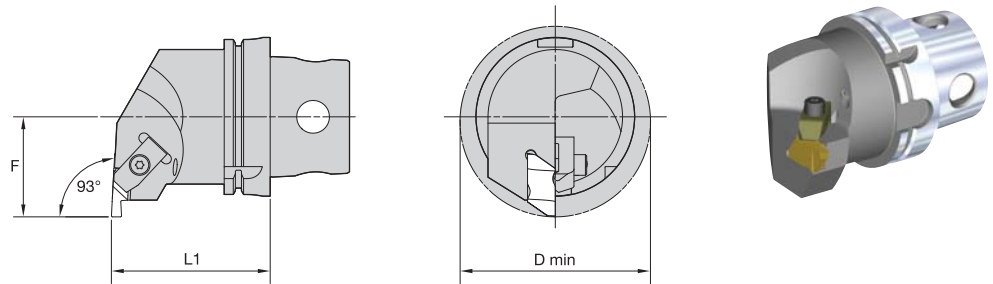
■ NE 93°



order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
3902285	KM40TSNER2	40	1.575	27	1.063	54	2.126	NG2L	CM75	MS1488	0,30	.66
3902286	KM40TSNER3	40	1.575	27	1.063	54	2.126	NG3L	CM73	MS1489	0,30	.67
3902287	KM40TSNER4	40	1.575	27	1.063	54	2.126	NG4L	CM73	MS1489	0,30	.65
left hand												
3902132	KM40TSNEL2	40	1.575	27	1.063	54	2.126	NG2R	CM74	MS1488	0,30	.66
3902283	KM40TSNEL3	40	1.575	27	1.063	54	2.126	NG3R	CM-72	MS1489	0,30	.67
3902284	KM40TSNEL4	40	1.575	27	1.063	54	2.126	NG4R	CM-72	MS1489	0,30	.65



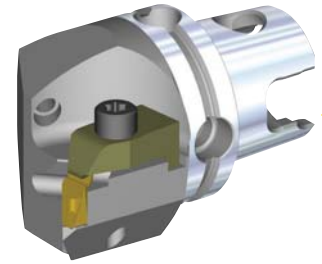
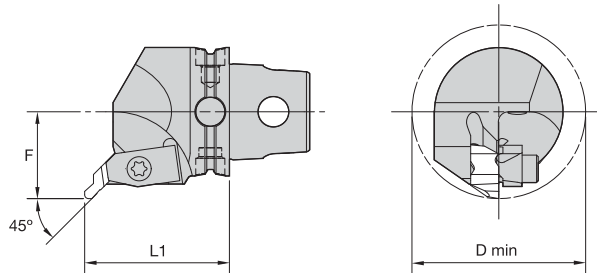
Threading



■ NE



order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
5337758	KM4X100NER3	100	3.937	63	2.480	120	4.724	NG3L	CM73	MS1489	4,45	9.80
5337759	KM4X100NER4	100	3.937	63	2.480	120	4.724	NG4L	CM73	MS1489	4,51	9.93
5337770	KM4X100NER5	100	3.937	63	2.480	120	4.724	NG5L	CM81	MS1490	4,65	10.25
5337771	KM4X100NER6	100	3.937	63	2.480	120	4.724	NG6L	CM121	MS1489	4,48	9.88
left hand												
5337754	KM4X100NEL3	100	3.937	63	2.480	120	4.724	NG3R	CM-72	MS1489	4,45	9.80
5337755	KM4X100NEL4	100	3.937	63	2.480	120	4.724	NG4R	CM-72	MS1489	4,51	9.93
5337756	KM4X100NEL5	100	3.937	63	2.480	120	4.724	NG5R	CM80	MS1490	4,65	10.25
5337757	KM4X100NEL6	100	3.937	63	2.480	120	4.724	NG6R	CM120	MS1489	4,48	9.88

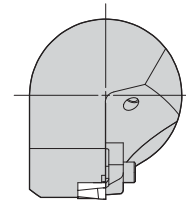
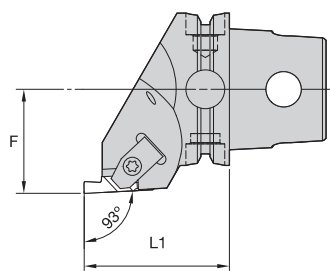


Threading

■ NR 45°



order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
3902289	KM40TSNRR3045M	45	1.772	27	1.063	54	2.126	NU3L	CM73	MS1489	0,34	.75
left hand												
3902288	KM40TSNRL3045M	45	1.772	27	1.063	54	2.126	NU3R	CM-72	MS1489	0,33	.74



■ NS 93°



order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
right hand										
3902293	KM40TSNSR2	40	1.575	27	1.063	NG2R	CM74	MS1488	0,32	.70
3902294	KM40TSNSR3	47	1.850	27	1.063	NG3R	CM-72	MS1489	0,32	.71
3902295	KM40TSNSR4	47	1.850	27	1.063	NG4R	CM-72	MS1489	0,30	.66
left hand										
3902290	KM40TSNSL2	40	1.575	27	1.063	NG2L	CM75	MS1488	0,32	.70
3902291	KM40TSNSL3	47	1.850	27	1.063	NG3L	CM73	MS1489	0,33	.72
3902292	KM40TSNSL4	47	1.850	27	1.063	NG4L	CM73	MS1489	0,30	.66

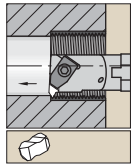
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.

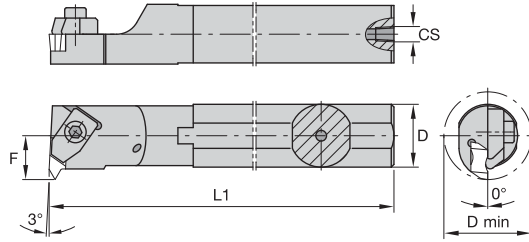
Right Hand	Length	Diameter	Material	Insert	Hand	Insert Size	Max RPM
AMER3	7.50	.300	A	ERT	R	0.195"	8,000
AMER3	9.00	.400	A	ERT	R	0.250"	8,000
AMER3	10.50	.500	A	ERT	R	0.315"	8,000
AMER3	12.00	.600	A	ERT	R	0.380"	8,000
AMER3	13.50	.700	A	ERT	R	0.438"	8,000

A32NER3

A	32	N	E	R	3																
Bar Type	Bar Diameter	Insert Holding Method	Insert Location	Hand of Tool	Insert Size																
<p>Steel with coolant</p>	<p>A two-digit number that indicates the bar diameter in 1/16" increments.</p>	<p>N — Top Notch*</p> <p>*Proprietary standard only.</p>	<p>E = End mount</p> <p>S = Side mount</p>	<p>R = Right hand</p> <p>L = Left hand</p>	<table border="1"> <thead> <tr> <th>insert size</th> <th>T</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>.100"</td> </tr> <tr> <td>2</td> <td>.150"</td> </tr> <tr> <td>3</td> <td>.195"</td> </tr> <tr> <td>4</td> <td>.255"</td> </tr> <tr> <td>5</td> <td>.380"</td> </tr> <tr> <td>6</td> <td>.383"</td> </tr> <tr> <td>8</td> <td>.438"</td> </tr> </tbody> </table>	insert size	T	1	.100"	2	.150"	3	.195"	4	.255"	5	.380"	6	.383"	8	.438"
insert size	T																				
1	.100"																				
2	.150"																				
3	.195"																				
4	.255"																				
5	.380"																				
6	.383"																				
8	.438"																				



Steel shank with through coolant.

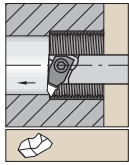


A-NE

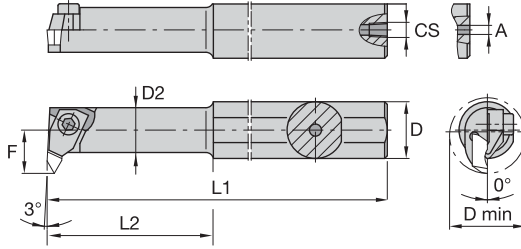


order number	catalog number	D min	D	L1	F	CS	gage insert	clamp	clamp	clamp	hex (inch)/ Torx Plus
right hand											
1094824	A08NER2	.730	.500	8	.437	1/16-27 NPT	N.2L	CM147	—	S39	7/64
1094829	A10SNER2	1.000	.625	10	.500	1/8-27 NPT	N.2L	CM75	—	S310	7/64
1094831	A12SNER2	1.125	.750	10	.562	1/8-27 NPT	N.2L	CM75	—	S310	7/64
1094833	A16TNER2	1.375	1.000	12	.688	1/4-18 NPT	N.2L	CM75	—	S310	7/64
1094835	A16NER3	1.375	1.000	12	.688	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094837	A20NER3	1.750	1.250	14	.875	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094839	A24NER3	2.000	1.500	14	1.000	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094841	A28NER3	2.250	1.750	14	1.125	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094843	A32NER3	2.500	2.000	16	1.250	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094845	A40NER3	3.000	2.500	16	1.500	1/4-18 NPT	N.3L	CM73LP	S2112	—	25 IP
1094847	A28NER4	2.500	1.750	14	1.250	1/4-18 NPT	N.4L	CM73LP	S2112	—	25 IP
1094849	A32NER4	2.750	2.000	16	1.375	1/4-18 NPT	N.4L	CM73LP	S2112	—	25 IP
1094853	A40NER4	3.250	2.500	16	1.625	1/4-18 NPT	N.4L	CM73LP	S2112	—	25 IP
1094859	A32NER6	2.750	2.000	16	1.375	1/4-18 NPT	N.6L	CM121	S2112	—	5/32
left hand											
1094825	A08NEL2	.730	.500	8	.437	1/16-27 NPT	N.2R	CM146	—	S39	7/64
1094830	A10SNEL2	1.000	.625	10	.500	1/8-27 NPT	N.2R	CM74	—	S310	7/64
1094832	A12NEL2	1.125	.750	10	.562	1/8-27 NPT	N.2R	CM74	—	S310	7/64
1094834	A16TNEL2	1.375	1.000	12	.688	1/4-18 NPT	N.2R	CM74	—	S310	7/64
1094836	A16NEL3	1.375	1.000	12	.688	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094838	A20NEL3	1.750	1.250	14	.875	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094840	A24NEL3	2.000	1.500	14	1.000	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094842	A28NEL3	2.250	1.750	14	1.125	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094844	A32NEL3	2.500	2.000	16	1.250	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094846	A40NEL3	3.000	2.500	16	1.500	1/4-18 NPT	N.3R	CM72LP	S2112	—	25 IP
1094848	A28NEL4	2.500	1.750	14	1.250	1/4-18 NPT	N.4R	CM72LP	S2112	—	25 IP
1094850	A32NEL4	2.750	2.000	16	1.375	1/4-18 NPT	N.4R	CM72LP	S2112	—	25 IP
1094856	A32NEL5	2.812	2.000	16	1.406	1/4-18 NPT	N.5R	CM80	—	S352	1/4
1094860	A32NEL6	2.750	2.000	16	1.375	1/4-18 NPT	N.6R	CM120	S2112	—	5/32

NOTE: Minimum bore diameter (D min) capability varies with thread type and pitch. See page D96 for details.
F dimension measured over sharp point of N-style threading insert.

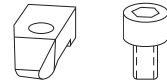


Necked steel shank with through coolant.



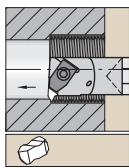
■ A-NE -1

Threading

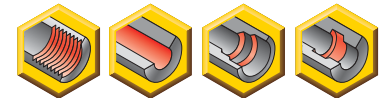
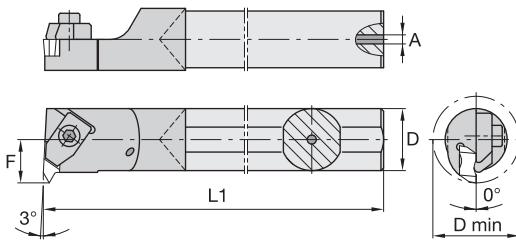


order number	catalog number	D min	D	D2	L1	L2	F	A	CS	gage insert	clamp	clamp screw	hex/ Torx Plus
right hand													
1094826	A06NER1	.440	.375	—	6	1.25	.258	.13	—	N.1L	CM109	S304	5/64
1094827	A08NER1	.440	.500	.372	8	1.29	.258	.09	1/16-27 NPT	N.1L	CM109	S304	5/64
1094828	A10NER1	.800	.625	—	10	—	.406	—	1/8-27 NPT	N.1L	CM109	S304	5/64

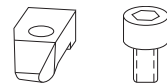
NOTE: Minimum bore diameter (D min) capability varies with thread type and pitch. See page D96 for details.
F dimension measured over sharp point of N-style threading insert.



Carbide shank with through coolant.

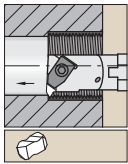


■ E-NE

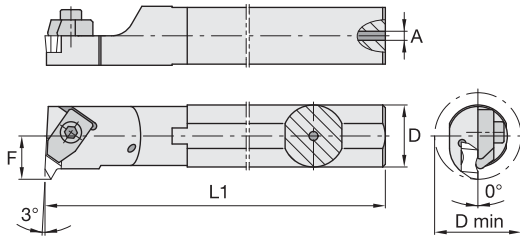


order number	catalog number	D min	D	L1	F	A	gage insert	clamp	clamp screw	hex (inch)/ Torx Plus
right hand										
1152688	E08NER2	.730	.500	8	.437	.19	N.2L	CM147	S39	7/64
1152606	E10NER2	1.000	.625	10	.500	.22	N.2L	CM75	S310	7/64
1152608	E12NER2	1.125	.750	10	.562	.28	N.2L	CM75	S310	7/64
1152610	E16NER3	1.375	1.000	12	.688	.31	N.3L	CM73	S412	25 IP
left hand										
1152689	E08NEL2	.730	.500	8	.437	.19	N.2R	CM146	S39	7/64
1152607	E10NEL2	1.000	.625	10	.500	.22	N.2R	CM74	S310	7/64
1152609	E12NEL2	1.125	.750	10	.562	.28	N.2R	CM74	S310	7/64
1152611	E16NEL3	1.375	1.000	12	.688	.31	N.3R	CM-72	S412	25 IP

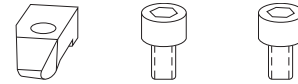
NOTE: Minimum bore diameter (D min) capability varies with thread type and pitch. See page D96 for details.
F dimension measured over sharp point of N-style threading insert.



Heavy metal shank with through coolant.

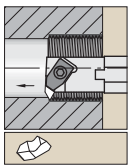


L-NE

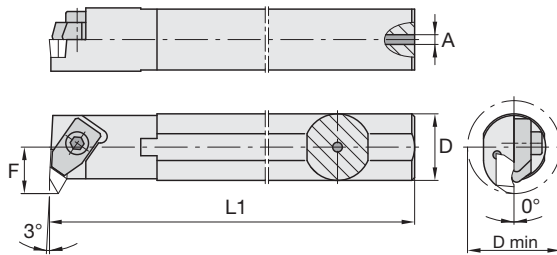


order number	catalog number	D min	D	L1	F	A	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand											
3331091	L08RNER2	.730	.500	8	.432	.16	N.2L	CM147	—	S39	7/64
3331103	L10RNER2	1.000	.625	8	.495	.16	N.2L	CM75	—	S310	7/64
3331092	L12RNER2	1.125	.750	8	.557	.16	N.2L	CM75	—	S310	7/64
3331105	L16SNER3	1.375	1.000	10	.683	.25	N.3L	CM73LP	S2112	—	25 IP
left hand											
3331084	L08RNEL2	.730	.500	8	.432	.16	N.2R	CM146	—	S39	7/64

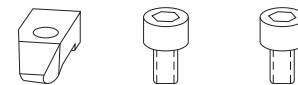
NOTE: Minimum bore diameter (D min) capability varies with thread type and pitch. See page D96 for details.
F dimension measured over sharp point of N-style threading insert.



Heavy metal shank with through coolant.

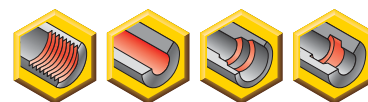
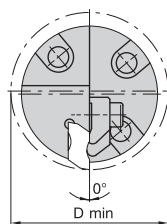
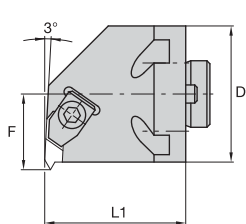
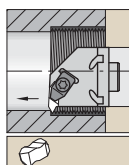


L-NE-S



order number	catalog number	D min	D	L1	F	A	gage insert	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand											
3331089	L08RNER1S	.600	.500	8	.325	.16	NG1L	CM109	S304	—	5/64
3331090	L05MNER1S	.440	.310	6	.258	.09	N.1L	CM109	S304	—	5/64
3331088	L06MNER1S	.480	.370	6	.265	.13	N.1L	CM109	S304	—	5/64

NOTE: Minimum bore diameter (D min) capability varies with thread type and pitch. See page D96 for details.
F dimension measured over sharp point of N-style threading insert.



Threading

■ H-NE

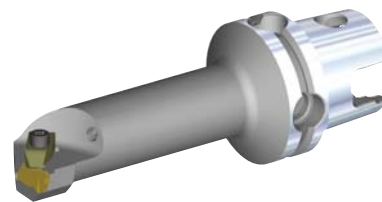
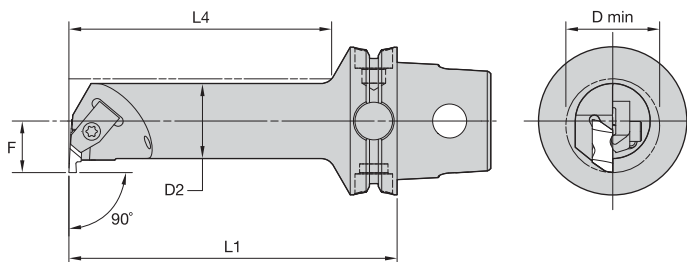


order number	catalog number	D min	D	F	L1	gage insert	shim	shim screw	hex (inch)	clamp	clamp screw	clamp screw	hex (inch)/ Torx Plus
right hand													
1095314	H20NER3W	1.750	1.250	.875	1.625	N.3L	—	—	—	CM73LP	S2112	—	25 IP
1095362	H24NER3W	2.000	1.500	1.000	1.625	N.3L	—	—	—	CM73LP	S2112	—	25 IP
1095418	H28NER3W	2.250	1.750	1.125	1.625	N.3L	—	—	—	CM73LP	S2112	—	25 IP
1095456	H32NER3W	2.500	2.000	1.250	1.625	N.3L	—	—	—	CM73LP	S2112	—	25 IP
1095533	H40NER3W	3.000	2.500	1.500	1.625	N.3L	—	—	—	CM73LP	S2112	—	25 IP
1095421	H28NER4W	2.500	1.750	1.250	1.625	N.4L	—	—	—	CM73LP	S2112	—	25 IP
1095458	H32NER4W	2.750	2.000	1.375	1.625	N.4L	—	—	—	CM73LP	S2112	—	25 IP
1095516	H36NER4W	3.000	2.250	1.500	1.625	N.4L	—	—	—	CM73LP	S2112	—	25 IP
1095535	H40NER4W	3.250	2.500	1.625	1.625	N.4L	—	—	—	CM73LP	S2112	—	25 IP
1095452	H28NER6W	2.500	1.750	1.250	1.625	N.6L	—	—	—	CM121	—	S412	5/32
1095512	H32NER6W	2.750	2.000	1.375	1.625	N.6L	—	—	—	CM121	—	S412	5/32
1095571	H40NER6W	3.250	2.500	1.625	1.625	N.6L	—	—	—	CM121	—	S412	5/32
1095367	H24NER8W	2.000	1.500	1.000	1.625	N.8L	SM427	S111	1/16	CM145	—	S422	3/16
left hand													
1095315	H20NEL3W	1.750	1.250	.875	1.625	N.3R	—	—	—	CM72LP	S2112	—	25 IP
1095363	H24NEL3W	2.000	1.500	1.000	1.625	N.3R	—	—	—	CM72LP	S2112	—	25 IP
1095419	H28NEL3W	2.250	1.750	1.125	1.625	N.3R	—	—	—	CM72LP	S2112	—	25 IP
1095457	H32NEL3W	2.500	2.000	1.250	1.625	N.3R	—	—	—	CM72LP	S2112	—	25 IP
1095534	H40NEL3W	3.000	2.500	1.500	1.625	N.3R	—	—	—	CM72LP	S2112	—	25 IP
1095459	H32NEL4W	2.750	2.000	1.375	1.625	N.4R	—	—	—	CM72LP	S2112	—	25 IP
1095536	H40NEL4W	3.250	2.500	1.625	1.625	N.4R	—	—	—	CM72LP	S2112	—	25 IP

NOTE: For boring adapters, see pages B406–B409.

Minimum bore diameter (D min) capability varies with thread type and pitch. See page D96 for details.

F dimension measured over sharp point of N-style threading insert.



Threading

■ NE 90° • Steel

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3955481	KM40TSS12ENER2	12	.472	19	.73	11	.433	42	1.655	70	2.756	NG2L	0,27	.58
3955483	KM40TSS16FNER2	16	.630	20	.79	11	.433	56	2.209	80	3.150	NG2L	0,28	.62
3955485	KM40TSS20GNER2	20	.787	25	.98	13	.512	70	2.757	90	3.543	NG2L	0,35	.76
3955487	KM40TSS25ENER2	25	.984	32	1.26	17	.669	55	2.169	70	2.756	NG2L	0,34	.75
3955491	KM40TSS25ENER3	25	.984	34	1.34	17	.669	55	2.169	70	2.756	NG3L	0,35	.77
3955489	KM40TSS25HNER2	25	.984	32	1.26	17	.669	75	2.954	100	3.937	NG2L	0,49	1.08
3955493	KM40TSS25HNER3	25	.984	34	1.34	17	.669	75	2.954	100	3.937	NG3L	0,49	1.09
3955497	KM40TSS32GNER3	32	1.260	40	1.57	22	.866	76	2.993	90	3.543	NG3L	0,55	1.21
3955495	KM40TSS32JNER3	32	1.260	40	1.57	22	.866	96	3.780	110	4.331	NG3L	0,67	1.48
left hand														
3955480	KM40TSS12ENEL2	12	.472	19	.73	11	.433	42	1.655	70	2.756	NG2R	0,27	.59
3955482	KM40TSS16FNEL2	16	.630	20	.79	11	.433	56	2.209	80	3.150	NG2R	0,28	.62
3955484	KM40TSS20GNEL2	20	.787	25	.98	13	.512	70	2.757	90	3.543	NG2R	0,35	.76
3955486	KM40TSS25ENEL2	25	.984	32	1.26	17	.669	55	2.169	70	2.756	NG2R	0,34	.75
3955490	KM40TSS25ENEL3	25	.984	34	1.34	17	.669	55	2.169	70	2.756	NG3R	0,35	.77
3955492	KM40TSS25HNEL3	25	.984	34	1.34	17	.669	75	2.954	100	3.937	NG3R	0,49	1.09
3955496	KM40TSS32GNEL3	32	1.260	40	1.57	22	.866	76	2.993	90	3.543	NG3R	0,55	1.21

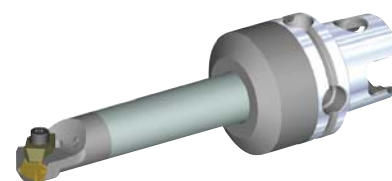
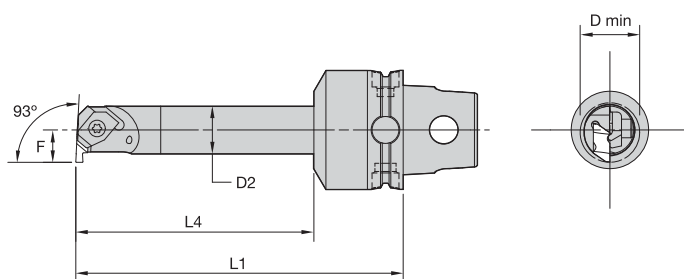
■ Spare Parts



catalog number	clamp	clamp
right hand		
KM40TSS12ENER2	CM147	MS1488
KM40TSS16FNER2	CM147	MS1488
KM40TSS20GNER2	CM75	MS1488
KM40TSS25ENER2	CM75	MS1488
KM40TSS25ENER3	CM73	MS1489
KM40TSS25HNER2	CM75	MS1488
KM40TSS25HNER3	CM73	MS1489
KM40TSS32GNER3	CM73	MS1489
KM40TSS32JNER3	CM73	MS1489
left hand		
KM40TSS12ENEL2	CM146	MS1488
KM40TSS16FNEL2	CM146	MS1488
KM40TSS20GNEL2	CM74	MS1488
KM40TSS25ENEL2	CM74	MS1488
KM40TSS25ENEL3	CM-72	MS1489
KM40TSS25HNEL3	CM-72	MS1489
KM40TSS32GNEL3	CM-72	MS1489



Threading



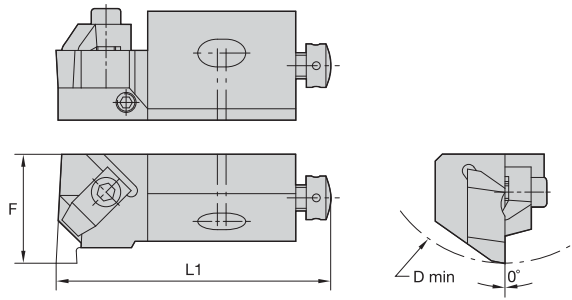
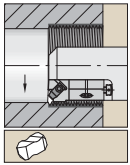
■ NE 90° • Carbide

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3951836	KM40TSE16JNER2	16	.630	20	.79	11	.433	80	3.15	110	4.331	NG2L	0,41	.90
left hand														
3951835	KM40TSE16JNEL2	16	.630	20	.79	11	.433	80	3.15	110	4.331	NG2R	0,41	.90

■ Spare Parts



	catalog number	clamp	clamp screw
right hand	KM40TSE16JNER2	CM146	MS1488
left hand	KM40TSE16JNEL2	CM147	MS1488



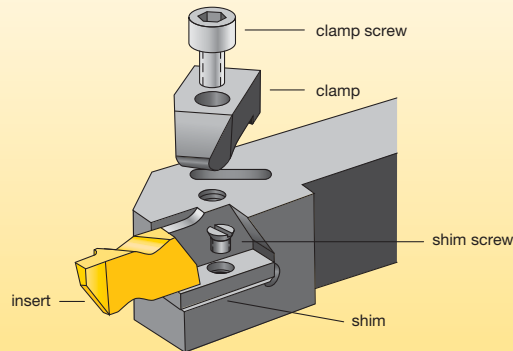
Threading

■ Steel Boring Cartridge • Inch

order number	catalog number	D min	F	L1	gage insert	clamp	clamp screw	hex	radial adjusting screw	hex	axial adjusting screw	hex	washer	hold down screw
right hand														
1098380	NER12CA2	1.969	.787	2.19	N.2L	CM75	MS1025	2.5 mm	KUAM23	2.5 mm	KUAM31	4 mm	CSWM 060 050	191.406
left hand														
1098624	NEL12CA2	1.969	.787	2.17	N.2R	CM74	MS1025	2.5 mm	KUAM23	2.5 mm	KUAM31	4 mm	CSWM 060 050	191.406
1098626	NEL25CA3	3.937	1.260	3.94	N.3R	CM72LP	MS412	4 mm	KUAM26	4 mm	KUAM33	6 mm	CSWM 100 080	—

NOTE: Minimum bore capability varies with depth of groove. See page C197 for details.

Toolholders and Boring Bars



insert size and style	clamp	clamp screw	shim	shim screw
NG-1L	CM-109	S-304	-	-
NG-2R	CM-182	S-310	-	-
NG-2L	CM-183	S-310	-	-
NG-2R	CM-74	S-310	-	-
NG-2L	CM-75	S-310	-	-
NG-3R	CM-184	S-412	-	-
NG-3L	CM-185	S-412	-	-
NG-3R	CM-72	S-412	-	-
NG-3L	CM-73	S-412	-	-
NG-3R*	CM-78	S-412	-	-
NG-3L*	CM-70	S-412	-	-
NG-4R	CM-72	S-412	SM-420	SL-344
NG-4L	CM-73	S-412	SM-420	SL-344
NG-5R	CM-80	S-352	-	-
NG-5L	CM-81	S-352	-	-
NG-6R	CM-120	S-412	SM-416	S-111
NG-6L	CM-121	S-412	SM-416	S-111
NG-8R	CM-144	S-422	SM-419	S-112
NG-8L	CM-145	S-422	SM-419	S-112
NG-8R**	CM-144	S-422	SM-427	S-111
NG-8L**	CM-145	S-422	SM-427	S-111
Top Notch relief grooving				
NU-3125R	CM-72	S-412	-	-
NU-3125L	CM-73	S-412	-	-
NU-3125R**	CM-72	S-618	-	-
NU-3125L**	CM-73	S-618	-	-

*25mm diameter boring head.

**Boring head.

Kennametal on the Web

kennametal.com

FIND THE LATEST PRODUCT INFORMATION

Whether your operation is turning, milling, or holemaking, Kennametal brands are the high-performance tooling you need. We offer standard and custom solutions for a wide range of applications.

Find information about our most current campaigns and catalogs.

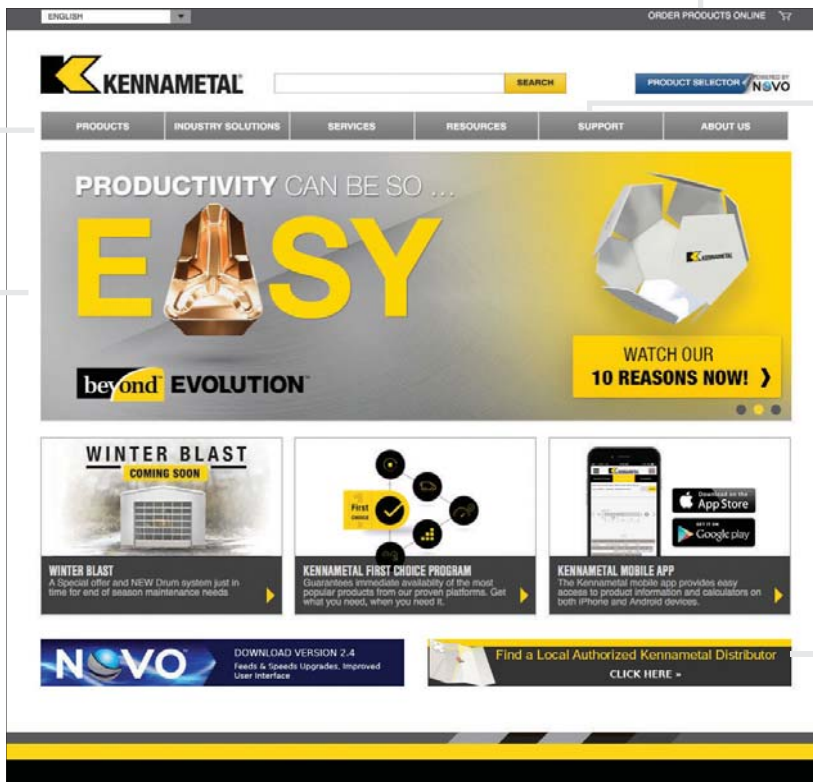
Register on **Konnect** for the full functionality of the Kennametal online ordering website.

CONTACT US

Our customers are important to us. We want to provide you the best customer service in the industry. If you have a comment or question, please send it to us. We strive to respond to all inquiries within 24 hours.

FIND A LOCAL AUTHORIZED DISTRIBUTOR IN YOUR AREA

Kennametal offers world-class products and services globally. Our distributors know us, and more importantly, they know you. They know better than anyone in the industry how to put the global power of Kennametal to work for you — in your industry, in your region, and for your business.



➤ LT • Laydown Triangle Threading

Primary Application

Laydown triangle (LT) threading is the system of choice for fine-pitch threads, high-helix/multistart threads, and single-point threading in small-diameter bores. With a wide selection of CB-style chip control inserts, you will receive superior chip management for excellent surface finishes and minimal operator intervention. The low-profile design enables unrestricted chip flow — ideal for I.D. threads. Variable shim angles enable proper cutting geometry for high-helix angle and reverse helix angle threading, maximizing tool life and improving thread quality.

Features and Benefits

Precision-Ground Thread Form on LT and LT-CB

- Minimizes built-up edge.
- Precisely cuts most common materials.
- Reduces cutting forces.
- Ensures accurate, high-quality threads.

Superior Chip Control

- Eliminates long, troublesome coils.
- Excellent for internal threading operations.
- Available in both partial and full profile inserts for all common thread forms.

KC5010™ and KC5025™ Premium PVD TiAlN-Coated Grades

- Increase tool life at existing machining conditions.
- Increase productivity by outperforming conventional PVD grades with up to a 30% advantage in cutting speeds.

Kenna Universal™ Inserts

- Precision molded LT-K thread form provides outstanding utility and value.
- Excellent chip control combined with grade KU25T™ enables trouble-free threading on a variety of workpiece materials.



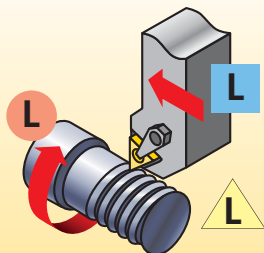
Step 1 • Select Threading Method and Hand of Tooling

Required Information:

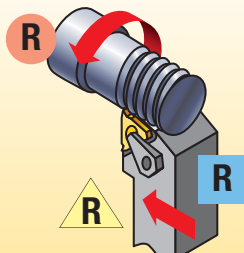
- External/internal operation.
- Spindle rotation/hand of thread.
- Feed direction.



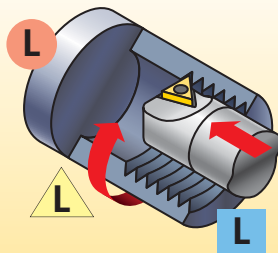
Feed direction toward the chuck • standard helix • RECOMMENDED



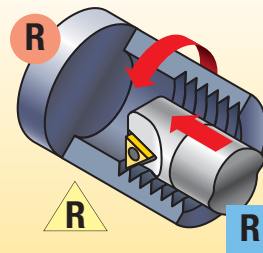
external left-hand thread



external right-hand thread

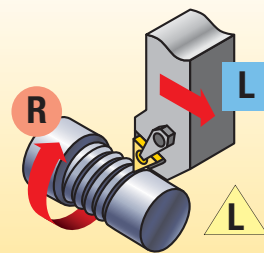


internal left-hand thread

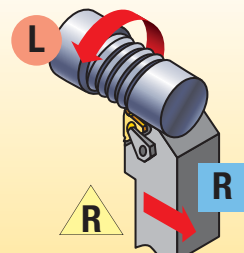


internal right-hand thread

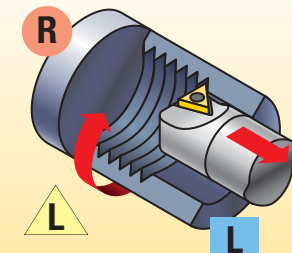
Feed direction away from the chuck • reverse helix*



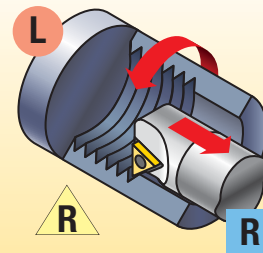
external right-hand thread



external left-hand thread



internal right-hand thread



internal left-hand thread

*Negative shim required

Step 2 • Select Holder from Catalog Page

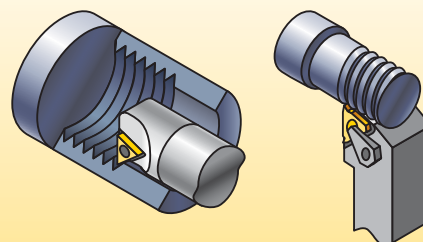
Required Information:

- External/internal operation.
- Minimum bore diameter (for internal operations).
- Hand of tool.
- Insert size (gage insert).

The insert size must match the gage insert size of your toolholder selection:

catalog number	gage insert	minimum bore diameter	shim
S1212LSER3	LT16NR	.90"	SM-Y13
A2020LSER16	LT16NR	16mm	SM-Y13

Select the appropriate holder for the insert size and hand:



Step 3 • Choose Insert for Application

- Select cresting inserts for fully controlled thread form including diameter.
- Cresting inserts eliminate the need for deburring and are optimized for the best tool life at that pitch.
- Non-cresting partial profile inserts offer the flexibility to cut a variety of thread pitches with one insert.
- Note insert size for toolholder selection.

NOTE: See threading insert overview on page D50.

	insert size	catalog number	KCU25/KC5025
	11	LT11NRA60	•
	16	LT6NRAG60	•

Step 4 • Select Appropriate Shim

Required Information:

- Thread form (TPI or pitch).
- Pitch diameter.
- Helix method (hand of tool, feed direction, hand of thread).
- Number of starts.

Select the proper shim: SMYE... for external RH or internal LH
SMYI... for internal RH or external LH

Feed direction toward the chuck standard helix • RECOMMENDED	RH thread/RH tooling	LH thread/LH tooling	
Feed direction away from the chuck reverse helix			
	LH thread/RH tooling	RH thread/LH tooling	

Insert size	toolholder		shim ordering code (inch)							
	external	internal	SMYE-3P		SMYE-3P		SMYE-3P		SMYE-3P	
3 (D1)	RH	LH	SMYE-3P	SMYE-3P	SMYE-3P	SMYE-3P	SMYE-3P	SMYE-3P	SMYE-3P	SMYE-3P
4 (1/2)	RH	LH	SMYE-4P	SMYE-4P	SMYE-4P	SMYE-4P	SMYE-4P	SMYE-4P	SMYE-4P	SMYE-4P
4 (1/2)	LH	RH	SMYI-4P	SMYI-4P	SMYI-4P	SMYI-4P	SMYI-4P	SMYI-4P	SMYI-4P	SMYI-4P
TPI	pitch (mm)		pitch diameter (inch)							
72	-	-	-	-	0.12-0.31	0.32-0.84	>0.84	0.84-0.32	0.31-0.12	
-	0.35	-	-	-	0.12-0.3	0.31-0.84	>0.84	0.84-0.31	0.3-0.12	
64	-	-	-	-	0.14-0.35	0.36-0.95	>0.95	0.95-0.36	0.35-0.14	
-	0.40	-	-	-	0.14-0.35	0.36-0.96	>0.96	0.96-0.36	0.35-0.14	
56	0.45	-	-	-	0.16-0.4	0.41-1.09	>1.09	1.09-0.41	0.4-0.16	
-	0.50	-	-	-	0.11-0.16	0.17-0.44	0.45-1.2	>1.2	1.2-0.45	0.44-0.17
48	-	-	-	-	0.12-0.17	0.18-0.46	0.47-1.27	>1.27	1.27-0.47	0.46-0.18
44	-	-	-	-	0.13-0.19	0.2-0.51	0.52-1.38	>1.38	1.38-0.52	0.51-0.2
-	0.60	-	0.1-0.12	-	0.13-0.2	0.21-0.53	0.54-1.44	>1.44	1.44-0.54	0.53-0.21
40	-	-	0.11-0.13	-	0.14-0.21	0.22-0.56	0.57-1.52	>1.52	1.52-0.57	0.56-0.22
-	0.70	-	0.12-0.15	-	0.15-0.23	0.24-0.62	0.63-1.68	>1.68	1.68-0.63	0.62-0.24
36	-	-	0.12-0.15	-	0.16-0.23	0.24-0.62	0.63-1.69	>1.69	1.69-0.63	0.62-0.24
-	0.75	0.11-0.12	0.13-0.16	0.17-0.25	0.26-0.66	0.67-1.8	>1.8	1.8-0.67	0.66-0.26	
32	-	0.12-0.13	0.14-0.17	0.18-0.26	0.27-0.7	0.71-1.9	>1.9	1.9-0.71	0.71-0.27	
-	0.80	0.12-0.13	0.14-0.17	0.18-0.26	0.27-0.71	0.72-1.91	>1.91	1.91-0.72	0.71-0.27	
28	-	0.14-0.14	0.15-0.19	0.2-0.3	0.31-0.8	0.81-2.17	>2.17	2.17-0.81	0.8-0.31	
27	-	0.14-0.15	0.16-0.2	0.21-0.31	0.32-0.83	0.84-2.25	>2.25	2.25-0.84	0.83-0.32	
1.80	0.15-0.19	0.17-0.21	0.22-0.33	0.34-0.89	0.9-2.39	>2.39	2.39-0.9	0.89-0.34		
24	-	0.16-0.17	0.18-0.23	0.24-0.35	0.36-0.94	0.95-2.53	>2.53	2.53-0.95	0.94-0.36	
-	1.25	0.19-0.2	0.21-0.27	0.28-0.42	0.43-1.11	1.12-2.99	>2.99	2.99-1.12	1.11-0.43	
20	-	0.19-0.21	0.22-0.27	0.28-0.42	0.43-1.13	1.14-3.04	>3.04	3.04-1.14	1.13-0.43	
18	-	0.21-0.23	0.24-0.31	0.32-0.47	0.48-1.26	1.27-3.38	>3.38	3.38-1.27	1.26-0.48	
-	1.50	0.22-0.25	0.26-0.33	0.34-0.5	0.51-1.34	1.35-3.59	>3.59	3.59-1.35	1.34-0.51	
16	-	0.24-0.26	0.27-0.35	0.36-0.53	0.54-1.41	1.42-3.8	>3.8	3.8-1.42	1.41-0.54	
14	1.75	0.26-0.29	0.3-0.38	0.39-0.59	0.6-1.56	1.57-4.19	>4.19	4.19-1.57	1.56-0.6	
13	-	0.27-0.3	0.31-0.4	0.41-0.61	0.62-1.62	1.63-4.34	>4.34	4.34-1.63	1.62-0.62	
-	2.00	0.29-0.32	0.33-0.43	0.44-0.66	0.67-1.74	1.75-4.68	>4.68	4.68-1.75	1.74-0.67	
12	-	0.3-0.33	0.34-0.44	0.45-0.67	0.68-1.78	1.79-4.79	>4.79	4.79-1.79	1.78-0.68	
11.5	-	0.32-0.35	0.36-0.46	0.47-0.71	0.72-1.89	1.9-5.07	>5.07	5.07-1.9	1.89-0.72	
11	-	0.33-0.37	0.38-0.49	0.5-0.74	0.75-1.97	1.98-5.29	>5.29	5.29-1.98	1.97-0.75	
-	2.50	0.34-0.38	0.39-0.51	0.52-0.78	0.79-2.06	2.07-5.53	>5.53	5.53-2.07	2.06-0.79	
10	-	0.37-0.42	0.43-0.55	0.56-0.84	0.85-2.23	2.24-5.98	>5.98	5.98-2.24	2.23-0.85	
9	-	0.38-0.42	0.43-0.56	0.57-0.86	0.87-2.27	2.28-6.08	>6.08	6.08-2.28	2.27-0.87	
-	3.00	0.42-0.47	0.48-0.62	0.63-0.95	0.96-2.52	2.53-7.75	>7.75	7.75-2.53	2.52-0.96	
8	-	0.45-0.5	0.51-0.66	0.67-1.02	1.03-2.68	2.69-7.18	>7.18	7.18-2.69	2.68-1.03	
-	3.50	0.47-0.53	0.54-0.7	0.71-1.08	1.09-2.84	2.85-7.6	>7.6	7.6-2.85	2.84-1.09	
7	-	0.52-0.59	0.6-0.77	0.78-1.19	1.2-3.13	3.14-8.38	>8.38	8.38-3.14	3.13-1.2	
-	4.00	0.524-0.61	0.62-0.8	0.81-1.23	1.24-3.25	3.26-8.68	>8.68	8.68-3.26	3.25-1.24	
6	-	0.6-0.67	0.68-0.89	0.9-1.36	1.37-3.58	3.59-9.57	>9.57	9.57-3.59	3.58-1.37	
-	4.50	0.63-0.71	0.72-0.94	0.95-1.44	1.45-3.79	3.8-10.13	>10.13	10.13-3.8	3.79-1.45	
5	-	0.75-0.84	0.85-1.11	1.12-1.7	1.71-4.48	4.49-11.97	>11.97	11.97-4.49	4.48-1.71	
-	5.00	0.76-0.86	0.87-1.13	1.14-1.73	1.74-4.55	4.56-12.16	>12.16	12.16-4.56	4.55-1.74	
4.5	-	0.84-0.95	0.96-1.26	1.27-1.92	1.93-5.06	5.07-13.51	>13.51	13.51-5.07	5.06-1.93	
-	6.00	0.9-1.01	1.02-1.33	1.34-2.04	2.05-5.37	5.38-14.36	>14.36	14.36-5.38	5.37-2.05	
4	-	0.95-1.07	1.08-1.41	1.42-2.16	2.17-5.69	5.7-15.2	>15.2	15.2-5.7	5.69-2.17	
inclination angle			4.5	3.5	2.5	1.5	0.5	0.0	-0.5	-1.5

If recommended shim is different from shim supplied with toolholder, order shim separately.

NOTE: Optimize your threading operation by using the proper infeed angle and the recommended infeed values. See the Technical Section on pages D82–D105.

Also see detailed shim selection information on pages D104–D105.

Step 5 • Select Grade and Speed

Recommendations for Grade and Speed Selection – m/min (SFM)

	workpiece material	P	M	K	N	S
Kenna Perfect™	insert style	CB chipbreaker		Flat Top	CB chipbreaker	
	optimum cutting conditions	KC5010 70–260 (240–850)	KC5010 90–245 (300–800)	KC5010 60–245 (200–800)	KC5010 90–550 (300–1800)	KC5010 30–150 (100–500)
	first choice	KC5025 50–230 (160–750)	KC5025 75–230 (250–750)	KC5025 50–180 (160–600)	KC5025 60–455 (200–1500)	KC5025 20–120 (75–400)
Kenna Universal™	insert style	-K chipbreaker				
	selection	KU25T 45–210 (145–675)	KU25T 70–205 (225–675)	KU25T 45–160 (145–540)	KU25T 55–410 (180–1350)	KU25T 20–110 (70–360)

NOTE: See threading insert overview on page D50.

Recommended Starting Speeds [m/min]

Material Group		KC5010			KC5025			KU25T		
P	0-1	135	200	260	105	165	230	95	150	210
	2	130	190	245	100	150	200	90	135	180
	3	105	155	200	75	125	170	70	115	155
	4	70	120	160	60	95	130	55	85	115
	5	105	155	200	75	130	170	70	115	155
	6	70	120	160	50	90	130	45	80	115
M	1	120	180	245	90	170	230	80	155	205
	2	90	165	210	75	140	200	70	125	180
	3	90	165	210	75	135	200	70	120	180
K	1	120	180	245	90	135	180	80	120	160
	2	90	150	210	70	120	170	65	110	155
	3	60	105	150	50	85	120	45	75	110
N	1-2	150	365	550	120	305	455	110	275	410
	3	90	135	180	60	105	150	55	95	135
	4	120	305	455	100	200	305	90	180	275
	5	90	165	245	70	135	195	65	120	175
	6	120	210	305	100	170	245	90	155	220
S	1	30	70	105	20	40	60	20	35	55
	2	30	65	100	20	35	45	20	30	40
	3	30	65	100	20	35	45	20	30	40
	4	55	105	150	45	85	120	40	75	110
H	1	30	45	60	-	-	-	-	-	-
	2	15	30	45	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-

NOTE: FIRST choice starting speeds are in **bold** type.

Recommended Starting Speeds [SFM]

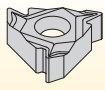
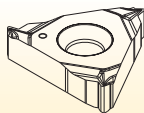
Material Group		KC5010			KC5025			KU25T		
P	0-1	450	650	850	350	550	750	315	495	675
	2	430	630	800	330	500	650	300	450	585
	3	350	520	650	250	420	550	225	380	495
	4	240	400	520	200	310	420	180	280	380
	5	350	520	650	250	420	550	225	380	495
	6	240	400	520	160	300	420	145	270	380
M	1	400	600	800	300	550	750	270	495	675
	2	300	550	700	250	470	650	225	425	585
	3	300	550	700	250	450	650	225	405	585
K	1	400	600	800	300	450	600	270	405	540
	2	300	500	700	240	400	560	215	360	505
	3	200	350	500	160	280	400	145	250	360
N	1-2	500	1200	1800	400	1000	1500	360	900	1350
	3	300	450	600	200	350	500	180	315	450
	4	400	1000	1500	320	660	1000	290	595	900
	5	300	550	800	240	440	640	215	395	575
	6	400	700	1000	320	560	800	290	505	720
S	1	100	230	350	75	125	200	70	110	180
	2	100	210	320	75	110	150	70	100	135
	3	100	210	320	75	110	150	70	100	135
	4	180	350	500	150	280	400	135	250	360
H	1	100	150	200	-	-	-	-	-	-
	2	50	100	150	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	-	-

NOTE: FIRST choice starting speeds are in **bold** type.

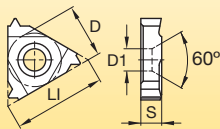
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding image to easily identify which attributes apply.

LT16ER20UNCB

<p>Inch</p> <div style="border: 1px solid black; padding: 5px; text-align: center;">LT</div> <p>Type of Insert</p>  <p>LT = Laydown triangle threading</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">16</div> <p>Cutting Edge Length (Size)</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">ER</div> <p>Hand of Insert</p> <p>ER = External right hand EL = External left hand NR = Internal right hand NL = Internal left hand</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">20</div> <p>Thread Pitch</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">UN</div> <p>Thread Profile</p>	<div style="border: 1px solid black; padding: 5px; text-align: center;">CB</div> <p>Chip Control</p>  <p>□ = Flat top CB = Chipbreaker K = Kenna Universal™ chipbreaker</p>
---	---	--	---	---	---

insert size	LI (mm)	D (inch)	D (mm)	S (inch)	S (mm)	D1 (inch)	D1 (mm)
11	11,0	.250	6,35	.126	3,20	.128	3,25
16	16,5	.375	9,52	.143	3,63	.155	3,94
22	22,0	.500	12,70	.188	4,78	.192	4,88



- ISO = ISO metric 60°
- UN = American UN 60°
- 60 = Partial profile non-cresting 60°
- 55 = Partial profile non-cresting 55°
- W = Whitworth 55°
- BSPT = British Standard Pipe Thread 55°
- NPT = American National Pipe Thread 60°
- ACME = American Acme
- STACME = American Stub Acme
- TR = Trapez DIN 103
- RD = Round DIN 405
- UNJ = Controlled root radius 60°
- NPTF = Dryseal 60°
- API = American Petroleum Institute Threads
- BUT = API Buttress Casing
- APIRD = API Round

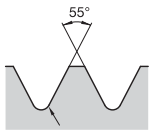
partial profile		
designation	thread pitch (mm)	TPI
A	0,50–1,5	48–16
AG	0,50–3,0	48–8
G	1,75–3,0	14–8
N	3,50–5,0	7–5
full profile		
actual TPI or pitch in mm is designated	0,5–4,0	48–8



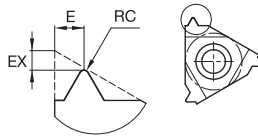
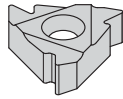
The Kenametal LT Advantage

Every box of 10 inserts includes a free Torx wrench and spare locking screw, except LT-K inserts.

style			thread profile	standard	tolerance class	cresting	application	page(s)
CB	K	flat top						
 LT-60CB	 LT-60K	 LT-60	Partial profile 60°	—	—	N	General use for 60° thread forms, such as ISO and UN, where non-cresting inserts are desired to cut a variety of pitches.	D51–D52, D60–D61
 LT-ISOCB	 LT-ISOK	 LT-ISO	Metric ISO	ISO R262, DIN 13	6g/6H	Y	Widely used metric 60° V-form for all industries.	D54, D63–D64
 LT-UNCB	 LT-UNK	 LT-UN	American UN	ANSI B1.1:74	2A/2B	Y	Widely used inch-based 60° V-form for all industries.	D57–D58, D67–D68
		 LT-UNJ	UNJ	MIL-S-8879C	3A/3B	Y	Controlled root radius on external threads for military and aerospace industries, 60° thread form.	D58, D68
 LT-NPTCB		 LT-NPT	NPT	USAS B2.1:1968	Standard NPT	Y	National Pipe Thread standard 60° thread form for pipe fittings.	D55, D64–D65
 LT-NPTFCB		 LT-NPTF	NPTF	ANSI B1.20.3-1976	Class 2	Y	Dryseal-type NPT 60° thread form for pipe fittings.	D55–D56, D65
	 LT-55K	 LT-55	Partial profile 55°	—	—	N	General use for 55° thread forms such as Whitworth, BSW, and BSP where non-cresting inserts are desired to cut a variety of pitches.	D51, D60
		 LT-BSPT	BSPT	BS 21:1985	Standard BSPT	Y	55° form for pipe fittings.	D53, D62
 LT-WCB	 LT-WK	 LT-W	Whitworth, BSW, BSF, BSP	BS 84:1956, ISO 228/1:1985, DIN 259	Medium Class A	Y	Widely used 55° form for gas and water connections.	D59, D69
		 LT-API	API Rotary Shoulder Connections	API SPEC. 7:1990	Standard API	Y	60° V-form used for rotary shoulder pipe connections in the oil and gas industry including V-.038R, V-.040, and V-.050 forms.	D52, D62
		 LT-APIRD	API round	API STD. 5B:1979	Standard API RD	Y	60° V-form with large radius for casing, tubing, and line pipe in the oil and gas industry, including 8 and 10 round forms.	D53, D62
		 LT-BUT	API Buttress Casing	API SPEC. 7:1990	Standard API	Y	45° buttress-style form used for pipe casing connections in the oil and gas industry.	D53, D62
		 LT-ACME	Acme	ANSI B1.5:1988	3G	N	29° truncated thread form for motion applications in a wide variety of industries.	D52, D61
		 LT-STACME	Stub Acme	ANSI B1.8:1988	2G	N	Shallow depth 29° truncated thread form for motion applications in a wide variety of industries.	D56, D66
		 LT-RD	Round	DIN 405	7h/7H	Y	Round thread form for tube fittings in the chemical and food industries.	D56, D65
		 LT-TR	Trapez	DIN 103	7e/7H	N	30° truncated metric thread form for motion applications.	D57, D66



Partial Profile 55°
External

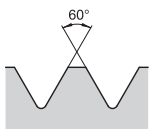


● first choice
○ alternate choice

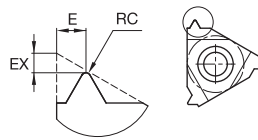
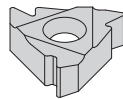
P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-ER/L-55

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ERA55	16	0,05	.0020	0,8	.031	0,89	.035	0,50-1,50	16-48	—	—	●	—
LT16ERAG55	16	0,08	.0030	1,2	.047	1,70	.067	0,50-3,00	8-48	—	●	●	—
16ERG55	16	0,20	.0080	1,2	.047	1,70	.067	1,75-3,00	8-14	—	—	●	—
LT22ERN55	22	0,43	.0170	1,7	.067	2,49	.098	3,50-5,00	5-7	—	—	●	—
left hand													
LT16ELAG55	16	0,08	.0030	1,2	.047	1,70	.067	0,50-3,00	8-48	—	—	●	—

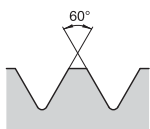


Partial Profile 60°
External

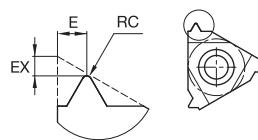
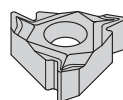


LT-ER/L-60

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ERA60	16	0,05	.002	0,8	.031	0,9	.035	0,50-1,50	16-48	—	●	●	—
LT16ERAG60	16	0,08	.003	1,2	.047	1,7	.067	0,50-3,0	8-48	—	●	—	—
16ERAG60	16	0,08	.003	1,2	.047	1,7	.067	0,50-3,0	8-48	—	—	●	—
LT16ERG60	16	0,28	.011	1,2	.047	1,7	.067	1,75-3,0	8-14	—	●	●	—
LT22ERN60	22	0,53	.021	1,7	.067	2,5	.098	3,5-5,0	5-7	—	—	●	—
left hand													
LT16ELA60	16	0,05	.002	0,8	.031	0,9	.035	0,50-1,50	16-48	—	—	●	—
LT16ELAG60	16	0,08	.003	1,2	.047	1,7	.067	0,50-3,0	8-48	—	—	●	—
LT16ELG60	16	0,28	.011	1,2	.047	1,7	.067	1,75-3,0	8-14	—	—	●	—
LT22ELN60	22	0,53	.021	1,7	.067	2,5	.098	3,5-5,0	5-7	—	—	●	—



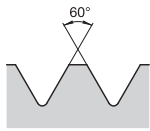
Partial Profile 60°
External



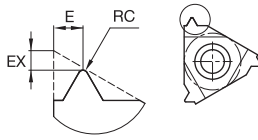
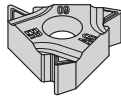
LT-ER-60CB

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ERAG60CB	16	0,08	.003	0,9	.035	1,5	.059	0,50-3,0	8-48	—	●	●	—





Partial Profile 60°
External



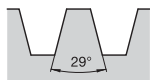
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○		

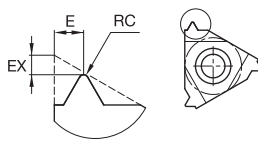
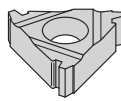
■ **LT-ER-60K**

Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ERAG60K	16	0,08	.003	1,2	.047	1,7	.067	0,50-3,0	8-48	—	—	—	●

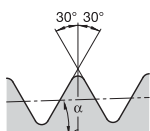


Acme External

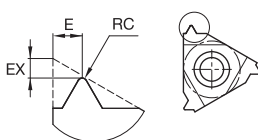
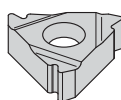


■ **LT-ER/L-ACME**

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER10ACME	16	—	—	1,3	.051	1,40	.055	—	10	—	—	●	—
LT16ER12ACME	16	—	—	1,1	.043	1,19	.047	—	12	—	—	●	—
LT16ER16ACME	16	—	—	1,0	.039	1,09	.043	—	16	—	—	●	—
LT16ER8ACME	16	—	—	1,4	.055	1,50	.059	—	8	—	—	●	—
LT22ER5ACME	22	—	—	2,0	.079	2,29	.090	—	5	—	—	●	—
LT22ER6ACME	22	—	—	1,8	.071	2,11	.083	—	6	—	—	●	—

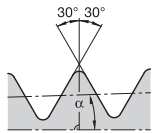


API Rotary Shoulder
Connections-
External
 $\alpha = 1/2 \arctan$
(TPF/12)

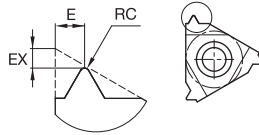
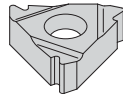


■ **LT-ER/L-API**

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT22ER4API382	22	—	—	2,1	.083	2,79	.110	—	4	2.0000	—	●	—
LT22ER4API502	22	—	—	2,0	.079	2,90	.114	—	4	2.0000	●	●	—
LT22ER4API503	22	—	—	2,0	.079	2,90	.114	—	4	3.0000	●	—	—
LT22ER5API403	22	—	—	1,8	.071	2,60	.102	—	5	3.0000	●	—	—
LT27ER4API502	28	0,64	.0250	2,0	.080	2,79	.110	—	4	—	—	●	—
LT27ER4API382	28	0,97	.0380	2,0	.080	2,79	.110	—	4	—	—	●	—



API Round-External

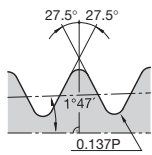


● first choice
○ alternate choice

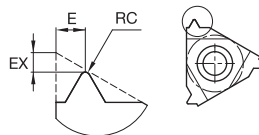
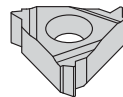
P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-ER/L-APIRD

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER10APIRD	16	—	—	1,2	.047	1,40	.055	—	10	.7500	—	●	—
LT16ER8APIRD	16	—	—	1,3	.051	1,50	.059	—	8	.7500	—	●	—
left hand													
LT16EL8APIRD	16	—	—	1,3	.051	1,50	.059	—	8	.7500	—	●	—

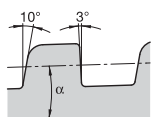


BSPT-External

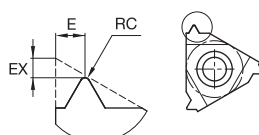
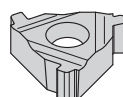


LT-ER/L-BSPT

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER11BSPT	16	—	—	1,1	.043	1,50	.059	—	11	.7500	—	●	—
LT16ER14BSPT	16	—	—	1,0	.039	1,19	.047	—	14	.7500	—	●	—



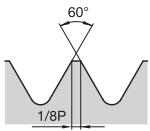
API Buttress Casing-External
 $\alpha = 1/2 \arctan (TPF/12)$



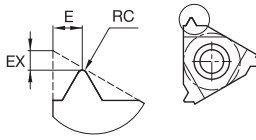
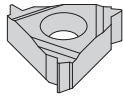
LT-ER/L-BUT

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT22ER5BUT75	22	—	—	3,1	.122	1,91	.075	—	5	.7500	—	●	—





ISO Metric-External



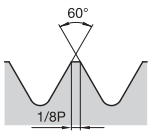
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○		

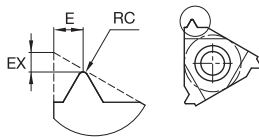
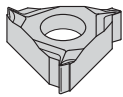
■ **LT-ER/L-ISO**

Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T	
		mm	in	mm	in	mm	in							
right hand														
LT16ER05ISO	16	—	—	0,6	.024	0,4	.016	0,50	—	—	—	●	●	—
LT16ER075ISO	16	—	—	0,6	.024	0,6	.024	0,75	—	—	—	●	●	—
LT16ER10ISO	16	—	—	0,7	.027	0,7	.027	1,0	—	—	—	●	●	—
LT16ER125ISO	16	—	—	0,8	.031	0,9	.035	1,25	—	—	—	●	●	—
LT16ER15ISO	16	—	—	0,8	.031	1,0	.039	1,5	—	—	—	●	●	—
LT16ER175ISO	16	—	—	0,9	.035	1,2	.047	1,75	—	—	—	●	●	—
LT16ER20ISO	16	—	—	1,0	.039	1,3	.051	2,0	—	—	—	●	●	—
LT16ER25ISO	16	—	—	1,1	.043	1,5	.059	2,5	—	—	—	●	●	—
LT16ER30ISO	16	—	—	1,2	.047	1,6	.063	3,0	—	—	—	●	●	—
LT22ER35ISO	22	—	—	1,6	.063	2,3	.090	3,5	—	—	—	—	●	—
LT22ER40ISO	22	—	—	1,6	.063	2,3	.090	4,0	—	—	—	—	●	—
LT22ER45ISO	22	—	—	1,7	.067	2,4	.094	4,5	—	—	—	—	●	—
LT22ER50ISO	22	—	—	1,7	.067	2,5	.098	5,0	—	—	—	—	●	—
left hand														
LT16EL15ISO	16	—	—	0,8	.031	1,0	.039	1,5	—	—	—	●	●	—
LT16EL175ISO	16	—	—	0,9	.035	1,2	.047	1,75	—	—	—	—	●	—
LT16EL20ISO	16	—	—	1,0	.039	1,3	.051	2,0	—	—	—	—	●	—
LT16EL25ISO	16	—	—	1,1	.043	1,5	.059	2,5	—	—	—	—	●	—
LT16EL30ISO	16	—	—	1,2	.047	1,6	.063	3,0	—	—	—	—	●	—
LT16EL05ISO	16	—	—	0,6	.024	0,4	.016	0,50	—	—	—	—	●	—
LT16EL075ISO	16	—	—	0,6	.024	0,6	.024	0,75	—	—	—	—	●	—
LT16EL10ISO	16	—	—	0,7	.027	0,7	.027	1,0	—	—	—	—	●	—
LT16EL125ISO	16	—	—	0,8	.031	0,9	.035	1,25	—	—	—	—	●	—
LT22EL35ISO	22	—	—	1,6	.063	2,3	.090	3,5	—	—	—	—	●	—

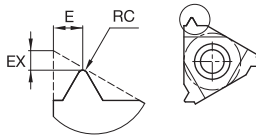
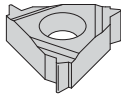
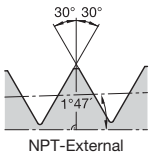


ISO Metric-External



■ **LT-ER-ISOCB**

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T	
		mm	in	mm	in	mm	in							
right hand														
LT16ER05ISOCB	16	—	—	1,2	.047	0,5	.020	0,50	—	—	—	●	●	—
LT16ER075ISOCB	16	—	—	1,2	.047	0,6	.024	0,75	—	—	—	●	●	—
LT16ER10ISOCB	16	—	—	0,7	.028	0,8	.031	1,0	—	—	—	●	●	—
LT16ER125ISOCB	16	—	—	0,7	.028	0,8	.031	1,25	—	—	—	●	●	—
LT16ER15ISOCB	16	—	—	0,7	.028	0,8	.031	1,5	—	—	—	●	●	—
LT16ER175ISOCB	16	—	—	1,2	.047	1,5	.059	1,75	—	—	—	●	●	—
LT16ER20ISOCB	16	—	—	1,2	.047	1,5	.059	2,0	—	—	—	●	●	—
LT16ER25ISOCB	16	—	—	1,2	.047	1,5	.059	2,5	—	—	—	—	●	—
LT16ER30ISOCB	16	—	—	1,3	.051	1,5	.059	3,0	—	—	—	—	●	—

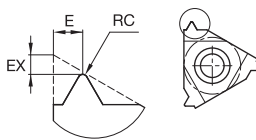
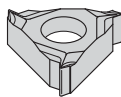
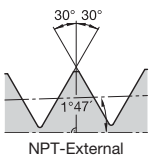


● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

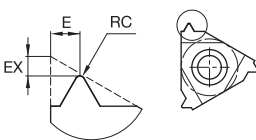
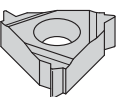
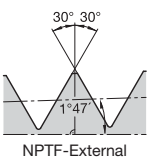
LT-ER/L-NPT

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER115NPT	16	—	—	1,1	.043	1,5	.059	—	11.5	.7500	●	●	—
LT16ER14NPT	16	—	—	0,9	.035	1,2	.047	—	14	.7500	●	●	—
LT16ER18NPT	16	—	—	0,8	.031	1,0	.039	—	18	.7500	●	●	—
LT16ER27NPT	16	—	—	0,7	.027	0,8	.031	—	27	.7500	—	●	—
LT16ER8NPT	16	—	—	1,3	.051	1,8	.071	—	8	.7500	—	●	—



LT-ER-NPTCB

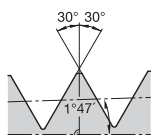
catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER14NPTCB	16	—	—	1,1	.043	1,5	.059	—	14	.7500	●	●	—



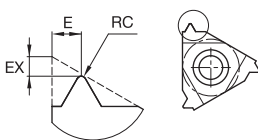
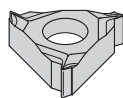
LT-ER/L-NPTF

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER115NPTF	16	—	—	1,1	.043	1,5	.059	—	11.5	.7500	—	●	—
LT16ER14NPTF	16	—	—	0,9	.035	1,2	.047	—	14	.7500	—	●	—





NPTF-External



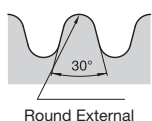
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

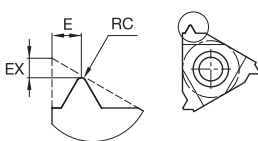
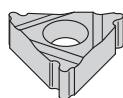
■ LT-ER-NPTFCB

Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER115NPTFCB	16	—	—	1,1	.043	1,5	.059	—	11.5	.7500	—	●	—

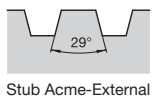


Round External

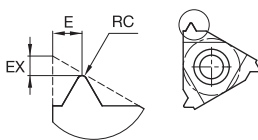
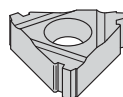


■ LT-ER/L-RD

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER8RD	16	0,76	.0298	1,4	.055	1,30	.051	—	8	—	—	●	—
LT22ER6RD	22	1,01	.0398	1,5	.059	1,70	.067	—	6	—	—	●	—

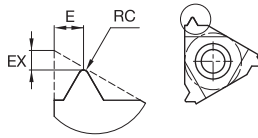
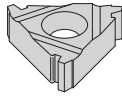
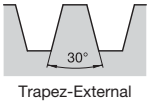


Stub Acme-External



■ LT-ER/L-STACME

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER10STACME	16	—	—	1,2	.047	1,30	.051	—	10	—	—	●	—
LT16ER12STACME	16	—	—	1,2	.047	1,19	.047	—	12	—	—	●	—
LT16ER16STACME	16	—	—	1,0	.039	0,99	.039	—	16	—	—	●	—
LT16ER6STACME	16	—	—	1,7	.067	1,80	.071	—	6	—	—	●	—
LT16ER8STACME	16	—	—	1,4	.055	1,50	.059	—	8	—	—	●	—
LT22ER5STACME	22	—	—	2,1	.083	2,29	.090	—	5	—	—	●	—

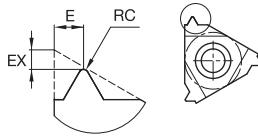
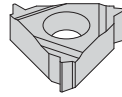
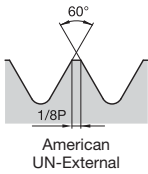


● first choice
○ alternate choice

P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	○	○	○	○
S	●	●	●	●
H	○	○	○	○

LT-ER/L-TR

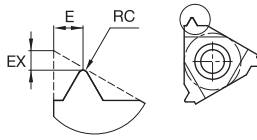
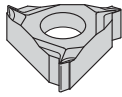
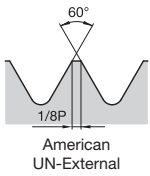
catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER2TR	16	—	—	1,1	.043	1,30	.051	2,0	—	—	—	●	—
LT16ER3TR	16	—	—	1,3	.051	1,50	.059	3,0	—	—	—	●	—
LT22ER4TR	22	—	—	1,7	.067	1,91	.075	4,0	—	—	—	●	—
LT22ER5TR	22	—	—	2,1	.083	2,50	.098	5,0	—	—	—	●	—



LT-ER/L-UN

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER10UN	16	—	—	1,1	.043	1,5	.059	—	10	—	—	●	—
LT16ER12UN	16	—	—	1,1	.043	1,4	.055	—	12	—	●	●	—
LT16ER14UN	16	—	—	1,0	.039	1,2	.047	—	14	—	●	●	—
LT16ER16UN	16	—	—	0,9	.035	1,1	.043	—	16	—	●	●	—
LT16ER18UN	16	—	—	0,8	.031	1,0	.039	—	18	—	●	●	—
LT16ER20UN	16	—	—	0,8	.031	0,9	.035	—	20	—	●	●	—
LT16ER24UN	16	—	—	0,7	.027	0,8	.031	—	24	—	●	●	—
LT16ER28UN	16	—	—	0,6	.024	0,7	.027	—	28	—	●	●	—
LT16ER32UN	16	—	—	0,6	.024	0,6	.024	—	32	—	●	●	—
LT16ER36UN	16	—	—	0,6	.024	0,6	.024	—	36	—	—	●	—
LT16ER40UN	16	—	—	0,6	.024	0,6	.024	—	40	—	—	●	—
LT16ER48UN	16	—	—	0,6	.024	0,6	.024	—	48	—	—	●	—
LT16ER8UN	16	—	—	1,2	.047	1,6	.063	—	8	—	—	●	—
left hand													
LT16EL24UN	16	—	—	0,7	.027	0,8	.031	—	24	—	—	●	—
LT16EL28UN	16	—	—	0,6	.024	0,7	.027	—	28	—	—	●	—
LT16EL8UN	16	—	—	1,2	.047	1,6	.063	—	8	—	—	●	—
LT16EL12UN	16	—	—	1,1	.043	1,4	.055	—	12	—	—	●	—
LT16EL14UN	16	—	—	1,0	.039	1,2	.047	—	14	—	—	●	—
LT16EL16UN	16	—	—	0,9	.035	1,1	.043	—	16	—	—	●	—
LT16EL18UN	16	—	—	0,8	.031	1,0	.039	—	18	—	—	●	—
LT16EL20UN	16	—	—	0,8	.031	0,9	.035	—	20	—	—	●	—





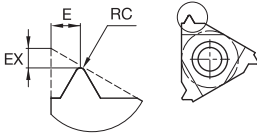
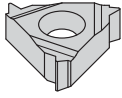
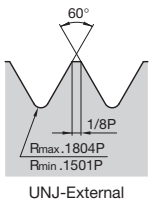
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

Threading

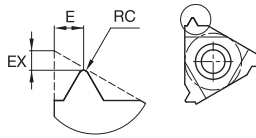
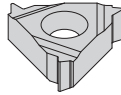
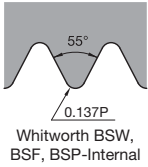
■ LT-ER-UNCB

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER10UNCB	16	—	—	1,2	.047	1,5	.059	—	10	—	—	●	—
LT16ER12UNCB	16	—	—	1,2	.047	1,5	.059	—	12	—	●	●	—
LT16ER14UNCB	16	—	—	1,2	.047	1,5	.059	—	14	—	●	●	—
LT16ER16UNCB	16	—	—	0,8	.032	0,8	.031	—	16	—	●	●	—
LT16ER18UNCB	16	—	—	0,7	.028	0,8	.031	—	18	—	●	●	—
LT16ER20UNCB	16	—	—	0,7	.028	0,8	.031	—	20	—	●	●	—
LT16ER24UNCB	16	—	—	0,7	.028	0,8	.031	—	24	—	●	●	—
LT16ER28UNCB	16	—	—	0,7	.028	0,8	.031	—	28	—	●	●	—
LT16ER32UNCB	16	—	—	1,2	.047	0,5	.020	—	32	—	●	●	—
LT16ER8UNCB	16	—	—	1,3	.051	1,5	.059	—	8	—	●	●	—



■ LT-ER/L-UNJ

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER12UNJ	16	—	—	1,1	.043	1,3	.051	—	12	—	●	●	—
LT16ER14UNJ	16	—	—	1,0	.039	1,2	.047	—	14	—	●	●	—
LT16ER16UNJ	16	—	—	0,9	.035	1,1	.043	—	16	—	●	●	—
LT16ER18UNJ	16	—	—	0,8	.031	1,0	.039	—	18	—	●	●	—
LT16ER20UNJ	16	—	—	0,8	.031	0,9	.035	—	20	—	●	●	—
LT16ER24UNJ	16	—	—	0,7	.027	0,8	.031	—	24	—	—	●	—
LT16ER28UNJ	16	—	—	0,7	.027	0,7	.027	—	28	—	—	●	—
LT16ER32UNJ	16	—	—	0,6	.024	0,7	.027	—	32	—	—	●	—
left hand													
LT16EL16UNJ	16	—	—	0,9	.035	1,1	.043	—	16	—	—	●	—

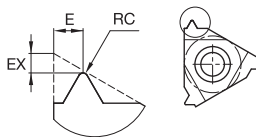
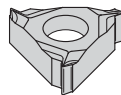
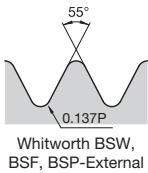


● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

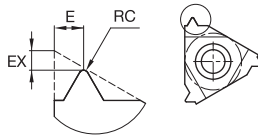
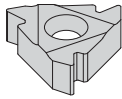
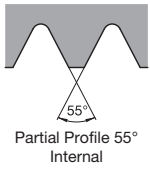
LT-ER/L-W

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER10W	16	—	—	1,1	.043	1,50	.059	—	10	—	—	●	—
LT16ER11W	16	—	—	1,1	.043	1,50	.059	—	11	—	●	●	—
LT16ER12W	16	—	—	1,1	.043	1,40	.055	—	12	—	—	●	—
LT16ER14W	16	—	—	1,0	.039	1,19	.047	—	14	—	●	●	—
LT16ER16W	16	—	—	0,9	.035	1,09	.043	—	16	—	—	●	—
LT16ER18W	16	—	—	0,8	.031	0,99	.039	—	18	—	—	●	—
LT16ER19W	16	—	—	0,8	.031	0,99	.039	—	19	—	●	●	—
LT16ER20W	16	—	—	0,8	.031	0,89	.035	—	20	—	—	●	—
LT16ER24W	16	—	—	0,7	.028	0,79	.031	—	24	—	—	●	—
LT16ER28W	16	—	—	0,6	.024	0,69	.027	—	28	—	—	●	—
LT16ER8W	16	—	—	1,2	.047	1,50	.059	—	8	—	—	●	—
LT16ER9W	16	—	—	1,2	.047	1,70	.067	—	9	—	—	●	—
LT22ER6W	22	—	—	1,6	.063	2,29	.090	—	6	—	—	●	—
LT22ER7W	22	—	—	1,6	.063	2,29	.090	—	7	—	—	●	—
left hand													
LT16EL11W	16	—	—	1,1	.043	1,50	.059	—	11	—	—	●	—
LT16EL14W	16	—	—	1,0	.039	1,19	.047	—	14	—	—	●	—



LT-ER-WCB

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16ER11WCB	16	—	—	1,3	.051	1,50	.059	—	11	—	—	●	—
LT16ER14WCB	16	—	—	1,3	.051	1,50	.059	—	14	—	●	●	—



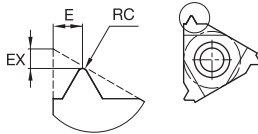
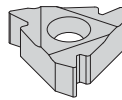
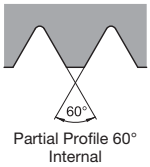
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

■ **LT-NR/L-55**

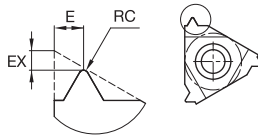
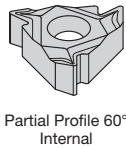
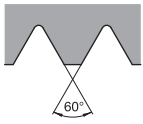
Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NRA55	11	0,05	.0020	0,8	.031	0,89	.035	0,50-1,50	16-48	—	—	●	—
LT16NRA55	16	0,05	.0020	0,8	.031	0,89	.035	0,50-1,50	16-48	—	—	●	—
LT16NRAG55	16	0,07	.0028	1,2	.047	1,70	.067	0,50-3,00	8-48	—	—	●	—
LT16NRG55	16	0,21	.0083	1,2	.047	1,70	.067	1,75-3,00	8-14	—	—	●	—
LT22NRN55	22	0,43	.0170	1,7	.067	2,49	.098	3,50-5,00	5-7	—	—	●	—



■ **LT-NR/L-60**

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NRA60	11	0,05	.002	0,8	.031	0,9	.035	0,50-1,50	48-16	—	●	●	—
LT16NRA60	16	0,05	.002	0,8	.031	0,9	.035	0,50-1,50	48-16	—	●	●	—
LT16NRAG60	16	0,05	.002	1,2	.047	1,7	.067	0,50-3,00	48-8	—	●	●	—
LT16NRG60	16	0,15	.006	1,2	.047	1,7	.067	1,75-3,00	14-8	—	●	●	—
LT22NRN60	22	0,31	.012	1,7	.067	2,5	.098	3,5-5,00	7-5	—	—	●	—
left hand													
LT11NLA60	11	0,05	.002	0,8	.031	0,9	.035	0,50-1,50	48-16	—	—	●	—
LT16NLA60	16	0,05	.002	0,8	.031	0,9	.035	0,50-1,50	48-16	—	—	●	—
LT16NLAG60	16	0,05	.002	1,2	.047	1,7	.067	0,50-3,00	48-8	—	—	●	—
LT16NLG60	16	0,15	.006	1,2	.047	1,7	.067	1,75-3,00	14-8	—	—	●	—
LT22NLN60	22	0,31	.012	1,7	.067	2,5	.098	3,5-5,00	7-5	—	—	●	—

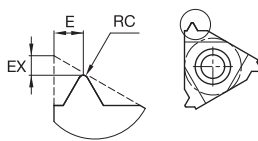
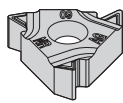
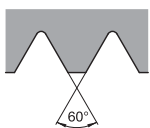


● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-NR-60CB

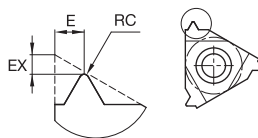
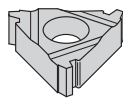
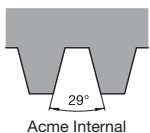
catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NRA60CB	11	0,05	.002	0,6	.024	0,8	.031	0,50-1,50	48-16	—	—	●	—
LT16NRAG60CB	16	0,05	.002	0,9	.035	1,5	.059	0,50-3,0	48-8	—	—	●	—
LT16NRG60CB	16	0,16	.006	1,0	.039	1,5	.059	1,75-3,0	14-8	—	—	●	—



Partial Profile 60° Internal

LT-NR-60K

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NRAG60K	16	0,04	.002	1,2	.047	1,7	.067	0,50-3,0	48-8	—	—	—	●

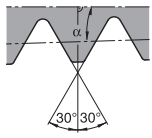


Acme Internal

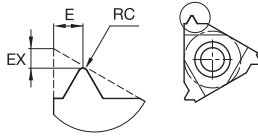
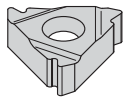
LT-NR/L-ACME

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR10ACME	16	—	—	1,2	.047	1,30	.051	—	10	—	—	●	—
LT16NR12ACME	16	—	—	1,2	.047	1,30	.051	—	12	—	—	●	—
LT16NR8ACME	16	—	—	1,4	.055	1,50	.059	—	8	—	—	●	—
LT22NR5ACME	22	—	—	2,0	.079	2,29	.090	—	5	—	—	●	—
LT22NR6ACME	22	—	—	1,8	.071	2,11	.083	—	6	—	—	●	—





API Rotary Shoulder
Connections-
Internal
 $\alpha = 1/2 \arctan$
(TPF/12)

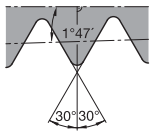


● first choice
○ alternate choice

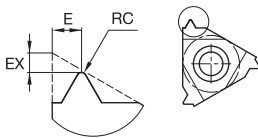
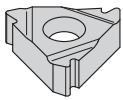
P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-NR/L-API

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT22NR4API382	22	—	—	2,1	.083	2,79	.110	—	4	2.0000	—	●	—
LT22NR4API502	22	—	—	2,1	.083	3,10	.122	—	4	2.0000	—	●	—
LT22NR5API403	22	—	—	1,8	.071	2,60	.102	—	5	3.0000	—	●	—
LT27NR4API502	28	0,65	.0260	2,0	.080	3,79	.110	—	4	—	—	●	—
LT27NR4API382	28	0,99	.0390	2,0	.080	2,79	.110	—	4	—	—	●	—

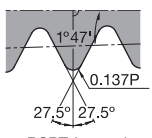


API Round-Internal

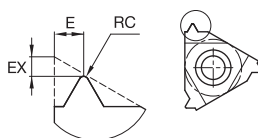
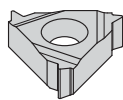


LT-NR/L-APIRD

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR10APIRD	16	—	—	1,2	.047	1,40	.055	—	10	.7500	—	●	—
LT16NR8APIRD	16	—	—	1,3	.051	1,50	.059	—	8	.7500	—	●	—

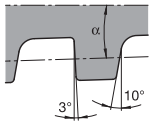


BSPT-Internal

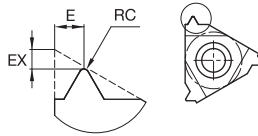
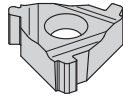


LT-NR/L-BSPT

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR14BSPT	11	—	—	0,9	.035	0,99	.039	—	14	.7500	—	●	—
LT16NR11BSPT	16	—	—	1,1	.043	1,50	.059	—	11	.7500	—	●	—
LT16NR14BSPT	16	—	—	1,0	.039	1,19	.047	—	14	.7500	—	●	—



API Buttress
Casing-Internal
 $\alpha = 1/2 \arctan$
(TPF/12)

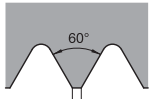


● first choice
○ alternate choice

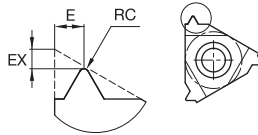
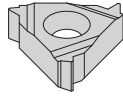
P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-NR/L-BUT

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT22NR5BUT1	22	—	—	2,8	.110	1,91	.075	—	5	1.0000	—	●	—
LT22NR5BUT75	22	—	—	2,8	.110	1,91	.075	—	5	.7500	—	●	—



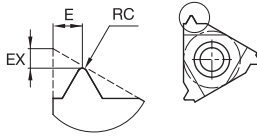
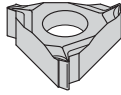
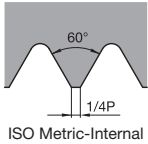
ISO Metric-Internal



LT-NR/L-ISO

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR05ISO	11	—	—	0,6	.024	0,4	.016	0,50	—	—	—	●	—
LT11NR075ISO	11	—	—	0,6	.024	0,6	.024	0,75	—	—	—	●	—
LT11NR10ISO	11	—	—	0,6	.024	0,7	.027	1,0	—	—	—	●	—
LT11NR125ISO	11	—	—	0,8	.031	0,9	.035	1,25	—	—	—	●	—
LT11NR15ISO	11	—	—	0,8	.031	1,0	.039	1,5	—	—	●	●	—
LT11NR175ISO	11	—	—	0,9	.035	1,1	.043	1,75	—	—	—	●	—
LT11NR20ISO	11	—	—	0,9	.035	1,1	.043	2,0	—	—	—	●	—
LT16NR05ISO	16	—	—	0,6	.024	0,4	.016	0,50	—	—	—	●	—
LT16NR075ISO	16	—	—	0,6	.024	0,6	.024	0,75	—	—	—	●	—
LT16NR10ISO	16	—	—	0,6	.024	0,7	.027	1,0	—	—	●	●	—
LT16NR125ISO	16	—	—	0,8	.031	0,9	.035	1,25	—	—	—	●	—
LT16NR15ISO	16	—	—	0,8	.031	1,0	.039	1,5	—	—	●	●	—
LT16NR175ISO	16	—	—	0,9	.035	1,2	.047	1,75	—	—	—	●	—
LT16NR20ISO	16	—	—	1,0	.039	1,3	.051	2,0	—	—	●	●	—
LT16NR25ISO	16	—	—	1,1	.043	1,5	.059	2,5	—	—	—	●	—
LT16NR30ISO	16	—	—	1,1	.043	1,5	.059	3,0	—	—	●	●	—
LT22NR35ISO	22	—	—	1,6	.063	2,3	.090	3,5	—	—	—	●	—
LT22NR40ISO	22	—	—	1,6	.063	2,3	.090	4,0	—	—	—	●	—
LT22NR45ISO	22	—	—	1,6	.063	2,4	.094	4,5	—	—	—	●	—
LT22NR50ISO	22	—	—	1,6	.063	2,3	.090	5,0	—	—	—	●	—
left hand													
LT11NL15ISO	11	—	—	0,8	.031	1,0	.039	1,5	—	—	—	●	—
LT11NL10ISO	11	—	—	0,6	.024	0,7	.027	1,0	—	—	—	●	—
LT16NL30ISO	16	—	—	1,1	.043	1,5	.059	3,0	—	—	—	●	—
LT16NL10ISO	16	—	—	0,6	.024	0,7	.027	1,0	—	—	—	●	—
LT16NL15ISO	16	—	—	0,8	.031	1,0	.039	1,5	—	—	—	●	—
LT16NL20ISO	16	—	—	1,0	.039	1,3	.051	2,0	—	—	—	●	—
LT16NL25ISO	16	—	—	1,1	.043	1,5	.059	2,5	—	—	—	●	—





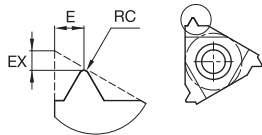
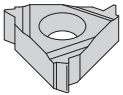
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○		

LT-NR-ISOCB

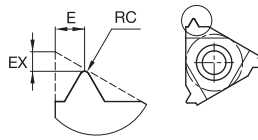
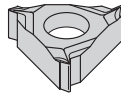
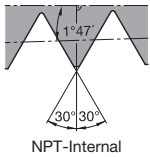
Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR075ISOCB	11	—	—	1,2	.047	0,5	.020	0,75	—	—	—	●	—
LT11NR10ISOCB	11	—	—	0,7	.028	0,8	.031	1,0	—	—	—	●	—
LT11NR125ISOCB	11	—	—	0,7	.028	0,8	.031	1,25	—	—	—	●	—
LT11NR15ISOCB	11	—	—	0,7	.028	0,8	.031	1,5	—	—	—	●	—
LT16NR10ISOCB	16	—	—	0,7	.028	0,8	.031	1,0	—	—	—	●	—
LT16NR15ISOCB	16	—	—	0,7	.028	0,8	.031	1,5	—	—	—	●	—
LT16NR20ISOCB	16	—	—	1,1	.043	1,5	.059	2,0	—	—	—	●	—
LT16NR25ISOCB	16	—	—	1,1	.043	1,5	.059	2,5	—	—	—	●	—



LT-NR/L-NPT

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR14NPT	11	—	—	0,8	.031	1,0	.039	—	14	.7500	●	●	—
LT11NR18NPT	11	—	—	0,8	.031	1,0	.039	—	18	.7500	—	●	—
LT16NR115NPT	16	—	—	1,1	.043	1,5	.059	—	11,5	.7500	●	●	—
LT16NR14NPT	16	—	—	0,9	.035	1,2	.047	—	14	.7500	—	●	—
LT16NR8NPT	16	—	—	1,3	.051	1,8	.071	—	8	.7500	—	●	—

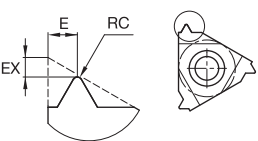
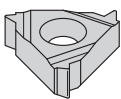
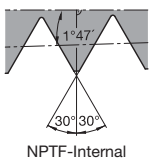


● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

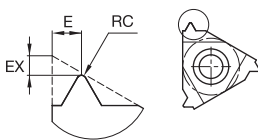
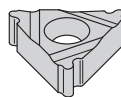
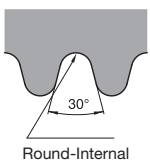
LT-NR-NPTCB

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR115NPTCB	16	—	—	1,1	.043	1,5	.059	—	11.5	.7500	—	●	—
LT16NR14NPTCB	16	—	—	1,4	.053	1,2	.047	—	14	.7500	—	●	—



LT-NR/L-NPTF

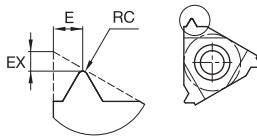
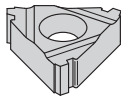
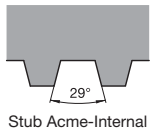
catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR14NPTF	11	—	—	0,8	.031	0,99	.039	—	14	.7500	—	●	—
LT16NR14NPTF	16	—	—	0,9	.035	1,19	.047	—	14	.7500	—	●	—



LT-NR/L-RD

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR8RD	16	0,70	.0276	1,4	.055	1,40	.055	—	8	—	—	●	—
LT22NR6RD	22	0,93	.0368	1,5	.059	1,70	.067	—	6	—	—	●	—





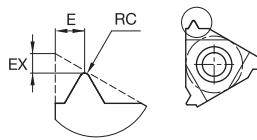
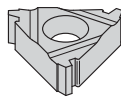
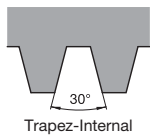
● first choice
○ alternate choice

P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	○	○	○	○
S	●	●	●	●
H	○	○	○	○

LT-NR/L-STACME

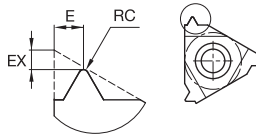
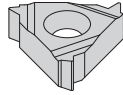
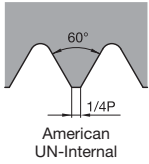
Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR10STACME	16	—	—	1,2	.047	1,30	.051	—	10	—	—	●	—
LT16NR12STACME	16	—	—	1,1	.043	1,19	.047	—	12	—	—	●	—
LT16NR14STACME	16	—	—	1,1	.043	1,09	.043	—	14	—	—	●	—
LT16NR16STACME	16	—	—	1,0	.039	0,99	.039	—	16	—	—	●	—
LT16NR6STACME	16	—	—	1,7	.067	1,80	.071	—	6	—	—	●	—
LT16NR8STACME	16	—	—	1,4	.055	1,50	.059	—	8	—	—	●	—



LT-NR/L-TR

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR2TR	16	—	—	1,1	.043	1,30	.051	2,0	—	—	—	●	—
LT16NR3TR	16	—	—	1,3	.051	1,50	.059	3,0	—	—	—	●	—
LT22NR4TR	22	—	—	1,7	.067	1,91	.075	4,0	—	—	—	●	—
LT22NR5TR	22	—	—	2,1	.083	2,50	.098	5,0	—	—	—	●	—



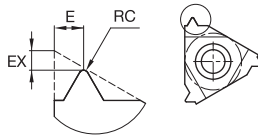
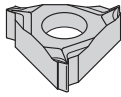
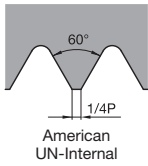
● first choice
○ alternate choice

P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	○	○	○	○
S	●	●	●	●
H	○	○	○	○

LT-NR/L-UN

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR16UN	11	—	—	0,9	.035	1,1	.043	—	16	—	●	●	—
LT11NR18UN	11	—	—	0,8	.031	1,0	.039	—	18	—	—	●	—
LT11NR20UN	11	—	—	0,8	.031	0,9	.035	—	20	—	—	●	—
LT11NR24UN	11	—	—	0,7	.027	0,8	.031	—	24	—	—	●	—
LT11NR28UN	11	—	—	0,6	.024	0,7	.027	—	28	—	—	●	—
LT11NR32UN	11	—	—	0,6	.024	0,6	.024	—	32	—	—	●	—
LT11NR40UN	11	—	—	0,6	.024	0,6	.024	—	40	—	—	●	—
LT16NR10UN	16	—	—	1,1	.043	1,5	.059	—	10	—	—	●	—
LT16NR12UN	16	—	—	1,1	.043	1,4	.055	—	12	—	●	●	—
LT16NR14UN	16	—	—	0,9	.035	1,2	.047	—	14	—	—	●	—
LT16NR16UN	16	—	—	0,9	.035	1,1	.043	—	16	—	—	●	—
LT16NR18UN	16	—	—	0,8	.031	1,0	.039	—	18	—	—	●	—
LT16NR20UN	16	—	—	0,8	.031	0,9	.035	—	20	—	—	●	—
LT16NR24UN	16	—	—	0,7	.027	0,8	.031	—	24	—	—	●	—
LT16NR28UN	16	—	—	0,6	.024	0,7	.027	—	28	—	—	●	—
LT16NR32UN	16	—	—	0,6	.024	0,6	.024	—	32	—	—	●	—
LT16NR8UN	16	—	—	1,1	.043	1,5	.059	—	8	—	—	●	—
left hand													
LT11NL32UN	11	—	—	0,6	.024	0,6	.024	—	32	—	—	●	—
LT16NL10UN	16	—	—	1,1	.043	1,5	.059	—	10	—	—	●	—
LT16NL12UN	16	—	—	1,1	.043	1,4	.055	—	12	—	—	●	—
LT16NL16UN	16	—	—	0,9	.035	1,1	.043	—	16	—	—	●	—





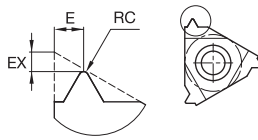
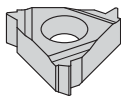
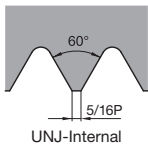
● first choice
○ alternate choice

P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-NR-UNCB

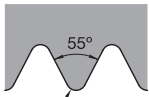
Threading

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR16UNCB	11	—	—	0,7	.028	0,8	.031	—	16	—	—	●	—
LT11NR18UNCB	11	—	—	0,6	.024	0,8	.031	—	18	—	—	●	—
LT11NR20UNCB	11	—	—	0,6	.024	0,8	.031	—	20	—	—	●	—
LT11NR24UNCB	11	—	—	0,7	.028	0,8	.031	—	24	—	—	●	—
LT11NR32UNCB	11	—	—	1,2	.047	0,5	.020	—	32	—	—	●	—
LT16NR10UNCB	16	—	—	1,1	.043	1,5	.059	—	10	—	—	●	—
LT16NR12UNCB	16	—	—	1,1	.043	1,5	.059	—	12	—	—	●	—
LT16NR14UNCB	16	—	—	1,1	.043	1,5	.059	—	14	—	—	●	—
LT16NR16UNCB	16	—	—	0,7	.028	0,8	.031	—	16	—	—	●	—
LT16NR18UNCB	16	—	—	0,6	.024	0,8	.031	—	18	—	—	●	—
LT16NR20UNCB	16	—	—	0,7	.028	0,6	.024	—	20	—	—	●	—
LT16NR8UNCB	16	—	—	1,1	.043	1,5	.059	—	8	—	—	●	—

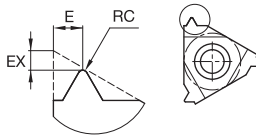
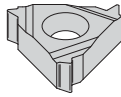


LT-NR/L-UNJ

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR14UNJ	11	—	—	1,0	.039	1,2	.047	—	14	—	—	●	—
LT11NR16UNJ	11	—	—	0,9	.035	1,1	.043	—	16	—	—	●	—
LT11NR18UNJ	11	—	—	0,8	.031	1,0	.039	—	18	—	—	●	—
LT16NR12UNJ	16	—	—	1,1	.043	1,3	.051	—	12	—	—	●	—
LT16NR16UNJ	16	—	—	0,9	.035	1,1	.043	—	16	—	—	●	—



Whitworth BSW,
BSF, BSP-Internal

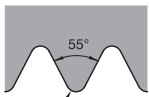


● first choice
○ alternate choice

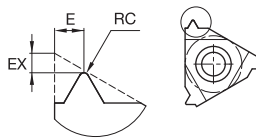
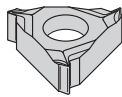
P	●	●	●
M	●	●	●
K	●	●	●
N	○	○	○
S	●	●	●
H	○	○	○

LT-NR/L-W

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT11NR14W	11	—	—	0,9	.035	1,09	.043	—	14	—	—	●	—
LT11NR19W	11	—	—	0,8	.031	0,99	.039	—	19	—	—	●	—
LT16NR10W	16	—	—	1,1	.043	1,50	.059	—	10	—	—	●	—
LT16NR11W	16	—	—	1,1	.043	1,50	.059	—	11	—	●	●	—
LT16NR12W	16	—	—	1,1	.043	1,40	.055	—	12	—	—	●	—
LT16NR14W	16	—	—	1,0	.039	1,19	.047	—	14	—	—	●	—
LT16NR16W	16	—	—	0,9	.035	1,09	.043	—	16	—	—	●	—
LT16NR19W	16	—	—	0,8	.031	0,99	.039	—	19	—	—	●	—
LT16NR20W	16	—	—	0,8	.031	0,89	.035	—	20	—	—	●	—
LT16NR8W	16	—	—	1,2	.047	1,50	.059	—	8	—	—	●	—
LT22NR7W	22	—	—	1,6	.063	2,29	.090	—	7	—	—	●	—
left hand													
LT16NL11W	16	—	—	1,1	.043	1,50	.059	—	11	—	—	●	—



Whitworth BSW,
BSF, BSP-Internal



LT-NR-WCB

catalog number	insert size	RC		EX		E		thread pitch mm	TPI	TPF	KC5010	KC5025	KU25T
		mm	in	mm	in	mm	in						
right hand													
LT16NR11WCB	16	—	—	1,3	.051	1,50	.059	—	11	—	—	●	—
LT16NR14WCB	16	—	—	1,3	.051	1,50	.059	—	14	—	—	●	—

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding image to easily identify which attributes apply.

Threading
LT Threading Toolholders

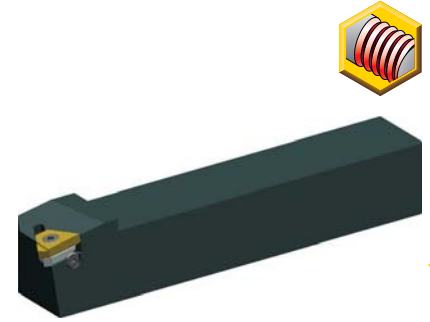
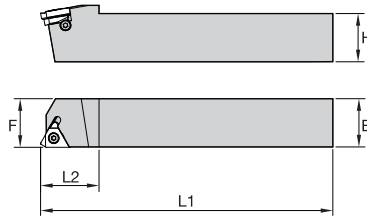
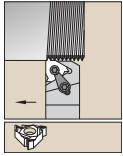
LSA

order number	catalog number	H	B	F	L1	grade insert	shim	shim screw	Tap	insert screw	Tap
1100230	LSASR03	.300	.300	.300	3.250	LTHER	SMPE3	SSV2T	T10	SSA2T	T10
1201001	LSASR103	.625	.625	.630	5.000	LTHER	SMPE3	SSV2T	T10	SSA2T	T10
1201002	LSASR103	.625	.625	.700	6.000	LTHER	SMPE3	SSV2T	T10	SSA2T	T10
						LTZER	SMPE4	SSV4T	T20	SSA4T	T20

LSASR163

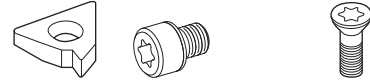
<p>Inch</p> <div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">L</div> <p>Insert Style</p> <p>L — Laydown triangle</p>	<div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">S</div> <p>Insert Holding Method</p> <p>S — Insert screw or clamp only</p>	<div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">AS</div> <p>Tool Style</p> <p>Straight shank</p> <p>Offset shank</p>	<div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">R</div> <p>Hand of Tool</p> <p>Left hand</p> <div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">L</div> <p>Right hand</p> <div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">R</div>	<div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">16</div> <p>Shank Size</p> <p>DH</p> <p>Inch: This shows a two-digit number that indicates the holder cross section. For shanks 5/8" square and over, the number will represent the number of sixteenths of width and height. For shanks under 5/8" square, the number of sixteenths of cross section will be preceded by a zero. For rectangular holders, the first digit represents the number of eighths of width, and the second digit the number of quarters of height, except for a toolholder 1-1/4" x 1-1/2", which is given the number 91.</p>	<div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">3</div> <p>Insert Size</p> <p>Size equals number of 1/8" increments of IC.</p> <table border="1"> <thead> <tr> <th>inch insert size</th> <th>metric insert size</th> <th>D inch</th> <th>L1 inch</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>11</td> <td>1/4</td> <td>0.433</td> </tr> <tr> <td>3</td> <td>16</td> <td>3/8</td> <td>0.650</td> </tr> <tr> <td>4</td> <td>22</td> <td>1/2</td> <td>0.866</td> </tr> </tbody> </table>	inch insert size	metric insert size	D inch	L1 inch	2	11	1/4	0.433	3	16	3/8	0.650	4	22	1/2	0.866	<div style="border: 1px solid black; padding: 5px; text-align: center; font-weight: bold; font-size: 24px;">163</div> <p>Qualified Surface and Length</p> <p>C — qualified back and end, 5" long</p> <p>D — qualified back and end, 6" long</p> <p>E — qualified back and end, 7" long</p> <p>T — qualified back and end, 3.25" long</p> <p>Q — qualified metric holder</p>
inch insert size	metric insert size	D inch	L1 inch																			
2	11	1/4	0.433																			
3	16	3/8	0.650																			
4	22	1/2	0.866																			

NOTE: Toolholders with primary shank sizes larger than 1/2" or 12mm are supplied with clamp and insert screw. Secure the insert with either the camp or insert screw. **Do not use both.** For Threading Shim Catalog Numbering System, please see page D73.

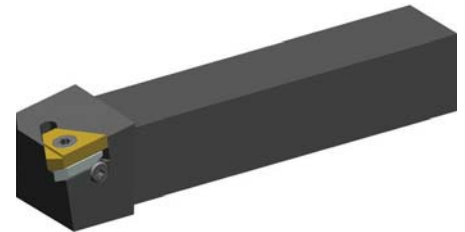
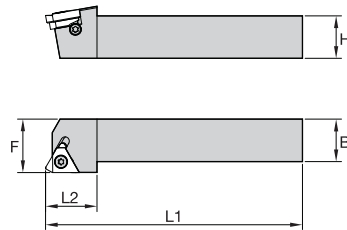
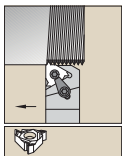


Threading

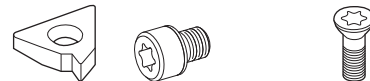
LSA



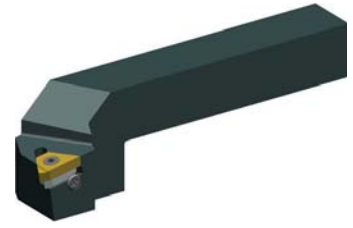
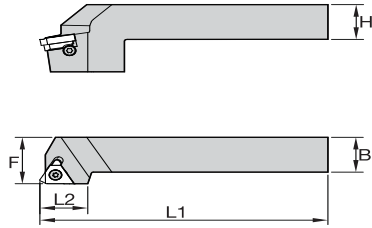
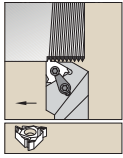
order number	catalog number	H	B	F	L1	gage insert	shim	shim screw	Torx	insert screw	Torx
right hand											
1106230	LSASR83	.500	.500	.500	3.250	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281801	LSASR103	.625	.625	.630	5.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281802	LSASR123	.750	.750	.750	5.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281803	LSASR163	1.000	1.000	1.000	6.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281804	LSASR164	1.000	1.000	1.000	6.000	LT22ER	SMYE4	SSY4T	T20	SSA4T	T20
1281805	LSASR203	1.250	1.250	1.250	7.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
left hand											
1281800	LSASL83	.500	.500	.500	3.250	LT16EL	SMYI3	SSY3T	T10	SSA3T	T10
1281796	LSASL103	.625	.625	.630	5.000	LT16EL	SMYI3	SSY3T	T10	SSA3T	T10
1281797	LSASL123	.750	.750	.750	5.000	LT16EL	SMYI3	SSY3T	T10	SSA3T	T10
1281798	LSASL163	1.000	1.000	1.000	6.000	LT16EL	SMYI3	SSY3T	T10	SSA3T	T10
1281799	LSASL164	1.000	1.000	1.000	6.000	LT22EL	SMYI4	SSY4T	T20	SSA4T	T20



LSS



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx	insert screw	Torx
right hand												
1281817	LSSR123D	.750	.750	1.000	6.000	1.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281818	LSSR163D	1.000	1.000	1.250	6.000	1.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281819	LSSR164D	1.000	1.000	1.250	6.000	1.200	LT22ER	SMYE4	SSY4T	T20	SSA4T	T20
1281820	LSSR203D	1.250	1.250	1.500	6.000	1.000	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1192326	LSSR204D	1.250	1.250	1.500	6.000	1.200	LT22ER	SMYE4	SSY4T	T20	SSA4T	T20
left hand												
1281812	LSSL123D	.750	.750	1.000	6.000	1.000	LT16EL	SMYI3	SSY3T	T10	SSA3T	T10
1281813	LSSL163D	1.000	1.000	1.250	6.000	1.000	LT16EL	SMYI3	SSY3T	T10	SSA3T	T10
1281814	LSSL164D	1.000	1.000	1.250	6.000	1.200	LT22EL	SMYI4	SSY4T	T20	SSA4T	T20



Threading

■ LSS-DH



order number	catalog number	H	B	F	L1	LH	gage insert	shim	shim screw	Torx	insert screw	Torx
right hand												
1281815	LSSRDH123C	.750	.750	1.000	5.000	1.500	LT16ER	SMYE3	SSY3T	T10	SSA3T	T10
1281816	LSSRDH164D	1.000	1.000	1.250	6.000	1.500	LT22ER	SMYE4	SSY4T	T20	SSA4T	T20

How Do Catalog Numbers Work?

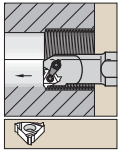
Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding image to easily identify which attributes apply.

S	08	12	L	S	E	R	2														
Bar Type	Primary Necked Shank Bar Diameter	Secondary (Mounting) Bar Diameter	Insert Style	Insert Holding Method	Bar Style	Hand of Tool	Insert Size														
<p>E – Carbide with coolant</p> <p>S – Steel shank without coolant</p> <p>H – Interchangeable head with coolant</p>	<p>Indicates the primary bar diameter in 1/16" increments.</p> <p>NOTE: Boring bars with primary bar diameters larger than 5/8" are supplied with clamp and insert screw. Secure the insert with either the clamp or insert screw. Do not use both.</p>	<p>Indicates the secondary bar diameter in 1/16" increments.</p>	<p>L – Laydown triangle</p> <p>S – Insert screw</p>	<p>E – End cutting edge mount</p> <p>Left Hand Right Hand</p>	<p>Size equals number of 1/8" increments of IC.</p> <table border="1"> <thead> <tr> <th>inch insert size</th> <th>metric insert size</th> <th>D inch</th> <th>L1 inch</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>11</td> <td>1/4</td> <td>0.433</td> </tr> <tr> <td>3</td> <td>16</td> <td>3/8</td> <td>0.650</td> </tr> <tr> <td>4</td> <td>22</td> <td>1/2</td> <td>0.866</td> </tr> </tbody> </table>	inch insert size	metric insert size	D inch	L1 inch	2	11	1/4	0.433	3	16	3/8	0.650	4	22	1/2	0.866
inch insert size	metric insert size	D inch	L1 inch																		
2	11	1/4	0.433																		
3	16	3/8	0.650																		
4	22	1/2	0.866																		

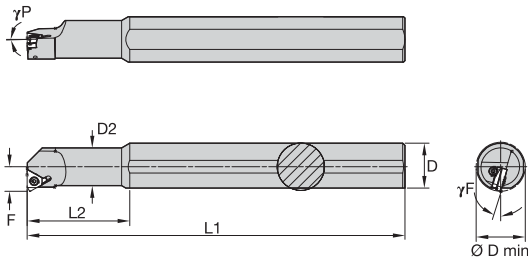
LT Threading Shim Catalog Numbering System

SM	Y	E	3	2P
Shim	Shim for LT Standard Inserts	Insert Threading	Insert Size	Shim Angle
		<p>E = External</p> <p>I = Internal</p>	<p>D value in 1/8"</p>	<p>2P = 2° positive</p> <p>1P = 1° positive</p> <p>— = 0° neutral</p> <p>1N = 1° negative</p> <p>2N = 2° negative</p> <p>3N = 3° negative</p>

For shims and shim kits, see pages D104–D105.

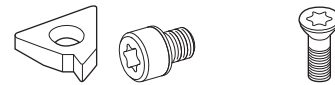


Steel shank without through coolant.



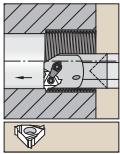
Threading

■ S-LSE

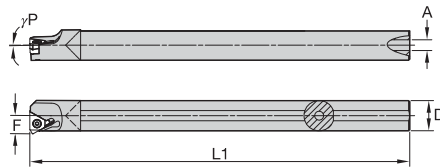


order number	catalog number	D	D min	D2	F	L1	L2	γF°	γP°	gage insert	shim	shim screw	Torx	insert screw	Torx
right hand															
1288896	S0612LSER2	.750	.500	.375	.280	7.000	1.000	-15.0	-1.5	LT11NR	—	—	—	SSN2T	T8
1288908	S0812LSER2	.750	.650	.500	.350	7.000	1.250	-15.0	-1.5	LT11NR	—	—	—	SSN2T	T8
1288921	S1012LSER3	.750	.800	.625	.460	7.000	1.500	-15.0	-1.5	LT16NR	—	—	—	SN3TPKG	T10
1288937	S1212LSER3	.750	.900	—	.510	7.000	—	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1288961	S1620LSER3	1.250	1.200	1.000	.650	10.000	2.500	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1288962	S1620LSER4	1.250	1.250	1.000	.710	10.000	2.500	-15.0	-1.5	LT22NR	SMYI4	SSY4T	T20	SSA4T	T20
1192442	S2020LSER3	1.250	1.450	—	.770	10.000	—	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1288982	S2020LSER4	1.250	1.500	—	.850	10.000	—	-15.0	-1.5	LT22NR	SMYI4	SSY4T	T20	SSA4T	T20
left hand															
1288895	S0612LSEL2	.750	.500	.375	.280	7.000	1.000	-15.0	-1.5	LT11NL	—	—	—	SSN2T	T8
1288907	S0812LSEL2	.750	.650	.500	.350	7.000	1.250	-15.0	-1.5	LT11NL	—	—	—	SSN2T	T8
1288920	S1012LSEL3	.750	.800	.625	.460	7.000	1.500	-15.0	-1.5	LT16NL	—	—	—	SN3TPKG	T10
1288936	S1212LSEL3	.750	.900	—	.510	7.000	—	-15.0	-1.5	LT16NL	SMYE3	SSY3T	T10	SSA3T	T10
1288958	S1620LSEL3	1.250	1.200	1.000	.650	10.000	2.500	-15.0	-1.5	LT16NL	SMYE3	SSY3T	T10	SSA3T	T10
1288960	S1620LSEL4	1.250	1.250	1.000	.710	10.000	2.500	-15.0	-1.5	LT22NL	SMYE4	SSY4T	T20	SSA4T	T20

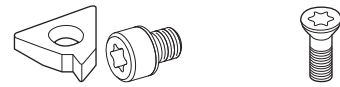
NOTE: Items listed without a shim are designed for a 1.5° inclination angle.



Carbide shank with through coolant.

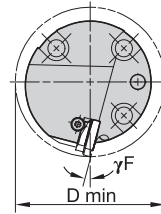
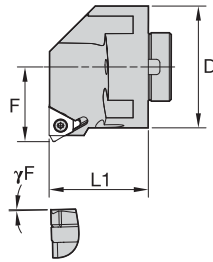
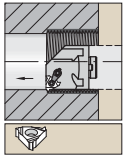


E-LSE



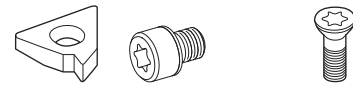
order number	catalog number	D	D min	F	L1	A	γF°	γP°	gage insert	shim	shim screw	Torx	insert screw	Torx
right hand														
1152676	E06LSER2	.375	.500	.280	6.000	.125	-15.0	-1.5	LT11NR	—	—	—	SSN2T	T8
1152678	E08LSER2	.500	.650	.350	8.000	.187	-15.0	-1.5	LT11NR	—	—	—	SSN2T	T8
1152680	E10LSER3	.625	.800	.460	10.000	.218	-15.0	-1.5	LT16NR	—	—	—	SN3TPKG	T10
1152682	E12LSER3	.750	.900	.510	10.000	.281	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1152684	E16LSER3	1.000	1.200	.650	12.000	.312	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1152686	E16LSER4	1.000	1.250	.710	12.000	.312	-15.0	-1.5	LT22NR	SMYI4	SSY4T	T20	SSA4T	T20
left hand														
1152677	E06LSEL2	.375	.500	.280	6.000	.125	-15.0	-1.5	LT11NL	—	—	—	SSN2T	T8
1152679	E08LSEL2	.500	.650	.350	8.000	.187	-15.0	-1.5	LT11NL	—	—	—	SSN2T	T8
1152681	E10LSEL3	.625	.800	.460	10.000	.218	-15.0	-1.5	LT16NL	—	—	—	SN3TPKG	T10
1152683	E12LSEL3	.750	.900	.510	10.000	.281	-15.0	-1.5	LT16NL	SMYE3	SSY3T	T10	SSA3T	T10

NOTE: Items listed without a shim are designed for a 1.5° inclination angle.



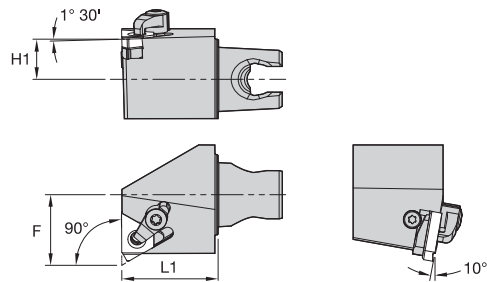
Threading

■ H-LSE

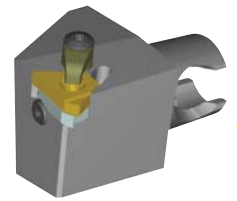


order number	catalog number	D	D min	L1	F	γF°	γP°	gage insert	shim	shim screw	Torx	insert screw	Torx
right hand													
1095216	H16LSER3	1.000	1.200	1.63	.645	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1095218	H20LSER3	1.250	1.450	1.63	.760	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1095220	H24LSER3	1.500	1.760	1.63	.885	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1095224	H24LSER4	1.500	1.782	1.63	.973	-15.0	-1.5	LT22NR	SMYI4	SSY4T	T20	SSA4T	T20
1095222	H32LSER3	2.000	2.400	1.63	1.276	-15.0	-1.5	LT16NR	SMYI3	SSY3T	T10	SSA3T	T10
1095226	H32LSER4	2.000	2.400	1.63	1.276	-15.0	-1.5	LT22NR	SMYI4	SSY4T	T20	SSA4T	T20
3842895	H32LSER5	2.000	2.400	1.63	1.281	-15.0	-1.5	LT27NR	SMYI5	SSY5T	T25	SSA5T	T25
3842897	H40LSER5	2.500	3.030	1.63	1.531	-15.0	-1.5	LT27NR	SMYI5	SSY5T	T25	SSA5T	T25

NOTE: For boring adapters, see pages B406–B409.

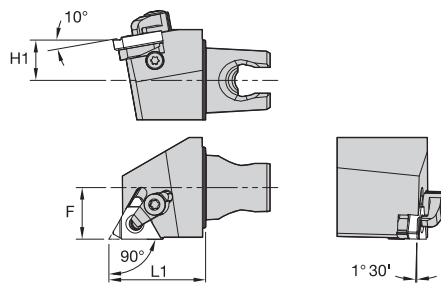
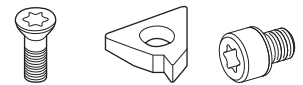


Clamp shown in images is no longer available.



■ LSE • End Mount

order number	catalog number	L1		F		H1		gage insert	insert screw	shim	shim screw
		mm	in	mm	in	mm	in				
right hand											
2399506	KM25LSER1630	30	1.181	22	.866	12,5	.492	LT16EL	SSA3T	SMYI3	SSY3T
left hand											
2399507	KM25LSEL1630	30	1.181	22	.866	12,5	.492	LT16ER	SSA3T	SMYE3	SSY3T

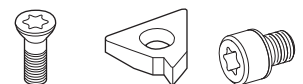


Clamp shown in images is no longer available.



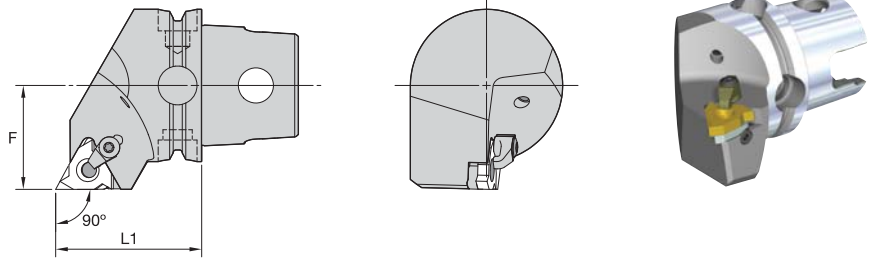
■ LSS • Side Mount

order number	catalog number	L1		F		H1		gage insert	insert screw	shim	shim screw
		mm	in	mm	in	mm	in				
right hand											
2399504	KM25LSSR1630	30	1.181	16	.630	12,5	.492	LT16ER	SSA3T	SMYE3	SSY3T
3176219	KM25LSSR2230	30	1.181	16	.630	12,5	.492	LT22ER	SSA4T	SMYE4	SSY4T
left hand											
2399505	KM25LSSL1630	30	1.181	16	.630	12,5	.492	LT16EL	SSA3T	SMYI3	SSY3T
3176220	KM25LSSL2230	30	1.181	16	.630	12,5	.492	LT22EL	SSA4T	SMYI4	SSY4T



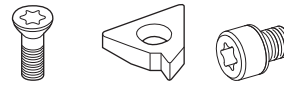


Threading

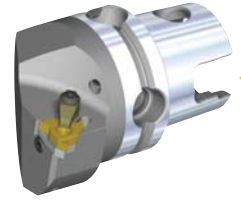
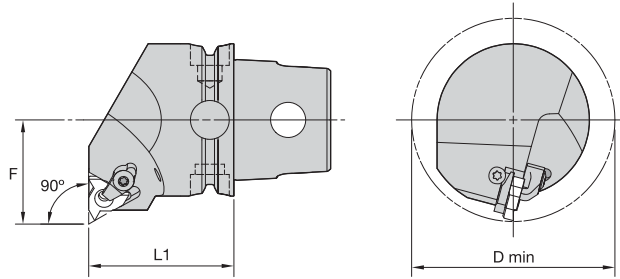


Clamp shown in images is no longer available.

■ LSS 90°

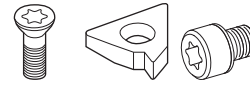


order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
right hand											
3950857	KM40TSLSSR16	40	1.575	27	1.063	LT16ER	SSA3T	SMYE3	SSY3T	0,31	.68
3950858	KM40TSLSSR22	40	1.575	27	1.063	LT22ER	SSA4T	SMYE4	SSY4T	0,30	.66
3959401	KM40TSLSSR27	45	1.772	27	1.063	LT27ER	SSA5T	SMYE5	SSY5T	0,37	.82
left hand											
3950855	KM40TSLSSL16	40	1.575	27	1.063	LT16EL	SSA3T	SMYI3	SSY3T	0,32	.70
3950856	KM40TSLSSL22	40	1.575	27	1.063	LT22EL	SSA4T	SMYI4	SSY4T	0,31	.68
3959400	KM40TSLSSL27	45	1.772	27	1.063	LT27EL	SSA5T	SMYI5	SSY5T	0,37	.82



Clamp shown in images is no longer available.

■ LSE-N 90° • Internal Only



order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
right hand													
3950832	KM40TSLSER16N	40	1.575	27	1.063	54	2.126	LT16NR	SSA3T	SMYI3	SSY3T	0,35	.77
3950854	KM40TSLSER22N	40	1.575	27	1.063	54	2.126	LT22NR	SSA4T	SMYI4	SSY4T	0,35	.77
3959399	KM40TSLSER27N	45	1.772	27	1.063	54	2.126	LT27NR	SSA5T	SMYI5	SSY5T	0,39	.86
left hand													
3950831	KM40TSLSEL16N	40	1.575	27	1.063	54	2.126	LT16NL	SSA3T	SMYE3	SSY3T	0,35	.77

Beyond™ Drive™ Inserts

- Designed for increased productivity.
- Post-coat treatment reduces stress, improves coating adhesion.
- Excellent toughness and wear resistance.
- Better insert wear detection.

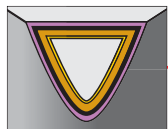
beyond™ DRIVE™

Post-Coat Grinding — Top and Bottom

- Provides secure seating surface.

Fine-Grained Alumina Layer

- Provides coating integrity at elevated speeds.
- Higher productivity and dependability at high-cutting temperatures.



TiN/MT-TiCN/TiCN/Al₂O₃/TiOCN

Post-Coat Treatment

- Improves edge toughness.
- Long predictable tool life.
- Reduces depth-of-cut notching.
- Wide range of applications.

Micro-Polished Edges

- Improves edge toughness.
- Provides smooth outer surface to reduce forces, friction, and workpiece sticking.

Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.

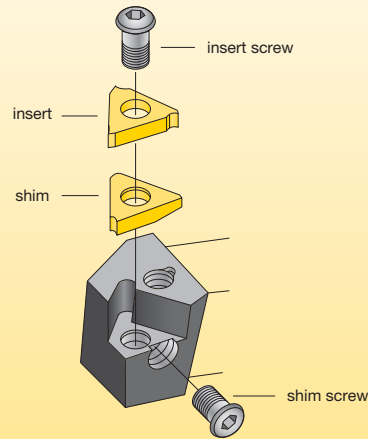
 **KENNAMETAL®**

kennametal.com

Laydown Threading Toolholders

In all cases, the proper shim selection is important.

Kennametal toolholders are supplied with a shim for a 1.5° lead angle. Change the shim if your thread is more than 1° different. For more details on proper shim selections, see pages D104–D105.



insert size and screw	insert screw	shim	shim screw and washer
3ER	SS-A3T	SM-YIE3	SS-Y3T
3EL	SS-A3T	SM-YI3	SS-Y3T
4ER	SS-A4T	SM-YIE4	SS-Y4T
4EL	SS-A4T	SM-YI4	SS-Y4T
Laydown Threading boring bars			
2IR	SS-N2T	—	—
2IL	SS-N2T	—	—
3IR	SS-A3T	SM-YI3	SS-Y3T
3IL	SS-A3T	SM-YIE3	SS-Y3T
4IR	SS-A4T	SM-YI4	SS-Y4T
4IL	SS-A4T	SM-YIE4	SS-Y4T

SM	—	Y	E	3	—	2N													
Shim		Y-shim for Laydown standard inserts	E – External I – Internal	IC – 1/8"		Shim Angle													
				<table border="1"> <tr> <td>2P</td> <td>2° positive</td> </tr> <tr> <td>1P</td> <td>1° positive</td> </tr> <tr> <td>—</td> <td>0°</td> </tr> <tr> <td>1N</td> <td>1° negative</td> </tr> <tr> <td>2N</td> <td>2° negative</td> </tr> <tr> <td>3N</td> <td>3° negative</td> </tr> </table>		2P	2° positive	1P	1° positive	—	0°	1N	1° negative	2N	2° negative	3N	3° negative		
2P	2° positive																		
1P	1° positive																		
—	0°																		
1N	1° negative																		
2N	2° negative																		
3N	3° negative																		

resultant angle		3.5°	2.5°	1.5°	0.5°	-0.5°	-1.5°
insert size (IC)	toolholder	shim ordering code					
3/8"	ex. RH/in. LH ex. LH/in. RH	SM-YE3-2P SM-YI3-2P	SM-YE3-1P SM-YI3-1P	SM-YE3 SM-YI3	SM-YE3-1N SM-YI3-1N	SM-YE3-2N SM-YI3-2N	SM-YE3-3N SM-YI3-3N
1/2"	ex. RH/in. LH ex. LH/in. RH	SM-YE4-2P SM-YI4-2P	SM-YE4-1P SM-YI4-1P	SM-YE4 SM-YI4	SM-YE4-1N SM-YI4-1N	SM-YE4-2N SM-YI4-2N	SM-YE4-3N SM-YI4-3N

Slanted Shim Kit

Because you might occasionally need different shims than those supplied with our standard toolholders, we strongly recommend that shim kits be readily available in every tool shop.

insert size	shim size (D)	ordering code	contains slanted shims
3x	3/8"	ABY3SET	SM-YE3-2P, 1P, 1N, 2N, 3N SM-YI3-2P, 1P, 1N, 2N, 3N
4x	1/2"	ABY4	SM-YE4-2P, 1P, 1N, 2N, 3N SM-YI4-2P, 1P, 1N, 2N, 3N

The Helix Angle

Example:

$d = 1.892''$ (48,06mm)

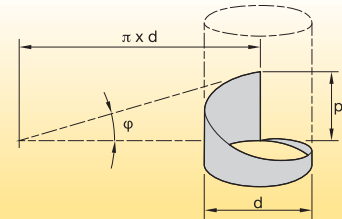
$p = .125''$ (3,175mm)

ϕ = Helix angle

p = pitch

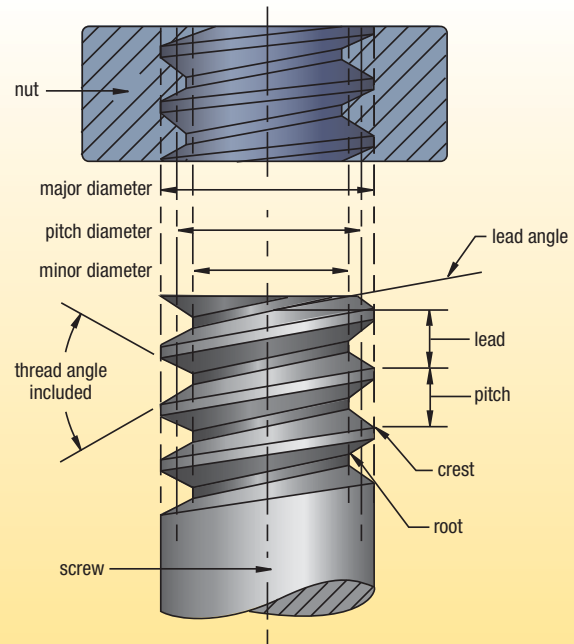
d = pitch diameter

$$\phi = \arctan \left(\frac{p * \text{starts}}{\pi * \phi} \right) = 1.13^\circ$$



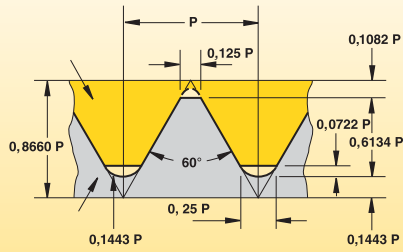
Screw Thread Definitions

- Major diameter** — The largest diameter of a straight screw thread. This applies to both internal and external threads.
- Pitch diameter** — On a straight thread, it is the diameter which passes through the thread profiles at such points which make the thread width of the groove equal to one-half of the basic pitch. On a "perfect thread," this occurs at the point where the widths of the thread and groove are equal.
- Thread angle (included)** — The included angle between the individual flanks of the thread form.
- Minor diameter** — The smallest diameter of a straight screw thread. This applies to both internal and external threads.
- Lead angle** — On a straight thread, the lead angle is the angle created by the helix of the thread at the pitch diameter with a plane perpendicular to the axis.
- Lead** — The distance a screw thread advances axially in one revolution. On a single start, the pitch and lead are identical. The lead is equal to the pitch times the number of starts.
- Pitch** — The distance from a point on a screw thread to a corresponding point on the next thread measured parallel to the thread axis.
- Crest** — The outer most surface of the thread form which joins the flanks.
- Root** — The inner most surface of the thread form which joins the flanks.



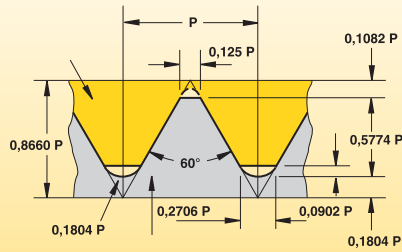
NOTE: Threads per inch (TPI) not shown:
The number of threads per inch measured axially.
The terms pitch and TPI are often used interchangeably. TPI = 1/pitch

ISO M (Metric) and UN (Unified National)



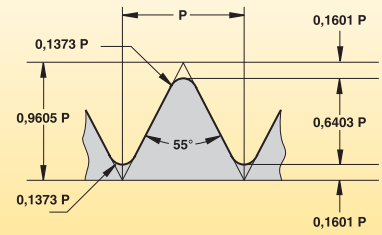
Use: All branches of mechanical industry.

UNJ (controlled root radius)



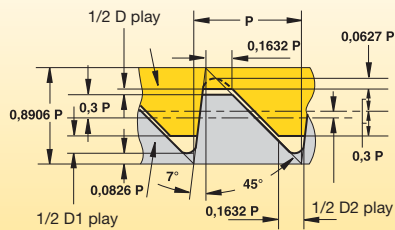
Use: Aircraft and space industry.

Whitworth (BSW)



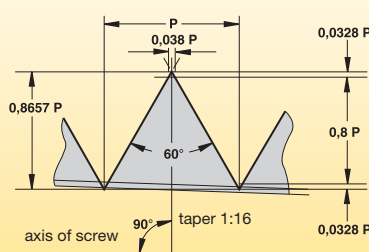
Use: Fittings and pipe couplings for gas, water, and sewer lines (replaced by ISO).

American Buttress



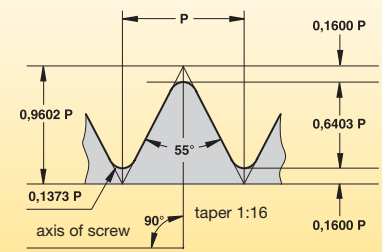
Use: Fittings and pipe couplings.

NPT (American National Pipe Thread)



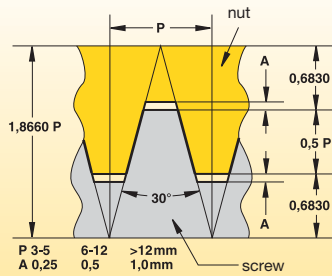
Use: Fittings and pipe couplings.

BSPT (British Standard Pipe Thread)



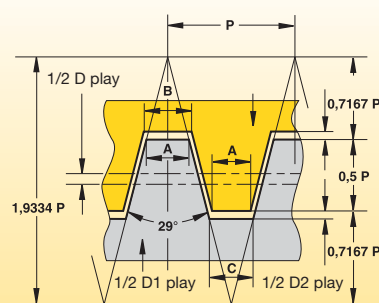
Use: Pipe thread for steam, gas, and water lines.

TR DIN 103



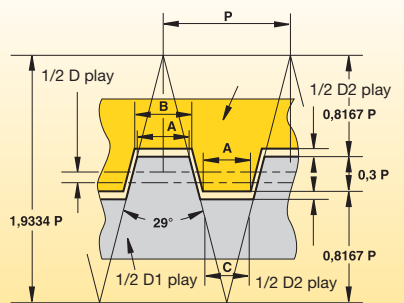
Use: Mechanical industry for motion transmission screws.

Acme



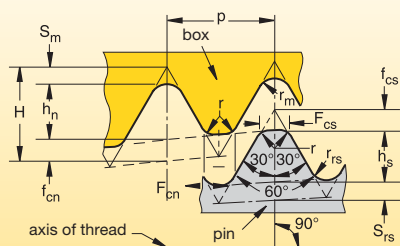
A = 0,0307 P
B = 0,3707 P - x D play
C = 0,3707 P - (D1 play - D2 play)
Use: Acme-General is used in mechanical industry for motion transmission screws.

Acme, truncated (Stub)



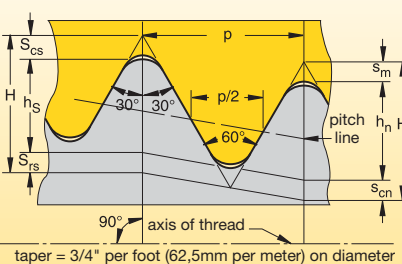
A = 0,4224 P
B = 0,4224 P - x D play
C = 0,4224 P - (D1 play - D2 play)
Use: Where normal Acme is too deep.

API Rotary Shoulder Connection



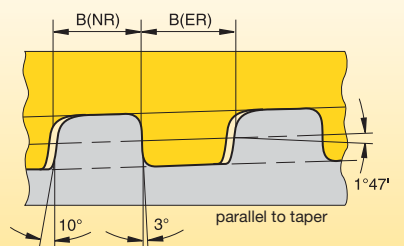
NOTE: Taper shown exaggerated.

API Casing and Tubing Round Thread Form



NOTE: Taper shown exaggerated.

API Buttress



**Suggested Grades and Speeds for Threading
Various Workpiece Materials**

workpiece group	workpiece material	recommended surface speed — SFM				
		uncoated	PVD coated			
		K68	KC5010	KC5025	KC5410	KU25T
free-machining carbon steel	10L18, 10L45, 1213, 12L13, 12L14, 1140, 1141, 11L44, 1151, 10L50	—	300–650	150–650	—	300–450
plain carbon steel	10063, 1008, 1010, 1015, 1018, 1020, 1025, 1026, 1108, 1117	—	250–650	150–575	—	250–400
alloy steels/tool steels 150–325 HB (up to 35 HRC)	1042, 1045, 1070, 1080, 1085, 1090, 1095, 1541, 1561, 1572, 5140, 8620, W1, O1, S1, P20, H13, D2, A6, H13, L6	—	250–650	125–550	—	250–400
alloy steels/tool steels 330–450 HB (36–47 HRC)		—	200–525	—	—	200–350
martensitic/ferritic stainless/precipitation hardening	416, 420F, 440F, 405, 409, 429, 430, 434, 436, 442, PH	—	150–525	100–400	—	80–200
austenitic stainless steel	201, 202, 301, 302, 303, 304, 304, 305, 321, 347, 348, 310, 314, 316, 316L, 330	200–350	200–650	150–450	—	80–350
gray cast iron 135–270 HB	class 20, 30, 35, 45	200–300	200–775	150–400	—	100–355
gray cast iron 275–450 HB	class 50, 55, 60	150–250	150–575	50–250	—	100–355
alloy/ductile iron	A536, J434C, 60-40-18, 80-55-06, 100-70-03	150–250	150–650	100–525	—	100–355
free-machining aluminum alloys	2024-T4, 2014-T6, 6061-T6 2011-T3, 3003-H18, A2, Alcan, Alcoa 510, Duralumin	400–800	400–1200	—	500–1500	100–1000
high-silicon aluminum alloys	A380, A390, A380-1, A390-1, A380-2	—	—	—	—	—
copper/zinc/brass		250–600	250–1000	150–775	—	100–800
non-metallics	Graphite, Nylon, Plastics, Rubbers, Phenolics, Carbon	400–1500	400–1300	150–1000	—	100–1000
high-temperature alloys 125–269 HB (up to 27 HRC)	Nickel 200, Monel, R405, Monel K500, INCONEL 600, INCONEL® 625/901x750/718, Waspaloy, Hastelloy C	80–120	80–400	40–250	—	45–270
high-temperature alloys 260–450 HB (26–47 HRC)	Rene 95, Waspaloy A286, Incoloy 800, Haynes 188, Stellite F, Haynes 25	80–100	100–250	20–200	—	45–200
titanium alloys	Ti-6Al-4V, Ti-5Al-2.5Sn	110–180	110–325	—	—	45–250

NOTE: When workpiece hardness levels are at the top of a range, starting SFM should be at the lower end. Regularly inspect insert clamps for worn flats.

Edge preparation:
Uncoated — sharp
PVD coated — light hone except positive top rake, top rake-sharp

problem	cause	possible solution
<p>thread with torn finish</p> 	<ul style="list-style-type: none"> • Burs. • Torn finish. • Steps. • Improper shim. • Improper infeed. 	<ul style="list-style-type: none"> • Use modified flank infeed. • Use full profile insert. • Increase coolant concentration. • Increases SFM. • Check machine "Z" travel axis. • Check insert form. • Check for correct shim in LT system. • Calculate flank clearance.
<p>chatter</p> 	<ul style="list-style-type: none"> • Poor rigidity. • Insert movement. • Improper infeed. • Off centerline. 	<ul style="list-style-type: none"> • Use modified flank infeed. • Minimize tool overhang. • Check for workpiece deflection. • Check insert and clamp. • Verify that tool cutting position is at workpiece centerline. • Adjust number of passes. Fewer passes reduce chatter.
<p>built-up edge</p> 	<ul style="list-style-type: none"> • Speed too low. • Insufficient coolant. • Chip load. 	<ul style="list-style-type: none"> • Increase SFM. • Increase coolant concentration and/or flow. • Adjust infeed angle. • Increase depth of cut per pass.
<p>deformation</p> 	<ul style="list-style-type: none"> • Wrong grade. • Speed too high. • Improper infeed angle. • Insufficient coolant. 	<ul style="list-style-type: none"> • Use modified flank infeed. • Use a more wear-resistant grade (e.g., KC5010™). • Reduce SFM. • Increase coolant flow.
<p>chipping</p> 	<ul style="list-style-type: none"> • Improper infeed. • Chip load. • Wrong grade. • Incorrect speed. • Poor rigidity. 	<ul style="list-style-type: none"> • Use modified flank infeed. • Increase or decrease number of passes. • Eliminate spring passes. • Use tougher grade (e.g., KC5025™). • Increase SFM if chipping on trailing edge. • Decrease SFM if chipping on leading edge. • Minimize tool overhang. • Check for insert movement/check clamp. Torque screw or clamp to correct value. • Check for possible part deflection. • Calculate flank clearance. • Ensure correct shim.
<p>broken nose</p> 	<ul style="list-style-type: none"> • Heavy chip load. • Small nose radius. • Wrong grade. • Improper infeed. 	<ul style="list-style-type: none"> • Use modified flank infeed. • Decrease chip load. • Use large nose radius if possible. • Use tougher grade (e.g., KC5025).
<p>flank wear</p> 	<ul style="list-style-type: none"> • Improper shim. • Wrong grade. • Insufficient coolant. • Off centerline. • Insufficient flank clearance. • Improper infeed angle. 	<ul style="list-style-type: none"> • Ensure correct shim. • Use a more wear-resistant grade (e.g., KC5025). • Increase coolant flow. • Check the centerline height of the tool. (The smaller the diameter, the more critical the need for centerline accuracy.) • Calculate flank clearance and change shim to increase clearance on worn flank. • If wear is on trailing flank, increase infeed angle clearance.

(continued)

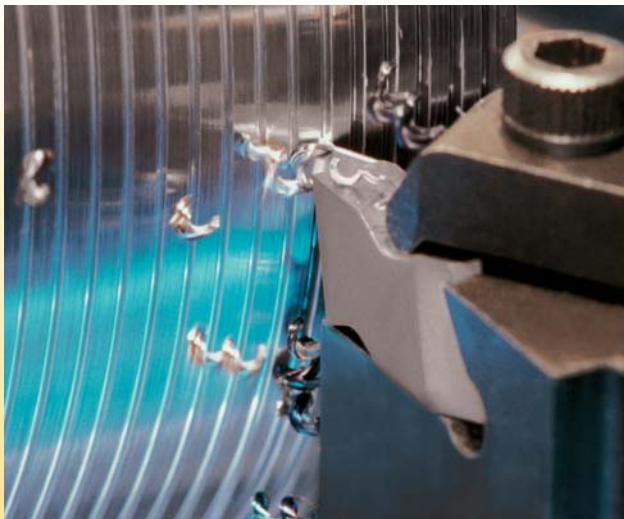
(Technical Information • Failure and Solution Guide — continued)

problem	possible solution																	
	increase SFM	reduce SFM	increase chip load	decrease chip load where failure occurs	use tougher carbide grade	use harder carbide grade	apply coolant	use coated carbide	use topping insert	change infeed angle	check for insert movement and reset	reduce tool overhang	reselect shim	apply chipbreaker style	reduce DOC	adjust center height	begin cutting threads .472" before workpiece	change infeed method
chatter	•			•							•	•				•		•
bur on crest	•								•									•
short tool life		•	•	•		•		•										•
chipped leading edge			•	•	•													
chipped trailing edge					•					•								
broken nose (first pass)	•														•	•		
broken nose (after first pass)				•	•					•			•					•
built-up on cutting edge	•		•				•	•										•
premature topping													•					
splitting threads																	•	
poor chip evacuation														•				•

Kennametal insert technology brings chip control to your threading operations with the Top Notch™ platform. The proprietary Kennametal recessed chip groove, when used according to our recommendations, controls the chip in most applications. Our positive rake design lowers cutting pressures, which in turn lowers damaging heat generation thus providing better tool life. Long, stringy chips no longer mar the workpiece surface finish. The danger to operators when removing long chips from the workpiece and chuck is eliminated. All of these benefits combine to improve the productivity of your threading operations.

The Last Pass

Some CNC controls require the last pass to be at a 0° infeed angle because the chip will not break on the last pass. On most carbon and alloy steels, the last pass can remain at .005" (0,127mm) depth of cut and produce an acceptable finish. For some materials, a .001" (0,025mm) to .003" (0,076mm) (spring) pass may be used to improve surface finish, however, chipbreaking action may be compromised.

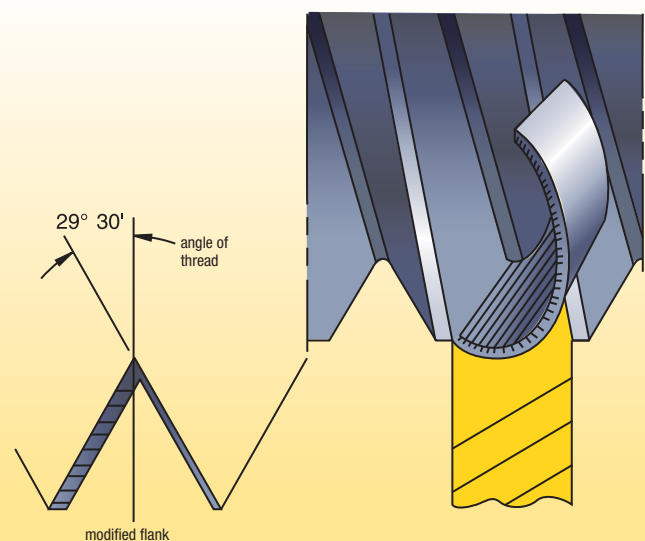


Machine Programming

Modern CNC controls allow the programmer to easily adjust infeed angle, the number of passes, and depth of cut for each pass. The chip control threading insert performs best at an infeed angle of 29° 30', although 15° to 30° is acceptable. Also, it is important to maintain a minimum of .005" (0,127mm) depth of cut on every pass. In most applications, use of CNC canned cycles produce only marginally successful results. Custom written programs are better and are recommended.

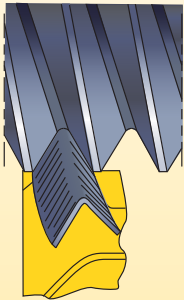
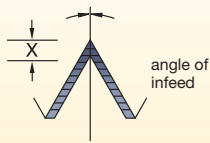
Infeed Angle

In order to effectively and consistently break the chip, it is important to use an infeed angle between 28° and 29° 30'. Do not apply chip control inserts at infeed angles less than 15°.



Radial

modified flank



Advantage —

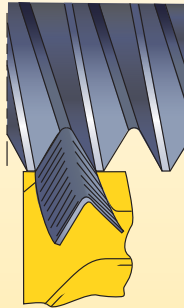
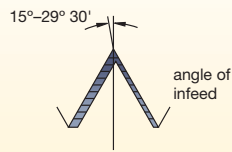
- Cutting on both sides of the thread form places all of the cutting edge in the cut and protects edge from chipping.
- Even wear on the insert.

Disadvantage —

- Tool develops a channel chip that may be difficult to handle.
- Tip chipping occurs when cutting high-tensile materials.
- Bur condition is increased.
- Entire cutting edge is engaged at finish of thread, causing increased tendency to chatter.

Modified flank

modified flank



Advantage —

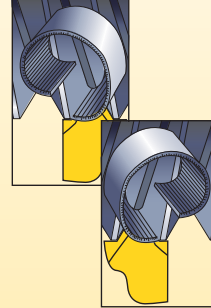
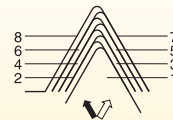
- Tool cuts both sides of thread form, so it is protected from chipping similar to 0° infeed. Channel-type chip develops, but uneven chip thickness helps remove the chip similar to flank infeed.
- This is the preferred method, especially when used with a chip control insert.
- Combined radial and/or alternating flank infeed.
- Results in good tool life, with wear evenly distributed over both flanks.

Disadvantage —

- Similar disadvantages as with 0° infeed, although reduced somewhat in magnitude as cutting forces are better equalized and chip flow is much less of a problem.

Alternating flank

alternating flank



Advantage —

- Increased tool life because both edges are used equally.

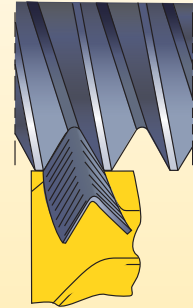
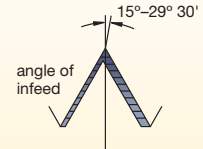
NOTE: Some machine tools may require special programming techniques to achieve this method of infeed.

Disadvantage —

- Difficult to cut on conventional machinery.

Reversed modified flank

modified flank



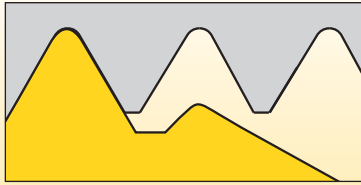
Advantage —

- Tool cuts both sides of thread form, so it is protected from chipping similar to 0° infeed. Channel-type chip develops, but uneven chip thickness helps remove the chip similar to flank infeed.
- This is the preferred method, especially when used with a chip control insert.
- Combined radial and/or alternating flank infeed.
- Results in good tool life, with wear evenly distributed over both flanks.
- As chip flow is the reversed feed direction, it is an excellent choice for internal threading.

Disadvantage —

- Programming needs to be done line by line.

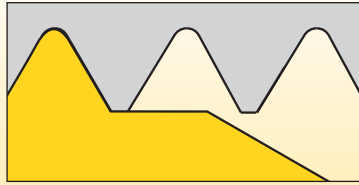
Partial Profile



Tooth profile with universal profile shape:

- Reduced inventory.
- For various pitches in a limited range.
- Major/minor diameters must be accurately pre-turned.

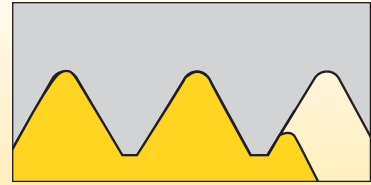
Full Profile



Tooth profile with full profile shape including tooth height:

- For bur-free, precise threads in the specified pitch.
- General application.
- Machining allowance for outside/core diameter around .004-.006".

Multi-Tooth Profile



Multi-tooth full profile generally with 2-3 teeth:

- Highly productive threading with fewer passes and longer tool life.
- Requires a rigid setup and long thread pass through.

Formulas

Inch Formula		
to find	given	formula
SFM	D (inch) RPM	$SFM = \frac{\pi \times D}{12"} \times RPM$
RPM	D (inch) SFM	$RPM = \frac{SFM \times 12"}{D \times \pi}$

Legend

- IPM = inch per minute
- SFM = surface feet per minute
- m/min = meters per minute
- RPM = revolutions per minute
- D = part diameter
- π = 3.1416

Metric Formula		
to find	given	formula
m/min	D (mm) RPM	$m/min = \frac{\pi \times D}{1000} \times RPM$
RPM	D (mm) m/min	$RPM = \frac{m/min \times 1000}{D \times \pi}$

Maximum Cutting Speeds

On older machines cutting speed is often limited by the maximum travel speed (IPM or mm/min) of the tool allowed by the machine. Check your maximum speed with the following formulas:

inch formula: maximum cutting speed (SFM) =
part diameter (inch) x 3.14 x TPI x $\frac{\text{max IPM}}{12"}$

metric formula: maximum cutting speed (m/min) =
part diameter (mm) x 3.14 x (1/pitch) x $\frac{\text{max mm/min}}{1000mm}$

Flank clearance

- γ = $\arctan(\sin(\beta/2) * \tan(\alpha))$
- γ = side (flank) clearance
- β = included angle of thread form
- α = radial inclination angle

Thread	Angle	External	Internal
UN & ISO	60	5.3	8
BSW	55	4.8	7.3
TR	30	2.6	4
ACME	29	2.6	3.9
AMBUT	7	.6	.9
AMBUT	45	4	6

Recommendation for Threading Infeed Passes

TPI	48-32	28-24	20-16	14-12	11.5-9	8-6	5-4	3-2
metric pitch (mm)	0,50-0,75	0,80-1	1,25-1,5	1,75-2	2,5-3	3,5-4	4,5-6	8
Thread Type	recommended number of passes							
Common V-thread forms ISO, UN, UNJ, NPT, Whitworth, BSPT, API Rotary Shoulder	4-5	5-6	6-8	8-10	9-12	12-15	14-16	15-25
Acme, Trapez, Round, API Round	—	—	5-6	7-8	10-11	12-13	13-15	18-20
Stub Acme, API Buttress	—	—	5	5-6	7-8	8-10	10-12	14-16
American Buttress	—	—	7-8	9-10	11-12	13-15	17-19	22-24

NOTE: Maintain minimum .002" (0,05mm) infeed on last passes to avoid work hardening and excessive abrasion of the threading tool.

Constant Volume Infeed Values for Threading Operations

In most applications, use of CNC canned cycles produces only marginally successful results. For example, an 8-pitch external thread has a depth of .0789" (2mm).

$$\Delta a_{p_x} = \frac{a_p}{\sqrt{\text{nap}-1}} * \sqrt{\phi}$$

Formula for constant chip load infeed

- Δa_p = radial infeed
- x = actual pass (from 1 to the nap)
- nap = number of passes
- ϕ = 1st pass, 0.3
2nd pass, 1
3rd pass and up, x-1

Using Radial Infeed

Bending stress on the cutting edge caused by V-shaped chips from long-chipping steel workpiece materials.

High cutting forces with small cutting thicknesses require sharp edges with high strength.

Using Flank Infeed

Lower bending stress and stabilized cutting edges produce more favorable chip shapes and larger cutting thicknesses.

Carbides with high hardness, good wear resistance, and temperature stability are advantageous.

Guidelines for Infeeds —

How to Determine the Number and the Size of Passes

The number of passes "s" per thread is decisive for successful threading and crest turning. The following tables give standard values for the application condition when machining steel. The proper number of passes must be determined empirically.

If insert breakage occurs, the number of passes must be increased. With increased wear, we recommend decreasing the number of passes. The chip thickness should not be less than .0019" (0,05mm). The allowance at the diameter should not exceed .0078" (0,2mm).

Metric ISO, External Thread Cutting

thread pitch P (mm)	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,50	3,00	3,50	4,00	4,50	5,00
T Ap (in)	.012	.018	.024	.030	.036	.042	.048	.060	.072	.085	.097	.109	.121
N Ap	4	4	5	6	6	8	8	10	12	14	15	15	16
values for flank infeed (X/Z)													
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0038	0.0057	0.0066	0.0073	0.0088	0.0087	0.0099	0.0110	0.0119	0.0129	0.0142	0.0160	0.0171
2	0.0031	0.0047	0.0054	0.0061	0.0073	0.0072	0.0082	0.0090	0.0098	0.0107	0.0117	0.0132	0.0141
3	0.0029	0.0043	0.0050	0.0056	0.0067	0.0066	0.0075	0.0083	0.0090	0.0098	0.0107	0.0121	0.0129
4	0.0022	0.0033	0.0038	0.0043	0.0051	0.0050	0.0058	0.0064	0.0069	0.0075	0.0082	0.0093	0.0099
5			0.0032	0.0036	0.0043	0.0043	0.0049	0.0054	0.0058	0.0063	0.0069	0.0078	0.0084
6				0.0032	0.0038	0.0037	0.0043	0.0047	0.0051	0.0056	0.0061	0.0069	0.0074
7						0.0034	0.0039	0.0043	0.0046	0.0050	0.0055	0.0062	0.0067
8						0.0031	0.0036	0.0039	0.0043	0.0046	0.0051	0.0057	0.0061
9								0.0037	0.0040	0.0043	0.0047	0.0053	0.0057
10								0.0034	0.0037	0.0040	0.0044	0.0050	0.0054
11									0.0035	0.0038	0.0042	0.0047	0.0051
12									0.0034	0.0036	0.0040	0.0045	0.0048
13										0.0035	0.0038	0.0043	0.0046
14										0.0033	0.0037	0.0041	0.0044
15											0.0035	0.0040	0.0043
16													0.0041
T Ap (in)	0.012	0.018	0.024	0.030	0.036	0.042	0.048	0.060	0.072	0.085	0.097	0.109	0.121

NOTE: Always allow .003-.005" extra stock for full profile inserts.

Metric ISO, Internal Thread Cutting

thread pitch P (mm)	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00
T Ap	0.011	0.016	0.021	0.027	0.032	0.037	0.043	0.053	0.064	0.075	0.085	0.096	0.107
N Ap	4	4	5	6	6	8	8	10	11	12	14	15	16
values for flank infeed (X/Z)													
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0035	0.0051	0.0058	0.0066	0.0078	0.0077	0.0089	0.0097	0.0111	0.0124	0.0129	0.0141	0.0151
2	0.0029	0.0042	0.0047	0.0055	0.0065	0.0063	0.0074	0.0080	0.0092	0.0102	0.0107	0.0116	0.0125
3	0.0026	0.0038	0.0043	0.0050	0.0059	0.0058	0.0067	0.0073	0.0084	0.0094	0.0098	0.0106	0.0114
4	0.0020	0.0029	0.0033	0.0038	0.0045	0.0044	0.0052	0.0056	0.0064	0.0072	0.0075	0.0082	0.0088
5			0.0028	0.0032	0.0038	0.0037	0.0044	0.0047	0.0054	0.0061	0.0063	0.0069	0.0074
6				0.0029	0.0034	0.0033	0.0038	0.0042	0.0048	0.0053	0.0056	0.0061	0.0065
7						0.0030	0.0035	0.0038	0.0043	0.0048	0.0050	0.0055	0.0059
8						0.0027	0.0032	0.0035	0.0040	0.0044	0.0046	0.0050	0.0054
9								0.0032	0.0037	0.0041	0.0043	0.0047	0.0050
10								0.0030	0.0035	0.0039	0.0040	0.0044	0.0047
11									0.0033	0.0037	0.0038	0.0042	0.0045
12										0.0035	0.0036	0.0040	0.0043
13											0.0035	0.0038	0.0041
14											0.0033	0.0036	0.0039
15												0.0035	0.0038
16													0.0036
T Ap	0.011	0.016	0.021	0.027	0.032	0.037	0.043	0.053	0.064	0.075	0.085	0.096	0.107

NOTE: Always allow .003-.005" extra stock for full profile inserts.

UN Thread, External Thread Cutting

TPI	24	20	18	16	14	12	11	10	9	8	7	6	5
T Ap (in)	0.026	0.031	0.034	0.038	0.036	0.042	0.048	0.060	0.072	0.085	0.097	0.109	0.121
N Ap	5	6	6	7	9	9	10	11	12	13	14	15	16
values for flank infeed (X/Z)													
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0071	0.0076	0.0083	0.0085	0.0070	0.0081	0.0088	0.0104	0.0119	0.0134	0.0147	0.0160	0.0171
2	0.0059	0.0063	0.0069	0.0070	0.0058	0.0067	0.0072	0.0086	0.0098	0.0111	0.0122	0.0132	0.0141
3	0.0054	0.0057	0.0063	0.0064	0.0053	0.0062	0.0066	0.0079	0.0090	0.0102	0.0111	0.0121	0.0129
4	0.0041	0.0044	0.0048	0.0049	0.0040	0.0047	0.0051	0.0060	0.0069	0.0078	0.0086	0.0093	0.0099
5	0.0035	0.0037	0.0041	0.0042	0.0034	0.0040	0.0043	0.0051	0.0058	0.0066	0.0072	0.0078	0.0084
6		0.0033	0.0036	0.0037	0.0030	0.0035	0.0038	0.0045	0.0051	0.0058	0.0064	0.0069	0.0074
7				0.0033	0.0027	0.0032	0.0034	0.0040	0.0046	0.0052	0.0057	0.0062	0.0067
8					0.0025	0.0029	0.0031	0.0037	0.0043	0.0048	0.0053	0.0057	0.0061
9					0.0023	0.0027	0.0029	0.0035	0.0040	0.0045	0.0049	0.0053	0.0057
10							0.0027	0.0033	0.0037	0.0042	0.0046	0.0050	0.0054
11								0.0031	0.0035	0.0040	0.0044	0.0047	0.0051
12									0.0034	0.0038	0.0042	0.0045	0.0048
13										0.0036	0.0040	0.0043	0.0046
14											0.0038	0.0041	0.0044
15												0.0040	0.0043
16													0.0041
T Ap (in)	0.026	0.031	0.034	0.038	0.036	0.042	0.048	0.060	0.072	0.085	0.097	0.109	0.121

NOTE: Always allow .003-.005" extra stock for full profile inserts.

UN Thread, Internal Thread Cutting

TPI	24	20	18	16	14	12	11	10	9	8	7	6	5
T Ap	.023	.027	.030	.034	.039	.045	.049	.054	.060	.068	.077	.090	.108
N Ap	5	6	6	7	8	9	9	10	11	12	13	14	15
values for flank infeed (X/Z)													
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0063	0.0066	0.0073	0.0076	0.0081	0.0087	0.0095	0.0099	0.0104	0.0112	0.0122	0.0137	0.0158
2	0.0052	0.0055	0.0061	0.0063	0.0067	0.0072	0.0078	0.0081	0.0086	0.0093	0.0101	0.0113	0.0131
3	0.0048	0.0050	0.0056	0.0057	0.0061	0.0066	0.0072	0.0075	0.0079	0.0085	0.0092	0.0103	0.0120
4	0.0037	0.0038	0.0043	0.0044	0.0047	0.0051	0.0055	0.0057	0.0060	0.0065	0.0071	0.0079	0.0092
5	0.0031	0.0032	0.0036	0.0037	0.0039	0.0043	0.0046	0.0048	0.0051	0.0055	0.0060	0.0067	0.0077
6		0.0029	0.0032	0.0033	0.0035	0.0038	0.0041	0.0042	0.0045	0.0048	0.0052	0.0059	0.0068
7				0.0030	0.0031	0.0034	0.0037	0.0038	0.0040	0.0044	0.0047	0.0053	0.0062
8					0.0029	0.0031	0.0034	0.0035	0.0037	0.0040	0.0044	0.0049	0.0057
9						0.0029	0.0032	0.0033	0.0035	0.0037	0.0041	0.0046	0.0053
10								0.0031	0.0033	0.0035	0.0038	0.0043	0.0050
11									0.0031	0.0033	0.0036	0.0041	0.0047
12										0.0032	0.0034	0.0039	0.0045
13											0.0033	0.0037	0.0043
14												0.0031	0.0035
15													0.0039
16													
T Ap	0.023	0.027	0.030	0.034	0.039	0.045	0.049	0.054	0.060	0.068	0.080	0.090	0.108

NOTE: Always allow .003-.005" extra stock for full profile inserts.

NPT Thread, External, and Internal Machining

TPI	27	18	14	11.5	8
T Ap	0.030	0.044	0.056	0.068	0.098
N Ap	6	8	10	12	14
values for flank infeed (X/Z)					
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0073	0.0091	0.0102	0.0112	0.0149
2	0.0061	0.0075	0.0084	0.0093	0.0123
3	0.0056	0.0069	0.0077	0.0085	0.0113
4	0.0043	0.0053	0.0059	0.0065	0.0086
5	0.0036	0.0045	0.0050	0.0055	0.0073
6	0.0032	0.0039	0.0044	0.0048	0.0064
7		0.0035	0.0040	0.0044	0.0058
8		0.0033	0.0037	0.0040	0.0053
9			0.0034	0.0037	0.0050
10			0.0032	0.0035	0.0047
11				0.0033	0.0044
12				0.0032	0.0042
13					0.0040
14					0.0038
15					
16					
T Ap	0.030	0.044	0.056	0.068	0.098

BSPT Thread, External, and Internal Machining

TPI	28	19	14	11
T Ap	0.023	0.034	0.046	0.057
N Ap	5	8	10	12
values for flank infeed (X/Z)				
order of passes	X/Z	X/Z	X/Z	X/Z
1	0.0063	0.0070	0.0084	0.0094
2	0.0052	0.0058	0.0069	0.0078
3	0.0048	0.0053	0.0064	0.0071
4	0.0037	0.0041	0.0049	0.0055
5	0.0031	0.0034	0.0041	0.0046
6		0.0030	0.0036	0.0041
7		0.0027	0.0033	0.0037
8		0.0025	0.0030	0.0034
9			0.0028	0.0031
10			0.0026	0.0029
11				0.0028
12				0.0027
13				
14				
15				
16				
T Ap	0.023	0.034	0.046	0.057

NOTE: Always allow .003-.005" extra stock for full profile inserts.

Trapezoid Thread to DIN 103, External, and Internal Machining

pitch	1.50	2.00	3.00	4.00	5.00
T Ap	0.040	0.049	0.069	0.089	0.108
N Ap	6	8	10	12	14
values for flank infeed (X/Z)					
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0098	0.0101	0.0126	0.0147	0.0164
2	0.0081	0.0084	0.0104	0.0121	0.0135
3	0.0074	0.0077	0.0095	0.0111	0.0124
4	0.0057	0.0059	0.0073	0.0085	0.0095
5	0.0048	0.0050	0.0062	0.0072	0.0080
6	0.0042	0.0044	0.0054	0.0063	0.0071
7		0.0040	0.0049	0.0057	0.0064
8		0.0036	0.0045	0.0053	0.0059
9			0.0042	0.0049	0.0055
10			0.0039	0.0046	0.0051
11				0.0044	0.0049
12				0.0041	0.0046
13					0.0044
14					0.0042
15					
16					
T Ap	0.040	0.049	0.069	0.089	0.108

Round Thread to DIN 405, External, and Internal Machining

pitch	10	8	6
T Ap	0.052	0.064	0.085
N Ap	8	10	12
values for flank infeed (X/Z)			
order of passes	X/Z	X/Z	X/Z
1	0.0108	0.0117	0.0140
2	0.0089	0.0096	0.0116
3	0.0081	0.0088	0.0106
4	0.0062	0.0068	0.0081
5	0.0053	0.0057	0.0069
6	0.0046	0.0050	0.0061
7	0.0042	0.0046	0.0055
8	0.0039	0.0042	0.0050
9		0.0039	0.0047
10		0.0037	0.0044
11			0.0042
12			0.0040
13			
14			
15			
16			
T Ap	0.052	0.064	0.085

NOTE: Always allow .003-.005" extra stock for full profile inserts.

Whitworth, External, and Internal Thread Cutting

TPI	28	20	19	16	14	12	11	10	9	8	7	6	5
T Ap	0.023	0.032	0.032	0.034	0.040	0.053	0.058	0.064	0.071	0.080	0.091	0.107	0.128
N Ap	5	6	6	8	8	9	9	10	11	12	14	15	16
	values for flank infeed (X/Z)												
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	0.0063	0.0078	0.0078	0.0070	0.0083	0.0103	0.0112	0.0117	0.0123	0.0132	0.0138	0.0157	0.0181
2	0.0052	0.0065	0.0065	0.0058	0.0068	0.0085	0.0093	0.0096	0.0102	0.0109	0.0114	0.0129	0.0149
3	0.0048	0.0059	0.0059	0.0053	0.0063	0.0078	0.0085	0.0088	0.0093	0.0100	0.0105	0.0118	0.0137
4	0.0037	0.0045	0.0045	0.0041	0.0048	0.0060	0.0065	0.0068	0.0071	0.0077	0.0080	0.0091	0.0105
5	0.0031	0.0038	0.0038	0.0034	0.0041	0.0050	0.0055	0.0057	0.0060	0.0065	0.0068	0.0077	0.0089
6		0.0034	0.0034	0.0030	0.0036	0.0044	0.0048	0.0050	0.0053	0.0057	0.0060	0.0068	0.0078
7				0.0027	0.0032	0.0040	0.0044	0.0046	0.0048	0.0051	0.0054	0.0061	0.0071
8				0.0025	0.0030	0.0037	0.0040	0.0042	0.0044	0.0047	0.0050	0.0056	0.0065
9						0.0034	0.0037	0.0039	0.0041	0.0044	0.0046	0.0052	0.0060
10								0.0037	0.0039	0.0041	0.0043	0.0049	0.0057
11									0.0036	0.0039	0.0041	0.0046	0.0054
12										0.0037	0.0039	0.0044	0.0051
13											0.0037	0.0042	0.0049
14												0.0036	0.0047
15													0.0039
16													0.0043
T Ap	0.023	0.032	0.032	0.034	0.040	0.053	0.058	0.064	0.071	0.080	0.091	0.107	0.128

NOTE: Always allow .003-.005" extra stock for full profile inserts.

Multi-Tooth Threads, Internal

type	ISO metric						ISO UN					Whitworth	NPT		
	3M	2M	3M	2M	3M	2M	2M	3M	2M	3M	2M	2M	2M	3M	2M
pitch (mm)	1.0	1.5	1.5	2.0	2.0	3.0	—	—	—	—	—	—	—	—	—
TPI	—	—	—	—	—	—	16	16	12	12	8	11	11.5	11.5	8
total depth	.024	.033	.033	.460	.460	.070	.037	.037	.490	.490	.740	.620	.690	.690	.100
1	.013	.015	.020	.020	.028	.022	.017	.022	.022	.030	.023	.029	.023	.032	.035
2	.011	.010	.013	.015	.018	.019	.012	.015	.016	.019	.020	.019	.020	.022	.025
3	—	.008	—	.011	—	.017	.008	—	.011	—	.017	.014	.014	.015	.022
4	—	—	—	—	—	.012	—	—	—	—	.014	—	.012	—	.018

Recommendations for Steel Workpieces (<300 BHN)

catalog number	insert size	TPI profile	total depth — on radius		
			1st pass	2nd pass	3rd pass
NTC-8R/L8EM	8	8 UN	.048	.064	.079
NTC-8R/L8IM	8	8 UN	.047	.061	.074
NTC-8R/L10EM	8	10 UN	.036	.050	.063
NTC-8R/L10IM	8	10 UN	.035	.048	.060
NTC-8R/L12EM	8	12 UN	.030	.041	.052
NTC-8R/L12IM	8	12 UN	.030	.037	.047
NTC-8R/L14EM	8	14 UN	.027	.037	.044
NTC-8R/L14IM	8	14 UN	.024	.031	.041
NTC-8R/L16EM 8	8	16 UN	.023	.032	.038
NTC-8R/L16IM	8	16 UN	.020	.027	.037
NTC-8R/L18EM	8	18 UN	.019	.026	.034
NTC-8R/L18IM	8	18 UN	.019	.024	.033
NDC-68RDR/L-75M	8	8 round	.058	.065	.073
NDC-61RDR/L-75M	8	10 round	.044	.051	.057
NDC-88RDR/L-75M	8	8 round	.051	.069	.073
NDC-88VR/L-75M	8	8 NPT	.040	.068	.096
NDC-8115VR/L-75M	8	11.5 NPT	.038	.054	.067
NDN-814VR/L-75M	8	14 NPT	.038	.054	.054

NOTE: Always allow .003-.005" extra stock for full profile inserts.

ACME, External

pitch, TPI	28	20	19	16	14	12	11	10	9	8	7	6	5
depth	.028	.032	.032	.034	.040	.053	.058	.064	.071	.080	.091	.107	0.128
number of passes	5	6	6	8	8	9	9	10	11	12	14	15	16
values for flank infeed (X/Z)													
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	.039	.041	.050	.063	.074	.095	.112	.138	.180	.256	.008/-	.008/-	.008/-
2	.009	.008	.009	.010	.010	.011	.012	.013	.019	.028	.013/.007	.014/.007	.017/.009
3	.009	.008	.009	.009	.010	.011	.011	.012	.018	.026	.01/.005	.011/.006	.013/.007
4	.007	.007	.007	.009	.009	.010	.010	.011	.016	.023	.008/.004	.009/.005	.011/.006
5	.006	.006	.007	.007	.007	.009	.010	.011	.015	.022	.007/.004	.008/.004	.009/.005
6	.005	.005	.005	.006	.006	.008	.009	.010	.013	.019	.007/.003	.007/.004	.009/.004
7	.003	.004	.005	.005	.005	.007	.008	.010	.011	.017	.006/.003	.007/.004	.008/.004
8		.003	.004	.005	.005	.006	.007	.009	.011	.015	.006/.003	.006/.003	.007/.004
9			.004	.004	.005	.006	.007	.008	.009	.013	.005/.003	.006/.003	.007/.004
10				.004	.005	.006	.007	.008	.009	.013	.005/.003	.005/.003	.006/.003
11				.004	.004	.006	.006	.007	.009	.011	.005/.002	.005/.003	.006/.003
12					.004	.006	.006	.007	.008	.011	.004/.002	.005/.003	.006/.003
13					.004	.005	.006	.006	.007	.010	.004/.002	.005/.003	.006/.003
14						.004	.005	.006	.007	.009	.004/.002	.005/.002	.005/.003
15							.004	.006	.007	.009		.005/.002	.005/.003
16							.004	.006	.006	.008			.005/.003
17								.004	.005	.007	.004/.002	.005/.003	.006/.003
18								.004	.005	.007	.004/.002	.005/.002	.005/.003
19									.005	.006		.005/.002	.005/.003
20										.006			.005/.003

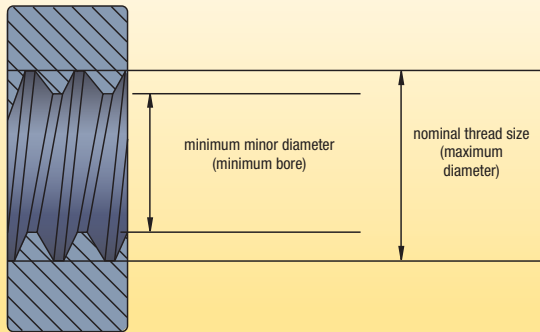
NOTE: Always allow .003-.005" extra stock for full profile inserts.

ACME, Internal

pitch, TPI	28	20	19	16	14	12	11	10	9	8	7	6	5
depth	.028	.032	.032	.034	.040	.053	.058	.064	.071	.080	.091	.107	0.128
number of passes	5	6	6	8	8	9	9	10	11	12	14	15	16
values for flank infeed (X/Z)													
order of passes	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z	X/Z
1	.039	.041	.050	.063	.074	.095	.112	.138	.180	.256	.008/-	.008/-	.008/-
2	.009	.008	.009	.010	.010	.011	.012	.013	.019	.028	.013/.007	.014/.007	.017/.009
3	.009	.008	.009	.009	.010	.011	.011	.012	.018	.026	.01/.005	.011/.006	.013/.007
4	.007	.007	.007	.009	.009	.010	.010	.011	.016	.023	.008/.004	.009/.005	.011/.006
5	.006	.006	.007	.007	.007	.009	.010	.011	.015	.022	.007/.004	.008/.004	.009/.005
6	.005	.005	.005	.006	.006	.008	.009	.010	.013	.019	.007/.003	.007/.004	.009/.004
7	.003	.004	.005	.005	.005	.007	.008	.010	.011	.017	.006/.003	.007/.004	.008/.004
8		.003	.004	.005	.005	.006	.007	.009	.011	.015	.006/.003	.006/.003	.007/.004
9			.004	.004	.005	.006	.007	.008	.009	.013	.005/.003	.006/.003	.007/.004
10				.004	.005	.006	.007	.008	.009	.013	.005/.003	.005/.003	.006/.003
11				.004	.004	.006	.006	.007	.009	.011	.005/.002	.005/.003	.006/.003
12					.004	.006	.006	.007	.008	.011	.004/.002	.005/.003	.006/.003
13					.004	.005	.006	.006	.007	.010	.004/.002	.005/.003	.006/.003
14						.004	.005	.006	.007	.009	.004/.002	.005/.002	.005/.003
15							.004	.006	.007	.009		.005/.002	.005/.003
16							.004	.006	.006	.008			.005/.003
17								.004	.005	.007	.004/.002	.005/.003	.006/.003
18								.004	.005	.007	.004/.002	.005/.002	.005/.003
19									.005	.006		.005/.002	.005/.003
20										.006			.005/.003

NOTE: Always allow .003-.005" extra stock for full profile inserts.

The following charts list the largest thread pitch that can be applied on internal applications using Top Notch threading inserts for 60° V-threading and Acme threading.



Inch-Sized 60° V-Threading Limits
internal threading limitations
NT-1, NT-2 V-threading inserts

TPI	nominal thread size		minimum minor diameter (inch)	
	NT-1	NT-2	NT-1	NT-2
6	1-7/8	—	1.695	—
7	1-3/4	—	1.595	—
8	1-5/8	—	1.490	—
9	1-9/16	—	1.442	—
10	1-1/2	15/16	1.392	.830
11	1-7/16	15/16	1.339	.830
11-1/2	1-3/8	15/16	1.281	.830
12	1-3/8	9/16	1.285	.472
13	1-5/16	9/16	1.229	.472
14	1-1/4	9/16	1.173	.472
16	1-1/4	9/16	1.182	.472
18	1-1/8	9/16	1.065	.472
20	1-1/8	1/2	1.071	.440
24*	1-1/16	1/2	1.017	.440

*Twenty-four threads per inch and finer can be cut with an NT-2 insert provided the minor diameter is 1.000" or larger (.440" or larger with NT-1).

internal threading limitations
NT-3 and -4 V-threading inserts

TPI	nominal thread size	minimum minor diameter (inch)
4**	3	2.729
4-1/2**	2-7/8	2.634
5	2-3/4	2.534
6	2-1/2	2.320
7	2-1/4	2.095
8	2	1.865
9	1-15/16	1.817
10	1-7/8	1.767
11	1-13/16	1.714
11-1/12	1-3/4	1.656
12	1-3/4	1.660
13	1-5/8	1.542
14	1-9/16	1.485
16*	1-7/16	1.370

*Sixteen threads per inch and finer can be cut provided minor diameter is 1.370" or larger.

**NT-4 insert only.

Metric-sized 60° V-Threading Limits
internal threading limitations
NT-1, NT-2 60° V-threading inserts

TPI	nominal thread size		minimum thread diameter (inch)	
	NT-1	NT-2	NT-1	NT-2
4,00	M48 x 4.00	—	43,67	—
3,00	M42 x 3.00	—	38,75	—
2,50	M39 x 2.50	M24 x 2,50	36,29	21,29
2,00	M33 x 2.00	M15 x 2,00	30,84	12,84
1,75	M32 x 1.75	M15 x 1,75	30,11	13,11
1,50	M32 x 1.50	M15 x 1,50	30,38	13,38
1,25	M29 x 1.29	M14 x 1,25	27,65	12,65
1,00*	M27 x 1.00	M14 x 1,00	25,92	12,92
0,75	M22 x 0.75	M12 x 0,75	21,19	11,19

*Thread pitch of 1mm and less can be cut with an NT-2 insert provided the core thread diameter is 25mm or larger (11mm or larger with NT-1).

internal threading limitations
NT-3 and NT-4 60° V-threading inserts

TPI	nominal thread size	minimum thread diameter (inch)
6,00**	M76 x 6.00	69,50
5,50**	M73 x 5.50	67,05
5,00	M70 x 5.00	64,59
4,00	M64 x 4.00	59,67
3,00	M52 x 3.00	48,75
2,50	M48 x 2.50	45,29
2,00	M42 x 2.00	39,84
1,75	M40 x 1.75	38,11
1,50*	M38 x 1.50	36,38

*Thread pitch of 1,5mm and less can be cut provided core thread diameter is 35mm or larger.

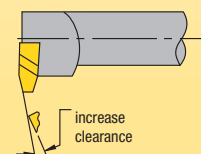
**NT-4-insert only.

Acme Threading Limits
internal threading limitations
NA and NAS-2, -3, -4, and -6 Acme threading inserts

TPI	nominal thread size	minimum thread diameter (inch)	
	NT-1	NT-1	NT-2
2**	5	4.500	114.3
2-1/2**	4-1/2	4.100	104.1
3**	4	3.665	93.1
4	3-1/2	3.250	82.6
5	3	2.800	71.1
6	2-1/2	2.333	59.3
8	2-1/4	2.125	54.0
10	2	1.900	48.3
12	1-3/4	1.667	42.4
14	1-5/8	1.554	39.5
16*	1-1/2	1.438	36.5

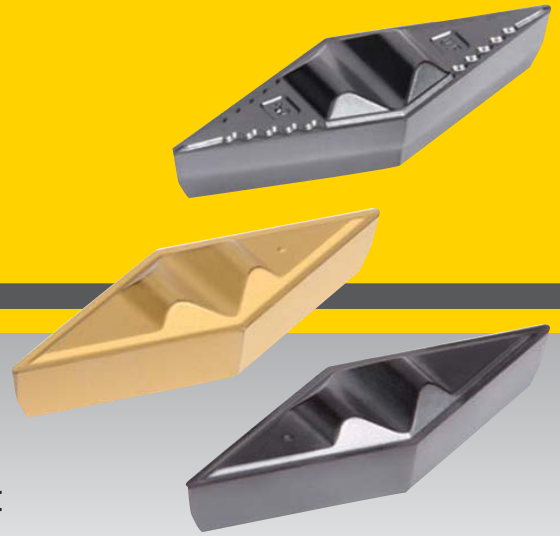
*Sixteen threads per inch and finer can be cut provided minor diameter is 1.438" (36,5mm) or larger.

**NA-6 insert only.



Additional secondary clearance can be ground on leading edge of insert to provide sufficient helical clearance for machining coarser threads and multiple start threads. Modified standard inserts may be furnished for machining threads outside of the limits shown.

Beyond™ Top Notch™ Profiling



The Top Notch system is the proven solution for high productivity. The Top Notch system provides consistent tool performance, accurate indexing, and superior clamping to provide excellent surface finishing and superior tool life.

FEATURES AND BENEFITS

Higher Productivity and Profitability

- Lower cutting forces increase speeds and reduce cycle time.
- Extended tool life.

Reliability

- Predictable tool life/uniform wear.
- Resists chip flow damage.
- Consistent surface finish.

Versatility

- Products can be applied across a wide range of applications.
- Use in low- to high-speed applications.
- Complete portfolio of products.
- For finish to rough turning of steel, cast iron, stainless steel, and high-temp alloys.

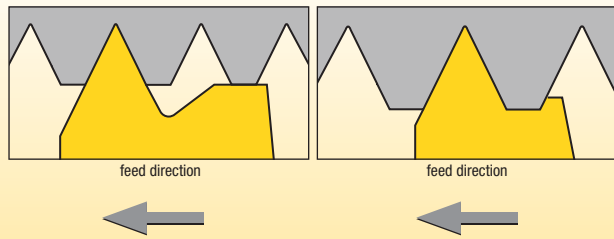


Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.



kennametal.com

60° V-Thread Crest Turning Application Data



NTC crest turning insert for 12 threads per inch and finer ($P \leq 2\text{mm}$).

NTC crest turning insert for 11 threads per inch and coarser ($P \geq 3\text{mm}$).

NOTE: NTC inserts automatically control root to crest dimensions. Therefore, in setting up threading operations with NTC inserts, check the O.D. or I.D. at the thread crest for correct dimensions.

60° V-Thread Crest Turning Application Data

insert catalog number	nose radius on insert (inch)	thread radius per MIL-S-8879A (inch)
NJ-3014R/L12	.0125/.0135	.0125/.0150
NJK-3008R/L20	.0075/.0085	.0075/.0090

“J” thread note for catalog

The controlled root radius thread form (SAE8879C) is defined for the external thread only. To machine the corresponding internal thread, choose any insert that will cut a unified class 2B thread, then bore the minor diameter to size. Refer to SAE8879C and MIL-S-8879C and SAEAS8879D for the correct “J” thread minor diameter values.

60° V-Thread Application Data

insert description	insert	D** (inch)	E** (inch)	recommended TPI*		recommended TP*	
				external	internal	external	internal
	NT-1	.075	.044	–	24–12	–	1,00–2,00
	NT-2	.113	.075	36–8	20–7	0,70–3,00	1,25–3,50
	NT-2-K	.113	.075	36–8	20–7	0,70–3,00	1,25–3,50
	NTF-2	.062	.040	44–14	24–12	0,60–1,75	1,00–2,00
	NTK-2	.062	.040	44–14	24–12	0,60–1,75	1,00–2,00
	NTP-2	.113	.075	36–8	20–7	0,70–3,00	1,25–3,50
	NT-3	.148	.097	20–6	12–5	1,25–4,00	2,00–5,00
	NT-3-K	.148	.097	20–6	12–5	1,25–4,00	2,00–5,00
	NT-3-C	.148	.097	11–6	6 (only)	2,50–4,00	4,00 (only)
	NT-3-CK	.148	.097	11–6	6 (only)	2,50–4,00	4,00 (only)
	NTF-3	.083	.054	44–10	24–9	0,60–2,50	1,00–2,50
	NTK-3	.083	.054	44–10	24–9	0,60–2,50	1,00–2,50
	NTP-3	.148	.097	20–6	12–5	1,25–4,00	2,00–5,00
	NT-4	.196	.127	20–4	12–4	1,25–6,25	2,00–6,25
	NT-4-K	.196	.127	20–4	12–4	1,25–6,25	2,00–6,25
	NTP-4	.196	.127	20–4	12–4	1,25–6,25	2,00–6,25

*Based on maximum insert radius size and class 2A and 2B thread specifications.

**For metric D and E dimensions, multiply by 25,4.

API Thread Forms • Insert Applications Chart for API Rotary Shouldered Connections

thread form	Kennametal insert		tool joint application	minimum box size*
	cresting	non-cresting		
V-.038R 2" TPF 4 TPI	NDC-4038R/L2 4-E/IR4API382	ND-3038R/L	2-3/8 API internal flush 2-7/8 API internal flush 3-1/2 API internal flush 4 API internal flush 4-1/2 API internal flush 5-1/2 API internal flush 6-5/8 API internal flush 4 API full hole API #23, API #26, API #31, API #35, API #38, API #40, API #44, API #46, API #50	API #31 2-7/8 IF
V-.038R 3" TPF 4 TPI	NDC-4038R/L3 4-E/IR4API383	ND-3038R/L	API #56 API #61 API #70 API #77	API #56
V-.050 2" TPF 4 TPI	NDC-4050R/L2 4-E/IR4API502	ND-4050R/L	5-1/2 API full hole 6-5/8 API regular 6-5/8 API full hole	5-1/2 API full hole
V-.050 3" TPF 4 TPI	NDC-4050R/L3 4-E/IR4API503	ND-4050R/L	5-1/2 API regular 7-5/8 API regular 8-5/8 API regular	5-1/2 API regular
V-.040 3" TPF 5 TPI	NDC-3040R/L3 NDC-4040R/L3 4-E/IR5API403	ND-3040R/L ND-4040R/L	2-3/8 API regular 2-7/8 API regular 3-1/2 API regular 4-1/2 API regular	3-1/2 API regular

*Minimum box size that can be threaded with a standard Top Notch insert due to minimum bore equipment.

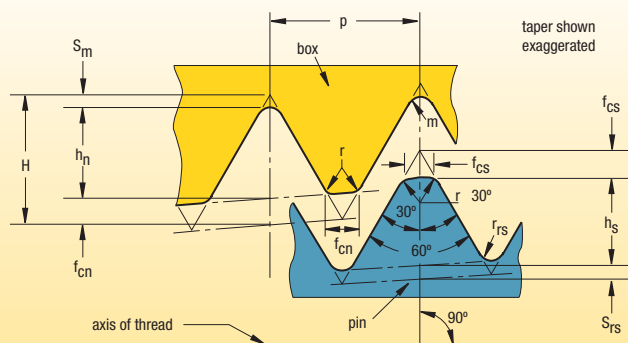
API Thread Forms

Product Thread Dimensions • Rotary Shouldered Connections (Inch)

thread form	taper inch per ft.	thread height, not truncated H	thread height, truncated $h_n=h_s$	root truncation $S_m=S_{rs}$ $f_m=f_{rs}$	crest truncation $f_{cn}=f_{cs}$	width of flat		root radius $r_m=r_{rs}$	radius at thread corners r	pitch p
						crest $f_{cn}=f_{cs}$	crest $f_m=f_{rs}$			
V-.038R	2	.216005	.121844	.038000	.056161	.065	—	.038	.015	.250
V-.038R	3	.215379	.121381	.038000	.055998	.065	—	.038	.015	.250
V-.040	3	.172303	.117842	.020000	.034461	.040	—	.020	.015	
V-.050	3	.215379	.147303	.025000	.043076	.050	—	.025	.015	.250
V-.050	2	.216005	.147804	.025000	.043201	.050	—	.025	.015	

NOTE: All dimensions in inches.

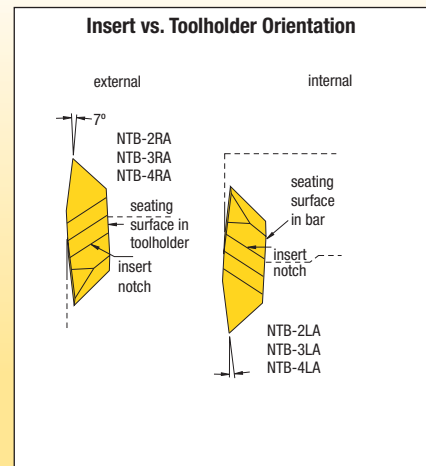
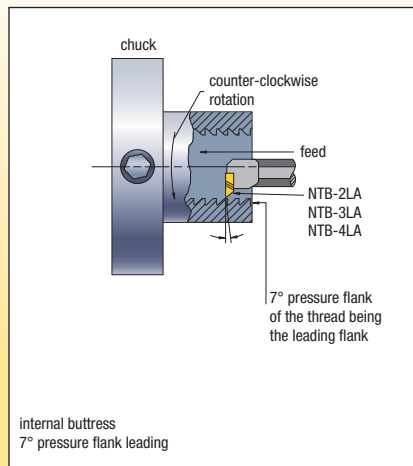
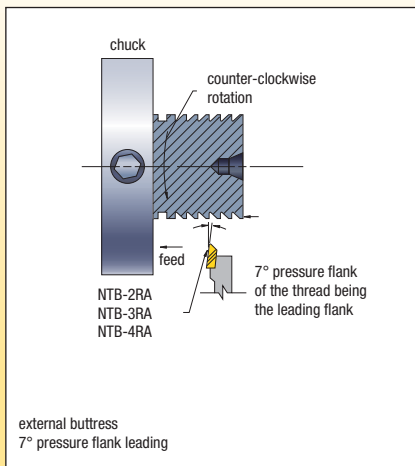
V-.040 and V-.050 Product Thread Form



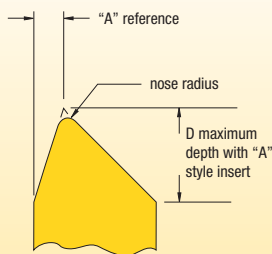
Casing and Tubing Round Thread (Height Dimensions)

thread element	10 TPI p= .1000	8 TPI p= .1250	
H	= .866p	.08660	.10825
$H_s = h_n$	= .626p - .007	.05560	.07125
$S_{rs} = S_m$	= .120p + .002	.01400	.01700
$S_{cs} = S_{cn}$	= .120p + .005	.01700	.02000

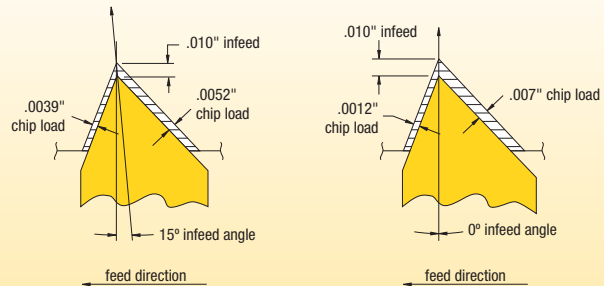
American Buttress (7° Pressure Flank Leading) NTB-A Inserts • Push Type



Reference Dimensions



Infeed Angle vs. Chip Load: 7° Pressure Flank Leading



NTB-A insert

insert	D (inch)	"A" ref. (inch)	nose radius (inch)	pitch based on maximum radius
NTB-2A	.133	.024	.002-.004	16-20 TPI
NTB-3A	.171	.031	.005-.008	8-16 TPI
NTB-4A	.218	.049	.008-.012	4-6 TPI

NOTE: For balanced chip load, 15° inflow angle is suggested.

Internal Threading Limitations

internal threading limitations NTB-2A Buttress threading inserts

TPI	nominal thread size	minimum minor diameter (inch)
8	1-3/4	1.600
10	1-5/8	1.505
12	1-1/2	1.400
16	1-1/4	1.175
20	1-1/16	1.002

internal threading limitations NTB-3 and NTB-4A Buttress threading inserts

TPI	nominal thread size	minimum minor diameter (inch)
4*	2-1/2	2.200
5	2-1/4	2.010
6	2	1.800
8	1-3/4	1.600
10	1-5/8	1.505
12**	1-1/2	1.400

*NTB-4A insert only.

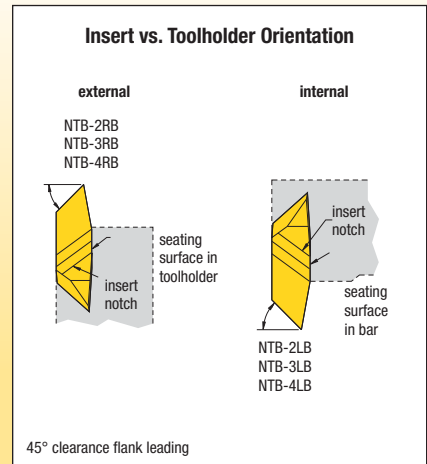
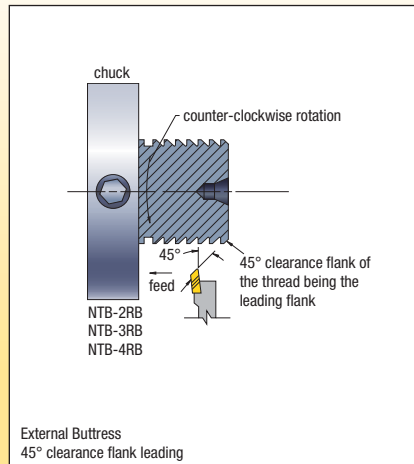
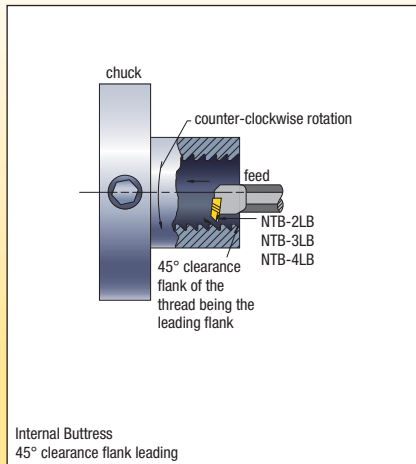
**Can cut 16 or 20 threads per inch provided minor diameter is 1.375" or larger.

Threads per Inch vs. Maximum Root Radius Chart (Inch)

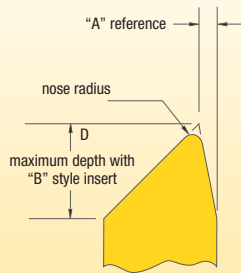
TPI	20	16	12	10	8	6	5	4	3	2-1/2	2	1-1/2	1-1/4	1
maximum root radius	.0036	.0045	.0059	.0071	.0089	.0119	.0143	.0179	.0238	.0268	.0375	.0476	.0572	.0714

NOTE: Special Buttress forms are available upon request.

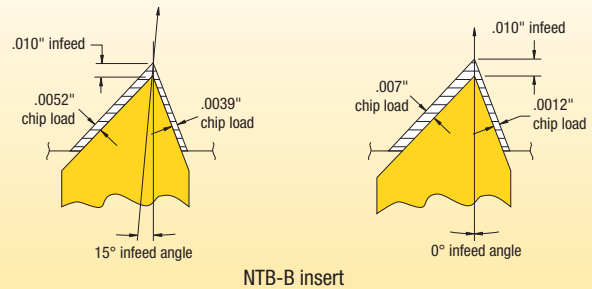
American Buttress (45° Clearance Flank Leading): NTB-B Inserts • PULL-type



Reference Dimensions



Infeed Angle vs. Chip Load: 45° Clearance Flank Leading



insert	D (inch)	"A" reference (inch)	nose radius (inch)	pitch based on maximum radius
NTB-3B	.171	.031	.005-.004	8-16 TPI

NOTE: For balanced chip load, a reverse 15° infeed angle is suggested.

Internal Threading Limitations

internal threading limitations
NTB-2B Buttress threading inserts

TPI	nominal thread size	minimum minor diameter (inch)
8	1-3/4	1.600
10	1-5/8	1.505
12	1-1/2	1.400
16	1-1/4	1.175
20	1-1/16	1.002

internal threading limitations
NTB-3 and NTB-4B Buttress threading inserts

TPI	nominal thread size	minimum minor diameter (inch)
4*	2-7/8	2.575
5	2-3/4	2.510
6	2-3/8	2.175
8	2-1/8	1.975
10	1-7/8	1.755
12	1-5/8	1.525
16	1-1/2	1.407
20	1-7/16	1.378

*NTB-4B insert only.

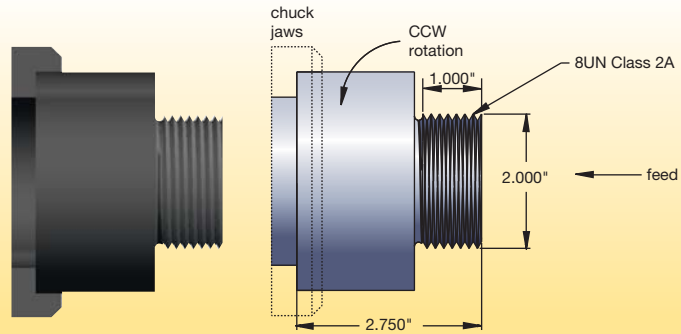
Required Information

From Part Drawing:

- material: 316SS, 200 HB
- thread form: 8UN
- tolerance: class 2A
- operation: external threading
- pitch diameter: 2.00" x 1.00" deep

From Machine Setup Data:

- tooling: .750" x .750"
- spindle rotation: counter-clockwise
- feed: toward chuck

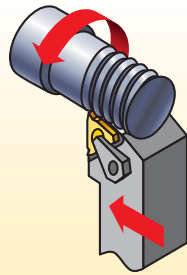


Steps for a Successful Threading Operation

Step 1 • Determine Threading Method

Need to Know:

- Operation (external).
- Spindle rotation (CCW).
Counter-clockwise rotation.
- Feed direction (toward chuck).
- Right-hand toolholder.
- Right-hand insert (ER).
- Standard helix method.



Step 2 • Select Insert



Need to Know:

- Thread form (8 UN Class 2A).
- Hand of insert (right hand — ER).

Choose the High-Performance Solution

catalog number	insert size	KCU25/ KC5025
3ER8UN	3"	•

High-Performance Selection

NOTE: Use insert with largest IC available.
 insert: 3ER8UN
 grade: KCU25/KC5025
 speed: 500 SFM

Step 3 • Select the Grade and Speed

Need to Know:

- Workpiece material (316SS-200HB).
- Operation (external).

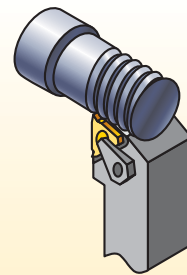
Options: Grade and Speed
Selection Guidelines

threading operation	stainless steel
external	general purpose and high performance
	KC5025
	150–450 SFM

Step 4 • Select Toolholder

Need to Know:

- External or internal operation (external).
- Pitch diameter to determine minimum bore diameter (N/A).
- Type of tooling — toolholder, boring bar (toolholder).
- Hand of tool (right hand).
- Insert size (3/8").



Options:

catalog number	insert size	shim
LSASR-123	3"	SM-YE3

First choice: LSASR-123 holder

Step 5 • Select Shim

Need to Know:

- Thread form — TPI or pitch (8 TPI).
- Pitch diameter (2").
- Helix method (standard).
See Laydown Threading (LT) shim selection chart.

Select SM-YE3 shim

NOTE: The SM-YE3 shim is supplied with the selected toolholder.

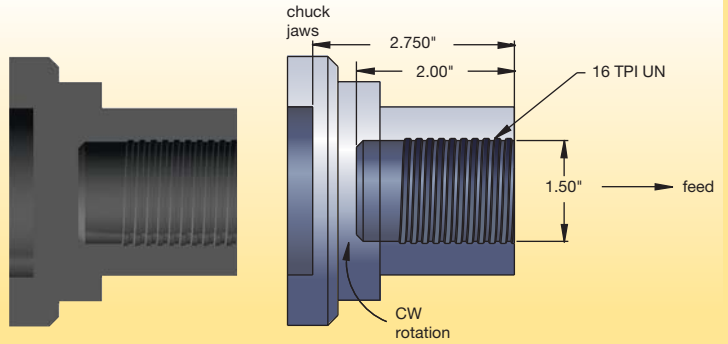
Required Information

From Part Drawing:

material: 4140 steel
 thread form: 16 TPI UN
 tolerance: class 2B
 operation: internal threading
 pitch diameter: 1.5" x 2" deep

From Machine Setup Data:

tooling: .075" boring bar
 spindle rotation: clockwise
 feed: away from chuck

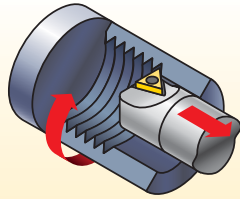


Steps for a Successful Threading Operation

Step 1 • Determine Threading Method

Need to Know:

- Operation (internal).
- Spindle rotation (CW).
Clockwise rotation.
- Feed direction (away from chuck).
- Left-hand toolholder.
- Left-hand insert (NL).
- Reverse helix method.



Step 2 • Select Insert



Need to Know:

- Thread form (16UN Class 2B).
- Hand of insert (left hand — NL).

Choose the High-Performance Solution

catalog number	insert size	KCU25/ KC5025
2ILA60	2"	•
3ILA60	3"	•

High-Performance Selection

NOTE: Use insert with largest possible IC to go into the bore.

insert: 3ILA60
 grade: TN6025
 speed: 450 SFM

Step 3 • Select the Grade and Speed

Need to Know:

- Workpiece material (4010 steel).
- Operation (internal).

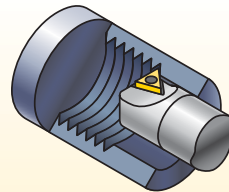
Options: Grade and Speed
 Selection Guidelines

threading operation	steel
internal	general purpose and high performance
	KC5025
	100–550 SFM

Step 4 • Select Toolholder

Need to Know:

- External or internal operation (internal).
- Pitch diameter to determine minimum bore diameter for internal operations (1.5").
- Type of tooling — toolholder, boring bar (boring bar).
- Hand of tool (left hand).
- Insert size (3/8").



Options:

catalog number	insert size	minimum bore diameter	shim
S1212-LSEL3	3"	.90	SM-YE3
S0812-LSEL2	2"	.65	—

First choice: LSASR-123 holder

Step 5 • Select Shim

Need to Know:

- Thread form — TPI or pitch (8 TPI).
- Pitch diameter (2").
- Helix method (standard).
See Laydown Threading (LT) shim selection chart.

Select SM-YE3 shim

NOTE: For this application, the standard shim supplied should be replaced with the recommended shim, SM-YE3-2N.

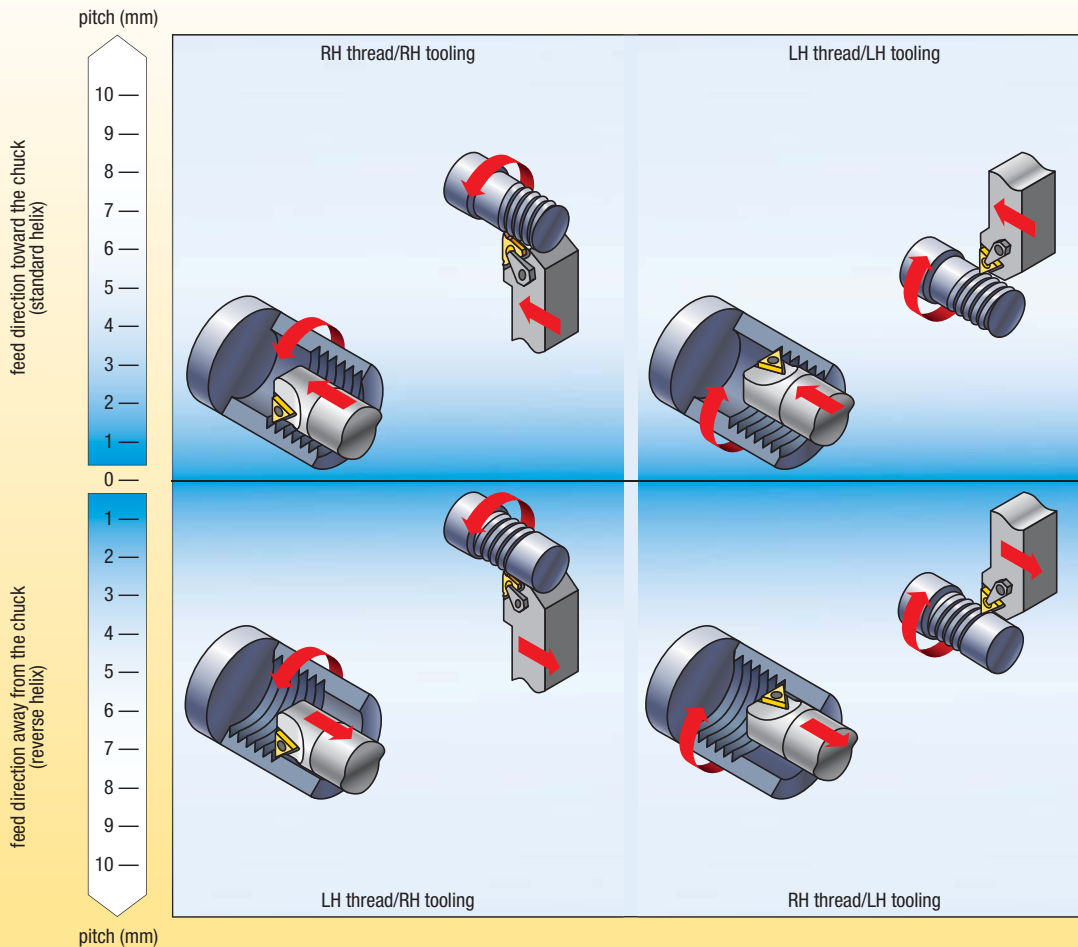
Laydown Threading Shim Selection Guidelines

It is essential to select the correct shim to ensure thread quality and maximum tool life. These parameters are needed:

- Pitch
- Pitch diameter
- Number of starts
- Feed direction

NOTE: When considering method of thread cutting, the part's shape and stability and the flow of chips are determining factors in your decision.

Laydown Selection Chart



NOTE: For multi-start threads, use the lead value instead of the pitch.

Diagram of Thread Lead Angles

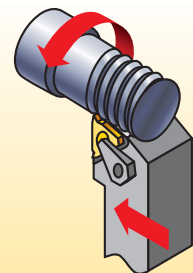
To calculate the lead angle of a given thread, use this formula:

$$\beta = \text{Arctan} \frac{P \cdot S}{\pi D_e}$$

β = thread lead angle
 D_e = effective pitch diameter of thread wear
 $P = 1/\text{TPI}$
 TPI = threads per inch
 S = number of starts
 single-start, lead = pitch
 multiple-start, lead = pitch (x) number of starts

All toolholders are designed with an inclination angle = 1.5°. When turning standard threads with a lead angle of 1–2°, this guarantees adequate clearance at the flanks of the insert's thread tooth. The thread lead angle and the required inclination angle of the insert are given by β .

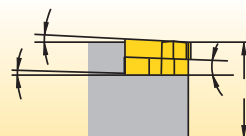
Cutting edge height is constant at every shim and insert combination. All toolholders are supplied with 1-1/2° lead angle.



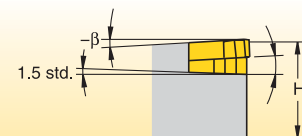
■ Laydown Threading Shim Selection Table • Inch

insert size	toolholder		shim ordering code (inch)							
	external	internal	SM-YE3-3P	SM-YE3-2P	SM-YE3-1P	SM-YE3	SM-YE3-1N	SM-YE3-1.5N	SM-YE3-2N	SM-YE3-3N
3 (3/8")	RH	LH	SM-YE3-3P	SM-YE3-2P	SM-YE3-1P	SM-YE3	SM-YE3-1N	SM-YE3-1.5N	SM-YE3-2N	SM-YE3-3N
3 (3/8")	LH	RH	SM-YI3-3P	SM-YI3-2P	SM-YI3-1P	SM-YI3	SM-YI3-1N	SM-YI3-1.5N	SM-YI3-2N	SM-YI3-3N
4 (1/2")	RH	LH	SM-YE4-3P	SM-YE4-2P	SM-YE4-1P	SM-YE4	SM-YE4-1N	SM-YE4-1.5N	SM-YE4-2N	SM-YE4-3N
4 (1/2")	LH	RH	SM-YI4-3P	SM-YI4-2P	SM-YI4-1P	SM-YI4	SM-YI4-1N	SM-YI4-1.5N	SM-YI4-2N	SM-YI4-3N
TPI	pitch (mm)		pitch diameter (inch)							
72	-	-	-	-	-	0.12-0.31	0.32-0.84	>0.84	0.84-0.32	0.31-0.12
-	0,35	-	-	-	-	0.12-0.3	0.31-0.84	>0.84	0.84-0.31	0.3-0.12
64	-	-	-	-	-	0.14-0.35	0.36-0.95	>0.95	0.95-0.36	0.35-0.14
-	0,40	-	-	-	-	0.14-0.35	0.36-0.96	>0.96	0.96-0.36	0.35-0.14
56	-	-	-	-	-	0.16-0.4	0.41-1.09	>1.09	1.09-0.41	0.4-0.16
-	0,50	-	-	-	0.11-0.16	0.17-0.44	0.45-1.2	>1.20	1.2-0.45	0.44-0.17
48	-	-	-	-	0.12-0.17	0.18-0.46	0.47-1.27	>1.27	1.27-0.47	0.46-0.18
44	-	-	-	-	0.13-0.19	0.2-0.51	0.52-1.38	>1.38	1.38-0.52	0.51-0.2
-	0,60	-	0.1-0.12	0.13-0.2	0.13-0.2	0.21-0.53	0.54-1.44	>1.44	1.44-0.54	0.53-0.21
40	-	-	0.11-0.13	0.14-0.21	0.14-0.21	0.22-0.56	0.57-1.52	>1.52	1.52-0.57	0.56-0.22
-	0,70	-	0.12-0.15	0.16-0.23	0.16-0.23	0.24-0.62	0.63-1.68	>1.68	1.68-0.63	0.62-0.24
36	-	-	0.12-0.15	0.16-0.23	0.16-0.23	0.24-0.62	0.63-1.69	>1.69	1.69-0.63	0.62-0.24
-	0,75	0.11-0.12	0.13-0.16	0.17-0.25	0.17-0.25	0.26-0.66	0.67-1.8	>1.80	1.8-0.67	0.66-0.26
32	-	0.12-0.13	0.14-0.17	0.18-0.26	0.18-0.26	0.27-0.7	0.71-1.9	>1.90	1.9-0.71	0.7-0.27
-	0,80	0.12-0.13	0.14-0.17	0.18-0.26	0.18-0.26	0.27-0.71	0.72-1.91	>1.91	1.91-0.72	0.71-0.27
28	-	0.14-0.14	0.15-0.19	0.2-0.3	0.2-0.3	0.31-0.8	0.81-2.17	>2.17	2.17-0.81	0.8-0.31
27	-	0.14-0.15	0.16-0.2	0.21-0.31	0.21-0.31	0.32-0.83	0.84-2.25	>2.25	2.25-0.84	0.83-0.32
-	1,00	0.15-0.16	0.17-0.21	0.22-0.33	0.22-0.33	0.34-0.89	0.9-2.39	>2.39	2.39-0.9	0.89-0.34
24	-	0.16-0.17	0.18-0.23	0.24-0.35	0.24-0.35	0.36-0.94	0.95-2.53	>2.53	2.53-0.95	0.94-0.36
-	1,25	0.19-0.2	0.21-0.27	0.28-0.42	0.28-0.42	0.43-1.11	1.12-2.99	>2.99	2.99-1.12	1.11-0.43
20	-	0.19-0.21	0.22-0.27	0.28-0.42	0.28-0.42	0.43-1.13	1.14-3.04	>3.04	3.04-1.14	1.13-0.43
18	-	0.21-0.23	0.24-0.31	0.32-0.47	0.32-0.47	0.48-1.26	1.27-3.38	>3.38	3.38-1.27	1.26-0.48
-	1,50	0.22-0.25	0.26-0.33	0.34-0.5	0.34-0.5	0.51-1.34	1.35-3.59	>3.59	3.59-1.35	1.34-0.51
16	-	0.24-0.26	0.27-0.35	0.36-0.53	0.36-0.53	0.54-1.41	1.42-3.8	>3.80	3.8-1.42	1.41-0.54
-	1,75	0.26-0.29	0.3-0.38	0.39-0.59	0.39-0.59	0.6-1.56	1.57-4.19	>4.19	4.19-1.57	1.56-0.6
14	-	0.27-0.3	0.31-0.4	0.41-0.61	0.41-0.61	0.62-1.62	1.63-4.34	>4.34	4.34-1.63	1.62-0.62
13	-	0.29-0.32	0.33-0.43	0.44-0.66	0.44-0.66	0.67-1.74	1.75-4.68	>4.68	4.68-1.75	1.74-0.67
-	2,00	0.3-0.33	0.34-0.44	0.45-0.67	0.45-0.67	0.68-1.78	1.79-4.79	>4.79	4.79-1.79	1.78-0.68
12	-	0.32-0.35	0.36-0.46	0.47-0.71	0.47-0.71	0.72-1.89	1.9-5.07	>5.07	5.07-1.9	1.89-0.72
11.5	-	0.33-0.37	0.38-0.49	0.5-0.74	0.5-0.74	0.75-1.97	1.98-5.29	>5.29	5.29-1.98	1.97-0.75
11	-	0.34-0.38	0.39-0.51	0.52-0.78	0.52-0.78	0.79-2.06	2.07-5.53	>5.53	5.53-2.07	2.06-0.79
-	2,50	0.37-0.42	0.43-0.55	0.56-0.84	0.56-0.84	0.85-2.23	2.24-5.98	>5.98	5.98-2.24	2.23-0.85
10	-	0.38-0.42	0.43-0.56	0.57-0.86	0.57-0.86	0.87-2.27	2.28-6.08	>6.08	6.08-2.28	2.27-0.87
9	-	0.42-0.47	0.48-0.62	0.63-0.95	0.63-0.95	0.96-2.52	2.53-6.75	>6.75	6.75-2.53	2.52-0.96
-	3,00	0.45-0.5	0.51-0.66	0.67-1.02	0.67-1.02	1.03-2.68	2.69-7.18	>7.18	7.18-2.69	2.68-1.03
8	-	0.47-0.53	0.54-0.7	0.71-1.08	0.71-1.08	1.09-2.84	2.85-7.6	>7.60	7.6-2.85	2.84-1.09
-	3,50	0.52-0.59	0.6-0.77	0.78-1.19	0.78-1.19	1.2-3.13	3.14-8.38	>8.38	8.38-3.14	3.13-1.2
7	-	0.524-0.61	0.62-0.8	0.81-1.23	0.81-1.23	1.24-3.25	3.26-8.68	>8.68	8.68-3.26	3.25-1.24
-	4,00	0.6-0.67	0.68-0.89	0.9-1.36	0.9-1.36	1.37-3.58	3.59-9.57	>9.57	9.57-3.59	3.58-1.37
6	-	0.63-0.71	0.72-0.94	0.95-1.44	0.95-1.44	1.45-3.79	3.8-10.13	>10.13	10.13-3.8	3.79-1.45
-	5,00	0.75-0.84	0.85-1.11	1.12-1.7	1.12-1.7	1.71-4.48	4.49-11.97	>11.97	11.97-4.49	4.48-1.71
5	-	0.76-0.86	0.87-1.13	1.14-1.73	1.14-1.73	1.74-4.55	4.56-12.16	>12.16	12.16-4.56	4.55-1.74
4.5	-	0.84-0.95	0.96-1.26	1.27-1.92	1.27-1.92	1.93-5.06	5.07-13.51	>13.51	13.51-5.07	5.06-1.93
-	6,00	0.9-1.01	1.02-1.33	1.34-2.04	1.34-2.04	2.05-5.37	5.38-14.36	>14.36	14.36-5.38	5.37-2.05
4	-	0.95-1.07	1.08-1.41	1.42-2.16	1.42-2.16	2.17-5.69	5.7-15.2	>15.20	15.2-5.7	5.69-2.17
inclination angle			4.5	3.5	2.5	1.5	0.5	0.0	-0.5	-1.5
			standard helix (feed toward the chuck)					reverse helix (feed away from the chuck)		

1. Select TPI or pitch from the left-hand columns.
2. Follow row to specified pitch diameter and the correct feed direction.
3. Follow the column to the top for the required shim based on the toolholder and insert size.



standard helix method:
Used when RH thread is cut with RH tool
or LH thread with LH tool.



reverse helix method:
Used when RH thread is cut with LH tool
or when LH thread is cut with RH tool.



Application Specific

Fix-Perfect.....	E2-E23
Top Notch Profiling	E24-E49
Railroad Machining	E50-E67
K-Lock Inserts	E68 -E71

➤ **Fix-Perfect™**

Precision Ground Insert Program Goes Above and Beyond!

The breakthrough performance characteristics of these precision ground inserts enable outstanding indexing accuracy and excellent chip flow when machining steel, cast iron, and stainless steel workpiece materials.

Fix-Perfect Beyond inserts are the ideal solution to machining operations in a multitude of industries, including fluid power, energy, automotive, heavy equipment, and general engineering applications.

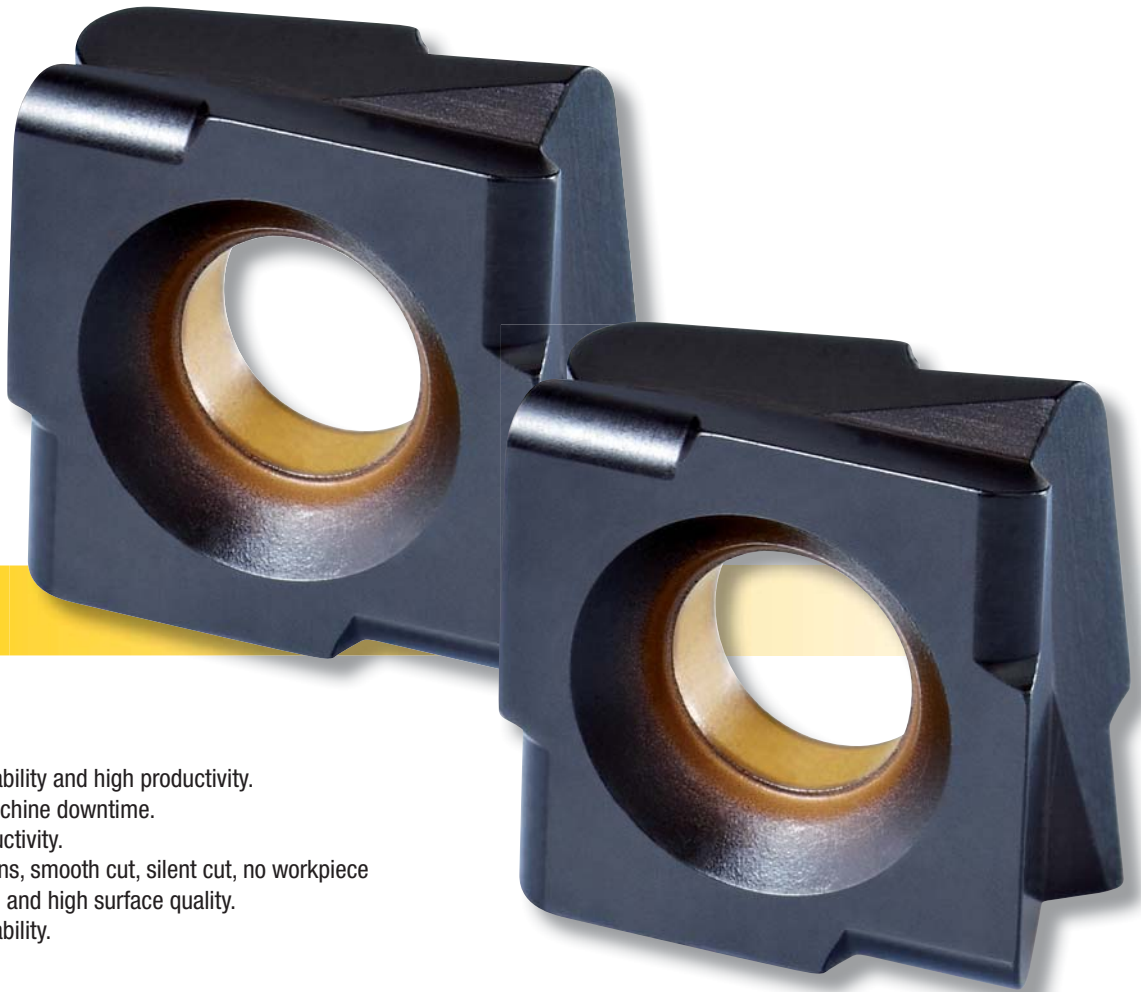
Features, Functions, and Benefits

Features

- Tangential design.
- Rigid clamping system.
- Up to eight cutting edges (protected by pocket seat).
- Positive geometry.
- Precision ground insert.

Functions

- Stable system.
- Very stable clamping system and quick and easy cutting edge switch.
- Use up to eight edges per insert.
- Very low cutting forces and excellent chip control.
- Better indexing accuracy.

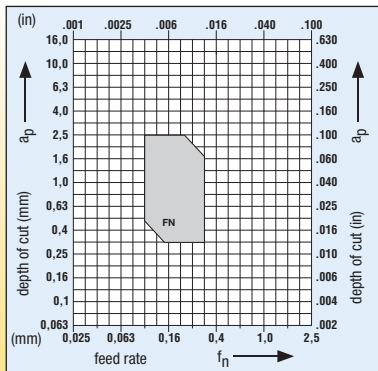
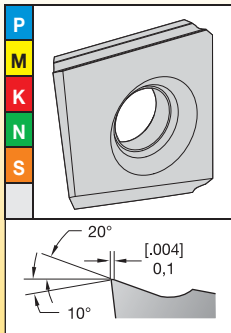


Benefits

- Process reliability and high productivity.
- Reduced machine downtime.
- Higher productivity.
- Low vibrations, smooth cut, silent cut, no workpiece deformation, and high surface quality.
- Process reliability.

Finishing

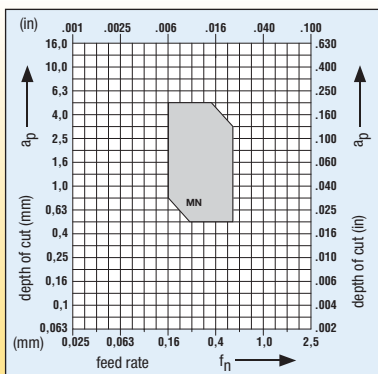
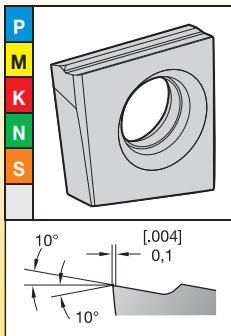
D2FIX-FN



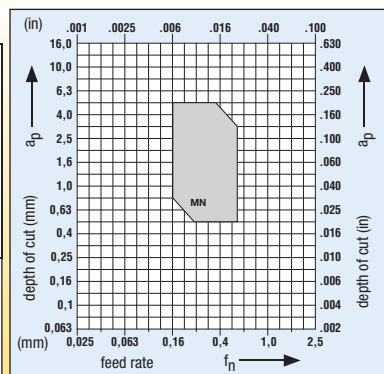
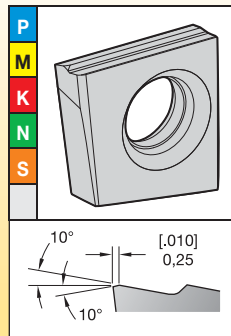
P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

Medium Machining

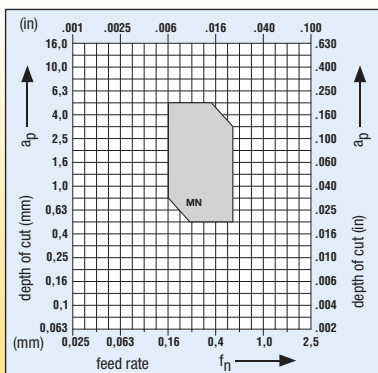
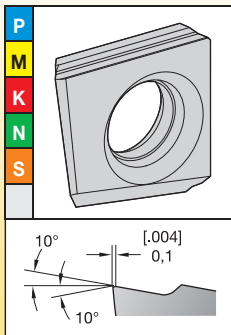
C2FIX15-MN



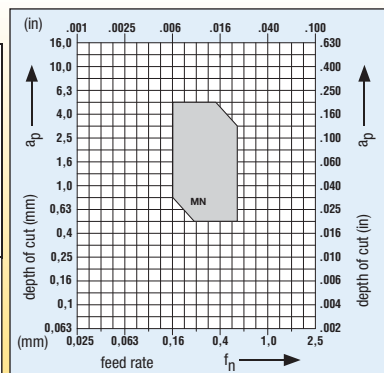
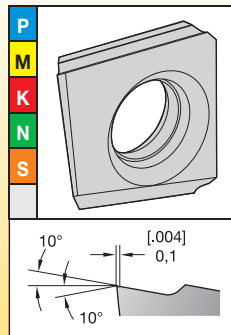
C2FIX18-MN



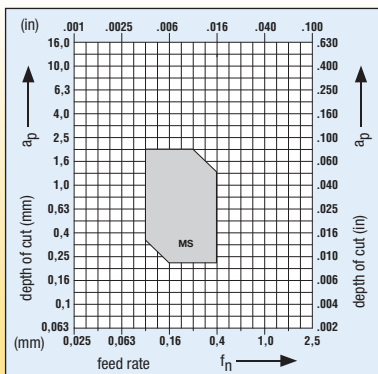
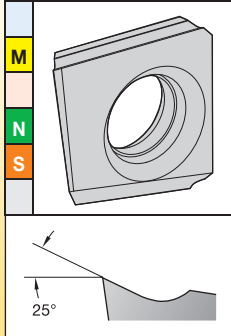
D2FIX-MN



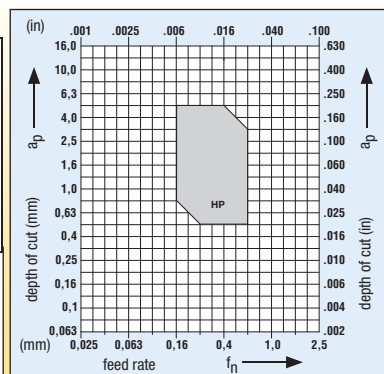
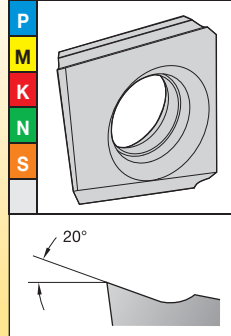
K2FIX-MN



D2FIX-MS

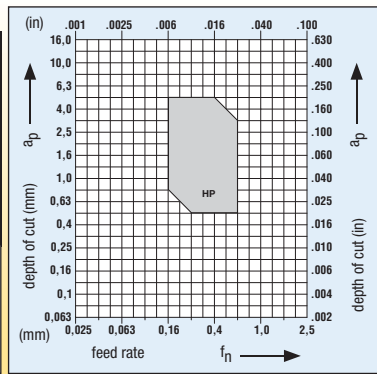
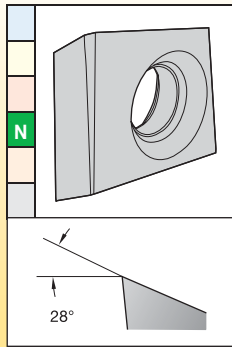


D2FIX-HP



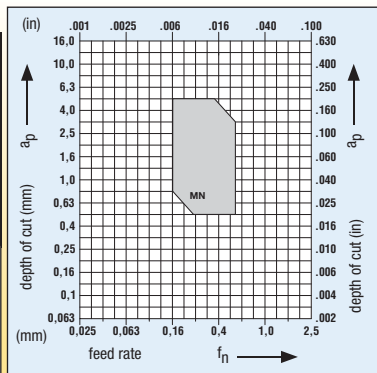
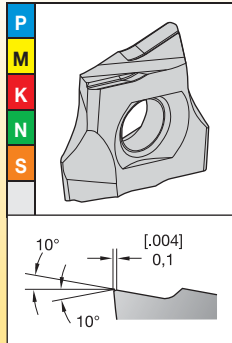
Medium Machining

E2FIX-HP

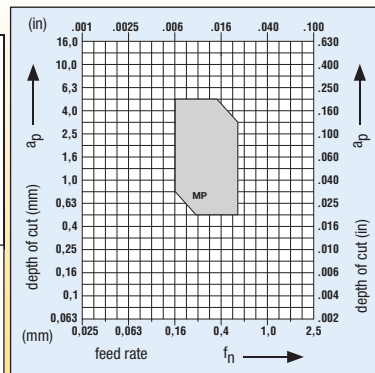
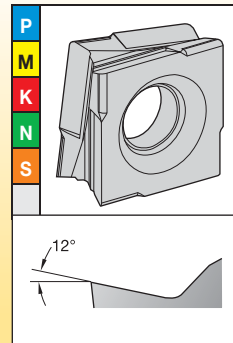


P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous Materials
S	High-Temp Alloys
H	Hardened Materials

D4FIX-MN

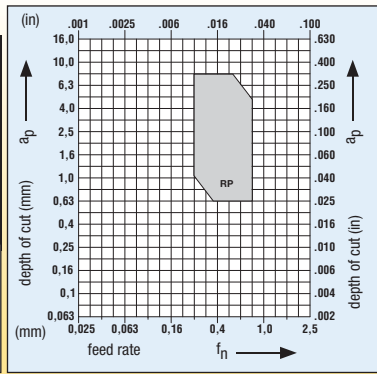
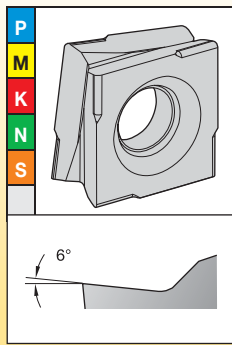


C8FIX-MP

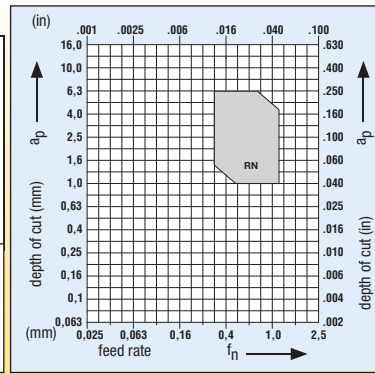
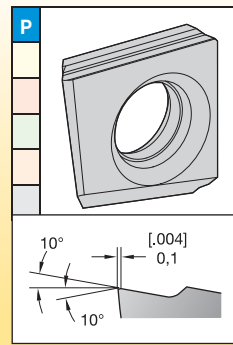


Roughing

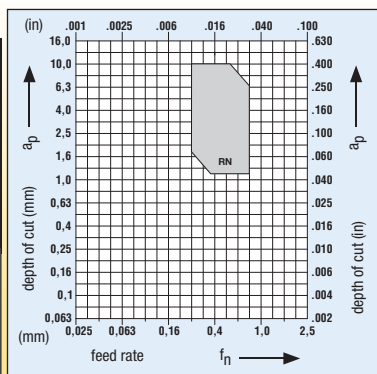
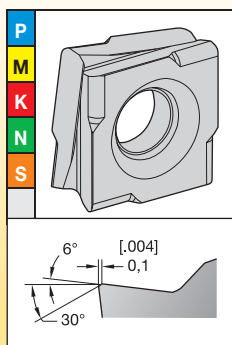
C8FIX-RP



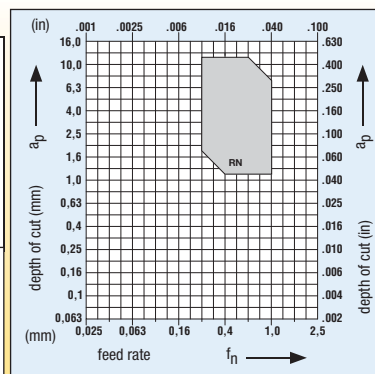
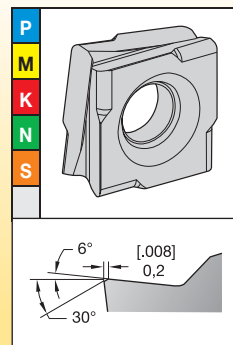
D2FIX-RN



C8FIX15-RN



C8FIX18-RN



Select the Insert Geometry

8-Edged Inserts

Roughing

Interrupted cut and/or heavy scale
USE: -RP OR -RN



-RP



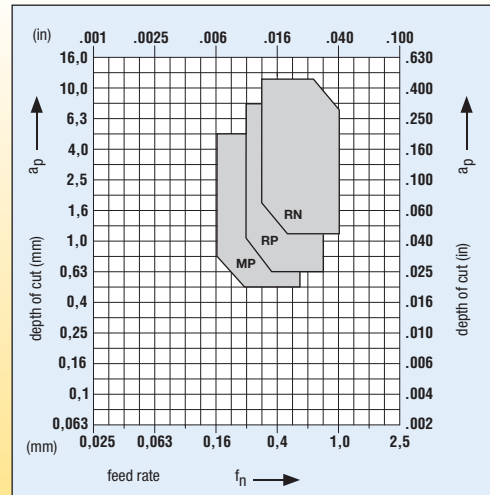
-RN

Medium Turning

Slightly interrupted cut and/or slight scale
USE: -MP



-MP



2- and 4-Edged Inserts

Roughing

Interrupted cut and/or heavy scale
USE: -RN



-RN

Medium Turning

Slightly interrupted cut and/or slight scale
USE: -MN



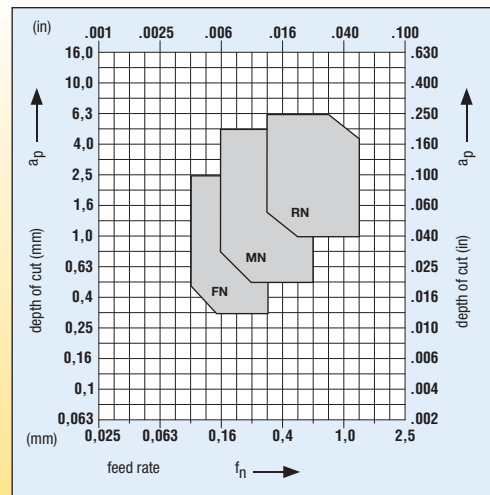
-MN

Finishing

Non-interrupted cut, not scale
USE: FN



-FN



2-Edged Inserts, High Positive

Medium Turning

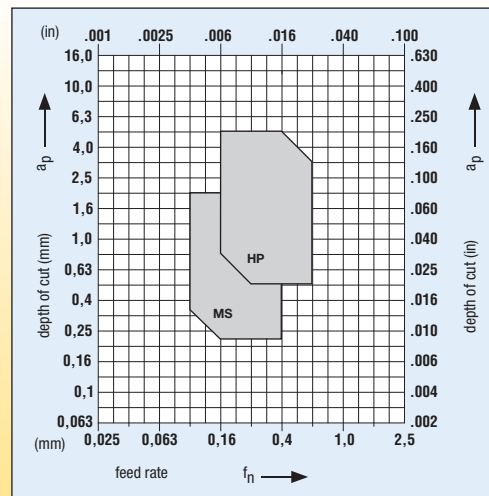
Slightly interrupted cut and/or slight scale
USE: -HP OR -MS



-HP



-MS



Select the grade

	P	M	K	N	S	H
heavily interrupted	KCP40/KCU25	KCU25/KCP40	KCP25/KCU25	KCU25	KCU25	–
lightly interrupted	KCP25/KCU25	KCU25/KCP40	KCP25/KCU25	KCU25	KCU25	–
varying depths of cut	KCP10/KCU10	KCU10/KCM15	KCP10/KCU10	KCU10	KCU10	KCU10
smooth	KCP10/KCU10	KCU10/KCM15	KCP10/KCU10	KCU10	KCU10	KCU10

Select the cutting speed

Steel starting conditions

material group	grade	speed — m/min (SFM)									m/min	SFM
		60 (200)	90 (300)	120 (400)	105 (500)	185 (617)	215 (717)	245 (800)	275 (900)	300 (1000)		
P	KCP40										150	500
	KCU10										200	650
	KCP25										200	650
	KCP10										250	180

Stainless Steel starting conditions

material group	grade	speed — m/min (SFM)									m/min	SFM
		45 (150)	70 (233)	90 (300)	115 (383)	140 (467)	165 (550)	185 (617)	210 (700)	230 (767)		
M	KCP40										140	450
	KCM15										165	550
	KCU25										165	550
	KCU10										185	600

Cast Iron starting conditions

material group	grade	speed — m/min (SFM)									m/min	SFM
		90 (300)	135 (450)	180 (600)	225 (750)	275 (900)	320 (1050)	360 (1200)	410 (1350)	460 (1500)		
K	KCU25										140	450
	KCU10										165	550
	KCP25										165	550
	KCP10										185	600

Non-Ferrous starting conditions

material group	grade	speed — m/min (SFM)									m/min	SFM
		150 (500)	225 (750)	300 (1000)	380 (1267)	460 (1533)	535 (1783)	610 (2033)	685 (2283)	760 (2533)		
N	KCU10										460	1500

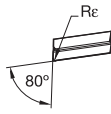
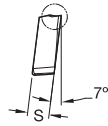
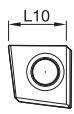
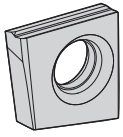
High-Temperature Alloys starting conditions

material group	grade	speed — m/min (SFM)									m/min	SFM
		35 (117)	45 (150)	55 (183)	65 (217)	75 (250)	85 (283)	95 (317)	120 (400)	140 (467)		
S	KCU25										45	150
	KCU10										60	200

Hardened Steel starting conditions

material group	grade	speed — m/min (SFM)									m/min	SFM
		5 (17)	15 (50)	25 (83)	35 (117)	45 (150)	55 (183)	65 (217)	75 (250)	85 (283)		
H	KCU10										30	100

beyond



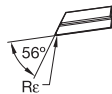
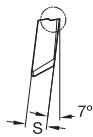
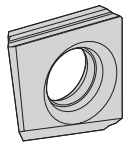
● first choice
○ alternate choice

P	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○
K	●	●	●	●	●	●	●
N	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○

■ C2FIX-MN

Application Specific

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
C2FIX110404RMN	10,70	.423	4,00	.157	0,40	.016	-	-	-	-	●	-
C2FIX110405RMN	10,70	.432	4,00	.157	0,50	.020	-	●	●	-	-	-
C2FIX150510RMN	14,50	.572	5,00	.197	1,00	.039	-	●	-	-	-	-
C2FIX150512RMN	14,50	.571	5,00	.197	1,20	.048	-	-	-	-	-	●
C2FIX150505RMN	14,70	.578	5,00	.197	0,50	.020	-	●	-	-	-	-
left hand												
C2FIX110404LMN	10,70	.423	4,00	.157	0,40	.016	-	-	-	-	-	●
C2FIX110405LMN	10,70	.423	4,00	.157	0,50	.020	-	●	●	-	●	-
C2FIX110408LMN	10,70	.419	4,00	.157	0,80	.032	-	●	-	-	-	-
C2FIX150510LMN	14,50	.571	5,00	.197	1,00	.039	-	●	●	-	-	-
C2FIX150508LMN	14,60	.574	5,00	.197	0,80	.032	-	●	-	-	●	●
C2FIX150504LMN	14,70	.578	5,00	.197	0,40	.016	-	-	●	-	-	●
C2FIX150505LMN	14,70	.578	5,00	.197	0,50	.020	-	●	●	-	●	-
C2FIX180610LMN	17,50	.689	6,00	.236	1,00	.039	-	●	●	-	●	-

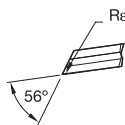
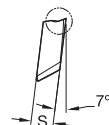
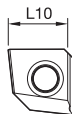
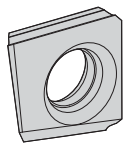


● first choice
○ alternate choice

P	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○
K	●	●	●	●	●	●	●
N	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○

■ D2FIX-MN

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
D2FIX110405RMN	10,50	.413	4,00	.157	0,50	.020	-	●	●	-	-	-
D2FIX150508RMN	14,20	.560	5,00	.197	0,80	.032	-	●	-	-	-	-
D2FIX150505RMN	14,50	.571	5,00	.197	0,50	.020	●	●	●	-	-	-
D2FIX150504RMN	14,60	.575	5,00	.197	0,40	.016	-	●	-	-	-	-
D2FIX150503RMN	14,70	.579	5,00	.197	0,30	.012	-	●	-	-	-	-
left hand												
D2FIX110405LMN	10,50	.413	4,00	.157	0,50	.020	-	●	●	-	-	-
D2FIX150508LMN	14,20	.560	5,00	.197	0,80	.032	-	●	-	-	-	-
D2FIX150505LMN	14,50	.571	5,00	.197	0,50	.020	-	●	-	-	-	-



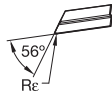
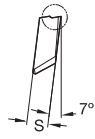
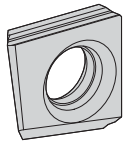
■ D2FIX-HP

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
D2FIX110404RHP	10,00	.394	4,00	.157	0,40	.016	-	-	-	-	-	●
D2FIX110403RHP	10,10	.396	4,00	.157	0,30	.012	-	●	-	-	●	-
D2FIX150508RHP	13,60	.535	5,00	.197	0,80	.032	-	-	-	-	●	●
D2FIX150504RHP	14,00	.551	5,00	.197	0,40	.016	-	-	-	-	●	●
D2FIX150503RHP	14,10	.554	5,00	.197	0,30	.012	-	●	-	-	●	-
left hand												
D2FIX110403LHP	10,10	.396	4,00	.157	0,30	.012	-	-	-	-	●	-
D2FIX150508LHP	13,60	.535	5,00	.197	0,80	.032	-	-	-	-	●	-
D2FIX150503LHP	14,10	.554	5,00	.197	0,30	.012	-	-	-	-	●	-



Application Specific

beyond



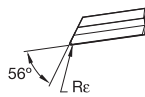
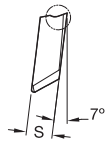
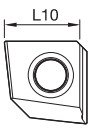
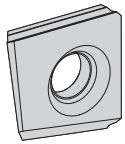
● first choice
○ alternate choice

P	●	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○	○
K	●	●	●	●	●	●	●	●
N	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○
H								

■ D2FIX-MS

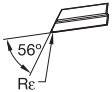
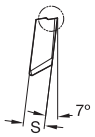
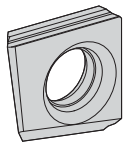
Application Specific

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
D2FIX150505RMS	13,90	.549	5,00	.197	0,50	.020	-	-	-	-	●	-
D2FIX150503RMS	14,10	.554	5,00	.197	0,30	.012	-	-	-	-	●	-
left hand												
D2FIX150505LMS	13,90	.549	5,00	.197	0,50	.020	-	-	-	-	●	-
D2FIX150503LMS	14,10	.554	5,00	.197	0,30	.012	-	-	-	-	●	-



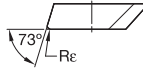
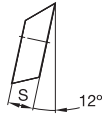
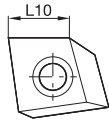
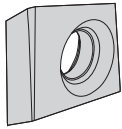
■ D2FIX-FN

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
D2FIX150505RFN	13,90	.549	5,00	.197	0,50	.020	-	●	-	-	●	-



■ D2FIX-RN

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
D2FIX150505RRN	14,50	.571	5,00	.197	0,50	.020	●	-	●	-	-	-
left hand												
D2FIX150505LRN	14,50	.571	5,00	.197	0,50	.020	-	●	-	-	-	-

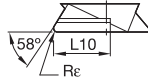
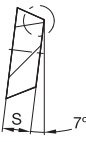
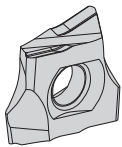


- first choice
- alternate choice

P	●	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○	○
K	●	●	●	●	●	●	●	●
N	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○

E2FIX-HP

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
E2FIX100505RHP	10,50	.413	5,00	.197	0,50	.020	-	-	-	-	●	-
left hand												
E2FIX100505LHP	10,50	.413	5,00	.197	0,50	.020	-	-	-	-	●	-

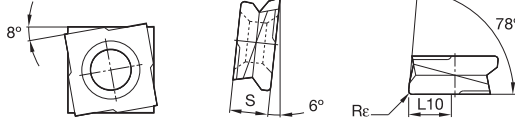
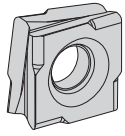


D4FIX-MN

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
D4FIX140608RMN	6,70	.264	5,90	.233	0,80	.031	●	●	-	-	●	●
D4FIX140605RMN	7,00	.276	5,90	.233	0,50	.020	●	●	-	-	-	-
D4FIX140604RMN	7,10	.280	5,90	.233	0,40	.016	-	-	●	-	-	●
D4FIX140603RMN	7,20	.283	5,90	.232	0,30	.012	●	●	-	-	-	-
left hand												
D4FIX140608LMN	6,70	.264	5,90	.233	0,80	.031	-	●	-	-	-	-



beyond



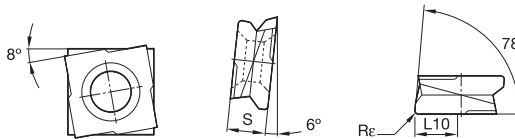
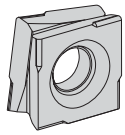
● first choice
○ alternate choice

P	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○
K	●	●	●	●	●	●	●
N	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○

■ C8FIX-RN

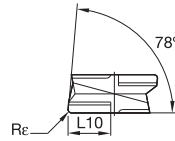
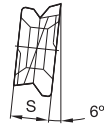
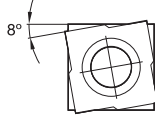
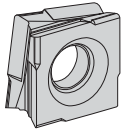
Application Specific

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
C8FIX150612RRN	8,60	.339	6,60	.260	1,20	.047	-	●	-	-	-	-
C8FIX150608RRN	8,90	.350	6,60	.260	0,80	-	●	●	-	-	-	●
C8FIX150605RRN	9,10	.358	6,60	.260	0,50	.020	●	●	●	-	●	●
C8FIX180812RRN	10,60	.417	7,90	.311	1,20	-	-	●	●	-	-	●
C8FIX180808RRN	10,90	.429	7,90	.311	0,80	-	-	●	●	-	-	-
left hand												
C8FIX150612LRN	8,60	.339	6,60	.260	1,20	.047	-	●	-	-	-	-
C8FIX150608LRN	8,90	.350	6,60	.260	0,80	-	-	●	-	-	-	●
C8FIX150605LRN	9,10	.358	6,60	.260	0,50	.020	-	●	●	-	-	●
C8FIX180812LRN	10,60	.417	7,90	.311	1,20	-	-	●	-	-	-	-



■ C8FIX-RP

catalog number	L10		S		Re		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
C8FIX120508RRP	6,90	.272	5,50	.217	0,80	.031	●	●	-	-	-	-
C8FIX120505RRP	7,10	.280	5,50	.217	0,50	.020	-	●	-	-	-	●
C8FIX120504RRP	7,20	.283	5,50	.217	0,40	.016	●	●	-	-	-	-
C8FIX120503RRP	7,30	.287	5,50	.217	0,30	.012	-	●	●	-	-	-
left hand												
C8FIX120508LRP	6,90	.272	5,50	.217	0,80	.031	-	●	●	-	-	-
C8FIX150612LRP	7,80	.306	6,60	.260	1,20	.047	-	●	-	-	-	-
C8FIX150608LRP	8,80	.345	6,60	.260	0,80	.031	-	-	-	-	-	●



● first choice
○ alternate choice

P	●	●	●	●	●	●	●
M	○	○	○	○	○	○	○
K	●	●	●	●	●	●	●
N	●	●	●	●	●	●	●
S	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○

■ C8FIX-MP

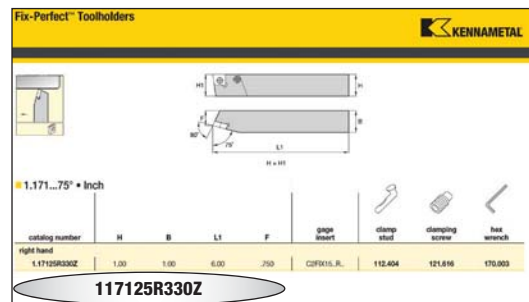
catalog number	L10		S		Rε		KCP10	KCP25	KCP40	KCM15	KCU10	KCU25
	mm	in	mm	in	mm	in						
right hand												
C8FIX120503RMP	7,30	.287	5,50	.217	0,30	.012	-	●	-	-	●	●
C8FIX150603RMP	9,30	.366	6,60	.260	0,30	.012	●	●	-	-	●	●
C8FIX180805RMP	11,10	.437	7,90	.311	0,50	.020	-	●	-	-	-	-
left hand												
C8FIX120503LMP	7,30	.287	5,50	.217	0,30	.012	●	●	-	-	●	-
C8FIX150603LMP	9,30	.366	6,60	.260	0,30	.012	-	●	-	-	-	-



Application Specific

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding image to easily identify which attributes apply.



Metric/Inch	1	1	71	25	R	3	3	0	Z
Turning Program	1	1	71	25	R	3	3	0	Z
Number of Cutters	1	1	71	25	R	3	3	0	Z
Version	1	1	71	25	R	3	3	0	Z
Shaft Dimensions	1	1	71	25	R	3	3	0	Z
Direction of Working	1	1	71	25	R	3	3	0	Z
Insert Size and Type	1	1	71	25	R	3	3	0	Z
Insert Shape	1	1	71	25	R	3	3	0	Z
Clamping Screw Support	1	1	71	25	R	3	3	0	Z
Inch Toolholder	1	1	71	25	R	3	3	0	Z

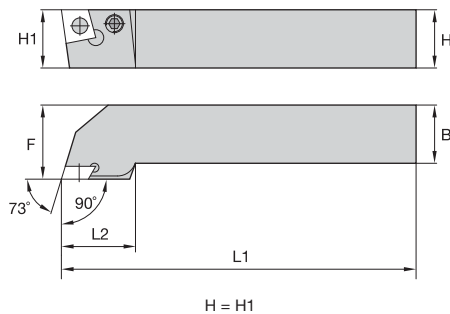
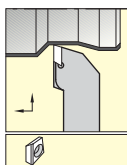
1 =	1 =	71 =	25 =	R =	3 =	3 =	0 =	Z =
Fix-Perfect	Inserts with 2 cutting edges	Version	Shaft Dimensions	Direction of Working	Insert Size and Type	Insert Shape	Clamping Screw Support	Inch Toolholder
	Inserts with 4 cutting edges			R = Right L = Left			Activated from main cutting edge	
	Inserts with 8 cutting edges						1 = Minor cutting edge	
							2 = Above	
							5 = Main cutting edge with sharp-edged full cartridge	
							6 = Minor cutting edge with sharp-edged full cartridge	

08 = 90° or 93° setting, for machining aluminum	30 = 75° setting angle	71 = 75° setting angle	72 = 45° setting angle	16 = 92° setting angle	77 = 90° setting angle	20 = 92° setting angle	80 = 90° or 93° setting angle	22 = 92° setting angle

L	cutting edges
0	8mm 4 20mm 4 25mm 4
1	10,5mm 2 12mm 8
3	14,5mm 2 15mm 8
4	17,5mm 2 18mm 8
5	23,5mm 2 21mm 8
7	10,5mm 2 Alu

0	1	2	3
50°	56°	58°	80°

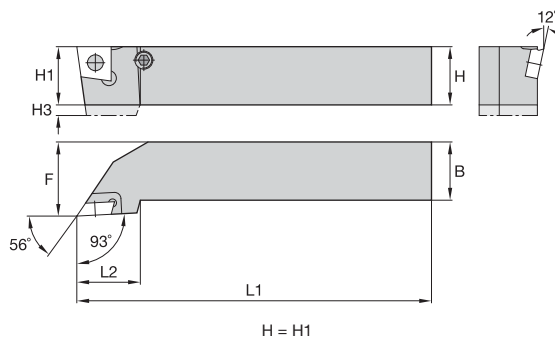
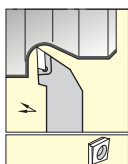
Toolholder	W	H
10 = 10 x 10mm		
11 = 40 x 40mm		
16 = 16 x 16mm		
20 = 20 x 20mm		
21 = 50 x 50mm		
25 = 25 x 25mm		
32 = 32 x 25mm 32 x 32mm		
40 = 40 x 32mm		


1.108...90° • Metric

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.10825R700	25	25	150,0	32,0	E2FIX10..R..	410.081	121.616	170.003

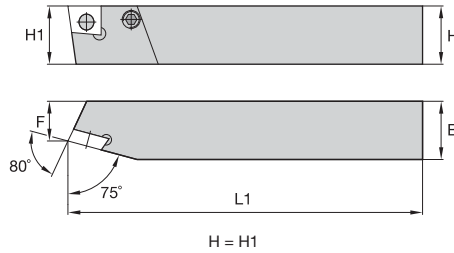
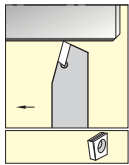


Application Specific


1.108...93° • Metric

catalog number	H	H3	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.10820R310	20	5	20	125,0	25,0	D2FIX15..RHP/FN/MS	112.403	121.612	170.003
1.10825R310	25	—	25	150,0	32,0	D2FIX15..RHP/FN/MS	112.404	121.616	170.003
left hand									
1.10825L310	25	5	25	150,0	32,0	D2FIX15..LHP/FN/MS	112.404	121.616	170.003



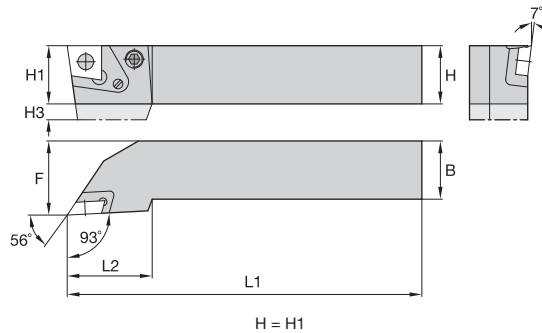
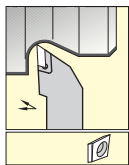


1.171...75° • Metric

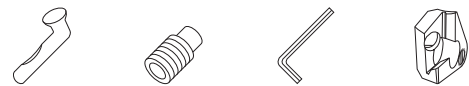
Application Specific



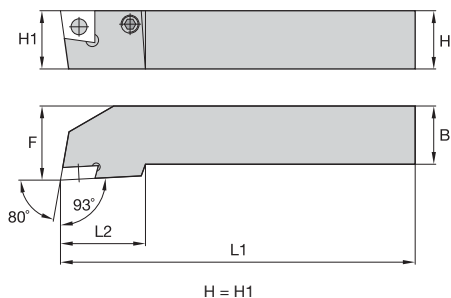
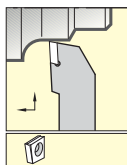
catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
left hand								
1.17125L330	25	25	150,0	17,0	C2FIX15..L..	112.404	121.616	170.003



1.18 • Metric



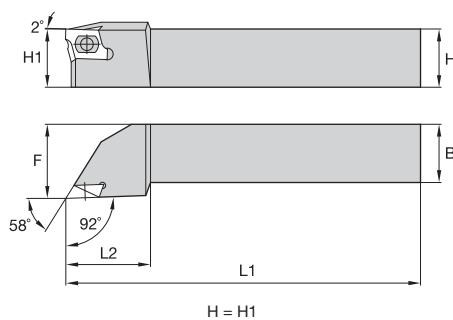
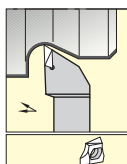
catalog number	H	H3	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench	steel nest assembly
right hand										
1.18016R110	16	4	16	100,0	24,0	D2FIX11..R..	112.244	121.612	170.003	—
1.18020R110	20	—	20	125,0	25,0	D2FIX11..R..	112.244	121.612	170.003	—
1.18020R310	20	5	20	125,0	26,0	D2FIX15..R..	112.403	121.612	170.003	—
1.18025R110	25	—	25	150,0	32,0	D2FIX11..R..	112.244	121.612	170.003	—
1.18025R310	25	—	25	150,0	32,0	D2FIX15..R..	112.404	121.616	170.003	—
1.18025R315	25	7	25	150,0	32,0	D2FIX15..R..	112.505	121.616	170.003	132.151
1.18032R315	32	—	25	170,0	32,0	D2FIX15..R..	112.505	121.616	170.003	132.151
left hand										
1.18016L110	16	4	16	100,0	24,0	D2FIX11..L..	112.244	121.612	170.003	—
1.18020L110	20	—	20	125,0	25,0	D2FIX11..L..	112.244	121.612	170.003	—
1.18025L310	25	—	25	150,0	32,0	D2FIX15..L..	112.404	121.616	170.003	—
1.18025L315	25	7	25	150,0	32,0	D2FIX15..L..	112.505	121.616	170.003	132.156
1.18032L315	32	—	25	170,0	32,0	D2FIX15..L..	112.505	121.616	170.003	132.156


1.180...93° • Metric

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
left hand								
1.18025L330	25	25	150,0	32,0	C2FIX15..L..	112.404	121.616	170.003

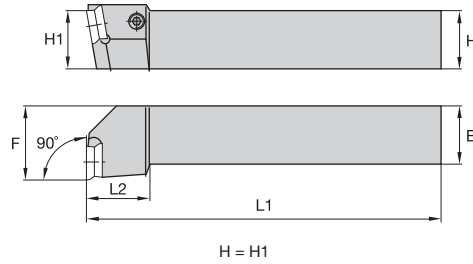
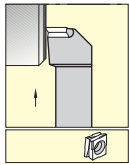


Application Specific


1.380...92° • Metric

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.38020R021	20	20	125,0	25,0	D4FIX..R..	114.111	121.812	170.004
1.38025R021	25	25	150,0	32,0	D4FIX..R..	114.114	121.816	170.004
left hand								
1.38025L021	25	25	150,0	32,0	D4FIX..L..	114.114	121.816	170.004





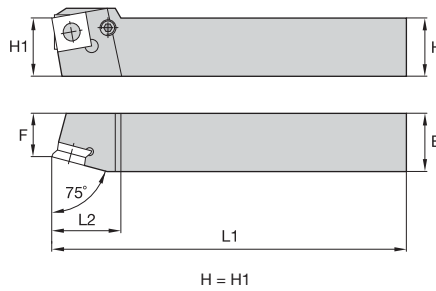
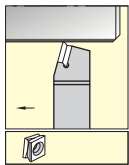
■ 1.777...90° • Metric

Application Specific



catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.77725R301	25	25	150,0	32,0	C8FIX15..L..	118.314	121.816	170.004

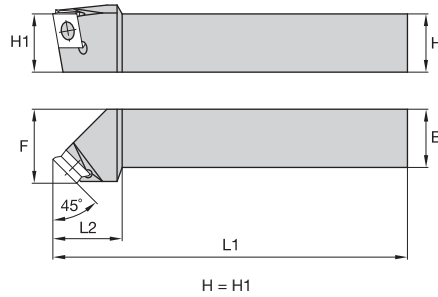
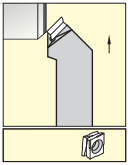
NOTE: Right-hand tool requires left-hand insert.



■ 1.771...75° • Metric



catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.77120R100	20	20	125,0	17,0	C8FIX12..R..	118.204	121.612	170.003
1.77125R300	25	25	150,0	21,0	C8FIX115..R..	410.084	121.816	170.004
1.77132R400	32	32	170,0	27,0	C8FIX18..R..	410.091	—	—
left hand								
1.77120L100	20	20	125,0	17,0	C8FIX12..L..	118.204	121.612	170.003

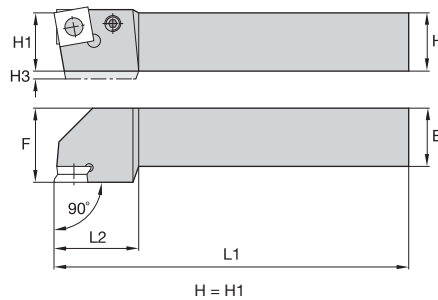
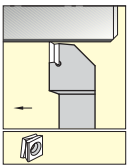


■ 1.772...45° • Metric



catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.77225R301	25	25	150,0	32,0	C8FIX15..L..	118.314	121.816	170.004

NOTE: C8FIX15..L.. is usable for plunging only.
For both plunging and turning, C4FIX15..L.. has to be used.

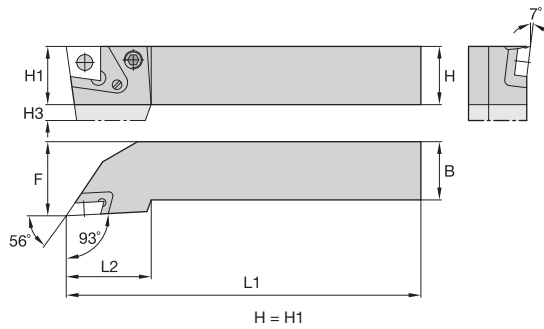
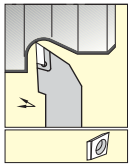


■ 1.780...90° • Metric



catalog number	H	H3	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand									
1.78012R103	12	—	12	80,0	14,0	C8FIX12..R..	—	—	170.003
1.78016R100	16	4	16	100,0	25,0	C8FIX12..R..	118.204	121.616	170.003
1.78020R100	20	—	20	125,0	25,0	C8FIX12..R..	118.204	121.616	170.003
1.78025R100	25	—	25	150,0	32,0	1.81201R...	118.204	121.616	170.003
1.78025R300	25	—	25	150,0	32,0	C8FIX15..R..	410.084	121.816	170.004
1.78032R400	32	—	32	170,0	40,0	C8FIX18..R..	410.091	121.825	170.004
left hand									
1.78025L100	25	—	25	150,0	32,0	1.81202L...	118.204	121.616	170.003
1.78025L300	25	—	25	150,0	32,0	C8FIX15..L..	410.084	121.816	170.004

Application Specific

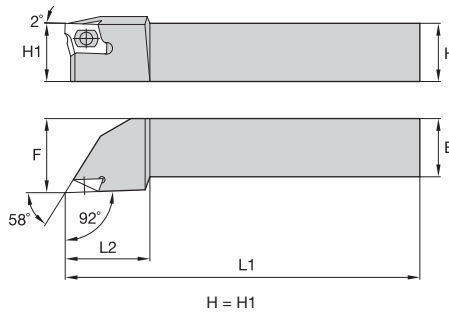
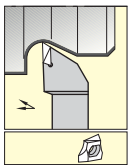


■ 1.18 • Inch

Application Specific



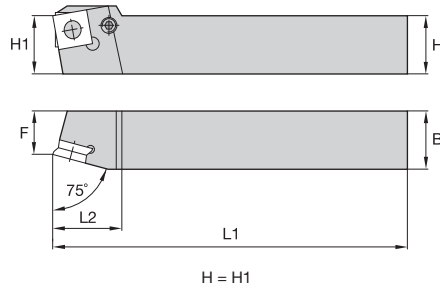
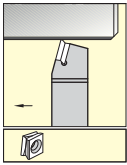
catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.18025R310Z	1.00	1.00	6.00	1.250	D2FIX15..R..	112.404	121.616	170.003



■ 1.380...92° • Inch



catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.38025R021Z	1.00	1.00	6.00	1.250	D4FIX..R..	114.114	121.816	170.004

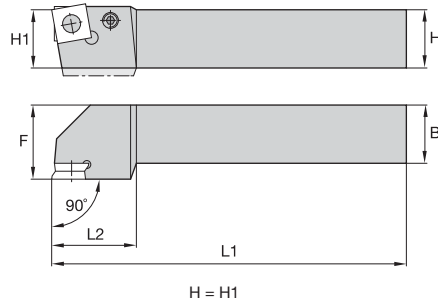
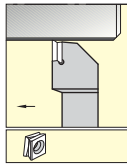


■ 1.771...75° • Inch

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.77125R300Z	1.00	1.00	6.00	.875	C8FIX15..R..	410.084	121.816	170.004



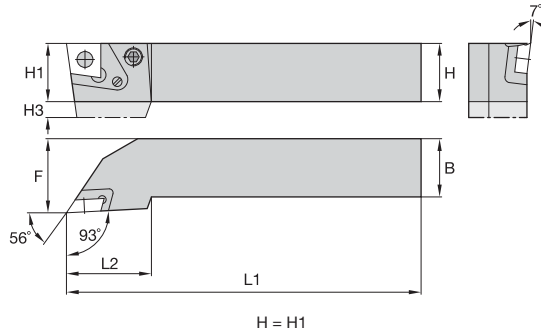
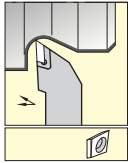
Application Specific



■ 1.78...90° • Inch

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.78025R300Z	1.00	1.00	6.00	1.250	C8FIX15..R..	410.084	121.816	170.004
left hand								
1.78025L300Z	1.00	1.00	6.00	1.250	C8FIX15..L..	410.084	121.816	170.004
1.78032L400Z	1.25	1.25	7.00	1.500	C8FIX18..L..	410.091	121.825	170.004



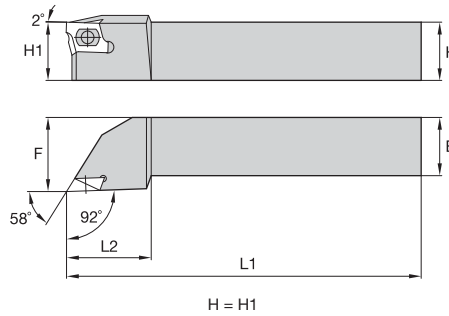
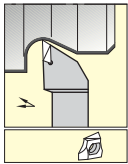


■ 1.18 • Inch

Application Specific



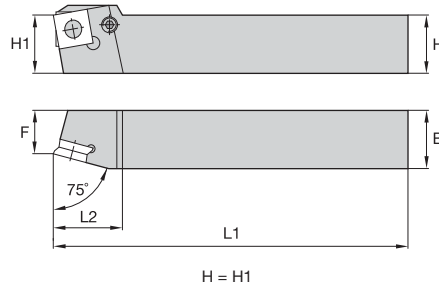
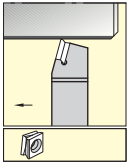
catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.18025R310Z	1.00	1.00	6.00	1.250	D2FIX15..R..	112.404	121.616	170.003



■ 1.380...92° • Inch



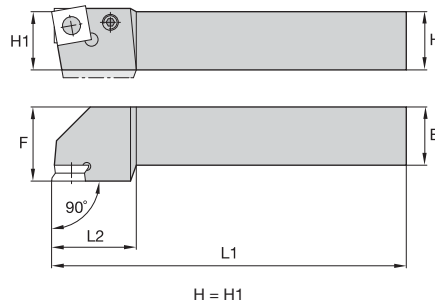
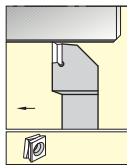
catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.38025R021Z	1.00	1.00	6.00	1.250	D4FIX..R..	114.114	121.816	170.004



■ 1.771...75° • Inch

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.77125R300Z	1.00	1.00	6.00	.875	C8FIX15..R..	410.084	121.816	170.004

Application Specific



■ 1.78...90° • Inch

catalog number	H	B	L1	F	gage insert	clamp stud	clamping screw	hex wrench
right hand								
1.78025R300Z	1.00	1.00	6.00	1.250	C8FIX15..R..	410.084	121.816	170.004
left hand								
1.78025L300Z	1.00	1.00	6.00	1.250	C8FIX15..L..	410.084	121.816	170.004
1.78032L400Z	1.25	1.25	7.00	1.500	C8FIX18..L..	410.091	121.825	170.004

➤ Beyond™ Top Notch™ Profiling

The Top Notch system is the proven solution for high productivity. The Top Notch system provides consistent tool performance, accurate indexing, and superior clamping to provide excellent surface finishing and superior tool life.

Features and Benefits

Beyond™ Grades

Higher Productivity and Profitability

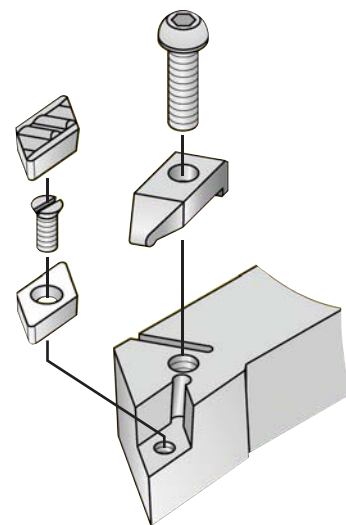
- Lower cutting forces increase speeds and reduce cycle time.
- Extended tool life.

Reliability

- Predictable tool life/uniform wear.
- Resists chip flow damage.
- Consistent surface finish.

Versatility

- Products can be applied across a wide range of applications.
- Use in low- to high-speed applications.
- Complete portfolio of products.
- For finish to rough turning of steel, cast iron, stainless steel, and high-temp alloys.



FP Geometry

- Higher metal removal rate.
- Versatility.
- Long tool life.
- Optimum chip control over wide range of cutting conditions and workpiece materials.
- Improved surface finish.
- Better indexability.
- Less adjustment during insert change.

UF Geometry

- Reduces cutting forces.
- Long tool life.
- Optimum chip control over wide range of cutting conditions.
- Chip control in finishing applications.

HP Geometry

- Reduces cutting forces.
- Long tool life.
- Interference is avoided to improve surface finish of the workpiece.
- Better indexability.
- Good control over job dimensions.
- Reduces workpiece material sticking.



Select the geometry —
based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)										
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200
				(0,04)	(0,063)	(0,01)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(5,0)
				depth of cut — in (mm)										
				.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500
				(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(4,0)	(6,3)	(10,0)
fine finishing	DCGR-UF			.002–.010 (0,1–0,3)										
				.005–.050 (0,1–1,3)										
fine finishing	KCGR-UF			.002–.010 (0,1–0,3)										
				.005–.050 (0,1–1,3)										
finishing	DCGR			.002–.010 (0,1–0,3)										
	KCGR			.004–.014 (0,1–0,4)										
				.010–.080 (0,3–2,0)										
	DCGR-FP			.0025–.015 (0,063–0,25)										
	DCGR-HP			.004–.014 (0,1–0,4)										
				.010–.080 (0,3–2,0)										
	KCGR-FP			.0025–.015 (0,063–0,25)										
.006–.060 (0,16–1,6)														
KCGR-HP			.0025–.015 (0,063–0,25)											
				.006–.060 (0,16–1,6)										

■ Select the geometry — based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)											
				.0015	.0025	.004	.006	.010	.016	.025	.040	.060	.100	.200	
				(0,04)	(0,063)	(0,01)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(5,0)	
				depth of cut — in (mm)											
				.004	.006	.010	.016	.025	.040	.060	.100	.160	.250	.500	
				(0,1)	(0,16)	(0,25)	(0,4)	(0,63)	(1,0)	(1,6)	(2,5)	(4,0)	(6,3)	(10,0)	
fine finishing	VBMR-UF			.002-.010 (0,1-0,3)											
				.005-.050 (0,1-1,3)											
fine finishing	VCMR-UF			.002-.010 (0,1-0,3)											
				.005-.050 (0,1-1,3)											
fine finishing	VPGR-UF			.002-.010 (0,1-0,3)											
				.005-.050 (0,1-1,3)											
finishing	VBMR			.004-.014 (0,1-0,4)											
				.010-.080 (0,3-2,0)											
	VBMR-FP			.0025-.015 (0,063-0,25)											
				.006-.060 (0,16-1,6)											
	VCGR			.004-.014 (0,1-0,4)											
.010-.080 (0,3-2,0)															
VCMR-FP			.0025-.015 (0,063-0,25)												
			.006-.060 (0,16-1,6)												
VPGR-FP			.0025-.015 (0,063-0,25)												
			.006-.060 (0,16-1,6)												

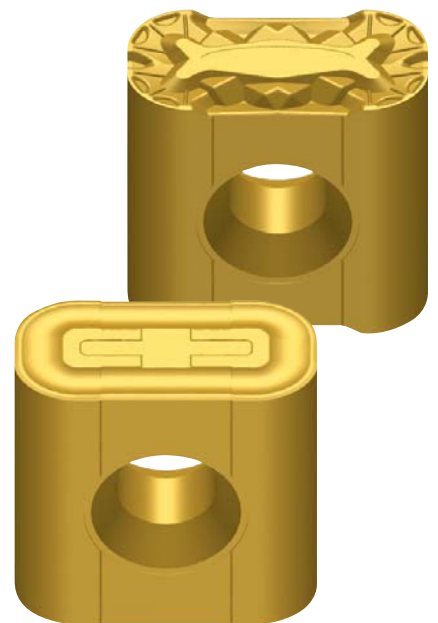
■ Select the geometry —
based on feed rate and depth of cut

P	Steel
M	Stainless Steel
K	Cast Iron
N	Non-Ferrous
S	High-Temp Alloys
H	Hardened Materials

operation	insert style application	insert geometry	profile	feed rate — in (mm)											
				.0015 (0,04)	.0025 (0,063)	.004 (0,01)	.006 (0,16)	.010 (0,25)	.016 (0,4)	.025 (0,63)	.040 (1,0)	.060 (1,6)	.100 (2,5)	.200 (5,0)	
				depth of cut — in (mm)											
finishing	VPGR-HP			.007–.015 (0,2–0,4)											
				.025–.090 (0,6–2,3)											
finishing	KNGX-15			.006–.016 (0,2–0,4)											
				.030–.110 (0,8–2,8)											
finishing	KNGX-20			.008–.018 (0,2–0,5)											
				.040–.120 (1,0–3,0)											
finishing	KNGX-25			.010–.022 (0,3–0,6)											
				.045–.140 (1,1–3,6)											
finishing	KNGX-32			.012–.026 (0,3–0,7)											
				.060–.200 (1,5–5,1)											

Kennametal Tools for **Railways** and **Wheel Machining**

Kennametal offers a complete line of tooling for wheel and axle maintenance in railroad shops. All tools incorporate the latest technology for maximum metal removal and higher productivity. They are proven performers in actual use over extended periods of time, under a wide range of operating conditions. Standard off-the-shelf inserts and fewer pieces of hardware reduce inventory and operating costs. Included in this range are tools for reconditioning mounted wheel sets, wheel boring, wheel truing, axle turning, and journal burnishing.



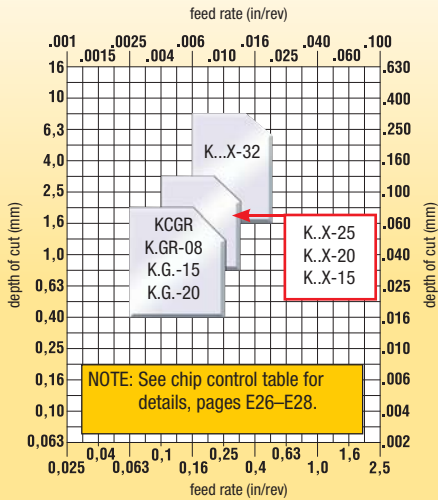
Experience the advantages at your Authorized Kennametal Distributor or at kennametal.com.



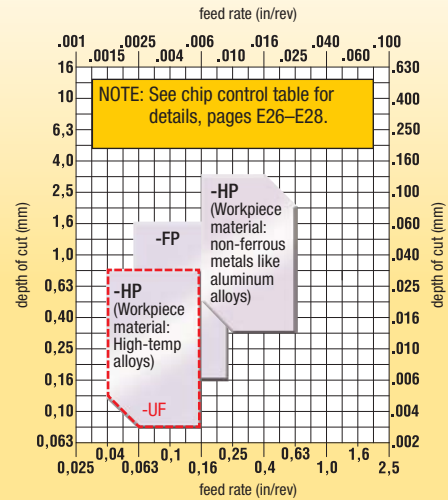
kennametal.com

Step 1 • Select the insert geometry

Negative Inserts



Positive Inserts



Chip Control Range	
-UF:	feed 0,08–0,3 mm/rev; DOC 0,1–1,3mm
-FP:	feed 0,1–0,3 mm/rev; DOC 0,1–1,3mm
-HP:	feed 0,2–0,4 mm/rev; DOC 0,6–2,3mm

Step 2 • Select the grade

cutting condition	Symbol	Steel			Stainless Steel		
		Finishing	Medium Machining	Roughing	Finishing	Medium Machining	Roughing
heavily interrupted cut	⚙️	KCP25	KCM25	KCM25	KCM25	KCM25	KCM25
lightly interrupted cut	⚙️	KCP10	KCP25	KCP25	KC5010/KCU10	KC5025/KCU25	KC5025/KCU25
varying depth of cut, casting, or forging skin	⚙️	KT315	KCP25	KCP25	KT315	KCM25	KCM25
smooth cut, pre-turned surface	⚙️	KT315	KCP05/KCP10	KCP10	KT315	KC5010/KCU10	KCM25

cutting condition	Symbol	Cast Iron			Non-Ferrous		
		Finishing	Medium Machining	Roughing	Finishing	Medium Machining	Roughing
heavily interrupted cut	⚙️	KCP10	KCP10	KCP10	KC5010/KCU10	KC5010/KCU10	KC5010/313/KCU10
lightly interrupted cut	⚙️	KCP05	KCP05	KCP05	KC5410/KD1425	KC5010/KCU10	KC5010
varying depth of cut, casting, or forging skin	⚙️	KCK05	KCK05	KCK05	KD1425	KC5410	KC5410
smooth cut, pre-turned surface	⚙️	KC5010/KCU10	KC5010/KCU10	KC5010/KCU10	KD1425	KC5410	KC5410

High-Temperature Alloys

cutting condition	Symbol	High-Temperature Alloys		
		Finishing	Medium Machining	Roughing
heavily interrupted cut	⚙️	KC5025/KUC25	K68	K68
lightly interrupted cut	⚙️	KC5010	KC5010	KCM25
varying depth of cut, casting, or forging skin	⚙️	KC5010	KC5010	KC5010
smooth cut, pre-turned surface	⚙️	KC5010/KCU10/K313	KC5010/KCU10	KC5010

■ Step 3 • Select the cutting speed

Steel speed — m/min (SFM) starting conditions

material group	grade	50 (170)	100 (330)	150 (490)	200 (655)	250 (820)	300 (980)	350 (1150)	400 (1300)	m/min	SFM
P	KT315									260	850
	KCP05/KCP10									340	800
	KCP25									180	600
	KCM25									165	550

Stainless Steel speed — m/min (SFM) starting conditions

material group	grade	50 (170)	100 (330)	150 (490)	200 (655)	250 (820)	300 (980)	350 (1150)	400 (1300)	m/min	SFM
M	KT315									230	750
	KC5010/KCU10									180	600
	KC5025/KCU25									120	400
	KCM25									150	500

Cast Iron speed — m/min (SFM) starting conditions

material group	grade	150 (490)	200 (655)	250 (820)	300 (980)	350 (1150)	400 (1300)	500 (1600)	750 (2400)	m/min	SFM
K	KB1345									760	2520
	KT315									275	900
	KC5010/KCU10									245	800
	KCK20									245	800
	KCP25									230	750

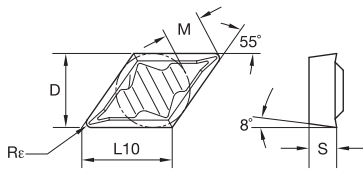
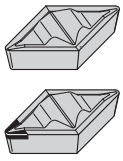
Non-Ferrous speed — m/min (SFM) starting conditions

material group	grade	250 (800)	500 (1600)	750 (2400)	1000 (3200)	1250 (4000)	1500 (4800)	1750 (5600)	2000 (6400)	m/min	SFM
N	KO1425									765	2500
	KC5410									550	1800
	KC5010/KCU10									460	1500
	K68/K313									150	500

High-Temperature Alloys speed — m/min (SFM) starting conditions

material group	grade	15 (50)	40 (120)	55 (180)	80 (250)	100 (330)	170 (550)	200 (655)	120 (400)	m/min	SFM
S	KC5010/KCU10									60	200
	KC5025/KCU25									50	170
	KCM25									70	230
	K68/K313									30	100

Represents the recommended starting conditions. Optimize for your specific application.

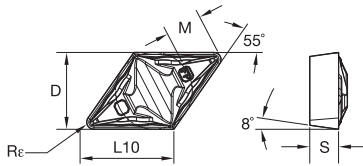


● first choice
○ alternate choice

DCGR • DPGR

Application Specific

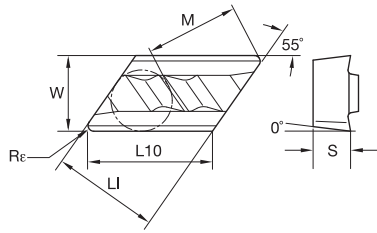
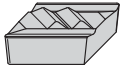
ISO catalog number	ANSI catalog number	D		L10		S		M		Rε	
		mm	in	mm	in	mm	in	mm	in	mm	in
DCGR150404	DPGR431	12,70	1/2	15,50	0.610	4,76	3/16	6,94	0.273	0,4	1/64
DCGR150408	DPGR432	12,70	1/2	15,50	0.610	4,76	3/16	6,48	0.255	0,8	1/32
DCGR150412	DPGR433	12,70	1/2	15,50	0.610	4,76	3/16	6,01	0.237	1,2	3/64



DCGR-FP • DPGR-FP

ISO catalog number	ANSI catalog number	D		L10		S		M		Rε	
		mm	in	mm	in	mm	in	mm	in	mm	in
DCGR150404FP	DPGR431FP	12,70	1/2	15,50	0.610	4,76	3/16	6,94	0.273	0,4	1/64
DCGR150408FP	DPGR432FP	12,70	1/2	15,50	0.610	4,76	3/16	6,48	0.255	0,8	1/32

	P	M	K	N	S	H	K68	K313	KU10	KCP10	KCP25B	KCP25	KCK05	KCM15B	KCM25B	KCM25	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KD1425	
DCGR150404	●	●	●	○	○	○	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-
DCGR150408	●	●	●	○	○	○	●	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-
DCGR150412	●	●	●	○	○	○	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-
DCGR150404FP	●	●	●	○	○	○	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-
DCGR150408FP	●	●	●	○	○	○	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	●	-



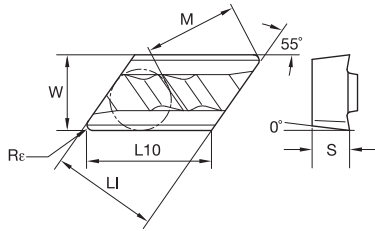
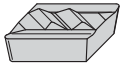
● first choice
○ alternate choice

	P	M	K	N	S	H	K68	K313	KU10	KCP10	KCP25B	KCP25	KCK05	KCM15B	KCM25B	KCM25	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KD1425	
right hand	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX150404R20	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX150408R20	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX150401R15	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX150402R15	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX220404R25	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX220408R32	●	●	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
left hand	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX150408L20	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX150404L20	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
KNGX220408L20	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Application Specific

■ KNGX • NPR/L

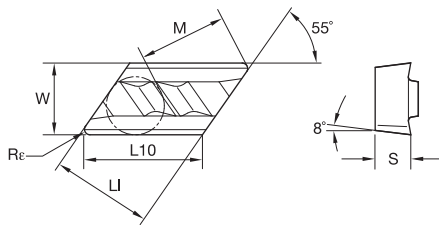
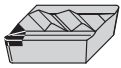
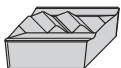
ISO catalog number	ANSI catalog number	LI		L10		W		S		M		Rc
		mm	in	mm	in	mm	in	mm	in	mm	in	mm
right hand												
KNGX150404R20	NPR131F	12,68	.499	15,44	.608	9,47	.373	4,76	3/16	13,46	.530	0,4 1/64
KNGX150408R20	NPR132F	12,68	.499	15,44	.608	9,47	.373	4,76	3/16	12,99	.512	0,8 1/32
KNGX150401R15	NPR1305	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	13,76	.542	0,1 .005
KNGX150402R15	NPR1308	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	13,67	.538	0,2 .008
KNGX220404R25	NPR331N	18,62	.733	22,73	.895	9,53	.375	4,76	3/16	19,91	.784	0,4 1/64
KNGX220408R32	NPR332	18,62	.733	22,73	.895	9,53	.375	4,76	3/16	19,47	.767	0,8 1/32
left hand												
KNGX150408L20	NPL132F	12,68	.499	15,44	.608	9,47	.373	4,76	3/16	12,99	.512	0,8 1/32
KNGX150404L20	NPL131F	12,68	.499	15,44	.608	9,47	.373	4,76	3/16	13,46	.530	0,4 1/64
KNGX220408L20	NPL332F	18,62	.733	22,73	.895	9,53	.375	4,76	3/16	19,47	.767	0,8 1/32



● first choice
○ alternate choice

■ KNUX • NPR/L

ISO catalog number	ANSI catalog number	LI		L10		W		S		M		Re																	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	K68	K313	KU10	KCP10	KCP25B	KCP25	KCK05	KCM15B	KCM25B	KCM25	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KD1425
right hand																													
KNUX150405R20	NPR13M05F	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	13,32	.525	0,5	.020																
KNUX150405R25	NPR13M05N	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	13,32	.525	0,5	.020	●				●											
KNUX150410R25	NPR13M10N	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	12,74	.502	1,0	.039	●															
KNUX160405R2	KNUX160405R2	16,15	.636	17,51	.689	9,52	.375	4,76	3/16	—	—	0,5	.020									●							
KNUX160410R1	KNUX160410R1	16,15	.636	17,51	.689	9,52	.375	4,76	3/16	—	—	1,0	.039									●							
KNUX160410R2	KNUX160410R2	16,15	.636	17,51	.689	9,52	.375	4,76	3/16	—	—	1,0	.039									●							
KNUX160405R1	KNUX160405R1	16,15	.636	17,51	.689	9,52	.375	4,76	3/16	—	—	0,5	.020									●							
left hand																													
KNUX150410L25	NPL13M10N	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	12,74	.502	1,0	.039	●									●						
KNUX150405L25	NPL13M05N	12,70	.500	15,44	.608	9,53	.375	4,76	3/16	13,32	.525	0,5	.020	●									●						
KNUX160405L2	KNUX160405L2	16,15	.636	17,51	.689	9,52	.375	4,76	3/16	—	—	0,5	.020		●														
KNUX160405L1	KNUX160405L1	16,15	.636	17,51	.689	9,52	.375	4,76	3/16	—	—	0,5	.020									●	●						

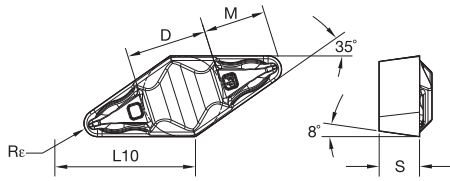


■ KCGX • NPR/L

ISO catalog number	ANSI catalog number	LI		L10		W		S		M		Re																	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	K68	K313	KU10	KCP10	KCP25B	KCP25	KCK05	KCM15B	KCM25B	KCM25	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KD1425
right hand																													
KCGX110301R15	NPR505	9,53	.375	11,60	.457	6,35	.250	3,18	1/8	9,43	.371	0,1	.005	●	●									●					
KCGX110302R15	NPR508	9,53	.375	11,60	.457	6,35	.250	3,18	1/8	9,34	.368	0,2	.008		●								●		●				
KCGX110304R15	NPR51	9,53	.375	11,60	.457	6,35	.250	3,18	1/8	9,11	.359	0,4	1/64	●	●								●		●				
KCGX110308R15	NPR52	9,57	.377	—	—	6,33	.249	3,18	1/8	8,69	.342	0,8	1/32	●									●		●				
left hand																													
KCGX110301L15	NPL505	9,53	.375	11,60	.457	6,35	.250	3,18	1/8	9,43	.371	0,1	.005	●	●									●					
KCGX110302L15	NPL508	9,53	.375	11,60	.457	6,35	.250	3,18	1/8	9,34	.368	0,2	.008		●								●		●				
KCGX110304L15	NPL51	9,53	.375	11,60	.457	6,35	.250	3,18	1/8	9,11	.359	0,4	1/64	●	●								●		●				
KCGX110308L15	NPL52	9,57	.377	—	—	6,33	.249	3,18	1/8	8,69	.342	0,8	1/32	●	●								●		●				



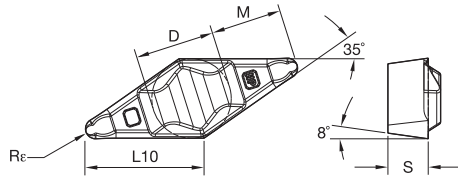
Application Specific



● first choice
○ alternate choice

■ VCGR-FP • VPGR-FP

ISO catalog number	ANSI catalog number	D		L10		S		M		R _ε	
		mm	in	mm	in	mm	in	mm	in	mm	in
VCGR160402FP	VPGR3305FP	9,52	3/8	16,61	0.654	4,76	3/16	10,60	0.417	0,2	.008
VCGR160404FP	VPGR331FP	9,52	3/8	16,61	0.654	4,76	3/16	10,15	0.400	0,4	1/64
VCGR160408FP	VPGR332FP	9,52	3/8	16,61	0.654	4,76	3/16	9,23	0.363	0,8	1/32
VCGR160412FP	VPGR333FP	9,52	3/8	16,61	0.654	4,76	3/16	8,31	0.327	1,2	3/64
VCGR160416FP	VPGR334FP	9,52	3/8	16,61	0.654	4,76	3/16	7,38	0.291	1,6	1/16

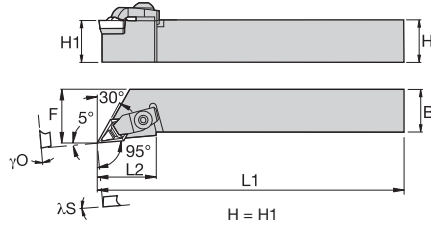
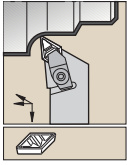


■ VCGR-HP • VPGR-HP

ISO catalog number	ANSI catalog number	D		L10		S		M		R _ε	
		mm	in	mm	in	mm	in	mm	in	mm	in
VCGR160404HP	VPGR331HP	9,52	3/8	16,61	0.654	4,76	3/16	—	—	0,4	1/64

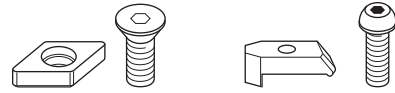
	P	M	K	N	S	H	K68	K313	KU10	KCP10	KCP25B	KCP25	KCK05	KCM15B	KCM25B	KCM25	KCU10	KCU25	KC5010	KC5025	KC5410	KT315	KD1425
VCGR160402FP	●	●	●	●	●	○	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-
VCGR160404FP	●	●	●	●	●	○	-	-	●	-	-	-	-	-	-	●	●	-	-	-	-	-	-
VCGR160408FP	●	●	●	●	●	○	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-	-	-
VCGR160412FP	●	●	●	●	●	○	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VCGR160416FP	●	●	●	●	●	○	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VCGR160404HP	●	●	●	●	●	○	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Application Specific

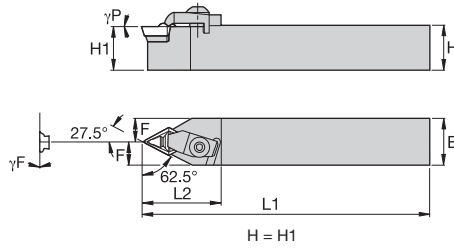
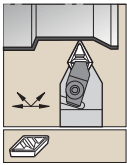


■ **NDLP -5°**

Application Specific



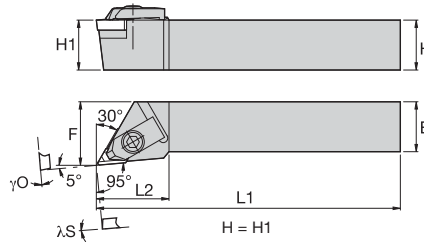
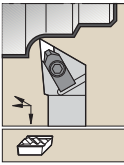
catalog number	H	B	F	L1	LH	λS°	γO°	gage insert	shim	shim screw	hex (inch)	clamp	clamp screw	hex (inch)	
right hand															
NDLPR164D	1.000	1.000	1.250	6.00	1.38	0.0	0.0	DP..432	SM414	S111	1/16	CM116	S532	5/32	
left hand															
NDLPL164D	1.000	1.000	1.250	6.00	1.38	0.0	0.0	DP..432	SM414	S111	1/16	CM117	S532	5/32	



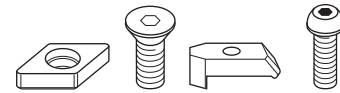
■ **NDPP 27.5°**



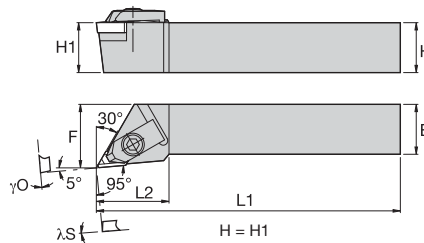
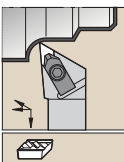
catalog number	H	B	F	L1	LH	γF°	γP°	gage insert	shim	shim screw	hex (inch)	clamp	clamp screw	hex (inch)
NDPPN164D	1.000	1.000	0.500	6.00	1.59	0.0	0.0	DP..432	SM414	S111	1/16	CM116	S532	5/32



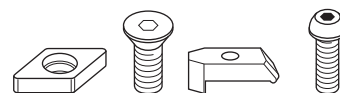
■ NKLC -5°



catalog number	H	B	F	L1	LH	λS°	γO°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
NKLCR0805V	0.500	0.500	0.750	3.50	0.88	0.0	0.0	NP..51R	SM285	S959	CM79	S524	1/8
NKLCR1005B	0.625	0.625	0.750	4.50	0.88	0.0	0.0	NP..51R	SM285	S959	CM79	S524	1/8
NKLCR1205A	0.750	0.750	1.000	4.00	0.88	0.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8
NKLCR1205B	0.750	0.750	1.000	4.50	0.88	0.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8
NKLCR1605C	1.000	1.000	1.250	5.00	0.88	0.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8
left hand													
NKLCL0805V	0.500	0.500	0.750	3.50	0.88	0.0	0.0	NP..51L	SM286	S959	CM71	S524	1/8
NKLCL1005B	0.625	0.625	0.750	4.50	0.88	0.0	0.0	NP..51L	SM286	S959	CM71	S524	1/8
NKLCL1205A	0.750	0.750	1.000	4.00	0.88	0.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
NKLCL1205B	0.750	0.750	1.000	4.50	0.88	0.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
NKLCL1605C	1.000	1.000	1.250	5.00	0.88	0.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8

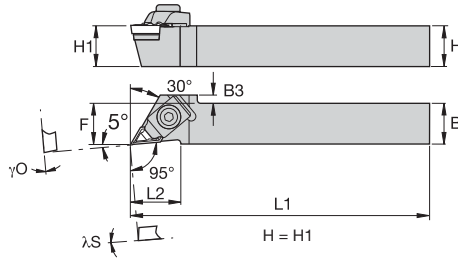
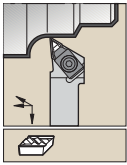


■ NKLN -5°



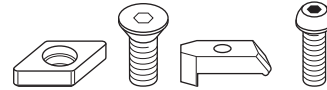
catalog number	H	B	F	L1	LH	λS°	γO°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
NKLN121B	0.750	0.750	1.000	4.50	1.22	-2.0	-5.0	NPR132F	SM272	SL344	CM66	S625	5/32
NKLN161C	1.000	1.000	1.250	5.00	1.25	-2.0	-5.0	NPR132F	SM272	SL344	CM66	S625	5/32
left hand													
NKLN121B	0.750	0.750	1.000	4.50	1.22	-2.0	-5.0	NPL132F	SM271	SL344	CM66	S625	5/32
NKLN161C	1.000	1.000	1.250	5.00	1.25	-2.0	-5.0	NPL132F	SM271	SL344	CM66	S625	5/32

Application Specific

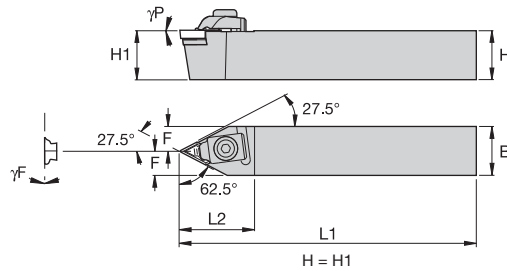
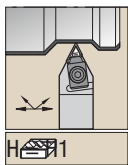


■ **NKLC-F -5°**

Application Specific



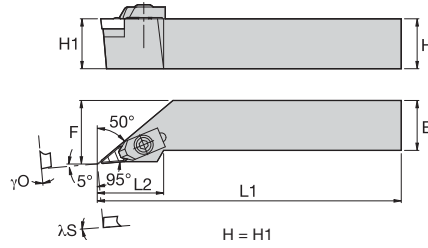
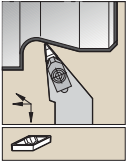
catalog number	H	B	F	L1	LH	B3	λS°	γO°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand														
NKLCRF0805D	0.500	0.500	0.500	6.00	0.75	0.15	0.0	0.0	NP..51R	SM285	S959	CM180	S524	1/8
NKLCRF1005B	0.625	0.625	0.625	4.50	0.75	—	0.0	0.0	NP..51R	SM285	S959	CM180	S524	1/8
left hand														
NKLCFL0805D	0.500	0.500	0.500	6.00	0.75	0.15	0.0	0.0	NP..51L	SM286	S959	CM181	S524	1/8



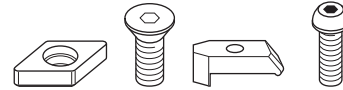
■ **NKPC 27.5°**



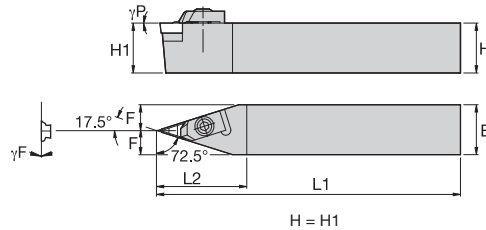
catalog number	H	B	F	L1	LH	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
NKPCN1205B	0.750	0.750	0.375	4.50	1.13	0.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8



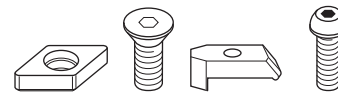
■ NVLC -5°



catalog number	H	B	F	L1	LH	γO°	λS°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
NVLCR123B	0.750	0.750	1.000	4.50	1.44	0.0	0.0	VP..332	SM412	S959	CM113	S412	5/32
NVLCR163D	1.000	1.000	1.250	6.00	1.44	0.0	0.0	VP..332	SM412	S959	CM113	S412	5/32
NVLCR203D	1.250	1.250	1.500	6.00	1.44	0.0	0.0	VP..332	SM412	S959	CM113	S412	5/32
NVLCR243D	1.500	1.500	2.000	6.00	1.62	0.0	0.0	VP..332	SM412	S959	CM113	S412	5/32
left hand													
NVLC123B	0.750	0.750	1.000	4.50	1.44	0.0	0.0	VP..332	SM412	S959	CM114	S412	5/32
NVLC163D	1.000	1.000	1.250	6.00	1.44	0.0	0.0	VP..332	SM412	S959	CM114	S412	5/32
NVLC203D	1.250	1.250	1.500	6.00	1.44	0.0	0.0	VP..332	SM412	S959	CM114	S412	5/32
NVLC243D	1.500	1.500	2.000	6.00	1.62	0.0	0.0	VP..332	SM412	S959	CM114	S412	5/32

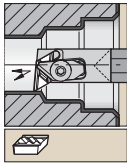


■ NVVC 17.5°

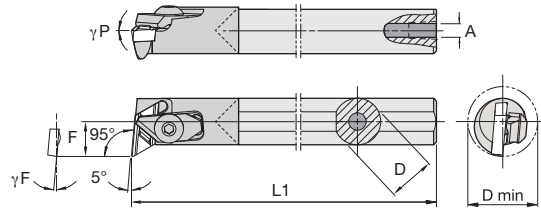


catalog number	H	B	F	L1	LH	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
NVVCN163D	1.000	1.000	0.497	6.00	1.62	0.0	0.0	VP..332	SM412	S959	CM113	S412	5/32

Application Specific



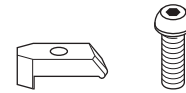
Carbide shank with through coolant.



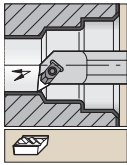
■ **E-NEL -5°**



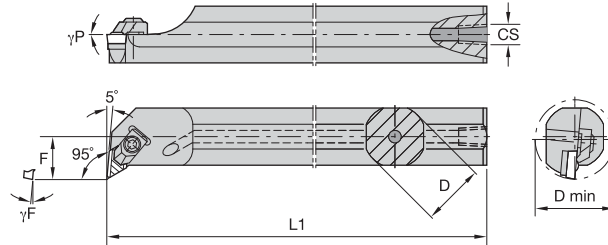
Application Specific



catalog number	D	D min	F	L1	A	γF°	γP°	gage insert	clamp	clamp screw	hex (inch)
right hand											
E08NELR05	.500	.750	.375	8.15	.187	-5.0	0.0	NPL51	CM106	S518	3/32



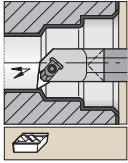
Steel shank with through coolant.



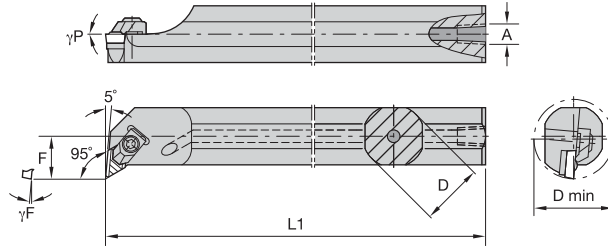
■ **A-NKLC -5°**



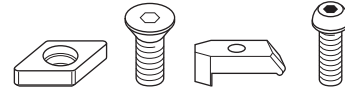
catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
A10NKLCR05	.625	.900	.495	10.06	1/8-27 NPT	-5.0	0.0	NP..51L	SM286	S959	CM79	S524	1/8
A12SNKLCR05	.750	.980	.562	10.00	1/8-27 NPT	-5.0°	0.0°	NP..51L	SM286	S959	CM68	S524	1/8
A16NKLCR05	1.000	1.300	.750	12.00	1/4-18 NPT	-3.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
A20NKLCR05	1.250	1.580	.875	14.00	1/4-18 NPT	-3.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
A24NKLCR05	1.500	1.870	1.000	14.00	1/4-18 NPT	-2.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
left hand													
A10SNKLCL05	.625	.900	.500	10.00	1/8-27 NPT	-5.0	0.0	NP..51R	SM285	S959	CM71	S524	1/8
A12SNKLCL05	.750	.980	.562	10.00	1/8-27 NPT	-5.0°	0.0°	NP..51R	SM285	S959	CM68	S524	1/8
A16NKLCL05	1.000	1.300	.750	12.00	1/4-18 NPT	-3.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8



Carbide shank with through coolant.



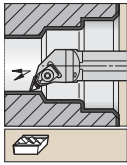
■ E-NKLC -5°



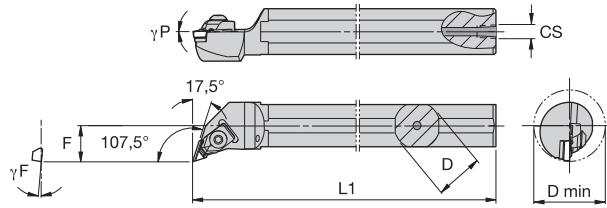
catalog number	D	D min	F	L1	A	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
E08NKLCR05	.500	.660	.375	8.00	.187	-5.0	0.0	NP..51L	—	—	CM106	S518	3/32
E10NKLCR05	.625	.900	.500	10.00	.218	-5.0	0.0	NP..51L	SM286	S959	CM79	S524	1/8
E12NKLCR05	.750	.980	.562	10.00	.281	-5.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
E16NKLNR1	1.000	1.500	.750	12.25	.313	-5.0	-5.0	NPL132	SM271	SL344	CM66	S625	5/32
left hand													
E08NKLCL05	.500	.660	.375	8.00	.187	-5.0	0.0	NP..51R	—	—	CM105	S518	3/32
E10NKLCL05	.625	.900	.500	10.00	.218	-5.0	0.0	NP..51R	SM285	S959	CM71	S524	1/8
E12NKLCL05	.750	.980	.562	10.00	.281	-5.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8



Application Specific

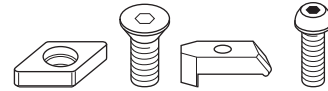


Steel shank with through coolant.

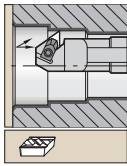


■ **A-NKQC -17.5°**

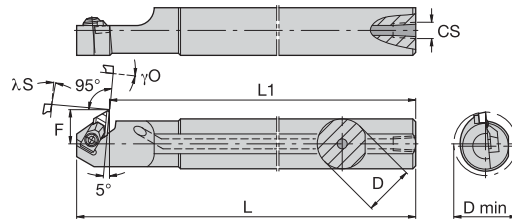
Application Specific



catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
A08NKQCR05	.500	.670	.375	8.00	1/16-27 NPT	-6.0	0.0	NP..51L	—	—	CM112	S518	3/32
A12SNKQCR05	.750	.980	.562	10.00	1/8-27 NPT	-6.0°	0.0°	NP..51L	SM286	S959	CM68	S524	1/8
A16NKQCR05	1.000	1.300	.750	12.00	1/4-18 NPT	-3.0	0.0	NP..51L	SM286	S959	CM68	S524	1/8
left hand													
A08NKQCL05	.500	.670	.375	8.00	1/16-27 NPT	-6.0	0.0	NP..51R	—	—	CM111	S518	3/32
A12SNKQCL05	.750	.980	.562	10.00	1/8-27 NPT	-6.0°	0.0°	NP..51R	SM285	S959	CM68	S524	1/8
A16NKQCL05	1.000	1.300	.750	12.00	1/4-18 NPT	-3.0	0.0	NP..51R	SM285	S959	CM68	S524	1/8



Steel shank with through coolant.



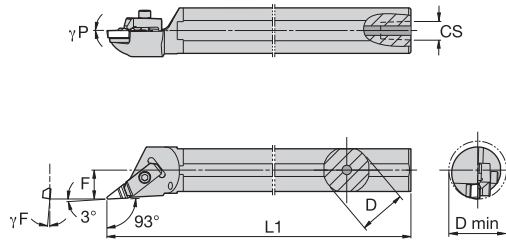
■ **A-NKXC -5°**



catalog number	D	D min	F	L1	L	CS	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand														
A12NKXCR05	.750	1.060	.625	10.00	10.63	1/8-27 NPT	-5.0°	0.0°	NP..51R	SM285	S959	CM79	S524	1/8
A16NKXCR05	1.000	1.300	.750	12.00	12.63	1/4-18 NPT	-5.0°	0.0°	NP..51R	SM285	S959	CM79	S524	1/8



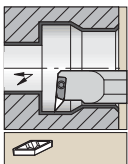
Steel shank with through coolant.



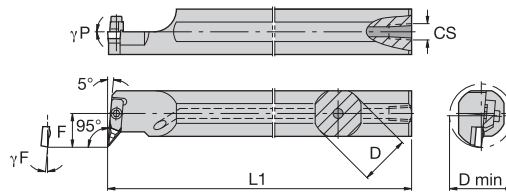
■ A-NVJC -3°

catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
A20NVJCR3	1.250	1.774	.765	14.00	1/4-18 NPT	-2.0	0.0	VP..332	SM412	S959	CM113	S412	5/32

Application Specific

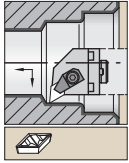


Steel shank with through coolant.

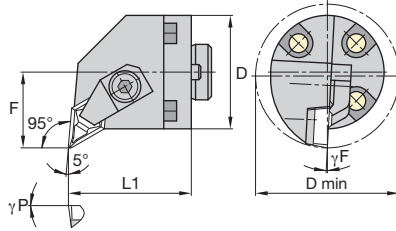


■ A-NVLC -5°

catalog number	D	D min	F	L1	CS	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand													
A20NVLCR3	1.250	1.830	1.120	14.07	1/4-18 NPT	-2.0	0.0	VP..332	SM412	S959	CM113	S412	5/32
A24NVLCR3	1.500	2.120	1.250	14.00	1/4-18 NPT	-2.0	0.0	VP..332	SM412	S959	CM113	S412	5/32
A32NVLCR3	2.000	2.620	1.500	16.00	1/4-18 NPT	-2.0	0.0	VP..332	SM412	S959	CM113	S412	5/32



With through coolant.

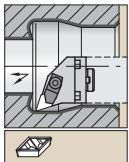


H-NDLP -5°

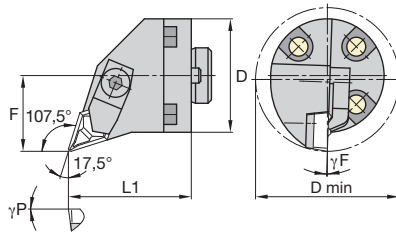
Application Specific



catalog number	D	D min	F	L1	γF°	γP°	gage insert	shim	shim screw	hex (inch)	clamp	clamp screw	hex (inch)
right hand													
H20NDLPR4W	1.250	1.580	.875	1.625	-3.0	0.0	DP..432	SM414	S111	1/16	CM118	S532	5/32
H24NDLPR4W	1.500	1.870	1.000	1.625	-2.0	0.0	DP..432	SM414	S111	1/16	CM118	S532	5/32



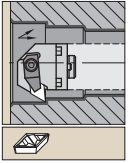
With through coolant.



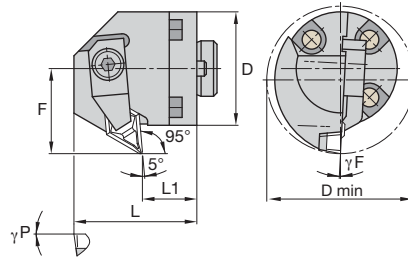
H-NDQP -17.5°



catalog number	D	D min	F	L1	γF°	γP°	gage insert	shim	shim screw	hex (inch)	clamp	clamp screw	hex (inch)
left hand													
H32NDQPL4W	2.000	2.500	1.375	1.625	0.0	0.0	DP..432	SM414	S111	1/16	CM116	S532	5/32

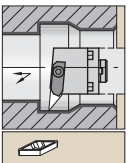


With through coolant.

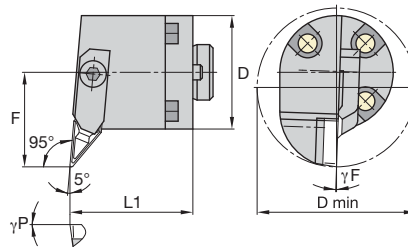


■ H-NDXP -5°

catalog number	D	D min	F	L1	L	γF°	γP°	gage insert	shim	shim screw	hex (inch)	clamp	clamp screw	hex (inch)
right hand														
H24NDXPR4W	1.500	2.000	1.125	.750	1.62	0.0	0.0	DP..432	SM414	S111	1/16	CM118	S532	5/32
left hand														
H20NDXPL4W	1.250	1.705	1.000	.750	1.62	-3.0	0.0	DP..432	SM414	S111	1/16	CM119	S532	5/32
H40NDXPL4W	2.500	3.125	1.625	.750	1.62	0.0	0.0	DP..432	SM414	S111	1/16	CM119	S532	5/32



With through coolant.



■ H-NVLP -5°

catalog number	D	D min	F	L1	γF°	γP°	gage insert	shim	shim screw	clamp	clamp screw	hex (inch)
right hand												
H24NVLPR3W	1.500	2.120	1.250	1.625	-2.0	0.0	VP..332	SM412	S959	CM113	S412	5/32

Application Specific

➤ Railroad

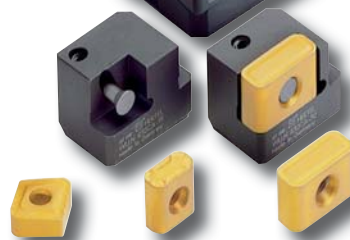
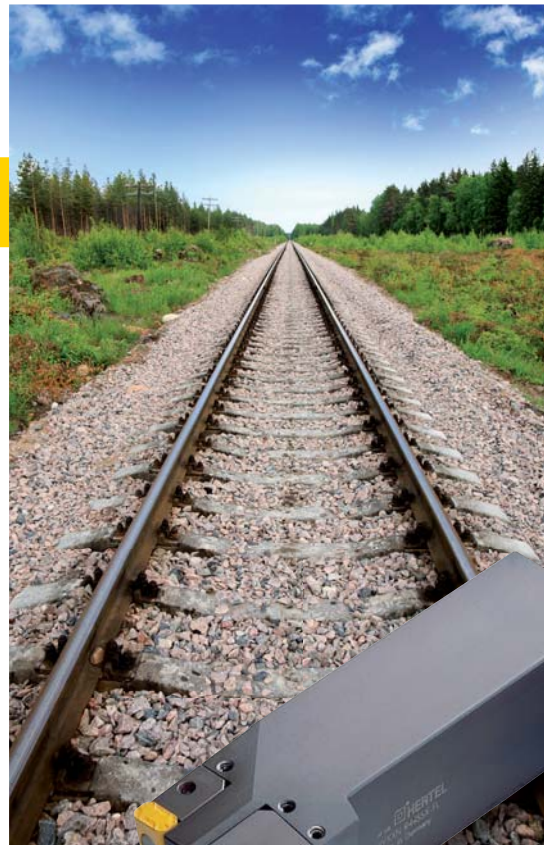
The intimate understanding Kennametal provides of the economics of the railroad value chain enables us to offer unparalleled custom solutions tailored to your needs. We deliver superior value because we listen closely to you, our customer, and innovate based on your feedback. Our goal is to help you be more competitive — both locally and on a global scale.

Best Practices in Productivity

As your trusted partner for optimized production, Kennametal offers customers a unique commitment to research and development excellence, leading to continued delivery of highly innovative ways to enhance your productivity. Certification to ISO 9001, QS 9000 TES, and VDA 6.4 guarantees the highest possible quality standards.

Best Performance, Less Environmental Impact

With technology, we can do both. Kennametal helps customers focus on the root causes of unsustainable behavior in highly complex manufacturing systems, while at the same time improving cost structure, quality, and performance. In addition to offering the latest in metalcutting tools and technology, our Advanced Engineering Team will analyze your existing production processes and help you identify new methods to improve your overall performance.



Wheel Lathe Tooling

Kennametal railroad tooling incorporates a unique locking unit design developed through years of testing on all types of wheel lathes and machining wheels with all types of tread surfaces.

This heavy-duty, rugged design has proven to be effective in reducing machining costs on tread turning applications, the most severe machining operation encountered in wheel and axle shops.

Strong inserts, with raised chipbreaker land and honed cutting edges, offer more effective chip control and a stronger cutting edge. Combining this tool geometry with the Kennametal grade selection delivers higher wheel turning productivity.



Wheelset

Advantages of Kennametal Wheel Lathe Tools:

- No top clamp to wear out or interfere with chip flow.
- Insert locks against two walls in the toolholder to prevent insert movement under heavy cutting loads.
- Hardened steel locking unit provides positive insert seating and holder protection.
- Fast, trouble-free insert indexing — just unlock one screw to release the insert.
- Quick removal of the steel locking unit and insert for cleaning or replacement.
- Heavy-duty steel locking unit design ensures longer life and helps reduce operating costs.
- Fewer parts to inventory.
- Toolholders and steel locking units, made from heat-treated alloy steel, provide support to withstand severe roughing cuts on work-hardened wheels.



LNUX-RRF Full Radius



LNUX-RRP Full Radius



LNUX-RRH



LNUX-RRP



KRR6586-71



KRR6586-75



LNUX-RRSM



KRR6586-65



KRR6586-52



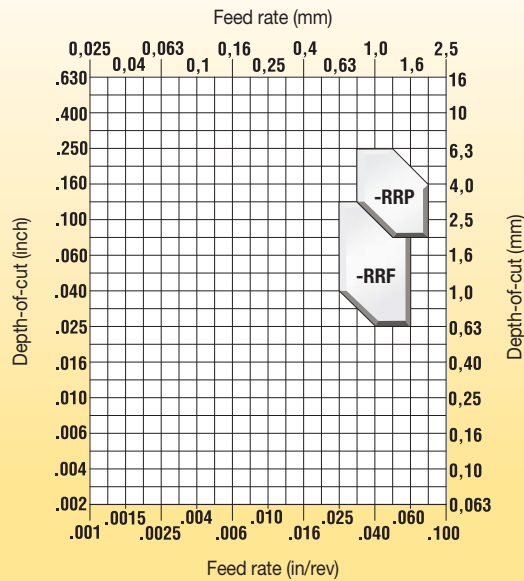
KRR6586-50

■ LNUX

Full-Radius Design

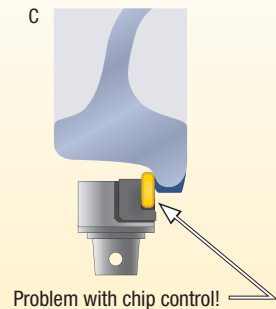
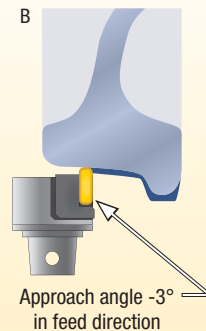
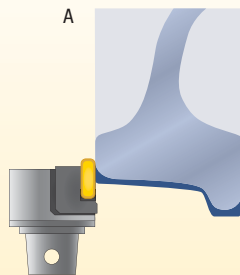
Our well-performed chipbreaking geometry RRF and RRP

- One insert can be applied in profiling and facing.
- Chip control even at smaller DOC will be improved!



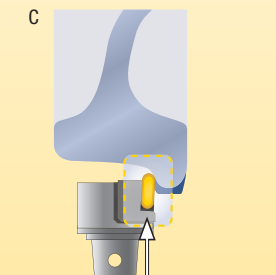
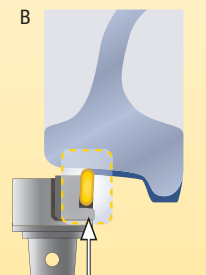
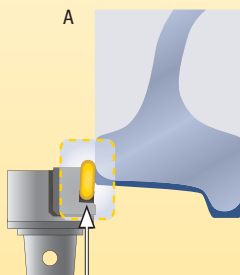
■ Application Recommendation

- A: At the beginning of the process, the DOC is higher because most of the bigger bur needs to be removed.
- B: The DOC is smaller, but sometimes it has “hot spots” or brake spots.
- C: Most critical area in regards to chip control because the thickness of the chip is quite thin and very difficult to manage.



A, B, & C: One insert can be applied in profiling and facing.

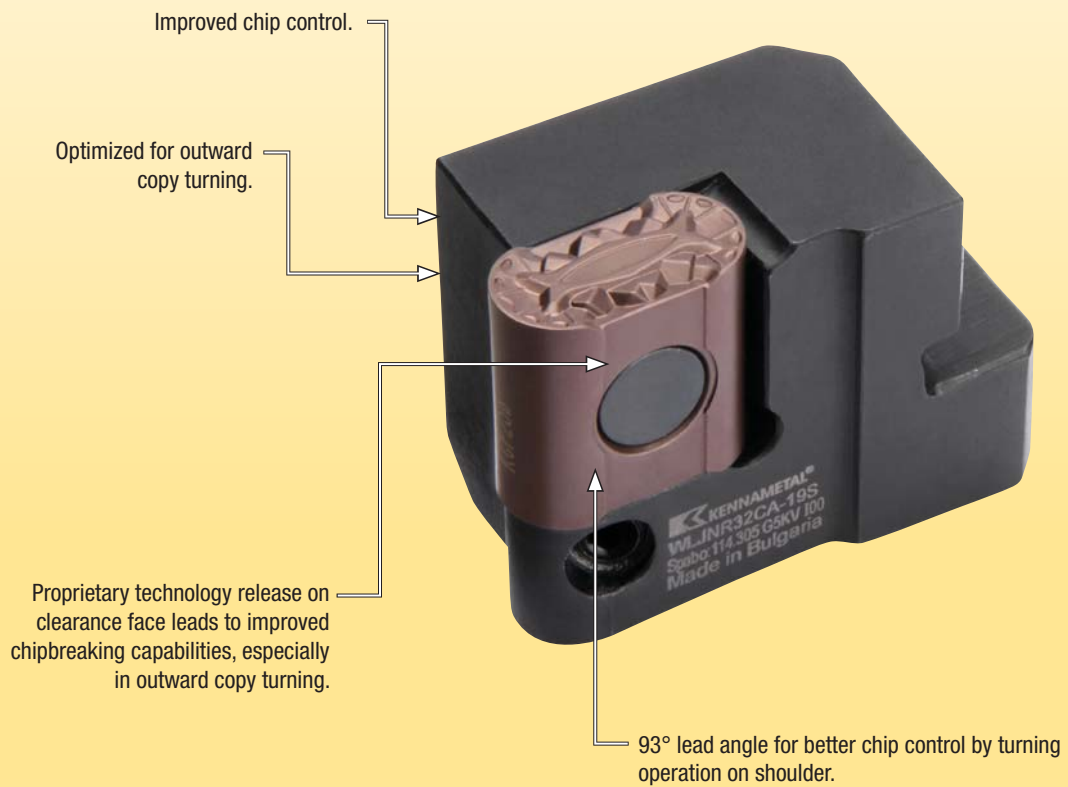
A & C: Chip control, even at a smaller DOC, will be improved.



Modified cartridge with approach angle of 93° (difference of 6°)

Improved chip control capabilities

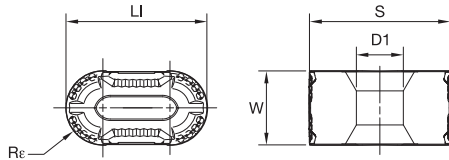
■ Features and Benefits



- The well performed RRF and RRP chipbreaker geometry with a full-radius design offers better chip control even at smaller DOC.

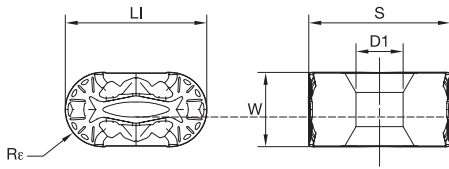
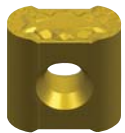
- first choice
- alternate choice

P	●	●
M	●	●
K	●	●
N	●	●
S	●	●
H	●	●



LNUX-RRF Full-Radius

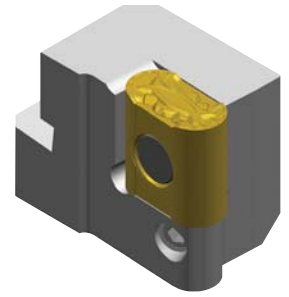
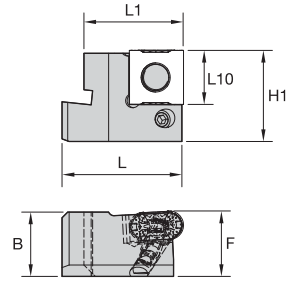
ISO catalog number	ANSI catalog number	W		LI		S		Re		D1		KCP10B	KCP25B
		mm	in	mm	in	mm	in	mm	in	mm	in		
LNUX191950RRF	LNUX191950RRF	10,00	.394	19,05	.750	19,05	3/4	5,00	.196	6,35	.250	●	●



LNUX-RRP Full-Radius

ISO catalog number	ANSI catalog number	W		LI		S		Re		D1		KCP10B	KCP25B
		mm	in	mm	in	mm	in	mm	in	mm	in		
LNUX191950RRP	LNUX191950RRP	10,00	.394	19,05	.750	19,05	3/4	5,00	.197	6,35	.250	●	●
LNUX301960RRP	LNUX301960RRP	12,00	.472	30,00	1.181	19,05	3/4	6,00	.236	6,35	.250	●	●

Application Specific



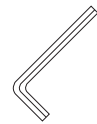
■ Cartridge WLJN

order number	catalog number	H1		B		F		L10		L1		L		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
6049016	WLJNL32CA19S	32,00	1.260	22,60	.890	23,00	.906	19,050	.750	35,00	1.38	42,70	1.681	LNUX191950RRP
6049018	WLJNL32CA30S	32,00	1.260	22,60	.890	23,50	.925	30,000	1.181	35,00	1.38	45,00	1.772	LNUX301960RRP
6049015	WLJNR32CA19S	32,00	1.260	22,60	.890	23,00	.906	19,050	.750	35,00	1.38	42,70	1.681	LNUX191950RRP
6049017	WLJNR32CA30S	32,00	1.260	22,60	.890	23,50	.925	30,000	1.181	35,00	1.38	45,00	1.772	LNUX301960RRP



Application Specific

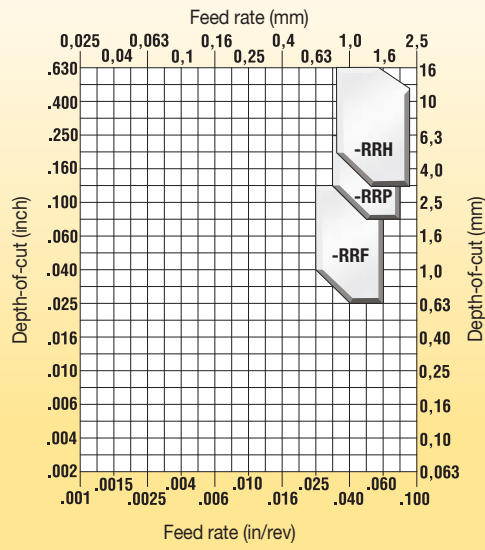
■ Spare Parts



catalog number	clamp stud	clamp screw	hex wrench
WLJNL32CA19S	114.305	121.616	170.003
WLJNL32CA30S	114.305	121.616	170.003
WLJNR32CA19S	114.305	121.616	170.003
WLJNR32CA30S	114.305	121.616	170.003

■ **New Chip Breaking Geometry**

For Rail Wheel Machining — RRF



-RRH

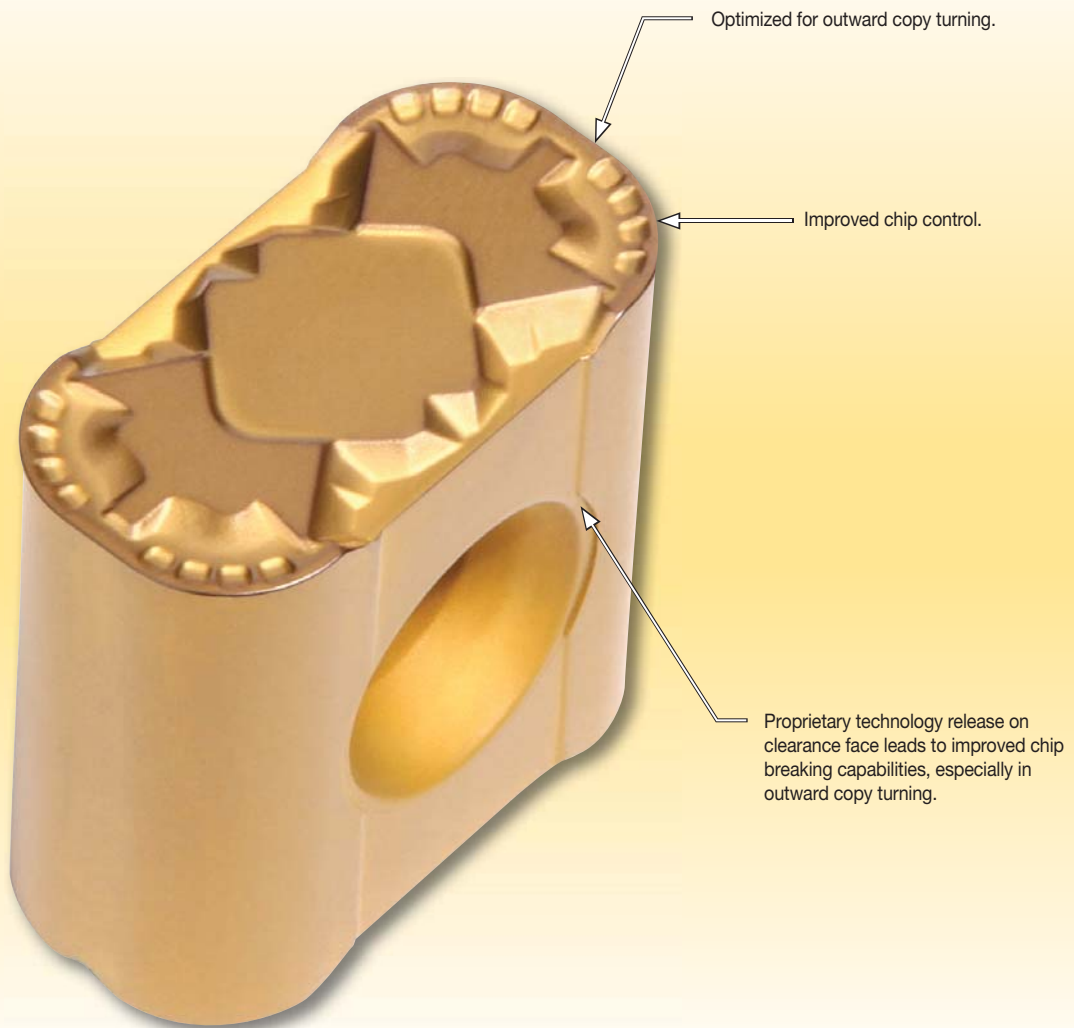


-RRP



-RRF

■ **Small DOC Re-Profiling**

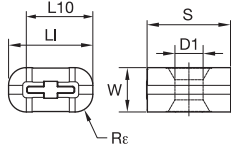


Kennametal stocks a complete line of standard inserts for wheel and axle machining. Inserts are available in various styles, sizes, and grades.

- **Wheel boring** — molded chipbreaker inserts in round, square, octagon, and regrindable inserts.
- **Axle turning** — triangle- and diamond-shaped inserts with chipbreakers.
- **Wheel turning** — rectangular and square styles, with or without molded chipbreakers.
- **Wheel truing** — round buttons with center hole for locking.

P	●	●	●	●
M	●	●	●	●
K	○	○	○	○
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●

● first choice
○ alternate choice



■ LNUX-RRF

ISO catalog number	ANSI catalog number	W		LI		L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRF	LNUX191940RRF	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	-	●	-	●
LNUX301940RRF	LNUX301940RRF	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	-	●	-	-

NOTE: Also available in KC9105™.

■ LNUX-RRH

ISO catalog number	ANSI catalog number	W		LI		L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRH	LNUX191940RRH	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	-	●	-	●
LNUX301940RRH	LNUX301940RRH	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	●	-	-	●

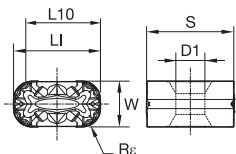
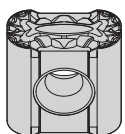
NOTE: Also available in KC9105.



Kennametal stocks a complete line of standard inserts for wheel and axle machining. Inserts are available in various styles, sizes, and grades.

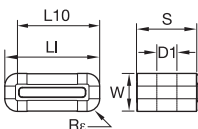
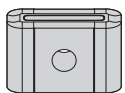
- **Wheel boring** — molded chipbreaker inserts in round, square, octagon, and regrindable inserts.
- **Axle turning** — triangle- and diamond-shaped inserts with chipbreakers.
- **Wheel turning** — rectangular and square styles, with or without molded chipbreakers.
- **Wheel truing** — round buttons with center hole for locking.

Application Specific



■ LNUX-RRP

ISO catalog number	ANSI catalog number	W		LI		L10		S		Re		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRP	LNUX191940RRP	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	-	●	-	●
LNUX301940RRP	LNUX301940RRP	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	-	-	-	●



■ LNUX-RRSM

ISO catalog number	ANSI catalog number	W		LI		L10		S		Re		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in				
LNUX191940RRSM	LNUX191940RRSM	10,00	.394	19,00	.748	19,00	.748	19,05	3/4	4,00	5/32	6,35	.250	-	-	●	-
LNUX301940RRSM	LNUX301940RRSM	12,00	.472	30,00	1.181	30,00	1.181	19,05	3/4	4,00	5/32	6,35	.250	●	-	-	-

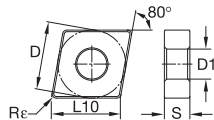
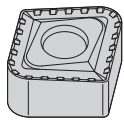
NOTE: Also available in KC9105™.

P	●	●	●	●
M	●	●	●	●
K	○	○	○	○
N	○	○	○	○
S	○	○	○	○
H	○	○	○	○

● first choice
○ alternate choice

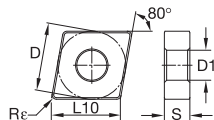
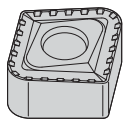
Kennametal stocks a complete line of standard inserts for wheel and axle machining. Inserts are available in various styles, sizes, and grades.

- **Wheel boring** — molded chipbreaker inserts in round, square, octagon, and regrindable inserts.
- **Axle turning** — triangle- and diamond-shaped inserts with chipbreakers.
- **Wheel turning** — rectangular and square styles, with or without molded chipbreakers.
- **Wheel truing** — round buttons with center hole for locking.



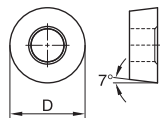
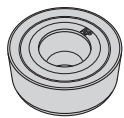
■ CNMM-RRP

ISO catalog number	ANSI catalog number	L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in				
CNMM190740RRP	CNMM190740RRP	19,34	.762	7,94	5/16	4,00	5/32	7,93	.313	●	-	-	-



■ LNUX-WT5

ISO catalog number	ANSI catalog number	L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in				
LNUX191940S-WT5	LNUX191940S-WT5	19,05	.750	19,05	3/4	4,00	5/32	6,35	.250	-	-	●	-
SNMX190640S-WT5	SNMX190640S-WT5	19,05	.750	6,35	1/4	4,00	5/32	6,35	.250	-	-	●	-



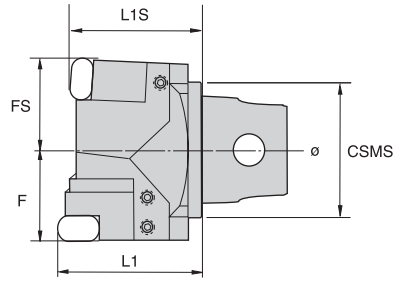
■ RCMX

ISO catalog number	ANSI catalog number	L10		S		Rε		D1		KCP10B	KCP10	KCP25B	KCP25
		mm	in	mm	in	mm	in	mm	in				
RCMX2507M076	RCMX2507M076	-	-	7,94	5/16	-	-	7,40	.291	-	-	●	-

● first choice
○ alternate choice

P	●	●	●	●
M	●	●	●	●
K	●	●	●	●
N	●	●	●	●
S	●	●	●	●
H	●	●	●	●



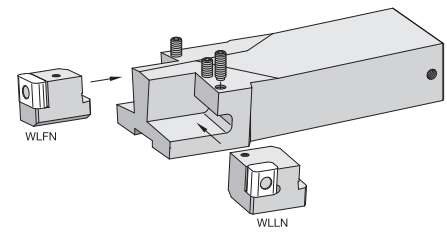


■ TK

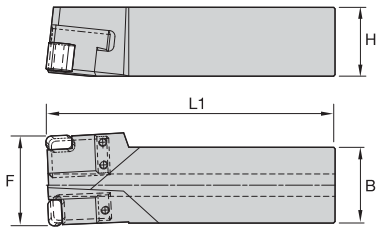
order number	catalog number	CSMS system size	F		FS		L1		L1S	
			mm	in	mm	in	mm	in	mm	in
1781755	TK01338D	KM63	42,50	1.673	42,50	1.673	66,00	2.598	60,00	2.362
1781756	TK01339D	KM63	42,50	1.673	42,50	1.673	66,00	2.598	60,00	2.362

Assembly Instructions

basic/KM shank	cartridge WLLN..	cartridge WLFN..
right	right	left
left	left	right



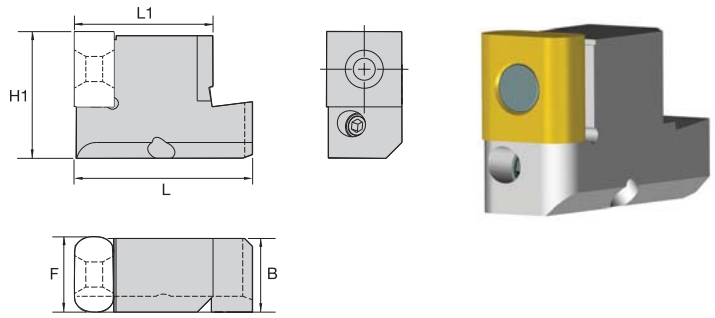
Assembly of complete tool



■ Basic Shank WXXN

order number	catalog number	H		B		F assembly		L1 assy		clamp screw
		mm	in	mm	in	mm	in	mm	in	
1251261	WXXNL4455X-FL	50,00	1.969	55,00	2.165	65,00	2.559	210,00	8.268	PT00163
1251262	WXXNR4455X-FL	50,00	1.969	55,00	2.165	65,00	2.559	210,00	8.268	PT00163

Application Specific



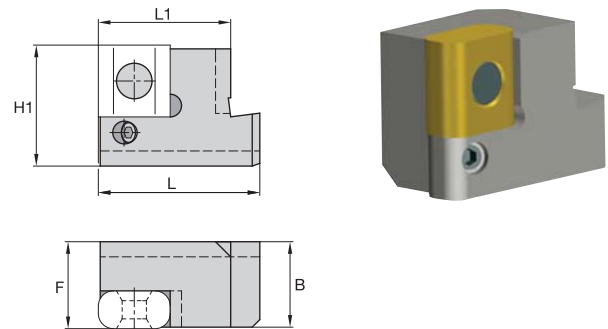
■ Cartridge WLFN

order number	catalog number	H1		B		F		L1		L		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
2435188	WLFNL32CA19S	32,00	1.260	18,60	.732	19,00	.748	35,00	1.378	42,70	1.681	LNUX191940...
2435187	WLFNR32CA19S	32,00	1.260	18,60	.732	19,00	.748	35,00	1.378	42,70	1.681	LNUX191940...

■ Spare Parts



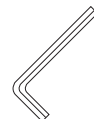
catalog number	clamp stud	clamp screw	hex wrench
WLFNL32CA19S	114.305	121.616	170.003
WLFNR32CA19S	114.305	121.616	170.003



■ Cartridge WLLN

order number	catalog number	H1		B		F		L1		L		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
2435184	WLLNL32CA19S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX191940...
2435186	WLLNL32CA30S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX301940...
2435183	WLLNR32CA19S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX191940...
2435185	WLLNR32CA30S	32,00	1.260	22,60	.890	23,00	.906	35,00	1.378	42,70	1.681	LNUX301940...

■ Spare Parts



catalog number	clamp stud	clamp screw	hex wrench
WLLNL32CA19S	114.305	121.616	170.003
WLLNL32CA30S	114.305	121.616	170.003
WLLNR32CA19S	114.305	121.616	170.003
WLLNR32CA30S	114.305	121.616	170.003

➤ Wheel and Wheelset Truing with **Beyond™** RU and UP Geometries

Kennametal tooling incorporates the latest technology for maximum metal removal and higher productivity. Standard off-the-shelf inserts and fewer pieces of hardware reduce inventory and operating costs. These tools are for reconditioning mounted wheel sets, wheel boring, wheel truing, axle turning, and journal burnishing.




Features and Benefits

Advantages of Kennametal Wheel Lathe Tools

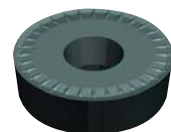
- Heavy-duty steel locking unit.
- No top clamp to wear out or interfere with chip flow.
- Hardened-steel locking unit prevents insert movement.
- Quick removal of the steel locking unit.
- Fast trouble-free insert indexing.
- Withstand severe roughing cuts on work-hardened wheels.

Achieve superior results while lowering production time and maintenance costs in these tough conditions:

- Skid flat areas.
- Accidental torch burns.
- Overheating of spinning wheels.
- Excessive mushroom and rollovers that are hardened by unusual hump retarder pressure.
- Mismatched wheels that cause excessive wear on the flange side.

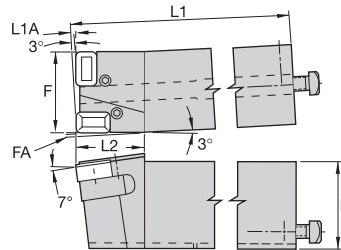
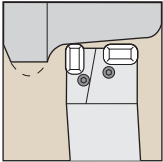


RU-Roughing Universal



UP-Universal Positive

- Fully automatic, heavy-duty wheel lathe with integrated measuring device to determine wheel set profile wear.
- Portal-type machine bed enables roll-through operation.
- Suitable for machining wheel sets for locomotives, transit, passenger, and freight cars.

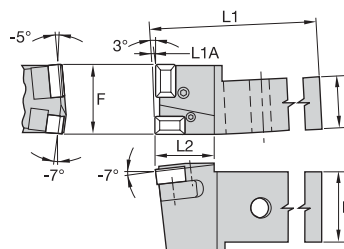
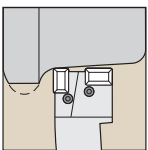


Tread Profile Truing

order number	catalog number	H		F		L1		L2		FA		L1A		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
1015754	HUWTCL	80,00	3.150	76,20	3.000	275,00	10.827	63,50	2.500	3,00	.118	3,00	.118	KRR6586__
1015723	HUWTCR	80,00	3.150	76,20	3.000	275,00	10.827	63,50	2.500	3,00	.118	3,00	.118	KRR6586__

NOTE: Requires two inserts.

- Maximum productivity at minimum operating costs.
- Fast insert indexing while tool is mounted in the tool block.
- Individual steel locking units make it easy to index and lock each insert.
- Gage location on tool, over insert, is held to +/- .003" (0,08mm).
- No top clamp to wear out or interfere with chip flow.
- Replaceable steel locking unit protects toolholder from damage.
- Improved inserts with chip control.



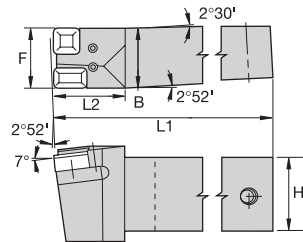
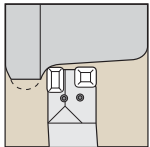
Wheel Tread Contouring

order number	catalog number	H		F		L1		L2		FA		L1A		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	
1015688	FUWTCL	76,20	3.000	57,15	2.250	76,20	3.000	254,00	10.000	66,55	2.620	3,05	.120	KRR6586__
1015687	FUWTCR	76,20	3.000	57,15	2.250	76,20	3.000	254,00	10.000	66,55	2.620	3,05	.120	KRR6586__

NOTE: Requires two inserts.

- Maximum productivity at minimum operating costs.
- Fast insert indexing tool mounted in tool block.
- Individual steel locking units make it easy to index and lock each insert.
- Minimum parts for lower inventory.
- No top clamp to wear out or interfere with chip flow.
- Replaceable steel locking unit protects toolholder from damage.
- Indexable inserts with pre-formed chipbreakers deliver chip control at optimum feeds and speeds.

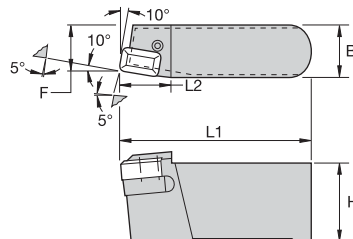
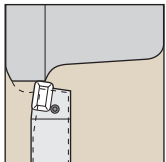
Application Specific



■ Wheel Tread Contouring

order number	catalog number	H		B		F		L1		L2		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
1015659	SUWTCL	76,20	3.000	57,15	2.250	57,15	2.250	254,00	10.000	66,55	2.620	KRR6586__
1015658	SUWTCR	76,20	3.000	57,15	2.250	57,15	2.250	254,00	10.000	66,55	2.620	KRR6586__

NOTE: Requires two inserts.



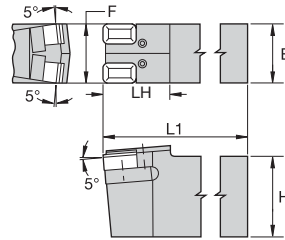
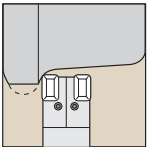
■ Wheel Flange Topping

order number	catalog number	H		B		F		L1		L2		insert 1
		mm	in	mm	in	mm	in	mm	in	mm	in	
1015690	NUFRL	63,50	2.500	41,28	1.625	36,53	1.438	152,40	6.000	39,62	1.560	KRR6586__
1015689	NUFRR	63,50	2.500	41,28	1.625	36,53	1.438	152,40	6.000	39,62	1.560	KRR6586__

- Maximum productivity at minimum operating costs.
- Fast insert indexing tool mounted in tool block.
- Individual steel locking units make it easy to index and lock each insert.
- Gage location on tool, over insert, is held to +/- .003" (0,08mm).
- No top clamp to wear out or interfere with chip flow.
- Replaceable steel locking unit protects toolholder from damage.
- Indexable inserts with pre-formed chipbreakers deliver chip control at optimum feeds and speeds.



Simmons-Niles Wheel Turning Lathe



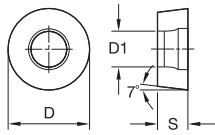
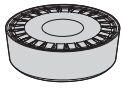
■ Wheel Tread Contouring

order number	catalog number	H		B		F		L1		LH		insert 1	steel locking unit	lock screw
		mm	in	mm	in	mm	in	mm	in	mm	in			
1015684	NUWTC	76,20	3.000	57,15	2.250	57,15	2.250	412,75	16.250	95,25	3.750	KRR6586_	SU3	S1006PKG

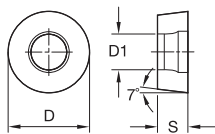
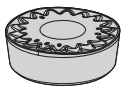
NOTE: Requires two inserts.



Application Specific


RCMX-UPG

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMX2507M0TUPG	RCMX2507M0TUPG	25	.984	7,19	.283	7,94	.313	-	-	-	●	-	●	-	-
RCMX3209M0TUPG	RCMX3209M0TUPG	32	1.260	9,78	.385	9,52	.375	-	-	-	●	-	●	-	-


RCMX-RU

ISO catalog number	ANSI catalog number	D		D1		S		KCK15B	KCK20	KCP10	KCP10B	KCP25	KCP25B	KCPK05	KCU10
		mm	in	mm	in	mm	in								
RCMX2507M0RU	RCMX2507M0RU	25	.984	7,19	.283	7,94	.313	-	●	-	-	-	-	-	-
RCMX3209M0RU	RCMX3209M0RU	32	1.260	9,78	.385	9,53	.375	-	●	-	-	-	-	-	-

● first choice
○ alternate choice

P	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○
M	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
K	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
N	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
S	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
H	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○



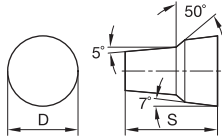
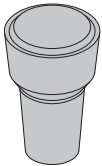
Application Specific

➤ K-Lock™ Inserts



Features and Benefits

- K-Lock inserts are ideal for deep grooving and profiling.
- A unique insert clamping system enables unimpeded chip flow.
- Available in molded and ground peripheries.

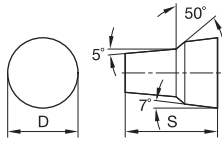


● first choice
○ alternate choice

P	■	○	○	○	○	○
M	■	●	●	●	●	●
K	■	○	○	○	○	○
N	■	○	○	○	○	○
S	■	●	●	●	●	●
H	■	○	○	○	○	○

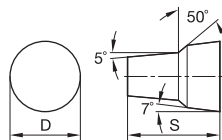
■ RCGK-FS

ISO catalog number	ANSI catalog number	D		S		K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in						
RCGK040300FS	RCGK152FS	4,76	3/16	6,38	.251	-	●	-	-	-	-
RCGK060400FS	RCGK23FS	6,35	1/4	9,09	.358	-	-	-	●	-	-
RCGK090700FS	RCGK35FS	9,53	3/8	13,23	.521	-	●	-	●	●	-
RCGK120800FS	RCGK46FS	12,70	1/2	16,61	.654	-	●	-	-	-	-



■ RCGK-HP

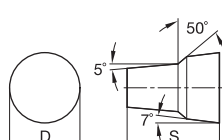
ISO catalog number	ANSI catalog number	D		S		K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in						
RCGK040300HP	RCGK152HP	4,76	3/16	6,38	.251	-	●	-	-	-	-
RCGK060400HP	RCGK23HP	6,35	1/4	9,09	.358	-	-	-	●	-	-
RCGK090700HP	RCGK35HP	9,53	3/8	13,23	.521	-	●	-	-	-	●
RCGK120800HP	RCGK46HP	12,70	1/2	16,61	.654	-	●	-	-	-	●



■ RCMK

ISO catalog number	ANSI catalog number	D		S		K68	KCU10	KCU25	KC5010	KC5025	KC5410
		mm	in	mm	in						
RCMK040300	RCMK152	4,76	3/16	6,38	.251	-	-	-	●	-	-
RCMK060400	RCMK23	6,35	1/4	9,09	.358	-	●	-	●	-	-
RCMK090700	RCMK35	9,53	3/8	13,23	.521	-	-	●	-	-	-
RCMK120800	RCMK46	12,70	1/2	16,61	.654	-	-	-	-	-	-

- Medium geometry with positive rake face for chip control in difficult materials.

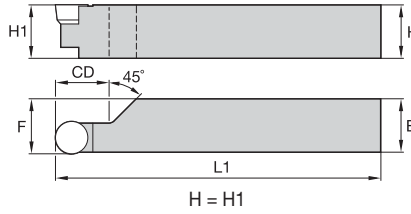
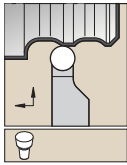


● first choice
○ alternate choice

P	■	○	○	○	○	○
M	■	●	●	●	●	●
K	■	○	○	○	○	○
N	■	○	○	○	○	○
S	■	●	●	●	●	●
H	■	○	○	○	○	○

■ RCMK-MP

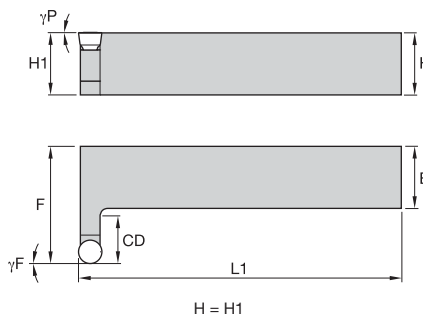
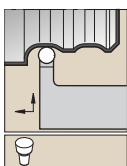
ISO catalog number	ANSI catalog number	D		L10		Re		K68	KCU10	KCU25	KC5010	KC5025	KC5410	KCS10
		mm	in	mm	in	mm	in							
RCMK060400MP	RCMK23MP	6,35	1/4	-	-	-	-	-	-	-	-	-	-	●
RCMK090700MP	RCMK35MP	9,53	3/8	-	-	-	-	-	-	-	-	-	-	●
RCMK120800MP	RCMK46MP	12,70	1/2	-	-	-	-	-	-	-	-	-	-	●



■ **TRAO**

Application Specific

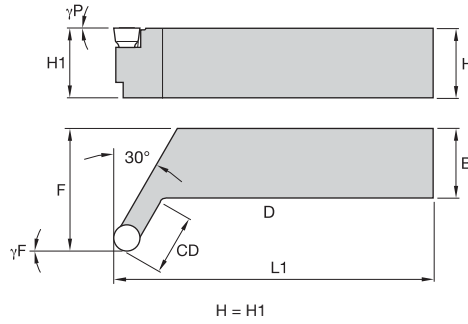
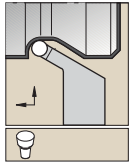
catalog number	H1	B	F	L1	CD	γ_F°	γ_P°	gage insert
right hand								
TRAOR1615D	1.00	1.00	1.003	6.00	.50	0.0	0.0	RC..152
TRAOR162D	1.00	1.00	1.016	6.00	.75	0.0	0.0	RC..23
TRAOR163D	1.00	1.00	1.020	6.00	.75	0.0	0.0	RC..35
TRAOR164D	1.00	1.00	1.032	6.00	1.00	0.0	0.0	RC..46
TRAOR2015D	1.25	1.25	1.253	6.00	.50	0.0	0.0	RC..152
TRAOR202D	1.25	1.25	1.266	6.00	.75	0.0	0.0	RC..23
TRAOR203D	1.25	1.25	1.270	6.00	.75	0.0	0.0	RC..35
TRAOR204D	1.25	1.25	1.282	6.00	1.00	0.0	0.0	RC..46
TRAOR2415E	1.50	1.50	1.503	7.00	.50	0.0	0.0	RC..152
TRAOR242E	1.50	1.50	1.516	7.00	.75	0.0	0.0	RC..23
TRAOR243E	1.50	1.50	1.520	7.00	.75	0.0	0.0	RC..35
TRAOR244E	1.50	1.50	1.532	7.00	1.00	0.0	0.0	RC..46
left hand								
TRAOL1615D	1.00	1.00	1.003	6.00	.50	0.0	0.0	RC..152
TRAOL162D	1.00	1.00	1.016	6.00	.75	0.0	0.0	RC..23
TRAOL163D	1.00	1.00	1.020	6.00	.75	0.0	0.0	RC..35
TRAOL164D	1.00	1.00	1.032	6.00	1.00	0.0	0.0	RC..46
TRAOL2015D	1.25	1.25	1.253	6.00	.50	0.0	0.0	RC..152
TRAOL202D	1.25	1.25	1.266	6.00	.75	0.0	0.0	RC..23
TRAOL203D	1.25	1.25	1.270	6.00	.75	0.0	0.0	RC..35
TRAOL204D	1.25	1.25	1.282	6.00	1.00	0.0	0.0	RC..46
TRAOL2415E	1.50	1.50	1.503	7.00	.50	0.0	0.0	RC..152
TRAOL242E	1.50	1.50	1.516	7.00	.75	0.0	0.0	RC..23
TRAOL243E	1.50	1.50	1.520	7.00	.75	0.0	0.0	RC..35
TRAOL244E	1.50	1.50	1.532	7.00	1.00	0.0	0.0	RC..46



■ **TRHO**

catalog number	H1	B	F	L1	CD	γ_F°	γ_P°	gage insert
right hand								
TRHOR1615D	1.00	1.00	1.625	6.00	.50	0.0	0.0	RC..152
TRHOR162D	1.00	1.00	1.875	6.00	.75	0.0	0.0	RC..23
TRHOR2015D	1.25	1.25	1.875	6.00	.50	0.0	0.0	RC..152

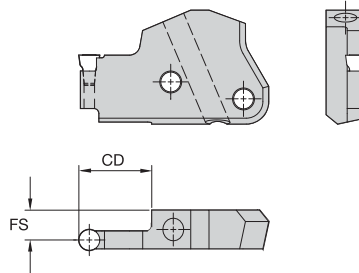
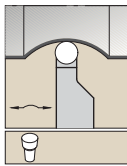
NOTE: Left-hand holders are available as specials.


TRTO

catalog number	H1	B	F	L1	CD	γF°	γP°	gage insert
right hand								
TRTOR1615D	1.00	1.00	1.500	6.00	.55	0.0	0.0	RC..152
TRTOR162D	1.00	1.00	1.750	6.00	.84	0.0	0.0	RC..23
TRTOR2015D	1.25	1.25	1.750	6.00	.55	0.0	0.0	RC..152
TRTOR202D	1.25	1.25	2.000	6.00	.84	0.0	0.0	RC..23

NOTE: Left-hand holders are available as specials.

Application Specific

Modular Blades

TRM

catalog number	CD		FS		cartridge size	gage insert
	mm	in	mm	in		
right hand						
TRM50R0432M	32	1.25	9,62	.379	50	RCMK152
TRM50R0620M	19	.75	8,98	.354	50	RCMK23
TRM50R0632M	32	1.25	8,98	.354	50	RCMK-23
TRM50R0640M	38	1.50	8,98	.354	50	RCGK23
TRM50R0720M	19	.75	8,42	.332	50	RCMK-2.55
TRM50R0920M	19	.75	7,64	.301	50	RC_K35
TRM50R0932M	32	1.25	7,65	.301	50	RCMK-35
TRM50R0940M	38	1.50	7,64	.301	50	RC_K35
TRM50R0950M	50	1.95	7,65	.301	50	RCMK-35
left hand						
TRM50L0432M	32	1.25	9,62	.379	50	RCMK152
TRM50L0620M	19	.75	8,98	.354	50	RCMK23
TRM50L0632M	32	1.25	8,98	.354	50	RCMK-23
TRM50L0640M	38	1.50	8,98	.354	50	RCGK23
TRM50L0920M	19	.75	7,64	.301	50	RC_K35
TRM50L0932M	32	1.25	7,65	.301	50	RCMK-35
TRM50L0950M	50	1.95	7,65	.301	50	RCMK-35

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1015658	.....SUWTCR	.....E64	1017298	.....ICSN533 K9	.....B61-65, B67-69, B71, B74-76	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020943	.....SSA3T	.....D71-72, D74-79
1015659	.....SUWTCR	.....E64	1017300	.....ISSN633 K9	.....B111-115, B119-120	1019480	.....STC27	.....B183-185, B388-390, B392	1020965	.....SSA4T	.....D71-72, D74-79
1015684	.....NUWTC	.....E65	1017302	.....IRSN63 K9	.....B98	1019640	.....S111	.....B165, B172-173, B179-182, B184, B188, B372-382, B390, B393, C184, D28, D38, E40, E48-49	1020973	.....MS412	.....C196, D41
1015687	.....FUWTCR	.....E63	1017334	.....ICSN633 K9	.....B59, B61-65, B68, B71, B74-76	1019656	.....S125	.....B172-173, B179-184, B188, B375-382, B389-390, B393	1020975	.....MS125	.....B186, B397
1015688	.....FUWTCR	.....E63	1018325	.....CK6	.....B63, B71, B98, B111, B113, B132-137, B163, B373	1019694	.....S19	.....B165, B183, B376, B389	1020977	.....MS1273	.....C52-55, T119-120
1015689	.....NUFR	.....E64	1018327	.....CK7	.....B69, B76, B89-90, B93, B96, B133, B139, B143, B165, B172, B183-185, B376, B389-390, B392	1019696	.....S112	.....C184, D28	1021007	.....MS1321	.....B168-169, B386-387
1015690	.....NUFR	.....E64	1018329	.....CK9	.....B62, B65, B98, B111-114, B132-139, B143, B172-173, B179, B181-184, B374-382, B389-390	1019818	.....S625	.....E41, E45	1021037	.....MS1027	.....B209-212, B216
1015723	.....HUWTCR	.....E63	1018331	.....CK10	.....B172-173, B179, B181-184, B188, B374-382, B389-390, B393	1019858	.....S518	.....E44-46	1021039	.....MS1028	.....B210-211
1015754	.....HUWTCR	.....E63	1018333	.....CK7LP	.....B170, B388, B392-393	1019864	.....S524	.....E41-42, E44-46	1021051	.....MS1025	.....C196, D41
1016432	.....MCLNL164C	.....B63	1018345	.....CK12	.....B61-65, B69, B71, B75-76, B89-90, B93, B96, B98, B111-112, B114, B120, B133-134, B137, B165, B373, B376	1019888	.....S325	.....B409	1021143	.....MS364	.....B74, B115, B119
1016454	.....MDJNR204D	.....B89	1018347	.....CK13	.....B165, B180, B376, B379-380	1019892	.....S327	.....B406-407, B409	1021183	.....MS1375	.....K89-90
1016456	.....A16TMCLNR4	.....B71	1018349	.....CK19	.....B132, B135-136, B179, B181-185, B378, B381-382, B389-390, B392	1019924	.....S330	.....B406-407, B409	1021301	.....MS1571	.....C135-136
1016462	.....NSR163D	.....C182, D27	1018351	.....CK20	.....B60-64, B69-71, B75-76, B89-90, B163, B165, B183-185, B372-374, B389-390, B392	1019926	.....S415	.....B407-408	1021337	.....MS1152	.....B273, B276-278, J25, J27, J29, J31, J33, J35, J37, J39
1016474	.....NSR245D	.....C182, D27	1018353	.....CK21	.....B61, B66, B69, B89-99, B120, B371-372	1019932	.....S425	.....B408, S122	1021339	.....MS1153	.....B193-197, B209-215, B217-223, B227-230, B234-237, B243-245, B259-262, B270-279, B282-285, B287, B289-290, B292, K78-80, K85, K89-90
1016544	.....SM837 K9	.....B186, B397	1018365	.....CK22	.....B92, B96, B155, B165, B389	1019938	.....S39	.....C191, C193, D35-37	1021341	.....MS1155	.....B193, B195-198, B212-215, B217, B220, B227-230, B234-235, B237, B245, B254-255, B261-262, B271-279, B282-285, B287, B289-290
1016582	.....SM449 K9	.....T113	1018367	.....CK23	.....B89-90, B180, B379-380	1019988	.....S325	.....B409	1021343	.....MS1156	.....B193-196, B227-229, B243-244, B259-260, B282, C127-128
1016596	.....SM414 K9	.....E40, E48-49	1018369	.....CK24	.....B63-64, B98, B111-112	1020018	.....S337	.....B406-407, B409	1021375	.....MS1158	.....B194, B243
1016598	.....SM432 K9	.....B372-373	1018373	.....CK27	.....B183-185, B388-390, B392	1020044	.....S340	.....B406-407, B409	1021393	.....MS1281	.....U17-18
1016602	.....SKTP343 K9	.....B259-260	1018395	.....CK28	.....B374	1020056	.....S350	.....B406-407, B409	1021415	.....MS1282	.....U17-18
1016624	.....SKCP343 K9	.....B193-196	1018401	.....CK43	.....B152-155	1020058	.....S352	.....C182, C187, C191, D26-27, D35	1021417	.....MS1284	.....U17-18
1016626	.....SKDP343 K9	.....B227-229	1018407	.....CM105	.....E45	1020060	.....S353	.....B406-407, B409	1021419	.....MS1285	.....C52-55
1016628	.....SKCP453 K9	.....B194	1018413	.....CM109	.....C190, D36-37	1020272	.....S965	.....D29	1021421	.....STCM9	.....B72-74, B94-95, B115-117, B119, B140-142
1016644	.....IVSN433 K9	.....B163	1018447	.....CM111	.....E46	1020355	.....SL344	.....B170, B172, B179, B181-182, B372-374, B376, B378, B381-382, B393, C184, D28, E41, E45	1021423	.....STCM11	.....U28-29, U35-36
1016646	.....SMRN42B K9	.....B170, B385	1018449	.....CM112	.....E46	1020361	.....S959	.....E41-47, E49	1021455	.....STCM8	.....B74, B115, B119, B186, B397
1016648	.....ITSN323 K9	.....B131-135, B137, B139, B143	1018525	.....CM66	.....E41, E45	1020545	.....MS1861	.....H100	1021463	.....STCM20	.....B74
1016650	.....ITSN636 K9	.....B134, B137	1018527	.....CM68	.....E41-42, E44-46	1020567	.....CKM41	.....B74, B94	1021503	.....STCM32	.....U28
1016652	.....ISSN322 K9	.....B111, B113	1018529	.....CM71	.....E41, E44-45	1020787	.....KUAM20	.....B217-223, B245, B276-278	1021505	.....STCM37	.....B140-142
1016674	.....ISSN433 K9	.....B109, B111-113, B120	1018531	.....CM72	.....C193, D31-33, D36, D39	1020789	.....KUAM22	.....B72-74, B94, B115-119, B140-142, B174, B186-187, B394, B397-398	1021507	.....STCM38	.....B72-74, B94, B115-119, B140-142, B174-176, B186-187, B394-398
1016678	.....ICSN433 K9	.....B58-65, B67-71, B75-76	1018533	.....CM73	.....C193, D31-33, D36, D39	1020811	.....KUAM30	.....B72, B115-119, B175-176, B186, B217, B220, B236-237, B254-255, B276-279, B395-397	1021511	.....STCM40	.....B74, B94, B115-117, B119
1016682	.....IDSN443 K9	.....B87-93, B96	1018567	.....CM79	.....E41, E44-46	1020813	.....KUAM31	.....B72-74, B94, B115-119, B140-142, B174, B186-187, B198, B245, B249-251, B276-279, B395-397	1021515	.....STCM43	.....B72-74, B115-119
1016694	.....IDSN533 K9	.....B89-90	1018569	.....CM80	.....C182, C187, C191, D26-27, D32, D35	1020835	.....KUAM32	.....B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	1021537	.....KLM46	.....B72, B74, B94-95, B140-142
1016700	.....SM26 K9	.....B375	1018571	.....CM81	.....C182, C187, D26-27, D32	1020805	.....KUAM26	.....B74, C196, D41	1021539	.....KLM58	.....B74
1016724	.....SM36 K9	.....B172-173, B376-378	1018647	.....MW25	.....U28-29, V148-149	1020807	.....KUAM27	.....B74, B115, B119, T91-92	1021541	.....KLM68	.....B74, B115, B119
1016726	.....SM37 K9	.....B179-184, B188, B378-382, B389-390, B393	1018649	.....MW3	.....U35-37	1020809	.....KUAM28	.....B72, B115-119, B175-176, B186, B217, B220, B236-237, B254-255, B276-279, B395-397	1021543	.....KLM33L	.....B94, B140-142
1016728	.....SM40 K9	.....B172-173, B376-378	1019380	.....STC4	.....B61-65, B69, B71, B75-76, B89-90, B93, B96, B98, B111-114, B120, B132-139, B143, B152-155, B165, B172-173, B179-184, B188, B373-382, B389-390, B393	1020811	.....KUAM30	.....B72, B115-119, B175-176, B186, B217, B220, B236-237, B254-255, B276-279, B395-397	1021565	.....KLM34L	.....B140-142
1016730	.....SM41 K9	.....B179-184, B188, B378-382, B389-390, B393	1019382	.....STC5	.....B63, B71, B89-90, B93, B96, B98, B111, B113, B132-137, B163, B172, B179, B373, B376, B378	1020835	.....KUAM32	.....B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	1021569	.....KLM46S	.....B72-74, B94-95, B115-117, B119
1016746	.....SM45 K9	.....B373	1019388	.....STC8	.....B165, B172-173, B179-184, B188, B376-382, B389-390, B393	1020839	.....KUAM34	.....B217-223, B245, B276-278	1021589	.....FT5	.....K78
1016748	.....SM46 K9	.....B373	1019390	.....STC9	.....B69, B76, B132-133, B135-136, B139, B143, B165, B170, B179, B181-185, B376, B378, B381-382, B388-390, B392-393	1020841	.....KUAM35	.....B217, B220, B222-223	1021591	.....FT7	.....K78-80, K85, K89-90, K124-125
1016750	.....SM47 K9	.....B374	1019392	.....STC11	.....B71, B165, B180, B183-185, B372-373, B379-380, B389-390, B392	1020843	.....KUAM25	.....B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	1021593	.....FT8	.....K42, K85
1016752	.....SM48 K9	.....B375	1019434	.....STC19	.....B63-64, B98, B111-112, B172, B376	1020891	.....SRS3	.....B193-196, B227-229, B259-260, B282, S39, T113	1021605	.....FT15	.....K85, K124-125
1016820	.....SM119 K9	.....B179, B181-182, B378, B381-382	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020917	.....SRS3	.....B193-196, B227-229, B259-260, B282, S39, T113	1021607	.....FT20	.....K124-125
1016822	.....SM120 K9	.....B172, B376	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020919	.....SRS4	.....B194	1021657	.....CM113	.....E43, E47, E49
1016922	.....SM216 K9	.....B375	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020923	.....SSY3T	.....D71-72, D74-79	1021659	.....CM114	.....E43
1016944	.....SM218 K9	.....B373	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020925	.....SSY4T	.....D71-72, D74-79	1021661	.....CM116	.....E40, E48
1016950	.....SM271 K9	.....E41, E45	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020935	.....SSY4T	.....D71-72, D74-79	1021663	.....CM117	.....E40
1016952	.....SM272 K9	.....E41	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020939	.....MS1374	.....T89-92	1021675	.....CM118	.....E48-49
1016964	.....SM285 K9	.....E41-42, E44-46	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021677	.....CM119	.....E49
1016966	.....SM286 K9	.....E41-42, E44-46	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021679	.....CM120	.....C184, C187, C191, D26, D28, D32, D35
1017084	.....SM369 K9	.....B165, B376, B389	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021681	.....CM121	.....C184, C187, C191, C195, D26, D28, D32, D35, D38
1017166	.....SM396 K9	.....B372	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021711	.....CM145	.....C195, D38
1017168	.....SM412 K9	.....E43, E47, E49	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021827	.....BP812	.....B170, B385
1017170	.....SM417 K9	.....B210-211	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021829	.....BP46	.....B170, B385
1017172	.....SM420 K9	.....C184, D28	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941	.....SSN2T	.....D74-75	1021831	.....BP68	.....B170, B385
1017174	.....SMY43 K9	.....D71-72, D74-75, D77-79	1019436	.....STC20	.....B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	1020941</					



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1022115	KL34L	B63, B89-90, B96, B98, B132-137, B139, B143, B152-155	1025932	KS64LINE1240	U17	1094494	SCLCLF082D	B195	1094618	SVJBLF082D	B283
1022117	KL46	B60-65, B69-71, B75-76, B98, B111-113, B120, B132-139, B143, B152-155, B163	1025933	KS84LINE1240	U17	1094495	SCLCRF083D	B195	1094621	SROCN203	B244
1022119	KL46L	B66, B89-90, B92-93, B96, B99, B371	1025964	KS45LINE1245	U17	1094496	SCLCLF083D	B195	1094651	A0506STFPR18	B273
1022121	KL58	B61-65, B69, B71, B75-76, B89-90, B111-113, B133-137	1025965	KS65LINE1245	U17	1094497	SCMCN062	B195	1094653	A06MSTFPR2	B271
1022123	KL68	B61-65, B71, B75-76, B98, B111-114, B120	1025966	KS46LINE1245	U17	1094498	SCMCN082	B195	1094654	A06MSTFPR2	B271
1022135	KL44	B69, B71, B76, B114	1025967	KS66LINE1245	U17	1094500	SCMCN083	B195	1094655	A08RSTFPR2	B271
1022141	KL810	B63-64, B98, B111-112	1025968	KS86LINE1245	U17	1094501	SCMCN103	B195	1094656	A08RSTFPL2	B271
1022315	TT15	K42-43, T119-120, B17-18	1025969	KS48LINE1255	U17	1094502	SCMCN123	B195	1094657	A10SSTFPR2	B271
1022436	CKM37	B74, B115-117, B119	1025970	KS68LINE1255	U17	1094511	SCRCR083	B196	1094659	A12SSTFPR3	B271
1022485	DT7	U13, W40	1025971	KS88LINE1255	U17	1094512	SCRCR083	B196	1094660	A12SSTFPL3	B271
1022487	DT8	U3, W29-31, W40, W42-43	1067613	CM74	C182-183, C185-188, C191-193, C196, D25-27, D29-31, D33, D35-36, D39, D41	1094513	SCRCR103	B196	1094661	A16STFPR3	B271
1022489	DT9	V156	1067614	CM75	C182-183, C185, C187-188, C191-193, C196, D25-27, D30-31, D33, D35-37, D39, D41	1094519	SDJCR062	B228	1094663	A0306GSCDLR12	B203
1022491	DT10	U3, W40-43	1067630	CM146	C191-193, D35-37, D39-40	1094520	SDJCL062	B228	1094664	A0306GSCDLR12	B203
1022493	DT15	S56, S58, T89-92, U3, V155-156	1067631	CM147	C191-193, D35-37, D39-40	1094521	SDJCR082	B228	1094665	A0406HSCDLR12	B203
1022519	TT25	K42-43, V87-88, V91, W40-43	1067765	KS254BLNE1240	U18	1094522	SDJCL082	B228	1094666	A0406HSCDLR12	B203
1022521	TT30	K42-43, W41	1067766	KS255BLNE1245	U18	1094523	SDJCR102	B228	1094667	A0506KSCLP18	B215
1022649	S319PKG	B406-407	1080487	S4440W	B406	1094524	SDJCL102	B228	1094669	A06MISCLPR2	B213
1022691	KT6	V123	1082075	D24TTB21	B409	1094525	SDJCR083	B228	1094670	A06MISCL2L	B213
1022695	KT8	K76, V122-123	1082671	SCFPR08CA06	B217	1094526	SDJCL083	B228	1094671	A08RSCLP2	B213
1022697	KT9	S64, S67, S70	1083005	MCLN164C	B63	1094527	SDJCR103	B228	1094672	A08RSCLP2L	B213
1022701	KT15	K76, K89-90, S122-123, V121-123	1085234	CSPR164D	B173, B378	1094528	SDJCL123	B228	1094673	A10SSCLPR2	B213
1022703	KT20	V121-123, V132-133	1085914	D20TTB18	B409	1094530	SDJCL123	B228	1094675	A10SSCLPR3	B213
1022725	KT25	C143, C145	1086536	SCSPR08CA06	B222	1094531	SDJCR163	B228	1094676	A12SSCLPR3	B213
1022727	KT27	K77-78, K88	1086694	D28TTB25	B409	1094532	SDJCL163	B228	1094677	A12SSCLPR3	B213
1023055	S1006PKG	E65	1091551	D16TTB16	B409	1094533	SVJBR062	B282	1094678	A12SSCLPR3	B213
1023244	S422	B408, C184, C195, D28, D38, T109, V47, V54	1091555	D40TTB35	B409	1094534	SVJBL062	B282	1094679	A16TSCLP3	B213
1023315	S458	S5, S10, S14, S17, S20, S24, S32, S45, S50, S56, S58, S64, S67, S121-123, T7, T33, T113, U18, U29, V38, V54, V58	1092071	STC26	B165, B389	1094535	SVJBR082	B282	1094680	A16SCLPL3	B213
1024853	D32TTB28	B409	1093271	75HC060M	G79	1094536	SVJBL082	B282	1094681	A08RSDXP2	B235
1024930	KSSIR300SD430C4	T113	1093272	75HC080M	G79	1094537	SVJBR102	B282	1094682	A08RSDXP2L	B235
1024931	KSSIR300SD430M4	T113	1093273	75HC120M	G79	1094538	SVJBL102	B282	1094683	A10SSDXPR2	B235
1024932	KSSIR300SD430F4	T113	1093524	75HC120M	G79	1094539	SVJBR123	B282	1094684	A10SSDXPL2	B235
1024933	KSSIR500SD430C6	T113	1093525	75HC140M	G79	1094540	SVJBL123	B282	1094685	A12SSDXPR3	B235
1024964	KSSIR500SD430M6	T113	1093526	75HC160M	G79	1094541	SVJBR163	B282	1094687	A16TSDXP3	B235
1024965	KSSIR500SD430F6	T113	1094300	MS1595	C34-41, C46-47, C49-50, C52-55, C122-126, C129, C131-133	1094542	SVJBL163	B282	1094688	A16TSDXP3L	B235
1024966	KSSIR600SD430C6	T113	1094409	STFCR062	B259	1094543	SROCN102	B244	1094689	A06MSDUPR2	B234
1024967	KSSIR600SD430M6	T113	1094410	STFCL062	B259	1094544	SROCN122	B244	1094690	A06MSDUP2L	B234
1024968	KSSIR600SD430F6	T113	1094421	STGCR062	B260	1094545	SROCN162	B244	1094691	A08RSDUPR2	B234
1024970	KSSIR200SD430C3	T113	1094422	STGCL062	B260	1094546	SROCN123	B244	1094692	A08RSDUP2L	B234
1024972	KSSIR200SD430M3	T113	1094423	STGCR082	B260	1094547	SROCN163	B244	1094693	A10SSDUPR2	B234
1024974	KSSIR200SD430F3	T113	1094424	STGCL082	B260	1094548	SRGCR122	B244	1094694	A10SSDUP2L	B234
1024998	KSSIR250SD430M4	T113	1094427	STGCR103	B260	1094550	SRGCR162	B244	1094695	A12SSDUPR3	B234
1025000	KSSIR250SD430F4	T113	1094428	STGCL103	B260	1094551	SRGCL162	B244	1094696	A12SSDUP3	B234
1025025	KSSIR400SD430C5	T113	1094429	STGCR123	B260	1094554	SRGCR163	B244	1094697	A16TSDUPR3	B234
1025027	KSSIR400SD430C6	T113	1094430	STGCL123	B260	1094556	SRGCR203	B244	1094698	A16TSDUP3L	B234
1025029	KSSIR400SD430M5	T113	1094433	SCACR052D	B193	1094557	SRGCL203	B244	1094699	A12SSVUBR2	B285
1025031	KSSIR400SD430M6	T113	1094435	SCACR062D	B193	1094572	SCGCR163	B194	1094700	A12SSVUBL2	B285
1025033	KSSIR400SD430F5	T113	1094436	SCACLO62D	B193	1094573	SCGCL163	B194	1094701	A16TSSVUBR3	B285
1025065	KSSIR400SD430F6	T113	1094437	SCACR083D	B193	1094576	SCLCR163	B194	1094702	A16TSSVUBL3	B285
1025071	KSSIR600SD430C8	T113	1094438	SCACLO83D	B193	1094577	SCLCL163	B194	1094703	A0306SWLPR15	B291
1025094	KSSIR600SD430M8	T113	1094443	SCFCR082	B193	1094578	SCMCN163	B195	1094704	A0306SWLPL15	B291
1025102	KSSIR800SD430C10	T113	1094444	SCFCL082	B193	1094581	STFCR163	B259	1094705	A0406SWLPR15	B291
1025134	KSSIR800SD430M10	T113	1094445	SCGCR062	B194	1094583	STGCR163	B260	1094707	A0506KSWLPR15	B291
1025136	KSSIR800SD430F10	T113	1094457	SCGCR102	B194	1094584	STGCL163	B260	1094709	A06MSWLP2	B289
1025140	KSSIR1000SD430M10	T113	1094459	SCGCR103	B194	1094589	SCACR103B	B193	1094711	A08RSWLP2	B289
1025612	HSFS0125	H86, H128-129, J13-15, J52-53, J89	1094461	SCGCR123	B194	1094590	SCACL103B	B193	1094712	A08RSWLP2L	B289
1025861	KS44BLNE1240	U18	1094462	SCGCL123	B194	1094591	SCLCRF52Z	B195	1094713	A10SSWLP3	B289
1025862	KS45BLNE1245	U18	1094475	SCLCR052	B194	1094593	SCLCRF103B	B195	1094714	A10SSWLP3L	B289
1025863	KS46BLNE1245	U18	1094476	SCLCL052	B194	1094594	SCLCLF103B	B195	1094715	A12SSWLP3	B289
1025894	KS48BLNE1255	U18	1094477	SCLCR062	B194	1094595	SDACR062D	B227	1094716	A12SSWLP3L	B289
1025895	KS54BLNE1240	U17	1094478	SCLCL062	B194	1094596	SDACL062D	B227	1094717	A16SWLPR3	B289
1025896	KS55BLNE1245	U17	1094479	SCLCR082	B194	1094597	SDACR082D	B227	1094719	A10SSVQBR2	B284
1025897	KS85BLNE1245	U17	1094480	SCLCL082	B194	1094598	SDACL082D	B227	1094720	A10SSVQBL2	B284
1025898	KS56BLNE1245	U17	1094481	SCLCR102	B194	1094599	SDACR103B	B227	1094721	A12SSVQBR2	B284
1025899	KS58BLNE1255	U17	1094482	SCLCL102	B194	1094600	SDACL103B	B227	1094722	A12SSVQBL2	B284
1025930	KS34BLNE1240	U17	1094483	SCLCR103	B194	1094601	SDJCRF062D	B228	1094723	A16TSSVQBR3	B284
1025931	KS44BLNE1240	U17	1094484	SCLCL103	B194	1094602	SDJCLF062D	B228	1094724	A16TSSVQBL3	B284
			1094485	SCLCR123	B194	1094603	SDJCRF082D	B228	1094725	A06MSCFP2	B212
			1094486	SCLCL123	B194	1094604	SDJCLF082D	B228	1094726	A06MSCFP2L	B212
			1094491	SCLCRF062D	B195	1094605	SDJCRF103B	B228	1094727	A08RSCFP2	B212
			1094492	SCLCLF062D	B195	1094606	SDJCLF103B	B228	1094728	A08RSCFP2L	B212
			1094493	SCLCRF082D	B195	1094607	SVABR062D	B282	1094729	A10SSCFPR2	B212
						1094608	SVABLO62D	B282	1094730	A10SSCFPL2	B212
						1094609	SVABR082D	B282	1094731	A12SSCFPR3	B212
						1094610	SVABLO82D	B282	1094732	A10SSCFPL3	B212
						1094611	SVABR103B	B282	1094733	A16SCFPR3	B212
						1094612	SVABL103B	B282	1094745	A06MSTLPR2	B274
						1094613	SVJBRF103B	B283	1094746	A06MSTLPL2	B274
						1094614	SVJBLF103B	B283	1094747	A08RSTLPR2	B274
						1094615	SVJBRF062D	B283	1094748	A08RSTLPL2	B274
						1094616	SVJBLF062D	B283	1094749	A10SSTLPR2	B274
						1094617	SVJBRF082D	B283	1094750	A10SSTLPL2	B274

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1094751	A12SSTLPR3	B274	1094956	A10SSCLPL3AP5	B216	1095539	H40MVUNL4	B155	1095832	B16CTFPR3	B184, B390
1094752	A12SSTLPL3	B274	1094957	A12SSCLPL3AP5	B216	1095540	H40MCKNR5	B75	1095833	B20CTFPR3	B184, B390
1094753	A16STLPR3	B274	1094958	A16SCLPL3AP5	B216	1095541	H40MCKNL5	B75	1095834	B24CTFPR4	B184, B390
1094755	A05KSTFPR18	B271	1095001	H24CRGNR4	B170, B393	1095542	H40CTFPR4W	B188, B393	1095836	B32CTFPR4	B184, B390
1094757	A08SCLPR2D	B217	1095003	H32CRGNR4	B170, B393	1095548	H40MCLNR5	B76	1095839	D5420W	B407
1094758	A10SCLPR2D	B217	1095216	H16LSER3	D76	1095549	H40MCLNL5	B76	1095840	D5424W	B407
1094759	A12SCLPR3D	B217	1095218	H20LSER3	D76	1095550	H40MCLNR6	B76	1095841	D5428W	B407
1094792	A16CRGNR3	B388	1095220	H24LSER3	D76	1095551	H40MCLNL6	B76	1095842	D5432W	B407
1094793	A16CRGNL3	B388	1095222	H32LSER3	D76	1095553	H40MDUNR4	B96	1095844	D5440W	B407
1094816	A08RCTLNR2	B388	1095224	H24LSER4	D76	1095556	H40MDUNL4	B96	1095901	A10NKLCRO5	E44
1094818	A10SCTLNR2	B388	1095226	H32LSER4	D76	1095558	H40MCKNR6	B120	1095902	A12SNKLCRO5	E44
1094819	A10CTLNL2	B388	1095291	H40MCKNR6	B75	1095560	H40MCKNL6	B120	1095903	A16NKLCRO5	E44
1094824	A08NER2	C191, D35	1095308	H16MCLNR4	B76	1095571	H40NER6W	C195, D38	1095904	A12SNKLCRO5	E44
1094825	A08NEL2	C191, D35	1095309	H16MCLNL4	B76	1095573	H40MTFNR4	B143	1095905	A24NKLCRO5	E44
1094826	A06NER1	C190, D36	1095313	H20MTFNR3	B143	1095574	NASR083D	C185, D25	1095908	A10SNKLCLO5	E44
1094827	A08NER1	C190, D36	1095314	H20NER3W	C195, D38	1095575	NASL083D	C185, D25	1095909	A12SNKLCLO5	E44
1094828	A10NER1	C190, D36	1095315	H20NEL3W	C195, D38	1095576	NASR102B	C185, D25	1095910	A16TNKLCLO5	E44
1094829	A10SNER2	C191, D35	1095317	H20MVUNR3	B155	1095577	NASL102B	C185, D25	1095915	A08NKQCR05	E46
1094830	A10SNEL2	C191, D35	1095318	H20MVUNL3	B155	1095580	NEL062	C187, D26	1095916	A12SNKQCR05	E46
1094831	A12SNER2	C191, D35	1095321	H20CTFPR3W	B188, B393	1095581	NER062	C187, D26	1095917	A16NKQCR05	E46
1094832	A12NEL2	C191, D35	1095325	H20MCLNR4	B76	1095582	NSL062	C182, D27	1095918	A08NKQCL05	E46
1094833	A16TNER2	C191, D35	1095326	H20MCLNL4	B76	1095583	NSR062	C182, D27	1095919	A12SNKQCL05	E46
1094834	A16TNEL2	C191, D35	1095334	H20MDUNR4	B96	1095588	STGPR062	B270	1095920	A16NKQCL05	E46
1094835	A16NER3	C191, D35	1095335	H20MDUNL4	B96	1095589	STGPR082V	B270	1095921	A12NKQCR05	E46
1094836	A16NL3	C191, D35	1095341	H20MVLNR4	B163	1095590	STFPR062	B270	1095922	A16NKQCR05	E46
1094837	A20NER3	C191, D35	1095360	H24MSSNR4	B120	1095592	SCLPR123B	B210	1095926	A20NVLCR3	E47
1094838	A20NEL3	C191, D35	1095361	H24MTFNR3	B143	1095594	SCLPR062	B210	1095927	A32NVLCR3	E47
1094839	A24NER3	C191, D35	1095362	H24NER3W	C195, D38	1095595	SCLPR083V	B210	1095928	A24NVLCR3	E47
1094840	A24NEL3	C191, D35	1095363	H24NEL3W	C195, D38	1095596	SCGPR123B	B210	1095943	H32NDPL4W	E48
1094841	A28NER3	C191, D35	1095365	H24MVUNR3	B155	1095597	SCGPR062	B210	1095945	H20NDLPR4W	E48
1094842	A28NEL3	C191, D35	1095366	H24MVUNL3	B155	1095598	SCGPR083V	B210	1095946	H24NDLPR4W	E48
1094843	A32NER3	C191, D35	1095367	H24NER8W	C195, D38	1095600	SCFPR083V	B209	1095956	H24NDXPR4W	E49
1094844	A32NEL3	C191, D35	1095369	H24MCKNR4	B75	1095601	SCRPR062	B212	1095959	H20NDXPL4W	E49
1094845	A40NER3	C191, D35	1095377	H24MCLNR4	B76	1095602	SCRPR083V	B212	1095962	H40NDXPL4W	E49
1094846	A40NEL3	C191, D35	1095378	H24MCLNL4	B76	1095605	SCMPN123B	B211	1095964	H24NVLPR3W	E49
1094847	A28NER4	C191, D35	1095379	H24MCLNR5	B76	1095606	SCMPN062	B211	1095975	MRGNR163D	B98
1094848	A28NEL4	C191, D35	1095380	H24MCLNL5	B76	1095607	SCMPN083V	B211	1095981	MRGNR166D	B98
1094849	A32NER4	C191, D35	1095383	H24MDPNR4	B96	1095632	SVUBR082	B283	1095982	MRGNL166D	B98
1094850	A32NEL4	C191, D35	1095385	H24MDUNR3	B96	1095633	SVUBR102	B283	1096002	MVNN123B	B153
1094853	A40NER4	C191, D35	1095388	H24MDUNR4	B96	1095634	SVUBL082	B283	1096003	MVNN163C	B153
1094856	A32NEL5	C191, D35	1095389	H24MDUNL4	B96	1095635	SVUBL102	B283	1096004	MVNN163D	B153
1094859	A32NER6	C191, D35	1095392	H24MSKNR4	B120	1095644	SDUCR083	B229	1096005	MVNN164D	B153
1094860	A32NEL6	C191, D35	1095395	H24MVLNR4	B163	1095645	SDUCR082	B229	1096006	MVNN203D	B153
1094863	A16CTPL3	B185, B390	1095400	H24MVLNL4	B163	1095647	SDUCR103	B229	1096007	MVNN204D	B153
1094872	A06RCTFPR2	B183, B389	1095417	H28MTFNR3	B143	1095648	SDUCL083	B229	1096008	MTJNR082B	B136
1094874	A08RCTFPR2	B183, B389	1095418	H28NER3W	C195, D38	1095649	SDUCL082	B229	1096009	MTJNL082B	B136
1094875	A08RCTFPL2	B183, B389	1095419	H28NEL3W	C195, D38	1095651	SDUCL103	B229	1096012	MTJNR103B	B136
1094876	A10SCTFPR2	B183, B389	1095421	H28NER4W	C195, D38	1095654	SDUCL062D	B211	1096013	MTJNL103B	B136
1094877	A10CTFPL2	B183, B389	1095429	H28MCLNR4	B76	1095655	SCLPRF083D	B211	1096014	MTJNR123B	B136
1094878	A12SCTFPR3	B183, B389	1095430	H28MCLNL4	B76	1095658	SCLPLF062D	B211	1096015	MTJNL123B	B136
1094879	A12SCTFPL3	B183, B389	1095436	H28MDUNR4	B96	1095659	SCLPLF083D	B211	1096016	MTJNR163C	B136
1094880	A16CTFPR3	B183, B389	1095437	H28MDUNL4	B96	1095661	SCAPR052D	B209	1096017	MTJNL163C	B136
1094882	A20UCTFPR3	B183, B389	1095442	H28MVLNR4	B163	1095662	SCAPR062D	B209	1096018	MTJNR163D	B136
1094884	A24CTFPR3	B183, B389	1095452	H28NER6W	C195, D38	1095663	SCAPR083D	B209	1096019	MTJNL163D	B136
1094888	A24CTFPR4	B183, B389	1095456	H32NER3W	C195, D38	1095665	SCAPL052D	B209	1096022	MTJNR164D	B136
1094889	A24CTFPL4	B183, B389	1095457	H32NEL3W	C195, D38	1095667	SCAPL083D	B209	1096023	MTJNL164D	B136
1094892	A32CTFPR4	B183, B389	1095458	H32NER4W	C195, D38	1095668	NASR103B	C185, D25	1096024	MTJNR204D	B136
1094896	A16CCLPR4	B165, B389	1095459	H32NEL4W	C195, D38	1095670	NASR082D	C185, D25	1096025	MTJNL204D	B136
1094900	A24CCLPR4	B165, B389	1095461	H32MVUNR4	B155	1095671	NASR062D	C185, D25	1096026	MTJNR205D	B136
1094904	A06MCTLPR2	B185, B390	1095464	H32MCKNR4	B75	1095672	NASL103B	C185, D25	1096027	MTJNL205D	B136
1094906	A08RCTLPR2	B185, B390	1095469	H32MCLNR4	B76	1095674	NASL082D	C185, D25	1096029	MSRNL204D	B112
1094907	A08RCTLPL2	B185, B390	1095472	H32MCLNL4	B76	1095675	NASL062D	C185, D25	1096032	MCFNR124B	B60
1094908	A12SCTLPR3	B185, B390	1095474	H32MCLNR5	B76	1095681	STGPL062	B270	1096033	MCFNR164C	B60
1094909	A12SCTLPL3	B185, B390	1095475	H32MCLNL5	B76	1095682	STGPL082V	B270	1096034	MCFNR164D	B60
1094910	A16CTLPR3	B185, B390	1095476	H32MCLNR6	B76	1095685	SCLPL123B	B210	1096037	MCFNL164D	B60
1094911	A16TNSR3	C194	1095477	H32MCLNL6	B76	1095686	SCLPL062	B210	1096038	MTJNR123B	B113
1094912	A16TNSL3	C194	1095479	H32MDUNR3	B96	1095687	SCLPL083V	B210	1096039	MSSNR124B	B113
1094913	A20UNSR3	C194	1095480	H32MDUNR4	B96	1095688	SCGPL123B	B210	1096040	MSSNR164C	B113
1094915	A24UNSR3	C194	1095483	H32MDUNL4	B96	1095689	SCGPL062	B210	1096041	MSSNR164D	B113
1094916	A24UNSL3	C194	1095485	H32MSKNR4	B120	1095690	SCGPL083V	B210	1096042	MSSNR206D	B113
1094919	A32VNSR3	C194	1095489	H32MVLNR4	B163	1095692	SCFPL083V	B209	1096047	MSSNL164C	B113
1094920	A32VNSL3	C194	1095495	H32MVLNL4	B163	1095693	SCRPL062	B212	1096048	MSSNL164D	B113
1094921	A40VNSR3	C194	1095512	H32NER6W	C195, D38	1095694	SCRPL083V	B212	1096049	MSSNL206D	B113
1094941	S4416W	B406	1095514	H32MTFNR4	B143	1095802	PROON164D	B170, B385	1096052	MTANR123B	B132
1094942	S4420W	B406	1095515	H32MVUNL4	B155	1095803	PROON204D	B170, B385	1096053	MTANR164D	B132
1094943	S4424W	B406	1095516	H36NER4W	C195, D38	1095804	PROON206D	B170, B385	1096056	MTANR082B	B132
1094944	S4428W	B406	1095531	H40MSSNR6	B120	1095805	PROON208D	B170, B385	1096058	MTANR103B	B132
1094945	S4432W	B406	1095533	H40NER3W	C195, D38	1095806	PROON244D	B170, B385	1096059	MTANR123B	B132
1094947	S4440W48	B406	1095534	H40NEL3W	C195, D38	1095808	PROON246	B170, B385	1096060	MTANR164D	B132
1094953	A10SSCLPR3AP5	B216	1095535	H40NER4W	C195, D38	1095829	B10CTFPR2	B184, B390	1096065	MTANL103B	B132
1094954	A12SSCLPR3AP5	B216	1095536	H40NEL4W	C195, D38	1095830	B12CTFPR3	B184, B390	1096066	MCLNR123B	B63
1094955	A16SCLPR3AP5	B216	1095538	H40MVUNR4	B155	1095831	B14CTFPR3	B184, B390	1096067	MCLNR124B	B63

For page references F–X, please see Volume II • Rotating Tools Catalog.



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1096068	MCLNR163C	B63	1096164	MSRNL246D	B112	1096290	MVJNR164C	B152	1096436	A32MCLNL5	B71
1096069	MCLNR163D	B63	1096165	MSRNL246E	B112	1096291	MVJNR164D	B152	1096437	A32VMCLNL6	B71
1096070	MCLNR164D	B63	1096169	MSKNR124B	B111	1096292	MVJNR203D	B152	1096440	A20MCKNR4	B70
1096071	MCLNR165C	B63	1096170	MSKNR164C	B111	1096293	MVJNR204D	B152	1096441	A24UMCKNR4	B70
1096072	MCLNR165D	B63	1096171	MSKNR164D	B111	1096294	MVJNR244D	B152	1096442	A20MCKNL4	B70
1096073	MCLNR166D	B63	1096180	MSDNN083	B111	1096295	MVJNL123B	B152	1096443	A24MCKNL4	B70
1096075	MCLNR204D	B63	1096181	MSDNN103	B111	1096297	MVJNL163C	B152	1096444	A16TMDUNR3	B93
1096076	MCLNR205D	B63	1096182	MSDNN123	B111	1096298	MVJNL163D	B152	1096447	A20UMDUNR4	B93
1096077	MCLNR206D	B63	1096183	MSDNN124	B111	1096299	MVJNL164C	B152	1096448	A24UMDUNR4	B93
1096079	MCLNR244D	B63	1096184	MSDNN164	B111	1096300	MVJNL164D	B152	1096449	A28UMDUNR4	B93
1096080	MCLNR245E	B63	1096185	MSDNN854	B111	1096301	MVJNL203D	B152	1096450	A32VMDUNR4	B93
1096081	MCLNR246D	B63	1096186	MSDNN855	B111	1096302	MVJNL204D	B152	1096455	A16TMDUNL3	B93
1096082	MCLNR246E	B63	1096187	MSDNN856	B111	1096303	MVJNL244D	B152	1096458	A20UMDUNL4	B93
1096083	MCLNR854D	B63	1096188	MTGNR123B	B135	1096304	MRGNR123B	B98	1096459	A24UMDUNL4	B93
1096086	MCLNR083A	B63	1096189	MTGNR124B	B135	1096305	MRGNR124B	B98	1096460	A28MDUNL4	B93
1096087	MCLNR103A	B63	1096192	MTGNR164C	B135	1096306	MRGNR164C	B98	1096461	A32VMDUNL4	B93
1096088	MCLNL123B	B63	1096193	MTGNR164D	B135	1096307	MRGNR164D	B98	1096466	A20UMVUNR3	B154
1096089	MCLNL124B	B63	1096194	MTGNR204D	B135	1096308	MRGNR204D	B98	1096467	A24UMVUNR3	B154
1096092	MCLNL164D	B63	1096195	MTGNR205D	B135	1096309	MRGNR206D	B98	1096468	A20UMVUNL3	B154
1096093	MCLNL165C	B63	1096197	MTGNR082B	B135	1096314	MRGNL164D	B98	1096469	A24UMVUNL3	B154
1096094	MCLNL165D	B63	1096199	MTGNR103B	B135	1096315	MRGNL164D	B98	1096470	A20UMDQNR4	B93
1096095	MCLNL166D	B63	1096200	MTGNL123B	B135	1096316	MRGNL206D	B98	1096471	A24UMDQNR4	B93
1096097	MCLNL204D	B63	1096201	MTGNL124B	B135	1096318	MTCNN083	B133	1096472	A20MDQNL4	B93
1096101	MCLNL244D	B64	1096204	MTGNL164C	B135	1096319	MTCNN124	B133	1096473	A24MDQNL4	B93
1096102	MCLNL245E	B64	1096205	MTGNL164D	B135	1096320	MTCNN443	B133	1096481	H16MDUNL3	B96
1096103	MCLNL246D	B64	1096206	MTGNL204D	B135	1096321	MTCNN644	B133	1096482	H16MVLNL3	B163
1096104	MCLNL246E	B64	1096207	MTGNL205D	B135	1096324	MTRNR164D	B138	1096484	H16MDUNR3	B96
1096105	MCLNL854D	B64	1096211	MTGNL103B	B135	1096336	MTJNRS123	B137	1096643	MCLNRC164D	B66, B371
1096107	MCLNL866E	B64	1096212	MTFNR123B	B134	1096337	MTJNRS124	B137	1096646	MRGNRC244D	B99, B371
1096108	MCLNL083A	B63	1096216	MTFNR164C	B134	1096338	MTJNRS163	B137	1096647	MRGNRC164D	B99, B371
1096109	MCLNL103A	B63	1096217	MTFNR164D	B134	1096339	MTJNRS164	B137	1096648	MRGNRC204D	B99, B371
1096110	MCGNR124B	B61	1096218	MTFNR204D	B134	1096340	MTJNRS165	B137	1096672	MRGNLC244D	B99, B371
1096111	MCGNR164C	B61	1096219	MTFNR205D	B134	1096341	MTJNRS204	B137	1096673	MCLNRC164D	B99, B371
1096112	MCGNR164D	B61	1096221	MTFNR246E	B134	1096342	MTJNRS205	B137	1096674	MRGNLC204D	B99, B371
1096113	MCGNL124B	B61	1096226	MTFNL123B	B134	1096343	MTJNLS123	B137	1096690	NKPCN1205B	E42
1096114	MCGNL164C	B61	1096230	MTFNL164C	B134	1096344	MTJNLS124	B137	1096691	CSSPL164D	B173, B378
1096115	MCGNL164D	B61	1096231	MTFNL164D	B134	1096345	MTJNLS163	B137	1096693	CSSPL856D	B173, B378
1096116	MCRNR124B	B65	1096232	MTFNL204D	B134	1096346	MTJNLS164	B137	1096696	CTGPR082B	B182, B382
1096117	MCRNR164C	B65	1096234	MTFNL245D	B134	1096347	MTJNLS165	B137	1096698	CCLNRP163D	B372
1096118	MCRNR164D	B65	1096235	MTFNL246E	B134	1096348	MTJNLS204	B137	1096699	CCLNRP163D	B372
1096119	MCRNR165D	B65	1096240	MDJNR123B	B89	1096349	MTJNLS205	B137	1096701	CCRNRP163D	B373
1096120	MCRNR166D	B65	1096241	MDJNR124B	B89	1096350	MTENNS082	B134	1096703	CRGNRP163D	B374
1096121	MCRNR204D	B65	1096242	MDJNR163C	B89	1096351	MTENNS103	B134	1096705	CRGNRP164D	B374
1096122	MCRNR206D	B65	1096243	MDJNR163D	B89	1096352	MTENNS123	B134	1096706	CRGNLP204D	B374
1096123	MCRNR246E	B65	1096244	MDJNR164C	B89	1096353	MTENNS163	B134	1096707	CRGNRP204D	B374
1096124	MCRNL124B	B65	1096245	MDJNR164D	B89	1096354	MTENNS164	B134	1096717	CCLNL164	B372
1096125	MCRNL164C	B65	1096246	MDJNR165D	B89	1096355	MTENNS205	B134	1096722	CCLNR164	B372
1096126	MCRNL164D	B65	1096247	MDJNR203D	B89	1096356	MTENNS246	B134	1096728	CRGNL123	B373
1096127	MCRNL165D	B65	1096248	MDJNR205D	B89	1096367	A40VMCLNR4	B71	1096729	CRGNL163	B373
1096128	MCRNL166D	B65	1096250	MDJNR245D	B89	1096368	A40MCLNL4	B71	1096730	CRGNL164	B373
1096129	MCRNL204D	B65	1096251	MDJNR854D	B89	1096369	A16MCLNR4D	B69	1096733	CRGNR123	B373
1096130	MCRNL206D	B65	1096252	MDJNL123B	B89	1096370	A20MCLNR4D	B69	1096734	CRGNR163	B373
1096131	MCRNL246E	B65	1096253	MDJNL124B	B89	1096371	A24MCLNR4D	B69	1096735	CRGNR164	B373
1096132	MCKNR124B	B62	1096254	MDJNL163C	B89	1096372	A32MCLNR4D	B69	1096739	CSDN164	B374
1096133	MCKNR164C	B62	1096255	MDJNL163D	B89	1096373	A32MCLNR5D	B69	1096750	CSKNR856	B375
1096134	MCKNR164D	B62	1096256	MDJNL164C	B89	1096381	A20MTNFR3D	B139	1096772	CSDN124	B374
1096135	MCKNR204D	B62	1096257	MDJNL164D	B89	1096385	A16MTFNR3	B139	1096798	CTANR123	B375
1096136	MCKNR206D	B62	1096259	MDJNL203D	B89	1096386	A20UMTFNR3	B139	1096887	CTGNR164	B375
1096137	MCKNL124B	B62	1096260	MDJNL204D	B89	1096387	A24UMTFNR3	B139	1096898	CCLPL124B	B165, B376
1096138	MCKNL164C	B62	1096261	MDJNL205D	B89	1096388	A28MTFNR3	B139	1096899	CCLPL164C	B165, B376
1096139	MCKNL164D	B62	1096263	MDJNL245D	B89	1096389	A24UMTFNR4	B139	1096902	CCLPR084C	B165, B376
1096140	MCKNL204D	B62	1096265	MDQNR124B	B90	1096390	A28MTFNR4	B139	1096903	CCLPR124B	B165, B376
1096141	MCKNL206D	B62	1096266	MDQNR164C	B90	1096391	A32MTFNR4	B139	1096904	CCLPR164C	B165, B376
1096142	MCMNN124B	B64	1096267	MDQNR164D	B90	1096394	A16MTFNL3	B139	1096909	CSDPN103	B172, B376
1096143	MCMNN164C	B64	1096268	MDQNR204D	B90	1096403	A20MSKNR4	B114	1096910	CSDPN124	B172, B376
1096144	MCMNN164D	B64	1096269	MDQNR244D	B90	1096408	A40MSKNR6	B114	1096911	CSDPN164	B172, B376
1096145	MCMNN166D	B64	1096270	MDQNR244E	B90	1096415	A16MCLNR3	B71	1096912	CSDPN644	B172, B376
1096146	MCMNN204D	B64	1096271	MDQNL124B	B90	1096418	A20UMCLNR4	B71	1096914	CSDPN856	B172, B376
1096147	MCMNN206D	B64	1096272	MDQNL164C	B90	1096419	A24UMCLNR4	B71	1096917	CSKPL164D	B172, B377
1096149	MSRNR124B	B112	1096273	MDQNL164D	B90	1096420	A28UMCLNR4	B71	1096920	CSKPR164D	B172, B377
1096150	MSRNR164C	B112	1096274	MDQNL204D	B90	1096421	A32VMCLNR4	B71	1096925	CSRPL124B	B173, B377
1096151	MSRNR164D	B112	1096275	MDQNL244D	B90	1096422	A24MCLNR5	B71	1096926	CSRPL164D	B173, B377
1096152	MSRNR205D	B112	1096276	MDQNL244E	B90	1096423	A32MCLNR5	B71	1096927	CSRPL856D	B173, B377
1096153	MSRNR206D	B112	1096277	MDPNN123B	B90	1096424	A32VMCLNR6	B71	1096928	CSRPL866E	B173, B377
1096154	MSRNR246D	B112	1096279	MDPNN163D	B90	1096426	A40MCLNR6	B71	1096932	CSRPR164D	B173, B377
1096155	MSRNR246E	B112	1096280	MDPNN164D	B90	1096427	A16MCLNL3	B71	1096934	CSRPR866E	B173, B377
1096156	MSRNR856D	B112	1096282	MDPNN205D	B90	1096430	A16TMCLNL4	B71	1096935	CSSPL854D	B173, B378
1096159	MSRNL124B	B112	1096284	MDPNN245D	B90	1096431	A24UMCLNL4	B71	1096937	CSSPR854D	B173, B378
1096160	MSRNL164C	B112	1096286	MVJNR123B	B152	1096432	A24UMCLNL4	B71	1096941	CTAPL123B	B179, B378
1096161	MSRNL164D	B112	1096287	MVJNR124B	B152	1096433	A28UMCLNL4	B71	1096944	NDLPR164D	E40
1096162	MSRNL205D	B112	1096288	MVJNR163C	B152	1096434	A32VMCLNL4	B71	1096946	CTAPL854D	B179, B378
1096163	MSRNL206D	B112	1096289	MVJNR163D	B152	1096435	A24MCLNL5	B71	1096948	CTAPR082B	B179, B378

For page references F–X, please see Volume II • Rotating Tools Catalog.



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1096949	CTAPR102B	B179, B378	1097246	NEL205D	C187, D26	1097608	NSR082V	C182, D27	1098796	NSR2525M3	C183
1096950	CTAPR123B	B179, B378	1097247	NEL082V	C187, D26	1097609	NSR102B	C182, D27	1098797	NSR3225P3	C183
1096951	CTAPR163D	B179, B378	1097248	NEL102B	C187, D26	1097644	NSRDH122B	C186, D29	1098798	NSR3232P3	C183
1096952	CTAPR854D	B179, B378	1097249	NRL123B	C189	1097645	NSRDH162C	C186, D29	1098799	NSR2525M4	C183
1096955	CTBPL123B	B179, B379	1097250	NRL163C	C189	1097646	NSRDH163C	C186, D29	1098800	NSR3225P4	C183
1096959	CTBPR123B	B179, B379	1097251	NRL203D	C189	1097647	NSRDH203D	C186, D29	1098801	NSR3232P4	C183
1096960	CTBPR163D	B179, B379	1097253	NRL163D	C189	1097648	NSRDH163D	C186, D29	1098803	NER1161H2	C188
1096963	CTCPL163C	B180, B379	1097254	NSL122B	C182, D27	1097649	NSRDH123A	C186, D29	1098804	NER2020K2	C188
1096965	CTCPL164D	B180, B379	1097255	NSL162C	C182, D27	1097650	NSRDH204D	C186, D29	1098805	NER2525M2	C188
1096966	CTCPL204D	B180, B379	1097256	NSL123B	C182, D27	1097673	NSUR124C	C182, D27	1098806	NER2525M3	C188
1096968	CTCPL244D	B180, B379	1097257	NSL163C	C182, D27	1097676	NSUR164D	D29	1098807	NER3225P3	C188
1096971	CTCPN124	B180, B380	1097258	NSL203D	C182, D27	1097680	NSUL164D	D29	1098808	NER2525M4	C188
1096972	CTCPN443	B180, B380	1097259	NSL243D	C182, D27	1097681	NSLDH203D	C186, D29	1098809	NER2525P4	C188
1096973	CTCPN644	B180, B380	1097260	NSL163D	C182, D27	1098328	SCSPR06CA05	B222	1098810	NER3232P4	C188
1096974	CTCPN664	B180, B380	1097261	NSL123A	C182, D27	1098380	NER12CA2	C196, D41	1098812	NRR2020K3	C189
1096976	CTCPR123B	B180, B379	1097262	NSL853D	C182, D27	1098436	MSRPH10CA3	B116	1098813	NRR2525M3	C189
1096977	CTCPR163C	B180, B379	1097263	NSL164C	C184, D28	1098465	MSYNR25CA19	B119	1098814	NRR3225P3	C189
1096978	CTCPR164C	B180, B379	1097264	NSL204D	C184, D28	1098529	MTUNL12CA3	B142	1098857	NASL1616K3Q	C185
1096979	CTCPR164D	B180, B379	1097265	NSL244D	C184, D28	1098535	MTUNL16CA3	B142	1098859	NASL1010M2Q	C185
1096980	CTCPR204D	B180, B379	1097266	NSL164D	C184, D28	1098536	MTUNL20CA4	B142	1098860	NASL1212M2Q	C185
1096982	CTCPR244D	B180, B379	1097267	NSL243E	C182, D27	1098541	SCLPR06CA05	B220	1098861	NSL1010E2	C183
1096985	CTEPR123B	B181, B380	1097268	NSL244E	C184, D28	1098542	SCLPR08CA06	B220	1098862	NSL1212F2	C183
1096989	CTEPL854D	B181, B380	1097269	NSL854D	C184, D28	1098543	SCLPR10CA09	B220	1098863	NSL1616H2	C183
1096992	CTEPR163D	B181, B380	1097271	NSL204C	C184, D28	1098544	SCLCR12CA12	B198	1098864	NSL2020K2	C183
1096993	CTEPR854D	B181, B380	1097272	NSL205D	C182, D27	1098545	SCLCR16CA12	B198	1098865	NSL2525M2	C183
1096997	CTFPL123B	B181, B381	1097273	NSL206D	C184, D28	1098548	SCSPL06CA05	B222	1098866	NSL2020K3	C183
1096999	CTFPL163D	B181, B381	1097274	NSL246D	C184, D28	1098549	SCSPL08CA06	B222	1098867	NSL2525M3	C183
1097001	CTFPL164D	B181, B381	1097275	NSL166D	C184, D28	1098551	SCFPR06CA05	B217	1098868	NSL3225P3	C183
1097004	CTFPL854D	B181, B381	1097278	NSL082V	C182, D27	1098552	SCPR08CA06	B219	1098869	NSL3232P4	C183
1097008	CTFFR082V	B181, B381	1097279	NSL102B	C182, D27	1098554	SCGPR08CA06	B218	1098870	NSL2525M4	C183
1097011	CTFFR123B	B181, B381	1097314	NDPPN164D	E40	1098555	SCPR08CA06	B221	1098871	NSL3225P4	C183
1097013	CTFFR163D	B181, B381	1097454	NKLCRF0805D	E42	1098556	SCTPR06CA05	B223	1098872	NSL3232P4	C183
1097014	CTFFR164C	B181, B381	1097455	NKLCRF0805D	E42	1098557	SCTPR08CA06	B223	1098874	NEL1616H2	C188
1097015	CTFFR164D	B181, B381	1097508	NKLCR1205A	E41	1098558	STFPL12CA16	B276	1098875	NEL2020K2	C188
1097016	CTFFR204D	B181, B381	1097511	NKLCR1205B	E41	1098559	STFPL10CA11	B276	1098876	NEL2525M2	C188
1097018	CTFFR854D	B181, B381	1097512	NKLN121B	E41	1098561	STFPL08CA09	B276	1098877	NEL2525M3	C188
1097021	CTGPL102B	B182, B382	1097513	NKLN161C	E41	1098562	STFPR12CA16	B276	1098878	NEL3225P3	C188
1097022	CTGPL123B	B182, B382	1097515	NKLCR0805V	E41	1098563	STFPR10CA11	B276	1098879	NEL2525M4	C188
1097023	CTGPL163C	B182, B382	1097516	NKLCR1005B	E41	1098565	STFPR08CA09	B276	1098880	NEL3225P4	C188
1097024	CTGPL163D	B182, B382	1097559	NER122B	C187, D26	1098566	STGPR12CA16	B277	1098881	NEL3232P4	C188
1097026	CTGPL164D	B182, B382	1097560	NER162C	C187, D26	1098567	STGPR10CA11	B277	1098883	NRL2020K3	C189
1097027	CTGPL204D	B182, B382	1097561	NER123B	C187, D26	1098570	SSKPR10CA09	B254	1098884	NRL2525M3	C189
1097033	NDLPL164D	E40	1097562	NER163C	C187, D26	1098572	SSSPR10CA09	B255	1098885	NRL3225P3	C189
1097035	CTGPR102B	B182, B382	1097563	NER203D	C187, D26	1098574	SSRPR10CA09	B254	1098943	A10KNNTOR1	C190
1097036	CTGPR123A	B182, B382	1097564	NER243D	C187, D26	1098624	NEL12CA2	C196, D41	1098944	A12MNNTOR1	C190
1097037	CTGPR123B	B182, B382	1097565	NER163D	C187, D26	1098626	NEL25CA3	C196, D41	1098945	A12MNNTOR2	C192
1097038	CTGPR163C	B182, B382	1097566	NER853D	C187, D26	1098691	MSYNL20CA15	B119	1098946	A12MNNTOL2	C192
1097039	CTGPR163D	B182, B382	1097567	NER164C	C187, D26	1098711	SRGCR08CA06	B245	1098947	A16MNNTOR2	C192
1097041	CTGPR164C	B182, B382	1097568	NER204D	C187, D26	1098713	SRGCR12CA10	B245	1098948	A16MNNTOL2	C192
1097042	CTGPR164D	B182, B382	1097569	NER244D	C187, D26	1098719	SSKCR12CA12	B249	1098949	A20QNTOR2	C192
1097043	CTGPR204D	B182, B382	1097570	NER164D	C187, D26	1098720	SSKCR16CA12	B249	1098950	A20QNTOL2	C192
1097048	NKLCR1605C	E41	1097571	NER206D	C187, D26	1098721	SSKCL12CA12	B249	1098951	A25RNNTOR2	C192
1097049	NKLCR1605C	E41	1097575	NER205D	C187, D26	1098723	SSRCR12CA12	B250	1098952	A25RNNTOL2	C192
1097118	NKLCR123B	E43	1097577	NER082V	C187, D26	1098725	SSRCL12CA12	B250	1098953	A25RNNTOR3	C192
1097119	NKLCR203D	E43	1097578	NER102B	C187, D26	1098728	SDUPR10CA07	B237	1098954	A25RNNTOL3	C192
1097120	NKLCR243D	E43	1097579	NRR123B	C189	1098730	SCLPL08CA06	B220	1098955	A32SNNTOR3	C192
1097121	NKLCR163D	E43	1097580	NRR163C	C189	1098731	SCLPL10CA09	B220	1098956	A32SNNTOL3	C192
1097122	NKLCR123B	E43	1097581	NRR203D	C189	1098732	SCLCL12CA12	B198	1098957	A40TNNTOR3	C192
1097123	NKLCR203D	E43	1097582	NRR243D	C189	1098736	SCTPL08CA06	B223	1098958	A40TNNTOL3	C192
1097124	NKLCR243D	E43	1097583	NRR163D	C189	1098737	SSSCR12CA12	B251	1099001	A40TNNTOR4	C192
1097125	NKLCR163D	E43	1097584	NSR122B	C182, D27	1098739	SSSCL12CA12	B251	1099002	A40TNNTOL4	C192
1097128	NWVCN163D	E43	1097585	NSR162C	C182, D27	1098741	STTPR12CA16	B278	1099003	A50UNNTOR4	C192
1097182	NKLCR1205A	E41	1097586	NSR123B	C182, D27	1098742	STTPR10CA11	B278	1099162	KRCSFPR061A	K86
1097185	NKLCR1205B	E41	1097587	NSR163C	C182, D27	1098744	STTPR08CA09	B278	1099163	KRCSFPR062A	K86
1097186	NKLN121B	E41	1097588	NSR203D	C182, D27	1098749	STWPR12CA16	B279	1099164	KRCSFPR063A	K86
1097187	NKLN161C	E41	1097589	NSR243D	C182, D27	1098750	STWPR10CA11	B279	1099165	KRCSFPR061B	K86
1097189	NKLCR0805V	E41	1097590	NSR123A	C182, D27	1098757	SDJPR10CA07	B236	1099166	KRCSFPR062B	K86
1097190	NKLCR1005B	E41	1097591	NSR853D	C182, D27	1098758	SDJPL10CA07	B236	1099167	KRCSFPR063B	K86
1097191	NKLCRF1005B	E42	1097592	NSR164C	C184, D28	1098760	STGPL10CA11	B277	1099168	KRCSFPR061C	K86
1097231	NEL122B	C187, D26	1097593	NSR204D	C184, D28	1098762	STGPL08CA09	B277	1099169	KRCSFPR062C	K86
1097232	NEL162C	C187, D26	1097594	NSR244D	C184, D28	1098763	SCKPL08CA06	B219	1099170	KRCSFPR063C	K86
1097233	NEL123B	C187, D26	1097595	NSR164D	C184, D28	1098764	SSSPL10CA09	B255	1099171	KRCSFPR061D	K86
1097234	NEL163C	C187, D26	1097596	NSR243E	C182, D27	1098766	SCFPL08CA06	B217	1099172	KRCSFPR062D	K86
1097235	NEL203D	C187, D26	1097597	NSR244E	C184, D28	1098786	NASR1616K3Q	C185	1099173	KRCSFPR063D	K86
1097236	NEL243D	C187, D26	1097598	NSR854D	C184, D28	1098788	NASR1010M2Q	C185	1099174	KRCSFPR061E	K89, K108-109
1097237	NEL163D	C187, D26	1097599	NSR864E	C184, D28	1098789	NASR1212M2Q	C185	1099175	KRCSFPR062E	K89, K108-109
1097238	NEL853D	C187, D26	1097600	NSR204C	C184, D28	1098790	NSR1010E2	C183	1099176	KRCSFPR063E	K89, K108-109
1097239	NEL164C	C187, D26	1097601	NSR205D	C182, D27	1098791	NSR1212F2	C183	1099177	KRCSFPR061F	K89, K110-114
1097240	NEL204D	C187, D26	1097602	NSR206D	C184, D28	1098792	NSR1616H2	C183	1099178	KRCSFPR062F	K89, K110-114
1097241	NEL244D	C187, D26	1097603	NSR246D	C184, D28	1098793	NSR2020K2	C183	1099179	KRCSFPR063F	K89, K110-114
1097242	NEL164D	C187, D26	1097604	NSR166D	C184, D28	1098794	NSR2525M2	C183	1099379	CM180	E42
1097243	NEL206D	C187, D26	1097605	NSR168D	C184, D28	1098795	NSR2020K3	C183	1099380	CM181	E42

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1099381	CM182	C185, D25	1113257	NG3094R K313	C170	1126088	170.277	H88	1132599	ISSN846 K9	B111-112
1099382	CM183	C185, D25	1113261	NG3125L K313	C171	1126361	FT6	K79, T24	1132616	9X1R012B12STN10M	W40
1099433	SM427 K9	D38	1113265	NG3047L K313	C170	1126830	EB280353000	K143	1132781	15X1R022B16STN16T	W42
1099435	SM434 K9	B374	1113266	NG3062L K313	C170	1126838	AFB27115SCFCR09	K134	1132857	EB23035250	K143
1099437	SM437 K9	B170, B374, B393	1113268	NG3094L K313	C170	1127019	MS1162	C52-57, C65-73, C143-151, S94, S98, S100, V87-88, V91	1132931	192.057	I27
1099445	SKSN566K K9	B115-117, B119	1113269	NG4125R K313	C170				1132990	DCMT2151LF K313	B225
1099450	ITSN333 K9	B135-136	1113270	NG4189R K313	C170				1133075	192.111	J84-85
1099451	ICSN332 K9	B59, B63	1113272	NG4125L K313	C171	1127184	PKG7001	K128	1133083	192.112	J84-85
1099452	IDSN322 K9	B87, B89-90, B92, B96	1113276	NF3125R K313	C175	1127271	AFB341155SCFCR09	K134	1133110	192.126	J92
1099453	IDSN543 K9	B87	1113277	NF3125L K313	C175	1127907	B510S08000 AS3	J86	1133202	PKG3242	K134, K136
1099454	IVSN433 K9	B152-155	1113477	NJF3009R18 K68	D15	1127915	B510S25000 AS3	J86	1133229	192.156	J87-90
1099461	SM416 K9	C184, D28	1113486	NA3L4 K68	D11	1127923	B510S30000 AS3	J86	1133236	192.157	J87-91
1099463	SM419 K9	C184, D28	1113499	NTF2L K68	D21	1128324	AFB241155SCFCR09	K134	1133280	EB13030150	K143
1099469	ITSN443 K9	B131	1113500	NTF3L K68	D21	1128691	NPR13M10N K68	E35	1133349	SN3TPKG	D74-75, W40-43
1099614	MS1933	B214-215, B217, B220, B222-223, B271-272	1113501	NTF2R K68	D21	1129375	5.34050-028450	J88	1133581	DV50BT13069	K142
1099615	MS1939	B197, B212-215, B287, B289	1113502	NTF3R K68	D21	1129376	5.34050032350	J88	1133669	R31FBHS06	K140
1099640	MS1034	C190	1113504	NT2L K68	D17	1129377	5.34050-032500	J88	1133883	AFB13085SCFCR06	K134
1099644	MS1157	B198, B249-251	1113505	NT3L K68	D17	1129378	5.34050-040450	J88	1133894	AFB17100SCFCR06	K134
1099645	MS1160	C34-45, C52-57, C122-129, C134	1113506	NT4L K68	D17	1129379	5.34050-040600	J88	1133903	PKG2025	K134, K136
1099646	MS1200	C183, C185, C188, C192-193, D30	1113507	NT2R K68	D17	1129380	5.34050-048450	J88	1133914	RS1608	K129
1099649	KLM33	B72, B115-119	1113508	NT3R K68	D17	1129381	5.34050-048600	J88	1134129	840.142.550	K122-123
1099650	KLM54	B115-117, B119	1113509	NT4R K68	D17	1129382	5.34050-058450	J88	1134246	192.416	J10-15, J75
1099651	FT10	K42	1113510	NTP2L K68	D22	1129383	5.34050-058600	J88	1134271	192.419	J87-90
1099661	KL68L	B134, B137	1113511	NTP3L K68	D22	1130286	364.010	H72-73, H77, H77, H79, H81-82, H84-86, H122	1134279	192.420	J87-90
1099675	MS-1896	K85	1113513	NTP2R K68	D22				1134285	SNMA432 K68	B100
1099676	KT30	V121-123, V132	1113514	NTP3R K68	D22	1130295	364.011	H72-75, H77, H79, H81-82, H84-86, H122	1134298	192.421	J87-91
1100493	MCLNR12CA4	B74	1113559	NJ3010R16 K68	D15				1134307	192.422	J87-90
1102784	E12STFPR3 KWH	B272	1114462	NGD3189R K313	C171				1134316	192.423	J87-91
1104600	TRAOR242E	E70	1114463	NGD4250R K313	C171	1130302	11X1R020B20STN11N	W40	1134324	192.424	J87, J89-92
1105612	191.924	H122, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J84-85, J114, V156	1114464	NGD3189L K313	C171	1130303	364.012	H72, H74-76, H78-86, H122-123	1134333	192.425	J87, J89-92
			1114465	NGD3189L K313	C171				1134342	192.426	J91-92
			1114470	NRP3047R K313	C169	1130313	364.013	H72, H74, H76, H78, H80-81, H83-86, H123	1134353	5.34032-028115	J88
			1114483	NGD3125RK K313	C165				1134361	5.34032-028200	J88
			1114484	NGD3062RK K313	C165	1130686	17X1R022B16STN16N	W40	1134385	192.432	H122, I14-15, J10-15, J25, J27, J29, J31, J33, J35, J37, J39, J75, J84-85, J114
			1114487	NGD3125LK K313	C165	1130740	20X1R043B20STN16N	W40			
			1114490	NGD3094LK K313	C165	1130837	22X1R025B25STN16L	W41	1134388	5.34032-032125	J88
			1114624	NTK2R K68	D21	1130969	30X1R052B25STN27N	W40	1134393	192.433	J25, J27, J29, J31, J33, J35, J37, J39
			1114625	NTK3R K68	D21	1130977	30X1R092B25STN27N	W41			
			1114626	NTK2L K68	D21	1131036	B510S08000 A30	J86	1134415	5.34050-028300	J88
			1114627	NTK3L K68	D21	1131051	B510S15000 A30	J86	1134425	5.34050-032200	J88
			1114680	NJP3014R12 K68	D16	1131060	B510S20000 A30	J86	1134434	5.34050-040148	J88
			1116320	TRAOL1615D	E70	1131069	37X1R058B32STN27N	W40	1134440	5.34050-040300	J88
			1116889	CKM34	B72-74, B94-95, B115-119, B140-142, B174-176, B186-187, B394-398	1131070	B510S25000 A30	J86	1134457	5.34050-048168	J88
						1131086	37X1R098B32STN27L	W41	1134464	5.34050-048300	J88
			1120731	AFB31115SCFCR09	K134	1131090	B510S30000 A30	J86	1134472	5.34050-058186	J88
			1121036	EB43040450	K143	1131111	KM40FBHO160	K128	1134482	5.34050-058300	J88
			1121195	112.244	E16	1131118	42X2R045B32STN27D	W43	1134503	5.34128R028150	J87
			1121205	552.232	B383-384	1131119	B510S10000 AS3	J86	1134512	5.34132R032100	J87
			1121232	552.221	B383, B391	1131128	B510S15000 AS3	J86	1134523	5.34132R032200	J87
			1121302	552.230	B391	1131134	B510S20000 AS3	J86	1134530	5.34140R040200	J87
			1121703	EB33040350	K143	1131459	MS1488	D31, D33, D39-40	1134547	5.34148R048200	J87
			1121711	BT50BT13088	K142	1131479	191.282	K76	1134555	5.34158R058300	J87
			1121716	880.252.550	K137-138	1131602	191.375	J49, J52	1134564	5.34170R070186	J87
			1122168	PKG1565	K141-143	1131646	191.405	B72, B115-119, B175-176, B186, B219, B220, B236-237, B254-255, B276-279, B395-397	1134570	5.34170R070300	J87
			1122180	191.726	H122-123, J49, J52-53				1134581	5.34170R070500	J87
			1122185	CV50BT13069	K142	1131653	191.406	B72-74, B94, B115-119, B140-142, B174, B186-187, B198, B245, B249-251, B276-279, B394, B397-398, C196, D41	1134588	5.34180R080204	J87
			1122328	192.759	J92				1134597	5.34180R080300	J87
			1122397	CPGM2151 K313	B205				1134609	5.36050154040	J91
			1123620	TRAOR202D	E70				1134614	5.34180R080500	J87
			1124019	26X2R043B25STN16D	W43				1134624	5.34240R032100	J87
			1124104	MS1163	C65-73, C143-151				1134631	5.34248R040100	J87
			1124195	SPMT3252LF K68	B252				1134639	5.34258R048100	J87
			1124300	TNMA432 K68	B122	1131658	191.407	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	1134650	5.34280R040080	J87
			1124975	PKG0002	K145				1134657	5.34280R058080	J87
			1125085	EB18030200	K143				1134666	5.34280R070150	J87
			1125092	RS1606	K129	1131977	SN2TPKG	W40, W42-43	1134674	5.34350-090100	J92
			1125110	AFB09075SCFCR06	K134	1132036	KM50FBHO1670	K128	1134725	192.530	U13
			1125440	TNMA332 K68	B122	1132063	191.698	H122, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J84-85	1134879	193.113	I27
			1125685	NPL13M10N K68	E35				1134964	192.592	J75, J84
			1126021	170.270	H72, H81, H85-86, H88				1134971	192.593	J84-85
			1126032	170.271	H84, H88				1135110	193.114	I27
			1126040	170.272	H72, H81, H85-86, H88	1132119	191.725	I14-15, V155-156	1135177	NPL5M05 K68	E36
			1126049	170.273	H88	1132130	191.727	J87-90	1135184	NPR5M02 K68	E36
			1126066	170.274	H72, H81, H85-86, H88	1132138	191.728	J87, J89-92	1135192	NPL5M02 K68	E36
			1126072	170.275	H88	1132154	191.729	J91-92	1135217	NPR13M06N K68	E35
			1126079	170.276	H72, H81, H85-86, H88	1132436	191.848	J49-50, J52-53, J84-85, V44-47	1135224	NPR5M05 K68	E36
						1132523	191.916	C42-45, H122-123, J25, J27, J29, J31, J33, J35, J37, J39, J85, J114	1135346	PKG156502	K143-144
									1135358	PKG7994	K145
									1135369	R40FBHS06	K140
									1135375	EBUFF0975	K145

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1135387	192.718	114-15	1139210	190.076	127	1152735	E12SCLPL3 KWH	B214	1161112	CNPG431 K313	B46
1135404	192.720	114-15	1139321	190.116	J75	1152736	E16SCLPR3 KWH	B214	1161113	CNPG432 K313	B46
1135473	192.730	J92	1139429	190.195	127	1152737	E16SCLPL3 KWH	B214	1161114	CNPG433 K313	B46
1135481	192.731	J92	1139563	360.513	I25-26	1152738	E06SDUPR2 KWH	B234	1161116	CNPG543K K313	B47
1135617	840.142.720	K122-123	1139601	B510S10000 A30	J86	1152739	E06SDUPL2 KWH	B234	1161118	DNPG431 K313	B77
1135623	840.142.940	K122-123	1139637	190.371	127	1152740	E08SDUPR2 KWH	B234	1161119	DNPG432 K313	B77
1135642	RS1610	K129	1140602	EB38040400	K143	1152741	E08SDUPL2 KWH	B234	1161121	DNPG441 K313	B77
1135662	RS1612	K129	1146699	CKM35	B74, B115, B140-142, B186, B397	1152742	E10SDUPR2 KWH	B234	1161124	VNMP331 K313	B149
1135739	NPL13M05N K68	E35	1147002	ICSN846 K9	B63-64	1152743	E10SDUPL2 KWH	B234	1161125	VNMP332 K313	B149
1135802	KM63BT13065	K141	1147269	MS1454	B203, K79	1152744	E12SDUPR2 KWH	B234	1161127	VNPG432 K313	B144
1135826	19X1R023B20STN16T	W42	1150356	460.716	J92	1152746	E12SSDUPR3 KWH	B234	1161146	CNMP431 K68	B56
1135984	170.008	J90-92	1150624	5.34280R048080	J87	1152747	E12SSDUPR3 KWH	B234	1161147	CNMP432 K68	B56
1136105	192.888	114-15	1150802	A20NVJCR3	E47	1152748	E16TSDUPR2 KWH	B234	1161148	CNMP433 K68	B56
1136108	112.403	E15-16	1151411	MS1276	J91	1152749	E16TSDUPL3 KWH	B234	1161155	CNMS432 K68	B57
1136114	192.889	114-15	1152199	SPG422 K68	B171	1152750	E03HSWLP15 KWH	B290	1161157	CNMS642 K68	B57
1136116	112.404	E15-17, E20, E22	1152584	E08KCTFPR2 KWH	B184, B392	1152752	E04HSWLP15 KWH	B290	1161158	CNMP543 K68	B57
1136144	112.505	E16	1152586	E08KCTFPR2 KWH	B184, B392	1152753	E04HSWLP15 KWH	B290	1161159	DNMP431 K68	B85
1136174	114.114	E17, E20, E22	1152588	E10MCTFPR2 KWH	B184, B392	1152754	E05SWLP15 KWH	B290	1161160	DNMP432 K68	B85
1136242	192.902	J75, J84-85	1152590	E10SCTFPR2 KWH	B184, B392	1152755	E05SWLP15 KWH	B290	1161161	DNMP433 K68	B85
1136247	118.204	E18-19	1152592	E12QCTFPR3 KWH	B184, B392	1152756	E06SWLP2 KWH	B290	1161168	DNMS432 K68	B86
1136251	192.903	J84-85	1152593	E12QCTFPL3 KWH	B184, B392	1152757	E06SWLP2 KWH	B290	1161172	SNMP643 K68	B108
1136295	118.314	E18-19	1152594	E12SCTFPR3 KWH	B184, B392	1152758	E08SWLP2 KWH	B290	1161173	CNMP441 K68	B108
1136414	192.932	V58	1152595	E12SCTFPL3 KWH	B184, B392	1152759	E08SWLP2 KWH	B290	1161175	SNMS643 K68	B108
1136436	193.115	127	1152598	E16TCTFPR3 KWH	B184, B392	1152760	E10SWLP3 KWH	B290	1161182	CNMP434 K68	B129
1136445	193.116	127	1152600	E08NKLCRO5 KWH	E45	1152761	E10SWLP3 KWH	B290	1161186	CNMP431 K68	B46
1136625	121.612	E15-16, E18, S64, S67	1152601	E08NKLCRO5 KWH	E45	1152762	E12SWLP3 KWH	B290	1161187	CNPG432 K68	B46
1136633	121.616	E15-17, E19-20, E22, E55, E61, S70	1152602	E10NKLCRO5 KWH	E45	1152764	E16SWLP3 KWH	B290	1161191	SNMS331 K68	B130
1136675	121.808	K48-50	1152603	E10NKLCRO5 KWH	E45	1152766	E16STLPL3 KWH	B275	1161192	TNMS332 K68	B130
1136703	121.812	E17, K48-50	1152604	E12NKLCRO5 KWH	E45	1152767	E06STLPR2 KWH	B275	1161194	TNMS432 K68	B130
1136713	121.816	E17-23	1152605	E12NKLCRO5 KWH	E45	1152768	E06STLPL2 KWH	B275	1161199	VNMP331 K68	B149
1136743	121.825	E19, E21, E23	1152606	E10NER2 KWH	C193, D36	1152769	E08STLPR2 KWH	B275	1161200	VNMP332 K68	B149
1136819	199.123	H87	1152607	E10NER2 KWH	C193, D36	1152770	E08STLPL2 KWH	B275	1161201	VNMP331K K68	B149
1136858	5.36050-154050	J91	1152608	E12NER2 KWH	C193, D36	1152771	E10STLPR2 KWH	B275	1161202	VNMP332K K68	B149
1136949	360.510	I25-26	1152609	E12NEL2 KWH	C193, D36	1152772	E10STLPL2 KWH	B275	1161203	VNMS331 K68	B149
1136955	360.511	I25-26	1152610	E16NER3 KWH	C193, D36	1152777	C6420W KWH	B408	1161204	VNMS332 K68	B149
1137111	125.625	K48-50	1152611	E16NEL3 KWH	C193, D36	1152778	C6428W KWH	B408	1162181	CGGT21505HP K313	B189
1137209	125.820	J84-85	1152668	E12CTLNR2 KWH	B392	1152779	C6428W KWH	B408	1162182	CGGT2151HP K313	B189
1137229	125.830	J84-85	1152676	E06LSER2 KWH	D75	1152780	C6432W KWH	B408	1162183	CGGT32505HP K313	B189
1137405	128.508	H87	1152677	E06LSER2 KWH	D75	1152782	C6440W KWH	B408	1162184	CGGT3251HP K313	B189
1137412	128.510	H87	1152678	E08LSER2 KWH	D75	1152783	C11816W KWH	B407	1162185	CGGT431HP K313	B189
1137420	128.610	J75	1152679	E08LSER2 KWH	D75	1152784	C11820W KWH	B407	1162186	CGGT432HP K313	B189
1137479	R51FBHS06	K140	1152680	E10LSER3 KWH	D75	1152787	C11932W KWH	B409	1162187	CCMT2151LF K313	B191
1137487	R24FBHS06	K140	1152681	E10LSER3 KWH	D75	1152789	C11940W KWH	B409	1162189	CCMT32505LF K313	B191
1137505	R67FBHS09	K140	1152682	E12LSER3 KWH	D75	1152790	C6420 KWH	B408	1162190	CCMT3251LF K313	B191
1137520	129.612	J84-85	1152683	E12LSER3 KWH	D75	1152834	E16RNNTOR2 KWH	C193	1162191	CCMT3252LF K313	B191
1137528	129.616	J84-85	1152684	E16LSER3 KWH	D75	1152835	E16RNNTOL2 KWH	C193	1162192	CDHB120605 K313	B199
1137713	360.550	I25-27	1152686	E16LSER4 KWH	D75	1152836	E20SNNTOR2 KWH	C193	1162194	CPGT32505HP K313	B205
1137720	360.551	H87, I25-27	1152688	E08NER2 KWH	C193, D36	1153403	HSK63AKR32075M	K92	1162195	CPGT3251HP K313	B205
1137835	AFB21110SCFCR09	K134	1152689	E08NEL2 KWH	C193, D36	1153604	HSK63AKR50080M	K92	1162199	CPMT2151LF K313	B207
1137910	STCM25	V148-149	1152690	E16NKLN1R1 KWH	E45	1153606	HSK100AKR32075M	K92	1162200	CPMT2152LF K313	B207
1137929	STN10100ISOI KC620M	W45	1152692	E12SCLPR3AP5 KWH	B216	1153612	HSK100AKR80090M	K92	1162204	CPMT21505HP K313	B224
1137965	STN161BSW KC610M	W46	1152693	E16SCLPR3AP5 KWH	B216	1156428	SNMA643 K68	B100	1162205	DCGT2151HP K313	B224
1138019	STN1614BSW KC610M	W46	1152694	E12SCLPL3AP5 KWH	B216	1156449	4111593VRS	B168, B386	1162206	DCGT32505HP K313	B224
1138033	STN16150SOE KC610M	W45	1152695	E16SCLPL3AP5 KWH	B216	1156961	CNMG432 K313	B47	1162207	DCGT3251HP K313	B224
1138041	STN16150SOE KC620M	W45	1152698	E08NELR05 KWH	E44	1159964	CNMG432P K313	B52	1162208	DCGT3252HP K313	B224
1138136	STN27200ISOE KC610M	W45	1152704	E12STLPR3 KWH	B275	1159971	SNMG432 K313	B100	1162209	DCMT21505LF K313	B225
1138273	170.000	K76	1152705	E12STLPL3 KWH	B275	1159980	VNMG332P K313	B147	1162211	DCMT3251LF K313	B225
1138297	170.002	K51	1152706	E16STLPR3 KWH	B275	1160004	RNMA43 K68	B97	1162212	DCMT3252LF K313	B225
1138307	170.003	E15-20, E22, E55, E61, I14, K51, S64, S67, S70, S121-123	1152707	E05STFPR18	B272	1160005	RNMA54 K68	B97	1162216	DPGT3251HP K313	B231
1138315	170.004	E17-23, J90, K48-51	1152708	E05STFPL18 KWH	B272	1160013	CNMA432 K68	B47	1162223	TPMT2151LF K313	B268
1138323	170.005	I14, J91, K48-50	1152709	E06STFPR2 KWH	B272	1160018	CNMG431 K68	B47	1162225	VBGT221LF K313	B280
1138331	170.006	J90-91, K48-50	1152710	E06STFPL2 KWH	B272	1160019	CNMG432 K68	B47	1162226	VBGT3305LF K313	B280
1138413	170.023	J10-15, J25, J27, J29, J31, J33, J35, J37, J39	1152711	E08STFPR2 KWH	B272	1160020	CNMG433 K68	B47	1162228	VBGT331HP K313	B280
1138430	170.024	I25-27, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J114	1152712	E08STFPL2 KWH	B272	1160025	CNMG643 K68	B47	1162229	VBGT332HP K313	B280
1138438	170.025	I14-15, I25-27, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J114, S4-5, S8-10, S14, S17, S20, V44-47, V51-54, V62	1152713	E10STFPR2 KWH	B272	1160027	DNMG432 K68	B78	1162230	VBMT221LF K313	B281
1138446	170.026	J49, J52-53, V58	1152714	E10STFPL2 KWH	B272	1160039	SNMG433 K68	B100	1162233	VBMT3325LF K313	B281
1138455	170.027	J10-15	1152715	E12STFPL3 KWH	B272	1160060	TNMG433 K68	B122	1162234	VBMT331LF K313	B281
1138465	170.028	I14-15, J10-15, J25, J27, J29, J31, J33, J35, J37, J39, J114	1152716	E16STFPR3 KWH	B272	1160068	VNMG332 K68	B145	1162235	VBMT332LF K313	B281
1138748	170.135	K51	1152717	E16STFPR3 KWH	B272	1160069	VNMG333 K68	B145	1162241	RCGT0830MHP K313	B238
1138755	170.136	K51	1152722	E05KSCLPR18 KWH	B214	1160070	VNMG432 K68	B145	1162242	RCGT10T3MHP K313	B238
			1152723	E05KSCLPL18 KWH	B214	1160071	VNMG433 K68	B145	1162243	RCGT1204MHP K313	B238
			1152724	E06SCLPR2 KWH	B214	1160077	VNMG431 K68	B144	1162245	RCMT325 K313	B240
			1152725	E06SCLPL2 KWH	B214	1160078	VNMG432 K68	B144	1162246	RCMT0602M0 K313	B240
			1152726	E08SCLPR2 KWH	B214	1161093	VNMG332LF K313	B144	1162247	RCMT0903M0 K313	B240
			1152727	E08SCLPL2 KWH	B214	1161095	CNMP431 K313	B56	1162249	RCMT1204M0 K313	B240
			1152728	E10SCLPR2 KWH	B214	1161096	CNMP432 K313	B56	1162250	RCMT1605M0 K313	B240
			1152729	E10SCLPL2 KWH	B214	1161098	CNMP643 K313	B56	1162251	RCMT2006M0 K313	B240
			1152730	E12SCLPR							

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1162288	VBGT2205LF K68	B280	1182000	SNGA544T KY3500	B314	1184103	LINEQ1245R04 KC725M	U20	1191446	B105A10000 K10	G25
1162289	VBGT331HP K68	B280	1182002	DNGA432T0820 KY3500	B314	1184105	LINEQ1255R04 KC725M	U20	1191448	B105A10200 K10	G25
1162296	RCGT0803MHP K68	B238	1182003	DNGA433T0820 KY3500	B314	1184106	LINEQ1260R04 KC725M	U20	1191449	B105A10300 K10	G25
1162297	RCMT0602M0 K68	B240	1182004	DNGA434T0820 KY3500	B314	1185809	S447	T64	1191450	B105A10500 K10	G25
1162586	SPU422 K68	B171	1182005	DNGA443T0820 KY3500	B314	1185937	DFT370R4WD40M	J50	1191451	B105A10700 K10	G25
1162732	TPU221 K68	B178	1182006	VNGA332T0820 KY3500	B315	1185959	DFT410R4WD40M	J50	1191452	B105A11000 K10	G25
1162733	TPU222 K68	B178	1182008	TNGA334T0820 KY3500	B314	1186677	SNGX654T0820 KY3500	B318	1191453	B105A11800 K10	G25
1162734	TPU321 K68	B178	1182363	NT1L K68	D23	1190977	1.78025R300	E19	1191454	B105A12000 K10	G25
1162735	TPU322 K68	B178	1182370	NTB3RB K68	D18	1191046	3.37052R320	I14	1191455	B105A12500 K10	G25
1162737	TPU432 K68	B178	1182373	NTB3LB K68	D18	1191047	3.37052R820	I14	1191456	B105A12700 K10	G25
1162738	TPU433 K68	B178	1182375	NTB2RA K68	D17	1191048	3.37061R320	I14	1191457	B105A12800 K10	G25
1163009	CPGM3251 K313	B205	1182379	NTB3LA K68	D17	1191049	3.37061R820	I14	1191458	B105A13000 K10	G25
1163010	CPGM3252 K313	B205	1182853	SPG422 K313	B171	1191050	3.37071R320	I14	1191459	B105A13800 K10	G25
1163033	TD6P K68	B266	1182856	SPG633 K313	B171	1191051	3.37071R820	I14	1191460	B105A14000 K10	G25
1163051	CPGM21505 K68	B205	1182877	SNG322T0820 KY3500	B318	1191052	3.37091R320	I14	1191461	B105A14200 K10	G26
1163052	CPGM2151 K68	B205	1182878	SNG432T0820 KY3500	B318	1191053	3.37091R820	I14	1191462	B105A14500 K10	G26
1163054	CPGM32505 K68	B205	1182879	SNG433T0820 KY3500	B318	1191054	3.37100R720	I26	1191463	B105A15000 K10	G26
1163055	CPGM3251 K68	B205	1182880	SNG434T0820 KY3500	B318	1191055	3.37101R832	I14	1191464	B105A15100 K10	G26
1163056	CPGM3252 K68	B205	1182882	SNG438T0820 KY3500	B318	1191056	3.37111R332	I14	1191465	B105A15800 K10	G26
1163276	NPR508 K313	E35	1182884	SNG454T0820 KY3500	B318	1191057	3.37111R832	I14	1191466	B105A16000 K10	G26
1163277	NPL508 K313	E35	1182886	SNG634T0820 KY3500	B318	1191058	3.37120R732	I26	1191467	B105A16500 K10	G26
1163280	NPR505 K313	E35	1182921	SPG321 K68	B171	1191059	3.37121R832	I14	1191468	B105A18000 K10	G26
1163281	NPR51 K313	E35	1182922	SPG322 K68	B171	1191060	3.37131R332	I14	1191469	B105A20000 K10	G26
1163283	NPL505 K313	E35	1182925	SPG421 K68	B171	1191061	3.37140R732	I26	1191470	B105A20500 K10	G26
1163284	NPL51 K313	E35	1182926	SPG423 K68	B171	1191062	3.37141R832	I14	1191612	B41A05000 KF1	G94
1163285	NPL52 K313	E35	1182929	SPG632 K68	B171	1191063	3.37151R332	I14	1191613	B41A06000 KF1	G94
1163286	VPGR331 K313	B369, E38	1183203	TPG221 K313	B177	1191072	3.42805R031 CS5	I30	1191614	B41A08000 KF1	G94
1163287	VPGR332 K313	B369, E38	1183205	TPG321 K313	B177	1191073	3.42807R001 CS5	I30	1191616	B41A10000 KF1	G95
1163311	NPR505 K68	E35	1183206	TPG322 K313	B177	1191074	CBTF200R2WD20N3M	J114	1191617	B41A11200 KF1	G95
1163312	NPR51 K68	E35	1183207	TPG323 K313	B177	1191075	CBTF220R2WD20N3M	J114	1191618	B41A114000 KF1	G95
1163313	NPR52 K68	E35	1183209	TPG3205 K313	B177	1191076	CBTF260R2WD20N2M	J114	1191619	B41A116000 KF1	G95
1163314	NPL505 K68	E35	1183210	TPG431 K313	B177	1191103	DFT260R4WD32M	J50	1191620	B501Z06000 K10	G144
1163315	NPL51 K68	E35	1183211	TPG432 K313	B177	1191130	3.76050R032V	J82-83	1191628	B505Z04000 K10	G144
1163316	NPL52 K68	E35	1183232	TNG332T0820 KY3500	B319	1191131	3.76063R032V	J82-83	1191629	B505Z06000 K10	G144
1163317	NPR1305 K68	E34	1183236	TNG434T0820 KY3500	B319	1191132	3.76073R040V	J82-83	1191630	B505Z10000 K10	G144
1163323	NPL132F K68	E34	1183237	TPG322T0820 KY3500	B320	1191133	3.76080R048V	J82-83	1191631	B505Z12000 K10	G144
1163325	VPGR3305 K68	E38	1183238	TPG323T0820 KY3500	B320	1191134	3.76102R058V	J82-83	1191632	B505Z16000 K10	G144
1163326	VPGR331 K68	E38	1183239	TPG432T0820 KY3500	B320	1191135	3.77000R024V	J84	1191633	B505Z20000 K10	G144
1163327	VPGR332 K68	E38	1183254	TPG221 K68	B177	1191136	3.77000R025V	J84	1191970	DV50BKRS2040M	K91
1163328	VPGR333 K68	B369, E38	1183255	TPG222 K68	B177	1191137	3.77000R026V	J84	1191971	DV50BKRS0040M	K91
1163336	NPR651R K68	E33	1183257	TPG321 K68	B177	1191138	3.77000R027V	J84	1192275	KR32KR32038100M	K93
1163338	NPR651L K68	E33	1183258	TPG322 K68	B177	1191139	3.77000R029V	J84	1192276	KR32KR32047100M	K93
1163341	DPGR432 K68	E32	1183260	TPG324 K68	B177	1191140	3.77000R038V	J84	1192280	KR50KR50065100M	K93
1163532	RCMK23 K313	E69	1183262	TPG3205 K68	B177	1191141	3.77000R039V	J84	1192281	KR50VS4B094M	K83
1163533	RCMK35 K313	E69	1183264	TPG431 K68	B177	1191142	3.77000R081V	J84	1192295	KRDCR32M	K91-93
1163535	RCMK152 K313	E69	1183265	TPG432 K68	B177	1191143	3.77000R082V	J84	1192296	KRDCR50M	K91-93
1164694	SPU421 K68	B171	1183266	TPG433 K68	B177	1191300	SPHX15762CSRGP K110M	S71	1192326	LSR204D	D71
1173988	HSK100AKR63100M	K92	1183267	TPG434 K68	B177	1191346	SNHX1102PZTNGP K110M	U15	1192442	B502LSEF3	D74
1175211	3.77000R028V	J84	1183421	CPG421 K313	B164	1191347	SNHX1203PZTNGP K110M	U15	1192530	SPHX060204R21 KM1	J116
1175212	3.77000R031V	J84	1183422	CPG422 K313	B164	1191395	9X1R017B20STN10M	W40	1192534	SPHX070304R21 KM1	J116
1175225	193.281	J10-15, J25, J27, J33, J35	1183435	CNG432T0820 KY3500	B316	1191414	B105A08000 K10	G24	1192535	SPHX070304R22 KM1	J117
			1183436	CNG433T0820 KY3500	B316	1191415	B105A03100 K10	G24	1192538	SPHX090304R21 KM1	J116
			1183437	CNG434T0820 KY3500	B316	1191416	B105A03200 K10	G24	1192539	SPHX090304R22 KM1	J117
1176134	B105A08200 K10	G25	1183439	CNG453T0820 KY3500	B316	1191417	B105A03300 K10	G24	1192616	TRAOL163D	E70
1176636	TRAOL202D	E70	1183457	CPG421 K68	B164	1191418	B105A03500 K10	G24	1192617	TRAOL2015D	E70
1176804	STN22300ISOIC KC610M	W45	1183458	CPG422 K68	B164	1191419	B105A04000 K10	G24	1192618	TRTOR243E	E70
1176808	STN27350ISOIC KC610M	W45	1183542	RPG42 K313	B166	1191420	B105A04200 K10	G24	1192621	TRTOR1615D	E71
1176964	15X1R020B16STN16C	W42	1183544	RCGV45 K313	B166	1191421	B105A04500 K10	G24	1196489	MS1438	B290-291
1176967	25X1R040B25STN27C	W42	1183553	DNGX120708T02020 KY3500	B317	1191422	B105A05000 K10	G24	1197315	KM80BT13070	K141
1176970	10X1R015B20STN11T	W42	1183554	DNGX120712T02020 KY3500	B317	1191423	B105A05100 K10	G24	1197539	SPHX1205ZCERGP KCK15	S65
1178986	35X1R055B32STN38N	W41	1183555	DNGX120716T02020 KY3500	B317	1191424	B105A05500 K10	G24	1197540	SPHX1205ZCELGP KCK15	S65
1180107	RNMG64 K313	B97	1183557	SNGX453T0820 KY3500	B318	1191425	B105A05700 K10	G24	1197721	410.081	E15, S64, S67
1180737	TPG433T0820 KY3500	B320	1183558	SNGX454T0820 KY3500	B318	1191426	B105A06000 K10	G24	1197803	3.37530R010	I27
1180917	SDET43PDSR86B KC725M	T116, T123, U39	1183560	RNG65T0820 KY3500	B318	1191427	B105A06000 K10	G24	1198114	SNHX12L5PZTNGP K110M	U15
1181980	DNGA442T0820 KY3500	B314	1183562	DNGX452T0820 KY3500	B317	1191428	B105A06300 K10	G24	1198117	SNHX12L5PZFNGE K110M	U14
1181982	SNGA643T0820 KY3500	B314	1183563	DNGX453T0820 KY3500	B317	1191429	B105A06400 K10	G24	1198178	SCMT325211 KT315	B246
1181984	TNGA332T0820 KY3500	B314	1183564	DNGX454T0820 KY3500	B317	1191430	B105A06500 K10	G24	1198179	DCMT2150511 KT315	B224
1181985	TNGA333T0820 KY3500	B314	1183567	ENGX454T0820 KY3500	B317	1191431	B105A06700 K10	G25	1198180	BVMT220511 KT315	B280
1181986	WNGA432T0820 KY3500	B315	1183572	SNGX556T0820 KY3500	B318	1191432	B105A06800 K10	G25	1198181	SCMT325111 KT315	B246
1181987	WNGA433T0820 KY3500	B315	1183574	RNG43T0820 KY3500	B318	1191433	B105A07000 K10	G25	1198182	SCMT43111 KT315	B246
1181988	WNGA434T0820 KY3500	B315	1183575	RNG45T0820 KY3500	B318	1191434	B105A07100 K10	G25	1198183	BVMT33111 KT315	B280
1181989	CNGA432T0820 KY3500	B313	1184088	LINEU1245R08 KC725M	U19	1191435	B105A07500 K10	G25	1198184	BVMT33211 KT315	B280
1181990	CNGA433T0820 KY3500	B313	1184089	LINEU1245R16 KC725M	U19	1191436	B105A07800 K10	G25	1198185	TCMT215111 KT315	B256
1181991	CNGA434T0820 KY3500	B313	1184090	LINEU1245R32 KC725M	U19	1191437	B105A08000 K10	G25	1198186	TCMT325111 KT315	B256
1181992	CNGA543T0820 KY3500	B313	1184091	LINEU1250R08 KC725M	U19	1191438	B105A08400 K10	G25	1198187	CCMT215111 KT315	B190
1181993	CNGA544T0820 KY3500	B313	1184092	LINEU1255R08 KC725M	U19	1191439	B105A08500 K10	G25	1198188	CCMT325111 KT315	B190
1181994	CNGA643T0820 KY3500	B313	1184093	LINEU1255R16 KC725M	U19	1191440	B105A08700 K10	G25	1198189	CCMT325211 KT315	B190
1181995	CNGA644T0820 KY3500	B313	1184094	LINEU1255R32 KC725M	U19	1191441	B105A09000 K10	G25	1198191	DCMT215111 KT315	B224
1181996	SNGA432T0820 KY3500	B314	1184097	LINEU1245R04 KC725M	U19	1191442	B105A09000 K10	G25	1198192	DCMT325111 KT315	B224
1181997	SNGA433T0820 KY3500	B314	1184098	LINEU1250R04 KC725M	U19	1191443	B105A09500 K10	G25	1198564	B41A03200 KF1	G94
1181998	SNGA434T0820 KY3500	B314	1184099	LINEU1255R04 KC725M	U19	1191444	B105A09700 K10	G25	1198566	B41A03300 KF1	G94
1181999	SNGA543T KY3500	B314	1184100	LINEU1260R04 KC725M	U19	1191445	B105A09800 K10				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1198570	B411A04000 KF1	G94	1199424	B105A11500 K10	G25	1245255	1.18016R110	E16	1245827	3.77000R074V	J84
1198572	B411A04200 KF1	G94	1199434	B105A13100 K10	G25	1245256	1.18020L110	E16	1245828	3.77000R075V	J84
1198574	B411A04500 KF1	G94	1199438	B105A13500 K10	G25	1245257	1.18020R110	E16	1245829	3.77000R076V	J84
1198576	B411A04600 KF1	G94	1199455	B105A15500 K10	G26	1245258	1.18020R310	E16	1245830	3.77000R077V	J84
1198578	B411A04650 KF1	G94	1199469	B105A17000 K10	G26	1245259	1.18025R310	E16	1245831	3.77000R078V	J84
1198580	B411A04800 KF1	G94	1199472	B105A17500 K10	G26	1245260	1.18032L315	E16	1245832	3.77000R079V	J84
1198582	B411A04900 KF1	G94	1199480	B105A18500 K10	G26	1245261	1.18032R315	E16	1245833	3.77000R080V	J84
1198586	B411A05100 KF1	G94	1199488	B105A19000 K10	G26	1245277	1.17125L330	E16	1245834	3.77000R085V	J84
1198588	B411A05200 KF1	G94	1199492	B105A19500 K10	G26	1245287	1.18016L110	E16	1245835	3.77000R087V	J84
1198590	B411A05500 KF1	G94	1199675	B105A21000 K10	G26	1245292	1.18025L330	E17	1245836	3.77000R088V	J84
1198592	B411A05550 KF1	G94	1199682	B105A04100 K10	G24	1245326	1.18025L315	E16	1245980	KSEM160R3WN20M	H73
1198594	B411A05800 KF1	G94	1199685	B105A08600 K10	G25	1245338	1.38020R021	E17	1245983	KSEM160R5WN20M	H73
1198597	B411A06300 KF1	G94	1201617	B105A03400 K10	G24	1245339	1.38025L021	E17	1245986	KSEM165R3WN20M	H73
1198599	B411A06400 KF1	G94	1201621	B105A03600 K10	G24	1245340	1.38025R021	E17	1245988	KSEM165R5WN20M	H73
1198602	B411A06500 KF1	G94	1201661	B105A04900 K10	G24	1245357	1.77132R400	E18	1245991	KSEM170R3WN20M	H73
1198606	B411A06600 KF1	G94	1201677	B105A05600 K10	G24	1245364	1.78032R400	E19	1245993	KSEM170R5WN20M	H73
1198608	B411A06800 KF1	G94	1201708	B105A06200 K10	G24	1245371	1.77120L100	E18	1245995	KSEM175R3WN20M	H73
1198610	B411A07000 KF1	G94	1201713	B105A06350 K10	G24	1245372	1.77120R100	E18	1245997	KSEM175R5WN20M	H73
1198613	B411A07400 KF1	G94	1201892	B105A10400 K10	G25	1245374	1.77125R300	E18	1245999	KSEM180R3WN20M	H73
1198617	B411A07500 KF1	G94	1202275	B411A08800 KF1	G95	1245382	1.77225R301	E19	1246001	KSEM180R5WN20M	H73
1198620	B411A07800 KF1	G94	1208579	3.41020R901 CS5	I16	1245388	1.77725R301	E18	1246003	KSEM185R3WN25M	H73
1198625	B411A08400 KF1	G94	1208588	3.41020R902 CS5	I16	1245392	1.78012R103	E19	1246005	KSEM185R5WN25M	H73
1198628	B411A08500 KF1	G94	1208594	3.41020R903 CS5	I16	1245394	1.78016R100	E19	1246007	KSEM190R3WN25M	H73
1198630	B411A09000 KF1	G95	1208601	3.41220R901 CS5	I16	1245397	1.78020R100	E19	1246008	KSEM190R5WN25M	H73
1198632	B411A09300 KF1	G95	1208606	3.41220R902 CS5	I16	1245398	1.78025L300	E19	1246011	KSEM195R3WN25M	H73
1198635	B411A09500 KF1	G95	1208615	3.41220R903 CS5	I16	1245712	302.014	J92	1246013	KSEM195R5WN25M	H73
1198637	DNMG32323 KT315	B78	1208627	3.41020R900 KMF	I17	1245716	3.37042R320	I14	1246014	KSEM200R3WN25M	H73
1198640	B411A09800 KF1	G95	1208635	3.42805R001 KMF	I30	1245717	3.37042R820	I14	1246017	KSEM200R5WN25M	H73
1198644	B411A10200 KF1	G95	1208642	3.42807R001 KMF	I30	1245718	3.37051R320	I14	1246018	KSEM205R3WN25M	H73
1198645	DNMG33133 KT315	B78	1208648	3.41220R900 KMF	I17	1245719	3.37051R820	I14	1246021	KSEM205R5WN25M	H73
1198648	B411A10500 KF1	G95	1208764	SPHX060204R22 KM1	J117	1245720	3.37062R320	I14	1246022	KSEM210R3WN25M	H73
1198650	B411A11000 KF1	G95	1208782	SPHX120404R21 KM1	J116	1245721	3.37062R820	I14	1246024	KSEM210R5WN25M	H73
1198652	B411A11200 KF1	G95	1208789	SPHX120404R22 KM1	J117	1245722	3.37081R320	I14	1246026	KSEM215R3WN25M	H73
1198656	B411A11500 KF1	G95	1208830	SPHX150504R21 KM1	J116	1245723	3.37081R820	I14	1246028	KSEM215R5WN25M	H73
1198658	B411A11800 KF1	G95	1208833	SPHX150504R22 KM1	J117	1245724	3.37101R332	I14	1246031	KSEM220R3WN25M	H73
1198663	B411A12500 KF1	G95	1221501	SPHX120508PCSRGP KCK15	S68	1245725	3.37121R332	I14	1246032	KSEM220R5WN25M	H73
1198665	B411A13000 KF1	G95	1223594	SPHX1205PCERGPB KCK15	S68	1245726	3.37131R832	I14	1246034	KSEM225R3WN25M	H74
1198667	B411A13500 KF1	G95	1229047	KSSR150SP10T30F	T109	1245727	3.37141R332	I14	1246036	KSEM225R5WN25M	H74
1198670	B411A13800 KF1	G95	1229078	KSSR200SP10T30F3	T109	1245728	3.37151R832	I14	1246037	KSEM230R3WN25M	H74
1198679	B411A14500 KF1	G95	1229079	KSSR250SP10T30F4	T109	1245729	3.37161R332	I14	1246040	KSEM230R5WN25M	H74
1198682	B411A15000 KF1	G95	1229080	KSSR300SP10T30F4	T109	1245730	3.37161R832	I14	1246041	KSEM235R3WN25M	H74
1198684	B411A15500 KF1	G95	1229081	KSSR400SP10T30F5	T109	1245731	3.37171R332	I14	1246044	KSEM235R5WN25M	H74
1198686	CNMG43233 KT315	B48	1229091	KISR075SP10T30F	T108	1245732	3.37171R832	I14	1246046	KSEM240R3WN25M	H74
1198689	DNMG44133 KT315	B78	1229092	KISR100SP10T30F	T108	1245733	3.37181R332	I14	1246048	KSEM240R5WN25M	H74
1198691	B411A16500 KF1	G95	1229095	KISR125SP10T30F	T108	1245734	3.37181R832	I14	1246051	KSEM245R3WN32M	H74
1198693	DNMG44233 KT315	B78	1229096	KISR150SP10T30F	T108	1245735	3.37060R720	I26	1246053	KSEM245R5WN32M	H74
1198694	B411A17000 KF1	G95	1229112	KISBR150SP10T30F	T107	1245736	3.37080R720	I26	1246055	KSEM250R3WN32M	H74
1198697	B411A17500 KF1	G95	1229113	KISBR200SP10T30F	T107	1245737	3.37160R732	I26	1246057	KSEM250R5WN32M	H74
1198701	B411A18000 KF1	G95	1230196	B105A04300 K10	G24	1245738	3.37180R732	I26	1246059	KSEM255R3WN32M	H74
1198703	B411A19000 KF1	G95	1230373	CKM36	B72, B94-95, B115-119	1245739	3.37526R006	I27	1246061	KSEM255R5WN32M	H74
1198704	B411A19500 KF1	G95	1232019	SDJCRF083D	B228	1245740	3.37528R008	I27	1246063	KSEM260R3WN32M	H74
1198707	B411A20000 KF1	G95	1232519	3.76068R040V	J82-83	1245741	3.37532R012	I27	1246065	KSEM260R5WN32M	H74
1198711	B411A21000 KF1	G95	1236002	A08R5VMBR2E	B284	1245742	3.37534R014	I27	1246067	KSEM265R3WN32M	H74
1198714	B411A22000 KF1	G95	1236006	A10SSVMBR2E	B284	1245743	3.37538R016	I27	1246069	KSEM265R5WN32M	H74
1198716	B411A23000 KF1	G95	1236007	A12SSVMBR3E	B284	1245744	3.37540R018	I27	1246071	KSEM270R3WN32M	H74
1198718	B411A24000 KF1	G95	1236018	A16T5VMBR3E	B284	1245745	3.37542R020	I27	1246073	KSEM270R5WN32M	H74
1198721	B411A25000 KF1	G95	1242260	PT00163	E60	1245746	3.76063R040V	J82-83	1246075	KSEM275R3WN32M	H74
1198724	B501Z04000 K10	G144	1243476	114.111	E17	1245747	3.76078R048V	J82-83	1246077	KSEM275R5WN32M	H74
1198733	B501Z10000 K10	G144	1243527	132.151	E16	1245748	3.76096R058V	J82-83	1246079	KSEM280R3WN32M	H74
1198743	B505Z08000 K10	G144	1243529	132.156	E16	1245749	3.76045R028V	J82-83	1246081	KSEM280R5WN32M	H74
1198753	B501Z12000 K10	G144	1243735	192.158	J92	1245750	3.76050R028V	J82-83	1246083	KSEM285R3WN32M	H74
1199223	B105A12100 K10	G25	1243752	3.77000R083V	J84	1245751	3.76058R032V	J82-83	1246085	KSEM290R3WN32M	H74
1199225	B105A08300 K10	G25	1243753	3.77000R084V	J84	1245752	3.76078R040V	J82-83	1246088	KSEM290R5WN32M	H74
1199228	B105A04700 K10	G24	1243754	3.77000R086V	J84	1245753	3.76090R048V	J82-83	1246089	KSEM295R3WN32M	H74
1199229	B105A06100 K10	G24	1243769	302.009	J90	1245754	3.76096R048V	J82-83	1246092	KSEM295R5WN32M	H74
1199238	B105A08100 K10	G25	1243770	302.010	J90	1245755	3.76108R058V	J82-83	1246093	KSEM300R3WN32M	H74
1199243	B105A10100 K10	G25	1243771	302.011	J90	1245756	3.76115R070V	J82-83	1246095	KSEM300R5WN32M	H74
1199251	B105A10800 K10	G25	1243777	360.630	I26, I29	1245757	3.76122R070V	J82-83	1246098	KSEM305R3WN32M	H74
1199306	B105A07600 K10	G25	1243778	360.631	I26, I29	1245758	3.76130R070V	J82-83	1246099	KSEM305R5WN32M	H74
1199308	B105A11100 K10	G25	1243779	360.632	I26, I29	1245759	3.76140R080V	J82-83	1246102	KSEM310R3WN32M	H74
1199311	B105A09100 K10	G25	1243780	360.633	I26, I29	1245760	3.76150R080V	J82-83	1246103	KSEM310R5WN32M	H74
1199316	B105A11700 K10	G25	1243781	360.634	I26	1245761	3.76162R080V	J82-83	1246106	KSEM315R3WN32M	H74
1199334	B105A03700 K10	G24	1243782	360.635	I26, I29	1245762	3.76162R080V	J82-83	1246107	KSEM315R5WN32M	H74
1199337	B105A03800 K10	G24	1243783	360.636	I26, I29	1245818	3.77000R023V	J84	1246109	KSEM320R3WN32M	H74
1199348	B105A04650 K10	G24	1244281	1.78025R300Z	E21, E23	1245819	3.77000R030V	J84	1246112	KSEM320R5WN32M	H74
1199351	B105A04800 K10	G24	1245236	1.18025L310	E16	1245820	3.77000R048V	J84	1246166	CBTF30	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1246205	CBTF280R2WD20N3M	J114	1251261	WXXNL4455X-FL	E60	1279867	KSEM200R7WN25M	H75	1291031	TRAOL204D	E70
1246207	CBTF320R2WD20N3M	J114	1251262	WXXNR4455X-FL	E60	1279868	KSEM205R7WN25M	H75	1291032	TRAOL242E	E70
1246216	CBTF460R2WD32N3M	J114	1253759	TRAOR1615D	E70	1279872	KSEM210R7WN25M	H75	1291033	TRAOL243E	E70
1246234	DFT250R4WD32M	J50	1255899	170.285	H88	1279873	KSEM215R7WN25M	H75	1291034	TRAOL244E	E70
1246238	DFT270R4WD32M	J50	1255900	170.286	H88	1279874	KSEM220R7WN25M	H75	1291035	TRAOR162D	E70
1246239	DFT280R4WD32M	J50	1255901	170.287	H88	1279878	KSEM225R7WN25M	H75	1291037	TRAOR163D	E70
1246242	DFT290R4WD32M	J50	1255902	170.288	H88	1279881	KSEM230R7WN25M	H75	1291038	TRAOR164D	E70
1246243	DFT300R4WD32M	J50	1255968	B105A05400 K10	G24	1279882	KSEM235R7WN25M	H75	1291039	TRAOR2015D	E70
1246245	DFT310R4WD32M	J50	1258625	B105A03900 K10	G24	1279889	KSEM245R7WN32M	H75	1291040	TRAOR203D	E70
1246247	DFT320R4WD32M	J50	1260086	CC09	B200-204	1279891	KSEM250R7WN32M	H75	1291041	TRAOR204D	E70
1246248	DFT250R4WD40M	J50	1260087	CC11	B200-203	1279892	KSEM255R7WN32M	H75	1291042	TRAOR2415E	E70
1246249	DFT260R4WD40M	J50	1261328	CSKPR12CA4	B174, B394	1279893	KSEM260R7WN32M	H76	1291043	TRAOR244E	E70
1246250	DFT270R4WD40M	J50	1261379	CSSPR10CA3	B176, B396	1279894	KSEM265R7WN32M	H76	1291085	TRHOR1615D	E70
1246251	DFT280R4WD40M	J50	1263816	DV40BKR50060M	K91	1279895	KSEM270R7WN32M	H76	1291086	TRHOR162D	E70
1246253	DFT290R4WD40M	J50	1263825	DV40BT13069	K142	1279896	KSEM275R7WN32M	H76	1291089	TRHOR2015D	E70
1246256	DFT300R4WD40M	J50	1264135	DV50BKR63060M	K91	1279898	KSEM280R7WN32M	H76	1291123	TRTOR162D	E71
1246258	DFT310R4WD40M	J50	1264136	DV50BKR80070M	K91	1279902	KSEM285R3WN32M	H74	1291126	TRTOR2015D	E71
1246260	DFT320R4WD40M	J50	1270619	EB48040500	K143	1279903	KSEM285R7WN32M	H76	1291127	TRTOR202D	E71
1246262	DFT330R4WD40M	J50	1270620	EB53050550	K143	1279905	KSEM290R7WN32M	H76	1291909	VBMT22111 KT315	B280
1246263	DFT340R4WD40M	J50	1270621	EB58050600	K143	1279906	KSEM295R7WN32M	H76	1294964	11X1R012B12STN11N	W40
1246266	DFT350R4WD40M	J50	1270939	E03HSCFDR12	B200	1279908	KSEM300R7WN32M	H76	1298873	4111492VRS	B168, B386
1246267	DFT360R4WD40M	J50	1270940	E03HSCDLR12A	B202	1279911	KSEM305R7WN32M	H76	1298876	4111573VRS	B168, B386
1246271	DFT380R4WD40M	J50	1270941	E03HSCDLR12A	B202	1279913	KSEM310R7WN32M	H76	1298879	4111603VRS	B168, B386
1246273	DFT390R4WD40M	J50	1270944	E03HSTLDR128	B265	1279914	KSEM315R7WN32M	H76	1298882	4111654VRS	B168, B386
1246275	DFT400R4WD40M	J50	1270946	E03MSCFDR12	B200	1279915	KSEM320R7WN32M	H76	1298883	4111664VRS	B168, B386
1246278	DFT420R4WD40M	J50	1270947	E03MSCDLR12	B202	1280494	K067TMRW075STN1D	W43	1298884	4111674VRS	B168, B386
1246279	DFT430R4WD40M	J50	1270950	E03MSTLDR12A	B265	1280517	K102TMRW100STN16D	W43	1300343	5.34270R058100	J87
1246282	DFT440R4WD40M	J50	1270952	E04HSCFDR12	B200	1280598	K165TMRW125STN27D	W43	1300344	5.34280R032080	J87
1246284	DFT450R4WD40M	J50	1270953	E04HSCDLR12	B202	1281796	LSASL103	D71	1309256	D48T842	B409
1246285	DFT460R4WD40M	J50	1270954	E04HSCDLR12	B202	1281797	LSASL123	D71	1310704	DPGT2151LF KC5010	B231
1246288	DFT470R4WD40M	J50	1270956	E04HSTFDR128	B264	1281798	LSASL163	D71	1310705	DPGT32505LF KC5010	B231
1246289	DFT480R4WD40M	J50	1270958	E04HSTLDR128	B265	1281799	LSASL164	D71	1310707	DPGT32505LF KC5010	B231
1246688	KBFI4	I15	1270960	E04MSCFDR12	B200	1281800	LSASL83	D71	1310718	CCGT21505LF KC5010	B189
1246691	KBFI5B	I15	1270961	E04MSCDLR12	B202	1281801	LSASR103	D71	1310719	DPGT3251HP KC5010	B231
1246696	KBFI6B	I15	1270962	E04MSCDLR12	B202	1281802	LSASR123	D71	1310720	DPGT3251LF KC5010	B231
1246700	KBFI7	I15	1270964	E04MSTLDR128	B265	1281803	LSASR163	D71	1310721	CCGT21505LF KC5010	B189
1246703	KBFI8	I15	1270965	E04MSTLDR128	B265	1281804	LSASR164	D71	1310723	DPGT3252HP KC5010	B231
1246704	KBFI9	I15	1270968	E05HSTFDR128	B264	1281805	LSASR203	D71	1310724	CCGT2151HP KC5010	B189
1246707	KBFI10	I15	1270970	E05HSTLDR128	B265	1281812	LSSL123D	D71	1310725	DPGT3252LF KC5010	B231
1246708	KBFI11	I15	1270971	E05MSTFDR128	B264	1281813	LSSL163D	D71	1310726	CCGT2151LF KC5010	B189
1246710	KBFI12	I15	1270973	E05MSTLDR128	B265	1281814	LSSL164D	D71	1310728	CCGT2152LF KC5010	B189
1246714	KBFI13	I15	1270981	E06MSTLDR07	B265	1281815	LSSRDH123C	D72	1310730	CCGT32505HP KC5010	B189
1246716	KBFI15	I15	1270982	E06MSTLDR07	B265	1281816	LSSRDH164D	D72	1310733	CCGT32505LF KC5010	B189
1246718	KBFI16	I15	1270991	E08MSTLDR07	B265	1281817	LSSR123D	D71	1310735	CCGT32505LF KC5010	B189
1246720	KBFI18	I15	1270992	E08MSTLDR07	B265	1281818	LSSR163D	D71	1310737	CCGT3251HP KC5010	B189
1247650	KAP1250632	U7-8	1271036	E25MSC7DR12	B204	1281819	LSSR164D	D71	1310739	CCGT3251LF KC5010	B189
1247652	KAP1250634	U7-8	1271038	E03HSCDLR12	B202	1281820	LSSR203D	D71	1310740	CCGT3252LF KC5010	B189
1247660	KAP1871004	U7-8	1271040	E03MSCDLR12	B202	1282100	MCLNR16CA4	B74	1310746	CCGT4305HP KC5010	B189
1247663	KAP2251254	U7-8	1271092	FC11	B265	1282677	KSEM240R7WN25M	H75	1310750	CCGT431HP KC5010	B189
1247666	KAP3121254	U7-8	1271093	FC14	B264-265	1282803	MSRNL12CA4	B116	1310777	CNGP432K KC5010	B47
1247668	KAP3502004	U7-8	1274022	ICSN643 K9	B58-60	1282807	MSSNR12CA4	B117	1310793	TPGT21505HP KC5010	B267
1247669	KAP5502004	U8	1274659	IRSN84 K9	B98	1287636	SN5TM	W40-43	1310800	TPGT3251HP KC5010	B267
1247675	KAP1250764	U7-8	1274800	ISSN443 K9	B109-110	1288604	STN1616UNI KC610M	W44	1310802	TPGT3252HP KC5010	B267
1247681	KS426SNH1102	U13	1274807	ISSN643 K9	B109-110	1288861	A03XSCFDR12	B200	1310803	CPGT21505LF KC5010	B205
1247684	KS526SNH1102	U13	1279732	KRCSTFPR113F	K90	1288862	A03XSCDLR12	B201	1310805	TPGT3252LF KC5010	B267
1247686	KS33SNH1103	U13	1279733	KRDCKR63M	K91-93	1288863	A03XSCDLR12	B201	1310838	CPGT21505LF KC5010	B206
1247688	KS43SNH1103	U13	1279734	KRDCKR80M	K91-93	1288867	A03GSLDR128	B265	1310839	CPGT32505HP KC5010	B206
1247691	KS53SNH1103	U13	1279736	KRDE070019M	K89, K108	1288869	A04FSCFDR12	B200	1310841	VBMT2205LF KC5010	B281
1247694	KS63SNH1103	U13	1279739	KRDE083019M	K89, K108	1288870	A04FSCDLR12	B201	1310842	CPGT2151LF KC5010	B206
1247698	KVNS020630D	U7	1279740	KRDE096019M	K89, K109	1288871	A04FSCDLR12	B201	1310844	CPGT32505HP KC5010	B205
1247704	KVNS021180D	U7	1279741	KRDE101023M	K89, K110	1288873	A04HSTFDR128	B264	1310845	VBMT2211LF KC5010	B281
1247710	KVNS030630D	U7	1279742	KRDE120023M	K89, K110-111	1288875	A04HSTLDR128	B265	1310846	CPGT32505LF KC5010	B206
1247712	KVNS030870D	U7	1279743	KRDE139026M	K89, K111	1288881	A05HSTLDR128	B265	1310849	VBMT331LF KC5010	B281
1247716	KVNS031180D	U7	1279745	KRDE156026M	K89, K112	1288895	S0612LSEL2	D74	1310850	CPGT3251HP KC5010	B205
1247718	KVNS031580D	U7	1279746	KRDE175026M	K89, K113	1288896	S0612LSE2	D74	1310878	CPGT3251LF KC5010	B206
1247721	KVNS031970D	U8	1279748	KRDE193026M	K89, K114	1288907	S0812LSEL2	D74	1310880	DCGT32505HP KC5010	B224
1247722	KVNS032360D	U8	1279772	KR32KR32038050M	K93	1288908	S0812LSE2	D74	1310881	DCGT3251HP KC5010	B224
1247725	KVNS040630D	U7	1279775	KR32KR32047050M	K93	1288920	S1012LSEL3	D74	1310882	DCGT3252HP KC5010	B224
1247727	KVNS040870D	U7	1279785	KR50KR50065050M	K93	1288921	S1012LSE3	D74	1310885	DCMT2151LF KC5010	B225
1247730	KVNS041180D	U7	1279787	KR50SV58094M	K83	1288936	S1212LSEL3	D74	1310887	DCMT32505LF KC5010	B225
1247732	KVNS041580D	U7	1279791	KR63KR63085050M	K93	1288937	S1212LSE3	D74	1310890	DCMT3251LF KC5010	B225
1247735	KVNS042360D	U8	1279792	KR63KR63085100M	K93	1288958	S1620LSEL3	D74	1310939	TPGT2151HP KC5010	B267
1247738	KVNS050630D	U7	1279793	KR63SV58B126M	K83	1288960	S1620LSEL4	D74	1310943	TPGT2151LF KC5010	B267
1247740	KVNS050870D	U7	1279797	KR80KR80095050M	K93	1288961	S1620LSE3	D74	1310944	DPGT21505HP KC5010	B231
1247742	KVNS051180D	U7	1279798	KR80KR80095100M	K93	1288962	S1620LSE4	D74	1310945	DPGT2151HP KC5010	B231
1247746	KVNS051580D	U7	1279856	KSEM165R7WN20M	H75	1288982	S2020LSE4	D74	1310946	TPGT3251LF KC5010	B267
1247753	KVNS060870D	U7	1279857	KSEM170R7WN20M	H75	1289015	A03XSC7DL12	B204	1310947	DPGT21505LF KC5010	B231
1247757	KVNS061180D	U7	1279858	KSEM175R7WN20M	H75	1289016	A03XSC7DR12	B204	1310948	VBMT332LF KC5010	B281
1247768	KVNS081180D	U7	1279859	KSEM180R7WN20M	H75	1289024	A03XSCDLR12A	B201	1310950	WNGP432K KC5010	B156
1247778	KVNS101180D	U7	1279863	KSEM185R7WN25M	H75	1291027	TRAOL162D	E70	1310951	DCMT21505LF KC5010	B225
1247785	KVNS102360D	U8	1279864	KSEM190R7WN25M	H75	1291029	TRAOL164D	E70	1310954	CCGT432HP KC5010	B189
1249028	5.34280R028080	J87	1279866	KSEM195R7WN25M	H75	1291030	TRAOL203D	E70	1310955	CNMG432 KC5010	B47

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1310956	CNMG432MG KC5010	B57	1329705	KSEM1000R5SS125	H78	1517212	KSEM1000R8SSF125	H84	1522133	DFT1000R4SSF100	J53
1311193	KSEM160R7WN20M	H75	1329706	KSEM0984R5SS100	H78	1517234	KSEM0750R8SSF075	H84	1522135	DFT0984R4SSF100	J53
1312498	364.015	H72, H74, H81, H83, H85-86, H123	1329707	KSEM1000R5SS100	H78	1517235	KSEM0938R8SSF100	H84	1522242	DFT1000R4SSF125	J53
1314840	DCMT3252LF KC5010	B225	1329708	KSEM0969R5SS100	H78	1517236	KSEM0984R8SSF100	H84	1522248	DFT2000R4SSF100	J53
1315965	MS1489	D31-33, D39	1329709	KSEM0938R5SS100	H78	1517238	KSEM0625R8SSF075	H84	1522249	DFT2125R4SSF150	J53
1316525	3.42805R001 KC7215	I30	1329710	KSEM0875R5SS100	H77	1517239	KSEM0875R8SSF125	H84	1522250	DFT2000R4SSF200	J53
1316526	3.42807R001 KC7215	I30	1329711	KSEM0844R5SS100	H77	1517240	KSEM1250R8SSF125	H84	1522321	DFT2125R2SSF200	J53
1319470	IWSN322 K9	B163	1329732	KSEM0813R5SS100	H77	1517254	KSEM1188R8SSF125	H84	1522517	DFT1688R4SSF125	J53
1319576	S316	B409	1329733	KSEM0781R5SS100	H77	1517255	KSEM1125R8SSF125	H84	1522848	TPGT18151LF KC5010	B267
1321012	410.083	S121-123	1329734	KSEM0750R5SS100	H77	1517256	KSEM1000R8SSF100	H84	1522850	TPGT32505HP KC5010	B267
1322363	ODG1063ISGB KC735M	U9	1329735	KSEM0719R5SS075	H77	1517257	KSEM0688R8SSF075	H84	1522905	CPGT21505HP KC5010	B205
1322365	ODG2087ISGB KC735M	U9	1329737	KSEM0656R5SS075	H77	1517764	SPHX1205PCR-GP1WB KCK15	S69	1522907	CPGT2151HP KC5010	B205
1322366	ODG3125ISGB KC735M	U9	1329932	KSEM1250R5SS125	H78	1519227	KSEM0625R7SS075	H79	1522942	TGT2151HP KC5010	B256
1322367	ODG4158ISGB KC735M	U9	1329933	KSEM1250R5SS150	H78	1519229	KSEM0656R7SS075	H79	1522943	TGT32505HP KC5010	B256
1322368	ODC2087IEG KMF	U9	1329934	KSEM1156R5SS125	H78	1519230	KSEM0688R7SS075	H79	1522945	TGT3251HP KC5010	B256
1322370	ODC3125IEGD KMF	U9	1329935	KSEM1188R5SS125	H78	1519262	KSEM0719R7SS075	H79	1522947	TGT32505L KC5010	B256
1322371	ODC4158IEGD KMF	U9	1329936	KSEM1219R5SS125	H78	1519263	KSEM0750R7SS075	H79	1522948	TGT32515L KC5010	B256
1322958	SPHX1205ZCTRGPB KY3500	S65	1329937	KSEM1125R5SS125	H78	1519264	KSEM0750R7SS100	H79	1522949	TGT3251HP KC5010	B256
1324700	193.297	C130-131	1329938	KSEM1094R5SS125	H78	1519265	KSEM0781R7SS100	H79	1523196	TGT21505HP KC5010	B256
1328560	A06MSFCR2	B196	1330471	KSEM0625R5SS075	H77	1519267	KSEM0813R7SS100	H79	1523329	TPGT181505LF KC5010	B267
1328572	A08RSCFCR2	B196	1330472	KSEM1063R5SS125	H78	1519269	KSEM0844R7SS100	H79	1523354	TPGT3252HP KC5010	B256
1328575	A10SSCFCR2	B196	1339151	MCKNFR1650	B62	1519270	KSEM0875R7SS100	H79	1523501	RCGK152HP K313	E69
1328577	A10SSCFL2	B196	1339367	MSSNFR100A3	B117	1519271	KSEM0875R7SS125	H79	1527051	SCMT43211 KT315	B246
1328578	A12SSCFCR3	B196	1500650	KRCSCFPR062L	K86	1519272	KSEM0906R7SS100	H79	1527689	DFT0906R2SSF125	J51
1328579	A12SSCFL3	B196	1501356	KRCSCFPR061L	K86	1519274	KSEM0938R7SS100	H79	1527992	DCMT325211 KT315	B224
1328580	A16TSCFCR3	B196	1501357	KRCSCFPR063L	K86	1519275	KSEM0969R7SS100	H79	1527995	TGMT325211 KT315	B256
1328582	A06MSCLR2	B197	1503488	KSEM0688R5SS075	H77	1519276	KSEM0984R7SS100	H79	1528316	DFT0938R2SSF125	J51
1328583	A06MSCLR2	B197	1504247	SPHX1205ZCTRGPB KY3500	S65	1519277	KSEM1000R7SS100	H79	1528317	DFT0969R2SSF125	J51
1328584	A08RSCCLR2	B197	1505110	KSEM0625R5SS075	H82	1519280	KSEM1000R7SS125	H79	1528318	DFT0984R2SSF125	J51
1328585	A08RSCCL2	B197	1505111	KSEM0688R3SSF075	H82	1519282	KSEM1031R7SS125	H80	1528319	DFT1000R2SSF125	J51
1328586	A10SSCLR2	B197	1505112	KSEM0750R3SSF075	H82	1519285	KSEM1063R7SS125	H80	1528320	DFT1031R2SSF125	J51
1328587	A10SSCLR2	B197	1505113	KSEM0750R3SSF100	H82	1519286	KSEM1094R7SS125	H80	1528328	DV50BK32041M	K91
1328588	A10SSCLR3	B197	1505115	KSEM0813R3SSF100	H82	1519288	KSEM1125R7SS125	H80	1528341	DFT1063R2SSF125	J51
1328589	A10SSCLL3	B197	1505116	KSEM0875R3SSF100	H82	1519289	KSEM1156R7SS125	H80	1528342	DFT1094R2SSF125	J51
1328590	A12SSCLR3	B197	1505117	KSEM0875R3SSF125	H82	1519292	KSEM1188R7SS125	H80	1528343	DFT1125R2SSF125	J51
1328591	A12SSCLL3	B197	1505119	KSEM0938R3SSF100	H82	1519294	KSEM1219R7SS125	H80	1528344	DFT1156R2SSF125	J51
1328592	A16TSCLR3	B197	1505120	KSEM0984R3SSF100	H82	1519296	KSEM1250R7SS125	H80	1528345	DFT1188R2SSF125	J51
1328593	A16TSCLL3	B197	1505122	KSEM1000R3SSF100	H83	1519297	KSEM1250R7SS150	H80	1528346	DFT1192R2SSF125	J51
1328594	A06MSTFCR2	B261	1505123	KSEM1000R3SSF125	H83	1520056	ODG1063ISGD KC735M	U9	1528347	DFT1252R2SSF125	J51
1328596	A08RSTFCR2	B261	1505125	KSEM1063R3SSF125	H83	1520057	ODG2087ISGD KC735M	U9	1528348	DFT1252R2SSF150	J51
1328598	A08RSTFC2	B261	1505127	KSEM1125R3SSF125	H83	1520058	ODG3125ISGD KC735M	U9	1528349	DFT1313R2SSF125	J51
1328599	A10SSTFCR2	B261	1505128	KSEM1188R3SSF125	H83	1520059	ODG4158ISGD KC735M	U9	1528350	DFT1375R2SSF125	J51
1328601	A12SSTFCR3	B261	1505130	KSEM1250R3SSF125	H83	1520076	ODC1063IEGD KMF	U9	1528361	DFT1406R2SSF125	J51
1328602	A12SSTFL3	B261	1505132	KSEM1250R3SSF150	H83	1522026	DFT1813R4SSF150	J53	1528362	DFT1438R2SSF125	J51
1328603	A16STFCR3	B261	1505138	KSEM0625R5SSF075	H82	1522027	DFT1625R4SSF150	J53	1528363	DFT1469R2SSF125	J51
1328604	A16STFL3	B261	1505171	KSEM0688R5SSF075	H82	1522028	DFT1563R4SSF150	J53	1528364	DFT1500R2SSF125	J51
1328605	A06MSTLCR2	B262	1505174	KSEM0750R5SSF075	H82	1522029	DFT1875R4SSF150	J53	1528365	DFT1531R2SSF125	J51
1328606	A06MSTLC2	B262	1505177	KSEM0750R5SSF100	H82	1522030	DFT1688R4SSF150	J53	1528366	DFT1563R2SSF125	J51
1328607	A08RSTLCR2	B262	1505179	KSEM0813R5SSF100	H82	1522062	KRBB16SCLDRS406A	K79, K102	1528367	DFT1625R2SSF125	J51
1328608	A08RSTLC2	B262	1505180	KSEM0875R5SSF100	H82	1522063	KRBB16SCFPR06085A	K79, K102	1528368	DFT1625R2SSF150	J51
1328610	A10SSTLCR2	B262	1505181	KSEM0875R5SSF125	H82	1522064	KRBB16SCFPR0611A	K79, K102	1528369	DFT1688R2SSF125	J51
1328611	A10SSTLCR2	B262	1505183	KSEM0938R5SSF100	H82	1522068	KRBB16SCFPR06135A	K79, K102	1528370	DFT1688R2SSF150	J51
1328612	A12SSTLCR3	B262	1505184	KSEM0969R5SSF100	H82	1522069	KRBB16SCFPR0616A	K79, K103	1528371	DFT1719R2SSF150	J51
1328613	A12SSTLC3	B262	1505188	KSEM1000R5SSF100	H83	1522070	KRBB16SCFPR0619A	K79, K103	1528372	DFT1719R2SSF150	J51
1328614	A16STLCR3	B262	1505189	KSEM1000R5SSF125	H83	1522071	KRBB16SCFPR0622A	K79, K103	1528373	DFT1719R2SSF150	J51
1328615	A16STLC3	B262	1505190	KSEM1063R5SSF125	H83	1522101	DFT1438R4SSF150	J53	1528374	DFT1719R2SSF150	J51
1328616	A06MSDUCR2	B230	1505191	KSEM1125R5SSF125	H83	1522102	DFT1750R4SSF150	J53	1528375	DFT1737R2SSF150	J51
1328617	A06MSDUC2	B230	1505194	KSEM1188R5SSF125	H83	1522103	DFT1531R4SSF150	J53	1528376	DFT1737R2SSF150	J51
1328619	A08RSDUCR2	B230	1505196	KSEM1250R5SSF125	H83	1522104	DFT1938R4SSF150	J53	1528377	DFT1737R2SSF150	J51
1328621	A08RSDUC2	B230	1505198	KSEM1250R5SSF150	H83	1522105	DFT1375R4SSF150	J53	1528378	DFT1737R2SSF150	J51
1328623	A10SSDUCR2	B230	1505208	KSEM0984R5SSF100	H82	1522106	DFT1500R4SSF150	J53	1528379	DFT1737R2SSF150	J51
1328624	A10SSDUC2	B230	1505366	SPHX1205ZCTR-GP1WK KY3500	S66	1522107	DFT1500R4SSF150	J53	1528380	DFT1737R2SSF150	J51
1328625	A12SSDUCR3	B230	1505370	SPHX1205PCTRGPB KY3500	S68	1522108	DFT1000R4SSF150	J53	1528400	DFT1563R2SSF150	J51
1328626	A12SSDUC3	B230	1505394	SPHX1205PCTRGPB KY3500	S68	1522109	DFT1125R4SSF150	J53	1528401	DFT1625R2SSF150	J51
1328628	A16TSDUCR3	B230	1505400	SPHX1205PCTR-GP1WB KY3500	S69	1522110	DFT1625R4SSF125	J53	1528402	DFT1688R2SSF150	J51
1328629	A16TSDUC2	B230	1505865	SPHX1205PCRGPB K7C25M	S68	1522111	DFT1563R4SSF125	J53	1528403	DFT1688R2SSF150	J51
1328630	A08RSDXCR2	B230	1505881	SPHX1205ZCERGP4S KCK15	S65	1522112	DFT1531R4SSF125	J53	1528404	DFT1813R2SSF150	J51
1328632	A08RSDXCL2	B230	1505883	479.100	S64, S67, S70	1522113	DFT1500R4SSF125	J53	1528405	DFT1875R2SSF150	J51
1328637	A12SSDXCR3	B230	1505923	SPHX1205PCRGP4S KCK15	S68	1522114	DFT1469R4SSF125	J53	1528406	DFT1938R2SSF150	J51
1328639	A16TSDXCR3	B230	1510773	170.281	H84, H88	1522115	DFT1438R4SSF125	J53	1528407	DFT2000R2SSF150	J52
1328640	A16TSDXCL3	B230	1510776	170.282	H84, H88	1522117	DFT1375R4SSF125	J53	1528408	DFT2125R2SSF150	J52
1328642	A06MSWLCR2	B287	1510779	170.283	H84, H88	1522118	DFT1406R4SSF125	J53	1528409	DFT2000R2SSF200	J52
1328644	A08RSWLCR2	B287	1510781	170.284	H84, H88	1522119	DFT1313R4SSF125	J53	1528410	DFT2125R2SSF200	J52
1328646	A10SSWLCR3	B287	1511189	VPGR331 KT315	E38	1522120	DFT1281R4SSF125	J53	1528421	DFT2250R2SSF200	J52
1329168	S424	S10, S14, S45, T7, V38, V70	1514498	50A05PR90SP12CJUPP	S67	1522121	DFT1250R4SSF125	J53	1528422	DFT2375R2SSF200	J52
1329354	KSEM0906R5SS100	H78	1515716	KSEM0813R5SSF100	H84	1522123	DFT1219R4SSF125	J53	1528423	DFT2500R2SSF200	J52
1329355	KSEM0875R5SS125	H77	1515717	KSEM0750R8SSF100	H84	1522124	DFT1188R4SSF125	J			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1531205	KSEM1011R7SS125	H79	1541627	KHSST08239	M127	1542158	KHSST08332	M36	1543738	KHSST27723	M41
1532254	250C20RP70SP12C4WUFP	S64	1541629	KHSST08243	M36	1542159	KHSST08333	M40	1543744	KHSST27729	M130
1532255	200C16RP70SP12C4WUFP	S64	1541632	KHSST08245	M36	1542228	KHSST08336	M36	1543746	KHSST27730	M131
1532257	125B10RP70SP12C2WUFP	S64	1541651	KHSST08235	M127	1542250	KHSST08353	M125	1543749	KHSST27731	M41
1532258	100B08RP70SP12C2WUFP	S64	1541654	KHSST08238	M124	1542251	KHSST08354	M128	1543826	KHSST27733	M130
1533937	KSEM0759R7SS075	H79	1541742	A24CCLNL4MX5	B391	1542252	KHSST08355	M125	1543830	KHSST27781	M130
1533938	KSEM0634R5SS075	H77	1541743	A32CCLNL4MX5	B391	1542254	KHSST08356	M128	1544072	KHSST27737	M130
1533939	KSEM0759R5SS075	H77	1541847	DFT250R2WD40M	J48	1542258	KHSST08364	M36	1544075	KHSST27738	M131
1533940	KSEM0884R5SS100	H77	1541848	DFT260R2WD40M	J48	1542454	KHSST08380	M125	1544079	KHSST27739	M41
1533981	KSEM1011R5SS125	H78	1541849	DFT270R2WD40M	J48	1542455	KHSST08381	M128	1544083	KHSST27741	M130
1535836	SDET433PDER8GB KC725M	T116, T123, U39	1541850	DFT280R2WD40M	J48	1542465	KHSST08391	M36	1544086	KHSST27742	M131
1536224	SDET433PDER8GB KC520M	T116, T123, U39	1541851	DFT290R2WD40M	J48	1542493	KHSST08392	M128	1544092	KHSST27743	M41
1539005	DV40BKR32041M	K91	1541852	DFT300R2WD40M	J48	1542494	KHSST08393	M36	1544096	KHSST27749	M130
1539678	KHSST08003	M124	1541853	DFT310R2WD40M	J48	1542567	KHSST08409	M125	1544097	KHSST27750	M131
1540114	KHSST08039	M124	1541854	DFT320R2WD40M	J48	1542570	KHSST08411	M125	1544101	KHSST27751	M41
1540142	KHSST08015	M124	1541855	DFT330R2WD40M	J48	1542586	KHSST08419	M36	1544107	KHSST27757	M130
1540362	KHSST08043	M36	1541856	DFT340R2WD40M	J48	1542589	KHSST08434	M125	1544108	KHSST27758	M131
1540367	KHSST08044	M40	1541857	DFT350R2WD40M	J48	1542590	KHSST08435	M128	1544109	KHSST27759	M41
1540369	KHSST08061	M36	1541858	DFT360R2WD40M	J48	1542598	KHSST08443	M36	1544112	KHSST27765	M130
1540411	KHSST08067	M124	1541859	DFT370R2WD40M	J48	1542599	KHSST08444	M36	1544113	KHSST27766	M131
1540415	KHSST08082	M124	1541860	DFT480R2WD40M	J48	1542610	KHSST08459	M125	1544114	KHSST27767	M41
1540432	KHSST08083	M127	1541871	DFT380R2WD40M	J48	1542611	KHSST08460	M128	1544146	KHSST27787	M41
1540437	KHSST08087	M124	1541872	DFT390R2WD40M	J48	1542612	KHSST08461	M125	1544148	KHSST27793	M130
1540438	CCLNR164DMX5	B383	1541873	DFT400R2WD40M	J48	1542613	KHSST08467	M36	1544150	KHSST27796	M130
1540440	KHSST08088	M127	1541874	DFT410R2WD40M	J48	1542625	KHSST08477	M125	1544152	KHSST27798	M41
1540442	KHSST08090	M36	1541875	DFT420R2WD40M	J48	1542628	KHSST08478	M128	1544153	KHSST27800	M130
1540443	CCLNL164DMX5	B383	1541876	DFT430R2WD40M	J48	1542654	KHSST08484	M36	1544155	KHSST27809	M130
1540445	CCLNR204DMX5	B383	1541877	DFT440R2WD40M	J48	1542699	KHSST08493	M125	1544236	KHSST09000	M124
1540447	CCLNL204DMX5	B383	1541878	DFT450R2WD40M	J48	1542702	KHSST08494	M128	1544245	KHSST09003	M127
1540453	KHSST08091	M40	1541879	DFT460R2WD40M	J48	1542752	KHSST08498	M36	1544247	KHSST09004	M124
1540467	KHSST08101	M124	1541880	DFT470R2WD40M	J48	1542757	KHSST08508	M125	1544263	KHSST09008	M124
1540473	KHSST08104	M36	1541901	DFT490R2WD40M	J48	1542759	KHSST08510	M125	1544266	KHSST09009	M127
1540474	KHSST08112	M124	1541902	DFT500R2WD40M	J48	1542781	DFT710R2WD50M	J49	1544268	KHSST09010	M124
1540475	KHSST08116	M124	1541903	DFT510R2WD40M	J48	1542782	DFT720R2WD50M	J49	1544364	DFT590R2WD50M	J48
1540476	KHSST08117	M127	1541904	DFT520R2WD40M	J48	1542787	KHSST08703	M157	1544512	KHSST09011	M127
1540479	KHSST08119	M36	1541905	DFT530R2WD40M	J48	1542790	KHSST08704	M157	1544513	KHSST09012	M124
1540492	CSDN1164DMX5	B383	1541906	DFT540R2WD40M	J48	1542871	KHSST08516	M36	1544514	KHSST09013	M127
1540495	CSKNR164DMX5	B384	1541931	DFT450R2WD50M	J48	1542879	KHSST08530	M125	1544515	KHSST09014	M124
1540519	KHSST08140	M124	1541932	DFT460R2WD50M	J48	1542880	KHSST08531	M128	1544516	KHSST09015	M127
1540523	KHSST08148	M124	1541933	DFT470R2WD50M	J48	1542881	KHSST08537	M36	1544520	KHSST09018	M125
1540524	KHSST08149	M127	1541934	DFT480R2WD50M	J48	1542883	KHSST08545	M128	1544531	KHSST09019	M128
1540531	A24CCLNR4MX5	B391	1541935	DFT490R2WD50M	J48	1542884	KHSST08546	M125	1544533	KHSST09021	M128
1540552	A32CCLNR4MX5	B391	1541936	DFT500R2WD50M	J48	1542886	KHSST08553	M125	1544534	KHSST09022	M125
1541345	KHSST08205	M36	1541951	DFT510R2WD50M	J48	1542887	KHSST08554	M128	1544537	KHSST09025	M128-129
1541367	DFT250R2WD32M	J48	1541952	DFT520R2WD50M	J48	1542891	KHSST08561	M125	1544538	KHSST09026	M125
1541368	DFT260R2WD32M	J48	1541953	DFT530R2WD50M	J48	1542893	KHSST08562	M128	1544539	KHSST09027	M128
1541369	DFT270R2WD32M	J48	1541954	DFT670R2WD50M	J49	1542894	KHSST08566	M125	1544540	KHSST09028	M125
1541370	DFT280R2WD32M	J48	1542020	KHSST08334	M36	1542895	KHSST08574	M36	1544562	KHSST09029	M128
1541374	CSKNL164DMX5	B384	1542043	DFT540R2WD50M	J48	1542896	KHSST08575	M128	1544563	KHSST09030	M125
1541381	DFT290R2WD32M	J48	1542044	KHSST08246	M40	1542897	KHSST08578	M36	1544574	KHSST09033	M128
1541382	DFT300R2WD32M	J48	1542071	DFT550R2WD50M	J48	1542912	KHSST08595	M125-126	1544579	KHSST09039	M128
1541383	DFT310R2WD32M	J48	1542072	DFT560R2WD50M	J48	1542913	KHSST08596	M128	1544601	KHSST09041	M128
1541384	DFT320R2WD32M	J48	1542073	KHSST08261	M124	1542914	KHSST08599	M36	1544603	KHSST09042	M126
1541385	DFT330R2WD32M	J48	1542074	DFT570R2WD50M	J48	1542915	KHSST08608	M126	1544748	KHSST09043	M128
1541386	DFT340R2WD32M	J48	1542075	KHSST08262	M127	1542917	KHSST08609	M128	1544769	KHSST09047	M129
1541387	DFT350R2WD32M	J48	1542076	DFT580R2WD50M	J48	1542920	KHSST08616	M126	1544771	KHSST09048	M126
1541388	DFT360R2WD32M	J48	1542079	KHSST08268	M124	1542921	KHSST08617	M128-129	1544781	KHSST09054	M130
1541389	DFT370R2WD32M	J48	1542080	KHSST08269	M127	1542924	KHSST08630	M126	1544798	KHSST09101	M36
1541390	DFT380R2WD32M	J48	1542081	DFT600R2WD50M	J48	1542925	KHSST08631	M129	1544800	KHSST09103	M36
1541391	DFT390R2WD32M	J48	1542082	KHSST08272	M124	1542941	KHSST08705	M157	1544801	KHSST09104	M36
1541392	DFT400R2WD32M	J48	1542083	DFT610R2WD50M	J49	1542943	KHSST08709	M157	1544802	KHSST09105	M36
1541393	DFT410R2WD32M	J48	1542084	KHSST08273	M127	1542945	KHSST08712	M157	1544804	KHSST09106	M36
1541394	DFT420R2WD32M	J48	1542089	KHSST08280	M36	1542947	KHSST08715	M157	1544807	KHSST09108	M36
1541395	DFT430R2WD32M	J48	1542090	DFT620R2WD50M	J49	1542952	KHSST08724	M157	1544808	KHSST09109	M36
1541396	DFT440R2WD32M	J48	1542092	DFT630R2WD50M	J49	1543065	551.326	B383-384, B391	1544811	KHSST09111	M36
1541498	KHSST08193	M127	1542093	DFT640R2WD50M	J49	1543077	554.260	B383-384, B391	1544812	KHSST09112	M36
1541500	KHSST08197	M127	1542096	DFT650R2WD50M	J49	1543235	DFT730R2WD50M	J49	1544813	KHSST09113	M36
1541511	KHSST08151	M124	1542099	DFT660R2WD50M	J49	1543236	DFT740R2WD50M	J49	1544816	KHSST09114	M36
1541532	KHSST08152	M127	1542105	DFT690R2WD50M	J49	1543237	DFT750R2WD50M	J49	1544817	KHSST09115	M36
1541538	KHSST08156	M36	1542107	DFT700R2WD50M	J49	1543238	DFT760R2WD50M	J49	1544820	KHSST09116	M36
1541545	KHSST08157	M36	1542112	KHSST08282	M36	1543239	DFT770R2WD50M	J49	1544852	KHSST09119	M36
1541552	KHSST08159	M40	1542133	KHSST08294	M124	1543240	DFT780R2WD50M	J49	1544853	KHSST09120	M36
1541555	KHSST08160	M40	1542134	KHSST08295	M127	1543311	DFT790R2WD50M	J49	1544854	KHSST09121	M36
1541574	KHSST08173	M127	1542137	KHSST08296	M36	1543312	DFT800R2WD50M	J49	1544855	KHSST09122	M36
1541576	KHSST08175	M36	1542145	KHSST08316	M125	1543313	DFT810R2WD50M	J49	1544856	KHSST09123	M36
1541592	KHSST08203	M36	1542146	KHSST08317	M128	1543314	DFT820R2WD50M	J49	1545009	KHSST09133	M41
1541605	KHSST08172	M124	1542148	KHSST08320	M125	1543707	KHSST27709	M130	1545192	KHSST09124	M36
1541608	KHSST08192	M124	1542149	KHSST08321	M128	1543711	KHSST27710	M131	1545200	KHSST09125	M36
1541621	KHSST08218	M124	1542157	KHSST08331	M36	1543717	KHSST27711	M41	1545203	KHSST09126	M36
1541624	KHSST08234	M124				1543733	KHSST27719	M41	1545209	KHSST09127	M36
						1543736	KHSST27721	M130	1545210	KHSST09128	M36
						1543737	KHSST27722	M131	1545211	KHSST09129	M41

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1545213	KHSST09130	M41	1582600	KR50SVU65110MCLB	K88	1605207	CNMG431FN KT315	B49	1611443	KSEM281R10WN32M	H76
1545215	KHSST09131	M41	1582734	3.76180R110	J82-83	1605242	CNMG432FN KT315	B49	1611444	KSEM285R10WN32M	H76
1545216	KHSST09132	M41	1582739	3.76195R110	J82-83	1605250	CNMG433FN KT315	B49	1611445	KSEM295R10WN32M	H76
1545225	KHSST09135	M41	1582742	3.76213R125	J82-83	1605279	CNMG432FN KT315	B79	1611446	KSEM301R10WN32M	H76
1545228	KHSST09137	M157	1582745	3.76230R160	J82-83	1605334	DNMG442FN KT315	B79	1612009	RCGT86ELF KC725M	V92
1545233	KHSST09140	M157	1582750	3.76260R160	J82-83	1606050	50HC040M	G79	1612562	DNMG431FF KC5010	B79
1545236	KHSST09143	M157	1592413	KSEM160R1WN20M	H72	1606061	50HC060M	G79	1612565	DNMG431FF KT315	B79
1545242	KHSST09147	M157	1592414	KSEM181R1WN25M	H72	1606062	50HC080M	G79	1612950	DNMG431FN KT315	B79
1545250	KHSST09151	M157	1592416	KSEM200R1WN25M	H72	1606064	50HC100M	G79	1613451	360.516	I25
1546392	SMYE5 K9	D78	1592417	KSEM221R1WN25M	H72	1606360	SNMG432FN KT315	B101	1613623	KSEM063R3SSF075	H82
1546393	SMY5 K9	D76, D78-79	1592418	KSEM241R1WN32M	H72	1606485	TNMG332FN KT315	B123	1613627	KSEM0641R3SSF075	H82
1549256	SN3TM	W40, W42	1592419	KSEM261R1WN32M	H72	1606537	H16SDUPL3	B237	1613628	KSEM0672R3SSF075	H82
1551609	KSEM160R10WN20M	H75	1592420	KSEM281R1WN32M	H72	1606718	WNMG432FN KT315	B157	1613632	KSEM0703R3SSF075	H82
1551610	KSEM165R10WN20M	H75	1592461	KSEM301R1WN32M	H72	1606881	KSEM0641R5SS075	H77	1613633	KSEM0734R3SSF075	H82
1551831	KSEM170R10WN20M	H75	1592463	KSEM321R1WD50M	H72	1606882	KSEM0672R5SS075	H77	1613634	KSEM0759R3SSF100	H82
1551833	KSEM175R10WN20M	H75	1592464	KSEM361R1WD50M	H72	1606883	KSEM0703R5SS075	H77	1613635	KSEM0766R3SSF100	H82
1551834	KSEM180R10WN20M	H75	1592465	KSEM181R5WN25M	H73	1606884	KSEM0734R5SS075	H77	1613636	KSEM0781R3SSF100	H82
1551835	KSEM185R10WN25M	H75	1592466	KSEM221R5WN25M	H73	1606885	KSEM0766R5SS100	H77	1613637	KSEM0797R3SSF100	H82
1551836	KSEM190R10WN25M	H75	1592467	KSEM241R5WN32M	H74	1606886	KSEM0797R5SS100	H77	1613638	KSEM0859R3SSF100	H82
1551837	KSEM195R10WN25M	H75	1592468	KSEM261R5WN32M	H74	1606887	KSEM0859R5SS100	H77	1613639	KSEM0884R3SSF100	H82
1551838	KSEM200R10WN25M	H75	1592469	KSEM281R5WN32M	H74	1606888	KSEM0922R5SS100	H78	1613640	KSEM0906R3SSF100	H82
1551839	KSEM210R10WN25M	H75	1592491	KSEM301R5WN32M	H74	1606889	KSEM1047R5SS125	H78	1613651	KSEM0922R3SSF100	H82
1551840	KSEM220R10WN25M	H75	1592492	KSEM321R5WD50M	H74	1606890	KSEM1109R5SS125	H78	1613652	KSEM0969R3SSF100	H82
1551841	KSEM230R10WN25M	H75	1592493	KSEM330R5WD50M	H74	1606901	KSEM1172R5SS125	H78	1613653	KSEM1011R3SSF100	H83
1551842	KSEM240R10WN25M	H75	1592494	KSEM340R5WD50M	H74	1606902	KSEM1203R5SS125	H78	1613654	KSEM1031R3SSF125	H83
1551843	KSEM250R10WN32M	H75	1592496	KSEM350R5WD50M	H74	1606903	KSEM1281R5SS150	H78	1613655	KSEM1047R3SSF125	H83
1551844	KSEM260R10WN32M	H76	1592498	KSEM360R5WD50M	H74	1606904	KSEM1297R5SS150	H78	1613656	KSEM1094R3SSF125	H83
1551845	KSEM265R10WN32M	H76	1592502	KSEM361R5WD50M	H74	1606905	KSEM131R5SS150	H78	1613657	KSEM1109R3SSF125	H83
1551846	KSEM270R10WN32M	H76	1592504	KSEM370R5WD50M	H74	1606906	KSEM1328R5SS150	H78	1613658	KSEM1156R3SSF125	H83
1551847	KSEM280R10WN32M	H76	1592505	KSEM380R5WD50M	H74	1606907	KSEM1344R5SS150	H78	1613659	KSEM1203R3SSF125	H83
1551848	KSEM290R10WN32M	H76	1592507	KSEM390R5WD50M	H74	1606908	KSEM1375R5SS150	H78	1616097	KSEM1281R3SSF150	H83
1551849	KSEM300R10WN32M	H76	1592509	KSEM400R5WD50M	H74	1606909	KSEM1406R5SS150	H78	1616099	KSEM1297R3SSF150	H83
1551850	KSEM310R10WN32M	H76	1597226	SDCW43PDR8GN KY3500	T117, T124	1606910	KSEM1422R5SS150	H78	1616100	KSEM1313R3SSF150	H83
1551861	KSEM320R10WN32M	H76	1597228	SDCW43PDR8GN KY3500	T117, T124	1606911	KSEM1438R5SS150	H78	1616101	KSEM1328R3SSF150	H83
1553521	SPHX1205ZCTLGPX KY3500	S65	1599327	KSEM225R10WN25M	H75	1606912	KSEM1469R5SS150	H78	1616102	KSEM1344R3SSF150	H83
1556483	LNEQ1245R04 KC520M	U20	1600245	KGMSR1650N	C143	1606913	KSEM1500R5SS150	H78	1616105	KSEM1375R3SSF150	H83
1556531	LNEU1245R04 KC520M	U19	1600246	KGMSL1650N	C143	1606914	KSEM1514R5SS150	H78	1616106	KSEM1406R3SSF150	H83
1556533	LNEU1245R08 KC520M	U19	1600249	KGMSR2525M50	C144	1608363	DFR125R2WD20M	J10	1616107	KSEM1422R3SSF150	H83
1556535	LNEU1245R16 KC520M	U19	1600250	KGMSL2525M50	C144	1608364	DFR127R2WD20M	J10	1616110	KSEM1438R3SSF150	H83
1556536	LNEU1245R32 KC520M	U19	1600263	KGMR1650N	C145	1608365	DFR130R2WD20M	J10	1616132	KSEM1469R3SSF150	H83
1556542	LNEU1255R08 KC520M	U19	1600264	KGML1650N	C145	1608366	DFR135R2WD20M	J10	1616135	KSEM1500R3SSF150	H83
1558021	A32CRGNR4MNS	B391	1600271	KGML2525M50	C145	1608367	DFR140R2WD20M	J10	1616141	KSEM1514R3SSF150	H83
1560389	COGT2151HP KC5410	B189	1600272	KGML2525M50	C145	1608368	DFR145R2WD20M	J10	1617400	KGMSR2050N	C143
1560390	COGT32505HP KC5410	B189	1600515	DFT0875R2SSF125	J51	1608369	DFR150R2WD20M	J10	1617589	DNMG433FN KT315	B79
1560600	COGT21505HP KC5410	B189	1601557	CNMG431FF KC5010	B48	1608370	DFR155R2WD20M	J10	1617591	DNMG2050N	C143
1560651	COGT3251HP KC5410	B189	1601631	CNMG431FF KT315	B48	1608391	DFR160R2WD20M	J10	1617592	KGMR2050N	C145
1560653	COGT431HP KC5410	B189	1601632	CNMG432FF KC5010	B48	1608392	DFR125R3WD20M	J11	1617593	KGML2050N	C145
1560655	COGT432HP KC5410	B189	1601636	CNMG432FF KT315	B48	1608393	DFR127R3WD20M	J11	1620372	NPGR51R KT315	E33
1560692	CPGT2151LF KC5410	B206	1601637	DNMG442FF KC5010	B79	1608394	DFR130R3WD20M	J11	1620373	TPMT2151LF KT315	B268
1560693	CPGT32505HP KC5410	B205	1601651	DNMG442FF KT315	B79	1608395	DFR135R3WD20M	J11	1620374	CPMT2152LF KT315	B207
1560694	CPGT3251HP KC5410	B205	1601652	WNMG432FF KC5010	B157	1608396	DFR140R3WD20M	J11	1621083	KGMSR3232P50	C144
1560698	CPGT3251LF KC5410	B206	1601656	TNMG332FF KC5010	B123	1608397	DFR145R3WD20M	J11	1621084	KGMSL3232P50	C144
1560699	DCGT32505HP KC5410	B224	1601886	TNMG332FF KT315	B123	1608398	DFR150R3WD20M	J11	1621085	KGMR3232P50	C145
1560714	DCGT3251HP KC5410	B224	1601888	VNMG331FF KC5010	B146	1608400	DFR160R3WD20M	J11	1621087	MS2002	C65-73, C143-151
1560715	DCGT3252HP KC5410	B224	1601890	VNMG332FF KC5010	B146	1608497	DNMG331FF KC5010	B79	1623193	COGT2152HP KC5410	B189
1560717	DNPG4305 KC5410	B231	1601953	VNMG332FF KT315	B146	1608500	DNMG331FF KT315	B79	1623194	COGT3252HP KC5410	B189
1560721	DPGT2151HP KC5410	B231	1602247	VNMG331FF KT315	B146	1608949	TNMG331FN KT315	B123	1623200	DCGT21505HP KC5410	B224
1560723	DPGT3251HP KC5410	B231	1602250	WNMG332FF KC5010	B157	1610085	TNMG332FN KT315	B123	1623271	DCGT2151HP KC5410	B224
1560751	RCGK23HP KC5410	E69	1602304	WNMG332FF KT315	B157	1610089	DNMG331FN KT315	B79	1623272	TCGT21505HP KC5410	B256
1560752	RCGK35HP KC5410	E69	1602579	TNMG331FF KT315	B123	1610905	VPRG32 KT315	E38	1623273	TCGT2151HP KC5410	B256
1560753	RCGK46HP KC5410	E69	1602604	TNMG331FF KC5010	B123	1610983	DNMG332FN KT315	B79	1623274	TCGT3251HP KC5410	B256
1560756	TPGT2151HP KC5410	B267	1604140	SEF040060RSS075M	I26	1610985	DNMG441FF KC5010	B79	1623275	TCGT3252HP KC5410	B256
1560757	TPGT3251HP KC5410	B267	1604271	SEF060080RSS075M	I26	1610988	DNMG441FF KT315	B79	1623278	VBGT331HP KC5410	B280
1560759	TPGT3252HP KC5410	B267	1604272	SEF080100RSS100M	I26	1611279	DNMG441FN KT315	B79	1623279	VBGT332HP KC5410	B280
1560781	VPRG331 KC5410	E38	1604273	SEF100120RSS125M	I26	1611325	DNMG443FN KT315	B79	1624156	CNMG321FF KC5010	B48
1560783	VPRG332 KC5410	E38	1604274	SEF120140RSS125M	I26	1611330	VNMG331FN KT315	B157	1624159	CNMG322FF KC5010	B48
1560790	CNMP431 KC5410	B56	1604275	SEF140160RSS125M	I26	1611335	WNMG332FN KT315	B157	1624223	SNMG321FF KC5010	B101
1560795	CNMP432 KC5410	B56	1604276	SEF160180RSS125M	I26	1611338	VNMG431FF KC5010	B157	1624227	SNMG322FF KC5010	B101
1560797	CNMS432 KC5410	B57	1604277	SEF156187RSS075	I25	1611360	KSEM181R10WN25M	H75	1624229	SNMG322FF KT315	B101
1560799	CNMS442 KC5410	B57	1604278	SEF218250RSS075	I25	1611414	VNMG431FN KT315	B157	1624233	TNMG222FF KC5010	B123
1560801	CNMS442 KC5410	B57	1604279	SEF265312RSS075	I25	1611417	SNMG432FF KC5010	B101	1624424	CNMG321FN KT315	B49
1560803	DNMS432 KC5410	B86	1604280	SEF328375RSS075	I25	1611434	KSEM205R10WN25M	H75	1624431	VNMG331FN KT315	B146
1560808	SNMS443 KC5410	B108	1604301	SEF390437RSS100	I25	1611435	KSEM215R10WN25M	H75	1624432	SNMG322FF KT315	B146
1560829	TNMS432 KC5410	B130	1604302	SEF453500RSS100	I25	1611436	KSEM221R10WN25M	H75	1624878	EBURF1975PKG	K145
1560833	VNMS331 KC5410	B149	1604303	SEF500562RSS100	I25	1611437	KSEM235R10WN25M	H75	1679773	LT11NPA60CB KC5025	D61
1560834	VNMS332 KC5410	B149	1604304	SEF562625RSS125	I25	1611438	KSEM241R10WN32M	H75	1679775	LT11NPA75SOB KC5025	D64
156071	46X1R1008A0STNB38L	W41	16043								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1679780	.....LT16ERAG60CB KC5025	D51	1713359	.....VBGT220LF KC5010	B280	1724424	.....160B12RP90SP12C3WUFP	S67	1729924	.....KSEM0813R1OSS100	H79
1690871	.....LT16ER05S0CB KC5010	D54	1713402	.....840.142.200	K122-124	1724426	.....LT16ERAG55 KC5010	D51	1729925	.....KSEM0844R1OSS100	H79
1690872	.....LT16ER05S0CB KC5025	D54	1713440	.....DFT070408MD KC7140	J101	1724429	.....50A04RP70SP12CJUF	S64	1729926	.....KSEM0875R1OSS100	H79
1690873	.....LT16ER075S0CB KC5010	D54	1713512	.....DFT06T308MD KC7140	J101	1724432	.....80A06RP70SP12C1WUFP	S64	1729927	.....KSEM0884R1OSS100	H79
1690874	.....LT16ER075S0CB KC5025	D54	1713513	.....DFT05T308MD KC7140	J101	1724434	.....160B12RP70SP12C3WUFP	S64	1729928	.....KSEM0906R1OSS100	H79
1690875	.....LT16ER10S0CB KC5010	D54	1713515	.....DFT030304MD KC7140	J101	1724437	.....LT11NL10ISO KC5025	D63	1729929	.....KSEM0938R1OSS100	H79
1690876	.....LT16ER10S0CB KC5025	D54	1713517	.....DFT030204MD KC7140	J101	1724439	.....LT11NL15ISO KC5025	D63	1729952	.....KSEM0969R1OSS100	H79
1690877	.....LT16ER12S0CB KC5010	D54	1715069	.....DFR0500R3SSF075	J14	1724494	.....LT16NL10ISO KC5025	D63	1729953	.....KSEM0984R1OSS100	H79
1690878	.....LT16ER12S0CB KC5025	D54	1715070	.....DFR0531R3SSF075	J14	1724495	.....LT16ER10ISO KC5010	D54	1729954	.....KSEM1000R1OSS100	H79
1690879	.....LT16ER15S0CB KC5010	D54	1715091	.....DFR0563R3SSF075	J14	1724497	.....LT16NL15ISO KC5025	D63	1729955	.....KSEM1000R1OSS125	H79
1690880	.....LT16ER15S0CB KC5025	D54	1715092	.....DFR0594R3SSF075	J14	1724499	.....LT16NL20ISO KC5025	D63	1729956	.....KSEM1011R1OSS125	H79
1692101	.....LT16ER17S0CB KC5010	D54	1715093	.....DFR0625R3SSF075	J14	1724524	.....LT16ER05ISO KC5025	D54	1729957	.....KSEM1031R1OSS125	H80
1692102	.....LT16ER17S0CB KC5025	D54	1715530	.....841.142.250	K122-124	1724525	.....LT16NL25ISO KC5025	D63	1729958	.....KSEM1063R1OSS125	H80
1692103	.....LT16ER20S0CB KC5010	D54	1721296	.....SPHX1205PCLGPB KCK15	S68-69	1724526	.....LT16NL30ISO KC5025	D63	1729959	.....KSEM1094R1OSS125	H80
1692109	.....LT16ER20S0CB KC5025	D54	1723607	.....NG3094RK KC5010	C162	1724527	.....LT16ER075ISO KC5025	D54	1729960	.....KSEM1125R1OSS125	H80
1698205	.....LT16ER25S0CB KC5025	D54	1723608	.....SPGT3252LF KC5410	B252	1724562	.....LT16ER48UN KC5025	D57	1730118	.....KSEM1156R1OSS125	H80
1698206	.....LT16ER30S0CB KC5010	D54	1723693	.....LT16ER15ISO KC5010	D54	1724563	.....LT16ER40UN KC5025	D57	1730120	.....KSEM1188R1OSS125	H80
1698207	.....LT16ER30S0CB KC5025	D54	1723694	.....LT16ER125ISO KC5010	D54	1724564	.....LT16ER36UN KC5025	D57	1730124	.....KSEM1191R1OSS125	H80
1698208	.....LT16NRAG60CB KC5025	D61	1723695	.....LT16ER175ISO KC5010	D54	1724565	.....LT16ER32UN KC5025	D57	1730131	.....KSEM1250R1OSS125	H80
1698209	.....LT16NRAG60CB KC5025	D61	1723696	.....LT16ER20ISO KC5010	D54	1724566	.....LT16ER28UN KC5025	D57	1730132	.....KSEM1250R1OSS150	H80
1698210	.....LT16NR10ISO KC5025	D64	1723697	.....LT16ER25ISO KC5010	D54	1724591	.....S446	S67, S121-122, V58, V70, V77, V83, V149	1730321	.....DFR020204LD KC7140	J97
1712545	.....840.142.250	K122-124	1723698	.....LT16ER30ISO KC5010	D54				1732924	.....MS1944	C38-41, C122-125, C127-128
1712546	.....840.142.320	K122-123	1723726	.....LT16L15ISO KC5010	D54						
1712547	.....840.142.420	K122-123	1724012	.....LT11NR15ISO KC5010	D63	1724734	.....LT16ER24UN KC5025	D57	1743686	.....LT16EL8APIRD KC5025	D53
1712552	.....LT16NR15S0CB KC5025	D64	1724013	.....LT16NR10ISO KC5010	D63	1724735	.....LT16ER20UN KC5025	D57	1743696	.....LT16EL16UN KC5025	D58
1712554	.....LT16NR20S0CB KC5025	D64	1724014	.....LT16NR15ISO KC5010	D63	1724736	.....LT16ER18UN KC5025	D57	1743701	.....LT16ELAG60 KC5025	D51
1712555	.....LT16NR25S0CB KC5025	D64	1724031	.....LT16NR20ISO KC5010	D63	1724737	.....LT16ER16UN KC5025	D57	1743702	.....LT16ELAG60 KC5025	D51
1712556	.....LT11NR16UN KC5025	D68	1724040	.....LT16NR30ISO KC5010	D63	1724738	.....LT16ER14UN KC5025	D57	1743703	.....LT16ELG60 KC5025	D51
1712557	.....LT11NR18UN KC5025	D68	1724291	.....LT16ER32UN KC5010	D57	1724834	.....LT16ER12UN KC5025	D57	1743704	.....LT22ELN60 KC5025	D59
1712558	.....LT11NR20UN KC5025	D68	1724292	.....LT16ER28UN KC5010	D57	1724835	.....LT16ER10UN KC5025	D57	1743706	.....LT16ELAG55 KC5025	D51
1712559	.....LT11NR24UN KC5025	D68	1724293	.....LT16ER24UN KC5010	D57	1724836	.....LT16ER8UN KC5025	D57	1743715	.....LT16EL14W KC5025	D59
1712561	.....LT11NR32UN KC5025	D68	1724294	.....LT16ER20UN KC5010	D57	1724878	.....NG3047RK KC5010	C162	1743717	.....LT16EL11W KC5025	D59
1712563	.....LT16ER8UNCB KC5010	D58	1724295	.....LT16ER18UN KC5010	D57	1725015	.....LT16EL28UN KC5025	D57	1743734	.....LT16ER32UN KC5025	D58
1712564	.....LT16ER8UNCB KC5025	D58	1724296	.....LT16ER16UN KC5010	D57	1725017	.....LT16EL24UN KC5025	D57	1743735	.....LT16ER28UN KC5025	D58
1712566	.....LT16ER10UNCB KC5025	D58	1724297	.....LT16ER14UN KC5010	D57	1725018	.....LT16EL20UN KC5025	D57	1743736	.....LT16ER24UN KC5025	D58
1712567	.....LT16ER12UNCB KC5010	D58	1724298	.....LT16ER12UN KC5010	D57	1725053	.....LT16EL18UN KC5025	D57	1743737	.....LT16ER20UN KC5025	D58
1712568	.....LT16ER12UNCB KC5025	D58	1724299	.....LT11NR16UN KC5010	D67	1725054	.....LT16EL16UN KC5025	D57	1743738	.....LT16ER18UN KC5025	D58
1712569	.....LT16ER14UNCB KC5010	D58	1724300	.....LT16EL05ISO KC5025	D54	1725055	.....LT16EL14UN KC5025	D57	1743739	.....LT16ER16UN KC5025	D58
1712570	.....LT16ER14UNCB KC5025	D58	1724331	.....LT16NR12UN KC5010	D67	1725056	.....LT16EL12UN KC5025	D57	1743740	.....LT16ER14UN KC5025	D58
1712586	.....SPHX1205ZCERG KC520M	S65	1724333	.....LT16EL075ISO KC5025	D54	1725058	.....LT16EL8UN KC5025	D57	1743741	.....LT16ER12UN KC5025	D58
1712601	.....LT16ER16UNCB KC5010	D58	1724334	.....LT16ER20UN KC5010	D58	1725060	.....LT11NR40UN KC5025	D57	1743744	.....LT16ERAG60 KC5025	D51
1712602	.....LT16ER16UNCB KC5025	D58	1724335	.....LT16EL10ISO KC5025	D54	1725108	.....LT16ER10ISO KC5025	D64	1743745	.....LT16ERAG60 KC5025	D51
1712603	.....LT16ER18UNCB KC5010	D58	1724337	.....LT16ER18UN KC5010	D58	1725109	.....LT16ER125ISO KC5025	D54	1743746	.....LT16ERAG60 KC5025	D51
1712604	.....LT16ER18UNCB KC5025	D58	1724338	.....LT16ER16UN KC5010	D58	1725121	.....LT16ER15ISO KC5025	D54	1743747	.....LT22ERN60 KC5025	D51
1712605	.....LT16ER20UNCB KC5010	D58	1724339	.....80A08RP90SP12C2WUFP	S67	1725222	.....LT16ER20ISO KC5025	D54	1743748	.....LT16ERA55 KC5025	D51
1712606	.....LT16ER20UNCB KC5025	D58	1724340	.....LT16ER14UN KC5010	D58	1725223	.....LT16ER25ISO KC5025	D54	1743749	.....LT16ERAG65 KC5025	D51
1712607	.....LT16ER24UNCB KC5010	D58	1724351	.....100B12RP90SP12C3WUFP	S67	1725224	.....LT16ER25ISO KC5025	D54	1743750	.....LT16ERAG65 KC5025	D51
1712608	.....LT16ER24UNCB KC5025	D58	1724352	.....LT16EL125ISO KC5025	D54	1725225	.....LT22ER35ISO KC5025	D54	1743751	.....LT22ERN55 KC5025	D51
1712609	.....LT16ER28UNCB KC5010	D58	1724353	.....125B15RP90SP12C3WUFP	S67	1725241	.....LT22ER40ISO KC5025	D54	1743752	.....LT16ER28W KC5025	D59
1712610	.....LT16ER28UNCB KC5025	D58	1724354	.....LT16ER12UN KC5010	D58	1725462	.....LT22ER45ISO KC5025	D54	1743753	.....LT16ER24W KC5025	D59
1712611	.....LT16ER32UNCB KC5010	D58	1724356	.....LT16ER19W KC5010	D59	1725463	.....LT22ER50ISO KC5025	D54	1743754	.....LT16ER20W KC5025	D59
1712612	.....LT16ER32UNCB KC5025	D58	1724358	.....LT16EL15ISO KC5025	D54	1725464	.....LT11NR05ISO KC5025	D63	1743755	.....LT16ER19W KC5025	D59
1712614	.....LT16ER11WCB KC5025	D59	1724360	.....LT16ER14W KC5010	D59	1725465	.....LT11NR075ISO KC5025	D63	1743756	.....LT16ER18W KC5025	D59
1712615	.....LT16ER14WCB KC5010	D59	1724372	.....LT16EL175ISO KC5025	D54	1725466	.....LT11NR10ISO KC5025	D63	1743757	.....LT16ER16W KC5025	D59
1712616	.....LT16ER14WCB KC5025	D59	1724373	.....LT16ER11W KC5010	D59	1725467	.....LT11NR125ISO KC5025	D63	1743758	.....LT16ER14W KC5025	D59
1712617	.....LT16ER14NPTCB KC5010	D55	1724377	.....LT16EL20ISO KC5025	D54	1725468	.....LT11NR15ISO KC5025	D63	1743759	.....LT16ER12W KC5025	D59
1712618	.....LT16ER14NPTCB KC5025	D55	1724378	.....50A05RP70SP12CJUF	S64	1725469	.....LT11NR175ISO KC5025	D63	1743760	.....LT16ER11W KC5025	D59
1712620	.....LT16ER115NPTFCB KC5025	D56	1724379	.....63A07RP70SP12CJUF	S64	1725471	.....LT11NR20ISO KC5025	D63	1743761	.....LT16ER10W KC5025	D59
1712661	.....LT16NR8UNCB KC5025	D68	1724380	.....80A08RP70SP12C2WUFP	S64	1725472	.....LT16NR05ISO KC5025	D63	1743762	.....LT16ER9W KC5025	D59
1712663	.....LT16NR10UNCB KC5025	D68	1724391	.....100B12RP70SP12C3WUFP	S64	1725474	.....LT16NR075ISO KC5025	D63	1743763	.....LT16ER8W KC5025	D59
1712664	.....LT16NR12UNCB KC5025	D68	1724392	.....LT16NR11W KC5010	D69	1725475	.....LT16NR10ISO KC5025	D63	1743764	.....LT22ER7W KC5025	D59
1712665	.....LT16NR14UNCB KC5025	D68	1724394	.....LT16EL25ISO KC5025	D54	1725476	.....LT16NR125ISO KC5025	D63	1743765	.....LT22ER6W KC5025	D59
1712666	.....LT16NR16UNCB KC5025	D68	1724395	.....160B12RP70SP12C3WUFP	S64	1725477	.....LT16NR15ISO KC5025	D63	1743767	.....LT16ER14BSPT KC5025	D53
1712667	.....LT16NR18UNCB KC5025	D68	1724398	.....LT16ER18NPT KC5010	D55	1725478	.....LT16NR175ISO KC5025	D63	1743768	.....LT16ER11BSPT KC5025	D53
1712668	.....LT16NR20UNCB KC5025	D68	1724400	.....LT16EL30ISO KC5025	D54	1725511	.....LT16NR20ISO KC5025	D63	1743769	.....LT16ER12NPT KC5025	D55
1712669	.....LT16NR11WCB KC5025	D69	1724401	.....LT16ER14NPT KC5010	D55	1725512	.....LT16NR25ISO KC5025	D63	1743770	.....LT16ER18NPT KC5025	D55
1712670	.....LT16NR14WCB KC5025	D69	1724402	.....LT16ER115NPT KC5010	D55	1725513	.....LT16NR30ISO KC5025	D63	1743771	.....LT16ER14NPT KC5025	D55
1712671	.....LT16NR115NPTCB KC5025	D65	1724403	.....LT11NR14NPT KC5010	D64	1725515	.....LT22NR35ISO KC5025	D63	1743772	.....LT16ER115NPT KC5025	D55
1712672	.....LT16NR14NPTCB KC5025	D65	1724405	.....LT16NR115NPT KC5010	D64	1725516	.....LT22NR40ISO KC5025	D63	1743773	.....LT16ER8NPT KC5025	D55
1712711	.....SPHX1205ZCERG-GP1W KC520M	S66	1724406	.....LT16ERAG60 KC5010	D51	1725519	.....LT22NR45ISO KC5025	D63	1743774	.....LT16ER14NPT KC5025	D55
1712714	.....SPHX1205PCERGPB KC520M	S68	1724407	.....50A04RP90SP12CJUF	S67	1725520	.....LT22NR50ISO KC5025	D63	1743775	.....LT16ER115NPT KC5025	D55
1712730	.....NG2M150LK KC5025	C163	1724408	.....LT22EL35ISO KC5025	D54	1727704	.....LT16NR8UN KC5025	D67	17		

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1743788	LT16ER6STACME KC5025	D56	1743993	LT22NR4TR KC5025	D66	1772115	SDPCN103B	B229	1785481	TCGT2152HP KC5010	B256
1743789	LT22ERSSTACME KC5025	D56	1743994	LT22NR5TR KC5025	D66	1772116	STACR062D	B259	1785482	TPGT2152HP KC5010	B267
1743791	LT16ER2TR KC5025	D57	1743996	LT16NR8RD KC5025	D65	1772118	STACR082D	B259	1785501	NG2M300LK KC5025	C163
1743792	LT16ER3TR KC5025	D57	1743997	LT22NR6RD KC5025	D65	1772122	STACR103B	B259	1785713	VBGT331HP KC5010	B280
1743793	LT22ER4TR KC5025	D57	1743998	LT16NR10APIRD KC5025	D62	1772124	STJCRF062D	B261	1785714	VBGT332HP KC5010	B280
1743794	LT22ER5TR KC5025	D57	1743999	LT16NR8APIRD KC5025	D62	1772126	STJCRF082D	B261	1785715	CNGP430 KC5410	B46
1743796	LT16ER8RD KC5025	D56	1744000	LT22NR4API382 KC5025	D62	1772128	STJCRF102B	B261	1785716	CNGP4305 KC5410	B46
1743797	LT22ER6RD KC5025	D56	1744002	LT22NR5API403 KC5025	D62	1772144	SWLCRF082D	B287	1785717	CNGP431 KC5410	B46
1743798	LT16ER10APIRD KC5025	D53	1744003	LT22NR4API502 KC5025	D62	1772747	KSEM125R5WN16M	H73	1785718	CNGP432 KC5410	B46
1743799	LT16ER8APIRD KC5025	D53	1744005	LT22NR5BUT175 KC5025	D63	1772748	KSEM140R5WN16M	H73	1785719	CNGP433 KC5410	B46
1743800	LT22ER4API382 KC5025	D52	1744006	LT22NR5BUT1 KC5025	D63	1772749	KSEM150R5WN20M	H73	1785733	DNGP431 KC5410	B77
1743803	LT22ER4API502 KC5025	D52	1744444	KJAM33	B119, B142, C196, D41	1773924	360.637	I26, I29	1785734	DNGP432 KC5410	B77
1743805	LT22ERSBUT75 KC5025	D53	1744665	NG3094R KC5010	C170	1774499	KSEM125R3WN16M	H73	1785735	CNGP441 KC5410	B77
1743810	LT11NL32UN KC5025	D67	1745243	193.326	B186, B397	1775033	NG3125RK KC5025	C162	1785740	TNGP331 KC5410	B121
1743824	LT16NL16UN KC5025	D67	1746442	CTFPR12CA3	B186, B397	1775034	NG3125LK KC5010	C164	1785741	TNGP332 KC5410	B121
1743826	LT16NL12UN KC5025	D67	1747635	DCGT21505HP KC5010	B224	1775035	NG3125LK KC5025	C164	1785746	CNGP330 KC5410	B144
1743827	LT16NL10UN KC5025	D67	1748698	NG3062RK KC5010	C162	1775036	NG3047RK KC5025	C162	1785747	VNGP3305 KC5410	B144
1743829	LT11NL16A0 KC5025	D60	1749102	KSEM321R3WD50M	H74	1775037	NG3062RK KC5025	C162	1785748	CPGT21505HP KC5410	B205
1743830	LT16NL6A0 KC5025	D60	1749103	KSEM330R3WD50M	H74	1775478	CM72LP	C182-184, C186-189, C191-192, C194-196, D26-30, D35, D38, D41	1785749	CNGP2151HP KC5410	B205
1743831	LT16NL6A60 KC5025	D60	1749106	KSEM340R3WD50M	H74	1775479	CM73LP	C182-184, C186-189, C191-192, C194-195, D26-30, D35, D37-38	1785750	CPGT2152HP KC5410	B205
1743832	LT16NL6G0 KC5025	D60	1749109	KSEM350R3WD50M	H74	1775726	KIPR125RP43555	V156	1785752	CPGT3252HP KC5410	B205
1743833	LT22NL6G0 KC5025	D60	1749110	KSEM360R3WD50M	H74	1775728	KIPR150RP43655	V156	1785753	CNGP2152HP KC5410	B224
1743847	LT16NL11W KC5025	D69	1749131	KSEM361R3WD50M	H74	1776260	ODG6197ISGB KC735M	U10	1785756	TPGT2152HP KC5410	B267
1743899	LT11NR32UN KC5025	D67	1749132	KSEM370R3WD50M	H74	1776261	ODG6236ISGB KC735M	U10	1786055	KSEM0500RSS075	H77
1743900	LT11NR28UN KC5025	D67	1749133	KSEM380R3WD50M	H74	1777860	CNMG432MP KC5025	B51	1786056	KSEM0500RSS075	H77
1743901	LT11NR24UN KC5025	D67	1749207	CV50RMHTS27M394	J90	1779086	KHSS09608	M36	1786058	KSEM0509RSS075	H77
1743902	LT11NR20UN KC5025	D67	1749208	CV50RMHTS32M394	J90	1779088	KHSS09611	M36	1786059	KSEM0516RSS075	H77
1743903	LT11NR18UN KC5025	D67	1749210	CV50RMHTS40M413	J90	1779090	KHSS09609	M36	1786060	KSEM0531RSS075	H77
1743904	LT11NR16UN KC5025	D67	1749263	CV50BHTS13M295	J90	1779105	KHSS09615	M36	1786061	KSEM0547RSS075	H77
1743908	LT16NR32UN KC5025	D67	1749264	CV50BHTS16M295	J90	1781755	TK01338D	E60	1786062	KSEM0563RSS075	H77
1743909	LT16NR28UN KC5025	D67	1749266	CV50BHTS22M295	J90	1781756	TK01339D	E60	1786094	KSEM0578RSS075	H77
1743910	LT16NR24UN KC5025	D67	1749273	CV50RMHTS50M413	J90	1782505	VPGR3305 KC5410	E38	1786095	KSEM0594RSS075	H77
1743921	LT16NR20UN KC5025	D67	1749281	BT50BHTS22075M	J91	1782830	VPGP443K KC5410	B145	1786097	KSEM0609RSS075	H77
1743922	LT16NR18UN KC5025	D67	1749285	BT50BHTS32080M	J91	1782831	TPGT18151LF KC5410	B267	1787513	WNGX453T0820 KY3500	B319
1743923	LT16NR16UN KC5025	D67	1749286	BT50BHTS40080M	J91	1782896	RCMT43 KC5010	B240	1791528	410.084	E18-19, E21, E23, S70
1743924	LT16NR14UN KC5025	D67	1749287	BT50BHTS50080M	J91	1782902	CNMG431FW KT315	B49	1792224	KSEM0625R1SSF075	H81
1743925	LT16NR12UN KC5025	D67	1749428	CV50BHTS27M295	J90	1783133	CNMG432FW KT315	B49	1792225	KSEM0709R1SSF075	H81
1743926	LT16NR10UN KC5025	D67	1749429	CV50BHTS32M314	J90	1783134	CNMG433FW KT315	B49	1792226	TPGT18151LF KC5410	B267
1743927	LT11NR6A0 KC5025	D60	1749430	CV50BHTS40M314	J90	1783135	DNMG6331FW KT315	B80	1792227	KSEM0867R1SSF100	H81
1743928	LT16NR6A0 KC5025	D60	1749461	CV50BHTS50M314	J90	1783136	DNMG632FW KT315	B80	1792228	KSEM0945R1SSF100	H81
1743929	LT16NR6A60 KC5025	D60	1749491	CV50RMHTS13M394	J90	1783137	DNMG431FW KT315	B80	1792229	KSEM1024R1SSF125	H81
1743930	LT16NR6G0 KC5025	D60	1749492	CV50RMHTS16M394	J90	1783138	DNMG432FW KT315	B80	1792230	KSEM1103R1SSF125	H81
1743931	LT22NR6G0 KC5025	D60	1749493	CV50RMHTS22M394	J90	1783139	DNMG433FW KT315	B80	1792231	KSEM1182R1SSF125	H81
1743932	LT11NR6A5 KC5025	D60	1749607	KSEM390R3WD50M	H74	1783141	WNMG6331FW KT315	B158	1792232	KSEM1282R1SSF125	H81
1743933	LT16NR6A5 KC5025	D60	1749610	KSEM400R3WD50M	H74	1783142	WNMG632FW KT315	B158	1792233	KSEM1369R1SSF125	H81
1743934	LT16NR6G5 KC5025	D60	1749648	DFR020204GD KC7140	J97	1783143	WNMG6431FW KT315	B158	1792234	KSEM1461R1WN20M	H72
1743935	LT16NR6G5 KC5025	D60	1750433	B411A07700 KF1	G94	1783144	WNMG6432FW KT315	B158	1792260	KSEM1461R1WN20M	H72
1743936	LT22NR6G5 KC5025	D60	1753934	B411A08700 KF1	G95	1783152	CNMG431FW KC5010	B49	1792262	KSEM1461R1WN20M	H72
1743937	LT11NR19W KC5025	D69	1754251	DFR165R2WD32M	J10	1783233	CNMG432FW KC5010	B49	1792263	KSEM130R3WN16M	H73
1743938	LT11NR14W KC5025	D69	1756488	MSSNR246D	B113	1783234	CNMG433FW KC5010	B49	1792264	KSEM135R3WN16M	H73
1743939	LT16NR20W KC5025	D69	1756489	MSSNL246D	B113	1783237	DNMG431FW KC5010	B80	1792294	KSEM136R3WN16M	H73
1743940	LT16NR19W KC5025	D69	1756550	KM63XMKZGMSR50Y	C148	1783273	WNMG6332FW KC5010	B158	1792295	KSEM140R3WN16M	H73
1743942	LT16NR16W KC5025	D69	1756574	KM63XMKZGMSLF50Y	C148	1783275	WNMG6432FW KC5010	B158	1792296	KSEM145R3WN16M	H73
1743943	LT16NR14W KC5025	D69	1762261	B411A05600 KF1	G94	1785086	NG2M300RK KC5025	C162	1792297	KSEM146R3WN20M	H73
1743944	LT16NR12W KC5025	D69	1762299	NG3062LK KC5010	C163	1785245	KSEM0500R3SSF075	H82	1792298	KSEM150R3WN20M	H73
1743945	LT16NR11W KC5025	D69	1762381	NG3125RK KC5010	C162	1785246	KSEM0509R3SSF075	H82	1792299	KSEM155R3WN20M	H73
1743946	LT16NR10W KC5025	D69	1763116	HSK63ASVS4B139M	K84	1785247	KSEM0516R3SSF075	H82	1792301	KSEM130R5WN16M	H73
1743948	LT16NR8W KC5025	D69	1763118	HSK63ASVS5B139M	K84	1785248	KSEM0531R3SSF075	H82	1792302	KSEM136R5WN16M	H73
1743949	LT22NR7W KC5025	D69	1763375	KM50SVS4B125M	K84	1785249	KSEM0547R3SSF075	H82	1792323	KSEM135R5WN16M	H73
1743962	LT11NR14BSPT KC5025	D62	1763376	KM63SVS4B110M	K84	1785250	KSEM0563R3SSF075	H82	1792325	KSEM145R5WN20M	H73
1743963	LT16NR14BSPT KC5025	D62	1763377	KM63SVS5B110M	K84	1785251	KSEM0578R3SSF075	H82	1792326	KSEM146R5WN20M	H73
1743964	LT16NR11BSPT KC5025	D62	1763378	KM50SVS5B125M	K84	1785252	KSEM0594R3SSF075	H82	1792328	KSEM155R5WN20M	H73
1743966	LT11NR18NPT KC5025	D64	1763379	KM63SVS5B110M	K84	1785283	KSEM0609R3SSF075	H82	1792325	KSEM145R5WN20M	H73
1743967	LT11NR14NPT KC5025	D64	1763382	KM80SVS6B150M	K84	1785284	KSEM0500R5SSF075	H82	1792326	KSEM146R5WN20M	H73
1743971	LT16NR115NPT KC5025	D64	1764146	NG4250LK KC5010	C164	1785285	KSEM0509R5SSF075	H82	1792328	KSEM155R5WN20M	H73
1743972	LT16NR8NPT KC5025	D64	1764148	NG4250LK KC5025	C164	1785286	KSEM0516R5SSF075	H82	1792325	KSEM145R5WN20M	H73
1743973	LT11NR14NPTF KC5025	D65	1764575	NTP3L KC5010	D22	1785287	KSEM0531R5SSF075	H82	1792326	KSEM146R5WN20M	H73
1743974	LT16NR14NPTF KC5025	D65	1765641	NTC3R8E KC5010	D20	1785288	KSEM0547R5SSF075	H82	1792328	KSEM155R5WN20M	H73
1743978	LT16NR12ACME KC5025	D61	1765732	NTC3R8E KC5025	D20	1785289	KSEM0563R5SSF075	H82	1792325	KSEM145R5WN20M	H73
1743979	LT16NR10ACME KC5025	D61	1765733	NTC3R12E KC5010	D20	1785290	KSEM0578R5SSF075	H82	1792326	KSEM146R5WN20M	H73
1743980	LT16NR8ACME KC5025	D61	1765734	NTC3R12E KC5025	D20	1785291	KSEM0594R5SSF075	H82	1792328	KSEM155R5WN20M	H73
1743981	LT22NR6ACME KC5025	D61	1770917	NT3LCK KC5010	D19	1785292	KSEM0609R5SSF075	H82	1792325	KSEM145R5WN20M	H73
1743982	LT22NR5ACME KC5025	D61	1770928	KBF114	I15	1785474	DCGT2151HP KC5010	B224	1792326	KSEM146R5WN20M	H73
1743983	LT16NR16STACME KC5025	D66	1771940	SDACR083D	B227	1785475	DCGT2152HP KC5010	B224	1792328	KSEM155R5WN20M	H73
1743984	LT16NR14STACME KC5025	D66	1771941	SDACL083D	B227	1785477	CCGT2152HP KC5010	B189	1792632	NR3047RK KC5010	C166
1743985	LT16NR12STACME KC5025	D66	1771942	SDPCN062							

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1795789	NT4RK KC5025	D22	1796395	NJF3007R24 KC5010	D15	1797212	KSEM146R10WN20M	H75	1799513	ND3038L KC5025	D12
1795790	NT4LK KC5025	D22	1796396	NJF3007R24 KC5025	D15	1797233	KSEM150R10WN20M	H75	1799521	ND3040R3 KC5025	D13
1795791	NTF2R KC5025	D21	1796397	NJF3007L24 KC5010	D15	1797234	KSEM155R10WN20M	H75	1799522	ND3040L3 KC5010	D13
1795792	NTF2L KC5025	D21	1796399	NJF3006R28 KC5010	D15	1797235	SCFPR10CA09	B217	1799525	ND3043R2 KC5025	D13
1795793	NTF3R KC5025	D21	1796400	NJF3006R28 KC5025	D15	1798189	KSEM0500R7SS050	H79	1799527	ND3043L2 KC5025	D13
1795794	NTF3L KC5025	D21	1796403	NJF3005R32 KC5010	D15	1798190	KSEM0500R7SS075	H79	1799529	ND3040R3 KC5025	D13
1795795	NTK2R KC5025	D21	1796407	NJK3012R14 KC5010	D16	1798191	KSEM0509R7SS075	H79	1799533	ND3045R2 KC5025	D13
1795796	NTK2L KC5025	D21	1796408	NJK3012R14 KC5025	D16	1798192	KSEM0516R7SS075	H79	1799555	ND3045L2 KC5025	D13
1795797	NJP3014R12 KC5025	D16	1796411	NJK3010R16 KC5010	D16	1798203	KSEM0531R7SS075	H79	1799557	ND3045R3 KC5025	D13
1795799	NJP3010R16 KC5025	D16	1796412	NJK3010R16 KC5025	D16	1798204	KSEM0547R7SS075	H79	1799560	NDC38RDR75 KC5010	D13
1795800	NJP3010L16 KC5025	D16	1796425	NJK3009R18 KC5010	D16	1798205	KSEM0563R7SS075	H79	1799561	NDC38RDR75 KC5025	D13
1795801	NA3R4 KC5025	D11	1796426	NJK3009R18 KC5025	D16	1798206	KSEM0578R7SS075	H79	1799562	NDC38RDL75 KC5010	D13
1795802	NA3L4 KC5025	D11	1796429	NJK3008R20 KC5010	D16	1798207	KSEM0578R7SS075	H79	1799563	NDC38RDL75 KC5025	D13
1795809	364.016	H72-73, H75, H81-82, H85-86, H122	1796430	NJK3008R20 KC5025	D16	1798208	KSEM0609R7SS075	H79	1799565	ND3031ORDR75 KC5025	D13
1795810	364.017	H72-73, H75, H81-82, H85-86	1796443	NJK3007R24 KC5010	D16	1798211	KSEM0500R1OSS075	H79	1799567	ND3031ORDL75 KC5025	D13
1795811	170.289	H72, H81, H86, H88	1796446	NJK3007R24 KC5025	D16	1798212	KSEM0509R1OSS075	H79	1799576	NTB3RA KC5025	D17
1795956	170.290	H88	1796449	NJK3006R28 KC5010	D16	1798228	KSEM0516R1OSS075	H79	1799577	NTB3LA KC5010	D17
1795960	170.291	H88	1796452	NJK3006L28 KC5025	D16	1798231	KSEM0531R1OSS075	H79	1799578	NTB3LA KC5025	D17
1796047	NT2L KC5010	D17	1796473	NJK3005R32 KC5010	D16	1798243	KSEM0547R1OSS075	H79	1799583	NTB2RB KC5010	D18
1796048	NT2L KC5025	D17	1796474	NJK3005R32 KC5025	D16	1798244	KSEM0563R1OSS075	H79	1799585	NTB2LB KC5010	D18
1796049	NT2R KC5010	D17	1796476	NJK3005L32 KC5025	D16	1798248	KSEM0578R1OSS075	H79	1799587	NTB3RB KC5010	D18
1796050	NT2R KC5025	D17	1796497	NA3R12 KC5025	D11	1798249	KSEM0594R1OSS075	H79	1799588	NTB3RB KC5025	D18
1796051	NT3R KC5010	D17	1796499	NA3L12 KC5010	D11	1798250	KSEM0609R1OSS075	H79	1799589	NTB3LB KC5010	D18
1796052	NT3R KC5025	D17	1796500	NA3L12 KC5025	D11	1798962	DFR170R3WD32M	J11	1799591	NTB3LB KC5025	D18
1796083	NT3L KC5010	D17	1796501	NA3R10 KC5010	D11	1799053	DFR180R3WD32M	J11	1799603	NTB4RB KC5010	D18
1796084	NT3L KC5025	D17	1796502	NA3R10 KC5025	D11	1799055	DFR200R3WD32M	J11	1799604	NTB4RB KC5025	D18
1796085	NT4L KC5010	D17	1796504	NA3L10 KC5025	D11	1799056	DFR210R3WD25M	J11	1799605	NTB4LB KC5010	D18
1796086	NT4L KC5025	D17	1796505	NA3R8 KC5010	D11	1799059	DFR220R3WD25M	J11	1799606	NTB4LB KC5025	D18
1796087	NT4R KC5010	D17	1796506	NA3R8 KC5025	D11	1799238	NT1L KC5010	D23	1799693	DFR190R2WD32M	J10
1796088	NT4R KC5025	D17	1796507	NA3L8 KC5010	D11	1799239	NT1L KC5025	D23	1799695	DFR220R3WD32M	J11
1796090	NTP2R KC5010	D22	1796508	NA3L8 KC5025	D11	1799241	NTC3R7E KC5025	D20	1801017	NG3M400LK KC5025	C164
1796091	NTP2R KC5025	D22	1796509	NA3R6 KC5010	D11	1799363	NTC3L8E KC5010	D20	1801125	3.41020R900STF CS5	.I17
1796103	NTP2L KC5010	D22	1796510	NA3R6 KC5025	D11	1799366	NTC3L8I KC5025	D18	1801126	3.41220R900STF CS5	.I17
1796104	NTP2L KC5025	D22	1796511	NA3L6 KC5010	D11	1799369	NTC3R10E KC5010	D20	1801129	3.41220R900SF KMF	.I17
1796105	NTP3R KC5010	D22	1796512	NA3L6 KC5025	D11	1799370	NTC3R10E KC5025	D20	1801533	SSF20OHTS130239	J89
1796106	NTP3R KC5025	D22	1796514	NA3R5 KC5010	D11	1799384	NTC3L10I KC5025	D18	1801534	SSF20OHTS130664	J89
1796107	NTP3R KC5410	D22	1796515	NA3R5 KC5025	D11	1799386	NTC3R11E KC5025	D20	1801535	SSF20OHTS131114	J89
1796109	NTP4R KC5010	D22	1796516	NA3L5 KC5010	D11	1799389	NTC3R12I KC5025	D18	1801536	SSF20OHTS131764	J89
1796110	NTP4R KC5025	D22	1796517	NA3L5 KC5025	D11	1799390	NTC3L12I KC5025	D18	1801537	SSF20OHTS160239	J89
1796112	NTP4L KC5010	D22	1796518	NA3R4 KC5010	D11	1799391	NTC3R13E KC5010	D20	1801538	SSF20OHTS160714	J89
1796113	NTP4L KC5025	D22	1796519	NA3L4 KC5010	D11	1799392	NTC3R13E KC5025	D20	1801539	SSF20OHTS161214	J89
1796115	NT2RK KC5010	D22	1796520	NAS3R16 KC5025	D12	1799393	NTC3R14E KC5010	D20	1801540	SSF20OHTS161964	J89
1796116	NT2LK KC5010	D22	1796524	NAS3R12 KC5025	D12	1799394	NTC3R14E KC5025	D20	1801541	SSF20OHTS220297	J89
1796117	NT3RK KC5010	D22	1796525	NAS3L12 KC5025	D12	1799398	NTC3L14I KC5025	D18	1801542	SSF20OHTS220922	J89
1796118	NT3LK KC5010	D22	1796526	NAS3R10 KC5010	D12	1799399	NTC3R16E KC5010	D20	1801553	SSF20OHTS221572	J89
1796119	NT4RK KC5010	D22	1796527	NAS3R10 KC5025	D12	1799400	NTC3R16E KC5025	D20	1801554	SSF20OHTS222572	J89
1796120	NT4LK KC5010	D22	1796529	NAS3L10 KC5025	D12	1799404	NTC3L16I KC5025	D18	1801555	SSF20OHTS270297	J89
1796121	NT3RCK KC5010	D19	1796530	NAS3R8 KC5010	D12	1799405	NTC3R18E KC5010	D20	1801556	SSF20OHTS271122	J89
1796122	NT3RCK KC5025	D19	1796531	NAS3R8 KC5025	D12	1799406	NTC3R18E KC5025	D20	1801558	SSF20OHTS271922	J89
1796133	NT3LCK KC5025	D19	1796532	NAS3L8 KC5010	D12	1799409	NTC3R20E KC5010	D20	1801559	SSF20OHTS273122	J89
1796134	NT4RCK KC5010	D19	1796543	NAS3L8 KC5025	D12	1799410	NTC3R20E KC5025	D20	1801560	SSF20OHTS320305	J89
1796135	NT4RCK KC5025	D19	1796544	NAS3R6 KC5010	D12	1799413	NTC3R24E KC5010	D20	1801561	SSF20OHTS320805	J89
1796137	NT4LCK KC5025	D19	1796545	NAS3R6 KC5025	D12	1799414	NTC3R24E KC5025	D20	1801562	SSF20OHTS321305	J89
1796138	NTP2R KC5010	D21	1796546	NAS3L6 KC5010	D12	1799416	NTC3R28E KC5025	D20	1801573	SSF20OHTS321805	J89
1796139	NTF2L KC5010	D21	1796547	NAS3L6 KC5025	D12	1799418	NTC3R32E KC5025	D20	1801574	SSF20OHTS400355	J89
1796140	NTF3R KC5010	D21	1796549	NAS3R5 KC5025	D12	1799439	NA4R6 KC5025	D11	1801575	SSF20OHTS401055	J89
1796141	NTF3L KC5010	D21	1796551	NAS3L5 KC5025	D12	1801576	SSF20OHTS401555	J89	1801576	SSF20OHTS401555	J89
1796153	NTF4R KC5025	D21	1796552	NJ3020R8 KC5010	D15	1799443	NA4R5 KC5025	D11	1801577	SSF20OHTS402555	J89
1796156	NTK2R KC5010	D21	1796553	NJ3020R8 KC5025	D15	1799445	NA4L5 KC5025	D11	1801578	SSF30OHTS500413	J89
1796157	NTK2L KC5010	D21	1796555	NJ3020L8 KC5025	D15	1799446	NA4R4 KC5010	D11	1801579	SSF30OHTS501313	J89
1796158	NTK3R KC5010	D21	1796556	NJ3014R12 KC5010	D15	1799447	NA4R4 KC5025	D11	1801580	SSF30OHTS502113	J89
1796159	NTK3R KC5025	D21	1796557	NJ3014R12 KC5025	D15	1799449	NA4L4 KC5025	D11	1801581	SSF30OHTS503113	J89
1796160	NTK3L KC5010	D21	1796558	NJ3014L12 KC5010	D15	1799450	NAG6R2 KC5010	D11	1801779	NR3031R KC5010	C172
1796161	NTK3L KC5025	D21	1796559	NJ3014L12 KC5025	D15	1799451	NAG6R2 KC5025	D11	1801793	NG3047R KC5010	C170
1796176	NJP3020R8 KC5010	D16	1796561	NJ3010R16 KC5025	D15	1799452	NAGL2 KC5010	D11	1802547	CCMT3251MW KT315	B192
1796177	NJP3020R8 KC5025	D16	1796583	NJ3010L16 KC5025	D15	1799463	NAGL2 KC5025	D11	1802549	CCMT3252MW KT315	B192
1796179	NJP3020L8 KC5025	D16	1796705	470.232	S32	1799465	NAG6R25 KC5025	D11	1802551	WNG6432LF KC5010	B156
1796180	NJP3014R12 KC5010	D16	1797157	KSEM125R7WN16M	H75	1799469	NAG6R3 KC5025	D11	1802564	CCMT3251MW KC5010	B192
1796181	NJP3014L12 KC5010	D16	1797158	KSEM130R7WN16M	H75	1799471	NAGL3 KC5025	D11	1802566	CCMT3252MW KC5010	B192
1796182	NJP3010R16 KC5010	D16	1797159	KSEM135R7WN16M	H75	1799483	NDC38VR75 KC5010	D14	1802567	CPMT3252MW KC5010	B208
1796183	NJP3010R16 KC5010	D16	1797160	KSEM136R7WN16M	H75	1799484	NDC38VL75 KC5010	D14	1802568	CCMT431MW KC5010	B192
1796194	NJF3012R14 KC5010	D15	1797161	KSEM140R7WN16M	H75	1799485	NDC3115V75 KC5010	D14	1802569	CCMT432MW KC5010	B192
1796195	NJF3012R14 KC5025	D15	1797162	KSEM145R7WN20M	H75	1799486	NDC3115V75 KC5010	D14	1802813	CCMT21505FW KT315	B190
1796196	NJF3012R14 KC5025	D15	1797203	KSEM146R7WN20M	H75	1799490	ND88VR75M KC5010	D14	1802843	CPMT21505FW KT315	B206
1796198	NJF3010R16 KC5010	D15	1797204	KSEM150R7WN20M	H75	1799491	ND88VL75M KC5010	D14	1802844	CCMT2151FW KT315	B190
1796199	NJF3010R16 KC5025	D15	1797205	KSEM155R7WN20M	H75	1799497	NTU4R KC5025	D22	1802845	CPMT2151FW KT315	B206
1796200	NJF3010L16 KC5010	D15	1797206	KSEM125R10WN16M	H75	1799500	NWC3R11E KC5010				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)			
1802992	CMCT21505FW KC5010	.....	B190	1808179	.....	MIRGNR248E	.....	B98	1810364	.....	DFR240R2WD32M	.....	J10
1803013	CPMT21505FW KC5010	.....	B206	1808182	.....	MSDNN206	.....	B111	1810365	.....	DFR165R3WD32M	.....	J11
1803014	CMCT2151FW KC5010	.....	B190	1808183	.....	MSDNN246	.....	B111	1810366	.....	DFR175R3WD32M	.....	J11
1803015	CPMT2151FW KC5010	.....	B206	1808185	.....	MSKNL205D	.....	B111	1810367	.....	DFR185R3WD32M	.....	J11
1803016	CMCT2152FW KC5010	.....	B190	1808186	.....	MSKNL206D	.....	B111	1810368	.....	DFR190R3WD32M	.....	J11
1803018	CPMT2152FW KC5010	.....	B206	1808187	.....	MSKNL246D	.....	B111	1810369	.....	DFR195R3WD32M	.....	J11
1803020	CMCT3251FW KC5010	.....	B190	1808189	.....	MSKNR205D	.....	B111	1810370	.....	DFR205R3WD32M	.....	J11
1803021	CPMT3251FW KC5010	.....	B206	1808190	.....	MSKNR206D	.....	B111	1810371	.....	DFR210R3WD32M	.....	J11
1803022	CMCT3252FW KC5010	.....	B190	1808191	.....	MSKNR248	.....	B111	1810372	.....	DFR230R3WD32M	.....	J11
1803023	CPMT3252FW KC5010	.....	B206	1808194	.....	MSRNL165C	.....	B112	1810373	.....	DFR240R3WD32M	.....	J11
1803174	40A02RP90BG15C1WUPM	.....	S122	1808195	.....	MSRNL854D	.....	B112	1816891	.....	LT11NR14UNJ KC5025	.....	D68
1803175	50A03RP90BG15C1WUPM	.....	S122	1808196	.....	MSRNL165C	.....	B112	1816893	.....	LT11NR16UNJ KC5025	.....	D68
1803177	63A04RP90BG15C1WUPM	.....	S122	1808197	.....	MSRNL248	.....	B112	1816890	.....	LT11NR18UNJ KC5025	.....	D68
1803178	80A05RP90BG15C1WUPM	.....	S122	1808198	.....	MSRNR328	.....	B112	1817050	.....	LT16NR16UNJ KC5025	.....	D68
1803179	100B06RP90BG15C2WUPM	.....	S122	1808203	.....	A20MDPNL4	.....	B92	1817054	.....	LT16NR12UNJ KC5025	.....	D68
1803284	NTC3MR150E KC5025	.....	D19	1808204	.....	A20MDPNR4	.....	B92	1817487	.....	LT22ER5AP403 KC5010	.....	D52
1803285	NTC3MR150E KC5025	.....	D19	1808205	.....	A24MCFNL4	.....	B69	1817512	.....	LT22ER4AP502 KC5010	.....	D52
1803292	NTC3MR200E KC5010	.....	D19	1808206	.....	A24MCFNR4	.....	B69	1817533	.....	LT22ER4AP503 KC5010	.....	D52
1803924	NG2062L KC5025	.....	C170	1808207	.....	A24MDPNL4	.....	B92	1817570	.....	NF3125LK KC5025	.....	C173
1804265	SPHX1205ZCEJGP KC520M	.....	S65	1808208	.....	A24MDPNR4	.....	B92	1817571	.....	NF3125RK KC5025	.....	C173
1804638	NG2062L KC5010	.....	C170	1808212	.....	A32MCKNR4	.....	B70	1817572	.....	CNMG431FP KC5010	.....	B49
1804784	DFT05T308HP KMF	.....	J101	1808225	.....	A32MVUNL4	.....	B154	1817588	.....	NF3125LK KC5025	.....	C174
1804785	DFT06T308HP KMF	.....	J101	1808226	.....	A32MVUNR4	.....	B154	1817614	.....	CNMG432FP KC5010	.....	B49
1804790	DFT070408HP KMF	.....	J101	1808227	.....	A40VMCLNL5	.....	B71	1817616	.....	DNMG6331FP KC5010	.....	B80
1804791	DFT090508HP KMF	.....	J101	1808228	.....	A40VMCLNR5	.....	B71	1817617	.....	DNMG632FP KC5010	.....	B80
1804829	DFT05T308HP KC7140	.....	J101	1808229	.....	A40MVUNL4	.....	B154	1817618	.....	NG3189RK KC5025	.....	C163
1804830	DFT06T308HP KC7140	.....	J101	1808230	.....	A40MVUNR4	.....	B154	1817619	.....	NG3M100LK KC5025	.....	C163
1804832	DFT070408HP KC7140	.....	J101	1808238	.....	MSSNL165D	.....	B113	1817620	.....	NG3M100RK KC5025	.....	C162
1805013	DFT090508HP KC7140	.....	J101	1808339	.....	MSSNL205D	.....	B113	1817623	.....	NG3M120LK KC5025	.....	C163
1805715	80A06RP90BG15C2WUPM	.....	S122	1808341	.....	MSSNL854D	.....	B113	1817626	.....	NG3M120RK KC5025	.....	C162
1805716	100B08RP90BG15C2WUPM	.....	S122	1808384	.....	MSSNR165D	.....	B113	1817627	.....	NG3M150LK KC5025	.....	C163
1805720	63A04RP90BG15C4WUHPM	.....	S123	1808445	.....	MSSNR205D	.....	B113	1817629	.....	NG3M150RK KC5025	.....	C162
1805745	80A05RP90BG15C5WUHPM	.....	S123	1808448	.....	MSSNR854D	.....	B113	1817630	.....	NG3M175LK KC5025	.....	C163
1806435	DFR030204GD KC7140	.....	J97	1808452	.....	MTANLS123	.....	B133	1817631	.....	NG3M175RK KC5025	.....	C162
1806437	DFR040304GD KC7140	.....	J97	1808487	.....	NG2031RK KC5010	.....	C162	1817632	.....	NG3M200LK KC5025	.....	C163
1806465	125B08RP90BG15C2WUPM	.....	S122	1808488	.....	NG4189RK KC5010	.....	C163	1817635	.....	NG3M200RK KC5025	.....	C162
1806466	160B10RP90BG15C2WUPM	.....	S122	1808491	.....	NR3047LK KC5025	.....	C166	1817636	.....	NG3M220LK KC5025	.....	C164
1806847	125B08RP70SP15C2WUFP	.....	S70	1808493	.....	MTANLS163	.....	B133	1817637	.....	NG3M220RK KC5025	.....	C162
1806848	160B10RP70SP15C2WUFP	.....	S70	1808494	.....	MTANLS164	.....	B133	1817640	.....	NG3M225RK KC5010	.....	C162
1806927	360.650	.....	I25, I29	1808495	.....	MTANLS205	.....	B133	1817658	.....	NFD3125RK KC5025	.....	C174
1806928	360.651	.....	I25, I29	1808498	.....	MTANRS123	.....	B133	1817659	.....	NFD3125RK KC5025	.....	C174
1806929	360.652	.....	I25, I29	1808499	.....	MTANRS163	.....	B133	1817662	.....	NFD4189LK KC5025	.....	C174
1806930	360.653	.....	I25, I29	1808500	.....	MTANRS164	.....	B133	1817675	.....	NG3M250LK KC5025	.....	C164
1806943	360.654	.....	I25, I29	1808501	.....	MTANRS205	.....	B133	1817676	.....	NG3M250RK KC5025	.....	C162
1806945	360.655	.....	I25, I29	1808504	.....	MTENNS854	.....	B134	1817678	.....	NG3M275LK KC5025	.....	C164
1807220	COGT3251LF KC5410	.....	B189	1808506	.....	MTFNLS164	.....	B135	1817679	.....	NG3M275RK KC5010	.....	C162
1808097	H20MCFNR4	.....	B75	1808512	.....	MTFNRS164	.....	B135	1817680	.....	NG3M275RK KC5025	.....	C162
1808100	H24MCFNR4	.....	B75	1808515	.....	MTGNR165C	.....	B135	1817681	.....	NG3M300LK KC5010	.....	C164
1808102	H32MCFNR5	.....	B75	1808516	.....	MTJNL5246	.....	B137	1817682	.....	NG3M300LK KC5025	.....	C164
1808109	A16TMCFN4	.....	B69	1808518	.....	MTJNRS246	.....	B137	1817699	.....	NG1047L KC5025	.....	C170
1808110	A16MCFNR4	.....	B69	1808522	.....	MTJNRS864	.....	B137	1817700	.....	NG1062L KC5025	.....	C170
1808112	A20MCFNR4	.....	B69	1808531	.....	H40MCFNR6	.....	B75	1817702	.....	NG1094L KC5025	.....	C170
1808120	MCHNN164C	.....	B61	1808532	.....	SRACR164D	.....	B243	1817703	.....	NG3M300RK KC5010	.....	C162
1808121	MCHNN205D	.....	B61	1808533	.....	SRACL164D	.....	B243	1817704	.....	NG3M300RK KC5025	.....	C162
1808122	MCHNN246D	.....	B61	1808534	.....	SRACR204D	.....	B243	1817705	.....	NG3M320LK KC5025	.....	C164
1808134	MCKNL165D	.....	B62	1808535	.....	SRACL204D	.....	B243	1817706	.....	NG3M320RK KC5025	.....	C162
1808135	MCKNL205D	.....	B62	1808536	.....	SRACR163D	.....	B243	1817707	.....	NG3M325LK KC5025	.....	C164
1808138	MCKNR205D	.....	B62	1808538	.....	SRACR162D	.....	B243	1817708	.....	NG3M325RK KC5025	.....	C162
1808140	MCKNR246D	.....	B62	1808539	.....	SRACL162D	.....	B243	1817709	.....	NG3M350LK KC5025	.....	C164
1808143	MCLNL124A	.....	B63	1808540	.....	SRACR203D	.....	B243	1817710	.....	NG3M350RK KC5025	.....	C162
1808144	MCLNL166C	.....	B63	1808541	.....	SRACL203D	.....	B243	1817713	.....	NG2031LK KC5010	.....	C163
1808145	MCLNL245D	.....	B64	1808542	.....	SRACR202D	.....	B243	1817718	.....	NG2031LK KC5025	.....	C163
1808146	MCLNL248E	.....	B64	1808543	.....	SRACL202D	.....	B243	1817719	.....	NG2031RK KC5025	.....	C162
1808147	MCLNL326F	.....	B64	1808550	.....	MVJNL123A	.....	B152	1817720	.....	NG2041L KC5025	.....	C170
1808149	MCLNR124A	.....	B63	1808554	.....	MVWNN244E	.....	B153	1817721	.....	NG2041R KC5025	.....	C170
1808150	MCLNR166C	.....	B63	1808555	.....	MVUNR244D	.....	B153	1817722	.....	NG2041R KC5010	.....	C163
1808151	MCLNR245D	.....	B63	1808556	.....	MVUNR204D	.....	B153	1817740	.....	NG3M400RK KC5010	.....	C162
1808152	MCLNR248E	.....	B63	1808557	.....	MVUNL204D	.....	B153	1817741	.....	NG3M400RK KC5025	.....	C162
1808153	MCLNR326F	.....	B63	1808563	.....	MVJNR243D	.....	B152	1817866	.....	KSSISR197SE44345C3	.....	S39
1808156	MCMNN246D	.....	B64	1808583	.....	NGD3125RK KC5025	.....	C165	1817867	.....	KSSISR197SE44345M3	.....	S39
1808157	MCMNN246E	.....	B64	1809057	.....	HSK100AHTS40085M	.....	J92	1817868	.....	KSSISR248SE44345C4	.....	S39
1808160	MCRNL205D	.....	B65	1809059	.....	HSK100AHTS50090M	.....	J92	1817869	.....	KSSISR248SE44345M4	.....	S39
1808162	MCRNL246D	.....	B65	1810334	.....	DFR170R2WD32M	.....	J10	1817870	.....	KSSISR315SE44345C4	.....	S39
1808163	MCRNR205D	.....	B65	1810335	.....	DFR175R2WD32M	.....	J10	1817871	.....	KSSISR315SE44345M4	.....	S39
1808165	MCRNR246D	.....	B65	1810336	.....	DFR180R2WD32M	.....	J10	1817872	.....	KSSISR394SE44345C5	.....	S39
1808167	MDJNL124A	.....	B89	1810337	.....							



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1818456	NG2M170LK KC5025	C163	1819211	DNMG332FP KT315	B80	1832379	WNMG433MP KC5010	B159	1852181	CS412	B168-169, B386-387
1818457	NG2M170RK KC5010	C162	1819335	DNMG431FP KT315	B80	1833500	SPHX1205PCERGN1WB KB1340	S69	1852652	S432	B408
1818458	NR30311LK KC5010	C166	1819336	DNMG432FP KT315	B80	1833501	SPHX1205ZCERGN1WB KB1340	S69	1852683	S435	B408
1818459	NR30311LK KC5025	C166	1819340	DNMG443FP KT315	B80	1833766	B411A06100 KF1	G64	1854201	CPMT18151LF KC5010	B207
1818460	NR30311RK KC5010	C166	1819354	TNMG331FP KT315	B123	1834274	R67FBHS06	K140	1854340	HTRS040R025M	J75
1818461	NG2M170RK KC5025	C162	1819355	TNMG332FP KT315	B123	1834295	SNMG433FW KT315	B102	1854342	HTRS046R028M	J75
1818462	NR30311RK KC5025	C166	1819357	VNMG331FP KT315	B146	1834819	170.294	H72, H81, H88	1854378	B514S08000 KC7030	J76
1818473	NR30471LK KC5010	C166	1819358	VNMG332FP KT315	B146	1836470	170.295	H88	1854379	B514S10000 KC7030	J76
1818474	NG2M175LK KC5025	C163	1819440	DNMG431FP KC5010	B80	1836471	170.296	H88	1855439	NG3M200RK KT315	C162
1818476	NG2M195LK KC5010	C163	1819441	DNMG432FP KC5010	B80	1845051	NPR51 KC5410	E35	1855476	NG2031RK KT315	C162
1818478	NR30622LK KC5010	C166	1819451	SPHX1205PCTRGPB KTPK20	S68	1841355	VPRG334 KC5010	E38	1855479	NG2047RK KT315	C162
1818479	NG2M195RK KC5010	C162	1819494	DNMG441FP KC5010	B80	1841782	MS2038	V62	1855504	NG2062RK KT315	C162
1818480	NG2M195RK KC5025	C162	1819495	DNMG442FP KC5010	B80	1841815	S2043	S39	1855506	NG2094RK KT315	C162
1818481	NR30622LK KC5025	C166	1819500	TNMG331FP KC5010	B123	1841853	S2044	S39, U27	1855508	NG2125RK KT315	C162
1818482	NG2M200LK KC5010	C163	1819501	TNMG332FP KC5010	B123	1843874	SCLCL124B	B194	1855556	NG2M200RK KT315	C162
1818483	NG2M200LK KC5025	C163	1819502	TNMG333FP KC5010	B123	1843875	SCLCR124B	B194	1855576	NG3062RK KT315	C162
1818484	NG2M200RK KC5010	C162	1819513	VNMG331FP KC5010	B146	1843876	SCLCL164D	B194	1855577	NG3094LK KT315	C164
1818485	NG2M200RK KC5025	C162	1819514	VNMG332FP KC5010	B146	1843877	SCLCR164D	B194	1855578	NG3094RK KT315	C162
1818487	NG2M220RK KC5025	C162	1819515	VNMG331FP KC5010	B158	1843886	MCKNL246D	B62	1855910	SPHX1205ZCSRGP KCK15	S65
1818489	NG2M225LK KC5025	C163	1819516	VNMG332FP KC5010	B158	1843889	MMUN244D	B153	1859604	VBM331LF KT315	B281
1818491	NG2M225RK KC5025	C162	1819517	VNMG431FP KC5010	B158	1843976	RCMT1204M KC5010	B240	1860701	190.458	J75
1818492	NG2M250LK KC5025	C163	1819518	VNMG432FP KC5010	B158	1845216	TCMT2151LF KC5010	B257	1860827	NG3088L KC5010	C170
1818493	NG2M250RK KC5025	C162	1819519	VNMG433FP KC5010	B158	1845218	CCMT432LF KC5010	B191	1861004	FAS1003026D KC7015	H42
1818494	NG2M275LK KC5010	C163	1819846	SPHX1205PCFRGN1WB KCK15	S69	1845219	TPMT2151LF KC5010	B268	1862566	M2FN	B409
1818497	NG2M275RK KC5025	C162	1819848	SPHX1205PCFRGN1WB KC725M	S69	1845227	CCMT3251LF KC5010	B191	1863297	MTL1854D	B134
1818498	NG2M300LK KC5010	C163	1819849	SPHX1205PCFRGN1WB KC520M	S69	1845230	SCMT3251LF KC5010	B246	1863299	MJUNR123A	B152
1818503	NG3072LK KC5025	C163	1819850	SPHX1205PCFRGN1WB KTPK20	S69	1845775	470.243	S20, S24, S32	1863302	MVUNR204C	B153
1818504	NG3072RK KC5010	C162	1819852	SPHX1205PCFRGN1WB KY3500	S69	1845807	420.201	S17, S20, S24, S32, S45, S50, S121-122, T17	1863407	552.210	B384
1818505	NG3072RK KC5025	C162	1819853	SPHX1205ZCTRGP KTPK20	S65				1864501	VCMR331 KC5010	E37
1818506	NG3078LK KC5010	C163	1819858	SPHX1205ZCFRGN1WB KCK15	S66				1864502	VCMR332 KC5010	E37
1818507	NG3078LK KC5025	C163	1819861	SPHX1205ZCFRGN1WB KC520M	S66				1864543	VCMR331 KC5025	E37
1818508	NG3078RK KC5010	C162	1819864	SPHX1205ZCFRGN1WB KY3500	S66	1847935	CNGA433T0420FW KY3500	B313	1864544	VCMR332 KC5025	E37
1818509	NG3078RK KC5025	C162	1824861	TCMT3252LF KC5010	B257	1848593	SPGX060304RHP KC7140	J103	1864562	VCMR331 KT315	E37
1818714	SPHX15T6ZCERGP KCK15	S71	1824882	TCMT3251LF KC5010	B257	1848597	SPGX070304RHP KC7140	J103	1864583	VCMR332 KT315	E37
1818721	SPHX15T6ZCTRGP KY3500	S71	1826709	S445	S5, S10, S14, S17, S20, S32, S45, S50, S56, S58, S64, S67, S121-123, T7, T33, T109, T113, V38, V47, V54	1848601	SPPX09T308RHP KC7140	J103	1864815	SNHX1102PZTNGP KC725M	U15
1818755	SPHX15T6ZCERGP4S KCK15	S71				1848605	SPPX120408RHP KC7140	J103	1864816	SNHX11T3PZFNNGP KC725M	U15
1818766	NG3094LK KC5010	C164				1848655	ICSN443 K9	B58-60	1864817	SNHX1203PZTNGP KC725M	U15
1818768	NG3094LK KC5025	C164				1849051	DPGR431 KC5010	E32	1864825	SNHX12L5PZFNNGP KC725M	U15
1818769	NG3094RK KC5025	C162				1849052	DPGR432 KC5010	E32	1864829	SNHX11T3PZFNNGP KC510M	U14
1818824	NG3105R KC5025	C170	1829218	TNMG331FW KT315	B124	1849053	DPGR433 KC5010	E32	1864830	SNHX1203PZFNNGP KC510M	U14
1818825	NG3110L KC5025	C171	1829219	TNMG332FW KT315	B124	1849054	NPR505 KC5010	E35	1864831	SNHX12L5PZFNNGP KC510M	U14
1818827	NR3078LK KC5010	C166	1829220	TNMG331FW KC5010	B124	1849055	NPL505 KC5010	E35	1865174	SPG322 KC5010	B171
1818828	NR3078LK KC5025	C166	1831439	841.142.200	K122-124	1849056	NPR508 KC5010	E35	1865210	TPGF221 KC5010	B177
1818829	NR3078RK KC5010	C166	1831441	841.142.320	K122-123	1849058	NPR51 KC5010	E35	1865214	TPGF321 KC5010	B177
1818831	NR3094L KC5010	C172	1831442	841.142.420	K122-123	1849059	NPL51 KC5010	E35	1865218	TPGF322 KC5010	B177
1818833	NR3094L KC5025	C172	1831590	KMG3XMKZR0500Y	K92	1849060	NPR52 KC5010	E35	1865436	SPG321 KC5010	B171
1818834	NR3094R KC5010	C172	1831749	NG3062L KC5010	C170	1849243	NPL52 KC5010	E35	1865452	SPG322 KC5010	B171
1818835	NR3094R KC5025	C172	1831750	NG4250R KC5010	C170	1849249	NPR131F KC5010	E34	1865483	SPG421 KC5010	B171
1818836	NR4062LK KC5010	C166	1832293	CNMG322MP KC5010	B51	1849250	NPL131F KC5010	E34	1865484	SPG422 KC5010	B171
1818838	NR4062RK KC5010	C166	1832294	CNMG431MP KC5010	B51	1849251	NPR132F KC5010	E34	1865486	SPG424 KC5010	B171
1818840	NR4094LK KC5010	C166	1832295	CNMG432MP KC5010	B51	1849252	NPL132F KC5010	E34	1865531	TPG221 KC5010	B177
1818841	NR4094LK KC5025	C166	1832296	CNMG433MP KC5010	B51	1849274	NPR51R KC5010	E33	1865532	TPG222 KC5010	B177
1818842	NR4094RK KC5010	C166	1832297	CNMG434MP KC5010	B51	1849275	NPR51L KC5010	E33	1865533	TPG3205 KC5010	B177
1818854	NR4125LK KC5010	C166	1832298	CNMG522MP KC5010	B51	1849279	VBMR211 KC5010	E36	1865534	TPG321 KC5010	B177
1818856	NR4125RK KC5010	C166	1832299	CNMG532MP KC5010	B51	1849281	VPRG3305 KC5010	E38	1865535	TPG322 KC5010	B177
1818857	NR4125RK KC5025	C166	1832301	CNMG544MP KC5010	B51	1849301	VPRG331 KC5010	E38	1865536	TPG323 KC5010	B177
1818858	NRD3031L KC5010	C173	1832302	CNMG622MP KC5010	B51	1849302	VPRG332 KC5010	E38	1865537	TPG324 KC5010	B177
1818859	NRD3031L KC5025	C173	1832313	CNMG643MP KC5010	B51	1849323	VPRG333 KC5010	E38	1865538	TPG431 KC5010	B177
1818860	NRD3031R KC5010	C173	1832315	CNMG644MP KC5010	B51	1849846	NPR51L KT315	E33	1865539	TPG432 KC5010	B177
1818861	NRD3031R KC5025	C173	1832316	DNMG332MP KC5010	B81	1849866	NPR52R KT315	E33	1865540	TPG433 KC5010	B177
1818862	NRD3062L KC5010	C173	1832318	DNMG431MP KC5010	B81	1849869	NPR508 KT315	E35	1865541	TPG434 KC5010	B177
1818863	NRD3062L KC5025	C173	1832319	DNMG432MP KC5010	B81	1849871	NPR51 KT315	E35	1865870	RCMK152 KC5010	E69
1818864	NRD3062R KC5010	C173	1832321	DNMG433MP KC5010	B81	1849874	NPR52 KT315	E35	1865871	RCMK123 KC5010	E69
1818865	NRD3062R KC5025	C173	1832322	DNMG441MP KC5010	B81	1849885	VBMR221 KT315	E36	1865953	RCMK35 KC5010	E69
1818866	NRD4062L KC5025	C173	1832323	DNMG442MP KC5010	B81	1849903	NPR52L KC5025	E33	1865954	RCMK46 KC5010	E69
1818874	NUJ3094L KC5025	C175	1832324	DNMG443MP KC5010	B81	1849906	VBMR221 KC5025	E36	1865955	RCGK152H KC5010	E69
1818875	NUJ3094R KC5025	C175	1832325	SNMG432MP KC5010	B102	1849908	VPRG3305 KC5025	E38	1865956	RCGK23HP KC5010	E69
1818876	NUJ3125L KC5025	C175	1832327	SNMG433MP KC5010	B102	1849909	VPRG331 KC5025	E38	1865959	RCGV23 KC5010	B166
1818878	NUJ3156L KC5025	C175	1832330	SNMG534MP KC5010	B102	1849910	VPRG332 KC5025	E38	1865960	RCGV35 KC5010	B166
1818891	NG3156LK KC5010	C164	1832353	SNMG644MP KC5010	B102	1849983	NPR505 KC5025	E35	1865961	RCGV45 KC5010	B166
1818892	NG3156LK KC5025	C164	1832354	TNMG331MP KC5010	B124	1849998	NPR51 KC5025	E35	1865962	RCGV35 KC5010	B167
1818913	NG3156RK KC5010	C162	1832355	TNMG332MP KC5010	B124	1850011	NPL51 KC5025	E35	1865999	RCMT0602M KC5010	B240
1818914	NG3156RK KC5025	C162	1832356	TNMG333MP KC5010	B124	1850012	NPR52 KC5025	E35	1866000	RCMT0803M KC5010	B240
1818916	NG3178R KC5025	C170	1832357	TNMG432MP KC5010	B124	1850067	NPR51R KC5025	E33	1866001	RCMT10T3M KC5010	B240
1818917	NG3185L KC5025	C171	1832358	TNMG433MP KC5010	B124	1850070	NPR51R KC5025	E33	1866014	RCMT1605M KC5010	B240
1818919	NG3189LK KC5010	C164	1832359	TNMG434MP KC5010	B124	1851263	CNGA432T0420FW KY3500	B313	1866015	RC	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1866358	.....SNMX554T0820 KY3500	.....B319	1867042	.....TPGT3251HP KC5025	.....B267	1870337	.....DPMT3251LF KT315	.....B232	1873486	.....KIPR125RP43540	.....V156
1866564	.....COGT2150XLF KC5025	.....B189	1867046	.....VBGT331HP KC5025	.....B280	1870339	.....SPMT3251LF KT315	.....B252	1874234	.....SPHX1205PCTLPBPK KY3500	.....S68
1866565	.....COGT2150LF KC5025	.....B189	1867049	.....VBGT332HP KC5025	.....B280	1870342	.....TPMT18151LF KT315	.....B268	1874862	.....DCLNR164DKC3	.....B59
1866566	.....COGT21505LF KC5025	.....B189	1867050	.....VBGT221HP KC5025	.....B280	1870365	.....PBMT2152LF KT315	.....B268	1875133	.....DCLNL164DKC3	.....B59
1866567	.....COGT2151LF KC5025	.....B189	1867051	.....VBGT2205HP KC5025	.....B280	1870366	.....TPMT3251LF KT315	.....B268	1875134	.....DCLNR164DKC3	.....B59
1866569	.....COGT325XOLF KC5025	.....B189	1867060	.....VBGT221HP KC5010	.....B280	1870367	.....TPMT3252LF KT315	.....B268	1875135	.....DCLNL164DKC3	.....B59
1866570	.....COGT3250LF KC5025	.....B189	1867061	.....VBGT2205HP KC5010	.....B280	1870619	.....TNGG3305LF KC5010	.....B121	1875136	.....DDJNL164DKC3	.....B87
1866571	.....COGT32505LF KC5025	.....B189	1867212	.....SSPO25016M.....	B58-60, B67-68, B87-88, B91-92, B98, B109-110, B113, B131, B138, B150-151, B154, B163	1870983	.....CCMT2152LF KC5010	.....B191	1875137	.....DCLNR124BK3	.....B59
1866572	.....COGT3251LF KC5025	.....B189	1867278	.....KMSF415P.....	B58-60, B67-68, B87-88, B91-92, B98, B109-110, B131, B150-151, B163	1870984	.....CCMT32505LF KC5010	.....B191	1875138	.....DWLNR164DKC3	.....B163
1866593	.....COGT3252LF KC5025	.....B189	1867314	.....KMSF515P.....	B59-60, B67-68, B87	1870986	.....CCMT3252LF KC5010	.....B191	1875139	.....DDJNL164DKC3	.....B87
1866616	.....COGT3252LF K313	.....B189	1867620	.....CNGP432 KC5010	.....B46	1870987	.....CCMT431LF KC5010	.....B191	1875140	.....DDJNL164DKC3	.....B87
1866617	.....CPGT2150LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1870990	.....CPMT181505LF KC5010	.....B207	1875141	.....DCLNR204DKC3	.....B59
1866618	.....CPGT21505LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1870992	.....CPMT21505LF KC5010	.....B207	1875142	.....DCLNL164DKC3	.....B59
1866619	.....CPGT2151LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1870998	.....DPMT32505LF KC5010	.....B232	1875143	.....DWLNL164DKC3	.....B163
1866620	.....CPGT2152LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1870999	.....DPMT3251LF KC5010	.....B232	1875144	.....DWLNR164DKC3	.....B163
1866621	.....CPGT32505LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1871000	.....DPMT3252LF KC5010	.....B232	1875145	.....DWLNR164DKC3	.....B59
1866622	.....CPGT3251LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1871002	.....SCMT3252LF KC5010	.....B246	1875146	.....DCLNL204DKC3	.....B59
1866623	.....CPGT3252LF KC5025	.....B206	1867620	.....CNGP432 KC5010	.....B46	1871013	.....CPMT2151LF KC5010	.....B207	1875147	.....DCLNL165DKC4	.....B59
1866625	.....CPGT2150LF KC5410	.....B206	1867620	.....CNGP432 KC5010	.....B46	1871014	.....CPMT2152LF KC5010	.....B207	1875148	.....DDJNL164DKC3	.....B87
1866638	.....TPGT18151LF KC5025	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871015	.....CPMT32505LF KC5010	.....B207	1875149	.....DDJNL164DKC3	.....B87
1866640	.....TPGT21505LF KC5025	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871016	.....CPMT3251LF KC5010	.....B207	1875150	.....DCLNR205DKC4	.....B59
1866641	.....TPGT2151LF KC5025	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871017	.....CPMT3252LF KC5010	.....B207	1875151	.....DDJNL204DKC3	.....B87
1866643	.....DCGT2150XOLF KC5025	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871019	.....DCMT3253LF KC5010	.....B225	1875152	.....DTGMR164DKC3	.....B131
1866646	.....DCGT2150LF KC5025	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871020	.....DCMT431LF KC5010	.....B225	1875153	.....DCLNL205DKC4	.....B59
1866647	.....DCGT3250LF KC5025	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871021	.....DCMT432LF KC5010	.....B225	1875155	.....DWLNL164DKC3	.....B163
1866648	.....DCGT325XOLF KC5025	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871022	.....DPMT21505LF KC5010	.....B232	1875156	.....DCMR164DKC3	.....B60
1866650	.....DCGT2150LF KC5010	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871033	.....DPMT2151LF KC5010	.....B232	1875157	.....DCLNR244DKC3	.....B59
1866651	.....DCGT3250LF KC5010	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871035	.....VBMT222LF KC5010	.....B281	1875159	.....DCLNL164DKC3	.....B60
1866652	.....DCGT432LF KC5010	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871036	.....VBMT3305LF KC5010	.....B281	1875160	.....DCLNL244DKC3	.....B59
1866653	.....TPGT3251LF KC5025	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871038	.....WPM2151LF KC5010	.....B288	1875161	.....DCLNR165DKC4	.....B59
1866655	.....TPGT2151LF KC5010	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871039	.....WPM2152LF KC5010	.....B288	1875163	.....DSSNR164DKC3	.....B110
1866661	.....TPGT2151LF KC5410	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871040	.....WPM2152LF KC5010	.....B288	1875164	.....DCMR124BK3	.....B60
1866665	.....DPGT2151LF KC5025	.....B231	1867620	.....CNGP432 KC5010	.....B46	1871041	.....WPM2151LF KC5010	.....B286	1875165	.....DCMR204DKC3	.....B60
1866667	.....DPGT32505LF KC5025	.....B231	1867620	.....CNGP432 KC5010	.....B46	1871042	.....WPM2152LF KC5010	.....B286	1875166	.....DWLNR204DKC3	.....B163
1866668	.....DPGT3251LF KC5025	.....B231	1867620	.....CNGP432 KC5010	.....B46	1871083	.....SCMT431LF KC5010	.....B246	1875167	.....DDJNL165DKC4	.....B87
1866674	.....TPGT3252LF KC5410	.....B267	1867620	.....CNGP432 KC5010	.....B46	1871084	.....SCMT432LF KC5010	.....B246	1875168	.....DSRNL164DKC3	.....B110
1866675	.....VBGT22XOLF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871085	.....SCMT433LF KC5010	.....B246	1875169	.....DCMR204DKC3	.....B60
1866676	.....VBGT22XOLF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871086	.....SPMT3251LF KC5010	.....B252	1875170	.....DDJNR165DKC4	.....B87
1866677	.....VBGT2205LF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871087	.....SPMT3252LF KC5010	.....B252	1875172	.....DWLNL204DKC3	.....B163
1866678	.....VBGT221LF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871088	.....TCMT21505LF KC5010	.....B257	1875173	.....DCLNL165DKC4	.....B59
1866679	.....VBGT33XOLF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871090	.....TCMT2152LF KC5010	.....B257	1875177	.....DDJNL205DKC4	.....B87
1866681	.....VBGT3305LF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871091	.....TCMT32505LF KC5010	.....B257	1875178	.....DWLNR245DKC4	.....B87
1866682	.....VBGT3305LF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871104	.....TCMT3253LF KC5010	.....B257	1875179	.....DSSNL164DKC3	.....B110
1866683	.....VBGT331LF KC5025	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871105	.....TCMT432LF KC5010	.....B257	1875180	.....DCMR245DKC4	.....B60
1866685	.....VBGT2205LF KC5010	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871106	.....TPMT181505LF KC5010	.....B268	1875184	.....DCLNR124BK3	.....B110
1866686	.....VBGT221LF KC5010	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871107	.....TPMT18151LF KC5010	.....B268	1875186	.....DDPNR164DKC3	.....B88
1866754	.....VBGT3305LF KC5010	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871108	.....TPMT21505LF KC5010	.....B268	1876838	.....TNGG333FP KT315	.....B124
1866756	.....VBGT331LF KC5010	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871110	.....TPMT2152LF KC5010	.....B268	1876849	.....TNGG431FP KC5010	.....B123
1866757	.....VBGT22XOLF KC5410	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871111	.....TPMT3251LF KC5010	.....B268	1877480	.....DNG451T0820 KY1615	.....B333
1866761	.....VBGT3305LF KC5410	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871112	.....TPMT3252LF KC5010	.....B268	1877482	.....DNG452T0820 KY1615	.....B333
1866762	.....VBGT331LF KC5410	.....B280	1867620	.....CNGP432 KC5010	.....B46	1871113	.....TPMT432LF KC5010	.....B268	1877594	.....DNG453T0820 KY1615	.....B333
1866781	.....DPGT2150LF KC5010	.....B231	1867620	.....CNGP432 KC5010	.....B46	1871163	.....CCMT2151UF KC5010	.....B192	1877595	.....DNG454T0820 KY1615	.....B333
1866782	.....SPGT3251LF KC5025	.....B252	1867620	.....CNGP432 KC5010	.....B46	1871164	.....CCMT32505UF KC5010	.....B192	1877596	.....ENG451T0820 KY1615	.....B335
1866793	.....SPGT3252LF KC5025	.....B252	1867620	.....CNGP432 KC5010	.....B46	1871165	.....CCMT3251UF KC5010	.....B192	1877597	.....ENG452T0820 KY1615	.....B335
1866795	.....SPGT3251LF KC5010	.....B252	1867620	.....CNGP432 KC5010	.....B46	1871166	.....CCMT3252UF KC5010	.....B192	1877598	.....ENG453T0820 KY1615	.....B335
1866796	.....SPGT3252LF KC5010	.....B252	1867620	.....CNGP432 KC5010	.....B46	1871167	.....CPMT2151UF KC5010	.....B208	1877599	.....ENG454T0820 KY1615	.....B335
1866801	.....TCGT2150LF KC5025	.....B256	1867620	.....CNGP432 KC5010	.....B46	1871168	.....CPMT3251UF KC5010	.....B208	1877601	.....RNG45T0820 KY1615	.....B336
1866802	.....TCGT2151LF KC5025	.....B256	1867620	.....CNGP432 KC5010	.....B46	1871169	.....DCMT2151UF KC5010	.....B226	1877602	.....RNG45T4015 KY1615	.....B336
1866805	.....COGT21505HP KC5025	.....B189	1867620	.....CNGP432 KC5010	.....B46	1871170	.....DCMT32505UF KC5010	.....B226	1877603	.....RNG45T8015 KY1615	.....B336
1866956	.....COGT2151HP KC5025	.....B189	1867620	.....CNGP432 KC5010	.....B46	1871171	.....DCMT3251UF KC5010	.....B226	1881130	.....CNGA43T0820 KY1615	.....B329
1866959	.....COGT32505HP KC5025	.....B189	1867620	.....CNGP432 KC5010	.....B46	1871172	.....DCMT3252UF KC5010	.....B226	1881131	.....CNGA432T0220 KY1615	.....B329
1866960	.....COGT3251HP KC5025	.....B189	1867620	.....CNGP432 KC5010	.....B46	1871193	.....DPMT2151UF KC5010	.....B233	1881132	.....CNGA432T0820 KY1615	.....B313, B329
1866961	.....COGT3252HP KC5025	.....B189	1867620	.....CNGP432 KC5010	.....B46	1871196	.....SCMT3252UF KC5010	.....B247	1881199	.....NPR5M02 KC5010	.....E36
1866994	.....CPGT21505HP KC5025	.....B205	1867620	.....CNGP432 KC5010	.....B46	1871197	.....SPMT3251UF KC5010	.....B253	1881200	.....NPR5M05 KC5010	.....E36
1866997	.....CPGT2151HP KC5025	.....B205	1867620	.....CNGP432 KC5010	.....B46	1871198	.....TCMT2151UF KC5010	.....B258	1881201	.....NPL5M02 KC5010	.....E36
1867001	.....CPGT32505HP KC5025	.....B205	1867620	.....CNGP432 KC5010	.....B46	1871199	.....TCMT2152UF KC5010	.....B258	1881202	.....NPL5M05 KC5010	.....E36
1867002	.....CPGT3251HP KC5025	.....B205	1867620	.....CNGP432 KC5010	.....B46	1871200	.....TCMT3252UF KC5010	.....B258	1881203	.....NPR13M05F KC5010	.....E35
1867004	.....DCGT21505HP KC5025	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871202	.....TPMT2151UF KC5010	.....B269	1881243	.....CNGA43T0820 KY1615	.....B313, B329
1867006	.....DCGT2151HP KC5025	.....B224	1867620	.....CNGP432 KC5010	.....B46	1871286	.....T				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
1881278	DNGA431T0820 KY1615	B333	1884632	470.242	S20, S24, S32	1913511	B966A15000 KC7315	G132	1913594	B977A11200 KC7315	G137
1881279	DNGA432T0820 KY1615	B333	1886490	SDJCLF083D	B228	1913512	B966A15500 KC7315	G132	1913595	B977A1500 KC7315	G137
1881280	DNGA433T0820 KY1615	B333	1887616	NG3094L KC5010	C170	1913513	B966A15700 KC7315	G132	1913596	B977A1700 KC7315	G137
1881281	DNGA434T0820 KY1615	B333	1893419	DTJNR164DKC3	B131	1913514	B966A16000 KC7315	G132	1913597	B977A12000 KC7315	G137
1881282	DNGA441T0820 KY1615	B333	1893421	DDQNR164CKC3	B88	1913515	B976A04000 KC7315	G134	1913598	B977A12500 KC7315	G137
1881283	DNGA442T0820 KY1615	B333	1893422	DDQNL164CKC3	B88	1913516	B976A04200 KC7315	G134	1913599	B977A12700 KC7315	G137
1881285	DNGA443T0820 KY1615	B333	1895492	SPHX1205PCFLGN1WB KCK15	S69	1913517	B976A04500 KC7315	G135	1913600	B977A13000 KC7315	G137
1881297	DNGX452T0820 KY1615	B317, B335	1897657	TPGX0902ZPRGD KC7015	H85	1913518	B976A04600 KC7315	G135	1913601	B977A13500 KC7315	G137
1881305	RCGW1204M0T01020 KY1615	B336	1897658	TPGX1102ZPRGD KC7015	H85	1913519	B976A04800 KC7315	G135	1913602	B977A13700 KC7315	G137
1881310	RCGV35T0420 KY1615	B335	1897659	TPGX1303ZPRGD KC7015	H85	1913520	B976A05000 KC7315	G135	1913603	B977A14000 KC7315	G137
1881311	RCGV35T0820 KY1615	B335	1897660	TPGX1603ZPRGD KC7015	H85	1913521	B976A05500 KC7315	G135	1913604	B977A14500 KC7315	G137
1881313	RCGV35T4015 KY1615	B335	1897830	BGHX15L508PCFRGG KC510M	S125	1913522	B976A05700 KC7315	G135	1913605	B977A14700 KC7315	G137
1881314	RCGV35T8015 KY1615	B335	1903553	KGMSR2450N	C143	1913523	B976A05800 KC7315	G135	1913606	B977A15000 KC7315	G137
1881316	RCGV45T0820 KY1615	B335	1906695	CNMG643RP KC5010	B53	1913524	B976A06000 KC7315	G135	1913607	B977A15500 KC7315	G137
1881318	RCGV45T4015 KY1615	B335	1906272	MCFNL12CA4	B72	1913525	B976A06500 KC7315	G135	1913608	B977A15700 KC7315	G137
1881319	RCGV45T8015 KY1615	B335	1907344	KGMER2450N	C145	1913526	B976A06800 KC7315	G135	1913609	B977A16000 KC7315	G138
1881320	RCGX151000T20015 KY1615	B335	1908809	DCLNR245DKC4	B59	1913527	B976A07000 KC7315	G135	1913610	B977A16500 KC7315	G138
1881321	RCGX191000T20015 KY1615	B335	1908811	DCLNL245DKC4	B59	1913528	B976A07400 KC7315	G136	1913611	B977A17000 KC7315	G138
1881322	RCGV88T8015 KY1615	B335	1908834	DSDNN164KC3	B109	1913529	B976A07500 KC7315	G136	1913612	B977A17500 KC7315	G138
1881325	RNGA32T0820 KY1615	B336	1908835	DSDNN204KC3	B109	1913530	B976A07800 KC7315	G136	1913613	B977A18000 KC7315	G138
1881326	RNGA43T0820 KY1615	B336	1908976	SRCR122B	B243	1913531	B976A08000 KC7315	G136	1913614	B977A18500 KC7315	G138
1881327	RNG32T0820 KY1615	B336	1908978	SRCR162D	B243	1913532	B976A08500 KC7315	G136	1913615	B977A19000 KC7315	G138
1881328	RNG33T0820 KY1615	B336	1908980	SRCCL162D	B243	1913533	B976A08800 KC7315	G136	1913616	B977A19500 KC7315	G138
1881329	RNG42T0820 KY1615	B336	1908981	SRCR123B	B243	1913534	B976A09000 KC7315	G136	1913617	B977A20000 KC7315	G138
1881330	RNG43T0820 KY1615	B336	1908994	SRCR163D	B243	1913535	B976A09300 KC7315	G136	1913618	B978A05000 KC7315	G139
1881332	RNG65T0820 KY1615	B336	1908995	SRCCL163D	B243	1913536	B976A09500 KC7315	G136	1913619	B978A05500 KC7315	G139
1881347	SNGA432T0820 KY1615	B337	1908996	SRCR203D	B243	1913537	B976A09800 KC7315	G136	1913620	B978A06000 KC7315	G139
1881348	SNGA433T0820 KY1615	B337	1909002	SRCCL203D	B243	1913538	B976A10000 KC7315	G136	1913621	B978A06500 KC7315	G139
1881351	SNG322T0820 KY1615	B337	1909004	KGMSL2450N	C143	1913539	B976A10200 KC7315	G136	1913622	B978A06800 KC7315	G139
1881355	SNG432T0220 KY1615	B337	1909005	SRAACR244D	B243	1913540	B976A10500 KC7315	G136	1913623	B978A07000 KC7315	G139
1881356	SNG432T0820 KY1615	B337	1909006	SRACL244D	B243	1913541	B976A10700 KC7315	G137	1913624	B978A07500 KC7315	G140
1881357	SNG433T0820 KY1615	B337	1909159	D64TTB56	B409	1913542	B976A11000 KC7315	G137	1913625	B978A07800 KC7315	G140
1881358	SNG434T0820 KY1615	B337	1909790	CPGT2152LF KC5010	B206	1913543	B976A11200 KC7315	G137	1913626	B978A08000 KC7315	G140
1881361	SNG451T0820 KY1615	B337	1909791	TPGT21505LF KC5010	B267	1913544	B976A11500 KC7315	G137	1913627	B978A08500 KC7315	G140
1881362	SNG452T0820 KY1615	B337	1910043	VBGT2205HP KC5410	B280	1913545	B976A11700 KC7315	G137	1913628	B978A09000 KC7315	G140
1881364	SNG453T0820 KY1615	B337	1910044	VBGT221HP KC5410	B280	1913546	B976A12000 KC7315	G137	1913629	B978A09500 KC7315	G140
1881365	SNG454T0820 KY1615	B337	1910215	CNMG643RP KC5010	B53	1913547	B976A12500 KC7315	G137	1913630	B978A10000 KC7315	G140
1881366	SNG455T0820 KY1615	B337	1912477	STN1612UNI KC635M	W44	1913548	B976A12700 KC7315	G137	1913631	B978A10200 KC7315	G140
1881367	SNG455T4015 KY1615	B337	1913052	B966A03000 KC7315	G130	1913549	B976A13000 KC7315	G137	1913632	B978A10500 KC7315	G140
1881368	SNG455T8015 KY1615	B337	1913458	B966A03500 KC7315	G130	1913550	B976A13500 KC7315	G137	1913633	B978A11000 KC7315	G140
1881371	SNG554T0820 KY1615	B337	1913459	B966A03700 KC7315	G130	1913551	B976A13700 KC7315	G137	1913634	B978A11500 KC7315	G140
1881396	SNGX453T0820 KY1615	B338	1913460	B966A03800 KC7315	G130	1913552	B976A14000 KC7315	G137	1913635	B978A12000 KC7315	G140
1881402	SPG322T0420 KY1615	B338	1913461	B966A04000 KC7315	G130	1913553	B976A14500 KC7315	G137	1913636	B978A12500 KC7315	G140
1881405	SPG422T0420 KY1615	B338	1913462	B966A04200 KC7315	G130	1913554	B976A14700 KC7315	G137	1913637	B978A13000 KC7315	G140
1881413	TNGA332T0820 KY1615	B339	1913473	B966A04500 KC7315	G130	1913555	B976A15000 KC7315	G137	1913638	B978A13500 KC7315	G140
1881414	TNGA333T0820 KY1615	B339	1913474	B966A04600 KC7315	G130	1913556	B976A15500 KC7315	G137	1913639	B978A14000 KC7315	G141
1881416	TNGA432T0820 KY1615	B339	1913475	B966A04800 KC7315	G130	1913558	B976A16000 KC7315	G138	1913640	B978A14500 KC7315	G141
1881417	TNGA433T0820 KY1615	B339	1913476	B966A05000 KC7315	G130	1913559	B976A16500 KC7315	G138	1913641	B978A15000 KC7315	G141
1881422	TNG222T0820 KY1615	B339	1913477	B966A05500 KC7315	G130	1913560	B976A17000 KC7315	G138	1913642	B978A15500 KC7315	G141
1881423	TNG331T0820 KY1615	B339	1913478	B966A05700 KC7315	G130	1913561	B976A17500 KC7315	G138	1913643	B978A16000 KC7315	G141
1881424	TNG332T0820 KY1615	B319, B339	1913479	B966A05800 KC7315	G130	1913562	B976A18000 KC7315	G138	1913644	B978A16500 KC7315	G141
1881425	TNG333T0820 KY1615	B339	1913480	B966A06000 KC7315	G130	1913563	B976A18500 KC7315	G138	1913645	B978A17000 KC7315	G141
1881426	TNG334T0820 KY1615	B339	1913481	B966A06500 KC7315	G131	1913564	B976A19000 KC7315	G138	1913646	B978A17500 KC7315	G141
1881427	TNG352T0820 KY1615	B339	1913482	B966A06800 KC7315	G131	1913565	B976A19500 KC7315	G138	1913647	B978A18000 KC7315	G141
1881428	TNG353T0820 KY1615	B339	1913483	B966A07000 KC7315	G131	1913566	B976A20000 KC7315	G138	1913648	B978A18500 KC7315	G141
1881430	TNG432T0820 KY1615	B339	1913484	B966A07400 KC7315	G131	1913567	B977A04000 KC7315	G134	1913649	B978A19000 KC7315	G141
1881437	TPG221T0420 KY1615	B340	1913485	B966A07500 KC7315	G131	1913568	B977A04200 KC7315	G134	1913650	B978A19500 KC7315	G141
1881438	TPG222T0420 KY1615	B340	1913486	B966A07800 KC7315	G131	1913569	B977A04500 KC7315	G135	1913651	B978A20000 KC7315	G141
1881439	TPG223T0420 KY1615	B340	1913487	B966A08000 KC7315	G131	1913570	B977A04600 KC7315	G135	1914363	NG4250L KC5025	C171
1881440	TPG321T0420 KY1615	B340	1913488	B966A08500 KC7315	G131	1913571	B977A04800 KC7315	G135	1914364	NG4250R KC5025	C170
1881441	TPG322T0420 KY1615	B340	1913489	B966A08800 KC7315	G131	1913572	B977A05000 KC7315	G135	1915368	881.252.320	K137-139
1881442	TPG323T0420 KY1615	B340	1913490	B966A09000 KC7315	G131	1913573	B977A05500 KC7315	G135	1915629	MS2089	C132-133
1881447	TPU221T0220 KY1615	B341	1913491	B966A09300 KC7315	G131	1913574	B977A05800 KC7315	G135	1916212	LNEU1245R04SGP KC725M	U20
1881448	TPU222T0220 KY1615	B341	1913492	B966A09500 KC7315	G131	1913575	B977A06000 KC7315	G135	1916215	LNEU1245R08SGP KC725M	U20
1881449	TPU321T0220 KY1615	B341	1913493	B966A09800 KC7315	G131	1913576	B977A06500 KC7315	G135	1916218	LNEU1245R16SGP KC725M	U20
1881450	TPU322T0220 KY1615	B341	1913494	B966A10000 KC7315	G131	1913577	B977A06800 KC7315	G135	1916221	LNEU1250R04SGP KC725M	U20
1881451	TPU323T0220 KY1615	B341	1913495	B966A10200 KC7315	G131	1913578	B977A07000 KC7315	G135	1916224	LNEU1250R08SGP KC725M	U20
1881452	VNGA331T0820 KY1615	B342	1913496	B966A10500 KC7315	G131	1913579	B977A07400 KC7315	G136	1918803	SM455 K9	S39
1881453	VNGA332T0820 KY1615	B342	1913497	B966A10700 KC7315	G131	1913580	B977A07500 KC7315	G136	1920691	TPG321T0220 KY1615	B340
1881454	VNGA333T0820 KY1615	B342	1913498	B966A11000 KC7315	G131	1913581	B977A07800 KC7315	G136	1920692	TPG322T0220 KY1615	B340
1881455	VNGA334T0820 KY1615	B342	19134								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)		
1923834	A4R0500M05P00GMP	KC5025	1937136	SSF150HTS130664	J89	1940967	DNMG434RP	KC5010	B84	1952746	A4G0305M03U04GMP	KC5010	C105
1923835	A4G0500M05P04GMP	KC5010	1937137	SSF150HTS131114	J89	1940968	DNMG442RP	KC5010	B84	1952747	A4G0305M03U04GMP	KC5025	C105
1923836	A4G0505M05U04GMN	KC5025	1937138	SSF150HTS131764	J89	1940971	SNMG432RP	KC5010	B105	1952748	A4G0405M04U04GMP	KT315	C105
1923837	A4G0505M05U08GMN	KC5025	1937503	CDHB120601	KC5010	1940972	SNMG433RP	KC5010	B105	1952749	A4G0405M04U04GMP	KC5010	C105
1923838	A4G0505M05U04GMP	KC5025	1937504	CDHB120601	KC5025	1940975	SNMG643RP	KC5010	B105	1952750	A4G0405M04U04GMP	KC5025	C105
1923839	A4G0505M05U08GMP	KC5025	1937506	CDHB12061	KC5010	1940977	TNMG332RP	KC5010	B127	1952751	A4G0405M04U08GMP	KT315	C105
1923840	A4G0500M05P08GMP	KC5010	1937507	CDHB12061	KC5025	1940979	TNMG432RP	KC5010	B127	1952752	A4G0405M04U08GMP	KC5010	C105
1924131	HPFSS125S3025	KC635M	1937508	CDHB12061	KT315	1940984	VNMG332RP	KC5010	B148	1952753	A4G0405M04U08GMP	KC5025	C105
1924283	HPFSS188S3031	KC635M	1937509	CDHB120605	KC5010	1940986	VNMG432RP	KC5010	B161	1952755	A4G0505M05U04GMP	KC5010	C105
1924285	HPFSS250S3038	KC635M	1937510	CDHB120605	KC5025	1940987	VNMG433RP	KC5010	B161	1952758	A4G0505M05U08GMP	KC5010	C105
1924288	HPFSS312S3081	KC635M	1937511	CDHB120605	KT315	1941189	B977A12800	KT315	G137	1952760	A4G0300M03P02GMP	KC5010	C105
1924289	HPFSS375S3050	KC635M	1937512	CDHB120605	KC5010	1941190	B977A15800	KT315	G138	1952762	A4G0300M03P04GMP	KC5010	C105
1924290	HPFSS375S3088	KC635M	1937513	CDHB120605R	KC5010	1942322	HTSR043R025M		J75	1952763	A4G0400M04P02GMP	KC5025	C105
1924291	HPFSS500S3063	KC635M	1937514	CDHB120605L	KC5025	1942327	HTSR049R028M		J75	1952764	A4G0400M04P02GMP	KC5010	C105
1924292	HPFSS500S3125	KC635M	1937515	CDHB120605R	KC5025	1942328	HTSR052R028M		J75	1952765	A4G0400M04P02GMP	KC5025	C105
1924576	HPFT250S6075	KC635M	1937516	CDHB120605L	KT315	1942450	B978A43200	KT315	G140	1952766	A4G0400M04P02GMP	KC5010	C105
1924577	HPFT312S6081	KC635M	1937517	CDHB120605R	KT315	1942715	193.397		J75	1952767	A4G0400M04P04GMP	KC5025	C105
1924578	HPFT375S6088	KC635M	1937518	CDHB12061L	KC5010	1949633	A4SMR1616K0314		C124	1952768	A4G0400M04P08GMP	KC5010	C105
1924579	HPFT500S6100	KC635M	1937519	CDHB12061R	KC5010	1949634	A4SML1616K0314		C125	1952769	A4G0505M05U08GMP	KC5025	C105
1924580	HPFT500S6200	KC635M	1937520	CDHB12061L	KC5025	1949635	A4SML2020K0314		C124	1952771	A4G0500M05P04GMP	KC5025	C105
1924581	HPFT625S6125	KC635M	1937530	GPCD505	KC5025	1949636	A4SML2020K0314		C125	1952773	A4G0500M05P08GMP	KC5025	C105
1924743	HPFT750S6150	KC635M	1937532	TDHB12807501	KC5010	1949637	A4SMR2525M0317		C124	1952774	A4R0405M04U00GMP	KC5010	C107
1924744	HPFT750S6225	KC635M	1937534	TDHB1280751	KT315	1949638	A4SML2525M0317		C125	1952775	A4R0405M04U00GMN	KC5025	C107
1924745	HPFT1000S6150	KC635M	1937535	TDHB12807505	KC5010	1949639	A4SMR2020K0414		C124	1952776	A4R0505M05U00GMN	KC5010	C107
1924746	HPFT1000S6225	KC635M	1937536	TDHB12807505	KC5025	1949640	A4SML2020K0414		C125	1952777	A4R0505M05U00GMP	KC5025	C107
1925120	HPRDM188S3019	KC633M	1937538	TDHB1280751	KC5010	1949641	A4SMR2525M0417		C124	1952778	A4R0400M04P00GMP	KC5010	C106
1925121	HPRDM250S4025	KC633M	1937539	TDHB1280751	KC5025	1949642	A4SML2525M0417		C125	1952779	A4R0400M04P00GMP	KC5025	C106
1925122	HPRDM312S4031	KC633M	1937540	TDHB1280751	KT315	1949643	A4SML2525P0417		C124	1952780	A4R0500M05P00GMP	KC5010	C106
1925133	HPRDM375S4038	KC633M	1937542	TDHB1280752	KC5025	1949644	A4SML3225P0417		C125	1952847	A4C0305M00C0F02	KC5025	C112
1925134	HPRDM500S4050	KC633M	1937544	TDHB12807505L	KC5010	1949645	A4SMR2020K0519		C124	1952848	A4C0305R06C0F02	KC5025	C113
1925138	HPBNDM1254031	KC633M	1937550	TDHB1280751L	KC5010	1949646	A4SML2020K0519		C125	1952849	A4C0305L06C0F02	KC5025	C113
1925140	HPBNDM188S4019	KC633M	1937562	WPGT1510UF	KC5010	1949647	A4SMR2525M0520		C124	1953085	A4G0300M03P02GMP	K313	C105
1925141	HPBNDM250S4025	KC633M	1937563	WPGT15105UF	KC5010	1949648	A4SML2525M0520		C125	1953086	A4G0300M03P04GMP	K313	C105
1925143	HPBNDM375S4038	KC633M	1937571	TPCB2205	KC5010	1949649	A4SMR3225P0522		C124	1953087	A4G0400M04P02GMP	K313	C105
1925144	HPBNDM500S4050	KC633M	1937580	TPCG2205L	KC5010	1949650	A4SML3225P0522		C125	1953088	A4G0400M04P04GMP	K313	C105
1925145	HPBNDM625S4063	KC633M	1937586	TPCG221L	KC5010	1949651	A4ENW2020K0407		C131	1953090	A4G0500M05P04GMP	K313	C105
1925146	HPBNDM750S4075	KC633M	1937592	TPCG222L	KC5010	1949652	A4ENW2525M0407		C131	1953091	A4G0500M05P08GMP	K313	C105
1925147	HPFDM250S4038	KC633M	1937598	TPCH2205	KC5010	1949654	A4ENW2525M0509		C131	1953092	A4R0400M04P00GMP	K313	C106
1925148	HPFDM250S4063	KC633M	1937601	TPCH221	KC5010	1949655	A20RA4EMR0307M		C133	1953153	A4R0500M05P00GMP	K313	C106
1925149	HPFDM250S4088	KC633M	1937615	TD6P05	KC5010	1949656	A20RA4EML0307M		C133	1953177	A4SMR100314		C122
1925150	HPFDM312S4050	KC633M	1937618	TD6P1	KC5010	1949657	A25RA4EMR0310M		C133	1953178	A4SML100314		C123
1925151	HPFDM312S4075	KC633M	1937621	TD6P2	KC5010	1949658	A25RA4EML0310M		C133	1953179	A4SMR120314		C122
1925152	HPFDM312S4113	KC633M	1937645	TPGH322	KC5010	1949659	A32SA4EMR0312M		C133	1953180	A4SML120314		C123
1925153	HPFDM375S4056	KC633M	1937946	E04HSCFDL12		1949660	A32SA4EML0312M		C133	1953181	A4SMR160317		C122
1925154	HPFDM375S5094	KC633M	1937955	E05MSCFDR12		1949661	A20RA4EMR0407M		C133	1953182	A4SML160317		C123
1925155	HPFDM375S5131	KC633M	1937956	E05MSCDL12		1949662	A20RA4EML0407M		C133	1953323	A4SMR120414		C122
1925156	HPFDM500S4075	KC633M	1937957	E05MSCDLR12		1949663	A25RA4EMR0410M		C133	1953324	A4SML120414		C123
1925157	HPFDM500S6125	KC633M	1937958	E03MSCDL12A		1949664	A25RA4EML0410M		C133	1953325	A4SMR160417		C122
1925158	HPFDM500S6175	KC633M	1937960	A2906XSLDR1205		1949665	A32SA4EMR0412M		C133	1953326	A4SML160417		C123
1925159	HPFDM625S4094	KC633M	1937962	A2906XSLDR121		1949666	A32SA4EML0412M		C133	1953327	A4SMR120519		C122
1925160	HPFDM625S6156	KC633M	1937966	A3206XSLDR1205		1949667	A40TA4EMR0416M		C133	1953328	A4SML120519		C123
1925161	HPFDM625S6219	KC633M	1937970	A3206XSLDR121		1949668	A40TA4EML0416M		C133	1953329	A4SMR160520		C122
1925162	HPFDM750S4113	KC633M	1937974	A0406XSLDR1205		1949669	A32SA4EMR0516M		C133	1953330	A4SMR160520		C123
1925163	HPFDM750S6188	KC633M	1937976	A0406XSLDR12125		1949670	A32SA4EML0516M		C133	1953331	A4ENN120407		C130
1925164	HPFDM750S6263	KC633M	1937978	A0406XSLDR12125		1949671	A40TA4EMR0516M		C133	1953332	A4ENN160407		C130
1925165	HPFDM1000S5150	KC633M	1937982	A2908XSLDR121		1949672	A40TA4EML0516M		C133	1953334	A4ENN160509		C130
1925166	HPFDM1000S6250	KC633M	1937990	A3208XSLDR121		1950263	E0408XSLDR1225		B203	1953335	A12RA4EMR0307N		C132
1925167	HPFDM1000S6350	KC633M	1937992	A0408XSLDR12075		1950374	A04HSWUPR15		B291	1953336	A12RA4EML0307N		C132
1926594	CNMG4305FN	KT315	1938000	E2910XSLDR12088		1950376	A05HSWUPR15		B291	1953337	A16RA4EMR0310N		C132
1926595	CNMG4305FN	KC5010	1938010	E3210KSLDR122		1950378	E03MSWUPR15		B292	1953338	A16RA4EML0310N		C132
1927913	KSEM125R1WN16F45M	H85-86	1938013	E0410HSLDR12125		1950380	E04MSWUPR15		B292	1953339	A20SA4EMR0312N		C132
1927914	KSEM160R1WN20F45M	H85-86	1938018	E2908XSLDR12088		1950382	E05MSWUPR15		B292	1953341	A12RA4EMR0407N		C132
1927915	KSEM200R1WN25F45M	H85-86	1938022	E3208XSLDR121		1950388	E06MSWUPR2		B292	1953342	A12RA4EML0407N		C132
1927916	KSEM241R1WN32F45M	H85-86	1939528	B977A09700	KT315	1950390	E08RSWUPR2		B292	1953343	A16RA4EMR0410N		C132
1928470	193.371	J87-89	1940731	HTSR10C1	J75	1950413	E06SSTLDR2		B261	1953344	A16RA4EML0410N		C132
1928504	193.372	J87-89	1940732	HTSR11C1	J75	1950709	SECV443AESN7GN	KY3500	S45	1953345	A20SA4EMR0412N		C132
1928643	5.34032-025115	J88	1940738	B513S08000	A30	1950712	SDCW43EDSR8GN	KY3500	T117,	1953347	A24TA4EMR0416N		C132
1928644	5.34032-025200	J88	1940739	B513S08000	AS3				T124	1953349	A20SA4EMR0516N		C132
1928645	5.34050-025300	J88	1940740	B513S10000	A30	1952700	A4G0305M03U02GMN	KC5010	C106				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	
1959664	B977A05600	KC7315	1998287	VNMS331E	KB368	2036673	DFR0844R3SSF075	J14	2047425	KSEM0797HP	KC7315	H52
1959665	B977A03300	KC7315	1998288	VNMS332E	KB368	2036674	DFR0875R3SSF075	J14	2047426	KSEM0813HP	KC7315	H52
1959666	B977A06900	KC7315	1998291	CPGW2151E	KB363	2036675	DFR1000R3SSF125	J14	2047427	KSEM0844HP	KC7315	H52
1960078	B977A14900	KC7315	1998293	CPGW3251E	KB363	2036695	DFR0781R3SSF100	J14	2047428	KSEM0859HP	KC7315	H52
1960079	B977A15100	KC7315	1998296	DPGW3251E	KB365	2036703	KSEM3300HPM	H53	2047429	KSEM0875HP	KC7315	H52
1961106	B976A09700	KC7315	1998302	VBGW332E	KB367	2036704	KSEM2700HPM	H53	2047430	KSEM0884HP	KC7315	H52
1961108	B966A03200	KC7315	1998336	A4G0300M03P04E	KB370, C110	2036705	KSEM2100HPM	H52	2047431	KSEM0922HP	KC7315	H52
1962982	CT15	B291-292	1998337	A4G0400M04P04E	KB370, C110	2036706	KSEM2050HPM	H52	2047432	KSEM2350HPM	KC7315	H52
1963407	DFR200R4WD32M	J12	1998338	A4G0500M05P08E	KB370, C110	2036882	KSEM1800HPM	H52	2047433	KSEM0938HP	KC7315	H52
1963863	QC21	B265	1998340	A4R0500M05P00E	KB370, C111	2036903	KSEM2300HPM	H52	2047434	KSEM2450HPM	KC7315	H52
1967470	SN7T	W40	1998947	B966A09600	KC7315	2036904	KSEM2400HPM	H52	2047435	KSEM0969HP	KC7315	H52
1971584	B978A09750	KC7315	2006399	12748308500	S82	2036905	KSEM3000HPM	H53	2047436	KSEM1000HP	KC7315	H52
1971763	B977A08900	KC7315	2008288	12748601000	S30-31	2036906	KSEM1250HPM	H52	2047437	KSEM2550HPM	KC7315	H52
1972376	B966A13200	KC7315	2018142	12748358200	S77, S82, S88	2036907	KSEM1450HPM	H52	2047438	KSEM1011HP	KC7315	H52
1974209	SPHX09031OR20	KC7215	2018164	12748500200	S83	2036909	KSEM1300HPM	H52	2047439	KSEM1031HP	KC7315	H53
1974252	S411	B285	2018166	12748500400	S83	2036910	KSEM2500HPM	H52	2047440	KSEM1047HP	KC7315	H53
1975006	B977A05200	KC7315	2018285	12148006000	T24	2036911	KSEM1650HPM	H52	2047441	KSEM2750HPM	KC7315	H53
1980539	BGHX15L504PCFRGG	K110M	2018296	MS2260	V58	2036912	KSEM3900HPM	H53	2047442	KSEM1094HP	KC7315	H53
1981264	BGHX15L508PCFRGG	K110M	2018679	12148068700	K116-117	2036923	KSEM2900HPM	H53	2047443	KSEM2800HPM	KC7315	H53
1981758	BGHX15L515PCFRGG	K110M	2029553	12148044900	S30-31, S77, S82, S88	2036924	KSEM350HPM	H52	2047444	KSEM1109HP	KC7315	H53
1981759	BGHX15L515PCFRGG	KC510M	2032259	12748600900	S77, S82, S88	2036953	KSEM3050HPM	H53	2047445	KSEM0945HPM	KC7315	H53
1982315	DFT030204HP	KMF	2033468	12748503400	S83	2036954	KSEM1560HPM	H52	2047446	KSEM1125HP	KC7315	H53
1982316	DFT030304HP	KMF	2033852	360.660	H87	2036955	KSEM1900HPM	H52	2047447	KSEM1156HP	KC7315	H53
1982397	B966A06200	KC7315	2033863	360.661	H87	2036956	KSEM2150HPM	H52	2047448	KSEM1172HP	KC7315	H53
1983309	3.42805R081	KC7215	2033865	360.663	H87	2036957	KSEM3500HPM	H53	2047449	KSEM3100HPM	KC7315	H53
1983310	3.42807R081	KC7215	2033866	360.664	H87	2037058	B966A06400	KC7315	2047450	KSEM3150HPM	KC7315	H53
1983992	COMT432LF	KC5025	2033867	360.665	H87	2037059	B967A10000	KC7315	2047451	KSEM1250HP	KC7315	H53
1984003	COMT325ZMF	KC5025	2033868	360.666	H87	2038613	B966A06050	KC7315	2047452	KSEM3250HPM	KC7315	H53
1984183	B976A05200	KC7315	2033871	360.669	H87	2039536	SR3 KWH	B243-244	2047453	KSEM1313HP	KC7315	H53
1984545	B978A11200	KC7315	2033872	360.670	H87	2039537	SR4	B243	2047454	KSEM3400HPM	KC7315	H53
1985037	B966A06700	KC7315	2033877	360.668	H87	2040139	DFR220R4WD32M	J12	2047455	KSEM3250HPM	KC7315	H53
1985038	B966A08200	KC7315	2033878	360.668	H87	2040680	B977A04300	KC7315	2047456	KSEM1313HP	KC7315	H53
1985784	KMSP3151P	B59, B87, B92, B113, B131, B150-151, B154, B163	2033879	360.669	H87	2040682	B966A03900	KC7315	2047457	KSEM3400HPM	KC7315	H53
1985792	TTP9	U28-29	2033881	360.669	H87	2043136	B966A10600	KC7315	2047458	KSEM3550HPM	KC7315	H53
1985985	B978A10800	KC7315	2033882	360.670	H87	2043137	B966A11600	KC7315	2047460	KSEM3600HPM	KC7315	H53
1986652	B977A08200	KC7315	2033887	360.668	H87	2043415	B978A05700	KC7315	2047464	KSEM3750HPM	KC7315	H53
1986653	B976A06200	KC7315	2033888	360.668	H87	2043417	B977A10600	KC7315	2047465	KSEM3800HPM	KC7315	H53
1986773	B976A06200	KC7315	2033889	360.668	H87	2043418	B977A14600	KC7315	2047466	KSEM1500HP	KC7315	H53
1987659	SPHX1205PCSRGPB	KCK15	2033891	360.669	H87	2043419	B978A05700	KC7315	2047468	KSEM3850HPM	KC7315	H53
1988099	B966A06900	KC7315	2033892	360.669	H87	2043421	B977A10600	KC7315	2047469	KSEM4000HPM	KC7315	H53
1988100	B966A07900	KC7315	2033893	360.669	H87	2043422	B977A14600	KC7315	2047470	KSEM0625HP	KC7315	H52
1988931	B977A05700	KC7315	2033894	360.669	H87	2043451	KSEM3950HPM	KC7315	2047471	KSEM0766HP	KC7315	H52
1988932	B976A05300	KC7315	2033895	360.669	H87	2043779	B977A06100	KC7315	2047472	KSEM1188HP	KC7315	H53
1988983	B976A08700	KC7315	2033896	360.669	H87	2044606	B978A11800	KC7315	2047474	KSEM1219HP	KC7315	H53
1989347	A4M50L0314M	C138	2033897	360.669	H87	2044834	B976A19700	KC7315	2047477	KSEM1344HP	KC7315	H53
1989348	A4M50R0314M	C138	2033898	360.669	H87	2045222	B966A05300	KC7315	2047478	KSEM1375HP	KC7315	H53
1989349	A4M50L0414M	C138	2033899	360.669	H87	2045293	DFT030204HP	KC7140	2047479	OPFT64AFNS6HB	KC522M	S52
1989350	A4M50R0414M	C138	2033900	360.669	H87	2045820	DFT030304HP	KC7140	2047701	OPFT64AFNS6HB	KC522M	S52
1989351	A4M50L0519M	C138	2033901	360.669	H87	2045822	B977A12300	KC7315	2049487	B977A05100	KC7315	G135
1989352	A4M50R0519M	C138	2033902	360.669	H87	2045823	B977A12300	KC7315	2049488	B977A11800	KC7315	G137
1990689	SECW443AEEN22GNW	KC725M	2033903	360.669	H87	2045824	B977A11600	KC7315	2049489	B977A12200	KC7315	G137
1991229	B966A12600	KC7315	2033904	360.669	H87	2045867	B976A16800	KC7315	2050081	MS2111	C183, C185, C189-189, C192, D30	
1992230	B977A07700	KC7315	2033905	360.669	H87	2047379	KSEM0500HP	KC7315	2050082	S2112	C182, C184-187, C189, C191, C194-195, D25-29, D35, D37-38	
1992232	B966A10400	KC7315	2033906	360.669	H87	2047380	KSEM1280HPM	KC7315	2050230	B978A09800	KC7315	G140
1992822	B105A04600	K10	2033907	360.669	H87	2047382	KSEM0516HP	KC7315	2057426	MTFNL2CA3	B140	
1993391	KSEM136R1WN16F45M	H85-86	2033908	360.669	H87	2047393	KSEM3200HPM	KC7315	2071739	MSSNL12CA4	B117	
1993392	KSEM146R1WN20F45M	H85-86	2033909	360.669	H87	2047395	KSEM1370HPM	KC7315	2071739	MSSNL12CA4	B117	
1993403	KSEM181R1WN25F45M	H85-86	2033910	360.669	H87	2047396	KSEM1380HPM	KC7315	2071758	MSSNL10CA3	B117	
1993404	KSEM221R1WN25F45M	H85-86	2033911	360.669	H87	2047397	KSEM0547HP	KC7315	2072222	MSKNR20CA5	B115	
1993405	KSEM261R1WN32F45M	H85-86	2033912	360.669	H87	2047398	KSEM1410HPM	KC7315	2074429	MTFNR16CA3	B140	
1993406	KSEM281R1WN32F45M	H85-86	2033913	360.669	H87	2047399	KSEM1420HPM	KC7315	2074430	MSKNR16CA4	B115	
1993407	KSEM301R1WN32F45M	H85-86	2033914	360.669	H87	2047400	KSEM0656HP	KC7315	2074432	MSRNR16CA4	B116	
1993408	KSEM321R1WD50F45M	H85-86	2033915	360.669	H87	2047401	KSEM1440HPM	KC7315	2074433	MCFNR16CA4	B72	
1993409	KSEM361R1WD50F45M	H85-86	2033916	360.669	H87	2047403	KSEM0578HP	KC7315	2074904	MSTNR12CA4	B118	
1993552	THW2M	T63, T65, V77, V139-142	2033917	360.669	H87	2047404	KSEM1480HPM	KC7315	2077947	MCLBL12CA4	B74	
1994080	FAS100302GD	KC7215	2033918	360.669	H87	2047405	KSEM0594HP	KC7315	2078231	MSRNR12CA4	B116	
1994291	TTP20	S32, S50, V155-156	2033919	360.669	H87	2047406	KSEM1530HPM	KC7315	2078236	MTFNR12CA3	B140	
1995000	B966A05100	KC7315	2033920	360.669	H87	2047408	KSEM1550HPM	KC7315	2079654	NG3189R	KC5010	C170
1995002	B966A08600	KC7315	2033921	360.669	H87	2047409	KSEM1570HPM	KC7315	2114011	MSKNR10CA3	B115	
1995073	B966A09400	KC7315	2033922	360.669	H87	2047410	KSEM1580HPM	KC7315	2114013	MSKNR12CA4	B115	
1995074	B966A10100	KC7315	2033923	360.669	H87	2047411	KSEM0734HP	KC7315	2114015	MSYNR10CA3	B119	
1995075	B966A11400	KC7315	2033924	360.669	H87	2047412	KSEM1620HPM	KC7315	2114034	CTFPL10CA2	B186, B397	
1995076	B966A12100	KC7315	2033925	360.669	H87	2047413	KSEM0641HP	KC7315	2114041	MTFNR12CA3	B141	
1997389	B966A08100	KC7315	2033926	360.669	H87	2047414	KSEM0656HP	KC7315	2116588	CTFPR10CA2	B186, B397	
1997391	B966A11800	KC7315	2033927	360.669	H87	2047415	KSEM0672HP	KC7315	2193621	MTFNL16CA3	B140	
1998276	CNGA431E											

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2203486	B966A08400 KC7315	G131	2227133	ODG6236ISGB KCPK30	U10	2238524	KSEM0547R3SS075	H77	2244914	VNMG432MS KC5010	B147
2203489	B977A03900 KC7315	G134	2227145	SNHX1102PZTNGP KCPK30	U15	2238525	KSEM0563R3SS075	H77	2244916	VNMG4305MS KC5010	B160
2203577	B977A12600 KC7315	G137	2227147	SNHX1203PZTNGP KCPK30	U15	2238526	KSEM0578R3SS075	H77	2244917	VNMG431MS KC5010	B160
2203579	B977A07100 KC7315	G135	2227149	SNHX12L4PZTNGP KCPK30	U15	2238527	KSEM0594R3SS075	H77	2244918	VNMG432MS KC5010	B160
2203787	B977A16200 KC7315	G138	2227150	SNHX12L5PZTNGP KCPK30	U15	2238528	KSEM0609R3SS075	H77	2244919	VNMG433MS KC5025	B52
2203834	B977A08700 KC7315	G136	2227155	SPHX1205PCEPGRB KCPK30	S68	2238529	KSEM0625R3SS075	H77	2244920	VNMG434MS KC5025	B52
2204358	B966A13300 KC7315	G132	2227156	SPHX1205PCEPGRB KCPK30	S69	2238530	KSEM0634R3SS075	H77	2244921	VNMG435MS KC5025	B52
2204393	CBTF150R2WD20N2M	J114	2227157	SPHX1205PCEPGRB KCPK30	S68	2238531	KSEM0641R3SS075	H77	2244922	VNMG436MS KC5025	B52
2204394	CBTF160R2WD20N2M	J114	2227159	SPHX1205PCEPGRB KCPK30	S65	2238532	KSEM0656R3SS075	H77	2244923	VNMG437MS KC5025	B52
2204395	CBTF170R2WD20N2M	J114	2227160	SPHX1205PCEPGRB KCPK30	S65	2238533	KSEM0672R3SS075	H77	2244924	VNMG438MS KC5025	B52
2204396	CBTF200R2WD20N2M	J114	2227164	SPHX15T6ZCERPG KCPK30	S71	2238534	KSEM0688R3SS075	H77	2244929	VNMG441MS KC5025	B82
2204397	CBTF210R2WD20N2M	J114	2227165	SPHX15T6ZCERPG KCPK30	S71	2238535	KSEM0703R3SS075	H77	2244930	VNMG442MS KC5025	B82
2204398	CBTF220R2WD20N2M	J114	2227338	B966A10300 KC7315	G131	2238536	KSEM0719R3SS075	H77	2244931	VNMG443MS KC5025	B82
2204399	CBTF220R2WD20N2M	J114	2227374	OFKT64AFEN6GB KC520M	S52	2238537	KSEM0734R3SS075	H77	2244932	VNMG444MS KC5025	B103
2204400	CBTF230R2WD20N3M	J114	2227380	OFKT64AFEN6GB KC520M	S52	2238538	KSEM0750R3SS075	H77	2244936	VNMG445MS KC5025	B103
2204401	CBTF250R2WD20N3M	J114	2227984	B976A12800 KC7315	G137	2238539	KSEM0781R3SS100	H77	2244937	VNMG446MS KC5025	B125
2204402	CBTF340R2WD32N3M	J114	2228362	B977A05900 KC7315	G135	2238540	KSEM0759R3SS075	H77	2244938	VNMG447MS KC5025	B125
2204403	CBTF350R2WD32N3M	J114	2229054	B977A19200 KC7315	G138	2238541	KSEM0766R3SS100	H77	2244939	VNMG448MS KC5025	B125
2204404	CBTF380R2WD32N3M	J114	2229055	B966A10800 KC7315	G131	2238542	KSEM0781R3SS100	H77	2244940	VNMG449MS KC5025	B125
2204405	CBTF180R2WD20N2M	J114	2229138	B977A13300 KC7315	G137	2238543	KSEM0797R3SS100	H77	2244941	VNMG450MS KC5025	B125
2204406	CBTF230R2WD20N2M	J114	2229285	THW3M	U28-29, U35-37	2238544	KSEM0813R3SS100	H77	2244942	VNMG451MS KC5025	B125
2204407	CBTF250R2WD20N2M	J114	2229362	B256A16000 KC7315	G58	2238545	KSEM0844R3SS100	H77	2244943	VNMG452MS KC5025	B147
2204408	CBTF240R2WD20N3M	J114	2229364	B256A13500 KC7315	G58	2238546	KSEM0859R3SS100	H77	2244944	VNMG453MS KC5025	B147
2204409	CBTF270R2WD20N3M	J114	2229365	B256A11000 KC7315	G58	2238547	KSEM0875R3SS100	H77	2244945	VNMG454MS KC5025	B147
2210084	LNQ1245R04 KCPK30	U20	2229366	B256A14000 KC7315	G58	2238548	KSEM0875R3SS125	H77	2244953	VNMG455MS KC5025	B160
2210086	LNQ1245R04 KCPK30	U19	2229393	B256A08800 KC7315	G58	2238549	KSEM0884R3SS100	H77	2244954	VNMG456MS KC5025	B160
2210095	SDET43PDSR8GB KCPK30	T116, T123, U39	2229412	OFKT64AFEN6GB KCPK30	S52	2238550	KSEM0906R3SS100	H78	2244955	VNMG457MS KC313	B52
2210766	OFPT64AFEN6GB KCPK30	S52	2229543	OFKT64AFEN6GB KC522M	S52	2238551	KSEM0922R3SS100	H78	2244958	VNMG458MS KC313	B52
2210767	OFPT64AFEN6GB KCPK30	S52	2229547	CNGG431FS KC5010	B46	2238552	KSEM0938R3SS100	H78	2244965	VNMG459MS KC313	B82
2212773	OFKT64AFEN6GB KC522M	S52	2229549	CNGG432FS KC5025	B46	2238553	KSEM0969R3SS100	H78	2244966	VNMG460MS KC313	B82
2213696	B966A03300 KC7315	G130	2229550	CNGG432FS KC5025	B46	2238554	KSEM0984R3SS100	H78	2244977	VNMG461MS KC313	B125
2213700	B966A04300 KC7315	G130	2229551	CNGG432FS KC5025	B46	2238555	KSEM1000R3SS100	H78	2244981	VNMG462MS KC313	B125
2213701	B966A04400 KC7315	G130	2229552	DNGG4305FS KC5010	B77	2238556	KSEM1011R3SS125	H78	2244983	VNMG463MS KC313	B147
2213842	193.409	S50, V155-156	2229544	DNGG431FS KC5010	B77	2238558	KSEM1031R3SS125	H78	2244984	VNMG464MS KC313	B147
2213947	VNMG332RP KC5010	B161	2229645	DNGG431FS KC5025	B77	2238560	KSEM1063R3SS125	H78	2244989	VNMG465MS KC313	B160
2213962	CCMT433MF KC5025	B191	2229646	DNGG432FS KC5010	B77	2238562	KSEM1109R3SS125	H78	2244990	VNMG466MS KC313	B160
2214237	B978A15200 KC7315	G141	2229648	CNMG4305MS KC5010	B52	2238563	KSEM1125R3SS125	H78	2245036	VNMG467MS KC5010	B127
2214926	B966A11300 KC7315	G131	2229649	CNMG4305MS KC5025	B52	2238564	KSEM1156R3SS125	H78	2245037	VNMG468MS KC5010	B127
2217005	B966A07700 KC7315	G131	2229651	CNMG4305MS KC5010	B52	2238565	KSEM1172R3SS125	H78	2245045	VNMG469MS KC5025	B53
2217646	NTB3L12B KC5010	D18	2229652	CNMG4305MS KC5025	B52	2238566	KSEM1188R3SS125	H78	2245046	VNMG470MS KC5025	B53
2217647	NTB3R12B KC5010	D18	2229653	CNMG431MS KC313	B52	2238568	KSEM1219R3SS125	H78	2245048	VNMG471MS KC5025	B53
2217898	B976A13300 KC7315	G137	2229654	CNMG431MS KC5010	B52	2238569	KSEM1250R3SS125	H78	2245049	VNMG472MS KC5025	B53
2218437	SNHX1103T KCPK30	U14	2229655	CNMG431MS KC5025	B52	2238570	KSEM1250R3SS150	H78	2245050	VNMG473MS KC5025	B53
2218492	B977A09200 KC7315	G136	2229656	CNMG432MS KC313	B52	2238571	KSEM1281R3SS150	H78	2245051	VNMG474MS KC5025	B53
2220306	LNQ1245R04 KCK15	U20	2229657	CNMG432MS KC5010	B52	2238572	KSEM1297R3SS150	H78	2245053	VNMG475MS KC5025	B84
2220307	LNQ1250R04 KCK15	U20	2229659	CNMG432MS KC5025	B52	2238573	KSEM1313R3SS150	H78	2245056	VNMG476MS KC5025	B84
2220308	LNQ1255R04 KCK15	U20	2229660	DNMG431MS KC313	B82	2238574	KSEM1328R3SS150	H78	2245059	VNMG477MS KC5025	B105
2220309	LNQ1260R04 KCK15	U20	2229661	DNMG431MS KC5010	B82	2238576	KSEM1375R3SS150	H78	2245060	VNMG478MS KC5025	B105
2220334	SPG322 KCK15	B171	2229662	DNMG431MS KC5025	B82	2238577	KSEM1406R3SS150	H78	2245063	VNMG479MS KC5025	B105
2220855	B966A06100 KC7315	G130	2229663	DNMG432MS KC313	B82	2238579	KSEM1438R3SS150	H78	2245064	VNMG480MS KC5025	B105
2220856	B966A06600 KC7315	G131	2229694	DNMG432MS KC5010	B82	2238581	KSEM1500R3SS150	H78	2245065	VNMG481MS KC5025	B127
2220857	B966A14800 KC7315	G132	2229695	DNMG432MS KC5025	B82	2238582	KSEM1514R3SS150	H78	2245066	VNMG482MS KC5025	B127
2221944	OFPT64AFEN6GB KCK15	S52	2229696	VNMG331MS KC5010	B147	2239620	DCMT3252FW KT315	B225	2245067	VNMG483MS KC5025	B127
2221945	OFPT64AFEN6GB KCK15	S52	2229697	VNMG331MS KC5025	B147	2239685	DCMT3251FW KC5010	B225	2245074	VNMG484MS KC5025	B148
2222651	B976A08600 KC7315	G136	2230406	B977A14200 KC7315	G137	2240351	B977A10300 KC7315	G136	2245076	VNMG485MS KC5025	B161
2223775	KSEM0493R1SSF075F45	H86	2230539	B977A06700 KC7315	G135	2240426	HNEN0905XNSN KY3500	S79	2245079	VNMG486MS KC5025	B84
2223776	KSEM0532R1SSF075F45	H86	2231579	B966A07200 KC7315	G131	2240427	HNEN0905ANSN KY3500	S79	2245088	VNMG487MS KC5025	B105
2223777	KSEM0571R1SSF075F45	H86	2231776	B976A06600 KC7315	G135	2242390	B966A05600 KC7315	G130	2245091	B977A09900 KC7315	G136
2223778	KSEM0625R1SSF075F45	H86	2231777	B976A08300 KC7315	G136	2242780	B978A06600 KC7315	G139	2245263	B977A15900 KC7315	G138
2223779	KSEM0709R1SSF075F45	H86	2231778	B976A09600 KC7315	G136	2244229	B977A08100 KC7315	G136	2245484	A4SMR2525M0620	C124
2223780	KSEM0788R1SSF100F45	H86	2231830	B966A12300 KC7315	G132	2244276	B977A18800 KC7315	G138	2245485	A4SMR2525M0820	C124
2223781	KSEM0867R1SSF100F45	H86	2233364	B977A16600 KC7315	G138	2244883	CNMG433MS KC5010	B52	2245486	A4SMR2525M0620	C125
2223782	KSEM0945R1SSF100F45	H86	2234423	OFKT64AFEN6GB KCPK30	S52	2244884	CNMG434MS KC5010	B52	2245487	A4SMR2525M0820	C125
2223993	KSEM1024R1SSF125F45	H86	2234816	A4C0405N00CF02 KC5025	C112	2244885	CNMG435MS KC5010	B52	2245738	SPHX06020R20 KC7215	J115
2223994	KSEM1103R1SSF125F45	H86	2234819	A4C0305R10CF02 KC5025	C113	2244886	CNMG436MS KC5010	B52	2245739	SPHX06020R20 KC7215	J115
2223995	KSEM1182R1SSF125F45	H86	2234821	A4C0405R10CF02 KC5025	C113	2244887	CNMG437MS KC5010	B52	2245740	SPHX06020R20 KC7215	J115
2223996	KSEM1260R1SSF125F45	H86	2234823	A4R0305M30U00GMN KC5025	C107	2244888	CNMG438MS KC5010	B52	2245741	SPHX07030R20 KC7215	J115
2223997	KSEM1418R1SSF125F45	H86	2234824	A4R0305M30U00GMN KC5010	C107	2244891	DNMG4305MS KC5010	B82	2245742	SPHX07030R20 KC7215	J115
2224587	B976A05600 KC7315	G135	2234825	A4R0300M3P00GMP KC5025	C106	2244892	DNMG433MS KC5010	B82	2245833	SPHX07030R20 KC7215	J115
2224588	B976A09100 KC7315	G136	2234826	A4R0300M3P00GMP KC5010	C106	2244893	DNMG441MS KC5010	B82	2245834	SPHX07031R20 KC7215	J115
2226032	VNMG6331MS K313	B147	2235052	50A03RP90BG15CUM	S121	2244894	DNMG442MS KC5010	B82	2245836	SPHX09031R20 KC7215	J115
2226630	B976A14100 KC7315	G137	2235053	63A03RP90BG15CUM	S121	2244896	CNMG432MS KC5010	B103	2245837	SPHX09031R20 KC7215	J115
2226662	B977A12900 KC7315	G137	2235054	80A03RP90BG15CUM	S121	2244897	CNMG433MS KC5010	B103	2245839	SPHX120410R20 KC7	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2273388	EP1848E KC725M	T83	2383596	SDCT433PDFL8LE KC410M	T114, T121, U38, V143	2390275	SPET3125PPER8GB2 KCPK30	T111, U31	2398772	A4M50L0314B090160	C142
2274469	NG2062R KC5010	C170	2383597	SDCT434FNLE KC410M	T114, T121, U38, V143	2390276	SPET3125PPER8GB2 KC520M	T111, U31	2398773	A4M50L0314B130300	C142
2274946	A4G125I03P05GMN KC5025	C107	2383598	SDCT435FNLE KC410M	T114, T121, U38, V143	2390277	SPET3125PPSR8GB2 KC725M	T111, U31	2398774	A4M50R0414B290999	C142
2274947	A4G125I03P1GMN KC5025	C107	2383599	SDCT436FNLE KC410M	T114, T121, U38, V143	2390278	SPET3125PPSR8GB2 KCK15	T111, U31	2398775	A4M50R0414B048072	C141
2274949	A4G187I04P2GMN KC5025	C107	2383600	SDCT438FNLE KC410M	T114, T121, U38, V143	2390279	SPET3125PPSR8GB2 KCPK30	T111, U31	2398776	A4M50R0414B064100	C141
2275076	A4R125I03P00GMN KC5025	C107	2383601	SPCT31251PPFR8LE KC410M	T110, U30	2390280	SPET3125PPSR8GB2 KC520M	T111, U31	2398777	A4M50R0414B092150	C141
2275077	A4R187I04P00GMN KC5025	C107	2383602	SPCT31251PPFL8LE KC410M	T110, U30	2390281	SDET43PDEL8GB2 KC520M	T115, T122, U39	2398778	A4M50R0414B132300	C141
2275078	A4R250I06P00GMN KC5025	C107	2383603	SPCT3125PPFR8LE KC410M	T110, U30	2390282	SDET43PDEL8GB2 KCK15	T115, T122, U39	2398779	A4M50R0414B290999	C141
2275080	A4R375I10P00GMN KC5025	C107	2383604	SPCT3125PPFL8LE KC410M	T110, U30	2390283	SDET43PDEL8GB2 KCPK30	T115, T122, U39	2398780	A4M50L0414B048072	C142
2275081	A4G125I03P05GMN KC5010	C107	2383605	SPCT31253PPFR8LE KC410M	T110, U30	2390284	SDET43PDEL8GB2 KC725M	T115, T122, U39	2398781	A4M50L0414B064100	C142
2275082	A4G125I03P1GMN KC5010	C107	2383608	SPCT31255FNLE KC410M	T110, U30	2390285	SDET43PDER8GB2 KC520M	T115, T122, U39	2398782	A4M50L0414B092150	C142
2275083	A4G187I04P1GMN KC5010	C107	2383778	B977A06400 KC7315	G135	2390286	SDET43PDER8GB2 KCK15	T115, T122, U39	2398783	A4M50L0414B132300	C142
2275084	A4G187I04P2GMN KC5010	C107	2384123	TPGX1102ZPRGD KC7140	H85	2390287	SDET43PDER8GB2 KCPK30	T115, T122, U39	2398784	A4M50L0414B290999	C142
2275085	A4G250I06P1GMN KC5010	C107	2384124	TPGX1303ZPRGD KC7140	H85	2390288	SDET43PDER8GB2 KC725M	T115, T122, U39	2398785	A4M50R0519B058094	C141
2275086	A4G250I06P2GMN KC5010	C107	2384125	TPGX1603ZPRGD KC7140	H85	2390289	SDET43PDER8GB2 KC520M	T115, T122, U39	2398786	A4M50R0519B080136	C141
2275087	A4G312I08P1GMN KC5010	C107	2384430	B977A12100 KC7315	G137	2390290	SDET43PDSR8GB2 KCK15	T115, T122, U39	2398787	A4M50R0519B132300	C141
2275089	A4G375I10P1GMN KC5010	C107	2384504	STN1018UNI KC635M	W44	2390291	SDET43PDSR8GB2 KCPK30	T115, T122, U39	2398788	A4M50L0519B250999	C142
2275090	A4G375I10P2GMN KC5010	C107	2384505	STN1020UNI KC635M	W44	2390292	SDET43PDSR8GB2 KC725M	T115, T122, U39	2398789	A4M50L0519B250999	C142
2275091	A4R125I03P00GMN KC5010	C107	2384509	STN1114UNI KC635M	W44	2390293	SDET43PDEL8GB2 KC520M	T115, T122, U39	2398790	A4M50L0519B080136	C142
2275092	A4R187I04P00GMN KC5010	C107	2384510	STN1116UNI KC635M	W44	2390294	SDET433PDEL8GB2 KCK15	T115, T122, U39	2398791	A4M50L0519B120300	C142
2275093	A4R250I06P00GMN KC5010	C107	2384511	STN1118UNI KC635M	W44	2390295	SDET43PDER8GB2 KC520M	T115, T122, U39	2398792	A4M50L0519B250999	C142
2275452	B978A19800 KC7315	G141	2384512	STN1120UNI KC635M	W44	2400680	KSSP200R3SD43L168	T120	2399462	KM25NER230	D30
2275583	MS2148	T63-64, T107-109, U25-29	2384513	STN1124UNI KC635M	W44	2400681	KSSP250R3SD43L200	T120	2399494	KM25NER330	D30
2276088	B976A04300 KC7315	G135	2384514	STN1124UNI KC635M	W44	2400682	KSSP300R3SD43L240	T120	2399496	KM25NER430	D30
2276090	B977A18400 KC7315	G138	2384515	STN1161UNI KC635M	W44	2400683	KSSP300R3SD43L240	T120	2399497	KM25NER430	D30
2276698	B977A18600 KC7315	G138	2384516	STN1161UNI KC635M	W44	2400684	KSSP300R3SD43L240	T120	2399498	KM25NER430	D30
2277900	VBMT221L KC5025	B281	2384517	STN1161UNI KC635M	W44	2400685	KSSP300R3SD43L240	T120	2399499	KM25NSR230	D30
2383518	TPGX0902ZPRGD KC7315	H85	2384518	STN1161UNI KC635M	W44	2400686	KSSP300R3SD43L240	T120	2399500	KM25NSR330	D30
2383519	TPGX1102ZPRGD KC7315	H85	2384519	STN1161UNI KC635M	W44	2400687	KSSP300R3SD43L240	T120	2399501	KM25NSR330	D30
2383520	TPGX1303ZPRGD KC7315	H85	2384520	STN1161UNI KC635M	W44	2400688	KSSP300R3SD43L240	T120	2399502	KM25NSR330	D30
2383521	TPGX1603ZPRGD KC7315	H85	2384521	STN1161UNI KC635M	W44	2400689	KSSP300R3SD43L240	T120	2399503	KM25NSL430	D30
2383522	TPGX0902ZPRGD KC7140	H85	2384522	STN1161UNI KC635M	W44	2400690	KSSP300R3SD43L240	T120	2399504	KM25SSR1630	D77
2383552	B977A06350 KC7315	G135	2384523	STN1161UNI KC635M	W44	2400691	KSSP300R3SD43L240	T120	2399505	KM25SSR1630	D77
2383555	SDCT431PDER8LD2 KC725M	T115, T122, U38	2384524	STN1161UNI KC635M	W44	2400692	KSSP300R3SD43L240	T120	2399506	KM25SLER1630	D77
2383556	SDCT431PDEL8LD2 KC725M	T115, T122, U38	2384961	H40MCLN4	B76	2400693	KSSP300R3SD43L240	T120	2399507	KM25SLER1630	D77
2383557	SDCT43PDEL8LD2 KC725M	T115, T122, U38	2384973	H40MCLNR4	B76	2400694	KSSP300R3SD43L240	T120	2399508	KM25SLER1630	D77
2383558	SDCT433PDER8LD2 KC725M	T115, T122, U38	2384977	H40MVUNR3	B155	2400695	KSSP300R3SD43L240	T120	2399509	KM25SLER1630	D77
2383559	SDCT433PDEL8LD2 KC725M	T115, T122, U38	2384978	H40MVUNL3	B155	2400696	KSSP300R3SD43L240	T120	2399510	KM25SLER1630	D77
2383560	SDCT434ENLD2 KC725M	T115, T122, U38	2384979	H32MVUNR3	B155	2400697	KSSP300R3SD43L240	T120	2399511	KM25SLER1630	D77
2383561	SDCT435ENLD2 KC725M	T115, T122, U38	2384980	H32MVUNL3	B155	2400698	KSSP300R3SD43L240	T120	2399512	KM25SLER1630	D77
2383562	SDCT436ENLD2 KC725M	T115, T122, U38	2385356	B976A05100 KC7315	G135	2400699	KSSP300R3SD43L240	T120	2399513	KM25SLER1630	D77
2383583	SDCT438ENLD2 KC725M	T115, T122, U38	2386534	420.162	S32	2400700	KSSP300R3SD43L240	T120	2399514	KM25SLER1630	D77
2383584	SPCT31251PPER8LD2 KC725M	T111, U30	2386665	B977A19700 KC7315	G138	2400701	KSSP300R3SD43L240	T120	2399515	KM25SLER1630	D77
2383585	SPCT31251PPFL8LD2 KC725M	T111, U30	2388424	DT8P	W4-5, W10-13, W17-19, W24-25	2400702	KSSP300R3SD43L240	T120	2399516	KM25SLER1630	D77
2383586	SPCT3125PPFL8LD2 KC725M	T111, U30	2388784	B976A10800 KC7315	G137	2400703	KSSP300R3SD43L240	T120	2399517	KM25SLER1630	D77
2383587	SPCT31253PPER8LD2 KC725M	T111, U30	2389802	PMT04525	C71, C149	2400704	KSSP300R3SD43L240	T120	2399518	KM25SLER1630	D77
2383588	SPCT31253PPFL8LD2 KC725M	T111, U30	2390123	B977A08300 KC7315	G136	2400705	KSSP300R3SD43L240	T120	2399519	KM25SLER1630	D77
2383589	SPCT31254ENLD2 KC725M	T111, U30	2390253	SDCT43PDER8LD2 KC725M	T115, T122, U38	2400706	KSSP300R3SD43L240	T120	2399520	KM25SLER1630	D77
2383590	SPCT31255ENLD2 KC725M	T111, U30	2390254	SPCT3125PPER8LD2 KC725M	T111, U30	2400707	KSSP300R3SD43L240	T120	2399521	KM25SLER1630	D77
2383591	SDCT431PFR8LE KC410M	T114, T121, U38, V143	2390256	SECT443AEEN7LD2 KC725M	S40	2400708	KSSP300R3SD43L240	T120	2399522	KM25SLER1630	D77
2383592	SDCT431PDFL8LE KC410M	T114, T121, U38, V143	2390257	SEKT443AEEN7GP2 KC725M	S40	2400709	KSSP300R3SD43L240	T120	2399523	KM25SLER1630	D77
2383593	SDCT43PDFR8LE KC410M	T114, T121, U38, V143	2390258	SEKT443AEEN7GP2 KC520M	S40	2400710	KSSP300R3SD43L240	T120	2399524	KM25SLER1630	D77
2383594	SDCT43PDFL8LE KC410M	T114, T121, U38, V143	2390259	SEKT443AEEN7GP2 KCK15	S40	2400711	KSSP300R3SD43L240	T120	2399525	KM25SLER1630	D77
2383595	SDCT433PDFR8LE KC410M	T114, T121, U38, V143	2390260	SEKT443AEEN7GP2 KCPK30	S40	2400712	KSSP300R3SD43L240	T120	2399526	KM25SLER1630	D77
2390275	SPET3125PPER8GB2 KCPK30	T111, U31	2390261	SEKT443AESN7GP2 KC725M	S40	2400713	KSSP300R3SD43L240	T120	2399527	KM25SLER1630	D77
2390276	SPET3125PPER8GB2 KC520M	T111, U31	2390262	SEKT443AESN7GP2 KC520M	S40	2400714	KSSP300R3SD43L240	T120	2399528	KM25SLER1630	D77
2390277	SPET3125PPSR8GB2 KC725M	T111, U31	2390263	SEKT443AESN7GP2 KCK15	S40	2400715	KSSP300R3SD43L240	T120	2399529	KM25SLER1630	D77
2390278	SPET3125PPSR8GB2 KCK15	T111, U31	2390264	SEKT443AESN7GP2 KCPK30	S40	2400716	KSSP300R3SD43L240	T120	2399530	KM25SLER1630	D77
2390279	SPET3125PPSR8GB2 KCPK30	T111, U31	2390265	SPET3125PPFL8GB2 KC725M	T111, U31	2400717	KSSP300R3SD43L240	T120	2399531	KM25SLER1630	D77
2390280	SPET3125PPSR8GB2 KC520M	T111, U31	2390266	SPET3125PPFL8GB2 KCK15	T111, U31	2400718	KSSP300R3SD43L240	T120	2399532	KM25SLER1630	D77
2390281	SDET43PDEL8GB2 KC520M	T115, T122, U39	2390267	SPET3125PPFL8GB2 KCPK30	T111, U31	2400719	KSSP300R3SD43L240	T120	2399533	KM25SLER1630	D77
2390282	SDET43PDEL8GB2 KCK15	T115, T122, U39	2390268	SPET3125PPFL8GB2 KC520M	T111, U31	2400720	KSSP300R3SD43L240	T120	2399534	KM25SLER1630	D77
2390283	SDET43PDEL8GB2 KCPK30	T115, T122, U39	2390269	SPET3125PPSL8GB2 KC725M	T111, U31	2400721	KSSP300R3SD43L240	T120	2399535	KM25SLER1630	D77
2390284	SDET43PDEL8GB2 KC725M	T115, T122, U39	2390271	SPET3125PPSL8GB2 KCPK30	T111, U31	2400722	KSSP300R3SD43L240	T120	2399536	KM25SLER1630	D77
2390285	SDET43PDER8GB2 KC520M	T115, T122, U39	2390273	SPET3125PPER8GB2 KC725M	T111, U31	2400723	KSSP300R3SD43L240	T120	2399537	KM25SLER1630	D77
2390286	SDET43PDER8GB2 KCK15	T115, T122, U39	2390274	SPET3125PPER8GB2 KCK15	T111, U31	2400724	KSSP300R3SD43L240	T120	2399538	KM25SLER1630	D77
2390287	SDET43PDER8GB2 KCPK30	T115, T122, U39	2390275	SPET3125PPER8GB2 KCPK30	T111, U31	2400725	KSSP300R3SD43L240	T120	2399539	KM25SLER1630	D77
2390288	SDET43PDER8GB2 KC725M	T115, T122, U39	2390276	SPET3125PPER8GB2 KC520M	T111, U31	2400726	KSSP300R3SD4				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2405208	KTIP115R3SCF16M	H40	2408520	A24UDCLNR4KC3	B68	2425773	CCMT3251LF KC5025	B191	2435188	WLFNL32CA19S	E61
2405209	KTIP120R3SCF16M	H40	2408521	A24UDCLNR5KC4	B68	2425775	CCMT431LF KC5025	B191	2435196	KSEM3800PCM KC7135	H70, H11
2405210	KTIP125R3SCF16M	H40	2408522	A28UDCLNR4KC3	B68	2425779	CPMT18151LF KC5025	B207	2435297	CNMG431P KC5010	B52
2405211	KTIP130R3SCF16M	H40	2408523	A32VDCLNR4KC3	B68	2425780	CPMT21505LF KC5025	B207	2435298	CNMG432P KC5010	B52
2405212	KTIP135R3SCF16M	H40	2408524	A32VDCLNR5KC4	B68	2425781	CPMT2151LF KC5025	B207	2435299	CNMG433P KC5010	B52
2405213	KTIP140R3SCF16M	H40	2408526	A40VDCLNR4KC3	B68	2425782	CPMT2152LF KC5025	B207	2435301	DNMG431P KC5010	B83
2405214	KTIP145R3SCF16M	H40	2408527	A40VDCLNR6KC4	B68	2425784	CPMT3251LF KC5025	B207	2435302	CNMG432P KC5010	B83
2405215	KTIP150R3SCF20M	H40	2408528	A16TDDUNL3KC3	B92	2425785	CPMT3252LF KC5025	B207	2435315	TNMG331P KC5010	B126
2405216	KTIP160R3SCF20M	H40	2408544	A24JDDPNL4KC3	B91	2425786	DCMT21505LF KC5025	B225	2435320	WNMG331P KC5010	B147
2405248	KTIP080R5SCF12M	H40	2408545	A20UDDPNR4KC3	B91	2425788	DCMT431LF KC5025	B225	2435321	VNMG332P KC5010	B147
2405249	KTIP085R5SCF12M	H40	2408546	A24UDDPNR4KC3	B91	2425789	DCMT432LF KC5025	B225	2435322	WNMG431P KC5010	B160
2405250	KTIP090R5SCF12M	H40	2408547	A20UDDQNL4KC3	B91	2425790	DPMT21505LF KC5025	B232	2435323	WNMG432P KC5010	B160
2405251	KTIP095R5SCF12M	H40	2408548	A24UDDQNL4KC3	B91	2425791	DPMT2151LF KC5025	B232	2435325	DNMG442P KC5010	B83
2405252	KTIP100R5SCF16M	H40	2408549	A20UDDQNR4KC3	B91	2425793	DPMT3251LF KC5025	B232	2436719	B978A1 1300 KC7315	G140
2405273	KTIP105R5SCF16M	H40	2408550	A24UDDQNR4KC3	B91	2425794	DPMT3252LF KC5025	B232	2436798	DPMT3251LF KC7315	G141
2405274	KTIP110R5SCF16M	H40	2412903	RCGT86ELF KCPK30	V92	2425795	SCMT3251LF KC5025	B246	2438407	NG3125R KC5010	C170
2405275	KTIP115R5SCF16M	H40	2414136	A4ENN2020K0305	C131	2425796	SCMT3252LF KC5025	B246	2438408	NG3125R KC5025	C170
2405276	KTIP120R5SCF16M	H40	2414137	A4ENN2525M0305	C131	2425798	SCMT432LF KC5025	B246	2438663	BGH15L5PCTRHET KD1410	S124
2405277	KTIP125R5SCF16M	H40	2414138	A4ENN120305	C130	2425800	SPMT3251LF KC5025	B252	2438664	BGH15L5PCTRHET KD1410	S125
2405278	KTIP130R5SCF16M	H40	2414139	A4ENN160305	C130	2425801	SPMT3252LF KC5025	B252	2438665	BGH15L504ERGET KD1415	S125
2405279	KTIP135R5SCF16M	H40	2416198	B977A16400 KC7315	G138	2425802	TCMT21505LF KC5025	B257	2440526	KTIP085R8PM10M	H38
2405280	KTIP140R5SCF16M	H40	2416279	B977A04100 KC7315	G134	2425803	TCMT2151LF KC5025	B257	2440527	KTIP160R8SS18M	H38
2405281	KTIP145R5SCF16M	H40	2417292	DCLNR123BK3	B59	2425804	TCMT2152LF KC5025	B257	2442348	RCGT64SHF KCPK30	V89
2405282	KTIP150R5SCF20M	H40	2417293	DCLNL123BK3	B59	2425805	TCMT32505LF KC5025	B257	2442642	B978A09100 KC7315	G140
2405283	KTIP160R5SCF20M	H40	2417294	DCLNR163DKC3	B59	2425806	TCMT3251LF KC5025	B257	2443608	KTIP0472R8SS050	H39
2405361	SEPT443AEEN7GB2 KC725M	S41	2417295	DCLNL163DKC3	B59	2425807	TCMT3252LF KC5025	B257	2444419	RCGT325F KC5010	E69
2405362	SEPT443AEEN7GB2 KCK15	S41	2417433	IRSN64 K9	B98	2425809	TCMT432LF KC5025	B257	2444420	RCGT325F KC5010	E69
2405373	SEPT443AEEN7GB2 KCPK30	S41	2419790	B976A12300 KC7315	G137	2425811	TPMT18151LF KC5025	B268	2444424	RCGT325F KC5025	E69
2405375	SEPT443AEEN7GB2 KC725M	S41	2421384	SSY5T K9	D76, D78-79	2425813	TPMT2152LF KC5025	B268	2445393	KMSP4515P	B68
2405376	SEPT443AEEN7GB2 KCK15	S41	2421386	SSA5T	D76, D78-79	2425814	TPMT3251LF KC5025	B268	2445394	KMSP515P	B68
2405377	SEPT443AEEN7GB2 KCPK30	S41	2424997	B967A12500 KC7315	G132	2425815	TPMT3252LF KC5025	B268	2446615	RPV45 KC5010	B167
2405379	SPPT3125PPR8GB2 KCK15	T112, U31	2425000	B967A09000 KC7315	G131	2425817	TPMT432LF KC5025	B268	2446618	RPV23 KC5010	B167
2405380	SPPT3125PPR8GB2 KCPK30	T112, U31	2425052	B967A10800 KC7315	G131	2425818	VBMT222LF KC5025	B281	2447377	EC1808E2 KC522M	T82
2405381	SPPT3125PPSR8GB2 KCK15	T112, U31	2425073	B967A08500 KC7315	G131	2425819	VBMT3305LF KC5025	B281	2447380	EC1848E KC522M	T82
2405382	SPPT3125PPSR8GB2 KCPK30	T112, U31	2425113	B966A04100 KC7315	G130	2425820	WPMT15121LF KC5025	B288	2449473	KSEM2600HPGM KC7315	H55
2405383	SPPT3125PPSR8GB2 KTKP20	T112, U31	2425114	B966A04900 KC7315	G130	2425821	WPMT2151LF KC5025	B288	2449475	KSEM3000HPGM KC7315	H55
2405384	SDPT43PDER8GB2 KC725M	T116, T123, U39	2425115	B966A05400 KC7315	G130	2425825	WCMT3252LF KC5025	B286	2449476	KSEM4000HPGM KC7315	H55
2405385	SDPT43PDER8GB2 KCK15	T116, T123, U39	2425117	B966A03600 KC7315	G130	2425826	CNMG431RP KC5010	B53	2449518	KSEM2500HPGM KC7315	H55
2405386	SDPT43PDER8GB2 KCPK30	T116, T123, U39	2425118	B966A07100 KC7315	G131	2425828	CNMG431RP KC5025	B53	2449924	KSEM1200HPGM KC7315	H54
2405387	SDPT43PDR8GB2 KC725M	T116, T123, U39	2425119	B966A07300 KC7315	G131	2425841	DNGG433FS KC5010	B77	2450291	B707A04000FBG KC7315	G110
2405388	SDPT43PDR8GB2 KCK15	T116, T123, U39	2425120	B966A07600 KC7315	G131	2425843	DCMT2151LF KC5025	B225	2450292	B707A05000FBG KC7315	G110
2405389	SDPT43PDR8GB2 KCPK30	T116, T123, U39	2425143	B966A08700 KC7315	G131	2425844	DCMT32505LF KC5025	B225	2450343	B707A06000FBG KC7315	G110
2405616	KSEM3200PCM KC7135	H70, H11	2425145	B966A08900 KC7315	G131	2425845	DCMT3251LF KC5025	B225	2450344	B707A08000FBG KC7315	G111
2405618	KSEM4000PCM KC7135	H70, H11	2425146	B966A09100 KC7315	G131	2425846	DCMT3252LF KC5025	B225	2450345	B707A13000FBG KC7315	G111
2407294	B977A10100 KC7315	G136	2425149	B966A09700 KC7315	G131	2425847	VBMT331LF KC5025	B281	2450346	B707A20000FBG KC7315	G112
2407297	B978A07700 KC7315	G140	2425151	B966A10900 KC7315	G131	2425848	VBMT332LF KC5025	B281	2450909	KSEM2000HPGM KC7315	H54
2408209	B977A09400 KC7315	G136	2425173	B966A11100 KC7315	G131	2425863	DNMG332MS KC5010	B82	2451576	EC1808E2 KC725M	T83
2408266	B966A03400 KC7315	G130	2425176	B966A11900 KC7315	G132	2425864	DNMG332MS KC5025	B82	2451578	EC1812F KC410M	T81
2408308	B976A09200 KC7315	G136	2425178	B966A12200 KC7315	G132	2425869	WNMG332MS KC5010	B160	2451579	EC1812E KC725M	T83
2408389	A16TDDUNR3KC3	B92	2425203	B966A12400 KC7315	G132	2425870	WNMG332MS KC5025	B160	2451580	EC1824F KC410M	T81
2408390	A20UDDUNR3KC3	B92	2425205	B966A12800 KC7315	G132	2425871	WNMG332MS K313	B160	2451581	EC1840F KC410M	T81
2408391	A20UDDUNR4KC3	B92	2425206	B966A12900 KC7315	G132	2426878	SDET43PDSL8GB2 KCPK30	T115, T122, U39	2451582	EC1840E KC522M	T82
2408392	A24UDDUNR4KC3	B92	2425233	B966A14200 KC7315	G132	2426879	SDET43PDSL8GB2 KCPK30	T115, T122, U39	2451684	EC1848F KC410M	T81
2408464	A32VDDUNR4KC3	B92	2425285	B977A03000 KC7315	G134	2428744	B978A15300 KC7315	G141	2452135	OFKT64AFEN6GB KC725M	S52
2408469	A16TDTFNR3KC3	B138	2425288	B977A03100 KC7315	G134	2429563	STN118NPT KC635M	W46	2452136	OFKT64AFEN6GB KC725M	S52
2408487	A32VDCNKL4KC3	B67	2425290	B977A03200 KC7315	G134	2429564	STN1614NPT KC635M	W46	2452372	M1D100E1802W075L175	T76
2408488	A32VDCNKL5KC4	B67	2425292	B977A03400 KC7315	G134	2429565	STN16115NPT KC635M	W46	2452414	M1D125E1802W100L225	T76
2408494	A20UDSKNL3KC2	B113	2425303	B977A03500 KC7315	G134	2429566	STN16115NPT KC635M	W46	2453684	OPFT53AFEN4GB KC725M	S48
2408503	A16TDCFNK4KC3	B67	2425304	B977A03600 KC7315	G134	2429570	STN118NPT KC635M	W46	2453686	OPFT53AFEN4HB KC725M	S48
2408505	A24UDCFNR4KC3	B67	2425305	B977A03700 KC7315	G134	2429571	STN1614NPTF KC635M	W46	2453687	OPFT53AFEN4GB KC725M	S47
2408507	A16TDCLNL4KC3	B68	2425306	B977A03800 KC7315	G134	2429572	STN16115NPTF KC635M	W46	2453688	OPFT53AFEN4HB KC725M	S47
2408508	A20UDCLNL4KC3	B68	2425309	B977A04400 KC7315	G135	2429575	STN1614NPS KC635M	W46	2455054	B976A06100 KC7315	G135
2408509	A24UDCLNL4KC3	B68	2425310	B977A04700 KC7315	G135	2429576	STN16115NPS KC635M	W46	2455056	B976A07300 KC7315	G136
2408511	A28UDCLNL4KC3	B68	2425311	B977A05400 KC7315	G135	2429577	STN119BSW KC635M	W46	2455057	B976A07700 KC7315	G136
2408512	A32VDCLNL4KC3	B68	2425323	B977A06200 KC7315	G135	2429582	STN119BSW KC635M	W46	2455430	A4R0500M05P00T01025 Ky3500	B321, C110
2408514	A32VDCLNL6KC4	B68	2425324	B977A06300 KC7315	G135	2429587	STN1614BSW KC635M	W46	2455801	OPFT53AFEN4GB KCK15	S48
2408515	A40VDCLNL4KC3	B68	2425325	B977A06600 KC7315	G135	2429588	STN1612BSW KC635M	W46	2455802	OPFT53AFEN4HB KCK15	S48
2408516	A40VDCLNL6KC4	B68	2425326	B977A07300 KC7315	G136	2429589	STN1611BSW KC635M	W46	2455814	OFKT53AFEN4GB KCK15	S47
2408517	A16TDCLNR3KC2	B68	2425328	B977A07900 KC7315	G136	2429593	STN2711BSW KC635M	W46	2455816	OPFT53AFEN4GB KCPK30	S48
2408518	A16TDCLNR4KC3	B68	2425330	B977A07600 KC7315	G136	2429851	CNMG432CT KC5010	B48	2455818	OPFT53AFEN4HB KCPK30	S48
2408519	A20UDCLNR4KC3	B68	2425331	B977A08600 KC7315	G136	2429979	DNMG431CT KC5010	B79	2455819	OPFT53AFEN4GB KCPK30	S47
			2425332	B977A09100 KC7315	G136	2430006	DNMG443CT KC5010	B79	2455820	OFKT53AFEN4HB KCPK30	S47
			2425344	B977A09600 KC7315	G136	2430830	K315A62RF60HN09C	S82	2455821	OPFT53AFEN4GB KC520M	S48
			24								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2456910	DFR140R4WD20M	J12	2499007	DFR240R3WD25M	J11	2499857	KSEM0781HPG KC7315	H54	2511471	A4ENN160811	C130
2456911	DFR145R4WD20M	J12	2499516	B707A11000FBG KC7315	G111	2499858	KSEM0797HPG KC7315	H54	2526351	KG2531ELDJ KC410M	T93
2456912	DFR150R4WD20M	J12	2499607	KSEM0500HPG KC7315	H54	2499859	KSEM0813HPG KC7315	H54	2526385	KG2508ELDJ KC410M	T93
2457733	DFR155R4WD20M	J12	2499608	KSEM0509HPG KC7315	H54	2499860	KSEM0844HPG KC7315	H55	2526387	KG2564ELDJ KC410M	T93
2457734	DFR160R4WD20M	J12	2499609	KSEM0516HPG KC7315	H54	2499861	KSEM0859HPG KC7315	H55	2526757	KG2516ELDJ KC410M	T93
2457735	DFR165R4WD32M	J12	2499610	KSEM0547HPG KC7315	H54	2499862	KSEM0875HPG KC7315	H55	2528269	KSSP200R3SD43W125L169	T119
2457736	DFR170R4WD32M	J12	2499611	KSEM0563HPG KC7315	H54	2499863	KSEM0884HPG KC7315	H55	2530317	M1D150K2502W125L200	T89
2457737	DFR175R4WD32M	J12	2499612	KSEM0578HPG KC7315	H54	2499864	KSEM0922HPG KC7315	H55	2530318	M1D150K2502C125L200	T89
2457738	DFR180R4WD32M	J12	2499723	KSEM1260HPGM KC7315	H54	2499865	KSEM0938HPG KC7315	H55	2530320	M1D150K2502C125L400	T89
2457739	DFR185R4WD32M	J12	2499725	KSEM1280HPGM KC7315	H54	2499866	KSEM0969HPG KC7315	H55	2530322	M1D200K2503C125L200	T89
2457741	DFR195R4WD32M	J12	2499727	KSEM1300HPGM KC7315	H54	2499867	KSEM1000HPG KC7315	H55	2530357	M1D150K2502HSG63L477	T91
2457743	DFR205R4WD32M	J12	2499729	KSEM1320HPGM KC7315	H54	2499868	KSEM1011HPG KC7315	H55	2530374	M1D200K2503CV50L700	T92
2457744	DFR210R4WD32M	J12	2499730	KSEM1350HPGM KC7315	H54	2499869	KSEM1031HPG KC7315	H55	2539334	CM184LP	C185, D25
2457746	DFR230R4WD32M	J12	2499731	KSEM1360HPGM KC7315	H54	2499870	KSEM1047HPG KC7315	H55	2539335	CM185LP	C185, D25
2457747	DFR240R4WD32M	J12	2499732	KSEM1370HPGM KC7315	H54	2499871	KSEM1094HPG KC7315	H55	2541018	KSEM1800PCM KC7135	H70, H11
2458790	OFKT53AFEN4GB KC522M	S47	2499733	KSEM1380HPGM KC7315	H54	2499872	KSEM1109HPG KC7315	H55	2541019	KSEM1850PCM KC7135	H70
2458791	OFKT53AFSN4HB KC522M	S47	2499735	KSEM1400HPGM KC7315	H54	2499873	KSEM1251HPG KC7315	H55	2541020	KSEM2300PCM KC7135	H70, H11
2458833	OFKT53AFFN4LNJ KC410M	S46	2499736	KSEM1410HPGM KC7315	H54	2499874	KSEM1156HPG KC7315	H55	2541133	B707A0700FBG KC7315	G110
2458914	SDET434SNGB2 KCPK30	T115, T122, U39	2499737	KSEM1420HPGM KC7315	H54	2499875	KSEM1172HPG KC7315	H55	2541200	KRDEA046AM	K79
2458915	SDET434SNGB2 KCPK30	T115, T122, U39	2499739	KSEM1440HPGM KC7315	H54	2499876	KSEM1188HPG KC7315	H55	2541201	KRDEA051AM	K79
2458916	SDET434SNGB2 KCPK30	T115, T122, U39	2499740	KSEM1450HPGM KC7315	H54	2499877	KSEM1203HPG KC7315	H55	2541202	KRDEA012AM	K79
2458917	SDET434SNGB2 KCPK30	T115, T122, U39	2499741	KSEM1460HPGM KC7315	H54	2499878	KSEM1219HPG KC7315	H55	2541213	KRDE025010M	K80
2458918	SDET434SNGB2 KCPK30	T115, T122, U39	2499743	KSEM1480HPGM KC7315	H54	2499879	KSEM1250HPG KC7315	H55	2541214	KRDE033010M	K80
2458919	SDET434SNGB2 KCPK30	T115, T122, U39	2499744	KSEM1500HPGM KC7315	H54	2499880	KSEM1281HPG KC7315	H55	2541215	KRDE043010M	K80
2458920	SDET434SNGB2 KCPK30	T115, T122, U39	2499746	KSEM1530HPGM KC7315	H54	2499881	KSEM1297HPG KC7315	H55	2541216	KRDE065012M	K80
2458921	SDET434SNGB2 KCPK30	T115, T122, U39	2499748	KSEM1550HPGM KC7315	H54	2499882	KSEM1313HPG KC7315	H55	2541217	KRCW032A	K80
2458922	SDET436SNGB2 KCPK30	T115, T122, U39	2499749	KSEM1560HPGM KC7315	H54	2499883	KSEM1328HPG KC7315	H55	2541511	KSEM1300PCM KC7135	H70, H11
2458933	SDET436SNGB2 KCPK30	T115, T122, U39	2499750	KSEM1570HPGM KC7315	H54	2499884	KSEM1344HPG KC7315	H55	2541512	KSEM1350PCM KC7135	H70
2458934	SDET436SNGB2 KCPK30	T115, T122, U39	2499751	KSEM1580HPGM KC7315	H54	2499885	KSEM1375HPG KC7315	H55	2541535	B976A05530 KC7315	G135
2458935	SDET436SNGB2 KCPK30	T115, T122, U39	2499753	KSEM1600HPGM KC7315	H54	2499886	KSEM1406HPG KC7315	H55	2541967	M1D100E1802CV40L450	T79
2458937	SDET438SNGB2 KCPK30	T115, T122, U39	2499755	KSEM1620HPGM KC7315	H54	2499887	KSEM1422HPG KC7315	H55	2541969	M1D100E1802B40L450	T80
2458938	SDET438SNGB2 KCPK30	T115, T122, U39	2499757	KSEM1650HPGM KC7315	H54	2499888	KSEM1438HPG KC7315	H55	2541970	M1D125E1803CV40L488	T79
2458939	SDET438SNGB2 KCPK30	T115, T122, U39	2499759	KSEM1700HPGM KC7315	H54	2499889	KSEM1469HPG KC7315	H55	2541972	M1D150E1804CV40L488	T79
2460124	EP1812S KC725M	T85	2499763	KSEM1800HPGM KC7315	H54	2499890	KSEM1500HPG KC7315	H55	2541984	M1D150E1804B40L488	T80
2460125	EP1812S KCPK30	T85	2499765	KSEM1850HPGM KC7315	H54	2499891	KSEM1514HPG KC7315	H55	2542068	KTIPO31R8SS038	H39
2460185	EP1812S KCK15	T85	2499767	KSEM1900HPGM KC7315	H54	2500876	LT16EPA660K KU25T	D52	2542069	KTIPO335R8SS038	H39
2460273	881.252.200	K137-139	2499771	KSEM1950HPGM KC7315	H54	2500931	LT16NRA660K KU25T	D61	2542071	KTIPO354R8SS038	H39
2465988	KSEM2050HPGM KC7315	H54	2499775	KSEM2100HPGM KC7315	H54	2503543	A4ENN2020K0611	C131	2542072	KTIPO374R8SS038	H39
2466477	KSEM3500HPGM KC7315	H55	2499777	KSEM2150HPGM KC7315	H55	2503544	A4ENN2525M0611	C131	2542083	KTIPO374R8SS044	H39
2466478	KSEM3800HPGM KC7315	H55	2499779	KSEM2200HPGM KC7315	H55	2503545	A4ENN2322P0611	C131	2542084	KTIPO394R8SS044	H39
2466598	KSEM3700HPGM KC7315	H55	2499782	KSEM2250HPGM KC7315	H55	2503550	A4SML2020K0317	C125	2542085	KTIPO413R8SS044	H39
2476832	KSSR250SN434M3	S88	2499784	KSEM2350HPGM KC7315	H55	2503551	A4SMR2020K0317	C124	2542086	KTIPO433R8SS044	H39
2476963	KSSR300SN434M4	S88	2499786	KSEM2400HPGM KC7315	H55	2503552	A4SML2020K0417	C125	2542087	KTIPO453R8SS050	H39
2476964	KSSR400SN434M5	S88	2499787	KSEM2450HPGM KC7315	H55	2503553	A4SMR2020K0417	C124	2542088	KTIPO492R8SS050	H39
2479506	M1D125E1404W125L225	T49	2499789	KSEM2500HPGM KC7315	H55	2503554	A4SMR2020K0620	C125	2542089	KTIPO492R8SS056	H39
2479507	M1D100E1403W075L175	T50	2499791	KSEM2550HPGM KC7315	H55	2503555	A4SMR2020K0620	C124	2542090	KTIPO512R8SS056	H39
2479508	M1D100E1403W100L175	T49	2499795	KSEM2700HPGM KC7315	H55	2503556	A4SML2016K0317	C125	2542091	KTIPO532R8SS056	H39
2479509	M1D125E1404S050L157	T53	2499796	KSEM2750HPGM KC7315	H55	2503557	A4SMR2016K0317	C124	2542092	KTIPO551R8SS056	H39
2479510	M1D200E1406S075L157	T53	2499798	KSEM2800HPGM KC7315	H55	2503558	A4SMR2016K0417	C124	2542093	KTIPO571R8SS063	H39
2479512	M1D125E1404W100L225	T50	2499800	KSEM2850HPGM KC7315	H55	2503996	DVJNL123CKC3	B150	2542094	KTIPO591R8SS063	H39
2487433	KSEM1750HPGM KC7315	H54	2499802	KSEM2900HPGM KC7315	H55	2503997	DVJNL123CKC3	B150	2542095	KTIPO630R8SS069	H39
2488036	EC1820FJ KC410M	T81	2499803	KSEM2950HPGM KC7315	H55	2503998	DVJNR163DKC3	B150	2542517	A4M50R0314A036048	C139
2488096	193.433	S44-45	2499807	KSEM3050HPGM KC7315	H55	2503999	DVJNL163DKC3	B150	2542518	A4M50R0314A042058	C139
2488759	S2044CG	T53, T78	2499810	KSEM3100HPGM KC7315	H55	2504000	DVJNR853DKC3	B150	2542519	A4M50R0314A052074	C139
2490989	B976A11300 KC7315	G137	2499811	KSEM3150HPGM KC7315	H55	2504001	DVJNL853DKC3	B150	2542520	A4M50R0314A068100	C139
2494500	KSEM2650HPGM KC7315	H55	2499813	KSEM3200HPGM KC7315	H55	2504002	DVJNR164DKC3	B150	2542521	A4M50R0314A090160	C139
2494501	KSEM3300HPGM KC7315	H55	2499814	KSEM3250HPGM KC7315	H55	2504003	DVJNL164DKC3	B150	2542522	A4M50R0314A130300	C139
2496015	KSEM2133HPGM KC7315	H55	2499818	KSEM3350HPGM KC7315	H55	2504004	DVJNR854DKC3	B150	2542523	A4M50R0314A290999	C139
2496869	M1D300K2503310M1225	T90	2499820	KSEM3400HPGM KC7315	H55	2504005	DVJNL854DKC3	B150	2542524	A4M50L0314A036048	C140
2498749	DFR175R3WD25M	J11	2499822	KSEM3450HPGM KC7315	H55	2504006	DVONR123CKC3	B151	2542527	A4M50L0314A068100	C140
2498750	DFR180R3WD25M	J11	2499824	KSEM3550HPGM KC7315	H55	2504007	DVONL123CKC3	B151	2542528	A4M50L0314A090160	C140
2498751	DFR185R3WD25M	J11	2499826	KSEM3600HPGM KC7315	H55	2504008	DVONR163DKC3	B151	2542529	A4M50L0314A130300	C140
2498752	DFR190R3WD25M	J11	2499828	KSEM3650HPGM KC7315	H55	2504009	DVONL163DKC3	B151	2542530	A4M50L0314A290999	C140
2499003	DFR195R3WD25M	J11	2499831	KSEM3750HPGM KC7315	H55	2504010	DVONR853DKC3	B151	2542531	A4M50R0414A048072	C139
2499004	DFR200R3WD25M	J11	2499834	KSEM3850HPGM KC7315	H55	2504011	DVONL853DKC3	B151	2542532	A4M50R0414A064100	C139
2499005	DFR205R3WD25M	J11	2499835	KSEM3900HPGM KC7315	H55	2504012	DVNN123CKC3	B151	2542533	A4M50R0414A092150	C140
2499006	DFR230R3WD25M	J11	2499836	KSEM3950HPGM KC7315	H55	2504013	DVNN163DKC3	B151	2542534	A4M50R0414A132300	C139
			2499837	OFKT64AFFN6LNJ KC410M	S51	2504014	DVNN853DKC3	B151	2542535	A4M50R0414A290999	C139
			2499843	KSEM0594HPG KC7315	H54	2504015	DVNN164DKC3	B151	2542537	A4M50L0414A064100	C140
			2499844	KSEM0609HPG KC7315	H54	2504223	KSEM1970HPGM KC7315	H54	2542538	A4M50L0414A092150	C140
			2499845	KSEM0625HPG KC7315	H54	2505276	193.407	C130	2542539	A4M50L0414A132300	C140
			2499846	KSEM0634HPG KC7315	H54	2506705	B977A15200 KC7315	G137	2542540	A4M50R0414A290999	C140
			2499847	KSEM0641HPG KC7315	H54	2507899	KSEM1008HPG KC7315	H52	2542541	A4M50R0519A058094	C139
			2499848	KSEM0656HPG KC7315	H54	2509326	EP1808S KC725M	T85	2542542	A4M5	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2544200	SPCT3125PPER8LD2 KC520M	T111, U30	2599509	NR3062L KC5010	C172	2618969	KSSS600ASD43R750	U32	2635436	B977A15300 KC7315	G137
2544413	SDCT43PDER8LD2 KC520M	T115, T122, U38	2599510	NRP3031R KC5010	C169	2619033	B707A05560FBG KC7315	G110	2635710	M1D125E1803W100L225	T76
2545095	OFK64AFEN6LB CKPK30	S51	2599511	NRP3031L KC5010	C169	2620169	B978A04600 KC7315	G139	2636514	B707A12800FBG KC7315	G111
2545097	OFK64AFNS6LB CKPK30	S51	2599512	NRP3047R KC5010	C169	2623070	B707A16000FBG KC7315	G112	2636741	S2160	V87, V91
2546816	BGHX15L5PCRSLET KD1410	S125	2599513	NRP3047L KC5010	C169	2623553	B256A05100 KC7315	G58	2636813	S446CG	V70, V77
2548776	KTIPO08R8SS10M	H38	2599514	NRP3062R KC5010	C169	2623856	M1D075E1402W075L175	T49	2636819	S2162C	S17, S20, S24, S45, S50, V70, V77, V88, V141
2548777	KTIPO90R8SS10M	H38	2599515	NRP3062L KC5010	C169	2623857	M1D100E1402W100L175	T49	2636820	S2163C	S10, S14, S58, V77, V88, V91, V141
2548778	KTIPO95R8SS10M	H38	2599516	NRP3094R KC5010	C169	2623858	M1D125E1403W100L225	T50	2636821	S2164C	T90, V91
2548779	KTIPI00R8SS12M	H38	2599519	NG3047R KC5025	C170	2623859	M1D150E1405W125L225	T50	2636822	S445CG	S17, S20, T53, T78, T90, V54, V88, V91, V141
2548780	KTIPI05R8SS12M	H38	2599521	NG3062R KC5025	C170	2624188	M1D075E1402W075L175DE	T51	2636823	S458CG	S17, S20, S24, T90, V54, V88, V91, V141
2548781	KTIPI10R8SS12M	H38	2599522	NG3062L KC5025	C170	2624189	M1D097E1403W100L175	T49			
2548782	KTIPI15R8SS12M	H38	2599523	NG3094R KC5025	C170	2624190	M1D100E1403C100L750	T52			
2548913	KTIPI20R8SS14M	H38	2599524	NG3094L KC5025	C170	2624191	M1D100E1403W100L175DE	T51			
2548914	KTIPI25R8SS14M	H38	2599525	NG3156R KC5025	C170	2624192	M1D125E1404C125L800	T52			
2548915	KTIPI30R8SS14M	H38	2599526	NG3156R KC5025	C170	2624194	M1D150E1404W125L225	T50			
2548916	KTIPI35R8SS14M	H38	2599527	NG3156L KC5025	C171	2624197	M1D125E1402C075L800	T52			
2548917	KTIPI40R8SS16M	H38	2599528	NG3189R KC5025	C170	2624198	M1D100E1402C100L1000	T52			
2548918	KTIPI45R8SS16M	H38	2599529	NG3189L KC5025	C171	2624199	M1D100E1403W100L175R	T50			
2548919	KTIPI50R8SS16M	H38	2599530	NR3031R KC5025	C172	2624200	M1D125E1403C125L1000	T52			
2548920	KTIPO08R8SCF12M	H40	2599531	NR3031L KC5025	C172	2624201	M1D125E1404W125L225R	T50			
2548921	KTIPO08R8SCF12M	H40	2599534	NR3062R KC5025	C172	2624202	M1D150E1404C125L1000	T52			
2548922	KTIPO09R8SCF12M	H40	2599535	NR3062L KC5025	C172	2624243	M1D062E1401W075L150	T49			
2548923	KTIPO09R8SCF12M	H40	2599536	NRD4062R KC5010	C173	2624245	M1D088E1402W100L175	T49			
2548924	KTIPI00R8SCF16M	H40	2599537	NRD4062L KC5010	C173	2624246	M1D100E1403CV40L300	T54			
2548925	KTIPI05R8SCF16M	H40	2599538	NRD4094R KC5010	C173	2624248	M1D125E1404CV40L300	T54			
2548926	KTIPI10R8SCF16M	H40	2599539	NRD4094L KC5010	C173	2624250	M1D150E1405C125L800	T52			
2548927	KTIPI15R8SCF16M	H40	2599540	NRD4125L KC5010	C173	2624253	M1D150E1405CV40L300	T54			
2548928	KTIPI20R8SCF16M	H40	2599550	NR4125L KC5010	C172	2624254	M1D250E1407S075L157	T53			
2548929	KTIPI25R8SCF16M	H40	2599571	NG2031R KC5010	C170	2624255	M1D150E1405S075L157	T53			
2548930	KTIPI30R8SCF16M	H40	2599572	NG2031L KC5010	C170	2624270	M1D200E1405S075L157	T53			
2548931	KTIPI35R8SCF16M	H40	2599743	NG2041R KC5010	C170	2624271	M1D150E1405W125L225R	T53			
2548932	KTIPI40R8SCF16M	H40	2599744	NG2041L KC5010	C170	2624274	M1D250E1405S075L157	T53			
2548933	KTIPI45R8SCF16M	H40	2599745	NG2047R KC5010	C170	2624275	M1D300E1408S100L175	T53			
2548934	KTIPI50R8SCF20M	H40	2599746	NG2047L KC5010	C170	2624277	M1D150E1406S100L175	T53			
2548935	KTIPI60R8SCF20M	H40	2599748	NG2094R KC5010	C170	2624278	M1D400E1410S150L200	T53			
2549023	NG3047L KC5010	C170	2599749	NG2094L KC5010	C170	2624279	M1D400E1408S150L200	T53			
2549978	OFPT64AFEN6GB KC520M	S52	2599750	NG2125L KC5010	C170	2625682	B256A07000 KC7315	G58			
2576202	S459	V70, V77, V83, V149	2599752	NGP2031R KC5010	C168	2625743	B256A08000 KC7315	G58			
2579622	B976A06900 KC7315	G135	2599757	NR2031R KC5010	C172	2627240	B967A12000 KC7315	G132			
2581445	M1D200K2502S075L200	T90	2599758	NR2031L KC5010	C172	2628928	B707A11570FBG KC7315	G111			
2581447	M1D250K2503S100L225	T90	2599759	NR2062R KC5010	C172	2629032	B707A04900FBG KC7315	G110			
2581449	M1D400K2504S125L225	T90	2599760	NR2062L KC5010	C172	2629368	B707A12000FBG KC7315	G111			
2582207	CTFPR20CA4	B186, B397	2599761	NG2031R KC5025	C170	2629768	KSSS400ASP10N625	U26			
2582790	B707A17000FBG KC7315	G112	2599765	NG2062R KC5025	C170	2629769	KSSS400ASP10L625	U25			
2584849	B707A21000FBG KC7315	G112	2599887	B976A04100 KC7315	G134	2629770	KSSS400ASP10R625	U25			
2598551	E06MSCLCL2	B197	2601012	KSSP200R3SD43L125	T120	2629772	KSSS500ASP10L625	U26			
2598552	E06MSCLCR2	B197	2603030	KSEM2430HPGM KC7315	H55	2629774	KSSS600ASP10N625	U26			
2598569	E08RSCLR2	B197	2604354	RNM643RN KC5010	B97	2629780	KSSS400BSP10N625	U27			
2598696	E10SSCLCR2	B197	2605982	RCGT64ELF CKPK30	V89	2629781	KSSS500BSP10N625	U27			
2598697	E10SSCLCL3	B197	2606186	RCGT64SHF KC725M	V89	2629783	KSSS800BSP10N625	U27			
2598698	E10SSCLCR3	B197	2607377	B707A10000FBG KC7315	G111	2629784	KSSS600ASD43L750	U32			
2598699	E12SSCLCL3	B197	2610667	BMD200R6403W150L200	V87	2629785	KSSS800ASD43N750	U33			
2598700	E12SSCLCR3	B197	2610668	BMD250R6404S075L200	V88	2629786	KSSS800ASD43R750	U32			
2598702	E16TSSCLCR3	B197	2610670	BMD300R6405S100L200	V88	2629787	KSSS800ASD43R750	U32			
2598759	NG3072R KC5010	C170	2610672	BMD400R6406S125L200	V88	2629788	KSSS1000ASD43N750	U34			
2598760	NG3072L KC5010	C170	2610683	BMD400R6406S125L200	V88	2629790	KSSS1000ASD43R750	U32			
2598761	NG3078R KC5010	C170	2610684	BMD500R6406S150L250	V88	2629791	KSSS600BSD43N750	U34			
2598803	NG3088R KC5010	C170	2610685	BMD500R6408S150L250	V88	2629792	KSSS800BSD43N750	U34			
2598804	NG3097R KC5010	C170	2610686	BMD600R6407S150L250	V88	2629794	KSSS500ASP10N625	U26			
2598806	NG3105R KC5010	C170	2610687	BMD600R6408S150L250	V88	2633016	B707A18000FBG KC7315	G112			
2598807	NG3105L KC5010	C171	2610688	BMD800R6409S250L250	V88	2633730	KTIPO08R3BF08M	I11			
2598808	NG3125L KC5010	C171	2610689	BMD300R8603S075L200	V91	2633731	KTIPO09R5BF10M	I13			
2598809	NG3142R KC5010	C170	2610691	BMD400R8605S125L250	V91	2633732	KTIPI60R3BF17M	I11			
2598811	NG3156R KC5010	C170	2610694	BMD600R8607S150L250	V91	2634374	3.77000R224V	J85			
2598813	NG3189L KC5010	C171	2610696	BMD800R8608S250L250	V91	2634375	3.77000R227V	J85			
2598816	NGP3125R KC5010	C168	2610697	BMD500R8606S150L250	V91	2634376	3.77000R229V	J85			
2598817	NGP3125L KC5010	C168	2613790	3.41020R904 KC7315	I17	2634377	3.77000R231V	J85			
2598823	NGD3189L KC5010	C171	2613791	3.41020R901 KC7315	I16	2634378	3.77000R239V	J85			
2598824	NG3062R KC5010	C170	2613792	3.41020R902 KC7315	I16	2634379	3.77000R249V	J85			
2599495	NG4189R KC5010	C170	2613858	B967A14000 KC7315	G132	2634381	3.77000R251V	J85			
2599496	NR3031L KC5010	C172	2614153	MS2055	B197	2634382	3.77000R253V	J85			
2599497	NG4189L KC5010	C171	2614817	B976A07100 KC7315	G135	2634383	3.77000R274V	J85			
2599498	NG4250L KC5010	C171	2615043	3.41020R903 KC7315	I16	2634413	3.77000R276V	J85			
2599501	NGP4250R KC5010	C168	2615044	3.41220R904 KC7315	I17	2634414	3.77000R278V	J85			
2599504	NGD4250L KC5010	C171	2615045	3.41220R901 KC7315	I16	2634415	3.77000R280V	J85			
2599505	NR4125R KC5010	C172	2615046	3.41220R902 KC7315	I16	2634416	3.77000R282V	J85			
2599506	NR3047R KC5010	C172	2615047	3.41220R903 KC7315	I16	2634417	3.77000R284V	J85			
2599507	NR3047L KC5010	C172	2616697	KSEM2215HPGM KC7315	H55	2634418	3.77000R286V	J85			
2599508	NR3062R KC5010	C172	2618743	170.314	H38-41	2634419	3.77000R288V	J85			
			2618967	KSSS600ASD43N750	U33	2634568	B707A07500FBG KC7315	G111			

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2646275	B343S03150HPG	KC7315	2649381	B976A12304	KC7315	2658030	B707A08800FBG	KC7315	2659240	A4R0600M06P00T01025	KY3500
2646276	B343S01250HPG	KC7315	2649382	B976A14288	KC7315	2658054	B256A08400	KC7315			B321, C110
2646277	B343S01339HPG	KC7315	2649383	B976A15875	KC7315	2658075	B967A10700	KC7315	2659241	A4R0800M08P00T01025	KY3500
2646278	B343S01378HPG	KC7315	2649384	B976A17463	KC7315	2658213	B977A06528	KC7315			B321, C110
2646279	B343S01495HPG	KC7315	2649385	B976A19050	KC7315	2658214	B977A09746	KC7315	2659244	A4R250I06P00T0425	KY3500
2646280	B343S01496HPG	KC7315	2649386	B977A03970	KC7315	2658215	B977A06909	KC7315			B321, C110
2646281	B343S01563HPG	KC7315	2649387	B977A04580	KC7315	2658216	B977A07145	KC7315	2659293	A20UDVJNR3K3C	B154
2646282	B343S01575HPG	KC7315	2649388	B977A04623	KC7315	2658217	B977A07541	KC7315	2659294	A24UDVJNL3K3C	B154
2646333	B343S01614HPG	KC7315	2649389	B977A04763	KC7315	2658218	B977A07938	KC7315	2659295	A24UDVJNR3K3C	B154
2646334	B343S01654HPG	KC7315	2649390	B977A05410	KC7315	2658219	B977A08334	KC7315	2659833	KG2520ELDJD	KC410M
2646335	B343S01693HPG	KC7315	2649391	B977A05558	KC7315	2658220	B977A08433	KC7315	2660255	KG2540ELDJD	KC410M
2646336	B343S01772HPG	KC7315	2649486	B967A10500	KC7315	2658221	B977A08733	KC7315	2660384	B707A05900FBG	KC7315
2646337	B343S01811HPG	KC7315	2649548	R30FBHS06	K140	2658222	B977A09129	KC7315	2818063	B977A21000	KC7315
2646338	B343S01820HPG	KC7315	2649549	R38FBHS06	K140	2658223	B977A09347	KC7315	2825941	QTM20	WG
2646339	B343S01875HPG	KC7315	2649550	R48FBHS06	K140	2658224	B977A09525	KC7315	2832635	CT11	WG
2646340	B343S01929HPG	KC7315	2649551	R65FBHS06	K140	2658225	B977A09921	KC7315	2868502	KG2500R250V	J85
2646341	B343S01969HPG	KC7315	2649552	R85FBHS06	K140	2658227	B977A10320	KC7315	2869513	3.7700R252V	J85
2646342	B343S02008HPG	KC7315	2649553	R85FBHS09	K140	2658228	B977A10716	KC7315	2869514	3.7700R228V	J85
2646343	B343S02047HPG	KC7315	2649554	R12FBHS09	K140	2658229	B977A11113	KC7315	2869515	3.7700R230V	J85
2646344	B343S02087HPG	KC7315	2649555	R24FBHS06LF	K140	2658230	B977A11509	KC7315	2869516	3.7700R248V	J85
2646345	B343S02126HPG	KC7315	2649556	R31FBHS06LF	K140	2658231	B977A11908	KC7315	2872839	KSEM0757HP	KC7315
2646346	B343S02130HPG	KC7315	2649557	R40FBHS06LF	K140	2658232	B977A12304	KC7315	2875458	KG2550ELDJD	KC410M
2646347	B343S02165HPG	KC7315	2649558	R51FBHS06LF	K140	2658234	B977A13096	KC7315	2875584	B978A05800	KC7315
2646348	B343S02185HPG	KC7315	2649559	R67FBHS09LF	K140	2658235	B977A14288	KC7315	2876977	RPV45MP	KC5010
2646349	B343S02188HPG	KC7315	2649913	DH35M	S39, T113	2658236	B977A15875	KC7315	2877454	EP180EHD	KC725M
2646350	B343S02205HPG	KC7315	2650038	B707A08500FBG	KC7315	2658237	B977A16078	KC7315	2877455	EP180EHD	KCPK30
2646351	B343S02283HPG	KC7315	2651013	B343S03189HPG	KC7315	2658239	B977A17463	KC7315	2877456	EP1812EHD	KC725M
2646352	B343S02362HPG	KC7315	2651014	B343S03228HPG	KC7315	2658240	B977A19050	KC7315	2877457	EP1812EHD	KCPK30
2646385	B343S05197HPG	KC7315	2651015	B343S03268HPG	KC7315	2658241	B977A19253	KC7315	2877458	EP1816EHD	KC725M
2646386	B343S05315HPG	KC7315	2651016	B343S03281HPG	KC7315	2658242	B977A19446	KC7315	2877459	EP1816EHD	KCPK30
2646387	B343S05512HPG	KC7315	2651017	B343S03307HPG	KC7315	2658352	SFRHEC250S3075	K600	2877460	EP1832EHD	KC725M
2646389	B343S05591HPG	KC7315	2651018	B343S03320HPG	KC7315	2658393	B978A03970	KC7315	2877461	EP1832EHD	KCPK30
2646390	B343S05625HPG	KC7315	2651019	B343S03346HPG	KC7315	2658394	B978A04763	KC7315	2877462	KDMB0500MERGN	KC515M
2646391	B343S05906HPG	KC7315	2651020	B343S03386HPG	KC7315	2658395	B978A05558	KC7315	2877812	KDMB0375R35A038SN	V121
2646392	B343S06102HPG	KC7315	2651021	B343S03425HPG	KC7315	2658396	B978A06350	KC7315	2878423	KDMB0750MERGN	KC515M
2646393	B343S06250HPG	KC7315	2651022	B343S03438HPG	KC7315	2658397	B978A06746	KC7315	2878424	KDMB1000MERGN	KC515M
2646394	B343S06299HPG	KC7315	2651023	B343S03465HPG	KC7315	2658398	B978A07145	KC7315	2878433	KDMB0500591A050SN	V121
2646395	B343S06496HPG	KC7315	2651025	B343S03543HPG	KC7315	2658399	B978A07541	KC7315	2878434	KDMB05005R12A050SN	V121
2646396	B343S06562HPG	KC7315	2651026	B343S03583HPG	KC7315	2658400	B978A07938	KC7315	2878435	KDMB0625R551A063SN	V121
2646397	B343S06693HPG	KC7315	2651028	B343S03680HPG	KC7315	2658401	B978A08334	KC7315	2878436	KDMB0625R630A063SN	V121
2646399	B343S06890HPG	KC7315	2651029	B343S03701HPG	KC7315	2658402	B978A08733	KC7315	2878437	KDMB0750R630A075SN	V121
2646400	B343S06969HPG	KC7315	2651030	B343S03740HPG	KC7315	2658403	B978A09129	KC7315	2878438	KDMB0750R689A075SN	V121
2646401	B343S07087HPG	KC7315	2651031	B343S03750HPG	KC7315	2658404	B978A09525	KC7315	2878439	KDMB0750R827A075SN	V121
2646402	B343S03976HPG	KC7315	2651033	B343S03819HPG	KC7315	2658405	B978A09921	KC7315	2878440	KDMB1000R630A100SN	V121
2646423	B343S04016HPG	KC7315	2651034	B343S03858HPG	KC7315	2658406	B978A10320	KC7315	2878441	KDMB0750R748A100SN	V121
2646424	B343S04055HPG	KC7315	2651035	B343S03906HPG	KC7315	2658407	B978A10716	KC7315	2878442	KDMB1250R689A125SN	V121
2646425	B343S04063HPG	KC7315	2651036	B343S03937HPG	KC7315	2658408	B978A11113	KC7315	2878443	KDMB1250R827A125SN	V121
2646426	B343S04094HPG	KC7315	2651037	HSK63FBH01695	K128	2658409	B978A11509	KC7315	2878444	KDMB0312R551A031ST	V122
2646427	B343S04134HPG	KC7315	2651038	AFB38115SCFPR09	K134	2658410	B978A11908	KC7315	2878445	KDMB0375R591A038ST	V122
2646428	B343S04173HPG	KC7315	2651039	AFB42115SCFPR09	K134	2658411	B978A12304	KC7315	2878446	KDMB0500R630A050ST	V122
2646429	B343S04213HPG	KC7315	2651040	AFB47115SCFPR09	K134	2658412	B978A12700	KC7315	2878448	KDMB0750R748A075ST	V122
2646430	B343S04219HPG	KC7315	2651042	RS1605	K129	2658413	B978A14288	KC7315	2878449	KDMB1000R827A100ST	V122
2646431	B343S04252HPG	KC7315	2651163	CFB10082	K135	2658414	B978A15875	KC7315	2878450	KDMB1250R945A125ST	V122
2646432	B343S04331HPG	KC7315	2651164	CFB12096	K135	2658415	B978A16078	KC7315	2878591	B976A03300	KC7315
2646433	B343S04370HPG	KC7315	2651165	CFB14110	K135	2658416	B978A17463	KC7315	2878592	B976A03300	KC7315
2646434	B343S04375HPG	KC7315	2651166	CFB16120	K135	2658417	B978A19050	KC7315	2878733	KDMT0500R630A050HNC	V133
2646435	B343S04409HPG	KC7315	2651167	CFB18140	K135	2658418	B978A19253	KC7315	2878737	KDMT0750R748A075HNC	V133
2646436	B343S04449HPG	KC7315	2651168	HFB1023SCFPR06	K130	2658419	A4G0300M03P04T01025	KY3500	2879403	KDMB0375R472A038HNC	V123
2646437	B343S04528HPG	KC7315	2651169	HFB1223SCFPR06	K130			B321, C110	2879404	KDMB0375R591A038HNC	V123
2646438	B343S04531HPG	KC7315	2651170	HFB1627SCFPR06	K130	2658420	A4G0400M04P04T01025	KY3500	2879405	KDMB0500R472A050HNC	V123
2646439	B343S04606HPG	KC7315	2651171	HFB2127SCFPR06	K130			B321, C110	2879406	KDMB0500R630A050HNC	V123
2646440	B343S04646HPG	KC7315	2651172	HFB2427SCFPR06	K130	2658421	A4G0500M05P08T01025	KY3500	2879408	KDMB0625R689A063HNC	V123
2646441	B343S04688HPG	KC7315	2651173	HFB2727SCFPR06	K130			B321, C110	2879409	KDMB0750R551A075HNC	V123
2646442	B343S04724HPG	KC7315	2651174	HFB3127SCFPR06	K130	2658422	A4G0600M06P08T01025	KY3500	2879410	KDMB0750R827A075HNC	V123
2649363	B976A03970	KC7315	2651175	HFB3427SCFPR06	K130			B321, C110	2879411	KDMB1000R630A100HNC	V123
2649364	B976A04763	KC7315	2651176	HFB14FBHS1440	K130	2658444	SFRHEC375S3088	K600	2879412	KDMB1000R906A100HNC	V123
2649365	B976A05575	KC7315	2651177	HFB16FBHS1640	K130	2658445	SFRHEC500S3100	K600	2879415	KDMT05002ERGN	KC515M
2649366	B976A06350	KC7315	2651178	HFB19FBHS1840	K130	2658446	SFRHEC500S3200	K600	2879416	KDMT05004ERGN	KC515M
2649367	B976A06746	KC7315	2652755	B707A09000FBG	KC7315	2658448	SFRHEC625S3225	K600	2879418	KDMT06254ERGN	KC515M
2649368	B976A07145	KC7315	2652965	SYB24RBHT06F	K125	2658449	SFRHEC750S3150	K600	2879419	KDMT07502ERGN	KC515M
2649369	B976A07541	KC7315	2652967	SYB30RBHT06F	K125	2658450	SFRHEC750S3225	K600	2879420	KDMT07504ERGN	KC515M
2649370	B976A07938	KC7315	2652968	SYB40RBHT09F	K125	2658452	SFRHEC100S3225	K600	2879514	KDMT05004ERGC	KC515M
2649371	B976A08334	KC7315	2652969	SYB50RBHT09F	K125	2658685	B967A16000	KC7315	2879515	KDMT05002ERGC	KC515M
2649372	B976A08733	KC7315	2652970	SYB66RBHT12F	K125	2659233	A4G0800M08P08T01025	KY3500	2879519	KDMT07502ERGC	KC515M



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
2884915	KSCMCA90UN KD1420	S110	2957732	SNXF43ZNSNGP KC524M	S89	2982077	EP1416SGD KC725M	T58, T70	3018928	KTIPO669R3SS069	H39
2884917	KSCMCA75HR KD1420	S111	2957734	SNXF433ENLD KC524M	S89	2982084	OFKT53AFENGLB KC522M	S47	3018929	KTIPO709R3SS075	H39
2884918	KSCMCA750F KD1420	S111	2957735	SNXF433SNHE KC524M	S89	2982086	OFKT53AFENGLB KCK15	S47	3018930	KTIPO748R3SS075	H39
2884919	KSCMCA75PT KD1420	S111	2957736	SNXF43ZINELD KC514M	S89	2982087	OFKT53AFENGLB KCPK30	S47	3018931	KTIPO787R3SS081	H39
2885009	B707A12500FBG KC7315	G111	2957738	SNXF433SNGP KC514M	S89	2982090	EP1416SGD KC520M	T58, T70	3018932	KTIPO669R5SS069	H39
2886972	SDET438XENGB2 KC725M	T115, T122, U39	2957739	SNXF43ZNSNGP KC514M	S89	2982091	EP1416SGD KCPK30	T58, T70	3018933	KTIPO709R5SS075	H39
2887393	KSEM2120HPGM KC7315	H54	2957741	SNXF43ZNSNHE KC514M	S89	2982168	A4SCL2020K0113	C128	3018934	KTIPO787R5SS075	H39
2887394	KSEM2670HPGM KC7315	H55	2957828	KDMT0500R512A050SN	V132	2982169	A4SCL1616K0113	C128	3018935	KTIPO787R5SS081	H39
2887395	KSEM1170HPGM KC7315	H54	2957829	KDMT0500R591A050SN	V132	2982170	A4SCL1212K0113	C128	3020201	B707A10600FBG KC7315	G111
2887724	B707A03000FBG KC7315	G110	2957831	KDMT0625R630A063SN	V132	2982172	A4SCRO20K0113	C128	3022047	DFR0500R4SSF075	J15
2888086	KTIPO80R4BF09M	I12	2957832	KDMT0750R630A075SN	V132	2982223	A4SCR1616K0113	C128	3022048	DFR0531R4SSF075	J15
2888087	KTIPO85R4BF09M	I12	2958143	KDMT0750R827A075SN	V132	2982224	A4SCR1010K0113	C128	3022049	DFR0563R4SSF075	J15
2888088	KTIPO90R4BF10M	I12	2958144	KDMT1000R630A100SN	V132	2983278	EC1408ELD KC522M	T56, T67	3022050	DFR0594R4SSF075	J15
2888089	KTIPO95R4BF10M	I12	2958146	KDMT1000R906A100SN	V132	2983279	EC1408FLDJ KC410M	T55, T66	3022051	DFR0625R4SSF075	J15
2888090	KTIPO95R4BF11M	I12	2962052	SFRHEC312S3075 KC625M	P131	2983331	EC1408EGD KC725M	T57, T68	3022052	DFR0625R4SSF100	J15
2888091	KTIPO95R4BF11M	I12	2962053	SFRHEC375S3088 KC625M	P131	2983890	EC1404EGD KC725M	T57, T68	3022343	DFR0656R4SSF100	J15
2888092	KTIPO10R4BF12M	I12	2962054	SFRHEC500S3100 KC625M	P131	2983891	EC1431EGD KC725M	T57, T68	3022344	DFR0688R4SSF100	J15
2888306	B978A04000 KC7315	G139	2962055	SFRHEC500S3200 KC625M	P131	2983980	A4G0205M02U02GMN KC5010	C106	3022345	DFR0703R4SSF100	J15
2888501	KTIPO80R3BF09M	I11	2962057	SFRHEC625S3225 KC625M	P131	2983981	A4G0205M02U02GMN KC5025	C106	3022346	DFR0734R4SSF100	J15
2888502	KTIPO85R3BF09M	I11	2962058	SFRHEC750S3150 KC625M	P131	2983982	A4G0205M02U02GMP KC5010	C105	3022347	DFR0750R4SSF100	J15
2888503	KTIPO90R3BF09M	I11	2962059	SFRHEC750S3225 KC625M	P131	2984013	A4G0205M02U02GMP KC5025	C105	3022348	DFR0780R4SSF100	J15
2888504	KTIPO90R3BF10M	I11	2962060	SFRHEC100S3150 KC625M	P131	2984015	A4G0200M02P02GMP KC5010	C105	3022349	DFR0813R4SSF100	J15
2888505	KTIPO95R3BF10M	I11	2962061	SFRHEC100S3225 KC625M	P131	2984016	A4G0200M02P02GMP KC5025	C105	3022350	DFR0844R4SSF100	J15
2888506	KTIPO95R3BF10M	I11	2963631	B511S08000 KC7315	J86	2984018	A4G0255M2BU02GMN KC5025	C106	3022351	DFR0875R4SSF100	J15
2888507	KTIPO95R3BF10M	I11	2963632	B511S10000 KC7315	J86	2984020	A4G0255M2BU02GMP KC5025	C105	3022352	DFR0906R4SSF100	J15
2888508	KTIPO95R3BF11M	I11	2963663	B511S15000 KC7315	J86	2984022	A4G0250M2BP02GMP KC5010	C105	3022353	DFR0938R4SSF100	J15
2888509	KTIPO95R3BF11M	I11	2963664	B511S20000 KC7315	J86	2984024	A4R0205M02U00GMN KC5010	C107	3022354	DFR0969R4SSF100	J15
2888510	KTIPO95R3BF11M	I11	2963665	B511S25000 KC7315	J86	2984025	A4R0205M02U00GMN KC5025	C107	3022355	DFR0984R4SSF100	J15
2888511	KTIPO95R3BF12M	I11	2963666	B511S30000 KC7315	J86	2984026	A4R0200M02P00GMP KC5010	C106	3022356	DFR1000R4SSF100	J15
2888512	KTIPO95R3BF12M	I11	2964507	RNMG64RN KC5010	B97	2984027	A4R0200M02P00GMP KC5025	C106	3022357	DFR1000R4SSF125	J15
2888513	KTIPO95R3BF12M	I11	2965409	B977A04650 KC7315	G135	2984028	A4G0942BP05GMN KC5010	C107	3022625	A4M50L0214M	C138
2888514	KTIPO95R3BF13M	I11	2971371	RCGT64SGF KC522M	V89	2984053	EC1404ELD KC522M	T56, T67	3023165	EP1848EHD KC725M	T84
2888515	KTIPO95R3BF13M	I11	2972258	A4C0155N00CF01 KC5025	C112	2984054	EC1404FLDJ KC410M	T55, T66	3023166	EP1848EHD KCPK30	T84
2888516	KTIPO95R3BF13M	I11	2972259	A4C0155L06CF01 KC5025	C113	2984056	EC1431ELD KC522M	T56, T67	3023574	KSEM2210HPGM KC7315	H55
2888517	KTIPO95R3BF13M	I11	2972262	A4C0155R06CF01 KC5025	C113	2984057	EC1431FLDJ KC410M	T55, T66	3024727	B707A10200FBG KC7315	G111
2888518	KTIPO95R3BF14M	I11	2973094	A4C0155R16CF01 KC5025	C113	2984137	EC1412ELD KC522M	T56, T67	3024745	B966A13100 KC7315	G132
2888519	KTIPO95R3BF14M	I11	2974425	A4SMR2020K0217	C124	2984138	EC1412FLDJ KC410M	T55, T66	3026450	12MHC030M	G79
2888520	KTIPO95R3BF14M	I11	2975401	MS2166	T49-54	2984210	EC1412EGD KC725M	T57, T68	3026451	12MHC040M	G79
2888521	KTIPO95R3BF15M	I11	2975402	MS2167	T49, T51-52	2984359	EC1416ELD KC522M	T56, T67	3026452	12MHC050M	G79
2888522	KTIPO95R3BF15M	I11	2976491	A4SML100214	C123	2984360	EC1416FLDJ KC410M	T55, T66	3026643	12MHC060M	G79
2888523	KTIPO95R3BF16M	I11	2976493	A4SML120217	C123	2984773	EC1416EGD KC725M	T57, T68	3026644	12MHC070M	G79
2888524	KTIPO95R3BF16M	I11	2976494	A4SML160217	C123	2985272	B707A03500FBG KC7315	G110	3026645	12MHC080M	G79
2888525	KTIPO95R3BF16M	I12	2976495	A4SMR100214	C122	2985333	B707A04500FBG KC7315	G110	3026646	12MHC090M	G79
2888526	KTIPO95R3BF16M	I12	2976496	A4SMR120214	C122	2985334	B707A06500FBG KC7315	G110	3026647	12MHC100M	G79
2888527	KTIPO95R3BF16M	I12	2976497	A4SMR120217	C122	2985335	B707A09500FBG KC7315	G111	3026648	20MHC030M	G79
2888528	KTIPO95R3BF16M	I12	2976498	A4SMR160217	C122	2985336	B707A14000FBG KC7315	G111	3026649	20MHC040M	G79
2888529	KTIPO95R3BF16M	I12	2977923	KSP300R5SD43L400HC	T120	2985682	193.465	S109	3026650	20MHC050M	G79
2888530	KTIPO95R3BF16M	I12	2978378	A4SCR1212K0113	C128	2985876	193.462	S109	3026651	20MHC060M	G79
2888531	KTIPO95R3BF16M	I12	2979048	B978A05900 KC7315	G139	2987166	MSKNR25CA6	B115	3026652	20MHC070M	G79
2888532	KTIPO95R3BF16M	I12	2979110	A4C0205L10CF02 KC5025	C113	2993398	B707A07800FBG KC7315	G111	3026653	20MHC080M	G79
2888533	KTIPO95R3BF16M	I12	2979111	A4C0205N00CF02 KC5025	C112	3005898	B967A11000 KC7315	G131	3026654	20MHC090M	G79
2888534	KTIPO95R3BF16M	I12	2979112	A4C0205R06CF02 KC5025	C113	3005899	B967A13500 KC7315	G132	3026655	20MHC100M	G79
2888535	KTIPO95R3BF16M	I12	2979192	A20RA4EMR0207M	C133	3005956	B976A03100 KC7315	G134	3026656	20MHC110M	G79
2888536	KTIPO95R3BF16M	I12	2979216	A4C0255N00CF02 KC5025	C112	3013657	KSEM180R0HPGM KC7315	H54	3026657	20MHC120M	G79
2888537	KTIPO95R3BF16M	I12	2979217	A4C0255R06CF02 KC5025	C113	3015439	DFR030204MD KC7140	J97	3026658	20MHC130M	G79
2888538	KTIPO95R3BF16M	I12	2979223	A20RA4EMR0207M	C133	3015440	DFR040304MD KC7140	J97	3026659	20MHC140M	G79
2888539	KTIPO95R3BF16M	I12	2979224	A25RA4EMR0210M	C133	3016028	KSEM2305HPGM KC7315	H55	3026660	20MHC150M	G79
2888540	KTIPO95R3BF16M	I12	2979225	A25RA4EMR0210M	C133	3017334	A4SML2525M0217	C125	3026661	20MHC160M	G79
2888541	KTIPO95R3BF16M	I12	2979227	A12RA4EMR0207M	C132	3017335	A4SML2525M0214	C125	3026662	25MHC030M	G79
2888542	KTIPO95R3BF16M	I12	2979229	A16RA4EMR0210M	C132	3017336	A4SML2020K0214	C125	3026663	25MHC040M	G79
2888543	KTIPO95R3BF16M	I12	2980526	EP1412SGD KCPK30	T58, T70	3017337	A4SML2020K0217	C125	3026664	25MHC050M	G79
2888544	KTIPO95R3BF16M	I12	2980527	EP1412SGD KC520M	T58, T70	3017338	A4SML1616K0214	C124	3026665	25MHC060M	G79
2888545	KTIPO95R3BF16M	I12	2980530	EP1408SGD KC520M	T58, T70	3017339	A4SMR2525M0217	C125	3026666	25MHC070M	G79
2888546	KTIPO95R3BF16M	I12	2980531	EP1408SGD KCPK30	T58, T70	3017340	A4SMR2525M0214	C124	3026667	25MHC080M	G79
2888547	KTIPO95R3BF16M	I12	2980568	EP1412SGD KC725M	T58, T70	3017341	A4SMR2020K0214	C124	3026668	25MHC090M	G79
2888548	KTIPO95R3BF16M	I12	2981100	A4SCL120113	C127	3017342	A4SMR1616K0214	C124	3026669	25MHC100M	G79
2888549	KTIPO95R3BF16M	I12	2981101	A4SCL100113	C127	3017663	KTIPO70R3SS18M	H38	3026670	25MHC110M	G79
2888550	KTIPO95R3BF16M	I12	2981102	A4SCL080113	C127	3017664	KTIPO70R3SS20M	H38	3026671	25MHC120M	G79
2888551	KTIPO95R3BF16M	I12	2981194	A4SCR120113	C127	3017665	KTIPO70R3SS20M	H38	3026672	25MHC130M	G79
2888552	KTIPO95R3BF16M	I12	2981195	A4SCR100113	C127	3017666	KTIPO200R3SS25M	H38	3026673	25MHC140M	G79
2888553	KTIPO95R3BF16M	I12	2981196	A4SCRO80113	C127	3017667	KTIPO70R3SCF20M	H40	3026674	25MHC150M	G79
2888554	KTIPO95R3BF16M	I12	2981197	A4SCRO60113	C127	3017668	KTIPO70R3SCF25M	H40	3026675	25MHC160M	G79
2888555	KTIPO95R3BF16M	I12	2981644	EP1408SGD KC725M	T58, T70	3017669	KTIPO90R3SCF25M	H40	3026676	25MHC170M	G79
2888556	KTIPO95R3BF16M	I12	2982018	OFKT64AFENGLB KC725M	S51	3017670	KTIPO200R3SCF25M	H40	3026677	25MHC180M	G79

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3029372	PKG1602	K130	3033954	EP1416EHD KCPK30	T57, T68	3093561	HNGJ535ANENLD KC522M	S18, S21	3287987	CSWM 035 040	B217, B220, B222-223
3029373	PKG1802	K130	3033966	B707A06800FBG KC7315	G110	3093600	KSOM1250F5345F5	S44	3287988	CSWM 040 050	B217-223, B245, B276-278
3029375	PKG0011	K130	3039409	KSEM3400PCM KC7135	H70, H111	3093623	KSOM1500F5345F3	S44	3287989	CSWM 060 050	B72-74, B94, B115-119, B140-142, B174-176, B186-187, B198, B217, B220, B236-237, B245, B249-251, B394-398, C196, D41
3030845	TM25D17L26Z2	W10	3039410	KSEM3600PCM KC7135	H70, H111	3093625	KSOM1250F5345M3	S44			
3030846	TM25D17L36Z2	W10	3041312	B707A06100FBG KC7315	G110	3093627	KSOM1500F5345M3	S44			
3030847	TM25D17L26Z2	W11	3043944	KSEM3500PCM KC7135	H70, H111	3093632	KSOM5000F5345F6	S45			
3030848	TM25D20L37Z3	W10	3045090	KSSP200R3SD43L200HC	T120	3093634	KSOM2000F5345M3	S45			
3030849	TM25D20L44Z3	W10	3045800	S422CG	T53, V54, V70	3093635	KSOM2500F5345M3	S45			
3030850	TM25D22L43Z3	W10	3045801	S467	T7, U27, U37, V54, V58	3093636	KSOM3000F5345M4	S45			
3030851	TM25D22L43Z3	W11				3093637	KSOM4000F5345M5	S45			
3030852	TM25D22L55Z3	W10	3047641	T320MF140X150R6HX KC7542	M4	3093638	KSOM5000F5345M6	S45			
3031703	TM25D30L55Z5	W10	3048604	KL520C	T78	3093640	KSOM2500F6445F3	S50	3287990	CSWM 080 050	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397
3031704	TM25D28L43Z4	W11	3048803	KSEM3300PCM KC7135	H70, H111	3093641	KSOM2000F6445F4	S50			
3031705	TM25D30L80Z4	W10	3050716	DFR020204MD KC7140	J97	3093642	KSOM4000F6445F5	S50			
3031708	TM25D06L110Z2	W11	3050792	HPFSS250S3050 KC635M	P108	3093643	KSOM5000F6445F6	S50			
3031712	TM25D08L170Z3	W11	3050793	HPFSS125S5025 KC635M	P109	3093644	KSOM6000F6445F8	S50			
3031715	TM25D110L170Z4	W11	3050794	HPFSS188S5031 KC635M	P109	3093645	KSOM2500F6445M3	S50	3287991	CSWM 100 080	B74, B115, B119, C196, D41
3031717	TM25INSERTSCREW	W4-5, W10-13, W17-19, W24-25	3050799	HPFT375S6113 KC635M	P110	3093646	KSOM3000F6445M4	S50			
			3051244	EP1420EHD KC522M	T57, T68	3093647	KSOM4000F6445M5	S50			
			3051245	EP1420EHD KC725M	T57, T68	3093648	KSOM5000F6445M6	S50			
3031718	TM25N100ISO KC610M	W14	3051246	EP1420EHD KCPK30	T57, T68	3093649	KSOM6000F6445M8	S50			
3031719	TM25N150ISO KC610M	W14	3051247	EP1431EHD KC522M	T57, T68	3093719	HNGJ535ANENLD KCPK30	S18, S22			
3031720	TM25N200ISO KC610M	W14	3051248	EP1431EHD KC725M	T57, T68	3094010	843.006.000	K124-126, K140			
3031721	TM25N250ISO KC610M	W14	3051249	EP1431EHD KCPK30	T57, T68						
3031722	TM25N300ISO KC610M	W14	3051250	EP1440EHD KC522M	T57, T68	3094035	880.252.200	K137-139			
3031733	TM25N20UN KC610M	W14	3051251	EP1440EHD KC725M	T57, T68	3097294	KSEM1660HPGM KC7315	H54			
3031734	TM25N18UN KC610M	W14	3051252	EP1440EHD KCPK30	T57, T68	3097295	KSEM1860HPGM KC7315	H54			
3031735	TM25N16UN KC610M	W14	3051549	EP1424EHD KC522M	T57, T68	3098071	B707A04200FBG KC7315	G110			
3031736	TM25N14UN KC610M	W14	3051550	EP1424EHD KC725M	T57, T68	3102669	B977A08020 KC7315	G136			
3031737	TM25N12UN KC610M	W14	3051551	EP1424EHD KCPK30	T57, T68	3106096	SDPT433PDENHPZ KCPK30	V143			
3031738	TM25N10UN KC610M	W14	3051552	EP1404EHD KC522M	T57, T68	3106097	SDPT433PDENHPZ KCPK30	V143			
3031739	TM25N9UN KC610M	W14	3051623	A4M50L2B14M	C138	3106098	SDPT433PDENHPZ KC725M	V143			
3031740	TM25N8UN KC610M	W14	3051624	A4M50R0214M	C138	3106099	SDPT433PDENHPZ KC725M	V143			
3031742	TM25EN14W KC610M	W15	3051629	A4M50L0212A060084	C140	3107215	KISZR150SD430C5A03	V140			
3031743	TM25EN12W KC610M	W15	3051631	A4M50L0212A120254	C140	3107216	KISZR200SD430C6A04	V140			
3031744	TM25EN11W KC610M	W15	3051632	A4M50L0212A250999	C140	3110522	B976A03200 KC7315	G134			
3031745	TM25EN14NPT KC610M	W15	3051663	A4M50L0212B036046	C142	3110544	B976A03600 KC7315	G134			
3031746	TM25EN115NPT KC610M	W15	3051664	A4M50L0212B042054	C142	3110545	B976A07200 KC7315	G136			
3031747	TM25EN14BSPT KC610M	W15	3051665	A4M50L0212B050064	C142	3114313	KTP170R8SS18M	H38			
3031748	TM25EN11BSPT KC610M	W15	3051666	A4M50L0212B060084	C142	3114314	KTP180R8SS20M	H38			
3031749	TM25N100ISO KC635M	W14	3051667	A4M50L0212B080124	C142	3114315	KTP190R8SS20M	H38			
3031750	TM25N150ISO KC635M	W14	3051668	A4M50L0212B120254	C142	3114316	KTP200R8SCF25M	H40			
3031751	TM25N200ISO KC635M	W14	3051670	A4M50R0212A036046	C139	3114317	KTP170R8SCF20M	H40			
3031752	TM25N250ISO KC635M	W14	3051671	A4M50R0212A042054	C139	3114318	KTP180R8SCF25M	H40			
3031753	TM25N300ISO KC635M	W14	3051672	A4M50R0212A050064	C139	3114319	KTP190R8SCF25M	H40			
3031754	TM25N20UN KC635M	W14	3051673	A4M50R0212A060084	C139	3114320	KTP200R8SCF25M	H40			
3031756	TM25N16UN KC635M	W14	3051674	A4M50R0212A080124	C139	3114636	RIQ09E1312 KC6305	K58			
3031757	TM25N14UN KC635M	W14	3051675	A4M50R0212A120254	C139	3117503	B967A09500 KC7315	G131			
3031758	TM25N12UN KC635M	W14	3051676	A4M50R0212A250999	C139	3119977	B976A10300 KC7315	G136			
3031759	TM25N10UN KC635M	W14	3051677	A4M50R0212B036046	C141	3120318	KSEM1270HPGM KC7315	H55			
3031760	TM25N9UN KC635M	W14	3051678	A4M50R0212B042054	C141	3121225	193.492	S4-5, S8-10, S14, S17, S20, S56, S58, V51-54, V62			
3031761	TM25N8UN KC635M	W14	3051679	A4M50R0212B050064	C141						
3031763	TM25EN14W KC635M	W15	3051680	A4M50R0212B060084	C141	3121287	B976A06700 KC7315	G135			
3031765	TM25EN11W KC635M	W15	3051681	A4M50R0212B080124	C141	3124549	193.491	J25, J27, J29, J31, J33, J35, J37, J39			
3031766	TM25EN14NPT KC635M	W15	3051682	A4M50R0212B120254	C141						
3031767	TM25EN115NPT KC635M	W15	3051683	A4M50R0212B250999	C141						
3031770	TM25BLANK	W15	3051863	EP1404EHD KC725M	T57, T68	3124699	EP18645 KC725M	T85			
3031908	T320NC03750-16R3BX KC7542	M4	3051864	EP1404EHD KCK15	T57, T68	3127186	NAS3L4 KC5025	D12			
3031910	T320NC04375-14R3BX KC7542	M4	3051865	EP1404EHD KCPK30	T57, T68	3133459	MS1294CG	V62			
3031911	T320NC05000-13R3BX KC7542	M4	3051866	EP1404EHD KC520M	T57, T68	3135660	B256A12500 KC7315	G58			
3031914	T320M060X100R6HX KC7542	M4	3053564	SDET433PDENGDZ KCPK30	V143	3136510	EP1840EHD KC725M	T84			
3031915	T320M080X125R6HX KC7542	M4	3053565	SDET433PDSNGDZ KCPK30	V143	3138954	SNXF433AMSN KY3500	S90			
3031916	T320M100X150R6HX KC7542	M4	3054849	KSSZR200SD430CA04	V141	3138955	SNXF432NAMSN KY3500	S90			
3031917	T320M120X175R6HX KC7542	M4	3055223	B707A13500FBG KC7315	G111	3138957	S2172CG	V54, V58			
3031919	T320M160X200R6HX KC7542	M4	3057117	B978A03700 KC7315	G139	3139149	843.009.000	K124-126, K140			
3032732	EP1412EHD KC520M	T57, T68	3057121	B978A07400 KC7315	G140	3176219	KM25LSSR2230	D77			
3033024	KTIPO669R8SS069	H39	3057122	B978A09300 KC7315	G140	3176220	KM25LSSL2230	D77			
3033025	KTIPO709R8SS075	H39	3058199	KSEM1008HPG KC7315	H55	3176596	TRM50R0640M	E71			
3033026	KTIPO748R8SS075	H39	3058984	B707A04400FBG KC7315	G110	3176598	TRM50L0640M	E71			
3033027	KTIPO787R8SS081	H39	3064493	KSSZR300SD430CA05	V141	3176599	TRM50L0432M	E71			
3033723	EP1412EHD KC522M	T57, T68	3064549	KSEM2740HPGM KC7315	H55	3176600	TRM50R0432M	E71			
3033724	EP1412EHD KC725M	T57, T68	3064601	KISZR125SD430CA402	V140	3176601	TRM50R0920M	E71			
3033725	EP1412EHD KCK15	T57, T68	3064602	KSSZR300SD430M4A06	V141	3176602	TRM50L0920M	E71			
3033726	EP1412EHD KCPK30	T57, T68	3064755	KSSZR200SD430M3A05	V141	3176604	TRM50R0940M	E71			
3033727	EP1408EHD KC520M	T57, T68	3064902	KSSZR300SD430FA407	V141	3176605	TRM50R0620M	E71			
3033728	EP1408EHD KC522M	T57, T68	3066053	A4G0605M06U04B KCK20	C108	3176606	TRM50L0620M	E71			
3033729	EP1408EHD KC725M	T57, T68	3066133	SDET433PDENGDZ KC725M	V143	3176688	MS2173	B217, B220, B222-223			
3033730	EP1408EHD KCK15	T57, T68	3066281	SDET433PDSNGDZ KC725M	V143	3176689	MS2175	B217-223, B245, B276-278			
3033731	EP1408EHD KCPK30	T57, T68	3066375	SDET433PDSNGDZ KC522M	V143						
3033751	EP1416EHD KC522M	T57, T68	3066774	KSSZR400SD430FA09	V141	3180571	B977A14100 KC7315	G137			
3033752	EP1416EHD KC725M	T57, T68	3077140	SF150FBH01660	K129	3273589	EC1402FLDJ KC410M	T55, T66			
3033953	EP1416EHD KCK15	T57, T68	3077141	SF100FBH01660	K129	3273590	EC1440FLDJ KC410M	T55, T66			

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3331033	L16SSCFPR3	B213	3346273	MSYNL12CA4	B119	3381153	KSEM1936HPLM KC7320	H62	3383298	DCGW3251S0415MT KB1345	B312
3331034	L08RSCPLP2	B215	3346274	MSYNR12CA4	B119	3381154	KSEM7066HPL KC7320	H62	3383314	DCGW3252S0415MT KB1345	B312
3331035	L06MNSCLP2	B215	3346275	MTGNL12CA3	B141	3381155	KSEM1950HPLM KC7320	H62	3383760	B707A09800FBG KC7315	G111
3331036	L05MSCLP2	B215	3349309	HNEN0905AVNSN KD200	S79	3381156	KSEM7071HPL KC7320	H62	3387723	RCGT645GF KC725M	V89
3331038	L12RSCPLP3	B215	3352074	881.252.720	K137-138	3381157	KSEM2000HPLM KC7320	H62	3387724	RCGT86SFG KC725M	V92
3331039	L10RSCPLP3	B215	3352573	KMDA0250J6ANA KC639M	P142	3381158	KSEM2010HPLM KC7320	H62	3387910	NR2M050L KC5010	C172
3331040	L16SSCLP3	B215	3352574	KMDA0312J6ANA KC639M	P142	3381159	KSEM7079HPL KC7320	H62	3387928	NR3M150L KC5010	C172
3331041	L08RSCPLP2	B215	3352575	KMDA0375J6ANA KC639M	P142	3381160	KSEM2035HPLM KC7320	H62	3387935	NR2M050R KC5010	C172
3331042	L05MSCLP2	B215	3352576	KMDA0500J6ANA KC639M	P142	3381161	KSEM2050HPLM KC7320	H62	3387936	NR2M075R KC5010	C172
3331043	L06MNSCLP2	B215	3352577	KMDA0625J6ANA KC639M	P142	3381162	KSEM0813HPL KC7320	H62	3387937	NR2M100R KC5010	C172
3331044	L10RSCPLP2	B215	3352578	KMDA0750J6ANA KC639M	P142	3381163	KSEM2100HPLM KC7320	H62	3388407	NR2M100L KC5025	C172
3331045	L10RSCPLP3	B215	3352730	KHDA0250J6ANA KC639M	P143	3381164	KSEM2115HPLM KC7320	H62	3388409	NR2M150L KC5025	C172
3331046	L12RSCPLP3	B215	3352731	KHDA0312J6ANA KC639M	P143	3381165	KSEM2133HPLM KC7320	H62	3388411	NR3M150L KC5025	C172
3331047	L16SSCLP3	B215	3352732	KHDA0375J6ANA KC639M	P143	3381166	KSEM2810HPLM KC7320	H62	3388453	NR3M150L KC5025	C172
3331048	L06MSDUPL2	B235	3352773	KHDA0500J6ANA KC639M	P143	3381167	KSEM0844HPL KC7320	H63	3388455	NR3M200L KC5025	C172
3331049	L08RSDUPL2	B235	3352774	KHDA0625J6ANA KC639M	P143	3381168	KSEM2850HPLM KC7320	H63	3388460	NR2M050R KC5025	C172
3331052	L06MSDUPL2	B235	3352775	KHDA0750J6ANA KC639M	P143	3381169	KSEM2150HPLM KC7320	H62	3388462	NR2M100R KC5025	C172
3331073	L08RSDUPL2	B235	3353405	KSEM2973HPGM KC7315	H55	3381170	KSEM1125HPL KC7320	H63	3388463	NR2M125R KC5025	C172
3331074	L10RSDUPL2	B235	3362163	881.252.550	K137-138	3381171	KSEM0859HPL KC7320	H62	3388464	NR2M150R KC5025	C172
3331075	L12RSDUPL3	B235	3367371	B531A03200SPF KDF400	G100	3381172	KSEM2900HPLM KC7320	H62	3388465	NR2M175R KC5025	C172
3331079	L08RSTFPR2	B273	3367372	B531A05100SPF KDF400	G100	3381173	KSEM2200HPLM KC7320	H63	3388466	NR3M100R KC5025	C172
3331080	L10RSTFPR2	B273	3367373	B531A06500SPF KDF400	G100	3381174	KSEM1156HPL KC7320	H63	3388468	NR3M150R KC5025	C172
3331081	L06MSTFPR2	B273	3367382	B532A03200SPF KDF400	G100	3381175	KSEM0875HPL KC7320	H62	3388470	NR3M200R KC5025	C172
3331082	L12RSTFPR3	B273	3367383	B532A05100SPF KDF400	G100	3381176	KSEM2950HPLM KC7320	H63	3396984	MS2085	T120, V81-82
3331084	L08RNL2	D37	3367384	B532A06500SPF KDF400	G100	3381177	KSEM0884HPL KC7320	H62	3397222	NGD2M200LK KC5010	C165
3331088	L06MNER1S	D37	3367385	B531A06000SPF KDF400	G100	3381178	KSEM1172HPL KC7320	H62	3397223	NGD2M250LK KC5010	C165
3331089	L08RNER1S	D37	3367386	B532A06000SPF KDF400	G100	3381179	KSEM2250HPLM KC7320	H63	3397226	NGD3M200LK KC5010	C165
3331090	L05MNER1S	D37	3379064	EP1864EHD KC725M	T84	3381180	KSEM3000HPLM KC7320	H63	3397243	NGD2M150RK KC5010	C165
3331091	L08RNER2	D37	3379065	EP1864EHD KCPK30	T84	3381181	KSEM2277HPLM KC7320	H62	3397244	NGD2M200RK KC5010	C165
3331092	L12RNER2	D37	3380488	KSEM1250HPLM KC7320	H62	3381182	KSEM1188HPL KC7320	H63	3397246	NGD3M400RK KC5010	C165
3331103	L10RNER2	D37	3380490	KSEM0500HPL KC7320	H62	3381183	KSEM2300HPLM KC7320	H62	3397247	NGD3M250RK KC5010	C165
3331105	L16SNER3	D37	3380491	KSEM1280HPLM KC7320	H62	3381184	KSEM3050HPLM KC7320	H63	3397248	NGD3M300RK KC5010	C165
3331106	CSRPR10CA3	B175, B395	3380492	KSEM0509HPL KC7320	H62	3381185	KSEM3150HPLM KC7320	H62	3397250	NGD3M400RK KC5010	C165
3331143	CSSPL10CA3	B176, B396	3381103	KSEM1300HPLM KC7320	H62	3381186	KSEM3100HPLM KC7320	H63	3397259	NGD2M150LK KC5025	C165
3331145	MCN10CA3	B72	3381104	KSEM1350HPLM KC7320	H62	3381187	KSEM2350HPLM KC7320	H62	3397273	NGD2M200LK KC5025	C165
3331146	MCN10CA3	B72	3381105	KSEM1360HPLM KC7320	H62	3381188	KSEM3150HPLM KC7320	H63	3397274	NGD2M250LK KC5025	C165
3331149	MSTNR10CA3	B118	3381106	KSEM1380HPLM KC7320	H62	3381189	KSEM0938HPL KC7320	H62	3397275	NGD3M200LK KC5025	C165
3331150	MSYNL10CA3	B119	3381107	KSEM0547HPL KC7320	H62	3381190	KSEM1250HPL KC7320	H63	3397276	NGD3M250LK KC5025	C165
3331173	HNGJ535ANSNGD KCK15	S18, S22	3381108	KSEM1400HPLM KC7320	H62	3381191	KSEM2400HPLM KC7320	H62	3397277	NGD3M300LK KC5025	C165
3331174	HNGJ535ANENLD KC520M	S18, S21	3381109	KSEM1410HPLM KC7320	H62	3381192	KSEM3200HPLM KC7320	H63	3397279	NGD3M350LK KC5025	C165
3331175	HNGJ535ANENLD KC725M	S18, S21	3381110	KSEM1415HPLM KC7320	H62	3381193	KSEM2450HPLM KC7320	H62	3397280	NGD3M400LK KC5025	C165
3331176	HNGJ535ANSNGD KC725M	S18, S22	3381111	KSEM1420HPLM KC7320	H62	3381194	KSEM3300HPLM KC7320	H63	3397286	NGD3M200RK KC5025	C165
3331178	HNGJ535ANENLD KCPK30	S18, S21	3381112	KSEM0563HPL KC7320	H62	3381195	KSEM0969HPL KC7320	H62	3397287	NGD2M200RK KC5025	C165
3331465	HPHVT500S4063 KC643M	P24	3381113	KSEM1450HPLM KC7320	H62	3381196	KSEM1375HPL KC7320	H63	3397288	NGD2M250RK KC5025	C165
3331466	HPHVT500S4125 KC643M	P24	3381114	KSEM1460HPLM KC7320	H62	3381197	KSEM1406HPL KC7320	H63	3397289	NGD3M200RK KC5025	C165
3331468	HPHVT500S4125CH KC643M	P24	3381115	KSEM0578HPL KC7320	H62	3381198	KSEM1500HPL KC7320	H63	3397290	NGD3M250RK KC5025	C165
3331469	HPHVT625S4075 KC643M	P24	3381116	KSEM1480HPLM KC7320	H62	3381199	KSEM1514HPL KC7320	H63	3397291	NGD3M300RK KC5025	C165
3331470	HPHVT625S4075CH KC643M	P24	3381117	KSEM1500HPLM KC7320	H62	3381195	KSEM3400HPLM KC7320	H63	3397293	NGD3M400RK KC5025	C165
3331471	HPHVT625S4125 KC643M	P24	3381118	KSEM0594HPL KC7320	H62	3381616	KSEM2500HPLM KC7320	H62	3397369	NGD2M050LK KC5010	C163
3331472	HPHVT625S4125CH KC643M	P24	3381119	KSEM0609HPL KC7320	H62	3381617	KSEM3500HPLM KC7320	H62	3397370	NGD2M050RK KC5010	C172
3331473	HPHVT750S4088 KC643M	P24	3381120	KSEM1550HPLM KC7320	H62	3381618	KSEM3100HPLM KC7320	H63	3397613	NGD2M200LK KC5025	C173
3331474	HPHVT750S4088CH KC643M	P24	3381121	KSEM1560HPLM KC7320	H62	3381619	KSEM3600HPLM KC7320	H63	3397614	NF3M300LK KC5025	C173
3331475	HPHVT750S4150CH KC643M	P24	3381122	KSEM0625HPL KC7320	H62	3381620	KSEM1000HPL KC7320	H62	3397615	NF3M300LK KC5025	C174
3331476	HPHVT750S4150CH KC643M	P24	3381123	KSEM1600HPLM KC7320	H62	3381621	KSEM3700HPLM KC7320	H63	3397616	NF3M200RK KC5025	C173
3331477	HPHVT1000S4150 KC643M	P24	3381124	KSEM0634HPL KC7320	H62	3381622	KSEM2550HPLM KC7320	H62	3397617	NF3M300RK KC5025	C173
3331478	HPHVT1000S4150CH KC643M	P24	3381125	KSEM1610HPLM KC7320	H62	3381623	KSEM3750HPLM KC7320	H63	3397618	NF3M300RK KC5025	C174
3331481	HPRST250S4038 KC643M	P92	3381126	KSEM1615HPLM KC7320	H62	3381624	KSEM1008HPL KC7320	H62	3396919	CCGW3252EC KB1345	H70, H111
3331482	HPRST250S4075 KC643M	P92	3381127	KSEM1620HPLM KC7320	H62	3381625	KSEM3800HPLM KC7320	H63	3400552	MS2197	V139-141
3331483	HPRST375S4050 KC643M	P92	3381128	KSEM0641HPL KC7320	H62	3381626	KSEM2565HPLM KC7320	H63	3400611	MS2191C00	T63, T65, V139-140, V142
3331484	HPRST375S4088 KC643M	P92	3381129	KSEM1650HPLM KC7320	H62	3381627	KSEM3900HPLM KC7320	H63	3400612	MS2191C06	T63, T65, V139-140, V142
3331485	HPRST500S4063 KC643M	P92	3381130	KSEM0656HPL KC7320	H62	3381628	KSEM1011HPL KC7320	H63	3400613	MS2191C08	T63, T65, V139-142
3331486	HPRST500S4125 KC643M	P92	3381131	KSEM1700HPLM KC7320	H62	3381630	KSEM2600HPLM KC7320	H63	3400616	MS2191C12	T63, T65, V139-142
3331487	HPRST625S4125 KC643M	P92	3381132	KSEM0672HPL KC7320	H62	3381631	KSEM4000HPLM KC7320	H63	3400617	MS2191C14	T63, T65, V139-140, V142
3331488	HPRST625S4125 KC643M	P92	3381133	KSEM0688HPL KC7320	H62	3381632	KSEM1016HPL KC7320	H63	3400618	MS2191C16	T63-65, V139-140, V142
3331489	HPRST625S6125 KC643M	P92	3381134	KSEM1750HPLM KC7320	H62	3381633	KSEM1031HPL KC7320	H63	3400619	MS2191C18	T63, T65, V139-140, V142
3331490	HPRST750S4088 KC643M	P92	3381135	KSEM1775HPLM KC7320	H62	3381634	KSEM0313HPL KC7320	H62	3400620	MS2191C20	T63-65, V139-140, V142
3331491	HPRST750S4150 KC643M	P92	3381136	KSEM1780HPLM KC7320	H62	3381635	KSEM2650HPLM KC7320	H63	3400879	12748500500	S83
3331492	HPRST750S6150 KC643M	P92	3381137	KSEM0703HPL KC7320	H62	3381636	KSEM1047HPL KC7320	H63	3403362	CNMG431UP KC5010	B54
3331493	HPRST1000S4150 KC643M	P92	3381138	KSEM1790HPLM KC7320	H62	3381637	KSEM1094HPL KC7320	H63	3403423	CNMG432UP KC5010	B54
3331494	HPRST1000S6150 KC643M	P92	3381139	KSEM1800HPLM KC7320	H62	3381638	KSEM2670HPLM KC7320	H63	3403424	CNMG433UP KC5010	B54
3332362	MCLNL25CA6	B74	3381140	KSEM0719HPL KC7320	H62	3381639	KSEM1109HPL KC7320	H63	3403430	CNMG432UP KC5010	B84
3332803	MCLNR25CA4	B74	3381142	KSEM1850HPLM KC7320	H62	3381640	KSEM2700HPLM KC7320	H63	3403433	CNMG442UP KC5010	B84
3332804	MCLNR25CA5	B74	3381143	KSEM1860HPLM KC7320	H62	3381641	KSEM1281HPL KC7320	H63	3403435	CNMG432UP KC5010	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3403449	WNMG433UP KC5010	B162	3554367	CV40BKR50236	K91	3560480	SDCT4316ENLD2 KC725M	T115, T122, U38	3583765	SDMT060304EGG KC735M	U4
3448592	KSSZR250SD430C3A05	V141	3554368	CV50BKR32157	K91				3583766	SDMT060304EGG KC730M	U4
3448913	KSSZR250SD430M3A06	V141	3554369	CV50BKR50157	K91	3560482	SDET4316SNGB2 KCPK30	T115, T122, U39	3583768	SDMT080308EGG KC505M	U4
3448914	KSSZR400SD430C5A07	V141	3554370	CV50BKR63236	K91				3583769	SDMT080308EGG KC735M	U4
3448915	KSSZR400SD430M5A08	V141	3554371	CV50BKR80275	K91	3563231	B707A12700FBG KC7315	G111	3583770	SDMT080308EGG KC730M	U4
3448916	KSSZR400SD430C6A07	V141	3554372	BT40BKR32030M	K91	3575847	193.531	S24	3583784	SDMT120408EGG KC505M	U4
3448917	KSSZR400SD430M6A08	V141	3554373	BT40BKR50050M	K91	3577119	KTMS21525SD06H	U3	3583785	SDMT120408EGG KC735M	U4
3448918	KSSZR400SD430F6A09	V141	3554374	BT50BKR32040M	K91	3577121	KTMS2525SD06H	U3	3583786	SDMT120408EGG KC730M	U4
3448920	KSSZR500SD430M6A09	V141	3554375	BT50BKR50040M	K91	3577133	KTMS3235SD08H	U3	3585206	B531A03300SPF KDF400	G100
3449167	KTZR125SD430CM16A02	V139	3554376	BT50BKR63060M	K91	3577135	KTMS40S32SD12H	U3	3585207	B531A03600SPF KDF400	G100
3449168	KTZR150SD430CM16A03	V139	3554377	BT50BKR80060M	K91	3577137	KTMS50S32SD12H	U3	3585208	B531A04000SPF KDF400	G100
3449169	KTZR200SD430CM16A04	V139	3556330	HNGJ535ANSNHD KCK15	S19, S22	3579858	KSEM2070HPGM KC7315	H54	3585209	B531A04366SPF KDF400	G100
3450355	M51234CG	V62	3556331	HNGJ535ANSNHD KC725M	S19, S22	3580522	UCDE250J5SARA KC643M	P32	3585210	B531A04851SPF KDF400	G100
3480435	B977A03250 KC7315	G134	3556332	HNGJ535ANSNHD KCPK30	S19, S22	3580763	UCDE375J5SARA KC643M	P32	3585211	B531A04864SPF KDF400	G100
3482532	COMT3252FP KCU10	B190	3556346	MB24RBHT06F	K124	3580764	UCDE500K5ARB KC643M	P32	3585212	B531A05200SPF KDF400	G100
3482959	T331NC2500-20R3BX KC7542	M44	3556347	MB30RBHT06F	K124	3580765	UCDE625K5ARB KC643M	P32	3585213	B531A06375SPF KDF400	G100
3482960	T331NF2500-28R3BX KC7542	M44	3556348	MB40RBHT09F	K124	3580766	UCDE750K5ARB KC643M	P32	3585214	B531A06400SPF KDF400	G100
3482961	T331NC125-18R3BX KC7542	M44	3556349	MB50RBHT09F	K124	3580767	UCDE1000K5ARB KC643M	P32	3585215	B531A07938SPF KDF400	G100
3482962	T331NC3750-16R3BX KC7542	M44	3556350	MB66RBHT12F	K124	3580769	UCDE500K5SBR KC643M	P30	3585217	B531A09550SPF KDF400	G100
3483053	T331NC4375-14R3BX KC7542	M44	3556352	MB66RBHT12LF	K124	3580770	UCDE500K5SBR KC643M	P30	3585218	B531A09563SPF KDF400	G100
3483054	T331NC5000-13R3BX KC7542	M44	3556374	HNGJ5351ANSNHD KC725M	S19, S22	3580771	UCDE500K5SBR KC643M	P30	3585219	B531A11125SPF KDF400	G100
3483057	T331M060X100R6HX KC7542	M45	3556375	HNGJ5351ANSNHD KCPK30	S19, S22	3580772	UCDE500K5SBR KC643M	P30	3585220	B532A04366SPF KDF400	G100
3483058	T331M080X125R6HX KC7542	M45	3556393	MB87RBHT12F	K124	3580783	UCDE625K5SBR KC643M	P30	3585221	B532A03300SPF KDF400	G100
3483059	T331M100X150R6HX KC7542	M45	3556394	MB87RBHT12LF	K124	3580784	UCDE625K5SBR KC643M	P30	3585222	B532A03600SPF KDF400	G100
3483061	T331M120X175R6HX KC7542	M45	3556395	MB115RBHT12F	K124	3580785	UCDE750K5SBR KC643M	P31	3585224	B532A04366SPF KDF400	G100
3483062	T331MF120X150R6HX KC7542	M45	3556396	MB115RBHT16LF	K124	3580786	UCDE750K5SBR KC643M	P31	3585225	B532A04851SPF KDF400	G100
3483073	T331M140X200R6HX KC7542	M45	3556397	MB24RBHT06K	K125	3580787	UCDE750K5SBR KC643M	P31	3585227	B532A05200SPF KDF400	G100
3483074	T331MF140X150R6HX KC7542	M45	3556398	MB30RBHT06K	K125	3580788	UCDE1000K5SBR KC643M	P31	3585228	B532A06375SPF KDF400	G100
3483075	T331M160X200R6HX KC7542	M45	3556399	MB40RBHT09K	K125	3580789	UCDE1000K5SBR KC643M	P31	3585229	B532A06400SPF KDF400	G100
3491692	B978A13100 KC7315	G140	3556400	MB50RBHT09K	K125	3580790	UCDE1000K5SBR KC643M	P31	3585230	B532A07938SPF KDF400	G100
3492010	MCC080001	V88, V91	3556401	MB66RBHT12K	K125	3580791	UCDE500J5SBR KC643M	P33	3585233	B532A09563SPF KDF400	G100
3492053	S2192C	T17	3556402	MB66RBHT12LK	K125	3580792	UCDE500J5SBR KC643M	P33	3585235	B532A12725SPF KDF400	G100
3494648	KSHR800HN5345C10	S20	3556403	MB87RBHT12K	K125	3580803	UCDE500J5SBR KC643M	P33	3586088	KSEM125SEFM	H87
3494649	KSHR1000HN5345C10	S20	3556404	MB87RBHT16LK	K125	3580804	UCDE500J5SBR KC643M	P33	3586089	KSEM130SEFM	H87
3494650	KSHR1200HN5345C10	S20	3556405	MB115RBHT16LK	K125	3580805	UCDE625J5SBR KC643M	P33	3586090	KSEM135SEFM	H87
3503895	EC1864EJ KC422M	T82	3556992	KGMSR1665N	C143	3580806	UCDE625J5SBR KC643M	P33	3586091	KSEM140SEFM	H87
3505052	B707A03175FBG KC7315	G110	3557103	KGMSL1665N	C143	3580807	UCDE750J5SBR KC643M	P33	3586092	KSEM145SEFM	H87
3505133	B707A03970FBG KC7315	G110	3557104	KGMSR2065N	C143	3580808	UCDE750J5SBR KC643M	P33	3586183	KSEM150SEFM	H87
3505134	B707A04763FBG KC7315	G110	3557105	KGMSL2065N	C143	3580809	UCDE750J5SBR KC643M	P33	3586184	KSEM155SEFM	H87
3505135	B707A06350FBG KC7315	G110	3557106	KGMSR2465N	C143	3580810	UCDE1000J5SBR KC643M	P33	3586185	KSEM160SEFM	H87
3505136	B707A07145FBG KC7315	G111	3557107	KGMSL2465N	C143	3580811	UCDE1000J5SBR KC643M	P33	3586186	KSEM165SEFM	H87
3505137	B707A07938FBG KC7315	G111	3557108	KGMSR1665N	C145	3580812	UCDE1000J5SBR KC643M	P33	3586187	KSEM170SEFM	H87
3505138	B707A08334FBG KC7315	G111	3557109	KGMSL1665N	C145	3580813	UCDE500K5SBR KC643M	P33	3586188	KSEM175SEFM	H87
3505139	B707A09129FBG KC7315	G111	3557110	KGMSR2065N	C145	3580814	UCDE500K5SBR KC643M	P33	3586189	KSEM180SEFM	H87
3505140	B707A09525FBG KC7315	G111	3557111	KGMEL2065N	C145	3580815	UCDE500K5SBR KC643M	P33	3586190	KSEM185SEFM	H87
3505141	B707A10320FBG KC7315	G111	3557113	KGMEL2465N	C145	3580816	UCDE500K5SBR KC643M	P33	3586191	KSEM190SEFM	H87
3505142	B707A11111FBG KC7315	G111	3557114	A4M65R0620M	C138	3580817	UCDE625K5SBR KC643M	P33	3586192	KSEM195SEFM	H87
3505143	B707A11509FBG KC7315	G111	3557115	A4M65L0620M	C138	3580818	UCDE625K5SBR KC643M	P33	3586193	KSEM200SEFM	H87
3505144	B707A11908FBG KC7315	G111	3557116	A4M65R0626M	C138	3580819	UCDE750K5SBR KC643M	P33	3586194	KSEM205SEFM	H87
3505145	B707A14288FBG KC7315	G111	3557117	A4M65L0626M	C138	3580820	UCDE750K5SBR KC643M	P33	3586195	KSEM210SEFM	H87
3505146	B707A15875FBG KC7315	G112	3557119	A4M65L0820M	C138	3580821	UCDE750K5SBR KC643M	P33	3586196	KSEM215SEFM	H87
3505147	B707A17463FBG KC7315	G112	3557120	A4M65R0826M	C138	3580822	UCDE1000K5SBR KC643M	P33	3586197	KSEM220SEFM	H87
3505148	B707A19050FBG KC7315	G112	3557121	A4M65L0826M	C138	3580833	UCDE1000K5SBR KC643M	P33	3586198	KSEM225SEFM	H87
3505149	B707A15500FBG KC7315	G112	3557123	A4M65L1020M	C138	3580834	UCDE1000K5SBR KC643M	P33	3586199	KSEM230SEFM	H87
3505150	B707A16500FBG KC7315	G112	3557124	A4M65R1026M	C138	3580836	UCDE188J5SBR KC643M	P30	3586200	KSEM235SEFM	H87
3505151	B707A17500FBG KC7315	G112	3557125	A4M65L1026M	C138	3580837	UCDE188J5SBR KC643M	P30	3586201	KSEM240SEFM	H87
3505152	B707A18500FBG KC7315	G112	3557131	A4M65R0624A070-112	C139	3580838	UCDE188J5SBR KC643M	P30	3586202	KSEM245SEFM	H87
3505952	B966A20000 KC7315	G132	3557132	A4M65L0624A070-112	C140	3580839	UCDE250J5SBR KC643M	P30	3586203	KSEM250SEFM	H87
3519355	B707A10800FBG KC7315	G111	3557163	A4M65R0624A100-212	C139	3580840	UCDE250J5SBR KC643M	P30	3586204	KSEM255SEFM	H87
3521303	KSEM2330HPGM KC7315	H55	3557164	A4M65L0624A100-212	C140	3580841	UCDE250J5SBR KC643M	P30	3586205	KSEM260SEFM	H87
3526417	KSEM1935HPGM KC7315	H54	3557165	A4M65R0624A200-999	C139	3580842	UCDE312J5SBR KC643M	P30	3586206	KSEM265SEFM	H87
3528124	B976A03180 KC7315	G134	3557166	A4M65L0624A200-999	C140	3580863	UCDE312J5SBR KC643M	P30	3586207	KSEM270SEFM	H87
3528125	B976A03500 KC7315	G134	3557167	A4M65R0824A090-200	C139	3580864	UCDE312J5SBR KC643M	P30	3586208	KSEM275SEFM	H87
3528126	B976A04620 KC7315	G135	3557169	A4M65R0824A184-999	C139	3580865	UCDE375J5SBR KC643M	P30	3586209	KSEM280SEFM	H87
3528127	B976A05250 KC7315	G135	3557173	A4M65R1024A200-999	C139	3580866	UCDE375J5SBR KC643M	P30	3586210	KSEM285SEFM	H87
3528128	B976A06530 KC7315	G135	3557174	A4M65L1024A200-999	C140	3580867	UCDE375J5SBR KC643M	P30	3586211	KSEM290SEFM	H87
3528129	B976A06750 KC7315	G135	3557175	A4M65R0624B070-112	C141	3580868	UCDE500J5SBR KC643M	P30	3586212	KSEM295SEFM	H87
3528131	B976A08430 KC7315	G136	3557176	A4M65L0624B070-112	C142	3580869	UCDE500J5SBR KC643M	P30	3586213	KSEM300SEFM	H87
3528132	B976A09750 KC7315	G136	3557177	A4M65R0624B100-212	C141	3580870	UCDE500J5SBR KC643M	P30	3586214	KSEM305SEFM	H87
3547022	XNGJ535ANSNGD3W KCK15	S21	3557178	A4M65L0624B100-212	C142	3580871	UCDE500J5SBR KC643M	P30	3586215	KSEM310SEFM	H87
3547033	XNGJ535ANSNGD3W KC725M	S21	3557179	A4M65R0624B200-999	C141	3580872	UCDE625J5SBR KC643M	P30	3586216	KSEM315SEFM	H87
3547035	XNGJ535ANSNGD3W KCPK30	S21	3557180	A4M65L0624B200-999	C142	3580873	UCDE625J5SBR KC643M	P30	3586217	KSEM320SEFM	H87
3553429	KGMSR2525M65	C144	3557181	A4M65R0824B090-200	C141	3580874	UCDE750J5SBR KC643M	P31	3586519		

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3586549	HSK63RBHT40	K122	3616778	KSEM3220HPGM KC7315	H55	3640744	B292A04200YPL KC7315	G88	3642028	EP1012EHD KC522M	T36, T46
3586550	HSK63RBHT50	K122	3617131	RIQ06E1306 KC6305	K58	3640745	B292A04300YPL KC7315	G88	3642029	EP1012EHD KC725M	T36, T46
3586551	HSK63RBHT66	K122	3636039	RP2150E KYSP30	V157	3640746	B292A04500YPL KC7315	G88	3642031	EP1012EHD KCPK30	T36, T46
3586563	HSK63RBHT87	K122	3637915	D28TTB26KM40	B410	3640747	B292A04800YPL KC7315	G88	3642093	EP1016EHD KC522M	T36, T46
3586564	SF075RBHT24	K123	3637916	D32TTB29KM40	B410	3640748	B292A05000YPL KC7315	G88	3642094	EP1016EHD KC725M	T36, T46
3586565	SF100RBHT30	K123	3637917	D40TTB36KM40	B410	3640749	B292A05100YPL KC7315	G88	3642096	EP1016EHD KCPK30	T36, T46
3586566	SF125RBHT40	K123	3638033	D48TTB45KM63	B410	3640750	B292A05200YPL KC7315	G88	3642097	EP1020EHD KC725M	T36, T46
3586567	SF100RBHT50	K123	3638034	D64TTB58KM63	B410	3640751	B292A05410YPL KC7315	G88	3642098	EP1020EHD KCPK30	T36, T46
3586569	SF125RBHT66	K123	3638615	B256A05000 KC7315	G58	3640752	B292A05500YPL KC7315	G88	3642102	EP1024EHD KC725M	T36, T46
3586570	SF150RBHT87	K123	3638616	B256A05500 KC7315	G58	3640753	B292A05558YPL KC7315	G88	3642133	EP1024EHD KCPK30	T36, T46
3586571	SF200RBHT115	K123	3638617	B256A05800 KC7315	G58	3640754	B292A05600YPL KC7315	G88	3642136	EP1031EHD KC522M	T36, T46
3586572	KM32FBHS24	K137	3638618	B256A06000 KC7315	G58	3640755	B292A05800YPL KC7315	G88	3642137	EP1031EHD KC725M	T36, T46
3586573	KM32FBHS31	K137	3638619	B256A06500 KC7315	G58	3640756	B292A06000YPL KC7315	G88	3642138	EP1031EHD KCPK30	T36, T46
3586574	KM40FBHS40	K137	3638620	B256A06800 KC7315	G58	3640757	B292A06350YPL KC7315	G89	3642141	EP1004SGD KC725M	T37, T47
3586575	KM50FBHS51	K137	3638621	B256A07800 KC7315	G58	3640758	B292A06500YPL KC7315	G89	3642142	EP1004SGD KCK15	T37, T47
3586576	KM50FBHS67	K137	3638622	B256A08500 KC7315	G58	3640759	B292A06528YPL KC7315	G89	3642163	EP1004SGD KCPK30	T37, T47
3586577	KM50FBHS87	K137	3638623	B256A09000 KC7315	G58	3640760	B292A06746YPL KC7315	G89	3642170	EP1008SGD KC725M	T37, T47
3586578	KM63UTFBHS87	K137	3638624	B256A10000 KC7315	G58	3640761	B292A06800YPL KC7315	G89	3642171	EP1008SGD KCK15	T37, T47
3586579	KM63UTFBHS116	K137	3638625	B256A11800 KC7315	G58	3640762	B292A06900YPL KC7315	G89	3642172	EP1008SGD KCPK30	T37, T47
3586580	HSK63FBHS24	K137	3638626	B256A12000 KC7315	G58	3640763	B292A07000YPL KC7315	G89	3642193	EP1012SGD KC725M	T37, T47
3586582	HSK63FBHS40	K137	3638627	B256A13000 KC7315	G58	3640764	B292A07100YPL KC7315	G89	3642194	EP1012SGD KCK15	T37, T47
3586583	HSK63FBHS51	K137	3638628	B256A15000 KC7315	G58	3640765	B292A07145YPL KC7315	G89	3642195	EP1012SGD KCPK30	T37, T47
3586584	HSK63FBHS67	K137	3639212	NG3062LEST KD1425	C177	3640766	B292A07500YPL KC7315	G89	3642196	EP1016SGD KC725M	T37, T47
3586585	HSK63FBHS87	K137	3639213	NG3062REST KD1425	C177	3640767	B292A07500YPL KC7315	G89	3642198	EP1016SGD KCPK30	T37, T47
3586586	SF075FBHS24	K138	3639214	NG3094LEST KD1425	C177	3640768	B292A08000YPL KC7315	G89	3643846	NPR65R KD1425	E33
3586587	SF100FBHS31	K138	3639215	NG3094REST KD1425	C177	3640769	B292A08334YPL KC7315	G89	3643847	NPR65L KD1425	E33
3586588	SF125FBHS40	K138	3639217	NG3125REST KD1425	C177	3640770	B292A08433YPL KC7315	G89	3643849	NPL505 KD1425	E35
3586589	SF100FBHS51	K138	3639219	NG3189REST KD1425	C177	3640771	B292A08500YPL KC7315	G89	3643850	NPR505 KD1425	E35
3586590	SF125FBHS67	K138	3639221	NGP3088R KD1425	C168	3640772	B292A08733YPL KC7315	G89	3643851	NPL508 KD1425	E35
3586591	SF150FBHS87	K138	3639223	NGP3125R KD1425	C168	3640773	B292A08800YPL KC7315	G89	3643852	NPR508 KD1425	E35
3586592	SF200FBHS116	K138	3639344	NG3062LEST KB1630	C177	3640774	B292A09000YPL KC7315	G89	3643853	NPL51 KD1425	E35
3586593	SSE075FBHS24	K139	3639345	NG3062REST KB1630	C177	3640775	B292A09200YPL KC7315	G89	3643854	NPR51 KD1425	E35
3586594	SSE100FBHS31	K139	3639346	NG3094LEST KB1630	C177	3640776	B292A09347YPL KC7315	G89	3643855	VPGN331 KD1425	B369, E38
3586595	SSE125FBHS40	K139	3639347	NG3094REST KB1630	C177	3640777	B292A09500YPL KC7315	G89	3643856	VPGN332 KD1425	B369, E38
3587211	881.252.250	K137-139	3639348	NG3125LEST KB1630	C177	3640778	B292A09525YPL KC7315	G89	3643858	VPGR331 KD1425	B369, E38
3587212	880.252.250	K137-139	3639349	NG3125REST KB1630	C177	3640779	B292A10000YPL KC7315	G89	3643859	VPGR332 KD1425	B369, E38
3587695	880.252.320	K137-139	3639350	NG4189LEST KB1630	C171, C177	3640780	B292A10200YPL KC7315	G89	3643860	VPGR333 KD1425	B369, E38
3587698	881.252.420	K137-138	3639351	NG4189REST KB1630	C177	3640781	B292A10320YPL KC7315	G89	3643862	DPGR432 KD1425	E32
3587699	880.252.420	K137-138	3639762	SCMT3252MP KCP25	B247	3640782	B292A10500YPL KC7315	G89	3644073	D71P	T30-33, T41-43
3587703	881.252.940	K137-138	3639874	SCMT3252MP KCU10	B226	3640783	B292A10716YPL KC7315	G89	3646911	SNMG866RM KC5010	B104
3587704	841.342.200	K122-124	3639875	DCMT3252MP KCK20	B226	3640784	B292A11000YPL KC7315	G89	3648330	CPG421F KD1425	B363
3587705	848.200.005	K125	3639876	DCMT3252MP KCU10	B226	3640785	B292A11500YPL KC7315	G89	3648331	CPG422F KD1425	B363
3587706	848.200.407	K124-126	3639881	TCMT3252MP KCP25	B258	3640786	B292A12000YPL KC7315	G90	3648332	TPG221F KD1425	B367
3587707	848.250.005	K125	3639883	TCMT3252MP KCU10	B258	3640787	B292A12000YPL KC7315	G90	3648328	DFTO67308D36MD KC7140	H113
3587708	848.250.409	K124-126	3640677	B291A03000YPL KC7315	G88	3640788	B292A12304YPL KC7315	G90	3648430	DFTO57308D32MD KC7140	H113
3587709	848.320.005	K125	3640678	B291A04000YPL KC7315	G88	3640789	B292A12500YPL KC7315	G90	3648474	DFTO70408D45MD KC7140	H113
3587710	848.320.413	K124-126	3640679	B291A04500YPL KC7315	G88	3640790	B292A13000YPL KC7315	G90	3648478	DFTO90508D56MD KC7140	H113
3587711	841.342.200	K122-123	3640680	B291A05000YPL KC7315	G88	3640791	B292A13500YPL KC7315	G90	3648584	TPG321F KD1425	B367
3587712	848.420.005	K125	3640681	B291A05100YPL KC7315	G88	3640792	B292A14000YPL KC7315	G90	3648585	TPG322F KD1425	B367
3587713	848.420.614	K124-126	3640682	B291A05500YPL KC7315	G88	3640793	B292A14500YPL KC7315	G90	3648588	TPG432F KD1425	B367
3587714	841.142.550	K122-123	3640703	B291A06000YPL KC7315	G88	3640794	B292A15000YPL KC7315	G90	3649187	EC1008FLDJ KCK10M	T35, T44
3587715	848.550.620	K124-126	3640704	B291A06350YPL KC7315	G89	3640795	B292A15500YPL KC7315	G90	3649188	EC1008FLDJ KCK22M	T35, T45
3587716	848.550.005	K125	3640705	B291A06500YPL KC7315	G89	3640796	B292A16000YPL KC7315	G90	3649189	EC1008FLDJ KC520M	T36, T45
3587717	843.012.000	K124-126	3640706	B291A06800YPL KC7315	G89	3640797	B292A16500YPL KC7315	G90	3649190	EC1008FLDJ KC522M	T36, T45
3587718	844.012.000	K124-126	3640707	B291A07000YPL KC7315	G89	3640798	B292A17000YPL KC7315	G90	3649191	EC1008FLDJ KC725M	T36, T45
3587719	845.012.000	K124-126	3640708	B291A07500YPL KC7315	G89	3640799	B292A17500YPL KC7315	G90	3649192	EC1008FLDJ KCPK30	T36, T45
3587720	846.012.000	K124-126	3640709	B291A08000YPL KC7315	G89	3640800	B292A18000YPL KC7315	G90	3649213	EC1008FLDJ KCK15	T36, T45
3587721	847.012.000	K124-126	3640710	B291A08334YPL KC7315	G89	3640801	B292A18500YPL KC7315	G90	3650831	SCMT432MP KCK20	B247
3587722	841.142.720	K122-123	3640711	B291A08500YPL KC7315	G89	3640802	B292A19000YPL KC7315	G90	3650903	SCMT432MP KCP25	B247
3587723	848.720.000	K124-126	3640712	B291A09000YPL KC7315	G89	3640803	B292A19050YPL KC7315	G90	3654372	SPET31251PPER8GB2 KC725M	T111, U31
3587724	848.720.005	K125	3640713	B291A09500YPL KC7315	G89	3640806	B292A2000YPL KC7315	G90	3654503	SPET31251PPER8GB2 KCPK30	T111, U31
3587725	844.016.000	K124-126	3640714	B291A09525YPL KC7315	G89	3640807	B292A20500YPL KC7315	G90	3654504	SPET31251PPER8GB2 KCK15	T111, U31
3587726	845.016.000	K124-126	3640715	B291A10000YPL KC7315	G89	3640808	B292A21000YPL KC7315	G90	3654505	SPET31251PPER8GB2 KC725M	T111, U31
3587727	846.016.000	K124-126	3640716	B291A10320YPL KC7315	G89	3641465	DTQ3054	S94, S98, S100	3654506	SPET31251PPER8GB2 KCK15	T111, U31
3587728	847.016.000	K124-126	3640717	B291A10500YPL KC7315	G89	3641473	BTQT25	S94, S98, S100	3654507	SPET31251PPER8GB2 KC725M	T111, U31
3587729	841.142.940	K122-123	3640718	B291A11000YPL KC7315	G89	3641572	CRDPN162DV	B168, B386	3654508	SPET31251PPER8GB2 KC725M	T111, U31
3587730	848.940.640	K124, K126	3640719	B291A11500YPL KC7315	G89	3641593	CRDPN163DV	B168, B386	3654509	SPET31251PPER8GB2 KC725M	T111, U31
3588387	KSEM1604HPGM KC7315	H54	3640720	B291A12000YPL KC7315	G90	3641594	CRDPN203DV	B168, B386	3654506	SPET31251PPER8GB2 KCPK30	T111, U31
3588680	KM63MKZKMSLF65Y	C148	3640721	B291A12500YPL KC7315	G90	3641595	CRDPN164DV	B168, B386	3654507	SPET31251PPER8GB2 KCK15	T111, U31
3592190	B978A05600 KC7315	G139	3640722	B291A12700YPL KC7315	G90	3641603	CRGPR162DV	B169, B387	3655880	CNGA431FST KD1400	B362
3593089	B978A04500 KC7315	G139	3640723	B291A13000YPL KC7315	G90	3641736	CRGPN163DV	B168, B386			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3656070	VNGA331FST KD1400	B368	3659965	CPGW2151FST KD1400	B362	3660448	ABDE1000J3ARC K600	P117	3682450	EC1004FLDJ KC410M	T35, T44
3656071	VNGA332FST KD1400	B368	3659966	CPGW3251FST KD1400	B362	3660449	ABDE1000J3ARE K600	P117	3682451	EC1004FLDJ KC422M	T35, T45
3656072	VNMS331FST KD1400	B368	3659967	CPGW3252FST KD1400	B362	3660590	CM214	B168-169, B386-387	3682452	EC1004ELD KC520M	T36, T45
3656073	VNMS332FST KD1400	B368	3659968	CPGW21505FST KD1400	B364				3682513	EC1004ELD KC522M	T36, T45
3656449	CNGA431FST KD1425	B362	3659969	CPGW2151FST KD1400	B364	3660591	CM219	B168-169, B386-387	3682514	EC1004ELD KC725M	T36, T45
3656450	CNGA432FST KD1425	B362	3659970	CPGW2152FST KD1400	B364				3682515	EC1004ELD KCPK30	T36, T45
3656452	CNMS432FST KD1425	B363	3659971	CPGW3251FST KD1400	B364	3660592	CM216	B168-169, B386-387	3682520	EC1012FLDJ KC410M	T35, T44
3656463	DNGA431FST KD1425	B365	3659972	CPGW3252FST KD1400	B364				3682653	EC1012ELD KC522M	T36, T45
3656464	DNGA432FST KD1425	B365	3659975	CPGW2151FWST KD1400	B364	3663324	KSSC709813RX	U35	3682655	EC1012ELD KC725M	T36, T45
3656466	DNMS432FST KD1425	B365	3659976	CPGW3252FWST KD1400	B364	3663325	KSSC709813LX	U35	3682777	EC1016FLDJ KC410M	T35, T44
3656467	TNMS331FST KD1425	B366	3659977	CPGW432FWST KD1400	B364	3663326	KSSC813917FX	U36	3682778	EC1016FLDJ KC422M	T35, T45
3656468	TNMS332FST KD1425	B366	3659978	DCGW2151FST KD1400	B364	3663327	KSSC813917LX	U36	3682780	EC1016ELD KC522M	T36, T45
3656470	VNGA332FST KD1425	B368	3659979	DCGW3251FST KD1400	B364	3667056	SIF70HC12090M	K51	3682781	EC1016ELD KC725M	T36, T45
3656471	VNMS331FST KD1425	B368	3659980	DPGW21505FST KD1400	B366	3667057	SIF70HC20100M	K51	3682782	EC1016ELD KCPK30	T36, T45
3656472	VNMS332FST KD1425	B368	3659981	DPGW2151FST KD1400	B366	3667058	SIF80HC12090M	K51	3683704	B70A03700FBG KC7315	G110
3656474	VNGA432FST KD1425	B369	3659982	DPGW3251FST KD1400	B366	3667059	SIF80HC20100M	K51	3683428	KSEM3975HPGM KC7315	H55
3658815	AADE0250J3A K600	P128	3659985	TCGW2151FST KD1400	B366	3667060	SIF80HC25100M	K51	3684779	EC1002FLDJ KC410M	T35, T44
3658816	AADE0250J3ARB K600	P128	3659986	TCGW3251FST KD1400	B366	3667061	SIF100HC12090M	K51	3684824	EC1031FLDJ KC410M	T35, T44
3658817	AADE0250J3BRA K600	P128	3659987	TPGW2151FST KD1400	B367	3667062	SIF100HC20100M	K51	3684828	EC1031FLDJ KC725M	T36
3658818	AADE0250J3BRB K600	P128	3659988	TPGW2152FST KD1400	B367	3667918	B707A11350FBG KC7315	G111	3684829	EC1031ELD KCPK30	T36, T45
3658819	AADE0250J3C K600	P128	3659990	TPGW3252FST KD1400	B367	3668023	SIF100HC25100M	K51	3690478	KSEMP1400HPGM KC7315	H11
3658820	AADE0250J3CRA K600	P128	3659991	VBGW221FST KD1400	B368	3668056	B291A07200YPL KC7315	G89	3690479	KSEMP1500HPGM KC7315	H11
3658821	AADE0250J3CRB K600	P128	3659992	VBGW331FST KD1400	B368	3668058	B292A07200YPL KC7315	G89	3690480	KSEMP1600HPGM KC7315	H11
3658822	AADE0375J3A K600	P128	3659994	CDHB120605FST KD1425	B362	3668624	RMS05000H7HF K605	K9	3690481	KSEMP1700HPGM KC7315	H11
3658825	AADE0375J3BRB K600	P128	3659996	CPGW2151FST KD1425	B362	3668625	RMS05500H7HF K605	K9	3690482	KSEMP1800HPGM KC7315	H11
3658826	AADE0375J3BRC K600	P128	3659997	CPGW3251FST KD1425	B362	3668626	RMS06000H7HF K605	K9	3690713	KSEMP1900HPGM KC7315	H11
3658827	AADE0375J3C K600	P129	3659998	CPGW3252FST KD1425	B362	3668627	RMS06500H7HF K605	K9	3690714	KSEMP2100HPGM KC7315	H11
3658828	AADE0375J3CRB K600	P129	3659999	CPGW21505FST KD1425	B364	3668628	RMS07000H7HF K605	K9	3690715	KSEMP2200HPGM KC7315	H11
3658829	AADE0375J3CRC K600	P129	3660000	CPGW2151FST KD1425	B364	3668629	RMS08000H7HF K605	K9	3690716	KSEMP2300HPGM KC7315	H11
3658830	AADE0500J3A K600	P129	3660001	CPGW2152FST KD1425	B364	3668630	RMS09000H7HF K605	K9	3690717	KSEMP2400HPGM KC7315	H11
3658831	AADE0500J3ARB K600	P129	3660002	CPGW3251FST KD1425	B364	3668631	RMS10000H7HF K605	K9	3690718	KSEMP2500HPGM KC7315	H11
3658832	AADE0500J3ARC K600	P129	3660003	CPGW3252FST KD1425	B364	3668632	RMS11000H7HF K605	K9	3690719	KSEMP2600HPGM KC7315	H11
3658833	AADE0500J3BRB K600	P129	3660006	CPGW2151FWST KD1425	B364	3668633	RMS12000H7HF K605	K9	3690720	KSEMP2700HPGM KC7315	H11
3658834	AADE0500J3BRC K600	P129	3660007	CPGW3252FWST KD1425	B364	3668634	RMS13000H7HF K605	K9	3690721	KSEMP2800HPGM KC7315	H11
3658835	AADE0500J3BRE K600	P129	3660008	CPGW432FWST KD1425	B364	3668635	RMS14000H7HF K605	K9	3690722	KSEMP2900HPGM KC7315	H11
3658836	AADE0500J3C K600	P129	3660009	DCGW2151FST KD1425	B364	3668636	RMS15000H7HF K605	K8	3690723	KSEMP3000HPGM KC7315	H11
3658837	AADE0500J3CRB K600	P129	3660010	DCGW3251FST KD1425	B364	3668637	RMS16000H7HF K605	K8	3690724	KSEMP3100HPGM KC7315	H11
3658838	AADE0500J3CRC K600	P129	3660011	DPGW21505FST KD1425	B366	3668638	RMS17000H7HF K605	K8	3690725	KSEMP3200HPGM KC7315	H11
3658839	AADE0500J3D K600	P129	3660012	DPGW2151FST KD1425	B366	3668639	RMS18000H7HF K605	K8	3690726	KSEMP3300HPGM KC7315	H11
3658840	AADE0500J3DRB K600	P129	3660013	DPGW3251FST KD1425	B366	3668640	RMS19000H7HF K605	K8	3727352	ASPM07001802	T63-64
3658841	AADE0500J3DRC K600	P129	3660015	DPGW3251FWST KD1425	B366	3668641	RMS20000H7HF K605	K8	3732218	B70A05200FBG KC7315	G110
3658843	AADE0625J3B K600	P130	3660016	TCGW2151FST KD1425	B366	3668642	RMS21000H7HF K605	K8	3732889	M1HR125E14W125Z2L200C4	T63, T72
3658845	AADE0750J3A K600	P130	3660018	TPGW2151FST KD1425	B367	3668643	RMS22000H7HF K605	K8	3732890	M1HR150E14W125Z3L200C6	T63, T72
3658846	AADE0750J3BRB K600	P130	3660020	TPGW3251FST KD1425	B367	3668644	RMS23000H7HF K605	K8	3732891	M1HR150E14W125Z3L250C9	T63, T72
3658847	AADE0750J3BRC K600	P130	3660021	TPGW3252FST KD1425	B367	3668645	RMS24000H7HF K605	K8	3732892	M1HR150E14W125Z3L300C12	T63, T72
3658848	AADE0750J3BRE K600	P130	3660022	VBGW221FST KD1425	B368	3668646	RMS25000H7HF K605	K8	3732893	M1HR200E14S075Z3L200C6	T64, T72
3658849	AADE0750J3C K600	P130	3660023	VBGW331FST KD1425	B368	3668647	RMS26000H7HF K605	K8	3732894	M1HR200E14S075Z3L250C9	T64, T72
3658850	AADE0750J3CRB K600	P130	3660154	KSEMP1300HPGM KC7315	H111	3668648	RMS27000H7HF K605	K8	3732935	M1HR200E14W150Z3L300C12	T63, T72
3658851	AADE0750J3CRC K600	P130	3660156	KSEMP2000HPGM KC7315	H111	3668649	RMS28000H7HF K605	K8	3732936	M1HR200E14S100Z3L250C9	T64, T72
3658852	AADE0750J3D K600	P130	3660157	KSEMP3400HPGM KC7315	H111	3668650	RMS29000H7HF K605	K9	3732937	M1HR250E14S100Z3L300C12	T64, T72
3658863	AADE0750J3DRB K600	P130	3660396	ABDF0250J2AS K600	P116	3668651	RMS30000H7HF K605	K9	3732938	M1HR250E14S100Z4L250C12	T64, T72
3658864	AADE0750J3DRC K600	P130	3660397	ABDF0250J2ARB K600	P116	3668652	RMS31000H7HF K605	K9	3732939	M1HR250E14S100Z4L300C12	T64, T72
3658865	AADE1000J3A K600	P130	3660398	ABDF0312J2ARB K600	P116	3668653	RMS32000H7HF K605	K9	3733337	CNGA433S0420MT KB5630	B310, B330
3658866	AADE1000J3ARB K600	P130	3660399	ABDF0375J2AS K600	P116	3668654	RMS33000H7HF K605	K8	3733417	DNGA431S0425MT KB5630	B310, B334
3658869	AADE1000J3B K600	P130	3660400	ABDF0375J2ARB K600	P116	3668655	RMS34000H7HF K605	K8	3737769	KSEM2110HPGM KC7315	H54
3658871	AADE1000J3BRC K600	P130	3660401	ABDE0250J3AS K600	P117	3668656	RMS35000H7HF K605	K8	3738473	A4G0605M06U04GMN KCP25	C106
3658872	AADE1000J3C K600	P130	3660402	ABDE0250J3ARB K600	P117	3668657	RMS36000H7HF K605	K9	3738488	DV40BSIF80061M	K49
3658873	AADE1000J3CRB K600	P130	3660423	ABDE0312J3ARB K600	P117	3668658	RMS37000H7HF K605	K9	3738490	DV50BSIF70066M	K49
3658874	AADE1000J3CRC K600	P130	3660424	ABDE0375J3AS K600	P117	3668659	RMS38000H7HF K605	K9	3738491	DV50BSIF100060M	K49
3658875	AADF0125J2A K600	P126	3660425	ABDE0375J3ARB K600	P117	3668660	RMS39000H7HF K605	K8	3738492	BT40BSIF80063M	K48
3658877	AADF0188J2A K600	P126	3660426	ABDF0500J2AS K600	P116	3668661	RMS40000H7HF K605	K8	3738503	DFT05T308D33MD KC7140	H13
3658879	AADF0250J2A K600	P126	3660427	ABDF0500J2ARB K600	P116	3668662	RMS41000H7HF K605	K8	3738504	DFT06T308D39MD KC7140	H13
3658881	AADF0250J2BRA K600	P126	3660428	ABDF0500J2ARC K600	P116	3668663	RMS42000H7HF K605	K8	3738505	DFT06T308D44MD KC7140	H13
3658882	AADF0250J2BRB K600	P126	3660429	ABDE0500J3AS K600	P117	3668664	RMS43000H7HF K605	K8	3738506	CV50BSIF70236	K48
3658893	AADF0250J2C K600	P126	3660430	ABDE0500J3ARB K600	P117	3668665	RMS44000H7HF K605	K8	3738507	CV50BSIF100236	K48
3658901	AADF0375J2C K600	P126	3660431	ABDE0500J3ARC K600	P117	3668666	RMS45000H7HF K605	K8	3738508	HSK63ASIF70066M	K50
3658902	AADF0375J2CRB K600	P126	3660432	ABDF0625J2AS K600	P116	3668667	RMS46000H7HF K605	K8	3738510	HSK80ASIF70066M	K50
3658903	AADF0375J2CRC K600	P126	3660433	ABDF0750J2AS K600	P116	3668668	RMS47000H7HF K605	K8	3738511	HSK100ASIF70050M	K50
3658904	AADF0500J2A K600	P126	3660434	ABDF0750J2ARB K600	P116	3668669	RMS48000H7HF K605	K8	3738512	HSK100ASIF100070M	K50
3658907	AADF0500J2BRB K600	P127	3660435	ABDF0750J2ARC K600	P116	3668670	RMS49000H7HF K605	K8	3739296	B292A15600YPL KC7315	G90
3658910	AADF0500J2C K600	P127	3660436	ABDF0750J2ARE K600	P116						
3658911	AADF0500J2CRB K600	P127	3660437	ABDF1000J2AS K600	P116						
3658912											



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3742210	KSEMP3300FDS32A1M	H104, H115, H122	3744929	SCMT432MP KCM25	B247	3746126	CCMT32505UF KCP05	B192	3748397	CCMT2152LF KCP05	B191
3742211	KSEMP5000FDS50A1M	H105, H116, H122	3744930	SCMT433MP KCM25	B247	3746132	DCMT32505UF KCP05	B226	3748401	CPMT3251LF KCP05	B207
3742212	KSEMP7000FDS63A1M	H105, H116, H123	3744931	TCMT3251MP KCM25	B258	3746133	DCMT3251UF KCP05	B226	3748422	VBMT221LF KCP05	B281
3742293	WD32FDS32321M	H127	3744932	TCMT3252MP KCM25	B258	3746134	DCMT3252UF KCP05	B226	3748423	VBMT222LF KCP05	B281
3742294	WD50FDS50503M	H127	3744935	VBMT331MP KCM25	B281	3746135	SCMT3252UF KCP05	B247	3748425	VBMT332LF KCP05	B281
3742296	WD50FDS63779M	H127	3744936	VBMT332MP KCM25	B281	3746137	TPMT21505UF KCP05	B269	3749127	HNGJ535ANSNHD KC520M	S19, S22
3742470	M1D062E1002CM08	T29	3744940	CCMT2151MP KCP10	B191	3746138	TPMT2151UF KCP05	B269	3749128	HNGJ5351ANSNHD KC520M	S19, S22
3742471	M1D075E1002CM10	T29	3744941	CCMT3251MP KCP10	B191	3747113	EP1010EHD KC522M	T36, T46	3749198	CNMG433MW KCP10	B52
3742472	M1D075E1003CM10	T29	3744942	CCMT3252MP KCP10	B191	3747114	EP1010EHD KC725M	T36, T46	3749200	DNMG442MW KCP10	B82
3742513	M1D100E1003CM12	T29	3744943	CCMT432MP KCP10	B191	3747115	EP1010EHD KCK15	T36, T46	3749253	CNMG433MW KCP10	B104
3742514	M1D100E1004CM12	T29	3744945	CPMT3252MP KCP10	B207	3747116	EP1010EHD KCK30	T36, T46	3749254	TNMG332MW KCP10	B126
3742516	M1D125E1005CM16	T29	3744946	DCMT3251MP KCP10	B226	3747124	KSHR250HN5345XC3	S20	3749255	TNMG333MW KCP10	B126
3742517	M1D150E1006CM16	T29	3744947	DCMT3252MP KCP10	B226	3747125	KSHR300HN5345XC4	S20	3749256	WNMG332MW KCP10	B160
3742518	M1D050E1001C062L350	T31	3744949	SCMT3252MP KCP10	B247	3747126	KSHR400HN5345XC5	S20	3749258	WNMG432MW KCP10	B160
3742519	M1D062E1002C075L400	T31	3744950	SCMT432MP KCP10	B247	3747127	KSHR500HN5345XC6	S20	3749259	CNMG431RP KCP10	B53
3742520	M1D075E1002C075L450	T31	3744951	TCMT3252MP KCP10	B258	3747128	KSHR600HN5345XC8	S20	3749260	CNMG433RP KCP10	B53
3742521	M1D075E1003C075L600	T31	3744955	CCMT3252MP KCK20	B191	3747140	CNGA431S0425MT KB5630	B310, B330	3749261	CNMG434RP KCP10	B53
3742522	M1D100E1003C100L480	T31	3744956	CCMT432MP KCK20	B191	3747141	CNGA432S0425MT KB5630	B310, B330	3749262	CNMG542RP KCP10	B53
3742523	M1D100E1004C100L480	T31	3744957	CCMT433MP KCK20	B191	3747142	CNGA433S0425MT KB5630	B310, B330	3749263	CNMG543RP KCP10	B53
3742524	M1D125E1004C125L520	T31	3744958	CPMT3252MP KCK20	B207	3747223	CNGA433S0425MT KB5630	B310, B330	3749264	CNMG544RP KCP10	B53
3742535	M1D125E1005C125L520	T31	3744962	SCMT3251MP KCK20	B247	3747225	DNGA432S0425MT KB5630	B310, B334	3749266	CNMG644RP KCP10	B53
3742536	M1D062E1002C062L670	T32	3744965	SPMT3252MP KCK20	B253	3747224	CNGA432S0425FWMT KB5630	B310, B330	3749267	DNMG332RP KCP10	B84
3742537	M1D062E1002C062L670R	T32	3744974	VBMT332MP KCK20	B281	3747225	DNGA432S0425MT KB5630	B310, B334	3749269	DNMG432RP KCP10	B84
3742538	M1D075E1002C075L670	T31	3744975	CCMT2151MP KCU10	B191	3747226	VNGA331S0425MT KB5630	B313, B342	3749271	CNMG434RP KCP10	B84
3742540	M1D075E1003C075L670	T31	3744976	CCMT3251MP KCU10	B191	3747227	VNGA332S0425MT KB5630	B313, B342	3749272	DNMG443RP KCP10	B84
3742541	M1D075E1003C075L670R	T32	3744977	CCMT3252MP KCU10	B191	3747228	RNG32S0815C KB5630	B337	3749273	DNMG444RP KCP10	B84
3742542	M1D088E1003C075L670	T31	3744978	CCMT432MP KCU10	B191	3747231	CCGW21505S0415C KB5630	B311, B328	3749274	RCMT1204MORP KCP10	B242
3742543	M1D100E1003C100L800	T31	3744979	CPMT2152MP KCU10	B207	3747232	CCGW2151S0415C KB5630	B311, B328	3749277	SNMG432RP KCP10	B105
3742544	M1D100E1003C100L800R	T32	3744980	CPMT3252MP KCU10	B207	3747233	CCGW3251S0415MT KB5630	B311, B328	3749278	SNMG433RP KCP10	B105
3742545	M1D100E1004C100L800	T31	3744981	DCMT3251MP KCU10	B226	3747234	CCGW3252S0415MT KB5630	B311, B328	3749279	SNMG434RP KCP10	B105
3742546	M1D100E1004C100L800R	T32	3744982	DCMT3253MP KCU10	B226	3747237	CPGW3251S0415MT KB5630	B331	3749282	SNMG643RP KCP10	B105
3742547	M1D110E1004C100L800	T31	3744983	DPMT3252MP KCU10	B233	3747238	CPGW3252S0415MT KB5630	B311, B331	3749283	WNMG434RP KCP10	B105
3742548	M1D125E1004C125L800	T31	3744984	SCMT3251MP KCU10	B247	3747239	DCGW21505S0415C KB5630	B311, B332	3749284	TNMG332RP KCP10	B127
3742550	M1D125E1005C125L800	T31	3744985	SCMT431MP KCU10	B247	3747240	DCGW2151S0415C KB5630	B311, B332	3749285	TNMG333RP KCP10	B127
3742551	M1D125E1005C125L800R	T32	3744986	SCMT432MP KCU10	B247	3747241	DCGW3251S0415MT KB5630	B312, B332	3749286	TNMG334RP KCP10	B127
3742552	M1D062E1002W075L100	T30	3744987	SPMT3252MP KCU10	B253	3747242	DCGW3252S0415MT KB5630	B312, B332	3749287	WNMG434RP KCP10	B161
3742553	M1D075E1002W075L110	T30	3744988	SPMT432MP KCU10	B253	3747244	TPGW2152S0415C KB5630	B312, B340	3749288	WNMG435RP KCP10	B161
3742554	M1D075E1003W075L110	T30	3744989	TCMT2152MP KCU10	B258	3747245	VBGW331S0415MT KB5630	B312, B341	3749289	TNMG434RP KCP10	B127
3742555	M1D100E1003W100L125	T30	3744990	TCMT3251MP KCU10	B258	3747246	VBGW332S0415MT KB5630	B312, B341	3749290	TNMG435RP KCP10	B127
3742556	M1D100E1004W100L125	T30	3745033	S449	T64	3748345	CNMG432CT KCP05	B48	3749291	TNMG332RP KCP10	B148
3742557	M1D125E1004W125L160	T30	3745036	S464	T64	3748348	DNMG332CT KCP05	B79	3749292	WNMG332RP KCP10	B161
3742558	M1D125E1005W125L160	T30	3745039	M1D150E1004S075L157	T33	3748363	DNMG443CT KCP05	B79	3749293	WNMG333RP KCP10	B161
3744865	CCMT2151MP KCM15	B191	3745040	M1D150E1006S075L157	T33	3748366	CNMG431FF KCP05	B48	3749294	WNMG334RP KCP10	B161
3744872	DCMT3252MP KCM15	B226	3745041	M1D200E1005S075L157	T33	3748367	CNMG432FF KCP05	B48	3749295	WNMG432RP KCP10	B161
3744873	SCMT3251MP KCM15	B247	3745042	M1D200E1008S075L157	T33	3748368	CNMG432FF KCP05	B48	3749296	WNMG433RP KCP10	B161
3744874	SCMT3252MP KCM15	B247	3745043	M1D250E1006S075L157	T33	3748374	TNMG332FF KCP05	B123	3749297	WNMG434RP KCP10	B161
3744878	SPMT3252MP KCM15	B253	3745045	M1D250E1009S075L157	T33	3748375	VNMG331FF KCP05	B146	3749298	CCMT2151UF KCP10	B192
3744880	TCMT3252MP KCM15	B258	3745047	M1D300E1008S100L175	T33	3748376	VNMG332FF KCP05	B146	3749299	CCMT32505UF KCP10	B192
3744884	CCMT2151MP KCP25	B191	3745048	M1D300E1010S100L175	T33	3748377	CNMG431FW KCP05	B49	3749300	CCMT3251UF KCP10	B192
3744886	CCMT3251MP KCP25	B191	3745049	M1D400E1008S150L200	T33	3748378	CNMG432FW KCP05	B49	3749307	DCMT3252UF KCP10	B226
3744887	CCMT3252MP KCP25	B191	3746074	DNMG331MN KCP05	B81	3748379	CNMG433FW KCP05	B49	3749309	DPMT3251UF KCP10	B233
3744888	CCMT3253MP KCP25	B191	3746075	DNMG332MN KCP05	B81	3748386	CNMG431FF KCP05	B48	3749310	DPMT3252UF KCP10	B233
3744890	CCMT432MP KCP25	B191	3746077	DNMG433MN KCP05	B81	3748387	CNMG432FF KCP05	B48	3749311	SCMT3252UF KCP10	B247
3744891	CCMT433MP KCP25	B191	3746083	VNMG332MN KCP05	B146	3748388	CNMG433FF KCP05	B48	3749318	TPMT3252UF KCP10	B269
3744893	CPMT3252MP KCP25	B207	3746085	CNMG433MW KCP05	B52	3748389	CNMG434FF KCP05	B48	3749336	VNMG434CT KCP10	B79
3744895	DCMT3251MP KCP25	B226	3746086	DNMG442MW KCP05	B82	3748390	CNMG432FF KCP05	B48	3749337	DNMG332CT KCP10	B79
3744896	DCMT3253MP KCP25	B226	3746087	DNMG442MW KCP05	B82	3748393	DNMG332FF KCP05	B79	3749338	DNMG431CT KCP10	B79
3744897	DPMT3252MP KCP25	B233	3746088	VNMG432MW KCP05	B160	3748394	DNMG333FF KCP05	B79	3749339	DNMG432CT KCP10	B79
3744898	SCMT3251MP KCP25	B247	3746089	WNMG432MW KCP05	B160	3748397	CNMG433FW KCP05	B49	3749344	DNMG443CT KCP10	B79
3744900	SCMT433MP KCP25	B247	3746090	DNMG432MW KCP05	B82	3748398	CNMG434FW KCP05	B49	3749347	CNMG431FF KCP10	B48
3744903	SPMT432MP KCP25	B253	3746091	DNMG433MW KCP05	B82	3748399	CNMG435FW KCP05	B49	3749354	CNMG432FF KCP10	B79
3744904	TCMT2152MP KCP25	B258	3746092	DNMG443MW KCP05	B82	3748399	WNMG331FW KCP05	B158	3749355	TNMG331FF KCP10	B123
3744906	TCMT3251MP KCP25	B258	3746093	M1HR075ED10W075Z2L140C6	T41	3748399	WNMG332FW KCP05	B158	3749356	TNMG332FF KCP10	B123
3744907	TCMT3253MP KCP25	B258	3746097	M1HR100ED10W100Z2L180C8	T41	3748399	WNMG333FW KCP05	B158	3749358	SNMG433FF KCP10	B101
3744909	TPMT2152MP KCP25	B269	3746098	M1HR125ED10W125Z2L210C10	T41	3748399	WNMG442FW KCP05	B80	3749359	TNMG331FF KCP10	B123
3744910	TPMT3253MP KCP25	B269	3746099	M1HR125ED10W125Z3L210C15	T41	3748399	WNMG443FW KCP05	B80	3749360	TNMG331FF KCP10	B123
3744911	VBMT331MP KCP25	B281	3746100	M1HR125ED10M16Z2L160C4	T40	3748399	WNMG444FW KCP05	B80	3749361	TNMG332FF KCP10	B101
3744912	VBMT332MP KCP25	B281	3746107	M1HR125ED10M16Z3L160C6	T40	3748399	WNMG445FW KCP05	B80	3749362	TNMG333FF KCP10	B101
3744917	CCMT2151MP KCM25	B191	3746108	M1HR150ED10S075Z3L200C12	T43	3748399	WNMG446FW KCP05	B80	3749363	TNMG334FF KCP10	B101
3744918	CCMT3251MP KCM25	B191	3746109	M1HR150ED10S075Z5L200C20	T43	3748399	WNMG447FW KCP05	B80	3749364	TNMG335FF KCP10	B101
3744919	CCMT3252MP KCM25	B191	3746111	M1HR150ED10S075Z5L240C25	T43	3748399	WNMG448FW KCP05	B80	3749367	DNMG442FW KCP10	B80
3744920	CCMT3253MP KCM25	B191	3746114	CNMG433RP KCP05	B53	3748399	WNMG449FW KCP05	B80	3749368	DNMG443FW KCP10	B80
37449											

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3749377	WNMG432FW KCP10	B158	3751474	CNMG431FN KCP05	B49	3751601	TCMT432LF KCP25	B257	3751743	SNMM543RM KCP25	B107
3749378	WNMG433FW KCP10	B158	3751475	CNMG432FN KCP05	B49	3751602	TPMT18151LF KCP25	B268	3751744	SNMM544RM KCP25	B107
3749379	CCMT2152LF KCP10	B191	3751477	DNMG331FN KCP05	B79	3751603	TPMT2151LF KCP25	B268	3751745	SNMM643RM KCP25	B107
3749380	CCMT432LF KCP10	B191	3751478	DNMG332FN KCP05	B79	3751604	TPMT2152LF KCP25	B268	3751746	SNMM644RM KCP25	B107
3749381	CPMT2151LF KCP10	B207	3751479	DNMG333FN KCP05	B79	3751605	TPMT3251LF KCP25	B268	3751747	SNMM646RM KCP25	B107
3749382	CPMT2152LF KCP10	B207	3751480	DNMG431FN KCP05	B79	3751606	TPMT3252LF KCP25	B268	3751748	TNMM332RM KCP25	B128
3749383	CPMT3251LF KCP10	B207	3751481	DNMG432FN KCP05	B79	3751607	VBMT221LF KCP25	B281	3751749	TNMM333RM KCP25	B128
3749384	CPMT3252LF KCP10	B207	3751482	DNMG433FN KCP05	B79	3751608	VBMT222LF KCP25	B281	3751751	TNMM433RM KCP25	B128
3749386	DCMT2151LF KCP10	B225	3751483	DNMG441FN KCP05	B79	3751609	VBMT331LF KCP25	B281	3751753	TNMM643RM KCP25	B128
3749387	DCMT3252LF KCP10	B225	3751484	DNMG442FN KCP05	B79	3751610	VBMT332LF KCP25	B281	3751754	TNMM644RM KCP25	B128
3749388	DCMT3253LF KCP10	B225	3751485	DNMG443FN KCP05	B79	3751611	WPMT3251LF KCP25	B288	3751755	CNMG432RN KCP25	B53
3749389	DCMT431LF KCP10	B225	3751486	SNMG431FN KCP05	B101	3751615	CCMT3252MW KCP25	B192	3751756	CNMG434RN KCP25	B53
3749390	DCMT432LF KCP10	B225	3751488	TNMG331FN KCP05	B123	3751616	CCMT431MW KCP25	B192	3751757	TNMM543RP KCP25	B56
3749391	DPMT2151LF KCP10	B232	3751490	TNMG333FN KCP05	B123	3751617	CCMT432MW KCP25	B192	3751759	CNMM433RP KCP25	B56
3749392	DPMT3251LF KCP10	B232	3751492	VNMG331FN KCP05	B146	3751618	CNMG433MW KCP25	B208	3751760	CNMM434RP KCP25	B56
3749393	DPMT3252LF KCP10	B232	3751493	VNMG332FN KCP05	B146	3751620	CPMT3252MW KCP25	B208	3751762	CPMT543RP KCP25	B56
3749394	SCMT3251LF KCP10	B246	3751494	WNMG431FN KCP05	B157	3751622	DCMT3252MW KCP25	B226	3751763	CNMM544RP KCP25	B56
3749395	SCMT3252LF KCP10	B246	3751495	WNMG432FN KCP05	B157	3751633	DNMG432MW KCP25	B82	3751764	CNMM643RP KCP25	B56
3749396	SCMT431LF KCP10	B246	3751498	CCMT3252LF KCP05	B191	3751635	CNMG442MW KCP25	B82	3751765	DNMG644RP KCP25	B56
3749399	SPMT3251LF KCP10	B252	3751499	DCMT3251LF KCP05	B225	3751636	DNMG443MW KCP25	B82	3751766	CNMM646RP KCP25	B56
3749401	TCMT2151LF KCP10	B257	3751500	CNMG432MN KCP05	B50	3751637	SNMG432MW KCP25	B104	3751767	DNMM442RP KCP25	B85
3749402	TCMT2152LF KCP10	B257	3751501	CNMG433MN KCP05	B50	3751639	TNMG332MW KCP25	B126	3751768	DNMM443RP KCP25	B85
3749403	TCMT3251LF KCP10	B257	3751505	TNMG332MN KCP05	B124	3751640	TNMG333MW KCP25	B126	3751769	DNMM444RP KCP25	B85
3749404	TCMT3252LF KCP10	B257	3751506	WNMG432MN KCP05	B159	3751641	WNMG332MW KCP25	B160	3751770	SNMM432RP KCP25	B107
3749408	TPMT2151LF KCP10	B268	3751507	CNMG432MW KCP05	B160	3751643	VNMG325MW KCP25	B160	3751771	SNMM433RP KCP25	B107
3749410	TPMT3251LF KCP10	B268	3751508	WNMG433MW KCP05	B160	3751644	CNMG431RP KCP25	B53	3751772	SNMM543RP KCP25	B107
3749412	VBMT221LF KCP10	B281	3751509	CNMG432RN KCP05	B53	3751645	CNMG433RP KCP25	B53	3751773	SNMM643RP KCP25	B107
3749413	VBMT222LF KCP10	B281	3751511	CNMG432RP KCP05	B53	3751646	CNMG434RP KCP25	B53	3751775	SNMM646RP KCP25	B107
3749414	VBMT331LF KCP10	B281	3751512	CNMM432RP KCP05	B56	3751647	CNMG542RP KCP25	B53	3751777	TNMM433RP KCP25	B129
3749415	VBMT332LF KCP10	B281	3751519	CNMG643 KCP25	B47	3751648	CNMG543RP KCP25	B53	3751805	RNMG64 KCP40	B97
3749416	WPMT2151LF KCP10	B288	3751520	CNMG644 KCP25	B47	3751649	CNMG544RP KCP25	B53	3751808	SNMG644 KCP40	B100
3749422	CCMT2151MF KCP10	B191	3751521	CNMG866 KCP25	B47	3751650	CNMG643RP KCP25	B53	3751809	SNMG866 KCP40	B100
3749444	CCMT3253MF KCP10	B191	3751522	RNMG64 KCP25	B97	3751652	CNMM866RP KCP25	B56	3751810	TNMG666 KCP40	B122
3749447	CPMT3252MF KCP10	B207	3751546	SNMG866 KCP25	B100	3751655	DNMG432RP KCP25	B84	3751811	CNMG432MN KCP40	B50
3749449	DCMT3251MF KCP10	B226	3751547	TNMG666 KCP25	B122	3751656	DNMG433RP KCP25	B84	3751812	CNMG433MN KCP40	B50
3749450	DCMT3252MF KCP10	B226	3751548	RCMT0602MO KCP25	B240	3751657	DNMG442RP KCP25	B84	3751814	DNMG432MN KCP40	B81
3749451	DCMT3253MF KCP10	B226	3751549	RCMT0803MO KCP25	B240	3751658	DNMG443RP KCP25	B84	3751816	DNMG442MN KCP40	B81
3749453	SCMT3252MF KCP10	B247	3751550	RCMT10T3MO KCP25	B240	3751659	DNMG444RP KCP25	B84	3751818	SNMG432MN KCP40	B102
3749454	SCMT432MF KCP10	B247	3751551	RCMT1605MO KCP25	B240	3751661	RCGT1204MORP KCP25	B239	3751819	SNMG433MN KCP40	B102
3749455	SCMT433MF KCP10	B247	3751552	RCMT2006MO KCP25	B240	3751673	RCMT1204MORP KCP25	B242	3751823	TNMG333MN KCP40	B124
3749456	SPMT3252MF KCP10	B253	3751553	RCMT215 KCP25	B240	3751674	RCMT1606MORP KCP25	B242	3751824	TNMG432MN KCP40	B124
3749459	TCMT3252MF KCP10	B258	3751554	RCMT325 KCP25	B240	3751675	RCMT2006MORP KCP25	B242	3751826	WNMG432MN KCP40	B129
3749460	TCMT3253MF KCP10	B258	3751555	CNMG432CT KCP25	B48	3751677	RCMT2507MORP KCP25	B242	3751828	CNMG432RP KCP40	B53
3749462	TPMT3252MF KCP10	B268	3751556	CNMG433CT KCP25	B48	3751679	SNMG432RP KCP25	B105	3751829	CNMG433RP KCP40	B53
3749463	CNMG321MN KCP10	B50	3751557	DNMG431CT KCP25	B79	3751680	SNMG433RP KCP25	B105	3751830	SNMG543RP KCP40	B53
3749464	CNMG322MN KCP10	B50	3751558	DNMG432CT KCP25	B79	3751681	SNMG543RP KCP25	B105	3751833	CNMM432RP KCP40	B56
3749465	CNMG431MN KCP10	B50	3751559	DNMG442CT KCP25	B79	3751682	SNMG544RP KCP25	B105	3751837	CNMM543RP KCP40	B56
3749466	CNMG434MN KCP10	B50	3751560	DNMG443CT KCP25	B79	3751685	SNMM856RP KCP25	B107	3751847	SNMG433RP KCP40	B105
3749467	CNMG542MN KCP10	B50	3751561	CCMT2151FW KCP25	B190	3751686	SNMM866RP KCP25	B107	3751848	SNMG543RP KCP40	B105
3749468	CNMG543MN KCP10	B50	3751562	CCMT2152FW KCP25	B190	3751687	TNMG332RP KCP25	B127	3751850	SNMG644RP KCP40	B105
3749469	CNMG544MN KCP10	B50	3751563	CCMT3251FW KCP25	B190	3751688	TNMG333RP KCP25	B127	3751854	SNMG643RP KCP40	B107
3749470	CNMG642MN KCP10	B50	3751564	CCMT3252FW KCP25	B190	3751689	TNMG432RP KCP25	B127	3751855	SNMM644RP KCP40	B107
3749471	CNMG643MN KCP10	B50	3751566	CPMT2152FW KCP25	B206	3751692	TNMG543RP KCP25	B127	3751856	SNMM856RP KCP40	B107
3749474	DNMG332MN KCP10	B81	3751567	CPMT3251FW KCP25	B206	3751694	TNMG666RP KCP25	B127	3751858	TNMG433RP KCP40	B127
3749475	DNMG333MN KCP10	B81	3751568	CPMT3252FW KCP25	B206	3751695	VNMG332RP KCP25	B148	3751859	TNMG666RP KCP40	B127
3749476	DNMG431MN KCP10	B81	3751569	DCMT3251FW KCP25	B225	3751696	VNMG333RP KCP25	B148	3751862	CNMG432RP KCK05	B53
3749479	DNMG441MN KCP10	B81	3751570	DCMT3252FW KCP25	B225	3751697	VNMG332RP KCP25	B161	3751873	CNMG431UN KCK05	B54
3749480	DNMG443MN KCP10	B81	3751571	DPMT2151FW KCP25	B232	3751698	WNMG333RP KCP25	B161	3751874	CNMG432UN KCK05	B54
3749481	DNMG444MN KCP10	B81	3751575	CCMT2152LF KCP25	B191	3751699	WNMG432RP KCP25	B161	3751875	CNMG433UN KCK05	B54
3749483	SNMG322MN KCP10	B102	3751576	CCMT432LF KCP25	B191	3751700	WNMG433RP KCP25	B161	3751882	CNMG644UN KCK05	B54
3749484	SNMG323MN KCP10	B102	3751577	CPMT2151LF KCP25	B207	3751701	WNMG434RP KCP25	B161	3751896	CNMA432 KCK05	B47
3749486	SNMG432MN KCP10	B102	3751578	CPMT2152LF KCP25	B207	3751702	CCMT2151UF KCP25	B192	3751898	CNMA433 KCK05	B47
3749487	SNMG433MN KCP10	B102	3751579	CPMT3251LF KCP25	B207	3751703	CCMT3251UF KCP25	B192	3751899	CNMA434 KCK05	B47
3749490	SNMG643MN KCP10	B102	3751580	CPMT3252LF KCP25	B207	3751705	CPMT2151UF KCP25	B208	3751906	CNMA643 KCK05	B47
3749491	TNMG331MN KCP10	B124	3751581	DCMT2151LF KCP25	B225	3751706	CPMT3251UF KCP25	B208	3751908	TNMG332UN KCK05	B127
3749493	TNMG431MN KCP10	B124	3751582	DCMT3252LF KCP25	B225	3751707	DCMT2151UF KCP25	B226	3751909	DNMA332 KCK05	B78
3749494	TNMG432MN KCP10	B124	3751583	DCMT3253LF KCP25	B225	3751710	DCMT3252UF KCP25	B226	3751910	DNMA432 KCK05	B78
3749496	VNMG331MN KCP10	B146	3751585	DCMT432LF KCP25	B225	3751711	DPMT2151UF KCP25	B233	3751911	TNMG333UN KCK05	B127
3749497	VNMG332MN KCP10	B146	3751586	DPMT2151LF KCP25	B232	3751712	TCMT2151UF KCP25	B258	3751912	DNMA433 KCK05	B78
3749498	VNMG333MN KCP10	B146	3751587	DPMT3251LF KCP25	B232	3751714	TCMT3252UF KCP25	B258	3751915	DNMA442 KCK05	B78
3749499	WNMG331MN KCP10	B159	3751588	DPMT3252LF KCP25	B232	3751715	CNMM432RM KCP25	B55	3751931	TNMA432 KCK05	B122
3749500	WNMG332MN KCP10	B159	3751589	SCMT3251LF KCP25	B246	3751716	CNMM433RM KCP25	B55	3751934	WNMA332 KCK05	B145
3749501	WNMG333MN KCP10	B159	3751590	SCMT3252LF KCP25	B246	3751718	CNMM543RM KCP25	B55	3751938	WNMA432 KCK05	B157
3749502	WNMG433MN KCP10	B159	3751591	SCMT431LF KCP25	B246	3751719	CNMM544RM KCP25	B55	3751944	CNMG322FN KCK05	B49
3749503	CNMP432K KCP10	B57	3751592	SCMT432LF KCP25	B246	3751721	CNMM643RM KCP25	B55	3751945	CNMG431FN KCK05	B49
3749507	TNMP332K KCP10	B129	3751594	SPMT3251LF KCP25	B252	3751722	CNMM644RM KCP25	B55	3751946	CNMG432FN KCK05	B49
3749508	VNMP332K KCP10	B149	3751595	SPMT3252LF KCP25	B252	3751733	CNMM646RM KCP25	B55	3751950	DNMG331FN KCK05	B79
3750568	B292A09600VPL KCP7315	G89	3751596	TCMT2151LF KCP25	B257	3751734	DNMM432RM KCP25	B85	3751951	WNMG433UN KCK05	B162
3751151	DNMG331FF KCP05	B79	3751597	TCMT2152LF KCP25	B257	3751737	DNMM443RM KCP25	B85	3751952	DNMG332FN KCK05	B79
3751152	DNMG432FF KCP05	B79	3751598	TCMT3251LF KCP25	B257	3751738	DNMM444RM KCP25	B85	3751955	DNMG431FN KCK05	B79
3751405	RCMT1204MORP KCK20	B242	3751599	TCMT3252LF KCP25	B257	3751739	SNMM432RM KCP25	B107	3751956	DNMG432FN KCK05	B79
3751406	RCMT2006MORP KCK20	B242	3751600	TCMT3253LF KCP25	B257	3751741	SNMM433RM KCP25	B107	3751957	DNMG432UN KCK05	B84

For page references F–X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3751958	DNMG433FN KCK05	B79	3752099	TPMT18151LF KCK05	B268	3753219	DNMG432FN KCP10	B79	3753376	VNMG433RN KCP10	B148
3751959	DNMG441FN KCK05	B79	3752102	TPMT3251LF KCK05	B268	3753221	DNMG441FN KCP10	B79	3753379	VNMG432RN KCP10	B161
3751960	DNMG442FN KCK05	B79	3752103	TPMT3252LF KCK05	B268	3753222	DNMG442FN KCP10	B79	3753380	VNMG433RN KCP10	B161
3751961	DNMG443FN KCK05	B79	3752106	VBMT221LF KCK05	B281	3753223	DNMG443FN KCP10	B79	3753381	VNMG434RN KCP10	B161
3751963	SNMG322FN KCK05	B101	3752107	VBMT222LF KCK05	B281	3753225	SNMG322FN KCP10	B101	3753386	EP1008GD KC520M	T37, T47
3751964	SNMG431FN KCK05	B101	3752109	VBMT332LF KCK05	B281	3753227	SNMG432FN KCP10	B101	3753387	EP10125GD KC520M	T37, T47
3751970	TNMG331FN KCK05	B123	3752110	VBMT333LF KCK05	B281	3753228	SNMG433FN KCP10	B101	3753389	CCMT2151MF KCP25	B191
3751971	TNMG332FN KCK05	B123	3752113	WPMT3252LF KCK05	B288	3753229	SNMG434FN KCP10	B101	3753390	CCMT3251MF KCP25	B191
3751972	TNMG333FN KCK05	B123	3752114	CNMG433RP KCK05	B53	3753231	TNMG222FN KCP10	B123	3753391	CCMT3253MF KCP25	B191
3751974	VNMG331FN KCK05	B146	3752115	CNMG543RP KCK05	B53	3753232	TNMG331FN KCP10	B123	3753413	CCMT433MF KCP25	B191
3751975	VNMG332FN KCK05	B146	3752117	DNMG432RP KCK05	B84	3753233	TNMG332FN KCP10	B123	3753415	CPMT3252MF KCP25	B207
3751976	VNMG331FN KCK05	B157	3752119	DNMG443RP KCK05	B84	3753238	VNMG331FN KCP10	B146	3753416	CPMT3253MF KCP25	B207
3751978	VNMG431FN KCK05	B157	3752121	SNMG433RP KCK05	B105	3753239	VNMG332FN KCP10	B146	3753417	EC1008LED KC510M	T36, T45
3751979	VNMG432FN KCK05	B157	3752122	TNMG332RP KCK05	B127	3753240	VNMG331FN KCP10	B157	3753418	DCMT3251MF KCP25	B226
3751980	CCMT2151LF KCK05	B191	3752124	VNMG432RP KCK05	B161	3753241	VNMG332FN KCP10	B157	3753419	DCMT3252MF KCP25	B226
3751981	CCMT3251LF KCK05	B191	3752125	VNMG433RP KCK05	B161	3753242	VNMG431FN KCP10	B157	3753421	DPMT3252MF KCP25	B232
3751982	CCMT3252LF KCK05	B191	3752127	CNMA431 KCK15	B47	3753243	VNMG432FN KCP10	B157	3753422	SCMT3252MF KCP25	B247
3751985	DCMT3251LF KCK05	B225	3752128	CNMA432 KCK15	B47	3753244	CCMT2151LF KCP10	B191	3753423	SCMT432MF KCP25	B247
3751986	CCMT2152LF KCK15	B191	3752129	CNMA433 KCK15	B47	3753245	CCMT3251LF KCP10	B191	3753424	SCMT433MF KCP25	B247
3751987	CCMT432LF KCK15	B191	3752130	CNMA434 KCK15	B47	3753246	CCMT3252LF KCP10	B191	3753425	SPMT3252MF KCP25	B253
3751988	CPMT2151LF KCK15	B207	3752131	CNMA542 KCK15	B47	3753247	CCMT431LF KCP10	B191	3753426	CPMT432MF KCP25	B253
3751989	CPMT2152LF KCK15	B207	3752132	CNMA543 KCK15	B47	3753248	CCMT433LF KCP10	B191	3753427	TCMT2152MF KCP25	B258
3751991	CPMT3252LF KCK15	B207	3752143	CNMA544 KCK15	B47	3753249	DCMT3251LF KCP10	B225	3753428	TCMT3252MF KCP25	B258
3751992	DCMT3252LF KCK15	B225	3752144	CNMA643 KCK15	B47	3753251	CCMT432MF KCP10	B191	3753430	TPMT2152MF KCP25	B268
3752013	SCMT3252LF KCK15	B246	3752145	DNMA432 KCK15	B78	3753252	CNMG432MN KCP10	B50	3753431	TPMT3252MF KCP25	B268
3752014	SCMT432LF KCK15	B246	3752146	DNMA433 KCK15	B78	3753253	CNMG433MN KCP10	B50	3753432	TPMT3253MF KCP25	B268
3752015	SPMT3252LF KCK15	B252	3752147	DNMA442 KCK15	B78	3753254	DNMG432MN KCP10	B81	3753434	DNMG433MN KCP25	B50
3752016	TCMT2151LF KCK15	B257	3752152	SNMA433 KCK15	B100	3753255	DNMG442MN KCP10	B81	3753435	CNMG323MN KCP25	B50
3752017	TCMT2152LF KCK15	B257	3752157	TNMA332 KCK15	B122	3753256	TNMG332MN KCP10	B124	3753436	CNMG431MN KCP25	B50
3752018	TCMT3251LF KCK15	B257	3752158	TNMA333 KCK15	B122	3753257	VNMG432MN KCP10	B159	3753437	CNMG434MN KCP25	B50
3752019	TCMT3252LF KCK15	B257	3752159	TNMA334 KCK15	B122	3753288	CNMG433RN KCP10	B53	3753438	CNMG542MN KCP25	B50
3752020	TCMT3253LF KCK15	B257	3752163	TNMA544 KCK15	B122	3753292	CNMG543RN KCP10	B53	3753439	CNMG543MN KCP25	B50
3752021	TPMT18151LF KCK15	B268	3752164	VNMA332 KCK15	B145	3753293	CNMG544RN KCP10	B53	3753440	CNMG544MN KCP25	B50
3752024	TPMT3251LF KCK15	B268	3752165	VNMA332 KCK15	B157	3753295	CNMG643RN KCP10	B53	3753441	CNMG642MN KCP25	B50
3752025	TPMT3252LF KCK15	B268	3752167	VNMA432 KCK15	B157	3753298	DNMG432RN KCP10	B83	3753442	CNMG643MN KCP25	B50
3752026	VBMT331LF KCK15	B281	3752168	VNMA433 KCK15	B157	3753301	DNMG442RN KCP10	B83	3753443	CNMG644MN KCP25	B50
3752027	VBMT332LF KCK15	B281	3752170	CCMT2151LF KCK15	B191	3753302	DNMG443RN KCP10	B83	3753444	DNMG331MN KCP25	B81
3752028	CCMT2151MF KCK15	B191	3752171	CCMT3251LF KCK15	B191	3753303	DNMG444RN KCP10	B83	3753445	DNMG332MN KCP25	B81
3752029	CCMT3251MF KCK15	B191	3752172	CCMT3252LF KCK15	B191	3753307	CNMG432MN KCP10	B105	3753446	DNMG333MN KCP25	B81
3752030	CCMT3253MF KCK15	B191	3752173	DCMT3251LF KCK15	B225	3753308	RNMG43RN KCP10	B97	3753447	DNMG431MN KCP25	B81
3752031	CCMT433MF KCK15	B191	3752174	CCMT3252MF KCK15	B191	3753311	RNMG68RN KCP10	B97	3753448	DNMG433MN KCP25	B81
3752032	CPMT2152MF KCK15	B207	3752175	CCMT432MF KCK15	B191	3753312	CNMG633RN KCP10	B105	3753450	DNMG441MN KCP25	B81
3752033	CPMT3252MF KCK15	B207	3752176	CNMG432RP KCK15	B53	3753313	SNMG432RN KCP10	B105	3753451	DNMG443MN KCP25	B81
3752035	DCMT3251MF KCK15	B226	3752177	CNMG431UN KCK15	B54	3753314	VNMG433MV KCP10	B160	3753453	SNMG322MN KCP25	B102
3752036	DCMT3252MF KCK15	B226	3752178	CNMG432UN KCK15	B54	3753315	SNMG433RN KCP10	B105	3753454	SNMG434MN KCP25	B102
3752037	DCMT3253MF KCK15	B226	3752179	CNMG433UN KCK15	B54	3753319	CNMG646RH KCP10	B55	3753456	SNMG432MN KCP25	B102
3752039	SCMT3252MF KCK15	B247	3752181	CNMG542UN KCK15	B54	3753321	SNMG542RN KCP10	B105	3753457	SNMG433MN KCP25	B102
3752040	SCMT432MF KCK15	B247	3752182	CNMG543UN KCK15	B54	3753322	SNMG644RN KCP10	B106	3753458	SNMG434MN KCP25	B102
3752041	SCMT433MF KCK15	B247	3752183	CNMG544UN KCK15	B54	3753323	SNMG646RH KCP10	B106	3753459	SNMG543MN KCP25	B102
3752042	SPMT3252MF KCK15	B253	3752184	CNMG642UN KCK15	B54	3753325	CNMG432RN KCP10	B55	3753462	SNMG644MN KCP25	B102
3752043	SPMT432MF KCK15	B253	3752185	CNMG643UN KCK15	B54	3753326	CNMG433RN KCP10	B55	3753463	TNMG331MN KCP25	B124
3752044	TCMT2152MF KCK15	B258	3752186	CNMG644UN KCK15	B54	3753328	CNMG543RN KCP10	B55	3753464	TNMG333MN KCP25	B124
3752045	TCMT3252MF KCK15	B258	3752187	DNMG332UN KCK15	B84	3753329	CNMG544RN KCP10	B55	3753465	TNMG431MN KCP25	B124
3752047	TPMT2152MF KCK15	B268	3752188	DNMG333UN KCK15	B84	3753331	CNMG546RN KCP10	B85	3753466	TNMG432MN KCP25	B124
3752048	TPMT3252MF KCK15	B268	3752189	DNMG432UN KCK15	B84	3753332	CNMG643RN KCP10	B85	3753467	TNMG433MN KCP25	B124
3752049	TPMT3253MF KCK15	B268	3752192	DNMG442UN KCK15	B84	3753333	CNMG644RN KCP10	B85	3753469	VNMG331MN KCP25	B146
3752050	CNMG433RP KCK15	B53	3752193	DNMG443UN KCK15	B84	3753334	SNMG644RN KCP10	B105	3753470	VNMG332MN KCP25	B146
3752052	CNMG543RP KCK15	B53	3752196	SNMG432UN KCK15	B106	3753335	DNMG442RN KCP10	B85	3753471	VNMG333MN KCP25	B146
3752053	CNMG643RP KCK15	B53	3752200	SNMG544UN KCK15	B106	3753336	DNMG443RN KCP10	B85	3753472	VNMG331MN KCP25	B159
3752057	DNMG443RP KCK15	B84	3752201	SNMG643UN KCK15	B106	3753337	TNMG332RN KCP10	B126	3753473	VNMG332MN KCP25	B159
3752058	RCMT1204MORP KCK15	B242	3752203	TNMG332UN KCK15	B127	3753339	SNMG543RN KCP10	B107	3753474	VNMG333MN KCP25	B159
3752059	RCMT1606MORP KCK15	B242	3752207	TNMG433UN KCK15	B127	3753341	SNMG544RN KCP10	B107	3753475	VNMG433MN KCP25	B159
3752061	SNMG433RP KCK15	B105	3752209	VNMG331UN KCK15	B148	3753342	SNMG644RN KCP10	B107	3753476	VNMG434MN KCP25	B159
3752066	TNMG434RP KCK15	B127	3752210	VNMG332UN KCK15	B148	3753343	SNMG646RN KCP10	B107	3753477	CNMP431K KCP25	B57
3752067	VNMG332RP KCK15	B148	3752211	VNMG332UN KCK15	B162	3753347	TNMG433RN KCP10	B126	3753478	CNMP432K KCP25	B57
3752068	VNMG333RP KCK15	B148	3752213	VNMG431UN KCK15	B162	3753348	CNMG432RN KCP10	B53	3753481	DNMP431K KCP25	B86
3752069	VNMG432RP KCK15	B161	3752214	VNMG432UN KCK15	B162	3753349	CNMG434RN KCP10	B53	3753482	DNMP432K KCP25	B86
3752070	VNMG433RP KCK15	B161	3752215	VNMG433UN KCK15	B162	3753351	CNMG432RP KCP10	B53	3753483	DNMP433K KCP25	B86
3752072	CCMT2152LF KCK05	B191	3753009	B291A05600YPL KCT315	G88	3753352	CNMG432RP KCP10	B56	3753484	SNMP432K KCP25	B108
3752074	CPMT2151LF KCK05	B207	3753162	DNMG331FF KCP10	B79	3753354	TNMG542RN KCP10	B126	3753487	TNMP332K KCP25	B129
3752075	CPMT2152LF KCK05	B207	3753203	DNMG432FF KCP10	B79	3753356	CNMG543RP KCP10	B56	3753489	TNMP432K KCP25	B129
3752076	CPMT3251LF KCK05	B207	3753206	VNMG331FF KCP10	B157	3753357	TNMG544RN KCP10	B126	3753491	VNMP331K KCP25	B149
3752077	CPMT3252LF KCK05	B207	3753207	VNMG332FF KCP10	B157	3753358	CNMG544RP KCP10	B56	3753494	VNMP332K KCP25	B149
3752079	DCMT3252LF KCK05	B225	3753208	VNMG432FF KCP10	B157	3753360	CNMG644RP KCP10	B56	3753502	SNMG686RN KCP25	B104
3752083	DPMT2151LF KCK05	B232	3753209	CNMG321FN KCP10	B49	3753361	CNMG544RN KCP10	B126	3753504	TNMG632RN KCP25	B53
3752084	DPMT3251LF KCK05	B232	3753210	CNMG322FN KCP10	B49	3753364	DNMG442RP KCP10	B85	3753505	CNMG542RN KCP25	B53
3752086	SCMT3251LF KCK05	B246	3753211	CNMG431FN KCP10	B49	3753367	VNMG332RN KCP10	B107	3753506	CNMG543RN KCP25	B53
3752087	SCMT3252LF KCK05	B246	3753212	CNMG432FN KCP10	B49	3753368	SNMG544RN KCP10	B148	3753507	CNMG544RN KCP25	B53
3752089	SCMT432LF KCK05	B246	3753214	CNMG434FN KCP10	B49	3753371	VNMG333RN KCP10	B148	3753508	CNMG642RN KCP25	B53
3752093	TCMT2151LF KCK05	B257	3753215	DNMG331FN KCP10	B79	3753372	TNMG432RP KCP10	B129	3753509	CNMG643RN KCP25	B53
3752094	TCMT2152LF KCK05	B257	3753216	DNMG332FN KCP10	B79	3753374	VNMG432RN KCP10	B129	3753510	CNMG644RN KCP25	B53
3752095	TCMT3251LF KCK05	B257	3753218	DNMG431FN KCP10	B79	3753375	TNMG434RP KCP10	B129	3753511	CNMG646RN KCP25	B53

For page references F–X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3753512	DNMG432RN KCP25	B83	3753723	VNMG332FN KCP25	B146	3753875	CNMG433RP KCK20	B53	3755370	SNMM866RH KCP10	B106
3753513	DNMG433RN KCP25	B83	3753724	WNMG332FN KCP25	B157	3753877	CNMG542RP KCK20	B53	3755371	CNMM866RM KCP10	B55
3753514	DNMG434RN KCP25	B83	3753726	WNMG432FN KCP25	B157	3753878	CNMG543RP KCK20	B53	3755372	SNMM856RM KCP10	B107
3753515	DNMG442RN KCP25	B83	3753727	CCMT2151LF KCP25	B191	3753879	CNMG544RP KCK20	B53	3755475	RCMT1605MO KCK20	B240
3753516	DNMG443RN KCP25	B83	3753728	CCMT3251LF KCP25	B191	3753884	DNMG432RP KCK20	B84	3755479	RCMT43 KCK20	B240
3753517	DNMG444RN KCP25	B83	3753729	CCMT3252LF KCP25	B191	3753887	DNMG442RP KCK20	B84	3755481	CCMT432LF KCK20	B191
3753518	DNMG542RN KCP25	B83	3753730	CCMT431LF KCP25	B191	3753888	DNMG544RP KCK20	B84	3755482	CPMT2151LF KCK20	B207
3753519	DNMG543RN KCP25	B83	3753732	DCMT3251LF KCP25	B225	3753891	SNMG432RP KCK20	B105	3755484	CPMT3251LF KCK20	B207
3753520	RNMG32RN KCP25	B97	3753733	CCMT3252MF KCP25	B191	3753892	SNMG433RP KCK20	B105	3755485	CPMT3252LF KCK20	B207
3753523	RNMG64RN KCP25	B97	3753734	CCMT432MF KCP25	B191	3753897	SNMG644RP KCK20	B105	3755486	DCMT2151LF KCK20	B225
3753525	RNMG86RN KCP25	B97	3753735	RCMT0602MO KCP30	B240	3753898	TNMG332RP KCK20	B127	3755487	DCMT3252LF KCK20	B225
3753526	SNMG432RN KCP25	B105	3753737	RCMT10T3MO KCP30	B240	3753899	TNMG333RP KCK20	B127	3755490	DCMT432LF KCK20	B225
3753527	SNMG433RN KCP25	B105	3753739	CCMT2152LF KCP30	B191	3753904	WNMG433RP KCK20	B127	3755491	DPMT2151LF KCK20	B232
3753528	SNMG434RN KCP25	B105	3753742	CPMT2152LF KCP30	B207	3753909	VNMG333RP KCK20	B148	3755492	DPMT3251LF KCK20	B232
3753529	SNMG542RN KCP25	B105	3753743	CPMT3251LF KCP30	B207	3753912	WNMG432RP KCK20	B161	3755503	DPMT3252LF KCK20	B232
3753530	SNMG543RN KCP25	B105	3753744	CPMT3252LF KCP30	B207	3753923	WNMG433RP KCK20	B161	3755504	SNMG3251LF KCK20	B246
3753531	SNMG544RN KCP25	B105	3753745	DCMT2151LF KCP30	B225	3753926	CCMT2152FW KCK20	B190	3755505	SCMT3252LF KCK20	B246
3753543	SNMG643RN KCP25	B105	3753750	SCMT3251LF KCP30	B246	3753929	CCMT3252FW KCK20	B190	3755507	SCMT432LF KCK20	B246
3753544	SNMG644RN KCP25	B105	3753751	SCMT3252LF KCP30	B246	3753931	CPMT2151FW KCK20	B206	3755508	DCMT2151LF KCK20	B246
3753545	SNMG646RN KCP25	B105	3753752	SCMT431LF KCP30	B246	3753932	CPMT2152FW KCK20	B206	3755509	SPMT3251LF KCK20	B252
3753546	TNMG432RN KCP25	B126	3753753	SCMT432LF KCP30	B246	3753934	CPMT3252FW KCK20	B206	3755510	SPMT3252LF KCK20	B252
3753547	TNMG433RN KCP25	B126	3753754	TCMT2151LF KCP30	B257	3753935	DCMT3251FW KCK20	B225	3755511	TCMT2151LF KCK20	B257
3753548	TNMG432RN KCP25	B126	3753755	TCMT2152LF KCP30	B257	3753981	CNMG432RN KCP40	B53	3755512	TCMT2152LF KCK20	B257
3753549	TNMG433RN KCP25	B126	3753757	TCMT3252LF KCP30	B257	3753982	CNMG433RN KCP40	B53	3755513	TCMT3251LF KCK20	B257
3753550	TNMG434RN KCP25	B126	3753760	VBMT331LF KCP30	B281	3753993	CNMG434RN KCP40	B53	3755514	TCMT3252LF KCK20	B257
3753551	TNMG542RN KCP25	B126	3753761	VBMT332LF KCP30	B281	3753994	CNMG543RN KCP40	B53	3755515	TCMT3253LF KCK20	B257
3753552	TNMG543RN KCP25	B126	3753762	CCMT2151MF KCP30	B191	3753996	CNMG642RN KCP40	B53	3755517	TPMT2151LF KCK20	B268
3753553	TNMG544RN KCP25	B126	3753763	CCMT3251MF KCP30	B191	3753997	CNMG643RN KCP40	B53	3755520	TPMT3252LF KCK20	B268
3753554	TNMG666RN KCP25	B126	3753765	DCMT3251MF KCP30	B226	3753998	CNMG644RN KCP40	B53	3755522	TPMT432LF KCK20	B268
3753555	VNMG332RN KCP25	B148	3753766	DCMT3252MF KCP30	B226	3753999	DNMG432RN KCP40	B83	3755526	VBMT333LF KCK20	B281
3753556	VNMG333RN KCP25	B148	3753767	SCMT432MF KCP30	B247	3754004	SNMG433RN KCP40	B105	3755527	WNMG333LF KCK20	B281
3753557	VNMG432RN KCP25	B148	3753768	SPMT432MF KCP30	B253	3754005	SNMG434RN KCP40	B105	3755528	WPMT2151LF KCK20	B288
3753558	VNMG433RN KCP25	B148	3753769	TCMT3252MF KCP30	B258	3754006	SNMG543RN KCP40	B105	3755531	CPMT2151MF KCK20	B191
3753559	VNMG332RN KCP25	B161	3753770	TPMT3252MF KCP30	B268	3754008	SNMG643RN KCP40	B105	3755532	CCMT3251MF KCK20	B191
3753560	VNMG333RN KCP25	B161	3753771	CNMG321MN KCP30	B50	3754010	TNMG432RN KCP40	B126	3755533	CCMT3253MF KCK20	B191
3753561	VNMG432RN KCP25	B161	3753772	CNMG322MN KCP30	B50	3754012	TNMG543RN KCP40	B126	3755534	CCMT433MF KCK20	B191
3753562	VNMG433RN KCP25	B161	3753773	CNMG431MN KCP30	B50	3754014	VNMG432RN KCP40	B148	3755535	CPMT2152MF KCK20	B207
3753563	VNMG434RN KCP25	B161	3753774	CNMG542MN KCP30	B50	3754015	VNMG432RN KCP40	B161	3755536	CPMT3252MF KCK20	B207
3753592	EP1004EHD KC520M	T36, T46	3753775	CNMG543MN KCP30	B50	3754059	RCMT1204MO KCP30	B240	3755538	DCMT3251MF KCK20	B226
3753593	EP1008EHD KC520M	T36, T46	3753776	CNMG642MN KCP30	B50	3754060	CCMT2151LF KCP30	B191	3755539	DCMT3252MF KCK20	B226
3753594	EP1012EHD KC520M	T36, T46	3753777	CNMG643MN KCP30	B50	3754061	CCMT3251LF KCP30	B191	3755540	DCMT3253MF KCK20	B226
3753608	CNMG433RN KCP30	B53	3753778	CNMG644MN KCP30	B50	3754062	CCMT3252LF KCP30	B191	3755542	SCMT3252MF KCK20	B247
3753609	CNMG542RN KCP30	B53	3753779	DNMG631MN KCP30	B81	3754343	CCMT431LF KCP30	B191	3755543	SCMT432MF KCK20	B247
3753610	CNMG543RN KCP30	B53	3753780	DNMG632MN KCP30	B81	3754344	DCMT3251LF KCP30	B225	3755544	SCMT433MF KCK20	B247
3753611	CNMG643RN KCP30	B53	3753781	DNMG431MN KCP30	B81	3754345	CCMT3252MF KCP30	B191	3755545	SPMT3252MF KCK20	B253
3753612	CNMG644RN KCP30	B53	3753782	DNMG441MN KCP30	B81	3754346	CCMT432MF KCP30	B191	3755546	SPMT432MF KCK20	B253
3753633	CNMG646RN KCP30	B53	3753783	DNMG543MN KCP30	B102	3754347	CNMG432MN KCP30	B50	3755547	TCMT2152MF KCK20	B258
3753636	DNMG442RN KCP30	B83	3753784	SNMG322MN KCP30	B102	3754349	DNMG432MN KCP30	B81	3755548	TCMT3252MF KCK20	B258
3753637	DNMG443RN KCP30	B83	3753786	SNMG432MN KCP30	B102	3754351	TNMG332MN KCP30	B124	3755549	TCMT3253MF KCK20	B258
3753639	DNMG542RN KCP30	B83	3753787	SNMG433MN KCP30	B102	3754352	VNMG432MN KCP30	B159	3755550	TPMT2152MF KCK20	B268
3753640	DNMG543RN KCP30	B83	3753789	TNMG331MN KCP30	B124	3754363	CNMG433RN KCP30	B53	3755551	TPMT3252MF KCK20	B268
3753641	RNMG43RN KCP30	B97	3753791	TNMG431MN KCP30	B124	3754365	CNMG432RP KCP30	B53	3755552	TPMT3253MF KCK20	B268
3753642	RNMG54RN KCP30	B97	3753793	TNMG433MN KCP30	B124	3754367	CNMM643RP KCP30	B56	3755565	DCMT2151LF KCM15	B191
3753650	SNMG642RN KCP30	B105	3753794	VNMG331MN KCP30	B146	3754374	CNMM644RH KCP30	B55	3755570	DCMT2151LF KCM15	B225
3753653	SNMG646RN KCP30	B105	3753795	VNMG332MN KCP30	B146	3754375	CNMM646RH KCP30	B55	3755593	CNMG432RP KCM15	B53
3753654	TNMG332RN KCP30	B126	3753796	VNMG333MN KCP30	B146	3754376	SNMM643RH KCP30	B106	3755632	CNMM866RH KCP25	B55
3753655	TNMG333RN KCP30	B126	3753797	WNMG332MN KCP30	B159	3754377	SNMM644RH KCP30	B106	3755635	CPMT2151LF KCM15	B207
3753656	TNMG432RN KCP30	B126	3753798	CNMG433RP KCP30	B53	3754378	SNMM646RH KCP30	B106	3755637	CPMT3251LF KCM15	B207
3753658	TNMG542RN KCP30	B126	3753799	CNMG543RP KCP30	B53	3754379	CNMM432RM KCP30	B55	3755638	CPMT3252LF KCM15	B207
3753662	VNMG432RN KCP30	B148	3753801	CNMG643RP KCP30	B53	3754383	CNMM544RM KCP30	B55	3755639	DCMT2151LF KCM15	B225
3753663	VNMG433RN KCP30	B148	3753802	CNMG644RP KCP30	B53	3754385	CNMM644RM KCP30	B55	3755640	DCMT3252LF KCM15	B225
3753664	VNMG432RN KCP30	B161	3753804	DNMG433RP KCP30	B84	3754386	CNMM646RM KCP30	B55	3755648	CCMT432LF KCM15	B246
3753665	VNMG433RN KCP30	B161	3753805	DNMG442RP KCP30	B84	3754388	DNMM442RM KCP30	B85	3755649	TCMT2151LF KCM15	B257
3753699	CNMG431FN KCP25	B49	3753810	RCMX2507MORP KCP30	B242	3754396	TNMM332RM KCP30	B128	3755650	TCMT2152LF KCM15	B257
3753700	CNMG432FN KCP25	B49	3753812	SNMG433RP KCP30	B105	3754398	TNMM433RM KCP30	B128	3755651	TCMT3251LF KCM15	B257
3753701	CNMG433FN KCP25	B49	3753816	TNMG332RP KCP30	B127	3754399	TNMM543RM KCP30	B128	3755655	TPMT2151LF KCM15	B268
3753702	CNMG434FN KCP25	B49	3753819	TNMG438RP KCP30	B127	3754815	CNMM643RH KCP40	B55	3755657	TPMT3251LF KCM15	B268
3753705	DNMG431FN KCP25	B79	3753821	CNMG432MN KCP25	B50	3754818	CNMM866RH KCP40	B55	3755659	VBMT221LF KCM15	B281
3753706	DNMG432FN KCP25	B79	3753822	WNMG433RP KCP25	B161	3754819	SNMM644RH KCP40	B106	3755661	VBMT331LF KCM15	B281
3753707	DNMG441FN KCP25	B79	3753823	CNMG433MN KCP25	B50	3754821	SNMM856RH KCP40	B106	3755662	VBMT332LF KCM15	B281
3753708	DNMG442FN KCP25	B79	3753825	DNMG432MN KCP25	B81	3754822	SNMM866RH KCP40	B106	3755664	WPMT3252LF KCM15	B288
3753709	DNMG443FN KCP25	B79	3753827	DNMG442MN KCP25	B81	3754856	CNMM643RM KCP40	B55	3755670	CPMT3252MF KCM15	B207
3753713	SNMG433FN KCP25	B101	3753828	TNMG332MN KCP25	B124	3754858	CNMM866RM KCP40	B55	3755672	DCMT3251MF KCM15	B226
3753714	TNMG221FN KCP25	B123	3753829	WNMG432MN KCP25	B159	3754861	DNMM443RM KCP40	B85	3755673	DCMT3252MF KCM15	B226
3753715	TNMG222FN KCP25	B123	3753830	CNMG432MW KCP25	B52	3754863	SNMM643RM KCP40	B107	3755677	SCMT432MF KCM15	B247
3753716	TNMG331FN KCP25	B123	3753831	WNMG433MW KCP25	B160	3754864	SNMM866RM KCP40	B107	3755682	TPMT3252MF KCM15	B268
3753717	TNMG332FN KCP25	B123	3753832	CNMG434							



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3755694	DNMG333MP KCM15	B81	3755902	ABDE0375J3BQB K600	P120	3757922	SCMW433 KCK20	B248	3758795	SNMG432FP KCM15	B101
3755699	DNMG442MP KCM15	B81	3755903	ABDE0500J3AQ K600	P120	3757960	DNMG442RN KCP05	B83	3758797	TNMG331FP KCM15	B123
3755700	DNMG443MP KCM15	B81	3755904	ABDE0500J3AQB K600	P120	3757961	DNMG443RN KCP05	B83	3758798	TNMG332FP KCM15	B123
3755701	SNMG432MP KCM15	B102	3755905	ABDE0500J3BQ K600	P120	3758013	VNMG433RN KCP05	B161	3758799	TNMG333FP KCM15	B123
3755702	SNMG433MP KCM15	B102	3755906	ABDE0500J3BQ K600	P120	3758033	DNMG332RP KCM15	B84	3758800	TNMG431FP KCM15	B123
3755704	SNMG543MP KCM15	B102	3755907	ABDE0500J3BQB K600	P120	3758035	DNMG432RP KCM15	B84	3758801	TNMG432FP KCM15	B123
3755705	SNMG643MP KCM15	B102	3755908	ABDE0500J3CQ K600	P120	3758036	DNMG442RP KCM15	B84	3758802	VNMG331FP KCM15	B146
3755706	TNMG331MP KCM15	B124	3755909	ABDE0500J3BQD K600	P120	3758043	TNMG332RP KCM15	B127	3758803	VNMG332FP KCM15	B146
3755707	TNMG332MP KCM15	B124	3755910	ABDE0500J3BQE K600	P120	3758046	TNMG543RP KCM15	B127	3758804	VNMG331FP KCM15	B158
3755711	VNMG331MP KCM15	B147	3755911	ABDE0500J3CQ K600	P120	3758048	VNMG332RP KCM15	B148	3758805	VNMG332FP KCM15	B158
3755712	VNMG332MP KCM15	B147	3755912	ABDE0500J3CQB K600	P120	3758050	VNMG332RP KCM15	B161	3758806	VNMG431FP KCM15	B158
3755714	VNMG331MP KCM15	B159	3755913	ABDE0500J3CQC K600	P120	3758051	VNMG432RP KCM15	B161	3758807	VNMG432FP KCM15	B158
3755715	VNMG332MP KCM15	B159	3755914	ABDE0500J3CQD K600	P120	3758053	VNMG433RP KCM15	B161	3758808	VNMG433FP KCM15	B158
3755716	VNMG432MP KCM15	B159	3755915	ABDE0500J3CQE K600	P120	3758055	CNMG432UP KCM15	B54	3758827	CNMM866RH KCP30	B55
3755717	VNMG433MP KCM15	B159	3755916	ABDE0625J3AQ K600	P120	3758056	CNMG431UP KCM15	B54	3758828	CNMM866RH KCP30	B106
3755753	LNMX191940RRH KCP25	E57	3755917	ABDE0625J3AQB K600	P120	3758064	DNMG431UP KCM15	B84	3758830	SNMM866RH KCP30	B106
3755754	LNMX301940RRH KCP25	E57	3755918	ABDE0625J3BQ K600	P120	3758065	DNMG432UP KCM15	B84	3758873	SNMM866RM KCP30	B107
3755755	RCMT2006MORH KCP25	B241	3755919	ABDE0625J3BQB K600	P120	3758068	DNMG442UP KCM15	B84	3759083	EC1004FR-PCD KD1410	T34
3755756	RCMX2507MORH KCP25	B241	3755920	ABDE0625J3BQE K600	P120	3758073	SNMG543UP KCM15	B106	3759084	EC1008FR-PCD KD1410	T34
3755757	RCMX3209MORH KCP25	B241	3755921	ABDE0750J3AQ K600	P120	3758076	TNMG332UP KCM15	B128	3759533	KIPR02R2P1229	V156
3755758	SNMM856RH KCP25	B106	3755922	ABDE0750J3AQB K600	P120	3758080	VNMG331UP KCM15	B148	3759534	KIPR075R2P1332	V156
3755760	SNMM866RH KCP25	B106	3755923	ABDE0750J3AQE K600	P120	3758081	VNMG332UP KCM15	B148	3759535	KIPR100R32438	V156
3755761	CNMM866RM KCP25	B55	3755924	ABDE0750J3BQ K600	P121	3758082	VNMG333UP KCM15	B148	3759595	B291A03100YPL KCT7315	G88
3755762	RCMT2006MORM KCP25	B241	3755925	ABDE0750J3BQB K600	P121	3758084	VNMG432UP KCM15	B162	3759627	B292A0300YPL KCT7315	G88
3755763	SNMM856RM KCP25	B107	3755926	ABDE0750J3BQC K600	P121	3758086	RCMT1204MO KCM25	B240	3759628	B291A03175YPL KCT7315	G88
3755764	SNMM866RM KCP25	B107	3755927	ABDE0750J3BQD K600	P121	3758087	CCMT12151LF KCM25	B191	3759629	B291A03200YPL KCT7315	G88
3755769	ABDF0625J2AQ K600	P118	3755928	ABDE0750J3BQE K600	P121	3758088	CCMT3251LF KCM25	B191	3759630	B292A03200YPL KCT7315	G88
3755771	ABDF0625J2BQ K600	P118	3755929	ABDE0750J3CQ K600	P121	3758089	CCMT3252LF KCM25	B191	3759654	B291A03300YPL KCT7315	G88
3755772	ABDF0625J2BQB K600	P118	3755930	ABDE0750J3CQB K600	P121	3758091	CCMT433LF KCM25	B191	3759655	B292A03300YPL KCT7315	G88
3755802	ABDE0250J3AQ K600	P120	3755931	ABDE1000J3AQ K600	P121	3758092	CCMT3251LF KCM25	B225	3759656	B291A03500YPL KCT7315	G88
3755835	B292A08200YPL KC7315	G89	3755932	ABDE1000J3AQB K600	P121	3758093	CCMT3252MF KCM25	B191	3759657	B292A03400YPL KCT7315	G88
3755843	ABDF0625J2BQE K600	P118	3755933	ABDE1000J3AQE K600	P121	3758094	CCMT432MF KCM25	B191	3759661	B291A03500YPL KCT7315	G88
3755844	ABDF0750J2AQ K600	P118	3755934	ABDE1000J3BQ K600	P121	3758095	CNMG432RP KCM25	B53	3759662	B291A03600YPL KCT7315	G88
3755845	ABDF0750J2AQB K600	P118	3755935	ABDE1000J3BQB K600	P121	3758096	CNMG432RP KCM25	B56	3759713	B292A03600YPL KCT7315	G88
3755846	ABDF0750J2AQE K600	P118	3755936	ABDE1000J3BQE K600	P121	3758099	CNMM544RP KCM25	B56	3759714	B291A03700YPL KCT7315	G88
3755847	ABDF0750J2BQ K600	P119	3755937	ABDE1000J3CQ K600	P121	3758106	SNMM433RP KCM25	B107	3759715	B292A03700YPL KCT7315	G88
3755848	ABDF0750J2BQB K600	P118	3755938	ABDE1000J3CQB K600	P121	3758108	SNMM544RP KCM25	B107	3759716	B291A03800YPL KCT7315	G88
3755849	ABDF0750J2BQC K600	P118	3757585	VNMA433 KCK20	B157	3758110	SNMM644RP KCM25	B107	3759717	B292A03800YPL KCT7315	G88
3755850	ABDF0750J2BQD K600	P119	3757587	CNMG432UN KCK20	B54	3758111	SNMM646RP KCM25	B107	3759718	B291A03900YPL KCT7315	G88
3755851	ABDF0750J2BQE K600	P119	3757588	CNMG433UN KCK20	B54	3758133	CNMA431 KCK20	B47	3759722	B292A03900YPL KCT7315	G88
3755852	ABDF0750J2AQ K600	P119	3757589	CNMG434UN KCK20	B54	3758134	CNMA432 KCK20	B47	3759763	B291A04100YPL KCT7315	G88
3755853	ABDF0750J2CQB K600	P119	3757589	CNMG434UN KCK20	B54	3758135	CNMA433 KCK20	B47	3759764	B291A04100YPL KCT7315	G88
3755854	ABDF1000J2AQ K600	P119	3757590	CNMG542UN KCK20	B54	3758136	CNMA434 KCK20	B47	3760221	CCMT2151LF KCM35	B191
3755855	ABDF1000J2AQB K600	P119	3757591	CNMG543UN KCK20	B54	3758137	CNMA432 KCK20	B47	3760254	CCMT3251LF KCM35	B191
3755856	ABDF1000J2AQE K600	P119	3757592	CNMG544UN KCK20	B54	3758138	CNMA433 KCK20	B47	3760257	CCMT3252LF KCM35	B191
3755857	ABDF1000J2BQ K600	P119	3757593	CNMG642UN KCK20	B54	3758141	CNMA434 KCK20	B47	3760261	CCMT3252MF KCM35	B191
3755858	ABDF1000J2BQB K600	P119	3757594	CNMG643UN KCK20	B54	3758142	CNMA444 KCK20	B47	3760262	CCMT432MF KCM35	B191
3755859	ABDF1000J2BQC K600	P119	3757595	CNMG644UN KCK20	B54	3758143	DNMA432 KCK20	B78	3760273	CNMG432RP KCM35	B53
3755860	ABDF1000J2CQ K600	P119	3757596	DNMG332UN KCK20	B84	3758144	DNMA433 KCK20	B78	3760277	SNMM432RP KCM35	B107
3755861	ABDF1000J2CQB K600	P119	3757597	DNMG333UN KCK20	B84	3758145	DNMA442 KCK20	B78	3760279	RCMT0620MO KCM25	B240
3755863	ABDF0250J2AQ K600	P118	3757598	DNMG432UN KCK20	B84	3758146	DNMA443 KCK20	B78	3760280	RCMT0803MO KCM25	B240
3755864	ABDF0250J2BQ K600	P118	3757600	DNMG434UN KCK20	B84	3758149	SNMA432 KCK20	B100	3760281	RCMT10T3MO KCM25	B240
3755865	ABDF0250J2BQB K600	P118	3757601	DNMG442UN KCK20	B84	3758150	SNMA433 KCK20	B100	3760282	RCMT1605MO KCM25	B240
3755866	ABDF0250J2BQC K600	P118	3757602	DNMG443UN KCK20	B84	3758152	SNMA433 KCK20	B100	3760286	RCMT43KCM25	B240
3755867	ABDF0250J2CQB K600	P118	3757603	DNMG444UN KCK20	B84	3758154	SNMA434 KCK20	B100	3760287	CCMT2152LF KCM25	B191
3755868	ABDF0312J2AQ K600	P118	3757604	RNMG43UN KCK20	B97	3758155	SNMA444 KCK20	B100	3760290	CPMT2151LF KCM25	B207
3755869	ABDF0375J2AQ K600	P118	3757605	SNMG432UN KCK20	B106	3758156	SNMA432 KCK20	B122	3760291	CPMT2151LF KCM25	B207
3755870	ABDF0375J2AQB K600	P118	3757606	SNMG433UN KCK20	B106	3758157	TNMA333 KCK20	B122	3760292	CPMT3251LF KCM25	B207
3755871	ABDF0375J2BQ K600	P118	3757607	SNMG434UN KCK20	B106	3758158	TNMA334 KCK20	B122	3760293	CPMT3252LF KCM25	B207
3755872	ABDF0375J2BQB K600	P118	3757608	SNMG543UN KCK20	B106	3758162	VNMA433 KCK20	B145	3760294	DCMT2151LF KCM25	B225
3755873	ABDF0500J2AQ K600	P118	3757609	SNMG544UN KCK20	B106	3758163	VNMA432 KCK20	B157	3760295	DCMT3252LF KCM25	B225
3755874	ABDF0500J2AQB K600	P118	3757610	SNMG643UN KCK20	B106	3758164	VNMA433 KCK20	B157	3760296	DPMT2151LF KCM25	B232
3755875	ABDF0500J2AQE K600	P118	3757611	SNMG644UN KCK20	B106	3758165	VNMA434 KCK20	B157	3760298	DPMT3252LF KCM25	B232
3755876	ABDF0500J2BQ K600	P118	3757612	TNMG332UN KCK20	B127	3758166	RCMT1204MO KCK20	B240	3760299	SCMT3251LF KCM25	B246
3755877	ABDF0500J2BQB K600	P118	3757613	TNMG333UN KCK20	B127	3758167	CCMT2151LF KCK20	B191	3760300	SCMT3252LF KCM25	B246
3755878	ABDF0500J2BQC K600	P118	3757614	TNMG334UN KCK20	B127	3758168	CCMT3251LF KCK20	B191	3760302	SCMT432LF KCM25	B246
3755879	ABDF0500J2BQD K600	P118	3757615	TNMG432UN KCK20	B127	3758169	CCMT3252LF KCK20	B191	3760305	TCMT3251LF KCM25	B257
3755880	ABDF0500J2BQE K600	P118	3757616	TNMG433UN KCK20	B127	3758170	CCMT431LF KCK20	B191	3760306	TCMT3252LF KCM25	B257
3755881	ABDF0500J2CQ K600	P118	3757617	TNMG434UN KCK20	B127	3758172	DCMT3251LF KCK20	B225	3760307	TCMT3253LF KCM25	B257
3755882	ABDF0500J2CQB K600	P118	3757618	VNMG331UN KCK20	B148	3758173	CCMT3252MF KCK20	B191	3760310	TPMT2152LF KCM25	B268
3755883	ABDF0500J2CQC K600	P118	3757619	VNMG332UN KCK20	B148	3758174	CCMT432MF KCK20	B191	3760312	TPMT3252LF KCM25	B268
3755884	ABDF0500J2CQD K600	P118	3757622	VNMG431UN KCK20	B162	3758175	CNMG432RP KCK20	B53	3760314	VNMT222LF KCM25	B281
3755885	ABDF0500J2CQE K600	P118	3757623	VNMG432UN KCK20	B162	3758783	CNMG431FP KCM15	B49	3760315	VBMT331LF KCM25	B281
3755893	ABDE0250J3AQ K600	P120	3757624	VNMG433UN KCK20	B162	3758784	CNMG432FP KCM15	B49			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3760334	SPMT432MF KCM25	B253	3760994	VNMG331MP KCM25	B147	3766024	EC1020ELD KCPK30	T36, T45	3769121	CPMT18151FP KCP25	B206
3760336	TCMT3252MF KCM25	B258	3760995	VNMG332MP KCM25	B147	3766027	EC1024ELDJ KC422M	T35, T45	3769122	TCMT2152FP KCM15	B257
3760338	TPMT2152MF KCM25	B268	3760998	WNMG332MP KCM25	B159	3766028	EC1024ELD KC522M	T36, T45	3769124	CPMT21505FP KCP25	B206
3760341	CNMG322MP KCM25	B51	3760999	WNMG333MP KCM25	B159	3766029	EC1024ELD KC725M	T36, T45	3769128	CPMT2151FP KCP25	B206
3760342	CNMG431MP KCM25	B51	3761000	WNMG432MP KCM25	B159	3766820	RIO09E1306 KC6305	K58	3769130	VBMT221FP KCM15	B281
3760343	CNMG432MP KCM25	B51	3761001	WNMG433MP KCM25	B159	3767813	DFKT53AFFN4LBJ KC410M	S46	3769131	VBMT222FP KCM15	B281
3760344	CNMG433MP KCM25	B51	3761002	CNMG431RP KCM25	B53	3767814	DFKT53AFEN4LBJ KC422M	S46	3769132	CPMT2152FP KCP25	B206
3760346	CNMG542MP KCM25	B51	3761003	CNMG433RP KCM25	B53	3768928	CCMT2151FP KCP05	B190	3769133	VBMT331FP KCM15	B281
3760347	CNMG543MP KCM25	B51	3761004	CNMG434RP KCM25	B53	3768930	CCMT3251FP KCP05	B190	3769134	VBMT332FP KCM15	B281
3760349	CNMG642MP KCM25	B51	3761005	CNMG543RP KCM25	B53	3768936	CCMT21505FP KCP10	B190	3769139	SCMT2151FP KCP25	B225
3760350	CNMG643MP KCM25	B51	3761006	CNMG544RP KCM25	B53	3768937	CCMT2151FP KCP10	B190	3769140	DCMT2152FP KCP25	B225
3760351	CNMG644MP KCM25	B51	3761007	CNMG643RP KCM25	B53	3768940	CCMT3252FP KCP10	B190	3769141	DCMT32505FP KCP25	B225
3760352	DNMG332MP KCM25	B81	3761008	CNMG644RP KCM25	B53	3768970	DCMT2152FP KCP05	B225	3769142	CPMT2151FP KCP25	B225
3760354	DNMG431MP KCM25	B81	3761009	DNMG432RP KCM25	B84	3768971	DCMT3251FP KCP05	B225	3769143	DCMT3252FP KCP25	B225
3760355	DNMG432MP KCM25	B81	3761011	DNMG442RP KCM25	B84	3768972	DCMT3252FP KCP05	B225	3769146	DCMT432FP KCP25	B225
3760356	DNMG433MP KCM25	B81	3761012	DNMG443RP KCM25	B84	3768973	DCMT432FP KCP05	B225	3769147	DPMT2151FP KCP25	B231
3760357	DNMG441MP KCM25	B81	3761014	SNMG432RP KCM25	B105	3768984	TCMT222FP KCP05	B257	3769148	DPMT3251FP KCP25	B231
3760358	DNMG442MP KCM25	B81	3761015	SNMG433RP KCM25	B105	3768985	TCMT223FP KCP05	B257	3769150	SCMT3251FP KCP25	B246
3760360	SNMG432MP KCM25	B102	3761019	SNMG644RP KCM25	B105	3768989	TCMT432FP KCP05	B257	3769151	SCMT3252FP KCP25	B246
3760361	SNMG433MP KCM25	B102	3761020	SNMG656RP KCM25	B107	3768996	VBMT331FP KCP05	B281	3769152	SCMT431FP KCP25	B246
3760364	SNMG543MP KCM25	B102	3761021	SNMG666RP KCM25	B107	3768997	VBMT332FP KCP05	B281	3769154	SCMT433FP KCP25	B246
3760365	SNMG544MP KCM25	B102	3761022	TNMG332RP KCM25	B127	3769003	CCMT432FP KCP10	B190	3769155	SPMT3251FP KCP25	B252
3760366	SNMG643MP KCM25	B102	3761023	TNMG333RP KCM25	B127	3769005	CPMT21505FP KCP10	B206	3769157	TCMT2151FP KCP25	B257
3760368	RCMT2006MO KCM25	B240	3761025	TNMG432RP KCM25	B127	3769006	CPMT2151FP KCP10	B206	3769158	TCMT2152FP KCP25	B257
3760369	KIPR100RP32M1203	V155	3761026	TNMG433RP KCM25	B127	3769008	CPMT3251FP KCP10	B206	3769159	TCMT3251FP KCP25	B257
3760370	KIPR125RP43M1603	V155	3761027	TNMG434RP KCM25	B127	3769009	CPMT3252FP KCP10	B206	3769160	TCMT3252FP KCP25	B257
3760394	CCMT432LF KCM35	B191	3761029	TNMG544RP KCM25	B127	3769010	DCMT2151FP KCP10	B225	3769161	TCMT432FP KCP25	B257
3760395	DCMT2151LF KCM35	B225	3761030	TNMG666RP KCM25	B127	3769012	DCMT432FP KCP10	B225	3769162	TPMT2151FP KCP25	B267
3760398	TCMT2151LF KCM35	B257	3761031	VNMG333RP KCM25	B148	3769013	DCMT3252FP KCP10	B225	3769163	TPMT2151FP KCP25	B267
3760399	TCMT3251LF KCM35	B257	3761032	WNMG332RP KCM25	B161	3769014	DCMT3253FP KCP10	B225	3769165	TPMT3251FP KCP25	B267
3760400	TCMT3252LF KCM35	B257	3761033	WNMG432RP KCM25	B161	3769015	DCMT431FP KCP10	B225	3769166	TPMT3252FP KCP25	B267
3760402	VBMT331LF KCM35	B281	3761034	WNMG433RP KCM25	B161	3769017	DPMT2151FP KCP10	B231	3769168	VBMT2205FP KCP25	B281
3760403	VBMT332LF KCM35	B281	3761035	CNMG431UP KCM25	B54	3769018	DPMT3251FP KCP10	B231	3769169	VBMT221FP KCP25	B281
3760404	CCMT2151MF KCM35	B191	3761036	CNMG432UP KCM25	B54	3769020	SCMT3251FP KCP10	B246	3769170	VBMT222FP KCP25	B281
3760406	CPMT3252MF KCM35	B207	3761037	CNMG433UP KCM25	B54	3769021	SCMT3252FP KCP10	B246	3769171	VBMT3305FP KCP25	B281
3760407	DCMT3252MF KCM35	B226	3761038	CNMG542UP KCM25	B54	3769026	TCMT2151FP KCP10	B257	3769172	VBMT331FP KCP25	B281
3760410	SCMT432MF KCM35	B247	3761039	CNMG543UP KCM25	B54	3769028	TCMT3251FP KCP10	B257	3769173	VBMT332FP KCP25	B281
3760411	TCMT3252MF KCM35	B258	3761041	CNMG643UP KCM25	B54	3769029	TCMT3252FP KCP10	B257	3769174	VBMT333FP KCP25	B281
3760413	CNMG431MP KCM35	B51	3761042	CNMG644UP KCM25	B54	3769030	TCMT3253FP KCP10	B257	3769175	WCMT3252FP KCP25	B286
3760414	CNMG432MP KCM35	B51	3761043	DNMG332UP KCM25	B84	3769033	TPMT2151FP KCP10	B267	3769176	WPMT2151FP KCP25	B288
3760415	CNMG433MP KCM35	B51	3761045	DNMG431UP KCM25	B84	3769035	TPMT3251FP KCP10	B267	3769178	WPMT1512FP KCP25	B288
3760416	CNMG542MP KCM35	B51	3761046	DNMG432UP KCM25	B84	3769036	TPMT3252FP KCP10	B267	3769203	TPMT3252FP KCM25	B190
3760420	DNMG431MP KCM35	B81	3761048	DNMG441UP KCM25	B84	3769037	VBMT221FP KCP10	B281	3769204	CCMT2151FP KCM25	B190
3760421	DNMG432MP KCM35	B81	3761052	SNMG433UP KCM25	B106	3769038	VBMT331FP KCP10	B281	3769205	CCMT2152FP KCM25	B190
3760422	DNMG441MP KCM35	B81	3761054	SNMG543UP KCM25	B106	3769039	VBMT332FP KCP10	B281	3769206	CCMT32505FP KCM25	B190
3760423	DNMG442MP KCM35	B81	3761056	TNMG331UP KCM25	B128	3769050	CCMT2151FP KTP10	B190	3769207	CCMT3251FP KCM25	B190
3760425	SNMG433MP KCM35	B102	3761057	TNMG332UP KCM25	B128	3769051	CCMT2152FP KTP10	B190	3769208	CCMT3252FP KCM25	B190
3760426	SNMG434MP KCM35	B102	3761059	TNMG432UP KCM25	B128	3769052	CCMT32505FP KTP10	B190	3769210	CCMT432FP KCM25	B190
3760427	SNMG643MP KCM35	B102	3761061	VNMG331UP KCM25	B148	3769053	CCMT3251FP KTP10	B190	3769223	CPMT21505FP KCM25	B206
3760430	TNMG332MP KCM35	B124	3761062	VNMG332UP KCM25	B148	3769054	CCMT3252FP KTP10	B190	3769224	CPMT2151FP KCM25	B206
3760431	VNMG331MP KCM35	B147	3761065	WNMG432UP KCM25	B162	3769055	CPMT21505FP KTP10	B206	3769226	CPMT32505FP KCM25	B206
3760432	VNMG332MP KCM35	B147	3761066	WNMG433UP KCM25	B162	3769056	CPMT2151FP KTP10	B206	3769227	CPMT3251FP KCM25	B206
3760434	WNMG432MP KCM35	B159	3763185	HNPJ535ANSNHD KCK15	S19, S23	3769057	CPMT2152FP KTP10	B206	3769228	CPMT3252FP KCM25	B206
3760435	WNMG433MP KCM35	B159	3763632	HNPJ535ANSNHD KC520M	S19, S23	3769060	CPMT3252FP KTP10	B206	3769229	CPMT21505FP KCM25	B225
3760436	CNMG433RP KCM35	B53	3763723	HNPJ535ANSNHD KC725M	S19, S23	3769061	DCMT21505FP KTP10	B225	3769230	DCMT2151FP KCM25	B225
3760437	CNMG434RP KCM35	B53	3763724	HNPJ535ANSNHD KCPK30	S19, S23	3769063	DCMT32505FP KTP10	B225	3769231	DCMT2152FP KCM25	B225
3760438	CNMG543RP KCM35	B53	3763725	HNPJ535ANSNGD KCK15	S19, S22	3769064	DCMT3251FP KTP10	B225	3769232	DCMT2151FP KCM25	B225
3760439	CNMG643RP KCM35	B53	3763726	HNPJ535ANSNGD KC520M	S19, S22	3769065	DCMT3252FP KTP10	B225	3769233	DCMT3251FP KCM25	B225
3760440	CNMG644RP KCM35	B53	3763727	HNPJ535ANSNGD KC725M	S19, S22	3769066	DPMT2151FP KTP10	B231	3769234	DCMT3252FP KCM25	B225
3760441	DNMG432RP KCM35	B84	3763728	HNPJ535ANSNGD KCPK30	S19, S22	3769068	DPMT3252FP KTP10	B231	3769235	DCMT431FP KCM25	B225
3760442	DNMG433RP KCM35	B84	3763729	HNPJ5351ANSNHD KCK15	S19, S23	3769069	SCMT3252FP KTP10	B246	3769236	DCMT432FP KCM25	B225
3760445	SNMG432RP KCM35	B105	3763730	HNPJ5351ANSNHD KC725M	S19, S23	3769071	TCMT21505FP KTP10	B257	3769240	SCMT3251FP KCM25	B246
3760447	SNMG543RP KCM35	B105	3763731	HNPJ5351ANSNHD KCPK30	S19, S23	3769072	TCMT2151FP KTP10	B257	3769243	SCMT432FP KCM25	B246
3760448	SNMG643RP KCM35	B105	3764792	CNMA432S0820 KB1340	B309	3769076	TCMT3252FP KTP10	B257	3769248	TCMT2151FP KCM25	B257
3760450	TNMG333RP KCM35	B127	3764823	B292A06600YPL KC7315	G89	3769082	VBMT221FP KTP10	B281	3769251	TCMT3252FP KCM25	B257
3760451	TNMG543RP KCM35	B127	3764824	B292A10100YPL KC7315	G89	3769083	VBMT3305FP KTP10	B281	3769253	TCMT432FP KCM25	B257
3760453	WNMG432RP KCM35	B161	3764833	CNMA433S0820 KB1340	B309	3769084	VBMT331FP KTP10	B281	3769257	TPMT3251FP KCM25	B267
3760454	WNMG433RP KCM35	B161	3764836	CNMA432S0820 KB1340	B304	3769085	VBMT332FP KTP10	B281	3769260	VBMT221FP KCM25	B281
3760455	CNMG432UP KCM35	B54	3764837	CNMA433S0820 KB1340	B304	3769093	CCMT21505FP KCP25	B190	3769262	VBMT3305FP KCM25	B281
3760457	CNMG542UP KCM35	B54	3764838	DNMA332S0820 KB1340	B309	3769094	CCMT2151FP KCP25	B190	3769283	VBMT331FP KCM25	B281
3760458	CNMG543UP KCM35	B54	3764839	DNMA333S0820 KB1340	B309	3769095	CCMT2151FP KCM15	B190	3769284	VBMT332FP KCM25	B281
3760459	CNMG643UP KCM35	B54	3764840	RNM32S0820 KB1340	B305	3769096	CCMT32505FP KCP25	B190	3769285	WPMT2151FP KCM25	B288
3760461	DNMG432UP KCM35	B84	3764841	RNMA2S0820 KB1340	B305	3769097	CCMT32505FP KCP25	B190	3769290	CCMT21505FP KCU10	B190
3760465	SNMG432UP KCM35	B106	3764842	RNMA3S0820 KB1340	B305	3769099	CCMT3251FP KCM15	B190	3769291	CPMT2151FP KCU10	B190
3760466	SNMG433UP KCM35	B106	3764844	SNMA433S0820 KB1340	B310	3769103	CCMT3251FP KCP25	B190	3769292	CCMT2152FP KCU10	B190
3760470	TNMG432UP KCM35	B128	3764845	SNM322S0820 KB1340	B306	3769106	CCMT3252FP KCP25	B190	3769310	CPMT2151FP KCK20	B206
3760473	WNMG433UP KCM35	B162	3764847	SNM324S0820 KB1340	B306	3769107	CPMT3251FP KCM15	B206	3769320	CCMT3252FP KCK20	B246
3760968	TNMG331MP KCM25	B124	3764850	SNM424S0820 KB1340	B306	3769109	DCMT2151FP KCM15	B225	3769334	TPMT3251FP KCK20	B267
3760969	TNMG332MP KCM25	B124	3764851	SNM434S0820 KB1340	B306	3769111	DCMT3251FP KCM15	B225	3769337	VBMT332FP KCK20	B281
3760970	TNMG333MP KCM25	B124	3765830	EC1020ELDJ KC410M	T35, T44	3769112	DCMT3252FP KCM15	B225	3769343	CCMT32505FP KCU10	B190
3760971	TNMG432MP KCM25	B124	3765831	EC1020ELDJ KC422M	T35, T45	3769114	DCMT3251FP KCM15	B225	3769344	CCMT3251FP KCU10	B190
3760972	TNMG433MP KCM25	B124	3766023	EC1020ELD KC725M	T36, T45	3769118	SCMT3252FP KCM15	B246	3769345	CCMT431FP KCU10	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3769346	3769447	.....	.....	3784066	.....	.....	3791275	.....	.....
3769347	3769448	.....	.....	3784326	.....	.....	3791276	.....	.....
3769348	3769449	.....	.....	3784327	.....	.....	3791277	.....	.....
3769349	3769450	.....	.....	3784328	.....	.....	3791279	.....	.....
3769350	3769451	.....	.....	3784329	.....	.....	3791280	.....	.....
3769352	3769452	.....	.....	3784330	.....	.....	3791281	.....	.....
3769353	3769454	.....	.....	3784331	.....	.....	3791282	.....	.....
3769354	3769455	.....	.....	3784332	.....	.....	3791283	.....	.....
3769355	3769456	.....	.....	3784473	.....	.....	3791284	.....	.....
3769356	3769457	.....	.....	3784474	.....	.....	3791285	.....	.....
3769357	3769458	.....	.....	3784475	.....	.....	3791286	.....	.....
3769358	3769460	.....	.....	3784476	.....	.....	3791287	.....	.....
3769359	3769461	.....	.....	3784477	.....	.....	3791288	.....	.....
3769360	3769462	.....	.....	3787461	.....	.....	3791289	.....	.....
3769363	3769463	.....	.....	3787462	.....	.....	3791290	.....	.....
3769364	3769464	.....	.....	3787483	.....	.....	3791291	.....	.....
3769365	3769465	.....	.....	3787484	.....	.....	3791292	.....	.....
3769366	3769466	.....	.....	3787486	.....	.....	3791293	.....	.....
3769368	3769467	.....	.....	3787488	.....	.....	3791294	.....	.....
3769369	3769468	.....	.....	3787492	.....	.....	3791295	.....	.....
3769370	3769469	.....	.....	3787503	.....	.....	3791296	.....	.....
3769371	3773323	.....	.....	3787504	.....	.....	3791297	.....	.....
3769372	3774249	.....	.....	3787505	.....	.....	3791298	.....	.....
3769373	3774250	.....	.....	3787507	.....	.....	3791299	.....	.....
3769374	3774251	.....	.....	3787508	.....	.....	3791300	.....	.....
3769375	3774691	.....	.....	3787509	.....	.....	3791301	.....	.....
3769376	3774692	.....	.....	3787512	.....	.....	3791303	.....	.....
3769377	3774723	.....	.....	3787974	.....	.....	3791304	.....	.....
3769378	3774724	.....	.....	3787975	.....	.....	3791305	.....	.....
3769380	3774906	.....	.....	3787976	.....	.....	3791306	.....	.....
3769381	3774919	.....	.....	3787977	.....	.....	3791307	.....	.....
3769382	3774920	.....	.....	3787978	.....	.....	3791308	.....	.....
3769383	3774921	.....	.....	3787979	.....	.....	3791309	.....	.....
3769384	3775003	.....	.....	3789800	.....	.....	3791310	.....	.....
3769386	3775004	.....	.....	3789801	.....	.....	3791311	.....	.....
3769387	3775005	.....	.....	3789802	.....	.....	3791312	.....	.....
3769388	3775016	.....	.....	3789833	.....	.....	3791313	.....	.....
3769389	3775017	.....	.....	3789834	.....	.....	3791314	.....	.....
3769390	3775018	.....	.....	3789835	.....	.....	3791316	.....	.....
3769391	3775022	.....	.....	3789836	.....	.....	3791545	.....	.....
3769392	3775063	.....	.....	3789837	.....	.....	3793949	.....	.....
3769393	3775064	.....	.....	3789838	.....	.....		.....	.....
3769394	3776430	.....	.....	3790401	.....	.....		.....	.....
3769395	3779249	.....	.....	3790402	.....	.....		.....	.....
3769396	3779250	.....	.....	3790443	.....	.....		.....	.....
3769397	3779251	.....	.....	3790444	.....	.....		.....	.....
3769401	3780360	.....	.....	3790445	.....	.....		.....	.....
3769402	3790446	.....	.....		.....	.....
3769403	3781192	.....	.....	3790447	.....	.....		.....	.....
3769404	3781252	.....	.....	3790448	.....	.....		.....	.....
3769405	3781253	.....	.....	3790449	.....	.....		.....	.....
3769406	3781254	.....	.....	3790450	.....	.....		.....	.....
3769407	3781255	.....	.....	3790451	.....	.....		.....	.....
3769408	3781256	.....	.....	3790452	.....	.....		.....	.....
3769409	3781257	.....	.....	3790453	.....	.....		.....	.....
3769410	3781258	.....	.....	3790454	.....	.....		.....	.....
3769411	3781259	.....	.....	3790455	.....	.....		.....	.....
3769412	3781260	.....	.....	3790456	.....	.....		.....	.....
3769413	3781261	.....	.....	3790457	.....	.....		.....	.....
3769414	3781262	.....	.....	3790458	.....	.....		.....	.....
3769415	3781263	.....	.....	3790459	.....	.....		.....	.....
3769416	3781264	.....	.....	3790460	.....	.....		.....	.....
3769417	3781265	.....	.....	3790461	.....	.....		.....	.....
3769418	3781278	.....	.....	3790462	.....	.....		.....	.....
3769419	3781279	.....	.....	3790463	.....	.....		.....	.....
3769421	3781280	.....	.....	3790464	.....	.....		.....	.....
3769422	3781281	.....	.....	3790465	.....	.....		.....	.....
3769423	3781282	.....	.....	3790466	.....	.....		.....	.....
3769424	3781283	.....	.....	3790467	.....	.....		.....	.....
3769427	3781284	.....	.....	3790468	.....	.....		.....	.....
3769428	3781285	.....	.....	3790469	.....	.....		.....	.....
3769430	3781286	.....	.....	3790470	.....	.....		.....	.....
3769431	3781287	.....	.....	3791263	.....	.....		.....	.....
3769432	3781288	.....	.....	3791265	.....	.....		.....	.....
3769433	3781289	.....	.....	3791266	.....	.....		.....	.....
3769435	3781290	.....	.....	3791267	.....	.....		.....	.....
3769436	3781677	.....	.....	3791268	.....	.....		.....	.....
3769438	3782185	.....	.....	3791269	.....	.....		.....	.....
3769440	3782458	.....	.....	3791270	.....	.....		.....	.....
3769441	3784063	.....	.....	3791271	.....	.....		.....	.....
3769444	3784064	.....	.....	3791272	.....	.....		.....	.....
3769446	3784065	.....	.....	3791273	.....	.....		.....	.....

For page references F–X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)		
3794410	KSEMP5300FDS50A1M	H105, H116, H122	3794919	KSEMP1438FDS36A1	H104, H116, H122	3855236	EP1408SGE KC522M	T58, T69	3860397	RHM32500KST300H7HF	KT325	K34	
3794411	KSEMP5400FDS50A1M	H105, H116, H122	3794920	KSEMP1500FDS36A1	H104, H116, H122	3855237	EP1408SGE KC725M	T58, T69	3860398	RHM33000KST300H7HF	KT325	K34	
3794412	KSEMP5500FDS50A1M	H105, H116, H122	3794921	KSEMP1563FDS36A1	H104, H116, H122	3855238	EP1408SGE KCPK30	T58, T69	3860399	RHM33340KST300H7HF	KT325	K34	
3794413	KSEMP5600FDS56A1M	H105, H116, H122	3794922	KSEMP1625FDS40A1	H104, H116, H122	3855240	EP14125GE KC522M	T58, T69	3860401	RHM34930KST300H7HF	KT325	K34	
3794414	KSEMP5700FDS56A1M	H105, H116, H122	3794923	KSEMP1750FDS40A1	H104, H116, H122	3855241	EP14125GE KC725M	T58, T69	3860402	RHM35000KST300H7HF	KT325	K34	
3794415	KSEMP5800FDS56A1M	H105, H116, H122	3794933	KSEMP1875FDS45A1	H105, H116, H122	3855242	EP14125GE KCPK30	T58, T69	3860403	RHM36000KST300H7HF	KT325	K34	
3794416	KSEMP5900FDS56A1M	H105, H116, H122	3794934	KSEMP1875FDS45A1	H105, H116, H122	3855383	B291A04300YPL KC7315	G88	3860404	RHM36510KST350H7HF	KT325	K34	
3794417	KSEMP6000FDS56A1M	H105, H116, H122	3794935	KSEMP2000FDS50A1	H105, H116, H122	3855561	CNMG432MP KCP10	B51	3860405	RHM37000KST300H7HF	KT325	K34	
3794418	KSEMP6100FDS56A1M	H105, H116, H122	3794936	KSEMP2125FDS50A1	H105, H116, H122	3855796	CM234R ASSY	B58-60, B67-68, B87-88, B91-92, B98, B109-110, B113, B131, B154, B163	3860406	RHM37500KST350H7HF	KT325	K34	
3794419	KSEMP6200FDS56A1M	H105, H116, H122	3794937	KSEMP2250FDS56A1	H105, H116, H122	3855854	B291A08800YPL KC7315	G89	3860407	RHM38100KST350H7HF	KT325	K34	
3794420	KSEMP6300FDS63A1M	H105, H116, H123	3794938	KSEMP2375FDS56A1	H105, H116, H122	3856322	LT27ER4AP1502 KC5025	D52	3860408	RHM39000KST350H7HF	KT325	K34	
3794421	KSEMP6400FDS63A1M	H105, H116, H123	3794939	KSEMP2500FDS63A1	H105, H116, H123	3856324	LT27ER4AP1382 KC5025	D52	3860409	RHM39690KST350H7HF	KT325	K34	
3794422	KSEMP6500FDS63A1M	H105, H116, H123	3794940	KSEMP2625FDS63A1	H105, H116, H123	3856327	LT27NR4AP1502 KC5025	D62	3860410	RHM40000KST350H7HF	KT325	K34	
3794423	KSEMP6600FDS63A1M	H105, H116, H123	3794941	KSEMP2750FDS63A1	H105, H116, H123	3856329	LT27NR4AP1382 KC5025	D62	3860411	RHM41000KST350H7HF	KT325	K34	
3794424	KSEMP6700FDS63A1M	H105, H116, H123	3795256	RMB14000H7HF KT6215	K18	3856518	DNGX120712T02020 KYK25	B317	3860412	RHM41280KST350H7HF	KT325	K34	
3794425	KSEMP6800FDS63A1M	H105, H116, H123	3795257	RMB15000H7HF KT6215	K18	3856520	DNGA453T0820 KYK25	B317	3860413	RHM42000KST350H7HF	KT325	K34	
3794426	KSEMP6900FDS63A1M	H105, H116, H123	3795258	RMB16000H7HF KT6215	K18	3856521	SNGX453T0820 KYK25	B318	3860414	RHM42000KST350H7HF	KT325	K34	
3794427	WD32FDS32216M	H127	3795259	RMB18000H7HF KT6215	K18	3856522	SNGX454T0820 KYK25	B318	3860415	RHM42000KST350H7HF	KT325	K34	
3794428	WD32FDS32391M	H127	3795260	RMB18000H7HF KT6215	K18	3856532	SNG432T0820 KYK25	B318	3860416	RHM42000KST350H7HF	KT325	K34	
3794429	WD32FDS36244M	H127	3795261	RMB19000H7HF KT6215	K18	3856553	SNG433T0820 KYK25	B318	3860417	RHM42000KST350H7HF	KT325	K34	
3794430	WD32FDS36361M	H127	3795262	RMB20000H7HF KT6215	K18	3856554	SNG453T0820 KYK25	B318	3860418	RHM42000KST350H7HF	KT325	K34	
3794431	WD32FDS36393M	H127	3795333	RMB14000H7SF KT6215	K17	3856558	CNMG432MP KCP10	B51	3860419	RHM42000KST350H7HF	KT325	K34	
3794432	WD32FDS36439M	H127	3795334	RMB15000H7SF KT6215	K17	3856559	CNMG433T0820 KYK25	B313	3860420	RHM42000KST350H7HF	KT325	K34	
3794433	WD50FDS40271M	H127	3795335	RMB16000H7SF KT6215	K17	3856560	CNMG434T0820 KYK25	B313	3860421	RHM42000KST350H7HF	KT325	K34	
3794434	WD50FDS40403M	H127	3795336	RMB17000H7SF KT6215	K17	3856561	CNMG434T020FW KYK25	B313	3860422	RHM42000KST350H7HF	KT325	K34	
3794435	WD50FDS40491M	H127	3795337	RMB18000H7SF KT6215	K17	3856562	CNMG433T0420FW KYK25	B313	3860423	RHM42000KST350H7HF	KT325	K34	
3794436	WD50FDS45304M	H127	3795338	RMB19000H7SF KT6215	K17	3856563	CNMG433T0420FW KYK25	B313	3860424	RHM42000KST350H7HF	KT325	K34	
3794437	WD50FDS45451M	H127	3795339	RMB20000H7SF KT6215	K17	3856564	CNMG444T0820 KYK25	B313	3860425	RHM42000KST350H7HF	KT325	K34	
3794438	WD50FDS45549M	H127	3812186	DNMG443MP KCP10	B81	3856607	DNGA434T0820 KYK25	B314	3860426	RHM42000KST350H7HF	KT325	K34	
3794439	WD50FDS50338M	H127	3830321	B976A08020 KC7315	G136	3856608	SNGA432T0820 KYK25	B314	3860427	RHM42000KST350H7HF	KT325	K34	
3794440	WD50FDS50613M	H127	3838225	WNMG433MP KCP10	B159	3856609	SNGA433T0820 KYK25	B314	3860428	RHM42000KST350H7HF	KT325	K34	
3794441	WD50FDS56383M	H127	3842812	B291A13800YPL KC7315	G90	3856611	SNGA453T0820 KYK25	B314	3860429	RHM42000KST350H7HF	KT325	K34	
3794442	WD50FDS56569M	H127	3842895	H32LSERS	D76	3856614	VNGA432T0820 KYK25	B315	3860430	RHM42000KST350H7HF	KT325	K34	
3794443	WD50FDS56693M	H127	3842897	H40LSERS	D76	3856616	WNGA433T0820 KYK25	B315	3860431	RHM42000KST350H7HF	KT325	K34	
3794444	WD50FDS63429M	H127	3848433	B967A15500 KC7315	G132	3856618	SNGA433T0820 KYK25	B313	3860432	RHM42000KST350H7HF	KT325	K34	
3794445	WD50FDS63639M	H127	3849319	XNGJ535ANFLDJ3W KC410M	S21	3856793	RIR04E1312 KC6005	K56	3860433	RHM42000KST350H7HF	KT325	K34	
3794446	WD50FDS63639M	H127	3849320	HNGJ535ANFLDJ3W KC410M	S18, S21	3856806	RIR02E1312 KC6305	K56	3860434	RHM42000KST350H7HF	KT325	K34	
3794447	WD50FDS63639M	H127	3852200	RPET1204MOLE KC725M	V71	3856807	RIR03E1312 KC6305	K56	3860435	RHM42000KST350H7HF	KT325	K34	
3794448	WD50FDS63639M	H127	3852233	RPET1204MOLE KC725M	V72	3856827	RIR04E1312 KC6005	K57	3860436	RHM42000KST350H7HF	KT325	K34	
3794449	WD50FDS63639M	H127	3852235	RPET1204MOLE KCPK30	V71	3856828	RIR04E1312 KC6005	K56	3860437	RHM42000KST350H7HF	KT325	K34	
3794450	WD50FDS63639M	H127	3852284	RPPT1605MOSH KC725M	V79	3858114	EP1808SGE KCPK30	T84	3860438	RHM42000KST350H7HF	KT325	K34	
3794451	WD50FDS63639M	H127	3852285	RPPT1605MOSH KCPK30	V79	3858115	EP1808SGE KC522M	T84	3860439	RHM42000KST350H7HF	KT325	K34	
3794452	WD50FDS63639M	H127	3852395	RPPT1204MOSGP KC725M	V72	3858210	EP1808SGE KC725M	T84	3860440	RHM42000KST350H7HF	KT325	K34	
3794453	WD50FDS63639M	H127	3852396	RPPT1204MOSGP KCPK30	V72	3858212	B978A04200 KC7315	G139	3860441	RHM42000KST350H7HF	KT325	K34	
3794454	WD50FDS63639M	H127	3854146	RIR04E1312 KC6105	K56	3858724	RIR01E1312 KC6105	K56	3860442	RHM42000KST350H7HF	KT325	K34	
3794455	WD50FDS63639M	H127	3854265	A4SMR2020K0208	C126	3858725	RIR02E1312 KC6105	K56	3860443	RHM42000KST350H7HF	KT325	K34	
3794456	WD50FDS63639M	H127	3854266	A4SML2020K0208	C126	3858727	RIR01EQU00 KC6105	K56	3860444	RHM42000KST350H7HF	KT325	K34	
3794457	WD50FDS63639M	H127	3854267	A4SMR2020K0308	C126	3858731	RIR05EQU00 KC6105	K56	3860445	RHM42000KST350H7HF	KT325	K34	
3794458	WD50FDS63639M	H127	3854268	A4SML2020K0308	C126	3858814	KST175CS	K43	3860446	RHM42000KST350H7HF	KT325	K34	
3794459	WD50FDS63639M	H127	3854269	A4SMR2020K0408	C126	3858815	KST200CS	K43	3860447	RHM42000KST350H7HF	KT325	K34	
3794460	WD50FDS63639M	H127	3854270	A4SML2020K0408	C126	3858817	KST250CS	K43	3860448	RHM42000KST350H7HF	KT325	K34	
3794461	WD50FDS63639M	H127	3854271	A4SML2525M0510	C126	3858818	KST300CS	K43	3860449	RHM42000KST350H7HF	KT325	K34	
3794462	WD50FDS63639M	H127	3854272	A4SML2525M0510	C126	3858819	KST350CS	K43	3860450	RHM42000KST350H7HF	KT325	K34	
3794463	WD50FDS63639M	H127	3854273	A4SML2525M0610	C126	3859000	B292A07400YPL KC7315	G89	3860451	RHM42000KST350H7HF	KT325	K34	
3794464	WD50FDS63639M	H127	3854274	A4SML2525M0610	C126	3859044	SDET4316SNBG KC725M	T116, TT123, U39	3860452	RHM42000KST350H7HF	KT325	K34	
3794465	WD50FDS63639M	H127	3854277	A4SMR120308	C126	3859155	B292A08100YPL KC7315	G89	3860453	RHM42000KST350H7HF	KT325	K34	
3794466	WD50FDS63639M	H127	3854281	A4SMR160510	C126	3860364	RHM22000KST175H7HF	KT325	K33	3860454	RHM42000KST350H7HF	KT325	K34
3794467	WD50FDS63639M	H127	3854632	AADE0250J3B K600	P128	3860365	RHM20640KST175H7HF	KT325	K33	3860455	RHM42000KST350H7HF	KT325	K34
3794468	WD50FDS63639M	H127	3854739	AADE0312J3A K600	P128	3860366	RHM21000KST175H7HF	KT325	K33	3860456	RHM42000KST350H7HF	KT325	K34
3794469	WD50FDS63639M	H127	3854756	AADE0375J3B K600	P129	3860367	RHM22000KST175H7HF	KT325	K33	3860457	RHM42000KST350H7HF	KT325	K34
3794470	WD50FDS63639M	H127	3854759	AADE0500J3B K600	P129	3860368	RHM22230KST175H7HF	KT325	K33	3860458	RHM42000KST350H7HF	KT325	K34
3794471	WD50FDS63639M	H127	3854761	AADE0625J3A K600	P129	3860369	RHM22500KST200H7HF	KT325	K33	3860459	RHM42000KST350H7HF	KT325	K34
3794472	WD50FDS63639M	H127	3854762	AADE0750J3B K600	P130	3860370	RHM23000KST200H7HF	KT325	K33	3860460	RHM42000KST350H7HF	KT325	K34
3794473	WD50FDS63639M	H127	3855176	EP1416SGE KC522M	T58, T69	3860371	RHM23810KST200H7HF	KT325	K33	3860461	RHM42000KST350H7HF	KT325	K34
3794474	WD50FDS63639M	H127	3855177	EP1416SGE KC725M	T58, T69	3860372	RHM24000KST200H7HF	KT325	K33	3860462	RHM42000KST350H7HF	KT325	K34
3794475	WD50FDS63639M	H127	3855178	EP1416SGE KCPK30	T58, T69	3860383	RHM						

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)		
3860667	RHM37500KST350H7F	KT6215	K32	3865921	A4SBR2020K2S12020025	C129	3867765	B271Z08500HPS KN25	G69	3868174	T620M030X050R6HX-D1	KP6525	M11
3860668	RHM38000KST350H7F	KT6215	K32	3865922	A4SBR2020K2S120205036	C129	3867766	B271Z08733HPS KN25	G69	3868175	T620M040X070R6HX-D1	KP6525	M11
3860669	RHM38100KST350H7F	KT6215	K32	3865923	A4SBR2020K3S14020025	C129	3867767	B271Z09000HPS KN25	G69	3868176	T620M050X080R6HX-D1	KP6525	M11
3860670	RHM39000KST350H7F	KT6215	K32	3865924	A4SBR2020K3S140205036	C129	3867768	B271Z09500HPS KN25	G69	3868177	T620M060X100R6HX-D1	KP6525	M11
3860671	RHM39690KST350H7F	KT6215	K32	3865926	A4SBR2020K4S14035048	C129	3867769	B271Z09525HPS KN25	G69	3868178	T620M080X125R6HX-D1	KP6525	M11
3860672	RHM40000KST350H7F	KT6215	K32	3865927	A4SBR2525M5S19028038	C129	3867770	B271Z10000HPS KN25	G69	3868179	T620M100X150R6HX-D1	KP6525	M11
3860673	RHM41000KST350H7F	KT6215	K32	3865928	A4SBR2525M5S19038058	C129	3867804	B272Z03000HPS KN25	G70	3868180	T620M120X175R6HX-D1	KP6525	M11
3860674	RHM41280KST350H7F	KT6215	K32	3865929	A4SBL2020K2S12016020	C129	3867772	B272Z03175HPS KN25	G70	3868181	T620M140X200R6HX-D1	KP6525	M11
3860675	RHM42000KST350H7F	KT6215	K32	3865931	A4SBL2020K2S12025030	C129	3867805	B272Z03300HPS KN25	G70	3868182	T620M160X250R6HX-D1	KP6525	M11
3860685	RHM20000KST175H7F	KT6215	K33	3865932	A4SBL2020K3S14020025	C129	3867804	B272Z03500HPS KN25	G70	3868204	T620M200X250R6HX-D1	KP6525	M11
3860686	RHM20640KST175H7F	KT6215	K33	3865934	A4SBL2020K4S14025035	C129	3867805	B272Z03970HPS KN25	G70	3868215	T620M080X100R6HX-D4	KP6525	M11
3860687	RHM21000KST175H7F	KT6215	K33	3865937	A4SBL2525M5S19038058	C129	3867806	B272Z04000HPS KN25	G70	3868216	T620M100X100R6HX-D4	KP6525	M11
3860688	RHM22000KST175H7F	KT6215	K33	3866058	AADE1000J3D K600	P130	3867807	B272Z04500HPS KN25	G70	3868217	T620M100X125R6HX-D4	KP6525	M11
3860689	RHM22230KST175H7F	KT6215	K33	3866065	AADE1000J3GRB K600	P130	3867808	B272Z04763HPS KN25	G70	3868219	T620M120X150R6HX-D4	KP6525	M11
3860690	RHM22500KST200H7F	KT6215	K33	3866067	AADE1000J3E K600	P130	3867809	B272Z05000HPS KN25	G70	3868221	T620M160X150R6HX-D4	KP6525	M11
3860691	RHM23000KST200H7F	KT6215	K33	3866068	AADE1000J3ERA K600	P130	3867810	B272Z05500HPS KN25	G70	3868222	T620M160X150R6HX-D4	KP6525	M11
3860692	RHM23810KST200H7F	KT6215	K33	3866069	AADE1000J3ERB K600	P130	3867811	B272Z06000HPS KN25	G70	3868223	T620M160X150R6HX-D4	KP6525	M11
3860693	RHM24000KST200H7F	KT6215	K33	3866072	AADE1000J3ERE K600	P130	3867812	B272Z06200HPS KN25	G70	3868469	B291A0800VPL KC7315	G88	
3860694	RHM25000KST200H7F	KT6215	K33	3866073	AADE1000J3H K600	P130	3867813	B272Z06350HPS KN25	G70	3868571	T630M030X050R6HX-D1	KP6525	M50
3860695	RHM25400KST200H7F	KT6215	K33	3866074	AADE1000J3HRA K600	P130	3867814	B272Z06500HPS KN25	G70	3868572	T630M040X070R6HX-D1	KP6525	M50
3860696	RHM26990KST200H7F	KT6215	K33	3866202	AADE0500J3RF K600	P129	3867815	B272Z06500HPS KN25	G70	3868825	T630M030X050R6HX-D1	KP6515	M50
3860698	RHM27000KST200H7F	KT6215	K33	3866253	AADE0500J3RFA K600	P129	3867816	B272Z07000HPS KN25	G71	3868826	T630M040X070R6HX-D1	KP6515	M50
3860699	RHM27500KST250H7F	KT6215	K33	3866254	AADE0500J3RFB K600	P129	3867817	B272Z07145HPS KN25	G71	3868827	T630M050X080R6HX-D1	KP6515	M50
3860700	RHM28000KST250H7F	KT6215	K34	3866255	AADE0500J3RFC K600	P129	3867818	B272Z07500HPS KN25	G71	3868828	T630M060X100R6HX-D1	KP6515	M50
3860702	RHM29000KST250H7F	KT6215	K34	3866256	AADE0500J3RBA K600	P129	3867819	B272Z08000HPS KN25	G71	3868829	T630M080X125R6HX-D1	KP6515	M50
3860703	RHM30000KST250H7F	KT6215	K34	3866257	AADE0500J3G K600	P129	3868200	B272Z08500HPS KN25	G71	3868830	T630M100X150R6HX-D1	KP6515	M50
3860704	RHM30160KST250H7F	KT6215	K34	3866259	AADE0500J3GRB K600	P129	3867821	B272Z08733HPS KN25	G71	3868831	T630M120X175R6HX-D1	KP6515	M50
3860705	RHM31000KST250H7F	KT6215	K34	3866260	AADE0500J3GRC K600	P129	3867822	B272Z09000HPS KN25	G71	3868832	T630M140X200R6HX-D1	KP6515	M50
3860706	RHM31750KST250H7F	KT6215	K34	3866261	AADE0500J3GRD K600	P129	3867823	B272Z09525HPS KN25	G71	3868843	T630M160X200R6HX-D1	KP6515	M50
3860707	RHM32000KST250H7F	KT6215	K34	3866262	AADE0500J3CRA K600	P129	3867824	B272Z09750HPS KN25	G71	3868844	T630M180X250R6HX-D1	KP6515	M50
3860708	RHM32500KST300H7F	KT6215	K34	3866263	AADE0500J3H K600	P129	3867825	B272Z10000HPS KN25	G71	3868856	T630M080X100R6HX-D4	KP6515	M50
3860709	RHM33000KST300H7F	KT6215	K34	3866268	AADE0625J3D K600	P130	3867828	B274Z03000HPS KN25	G73	3868857	T630M100X125R6HX-D4	KP6515	M50
3860780	RHM33340KST300H7F	KT6215	K34	3866269	AADE0625J3DRA K600	P129	3867829	B274Z03175HPS KN25	G73	3868858	T630M100X125R6HX-D4	KP6515	M50
3860781	RHM34000KST300H7F	KT6215	K34	3866272	AADE0625J3DRE K600	P130	3867830	B274Z03500HPS KN25	G73	3868860	T630M120X175R6HX-D4	KP6515	M50
3860782	RHM34390KST300H7F	KT6215	K34	3866273	AADE0625J3E K600	P130	3867831	B274Z04000HPS KN25	G73	3868862	T630M140X150R6HX-D4	KP6515	M50
3860783	RHM35000KST300H7F	KT6215	K34	3866274	AADE0625J3F K600	P130	3867832	B274Z04500HPS KN25	G73	3868863	T630M160X150R6HX-D4	KP6515	M50
3860785	RHM3510KST300H7F	KT6215	K34	3866275	AADE0625J3FRE K600	P130	3867833	B273Z03000HPS KN25	G72	3868864	T630M180X250R6HX-D1	KP6515	M50
3860786	RHM37000KST300H7F	KT6215	K34	3866276	AADE0625J3G K600	P130	3867834	B273Z03175HPS KN25	G72	3868923	T630M050X080R6HX-D1	KP6525	M50
3860787	RHM37500KST350H7F	KT6215	K34	3866277	AADE0750J3RF K600	P130	3867835	B273Z03500HPS KN25	G72	3868924	T630M060X100R6HX-D1	KP6525	M50
3860890	RHM39000KST350H7F	KT6215	K34	3866280	AADE0750J3H K600	P130	3867836	B273Z04000HPS KN25	G72	3868925	T630M080X125R6HX-D1	KP6525	M50
3860891	RHM39690KST350H7F	KT6215	K34	3866282	AADE0750J3HRB K600	P130	3867837	B273Z04500HPS KN25	G72	3868926	T630M100X150R6HX-D1	KP6525	M50
3860892	RHM40000KST350H7F	KT6215	K34	3866284	AADE0750J3HRD K600	P130	3867838	B273Z05000HPS KN25	G72	3868927	T630M120X175R6HX-D1	KP6525	M50
3860893	RHM41000KST350H7F	KT6215	K34	3866286	AADE0750J3CRA K600	P130	3867839	B273Z05500HPS KN25	G72	3868928	T630M140X200R6HX-D1	KP6525	M50
3860894	RHM41280KST350H7F	KT6215	K34	3866288	AADE0750J3CRE K600	P130	3867840	B273Z06000HPS KN25	G72	3868929	T630M160X200R6HX-D1	KP6525	M50
3860895	RHM42000KST350H7F	KT6215	K34	3866289	AADE0750J3G K600	P130	3867841	B273Z06500HPS KN25	G72	3868930	T630M180X250R6HX-D1	KP6525	M50
3861185	SS20KST175AR3M		K42	3866290	AADE0750J3GRA K600	P130	3867842	B273Z06500HPS KN25	G72	3868933	T630M240X300R6HX-D6	KP6525	M54
3861186	SS20KST200AR3M		K42	3866291	AADE0750J3GRB K600	P130	3867843	B273Z06746HPS KN25	G72	3868942	T630M080X100R6HX-D4	KP6525	M50
3861187	SS25KST250AR3M		K42	3866293	AADE0750J3GRD K600	P130	3867844	B273Z07000HPS KN25	G72	3868943	T630M100X125R6HX-D4	KP6525	M50
3861188	SS32KST300AR3M		K42	3866294	AADE0750J3GRE K600	P130	3867845	B273Z08000HPS KN25	G72	3868944	T630M100X125R6HX-D4	KP6525	M50
3861189	SS32KST350AR3M		K42	3867457	A4M50R2S12B016020	C141	3867846	B273Z08500HPS KN25	G72	3868946	T630M120X175R6HX-D4	KP6525	M50
3861190	SS20KST175AR5M		K42	3867458	A4M50R2S12B020025	C141	3867847	B273Z09000HPS KN25	G72	3868948	T630M140X150R6HX-D4	KP6525	M50
3861191	SS20KST200AR5M		K42	3867459	A4M50R2S12B025036	C141	3867849	B273Z09525HPS KN25	G72	3868949	T630M160X150R6HX-D4	KP6525	M50
3861192	SS25KST250AR5M		K42	3867460	A4M50R3S14B020025	C141	3867850	B273Z10000HPS KN25	G72	3868950	T630M180X250R6HX-D4	KP6525	M50
3861193	SS32KST300AR5M		K42	3867461	A4M50R3S14B025036	C141	3867873	B274Z05000HPS KN25	G73	3868976	T631M050X080R6HX-D1	KP6525	M51
3861194	SS32KST350AR5M		K42	3867462	A4M50R4S14B025035	C141	3867874	B274Z05500HPS KN25	G73	3868977	T631M060X100R6HX-D1	KP6525	M51
3861195	SS20KST175RR3M		K43	3867464	A4M50R5S17B028038	C141	3867875	B274Z06000HPS KN25	G73	3868978	T631M080X125R6HX-D1	KP6525	M51
3861196	SS20KST200RR3M		K43	3867466	A4M50L2S12B016020	C142	3867876	B274Z06350HPS KN25	G73	3868979	T631M100X150R6HX-D1	KP6525	M51
3861197	SS25KST250RR3M		K43	3867467	A4M50L2S12B020025	C142	3867877	B274Z06500HPS KN25	G73	3868980	T631M120X175R6HX-D1	KP6525	M51
3861198	SS32KST300RR3M		K43	3867468	A4M50L2S12B025036	C142	3867878	B274Z06746HPS KN25	G73	3868981	T631M140X200R6HX-D1	KP6525	M51
3861199	SS32KST350RR3M		K43	3867469	A4M50L3S14B020025	C142	3867879	B274Z07000HPS KN25	G73	3868982	T631M160X200R6HX-D1	KP6525	M51
3861200	SS20KST175RR5M		K43	3867470	A4M50L3S14B025036	C142	3867880	B274Z08000HPS KN25	G74	3868993	T631M180X250R6HX-D1	KP6525	M51
3861201	SS20KST200RR5M		K43	3867472	A4M50L4S14B035048	C142	3867881	B274Z08500HPS KN25	G74	3869003	T631M080X100R6HX-D4	KP6525	M51
3861202	SS25KST250RR5M		K43	3867484	A4M50L5S17B028038	C142	3867882	B274Z08733HPS KN25	G74	3869004	T631M100X125R6HX-D4	KP6525	M51
3861203	SS32KST300RR5M		K43	3867715	B271Z03000HPS KN25	G68	3867883	B274Z09000HPS KN25	G74	3869005	T631M100X125R6HX-D4	KP6525	M51
3861204	SS32KST350RR5M		K43	3867716	B271Z03175HPS KN25	G68	3867884	B274Z09525HPS KN25	G74	3869006	T631M120X175R6HX-D4	KP6525	M51
3861630	KST175200RK		K43	3867717	B271Z03200HPS KN25	G68	3867885	B274Z10000HPS KN25	G74	3869007	T631M140X150R6HX-D4	KP6525	M51
3861631	KST250250RK		K43	3867718	B271Z03500HPS KN25	G68	3868079	T620M030X050R6HX-D1	KM6515	M11			
3861632	KST300350RK		K43	3867719	B271Z03970HPS KN25	G68	3868080	T620M040X070R6HX-D1	KM6515	M11			
3861774	DNGA434T0820 KYK10		B314	3867720	B271Z04000HPS KN25	G68	3868081	T620M050X080R6HX-D1	KM6515	M11			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3870464	AADE0375J3F K600	P128	3876374	AADF0375J2D K600	P126	3884462	KSEM3100HPCLM KC7410	H61, H111	3885853	B707A12500FBL KCM515	G111
3870466	AADE0375J3G K600	P128	3876375	AADF0375J2DRA K600	P126				3885854	B707A12800FBL KCM515	G111
3870468	AADE0375J3D K600	P129	3876376	AADF0375J2DRB K600	P126	3884463	KSEM3200HPCLM KC7410	H61, H111	3885855	B707A13000FBL KCM515	G111
3870469	AADE0375J3DRA K600	P129	3876378	AADF0375J2E K600	P126				3885856	B707A13500FBL KCM515	G111
3870470	AADE0375J3DRB K600	P129	3876383	AADF0500J2E K600	P126	3884464	KSEM0500HPCLM KC7410	H60	3885857	B707A14000FBL KCM515	G111
3870472	AADE0375J3E K600	P129	3876387	AADF0500J2F K600	P127	3884465	KSEM0509HPCLM KC7410	H60	3885858	B707A14288FBL KCM515	G111
3870473	AADE0375J3ERA K600	P129	3876389	AADF0500J2FRB K600	P126	3884466	KSEM0516HPCLM KC7410	H60	3885859	B707A14500FBL KCM515	G111
3870474	AADE0375J3ERB K600	P129	3876391	AADF0500J2BRA K600	P127	3884467	KSEM0547HPCLM KC7410	H60	3885860	B707A15000FBL KCM515	G111
3870475	AADE0375J3ERC K600	P129	3876392	AADF0500J2G K600	P127	3884468	KSEM0563HPCLM KC7410	H60	3885861	B707A15250FBL KCM515	G112
3870476	AADE0375J3H K600	P129	3876393	AADF0500J2GRA K600	P127	3884469	KSEM0578HPCLM KC7410	H60	3885862	B707A15500FBL KCM515	G112
3870477	AADE0375J3J K600	P129	3876394	AADF0500J2GRB K600	P127	3884470	KSEM0609HPCLM KC7410	H60	3885863	B707A15875FBL KCM515	G112
3871002	A4G0205M2SU02GMN KCJ10	C109	3876395	AADF0500J2GRC K600	P127	3884471	KSEM0625HPCLM KC7410	H60	3885864	B707A16000FBL KCM515	G112
3871023	A10RA45AL2S12M017021	C134	3876396	AADF0500J2GRA K600	P127	3884472	KSEM0634HPCLM KC7410	H60	3885865	B707A16500FBL KCM515	G112
3871027	A16RA45AL3S14N026036	C134	3876620	AADF0625J2FRB K600	P127	3884473	KSEM0641HPCLM KC7410	H60	3885866	B707A17000FBL KCM515	G112
3871028	A10RA45AR2S12N017021	C134	3876623	AADF0625J2FRB K600	P127	3884474	KSEM0656HPCLM KC7410	H60	3885867	B707A17500FBL KCM515	G112
3871029	A12RA45AR2S12N021026	C134	3876627	AADF0625J2FRB K600	P127	3884475	KSEM0672HPCLM KC7410	H60	3885868	B707A18000FBL KCM515	G112
3871030	A16RA45AR2S12N026036	C134	3876629	AADF0750J2F K600	P127	3884476	KSEM0688HPCLM KC7410	H60	3885869	B707A19000FBL KCM515	G112
3871032	A16RA45AR3S14N026036	C134	3876635	AADF0750J2CRA K600	P127	3884477	KSEM0719HPCLM KC7410	H60	3885870	B707A19050FBL KCM515	G112
3871033	A16RA45AL2S12M017021	C134	3876637	AADF0750J2GRA K600	P127	3884478	KSEM0750HPCLM KC7410	H60	3885871	B707A2000FBL KCM515	G112
3871034	A20RA45AL2S12M021026	C134	3876647	AADF1000J2D K600	P127	3884479	KSEM0759HPCLM KC7410	H60	3885872	B707A21000FBL KCM515	G112
3871035	A25RA45AL2S12M026036	C134	3876843	CNGF432 KB1340	B307	3884480	KSEM0766HPCLM KC7410	H60	3886527	B292A13900YPL KC7315	G90
3871037	A25RA45AL3S14M026036	C134	3877207	CFM0402R30RHP KCJ40	H43	3884481	KSEM0781HPCLM KC7410	H60	3890197	B967A07500 KC7315	G131
3871038	A16RA45AR2S12M017021	C134	3877688	B272Z11000HPS KN25	G71	3884482	KSEM0797HPCLM KC7410	H60	3891349	B272Z16000HPS KN25	G71
3871039	A20RA45AR2S12M021026	C134	3877827	B967A11500 KC7315	G132	3884483	KSEM0813HPCLM KC7410	H60	3891648	RPET1605MOSGE KCPK30	V78
3871040	A25RA45AR2S12M026036	C134	3878037	B292A09800YPL KC7315	G89	3884484	KSEM0844HPCLM KC7410	H60	3891649	RPET1605MOELLE KCPK30	V78
3871041	A20RA45AR3S14M021026	C134	3878347	HSK63ASIF80063M	K50	3884485	KSEM0875HPCLM KC7410	H60	3891661	B271Z10200HPS KN25	G69
3871042	A25RA45AR3S14M026036	C134	3883100	RIQ06E1312 KC6305	K58	3884486	KSEM0884HPCLM KC7410	H60	3891662	B271Z10500HPS KN25	G69
3871064	A4G0305M3SU04GMN KCJ10	C109	3884395	KSEM1250HPCLM KC7410	H60	3884487	KSEM0922HPCLM KC7410	H60	3891682	B271Z13500HPS KN25	G69
3871065	A4G0405M4SU04GMN KCJ10	C109	3884396	KSEM1300HPCLM KC7410	H60	3884488	KSEM0938HPCLM KC7410	H60	3891683	B271Z10720HPS KN25	G69
3871067	A4G0505M5SU04GMN KCJ10	C109			H111	3884489	KSEM0969HPCLM KC7410	H60	3891684	B271Z11000HPS KN25	G69
3871069	A4G0200M2SP02GUP KCJ10	C108	3884397	KSEM1350HPCLM KC7410	H60	3884490	KSEM1000HPCLM KC7410	H60	3891685	B271Z11500HPS KN25	G69
3871070	A4G0300M3SP02GUP KCJ10	C108	3884398	KSEM1400HPCLM KC7410	H60	3884491	KSEM1011HPCLM KC7410	H60	3891686	B271Z12000HPS KN25	G69
3871071	A4G0300M3SP04GUP KCJ10	C108			H111	3884492	KSEM1031HPCLM KC7410	H60	3891687	B271Z12500HPS KN25	G69
3871072	A4G0400M4SP04GUP KCJ10	C108	3884399	KSEM1450HPCLM KC7410	H60	3884493	KSEM1047HPCLM KC7410	H60	3891688	B271Z12700HPS KN25	G69
3871073	A4G0400M4SP08GUP KCJ10	C108	3884400	KSEM1500HPCLM KC7410	H60	3884494	KSEM1094HPCLM KC7410	H60	3891689	B271Z13000HPS KN25	G69
3871075	A4G0500M5SP08GUP KCJ10	C108			H111	3884495	KSEM1109HPCLM KC7410	H61	3891690	B272Z10200HPS KN25	G71
3871076	A4G0205M2SU02GUP KCJ10	C109	3884401	KSEM1550HPCLM KC7410	H60	3884496	KSEM1125HPCLM KC7410	H61	3891691	B272Z10500HPS KN25	G71
3871077	A4G0305M3SU02GUP KCJ10	C109	3884402	KSEM1600HPCLM KC7410	H60	3884497	KSEM1156HPCLM KC7410	H61	3891692	B272Z10720HPS KN25	G71
3871078	A4G0305M3SU04GUP KCJ10	C109			H111	3884498	KSEM1172HPCLM KC7410	H61	3891693	B272Z11500HPS KN25	G71
3871079	A4G0405M4SU04GUP KCJ10	C109	3884433	KSEM1650HPCLM KC7410	H60	3884499	KSEM1188HPCLM KC7410	H61	3891695	B272Z12000HPS KN25	G71
3871081	A4G0505M5SU04GUP KCJ10	C109	3884434	KSEM1700HPCLM KC7410	H60	3884500	KSEM1250HPCLM KC7410	H61	3891696	B272Z12500HPS KN25	G71
3871083	A4G0205M2SU02GMN KCJ25	C109			H111	3884540	B291A06200YPL KC7315	G88	3891697	B272Z12700HPS KN25	G71
3871084	A4G0305M3SU02GMN KCJ25	C109	3884435	KSEM1750HPCLM KC7410	H60	3884541	B291A11800YPL KC7315	G89	3891698	B272Z13000HPS KN25	G71
3871085	A4G0305M3SU04GMN KCJ25	C109	3884436	KSEM1800HPCLM KC7410	H60	3884593	B291A15800YPL KC7315	G90	3891700	B273Z10500HPS KN25	G72
3871086	A4G0405M4SU04GMN KCJ25	C109			H111	3884594	B291A19800YPL KC7315	G90	3891702	B273Z11000HPS KN25	G72
3871087	A4G0405M4SU08GMN KCJ25	C109	3884437	KSEM1850HPCLM KC7410	H60	3884596	B291A05200YPL KC7315	G88	3891703	B273Z11500HPS KN25	G72
3871088	A4G0505M5SU04GMN KCJ25	C109	3884438	KSEM1900HPCLM KC7410	H60	3884923	RCMT1204MOMP KCS10	B240	3891704	B273Z12000HPS KN25	G72
3871090	A4G0200M2SP02GUP KCJ25	C108			H111	3885499	BMD300R1206S100L200	V70	3891705	B273Z12500HPS KN25	G72
3871091	A4G0300M3SP02GUP KCJ25	C108	3884439	KSEM1950HPCLM KC7410	H60	3885689	B707A03000FBL KCM515	G110	3891707	B273Z13000HPS KN25	G72
3871092	A4G0300M3SP04GUP KCJ25	C108	3884440	KSEM2000HPCLM KC7410	H60	3885690	B707A03175FBL KCM515	G110	3891708	B274Z10200HPS KN25	G74
3871105	A4G0500M5SP04GUP KCJ25	C108			H111	3885691	B707A03500FBL KCM515	G110	3891711	B707A031000HPS KN25	G74
3871107	A4G0205M2SU02GUP KCJ25	C109	3884441	KSEM2050HPCLM KC7410	H60	3885692	B707A04000FBL KCM515	G110	3891712	B274Z11500HPS KN25	G74
3871108	A4G0305M3SU02GUP KCJ25	C109	3884442	KSEM2100HPCLM KC7410	H60	3885823	B707A04400FBL KCM515	G110	3891713	B274Z12000HPS KN25	G74
3871109	A4G0305M3SU04GUP KCJ25	C109			H111	3885824	B707A04500FBL KCM515	G110	3891714	B274Z12500HPS KN25	G74
3871110	A4G0405M4SU04GUP KCJ25	C109	3884443	KSEM2150HPCLM KC7410	H60	3885825	B707A04800FBL KCM515	G110	3891716	B274Z13000HPS KN25	G74
3871112	A4G0505M5SU04GUP KCJ25	C109	3884444	KSEM2200HPCLM KC7410	H60	3885826	B707A05000FBL KCM515	G110	3891733	B271Z14000HPS KN25	G69
3871114	A4G0505M5SU08GMN KCJ25	C109			H111	3885827	B707A05560FBL KCM515	G110	3891734	B271Z14290HPS KN25	G69
3871115	A4R0200M2SP00GMP KCJ25	C109	3884445	KSEM2250HPCLM KC7410	H60	3885828	B707A05900FBL KCM515	G110	3891737	B271Z15500HPS KN25	G69
3871116	A4R0300M3SP00GMP KCJ25	C109	3884446	KSEM2300HPCLM KC7410	H60	3885829	B707A06000FBL KCM515	G110	3891738	B271Z15870HPS KN25	G69
3871118	A4R0500M5SP00GMP KCJ25	C109			H111	3885830	B707A06350FBL KCM515	G110	3891739	B271Z16000HPS KN25	G69
3872075	WD50FDS40183M	H126	3884447	KSEM2350HPCLM KC7410	H60	3885831	B707A06500FBL KCM515	G110	3891741	B272Z13500HPS KN25	G71
3872079	WD50FDS45206M	H126	3884448	KSEM2400HPCLM KC7410	H60	3885832	B707A06800FBL KCM515	G110	3891742	B272Z14000HPS KN25	G71
3872564	B292A14200YPL KC7315	G90			H111	3885833	B707A07000FBL KCM515	G110	3891744	B272Z14500HPS KN25	G71
3873005	B292A07600YPL KC7315	G89	3884449	KSEM2450HPCLM KC7410	H60	3885834	B707A07500FBL KCM515	G111	3891745	B272Z15000HPS KN25	G71
3873028	B976A11800 KC7315	G137	3884450	KSEM2500HPCLM KC7410	H60	3885835	B707A07938FBL KCM515	G111	3891746	B272Z15500HPS KN25	G71
3876021	B967A08700 KC7315	G131			H111	3885836	B707A08000FBL KCM515	G111	3891747	B272Z15870HPS KN25	G71
3876314	CNG454T0820 KYK10	B316	3884451	KSEM2550HPCLM KC7410	H60	3885837	B707A08500FBL KCM515	G111	3891748	B273Z13100HPS KN25	G72
3876315	CNGA432T0820 KYK10	B313	3884452	KSEM2600HPCLM KC7410	H60	3885838	B707A08800FBL KCM515	G111	3891750	B273Z14000HPS KN25	G72
3876316	CNGA433T0420FW KYK10	B313			H111	3885839	B707A09000FBL KCM515	G111	3891751	B273Z14500HPS KN25	G72
3876317	CNGA433T0820 KYK10	B313	3884453	KSEM2650HPCLM KC7410	H60	3885840	B707A09500FBL KCM515	G111	3891752	B273Z14500HPS KN25	G72
3876318	CNGA433T0820FW KYK10	B313	3884454	KSEM2700HPCLM KC7410	H60	3885841	B707A09500FBL KCM515	G111	3891882	BMD150R1204S05L158	V70
3876319	CNGA434T0820 KYK10	B313			H111	3885842	B707A10000FBL KCM51				



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
3894824	B707A0600FBS KN15	G110	3902293	KM40TSNSR2	D33	3955492	KM40TSS25HNEL3	D39	4026225	T631M140X200R6HX-D6 KM6515	M51
3894825	B707A06350FBS KN15	G110	3902294	KM40TSNSR3	D33	3955493	KM40TSS25HNER3	D39	4026226	T631M160X200R6HX-D6 KM6515	M51
3894826	B707A06500FBS KN15	G110	3902295	KM40TSNSR4	D33	3955495	KM40TSS32JNER3	D39	4026227	T631M180X250R6HX-D6 KM6515	M51
3894827	B707A06800FBS KN15	G110	3902973	B291A04400YPL KC7315	G88	3955496	KM40TSS32GNER3	D39	4026231	T631M080X125R6HX-D4 KM6515	M51
3894828	B707A07000FBS KN15	G110	3903498	B978A03300 KC7315	G139	3955497	KM40TSS32GNER3	D39	4026232	T631M100X100R6HX-D4 KM6515	M51
3894829	B707A07500FBS KN15	G111	3903995	B291A08600YPL KC7315	G89	3955980	B967A12700 KC7315	G132	4026233	T631M100X125R6HX-D4 KM6515	M51
3894830	B707A07938FBS KN15	G111	3904143	B291A03454YPL KC7315	G88	3956013	B967A06000 KC7315	G130	4026234	T631M140X150R6HX-D4 KM6515	M51
3894831	B707A08000FBS KN15	G111	3904144	B291A03970YPL KC7315	G88	3956014	B967A07000 KC7315	G131	4026235	T631M120X150R6HX-D4 KM6515	M51
3894832	B707A08500FBS KN15	G111	3904146	B291A04851YPL KC7315	G88	3956017	B967A07400 KC7315	G131	4026236	T631M140X125R6HX-D4 KM6515	M51
3894833	B707A08800FBS KN15	G111	3904147	B291A04915YPL KC7315	G88	3956018	B967A06700 KC7315	G131	4026237	T631M140X150R6HX-D4 KM6515	M51
3894834	B707A09000FBS KN15	G111	3904148	B291A05410YPL KC7315	G88	3958813	EP18125GE KC522M	T84	4026238	T631M160X150R6HX-D4 KM6515	M51
3894835	B707A09500FBS KN15	G111	3904149	B291A06747YPL KC7315	G89	3958816	EP18125GE KCPK30	T84	4026239	T631M180X150R6HX-D4 KM6515	M51
3894836	B707A09525FBS KN15	G111	3904150	B291A07144YPL KC7315	G89	3958876	EP18325GE KCPK30	T84	4027886	T621M050X080R6HX-D1 KM6515	M12
3894837	B707A10000FBS KN15	G111	3904151	B291A07938YPL KC7315	G89	3959399	KM40TSSLER27N	D79	4027887	T621M060X100R6HX-D1 KM6515	M12
3894838	B707A10320FBS KN15	G111	3904152	B291A08733YPL KC7315	G89	3959400	KM40TSSL27	D78	4027888	T621M080X125R6HX-D1 KM6515	M12
3894839	B707A10500FBS KN15	G111	3904153	B291A08900YPL KC7315	G89	3959401	KM40TSSL27	D78	4027889	T621M100X150R6HX-D1 KM6515	M12
3894840	B707A11000FBS KN15	G111	3904154	B291A09129YPL KC7315	G89	3959611	EC1002ELD KC725M	T36, T45	4027890	T621M120X150R6HX-D4 KM6515	M12
3894841	B707A11111FBS KN15	G111	3904155	B291A09700YPL KC7315	G89	3959612	EC1002ELD KCPK30	T36, T45	4027916	T621M140X200R6HX-D6 KM6515	M12
3894842	B707A11509FBS KN15	G111	3904156	B291A10716YPL KC7315	G89	3959613	EC1812EJ KC422M	T82	4027917	T621M160X200R6HX-D6 KM6515	M12
3894843	B707A11570FBS KN15	G111	3904157	B291A11509YPL KC7315	G89	3959614	EC1816EJ KC422M	T82	4027918	T621M180X250R6HX-D6 KM6515	M12
3894844	B707A11700FBS KN15	G111	3904158	B291A11908YPL KC7315	G89	3959615	EC1832EJ KC422M	T82	4027919	T621M180X100R6HX-D4 KM6515	M12
3894845	B707A11800FBS KN15	G111	3904159	B291A12300YPL KC7315	G90	3960761	S-2165-C	S56	4027920	T621M100X100R6HX-D4 KM6515	M12
3894846	B707A12000FBS KN15	G111	3904160	B291A14288YPL KC7315	G90	3960806	CNGX434S0820 KB1340	B307	4027921	T621M100X125R6HX-D4 KM6515	M12
3894847	B707A12100FBS KN15	G111	3904161	B291A15875YPL KC7315	G90	3960807	CNGX433S0415 KB1340	B307	4027922	T621M120X150R6HX-D4 KM6515	M12
3894848	B707A12500FBS KN15	G111	3904162	B291A16100YPL KC7315	G90	3960808	CNGX433S0415F KB1340	B307	4027923	T621M140X150R6HX-D4 KM6515	M12
3894849	B707A12800FBS KN15	G111	3904163	B291A17463YPL KC7315	G90	3960812	SNGX434S0820 KB1340	B308	4027924	T621M160X150R6HX-D4 KM6515	M12
3894850	B707A13000FBS KN15	G111	3904164	B291A17500YPL KC7315	G90	3965546	SSF150HTS130450	J89	4027925	T621M180X150R6HX-D4 KM6515	M12
3894851	B707A13500FBS KN15	G111	3904165	B291A19050YPL KC7315	G90	3965548	SSF200HTS130450	J89	4028488	T621M050X080R6HX-D1 KP6525	M12
3894852	B707A14000FBS KN15	G111	3904168	B292A03970YPL KC7315	G88	3965549	SSF200HTS160450	J89	4028489	T621M060X100R6HX-D1 KP6525	M12
3894853	B707A14288FBS KN15	G111	3904169	B292A04763YPL KC7315	G88	3965550	SSF200HTS220550	J89	4028490	T621M080X125R6HX-D1 KP6525	M12
3894854	B707A14500FBS KN15	G111	3904170	B292A04851YPL KC7315	G88	3965551	SSF200HTS270550	J89	4028491	T621M100X150R6HX-D1 KP6525	M12
3894855	B707A15000FBS KN15	G111	3904171	B292A04915YPL KC7315	G88	3965552	SSF200HTS320550	J89	4028492	T621M120X175R6HX-D6 KP6525	M12
3894856	B707A15250FBS KN15	G112	3904172	B292A08600YPL KC7315	G89	3965603	SSF250HTS400650	J89	4028503	T621M140X200R6HX-D6 KP6525	M12
3894857	B707A15500FBS KN15	G112	3904173	B292A08900YPL KC7315	G89	3965604	SSF300HTS500700	J89	4028504	T621M160X200R6HX-D6 KP6525	M12
3894858	B707A15750FBS KN15	G112	3904174	B292A09130YPL KC7315	G89	3967117	A4BHC32K0217R	C135-136	4028505	T621M180X250R6HX-D6 KP6525	M12
3894859	B707A16000FBS KN15	G112	3904175	B292A09700YPL KC7315	G89	3967124	A4BHC32K0317R	C135-136	4028506	T621M180X100R6HX-D4 KP6525	M12
3894860	B707A16500FBS KN15	G112	3904176	B292A11509YPL KC7315	G89	3967127	A4BHC26K0317R	C135-136	4028507	T621M100X100R6HX-D4 KP6525	M12
3894861	B707A17000FBS KN15	G112	3904177	B292A11908YPL KC7315	G89	3967134	A4BHC26K0317L	C135-136	4028508	T621M100X125R6HX-D4 KP6525	M12
3894862	B707A17500FBS KN15	G112	3904178	B292A12700YPL KC7315	G90	3967136	A4BHC32K0217L	C135-136	4028509	T621M120X125R6HX-D4 KP6525	M12
3894863	B707A18000FBS KN15	G112	3904179	B292A14288YPL KC7315	G90	3967137	A4BHC32K0317L	C135-136	4028510	T621M140X150R6HX-D4 KP6525	M12
3894864	B707A19000FBS KN15	G112	3904180	B292A15875YPL KC7315	G90	3967676	RI0061300 KC6305	K58	4028511	T621M140X125R6HX-D4 KP6525	M12
3894865	B707A19050FBS KN15	G112	3904182	B292A17463YPL KC7315	G90	3993990	KC01	V156	4028512	T621M160X150R6HX-D4 KP6525	M12
3894866	B707A20000FBS KN15	G112	3906105	R82154	K78	3993991	KC02	V155-156	4028513	T621M160X150R6HX-D4 KP6525	M12
3894867	B707A21000FBS KN15	G112	3949799	B291A10200YPL KC7315	G89	3994022	A10SCTLP2L	B185, B390	4028514	T621M180X150R6HX-D4 KP6525	M12
3895815	B291A09300YPL KC7315	G89	3949899	A4R1005M10U00GMN KCP25	C107	3994693	193.537	H126-129	4028861	B271Z02383KMS KN25	G68
3897779	M1D100E1003C075L480	T31	3950219	WD32FDS32146M	H126	3994709	B291A04900YPL KC7315	G88	4028862	B271Z02400KMS KN25	G68
3897780	M1D100E1004C075L480	T31	3950220	WD32FDS36166M	H126	3994711	B291A09800YPL KC7315	G89	4028873	B271Z02439KMS KN25	G68
3897781	M1D100E1003W075L125	T30	3950221	WD50FDS50228M	H126	3997748	BMD300R160T5100L200	V77	4028874	B271Z02489KMS KN25	G68
3897782	M1D100E1004W075L125	T30	3950222	WD50FDS56259M	H126	3998775	KSEM1735HPGM KC7315	H54	4028875	B271Z02500KMS KN25	G68
3899134	UCDE219J5BS KC643M	P30	3950333	WD50FDS63289M	H126	3998776	TRM50L0720M	E71	4028876	B271Z02578KMS KN25	G68
3899135	UCDE281J5BS KC643M	P30	3950688	B291A05900YPL KC7315	G88	3999273	TRM50L0932M	E71	4028877	B271Z02800KMS KN25	G68
3899136	UCDE344J5BS KC643M	P30	3950831	KM40TSLSEL16N	D79	3999274	TRM50R0932M	E71	4028880	B271Z02779KMS KN25	G68
3899137	UCDE375J5CRA KC643M	P30	3950832	KM40TSLSER16N	D79	3999275	TRM50L0632M	E71	4028881	B271Z02800KMS KN25	G68
3899138	UCDE375J5CRB KC643M	P30	3950854	KM40TSLSER22N	D79	3999276	TRM50R0632M	E71	4028882	B271Z02800KMS KN25	G68
3899139	UCDE438J5BS KC643M	P30	3950855	KM40TSSL16	D78	3999277	TRM50L0950M	E71	4028883	B271Z02870KMS KN25	G68
3899140	UCDE500J5BRD KC643M	P30	3950856	KM40TSSL22	D78	3999278	TRM50R0950M	E71	4028884	B271Z02900KMS KN25	G68
3899141	UCDE562J5BS KC643M	P30	3950857	KM40TSSLR16	D78	4000408	KSEMP2800FDS28A1M	H104, H115, H122	4028885	B271Z02947KMS KN25	G68
3899142	UCDE562J5BRA KC643M	P30	3950858	KM40TSSLR22	D78	4000409	WD32FDS28128M	H126	4028886	B272Z02383KMS KN25	G70
3899193	UCDE562J5BRB KC643M	P30	3951835	KM40TSE16JNEL2 KWH	D40	4000411	WD32FDS28345M	H127	4028887	B272Z02400KMS KN25	G70
3899194	UCDE625J5BRA KC643M	P30	3951836	KM40TSE16JNER2 KWH	D40	4002349	BMD400R1209S125L200	V70	4028888	B272Z02439KMS KN25	G70
3899195	UCDE625J5BRD KC643M	P30	3952192	SSF150FDS320573	H128	4003244	KSEM1010HPG KC7315	H55	4028889	B272Z02489KMS KN25	G70
3899196	UCDE750J5BRA KC643M	P30	3952343	SSF150FDS360652	H128	4003518	RI006R0200 KD1415	H57	4028890	B272Z02500KMS KN25	G70
3899197	UCDE750J5CS KC643M	P31	3952344	SSF200FDS400721	H128	4003520	B966A17000 KC7315	G132	4028896	B272Z02800KMS KN25	G70
3899198	UCDE750J5CRB KC643M	P31	3952345	SSF200FDS450809	H128	4003521	B966A17500 KC7315	G132	4028900	B272Z02947KMS KN25	G70
3899199	UCDE750J5CRD KC643M	P31	3952346	SSF200FDS500896	H128	4003522	B966A18000 KC7315	G132	4028901	B273Z02383KMS KN25	G72
3899201	UCDE750J5CRF KC643M	P31	3952347	SSF200FDS561020	H128	4004710	CM215R ASSY	B150-151, B154	4028903	B273Z02439KMS KN25	G72
3899202	UCDE1000J5BRA KC643M	P31	3952348	SSF200FDS631138	H128	4005704	LNJX191940RRP KCP10	E58	4028910	B273Z02800KMS KN25	G72
3899399	WNMG332FP KCP10	B158	3954092	SNMG644RN KCPK05	B105	4005706	LNJX191940RRP KCP25	E58	4028912	B273Z02820KMS KN25	G72
3901561	B292A04700YPL KC7315	G88	3954294	G32TTB41KM40	B410	4006503	B976A19840 KC7315	G138	4028913	B273Z02870KMS KN25	G72
3902132	KM40TSNEL2	D31	3954295	G40TTB51KM40	B410	4006504					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4029315	HNPJ755ANSNGD KC725M	S25	4034826	A4R125I03P00GMMN KC1U0	C107	4041084	ABDF1000J2BS K600	P116	4044820	TCGT2150LF KC1U0	B256
4029316	HNPJ755ANSNGD KCPK30	S25	4034827	A4R187I04P00GMMN KC1U0	C107	4041085	ABDF1000J2BRB K600	P116	4044821	TCGT2151HP KC1U0	B256
4032274	MEGA45D500LN863M6	S94	4034828	A4R250I06P00GMMN KC1U0	C107	4041086	ABDF1000J2BRC K600	P116	4044822	TCGT2151LF KC1U0	B256
4032277	MEGA45D800LN863M10	S94	4034829	A4R312I08P00GMMN KC1U0	C107	4041088	ABDE0188J3AS K600	P117	4045101	VNNG3305LF KC1U0	B144
4032278	MEGA45D1000LN863M10	S94	4034878	W0EJ090512SRHD KC522M	V39	4041089	ABDE0188J3ARA K600	P117	4045102	VNNG3311LF KC1U0	B144
4032279	MEGA45D1200LN863M10	S94	4034880	W0EJ090512SRHD KC725M	V39	4041090	ABDE0312J3AS K600	P117	4045134	CCGT21505HP KC1U0	B189
4033713	B707A12700FBS KN15	G111	4034881	W0EJ090512SRHD KCPK30	V39	4041091	ABDE0500J3ARE K600	P117	4045135	CCGT21505LF KC1U0	B189
4033714	B707A12700FBL KCMS15	G111	4034882	W0EJ090512SRGD KC522M	V39	4041092	ABDE0625J3BS K600	P117	4045136	CCGT2150LF KC1U0	B189
4033829	NA4L8 KCU25	D11	4034925	W0EJ090512SRGD KC725M	V39	4041093	ABDE0625J3BRB K600	P117	4045137	CCGT2151HP KC1U0	B189
4033830	NA4R4 KCU25	D11	4034927	W0EJ090512SRGD KCPK30	V39	4041094	ABDE0750J3BS K600	P117	4045138	CCGT2151LF KC1U0	B189
4033833	NAGL2 KCU25	D11	4035459	T640M040X20R6GH-D1 KP6525	M120	4041095	ABDE0750J3BRB K600	P117	4045140	CCGT2152LF KC1U0	B189
4033834	NAGL25 KCU25	D11	4035460	T640M050X08R6GH-D1 KP6525	M120	4041096	ABDE0750J3BRC K600	P117	4045141	CCGT232505LF KC1U0	B189
4033835	NAGL3 KCU25	D11	4035461	T640M060X10R6GH-D1 KP6525	M120	4041097	ABDE0750J3BRE K600	P117	4045142	CCGT232505LF KC1U0	B189
4033836	NAGR2 KCU25	D11	4035462	T640M080X12SR6GH-D1 KP6525	M120	4041098	ABDE1000J3BS K600	P117	4045143	VNNG3321LF KC1U0	B144
4033838	NAGR3 KCU25	D11	4035463	T640M100X15R6GH-D1 KP6525	M120	4041099	ABDE1000J3BRB K600	P117	4045144	VNNG4321LF KC1U0	B144
4033841	ND4050R KCU25	D12	4035464	T640M120X17SR6GH-D1 KP6525	M120	4041100	ABDE1000J3BRC K600	P117	4045145	VNNG3310 KC1U0	B144
4033845	NDC38RDL75 KCU25	D13	4035465	T640M140X20R6GH-D6 KP6525	M120	4041101	ABDE1000J3BRE K600	P117	4045146	VNNG3305 KC1U0	B144
4033846	NDC38RDR75 KCU25	D13	4035466	T640M160X20R6GH-D6 KP6525	M120	4042538	B976202383 KC7315	G134	4045147	VNNG431 KC1U0	B144
4033852	NG1031L KCU25	C170	4035467	T640M180X25R6GH-D6 KP6525	M120	4042539	B976202400 KC7315	G134	4045148	VNNG432 KC1U0	B144
4033853	NG1047L KCU25	C170	4035468	T640M200X25R6GH-D6 KP6525	M120	4042540	B976202439 KC7315	G134	4045149	VNMG331FF KC1U0	B146
4033854	NG1062L KCU25	C170	4035469	T640M220X25R6GH-D6 KP6525	M120	4042541	B976202489 KC7315	G134	4045150	VNMG331MP KC1U0	B147
4033855	NG1094L KCU25	C170	4035505	T640NC#10-24R3BX-A KP6525	M117	4042542	B976202500 KC7315	G134	4045151	VNMG331P KC1U0	B147
4033856	NG5312R KCU25	C170	4035506	T640NF#10-32R3BX-A KP6525	M117	4042543	B976202578 KC7315	G134	4045163	VNMG332FF KC1U0	B146
4033858	NG6375R KCU25	C170	4035507	T640NC02500-20R2BX-A KP6525	M117	4042544	B976202600 KC7315	G134	4045164	VNMG332MP KC1U0	B147
4033859	NT1L KCU25	D23	4035508	T640NC02500-20R3BX-A KP6525	M117	4042545	B976202642 KC7315	G134	4045166	VNMG332P KC1U0	B147
4033863	NTB3RB KCU25	D18	4035509	T640NF02500-28R2BX-A KP6525	M117	4042546	B976202705 KC7315	G134	4045167	VNMG332PP KC1U0	B148
4033872	NTC3R12E KCU25	D20	4035510	T640NF02500-28R3BX-A KP6525	M117	4042547	B976202779 KC7315	G134	4045168	VNMG332UP KC1U0	B148
4033877	NTC3R18E KCU25	D20	4035511	T640NC03125-18R3BX-A KP6525	M117	4042548	B976202800 KC7315	G134	4045169	VNMG333MP KC1U0	B147
4033882	NTU4R KCU25	D22	4035512	T640NC03125-18R3BX-A KP6525	M117	4042549	B976202820 KC7315	G134	4045170	VNMG4305LF KC1U0	B156
4033883	NU3094L KCU25	C175	4035525	T641M050X08R6GH-D1 KP6525	M121	4042550	B976202870 KC7315	G134	4045172	VNMG431LF KC1U0	B156
4033886	NU3125R KCU25	C175	4035526	T641M060X10R6GH-D1 KP6525	M121	4042551	B976202900 KC7315	G134	4045174	VNMG331FW KC1U0	B158
4033887	NV3RJ KCU25	C176	4035527	T641M080X12SR6GH-D1 KP6525	M121	4042552	B976202947 KC7315	G134	4045175	VNMG331MP KC1U0	B159
4033888	NV4LL KCU25	C176	4035528	T641M100X15R6GH-D1 KP6525	M121	4042688	BMD125R1203M16L150	V68	4045176	VNMG332FW KC1U0	B158
4033889	NV4RL KCU25	C176	4035529	T641M120X17SR6GH-D1 KP6525	M121	4042690	BMD150R1204M16L150	V68	4045177	VNMG332MP KC1U0	B159
4033892	NWC3R14E KCU25	D23	4035530	T641M140X20R6GH-D6 KP6525	M121	4042691	BMD125R1203W125L200	V68	4045178	VNMG332RP KC1U0	B161
4034717	A4G020M02P02GMP KC1U0	C105	4035531	T641M160X20R6GH-D6 KP6525	M121	4042692	BMD125R1203C125L700	V69	4045179	VNMG432UP KC1U0	B158
4034718	A4G0205M02U02GMMN KC1U0	C106	4035532	T641M180X25R6GH-D6 KP6525	M121	4042713	BMD150R1203C125L800	V69	4045180	VNMG431P KC1U0	B160
4034720	A4G0250M02BP02GMP KC1U0	C105	4035533	T641M200X25R6GH-D6 KP6525	M121	4042714	BMD200R1203S075L200	V70	4045181	VNMG432FW KC1U0	B158
4034721	A4G0300M03P02GMP KC1U0	C105	4035543	T640NF03125-24R3BX-A KP6525	M117	4042715	BMD200R1203S075L200	V70	4045182	VNMG432MP KC1U0	B159
4034722	A4G0300M03P04GMP KC1U0	C105	4035544	T640NF03125-24R3BX-A KP6525	M117	4042716	BMD250R1207S100L200	V70	4045184	VNMG432P KC1U0	B160
4034773	A4G0305M03U02GMMN KC1U0	C106	4035545	T640NF03750-16R3BX-A KP6525	M117	4042717	BMD300R1208S100L200	V70	4045185	VNMG432RP KC1U0	B161
4034774	A4G0305M03U02GMP KC1U0	C105	4035546	T640NF03750-24R3BX-A KP6525	M117	4042718	BMD400R1207S125L200	V70	4045186	VNMG432UP KC1U0	B162
4034775	A4G0305M03U04GMMN KC1U0	C106	4035547	T640NF04375-14R3BX-A KP6525	M117	4042840	SPGX070308FP KCU25	J104	4045187	VNMG433MP KC1U0	B159
4034776	A4G0305M03U04GMP KC1U0	C105	4035548	T640NF04375-20R3BX-A KP6525	M117	4042841	SPPX09T310FP KCU25	J104	4045188	VNMG433RP KC1U0	B161
4034777	A4G0400M04P02GMP KC1U0	C105	4035549	T640NF05000-13R3BX-A KP6525	M117	4042842	SPPX09T310HP KCU25	J103	4045189	VNMG432UP KC1U0	B162
4034778	A4G0400M04P04GMP KC1U0	C105	4035550	T640NF05000-20R3BX-A KP6525	M117	4042887	SPGX070308FP KCPK10	J104	4045193	CCGT23250LF KC1U0	B189
4034779	A4G0400M04P08GMP KC1U0	C105	4035551	T640NF06250-11R3BX-A KP6525	M117	4042888	SPGX070308MD KCPK10	J103	4045194	CCGT3251HP KC1U0	B189
4034780	A4G0405M04U04GMMN KC1U0	C106	4035552	T640NF07500-10R3BX-A KP6525	M117	4042889	SPGX070308HP KCPK10	J103	4045195	CCGT3251LF KC1U0	B189
4034781	A4G0405M04U04GMP KC1U0	C105	4035585	RCMX3209MORU KCP10	E67	4042890	SPPX09T310FP KCPK10	J104	4045196	CCGT3252HP KC1U0	B189
4034782	A4G0405M04U08GMMN KC1U0	C106	4035586	RCMX3209MORU KCK20	E67	4042891	SPPX09T310MD KCPK10	J103	4045197	CCGT3252LF KC1U0	B189
4034784	A4G0500M05P04GMP KC1U0	C105	4035593	RCMX2507MORU KCK20	E67	4042892	SPPX09T310HP KCPK10	J103	4045198	CCGT4305HP KC1U0	B189
4034785	A4G0500M05P08GMP KC1U0	C105	4035595	RCMH2507MORU KCP25	E66	4042903	SPPX120412FP KCPK10	J104	4045199	CCGT431HP KC1U0	B189
4034786	A4G0505M05U04GMP KC1U0	C106	4035629	LNIX19194ORRF KCP10	E57	4042904	SPPX120412MD KCPK10	J103	4045200	CCGT432HP KC1U0	B189
4034787	A4G0505M05U04GMP KC1U0	C106	4036621	RP632E KYS30	V157	4042905	SPPX120412HP KCPK10	J103	4045202	CCMT7511FW KC1U0	B190
4034788	A4G0505M05U08GMMN KC1U0	C106	4036916	LNIX19194ORRF KCP25	E57	4042906	SPPX157512FP KCPK10	J104	4045204	CCMT3251FW KC1U0	B190
4034790	A4G0600M06P04GMP KC1U0	C105	4038003	LNPU863ANSRHD KCPK30	S95	4042907	SPPX157512MD KCPK10	J103	4045205	CCMT3251MW KC1U0	B192
4034791	A4G0600M06P08GMP KC1U0	C105	4038004	LNPU863ANSRHD KCK15	S95	4042908	SPPX157512HP KCPK10	J103	4045206	CCMT3251UP KC1U0	B190
4034792	A4G0605M06U04GMMN KC1U0	C106	4038005	LNPU863ANSRHD KC725M	S95	4042913	SPPX120412FP KCU25	J104	4045207	CCMT3252MW KC1U0	B192
4034794	A4G0605M06U08GMMN KC1U0	C106	4039608	SM-906 KC720	S94, S98, S100	4042914	SPPX157512FP KCU25	J104	4045210	CPGM3250 KC1U0	B205
4034799	A4G0800M08P12GMP KC1U0	C105	4039774	MS2236	V123	4042915	SPPX157512HP KCU25	J103	4045211	CPGM32505 KC1U0	B205
4034800	A4G0805M08U08GMMN KC1U0	C106	4040133	SPGX070308MD KCU25	J103	4042933	SPGX070308FP KCU40	J104	4045212	CPGM3251 KC1U0	B205
4034802	A4G09412BP05GMMN KC1U0	C107	4040135	SPGX070308HP KCU25	J103	4042934	SPGX070308MD KCU40	J103	4045213	CPGM3251FP KC1U0	B205
4034805	A4G1005M110U08GMP KC1U0	C105	4040138	SPPX09T310MD KCU25	J103	4042935	SPGX070308HP KCU40	J103	4045214	CPGT21505HP KC1U0	B205
4034806	A4G125I03P05GMMN KC1U0	C107	4040139	SPPX120412MD KCU25	J103	4042936	SPPX09T310FP KCU40	J104	4045215	CPGT21505LF KC1U0	B206
4034807	A4G125I03P16GMMN KC1U0	C107	4040141	SPPX120412HP KCU25	J103	4042937	SPPX09T310MD KCU40	J103	4045216	CPGT2150LF KC1U0	B206
4034808	A4G187I04P16GMMN KC1U0	C107	4040142	SPPX157512MD KCU25	J103	4042938	SPPX09T310HP KCU40	J103	4045217	CPGT2151HP KC1U0	B205
4034809	A4G187I04P26GMMN KC1U0	C107	4040758	RPET1204M0EJL KC422M	V71	4042939	SPPX120412FP KCU40	J104	4045218	CPGT2151LF KC1U0	B206
4034810	A4G250I06P16GMMN KC1U0	C107	4040905	KCI3M	V155-156	4042940	SPPX120412MD KCU40	J103	4045220	CPGT2152LF KC1U0	B206
4034811	A4G250I06P26GMMN KC1U0	C107	4041060	ABDF0188J2AS K600	P116	4042941	SPPX120412HP KCU40	J103	4045221	SPPX120412HP KC1U0	B205
4034812	A4G375I10P26GMMN KC1U0	C107	4041061	ABDF0188J2ARA K600	P116	4042942					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4045241	..... DCGT32505HP KCU10	..... B224	4046064	..... B291A11113YPL KC7315	..... G89	4047829	..... SPGX060304MD KC7140	..... J103	4048735	..... UCDE750J5BRB KCPM15	..... P31
4045242	..... DCGT32505LF KCU10	..... B224	4047419	..... KSHRH200HNS315C3	..... S17	4047830	..... SPGX070304MD KC7140	..... J103	4048736	..... UCDE750J5BRF KCPM15	..... P31
4045245	..... DPGR431 KCU10	..... E32	4047420	..... KSHRH250HNS315C3	..... S17	4047831	..... SPPX09T308MD KC7140	..... J103	4048737	..... UCDE750J5BRB KCPM15	..... P31
4045246	..... DPGR432 KCU10	..... E32	4047421	..... KSHRH300HNS315C4	..... S17	4047832	..... SPPX120408MD KC7140	..... J103	4048738	..... UCDE750K5BRB KCPM15	..... P30
4045248	..... NPGR51L KCU10	..... E33	4047422	..... KSHRH400HNS315C5	..... S17	4047843	..... SPPX15T508MD KC7140	..... J103	4048740	..... UCDE750K5BS KCPM15	..... P31
4045249	..... NPGR51R KCU10	..... E33	4047583	..... KSHRH500HNS315C6	..... S17	4047845	..... D2FX110404RHP KCU25	..... E9	4048741	..... UCDE1000K5ARB KCPM15	..... P32
4045250	..... NPGR52L KCU10	..... E33	4047584	..... KSHRH600HNS315C8	..... S17	4047849	..... D2FX1150504RHP KCU25	..... E9	4048742	..... UCDE250J5ARA KCPM15	..... P32
4045251	..... NPGR52R KCU10	..... E33	4047693	..... HPHV125S4025 KCPM15	..... P16	4047850	..... D2FX150508RHP KCU25	..... E8	4048743	..... UCDE375J5ARA KCPM15	..... P32
4045263	..... DCGT32511HP KCU10	..... B224	4047694	..... HPHV125S4025CH KCPM15	..... P16	4047864	..... C2FX1150512RMIN KCU25	..... E9	4048744	..... UCDE500K5ARB KCPM15	..... P32
4045264	..... DCGT3252HP KCU10	..... B224	4047696	..... HPHV125S4025LR015 KCPM15	..... P16	4047865	..... D2FX110404LMN KCU25	..... E8	4048745	..... UCDE625K5ARB KCPM15	..... P32
4045265	..... DCGT432LF KCU10	..... B224	4047697	..... HPHV125S4050 KCPM15	..... P16	4047867	..... C2FX150504LMN KCU25	..... E8	4048746	..... UCDE750K5ARB KCPM15	..... P32
4045266	..... DCMT3251FW KCU10	..... B225	4047698	..... HPHV125S4050CH KCPM15	..... P16	4047868	..... C2FX150504LMN KCU25	..... E8	4050057	..... CNMG432FP KCU25	..... B53
4045267	..... DCMT3251MW KCU10	..... B226	4047699	..... HPHV125S4050L KCPM15	..... P16	4047870	..... D4FX140604RMIN KCU25	..... E11	4050058	..... RCGT0803MOHP KCU25	..... B238
4045268	..... DCMT3252FW KCU10	..... B225	4047701	..... HPHV125S4050R015 KCPM15	..... P16	4047871	..... D4FX140608RMIN KCU25	..... E11	4050060	..... CNMG432 KCU10	..... B46
4045269	..... DCMT3252LF KCU10	..... B225	4047702	..... HPHV188S4031 KCPM15	..... P16	4048626	..... HPFSS1000S5200 KCPM15	..... P109	4050061	..... CNMG432FP KCU10	..... B49
4045270	..... DCMT3252MW KCU10	..... B226	4047703	..... HPHV188S4031CH KCPM15	..... P16	4048627	..... HPFSS1000S5325 KCPM15	..... P109	4050062	..... CNMG433FP KCU10	..... B49
4045272	..... DPGT21505LF KCU10	..... B231	4047704	..... HPHV188S4031L KCPM15	..... P16	4048628	..... HPFSS188S5056 KCPM15	..... P109	4050062	..... CNMG433FP KCU10	..... B49
4045274	..... DPGT2151HP KCU10	..... B231	4047705	..... HPHV188S4031LR015 KCPM15	..... P16	4048629	..... HPFSS250S5038 KCPM15	..... P109	4050032	..... KSEM1932HPGM KC7315	..... H54
4045275	..... DPGT2151LF KCU10	..... B231	4047706	..... HPHV188S4063 KCPM15	..... P16	4048630	..... HPFSS250S5075 KCPM15	..... P109	4050372	..... UCDE3721505HP KCU25	..... B189
4045277	..... DPGT32505LF KCU10	..... B231	4047707	..... HPHV188S4063CH KCPM15	..... P16	4048631	..... HPFSS250S5125 KCPM15	..... P109	4050395	..... CNGG4305FS KCU25	..... B46
4045279	..... DPGT3251HP KCU10	..... B231	4047708	..... HPHV188S4063L KCPM15	..... P16	4048632	..... HPFSS375S5050 KCPM15	..... P109	4050397	..... CNGG431FS KCU25	..... B46
4045280	..... DPGT3251LF KCU10	..... B231	4047709	..... HPHV188S4063LR015 KCPM15	..... P16	4048633	..... HPFSS375S5050 KCPM15	..... P109	4050398	..... CNGG432FS KCU25	..... B46
4045281	..... DPGT3252HP KCU10	..... B231	4047710	..... HPHV188S4063R030 KCPM15	..... P16	4048643	..... HPFSS375S5088 KCPM15	..... P109	4050399	..... CNMG4305MS KCU25	..... B52
4045282	..... DPGT3252LF KCU10	..... B231	4047711	..... HPHV188S4063R030 KCPM15	..... P16	4048644	..... HPFSS375S5150 KCPM15	..... P109	4050400	..... CNMG430MS KCU25	..... B52
4045283	..... DPM2152FW KCU10	..... B232	4047712	..... HPHV188S4063R030 KCPM15	..... P16	4048645	..... HPFSS500S5063 KCPM15	..... P109	4050402	..... CNMG431MS KCU25	..... B52
4045284	..... RCGT10T3MOHP KCU10	..... B238	4047713	..... HPHV250S4038 KCPM15	..... P16	4048646	..... HPFSS500S5125 KCPM15	..... P109	4050403	..... CCGT2151HP KCU25	..... B189
4045285	..... RCGT1204MOHP KCU10	..... B238	4047714	..... HPHV250S4038CH KCPM15	..... P16	4048647	..... HPFSS500S5200 KCPM15	..... P109	4050404	..... CCGT2152HP KCU25	..... B189
4045286	..... RCGT1060ZMO KCU10	..... B240	4047715	..... HPHV250S4038L KCPM15	..... P16	4048648	..... HPFSS625S0575 KCPM15	..... P109	4050405	..... CCGT32505HP KCU25	..... B189
4045288	..... RCGT10T3MO KCU10	..... B240	4047716	..... HPHV250S4038LR015 KCPM15	..... P16	4048649	..... HPFSS625S5163 KCPM15	..... P109	4050406	..... CCGT3251HP KCU25	..... B189
4045289	..... RCGT1204MO KCU10	..... B240	4047717	..... HPHV250S4038R030 KCPM15	..... P16	4048650	..... HPFSS750S5088 KCPM15	..... P109	4050407	..... CCGT3252HP KCU25	..... B189
4045290	..... RCGT1605MO KCU10	..... B240	4047718	..... HPHV250S4050 KCPM15	..... P16	4048651	..... HPFSS750S5163 KCPM15	..... P109	4050408	..... CCGT4305HP KCU25	..... B189
4045291	..... RCGT2006MO KCU10	..... B240	4047719	..... HPHV250S4050L KCPM15	..... P16	4048652	..... HPFSS750S5325 KCPM15	..... P109	4050410	..... CCGT432HP KCU25	..... B189
4045292	..... RCGT215 KCU10	..... B240	4047720	..... HPHV250S4050R015 KCPM15	..... P16	4048661	..... UCDE1000J5BRB KCPM15	..... P31	4050412	..... CPGM32505 KCU25	..... B205
4045293	..... RCGT325 KCU10	..... B240	4047722	..... HPHV250S4050R060 KCPM15	..... P16	4048662	..... UCDE1000J5BRD KCPM15	..... P31	4050413	..... CPGM3251 KCU25	..... B205
4045294	..... SPGT3251LF KCU10	..... B252	4047723	..... HPHV250S4075 KCPM15	..... P17	4048663	..... HPRSS250S3075 KCPM15	..... P90	4050414	..... CPGM3252 KCU25	..... B205
4045295	..... SPGT3252LF KCU10	..... B252	4047724	..... HPHV250S4075CH KCPM15	..... P17	4048664	..... HPRSS375S3100 KCPM15	..... P90	4050415	..... CPGT21505HP KCU25	..... B205
4045316	..... TCGT3251HP KCU10	..... B256	4047725	..... HPHV250S4075R015 KCPM15	..... P16	4048665	..... HPRSS500S3125 KCPM15	..... P90	4050416	..... CPGT2151HP KCU25	..... B205
4045317	..... TCGT3251LF KCU10	..... B256	4047726	..... HPHV250S4075R030 KCPM15	..... P16	4048666	..... HPRSS625S3163 KCPM15	..... P90	4050417	..... CPGT2152HP KCU25	..... B205
4045318	..... TCGT3252HP KCU10	..... B256	4047727	..... HPHV250S4075R060 KCPM15	..... P17	4048667	..... HPRSS750S3163 KCPM15	..... P90	4050419	..... CPGT3251HP KCU25	..... B205
4045319	..... TCGT3252LF KCU10	..... B256	4047728	..... HPHV250S4100 KCPM15	..... P17	4048668	..... HPRSS750S5150 KCPM15	..... P91	4050420	..... CPGT3251HP KCU25	..... B205
4045321	..... TPGT181505LF KCU10	..... B267	4047729	..... HPHV250S4100R015 KCPM15	..... P17	4048689	..... MDRHEC250S4025 KCPM15	..... P91	4050421	..... DCGT21505HP KCU25	..... B224
4045322	..... TPGT18151LF KCU10	..... B267	4047731	..... HPHV250S4125 KCPM15	..... P17	4048690	..... MDRHEC250S4075 KCPM15	..... P91	4050422	..... DCGT2151HP KCU25	..... B224
4045323	..... TPGT21505HP KCU10	..... B267	4047732	..... HPHV250S4125CH KCPM15	..... P17	4048691	..... MDRHEC312S4081 KCPM15	..... P91	4050424	..... CCGT32505HP KCU25	..... B224
4045324	..... TPGT21505LF KCU10	..... B267	4047734	..... HPHV250S4125R030 KCPM15	..... P17	4048692	..... MDRHEC375S4038 KCPM15	..... P91	4050425	..... DCGT3251HP KCU25	..... B224
4045325	..... TPGT2150LF KCU10	..... B267	4047735	..... HPHV250S4175R015 KCPM15	..... P17	4048693	..... MDRHEC375S4088 KCPM15	..... P91	4050426	..... CCGT3252HP KCU25	..... B224
4045327	..... TPGT2151LF KCU10	..... B267	4047736	..... HPHV250S4175R030 KCPM15	..... P17	4048694	..... MDRHEC500S4050 KCPM15	..... P91	4050428	..... DPGT2151HP KCU25	..... B231
4045329	..... TPGT2152LF KCU10	..... B267	4047737	..... HPHV312S4050 KCPM15	..... P17	4048695	..... MDRHEC500S4100 KCPM15	..... P91	4050429	..... DPGT2152HP KCU25	..... B231
4045330	..... TPGT32505HP KCU10	..... B267	4047738	..... HPHV312S4050CH KCPM15	..... P17	4048696	..... MDRHEC625S4063 KCPM15	..... P91	4050430	..... DPGT3251HP KCU25	..... B231
4045331	..... TPGT3251HP KCU10	..... B267	4047739	..... HPHV312S4050L KCPM15	..... P17	4048697	..... MDRHEC625S4125 KCPM15	..... P91	4050431	..... DPGT3252HP KCU25	..... B231
4045333	..... TPGT3252HP KCU10	..... B267	4047740	..... HPHV312S4050LR015 KCPM15	..... P17	4048698	..... MDRHEC750S4075 KCPM15	..... P91	4050432	..... RCGT10T3MOHP KCU25	..... B238
4045334	..... TPGT3252LF KCU10	..... B267	4047742	..... HPHV312S4050R030 KCPM15	..... P17	4048699	..... MDRHEC750S4150 KCPM15	..... P91	4050434	..... TCGT21505HP KCU25	..... B256
4045335	..... VBG72205HP KCU10	..... B280	4047743	..... HPHV312S4075 KCPM15	..... P17	4048703	..... UCDE1000J5BRF KCPM15	..... P31	4050435	..... CCGT2151HP KCU25	..... B256
4045336	..... VBG72205LF KCU10	..... B280	4047744	..... HPHV312S4075CH KCPM15	..... P17	4048704	..... UCDE1000J5BRF KCPM15	..... P31	4050437	..... TCGT32505HP KCU25	..... B256
4045337	..... VBG7220LF KCU10	..... B280	4047745	..... HPHV312S4075R015 KCPM15	..... P17	4048705	..... UCDE1000J5BS KCPM15	..... P31	4050441	..... TPGT2151HP KCU25	..... B267
4045338	..... VBG7221HP KCU10	..... B280	4047746	..... HPHV312S4075R030 KCPM15	..... P17	4048706	..... UCDE1000K5BRB KCPM15	..... P31	4050444	..... CCGT3251HP KCU25	..... B267
4045339	..... VBG7221LF KCU10	..... B280	4047747	..... HPHV312S4075R060 KCPM15	..... P17	4048707	..... UCDE1000K5BRF KCPM15	..... P31	4050445	..... TPGT3252HP KCU25	..... B267
4045340	..... VBG73305LF KCU10	..... B280	4047748	..... HPHV312S4125R030 KCPM15	..... P17	4048708	..... UCDE1000K5BS KCPM15	..... P31	4050447	..... VBG7221HP KCU25	..... B280
4045341	..... VBG7330LF KCU10	..... B280	4047749	..... HPHV375S4050 KCPM15	..... P17	4048709	..... UCDE188J5BRB KCPM15	..... P30	4050448	..... VBG731HP KCU25	..... B280
4045342	..... VBG7331HP KCU10	..... B280	4047750	..... HPHV375S4050CH KCPM15	..... P17	4048710	..... UCDE188J5BRB KCPM15	..... P30	4050449	..... VBG732HP KCU25	..... B280
4045343	..... VBG7331LF KCU10	..... B280	4047751	..... HPHV375S4050L KCPM15	..... P17	4048711	..... UCDE188J5BS KCPM15	..... P30	4050451	..... CNMG432MP KCU25	..... B51
4045344	..... VBG7332HP KCU10	..... B280	4047752	..... HPHV375S4050LR015 KCPM15	..... P17	4048712	..... UCDE250J5BRA KCPM15	..... P30	4050452	..... CNMG433MP KCU25	..... B51
4045345	..... WPGT15105UF KCU10	..... B288	4047753	..... HPHV375S4050LR030 KCPM15	..... P17	4048713	..... UCDE250J5BRB KCPM15	..... P30	4050453	..... CNMG431RP KCU25	..... B53
4045346	..... WPGT1510LF KCU10	..... B288	4047754	..... HPHV375S4050R030 KCPM15	..... P17	4048714	..... UCDE250J5BS KCPM15	..... P30	4050454	..... CNMG432MS KCU25	..... B52
4045347	..... WPGT21505UF KCU10	..... B288	4047755	..... HPHV375S4088 KCPM15	..... P17	4048715	..... UCDE312J5BRA KCPM15	..... P30	4050455	..... CNMG433MS KCU25	..... B52
4045406	..... NPL332FP KCU10	..... E34	4047756	..... HPHV375S4088CH KCPM15	..... P17	4048716	..... UCDE312J5BRB KCPM15	..... P30	4050456	..... CNMG433RP KCU25	..... B53
4045409	..... NPL508 KCU10	..... E35	4047757	..... HPHV375S4088L KCPM15	..... P17	4048717	.....			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4050484	DNMG433MS	KCU25	B82	4050689	CNMG432RP	KCU10	B53	4051214	C8FX150608RRN	KCP10	E12
4050485	DNMG433RP	KCU25	B84	4050690	CNMG432UP	KCU10	B54	4051216	C8FX150603RMP	KCP10	E13
4050486	DNMG441MS	KCU25	B82	4050691	CNMG433FW	KCU10	B49	4051515	170.352		H122
4050487	DNMG442MS	KCU25	B82	4050692	CNMG433MP	KCU10	B51	4051516	B254A03000YPC	KCK10	G52
4050488	DNMG442RP	KCU25	B84	4050695	CNMG433RP	KCU10	B53	4051517	B254A03048YPC	KCK10	G52
4050489	DNMG443MS	KCU25	B82	4050696	CNMG433UP	KCU10	B54	4051519	B254A03200YPC	KCK10	G52
4050490	DNMG443RP	KCU25	B84	4050699	CNMG434RP	KCU10	B53	4051521	B254A03300YPC	KCK10	G52
4050491	DNMG444RP	KCU25	B84	4050700	CNMG542MP	KCU10	B51	4051522	B254A03454YPC	KCK10	G52
4050513	CNMG543MP	KCU25	B51	4050701	CNMG542RP	KCU10	B53	4051797	B255A09300YPC	KCK10	G54
4050514	CNMG643MP	KCU25	B51	4050702	CNMG543MP	KCU10	B51	4051798	B255A09400YPC	KCK10	G54
4050515	DNMG442MP	KCU25	B81	4050704	CNMG543RP	KCU10	B53	4051799	B255A09500YPC	KCK10	G54
4050516	DNMG443MP	KCU25	B81	4050705	CNMG543UP	KCU10	B54	4051800	B255A09525YPC	KCK10	G54
4050517	SNMG433MP	KCU25	B102	4050709	CNMG643MP	KCU10	B47	4051801	B255A09600YPC	KCK10	G54
4050518	SNMG433RP	KCU25	B105	4050711	CNMG643P	KCU10	B52	4051802	B255A09700YPC	KCK10	G54
4050519	SNMG543RP	KCU25	B105	4050712	CNMG643RP	KCU10	B53	4051826	D4FX140608RRN	KCP10	E11
4050520	SNMG643RP	KCU25	B105	4050713	CNMG644MP	KCU10	B51	4051829	C8FX120504RRP	KCP10	E12
4050521	DPGR431	KCU25	E32	4050714	CNMG644RP	KCU10	B53	4051830	C8FX120508RRP	KCP10	E12
4050522	DPGR432	KCU25	E32	4050743	DNMG332FP	KCU10	B80	4051837	B254A10200YPC	KCK10	G54
4050523	DPGR433	KCU25	E32	4050744	DNMG432FP	KCU10	B79	4051838	B255A09600YPC	KCK10	G54
4050524	NPGR51L	KCU25	E33	4050746	WNMG331FP	KCU10	B158	4051839	B254A10300YPC	KCK10	G54
4050525	NPGR51R	KCU25	E33	4050748	RCGV23	KCU10	B166	4051840	B254A10320YPC	KCK10	G54
4050526	NPGR52L	KCU25	E33	4050764	SPG421	KCU10	B171	4051842	B255A10262YPC	KCK10	G54
4050527	NPGR52R	KCU25	E33	4050765	SPG422	KCU10	B171	4051843	B255A09800YPC	KCK10	G54
4050528	NPL131F	KCU25	E34	4050768	SPG433	KCU10	B171	4051844	B255A09921YPC	KCK10	G54
4050529	NPL132F	KCU25	E34	4050769	SPG633	KCU10	B171	4051845	B255A10000YPC	KCK10	G54
4050531	NPL505	KCU25	E35	4050770	SPGF322	KCU10	B171	4051846	B255A10200YPC	KCK10	G54
4050532	NPL508	KCU25	E35	4050771	TPG221	KCU10	B177	4051847	B255A10262YPC	KCK10	G54
4050533	NPL51	KCU25	E35	4050772	TPG222	KCU10	B177	4051848	B255A10300YPC	KCK10	G54
4050534	NPL52	KCU25	E35	4050774	TPG321	KCU10	B177	4051849	B255A10320YPC	KCK10	G54
4050535	NPR131F	KCU25	E34	4050775	TPG322	KCU10	B177	4051850	B255A10400YPC	KCK10	G54
4050536	NPR132F	KCU25	E34	4050778	TPG431	KCU10	B177	4051852	B255A10500YPC	KCK10	G54
4050537	NPR331N	KCU25	E34	4050779	TPG432	KCU10	B177	4051853	B255A10600YPC	KCK10	G54
4050539	NPR508	KCU25	E35	4050780	TPG433	KCU10	B177	4051854	B255A10716YPC	KCK10	G54
4050540	NPR51	KCU25	E35	4050783	TPGF222	KCU10	B177	4051855	B255A10800YPC	KCK10	G54
4050544	VCMR331	KCU25	E37	4050784	TPGF321	KCU10	B177	4051856	B255A10900YPC	KCK10	G54
4050545	VCMR332	KCU25	E37	4050785	TPGF322	KCU10	B177	4051857	B255A11000YPC	KCK10	G54
4050546	VPGR3305	KCU25	E38	4050786	TPGF431	KCU10	B177	4051858	B255A11100YPC	KCK10	G54
4050547	VPGR331	KCU25	E38	4050787	TPGF432	KCU10	B177	4051859	B255A11113YPC	KCK10	G54
4050548	VPGR332	KCU25	E38	4050895	D2FX150504RHP	KCU10	E9	4051860	B255A11200YPC	KCK10	G54
4050549	VPGR333	KCU25	E38	4050896	D2FX150508RHP	KCU10	E9	4051862	B255A11500YPC	KCK10	G54
4050607	CDHB120601	KCU25	B199	4050899	D2FX150508LHP	KCU10	E9	4051865	B255A11700YPC	KCK10	G54
4050608	CDHB120605	KCU25	B199	4051036	C8FX120505RHP	KCU25	E12	4051866	B255A11800YPC	KCK10	G54
4050609	CDHB12061	KCU25	B199	4051038	C8FX120503RMP	KCU25	E13	4051867	B255A11900YPC	KCK10	G54
4050611	CDHH120605L	KCU25	B199	4051039	C8FX150605LRN	KCU25	E12	4051868	B255A11908YPC	KCK10	G54
4050613	CDHH12061L	KCU25	B199	4051040	C8FX150608LRN	KCU25	E12	4051869	B255A12000YPC	KCK10	G54
4050615	GPCD505	KCU25	B238	4051041	C8FX150605RRN	KCU25	E12	4051870	B255A12100YPC	KCK10	G54
4050616	GPCD51	KCU25	B238	4051042	C8FX150608RRN	KCU25	E12	4051871	B255A12200YPC	KCK10	G54
4050619	TDHB12807501	KCU25	B263	4051044	C8FX150603RMP	KCU25	E13	4051872	B255A12251YPC	KCK10	G54
4050620	TDHB12807505	KCU25	B263	4051048	C8FX180812RRN	KCU25	E12	4051873	B255A12300YPC	KCK10	G54
4050621	TDHB1280751	KCU25	B263	4051066	C2FX110404RRN	KCU10	E8	4051874	B255A12304YPC	KCK10	G54
4050623	TDHH12807505L	KCU25	B263	4051074	C2FX150508LRN	KCU10	E8	4051875	B255A12500YPC	KCK10	G54
4050624	TDHH1280751L	KCU25	B263	4051077	D4FX140608RRN	KCU10	E11	4051876	B255A12700YPC	KCK10	G54
4050628	TPG321	KCU25	B266	4051088	D2FX110403LHP	KCU10	E9	4051878	B255A13000YPC	KCK10	G54
4050632	RCGK152FS	KCU10	E69	4051089	D2FX110403RHP	KCU10	E9	4051879	B255A1306YPC	KCK10	G54
4050653	RCGK152HP	KCU10	E69	4051090	C2FX110405LRN	KCU10	E8	4051881	B255A13495YPC	KCK10	G54
4050654	RCGK23FS	KCU10	E69	4051091	E2FX100505LHP	KCU10	E11	4051882	B255A13500YPC	KCK10	G54
4050655	RCGK23HP	KCU10	E69	4051092	E2FX100505RHP	KCU10	E11	4051884	B255A14000YPC	KCK10	G54
4050656	RCGK35FS	KCU10	E69	4051104	D2FX150503LHP	KCU10	E10	4051885	B255A14100YPC	KCK10	G54
4050657	RCGK35HP	KCU10	E69	4051106	D2FX150503LRN	KCU10	E10	4051886	B255A14288YPC	KCK10	G54
4050658	RCGK46FS	KCU10	E69	4051107	D2FX150505LRN	KCU10	E10	4051887	B255A14500YPC	KCK10	G54
4050659	RCGK46HP	KCU10	E69	4051109	D2FX150503RHP	KCU10	E9	4051888	B255A14600YPC	KCK10	G54
4050661	RCMK23	KCU10	E69	4051110	D2FX150505RRN	KCU10	E10	4051889	B255A14684YPC	KCK10	G54
4050664	CNMG4305LF	KCU10	B46	4051111	D2FX150503RMS	KCU10	E10	4051893	B255A15000YPC	KCK10	G54
4050665	CNMG430LF	KCU10	B46	4051112	D2FX150505RMS	KCU10	E10	4051894	B255A15083YPC	KCK10	G54
4050666	CNMG431LF	KCU10	B46	4051114	C2FX150505LRN	KCU10	E8	4051896	B255A15250YPC	KCK10	G54
4050667	CNMG432LF	KCU10	B46	4051115	C2FX180610LRN	KCU10	E8	4051897	B255A15400YPC	KCK10	G54
4050668	CNMG433LF	KCU10	B46	4051121	C8FX120503LMP	KCU10	E13	4051899	B255A15500YPC	KCK10	G54
4050671	CNMG430	KCU10	B46	4051122	C8FX120503RMP	KCU10	E13	4051900	B255A15800YPC	KCK10	G54
4050672	CNMG4305	KCU10	B46	4051125	C8FX150603RRN	KCU10	E12	4051901	B255A15875YPC	KCK10	G54
4050673	CNMG431	KCU10	B46	4051128	C8FX150603RMP	KCU10	E13	4051902	B255A16000YPC	KCK10	G54
4050674	CNMG433	KCU10	B46	4051136	WD32FDS28190M		H127	4051904	B255A16300YPC	KCK10	G54
4050676	CNMG322MP	KCU10	B51	4051137	WD32FDS28283M		H127	4051905	B255A16500YPC	KCK10	G54
4050677	CNMG431FF	KCU10	B48	4051138	SSF150FDS280502		H128	4051906	B255A16670YPC	KCK10	G54
4050678	CNMG431FW	KCU10	B49	4051139	SSF150FDS280746		H129	4051907	B255A16800YPC	KCK10	G54
4050679	CNMG431P	KCU10	B51	4051140	SSF150FDS281112		H129	4051909	B255A17000YPC	KCK10	G54
4050681	CNMG431P	KCU10	B52	4051141	SSF150FDS281356		H129	4051910	B255A17200YPC	KCK10	G54
4050682	CNMG431RP	KCU10	B53	4051189	D2FX150505RRN	KCP10	E9	4051913	B255A17463YPC	KCK10	G54
4050683	CNMG432CT	KCU10	B48	4051190	D2FX150505RRN	KCP10	E10	4051914	B255A17500YPC	KCK10	G54
4050684	CNMG432FF	KCU10	B48	4051203	D4FX140605RRN	KCP10	E11	4051915	B255A17800YPC	KCK10	G54
4050685	CNMG432FW	KCU10	B49	4051204	D4FX140603RRN	KCP10	E11	4051916	B255A17859YPC	KCK10	G54
4050686	CNMG432MP	KCU10	B51	4051209	C8FX120503LMP	KCP10	E13	4051917	B255A18000YPC	KCK10	G54
4050688	CNMG432P	KCU10	B52	4051213	C8FX150605RRN	KCP10	E12	4051918	B255A18258YPC	KCK10	G54

For page references F–X, please see Volume II • Rotating Tools Catalog.



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4052064	B254A11800YPC KCK10	G54	4052170	B255A05400YPC KCK10	G53	4052886	B256A15000YPC KCK10	G55	4053327	CDHH12061L KCU10	B199
4052066	B254A11908YPC KCK10	G54	4052171	B255A05410YPC KCK10	G53	4052887	B256A15083YPC KCK10	G55	4053328	CDHH12061R KCU10	B199
4052067	B254A12000YPC KCK10	G54	4052172	B255A05500YPC KCK10	G53	4052888	B256A15200YPC KCK10	G55	4053336	TDBH12807505 KCU10	B263
4052068	B254A12200YPC KCK10	G54	4052173	B255A05588YPC KCK10	G53	4052889	B256A15300YPC KCK10	G55	4053337	TDBH1280751L KCU10	B263
4052070	B254A12304YPC KCK10	G54	4052174	B255A05600YPC KCK10	G53	4052892	B256A15500YPC KCK10	G55	4053339	TDBH12807505L KCU10	B263
4052071	B254A12500YPC KCK10	G55	4052175	B255A05700YPC KCK10	G53	4052893	B256A15800YPC KCK10	G55	4053340	TDBH12807505R KCU10	B263
4052073	B254A12800YPC KCK10	G55	4052176	B255A05791YPC KCK10	G53	4052894	B256A16000YPC KCK10	G55	4053341	TDBH1280751L KCU10	B263
4052074	B254A13000YPC KCK10	G55	4052177	B255A05800YPC KCK10	G53	4052896	B256A16300YPC KCK10	G55	4053342	TDBH1280751R KCU10	B263
4052076	B254A13100YPC KCK10	G55	4052180	B255A06000YPC KCK10	G53	4052897	B256A16500YPC KCK10	G55	4053344	TPGH321 KCU10	B266
4052077	B254A13200YPC KCK10	G55	4052181	B255A06100YPC KCK10	G53	4052899	B256A16800YPC KCK10	G55	4053352	DNGG4305LF KCU10	B77
4052081	B254A13500YPC KCK10	G55	4052182	B255A06200YPC KCK10	G53	4052900	B256A17000YPC KCK10	G55	4053363	DNGG4311LF KCU10	B77
4052082	B254A13800YPC KCK10	G55	4052183	B255A06300YPC KCK10	G53	4052902	B256A17500YPC KCK10	G55	4053364	DNGG4321LF KCU10	B77
4052083	B254A13891YPC KCK10	G55	4052184	B255A06350YPC KCK10	G53	4052903	B256A17800YPC KCK10	G55	4053366	DNGP4305 KCU10	B77
4052084	B254A14000YPC KCK10	G55	4052185	B255A06400YPC KCK10	G53	4052905	B256A18000YPC KCK10	G55	4053367	DNGP431 KCU10	B77
4052085	B254A14100YPC KCK10	G55	4052186	B255A06500YPC KCK10	G53	4052906	B256A18258YPC KCK10	G55	4053368	DNGP432 KCU10	B77
4052086	B254A14288YPC KCK10	G55	4052188	B255A06600YPC KCK10	G53	4052907	B256A18500YPC KCK10	G55	4053369	DNGP441 KCU10	B77
4052087	B254A14500YPC KCK10	G55	4052189	B255A06630YPC KCK10	G53	4052908	B256A18800YPC KCK10	G55	4053370	DNGP442 KCU10	B77
4052090	B254A14800YPC KCK10	G55	4052190	B255A06700YPC KCK10	G53	4052909	B256A19000YPC KCK10	G55	4053371	DNMG331FW KCU10	B80
4052091	B254A15000YPC KCK10	G55	4052191	B255A06746YPC KCK10	G53	4052911	B256A19500YPC KCK10	G55	4053372	DNMG332FF KCU10	B79
4052093	B254A15200YPC KCK10	G55	4052192	B255A06800YPC KCK10	G53	4052912	B256A19800YPC KCK10	G55	4053373	DNMG332MP KCU10	B81
4052094	B254A15250YPC KCK10	G55	4052193	B255A06900YPC KCK10	G53	4052913	B256A20000YPC KCK10	G55	4053374	DNMG332P KCU10	B84
4052095	B254A15400YPC KCK10	G55	4052194	B255A06909YPC KCK10	G53	4052914	B256A20638YPC KCK10	G56	4053376	DNMG431CT KCU10	B79
4052097	B254A15500YPC KCK10	G55	4052195	B255A07000YPC KCK10	G53	4052915	B256A22000YPC KCK10	G56	4053377	DNMG431FF KCU10	B79
4052099	B254A15800YPC KCK10	G55	4052196	B255A07145YPC KCK10	G53	4052916	B256A22225YPC KCK10	G56	4053378	DNMG432P KCU10	B80
4052101	B254A16000YPC KCK10	G55	4052197	B255A07200YPC KCK10	G53	4052917	B256A25004YPC KCK10	G56	4053379	DNMG431MP KCU10	B81
4052102	B254A16500YPC KCK10	G55	4052200	B255A07400YPC KCK10	G53	4053226	B256A03000YPC KCK10	G52	4053380	DNMG431P KCU10	B83
4052103	B254A16670YPC KCK10	G55	4052201	B255A07493YPC KCK10	G53	4053228	B256A03175YPC KCK10	G52	4053381	DNMG431P KCU10	B84
4052104	B254A16800YPC KCK10	G55	4052202	B255A07500YPC KCK10	G53	4053230	B256A03264YPC KCK10	G52	4053383	DNMG432FW KCU10	B80
4052105	B254A17000YPC KCK10	G55	4052203	B255A07541YPC KCK10	G53	4053232	B256A03500YPC KCK10	G52	4053384	DNMG432MP KCU10	B81
4052107	B254A17463YPC KCK10	G55	4052204	B255A07600YPC KCK10	G53	4053235	B256A03700YPC KCK10	G52	4053386	DNMG432P KCU10	B83
4052108	B254A17500YPC KCK10	G55	4052205	B255A07700YPC KCK10	G53	4053236	B256A03800YPC KCK10	G52	4053387	DNMG432RP KCU10	B84
4052109	B254A17800YPC KCK10	G55	4052206	B255A07800YPC KCK10	G53	4053238	B256A04000YPC KCK10	G52	4053388	DNMG432UP KCU10	B79
4052110	B254A17859YPC KCK10	G55	4052207	B255A07900YPC KCK10	G53	4053240	B256A04100YPC KCK10	G52	4053389	DNMG433CT KCU10	B79
4052111	B254A18000YPC KCK10	G55	4052208	B255A07938YPC KCK10	G53	4053241	B256A04200YPC KCK10	G52	4053390	DNMG433MP KCU10	B81
4052112	B254A18200YPC KCK10	G55	4052209	B255A08000YPC KCK10	G53	4053242	B256A04300YPC KCK10	G52	4053391	DNMG433RP KCU10	B84
4052113	B254A18258YPC KCK10	G55	4052210	B255A08100YPC KCK10	G53	4053243	B256A04366YPC KCK10	G52	4053393	DNMG433P KCU10	B84
4052114	B254A18500YPC KCK10	G55	4052211	B255A08200YPC KCK10	G53	4053244	B256A04500YPC KCK10	G52	4053395	DNMG441FW KCU10	B80
4052115	B254A18800YPC KCK10	G55	4052212	B255A08300YPC KCK10	G53	4053245	B256A04623YPC KCK10	G52	4053396	DNMG441MP KCU10	B81
4052116	B254A19000YPC KCK10	G55	4052214	B255A08433YPC KCK10	G54	4053246	B256A04700YPC KCK10	G52	4053399	DNMG442UP KCU10	B80
4052117	B254A19050YPC KCK10	G55	4052215	B255A08500YPC KCK10	G54	4053247	B256A04800YPC KCK10	G52	4053400	DNMG442MP KCU10	B81
4052121	B254A19800YPC KCK10	G55	4052216	B255A08600YPC KCK10	G54	4053248	B256A04852YPC KCK10	G52	4053403	DNMG442RP KCU10	B84
4052122	B254A20000YPC KCK10	G55	4052217	B255A08700YPC KCK10	G54	4053249	B256A05000YPC KCK10	G53	4053404	DNMG442UP KCU10	B84
4052123	B254A20638YPC KCK10	G56	4052219	B255A08800YPC KCK10	G54	4053250	B256A05100YPC KCK10	G53	4053406	DNMG443MP KCU10	B81
4052124	B254A21000YPC KCK10	G56	4052220	B255A08839YPC KCK10	G54	4053252	B256A05200YPC KCK10	G53	4053407	DNMG443RP KCU10	B84
4052125	B254A22000YPC KCK10	G56	4052221	B255A08900YPC KCK10	G54	4053254	B256A05500YPC KCK10	G53	4053408	RNMG433P KCU10	B97
4052126	B254A22225YPC KCK10	G56	4052222	B255A09000YPC KCK10	G54	4053255	B256A05600YPC KCK10	G53	4053409	RNMG443P KCU10	B97
4052127	B254A223416YPC KCK10	G56	4052223	B255A09093YPC KCK10	G54	4053258	B256A05800YPC KCK10	G53	4054272	D2FX110405SLMN KCP25	E9
4052129	B254A25000YPC KCK10	G56	4052224	B255A09100YPC KCK10	G54	4053259	B256A05900YPC KCK10	G53	4054299	D2FX110405SLMN KCP40	E9
4052130	B255A03000YPC KCK10	G52	4052225	B255A09129YPC KCK10	G54	4053261	B256A06000YPC KCK10	G53	4054300	D2FX110405RMIN KCP40	E9
4052131	B255A03048YPC KCK10	G52	4052226	B255A09200YPC KCK10	G54	4053262	B256A06200YPC KCK10	G53	4054301	C2FX110405SLMN KCP40	E8
4052132	B255A03175YPC KCK10	G52	4052592	KRM108300CLB04NE	K94	4053263	B256A06500YPC KCK10	G53	4054302	C2FX110405RMIN KCP40	E8
4052133	B255A03200YPC KCK10	G52	4052845	B256A10200YPC KCK10	G54	4053264	B256A06400YPC KCK10	G53	4054355	D2FX150505RMIN KCP40	E9
4052134	B255A03250YPC KCK10	G52	4052846	B256A10300YPC KCK10	G54	4053265	B256A06500YPC KCK10	G53	4054356	D2FX150505RMIN KCP40	E10
4052135	B255A03300YPC KCK10	G52	4052847	B256A10400YPC KCK10	G54	4053266	B256A06600YPC KCK10	G53	4054358	C2FX150505RMIN KCP40	E8
4052136	B255A03400YPC KCK10	G52	4052848	B256A10500YPC KCK10	G54	4053267	B256A06700YPC KCK10	G53	4054359	C2FX150510LMN KCP40	E8
4052138	B255A03500YPC KCK10	G52	4052849	B256A10700YPC KCK10	G54	4053268	B256A06800YPC KCK10	G53	4054362	C2FX180610LMN KCP40	E8
4052140	B255A03600YPC KCK10	G52	4052850	B256A10800YPC KCK10	G54	4053269	B256A07000YPC KCK10	G53	4054368	C8FX120503RPP KCP40	E12
4052141	B255A03700YPC KCK10	G52	4052851	B256A11000YPC KCK10	G54	4053270	B256A07300YPC KCK10	G53	4054372	C8FX150605LRN KCP40	E12
4052143	B255A03797YPC KCK10	G52	4052852	B256A11200YPC KCK10	G54	4053271	B256A07500YPC KCK10	G53	4054374	C8FX150605RPP KCP40	E12
4052144	B255A03800YPC KCK10	G52	4052863	B256A11300YPC KCK10	G54	4053272	B256A07600YPC KCK10	G53	4054375	C8FX150608RPP KCP40	E12
4052145	B255A03861YPC KCK10	G52	4052864	B256A11500YPC KCK10	G54	4053273	B256A07800YPC KCK10	G53	4054377	C8FX150603RPP KCP40	E13
4052146	B255A03970YPC KCK10	G52	4052865	B256A11600YPC KCK10	G54	4053274	B256A08000YPC KCK10	G53	4054380	C8FX180808RPP KCP40	E12
4052147	B255A04000YPC KCK10	G52	4052866	B256A11800YPC KCK10	G54	4053275	B256A08200YPC KCK10	G53	4054381	C8FX180812RPP KCP40	E12
4052148	B255A04039YPC KCK10	G52	4052867	B256A12000YPC KCK10	G54	4053276	B256A08300YPC KCK10	G53	4054386	C2FX150510LMN KCP25	E8
4052149	B255A04100YPC KCK10	G52	4052868	B256A12200YPC KCK10	G54	4053277	B256A08500YPC KCK10	G54	4054387	C2FX150505RMIN KCP25	E8
4052150	B255A04200YPC KCK10	G52	4052869	B256A12300YPC KCK10	G54	4053278	B256A08600YPC KCK10	G54	4054388	C2FX150510RMIN KCP25	E8
4052151	B255A04217YPC KCK10	G52	4052870	B256A12400YPC KCK10	G55	4053279	B256A08700YPC KCK10	G54	4054391	C2FX180610LMN KCP25	E8
4052152	B255A04300YPC KCK10	G52	4052871	B256A12500YPC KCK10	G55	4053280	B256A08800YPC KCK10	G54	4054397	D4FX140605RMIN KCP25	E11
4052153	B255A04366YPC KCK10	G52	4052872	B256A12700YPC KCK10	G55	4053281	B256A09000YPC KCK10	G54	4054398	D4FX140603RMIN KCP25	E11
4052155	B255A04500YPC KCK10	G52	4052873	B256A12800YPC KCK10	G55	4053282	B256A09100YPC KCK10	G54	4054401	C8FX120503RPP KCP25	E12
4052156	B255A04572YPC KCK10	G52	4052874	B256A13000YPC KCK10	G55	4053284	B256A09300YPC KCK10	G54	4054402	C8FX120505RPP KCP25	E12
4052157	B255A04600YPC KCK10	G52	4052875	B256A13096YPC KCK10	G55	4053285	B256A09347YPC KCK10	G54	4054403	C8FX120503RPP KCP25	E13
4052158	B255A04700YPC KCK10	G52	4052876	B256A13200YPC KCK10	G55	4053287	B256A09500YPC KCK10	G54	4054404	C8FX120503RPP KCP25	E13
4052160	B255A04800YPC KCK10	G52	4052877	B256A13495YPC KCK10	G55	4053288	B256A09600YPC KCK10	G54	4054405	C8FX150605LRN KCP25	E12
4052161	B255A04900YPC KCK10	G52	4052878	B256A13500YPC KCK10	G55	4053289	B256A09700YPC KCK10	G54	4054406	C8FX150608LRN KCP25	E12
4052162	B255A05000YPC KCK10	G53	4052879	B256A13700YPC KCK10	G55	4053290	B256A09800YPC KCK10	G54	4054407	C8FX150605RPP KCP25	E12
4052163	B255A05055YPC KCK10	G53	4052880	B256A13800YPC KCK10	G55	4053291	B256A10000YPC KCK10	G54	4054408	C8FX150608RPP KCP25	E12

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4054416	C8FX118008RMP KCP25	E13	4056513	RPG43E KYSP30	V157	4059062	T631M240X300R6HX-XL KP6525	M57	4067264	HPHV625S4163R120 KCPM15	P19
4054421	D2FX1150504RMP KCP25	E9	4056980	RHM14000KST115H7HF KT325	K33	4059064	T631M300X350R6HX-XL KP6525	M57	4067265	HPHV625S4213 KCPM15	P19
4054422	D2FX1150508RMP KCP25	E9	4056981	RHM14288KST115H7HF KT325	K33	4059065	T631M300X350R6HX-XL KP6525	M57	4067266	HPHV625S4213R030 KCPM15	P19
4054435	D2FX1150508LMP KCP25	E9	4056983	RHM15875KST115H7HF KT325	K33	4059067	T631M360X400R6HX-XL KP6525	M57	4067267	HPHV625S4213R120 KCPM15	P19
4054442	C2FX110408LMP KCP25	E8	4056984	RHM16000KST135H7HF KT325	K33	4059069	T631M420X450R6HX-XL KP6525	M57	4067268	HPHV625S422R060 KCPM15	P19
4054444	C2FX1150508LMP KCP25	E8	4056985	RHM17000KST135H7HF KT325	K33	4059090	T620M240X300R6HX-D6 KP6525	M13	4067269	HPHV750S4088 KCPM15	P19
4054451	D4FX1140608RMP KCP25	E11	4056986	RHM17463KST135H7HF KT325	K33	4059092	T620M300X350R6HX-D6 KP6525	M13	4067270	HPHV750S4088CH KCPM15	P19
4054449	D4FX1140608LMP KCP25	E11	4056987	RHM18000KST155H7HF KT325	K33	4059113	T620M330X350R6HX-D6 KP6525	M13	4067271	HPHV750S4088L KCPM15	P19
4054450	C8FX1120504RMP KCP25	E12	4056988	RHM19000KST155H7HF KT325	K33	4059115	T620M360X400R6HX-D6 KP6525	M13	4067272	HPHV750S4088LR030 KCPM15	P19
4054451	C8FX1150612RMP KCP25	E12	4056989	RHM14288KST115H7HF KT6215	K33	4059117	T620M420X450R6HX-D6 KP6525	M13	4067273	HPHV750S4150R030 KCPM15	P19
4054453	C8FX1150612RMP KCP25	E12	4056990	RHM14288KST115H7HF KT6215	K33	4059121	T630M300X350R6HX-D6 KP6525	M54	4067274	HPHV750S4150CH KCPM15	P19
4054455	C8FX1120508RMP KCP25	E12	4056993	RHM16000KST135H7HF KT6215	K33	4059122	T630M330X350R6HX-D6 KP6525	M54	4067275	HPHV750S4150R015 KCPM15	P19
4054456	C8FX1150612RMP KCP25	E12	4056994	RHM17000KST135H7HF KT6215	K33	4059124	T630M360X400R6HX-D6 KP6525	M54	4067276	HPHV750S4150R120 KCPM15	P19
4054474	D2FX110403RMP KCP25	E9	4056995	RHM17463KST135H7HF KT6215	K33	4059126	T630M420X450R6HX-D6 KP6525	M54	4067277	HPHV750S4150R060 KCPM15	P19
4054475	D2FX110405RMP KCP25	E9	4056996	RHM18000KST155H7HF KT6215	K33	4059129	T631M240X300R6HX-D6 KP6525	M55	4067278	HPHV750S4150R090 KCPM15	P19
4054477	C2FX110405LMP KCP25	E8	4056997	RHM19000KST155H7HF KT6215	K33	4059132	T631M330X350R6HX-D6 KP6525	M55	4067279	HPHV750S4150R120 KCPM15	P19
4054478	C2FX110405RMP KCP25	E8	4056998	RHM19050KST155H7HF KT6215	K33	4059132	T631M330X350R6HX-D6 KP6525	M55	4067280	HPHV750S4163CH KCPM15	P19
4054483	D2FX1150505LMP KCP25	E9	4057034	RHM14000KST115H7HF KT325	K31	4059134	T631M360X400R6HX-D6 KP6525	M55	4067281	HPHV750S4163R030 KCPM15	P19
4054484	D2FX1150505LMP KCP25	E10	4057035	RHM14288KST115H7HF KT325	K31	4059136	T631M420X450R6HX-D6 KP6525	M55	4067282	HPHV750S4163R060 KCPM15	P19
4054486	D2FX1150503RMP KCP25	E9	4057036	RHM15000KST115H7HF KT325	K31	4059938	LNEU1240R08 4 KC725M	U19	4067283	HPHV750S4163R120 KCPM15	P19
4054487	D2FX1150505RMP KCP25	E10	4057037	RHM15875KST115H7HF KT325	K31	4059939	LNEU1240R16 4 KC725M	U19	4067286	HPHVBN1000S4150 KCPM15	P23
4054488	D2FX1150505RMP KCP25	E9	4057038	RHM16000KST135H7HF KT325	K31	4059940	LNEU1235R03 4 KC725M	U19	4067287	HPHVBN438S4088 KCPM15	P23
4054490	D2FX1150503RMP KCP25	E9	4057039	RHM17000KST135H7HF KT325	K31	4059941	LNEU1240R03 4 KC725M	U19	4067288	HPHVBN500S4100 KCPM15	P23
4054491	C2FX1150505LMP KCP25	E8	4057040	RHM17463KST135H7HF KT325	K31	4059942	LNEU1235R03 4 KC725M	U20	4067289	HPHVBN500S4125 KCPM15	P23
4054494	B976A03175 KCP7315	G134	4057041	RHM18000KST155H7HF KT325	K31	4060093	LNEU1240R03 4 KC725M	U20	4067290	HPHVBN625S4125 KCPM15	P23
4054495	B976A03454 KCP7315	G134	4057042	RHM19000KST155H7HF KT325	K31	4060099	LNEU1235R03 4 KC520M	U19	4067291	HPHVBN750S4150 KCPM15	P23
4054496	B976A03734 KCP7315	G134	4057044	RHM14000KST115H7HF KT6215	K31	4060100	LNEU1240R08 4 KC520M	U19	4067292	HPHVBN125S4050 KCPM15	P23
4054497	B976A03797 KCP7315	G134	4057045	RHM14288KST115H7HF KT6215	K31	4060101	LNEU1240R03 4 KC520M	U19	4067303	HPHV750S4300CH KCPM15	P19
4054498	B976A04039 KCP7315	G134	4057047	RHM15875KST115H7HF KT6215	K31	4060102	LNEU1235R03SGP 4 KC725M	U20	4067304	HPHV750S4400R030 KCPM15	P19
4054499	B976A04366 KCP7315	G135	4057048	RHM16000KST135H7HF KT6215	K31	4060528	KST1151515AS	K42	4067305	HPHV750S4400R060 KCPM15	P19
4054500	B976A04496 KCP7315	G135	4057049	RHM17000KST135H7HF KT6215	K31	4060529	KST13515AS	K42	4067306	HPHV1000S4150 KCPM15	P19
4054501	B976A04700 KCP7315	G135	4057051	RHM18000KST155H7HF KT6215	K31	4061407	XNF43ZNEWN KY3500	S90	4067307	HPHV1000S4150CH KCPM15	P19
4054502	B976A05106 KCP7315	G135	4057053	RHM19050KST155H7HF KT6215	K31	4062112	HSK100BT13075	K143	4067308	HPHV1000S4150R030 KCPM15	P19
4054503	B976A05410 KCP7315	G135	4057057	HSK63FBHM1696	K132	4062443	EBUCW0074	K145	4067311	HPHV1000S4150R120 KCPM15	P19
4054504	B976A05791 KCP7315	G135	4057058	DV40FBHM1691	K133	4062902	KTP260R8SCF25M	H40	4067312	HPHV1000S4150R250 KCPM15	P19
4054505	B976A05944 KCP7315	G135	4057059	BT40FBHM1691	K133	4063183	KTP270R8SCF25M	H40	4067313	HPHV1000S4200 KCPM15	P20
4054506	B976A06528 KCP7315	G135	4057060	KM50TSFBHM1677	K132	4063184	KTP260R8SCF25M	H40	4067314	HPHV1000S4200R030 KCPM15	P19
4054507	B976A06909 KCP7315	G135	4057061	AFM29115	K135	4063185	KTP270R8SCF25M	H40	4067315	HPHV1000S4200R060 KCPM15	P19
4054508	B976A07366 KCP7315	G136	4057062	AFM47115	K135	4063186	KTP260R8SCF25M	H40	4067316	HPHV1000S4200R120 KCPM15	P19
4054509	B976A08433 KCP7315	G136	4057093	AFM29SCFP06	K136	4063187	KTP270R8SCF25M	H40	4067318	HPHV1000S4225 KCPM15	P20
4054510	B976A08839 KCP7315	G136	4057094	AFM47SCFP09	K136	4063188	KTP260R8SS32M	H38	4067319	HPHV1000S4225CH KCPM15	P20
4054511	B976A09093 KCP7315	G136	4057095	EBM8015086	K136	4063189	KTP270R8SS32M	H38	4067320	HPHV1000S4225R030 KCPM15	P20
4054512	B976A10262 KCP7315	G136	4057096	886038045	K136	4063190	KTP260R8SS32M	H38	4067321	HPHV1000S4225R060 KCPM15	P20
4054513	B976A13495 KCP7315	G137	4057097	PKG-8001	K132-134	4063191	KTP270R8SS32M	H38	4067322	HPHV1000S4263 KCPM15	P20
4054514	B976A16670 KCP7315	G138	4057098	HSK63FBHMKIT164M	K127, K131	4063192	KTP260R8SS32M	H38	4067323	HPHV1000S4263CH KCPM15	P20
4054515	B977A03175 KCP7315	G134	4057099	DV40FBHMKIT164M	K127, K131	4063193	KTP1024R3SS125	H39	4067324	HPHV1000S4263R030 KCPM15	P20
4054516	B977A03734 KCP7315	G134	4057100	BT40FBHMKIT164M	K127, K131	4063194	KTP1063R3SS125	H39	4067325	HPHV1000S4300CH KCPM15	P20
4054517	B977A03797 KCP7315	G134	4057101	KM50TSFBHMKIT164M	K127, K131	4063195	KTP1024R3SS125	H39	4067326	HPHV1000S4300R030 KCPM15	P20
4054518	B977A04039 KCP7315	G134	4057204	EB630128650	K144	4063196	KTP1063R3SS125	H39	4067327	HPHV1000S4300R060 KCPM15	P20
4054519	B977A04366 KCP7315	G135	4057205	EB10801281100	K144	4063197	KTP1024R3SS125	H39	4067328	HPHV1000S4400CH KCPM15	P20
4054520	B977A04496 KCP7315	G135	4057206	EB16301281650	K144	4063198	KTP1063R3SS125	H39	4067329	HPHV1000S4400R030 KCPM15	P20
4054521	B977A05106 KCP7315	G135	4057207	EBSLD1105	K144	4063996	SDB24RBHT06F	K126	4067330	HPHV1000S4400R060 KCPM15	P20
4054522	B977A05791 KCP7315	G135	4057208	EBSLD2205	K144	4063997	SDB30RBHT06F	K126	4067331	HPHV1250S4225CH KCPM15	P20
4054523	B977A05944 KCP7315	G135	4057576	KSHR1000HN7545C10	S24	4063998	SDB40RBHT09F	K126	4067332	HPHV1250S4225R030 KCPM15	P20
4054524	B977A07366 KCP7315	G136	4057578	KSHR300HN7545M4	S24	4063999	SDB50RBHT09F	K126	4067343	HPHVBN188S4063 KCPM15	P23
4054525	B977A08839 KCP7315	G136	4057579	KSHR400HN7545M5	S24	4064000	SDB66RBHT12F	K126	4067344	HPHVBN250S4075 KCPM15	P23
4054526	B977A09093 KCP7315	G136	4057580	KSHR500HN7545M6	S24	4064001	SDB66RBHT12F	K126	4067345	HPHVBN3125S4075 KCPM15	P23
4054527	B977A10262 KCP7315	G136	4057581	KSHR600HN7545M8	S24	4064002	SDB87RBHT12F	K126	4067346	HPHVBN375S4088 KCPM15	P23
4054528	B977A13495 KCP7315	G137	4057582	KSHR800HN7545M10	S24	4064203	SDB87RBHT16LF	K126	4068215	UADE0250J4AQ KCPM15	P21
4054648	C2FX1150504LMP KCP40	E8	4057583	KSHR1000HN7545M10	S24	4064204	SDB115RBHT16LF	K126	4068216	UADE0250J4AQB KCPM15	P21
4054651	D4FX1140604RMP KCP40	E11	4057639	HNPJ75ANSNHD KCPK30	S26	4064205	SDB115RBHT12F	K126	4068217	UADE0375J4AQ KCPM15	P21
4054660	C8FX1120508RMP KCP40	E12	4057640	HNPJ75ANSNHD KCK15	S26	4064258	TTP25	S24	4068218	UADE0375J4AQB KCPM15	P21
4054680	DFR040304D28MD KCP7140	H113, J97	4057641	HNPJ75ANSNHD KCP725M	S26	4065057	A4G0605M06U08GMN KCP25	C106	4068220	UADE0500J4AQB KCPM15	P21
4054681	DFR040304D28LD KCP7225	H113	4057828	HNPJ75ANSNHD KCPK30	S26	4067219	HPHV750S4225CH KCPM15	P19	4068221	UADE0625J4AQB KCPM15	P21
4054733	HSK100ASVUBB2124MCLB	K78	4057830	HNPJ75ANSNHD KCP725M	S26	4067220	HPHV750S4225R030 KCPM15	P19	4068222	UADE0750J4AQB KCPM15	P21
4054734	HSK63ASVUBB1095MCLB	K76	4057854	HNPJ759ANSNHD KCPK30	S26	4067221	HPHV750S4225R060 KCPM15	P19	4068233	UADE0750J4BQB KCPM15	P21
4054735	HSK63ASVUBB2116MCLB	K78	4057855	HNPJ759ANSNHD KCK15	S26	4067222	HPHV750S4300 KCPM15	P19	4068234	UADE1000J4BQB KCPM15	P21
4054736	HM50TSVUBB2100MCLB	K77	4057865	HNGJ75ANENGD KCPK30	S25	4067236	HPHV625S4075 KCPM15	P18	4068604	RCMH3209MORU KCP25	E66
4054737	KR32SVUBB1060MCLB	K76	4057867	HNGJ75ANENGD KCP725M	S25	4067237					



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4071891	HPHV375S4125R060 KCPM15	P17	4079259	UADE750J4BRA KC643M	P19	4109658	NFD4189RK KCU25	C174	4109755	NG3M400RK KCU25	C162
4071892	HPHV375S4150 KCPM15	P17	4079260	UADE750J4ARB KC643M	P19	4109659	NFD4250LK KCU25	C174	4109756	NG3M425LK KCU25	C164
4071893	HPHV375S4150R030 KCPM15	P17	4079263	UADE750J4ARB KC643M	P19	4109660	NFD4250RK KCU25	C174	4109757	NG3M425RK KCU25	C163
4071894	HPHV375S4150R060 KCPM15	P17	4079265	UADE625J4ARC KC643M	P19	4109661	NG2031L KCU25	C170	4109758	NG3M450LK KCU25	C164
4071895	HPHV375S4250R030 KCPM15	P17	4079266	UADE625J4ARB KC643M	P19	4109662	NG2031LK KCU25	C163	4109759	NG3M450RK KCU25	C163
4071896	HPHV375S4250R060 KCPM15	P17	4079267	UADE500J4CFE KC643M	P18	4109663	NG2031R KCU25	C170	4109760	NG4125L KCU25	C171
4071897	HPHV438S4063R015 KCPM15	P18	4079268	UADE500J4CRD KC643M	P18	4109664	NG2031RK KCU25	C162	4109761	NG4125LK KCU25	C164
4071898	HPHV438S4088CH KCPM15	P18	4079269	UADE500J4CRC KC643M	P18	4109665	NG2041L KCU25	C170	4109762	NG4125R KCU25	C170
4071899	HPHV438S4113R015 KCPM15	P18	4079270	UADE500J4CPB KC643M	P18	4109666	NG2041R KCU25	C170	4109763	NG2M300RK KCU25	C162
4071900	HPHV500S4063 KCPM15	P18	4079271	UADE500J4CRA KC643M	P18	4109667	NG2047L KCU25	C170	4109764	NG2M325LK KCU25	C163
4071901	HPHV500S4063CH KCPM15	P18	4079272	UADE500J4BRE KC643M	P18	4109668	NG2047LK KCU25	C163	4109765	NG2M325RK KCU25	C162
4071902	HPHV500S4063L KCPM15	P18	4079273	UADE500J4BPD KC643M	P18	4109669	NG2047R KCU25	C170	4109766	NG3047L KCU25	C170
4071903	HPHV500S4063LR015 KCPM15	P18	4079274	UADE500J4BRC KC643M	P18	4109670	NG2047RK KCU25	C162	4109767	NG3047LK KCU25	C163
4071904	HPHV500S4063LR030 KCPM15	P18	4079275	UADE500J4BRB KC643M	P18	4109671	NG2058L KCU25	C170	4109768	NG3047R KCU25	C170
4071905	HPHV500S4063LR060 KCPM15	P18	4079276	UADE500J4BRA KC643M	P18	4109672	NG2058R KCU25	C170	4109769	NG3047RK KCU25	C162
4071906	HPHV500S4063R030 KCPM15	P18	4079277	UADE500J4ARE KC643M	P18	4109673	NG2062L KCU25	C170	4109770	NG3062L KCU25	C170
4071907	HPHV500S4063R060 KCPM15	P18	4079279	UADE500J4ARC KC643M	P18	4109674	NG2062LK KCU25	C163	4109771	NG3062LK KCU25	C163
4071908	HPHV500S4100 KCPM15	P18	4079280	UADE500J4ARB KC643M	P18	4109675	NG2062R KCU25	C170	4109772	NG3062R KCU25	C170
4071909	HPHV500S4100CH KCPM15	P18	4079281	UADE500J4ARA KC643M	P18	4109676	NG2062RK KCU25	C162	4109773	NG4125RK KCU25	C163
4071910	HPHV500S4100R030 KCPM15	P18	4079283	UADE375J4BRB KC643M	P18	4109677	NG2094L KCU25	C170	4109774	NG4189L KCU25	C171
4071911	HPHV500S4100R060 KCPM15	P18	4079284	UADE375J4BRA KC643M	P18	4109678	NG2094LK KCU25	C163	4109775	NG4189LK KCU25	C164
4071912	HPHV500S4125 KCPM15	P18	4079285	UADE375J4ARC KC643M	P18	4109679	NG2094R KCU25	C170	4109776	NG4189R KCU25	C170
4071913	HPHV500S4125CH KCPM15	P18	4079286	UADE375J4ARB KC643M	P17	4109680	NG2094RK KCU25	C162	4109777	NG4189RK KCU25	C163
4071914	HPHV500S4125R015 KCPM15	P18	4079287	UADE375J4ARA KC643M	P17	4109681	NG2125L KCU25	C170	4109778	NG3072L KCU25	C170
4071915	HPHV500S4125R030 KCPM15	P18	4079288	UADE250J4ARC KC643M	P17	4109682	NG2125LK KCU25	C163	4109779	NG4250L KCU25	C171
4071916	HPHV500S4125R060 KCPM15	P18	4079290	UADE250J4ARA KC643M	P16	4109683	NG2125RK KCU25	C170	4109780	NG4250LK KCU25	C164
4071917	HPHV500S4125R090 KCPM15	P18	4080356	B967A10200 KC7315	G131	4109684	NG2125RK KCU25	C162	4109781	NG4250RK KCU25	C170
4071918	HPHV500S4125R120 KCPM15	P18	4080393	B967A12800 KC7315	G132	4109685	NG2M050RK KCU25	C162	4109782	NG4250RK KCU25	C163
4071919	HPHV500S4150 KCPM15	P18	4080395	B967A15000 KC7315	G132	4109686	NG2M080LK KCU25	C163	4109783	NG3062RK KCU25	C162
4071920	HPHV500S4150CH KCPM15	P18	4081832	RIQ09E1306 KC6005	K58	4109687	NG2M080RK KCU25	C162	4109784	NG3078RK KCU25	C163
4071921	HPHV500S4150R030 KCPM15	P18	4086429	B976A05558 KC7315	G135	4109688	NG2M100LK KCU25	C163	4109785	NG3072RK KCU25	C162
4071922	HPHV500S4150R060 KCPM15	P18	4086430	B977A03454 KC7315	G134	4109689	NG2M100RK KCU25	C163	4109786	NG3078LK KCU25	C163
4071923	HPHV500S4163 KCPM15	P18	4086431	B977A16670 KC7315	G138	4109690	NG2M120LK KCU25	C162	4109787	NG3078RK KCU25	C162
4071924	HPHV500S4163R030 KCPM15	P18	4086935	A4G0405M04U08GMN KCP10	C106	4109691	NG2M120RK KCU25	C162	4109788	NG3088L KCU25	C170
4071925	HPHV500S4163R060 KCPM15	P18	4086956	A4R0405M04U00GMN KCP10	C107	4109692	NG2M140LK KCU25	C163	4109789	NG3088L KCU25	C170
4071926	HPHV500S4163R120 KCPM15	P18	4089831	B967A11300 KC7315	G131	4109698	NG3M100LK KCU25	C163	4109790	NG3094L KCU25	C170
4071927	HPHV500S4200 KCPM15	P18	4105177	MEGA45D1000LN863C10	S94	4109699	NG3M100RK KCU25	C162	4109791	NG3094LK KCU25	C164
4071928	HPHV500S4200CH KCPM15	P18	4105178	MEGA45D1200LN863C10	S94	4109700	NG3M120LK KCU25	C163	4109792	NG3094R KCU25	C170
4071929	HPHV500S4200R030 KCPM15	P18	4106399	B707A07400FBS KN15	G111	4109701	NG3M120RK KCU25	C162	4109793	NG4M300LK KCU25	C164
4071930	HPHV500S4250R030 KCPM15	P18	4109575	KF2X100W0902M12L138	V36	4109702	NG3M150LK KCU25	C163	4109794	NG4M300RK KCU25	C163
4071932	HPHV500S4300R030 KCPM15	P18	4109577	KF2X125W0903M16L169	V36	4109713	NG3M150RK KCU25	C163	4109795	NG4M350LK KCU25	C164
4071933	HPHV500S4300R060 KCPM15	P18	4109579	KF2X150W0904M16L169	V36	4109714	NG3M175LK KCU25	C163	4109796	NG4M350RK KCU25	C163
4072204	HPRSHV1000S4700CH KCPM15	P22	4109580	KF2X100W0902C100L600	V37	4109715	NG3M175RK KCU25	C162	4109797	NG4M400LK KCU25	C164
4072205	HPRSHV500S4600 KCPM15	P22	4109581	KF2X100W0902C100L800	V37	4109716	NG3M200LK KCU25	C163	4109798	NG4M400RK KCU25	C163
4072206	HPRSHV500S4600CH KCPM15	P22	4109582	KF2X125W0903C125L600	V37	4109717	NG3M200RK KCU25	C162	4109799	NG4M400LK KCU25	C163
4072207	HPRSHV625S4600 KCPM15	P22	4109593	KF2X125W0903C125L800	V37	4109718	NG3M220LK KCU25	C164	4109800	NG4M500LK KCU25	C164
4072208	HPRSHV625S4600CH KCPM15	P22	4109594	KF2X150W0903C125L600	V37	4109719	NG3M220RK KCU25	C162	4109801	NG4M500RK KCU25	C163
4072209	HPRSHV750S4000CH KCPM15	P22	4109595	KF2X150W0903C125L800	V37	4109720	NG3M225LK KCU25	C164	4109803	NG3094RK KCU25	C162
4072210	HPRSHV750S4600 KCPM15	P22	4109596	KF2X150W0904S050L157	V38	4109721	NG3M225RK KCU25	C162	4109804	NG3097L KCU25	C171
4072211	HPRSHV750S4600CH KCPM15	P22	4109597	KF2X200W0905S075L157	V38	4109722	NG3M250LK KCU25	C162	4109805	NG3097L KCU25	C170
4075269	CNMG433MP KCP10	B81	4109598	KF2X200W0906S075L157	V38	4109723	NG2M140RK KCU25	C164	4109806	NG3110R KCU25	C171
4075270	CNMG433MP KCP10	B81	4109599	KF2X250W0906S075L175	V38	4109724	NG2M150LK KCU25	C163	4109807	NG3105R KCU25	C170
4075271	CNMG442MP KCP10	B81	4109600	KF2X300W0907S100L175	V38	4109725	NG2M150RK KCU25	C162	4109808	NG3110L KCU25	C171
4075304	WNMG432MP KCP10	B159	4109624	NA3L10 KCU25	D11	4109726	NG2M170LK KCU25	C163	4109809	NG3110R KCU25	C170
4075305	CNMG432MP KCP25	B51	4109625	NA3L4 KCU25	D11	4109727	NG2M170RK KCU25	C162	4109810	NG3122L KCU25	C171
4075306	CNMG433MP KCP25	B51	4109626	NA3L5 KCU25	D11	4109728	NG2M175LK KCU25	C163	4109811	NG3122R KCU25	C170
4075307	CNMG432MP KCP25	B81	4109627	NA3L6 KCU25	D11	4109729	NG2M175RK KCU25	C162	4109812	NG3125L KCU25	C171
4075308	CNMG442MP KCP25	B81	4109628	NA3L8 KCU25	D11	4109730	NG2M195LK KCU25	C163	4109814	NG4M600LK KCU25	C164
4075309	CNMG432MP KCP25	B124	4109629	NA3R10 KCU25	D11	4109731	NG2M195RK KCU25	C162	4109815	NG4M600RK KCU25	C163
4075310	WNMG432MP KCP25	B159	4109630	NA3R4 KCU25	D11	4109732	NG2M200LK KCU25	C163	4109823	NG3125LK KCU25	C164
4075311	WNMG432MP KCP25	B159	4109631	NA3R5 KCU25	D11	4109733	NG3M250RK KCU25	C162	4109824	NG3125R KCU25	C170
4078132	B967A15300 KC7315	G132	4109632	NA3R6 KCU25	D11	4109734	NG3M275LK KCU25	C164	4109825	NG3125RK KCU25	C162
4078652	CNMG431FP KCP10	B49	4109633	NA3R8 KCU25	D11	4109735	NG3M275RK KCU25	C162	4109826	NG3142L KCU25	C171
4078704	CNMG432FP KCP10	B80	4109636	NAS3L4 KCU25	D12	4109736	NG3M300LK KCU25	C164	4109827	NG3142R KCU25	C170
4078705	CNMG432FP KCP10	B80	4109637	NAS3L6 KCU25	D12	4109737	NG3M300RK KCU25	C162	4109828	NG3156L KCU25	C171
4078706	CNMG442FP KCP10	B80	4109638	NAS3L8 KCU25	D12	4109738	NG3M320LK KCU25	C164	4109829	NG3156LK KCU25	C164
4078708	CNMG432FP KCP10	B146	4109640	NAS3R12 KCU25	D12	4109739	NG3M320RK KCU25	C162	4109830	NG3156R KCU25	C170
4078709	WNMG431FP KCP10	B158	4109641	NAS3R4 KCU25	D12	4109740	NG3M325LK KCU25	C164	4109831	NG3156RK KCU25	C162
4078710	WNMG432FP KCP10	B158	4109644	NAS3R8 KCU25	D12	4109741	NG3M325RK KCU25	C162	4109832	NG3178L KCU25	C171
4078711	CNMG432FP KCP25	B49	4109645	NF3125LK KCU25	C173	4109742	NG3M350LK KCU25	C164	4109833	NG3185R KCU25	C170
4078712	CNMG432FP KCP25	B80	4109646	NF3125RK KCU25	C173	4109743	NG2M200RK KCU25	C162	4109834	NG3189L KCU25	C171
4078723	CNMG442FP KCP25	B80	4109647	NF3156LK KCU25	C173	4109744	NG2M200LK KCU25	C163	4109835	NG3189LK KCU25	C164
4078724	WNMG431FP KCP25	B158	4109648	NF3156RK KCU25	C173	4109745	NG2M220RK KCU25	C162	4109836	NG3189	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4109847	NGD3094RK KCU25	C165	4109951	NT4R KCU25	D17	4111786	B221A06800HP KCPK15	G39	4111878	B221A14100HP KCPK15	G41
4109848	NGD3125LK KCU25	C165	4109952	NT4RCK KCU25	D19	4111787	B221A06900HP KCPK15	G39	4111879	B221A14200HP KCPK15	G41
4109849	NGD3125RK KCU25	C165	4109953	NT4RK KCU25	D22	4111788	B221A07000HP KCPK15	G39	4111880	B221A14288HP KCPK15	G41
4109850	NGD3189LK KCU25	C165	4109954	NTF2L KCU25	D21	4111789	B221A07100HP KCPK15	G39	4111881	B221A14300HP KCPK15	G41
4109851	NGD3189RK KCU25	C165	4109955	NTF2R KCU25	D21	4111790	B221A07145HP KCPK15	G39	4111882	B221A14400HP KCPK15	G41
4109852	NGD4125LK KCU25	C165	4109956	NTF3L KCU25	D21	4111792	B221A07200HP KCPK15	G39	4111883	B221A14500HP KCPK15	G41
4109853	NGD4125RK KCU25	C165	4109957	NTF3R KCU25	D21	4111793	B221A07300HP KCPK15	G39	4111884	B221A14500HP KCPK15	G41
4109854	NGD4189LK KCU25	C165	4109958	NTK2L KCU25	D21	4111794	B221A07400HP KCPK15	G39	4111885	B221A14684HP KCPK15	G41
4109855	NGD4189RK KCU25	C165	4109959	NTK2R KCU25	D21	4111795	B221A07500HP KCPK15	G39	4111886	B221A14700HP KCPK15	G41
4109856	NGD4250LK KCU25	C165	4109960	NTK3L KCU25	D21	4111796	B221A07541HP KCPK15	G39	4111887	B221A14800HP KCPK15	G41
4109857	NGD4250RK KCU25	C165	4109961	NTK3R KCU25	D21	4111797	B221A07600HP KCPK15	G39	4111888	B221A14900HP KCPK15	G41
4109858	NJ3010R16 KCU25	D15	4109962	NTP2L KCU25	D22	4111798	B221A07700HP KCPK15	G39	4111889	B221A15000HP KCPK15	G41
4109860	NJ3014R12 KCU25	D15	4109963	NTP2R KCU25	D22	4111799	B221A07800HP KCPK15	G39	4111890	B221A15083HP KCPK15	G41
4109864	NJF3009R18 KCU25	D15	4109964	NTP3L KCU25	D22	4111800	B221A07900HP KCPK15	G39	4111891	B221A15100HP KCPK15	G41
4109866	NJF3012R14 KCU25	D15	4109965	NTP3R KCU25	D22	4111801	B221A07938HP KCPK15	G39	4111892	B221A15200HP KCPK15	G41
4109868	NJK3006R28 KCU25	D16	4109967	NTP4R KCU25	D22	4111802	B221A08000HP KCPK15	G39	4111893	B221A15300HP KCPK15	G41
4109869	NJK3007R24 KCU25	D16	4111714	B221A03048HP KCPK15	G38	4111803	B221A08100HP KCPK15	G39	4111894	B221A15400HP KCPK15	G41
4109871	NJK3008R20 KCU25	D16	4111715	B221A03100HP KCPK15	G38	4111804	B221A08200HP KCPK15	G39	4111895	B221A15479HP KCPK15	G41
4109873	NJK3010R16 KCU25	D16	4111716	B221A03175HP KCPK15	G38	4111805	B221A08300HP KCPK15	G39	4111896	B221A15500HP KCPK15	G41
4109876	NJP3014R12 KCU25	D16	4111717	B221A03200HP KCPK15	G38	4111806	B221A08334HP KCPK15	G39	4111897	B221A15600HP KCPK15	G41
4109878	NJP3020R8 KCU25	D16	4111718	B221A03264HP KCPK15	G38	4111807	B221A08400HP KCPK15	G39	4111898	B221A15700HP KCPK15	G41
4109879	NP2002RK KCU25	C167	4111719	B221A03300HP KCPK15	G38	4111808	B221A08433HP KCPK15	G39	4111899	B221A15800HP KCPK15	G41
4109880	NP2012RK KCU25	C167	4111720	B221A03400HP KCPK15	G38	4111809	B221A08500HP KCPK15	G39	4111900	B221A15875HP KCPK15	G41
4109881	NP3002RK KCU25	C167	4111721	B221A03455HP KCPK15	G38	4111810	B221A08600HP KCPK15	G39	4111901	B221A15900HP KCPK15	G41
4109882	NP3012RK KCU25	C167	4111722	B221A03500HP KCPK15	G38	4111811	B221A08700HP KCPK15	G39	4111902	B221A16000HP KCPK15	G41
4109883	NPD2002RK KCU25	C167	4111727	B221A09600HP KCPK15	G40	4111812	B221A08733HP KCPK15	G39	4111903	B221A16500HP KCPK15	G41
4109884	NPD3002RK KCU25	C167	4111728	B221A09700HP KCPK15	G40	4111813	B221A08800HP KCPK15	G39	4111904	B221A17000HP KCPK15	G41
4109885	NPD3012RK KCU25	C167	4111729	B221A09800HP KCPK15	G40	4111814	B221A08900HP KCPK15	G39	4111905	B221A17463HP KCPK15	G41
4109887	NR2031L KCU25	C172	4111730	B221A09900HP KCPK15	G40	4111815	B221A09000HP KCPK15	G39	4111906	B221A17500HP KCPK15	G41
4109888	NR2031R KCU25	C172	4111731	B221A09921HP KCPK15	G40	4111816	B221A09100HP KCPK15	G39	4111907	B221A17700HP KCPK15	G41
4109889	NR2047L KCU25	C172	4111732	B221A10000HP KCPK15	G40	4111817	B221A09129HP KCPK15	G40	4111908	B221A18000HP KCPK15	G41
4109890	NR2047R KCU25	C172	4111733	B221A1003571HP KCPK15	G38	4111818	B221A09200HP KCPK15	G40	4111909	B221A18500HP KCPK15	G41
4109891	NR2062L KCU25	C172	4111734	B221A103600HP KCPK15	G38	4111819	B221A09300HP KCPK15	G40	4111910	B221A19000HP KCPK15	G41
4109892	NR2062R KCU25	C172	4111736	B221A103700HP KCPK15	G38	4111820	B221A09347HP KCPK15	G40	4111911	B221A19050HP KCPK15	G41
4109903	NR2M050L KCU25	C172	4111737	B221A10374HP KCPK15	G38	4111821	B221A09400HP KCPK15	G40	4111912	B221A19500HP KCPK15	G41
4109904	NR2M050R KCU25	C172	4111738	B221A103800HP KCPK15	G38	4111822	B221A09500HP KCPK15	G40	4111913	B221A20000HP KCPK15	G41
4109905	NR3031L KCU25	C172	4111739	B221A103900HP KCPK15	G38	4111823	B221A09525HP KCPK15	G40	4111914	B221A20500HP KCPK15	G41
4109906	NR3031LK KCU25	C166	4111740	B221A103970HP KCPK15	G38	4111824	B221A10300HP KCPK15	G38	4111915	B221A21000HP KCPK15	G41
4109907	NR3031RK KCU25	C172	4111741	B221A104000HP KCPK15	G38	4111833	B221A10100HP KCPK15	G40	4111920	B222A03048HP KCPK15	G38
4109908	NR3031RK KCU25	C166	4111742	B221A104039HP KCPK15	G38	4111834	B221A10200HP KCPK15	G40	4111921	B222A03000HP KCPK15	G38
4109909	NR3047L KCU25	C172	4111743	B221A104090HP KCPK15	G38	4111835	B221A10300HP KCPK15	G40	4111922	B222A03175HP KCPK15	G38
4109910	NR3047LK KCU25	C166	4111744	B221A104100HP KCPK15	G38	4111836	B221A10320HP KCPK15	G40	4111933	B222A03264HP KCPK15	G38
4109911	NR3047R KCU25	C172	4111745	B221A104200HP KCPK15	G38	4111837	B221A10400HP KCPK15	G40	4111934	B222A03300HP KCPK15	G38
4109912	NR3047RK KCU25	C166	4111746	B221A104217HP KCPK15	G38	4111838	B221A10500HP KCPK15	G40	4111935	B222A03455HP KCPK15	G38
4109913	NR3062L KCU25	C172	4111747	B221A104300HP KCPK15	G38	4111839	B221A10600HP KCPK15	G40	4111936	B222A03500HP KCPK15	G38
4109914	NR3062LK KCU25	C166	4111748	B221A104366HP KCPK15	G38	4111840	B221A10700HP KCPK15	G40	4111937	B222A03571HP KCPK15	G38
4109915	NR3062RK KCU25	C172	4111749	B221A104400HP KCPK15	G38	4111841	B221A10716HP KCPK15	G40	4111938	B222A03700HP KCPK15	G38
4109916	NR3062RK KCU25	C166	4111750	B221A104500HP KCPK15	G38	4111842	B221A10800HP KCPK15	G40	4111939	B222A03800HP KCPK15	G38
4109917	NR3078LK KCU25	C166	4111751	B221A104600HP KCPK15	G38	4111843	B221A10900HP KCPK15	G40	4111940	B222A03970HP KCPK15	G38
4109918	NR3078RK KCU25	C166	4111752	B221A104623HP KCPK15	G38	4111844	B221A11000HP KCPK15	G40	4111941	B222A04000HP KCPK15	G38
4109919	NR3094L KCU25	C172	4111753	B221A104700HP KCPK15	G38	4111845	B221A11100HP KCPK15	G40	4111942	B222A04200HP KCPK15	G38
4109920	NR3094R KCU25	C172	4111754	B221A104763HP KCPK15	G38	4111846	B221A11131HP KCPK15	G40	4111943	B222A04366HP KCPK15	G38
4109921	NR4062LK KCU25	C166	4111755	B221A104800HP KCPK15	G38	4111847	B221A11200HP KCPK15	G40	4111944	B222A04500HP KCPK15	G38
4109922	NR4062RK KCU25	C166	4111756	B221A104852HP KCPK15	G38	4111848	B221A11300HP KCPK15	G40	4111945	B222A0462R KCPK15	G38
4109923	NR4094LK KCU25	C166	4111757	B221A104900HP KCPK15	G38	4111849	B221A11400HP KCPK15	G40	4111946	B222A04763HP KCPK15	G38
4109924	NR4094RK KCU25	C166	4111758	B221A105000HP KCPK15	G38	4111850	B221A11500HP KCPK15	G40	4111947	B222A04800HP KCPK15	G38
4109925	NR4125L KCU25	C172	4111759	B221A105100HP KCPK15	G38	4111851	B221A11509HP KCPK15	G40	4111948	B222A05000HP KCPK15	G38
4109926	NR4125LK KCU25	C166	4111760	B221A105106HP KCPK15	G38	4111852	B221A11600HP KCPK15	G40	4111949	B222A05100HP KCPK15	G38
4109927	NR4125RK KCU25	C172	4111761	B221A105159HP KCPK15	G38	4111853	B221A11700HP KCPK15	G40	4111950	B222A05106HP KCPK15	G38
4109928	NR4125RK KCU25	C166	4111762	B221A105200HP KCPK15	G38	4111854	B221A11800HP KCPK15	G40	4111951	B222A05159HP KCPK15	G38
4109929	NRD3031L KCU25	C173	4111763	B221A105300HP KCPK15	G38	4111855	B221A11900HP KCPK15	G40	4111952	B222A05410HP KCPK15	G39
4109930	NRD3031R KCU25	C173	4111764	B221A105400HP KCPK15	G39	4111856	B221A11908HP KCPK15	G40	4111953	B222A05500HP KCPK15	G39
4109931	NRD3062L KCU25	C173	4111765	B221A105410HP KCPK15	G39	4111857	B221A12000HP KCPK15	G40	4111954	B222A05558HP KCPK15	G39
4109932	NRD3062R KCU25	C173	4111766	B221A105500HP KCPK15	G39	4111858	B221A12100HP KCPK15	G40	4111955	B222A05800HP KCPK15	G39
4109933	NRD4062L KCU25	C173	4111767	B221A105588HP KCPK15	G39	4111859	B221A12200HP KCPK15	G40	4111957	B222A05954HP KCPK15	G39
4109934	NRD4062R KCU25	C173	4111768	B221A105600HP KCPK15	G39	4111860	B221A12300HP KCPK15	G40	4111958	B222A06000HP KCPK15	G39
4109935	NRD4094L KCU25	C173	4111769	B221A105616HP KCPK15	G39	4111861	B221A12400HP KCPK15	G40	4111959	B222A06350HP KCPK15	G39
4109936	NRD4125L KCU25	C173	4111770	B221A105700HP KCPK15	G39	4111862	B221A12500HP KCPK15	G40	4111960	B222A06500HP KCPK15	G39
4109937	NRD4125R KCU25	C173	4111771	B221A105800HP KCPK15	G39	4111863	B221A12600HP KCPK15	G40	4111961	B222A06528HP KCPK15	G39
4109938	NT2L KCU25	D17	4111772	B221A105900HP KCPK15	G39	4111864	B221A12700HP KCPK15	G40	4111962	B222A06746HP KCPK15	G39
4109939	NT2LK KCU25	D22	4111774	B221A106000HP KCPK15	G39	4111865	B221A12800HP KCPK15	G40	4111963	B222A06800HP KCPK15	G39
4109940	NT2R KCU25	D17	4111775	B221A106100HP KCPK15	G39	4111866	B221A12900HP KCPK15	G40	4111964	B222A07000HP KCPK15	G39
4109941	NT2RK KCU25	D22	4111776	B221A106200HP KCPK15	G39	4111867	B221A13000HP KCPK15	G40	4111965	B222A07145HP KCPK15	G39
4109942	NT3L KCU25	D17	4111777	B221A106300HP KCPK15	G39	4111868	B221A13100HP KCPK15	G40	4111966	B222A07500HP KCPK15	G39
4109943	NT3LCK KCU25	D19	4111778	B221A106350HP KCPK15	G39	4111869	B221A13200HP KCPK15	G40	4111967	B222A07541HP KCPK15	G39
4109944	NT3LK KCU25	D22	4111779	B221A106400HP KCPK15	G39	4111870	B221A13300HP KCPK15	G40	4111968	B222A07800HP KCPK15	G39
4109945	NT3R KCU25	D17	4111780	B221A106500HP KCPK15	G39	4111871	B221A13500HP KCPK15	G41	4111969	B222A07938HP KCPK15	G39
4109946	NT3RCK KCU25	D19	4111781	B221A106528HP KCPK15	G39	4111872	B221A13600HP KCPK15	G40	4111970	B222A08000	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)				
4111975	B222A08733HP	KCPK15	G39	4112483	B225A10300HP	KCPK15	G46	4112566	B225A19300HP	KCPK15	G48	4112660	B225A09300HP	KCPK15	G46
4111976	B222A08800HP	KCPK15	G39	4112484	B225A10320HP	KCPK15	G46	4112567	B225A19500HP	KCPK15	G48	4112661	B225A09347HP	KCPK15	G46
4111977	B222A09000HP	KCPK15	G39	4112485	B225A10400HP	KCPK15	G46	4112568	B225A20000HP	KCPK15	G48	4112662	B225A09400HP	KCPK15	G46
4111978	B222A09129HP	KCPK15	G40	4112486	B225A10500HP	KCPK15	G46	4112569	B225A20500HP	KCPK15	G48	4112663	B225A09500HP	KCPK15	G46
4111979	B222A09300HP	KCPK15	G40	4112487	B225A10600HP	KCPK15	G46	4112570	B225A21000HP	KCPK15	G48	4112664	B225A09525HP	KCPK15	G46
4111982	B222A09500HP	KCPK15	G40	4112488	B225A10700HP	KCPK15	G46	4112583	B225A03455HP	KCPK15	G44	4112665	B225A09600HP	KCPK15	G46
4111983	B222A09525HP	KCPK15	G40	4112489	B225A10716HP	KCPK15	G46	4112584	B225A03500HP	KCPK15	G44	4112666	B225A09700HP	KCPK15	G46
4111984	B222A09800HP	KCPK15	G40	4112490	B225A10800HP	KCPK15	G46	4112585	B225A03571HP	KCPK15	G44	4112667	B225A09800HP	KCPK15	G46
4111985	B222A09921HP	KCPK15	G40	4112491	B225A10900HP	KCPK15	G46	4112586	B225A03600HP	KCPK15	G44	4112668	B225A09900HP	KCPK15	G46
4111986	B222A10000HP	KCPK15	G40	4112492	B225A11000HP	KCPK15	G46	4112587	B225A03700HP	KCPK15	G44	4112669	B225A09921HP	KCPK15	G46
4111987	B222A10200HP	KCPK15	G40	4112493	B225A11100HP	KCPK15	G46	4112588	B225A03800HP	KCPK15	G44	4112670	B225A10000HP	KCPK15	G46
4111988	B222A10320HP	KCPK15	G40	4112494	B225A11133HP	KCPK15	G46	4112589	B225A03900HP	KCPK15	G44	4112672	B224A03048HP	KCPK15	G44
4111989	B222A10500HP	KCPK15	G40	4112495	B225A11200HP	KCPK15	G46	4112590	B225A03970HP	KCPK15	G44	4112673	B224A03000HP	KCPK15	G44
4111990	B222A10716HP	KCPK15	G40	4112496	B225A11300HP	KCPK15	G46	4112591	B225A04000HP	KCPK15	G44	4112674	B224A03175HP	KCPK15	G44
4111991	B222A10800HP	KCPK15	G40	4112497	B225A11400HP	KCPK15	G46	4112592	B225A04100HP	KCPK15	G44	4112675	B224A03170HP	KCPK15	G44
4111992	B222A11000HP	KCPK15	G40	4112498	B225A11500HP	KCPK15	G46	4112593	B225A04200HP	KCPK15	G44	4112676	B224A03200HP	KCPK15	G44
4111993	B222A11113HP	KCPK15	G40	4112499	B225A11509HP	KCPK15	G46	4112594	B225A04300HP	KCPK15	G44	4112677	B224A03264HP	KCPK15	G44
4111994	B222A11500HP	KCPK15	G40	4112500	B225A11600HP	KCPK15	G46	4112595	B225A04366HP	KCPK15	G44	4112678	B224A03300HP	KCPK15	G44
4111995	B222A11509HP	KCPK15	G40	4112501	B225A11700HP	KCPK15	G46	4112596	B225A04400HP	KCPK15	G44	4112679	B224A03400HP	KCPK15	G44
4111996	B222A11908HP	KCPK15	G40	4112502	B225A11800HP	KCPK15	G46	4112597	B225A04500HP	KCPK15	G44	4112680	B224A03455HP	KCPK15	G44
4111997	B222A12000HP	KCPK15	G40	4112503	B225A11900HP	KCPK15	G46	4112598	B225A04600HP	KCPK15	G44	4112681	B224A03500HP	KCPK15	G44
4111998	B222A12304HP	KCPK15	G40	4112504	B225A11908HP	KCPK15	G46	4112599	B225A04700HP	KCPK15	G44	4112683	B224A03600HP	KCPK15	G44
4111999	B222A12500HP	KCPK15	G40	4112505	B225A12000HP	KCPK15	G46	4112600	B225A04763HP	KCPK15	G44	4112684	B224A03658HP	KCPK15	G44
4112000	B222A12700HP	KCPK15	G40	4112506	B225A12100HP	KCPK15	G47	4112601	B225A04800HP	KCPK15	G44	4112685	B224A03700HP	KCPK15	G44
4112001	B222A13000HP	KCPK15	G40	4112507	B225A12200HP	KCPK15	G47	4112602	B225A04900HP	KCPK15	G45	4112686	B224A03734HP	KCPK15	G44
4112002	B222A13500HP	KCPK15	G41	4112508	B225A12300HP	KCPK15	G47	4112603	B225A05000HP	KCPK15	G45	4112687	B224A03800HP	KCPK15	G44
4112003	B222A14000HP	KCPK15	G41	4112509	B225A12400HP	KCPK15	G47	4112604	B225A05100HP	KCPK15	G45	4112688	B224A03800HP	KCPK15	G44
4112004	B222A14288HP	KCPK15	G41	4112510	B225A12500HP	KCPK15	G47	4112605	B225A05159HP	KCPK15	G45	4112689	B224A03970HP	KCPK15	G44
4112005	B222A14500HP	KCPK15	G41	4112511	B225A12600HP	KCPK15	G47	4112606	B225A05200HP	KCPK15	G45	4112690	B224A04000HP	KCPK15	G44
4112006	B222A15000HP	KCPK15	G41	4112512	B225A12700HP	KCPK15	G47	4112607	B225A05300HP	KCPK15	G45	4112691	B224A04039HP	KCPK15	G44
4112007	B222A15500HP	KCPK15	G41	4112513	B225A12800HP	KCPK15	G47	4112608	B225A05400HP	KCPK15	G45	4112692	B224A04090HP	KCPK15	G44
4112008	B222A15875HP	KCPK15	G41	4112514	B225A12900HP	KCPK15	G47	4112609	B225A05410HP	KCPK15	G45	4112693	B224A04200HP	KCPK15	G44
4112009	B222A16000HP	KCPK15	G41	4112515	B225A13000HP	KCPK15	G47	4112610	B225A05500HP	KCPK15	G45	4112694	B224A04217HP	KCPK15	G44
4112010	B222A16500HP	KCPK15	G41	4112516	B225A13100HP	KCPK15	G47	4112611	B225A05558HP	KCPK15	G45	4112695	B224A04366HP	KCPK15	G44
4112011	B222A17000HP	KCPK15	G41	4112517	B225A13200HP	KCPK15	G47	4112612	B225A05600HP	KCPK15	G45	4112696	B224A04623HP	KCPK15	G44
4112012	B222A17463HP	KCPK15	G41	4112518	B225A13300HP	KCPK15	G47	4112613	B225A05700HP	KCPK15	G45	4112697	B224A04763HP	KCPK15	G44
4112013	B222A17500HP	KCPK15	G41	4112519	B225A13400HP	KCPK15	G47	4112614	B225A05800HP	KCPK15	G45	4112698	B224A04852HP	KCPK15	G44
4112014	B222A18000HP	KCPK15	G41	4112520	B225A13500HP	KCPK15	G47	4112615	B225A05900HP	KCPK15	G45	4112699	B224A05000HP	KCPK15	G45
4112015	B222A18500HP	KCPK15	G41	4112521	B225A13600HP	KCPK15	G47	4112616	B225A05954HP	KCPK15	G45	4112700	B224A05100HP	KCPK15	G45
4112016	B222A19000HP	KCPK15	G41	4112522	B225A13700HP	KCPK15	G47	4112617	B225A06000HP	KCPK15	G45	4112701	B224A05159HP	KCPK15	G45
4112017	B222A19050HP	KCPK15	G41	4112523	B225A13800HP	KCPK15	G47	4112618	B225A06100HP	KCPK15	G45	4112702	B224A05410HP	KCPK15	G45
4112018	B222A20000HP	KCPK15	G41	4112525	B225A13891HP	KCPK15	G47	4112619	B225A06200HP	KCPK15	G45	4112703	B224A05500HP	KCPK15	G45
4112019	B222A06700HP	KCPK15	G39	4112526	B225A13900HP	KCPK15	G47	4112620	B225A06300HP	KCPK15	G45	4112704	B224A05558HP	KCPK15	G45
4112241	B225A10100HP	KCPK15	G46	4112527	B225A14000HP	KCPK15	G47	4112621	B225A06350HP	KCPK15	G45	4112705	B224A05616HP	KCPK15	G45
4112242	B225A10200HP	KCPK15	G46	4112528	B225A14100HP	KCPK15	G47	4112622	B225A06400HP	KCPK15	G45	4112706	B224A05954HP	KCPK15	G45
4112416	B224A04496HP	KCPK15	G44	4112529	B225A14200HP	KCPK15	G47	4112623	B225A06500HP	KCPK15	G45	4112707	B224A06000HP	KCPK15	G45
4112417	B224A04700HP	KCPK15	G44	4112530	B225A14288HP	KCPK15	G47	4112624	B225A06528HP	KCPK15	G45	4112708	B224A06350HP	KCPK15	G45
4112418	B224A05106HP	KCPK15	G45	4112531	B225A14300HP	KCPK15	G47	4112625	B225A06600HP	KCPK15	G45	4112709	B224A06500HP	KCPK15	G45
4112419	B224A05600HP	KCPK15	G45	4112532	B225A14400HP	KCPK15	G47	4112626	B225A06700HP	KCPK15	G45	4112710	B224A06630HP	KCPK15	G45
4112420	B224A05791HP	KCPK15	G45	4112533	B225A14500HP	KCPK15	G47	4112627	B225A06746HP	KCPK15	G45	4112711	B224A06746HP	KCPK15	G45
4112421	B224A05944HP	KCPK15	G45	4112534	B225A14600HP	KCPK15	G47	4112628	B225A06800HP	KCPK15	G45	4112712	B224A06800HP	KCPK15	G45
4112422	B224A06528HP	KCPK15	G45	4112535	B225A14684HP	KCPK15	G47	4112629	B225A06900HP	KCPK15	G45	4112713	B224A07000HP	KCPK15	G45
4112443	B224A06700HP	KCPK15	G45	4112536	B225A14700HP	KCPK15	G47	4112630	B225A07000HP	KCPK15	G45	4112714	B224A07145HP	KCPK15	G45
4112444	B224A06909HP	KCPK15	G45	4112537	B225A14800HP	KCPK15	G47	4112631	B225A07100HP	KCPK15	G45	4112715	B224A07500HP	KCPK15	G45
4112445	B224A07366HP	KCPK15	G45	4112538	B225A14900HP	KCPK15	G47	4112632	B225A07145HP	KCPK15	G45	4112716	B224A07541HP	KCPK15	G45
4112446	B224A07400HP	KCPK15	G45	4112539	B225A15000HP	KCPK15	G47	4112633	B225A07200HP	KCPK15	G45	4112717	B224A07938HP	KCPK15	G45
4112447	B224A08839HP	KCPK15	G46	4112540	B225A15083HP	KCPK15	G47	4112634	B225A07300HP	KCPK15	G45	4112718	B224A08000HP	KCPK15	G45
4112448	B224A09093HP	KCPK15	G46	4112541	B225A15100HP	KCPK15	G47	4112635	B225A07400HP	KCPK15	G45	4112719	B224A08200HP	KCPK15	G45
4112449	B224A09400HP	KCPK15	G46	4112542	B225A15200HP	KCPK15	G47	4112636	B225A07500HP	KCPK15	G45	4112720	B224A08334HP	KCPK15	G46
4112450	B224A12800HP	KCPK15	G47	4112543	B225A15300HP	KCPK15	G47	4112637	B225A07541HP	KCPK15	G45	4112721	B224A08433HP	KCPK15	G46
4112451	B224A13100HP	KCPK15	G47	4112544	B225A15400HP	KCPK15	G47	4112638	B225A07600HP	KCPK15	G45	4112722	B224A08500HP	KCPK15	G46
4112452	B224A13495HP	KCPK15	G47	4112545	B225A15479HP	KCPK15	G47	4112639	B225A07700HP	KCPK15	G45	4112723	B224A08700HP	KCPK15	G46
4112453	B224A14500HP	KCPK15	G47	4112546	B225A15500HP	KCPK15	G47	4112640	B225A07800HP	KCPK15	G45	4112724	B224A08733HP	KCPK15	G46
4112454	B225A03797HP	KCPK15	G44	4112547	B225A15600HP	KCPK15	G47	4112641	B225A07900HP	KCPK15	G45	4112725	B224A08800HP	KCPK15	G46
4112455	B225A04496HP	KCPK15	G45	4112548	B225A15700HP	KCPK15	G47	4112642	B225A07938HP	KCPK15	G45	4112726	B224A09000HP	KCPK15	G46
4112456	B225A05106HP	KCPK15	G45	4112549	B225A15800HP	KCPK15	G47	4112643	B225A08000HP	KCPK15	G45	4112727	B224A09129HP	KCPK15	G46
4112457	B225A05791HP	KCPK15	G45	4112550	B225A15875HP	KCPK15	G47	4112644	B225A08100HP	KCPK15	G45	4112728	B224A09500HP	KCPK15	G46
4112458	B225A05944HP	KCPK15	G45	4112551	B225A15900HP	KCPK15	G47	4112645	B225A08200HP	KCPK15	G45	4112729	B224A09525HP	KCPK15	G46
4112459	B225A06909HP	KCPK15	G45	4112552	B225A16000HP	KCPK15	G47	4112646	B225A08300HP	KCPK1					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4112744	B224A12000HP	KCPK15	4112744	B224A12000HP	KCPK15	4116766	T630NC#06-32R3BX-A	KM6515	4117173	T620NC03125-18R3BX-A	KP6525
4112745	B224A12300HP	KCPK15	4112745	B224A12300HP	KCPK15	4116767	T630NC#08-32R3BX-A	KM6515	4117174	T620NC03750-16R2BX-A	KP6525
4112746	B224A12304HP	KCPK15	4112746	B224A12304HP	KCPK15	4116768	T630NC#10-24R3BX-A	KM6515	4117175	T620NC03750-16R3BX-A	KP6525
4112747	B224A12500HP	KCPK15	4112747	B224A12500HP	KCPK15	4116769	T630NC02500-20R2BX-A	KM6515	4117176	T620NC04375-14R3BX-A	KP6525
4112748	B224A12700HP	KCPK15	4112748	B224A12700HP	KCPK15	4116770	T630NC02500-20R3BX-A	KM6515	4117177	T620NC05000-13R3BX-A	KP6525
4112749	B224A13000HP	KCPK15	4112749	B224A13000HP	KCPK15	4116771	T630NC03125-18R2BX-A	KM6515	4117178	T620NC06250-11R3BX-A	KP6525
4112750	B224A13096HP	KCPK15	4112750	B224A13096HP	KCPK15	4116772	T630NC03125-18R3BX-A	KM6515	4117179	T620NC07500-10R3BX-A	KP6525
4112751	B224A13500HP	KCPK15	4112751	B224A13500HP	KCPK15	4116773	T630NC03750-16R2BX-A	KM6515	4117180	T620NF#08-36R3BX-A	KP6525
4112752	B224A13891HP	KCPK15	4112752	B224A13891HP	KCPK15	4116774	T630NC03750-16R3BX-A	KM6515	4117181	T620NF#10-32R2BX-A	KP6525
4112753	B224A15083HP	KCPK15	4112753	B224A15083HP	KCPK15	4116775	T630NC04375-14R3BX-A	KM6515	4117182	T620NF#10-32R3BX-A	KP6525
4112754	B224A14288HP	KCPK15	4112754	B224A14288HP	KCPK15	4116776	T630NC05000-13R2BX-A	KM6515	4117183	T620NF02500-28R2BX-A	KP6525
4112755	B224A14684HP	KCPK15	4112755	B224A14684HP	KCPK15	4116777	T630NC05000-13R3BX-A	KM6515	4117184	T620NF02500-28R3BX-A	KP6525
4112756	B224A15083HP	KCPK15	4112756	B224A15083HP	KCPK15	4116778	T630NC06250-11R2BX-A	KM6515	4117185	T620NF03125-24R3BX-A	KP6525
4112758	B224A15500HP	KCPK15	4112758	B224A15500HP	KCPK15	4116779	T630NC06250-11R3BX-A	KM6515	4117186	T620NF03750-24R3BX-A	KP6525
4112759	B224A15600HP	KCPK15	4112759	B224A15600HP	KCPK15	4116780	T630NC07500-10R2BX-A	KM6515	4117187	T620NF04375-20R3BX-A	KP6525
4112760	B224A15875HP	KCPK15	4112760	B224A15875HP	KCPK15	4116781	T630NC07500-10R3BX-A	KM6515	4117188	T620NF05000-20R3BX-A	KP6525
4112761	B224A16000HP	KCPK15	4112761	B224A16000HP	KCPK15	4116782	T630NC10000-08R3BX-A	KM6515	4118347	VPGR331	KCP25
4112762	B224A16500HP	KCPK15	4112762	B224A16500HP	KCPK15	4116783	T630NF#10-32R2BX-A	KM6515	4119190	HNGJ43ANENLD	KCPK30
4112763	B224A17000HP	KCPK15	4112763	B224A17000HP	KCPK15	4116784	T630NF02500-28R3BX-A	KM6515			S6, S12, S15
4112764	B224A17463HP	KCPK15	4112764	B224A17463HP	KCPK15	4116785	T630NF02500-28R2BX-A	KM6515	4119224	HNGJ43ANENLD	KC725M
4112765	B224A17500HP	KCPK15	4112765	B224A17500HP	KCPK15	4116786	T630NF02500-28R3BX-A	KM6515			S6, S12, S15
4112766	B224A18000HP	KCPK15	4112766	B224A18000HP	KCPK15	4116787	T630NF03125-24R2BX-A	KM6515	4119227	HNGJ43ANENLD	KCK15
4112767	B224A19000HP	KCPK15	4112767	B224A19000HP	KCPK15	4116788	T630NF03125-24R3BX-A	KM6515			S6, S12, S15
4112768	B224A19050HP	KCPK15	4112768	B224A19050HP	KCPK15	4116789	T630NF03750-24R3BX-A	KM6515	4119228	HNPJ43ANSNHD	KCPK30
4112769	B224A20000HP	KCPK15	4112769	B224A20000HP	KCPK15	4116790	T630NF04375-20R3BX-A	KM6515			S7, S13, S16
4113708	A4C0155N00CF01	KCU25	4113708	A4C0155N00CF01	KCU25	4116791	T630NF05000-20R3BX-A	KM6515	4119229	HNPJ43ANSNHD	KC725M
4113709	A4C0155R10CF01	KCU25	4113709	A4C0155R10CF01	KCU25	4116792	T630M030X050R6HX-A	KP6525			S7, S13, S16
4113710	A4C0205L06CF02	KCU25	4113710	A4C0205L06CF02	KCU25	4116793	T630M040X070R6HX-A	KP6525	4119230	HNPJ43ANSNHD	KCK15
4113711	A4C0205N00CF02	KCU25	4113711	A4C0205N00CF02	KCU25	4116794	T630M050X080R6HX-A	KP6525			S7, S13, S16
4113712	A4C0205R06CF02	KCU25	4113712	A4C0205R06CF02	KCU25	4116795	T630M060X100R6HX-A	KP6525	4119253	XNGJ43ANENLD3W	KC725M
4114283	A4C0205R10CF02	KCU25	4114283	A4C0205R10CF02	KCU25	4116796	T630M080X125R6HX-A	KP6525			S12
4114284	A4C0205N00CF02	KCU25	4114284	A4C0205N00CF02	KCU25	4116797	T630M100X150R6HX-A	KP6525	4119639	HNGJ43ANENLD	KCPK30
4114285	A4C0305L06CF02	KCU25	4114285	A4C0305L06CF02	KCU25	4116798	T630M160X200R6HX-A	KP6525			S6, S12, S15
4114286	A4C0305L10CF02	KCU25	4114286	A4C0305L10CF02	KCU25	4116799	T630M160X200R6HX-A	KP6525	4119640	HNGJ43ANENLD	KC725M
4114287	A4C0305N00CF02	KCU25	4114287	A4C0305N00CF02	KCU25	4116800	T630M160X200R6HX-A	KP6525			S6, S12, S15
4114288	A4C0305R06CF02	KCU25	4114288	A4C0305R06CF02	KCU25	4116801	T630M160X200R6HX-A	KP6525	4119696	HNPJ43ANSNGD	KC520M
4114289	A4C0305R10CF02	KCU25	4114289	A4C0305R10CF02	KCU25	4116802	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114290	A4C0405L06CF02	KCU25	4114290	A4C0405L06CF02	KCU25	4116803	T630M160X200R6HX-A	KP6525	4119697	HNPJ43ANSNGD	KC522M
4114291	A4C0405L10CF02	KCU25	4114291	A4C0405L10CF02	KCU25	4116804	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114292	A4C0405N00CF02	KCU25	4114292	A4C0405N00CF02	KCU25	4116805	T630M160X200R6HX-A	KP6525	4119700	HNPJ43ANSNGD	KCPK30
4114293	A4C0405R06CF02	KCU25	4114293	A4C0405R06CF02	KCU25	4116806	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114294	A4C0405R10CF02	KCU25	4114294	A4C0405R10CF02	KCU25	4116807	T630M160X200R6HX-A	KP6525	4119702	HNPJ43ANSNHD	KC520M
4114295	A4G0200M02P02GMP	KCU25	4114295	A4G0200M02P02GMP	KCU25	4116808	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114296	A4G0205M02U02GMP	KCU25	4114296	A4G0205M02U02GMP	KCU25	4116809	T630M160X200R6HX-A	KP6525	4119703	HNPJ43ANSNHD	KC522M
4114297	A4G0205M02U02GMP	KCU25	4114297	A4G0205M02U02GMP	KCU25	4116810	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114298	A4G0205M02U02GMP	KCU25	4114298	A4G0205M02U02GMP	KCU25	4116811	T630M160X200R6HX-A	KP6525	4119704	HNPJ43ANSNHD	KC520M
4114299	A4G0300M03P02GMP	KCU25	4114299	A4G0300M03P02GMP	KCU25	4116812	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114300	A4G0300M03P04GMP	KCU25	4114300	A4G0300M03P04GMP	KCU25	4116813	T630M160X200R6HX-A	KP6525	4119705	HNPJ43ANSNHD	KC522M
4114301	A4G0305M03U02B	KCU25	4114301	A4G0305M03U02B	KCU25	4116814	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114302	A4G0305M03U02GMP	KCU25	4114302	A4G0305M03U02GMP	KCU25	4116815	T630M160X200R6HX-A	KP6525	4119898	HNPJ43ANSNHD	KC522M
4114303	A4G0305M03U02GMP	KCU25	4114303	A4G0305M03U02GMP	KCU25	4116816	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114304	A4G0305M03U04GMP	KCU25	4114304	A4G0305M03U04GMP	KCU25	4116817	T630M160X200R6HX-A	KP6525	4119991	HNPJ43ANSNHD	KCK15
4114305	A4G0400M04P02GMP	KCU25	4114305	A4G0400M04P02GMP	KCU25	4116818	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114306	A4G0400M04P04GMP	KCU25	4114306	A4G0400M04P04GMP	KCU25	4116819	T630M160X200R6HX-A	KP6525	4119992	HNPJ43ANSNHD	KCPK30
4114307	A4G0400M04P04GMP	KCU25	4114307	A4G0400M04P04GMP	KCU25	4116820	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114308	A4G0400M04P08GMP	KCU25	4114308	A4G0400M04P08GMP	KCU25	4116821	T630M160X200R6HX-A	KP6525	4120003	HNPJ43ANSNHD	KC725M
4114309	A4G0405M04U04GMP	KCU25	4114309	A4G0405M04U04GMP	KCU25	4116822	T630M160X200R6HX-A	KP6525			S7, S13, S16
4114310	A4G0405M04U04GMP	KCU25	4114310	A4G0405M04U04GMP	KCU25	4116823	T630M160X200R6HX-A	KP6525	4120661	A4G0305M03U04GMP	KCP25
4114311	A4G0405M04U08GMP	KCU25	4114311	A4G0405M04U08GMP	KCU25	4116824	T630M160X200R6HX-A	KP6525	4121491	B051A14000CPG	KC7325
4114312	A4G0405M04U08GMP	KCU25	4114312	A4G0405M04U08GMP	KCU25	4116825	T630M160X200R6HX-A	KP6525	4121505	B052A03300CPG	KC7325
4114313	A4G0500M05P04GMP	KCU25	4114313	A4G0500M05P04GMP	KCU25	4116826	T630M160X200R6HX-A	KP6525	4121528	B051A03200CPG	KC7325
4114315	A4G0505M05U04B	KCU25	4114315	A4G0505M05U04B	KCU25	4116827	T630M160X200R6HX-A	KP6525	4121529	B051A04000CPG	KC7325
4114316	A4G0505M05U04GMP	KCU25	4114316	A4G0505M05U04GMP	KCU25	4116828	T630M160X200R6HX-A	KP6525	4121532	B051A05000CPG	KC7325
4114317	A4G0505M05U04GMP	KCU25	4114317	A4G0505M05U04GMP	KCU25	4116829	T630M160X200R6HX-A	KP6525	4121534	B051A06000CPG	KC7325
4114318	A4G0505M05U08GMP	KCU25	4114318	A4G0505M05U08GMP	KCU25	4116830	T630M160X200R6HX-A	KP6525	4121574	HNGJ43ANFNLDJ	K313
4114319	A4G0600M06P04GMP	KCU25	4114319	A4G0600M06P04GMP	KCU25	4116831	T630M160X200R6HX-A	KP6525			S6, S11, S15
4114320	A4G0600M06P04GMP	KCU25	4114320	A4G0600M06P04GMP	KCU25	4116832	T630M160X200R6HX-A	KP6525	4121575	HNGJ43ANFNLDJ	KC410M
4114321	A4G0600M06P08GMP	KCU25	4114321	A4G0600M06P08GMP	KCU25	4116833	T630M160X200R6HX-A	KP6525			S6, S12, S15
4114322	A4G0605M06U04B	KCU25	4114322	A4G0605M06U04B	KCU25	4116834	T630M160X200R6HX-A	KP6525	4121576	HNGJ43ANENLD	KC510M
4114323	A4G0605M06U04GMP	KCU25	4114323	A4G0605M06U04GMP	KCU25	4116835	T630M160X200R6HX-A	KP6525			S6, S12, S15
4114325	A4G0605M06U08GMP	KCU25	4114325	A4G0605M06U08GMP	KCU25	4116836	T630M160X200R6HX-A	KP6525	4121577	HNGJ43ANENLD	KC520M
4114328	A4G0800M08P08GMP	KCU25	4114328	A4G0800M08P08GMP	KCU25	4116837	T630M160X200R6HX-A	KP6525			S6, S12, S15
4114329	A4G0805M08U08GMP	KCU25									

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4121689	SNMG643MS KCJ25	B103	4129495	KTIP160R1SCF20M	H40	4130431	KSHR250HN4345C3	S10	4130714	KHSST28131	M127
4121690	SNMG644RP KCJ25	B105	4129496	KTIP170R1SCF20M	H40	4130432	KSHR250HN4345M3	S10	4130715	KHSST28132	M124
4121695	TNMG3305MS KCJ25	B125	4129497	KTIP180R1SCF25M	H40	4130433	KHSST28730	M40	4130716	KHSST28133	M127
4121696	TNMG331MS KCJ25	B125	4129498	KTIP190R1SCF25M	H40	4130448	KHSST28726	M103	4130719	KHSST28134	M124
4121697	TNMG332MS KCJ25	B125	4129499	KTIP200R1SCF25M	H40	4130493	KSHR250HN4345F3	S10	4130720	KHSST28135	M127
4121698	TNMG332RP KCJ25	B127	4129500	KTIP210R1SCF25M	H40	4130494	KSHR300HN4345C4	S10	4130721	KHSST28136	M124
4121699	TNMG333RP KCJ25	B127	4129501	KTIP220R1SCF25M	H40	4130495	KSHR300HN4345M4	S10	4130722	KHSST28137	M102
4121700	TNMG431MS KCJ25	B125	4129502	KTIP230R1SCF25M	H40	4130496	KSHR300HN4345F4	S10	4130755	KHSST28139	M157
4121701	TNMG432MS KCJ25	B125	4129503	KTIP240R1SCF25M	H40	4130497	KSHR400HN4345C6	S10	4130756	KHSST28140	M157
4121702	TNMG432RP KCJ25	B127	4129504	KTIP250R1SCF25M	H40	4130498	KSHR400HN4345M6	S10	4130757	KHSST28141	M157
4121703	TNMG433MS KCJ25	B125	4129505	KTIP260R1SCF25M	H40	4130499	KSHR400HN4345F6	S10	4130758	KHSST28142	M157
4121704	TNMG433RP KCJ25	B127	4129506	KTIP270R1SCF25M	H40	4130500	KSHR500HN4345C6	S10	4130778	KHSST28152	M41
4121705	TNMG434RP KCJ25	B127	4129506	CNG434T0420 KYS25	B350	4130501	KSHR500HN4345M6	S10	4130788	KHSST28162	M39
4121706	TNMG542MS KCJ25	B125	4129546	SNG434T0420 KYS25	B353	4130502	KSHR500HN4345F6	S10	4130789	KHSST28163	M104
4121707	TNMG543RP KCJ25	B127	4129549	SNG644E KYS25	B353	4130506	KHSST28723	M103	4130791	KHSST28165	M102
4121708	VNGG3305FSP KCJ25	B144	4129552	TNG433T0420 KYS25	B354	4130509	KHSST28721	M103	4130803	KHSST28167	M132
4121710	VNGG331FSP KCJ25	B144	4129553	TNG434T0420 KYS25	B354	4130514	KSHR100D02W075HN06	S8	4130808	KHSST28172	M158
4121711	VNGG332FSP KCJ25	B144	4129554	CNGA432E KYS25	B350	4130515	KSHR100D03W075HN06	S8	4130809	KHSST28173	M158
4121712	VNMG3305MS KCJ25	B147	4129555	CNGA432T0420 KYS25	B350	4130516	KSHR125D03W100HN06	S8	4130813	KHSST28177	M157
4121713	VNMG330MS KCJ25	B147	4129557	CNGA433T0420 KYS25	B350	4130517	KSHR125D04W100HN06	S9	4130814	KHSST28178	M157
4121714	VNMG331MS KCJ25	B147	4129562	SNGA433T0420 KYS25	B353	4130518	KSHR100D02C075HN06L480	S9	4130817	KHSST28181	M157
4121715	VNMG332MS KCJ25	B147	4129563	RNGV23E KYS25	B351	4130519	KSHR100D03C075HN06L480	S9	4131016	KHSST28184	M132
4121716	VNMG332RP KCJ25	B148	4129567	CNG453T0420 KYS25	B350	4130520	KSHR125D03C100HN06L520	S9	4131019	KHSST28187	M102
4121717	VNMG333RP KCJ25	B148	4129568	CNGX452T0420 KYS25	B350	4130521	KSHR125D04C100HN06L520	S9	4131020	KHSST28188	M104
4121718	VNMG431MS KCJ25	B147	4129569	CNGX453T0420 KYS25	B350	4130529	KHSST28053	M132	4131043	KHSST28189	M102
4121719	VNMG432MS KCJ25	B147	4129570	DNGX452T0420 KYS25	B351	4130533	KSHR100D03C100HN06L800	S9	4131047	KHSST28192	M38
4121720	VNMG332MS KCJ25	B160	4129571	DNGX453T0420 KYS25	B351	4130547	KHSST28716	M103	4131050	KHSST28194	M134
4121721	VNMG332RP KCJ25	B161	4129576	RNG454T0425 KYS25	B352	4130555	KHSST28709	M103	4131052	KHSST28195	M133
4121722	VNMG4305MS KCJ25	B160	4129577	RCGV45T0425 KYS25	B351	4130557	KHSST28707	M103	4131054	KHSST28196	M158
4121723	VNMG431MS KCJ25	B160	4129769	KHSST28002	M157	4130573	KHSST28700	M103	4131056	KHSST28197	M158
4121724	VNMG432MS KCJ25	B160	4129916	KHSST28003	M128-129	4130575	KHSST28698	M130	4131061	KHSST28201	M102
4121725	VNMG432RP KCJ25	B161	4129917	KHSST28004	M126	4130578	KHSST28695	M130	4131065	KHSST28204	M38
4121726	VNMG433RP KCJ25	B161	4129921	KHSST28008	M129	4130581	KHSST28692	M103	4131068	KHSST28207	M132
4121727	VNMG434RP KCJ25	B161	4129922	KHSST28009	M126	4130583	KHSST28057	M158	4131070	KHSST28209	M38
4124962	B051A02000CPG KC7325	G14	4129952	KHSST28791	M133	4130584	KHSST28058	M158	4131071	KHSST28210	M102
4125849	A4G0505M05U04GMN KCP10	C106	4129962	KHSST28787	M102	4130588	KHSST28060	M157	4131072	KHSST28211	M102
4129398	RCGV45E KYS25	B351	4129964	KHSST28786	M104	4130590	KHSST28062	M102	4131073	KHSST28212	M104
4129399	RCGV45T0420 KYS25	B351	4129966	KHSST28785	M102	4130592	KHSST28064	M132	4131075	KHSST28213	M102
4129400	RPV35E KYS25	B352	4129968	KHSST28784	M38	4130595	KHSST28067	M158	4131079	KHSST28217	M134
4129402	RPV45E KYS25	B352	4129979	KHSST28015	M129	4130596	KHSST28068	M158	4131080	KHSST28218	M133
4129443	KTIP080R1SS10M	H38	4129982	KHSST28016	M126	4130600	KHSST28072	M38	4131081	KHSST28219	M40
4129444	KTIP085R1SS10M	H38	4129984	KHSST28781	M133	4130601	KHSST28073	M104	4131082	KHSST28220	M38
4129445	KTIP090R1SS10M	H38	4129985	KHSST28780	M104	4130602	KHSST28074	M102	4131103	KHSST28221	M102
4129446	KTIP095R1SS10M	H38	4129986	KHSST28779	M102	4130610	KHSST28683	M103	4131106	KHSST28223	M102
4129447	KTIP100R1SS12M	H38	4129989	KHSST28776	M38	4130611	KHSST28682	M130	4131110	KHSST28226	M134
4129448	KTIP105R1SS12M	H38	4129991	KHSST28774	M102	4130612	KHSST28681	M41	4131113	KHSST28228	M39
4129449	KTIP110R1SS12M	H38	4129998	KHSST28020	M129	4130615	KHSST28077	M134	4131116	KHSST28231	M102
4129450	KTIP115R1SS12M	H38	4130013	KHSST28021	M126	4130616	KHSST28078	M133	4131118	KHSST28233	M132
4129451	KTIP120R1SS14M	H38	4130020	KHSST28028	M129	4130619	KHSST28080	M38	4131121	KHSST28235	M128-129
4129452	KTIP125R1SS14M	H38	4130021	KHSST28029	M126	4130620	KHSST28081	M102	4131156	KHSST28239	M132
4129453	KTIP130R1SS14M	H38	4130035	KHSST28032	M129	4130621	KHSST28082	M104	4131159	KHSST28242	M125-126
4129454	KTIP135R1SS14M	H38	4130036	KHSST28033	M126	4130622	KHSST28083	M102	4131161	KHSST28244	M36
4129455	KTIP140R1SS16M	H38	4130058	KHSST28762	M102	4130634	KHSST28085	M133	4131162	KHSST28245	M36
4129456	KTIP145R1SS16M	H38	4130059	KHSST28761	M102	4130635	KHSST28086	M132	4131163	KHSST28246	M37
4129457	KTIP150R1SS16M	H38	4130063	KHSST28040	M126	4130640	KHSST28091	M158	4131164	KHSST28247	M37
4129458	KTIP160R1SS18M	H38	4130066	KHSST28043	M126	4130641	KHSST28092	M158	4131165	KHSST28248	M36
4129459	KTIP170R1SS18M	H38	4130070	KHSST28047	M102	4130642	KHSST28093	M158	4131167	KHSST28249	M36
4129460	KTIP180R1SS20M	H38	4130071	KHSST28048	M104	4130653	KHSST28094	M158	4131168	KHSST28250	M37
4129461	KTIP190R1SS20M	H38	4130072	KHSST28049	M102	4130662	KHSST28102	M128	4131169	KHSST28251	M37
4129462	KTIP200R1SS25M	H38	4130083	KHSST28757	M36	4130664	KHSST28104	M158	4131170	KHSST28252	M36
4129463	KTIP210R1SS25M	H38	4130105	KHSST28752	M133	4130666	KHSST28106	M157	4131171	KHSST28253	M36
4129464	KTIP220R1SS25M	H38	4130368	KHSST28751	M134	4130667	KHSST28107	M157	4131172	KHSST28254	M36
4129465	KTIP230R1SS25M	H38	4130372	KHSST28747	M102	4130669	KHSST28109	M157	4131184	KHSST28255	M36
4129466	KTIP240R1SS25M	H38	4130392	RCGV35E KYS25	B351	4130671	KHSST28111	M36	4131185	KHSST28256	M36
4129467	KTIP250R1SS32M	H38	4130393	KHSST28746	M104	4130672	KHSST28112	M36	4131186	KHSST28257	M36
4129468	KTIP260R1SS32M	H38	4130394	KHSST28745	M102	4130683	KHSST28113	M36	4131187	KHSST28258	M36
4129469	KTIP270R1SS32M	H38	4130397	KHSST28744	M38	4130684	KHSST28114	M129	4131189	KHSST28259	M36
4129470	KTIP080R1SCF12M	H40	4130400	KHSST28743	M40	4130685	KHSST28115	M126	4131190	KHSST28260	M36
4129471	KTIP085R1SCF12M	H40	4130403	KHSST28742	M133	4130686	KHSST28116	M125	4131191	KHSST28261	M36
4129472	KTIP090R1SCF12M	H40	4130408	KHSST28740	M102	4130688	KHSST28117	M128	4131192	KHSST28262	M36
4129483	KTIP095R1SCF12M	H40	4130409	KHSST28739	M104	4130689	KHSST28118	M126	4131213	KHSST28263	M36
4129484	KTIP100R1SCF16M	H40	4130411	KHSST28738	M102	4130690	KHSST28119	M128	4131214	KHSST28264	M36
4129485	KTIP105R1SCF16M	H40	4130413	KHSST28737	M38	4130691	KHSST28120	M125	4131215	KHSST28265	M36
4129486	KTIP110R1SCF16M	H40	4130419	KHSST28733	M36	4130692	KHSST28121	M125	4131216	KHSST28266	M36
4129487	KTIP115R1SCF16M	H40	4130421	KHSST28732	M36	4130703	KHSST28122	M128	4131217	KHSST28267	M36
4129488	KTIP120R1SCF16M	H40	4130422	KHSST28731	M36	4130705	KHSST28123	M125	4131220	KHSST28268	M36
4129489	KTIP125R1SCF16M	H40	4130423	RCGV35T0420 KYS25	B351	4130706	KHSST28124	M129	4131221	KHSST28269	M36
4129490	KTIP130R1SCF16M	H40	4130426	KSHR150HN4345M3	S10	4130707	KHSST28125	M126	4131222	KHSST28270	M36
4129491	KTIP135R1SCF16M	H40	4130427	KSHR150HN4345F2	S10	4130710	KHSST28127	M125	4131255	KHSST28271	M36
4129492	KTIP140R1SCF16M	H40	4130428	KSHR200HN4345C3	S10	4130711	KHSST28128	M127	4131257	KHSST28272	M36
4129493	KTIP145R1SCF16M	H40	4130429	KSHR200HN4345M3	S10	4130712	KHSST28129	M124	4131258	KHSST28273	M36
4129494	KTIP150R1SCF20M	H40	4130430	KSHR200HN4345F3	S10	4130713	KHSST28130	M127	4131260	KHSST28274	M36

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4131261	KHSST28275	M36	4131561	KHSST28417	M124	4135778	TM721NC2500-20R2DHA KCU32	M166	4138374	TM741NF2500-28R2DHA KCU36	M168
4131262	KHSST28276	M36	4131593	KHSST28419	M127	4135779	TM721NC3125-18R2DHA KCU32	M166	4138375	TM741NF3125-24R2DHA KCU36	M168
4131263	KHSST28277	M36	4131594	KHSST28420	M127	4135780	TM721NC3750-16R2DHA KCU32	M166	4138376	TM741NF3750-24R2DHA KCU36	M168
4131264	KHSST28278	M129	4131599	KHSST28423	M127	4135781	TM721NC4375-14R2DHA KCU32	M166	4138378	TM741NF0500-20R2DHA KCU36	M168
4131265	KHSST28279	M126	4131601	KHSST28425	M124	4135782	TM721NC0500-13R2DHA KCU32	M166	4138380	TM741NF0625-18R2DHA KCU36	M168
4131267	KHSST28281	M126	4131602	KHSST28426	M124	4135783	TM721NC5625-12R2DHA KCU32	M166	4138381	TM741NC0750-16R2DHA KCU36	M168
4131268	KHSST28282	M129	4131613	KHSST28427	M124	4135784	TM721NC0625-11R2DHA KCU32	M166	4139437	KSEM1760HPCCLM KC7410	H60
4131269	KHSST28283	M126	4131614	KHSST28428	M124	4135823	TM731M040X070R2DHA KCU32	M167	4140842	KSEM3920HPCCLM KC7410	H61
4131272	KHSST28286	M126	4131615	KHSST28429	M127	4135824	TM731M050X080R2DHA KCU32	M167	4141558	SSP8	S104
4131283	KHSST28287	M128	4131742	KHSST28433	M124	4135825	TM731M060X100R2DHA KCU32	M167	4142614	KSEM4210HPCCLM KC7410	H60
4131285	KHSST28289	M128	4131803	KHSST28440	M124	4135826	TM731M080X125R2DHA KCU32	M167	4146399	WNGA432T0420 KYS30	B354
4131286	KHSST28290	M128	4131807	KHSST28443	M157	4135827	TM731M100X150R2DHA KCU32	M167	4146400	WNGA434T0420 KYS30	B354
4131287	KHSST28291	M125	4131809	KHSST28444	M157	4135828	TM731M120X175R2DHA KCU32	M167	4146401	CNGA432T0420 KYS30	B350
4131289	KHSST28293	M125	4131810	KHSST28445	M157	4135830	TM731M160X200R2DHA KCU32	M167	4146402	CNGA432T0420 KYS30	B350
4131290	KHSST28294	M128	4131811	KHSST28446	M157	4135832	TM731MF080X100R2DHA KCU32	M167	4146424	CNGA433T0420 KYS30	B350
4131291	KHSST28295	M128	4131812	KHSST28447	M41	4136208	B269A03000HP KCPK15	G62	4146427	CNGA432T0420 KYS30	B350
4131292	KHSST28296	M125	4131823	KHSST28448	M41	4136209	B269A08500HP KCPK15	G63	4146428	DNGA433T0420 KYS30	B351
4131294	KHSST28298	M125	4131843	KHSST28455	M131	4136210	B269A14000HP KCPK15	G64	4146429	SNGA433T0420 KYS30	B353
4131297	KHSST28301	M128	4131846	KHSST28458	M131	4136381	MEGA90D500LN76M6	S100	4146436	CNGA432T0420 KYS30	B350
4131298	KHSST28302	M126	4131850	KHSST28462	M131	4136382	MEGA90D600LN76M8	S100	4146437	CNGA454T0420 KYS30	B350
4131300	KHSST28304	M128	4131878	KHSST28465	M131	4136385	MEGA90D1000LN76C10	S100	4146438	RCGV45T0425 KYS30	B351
4131301	KHSST28305	M126	4131943	KHSST28476	M103	4136387	MEGA90D1200LN76C10	S100	4146440	MEGA90D1200LN76C10	S100
4131315	KHSST28308	M128	4131947	KHSST28478	M103	4136388	MEGA90D1200LN76M10	S100	4146442	RNG45T0225 KYS30	B352
4131316	KHSST28309	M125	4131971	KHSST28675	M132	4136389	KSHRH1D150HN43M2	S14	4146443	RNG45T0420 KYS30	B352
4131318	KHSST28311	M128	4131972	KHSST28674	M102	4136390	KSHRH1D150HN43F2	S14	4146445	RNG65T0420 KYS30	B352
4131320	KHSST28313	M128	4131994	KHSST28672	M102	4136391	KSHRH1D200HN43C3	S14	4146446	SNG432T0420 KYS30	B353
4131321	KHSST28314	M125	4131995	KHSST28671	M104	4136392	KSHRH1D200HN43M3	S14	4146447	SNG433T0420 KYS30	B353
4131334	KHSST28317	M128	4131997	KHSST28670	M102	4136394	KSHRH1D200HN43M3	S14	4146448	SNG434T0420 KYS30	B353
4131335	KHSST28318	M125	4132075	KHSST28526	M39	4136395	KSHRH1D300HN43C4	S14	4146451	SNG454T0420 KYS30	B353
4131336	KHSST28319	M128	4132076	KHSST28527	M39	4136396	KSHRH1D300HN43M4	S14	4146453	SNG644T0420 KYS30	B353
4131340	KHSST28323	M125	4132077	KHSST28528	M39	4136397	KSHRH1D400HN43C6	S14	4146454	SNG656E KYS30	B353
4131357	KHSST28329	M129	4132078	KHSST28529	M39	4136399	KSHRH1D500HN43C6	S14	4146459	CNGX452T0420 KYS30	B350
4131359	KHSST28330	M126	4132080	KHSST28531	M39	4136400	KSHRH1D500HN43M6	S14	4146461	CNGX453T0420 KYS30	B350
4131370	KHSST28338	M129	4132081	KHSST28532	M39	4136407	KSHRH1F00D0C075HN43L480	S4	4146462	CNGX454E KYS30	B350
4131371	KHSST28339	M126	4132093	KHSST28534	M39	4136408	KSHRH1F100D0C075HN43L480	S4	4146464	DNGX453T0420 KYS30	B351
4131372	KHSST28340	M128	4132602	1.18025R110	E16	4136410	KSHRH1F25D04C100HN43L520	S4	4146465	DNGX454T0420 KYS30	B351
4131383	KHSST28341	M125	4132633	1.78025L100	E19	4136411	KSHRH1F150HN43F3	S5	4146466	CNGX455T0420 KYS30	B353
4131384	KHSST28342	M128	4132634	1.78025R100	E19	4136412	KSHRH1F200HN43M3	S5	4146467	SNGX454T0420 KYS30	B353
4131385	KHSST28343	M125	4132641	1.18025R310Z	E20, E22	4136413	KSHRH1F250HN43M3	S5	4146468	PPG32E KYS30	B352, V157
4131386	KHSST28344	M128	4132647	1.38025R021Z	E20, E22	4136414	KSHRH1F300HN43M4	S5	4146469	RCGV23E KYS30	B351
4131388	KHSST28345	M126	4132649	1.77125R300Z	E21, E23	4137020	A4G0305M03U02GMN KCP25	C106	4146470	RCGV35E KYS30	B351
4131389	KHSST28346	M126	4132653	1.78025L300Z	E21, E23	4137022	A4G0405M04U04GMN KCP25	C106	4146471	RCGV35T0225 KYS30	B351
4131390	KHSST28347	M128	4132655	1.78032L400Z	E21, E23	4137043	A4G0405M04U08GMN KCP25	C106	4146472	RCGV35T0420 KYS30	B351
4131391	KHSST28348	M125	4132877	B977A06150 KC7315	G135	4137044	A4G0505M05U04GMN KCP25	C106	4146473	RCGV45E KYS30	B351
4131392	KHSST28349	M125	4133732	RNG45T0425 KYS30	B352	4137045	A4G0505M05U08GMN KCP25	C106	4146474	RCGV45T0420 KYS30	B351
4131393	KHSST28350	M128	4135418	LNPU763PNSRHD KCPK30	S99, S101	4137047	A4G0805M08U08GMN KCP25	C106	4146475	PPG35E KYS30	B352
4131395	KHSST28351	M125	4135419	LNPU763PNSRHD KCK15	S99, S101	4137052	A4G0805M08U12GMN KCP25	C106	4146476	PPG35T0420 KYS30	B352
4131396	KHSST28352	M126	4135420	LNPU763PNSRHD KC725M	S99, S101	4137279	CCN0500J4AH KCN05	P136	4146477	PPG45T0420 KYS30	B352
4131397	KHSST28353	M128	4135435	HNPJ755ANSNGD KC520M	S25	4137280	CCN0500J4BH KCN05	P136	4146478	PPG45T0420 KYS30	B352
4131400	KHSST28356	M125	4135438	HNPJ759ANSNH KD C520M	S26	4137446	CCN0250J3AH KCN05	P136	4146482	RNGJ1204MOFLD KC422M	V55
4131423	KHSST28358	M125	4135574	TM711M030X050R2DHA KCU33	M165	4137447	CCN0250J3BH KCN05	P136	4146583	RNGJ1204MOELD KC3030	V55
4131424	KHSST28359	M125	4135575	TM711M040X070R2DHA KCU33	M165	4137448	CCN03075J4AH KCN05	P136	4146584	RNGJ1204MOELD KC522M	V55
4131427	KHSST28361	M125	4135576	TM711M050X080R2DHA KCU33	M165	4137449	CCN03075J4BH KCN05	P136	4146585	RNGJ1204MOELD KC725M	V55
4131430	KHSST28364	M125	4135577	TM711M060X100R2DHA KCU33	M165	4137459	CBD0250JXAS KCN05	P138	4146586	RNGJ1204MOSGD KCPK30	V55
4131431	KHSST28365	M126	4135578	TM711M080X125R2DHA KCU33	M165	4137460	CBD0250JXBS KCN05	P138	4146587	RNGJ1204MOSGD KC522M	V55
4131432	KHSST28366	M125	4135579	TM711M100X150R2DHA KCU33	M165	4137461	CBD03075JXAS KCN05	P138	4146588	RNGJ1204MOSGD KC725M	V55
4131435	KHSST28368	M127	4135580	TM711M120X175R2DHA KCU33	M165	4137462	CBD03075JXBS KCN05	P138	4147474	RNGJ1204MOSHD KCPK30	V56
4131440	KHSST28371	M127	4135581	TM711M140X200R2DHA KCU33	M165	4137473	CBD0500JXAS KCN05	P138	4147477	RNGJ1204MOSHD KC725M	V56
4131442	KHSST28372	M124	4135582	TM711M160X200R2DHA KCU33	M165	4137474	CBD0500JXBS KCN05	P138	4147496	MEGA60D500LN76M6	S98
4131463	KHSST28373	M127	4135663	TM711M180X250R2DHA KCU33	M165	4137719	CDDC0250J6AH KCN05	P137	4147497	MEGA60D600LN76M8	S98
4131464	KHSST28374	M127	4135664	TM711M200X250R2DHA KCU33	M165	4137720	CDDC0250J6BH KCN05	P137	4147499	MEGA60D800LN76M10	S98
4131465	KHSST28375	M127	4135665	TM711MF040X050R2DHA KCU33	M165	4137721	CDDC0375J6AH KCN05	P137	4147523	MEGA60D1200LN76M10	S98
4131466	KHSST28376	M124	4135666	TM711MF050X050R2DHA KCU33	M165	4137722	CDDC0375J6BH KCN05	P137	4148475	B051A18000CPG KC7325	G18
4131469	KHSST28379	M127	4135667	TM711MF060X075R2DHA KCU33	M165	4137733	CDDC0500J6AH KCN05	P137	4148476	B051A18100CPG KC7325	G18
4131470	KHSST28380	M124	4135668	TM711MF080X075R2DHA KCU33	M165	4137734	CDDC0500J6BH KCN05	P137	4148477	B051A18200CPG KC7325	G18
4131476	KHSST28384	M127	4135669	TM711MF080X100R2DHA KCU33	M165	4138292	TM741M060X100R2DHA KCU36	M169	4148478	B051A18258CPG KC7325	G18
4131480	KHSST28388	M127	4135670	TM711MF100X100R2DHA KCU33	M165	4138344	TM741M080X125R2DHA KCU36	M169	4148479	B051A18300CPG KC7325	G18
4131481	KHSST28389	M124	4135671	TM711MF120X100R2DHA KCU33	M165	4138346	TM741M100X150R2DHA KCU36	M169	4148480	B051A18400CPG KC7325	G19
4131496	KHSST28394	M127	4135672	TM711MF120X150R2DHA KCU33	M165	4138348	TM741MF120X150R2DHA KCU36	M169	4148481	B051A18500CPG KC7325	G19
4131497	KHSST28395	M127	4135673	TM711MF140X150R2DHA KCU33	M165	4138349	TM741M120X175R2DHA KCU36	M169	4148482	B051A18600CPG KC7325	G19
4131498	KHSST28396	M124	4135674	TM711MF160X150R2DHA KCU33	M165	4138350	TM741M140X200R2DHA KCU36	M169	4148583	B051A18654CPG KC7325	G19
4131499	KHSST28397	M124	4135675	TM711MF180X125R2DHA KCU33	M165	4138351	TM741M160X200R2DHA KCU36	M169	4148584	B051A18700CPG KC7325	G19
4131501	KHSST28399	M127	4135676	TM711MF200X150R2DHA KCU33	M165	4138352	TM741M180X				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4150330	B041A13700CPG	KC7325	G12	4150461	B051A10600CPG	KC7325	G17	4150713	B042A08200CPG	KC7325	G10
4150331	B041A13800CPG	KC7325	G12	4150462	B051A10700CPG	KC7325	G17	4150714	B042A08300CPG	KC7325	G10
4150332	B041A13891CPG	KC7325	G12	4150602	B042A03000CPG	KC7325	G9	4150715	B042A08334CPG	KC7325	G10
4150333	B041A13900CPG	KC7325	G12	4150603	B042A03048CPG	KC7325	G9	4150716	B042A08400CPG	KC7325	G10
4150334	B041A14000CPG	KC7325	G12	4150634	B042A03100CPG	KC7325	G9	4150717	B042A08433CPG	KC7325	G10
4150335	B041A14100CPG	KC7325	G12	4150635	B042A03175CPG	KC7325	G9	4150718	B042A08500CPG	KC7325	G10
4150336	B041A14200CPG	KC7325	G12	4150636	B042A03200CPG	KC7325	G9	4150719	B042A08600CPG	KC7325	G10
4150337	B041A14288CPG	KC7325	G12	4150637	B042A03264CPG	KC7325	G9	4150720	B042A08700CPG	KC7325	G10
4150338	B041A14300CPG	KC7325	G12	4150638	B042A03300CPG	KC7325	G9	4150721	B042A08733CPG	KC7325	G10
4150339	B041A14400CPG	KC7325	G12	4150639	B042A03400CPG	KC7325	G9	4150722	B042A08800CPG	KC7325	G10
4150340	B041A14500CPG	KC7325	G12	4150640	B042A03455CPG	KC7325	G9	4150723	B042A08900CPG	KC7325	G10
4150341	B041A14600CPG	KC7325	G12	4150641	B042A03500CPG	KC7325	G9	4150724	B042A09000CPG	KC7325	G10
4150342	B041A14684CPG	KC7325	G12	4150642	B042A03571CPG	KC7325	G9	4150725	B042A09100CPG	KC7325	G10
4150343	B041A14700CPG	KC7325	G12	4150643	B042A03600CPG	KC7325	G9	4150726	B042A09129CPG	KC7325	G10
4150344	B041A14800CPG	KC7325	G12	4150644	B042A03658CPG	KC7325	G9	4150727	B042A09200CPG	KC7325	G10
4150345	B041A14900CPG	KC7325	G12	4150645	B042A03700CPG	KC7325	G9	4150728	B042A09300CPG	KC7325	G10
4150346	B041A15000CPG	KC7325	G12	4150646	B042A03734CPG	KC7325	G9	4150729	B042A09347CPG	KC7325	G10
4150347	B041A15083CPG	KC7325	G12	4150647	B042A03800CPG	KC7325	G9	4150730	B042A09400CPG	KC7325	G11
4150348	B041A15100CPG	KC7325	G12	4150648	B042A03900CPG	KC7325	G9	4150731	B042A09500CPG	KC7325	G11
4150349	B041A15200CPG	KC7325	G12	4150649	B042A03970CPG	KC7325	G9	4150732	B042A09525CPG	KC7325	G11
4150350	B041A15300CPG	KC7325	G12	4150650	B042A04000CPG	KC7325	G9	4150733	B042A09600CPG	KC7325	G11
4150351	B041A15400CPG	KC7325	G12	4150651	B042A04039CPG	KC7325	G9	4150734	B042A09700CPG	KC7325	G11
4150352	B041A15479CPG	KC7325	G12	4150652	B042A04090CPG	KC7325	G9	4150735	B042A09800CPG	KC7325	G11
4150353	B041A15500CPG	KC7325	G12	4150653	B042A04100CPG	KC7325	G9	4150736	B042A09900CPG	KC7325	G11
4150354	B041A15600CPG	KC7325	G12	4150654	B042A04200CPG	KC7325	G9	4150737	B042A09921CPG	KC7325	G11
4150355	B041A15700CPG	KC7325	G12	4150655	B042A04217CPG	KC7325	G9	4150738	B042A10000CPG	KC7325	G11
4150356	B041A15800CPG	KC7325	G12	4150656	B042A04300CPG	KC7325	G9	4150739	B042A10000CPG	KC7325	G11
4150357	B041A15875CPG	KC7325	G12	4150657	B042A04366CPG	KC7325	G9	4150740	B042A10100CPG	KC7325	G11
4150358	B041A15900CPG	KC7325	G12	4150658	B042A04400CPG	KC7325	G9	4150741	B042A10200CPG	KC7325	G11
4150359	B041A16000CPG	KC7325	G12	4150659	B042A04500CPG	KC7325	G9	4150742	B042A10300CPG	KC7325	G11
4150360	B041A16100CPG	KC7325	G12	4150660	B042A04600CPG	KC7325	G9	4150743	B042A10320CPG	KC7325	G11
4150361	B041A16200CPG	KC7325	G12	4150661	B042A04623CPG	KC7325	G9	4150744	B042A10400CPG	KC7325	G11
4150362	B041A16271CPG	KC7325	G12	4150662	B042A04700CPG	KC7325	G9	4150745	B042A10500CPG	KC7325	G11
4150363	B041A16300CPG	KC7325	G12	4150663	B042A04763CPG	KC7325	G9	4150746	B042A10600CPG	KC7325	G11
4150364	B041A16400CPG	KC7325	G12	4150664	B042A04800CPG	KC7325	G9	4150747	B042A10700CPG	KC7325	G11
4150365	B041A16500CPG	KC7325	G12	4150665	B042A04852CPG	KC7325	G9	4150748	B042A10716CPG	KC7325	G11
4150366	B041A16600CPG	KC7325	G12	4150666	B042A04900CPG	KC7325	G9	4150749	B042A10800CPG	KC7325	G11
4150367	B041A16670CPG	KC7325	G12	4150667	B042A05000CPG	KC7325	G9	4150750	B042A10900CPG	KC7325	G11
4150368	B041A16700CPG	KC7325	G12	4150668	B042A05100CPG	KC7325	G9	4150751	B042A11000CPG	KC7325	G11
4150369	B041A16800CPG	KC7325	G12	4150669	B042A05106CPG	KC7325	G9	4150752	B042A11100CPG	KC7325	G11
4150370	B041A16900CPG	KC7325	G12	4150670	B042A05159CPG	KC7325	G9	4150753	B042A11130CPG	KC7325	G11
4150371	B041A17000CPG	KC7325	G12	4150671	B042A05200CPG	KC7325	G9	4150754	B042A11200CPG	KC7325	G11
4150372	B041A17100CPG	KC7325	G12	4150672	B042A05300CPG	KC7325	G9	4150755	B042A11300CPG	KC7325	G11
4150373	B041A17200CPG	KC7325	G12	4150673	B042A05400CPG	KC7325	G9	4150756	B042A11400CPG	KC7325	G11
4150374	B041A17300CPG	KC7325	G12	4150674	B042A05410CPG	KC7325	G9	4150757	B042A11500CPG	KC7325	G11
4150375	B041A17400CPG	KC7325	G12	4150675	B042A05500CPG	KC7325	G9	4150758	B042A11509CPG	KC7325	G11
4150376	B041A17463CPG	KC7325	G12	4150676	B042A05588CPG	KC7325	G10	4150759	B042A11600CPG	KC7325	G11
4150377	B041A17500CPG	KC7325	G12	4150677	B042A05600CPG	KC7325	G10	4150760	B042A11700CPG	KC7325	G11
4150378	B041A17600CPG	KC7325	G12	4150678	B042A05616CPG	KC7325	G10	4150761	B042A11800CPG	KC7325	G11
4150379	B041A17700CPG	KC7325	G12	4150679	B042A05700CPG	KC7325	G10	4150762	B042A11900CPG	KC7325	G11
4150380	B041A17800CPG	KC7325	G12	4150680	B042A05800CPG	KC7325	G10	4150763	B042A12000CPG	KC7325	G11
4150381	B041A17859CPG	KC7325	G12	4150681	B042A05900CPG	KC7325	G10	4150764	B042A12100CPG	KC7325	G11
4150382	B041A17900CPG	KC7325	G13	4150682	B042A05954CPG	KC7325	G10	4150765	B042A12100CPG	KC7325	G11
4150403	B041A18000CPG	KC7325	G13	4150683	B042A06000CPG	KC7325	G10	4150766	B042A12200CPG	KC7325	G11
4150404	B041A18100CPG	KC7325	G13	4150684	B042A06100CPG	KC7325	G10	4150767	B042A12300CPG	KC7325	G11
4150405	B041A18200CPG	KC7325	G13	4150685	B042A06200CPG	KC7325	G10	4150768	B042A12304CPG	KC7325	G11
4150406	B041A18258CPG	KC7325	G13	4150686	B042A06300CPG	KC7325	G10	4150769	B042A12400CPG	KC7325	G11
4150407	B041A18300CPG	KC7325	G13	4150688	B042A06350CPG	KC7325	G10	4150770	B042A12500CPG	KC7325	G11
4150408	B041A18400CPG	KC7325	G13	4150689	B042A06400CPG	KC7325	G10	4150771	B042A12600CPG	KC7325	G11
4150409	B041A18500CPG	KC7325	G13	4150690	B042A06500CPG	KC7325	G10	4150772	B042A12700CPG	KC7325	G11
4150410	B041A18600CPG	KC7325	G13	4150691	B042A06528CPG	KC7325	G10	4150773	B042A12800CPG	KC7325	G11
4150411	B041A18654CPG	KC7325	G13	4150692	B042A06600CPG	KC7325	G10	4150774	B042A12900CPG	KC7325	G11
4150412	B041A18700CPG	KC7325	G13	4150693	B042A06630CPG	KC7325	G10	4150775	B042A13000CPG	KC7325	G11
4150413	B041A18800CPG	KC7325	G13	4150694	B042A06700CPG	KC7325	G10	4150776	B042A13096CPG	KC7325	G11
4150414	B041A18900CPG	KC7325	G13	4150695	B042A06746CPG	KC7325	G10	4150777	B042A13100CPG	KC7325	G11
4150415	B041A19000CPG	KC7325	G13	4150696	B042A06800CPG	KC7325	G10	4150778	B042A13200CPG	KC7325	G11
4150416	B041A19050CPG	KC7325	G13	4150697	B042A06900CPG	KC7325	G10	4150779	B042A13300CPG	KC7325	G11
4150417	B041A19100CPG	KC7325	G13	4150698	B042A07000CPG	KC7325	G10	4150780	B042A13400CPG	KC7325	G11
4150418	B041A19200CPG	KC7325	G13	4150699	B042A07100CPG	KC7325	G10	4150781	B042A13500CPG	KC7325	G11
4150419	B041A19300CPG	KC7325	G13	4150700	B042A07145CPG	KC7325	G10	4150782	B042A13600CPG	KC7325	G11
4150420	B041A19400CPG	KC7325	G13	4150701	B042A07200CPG	KC7325	G10	4150783	B042A13700CPG	KC7325	G12
4150421	B041A19500CPG	KC7325	G13	4150702	B042A07300CPG	KC7325	G10	4150784	B042A13800CPG	KC7325	G12
4150422	B041A19600CPG	KC7325	G13	4150703	B042A07400CPG	KC7325	G10	4150785	B042A13891CPG	KC7325	G12
4150423	B041A19700CPG	KC7325	G13	4150704	B042A07500CPG	KC7325	G10	4150786	B042A13900CPG	KC7325	G12
4150424	B041A19800CPG	KC7325	G13	4150705	B042A07541CPG	KC7325	G10	4150787	B042A14000CPG	KC7325	G12
4150425	B041A19900CPG	KC7325	G13	4150706	B042A07600CPG	KC7325	G10	4150788	B042A14100CPG	KC7325	G12
4150426	B041A20000CPG	KC7325	G13	4150707	B042A07700CPG	KC7325	G10	4150789	B042A14200CPG	KC7325	G12
4150456	B051A10200CPG	KC7325	G17	4150708	B042A07800CPG	KC7325	G10	4150790	B042A14288CPG	KC7325	G12
4150457	B051A10300CPG	KC7325	G17	4150709	B042A07900CPG	KC7325	G10	4150791	B042A14300CPG	KC7325	G12
4150458	B051A10320CPG	KC7325	G17	4150710	B042A07938CPG	KC7325	G10	4150792	B042A14400CPG	KC7325	G12
4150459	B051A10400CPG	KC7325	G17	4150711	B042A08000CPG	KC7325	G10	4150793	B042A14500CPG	KC7325	G12
4150460	B051A10500CPG	KC7325	G17	4150712	B042A08100CPG	KC7325	G10	4150794	B042A14600CPG	KC7325	G12
								4150795	B042A14684CPG	KC7325	G12

For page references F–X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4151119	B051A04090CPG KC7325	G15	4151201	B051A09921CPG KC7325	G17	4151292	B051A17400CPG KC7325	G18	4151784	B042A01300CPG KC7325	G8
4151120	B051A04100CPG KC7325	G15	4151202	B051A10000CPG KC7325	G17	4151293	B051A17463CPG KC7325	G18	4151785	B042A01321CPG KC7325	G8
4151121	B051A04200CPG KC7325	G15	4151203	B051A10100CPG KC7325	G17	4151294	B051A17500CPG KC7325	G18	4151786	B042A01397CPG KC7325	G8
4151122	B051A04217CPG KC7325	G15	4151213	B051A10716CPG KC7325	G17	4151295	B051A17600CPG KC7325	G18	4151787	B042A01400CPG KC7325	G8
4151123	B051A04300CPG KC7325	G15	4151214	B051A10800CPG KC7325	G17	4151296	B051A17700CPG KC7325	G18	4151788	B042A01500CPG KC7325	G8
4151124	B051A04366CPG KC7325	G15	4151215	B051A10900CPG KC7325	G17	4151297	B051A17800CPG KC7325	G18	4151789	B042A01600CPG KC7325	G8
4151125	B051A04400CPG KC7325	G15	4151216	B051A11000CPG KC7325	G17	4151298	B051A17859CPG KC7325	G18	4151790	B042A01700CPG KC7325	G8
4151126	B051A04500CPG KC7325	G15	4151217	B051A11100CPG KC7325	G17	4151299	B051A17900CPG KC7325	G18	4151791	B042A01800CPG KC7325	G8
4151127	B051A04600CPG KC7325	G15	4151218	B051A11130CPG KC7325	G17	4151623	B041A01000CPG KC7325	G8	4151792	B042A01900CPG KC7325	G8
4151128	B051A04623CPG KC7325	G15	4151219	B051A11200CPG KC7325	G17	4151624	B041A01016CPG KC7325	G8	4151793	B042A01984CPG KC7325	G8
4151129	B051A04700CPG KC7325	G15	4151220	B051A11300CPG KC7325	G17	4151625	B041A01041CPG KC7325	G8	4151794	B042A02000CPG KC7325	G8
4151130	B051A04763CPG KC7325	G15	4151221	B051A11400CPG KC7325	G17	4151626	B041A01067CPG KC7325	G8	4151795	B042A02100CPG KC7325	G8
4151131	B051A04800CPG KC7325	G15	4151222	B051A11500CPG KC7325	G17	4151627	B041A01092CPG KC7325	G8	4151796	B042A02400CPG KC7325	G8
4151132	B051A04852CPG KC7325	G15	4151223	B051A11509CPG KC7325	G17	4151628	B041A01100CPG KC7325	G8	4151797	B042A02300CPG KC7325	G8
4151133	B051A04900CPG KC7325	G15	4151224	B051A11600CPG KC7325	G17	4151629	B041A01181CPG KC7325	G8	4151798	B042A02383CPG KC7325	G8
4151134	B051A05000CPG KC7325	G15	4151225	B051A11700CPG KC7325	G17	4151630	B041A01191CPG KC7325	G8	4151799	B042A02400CPG KC7325	G8
4151135	B051A05100CPG KC7325	G15	4151226	B051A11800CPG KC7325	G17	4151631	B041A01200CPG KC7325	G8	4151800	B042A02439CPG KC7325	G8
4151136	B051A05106CPG KC7325	G15	4151227	B051A11900CPG KC7325	G17	4151632	B041A01300CPG KC7325	G8	4151801	B042A02489CPG KC7325	G8
4151137	B051A05159CPG KC7325	G15	4151228	B051A11908CPG KC7325	G17	4151633	B041A01321CPG KC7325	G8	4151802	B042A02500CPG KC7325	G8
4151138	B051A05200CPG KC7325	G15	4151229	B051A12000CPG KC7325	G17	4151634	B041A01397CPG KC7325	G8	4151803	B042A02578CPG KC7325	G8
4151139	B051A05300CPG KC7325	G15	4151230	B051A12100CPG KC7325	G17	4151635	B041A01400CPG KC7325	G8	4151804	B042A02600CPG KC7325	G8
4151140	B051A05400CPG KC7325	G15	4151231	B051A12200CPG KC7325	G17	4151636	B041A01500CPG KC7325	G8	4151805	B042A02624CPG KC7325	G8
4151141	B051A05410CPG KC7325	G15	4151232	B051A12300CPG KC7325	G17	4151637	B041A01600CPG KC7325	G8	4151806	B042A02700CPG KC7325	G8
4151142	B051A05500CPG KC7325	G15	4151233	B051A12304CPG KC7325	G17	4151638	B041A01700CPG KC7325	G8	4151807	B042A02705CPG KC7325	G8
4151143	B051A05558CPG KC7325	G15	4151234	B051A12400CPG KC7325	G17	4151639	B041A01800CPG KC7325	G8	4151808	B042A02779CPG KC7325	G8
4151144	B051A05600CPG KC7325	G15	4151235	B051A12500CPG KC7325	G17	4151640	B041A01900CPG KC7325	G8	4151809	B042A02800CPG KC7325	G8
4151145	B051A05616CPG KC7325	G15	4151236	B051A12600CPG KC7325	G17	4151641	B041A01984CPG KC7325	G8	4151810	B042A02820CPG KC7325	G8
4151146	B051A05700CPG KC7325	G15	4151237	B051A12700CPG KC7325	G17	4151642	B041A02000CPG KC7325	G8	4151811	B042A02800CPG KC7325	G8
4151147	B051A05800CPG KC7325	G15	4151238	B051A12800CPG KC7325	G17	4151643	B041A02100CPG KC7325	G8	4151812	B042A02900CPG KC7325	G8
4151148	B051A05954CPG KC7325	G15	4151239	B051A12900CPG KC7325	G17	4151644	B041A02200CPG KC7325	G8	4151813	B042A02947CPG KC7325	G8
4151149	B051A06100CPG KC7325	G16	4151240	B051A13000CPG KC7325	G17	4151645	B041A02300CPG KC7325	G8	4153778	T321M100X150R6HX KC7542	M5
4151150	B051A06200CPG KC7325	G16	4151241	B051A13096CPG KC7325	G17	4151646	B041A02383CPG KC7325	G8	4153779	T321M120X175R6HX KC7542	M5
4151151	B051A06300CPG KC7325	G16	4151242	B051A13100CPG KC7325	G17	4151647	B041A02400CPG KC7325	G8	4153780	T321M140X200R6HX KC7542	M5
4151152	B051A06350CPG KC7325	G16	4151243	B051A13200CPG KC7325	G17	4151648	B041A02439CPG KC7325	G8	4153781	T321M160X200R6HX KC7542	M5
4151153	B051A06400CPG KC7325	G16	4151244	B051A13300CPG KC7325	G17	4151649	B041A02489CPG KC7325	G8	4153782	T321MF120X150R6HX KC7542	M5
4151154	B051A06500CPG KC7325	G16	4151245	B051A13400CPG KC7325	G17	4151650	B041A02500CPG KC7325	G8	4153874	T650M240X300R6HX-D6 KP6525	M58
4151155	B051A06528CPG KC7325	G16	4151246	B051A13500CPG KC7325	G17	4151651	B041A02578CPG KC7325	G8	4153875	T650M300X350R6HX-D6 KP6525	M58
4151156	B051A06600CPG KC7325	G16	4151247	B051A13600CPG KC7325	G17	4151652	B041A02600CPG KC7325	G8	4153876	T650M300X350R6HX-D6 KP6525	M58
4151157	B051A06630CPG KC7325	G16	4151248	B051A13700CPG KC7325	G17	4151653	B041A02642CPG KC7325	G8	4153877	T650M360X400R6HX-D6 KP6525	M58
4151158	B051A06700CPG KC7325	G16	4151249	B051A13800CPG KC7325	G17	4151654	B041A02700CPG KC7325	G8	4153878	T650M400X450R6HX-D6 KP6525	M58
4151159	B051A06746CPG KC7325	G16	4151250	B051A13891CPG KC7325	G17	4151655	B041A02705CPG KC7325	G9	4153879	T650M240X300R6HX-XL KP6525	M60
4151160	B051A06800CPG KC7325	G16	4151251	B051A13900CPG KC7325	G17	4151656	B041A02779CPG KC7325	G9	4153880	T650M300X350R6HX-XL KP6525	M60
4151161	B051A06900CPG KC7325	G16	4151252	B051A14100CPG KC7325	G17	4151657	B041A02800CPG KC7325	G9	4153881	T650M330X350R6HX-XL KP6525	M60
4151162	B051A07000CPG KC7325	G16	4151253	B051A14200CPG KC7325	G18	4151658	B041A02820CPG KC7325	G9	4153882	T650M360X400R6HX-XL KP6525	M60
4151163	B051A07100CPG KC7325	G16	4151254	B051A14288CPG KC7325	G18	4151659	B041A02870CPG KC7325	G9	4153883	T650M420X450R6HX-XL KP6525	M60
4151164	B051A07145CPG KC7325	G16	4151255	B051A14300CPG KC7325	G18	4151660	B041A02900CPG KC7325	G9	4153884	T651M240X300R6HX-D6 KP6525	M59
4151165	B051A07200CPG KC7325	G16	4151256	B051A14400CPG KC7325	G18	4151661	B041A02947CPG KC7325	G9	4153885	T651M300X350R6HX-D6 KP6525	M59
4151166	B051A07300CPG KC7325	G16	4151257	B051A14500CPG KC7325	G18	4151736	B053A01500CPG KC7325	G14	4153886	T651M300X350R6HX-D6 KP6525	M59
4151167	B051A07400CPG KC7325	G16	4151258	B051A14600CPG KC7325	G18	4151737	B053A01600CPG KC7325	G14	4153887	T651M360X400R6HX-D6 KP6525	M59
4151168	B051A07500CPG KC7325	G16	4151259	B051A14684CPG KC7325	G18	4151738	B053A01700CPG KC7325	G14	4153888	T651M420X450R6HX-D6 KP6525	M59
4151169	B051A07541CPG KC7325	G16	4151260	B051A14700CPG KC7325	G18	4151739	B053A01800CPG KC7325	G14	4153889	T651M240X300R6HX-XL KP6525	M61
4151170	B051A07600CPG KC7325	G16	4151261	B051A14800CPG KC7325	G18	4151740	B053A01900CPG KC7325	G14	4153890	T651M300X350R6HX-XL KP6525	M61
4151171	B051A07700CPG KC7325	G16	4151262	B051A14900CPG KC7325	G18	4151741	B053A01984CPG KC7325	G14	4153891	T651M330X350R6HX-XL KP6525	M61
4151172	B051A07800CPG KC7325	G16	4151263	B051A15000CPG KC7325	G18	4151742	B053A02000CPG KC7325	G14	4153892	T651M360X400R6HX-XL KP6525	M61
4151173	B051A07900CPG KC7325	G16	4151264	B051A15083CPG KC7325	G18	4151743	B053A02100CPG KC7325	G14	4153893	T651M420X450R6HX-XL KP6525	M61
4151174	B051A07938CPG KC7325	G16	4151265	B051A15100CPG KC7325	G18	4151744	B053A02200CPG KC7325	G14	4153903	T321MF140X150R6HX KC7542	M5
4151175	B051A08000CPG KC7325	G16	4151266	B051A15200CPG KC7325	G18	4151745	B053A02300CPG KC7325	G14	4154007	T632M050X080R6HX-D4 KP6525	M52
4151176	B051A08100CPG KC7325	G16	4151267	B051A15300CPG KC7325	G18	4151746	B053A02383CPG KC7325	G14	4154008	T632M060X100R6HX-D1 KP6525	M52
4151177	B051A08200CPG KC7325	G16	4151268	B051A15400CPG KC7325	G18	4151747	B053A02400CPG KC7325	G14	4154009	T632M080X125R6HX-D1 KP6525	M52
4151178	B051A08300CPG KC7325	G16	4151269	B051A15479CPG KC7325	G18	4151748	B053A02439CPG KC7325	G14	4154010	T632M100X150R6HX-D1 KP6525	M52
4151179	B051A08340CPG KC7325	G16	4151270	B051A15500CPG KC7325	G18	4151749	B053A02489CPG KC7325	G14	4154011	T632M120X175R6HX-D6 KP6525	M52
4151180	B051A08400CPG KC7325	G16	4151271	B051A15600CPG KC7325	G18	4151750	B053A02500CPG KC7325	G14	4154012	T632M140X200R6HX-D6 KP6525	M52
4151181	B051A08433CPG KC7325	G16	4151272	B051A15700CPG KC7325	G18	4151751	B053A02578CPG KC7325	G14	4154013	T632MF120X150R6HX-D4 KP6525	M52
4151182	B051A08500CPG KC7325	G16	4151273	B051A15800CPG KC7325	G18	4151752	B053A02600CPG KC7325	G14	4154014	T632MF140X150R6HX-D4 KP6525	M52
4151183	B051A08600CPG KC7325	G16	4151274	B051A15875CPG KC7325	G18	4151753	B053A02642CPG KC7325	G14	4154015	T632MF160X150R6HX-D4 KP6525	M52
4151184	B051A08700CPG KC7325	G16	4151275	B051A15900CPG KC7325	G18	4151754	B053A02700CPG KC7325	G14	4154016	T633M050X080R6HX-D1 KP6525	M53
4151185	B051A08733CPG KC7325	G16	4151276	B051A16000CPG KC7325	G18	4151755	B053A02705CPG KC7325	G14	4154017	T633M060X100R6HX-D1 KP6525	M53
4151186	B051A08800CPG KC7325	G16	4151277	B051A16100CPG KC7325	G18	4151756	B053A02779CPG KC7325	G14	4154018	T633M080X125R6HX-D1 KP6525	M53
4151187	B051A08900CPG KC7325	G16	4151278	B051A16200CPG KC7325	G18	4151757	B053A02800CPG KC7325	G14	4154019	T633M100X150R6HX-D1 KP6525	M53
4151188	B051A09000CPG KC7325	G16	4151279	B051A16271CPG KC7325	G18	4151758	B053A02820CPG KC7325	G14	4154020	T633M120X175R6HX-D6 KP6525	M53
4151189	B051A09100CPG KC7325	G16	4151280	B051A16300CPG KC7325	G18	4151759	B053A02870CPG KC7325	G14	4154021	T633M140X200R6HX-D6 KP6525	M53
4151190	B051A09129CPG KC7325	G16	4151281	B051A16400CPG KC7325	G18	4151760	B053A02900CPG KC7325	G14	4154022	T633MF120X150R6HX-D4 KP6525	M53
4151191	B051A09200CPG KC7325	G16	4151282	B051A16500CPG KC7325	G18	4151761	B053A02947CPG KC7325	G15	4154023	T633MF140X150R6HX-D4 KP	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4154111	T600M160X200R6HX-D6 KSP21	M139	4158488	T622MF100X100R6HX-D74 KSP21	M139	4158958	KTIP1260HPM KCP15	H33	4159271	KTIP07580HP KCP15	H33
4154112	T600M180X250R6HX-D6 KSP21	M139	4158489	T622MF100X125R6HX-D74 KSP21	M139	4158959	KTIP0500HPM KCP15	H33	4159272	KTIP1930HPM KCP15	H33
4154113	T600M200X250R6HX-D6 KSP21	M139	4158490	T622MF120X125R6HX-D74 KSP21	M139	4158960	KTIP1280HPM KCP15	H33	4159273	KTIP1940HPM KCP15	H33
4154114	T600MF080X100R6HX-D4 KSP21	M139	4158491	T622MF120X150R6HX-D74 KSP21	M139	4158961	KTIP05080HP KCP15	H33	4159274	KTIP07656HP KCP15	H33
4154115	T600MF100X100R6HX-D4 KSP21	M139	4158492	T622MF140X150R6HX-D74 KSP21	M139	4158962	KTIP1300HPM KCP15	H33	4159275	KTIP1950HPM KCP15	H33
4154116	T600MF100X125R6HX-D4 KSP21	M139	4158493	T622MF160X150R6HX-D74 KSP21	M139	4158963	KTIP05156HP KCP15	H33	4159276	KTIP1960HPM KCP15	H33
4154117	T600MF120X125R6HX-D4 KSP21	M139	4158728	KTIP03125HP KCP15	H32	4158964	KTIP1320HPM KCP15	H33	4159277	KTIP1970HPM KCP15	H34
4154118	T600MF120X150R6HX-D4 KSP21	M139	4158729	KTIP0800HPM KCP15	H32	4158965	KTIP1330HPM KCP15	H33	4159278	KTIP1980HPM KCP15	H34
4154119	T600MF140X150R6HX-D4 KSP21	M139	4158730	KTIP0810HPM KCP15	H32	4158966	KTIP1340HPM KCP15	H33	4159279	KTIP07813HP KCP15	H34
4154120	T600MF160X150R6HX-D4 KSP21	M139	4158731	KTIP03214HP KCP15	H32	4158967	KTIP05312HP KCP15	H33	4159280	KTIP1990HPM KCP15	H34
4154647	T622M030X050R6HX-D74 KSN28	M139	4158732	KTIP03230HP KCP15	H32	4158968	KTIP1350HPM KCP15	H33	4159281	KTIP2000HPM KCP15	H34
4154648	T622M040X070R6HX-D74 KSN28	M139	4158733	KTIP0830HPM KCP15	H32	4158969	KTIP1360HPM KCP15	H33	4159282	KTIP2010HPM KCP15	H34
4154649	T622M050X080R6HX-D74 KSN28	M139	4158894	KTIP03281HP KCP15	H32	4158970	KTIP1370HPM KCP15	H33	4159283	KTIP1900HPM KCP15	H34
4154650	T622M060X100R6HX-D74 KSN28	M139	4158895	KTIP0840HPM KCP15	H32	4158971	KTIP1380HPM KCP15	H33	4159284	KTIP07969HP KCP15	H34
4154651	T622M080X125R6HX-D74 KSN28	M139	4158896	KTIP03320HP KCP15	H32	4158972	KTIP05469HP KCP15	H33	4159285	KTIP2030HPM KCP15	H34
4154652	T622M100X150R6HX-D74 KSN28	M139	4158897	KTIP0850HPM KCP15	H32	4158973	KTIP05471HP KCP15	H33	4159286	KTIP2050HPM KCP15	H34
4154653	T622M120X175R6HX-D74 KSN28	M139	4158898	KTIP0860HPM KCP15	H32	4158974	KTIP1400HPM KCP15	H33	4159287	KTIP2060HPM KCP15	H34
4154654	T622M160X200R6HX-D74 KSN28	M139	4158899	KTIP03390HP KCP15	H32	4158975	KTIP1410HPM KCP15	H33	4159288	KTIP08125HP KCP15	H34
4154655	T622MF080X100R6HX-D4 KSN28	M139	4158900	KTIP0870HPM KCP15	H32	4158976	KTIP1420HPM KCP15	H33	4159289	KTIP2070HPM KCP15	H34
4154656	T622MF100X100R6HX-D4 KSN28	M139	4158901	KTIP03438HP KCP15	H32	4158977	KTIP06525HP KCP15	H33	4159290	KTIP2080HPM KCP15	H34
4154657	T622MF120X125R6HX-D74 KSN28	M139	4158902	KTIP03480HP KCP15	H32	4158978	KTIP1430HPM KCP15	H33	4159291	KTIP2090HPM KCP15	H34
4154658	T622MF140X150R6HX-D74 KSN28	M139	4158903	KTIP0880HPM KCP15	H32	4158979	KTIP1440HPM KCP15	H33	4159292	KTIP2090HPM KCP15	H34
4154659	T622MF160X150R6HX-D74 KSN28	M139	4158904	KTIP0890HPM KCP15	H32	4158980	KTIP1450HPM KCP15	H33	4159293	KTIP2100HPM KCP15	H34
4155723	EP1408SGD2 KC725M	T59, T70	4158905	KTIP0900HPM KCP15	H32	4158981	KTIP1460HPM KCP15	H33	4159294	KTIP08438HP KCP15	H34
4155725	EP1408SGD2 KCPK30	T59, T70	4158906	KTIP03580HP KCP15	H32	4158982	KTIP05774HP KCP15	H33	4159295	KTIP2150HPM KCP15	H34
4155726	EP1408SGD2 KC520M	T59, T70	4158907	KTIP0910HPM KCP15	H32	4158983	KTIP05781HP KCP15	H33	4159296	KTIP2200HPM KCP15	H34
4156451	T642M050X080R6HX-D1 KP6525	M122	4158908	KTIP03390HP KCP15	H32	4158984	KTIP1470HPM KCP15	H33	4159297	KTIP08750HP KCP15	H34
4156452	T642M060X100R6HX-D1 KP6525	M122	4158909	KTIP03480HP KCP15	H32	4158985	KTIP1480HPM KCP15	H33	4159298	KTIP2250HPM KCP15	H34
4156453	T642M080X125R6HX-D1 KP6525	M122	4158910	KTIP0890HPM KCP15	H32	4158986	KTIP1500HPM KCP15	H33	4159299	KTIP2300HPM KCP15	H34
4156454	T642M100X150R6HX-D1 KP6525	M122	4158911	KTIP0900HPM KCP15	H32	4158987	KTIP05938HP KCP15	H33	4159300	KTIP2350HPM KCP15	H34
4156455	T642M120X175R6HX-D6 KP6525	M122	4158912	KTIP03750HP KCP15	H32	4159030	KTIP1540HPM KCP15	H33	4159301	KTIP2400HPM KCP15	H34
4156456	T642M140X200R6HX-D6 KP6525	M122	4158913	KTIP0940HPM KCP15	H32	4159205	KTIP1510HPM KCP15	H33	4159302	KTIP2450HPM KCP15	H34
4156457	T642MF120X150R6HX-D4 KP6525	M122	4158914	KTIP0950HPM KCP15	H32	4159223	KTIP06094HP KCP15	H33	4159303	KTIP2500HPM KCP15	H34
4156458	T642MF140X150R6HX-D4 KP6525	M122	4158915	KTIP03750HP KCP15	H32	4159224	KTIP1550HPM KCP15	H33	4159304	KTIP09688HP KCP15	H34
4156459	T642MF160X150R6HX-D4 KP6525	M122	4158916	KTIP03763HP KCP15	H32	4159225	KTIP1560HPM KCP15	H33	4159305	KTIP2500HPM KCP15	H34
4156550	T643M050X080R6HX-D1 KP6525	M123	4158917	KTIP03770HP KCP15	H32	4159226	KTIP1570HPM KCP15	H33	4159306	KTIP1000HPM KCP15	H34
4156551	T643M060X100R6HX-D1 KP6525	M123	4158918	KTIP0960HPM KCP15	H32	4159227	KTIP1580HPM KCP15	H33	4159307	KTIP2550HPM KCP15	H34
4156552	T643M080X125R6HX-D1 KP6525	M123	4158919	KTIP03820HP KCP15	H32	4159228	KTIP06250HP KCP15	H33	4159308	KTIP10110HP KCP15	H34
4156553	T643M100X150R6HX-D1 KP6525	M123	4158920	KTIP03860HP KCP15	H32	4159229	KTIP1600HPM KCP15	H33	4159309	KTIP10310HP KCP15	H34
4156554	T643M120X175R6HX-D6 KP6525	M123	4158921	KTIP0990HPM KCP15	H32	4159230	KTIP1600HPM KCP15	H33	4159310	KTIP2599HPM KCP15	H34
4156555	T643M140X200R6HX-D6 KP6525	M123	4158922	KTIP03906HP KCP15	H32	4159231	KTIP06330HP KCP15	H33	4159311	KTIP2600HPM KCP15	H34
4156556	T643MF120X150R6HX-D4 KP6525	M123	4158923	KTIP1000HPM KCP15	H32	4159232	KTIP1610HPM KCP15	H33	4159312	KTIP10310HP KCP15	H34
4156557	T643MF140X150R6HX-D4 KP6525	M123	4158924	KTIP03946HP KCP15	H32	4159233	KTIP1610HPM KCP15	H33	4159313	KTIP2650HPM KCP15	H34
4156558	T643MF160X150R6HX-D4 KP6525	M123	4158925	KTIP03970HP KCP15	H32	4159234	KTIP1610HPM KCP15	H33	4159314	KTIP10469HP KCP15	H34
4157734	T410M030X050R6HX-D1 KCU36	M116	4158926	KTIP1010HPM KCP15	H32	4159235	KTIP1630HPM KCP15	H33	4159315	KTIP2700HPM KCP15	H34
4157735	T410M040X070R6HX-D1 KCU36	M116	4158927	KTIP1020HPM KCP15	H32	4159236	KTIP1630HPM KCP15	H33	4159316	KTIP2750HPM KCP15	H34
4157736	T410M050X080R6HX-D1 KCU36	M116	4158928	KTIP04040HP KCP15	H32	4159237	KTIP1650HPM KCP15	H33	4159317	KTIP10938HP KCP15	H34
4157737	T410M060X100R6HX-D1 KCU36	M116	4158929	KTIP1030HPM KCP15	H32	4159238	KTIP1660HPM KCP15	H33	4159318	KTIP2799HPM KCP15	H34
4157738	T410M080X125R6HX-D1 KCU36	M116	4158930	KTIP1040HPM KCP15	H32	4159239	KTIP06563HP KCP15	H33	4159441	T623M050X080R6HX-D74 KSN28	M140
4157739	T410M100X150R6HX-D1 KCU36	M116	4158931	KTIP04130HP KCP15	H32	4159240	KTIP1670HPM KCP15	H33	4159442	T623M060X100R6HX-D74 KSN28	M140
4157740	T410M120X175R6HX-D6 KCU36	M116	4158932	KTIP1050HPM KCP15	H32	4159241	KTIP1680HPM KCP15	H33	4159623	T623M080X125R6HX-D74 KSN28	M140
4157741	T410M140X200R6HX-D6 KCU36	M116	4158933	KTIP1060HPM KCP15	H32	4159242	KTIP1690HPM KCP15	H33	4159624	T623M100X150R6HX-D74 KSN28	M140
4157742	T410MF080X100R6HX-D4 KCU36	M116	4158934	KTIP1070HPM KCP15	H32	4159243	KTIP1700HPM KCP15	H33	4159625	T623M120X175R6HX-D74 KSN28	M140
4157963	T410MF100X100R6HX-D4 KCU36	M116	4158935	KTIP1100HPM KCP15	H32	4159244	KTIP06719HP KCP15	H33	4159626	T623M160X200R6HX-D74 KSN28	M140
4157964	T410MF120X150R6HX-D4 KCU36	M116	4158936	KTIP04219HP KCP15	H32	4159245	KTIP1710HPM KCP15	H33	4159627	T623MF080X100R6HX-D74 KSN28	M140
4157965	T410MF140X150R6HX-D4 KCU36	M116	4158937	KTIP1080HPM KCP15	H32	4159246	KTIP1720HPM KCP15	H33	4159628	T623MF100X100R6HX-D74 KSN28	M140
4157966	T410MF160X150R6HX-D4 KCU36	M116	4158938	KTIP1090HPM KCP15	H32	4159247	KTIP1730HPM KCP15	H33	4159629	T623MF120X150R6HX-D74 KSN28	M140
4158449	T622M030X050R6HX-D74 KSP21	M139	4158939	KTIP1100HPM KCP15	H32	4159248	KTIP1730HPM KCP15	H33	4159630	T623MF140X150R6HX-D74 KSN28	M140
4158450	T622M040X070R6HX-D74 KSP21	M139	4158940	KTIP1110HPM KCP15	H32	4159249	KTIP06875HP KCP15	H33	4159631	T623MF160X150R6HX-D74 KSN28	M140
4158451	T622M050X080R6HX-D74 KSP21	M139	4158941	KTIP04375HP KCP15	H32	4159250	KTIP1750HPM KCP15	H33	4159820	T623M050X080R6HX-D74 KSP21	M140
4158452	T622M060X100R6HX-D74 KSP21	M139	4158942	KTIP1120HPM KCP15	H32	4159251	KTIP1750HPM KCP15	H33	4159821	T623M060X100R6HX-D74 KSP21	M140
4158483	T622M080X125R6HX-D74 KSP21	M139	4158943	KTIP1130HPM KCP15	H32	4159252	KTIP1770HPM KCP15	H33	4159822	T623M080X125R6HX-D74 KSP21	M140
4158484	T622M100X150R6HX-D74 KSP21	M139	4158944	KTIP1140HPM KCP15	H32	4159253	KTIP1780HPM KCP15	H33	4159823	T623M100X150R6HX-D74 KSP21	M140
4158485	T622M120X175R6HX-D74 KSP21	M139	4158945	KTIP1150HPM KCP15	H32	4159254	KTIP07031HP KCP15	H33	4159824	T623M120X175R6HX-D74 KSP21	M140
4158486	T622M160X200R6HX-D74 KSP21	M139	4158946	KTIP04531HP KCP15	H32	4159255	KTIP1790HPM KCP15	H33	4159843	T623M160X200R6HX-D74 KSP21	M140
4158487	T622MF080X100R6HX-D74 KSP21	M139	4158947	KTIP1160HPM KCP15	H32	4159256	KTIP1800HPM KCP15	H33	4159844	T623MF080X100R6HX-D74 KSP21	M140
			4158948	KTIP1170HPM KCP15	H32	4159257	KTIP1810HPM KCP15	H33	4159845	T623MF100X100R6HX-D74 KSP21	M140
			4158949	KTIP1180HPM KCP15	H32	4159258	KTIP1820HPM KCP15	H33	4159846	T623MF120X150R6HX-D74 KSP21	M140
			4158950	KTIP1190HPM KCP15	H32	4159259	KTIP07188HP KCP15	H33	4159847	T623MF140X150R6HX-D74 KSP21	M140
			4158951	KTIP04688HP KCP15	H33	4159260	KTIP1850HPM KCP15	H3			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4161098	T604M030X050R6H-D1	KSH26	4169262	B269A06528HP	KCPK15	4169750	A4SCL1616K0217	C128	4175410	B732A05000HP	KCPK15
4161099	T604M040X070R6H-D1	KSH26	4169263	B269A06600HP	KCPK15	4169752	A4SCL1616K0317	C128	4175411	B732A06800HP	KCPK15
4161100	T604M050X080R6H-D1	KSH26	4169264	B269A06746HP	KCPK15	4169805	UEDE0156J4AH	KC643M	4175412	B732A08500HP	KCPK15
4161101	T604M060X100R6H-D1	KSH26	4169265	B269A06800HP	KCPK15	4169806	UEDE0188J4AH	KC643M	4175413	B732A10200HP	KCPK15
4161102	T604M080X125R6H-D1	KSH26	4169266	B269A06909HP	KCPK15	4169807	UEDE0250J4AH	KC643M	4175414	B732A10500HP	KCPK15
4161343	T604M100X150R6H-D1	KSH26	4169267	B269A07000HP	KCPK15	4169808	UEDE0312J4AH	KC643M	4175415	B732A12000HP	KCPK15
4161344	T604M120X175R6H-D6	KSH26	4169268	B269A07145HP	KCPK15	4169809	UEDE0375J4AH	KC643M	4175416	B732A12500HP	KCPK15
4161345	T604M140X200R6H-D6	KSH26	4169269	B269A07500HP	KCPK15	4169810	UEDE0437J4AH	KC643M	4175417	B732A14000HP	KCPK15
4161346	T604M160X200R6H-D6	KSH26	4169270	B269A07541HP	KCPK15	4169811	UEDE0500J4AH	KC643M	4175418	B731A03734HP	KCPK15
4161347	T604M180X250R6H-D6	KSH26	4169271	B269A07700HP	KCPK15	4169833	UEBD0156J3A	KC643M	4175419	B731A04496HP	KCPK15
4161348	T604M200X250R6H-D6	KSH26	4169272	B269A07800HP	KCPK15	4169834	UEBD0188J3A	KC643M	4175420	B731A05106HP	KCPK15
4161349	T604MF080X100R6H-D4	KSH26	4169273	B269A07938HP	KCPK15	4169835	UEBD0250J3A	KC643M	4175421	B731A05410HP	KCPK15
4161350	T604MF100X110R6H-D4	KSH26	4169274	B269A08000HP	KCPK15	4169836	UEBD0312J3A	KC643M	4175422	B731A06528HP	KCPK15
4161351	T604MF100X125R6H-D4	KSH26	4169275	B269A08100HP	KCPK15	4169837	UEBD0375J3A	KC643M	4175423	B731A06909HP	KCPK15
4161352	T604MF120X125R6H-D4	KSH26	4169276	B269A08334HP	KCPK15	4169838	UEBD0437J3A	KC643M	4175424	B731A07938HP	KCPK15
4161353	T604MF120X150R6H-D4	KSH26	4169277	B269A08433HP	KCPK15	4169839	UEBD0500J3A	KC643M	4175425	B731A08433HP	KCPK15
4161354	T604MF140X150R6H-D4	KSH26	4169278	B269A08700HP	KCPK15	4170385	CM209R ASSY	B58-60, B67-68, B87	4175426	B731A09921HP	KCPK15
4161355	T604MF160X150R6H-D4	KSH26	4169279	B269A08733HP	KCPK15	4170386	CM210R ASSY	B58-60, B68, B98, B109-110	4175427	B731A10716HP	KCPK15
4164987	RIQ09E1300	KC6005	4169280	B269A09000HP	KCPK15	4170388	CM235R ASSY	B150-151	4175428	B731A12304HP	KCPK15
4165042	NGD3M350LK	KCU25	4169281	B269A09100HP	KCPK15	4170389	CM234R ASSY	B67-68, B92, B138	4175429	B731A13096HP	KCPK15
4167881	CV40FBHM1691	K134	4169282	B269A09129HP	KCPK15	4170408	KSCMCA900F	KD1420	4175430	B731A13495HP	KCPK15
4167882	CV40FBHMKT645	K127, K131	4169283	B269A09500HP	KCPK15	4170410	KSCMCA900BF	KD1420	4175431	B731A16670HP	KCPK15
4168063	EBM1580160162	K136	4169284	B269A09525HP	KCPK15	4170411	KSCMCA900FF	KD1420	4175432	B731A17463HP	KCPK15
4168669	A4G0300M03P04S02025ST	KB1630	4169285	B269A09921HP	KCPK15	4171227	LNJX301940RFF	KCP10	4175433	B732A05106HP	KCPK15
4168670	A4G0400M04P04S02025ST	KB1630	4169286	B269A10000HP	KCPK15	4171768	RCGT0803MOMS	KCU10	4175434	B732A03734HP	KCPK15
4168753	A4G0300M03P04EST	KB1630	4169287	B269A10200HP	KCPK15	4171769	RCGT1204MOMS	KCU10	4175435	B732A04496HP	KCPK15
4168755	A4G0500M05P08EST	KB1630	4169288	B269A10300HP	KCPK15	4171770	RCGT1606MOMS	KCU10	4175436	B732A06528HP	KCPK15
4168756	A4G0600M06P08EST	KB1630	4169289	B269A10320HP	KCPK15	4171771	RCGT1606MOMS	KCU10	4175437	B732A05410HP	KCPK15
4168757	A4R0300M03P00EST	KB1630	4169290	B269A10500HP	KCPK15	4171772	CNMG4305FN	KCU10	4175438	B732A07938HP	KCPK15
4168758	A4R0400M04P00EST	KB1630	4169291	B269A10716HP	KCPK15	4171823	CNMG431FP	KCU10	4175439	B732A08433HP	KCPK15
4168759	A4R0500M05P00EST	KB1630	4169292	B269A10800HP	KCPK15	4171824	CNMG431FP	KCU10	4175440	B732A09921HP	KCPK15
4168760	A4R0600M06P00EST	KB1630	4169293	B269A11000HP	KCPK15	4171825	DNMG331FF	KCU10	4175441	B732A10716HP	KCPK15
4168856	A4SCR080214	C127	4169294	B269A11113HP	KCPK15	4171826	DNMG331FF	KCU10	4175442	B732A13495HP	KCPK15
4168857	A4SCR100217	C127	4169295	B269A11500HP	KCPK15	4171827	DNMG431FP	KCU10	4175443	B732A16670HP	KCPK15
4168858	A4SCR080314	C127	4169296	B269A11800HP	KCPK15	4171828	DNMG432FP	KCU10	4175444	B732A17463HP	KCPK15
4168859	A4SCR100317	C127	4169297	B269A12000HP	KCPK15	4171829	DNMG433FP	KCU10	4175445	NGD3125RK	KCU10
4168860	A4SCL080214	C127	4169298	B269A12100HP	KCPK15	4171830	DNMG441FP	KCU10	4175446	NGD3189L	KCU10
4168861	A4SCL100217	C127	4169299	B269A12304HP	KCPK15	4171831	DNMG442FP	KCU10	4175447	NGD3189L	KCU10
4168862	A4SCL080314	C127	4169300	B269A12700HP	KCPK15	4171832	SNMG321FF	KCU10	4175448	NGD3189L	KCU10
4168863	A4SCL100317	C127	4169301	B269A13000HP	KCPK15	4171833	SNMG431FP	KCU10	4175449	NGP3088L	KCU10
4168928	A4G0300M03P04S02025ST	KB5625	4169302	B269A13100HP	KCPK15	4171834	SNMG432FP	KCU10	4175450	NGP3088L	KCU10
4168929	A4G0400M04P04S02025ST	KB5625	4169303	B269A13500HP	KCPK15	4171835	TNMG221FF	KCU10	4175451	NGP3088L	KCU10
4168930	A4G0500M05P08S02025ST	KB5625	4169304	B269A14100HP	KCPK15	4171837	TNMG331FP	KCU10	4175452	NG2031L	KCU10
4168931	A4G0600M06P08S02025ST	KB5625	4169305	B269A14288HP	KCPK15	4171838	TNMG331FP	KCU10	4175453	NG2031L	KCU10
4168932	NG3M200LS02020ST	KB5625	4169306	B269A14500HP	KCPK15	4171839	TNMG332FP	KCU10	4175454	NG2047L	KCU10
4168945	NG3M300RS02020ST	KB5625	4169307	B269A14684HP	KCPK15	4171840	TNMG333FP	KCU10	4175455	NG2047L	KCU10
4168946	NG3M300RS02020ST	KB5625	4169308	B269A15000HP	KCPK15	4171841	TNMG431FP	KCU10	4175456	NG2047L	KCU10
4168947	NG3M400RS02020ST	KB5625	4169309	B269A15500HP	KCPK15	4171842	TNMG432FP	KCU10	4175457	NG2047L	KCU10
4168948	NG3125RS0820ST	KB5625	4169310	B269A15875HP	KCPK15	4171843	VNMG331FP	KCU10	4175458	NG2047L	KCU10
4168949	B269A03175HP	KCPK15	4169311	B269A16000HP	KCPK15	4171844	VNMG332FP	KCU10	4175459	NG2047L	KCU10
4169240	B269A03264HP	KCPK15	4169312	B269A16500HP	KCPK15	4171845	VNMG331FF	KCU10	4175460	NG2047L	KCU10
4169241	B269A03500HP	KCPK15	4169313	B269A17000HP	KCPK15	4171848	VNMG431FF	KCU10	4175461	NG2047L	KCU10
4169242	B269A03970HP	KCPK15	4169314	B269A17463HP	KCPK15	4171849	VNMG431FP	KCU10	4175462	NG2047L	KCU10
4169243	B269A04000HP	KCPK15	4169315	B269A17500HP	KCPK15	4171851	VNMG432FP	KCU10	4175463	NG2047L	KCU10
4169244	B269A04500HP	KCPK15	4169316	B269A18000HP	KCPK15	4171853	NPL13M05N	KCU10	4175464	NG2047L	KCU10
4169245	B269A04600HP	KCPK15	4169317	B269A18500HP	KCPK15	4171854	NPL13M10N	KCU10	4175465	NG2047L	KCU10
4169246	B269A04763HP	KCPK15	4169318	B269A19000HP	KCPK15	4171855	NPL5M02	KCU10	4175466	NG2047L	KCU10
4169247	B269A04800HP	KCPK15	4169319	B269A19050HP	KCPK15	4171856	NPL5M05	KCU10	4175467	NG2047L	KCU10
4169248	B269A05000HP	KCPK15	4169320	B269A19500HP	KCPK15	4171857	NPR13M05F	KCU10	4175468	NG2047L	KCU10
4169249	B269A05100HP	KCPK15	4169321	B269A20000HP	KCPK15	4171858	NPR13M10F	KCU10	4175469	NG2047L	KCU10
4169250	B269A05200HP	KCPK15	4169337	NG3M200RS02020ST	KB1630	4171860	NPR5M05	KCU10	4175470	NG2047L	KCU10
4169251	B269A05300HP	KCPK15	4169338	NG3M300RS02020ST	KB1630	4173826	UEBD0078J2A	KC643M	4175471	NG2047L	KCU10
4169252	B269A05410HP	KCPK15	4169341	NG3125RS0820ST	KB1630	4173827	UEBD0094J2A	KC643M	4175472	NG2047L	KCU10
4169253	B269A05500HP	KCPK15	4169343	NG3125LS0820ST	KB1630	4173828	UEBD0125J2A	KC643M	4175473	NG2047L	KCU10
4169254	B269A05558HP	KCPK15	4169351	UEDE0078J3AS	KC643M	4173829	UEBD0156J2A	KC643M	4175474	NG2047L	KCU10
4169255	B269A05600HP	KCPK15	4169352	UEDE0094J3AS	KC643M	4173830	UEBD0188J2A	KC643M	4175475	NG2047L	KCU10
4169256	B269A05700HP	KCPK15	4169513	UEDE0125J3AS	KC643M	4173831	UEBD0250J2A	KC643M	4175476	NG2047L	KCU10
4169257	B269A05800HP	KCPK15	4169514	UEDE0156J3AS	KC643M	4173832	UEBD0312J2A	KC643M	4175477	NG2047L	KCU10
4169258	B269A06000HP	KCPK15	4169515	UEDE0188J3AS	KC643M	4173913	UEBD0375J2A	KC643M	4175478	NG2047L	KCU10
4169259	B269A06200HP	KCPK15	4169516	UEDE0250J3AS	KC643M	4173914	UEBD0437J2A	KC643M	4175479	NG2047L	KCU10
4169260	B269A06350HP	KCPK15	4169517	UEDE0312J3AS	KC643M	4173915	UEBD0500J2A	KC643M	4175480	NG2047L	KCU10
4169261	B269A06500HP	KCPK15	4169518	UEDE0375J3AS	KC643M	4174419	A549CG	T90, V70	4175481	NG2M120RK	KCU10
			4169519	UEDE0437J3AS	KC643M	4175270	B731A04200HP	KCPK15	4175482	NG2M120RK	KCU10
			4169520	UEDE0500J3AS	KC643M	4175271	B731A05000HP	KCPK15	4175483	NG2M120RK	KCU10
			4169660	UEBD0078J3A	KC643M	4175272	B731A06800HP	KCPK15	4175484	NG2M120RK	KCU10
			4169661	UEBD0094J3A	KC643M	4175403	B731A08500HP	KCPK15	4175485	NG2M120RK	KCU10

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
4175881	NG2M300LK KCJ10	C163	4176021	NA3R16 KCJ10	D11	4176108	NR4062RK KCJ10	C166	4178120	KDR125R1202C125L900	V53
4175882	NG2M300RK KCJ10	C162	4176023	NA3R5 KCJ10	D11	4176109	NR4094LK KCJ10	C166	4178122	KDR150R1204S050L157	V54
4175883	NGP3125R KCJ10	C168	4176024	NA3R6 KCJ10	D11	4176110	NR4094RK KCJ10	C166	4178123	KDR200R1204S075L200	V54
4175884	NGP3156R KCJ10	C168	4176025	NA3R8 KCJ10	D11	4176112	NR4125LK KCJ10	C166	4178124	KDR200R1205S075L200	V54
4175886	NJ3014R12 KCJ10	D15	4176026	NAS3L10 KCJ10	D12	4176113	NR4125R KCJ10	C172	4178125	KDR250R1207S075L200	V54
4175888	NJF3005R32 KCJ10	D15	4176027	NAS3L5 KCJ10	D12	4176114	NR4125RK KCJ10	C166	4178126	KDR300R1208S100L200	V54
4175893	NGP2031L KCJ10	C168	4176028	NAS3L6 KCJ10	D12	4176115	NRD4062L KCJ10	C173	4181068	R1Q09R0400S KB1610	K57
4175894	NGP2031R KCJ10	C168	4176029	NAS3L8 KCJ10	D12	4176116	NRD4062R KCJ10	C173	5000493	B707A12600FBG KC7315	G111
4175895	NGP2062L KCJ10	C168	4176030	NAS3R10 KCJ10	D12	4176117	NRD4094L KCJ10	C173	5001994	A4R0405M04U00GMN KCP25	C107
4175896	NGP2062R KCJ10	C168	4176031	NAS3R5 KCJ10	D12	4176118	NRD4094R KCJ10	C173	5004291	R1Q09R0400FB KT6225	K58
4175897	NGP2125L KCJ10	C168	4176032	NAS3R6 KCJ10	D12	4176119	NRD4125L KCJ10	C173	5006833	B978A03800 KC7315	G139
4175898	NGP2125R KCJ10	C168	4176033	NAS3R8 KCJ10	D12	4176121	NT4L KCJ10	D17	5015690	193.545.....	H126-129
4175899	NP2002RK KCJ10	C167	4176034	NG3047L KCJ10	C170	4176122	NT4LK KCJ10	D22	5023558	B269A03700HP KCPK15	G62
4175901	NR2031L KCJ10	C172	4176035	NG3047LK KCJ10	C163	4176123	NG3M425RK KCJ10	C163	5025597	SF300M1LA1RA	K68
4175902	NR2031R KCJ10	C172	4176036	NG3047R KCJ10	C170	4176124	NGD3062LK KCJ10	C165	5025598	SF750M1LA1RA	K68
4175903	NR2062L KCJ10	C172	4176037	NG3047RK KCJ10	C162	4176125	NGD3062RK KCJ10	C165	5025599	SF300M1RS	K68
4175904	NR2062R KCJ10	C172	4176038	NG3062L KCJ10	C170	4176126	NGD3094LK KCJ10	C165	5025670	SF750M1RS	K68
4175905	NR2M050L KCJ10	C172	4176039	NG3062LK KCJ10	C163	4176127	NGD3094RK KCJ10	C165	5025671	SFSLRS	K69
4175906	NR2M050R KCJ10	C172	4176040	NG3062R KCJ10	C170	4176128	NGD3125LK KCJ10	C165	5025672	SFSLRS	K69
4175907	NR2M075R KCJ10	C172	4176041	NG3062RK KCJ10	C162	4176133	NT4R KCJ10	D17	5025673	SFSLRA	K69
4175908	NR2M100R KCJ10	C172	4176042	NG3072L KCJ10	C170	4176135	NT4RK KCJ10	D22	5025674	SFSLRA	K69
4175909	NT2L KCJ10	D17	4176043	NG3072LK KCJ10	C163	4176137	NTP4R KCJ10	D22	5025675	SFMSG	K71
4175910	NT2LK KCJ10	D22	4176044	NG3072R KCJ10	C170	4176138	NA4L KCJ10	D11	5025676	SFRC20	K71
4175911	NT2R KCJ10	D17	4176045	NG3072RK KCJ10	C162	4176141	NG3072RK KCJ10	D11	5025677	SFCRHSK3263	K71
4175912	NT2RK KCJ10	D22	4176046	NG3078L KCJ10	C170	4176164	NDC3115V75 KCJ10	D14	5025678	SFCRHSK63100	K71
4175928	NJ3008R20 KCJ10	D16	4176047	NG3078LK KCJ10	C163	4176165	NDC3115V75R75 KCJ10	D14	5025679	SFCR20S	K71
4175932	NJP3010R16 KCJ10	D16	4176048	NG3078R KCJ10	C170	4176166	NDC3114V75 KCJ10	D14	5025680	SFVB	K69
4175933	NTF2L KCJ10	D21	4176049	NG3078RK KCJ10	C162	4176167	NDC327V75 KCJ10	D14	5025681	SFEBS	K70
4175934	NTF2R KCJ10	D21	4176050	NG3088L KCJ10	C170	4176177	NDC68RDR75M KCJ10	D13	5025682	SFEBS	K70
4175935	NTK2L KCJ10	D21	4176051	NG3088R KCJ10	C170	4176178	NDC8115V75M KCJ10	D14	5025683	SFSLRS	K69
4175936	NTK2R KCJ10	D21	4176052	NG3094L KCJ10	C170	4176180	NDC88V75M KCJ10	D14	5025684	SFSB450	K70
4175937	NTP2L KCJ10	D22	4176053	NG3094LK KCJ10	C164	4176181	NT1L KCJ10	D23	5025685	SFBS900	K70
4175938	NTP2R KCJ10	D22	4176054	NG3094R KCJ10	C170	4176182	NTB2L KCJ10	D18	5025686	SFSPS	K70
4175944	NJP3014R12 KCJ10	D16	4176055	NG3094RK KCJ10	C162	4176186	NTB3LB KCJ10	D18	5030114	UJDE0625J6CRB KCSM15	P44
4175946	NP3002RK KCJ10	C167	4176056	NG3097L KCJ10	C171	4176187	NTB3RA KCJ10	D17	5039055	B269A04300HP KCPK15	G62
4175947	NP3012RK KCJ10	C167	4176057	NG3097R KCJ10	C170	4176188	NTB3RB KCJ10	D18	5048735	CNMU443MMN KC10	B51
4175948	NR3031L KCJ10	C172	4176058	NG3105L KCJ10	C171	4176190	NTB4RA KCJ10	D17	5051283	HPFT500S6063 KC635M	P110
4175949	NR3031LK KCJ10	C166	4176059	NG3105R KCJ10	C170	4176191	NTB4RB KCJ10	D18	5051285	HPFT250S6038 KC635M	P110
4175950	NR3031R KCJ10	C172	4176060	NG3125L KCJ10	C171	4176192	NTC310E KCJ10	D20	5051327	HPFT7506300 KC635M	P110
4175951	NR3031RK KCJ10	C166	4176061	NG3125LK KCJ10	C164	4176193	NTC3L12E KCJ10	D20	5051382	HPFT750S6400 KC635M	P110
4175952	NR3047L KCJ10	C172	4176062	NG3125R KCJ10	C170	4176194	NTC3L16E KCJ10	D20	5051389	HPFT1000S6400 KC635M	P110
4175953	NR3047LK KCJ10	C166	4176063	NG3125RK KCJ10	C162	4176195	NTC3M150E KCJ10	D19	5051852	AADTE05J3K K600	P130
4175954	NR3047R KCJ10	C172	4176064	NG3142L KCJ10	C171	4176198	NTC3R11E KCJ10	D20	5051853	AADE1000J3I K600	P130
4175955	NR3047RK KCJ10	C166	4176065	NG3156LK KCJ10	C164	4176204	NTC3R20E KCJ10	D20	5051854	AADE1000J3K K600	P130
4175956	NR3062L KCJ10	C172	4176066	NG3156R KCJ10	C170	4176206	NTC3R32E KCJ10	D20	5051855	AADE0500J3K K600	P129
4175957	NR3062LK KCJ10	C166	4176067	NG3156RK KCJ10	C162	4176207	NTC3R8E KCJ10	D20	5051857	AADE0625J3H K600	P130
4175958	NR3062R KCJ10	C172	4176068	NG3189L KCJ10	C171	4176208	NTC3R9E KCJ10	D20	5051858	AADE0500J3L K600	P129
4175959	NR3062RK KCJ10	C166	4176069	NG3189LK KCJ10	C164	4177167	KDMB025R39A4038HN	V123	5051941	AADE075J3K K600	P128
4175961	NR3078RK KCJ10	C166	4176070	NG3189R KCJ10	C170	4177169	KDMB0312R591A038HN	V123	5051942	AADE0438J3A K600	P129
4175963	NR3094R KCJ10	C172	4176071	NG3189RK KCJ10	C163	4177170	KDMB025R39A4025HN	V123	5051946	AADE0312J3DRB K600	P128
4175964	NR3M120L KCJ10	C172	4176072	NG3M120LK KCJ10	C163	4177171	KDMB025R591A025HN	V123	5051949	KDMB0575J3KRB K600	P129
4175965	NRD3031L KCJ10	C173	4176073	NG4189L KCJ10	C171	4177172	KDMB025R788A025HN	V123	5052000	AADE0375J3KRC K600	P129
4175966	NRD3031R KCJ10	C173	4176074	NG4189LK KCJ10	C164	4177578	KDMT0750SRHF KC515M	V135	5052001	AADE0500J3KRB K600	P129
4175967	NRD3062L KCJ10	C173	4176075	NG4189R KCJ10	C170	4177597	VBM7333LF KCP25	B281	5052002	AADE0500J3KRB K600	P129
4175968	NRD3062R KCJ10	C173	4176076	NG4189RK KCJ10	C163	4177635	KDMB0250M0ERGP KC515M	V126	5052003	AADE0500J3LRB K600	P129
4175969	NRP3031L KCJ10	C169	4176077	NG4250L KCJ10	C171	4177637	KDMB0375M0ERGP KC515M	V126	5052004	AADE0500J3LRC K600	P129
4175970	NRP3031R KCJ10	C169	4176078	NG4250LK KCJ10	C164	4177638	KDMB0500M0ERGP KC515M	V126	5052007	AADE0625J3HRC K600	P130
4175971	NRP3047L KCJ10	C169	4176079	NG4250R KCJ10	C170	4177639	KDMB0625M0ERGP KC515M	V126	5052008	AADE0750J3ARB K600	P130
4175972	NRP3047R KCJ10	C169	4176081	NG4M400LK KCJ10	C164	4177640	KDMB0750M0ERGP KC515M	V126	5052040	AADE0750J3ARC K600	P130
4175975	NRP3062R KCJ10	C169	4176083	NG4M500LK KCJ10	C164	4177641	KDMB1000M0ERGP KC515M	V126	5053664	HPH750J3K K600	P19
4175976	NRP3094L KCJ10	C169	4176084	NG4M500RK KCJ10	C163	4177642	KDMB1250M0ERGP KC515M	V126	5057900	B978A010600 KC7315	G137
4175977	NRP3094R KCJ10	C169	4176085	NGD4125LK KCJ10	C165	4177643	KDMB0312M0ERGP KC505M	V126	5058500	KSEM2653HPGM KC7315	H55
4175978	NT3L KCJ10	D17	4176086	NGD4125RK KCJ10	C165	4177644	KDMB0375M0ERGP KC505M	V126	5058542	AADE500J2B K600	P127
4175979	NT3LCK KCJ10	D19	4176087	NGD4189LK KCJ10	C165	4177645	KDMB0500M0ERGP KC505M	V126	5058612	AADE500J2F K600	P127
4175980	NT3LK KCJ10	D22	4176088	NGD4189RK KCJ10	C165	4177646	KDMB0625M0ERGP KC505M	V126	5058615	AADE375J2G K600	P126
4175981	NT3R KCJ10	D17	4176089	NGD4250L KCJ10	C171	4177647	KDMB0750M0ERGP KC505M	V126	5058618	AADE375J2H K600	P126
4175982	NT3RCK KCJ10	D19	4176090	NGD4250R KCJ10	C165	4177648	KDMB1000M0ERGP KC505M	V126	5058633	AADE375J2H K600	P126
4175983	NT3RK KCJ10	D22	4176091	NGD4250R KCJ10	C171	4177649	KDMB1250M0ERGP KC505M	V126	5059163	AADE750J3J K600	P130
4175984	NTF3L KCJ10	D21	4176092	NGD4250RK KCJ10	C165	4177650	KDMB0250M0ERLD K115M	V126	5059165	AADE750J3K K600	P130
4175985	NTF3R KCJ10	D21	4176093	NG3M120RK KCJ10	C162	4177651	KDMB0312M0ERLD K115M	V126	5059167	AADE500J3H K600	P129
4175986	NTK3L KCJ10	D21	4176094	NG3M225LK KCJ10	C164	4177652	KDMB0375M0ERLD K115M	V126	5059202	AADE438J3A K600	P129
4175987	NTK3R KCJ10	D21	4176095	NG3M225RK KCJ10	C162	4177653	KDMB0500M0ERLD K115M	V126	5059203	KDMB0375J3I K600	P129
4175988	NTP3L KCJ10	D22	4176096	NG3M275LK KCJ10	C164	4177654	KDMB0625M0ERLD K115M	V126	5059206	AADE250J3H K600	P128
4175989	NTP3R KCJ10	D22	4176097	NG3M275RK KCJ10	C162	4177655	KDMB0750M0ERLD K115M	V126	5059209	AADE188J3F K600	P128
4176009	NG4125L KCJ10	C171	4176098	NG3M300LK KCJ10	C164	4177656	KDMB1000M0ERLD K115M	V126	5059213	AADE125J3G K600	P128
4176010	NG4125LK KCJ10	C164	4176099	NG3M300RK KCJ10	C162	4177657	KDMB1250M0ERLD K115M	V126	5059215	AADE625J3I K600	P129
4176011	NG4125R KCJ10	C170	4176100	NG3M400LK KCJ10	C164	4177658	KDMB0500M0ERHC KC530M	V126	5059218	AADE125J3G K600	P128
4176012	NG4125RK KCJ10	C163	4176101	NG3M400RK KCJ10	C162	4177659	KDMB0625M0ERHC KC530M	V126	5059219	KDMB0625M0ERHC KC643M	P38
4176015	NA3L4 KCJ10	D11	4176102	NG3M425LK KCJ10	C164	4177660	KDMB0750M0ERHC KC530M	V126	5059278	B978A03400 KC7315	G139
4176018	NA3L8 KCJ10	D11	4176104	NGP4189R KCJ10	C168	4177661	KDMB1000M0ERHC KC530M	V126	5059453	UGDE0250J5AE KC643M	P38
4176019	NA3R10 KCJ10	D11	4176105	NGP4250L KCJ10	C168	4178116	KDR150R1202W16L150	V51	5059455	UGDE0250J5ARA KC643M	P38
4176020	NA3R12 KCJ10	D11	4176107	NR4062LK KCJ10	C166	4178119	KDR125R1202W100L200	V52	5059457	UGDE0250J5ARB KC643M	P38

For page references F-X, please see Volume II • Rotating Tools Catalog.

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5059458	UGDE0250J5BE KC643M	P39	5062139	TNMG431P KCU10	B126	5067489	DFT06T308D36HP KCU25	H112	5090768	TNMG331MS KCU10	B125
5059459	UGDE0250J5BRB KC643M	P39	5062140	TNMG432MP KCU10	B124	5067520	DFT06T308D39HP KCU25	H112	5090769	TNMG332MS KCU10	B125
5059580	UGDE0250J5BRB KC643M	P39	5062141	TNMG432P KCU10	B126	5067522	DFT06T308D44HP KCU25	H112	5090810	TNMG431MS KCU10	B125
5059582	UGDE0312J5AE KC643M	P38	5062142	TNMG432RP KCU10	B127	5067523	DFT070408D45HP KCU25	H112	5090811	TNMG430MS KCU10	B125
5059583	UGDE0312J5ARA KC643M	P38	5062144	TNMG433P KCU10	B126	5067524	DFT070408D50HP KCU25	H112	5090812	TNMG433MS KCU10	B125
5059584	UGDE0312J5ARB KC643M	P38	5062145	TNMG433RP KCU10	B127	5067526	DFT090508D56HP KCU25	H112	5090815	VNMG3305FS KCU10	B144
5059585	UGDE0312J5BRC KC643M	P39	5062147	TNMG543RP KCU10	B127	5067527	DFT090508D63HP KCU25	H112	5090816	VNMG332MS KCU10	B144
5059589	UGDE0312J5BRA KC643M	P39	5062148	TNMG666RP KCU10	B127	5067567	M1D250E180A5075L157AL	T78	5090817	VNMG331FS KCU10	B144
5059620	UGDE0312J5BRB KC643M	P39	5062149	CNMG643MS KCU25	B52	5067568	M1D200E180S075L157AL	T78	5090819	VNMG332FS KCU10	B144
5059622	UGDE0375J5AE KC643M	P38	5063675	RPET1204M0LEJ KC522M	V71	5068267	DFR020204GD KCPK10	J97	5090851	VNMG3305MS KCU10	B147
5059623	UGDE0375J5ARA KC643M	P38	5063676	RPET1204M0LEJ KC725M	V71	5068268	DFR030204GD KCPK10	J97	5090852	VNMG330MS KCU10	B147
5059624	UGDE0375J5ARB KC643M	P38	5063677	RPET1204M0SGEJ KC522M	V71	5068280	DFR040304GD KCPK10	J97	5090853	VNMG331MS KCU10	B147
5059625	UGDE0375J5BRC KC643M	P38	5063678	RPET1204M0SGEJ KC725M	V71	5068281	DFT030204HP KCPK10	J101	5090854	VNMG432MS KCU10	B147
5059626	UGDE0375J5BE KC643M	P39	5063701	RPET1605M0LEJ KC725M	V78	5068282	DFT030204GD KCPK10	J101	5090855	VNMG431MS KCU10	B147
5059627	UGDE0375J5BRA KC643M	P39	5063702	RPET1605M0SGEJ KC522M	V78	5068283	DFT030304HP KCPK10	J101	5090856	VNMG432MS KCU10	B147
5059628	UGDE0375J5BRB KC643M	P39	5063704	RPET1605M0SGEJ KC725M	V78	5068284	DFT030204HP KCPK10	J101	5090857	VNMG333RP KCU10	B148
5059629	UGDE0375J5BRC KC643M	P39	5065400	KTIP1338HPM KCP15	H33	5068285	DFT05T308HP KCPK10	J101	5090858	VNMG431FS KCU10	B156
5059670	UGDE0500J5AE KC643M	P38	5065401	KTIP1538HPM KCP15	H33	5068286	DFT05T308D KCPK10	J101	5090859	VNMG432FS KCU10	B156
5059671	UGDE0500J5ARA KC643M	P38	5065552	DFR020204LD KCU40	J97	5068288	DFT070408HP KCPK10	J101	5090890	VNMG332MS KCU10	B160
5059672	UGDE0500J5ARB KC643M	P38	5065554	DFR020204GD KCU40	J97	5068289	DFR06T308GD KCPK10	J101	5090891	VNMG4305MS KCU10	B160
5059673	UGDE0500J5ARC KC643M	P38	5065556	DFR020204MD KCU40	J97	5068321	DFR070408HP KCPK10	J101	5090892	VNMG430MS KCU10	B160
5059674	UGDE0500J5BRC KC643M	P39	5065557	DFR030204LD KCU40	J97	5068323	DFR070408GD KCPK10	J101	5090893	VNMG431MS KCU10	B160
5059675	UGDE0500J5BRA KC643M	P39	5065558	DFR030204GD KCU40	J97	5068325	DFT090508HP KCPK10	J101	5090894	VNMG432MS KCU10	B160
5059676	UGDE0500J5BRB KC643M	P39	5065559	DFR030204MD KCU40	J97	5068326	DFT090508GD KCPK10	J101	5101798	UJDE0625J6ARA KCSM15	P44
5059677	UGDE0500J5BRC KC643M	P39	5065660	DFR040304LD KCU40	J97	5069150	A4G0405M04U04GMP KCP25	C105	5104314	RNGJ1204M0ENLDJX KC522M	V63
5059678	UGDE0625J5AE KC643M	P38	5065661	DFR040304GD KCU40	J97	5069154	A4G0605M06U04GMP KCP25	C105	5104318	RNGJ1204M0SNGDJX KC725M	V63
5059697	UGDE0625J5ARA KC643M	P38	5065662	DFR040304MD KCU40	J97	5069158	A4G0605M06U12GMM KCP25	C106	5104420	KDR4020A516RN12X	V62
5059703	UGDE0625J5ARB KC643M	P38	5065663	DFT030204HP KCU40	J101	5069159	A4G1005M10U08GMM KCP25	C106	5104421	KDR5025S22RN12X	V62
5059704	UGDE0625J5ARC KC643M	P38	5065664	DFT030204MD KCU40	J101	5069160	A4G1005M10U12GMM KCP25	C106	5104424	KDR6320S22RN12X	V62
5059705	UGDE0625J5ARD KC643M	P38	5065665	DFT030204GD KCU40	J101	5069161	A4R0305M03U00GMM KCP25	C107	5104426	KDR80207S27RN12X	V62
5059706	UGDE0625J5BRC KC643M	P39	5065666	DFT030304HP KCU40	J101	5069162	A4R0505M05U00GMM KCP25	C107	5106643	UJDE0500J6ARC KCSM15	P44
5059707	UGDE0625J5BRA KC643M	P39	5065667	DFT030304MD KCU40	J101	5069163	A4R0605M06U00GMM KCP25	C107	5109130	A4G0942BP05GUP KCU25	C103
5059709	UGDE0625J5BRB KC643M	P39	5065916	DFT030304GD KCU40	J101	5069164	A4R0805M08U00GMM KCP25	C107	5109131	A4G12503P05GUP KCU25	C103
5059740	UGDE0625J5BRC KC643M	P39	5066013	DFT05T308HP KCU40	J101	5069354	A4G0405M04U04GMP KCP10	C105	5109132	A4G12503P1GUP KCU25	C103
5059741	UGDE0625J5BRD KC643M	P39	5066014	DFT05T308MD KCU40	J101	5069359	A4G0505M05U04GMP KCP10	C105	5109133	A4G18704P1GUP KCU25	C103
5059742	UGDE0750J5AE KC643M	P38	5066015	DFT05T308GD KCU40	J101	5069399	A4G0505M05U08GMP KCP10	C105	5109135	A4G25006P1GUP KCU25	C103
5059743	UGDE0750J5ARC KC643M	P38	5066016	DFT06T308HP KCU40	J101	5069394	A4G0205M02U02GMM KCP10	C106	5109136	A4G25006P2GUP KCU25	C103
5059744	UGDE0750J5ARB KC643M	P38	5066019	DFT06T308MD KCU40	J101	5069430	A4G0305M03U02GMM KCP10	C106	5109137	A4G31208P1GUP KCU25	C103
5059745	UGDE0750J5ARC KC643M	P38	5066064	DFT06T308GD KCU40	J101	5069431	A4G0305M03U04GMM KCP10	C106	5109138	A4G37501P1GUP KCU25	C103
5059746	UGDE0750J5ARD KC643M	P38	5066146	DFT070408HP KCU40	J101	5069432	A4G0605M06U04GMM KCP10	C106	5109290	DNMG3305FS KCU10	B77
5059747	UGDE0750J5BE KC643M	P39	5066147	DFT070408MD KCU40	J101	5069433	A4G0805M08U08GMM KCP10	C106	5109291	DNMG331FS KCU10	B77
5059748	UGDE0750J5BRA KC643M	P39	5066148	DFT070408GD KCU40	J101	5069435	A4G0805M08U12GMM KCP10	C106	5109292	DNMG332FS KCU10	B77
5059749	UGDE0750J5BRB KC643M	P39	5066149	DFT090508HP KCU40	J101	5069437	A4G1005M10U08GMM KCP10	C106	5109293	DNMG430FS KCU10	B77
5059770	UGDE0750J5BRC KC643M	P39	5066190	DFT090508MD KCU40	J101	5069439	A4R0205M02U00GMM KCP10	C107	5109294	DNMG4305FS KCU10	B77
5059771	UGDE0750J5BRD KC643M	P39	5066191	DFT090508GD KCU40	J101	5069470	A4R0305M03U00GMM KCP10	C107	5109295	DNMG441FS KCU10	B77
5059795	UGDE1000J5AE KC643M	P38	5066192	DFR040304D28GD KCU40	H113	5069471	A4R0805M08U00GMM KCP10	C107	5109296	DNMG431FS KCU10	B77
5059798	UGDE1000J5ARA KC643M	P38	5066193	DFT05T308D32HP KCU40	H112	5077334	B269A0300HP KCPK15	G62	5109297	DNMG442FS KCU10	B77
5059799	UGDE1000J5ARB KC643M	P38	5066195	DFT05T308D33HP KCU40	H112	5077336	B269A04200HP KCPK15	G62	5109298	DNMG432FS KCU10	B77
5060120	UGDE1000J5ARC KC643M	P38	5066196	DFT06T308D36HP KCU40	H112	5077337	B269A08200HP KCPK15	G63	5115736	KSEMP2800FDS28B1M	H108, H118
5060121	UGDE1000J5ARD KC643M	P38	5066197	DFT06T308D39HP KCU40	H112	5078982	NGD2M200LK KCU10	C165	5115737	KSEMP1125FDS28B1	H108, H118
5060122	UGDE1000J5BE KC643M	P39	5066198	DFT06T308D44HP KCU40	H112	5080992	SPGX06030MD KCPK10	J103	5115738	KSEMP2900FDS28B1M	H108, H118
5060123	UGDE1000J5BRA KC643M	P39	5066199	DFT070408D45HP KCU40	H112	5085676	UJDE0500J6ARB KCSM15	P44	5115739	KSEMP1156FDS28B1	H108, H118
5060124	UGDE1000J5BRB KC643M	P39	5066220	DFT070408D50HP KCU40	H112	5090284	RP2150E KYS30	B352, V157	5116010	KSEMP3000FDS28B1M	H108, H118
5060126	UGDE1000J5BRC KC643M	P39	5066221	DFT090508D56HP KCU40	H112	5090285	RP32T0420 KYS30	B352, V157	5116011	KSEMP1188FDS28B1	H108, H118
5060127	UGDE1000J5BRD KC643M	P39	5066222	DFT090508D63HP KCU40	H112	5090286	RP43E KYS30	B352, V157	5116012	KSEMP1219FDS28B1	H108, H118
5060206	HPFS156S5056 KCS635M	P109	5066798	DFR020204GD KCU25	J97	5090287	RP43T0420 KYS30	B352, V157	5116013	KSEMP3100FDS28B1M	H108, H118
5062104	SNMG322FF KCU10	B101	5066799	DFR020204MD KCU25	J97	5090494	CNMG4305MS KCU10	B52	5116014	KSEMP1250FDS32B1M	H108, H118
5062106	SNMG432MP KCU10	B102	5067312	DFR030204GD KCU25	J97	5090495	CNMG430MS KCU10	B52	5116015	KSEMP3200FDS32B1M	H108, H118
5062108	SNMG432RP KCU10	B105	5067313	DFR030204MD KCU25	J97	5090496	CNMG431MS KCU10	B52	5116016	KSEMP3300FDS32B1M	H108, H118
5062109	SNMG433MP KCU10	B102	5067314	DFR040304GD KCU25	J97	5090497	CNMG432MS KCU10	B52	5116017	KSEMP3320FDS32B1M	H108, H118
5062110	SNMG433P KCU10	B104	5067316	DFR040304MD KCU25	J97	5090498	CNMG433MS KCU10	B52	5116018	KSEMP1313FDS32B1	H108, H118
5062111	SNMG433RP KCU10	B105	5067318	DFT030204HP KCU25	J101	5090499	CNMG434MS KCU10	B52	5116019	KSEMP3400FDS32B1M	H108, H118
5062112	SNMG543MP KCU10	B102	5067319	DFT030204MD KCU25	J101	5090680	CNMG542MS KCU10	B52	5116030	KSEMP1375FDS32B1	H108, H118
5062113	SNMG543RP KCU10	B105	5067401	DFT030204GD KCU25	J101	5090681	CNMG543MS KCU10	B52	5116031	KSEMP3500FDS32B1M	H108, H118
5062114	SNMG543UP KCU10	B106	5067402	DFT030304HP KCU25	J101	5090682	CNMG642MS KCU10	B52	5116032	KSEMP3600FDS36B1M	H108, H118
5062115	SNMG643 KCU10	B100	5067403	DFT030304MD KCU25	J101	5090684	CNMG644MS KCU10	B52	5116033	KSEMP1438FDS36B1	H108, H118
5062117	SNMG643RP KCU10	B105	5067404	DFT030304GD KCU25	J101	5090685	DNMG332MS KCU10	B82	5116034	KSEMP3700FDS36B1M	H108, H118
5062120	SNMG644RP KCU10	B105	5067406	DFT05T308HP KCU25	J101	5090686	DNMG4305MS KCU10	B82	5116035	KSEMP3750FDS36B1M	H108, H118
5062121	SNMG866 KCU10	B100	5067408	DFT05T308MD KCU25	J101	5090687	DNMG432MS KCU10	B82	5116036	KSEMP3800FDS36B1M	H108, H119
5062122	SNMG866RM KCU10	B104	5067470	DFT05T308GD KCU25	J101	5090688	DNMG431MS KCU10	B82	5116037	KSEMP1500FDS36B1	H108, H119
5062123	TNMG3305LF KCU10	B121	5067473	DFT06T308HP KCU25	J101	5090689	DNMG432MS KCU10	B82	5116038	KSEMP3900FDS36B1M	H108, H119
5062126	TNMG3305 KCU10	B121	5067474	DFT06T308MD KCU25	J101	5090740	DNMG433MS KCU10	B82	5116039	KSEMP3920FDS36B1M	H108, H119
5062127	TNMG331 KCU10	B121	5067475	DFT06T308GD KCU25	J101	5090741	DNMG441MS KCU10	B82	5116040	KSEMP1563FDS36B1	H108, H119
5062128	TNMG332 KCU10	B121	5067476	DFT070408HP KCU25	J101	5090742	DNMG442MS KCU10	B82	5116041	KSEMP4000FDS40B1M	H108, H119
5062129	TNMG331FF KCU10	B123	5067478	DFT070408MD KCU25	J101	5090743	DNMG443MS KCU10	B82	5116042	KSEMP4100FDS40B1M	H108, H119
5062130	TNMG331FW KCU10	B124	5067479	DFT070408GD KCU25	J101	5090744	RCGH43 KCU10	B238	5116043	KSEMP1625FDS40B1	H108, H119
5062131	TNMG331MP KCU10	B124	5067480	DFT090508HP KCU25	J101	5090760	SNMG432MS KCU10	B103	5116044	KSEMP4200FDS40B1M	H108, H119
5062132	TNMG331P KCU10	B126									

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5116110	KSEMP4700FDS45B1M	H109, H119	5124826	KRCSCFP062X	K85	5133971	RHME23000KST200H6SF KC6005	K35	5136420	A4R0600M06P00GUP KCU10	C104
5116111	KSEMP1875FDS45B1	H109, H119	5124827	KRCSCFP063X	K85	5133972	RHME23813KST200H6SF KC6005	K35	5136423	A4R0805M08B00GUP KCU25	C102
5116112	KSEMP4800FDS45B1M	H109, H119	5124828	KRCSCFP061W	K85	5133973	RHME24000KST200H6SF KC6005	K35	5140368	B269A12200HP KCPK15	G63
5116113	KSEMP4900FDS45B1M	H109, H119	5124829	KRCSCFP062W	K85	5133974	RHME25000KST200H6SF KC6005	K35	5144597	A4R12503P00GUP KCU25	C104
5116114	KSEMP5000FDS50B1M	H109, H119	5124850	KRCSCFP063W	K85	5133975	RHME25400KST200H6SF KC6005	K35	5144598	A4R1870AP00GUP KCU25	C104
5116115	KSEMP2000FDS50B1	H109, H119	5127885	RIQ06R0400S KB1610	K57	5133976	RHME26000KST200H6SF KC6005	K35	5144599	A4R25006P00GUP KCU25	C104
5116116	KSEMP5100FDS50B1M	H109, H119	5128566	C8FX150608LRP KCU25	E12	5133977	RHME26000KST200H6SF KC6005	K35	5144664	KSEM0890HPG KC7315	H55
5116117	KSEMP5200FDS50B1M	H109, H119	5128598	C8FX150612LRP KCP25	E12	5133978	RHME28000KST250H6SF KC6005	K35	5144793	CNM6433RP KCPK05	B53
5116118	KSEMP5300FDS50B1M	H109, H119	5129621	B269A10400HP KCPK15	G63	5133979	RHME30000KST250H6SF KC6005	K35	5146918	A4R0305M03U00GUP KCU25	C104
5116119	KSEMP2125FDS50B1	H109, H119	5130229	B707A17900FBL KCMS15	G112	5133980	RHME317500KST250H6SF KC6005	K35	5146919	A4R0800M04P00GUP KCU25	C104
5116120	KSEMP5400FDS50B1M	H109, H119	5131942	B269A03600HP KCPK15	G62	5133991	RHME32000KST250H6SF KC6005	K35	5147210	A4R1005M10U00GUP KCU25	C104
5116121	KSEMP5500FDS50B1M	H109, H119	5132051	B978A03600 KC7315	G139	5133992	RHME34000KST300H6SF KC6005	K35	5147211	A4R0300M03P00GUP KCU25	C104
5116122	KSEMP5600FDS50B1M	H109, H119	5133402	RMBE14000H6SF KC6305	K19	5133993	RHME36000KST300H6SF KC6005	K35	5147212	A4R1000M10P00GUP KCU25	C104
5116123	KSEMP5700FDS50B1M	H109, H119	5133403	RMBE15000H6SF KC6305	K19	5133994	RHME38000KST350H6SF KC6005	K35	5147213	A4R0500M05P00GUP KCU25	C104
5116124	KSEMP2250FDS56B1	H109, H119	5133404	RMBE16000H6SF KC6305	K19	5133995	RHME40000KST350H6SF KC6005	K35	5147214	A4R0600M06P00GUP KCU25	C104
5116125	KSEMP5800FDS56B1M	H109, H119	5133405	RMBE17000H6SF KC6305	K19	5133996	RHME42000KST350H6SF KC6005	K35	5147215	A4R0800M08P00GUP KCU25	C104
5116126	KSEMP5900FDS56B1M	H109, H119	5133406	RMBE18000H6SF KC6305	K19	5133997	RHME14000KST115H6HF KC6305	K36	5147216	A4R1000M10P00GUP KCU25	C104
5116127	KSEMP6000FDS56B1M	H109, H119	5133407	RMBE19000H6SF KC6305	K19	5133998	RHME14288KST115H6HF KC6305	K36	5148480	KSEM1619HPGM KC7315	H54
5116128	KSEMP2375FDS56B1	H109, H119	5133408	RMBE20000H6SF KC6305	K19	5133999	RHME15000KST115H6HF KC6305	K36	5152563	RNG1J0T3M0EJLDJ KC422M	V48
5116129	KSEMP6100FDS56B1M	H109, H119	5133409	RMBE14000H6SF KC6005	K19	5134000	RHME16000KST135H6HF KC6305	K36	5152566	RNG1J0T3M0EJLDJ KC725M	V48
5116130	KSEMP6200FDS56B1M	H109, H119	5133540	RMBE15000H6SF KC6005	K19	5134001	RHME17000KST135H6HF KC6305	K36	5152600	RNG1J0T3M0S0EJLDJ KC725M	V49
5116131	KSEMP6300FDS56B1M	H109, H119	5133541	RMBE16000H6SF KC6005	K19	5134002	RHME17463KST135H6HF KC6305	K36	5152606	KDR100R1003W100L200	V59
5116132	KSEMP2500FDS63B1	H109, H119	5133542	RMBE17000H6SF KC6005	K19	5134003	RHME18000KST155H6HF KC6305	K36	5152607	RNG1J0T3M0EJLDJ KC725M	V59
5116133	KSEMP6400FDS63B1M	H109, H119	5133543	RMBE18000H6SF KC6005	K19	5134004	RHME19000KST155H6HF KC6305	K36	5154366	KDR100R1003M12L125	V44
5116134	KSEMP6500FDS63B1M	H109, H119	5133544	RMBE19000H6SF KC6005	K19	5134005	RHME19050KST155H6HF KC6305	K36	5154400	KDR100R1003W100L200	V45
5116135	KSEMP6600FDS63B1M	H109, H119	5133545	RMBE20000H6SF KC6005	K19	5134006	RHME20000KST175H6HF KC6305	K36	5154402	KDR100R1003C100L600	V46
5116136	KSEMP2625FDS63B1	H109, H119	5133546	RMBE14000H6HF KC6305	K20	5134007	RHME21000KST175H6HF KC6305	K36	5154406	KDR150R1005S050L157	V47
5116137	KSEMP7000FDS63B1M	H109, H119	5133547	RMBE15000H6HF KC6305	K20	5134008	RHME22000KST175H6HF KC6305	K36	5154408	KDR100R1003W100L200	V47
5116138	KSEMP6800FDS63B1M	H109, H119	5133548	RMBE16000H6HF KC6305	K20	5134009	RHME2225KST175H6HF KC6305	K36	5154910	KDR200R1604S075L200	V58
5116139	KSEMP6900FDS63B1M	H109, H119	5133549	RMBE17000H6HF KC6305	K20	5134010	RHME23000KST200H6HF KC6305	K36	5154913	KDR300R1607S100L200	V58
5116140	KSEMP7500FDS63B1	H109, H119	5133560	RMBE18000H6HF KC6305	K20	5134011	RHME23813KST200H6HF KC6305	K36	5154914	KDR100R1003W100L200	V58
5116141	KSEMP7000FDS63B1	H109, H119	5133561	RMBE19000H6HF KC6305	K20	5134012	RHME24000KST200H6HF KC6305	K36	5154915	KDR400R1608S150L200	V58
5116887	B224A14200HP KCPK15	G47	5133562	RMBE20000H6HF KC6305	K20	5134013	RHME25000KST200H6HF KC6305	K36	5154916	KDR150R1608S150L200	V58
5117311	B269A09800HP KCPK15	G63	5133563	RMBE14000H6HF KC6005	K20	5134014	RHME25400KST200H6HF KC6305	K36	5158428	RIQ09E1300 KC6305	K58
5118324	DPA0773D25 KCU40	H114	5133564	RMBE15000H6HF KC6005	K20	5134015	RHME26000KST200H6HF KC6305	K36	5159761	RIQ06E0500FT KT6315	K58
5118325	DPA0974D32 KCU40	H114	5133565	RMBE16000H6HF KC6005	K20	5134016	RHME27000KST200H6HF KC6305	K36	5161120	NA3L16 KCU10	D11
5118326	DPA13T5D50 KCU40	H114	5133566	RMBE17000H6HF KC6005	K20	5134017	RHME28000KST250H6HF KC6305	K36	5169173	EP0708SGE KC725M	T25
5118327	DFC040310D28HP KCU25	H114	5133567	RMBE18000H6HF KC6005	K20	5134018	RHME30000KST250H6HF KC6305	K36	5169174	EP0708SGE KCPK30	T25
5118328	DFC05T312D32HP KCU25	H114	5133568	RMBE19000H6HF KC6005	K20	5134019	RHME31750KST250H6HF KC6305	K36	5169175	EP0708SGE KCPK30	T25
5118329	DFC06T312D36HP KCU25	H114	5133569	RMBE20000H6HF KC6005	K20	5134020	RHME32000KST250H6HF KC6305	K36	5172480	RPT43EGE KCPK30	V84
5118450	DFC070416D45HP KCU25	H114	5133590	RHME14000KST115H6HF KC6305	K35	5134021	RHME34000KST300H6HF KC6305	K36	5172841	RPT43EGE KCU725M	V84
5118451	DFC090520D56HP KCU25	H114	5133591	RHME14288KST115H6HF KC6305	K35	5134022	RHME36000KST300H6HF KC6305	K36	5172843	RPT43EGE KCPK30	V84
5118452	DFC040310D28HP KCU40	H114	5133592	RHME15000KST115H6HF KC6305	K35	5134023	RHME38000KST350H6HF KC6305	K36	5172844	RPT43SGE KC725M	V84
5118453	DFC05T312D32HP KCU40	H114	5133593	RHME16000KST135H6HF KC6305	K35	5134024	RHME40000KST350H6HF KC6305	K36	5172862	RPT1204M0S0D KC725M	V72
5118454	DFC06T312D36HP KCU40	H114	5133594	RHME17000KST135H6HF KC6305	K35	5134025	RHME42000KST350H6HF KC6305	K36	5175033	KSRM125R4303M16L150	V81
5118455	DFC070416D45HP KCU40	H114	5133595	RHME17463KST135H6HF KC6305	K35	5134026	RHME14000KST115H6HF KC6005	K36	5175034	KSRM150R4304M16L150	V81
5118456	DFC090520D56HP KCU40	H114	5133596	RMBE18000KST155H6HF KC6305	K35	5134027	RHME14288KST115H6HF KC6005	K36	5175035	KSRM125R4302C125L600	V82
5118457	DFC040310D28MD KC7140	H114	5133597	RMBE19000KST155H6HF KC6305	K35	5134028	RHME15000KST115H6HF KC6005	K36	5175037	KSRM125R4303C125L1000	V82
5118458	DFC05T312D32MD KC7140	H114	5133598	RMBE19050KST155H6HF KC6305	K35	5134029	RHME16000KST135H6HF KC6005	K36	5175038	KSRM150R4304C125L600	V82
5118459	DFC06T312D36MD KC7140	H114	5133599	RMBE20000KST175H6HF KC6305	K35	5134076	RHME17000KST135H6HF KC6005	K36	5175039	KSRM150R4304C125L1000	V82
5118460	DFC070416D45MD KC7140	H114	5133600	RHME21000KST175H6HF KC6305	K35	5134077	RHME17463KST135H6HF KC6005	K36	5175380	KSRM200R4305S075L197	V83
5118461	DFC090520D56MD KC7140	H114	5133601	RHME22000KST175H6HF KC6305	K35	5134078	RHME18000KST155H6HF KC6005	K36	5175381	KSRM250R4306S075L197	V83
5120433	UJDE0500J6DRB KCSM15	P44	5133602	RHME2225KST175H6HF KC6305	K35	5134079	RHME19000KST155H6HF KC6005	K36	5175382	KSRM3300R4307S100L197	V83
5120466	UJDE1000J6DRB KCSM15	P45	5133603	RHME23000KST200H6SF KC6305	K35	5134120	RHME19050KST155H6HF KC6005	K36	5182481	KTP11430HP KCP15	H33
5120480	UJDE1000J6DRB KCSM15	P45	5133604	RHME23813KST200H6SF KC6305	K35	5134121	RHME20000KST175H6HF KC6005	K36	5182869	SNMG433RN KCPK05	B105
5123821	KTIP2280HPM KCP15	H34	5133605	RHME24000KST200H6SF KC6305	K35	5134122	RHME21000KST175H6HF KC6005	K36	5182893	SNMG543RN KCPK05	B105
5124334	SDET4316SNGB KCPK30	T116	5133606	RHME25000KST200H6SF KC6305	K35	5134123	RHME22000KST175H6HF KC6005	K36	5185658	UJE0500J6CRE KCSM15	P44
		T123, U39	5133607	RHME25400KST200H6SF KC6305	K35	5134124	RHME2225KST175H6HF KC6005	K36	5189859	B269A0860HP KCPK15	G63
5124576	HSK63AAVS00B126MCLB	K83	5133609	RHME26000KST200H6SF KC6305	K35	5134125	RHME23000KST200H6SF KC6005	K36	5190087	M1D050E0702C050L400	T24
5124577	HSK63AAVS01B143MCLB	K83	5133610	RHME27000KST200H6SF KC6305	K35	5134126	RHME23813KST200H6HF KC6005	K36	5190088	M1D062E0703C062L500	T24
5124578	HSK63AAVS1B127MCLB	K83	5133611	RHME28000KST250H6SF KC6305	K35	5134127	RHME24000KST200H6HF KC6005	K36	5190089	M1D075E0705C075L600	T24
5124579	HSK63AAVS2B139MCLB	K83	5133612	RHME30000KST250H6SF KC6305	K35	5134128	RHME25000KST200H6HF KC6005	K36	5194531	M1D150E1803C125L1000AL	T77
5124800	HSK63AAVS3B139MCLB	K83	5133613	RHME31750KST250H6SF KC6305	K35	5134129	RHME25400KST200H6HF KC6005	K36	5201519	LS103	S104
5124801	KM40TSAVS00B111MCLB	K82	5133614	RHME32000KST250H6SF KC6305	K35	5134130	RHME26000KST200H6HF KC6005	K36	5202231	SALS50	S104
5124802	KM40TSAVS0B128MCLB	K82	5133615	RHME34000KST300H6SF KC6305	K35	5134131	RHME27000KST200H6HF KC6005	K36	5202238	SALS25	S104
5124803	KM40TSAVS1B112MCLB	K82	5133616	RHME36000KST300H6SF KC6305	K35	5134132	RHME28000KST250H6HF KC6005	K36	5202239	SALS30	S104
5124804	KM40TSAVS2B127MCLB	K82									

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	
5211981	T630NF#06-40R2BX-D1	KP6525	5212270	T640NC#10-24R2BX-D1	KP6525	5307691	KTIP0748R3SCF075	H41	5324906	VBMR2205FP	KCP25	E36
5211983	T630NF#10-32R2BX-D1	KP6525	5212271	T640NC02500-20R3BX-D1	KP6525	5307692	KTIP0787R3SCF100	H41	5324911	VBMR221FP	KCP10	E36
5211985	T630NF02500-28R3BX-D1	KP6525	5212272	T640NC03125-18R3BX-D1	KP6525	5307693	KTIP0827R3SCF100	H41	5324912	VBMR221FP	KCP25	E36
5211987	T630NF03125-24R3BX-D1	KP6525	5212273	T640NC03125-18R3BX-D1	KP6525	5307694	KTIP0866R3SCF100	H41	5324916	VBMR222FP	KCP10	E36
5211988	T630NF03750-24R3BX-D1	KP6525	5212274	T640NC03750-16R3BX-D1	KP6525	5307695	KTIP0906R3SCF100	H41	5324921	VBMR222FP	KCU10	E36
5211989	T630NF04375-20R3BX-D6	KP6525	5212275	T640NC04375-14R3BX-D6	KP6525	5307696	KTIP0945R3SCF100	H41	5324923	VCMR331FP	KCP10	E37
5211990	T630NF05000-20R3BX-D6	KP6525	5212276	T640NC04375-14R3BX-D6	KP6525	5307698	KTIP1024R3SCF100	H41	5324924	VCMR331FP	KCP25	E37
5211991	T631NC02500-20R3BX-D1	KP6525	5212277	T640NF#06-40R2BX-D1	KP6525	5307699	KTIP1063R3SCF100	H41	5324925	VCMR331FP	KCM25	E37
5211992	T631NC03125-18R3BX-D1	KP6525	5212279	T640NF#10-32R2BX-D1	KP6525	5307700	KTIP0313R5SCF050	H41	5324927	VCMR331FP	KCU10	E37
5211993	T631NC03750-16R3BX-D1	KP6525	5212281	T640NF02500-28R3BX-D1	KP6525	5307701	KTIP0335R5SCF050	H41	5324928	VCMR331FP	KCU25	E37
5211994	T631NC04375-14R3BX-D6	KP6525	5212282	T640NF03125-24R3BX-D1	KP6525	5307702	KTIP0354R5SCF050	H41	5324929	VCMR332FP	KCP10	E37
5211995	T631NC05000-13R3BX-D6	KP6525	5212283	T640NF03750-24R3BX-D1	KP6525	5307703	KTIP0374R5SCF050	H41	5324930	VCMR332FP	KCP25	E37
5211996	T631NF02500-28R3BX-D1	KP6525	5212284	T640NF04375-20R3BX-D6	KP6525	5307704	KTIP0394R5SCF063	H41	5324931	VCMR332FP	KCM25	E37
5211997	T631NF03125-24R3BX-D1	KP6525	5212285	T640NF05000-20R3BX-D6	KP6525	5307705	KTIP0413R5SCF063	H41	5324932	VCMR332FP	KCK05	E37
5211998	T631NF03750-24R3BX-D1	KP6525	5212286	T641NC02500-20R3BX-D1	KP6525	5307706	KTIP0433R5SCF063	H41	5327662	A4R0305M03000GUP	KCU10	C104
5211999	T631NF04375-20R3BX-D6	KP6525	5212287	T641NC03125-18R3BX-D1	KP6525	5307707	KTIP0453R5SCF063	H41	5327663	A4R0505M05000GUP	KCU10	C104
5212000	T631NF05000-20R3BX-D6	KP6525	5212288	T641NC03750-16R3BX-D1	KP6525	5307708	KTIP0472R5SCF063	H41	5327664	A4R1005M10000GUP	KCU10	C104
5212152	T620NC#06-32R2BX-D1	KP6525	5212289	T641NC04375-14R3BX-D6	KP6525	5307709	KTIP0492R5SCF063	H41	5327665	A4R0300M03000GUP	KCU10	C104
5212155	T620NC#08-32R2BX-D1	KP6525	5212290	T641NC05000-13R3BX-D6	KP6525	5307710	KTIP0512R5SCF063	H41	5327666	A4R1000M10000GUP	KCU10	C104
5212156	T620NC#10-24R2BX-D1	KP6525	5212291	T641NF02500-28R3BX-D1	KP6525	5307711	KTIP0532R5SCF063	H41	5327684	A4R12503P000GUP	KCU10	C104
5212158	T620NC02500-20R3BX-D1	KP6525	5212292	T641NF03125-24R3BX-D1	KP6525	5307712	KTIP0551R5SCF063	H41	5327686	A4R25016P000GUP	KCU10	C104
5212159	T620NC03125-18R3BX-D1	KP6525	5212293	T641NF04375-20R3BX-D6	KP6525	5307713	KTIP0571R5SCF063	H41	5327687	A4R31208P000GUP	KCU10	C104
5212210	T620NC03750-16R3BX-D1	KP6525	5212295	T641NF05000-20R3BX-D6	KP6525	5307816	KTIP0591R5SCF075	H41	5327912	VPGR331HP	KP313	E39
5212211	T620NC04375-14R3BX-D6	KP6525	5214053	B269A03800HP	KCPK15	5307817	KTIP0630R5SCF075	H41	5327919	VPGR3305FP	KCP10	E39
5212212	T620NC05000-13R3BX-D6	KP6525	5274660	RNPJ10T3MOSGD	KCPK30	5307818	KTIP0668R5SCF075	H41	5327936	VPGR331FP	KCP10	E39
5212213	T620NF#06-40R2BX-D1	KP6525	5274661	RNPJ10T3MOSGD	KC522M	5307819	KTIP0709R5SCF075	H41	5327937	VPGR331FP	KCP25	E39
5212215	T620NF#10-32R2BX-D1	KP6525	5274662	RNPJ10T3MOSGD	KCPK30	5307840	KTIP0748R5SCF075	H41	5327938	VPGR331FP	KCM25	E39
5212217	T620NF02500-28R3BX-D1	KP6525	5274663	RNPJ10T3MOSGD	KCPK30	5307841	KTIP0787R5SCF100	H41	5327940	VPGR331FP	KCU10	E39
5212218	T620NF03125-24R3BX-D1	KP6525	5274665	RNPJ10T3MOSGD	KCK15	5307842	KTIP0827R5SCF100	H41	5327942	VPGR332FP	KCP10	E39
5212219	T620NF03750-24R3BX-D1	KP6525	5274690	RNPJ1204MOSGD	KCPK30	5307843	KTIP0866R5SCF100	H41	5327943	VPGR332FP	KCP25	E39
5212230	T620NF04375-20R3BX-D6	KP6525	5274691	RNPJ1204MOSGD	KC522M	5307844	KTIP0906R5SCF100	H41	5327944	VPGR332FP	KCM25	E39
5212231	T620NF05000-20R3BX-D6	KP6525	5274693	RNPJ1204MOSGD	KCPK30	5307845	KTIP0945R5SCF100	H41	5327945	VPGR332FP	KCK05	E39
5212232	T621NC02500-20R3BX-D1	KP6525	5274699	RNPJ1605MOSGD	KCPK30	5307846	KTIP0984R5SCF100	H41	5327948	VPGR333FP	KCP10	E39
5212233	T621NC03125-18R3BX-D1	KP6525	5274720	RNPJ1605MOSGD	KC725M	5307847	KTIP1024R5SCF100	H41	5327949	VPGR333FP	KCP25	E39
5212234	T621NC03750-16R3BX-D1	KP6525	5274721	RNPJ1605MOSGD	KC522M	5307848	KTIP1063R5SCF100	H41	5327961	VPGR333FP	KCK05	E39
5212236	T621NC05000-13R3BX-D6	KP6525	5274722	RNPJ1605MOSGD	KCPK30	5307849	KTIP1063R5SCF100	H41	5327965	VPGR334FP	KCP25	E39
5212237	T621NF02500-28R3BX-D1	KP6525	5274724	RNPJ1605MOSGD	KCK15	5307860	KTIP0313R8SCF050	H41	5328738	DNGA432S0525MT	KBH20	B334
5212238	T621NF03125-24R3BX-D1	KP6525	5274725	RNPJ1605MOSGD	KC520M	5307861	KTIP0335R8SCF050	H41	5329836	WNGA431S0415MT	KBH20	B343
5212239	T621NF03750-24R3BX-D1	KP6525	5299680	RPET43SGEJ	KC725M	5307862	KTIP0374R8SCF050	H41	5329837	WNGA432S0415MT	KBH20	B343
5212240	T621NF04375-20R3BX-D6	KP6525	5302954	KSRM200R430S075L197		5307863	KTIP0394R8SCF063	H41	5329838	WNGA432S0625MT	KBH20	B343
5212241	T621NF05000-20R3BX-D6	KP6525	5302955	KSRM250R430S075L197		5307864	KTIP0433R8SCF063	H41	5329839	WNGA432S0735MT	KBH20	B343
5212248	T640NC#06-32R2BX-D1	KP6525	5302956	KSRM300R430S100L197		5307865	KTIP0433R8SCF063	H41	5330130	WNGA432S0415FWMT	KBH20	B343
5212249	T640NC#08-32R2BX-D1	KP6525	5307642	KTIP0313R3SCF050	H41	5307866	KTIP0453R8SCF063	H41	5330131	CGGW21505S0525MT	KBH20	B328
			5307643	KTIP0335R3SCF050	H41	5307867	KTIP0472R8SCF063	H41	5330132	CGGW2151S0525MT	KBH20	B328
			5307644	KTIP0354R3SCF050	H41	5307868	KTIP0492R8SCF063	H41	5330133	CGGW32505S0525MT	KBH20	B328
			5307645	KTIP0374R3SCF050	H41	5307869	KTIP0512R8SCF063	H41	5330134	CGGW3251S0525MT	KBH20	B328
			5307646	KTIP0394R3SCF063	H41	5307871	KTIP0532R8SCF063	H41	5330135	CGGW3251S0415MT	KBH20	B328
			5307647	KTIP0413R3SCF063	H41	5307872	KTIP0551R8SCF063	H41	5330136	CGGW3251S0415FWMT	KBH20	B328
			5307648	KTIP0433R3SCF063	H41	5307873	KTIP0571R8SCF063	H41	5330137	CGGW3252S0525MT	KBH20	B328
			5307649	KTIP0453R3SCF063	H41	5307874	KTIP0591R8SCF075	H41	5330138	CGGW3252S0415MT	KBH20	B328
			5307680	KTIP0472R3SCF063	H41	5307875	KTIP0630R8SCF075	H41	5330139	CGGW3252S0415FWMT	KBH20	B328
			5307681	KTIP0492R3SCF063	H41	5307876	KTIP0668R8SCF075	H41	5330140	CGGW432S0415MT	KBH20	B328
			5307682	KTIP0512R3SCF063	H41	5307877	KTIP0709R8SCF075	H41	5330141	DCGW21505S0525MT	KBH20	B332
			5307683	KTIP0532R3SCF063	H41	5307878	KTIP0748R8SCF075	H41	5330142	DCGW2151S0525MT	KBH20	B332
			5307684	KTIP0551R3SCF063	H41	5307879	KTIP0787R8SCF100	H41	5330143	DCGW2151S0415MT	KBH20	B332
			5307685	KTIP0571R3SCF063	H41	5307880	KTIP0827R8SCF100	H41	5330144	DCGW32505S0525MT	KBH20	B332
			5307686	KTIP0591R3SCF075	H41	5307881	KTIP0866R8SCF100	H41	5330145	DCGW3251S0525MT	KBH20	B332
			5307687	KTIP0630R3SCF075	H41	5307882	KTIP0906R8SCF100	H41	5330146	DCGW3251S0415MT	KBH20	B332
			5307688	KTIP0668R3SCF075	H41	5307883	KTIP0945R8SCF100	H41	5330147	DCGW3252S0525MT	KBH20	B332
			5307689	KTIP0709R3SCF075	H41	5307884	KTIP0984R8SCF100	H41	5330148	DCGW3252S0415MT	KBH20	B332
						5307885	KTIP1024R8SCF100	H41	5330149	DCGW3252S0415FWMT	KBH20	B332
						5307886	KTIP1063R8SCF100	H41	5330150	TPGW21505S0415MT	KBH20	B341
						5309298	B977A16300	KC7315	5330151	TPGW2151S0415MT	KBH20	B341
						5314920	KTIP2110HPM	KCP15	5330152	TPGW2152S0415MT	KBH20	B341
						5314951	B707A03800FBL	KCMS15	5330153	TCGW2150415MT	KBH20	B338
						5317764	UJDE0375J6BQE	KCMS15	5330154	TCGW2151S0415MT	KBH20	B338
						5324450	DPGR431FP	KCP25	5330155	TCGW2152S0415MT	KBH20	B338
						5324453	DPGR431FP	KCU10	5330156	TCGW181505S0415MT	KBH20	B338
						5324456	DPGR432FP	KCP10	5330157	TCGW18151S0415MT	KBH20	B338
						5324458	DPGR432FP	KCM25	5330159	TPGW3251S0415MT	KBH20	B341
						5324773	NPGR51LFP	KCP10	5330160	TPGW3252S0525MT	KBH20	B341
						5324774	NPGR51LFP	KCP25	5330161	TPGW3252S0415MT	KBH20	B341
						5324775	NPGR51LFP	KCM25	5330162	VBGW221S0525MT	KBH20	B341
						5324777	NPGR51LFP	KCU25	5330163	VBGW221S0415MT	KBH20	B341
						5324778	NPGR51RFP	KCP10	5			

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5330695	CNGA431S0525MT KBH20	B330	5351823	UJDE500N6BRA KCSM15	P44	5360389	UBDE1000N4BQB KCSM15	P21	5387808	WNMG432UN KCK15B	B162
5330696	CNGA431S0415MT KBH20	B330	5351824	UJDE500N6BRB KCSM15	P44	5360390	UBDE1000N4BQC KCSM15	P21	5387809	WNMG434UN KCK15B	B162
5330697	CNGA431S0735MT KBH20	B330	5351825	UJDE500N6BRC KCSM15	P44	5360391	UBDE1000N4BQE KCSM15	P21	5387810	DNMG332UN KCK15B	B84
5330698	CNGA431S0415FWMT KBH20	B330	5351826	UJDE500N6BRE KCSM15	P44	5362754	CCMT3253MP KCU10	B191	5387811	CNMG544UN KCK15B	B54
5330699	CNGA432S0525MT KBH20	B330	5351827	UJDE500N6BS KCSM15	P44	5366566	B269A17100HP KCPK15	G64	5387812	DNMG444UN KCK15B	B84
5330830	CNGA432S0415MT KBH20	B330	5351828	UJDE500N6BQB KCSM15	P46	5367199	UJDE0750J6BRH KCSM15	P44	5387851	DNMG444RP KCP10B	B84
5330831	CNGA432S0735MT KBH20	B330	5351829	UJDE625J6BRB KCSM15	P44	5374997	UJDE0625J6CRE KCSM15	P44	5387853	DPMT3252LF KCP10B	B232
5330832	CNGA432S0415FWMT KBH20	B330	5351830	UJDE625J6BRC KCSM15	P44	5377581	B269A04700HP KCPK15	G62	5387856	SCMT3251LF KCP10B	B246
5330833	CNGA433S0525MT KBH20	B330	5351831	UJDE625J6BS KCSM15	P44	5377582	B269A06100HP KCPK15	G63	5387858	SCMT3252MF KCP10B	B247
5330834	CNGA433S0415MT KBH20	B330	5351832	UJDE625N6BRB KCSM15	P44	5378294	B269A11200HP KCPK15	G63	5387864	SCMT433LF KCP10B	B246
5330835	CNGA433S0735MT KBH20	B330	5351833	UJDE625N6BRC KCSM15	P44	5387230	CNMG433FM KCP10B	B50	5387874	SNMG433RP KCP10B	B105
5330836	CNGA433S0415FWMT KBH20	B330	5351834	UJDE625N6BS KCSM15	P44	5387231	CNMG433FM KCP10B	B50	5387882	SNMG543RP KCP10B	B105
5330837	DNMGA431S0525MT KBH20	B334	5351835	UJDE625N6BQB KCSM15	P46	5387540	DNMG443CT KCP25B	B79	5387884	SPMT3252LF KCP10B	B252
5330838	DNMGA431S0415MT KBH20	B334	5351838	UJDE750J6BRB KCSM15	P44	5387541	DNMG443MN KCP25B	B81	5387896	TNMG333RP KCP10B	B127
5330839	DNMGA431S0735MT KBH20	B334	5351839	UJDE750J6BRH KCSM15	P44	5387542	DNMG443RN KCP25B	B83	5387901	DNMG433RP KCP10B	B127
5330840	DNMGA432S0415MT KBH20	B334	5351890	UJDE750J6BRD KCSM15	P44	5387543	DNMG443RP KCP25B	B84	5387903	TPMT2152LF KCP10B	B268
5330841	DNMGA432S0735MT KBH20	B334	5351891	UJDE750J6BRE KCSM15	P44	5387544	DNMG444RN KCP25B	B83	5387905	TPMT3252LF KCP10B	B268
5330842	DNMGA433S0525MT KBH20	B334	5351892	UJDE750J6BS KCSM15	P44	5387545	DNMG444RP KCP25B	B84	5387907	VBMT331FP KCP10B	B281
5330843	DNMGA433S0415MT KBH20	B334	5351893	UJDE750N6BRB KCSM15	P44	5387547	DPMT3252LF KCP25B	B232	5387910	VBMT333FP KCP10B	B281
5330844	DNMGA433S0735MT KBH20	B334	5351894	UJDE750N6BRC KCSM15	P44	5387550	SCMT3251LF KCP25B	B246	5387915	WNMG432RP KCP10B	B161
5330845	DNMGA432S0415FWMT KBH20	B333	5351895	UJDE750N6BRD KCSM15	P44	5387551	SCMT3252FP KCP25B	B246	5387919	WNMG433RP KCP10B	B161
5330846	DNMGA433S0415FWMT KBH20	B333	5351896	UJDE750N6BRE KCSM15	P44	5387553	SCMT3252MF KCP25B	B247	5388031	CNMT3251LF KCP10B	B191
5330847	DNMGA441S0525MT KBH20	B334	5351897	UJDE750N6BS KCSM15	P44	5387554	SCMT3252MP KCP25B	B247	5388032	CCMT3252LF KCP10B	B191
5330848	DNMGA441S0415MT KBH20	B334	5351898	UJDE750N6BQB KCSM15	P46	5387555	SCMT3253MF KCP25B	B247	5388033	CNMT3252MF KCP10B	B191
5330849	DNMGA441S0735MT KBH20	B334	5351899	UJDE750J6CRB KCSM15	P45	5387556	SCMT432FP KCP25B	B246	5388035	CCMT432MF KCP10B	B191
5330850	DNMGA442S0525MT KBH20	B334	5351900	UJDE750J6CRC KCSM15	P45	5387557	SCMT432MF KCP25B	B246	5388036	CNMG432MN KCP10B	B50
5330851	DNMGA442S0415MT KBH20	B334	5351901	UJDE750J6CRD KCSM15	P45	5387558	SCMT433LF KCP25B	B246	5388037	CNMG432MW KCP10B	B52
5330852	DNMGA442S0735MT KBH20	B334	5351902	UJDE750J6CRE KCSM15	P45	5387559	SCMT433MF KCP25B	B247	5388038	CNMG432RN KCP10B	B53
5330853	DNMGA443S0525MT KBH20	B334	5351903	UJDE750J6CS KCSM15	P45	5387563	SNMG433RP KCP25B	B105	5388039	CNMG432RP KCP10B	B53
5330854	DNMGA443S0415MT KBH20	B334	5351904	UJDE750N6CRB KCSM15	P45	5387567	SNMG543RP KCP25B	B105	5388061	CNMG433RN KCP10B	B50
5330855	DNMGA443S0735MT KBH20	B334	5351905	UJDE750N6CRC KCSM15	P45	5387571	SPMT3252LF KCP25B	B252	5388062	CNMG433RN KCP10B	B53
5330856	SNMGA432S0525MT KBH20	B337	5351906	UJDE750N6CRD KCSM15	P45	5387575	TNMG333RP KCP25B	B127	5388064	CNMG434RN KCP10B	B53
5330857	SNMGA433S0525MT KBH20	B337	5351907	UJDE750N6CRE KCSM15	P45	5387577	TNMG434RP KCP25B	B127	5388082	CNMG643RN KCP10B	B53
5330858	TNGA331S0525MT KBH20	B339	5351908	UJDE750N6CS KCSM15	P45	5387579	TPMT2152LF KCP25B	B268	5388084	CNMG644RN KCP10B	B53
5330859	TNGA331S0415MT KBH20	B339	5351930	UJDE1000J6BRB KCSM15	P45	5387580	TPMT2152MF KCP25B	B268	5388085	CNMG433RN KCP10B	B55
5330860	TNGA331S0735MT KBH20	B339	5351931	UJDE1000J6BRE KCSM15	P45	5387581	TPMT3252LF KCP25B	B268	5388086	CNMG433RN KCP10B	B55
5330861	TNGA332S0525MT KBH20	B339	5351932	UJDE1000J6BRF KCSM15	P45	5387584	VBMT331FP KCP25B	B281	5388088	CNMG543RN KCP10B	B55
5330862	TNGA332S0415MT KBH20	B339	5351933	UJDE1000J6BS KCSM15	P45	5387587	VBMT332MP KCP25B	B281	5388089	CNMG544RP KCP10B	B56
5330863	TNGA332S0735MT KBH20	B339	5351934	UJDE1000N6BRB KCSM15	P45	5387588	VBMT333FP KCP25B	B281	5388090	CNMG644RN KCP10B	B55
5330864	TNGA333S0525MT KBH20	B339	5351935	UJDE1000N6BRC KCSM15	P45	5387610	WNMG332RN KCP25B	B161	5388095	DCMT3252LF KCP10B	B225
5330865	TNGA333S0415MT KBH20	B339	5351936	UJDE1000N6BRE KCSM15	P45	5387611	WNMG432MN KCP25B	B159	5388097	DCMT3253MF KCP10B	B226
5330866	TNGA333S0735MT KBH20	B339	5351937	UJDE1000N6BRF KCSM15	P45	5387612	WNMG432MN KCP25B	B160	5388111	DNMG643RN KCP10B	B81
5330867	VNGA331S0525MT KBH20	B342	5351938	UJDE1000N6BS KCSM15	P45	5387614	WNMG433MN KCP25B	B159	5388112	DNMG432RN KCP10B	B83
5330868	VNGA331S0415MT KBH20	B342	5351939	UJDE1000N6BQB KCSM15	P46	5387615	WNMG433MN KCP25B	B160	5388116	DNMG442FN KCP10B	B79
5330869	VNGA331S0735MT KBH20	B342	5351940	UJDE1250J6BRB KCSM15	P45	5387616	WNMG433RN KCP25B	B161	5388117	DNMG442FN KCP10B	B81
5330870	VNGA332S0525MT KBH20	B342	5351942	UJDE1250N6BRB KCSM15	P45	5387618	WNMG434RN KCP25B	B161	5390730	UJDE1000J6DS KCSM15	P45
5330871	VNGA332S0415MT KBH20	B342	5351943	UJDE1250N6BRE KCSM15	P45	5387627	CCMT3251LF KCP25B	B191	5390731	UJDE1000J6CRC KCSM15	P45
5330872	VNGA332S0735MT KBH20	B342	5351944	UJDE1250N6BS KCSM15	P45	5387628	CCMT3252LF KCP25B	B191	5390732	UJDE1000J6CRH KCSM15	P45
5330873	VNGA333S0525MT KBH20	B342	5352319	EADE0178J4AQ KYS40	P156	5387629	CCMT3252MF KCP25B	B191	5393242	CNMG432RN KCK15B	B53
5337754	KM4X100NEL3	D32	5352350	EADE0188J4AQ KYS40	P156	5387661	CCMT432MF KCP25B	B191	5393244	CNMG432RN KCP40B	B53
5337755	KM4X100NEL4	D32	5352351	EADE0238J4AQ KYS40	P156	5387662	CNMG432RN KCP25B	B50	5394869	UJDE1000J6CRD KCSM15	P45
5337756	KM4X100NEL5	D32	5352352	EADE0250J4AQ KYS40	P156	5387663	CNMG432MW KCP25B	B52	5397385	KSEM0500HPG KCPM45	H57
5337757	KM4X100NEL6	D32	5352353	EADE0297J4AQ KYS40	P156	5387664	CNMG432RN KCP25B	B53	5397386	KSEM0500HPG KCPM45	H57
5337758	KM4X100NER3	D32	5352354	EADE0313J4AQ KYS40	P156	5387665	CNMG432RP KCP25B	B53	5397387	KSEM1000HPG KCPM45	H57
5337759	KM4X100NER4	D32	5352355	EADE0356J4AQ KYS40	P156	5387667	CNMG433MN KCP25B	B50	5397388	KSEM0563HPG KCPM45	H57
5337770	KM4X100NER5	D32	5352356	EADE0375J4AQ KYS40	P156	5387668	CNMG433RN KCP25B	B53	5397389	KSEM0634HPG KCPM45	H57
5337771	KM4X100NER6	D32	5352357	EADE0475J4AQ KYS40	P156	5387681	CNMG434RN KCP25B	B53	5397470	KSEM1620HPG KCPM45	H57
5341813	KSEM3125HPGM KC7315	H55	5352358	EADE0500J4AQ KYS40	P156	5387688	CNMG643MN KCP25B	B50	5397471	KSEM0656HPG KCPM45	H57
5348571	CNMG432S0525MTCB1 KBH20	B330	5352359	EADE0188J6ARX KYS40	P157	5387689	CNMG643RN KCP25B	B53	5397473	KSEM0688HPG KCPM45	H57
5348572	CNMG433S0525MTCB1 KBH20	B330	5352360	EADE0250J6ARX KYS40	P157	5387691	CNMG644RN KCP25B	B53	5397474	KSEM1800HPG KCPM45	H57
5348573	CNMG431S0525MTCB1 KBH20	B330	5352361	EADE0313J6ARX KYS40	P157	5387692	CNMG433RN KCP25B	B55	5397475	KSEM0719HPG KCPM45	H57
5348574	DNMG432S0525MTCB1 KBH20	B334	5352362	EADE0375J6ARX KYS40	P157	5387693	CNMG433RP KCP25B	B56	5397476	KSEM1900HPG KCPM45	H57
5348575	DNMG433S0525MTCB1 KBH20	B334	5352363	EADE0500J6ARX KYS40	P157	5387694	CNMG434RP KCP25B	B56	5397477	KSEM1920HPG KCPM45	H57
5348576	DNMG442S0525MTCB1 KBH20	B334	5358938	KSOM125Z03C1000F53X	S44	5387695	CNMG543RN KCP25B	B55	5397478	KSEM0750HPG KCPM45	H57
5348577	DNMG443S0525MTCB1 KBH20	B334	5359020	KSOM150Z040F530S050X	S45	5387696	CNMG544RP KCP25B	B56	5397479	KSEM0758HPG KCPM45	H57
5348579	TNGM332S0525MTCB1 KBH20	B340	5359021	KSOM200Z060F530S075X	S45	5387697	CNMG644RN KCP25B	B55	5397480	KSEM0759HPG KCPM45	H57
5348582	VNMG332S0525MTCB1 KBH20	B342	5359023	KSOM250Z070F530S075X	S45	5387698	CNMG646RN KCP25B	B55	5397481	KSEM1950HPG KCPM45	H57
5348583	VNMG333S0525MTCB1 KBH20	B342	5359024	KSOM300Z090F53100X	S45	5387699	CNMG646RN KCP25B	B55	5397482	KSEM0781HPG KCPM45	H57
5348584	CCGM3251S0525MTCB1 KBH20	B328	5360214	KDR300R1607S125L200	V54	5387727	DCMT3252LF KCP25B	B225	5397483	KSEM2000HPG KCPM45	H57
5348585	CCGM3252S0525MTCB1 KBH20	B328	5360215	KDR300R1208S125L200	V54	5387729	DCMT3253MF KCP25B	B226	5397484	KSEM0813HPG KCPM45	H57
5348586	CCGM3251S0525MTCB1 KBH20	B331	5360377	UBDE0500N4AQA KCSM15	P21	5387732	DNMG432MN KCP25B	B81	5397485	KSEM2100HPG KCPM45	H57
5350437	RIQ06E1306 K6005	K58	5360378	UBDE0500N4AQB KCSM15	P21						

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5397497	KSEM2600HPGM KCPM45	H58	5402938	WNMG432MR KCP25B	B159	5413211	SNMM856RH KCP25B	B106	5416918	T820NC05000-13RH3-A KSMN34	M24
5397498	KSEM1031HPG KCPM45	H58	5402960	WNMG432MR KCK15B	B159	5413212	SNMM866RH KCP25B	B106	5416919	T820NC05000-13RH3-A KSP39	M24
5397499	KSEM2700HPGM KCPM45	H58	5402963	WNMG433MR KCM35	B159	5413242	SCMT3252LF KCP10B	B246	5416930	T820NC05000-13RH3-A KSP39	M24
5397500	KSEM2800HPGM KCPM45	H58	5402964	WNMG433MR KCP10B	B159	5413249	TNMG332FN KCP10B	B123	5416931	T820NC05000-13RH7-A KSP39	M24
5397501	KSEM1125HPG KCPM45	H58	5402965	WNMG433MR KCP25B	B159	5413250	TNMG332MN KCP10B	B124	5416932	T820NF05000-20RH3-A KSP32	M24
5397502	KSEM3000HPGM KCPM45	H58	5402966	DNMG432MR KCM15	B82	5413251	TNMG333FN KCP10B	B123	5416933	T820NF05000-20RH3-A KSMN34	M24
5397503	KSEM1188HPG KCPM45	H58	5402969	DNMG432MR KCP10B	B82	5413255	VBMT3252LF KCP10B	B281	5416934	T820NF05000-20RH3-A KSP39	M24
5397504	KSEM1250HPG KCPM45	H58	5402980	DNMG432MR KCP25B	B82	5413256	VBMT331LF KCP10B	B281	5416935	T820NF05000-20RH5-A KSP39	M24
5397505	KSEM3200HPGM KCPM45	H58	5402983	DNMG442MR KCM25	B82	5413257	VBMT332LF KCP10B	B281	5416936	T820NF05000-20RH6-A KSP39	M24
5397506	KSEM3300HPGM KCPM45	H58	5402985	DNMG442MR KCP10B	B82	5413260	WNMG432MN KCP10B	B159	5416937	T820NF05000-20RH7-A KSP39	M24
5397507	KSEM1313HPG KCPM45	H58	5402986	DNMG442MR KCP25B	B82	5413261	WNMG432MN KCP10B	B160	5416938	T820NC05625-12RH3-A KSP32	M24
5397508	KSEM3600HPGM KCPM45	H58	5402987	DNMG442MR KCK15B	B82	5413263	WNMG433MW KCP10B	B160	5416939	T820NC05625-12RH3-A KSP39	M24
5397509	KSEM1500HPG KCPM45	H58	5402990	DNMG433MR KCP10B	B82	5413269	SCMT3252LF KCP25B	B246	5416940	T820NF05625-11RH3-A KSMN34	M24
5397510	KSEM4000HPGM KCPM45	H58	5402995	DNMG444MR KCP25B	B82	5413276	SNMM644RM KCP25B	B107	5416941	T820NF05625-11RH3-A KSP39	M24
5397513	KSEMP7200FDS71A1M	H106, H116, H123	5403016	CNMG432MR KCM15	B51	5413277	TNMG332MN KCP25B	B124	5416942	T820NC06250-11RH3-A KSP32	M24
5397514	KSEMP7400FDS71A1M	H106, H116, H123	5403017	CNMG432MR KCM25	B51	5413291	VBMT3252LF KCP25B	B281	5416943	T820NC06250-11RH3-A KSMN34	M24
5397515	KSEMP7600FDS71A1M	H106, H117, H123	5403018	CNMG432MR KCM35	B51	5413292	VBMT331LF KCP25B	B281	5416944	T820NC06250-11RH5-A KSP39	M24
5397516	KSEMP3000FDS71A1	H106, H117, H123	5403019	CNMG432MR KCP10B	B51	5413293	VBMT332LF KCP25B	B281	5416945	T820NC06250-11RH5-A KSP39	M24
5397517	KSEMP7800FDS71A1M	H106, H117, H123	5403090	CNMG432MR KCP25B	B51	5413746	RNPJ10T3MOSHDC725M	V49	5416946	T820NF06250-16RH3-A KSP39	M24
5397518	KSEMP8000FDS80A1M	H106, H117, H123	5403091	CNMG432MR KCP40	B51	5413747	RNPJ1204MOSGD K725M	V56	5416947	T820NF06250-16RH3-A KSP32	M24
5397519	KSEMP8200FDS80A1M	H106, H117, H123	5403092	CNMG432MR KCK15B	B51	5413748	RNPJ1204MOSHD K725M	V56	5416948	T820NF06250-16RH3-A KSP39	M24
5397550	KSEMP3250FDS80A1	H106, H117, H123	5403093	CNMG433MR KCM15	B51	5413749	RNPJ1605MOSHDC725M	V59	5416949	T820NF06250-16RH5-A KSP32	M24
5397551	KSEMP8400FDS80A1M	H106, H117, H123	5403094	CNMG433MR KCM25	B51	5415049	RQIO6E6RGO KD1415	K59	5416950	T820NF06250-16RH5-A KSP39	M24
5397552	KSEMP8600FDS80A1M	H106, H117, H123	5403095	CNMG433MR KCM35	B51	5415819	LUDE0500J6DQB KCSM15	P46	5416951	T820NF06250-16RH6-A KSP39	M24
5397553	KSEMP8800FDS80A1M	H106, H117, H123	5403096	CNMG433MR KCP10B	B51	5415836	LUDE1000J6CRF KCSM15	P45	5416952	T820NF07500-10RH3-A KSP32	M24
5397554	KSEMP3500FDS80A1	H106, H117, H123	5403097	CNMG433MR KCP25B	B51	5415850	LUDE0625J6CRC KCSM15	P44	5416953	T820NF07500-10RH3-A KSMN34	M24
5397555	KSEMP9000FDS90A1M	H106, H117, H123	5403099	CNMG433MR KCK15B	B51	5415951	LUDE0625J6CRD KCSM15	P44	5416954	T820NF07500-10RH3-A KSP39	M24
5397556	KSEMP9200FDS90A1M	H106, H117, H123	5403103	CNMG543MR KCP10B	B51	5415953	LUDE0625J6DCB KCSM15	P46	5416955	T820NF07500-16RH3-A KSP32	M25
5397557	KSEMP9400FDS90A1M	H106, H117, H123	5403104	CNMG543MR KCP25B	B51	5415954	LUDE0750J6ARB KCSM15	P44	5416956	T820NF07500-16RH3-A KSMN34	M25
5397558	KSEMP3750FDS90A1	H106, H117, H123	5403105	CNMG543MR KCP40	B51	5415956	LUDE1000J6ARC KCSM15	P45	5416957	T820NF07500-16RH3-A KSP39	M25
5397559	KSEMP9600FDS90A1M	H106, H117, H123	5403108	CNMG434MR KCP10B	B51	5415957	LUDE1000J6ARE KCSM15	P45	5416958	T820NC08750-9RH4-A KSP32	M25
5397560	KSEMP9800FDS90A1M	H106, H117, H123	5403112	CNMG544MR KCP10B	B51	5415959	LUDE1000J6AS KCSM15	P45	5416959	T820NC08750-9RH4-A KSMN34	M25
5397561	KSEMP4000FDS90A1	H106, H117, H123	5403113	CNMG544MR KCP25B	B51	5415970	LUDE1000J6CRB KCSM15	P45	5416961	T820NF08750-14RH4-A KSP39	M25
5397562	KSEMP3000FDS71B1	H10, H11, H119	5403116	CNMG643MR KCM25	B51	5415971	LUDE1000J6CRE KCSM15	P45	5416962	T820NC10000-8RH5-A KSP32	M25
5397563	KSEMP3250FDS80B1	H10, H10, H120	5403119	CNMG643MR KCP25B	B50	5416851	LUDE1000J6CS KCSM15	P45	5416963	T820NC10000-8RH5-A KSMN34	M25
5397564	KSEMP3500FDS80B1	H10, H10, H120	5403120	CNMG643MR KCP10B	B53	5416852	T820NC02500-20RH3-A KSP32	M24	5416964	T820NC10000-8RH5-A KSP39	M25
5397565	KSEMP3750FDS90B1	H10, H10, H120	5413058	CNMG434UN KCK15B	B54	5416853	T820NC02500-20RH3-A KSMN34	M24	5416965	T820NC11250-7RH6-A KSP39	M25
5397566	KSEMP4000FDS90B1	H10, H10, H120	5413059	CNMG866RH KCP25B	B55	5416854	T820NC02500-20RH3-A KSP39	M24	5416966	T820NF11250-7RH6-A KSP39	M25
5397942	WD50FDS71292M	H126	5413107	CCMT3253MF KCP25B	B191	5416855	T820NC02500-20RH5-A KSP39	M24	5416967	T820NF11250-10RH3-A KSP39	M25
5397943	WD50FDS71452M	H127	5413171	CNMG433CT KCP10B	B48	5416856	T820NC02500-20RH7-A KSP39	M24	5416968	T820NC12500-7RH6-A KSP39	M25
5397944	WD50FDS80327M	H126	5413172	CNMG433CT KCP25B	B48	5416857	T820NC02500-20RH7-A KSP39	M24	5416969	T820NC12500-10RH3-A KSP39	M25
5397945	WD50FDS80507M	H127	5413173	CNMG433MW KCK15B	B52	5416858	T820NF02500-28RH3-A KSP32	M24	5416970	T820NC12500-10RH3-A KSMN34	M25
5397946	WD50FDS90362M	H126	5413174	CNMG433RP KCP10B	B53	5416859	T820NF02500-28RH3-A KSMN34	M24	5416971	T820NC12500-10RH3-A KSP39	M25
5397947	WD50FDS90562M	H127	5413175	CNMG433RP KCP25B	B53	5416880	T820NF02500-28RH3-A KSP39	M24	5416972	T820NC12500-10RH3-A KSP39	M25
5397948	SSF200FDS71150	H128	5413176	CNMG434RP KCP10B	B53	5416881	T820NF02500-28RH4-A KSP39	M24	5416973	T820NC12500-10RH3-A KSP39	M25
5397949	SSF200FDS711780	H129	5413177	CNMG434RP KCP25B	B53	5416882	T820NF02500-28RH4-A KSP39	M24	5416974	T820NC12500-10RH3-A KSP39	M25
5398010	SSF200FDS801287	H128	5413178	CNMG543MN KCP10B	B50	5416883	T820NF02500-28RH5-A KSP39	M24	5416975	T820NC12500-10RH3-A KSP39	M25
5398011	SSF200FDS801996	H129	5413179	CNMG543MN KCP25B	B50	5416884	T820NF02500-28RH5-A KSP39	M24	5416976	T820NC12500-10RH3-A KSP39	M25
5398012	SSF200FDS901425	H128	5413180	CNMG543RP KCP10B	B53	5416885	T820NF02500-28RH5-A KSP39	M24	5416977	T820NC12500-10RH3-A KSP39	M25
5398013	SSF200FDS902213	H129	5413181	CNMG543RP KCP25B	B53	5416886	T820NF02500-28RH6-A KSP39	M24	5416978	T820NC12500-10RH3-A KSP39	M25
5400814	B272Z06400HPS KN25	G70	5413182	CNMG544RP KCP10B	B53	5416887	T820NF02500-28RH6-A KSP39	M24	5416979	T820NC12500-10RH3-A KSP39	M25
5402877	SNMG433MR KCM25	B103	5413183	CNMG544RP KCP25B	B53	5416888	T820NF03125-24RH3-A KSP39	M24	5416980	T820NC12500-10RH3-A KSP39	M25
5402879	SNMG433MR KCP10B	B103	5413184	CPMT2152MP KCP25B	B207	5416889	T820NF03125-24RH3-A KSP39	M24	5416981	T820NC12500-10RH3-A KSP39	M25
5402920	SNMG433MR KCP25B	B103	5413185	CPMT3252LF KCP10B	B207	5416890	T820NF03125-24RH3-A KSP39	M24	5416982	T820NC12500-10RH3-A KSP39	M25
5402924	TNMG6332MR KCM25	B125	5413186	CPMT3252LF KCP25B	B207	5416891	T820NF03125-24RH3-A KSMN34	M24	5416983	T820NC12500-10RH3-A KSP39	M25
5402926	TNMG6332MR KCP10B	B125	5413187	CPMT3252MF KCP10B	B207	5416892	T820NF03125-24RH3-A KSP39	M24	5416984	T820NC12500-10RH3-A KSP39	M25
5402927	TNMG6332MR KCP25B	B125	5413188	CPMT3252MF KCP25B	B207	5416893	T820NF03125-24RH4-A KSP39	M24	5416985	T820NC12500-10RH3-A KSP39	M25
5402930	TNMG6333MR KCP10B	B125	5413189	CPMT3252MF KCP25B	B207	5416894	T820NF03125-24RH4-A KSP39	M24	5416986	T820NC12500-10RH3-A KSP39	M25
5402931	TNMG6333MR KCP25B	B125	5413190	DCMT3252MF KCP10B	B226	5416895	T820NF03125-24RH4-A KSP39	M24	5416987	T820NC12500-10RH3-A KSP39	M25
5402932	TNMG6333MR KCK15B	B125	5413191	DCMT3252MF KCP25B	B226	5416896	T820NF03125-24RH4-A KSP39	M24	5416988	T820NC12500-10RH3-A KSP39	M25
5402935	WNMG432MR KCM25	B159	5413193	DNMG333MN KCP25B	B81	5416897	T820NF03750-16RH3-A KSP32	M24	5416989	T820NC12500-10RH3-A KSP39	M25
5402936	WNMG432MR KCM35	B159	5413194	DNMG431CT KCP25B	B79	5416901	T820NF03750-16RH3-A KSMN34	M24	5416990	T820NC12500-10RH3-A KSP39	M25
5402937	WNMG432MR KCP10B	B159	5413196	DNMG433RP KCP25B	B84	5416902	T820NF03750-24RH3-A KSP32	M24	5416991	T820NC12500-10RH3-A KSP39	M25
			5413197	DNMG442RP KCP10B	B84	5416903	T820NF03750-24RH3-A KSMN34	M24	5416992	T820NC12500-10RH3-A KSP39	M25
			5413198	DNMG442RP KCP25B	B84	5416904	T820NF03750-24RH3-A KSP39	M24	5416993	T820NC12500-10RH3-A KSP39	M25
			5413199	DNMG443CT KCP10B	B79	5416905	T820NF03750-24RH4-A KSP39	M24	5416994	T820NC12500-10RH3-A KSP39	M25
			5413200	DNMG443MN KCP10B	B81	5416906	T820NF03750-24RH4-A KSP39	M24	5416995	T820NC12500-10RH3-A KSP39	M25
			5413201	DNMG443RN KCP10B	B83	5416907	T820NF03750-24RH4-A KSP39	M24	5416996	T820NC12500-10RH3-A KSP39	M25
			5413202	DNMG443RP KCP10B	B84	5416908	T820NF03750-24RH4-A KSP39	M24	5416997	T820NC12500-10RH3-A KSP39	M25
			5413203	SNMG433RP KCK15B	B105	5416909					



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5417051	T830NC#12-24RH3-A KSP39	M75	5417191	T830NF07500-16RH3-A KSP39	M76	5417285	T830M040X070R6H-D1 KSP39	M92	5417397	T832M120X175R6H-D6 KSP32	M94
5417052	T830NF#12-28RH3-A KSP39	M75	5417192	T830NC07500-10RH5-A KSP39	M76	5417286	T830M040X070R6G-D1 KSP39	M92	5417398	T832M120X175R6H-D6 KSP39	M94
5417110	T830NC02500-20RH2-A KSP39	M75	5417193	T830NF07500-16RH5-A KSP39	M76	5417287	T830M050X080R6H-D1 KSP32	M92	5417399	T832MF120X150R6H-D4 KSP39	M94
5417111	T830NC02500-20RH3-A KSP32	M75	5417194	T830NC08750-9RH4-A KSMN34	M76	5417288	T830M050X080R6H-D1 KSP39	M92	5417400	T832MF120X150R6H-D4 KSP39	M94
5417112	T830NC02500-20RH3-A KSMN34	M75	5417195	T830NC08750-9RH4-A KSP39	M76	5417289	T830M050X080R6G-D1 KSP39	M92	5417401	T832M140X200R6H-D6 KSP32	M94
5417113	T830NC02500-20RH3-A KSP39	M75	5417196	T830NF08750-14RH4-A KSMN34	M76	5417290	T830M060X100R6H-D1 KSP32	M92	5417402	T832M140X200R6H-D6 KSP39	M94
5417114	T830NC02500-20RH3-A KSP39	M75	5417197	T830NF08750-14RH4-A KSP39	M76	5417291	T830M060X100R6H-D1 KSP39	M92	5417403	T832MF140X150R6H-D4 KSP39	M94
5417115	T830NC02500-20RH7-A KSP39	M75	5417198	T830NC10000-8RH4-A KSMN34	M76	5417292	T830M060X100R6G-D1 KSP39	M92	5417404	T832MF140X150R6H-D4 KSP39	M94
5417116	T830NF02500-28RH2-A KSP39	M75	5417199	T830NC10000-8RH5-A KSP32	M76	5417293	T830M070X100R6H-D1 KSP39	M92	5417405	T832M160X200R6H-D6 KSP39	M94
5417117	T830NF02500-28RH3-A KSP32	M75	5417200	T830NC10000-8RH5-A KSP39	M76	5417294	T830M080X125R6H-D1 KSP32	M92	5417406	T832M180X250R6H-D6 KSP39	M94
5417118	T830NF02500-28RH3-A KSMN34	M75	5417202	T830NF1000-12RH4-A KSP39	M76	5417295	T830M080X125R6H-D1 KSP39	M92	5417407	T832M180X250R6H-D6 KSP39	M94
5417119	T830NF02500-28RH3-A KSP39	M75	5417203	T830NC11250-7RH6-A KSP39	M76	5417296	T830M080X125R6H-D1 KSP39	M92	5417408	T832M200X250R6H-D6 KSP32	M94
5417120	T830NF02500-28RH4-A KSP39	M75	5417205	T820M020X040R6H-D1 KSP32	M31	5417297	T830M080X125R6G-D1 KSP39	M92	5417409	T832M200X250R6H-D6 KSP39	M94
5417121	T830NF02500-28RH5-A KSP39	M75	5417206	T820M020X040R6G-D1 KSP39	M31	5417298	T830M080X125R6G-D1 KSP39	M92	5417410	T830M030X050R6H-J KJU31	M98
5417122	T830NF02500-28RH6-A KSP39	M75	5417207	T820M020X040R6G-D1 KSP39	M31	5417299	T830M100X150R6H-D1 KSP32	M92	5417411	T830M030X050R6H-J KJU30	M98
5417123	T830NF02500-28RH7-A KSP39	M75	5417208	T820M025X045R6H-D1 KSP39	M31	5417300	T830M100X150R6H-D1 KSP39	M92	5417412	T830M040X070R6H-J KJU31	M98
5417124	T830NC03125-18RH3-A KSP32	M75	5417209	T820M025X045R6G-D1 KSP39	M31	5417301	T830MF100X125R6H-D4 KSP32	M92	5417413	T830M040X070R6H-J KJU30	M98
5417125	T830NC03125-18RH3-A KSMN34	M75	5417220	T820M030X050R6H-D1 KSP32	M31	5417302	T830MF100X125R6G-D4 KSP39	M92	5417414	T830M050X080R6H-J KJU31	M98
5417126	T830NC03125-18RH3-A KSP39	M75	5417221	T820M030X050R6H-D1 KSP39	M31	5417303	T830M100X150R6G-D1 KSP39	M92	5417415	T830M050X080R6H-J KJU30	M98
5417127	T830NC03125-18RH5-A KSP39	M75	5417222	T820M030X050R6G-D1 KSP39	M31	5417304	T830M060X100R6H-D6 KSP39	M92	5417416	T830M060X100R6H-J KJU31	M98
5417128	T830NC03125-18RH7-A KSP39	M75	5417223	T820M035X060R6H-D1 KSP39	M31	5417305	T830M060X100R6H-D6 KSP39	M92	5417417	T830M060X100R6H-J KJU30	M98
5417129	T830NF03125-24RH3-A KSP32	M75	5417224	T820M040X070R6H-D1 KSP32	M31	5417306	T830M100X150R6H-D6 KSP39	M92	5417418	T830M080X125R6H-J KJU30	M98
5417130	T830NF03125-24RH3-A KSMN34	M75	5417225	T820M040X070R6H-D1 KSP39	M31	5417307	T830M120X175R6H-D6 KSP32	M93	5417419	T830M080X125R6H-J KJU31	M98
5417131	T830NF03125-24RH3-A KSP39	M75	5417226	T820M040X070R6G-D1 KSP39	M31	5417308	T830M120X175R6H-D6 KSP39	M93	5417420	T830M100X150R6H-J KJU30	M98
5417132	T830NF03125-24RH5-A KSP39	M75	5417227	T820M040X070R6G-D1 KSP39	M31	5417309	T830MF120X125R6H-D4 KSP39	M93	5417421	T830M100X150R6H-J KJU31	M98
5417133	T830NF03125-24RH7-A KSP39	M75	5417228	T820M050X080R6H-D1 KSP32	M31	5417310	T830MF120X150R6H-D4 KSP32	M93	5417422	T830M120X175R6H-J KJU30	M98
5417134	T830NC03750-16RH3-A KSP32	M75	5417229	T820M050X080R6G-D1 KSP39	M31	5417311	T830MF120X150R6H-D4 KSP39	M93	5417423	T830MF120X150R6H-J KJU30	M98
5417135	T830NC03750-16RH3-A KSMN34	M75	5417230	T820M050X080R6H-D4 KSP39	M31	5417312	T830M120X175R6G-D6 KSP39	M93	5417424	T830MF120X150R6H-J KJU30	M98
5417136	T830NC03750-16RH5-A KSP39	M75	5417231	T820M050X080R6G-D1 KSP39	M31	5417313	T830M140X200R6H-D6 KSP32	M93	5417425	T830MF140X150R6H-J KJU30	M98
5417137	T830NC03750-16RH5-A KSP39	M75	5417232	T820M060X100R6H-D1 KSP32	M31	5417314	T830M140X200R6H-D6 KSP39	M93	5417426	T830M140X200R6H-J KJU30	M98
5417138	T830NC03750-16RH7-A KSP39	M75	5417233	T820M060X100R6H-D1 KSP39	M31	5417315	T830MF140X150R6H-D4 KSP32	M93	5417427	T830MF160X150R6H-J KJU30	M98
5417139	T830NF03750-24RH3-A KSP32	M75	5417234	T820M060X100R6G-D1 KSP39	M31	5417316	T830MF140X150R6H-D4 KSP39	M93	5417428	T830M160X200R6H-J KJU30	M98
5417140	T830NF03750-24RH3-A KSMN34	M75	5417235	T820M060X100R6G-D1 KSP39	M31	5417317	T830M140X200R6G-D6 KSP39	M93	5417429	T830M180X250R6H-J KJU30	M98
5417141	T830NF03750-24RH3-A KSP39	M75	5417236	T820M060X100R6G-D1 KSP39	M31	5417318	T830M160X200R6H-D6 KSP39	M93	5417430	T830M200X250R6H-J KJU30	M98
5417142	T830NF03750-24RH4-A KSP39	M75	5417237	T820M070X100R6H-D1 KSP32	M31	5417319	T830MF160X150R6H-D4 KSP39	M93	5418689	SNHJ444ENLD KC520M	S59
5417143	T830NF03750-24RH5-A KSP39	M75	5417238	T820M070X100R6H-D1 KSP39	M31	5417320	T830M160X200R6H-D6 KSP39	M93	5418800	SNHJ444ENLD KCK725M	S59
5417144	T830NF03750-24RH6-A KSP39	M75	5417239	T820M070X100R6G-D1 KSP39	M31	5417331	T830M180X250R6H-D6 KSP39	M93	5418801	SNHJ444ENLD KCK15	S59
5417145	T830NC04375-14RH3-A KSP32	M75	5417240	T820M080X125R6H-D1 KSP32	M31	5417332	T830MF180X150R6H-D4 KSP39	M93	5418802	SNHJ444ENLD KCKP30	S59
5417146	T830NC04375-14RH3-A KSMN34	M75	5417241	T820M080X125R6G-D1 KSP39	M31	5417333	T830M200X250R6H-D6 KSP39	M93	5418803	SNHJ444ENLD KCK520M	S59
5417147	T830NC04375-14RH3-A KSP39	M75	5417242	T820M080X125R6G-D1 KSP39	M31	5417334	T830M220X250R6H-D6 KSP39	M93	5418804	SNHJ444ENLD KCK725M	S59
5417148	T830NC04375-14RH5-A KSP39	M75	5417243	T820M080X125R6G-D1 KSP39	M31	5417335	T830M240X300R6H-D6 KSP39	M93	5418805	SNHJ444ENLD KCK15	S59
5417149	T830NC04375-14RH7-A KSP39	M75	5417244	T820M100X150R6H-D1 KSP32	M32	5417336	T830M240X300R6H-D6 KSP39	M93	5418806	SNHJ444ENLD KCKP30	S59
5417150	T830NF04375-20RH3-A KSP32	M75	5417245	T820M100X150R6H-D1 KSP39	M31	5417337	T830M300X350R6H-D6 KSP39	M93	5418807	SNHJ31252ENLD KC520M	S57
5417151	T830NF04375-20RH3-A KSMN34	M75	5417246	T820MF100X125R6H-D4 KSP39	M31	5417338	T830M330X350R6H-D6 KSP39	M93	5418808	SNHJ31252ENLD KCK725M	S57
5417152	T830NF04375-20RH3-A KSP39	M75	5417247	T820M100X150R6G-D1 KSP39	M32	5417339	T830M330X350R6H-D6 KSP39	M93	5418809	SNHJ31252ENLD KCK15	S57
5417153	T830NF04375-20RH5-A KSP39	M75	5417248	T820M060X100R6H-D6 KSP39	M31	5417350	T820M030X050R6H-J KJU31	M33	5418810	SNHJ31252ENLD KCKP30	S57
5417154	T830NF04375-20RH6-A KSP39	M75	5417249	T820M080X125R6H-D6 KSP39	M31	5417351	T820M030X050R6H-J KJU30	M33	5418811	SNHJ31253ENLD KCK725M	S57
5417155	T830NF04375-20RH7-A KSP39	M75	5417250	T820M100X150R6H-D6 KSP39	M31	5417352	T820M030X050R6H-J KJU31	M33	5418812	SNHJ31253ENLD KCK15	S57
5417156	T830NC05000-13RH3-A KSP32	M75	5417251	T820M120X175R6H-D6 KSP32	M32	5417353	T820M040X070R6H-J KJU30	M33	5420150	KSSM87D200SN440S075205	S58
5417157	T830NC05000-13RH3-A KSMN34	M75	5417252	T820M120X175R6G-D6 KSP39	M32	5417354	T820M050X080R6H-J KJU31	M33	5420154	KSSM87D300SN440S100207	S58
5417158	T830NC05000-13RH5-A KSP39	M75	5417253	T820MF120X125R6H-D4 KSP39	M32	5417355	T820M050X080R6H-J KJU30	M33	5420155	KSSM87D300SN440S100209	S58
5417159	T830NC05000-13RH5-A KSP39	M75	5417254	T820MF120X150R6H-D4 KSP39	M32	5417356	T820M060X100R6H-J KJU31	M33	5420156	KSSM87D400SN440S150208	S58
5417160	T830NC05000-13RH7-A KSP39	M75	5417255	T820M120X175R6G-D6 KSP39	M32	5417357	T832M030X050R6H-D1 KSP32	M94	5420157	KSSM87D400SN440S150211	S58
5417161	T830NF05000-20RH3-A KSP32	M75	5417256	T820M140X200R6H-D6 KSP32	M32	5417358	T820M060X100R6H-J KJU30	M33	5420160	KSSM87D600SN440S150212	S58
5417162	T830NF05000-20RH3-A KSMN34	M75	5417257	T820M140X200R6H-D6 KSP39	M32	5417359	T832M030X050R6H-D1 KSP39	M94	5420161	KSSM87D600SN440S150216	S58
5417163	T830NF05000-20RH3-A KSP39	M75	5417258	T820MF140X125R6H-D4 KSP39	M32	5417370	T820M080X125R6H-J KJU31	M33	5420251	KSSM88D200SN3125S075205	S56
5417164	T830NF05000-20RH5-A KSP39	M75	5417259	T820MF140X150R6H-D4 KSP39	M32	5417371	T820M080X125R6H-J KJU32	M94	5420252	KSSM88D200SN3125S075206	S56
5417165	T830NF05000-20RH6-A KSP39	M75	5417260	T820M140X200R6G-D6 KSP39	M32	5417372	T820M080X125R6H-J KJU30	M33	5420255	KSSM88D300SN3125S100207	S56
5417166	T830NF05000-20RH7-A KSP39	M75	5417261	T820M160X200R6H-D6 KSP32	M32	5417373	T832M040X070R6H-D1 KSP39	M94	5420257	KSSM88D300SN3125S100209	S56
5417167	T830NC05625-12RH3-A KSMN34	M75	5417262	T820M160X200R6H-D6 KSP39	M32	5417374	T820M100X150R6H-J KJU31	M33	5420258	KSSM88D400SN3125S150208	S56
5417168	T830NC05625-12RH3-A KSP39	M75	5417263	T820MF160X150R6H-D4 KSP39	M32	5417375	T832M050X080R6H-D1 KSP32	M94	5420672	B551A04763DAL KN15	G104
5417169	T830NC05625-12RH3-A KSP32	M75	5417264	T820M160X200R6G-D6 KSP39	M32	5417376	T820M100X150R6H-J KJU30	M33	5420673	B551A06350DAL KN15	G104
5417170	T830NC05625-12RH5-A KSP39	M76	5417265	T820M180X250R6H-D6 KSP32	M32	5417377	T832M050X080R6H-D1 KSP39	M94	5420674	B551A07938DAL KN15	G104
5417171	T830NF05625-18RH3-A KSMN34	M76	5417266	T820M180X250R6H-D6 KSP39	M32	5417378	T820M120X175R6H-J KJU30	M33	5420675	B551A109525DAL KN15	G104
5417172	T830NF05625-18RH3-A KSP39	M76	5417267	T820MF180X150R6H-D4 KSP39	M32	5417379	T832M060X100R6H-D1 KSP32	M94	5420676	B551A11113DAL KN15	G104
5417173	T830NF05625-18RH5-A KSP39	M76	5417268	T820M200X250R6H-D6 KSP32	M32	5417380	T820M120X175R6H-J KJU30	M33	5420677	B551A12700DAL KN15	G104
5417174	T830NC06250-11RH3-A KSP32	M76	5417269	T820M200X250R6H-D6 KSP39	M32	5417381	T832M060X100R6H-D1 KSP39	M94	5420678	B551A14288DAL KN15	G104
5417175	T830NC06250-11RH3-A KSMN34	M76	5417270	T820M220X250R6H-D6 KSP39	M32	5417382	T820MF120X150R6H-J KJU30	M94	5420679	B551A15875DAL KN15	G104
5417176	T830NC06250-11RH3-A KSP39	M76	5417271	T820M240X300R6H-D6 KSP39	M32	5417383					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5420839	SNXF43Z3NSNGP KCK15	S89	5434691	PDC251A09525DA KD1415	G106	5434782	B285D07000HPS KN15	G83	5443921	T832MF160X150RD6-A KSP39	M89
5420840	SNXF43Z3SNH KCK15	S89	5434692	PDC251A1113DA KD1415	G106	5434783	B285D07145HPS KN15	G83	5443922	T832M160X200RD7-A KSP39	M89
5420841	SNXF43Z3NSNH KCK15	S89	5434693	PDC251A12700DA KD1415	G106	5434785	B285D07700HPS KN15	G83	5443923	T832MF180X150RD6-A KSP39	M89
5420842	SNXF43Z3ENLDW KCK15	S90	5434697	B284D03000HPS KN15	G82	5434786	B285D07800HPS KN15	G83	5443938	T830M030X050RD3-A KSP32	M88
5424912	WNMG432RN KCP25B	B161	5434699	B284D03175HPS KN15	G82	5434787	B285D07938HPS KN15	G83	5453539	T830M030X050RD3-A KSP39	M88
5425545	CNMG543RN KCP25B	B53	5434700	B284D03200HPS KN15	G82	5434788	B285D08334HPS KN15	G83	5455180	T830M035X060RD4-A KSP39	M88
5425546	CNMG544RN KCP25B	B53	5434701	B284D03300HPS KN15	G82	5434789	B285D08400HPS KN15	G83	5455181	T830M040X070RD4-A KSP32	M88
5425547	CNMG644MN KCP25B	B50	5434703	B284D03500HPS KN15	G82	5434790	B285D08500HPS KN15	G83	5455182	T830M040X070RD4-A KSP39	M88
5425548	DNMG433MN KCP25B	B81	5434704	B284D03571HPS KN15	G82	5434791	B285D08733HPS KN15	G83	5455183	T830M050X080RD4-A KSP32	M88
5425549	DNMG433RN KCP25B	B83	5434706	B284D03970HPS KN15	G82	5434792	B285D09000HPS KN15	G83	5455184	T830M050X080RD4-A KSMN34	M88
5425581	RNMG433RN KCP10B	B97	5434707	B284D04000HPS KN15	G82	5434793	B285D09300HPS KN15	G83	5455185	T830M050X080RD4-A KSP39	M88
5425582	SNMG322MN KCP10B	B102	5434709	B284D04200HPS KN15	G82	5434794	B285D09500HPS KN15	G83	5455186	T830M060X100RD5-A KSP32	M88
5425583	SNMG433MN KCP10B	B102	5434710	B284D04366HPS KN15	G82	5434795	B285D09525HPS KN15	G83	5455187	T830M060X100RD5-A KSP39	M88
5425584	SNMG433RN KCP10B	B105	5434712	B284D04500HPS KN15	G82	5434796	B285D10000HPS KN15	G83	5455188	T830M060X100RD5-A KSP39	M88
5425585	SNMG434RN KCP10B	B105	5434713	B284D04763HPS KN15	G82	5434797	B285D10500HPS KN15	G83	5455189	T830M070X100RD5-A KSP39	M88
5425586	SNMG543MN KCP10B	B102	5434714	B284D04800HPS KN15	G82	5434798	B285D11000HPS KN15	G84	5455200	T830M070X100RD5-A KSP39	M88
5425587	SNMG543RN KCP10B	B105	5434715	B284D05000HPS KN15	G82	5434799	B285D1113HPS KN15	G84	5455201	T830M080X125RD5-A KSP32	M88
5425588	TNMG333MN KCP10B	B124	5434716	B284D05100HPS KN15	G82	5434800	B285D11500HPS KN15	G84	5455202	T830M080X125RD5-A KSMN34	M88
5425589	TNMG333RN KCP10B	B126	5434717	B284D05190HPS KN15	G82	5434801	B285D12000HPS KN15	G84	5455203	T830M100X150RD6-A KSP39	M88
5425591	VNMG332MN KCP10B	B146	5434718	B284D05558HPS KN15	G82	5434802	B285D14000HPS KN15	G84	5455204	T830M100X150RD6-A KSP39	M88
5425592	VNMG332RN KCP10B	B161	5434719	B284D05600HPS KN15	G83	5434803	B285D14500HPS KN15	G84	5455205	T830M100X150RD6-A KSP32	M88
5425593	WNMG433MN KCP10B	B159	5434721	B284D05800HPS KN15	G83	5434804	B285D15000HPS KN15	G84	5455206	T830M100X150RD6-A KSMN34	M88
5425594	WNMG433RN KCP10B	B161	5434722	B284D05954HPS KN15	G83	5443804	T832NC#04-40RH2-A KSP39	M77	5455207	T830M100X150RD6-A KSP39	M88
5425595	WNMG434RN KCP10B	B161	5434723	B284D06000HPS KN15	G83	5443805	T832NC#04-40RH3-A KSP39	M77	5455208	T830MF120X125RD6-A KSP39	M88
5425596	RNMG32RN KCP25B	B97	5434724	B284D06400HPS KN15	G83	5443806	T832NC#04-40RH5-A KSP39	M77	5455209	T830MF120X150RD5-A KSP39	M88
5425597	RNMG43RN KCP25B	B97	5434725	B284D06500HPS KN15	G83	5443807	T832NC#05-40RH2-A KSP39	M77	5455210	T830M120X175RD6-A KSP32	M88
5425598	SNMG322MN KCP25B	B102	5434726	B284D06746HPS KN15	G83	5443820	T832NC#06-32RH2-A KSP39	M77	5455221	T830M120X175RD6-A KSMN34	M88
5425599	SNMG433MN KCP25B	B102	5434727	B284D06800HPS KN15	G83	5443821	T832NC#06-32RH3-A KSP39	M77	5455222	T830M120X175RD6-A KSP39	M88
5425600	SNMG433RN KCP25B	B105	5434728	B284D07000HPS KN15	G83	5443822	T832NC#06-32RH5-A KSP39	M77	5455224	T830MF140X150RD6-A KSP39	M88
5425601	SNMG434RN KCP25B	B105	5434729	B284D07145HPS KN15	G83	5443823	T832NF#06-40RH2-A KSP39	M77	5455225	T830M140X200RD7-A KSP39	M88
5425602	SNMG543MN KCP25B	B102	5434730	B284D07400HPS KN15	G83	5443824	T832NF#06-40RH3-A KSP39	M77	5455226	T830MF160X150RD6-A KSP39	M88
5425603	SNMG543RN KCP25B	B105	5434731	B284D07500HPS KN15	G83	5443826	T832NC#08-32RH2-A KSP39	M77	5455227	T830M160X200RD7-A KSP39	M88
5425604	TNMG333MN KCP25B	B124	5434732	B284D07541HPS KN15	G83	5443827	T832NC#08-32RH3-A KSP39	M77	5455229	T830MF180X150RD6-A KSP39	M88
5425605	TNMG333RN KCP25B	B126	5434733	B284D07938HPS KN15	G83	5443828	T832NC#08-32RH5-A KSP39	M77	5455230	T830M180X250RD7-A KSP39	M88
5425606	TNMG434RN KCP25B	B126	5434734	B284D08000HPS KN15	G83	5443829	T832NC#10-24RH3-A KSP39	M77	5455233	T820NC#02-56RH2-A KSP39	M23
5425607	VNMG332MN KCP25B	B146	5434735	B284D08334HPS KN15	G83	5443830	T832NC#10-24RH5-A KSP39	M77	5455234	T820NC#02-56RH3-A KSP39	M23
5430965	WNMG433RP KCK15B	B161	5434736	B284D08500HPS KN15	G83	5443831	T832NF#10-32RH3-A KSP39	M77	5455235	T820NC#02-56RH4-A KSP39	M23
5430966	CNMG543RN KCP10B	B53	5434737	B284D08733HPS KN15	G83	5443833	T832NF#10-32RH5-A KSP39	M77	5455236	T820NC#03-48RH2-A KSP39	M23
5430967	CNMG544RN KCP10B	B53	5434738	B284D09000HPS KN15	G83	5443834	T832NC02500-20RH3-A KSP39	M77	5455237	T820NC#04-40RH2-A KSP32	M23
5430968	CNMG644MN KCP10B	B50	5434739	B284D09129HPS KN15	G83	5443835	T832NC02500-20RH5-A KSP39	M77	5455238	T820NC#04-40RH2-A KSMN34	M23
5430969	DNMG431MN KCP10B	B81	5434740	B284D09500HPS KN15	G83	5443836	T832NF02500-2RH3-A KSP39	M77	5455239	T820NC#04-40RH3-A KSP39	M23
5431070	DNMG433MN KCP10B	B81	5434741	B284D09525HPS KN15	G83	5443837	T832NF02500-2RH5-A KSP39	M77	5455830	T820NC#04-40RH4-A KSP39	M23
5431071	DNMG433RN KCP10B	B83	5434742	B284D09921HPS KN15	G83	5443838	T832NC03125-18RH3-A KSP39	M77	5455831	T820NC#04-40RH4-A KSP39	M23
5431193	HSFS0500	H128-129	5434743	B284D10000HPS KN15	G83	5443839	T832NC03125-18RH5-A KSP39	M77	5455832	T820NF#04-48RH4-A KSP39	M23
5431591	CW16	S30-31	5434744	B284D10200HPS KN15	G83	5443840	T832NC03125-24RH3-A KSP39	M77	5455833	T820NF#04-48RH5-A KSP32	M23
5431656	T820M030X050RD3-A KSP32	M29	5434745	B284D10320HPS KN15	G83	5443841	T832NF03125-24RH5-A KSP39	M77	5455834	T820NC#04-40RH5-A KSP39	M23
5431657	T820M030X050RD3-A KSMN34	M29	5434746	B284D10500HPS KN15	G84	5443842	T832NC03750-16RH3-A KSP39	M77	5455835	T820NC#04-40RH6-A KSP39	M23
5431658	T820M030X050RD4-A KSP39	M29	5434747	B284D10716HPS KN15	G84	5443843	T832NC03750-16RH5-A KSP39	M77	5455836	T820NF#04-48RH2-A KSP39	M23
5431659	T820M035X060RD4-A KSP39	M29	5434748	B284D11000HPS KN15	G84	5443844	T832NF03750-24RH3-A KSP39	M77	5455837	T820NC#05-40RH2-A KSP39	M23
5431700	T820M040X070RD4-A KSP32	M29	5434749	B284D1113HPS KN15	G84	5443845	T832NF03750-24RH4-A KSP39	M77	5455838	T820NC#06-32RH2-A KSP39	M23
5431701	T820M040X070RD4-A KSMN34	M29	5434750	B284D11908HPS KN15	G84	5443846	T832NF03750-24RH5-A KSP39	M78	5455839	T820NC#06-32RH3-A KSP32	M23
5431702	T820M040X070RD4-A KSP39	M29	5434751	B284D12000HPS KN15	G84	5443847	T832NC04375-14RH3-A KSP39	M78	5455840	T820NC#06-32RH3-A KSMN34	M23
5431703	T820M050X080RD4-A KSP32	M29	5434752	B284D12500HPS KN15	G84	5443848	T832NC04375-14RH5-A KSP39	M78	5455841	T820NC#06-32RH4-A KSP39	M23
5431704	T820M050X080RD4-A KSMN34	M29	5434753	B284D12700HPS KN15	G84	5443849	T832NF04375-20RH3-A KSP39	M78	5455842	T820NC#06-32RH4-A KSP39	M23
5431705	T820M050X080RD4-A KSP39	M29	5434754	B284D14000HPS KN15	G84	5443850	T832NF04375-20RH5-A KSP39	M78	5455843	T820NC#06-32RH5-A KSP39	M23
5431706	T820M060X100RD5-A KSP32	M29	5434755	B284D14288HPS KN15	G84	5443851	T832NC05000-13RH3-A KSP39	M78	5455844	T820NC#06-32RH6-A KSP39	M23
5431707	T820M060X100RD5-A KSMN34	M29	5434756	B284D15875HPS KN15	G84	5443852	T832NC05000-13RH5-A KSP39	M78	5455845	T820NC#06-32RH7-A KSP39	M23
5431708	T820M060X100RD5-A KSP39	M29	5434757	B284D19050HPS KN15	G84	5443854	T832NF05000-20RH3-A KSP39	M78	5455846	T820NF#06-40RH2-A KSP39	M23
5431710	T820M070X100RD5-A KSP39	M29	5434758	B284D20000HPS KN15	G84	5443856	T832NC05625-12RH3-A KSP39	M78	5455847	T820NF#06-40RH3-A KSP39	M23
5431711	T820M080X125RD5-A KSP32	M29	5434759	B285D03000HPS KN15	G82	5443857	T832NC05625-12RH5-A KSP39	M78	5455848	T820NC#08-32RH2-A KSP39	M23
5431712	T820M080X125RD5-A KSMN34	M29	5434760	B285D03175HPS KN15	G82	5443858	T832NF05625-18RH3-A KSP39	M78	5455849	T820NC#08-32RH3-A KSP32	M23
5431713	T820M080X125RD5-A KSP39	M29	5434761	B285D03200HPS KN15	G82	5443859	T832NC06250-11RH3-A KSP39	M78	5455860	T820NC#08-32RH3-A KSMN34	M23
5431715	T820M100X150RD6-A KSP32	M29	5434762	B285D03300HPS KN15	G82	5443870	T832NC06250-11RH5-A KSP39	M78	5455861	T820NC#08-32RH4-A KSP39	M23
5431716	T820M100X150RD6-A KSMN34	M29	5434763	B285D03970HPS KN15	G82	5443871	T832NF06250-18RH3-A KSP39	M78	5455862	T820NC#08-32RH4-A KSP32	M23
5431717	T820M100X150RD6-A KSP39	M29	5434764	B285D04000HPS KN15	G82	5443872	T832NF06250-18RH5-A KSP39	M78	5455863	T820NC#08-32RH5-A KSP39	M23
5431719	T820M120X175RD6-A KSP32	M29	5434765	B285D04200HPS KN15	G82	5443873	T832NC07050-10RH3-A KSP39	M78	5455864	T820NC#08-32RH6-A KSP39	M23
5431730	T820M120X175RD6-A KSMN34	M29	5434766	B285D04500HPS KN15	G82	5443874	T832NF07500-16RH3-A KSP39	M78	5455865	T820NC#08-32RH7-A KSP39	M23
5431731	T820M120X175RD6-A KSP39	M29	5434767	B285D04763HPS KN15	G82	5443876	T832M030X050RD3-A KSP39	M89	5455866	T820NF#08-36RH4-A KSP39	M23
5431732	T820M140X200RD7-A KSP39	M29	5434768	B285D04800HPS KN15	G82	544					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5477296	EP1408EHD2 KCPK30	.....T58, T69	5479788	T820MF220X150R6H-D4 KSP39	.....M32	5506113	B274Z08334HPG KCPK20	.....G74	5506352	B272Z10000HPG KCPK20	.....G71
5477297	EP1408EHD2 KCK15	.....T58, T69	5479789	T820MF220X200R6H-D4 KSP39	.....M32	5506114	B271Z09525HPG KCPK20	.....G69	5506353	B272Z10200HPG KCPK20	.....G71
5477299	EP1408EHD2 KC522M	.....T58, T69	5479790	T820MF240X150R6H-D4 KSP39	.....M32	5506115	B274Z08500HPG KCPK20	.....G74	5506354	B272Z10500HPG KCPK20	.....G71
5479648	T820NC#04-40R2B-D1 KSP39	.....M26	5479864	KTIP0983HPM KCP15	.....H32	5506116	B271Z09750HPG KCPK20	.....G69	5506355	B272Z10716HPG KCPK20	.....G71
5479649	T820NC#04-40R3B-D1 KSP39	.....M27	5489410	WNMG434MM KCP25B	.....B159	5506117	B274Z08700HPG KCPK20	.....G74	5506356	B272Z11000HPG KCPK20	.....G71
5479690	T820NC#05-40R2B-D1 KSP39	.....M26	5490089	CNMG644RP KCPK05	.....B53	5506118	B271Z10000HPG KCPK20	.....G71	5506357	B272Z11500HPG KCPK20	.....G71
5479691	T820NC#06-32R2B-D1 KSP39	.....M26	5491717	RIQ06EDR06 KD1415	.....K59	5506119	B274Z09000HPG KCPK20	.....G74	5506358	B272Z11800HPG KCPK20	.....G71
5479692	T820NC#06-32R3B-D1 KSP39	.....M27	5492520	B269A04550HP KCPK15	.....G62	5506120	B271Z10200HPG KCPK20	.....G69	5506359	B272Z12000HPG KCPK20	.....G71
5479693	T820NF#06-40R2B-D1 KSP39	.....M26	5497332	RIQ09EDR06 KD1415	.....K59	5506121	B274Z09525HPG KCPK20	.....G74	5506360	B272Z12500HPG KCPK20	.....G71
5479694	T820NC#06-32R2B-D1 KSP39	.....M26	5497351	CFM0402R00RHP KCJ40	.....H43	5506122	B271Z10500HPG KCPK20	.....G69	5506361	B272Z12700HPG KCPK20	.....G71
5479695	T820NC#08-32R3B-D1 KSP39	.....M27	5505778	B271Z02383KMG KCPK20	.....G68	5506123	B274Z10000HPG KCPK20	.....G74	5506362	B272Z13000HPG KCPK20	.....G71
5479696	T820NC#10-24R2B-D1 KSP39	.....M26	5505779	B271Z02500KMG KCPK20	.....G68	5506124	B271Z10716HPG KCPK20	.....G69	5506363	B272Z13100HPG KCPK20	.....G71
5479697	T820NF#10-32R2B-D1 KSP39	.....M26	5505938	KTMDUSCREW1	.....W29-31	5506125	B274Z10200HPG KCPK20	.....G74	5506364	B272Z13500HPG KCPK20	.....G71
5479698	T820NF#10-32R3B-D1 KSP39	.....M27	5506030	B271Z02642KMG KCPK20	.....G68	5506126	B271Z10800HPG KCPK20	.....G69	5506365	B272Z14000HPG KCPK20	.....G71
5479699	T820NC02500-20R2B-D1 KSP39	.....M26	5506031	B271Z02705KMG KCPK20	.....G68	5506127	B274Z10500HPG KCPK20	.....G74	5506367	B272Z14500HPG KCPK20	.....G71
5479700	T820NF02500-28R2B-D1 KSP39	.....M26	5506032	B271Z02779KMG KCPK20	.....G68	5506128	B271Z11000HPG KCPK20	.....G69	5506368	B272Z15000HPG KCPK20	.....G71
5479701	T820NF02500-28R3B-D1 KSP39	.....M27	5506033	B271Z02820KMG KCPK20	.....G68	5506129	B274Z10716HPG KCPK20	.....G74	5506369	B272Z15500HPG KCPK20	.....G71
5479702	T820NC03125-18R2B-D1 KSP39	.....M26	5506034	B271Z03000HPG KCPK20	.....G68	5506130	B271Z11500HPG KCPK20	.....G69	5506370	B272Z15875HPG KCPK20	.....G71
5479703	T820NF03125-24R2B-D1 KSP39	.....M26	5506035	B271Z03175HPG KCPK20	.....G68	5506131	B274Z11000HPG KCPK20	.....G74	5506371	B272Z16000HPG KCPK20	.....G71
5479704	T820NF03125-24R3B-D1 KSP39	.....M27	5506036	B271Z03200HPG KCPK20	.....G68	5506132	B271Z12000HPG KCPK20	.....G69	5507556	TNMG432MP KCP10B	.....B124
5479705	T820NC03750-16R2B-D1 KSP39	.....M26	5506037	B271Z03500HPG KCPK20	.....G68	5506133	B274Z11500HPG KCPK20	.....G74	5507610	TNMG432FN KCP10B	.....B123
5479706	T820NF03750-24R2B-D1 KSP39	.....M26	5506038	B271Z03600HPG KCPK20	.....G68	5506134	B271Z12500HPG KCPK20	.....G69	5507611	WNMG432FW KCP10B	.....B158
5479707	T820NF03750-24R3B-D1 KSP39	.....M27	5506039	B271Z03700HPG KCPK20	.....G68	5506135	B274Z11800HPG KCPK20	.....G74	5507612	WNMG432RN KCP10B	.....B161
5479708	T820NC04375-14R2B-D6 KSP39	.....M26	5506040	B271Z03970HPG KCPK20	.....G68	5506136	B271Z12700HPG KCPK20	.....G69	5511788	B273Z02383KMG KCPK20	.....G72
5479709	T820NF04375-20R2B-D6 KSP39	.....M26	5506041	B271Z04000HPG KCPK20	.....G68	5506137	B274Z12000HPG KCPK20	.....G74	5511789	B273Z02500KMG KCPK20	.....G72
5479710	T820NF04375-20R3B-D6 KSP39	.....M27	5506042	B271Z04500HPG KCPK20	.....G68	5506138	B271Z13500HPG KCPK20	.....G69	5511930	B273Z02600KMG KCPK20	.....G72
5479711	T820NC05000-13R2B-D6 KSP39	.....M26	5506043	B271Z04623HPG KCPK20	.....G68	5506139	B274Z12000HPG KCPK20	.....G74	5511933	B273Z03000HPG KCPK20	.....G72
5479712	T820NF05000-20R2B-D6 KSP39	.....M26	5506044	B271Z04763HPG KCPK20	.....G68	5506140	B271Z13500HPG KCPK20	.....G69	5511934	B273Z03175HPG KCPK20	.....G72
5479713	T820NF05000-20R3B-D6 KSP39	.....M27	5506045	B271Z04800HPG KCPK20	.....G68	5506141	B274Z12700HPG KCPK20	.....G74	5511935	B273Z03500HPG KCPK20	.....G72
5479714	T820NC05625-12R2B-D6 KSP39	.....M26	5506046	B271Z05000HPG KCPK20	.....G68	5506142	B271Z14000HPG KCPK20	.....G69	5511936	B273Z04000HPG KCPK20	.....G72
5479715	T820NF05625-18R2B-D6 KSP39	.....M26	5506047	B271Z05060HPG KCPK20	.....G68	5506143	B274Z13000HPG KCPK20	.....G74	5511937	B273Z04500HPG KCPK20	.....G72
5479716	T820NC06250-11R2B-D6 KSP39	.....M26	5506048	B271Z05260HPG KCPK20	.....G68	5506144	B271Z14500HPG KCPK20	.....G69	5511938	B273Z05000HPG KCPK20	.....G72
5479717	T820NF06250-14R2B-D6 KSP39	.....M26	5506049	B271Z05410HPG KCPK20	.....G68	5506145	B274Z12500HPG KCPK20	.....G74	5511939	B273Z05500HPG KCPK20	.....G72
5479718	T820NC07500-10R2B-D6 KSP39	.....M26	5506060	B271Z05500HPG KCPK20	.....G68	5506146	B271Z14500HPG KCPK20	.....G69	5511940	B273Z05500HPG KCPK20	.....G72
5479719	T820NF07500-16R2B-D6 KSP39	.....M26	5506061	B271Z05558HPG KCPK20	.....G68	5506147	B274Z13000HPG KCPK20	.....G74	5511941	B273Z05800HPG KCPK20	.....G72
5479720	T820NC08750-9R2B-D6 KSP39	.....M26	5506062	B274Z02383KMG KCPK20	.....G73	5506148	B271Z14500HPG KCPK20	.....G69	5511942	B273Z06000HPG KCPK20	.....G72
5479721	T820NF08750-14R2B-D6 KSP39	.....M26	5506063	B271Z05800HPG KCPK20	.....G68	5506149	B274Z13000HPG KCPK20	.....G74	5511943	B273Z06350HPG KCPK20	.....G72
5479722	T820NC10000-8R2B-D6 KSP39	.....M26	5506064	B274Z02500KMG KCPK20	.....G73	5506150	B271Z15000HPG KCPK20	.....G69	5511944	B273Z06500HPG KCPK20	.....G72
5479723	T820NF10000-12R2B-D6 KSP39	.....M26	5506065	B271Z05900HPG KCPK20	.....G68	5506151	B271Z15875HPG KCPK20	.....G69	5511945	B273Z06500HPG KCPK20	.....G72
5479724	T830NC#04-40R2B-D1 KSP39	.....M84	5506066	B271Z06000HPG KCPK20	.....G68	5506152	B271Z16000HPG KCPK20	.....G69	5511946	B273Z07000HPG KCPK20	.....G72
5479725	T830NC#04-40R3B-D1 KSP39	.....M87	5506067	B271Z06000HPG KCPK20	.....G68	5506153	B272Z02400KMG KCPK20	.....G70	5511947	B273Z07000HPG KCPK20	.....G72
5479726	T830NC#05-40R2B-D1 KSP39	.....M84	5506068	B274Z02600KMG KCPK20	.....G73	5506154	B272Z02488HPG KCPK20	.....G70	5511948	B273Z07500HPG KCPK20	.....G72
5479727	T830NC#06-32R2B-D1 KSP39	.....M84	5506069	B271Z06200HPG KCPK20	.....G68	5506155	B274Z12500HPG KCPK20	.....G74	5511949	B273Z08000HPG KCPK20	.....G72
5479728	T830NC#06-32R3B-D1 KSP39	.....M87	5506070	B274Z02800KMG KCPK20	.....G73	5506156	B271Z16000HPG KCPK20	.....G69	5511950	B273Z08000HPG KCPK20	.....G72
5479729	T830NF#06-40R2B-D1 KSP39	.....M84	5506071	B271Z06350HPG KCPK20	.....G68	5506157	B272Z03000HPG KCPK20	.....G70	5511951	B273Z0833HPG KCPK20	.....G72
5479730	T830NC#08-32R2B-D1 KSP39	.....M84	5506072	B274Z03000HPG KCPK20	.....G73	5506158	B272Z03000HPG KCPK20	.....G70	5511952	B273Z10000HPG KCPK20	.....G72
5479731	T830NC#08-32R3B-D1 KSP39	.....M87	5506073	B271Z06500HPG KCPK20	.....G69	5506159	B272Z02500KMG KCPK20	.....G70	5511953	B273Z10500HPG KCPK20	.....G72
5479732	T830NF#06-40R2B-D1 KSP39	.....M84	5506074	B274Z03175HPG KCPK20	.....G69	5506300	B272Z02779KMG KCPK20	.....G70	5511954	B273Z11500HPG KCPK20	.....G72
5479733	T830NC#10-24R2B-D1 KSP39	.....M84	5506075	B274Z03970HPG KCPK20	.....G73	5506301	B272Z03000HPG KCPK20	.....G70	5511955	B273Z12000HPG KCPK20	.....G72
5479734	T830NF#10-32R2B-D1 KSP39	.....M84	5506076	B271Z06500HPG KCPK20	.....G69	5506302	B272Z03850HPG KCPK20	.....G70	5511956	B273Z12500HPG KCPK20	.....G72
5479735	T830NF#10-32R3B-D1 KSP39	.....M87	5506077	B271Z06746HPG KCPK20	.....G69	5506303	B272Z03300HPG KCPK20	.....G70	5511957	B273Z13000HPG KCPK20	.....G72
5479736	T830NC02500-20R2B-D1 KSP39	.....M84	5506078	B274Z03970HPG KCPK20	.....G73	5506304	B272Z03500HPG KCPK20	.....G70	5511958	B273Z13500HPG KCPK20	.....G72
5479737	T830NF02500-28R2B-D1 KSP39	.....M84	5506079	B271Z06909HPG KCPK20	.....G69	5506305	B272Z03800HPG KCPK20	.....G70	5511959	B273Z14000HPG KCPK20	.....G72
5479738	T830NF02500-28R3B-D1 KSP39	.....M87	5506080	B274Z04000HPG KCPK20	.....G73	5506306	B272Z03850HPG KCPK20	.....G70	5511960	B273Z14500HPG KCPK20	.....G72
5479739	T830NC03125-18R2B-D1 KSP39	.....M84	5506081	B271Z07000HPG KCPK20	.....G69	5506307	B272Z03300HPG KCPK20	.....G70	5511961	B273Z15000HPG KCPK20	.....G72
5479740	T830NF03125-24R2B-D1 KSP39	.....M84	5506082	B274Z04300HPG KCPK20	.....G73	5506308	B272Z03500HPG KCPK20	.....G70	5511962	B273Z15500HPG KCPK20	.....G72
5479741	T830NF03125-24R3B-D1 KSP39	.....M87	5506083	B271Z07145HPG KCPK20	.....G69	5506309	B272Z03800HPG KCPK20	.....G70	5511963	B273Z16000HPG KCPK20	.....G72
5479742	T830NC03750-14R2B-D1 KSP39	.....M84	5506084	B274Z04500HPG KCPK20	.....G73	5506310	B272Z04000HPG KCPK20	.....G70	5511964	B273Z16500HPG KCPK20	.....G72
5479743	T830NF03750-24R2B-D1 KSP39	.....M84	5506085	B271Z07500HPG KCPK20	.....G69	5506311	B272Z04000HPG KCPK20	.....G70	5511965	B273Z17000HPG KCPK20	.....G72
5479744	T830NF03750-24R3B-D1 KSP39	.....M87	5506086	B274Z04763HPG KCPK20	.....G69	5506312	B272Z04623HPG KCPK20	.....G70	5511966	B273Z17500HPG KCPK20	.....G72
5479745	T830NC04375-14R2B-D6 KSP39	.....M84	5506087	B271Z07541HPG KCPK20	.....G69	5506313	B272Z04623HPG KCPK20	.....G70	5511967	B273Z18000HPG KCPK20	.....G72
5479746	T830NF04375-20R2B-D6 KSP39	.....M84	5506088	B274Z05000HPG KCPK20	.....G73	5506314	B272Z04763HPG KCPK20	.....G70	5511968	B273Z18500HPG KCPK20	.....G72
5479747	T830NF04375-20R3B-D6 KSP39	.....M87	5506089	B271Z07938HPG KCPK20	.....G69	5506315	B272Z05000HPG KCPK20	.....G70	5511969	B273Z19000HPG KCPK20	.....G72
5479748	T830NC05000-13R2B-D6 KSP39	.....M84	5506090	B274Z05100HPG KCPK20	.....G73	5506316	B272Z05260HPG KCPK20	.....G70	5511970		

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5515759	.....LNGU542SRGE KC520M	.....T19	5531898	.....DNMG431FN KCK15B	.....B79	5533523	.....EC050M05N00C03 KCU25	.....C24	5534292	.....ER0812M08U00GUP KCU25	.....C19
5515890	.....LNGU542SRGE KC522M	.....T19	5531899	.....DNMG431FN KCP25B	.....B79	5533524	.....EC070M06N00C004 KCU25	.....C24	5534293	.....ER0312M03U00GUN KCU25	.....C21
5515891	.....LNGU542SRGE KC725M	.....T19	5531900	.....DNMG432FN KCP10B	.....B79	5533525	.....EC080M08N00C004 KCU25	.....C24	5534294	.....ER0412M04U00GUN KCU25	.....C21
5515892	.....LNGU542SRGE KCK15	.....T19	5531901	.....DNMG441FN KCP10B	.....B79	5533526	.....EC050M05N00C003 KCU25	.....C25	5534295	.....ER0512M05U00GUN KCU25	.....C21
5515893	.....LNGU542SRGE KCPK30	.....T19	5531902	.....DNMG441FN KCK15B	.....B79	5533527	.....EC070M06N00C004 KCU25	.....C25	5534296	.....ER0612M06U00GUN KCU25	.....C21
5516070	.....LNGU543SRGE KCPK30	.....T19	5531903	.....DNMG441FN KCP25B	.....B79	5533528	.....EC020M02L06CR02 KCU25	.....C25	5534297	.....ER0812M08U00GUN KCU25	.....C21
5516071	.....LNGU541SRGE KC520M	.....T19	5531904	.....DNMG442FP KCP10B	.....B80	5533529	.....EC020M02R06CR02 KCU25	.....C25	5534828	.....CNMG431FF KCP10B	.....B48
5516074	.....LNGU541SRGE KC522M	.....T19	5531905	.....DNMG442FP KCP25B	.....B80	5533546	.....DFR020204LD KCU25	.....J97	5535020	.....CNMG432CT KCP25B	.....B48
5516075	.....LNGU541SRGE KC725M	.....T19	5531906	.....DNMG442FN KCP25B	.....B79	5533547	.....DFR030204LD KCU25	.....J97	5535021	.....CNMG432CT KCP10B	.....B48
5516076	.....LNGU541SRGE KCK15	.....T19	5531907	.....DNMG442FN KCK15B	.....B79	5533548	.....DFR040304LD KCU25	.....J97	5535022	.....CNMG432FF KCP10B	.....B48
5516077	.....LNGU541SRGE KCPK30	.....T19	5531908	.....DNMG443FN KCP10B	.....B79	5533549	.....DFR020204LD KCPK10	.....J97	5535023	.....DNMG332CT KCP10B	.....B79
5517479	.....RCGT64ELFJ KCSM30	.....V89	5531909	.....SNMG322FN KCK15B	.....B101	5533630	.....DFR030204LD KCPK10	.....J97	5535026	.....DNMG332FF KCP10B	.....B79
5517600	.....SNMM646RW KCP25B	.....B107	5531910	.....SNMG431FN KCP10B	.....B101	5533631	.....DFR040304LD KCPK10	.....J97	5535027	.....DNMG432CT KCP10B	.....B79
5517760	.....RPET1204MOEJLJ KCSM30	.....V71	5532930	.....EG0212M02U02GUP KCU25	.....C17	5533632	.....DFR030204LD KC7140	.....J97	5535028	.....DNMG432FW KCP10B	.....B80
5517761	.....RPET1204MOSGEJ KCSM30	.....V71	5532931	.....EG0251M02U02GUP KCU25	.....C17	5533633	.....DFR040304LD KC7140	.....J97	5535029	.....DNMG441FF KCP10B	.....B79
5517764	.....RPET1605MOSGEJ KCSM30	.....V78	5532936	.....EG0212M02U02GUN KCU25	.....C20	5533634	.....SPHX060204R21 KCPK10	.....J116	5535040	.....CNMG431FF KCP10B	.....B80
5517767	.....W0EJ090512SRGD KCSM30	.....V39	5532937	.....EG0251M02U02GUN KCU25	.....C20	5533635	.....SPHX070304R21 KCPK10	.....J116	5535041	.....DNMG442CT KCP10B	.....B79
5517773	.....RNGJ1204MOELDJ KCSM30	.....V55	5532941	.....EG0812M08U08GUP KCU25	.....C17	5533636	.....SPHX070308R21 KCPK10	.....J116	5535042	.....DNMG442FF KCP10B	.....B79
5517778	.....RNGJ10173MOSGDJ KCSM30	.....V49	5532942	.....EG0812M08U12GUP KCU25	.....C17	5533637	.....SPHX070308R21 KCPK10	.....J116	5535043	.....CNMG442FW KCK15B	.....B80
5518566	.....DNMG443MR KCP25B	.....B82	5532944	.....EG0812M08U08GUN KCU25	.....C20	5533638	.....SPHX090308R21 KCPK10	.....J116	5535044	.....DNMG442FW KCP10B	.....B80
5519287	.....EP0708SGE KCSM30	.....T25	5532945	.....EG0812M08U12GUN KCU25	.....C20	5533639	.....SPHX120404R21 KCPK10	.....J116	5535045	.....DNMG441K KCP25B	.....B86
5519923	.....SDET43PDSR8GB KCSM30	.....T116, T123, U39	5533012	.....EG2550I06U1 GUP KCU25	.....C18	5533640	.....SPHX060204R20 KCU25	.....J115	5535046	.....DNMG442K KCP25B	.....B86
5519967	.....SDET438ENLD2 KCSM30	.....T115, T122	5533013	.....EG2550I06U2GUP KCU25	.....C18	5533641	.....SPHX070304R20 KCU25	.....J115	5537375	.....CMCT2151FF KCP10B	.....B190
5519983	.....EP1431EHD KCSM30	.....T57, T68	5533015	.....EG2550I06U1GUN KCU25	.....C21	5533642	.....SPHX090304R20 KCU25	.....J115	5537376	.....CMCT2151FF KCP25B	.....B190
5520493	.....EP1416EHD KCSM30	.....T57, T68	5533016	.....EG2550I06U2GUN KCU25	.....C21	5533643	.....SPHX090308R20 KCU25	.....J115	5537378	.....CMCT2152FF KCP25B	.....B190
5520494	.....EP1440EHD KCSM30	.....T57, T68	5533080	.....EC030M03N00C002 KCU25	.....C23	5533644	.....SPHX120404R20 KCU25	.....J115	5537379	.....CMCT32505FF KCP25B	.....B190
5520684	.....EP1016EHD KCSM30	.....T36	5533081	.....EC014M1BN00CF01 KCU25	.....C22	5533645	.....SPHX120408R20 KCU25	.....J115	5537420	.....CMCT3251FF KCP10B	.....B190
5520687	.....SPCT31254ENLD2 KCSM30	.....T111, U30	5533082	.....EC020M02N00CF02 KCU25	.....C22	5533646	.....SPHX150504R20 KCU25	.....J115	5537421	.....CMCT3251FF KCP25B	.....B190
5520736	.....T353M040X070R6HX-D1 KCK17	.....M113	5533089	.....EC014M1BN00CM01 KCU25	.....C24	5533647	.....SPHX150508R20 KCU25	.....J115	5537422	.....CMCT3252FF KCP10B	.....B190
5520737	.....T353M050X080R6HX-D1 KCK17	.....M113	5533090	.....EC020M02N00CM02 KCU25	.....C24	5533648	.....SPHX060204R20 KCU40	.....J115	5537423	.....CMCT3252FF KCP25B	.....B190
5520738	.....T353M060X100R6HX-D1 KCK17	.....M113	5533093	.....EC060M06N00C003 KCU25	.....C24	5533649	.....SPHX060204R21 KCU40	.....J116	5537425	.....CMCT431FF KCP10B	.....B190
5520739	.....T353M080X125R6HX-D1 KCK17	.....M113	5533096	.....EC060M06N00C003 KCU25	.....C25	5533650	.....SPHX070304R20 KCU40	.....J115	5537426	.....CMCT431FF KCP25B	.....B190
5520790	.....T353M100X150R6HX-D1 KCK17	.....M113	5533097	.....EC080M08N00C004 KCU25	.....C25	5533651	.....SPHX070304R21 KCU40	.....J116	5537427	.....CMCT431FF KCP25B	.....B190
5520791	.....T353M120X175R6HX-D6 KCK17	.....M113	5533120	.....EG0612M06U08GUP KCU25	.....C17	5533652	.....SPHX070308R21 KCU40	.....J116	5537429	.....CMPT2151FF KCP25B	.....B206
5520792	.....T353M140X200R6HX-D6 KCK17	.....M113	5533124	.....EG0612M06U04GUN KCU25	.....C20	5533653	.....SPHX090304R20 KCU40	.....J115	5537430	.....CMPT2151UF KCP25B	.....B208
5520793	.....T351M060X100R6HX-D1 KCK17	.....M112	5533125	.....EG0612M06U08GUN KCU25	.....C20	5533654	.....SPHX090304R21 KCU40	.....J116	5537431	.....CMPT2151UF KCP10B	.....B208
5520794	.....T351M070X100R6HX-D1 KCK17	.....M112	5533127	.....EG0612M06U08GUN KCU25	.....C20	5533655	.....SPHX090308R20 KCU40	.....J115	5537432	.....CMPT3251FF KCP25B	.....B206
5520795	.....T351M080X125R6HX-D1 KCK17	.....M112	5533134	.....EG31708U3GUP KCU25	.....C18	5533656	.....SPHX090308R21 KCU40	.....J116	5537433	.....CMPT3251UF KCP25B	.....B208
5520796	.....T351M090X125R6HX-D1 KCK17	.....M112	5533136	.....EG31708U3GUP KCU25	.....C21	5533657	.....SPHX120404R20 KCU40	.....J115	5537435	.....CMPT3252FF KCP25B	.....B206
5520798	.....T351M100X150R6HX-D1 KCK17	.....M112	5533137	.....EC014M1BN00C01 KCU25	.....C23	5533658	.....SPHX120404R21 KCU40	.....J116	5537436	.....DCMT21505FF KCP25B	.....B225
5520799	.....T351MF100X100R6HX-D4 KCK17	.....M112	5533138	.....EC020M02N00C02 KCU25	.....C23	5533659	.....SPHX120408R20 KCU40	.....J115	5537437	.....DCMT2152FF KCP25B	.....B225
5520800	.....T351MF100X125R6HX-D4 KCK17	.....M112	5533139	.....EC040M04N00C02 KCU25	.....C23	5533660	.....SPHX150504R20 KCU40	.....J115	5537438	.....DCMT32505FF KCP25B	.....B225
5520801	.....T351M120X175R6HX-D6 KCK17	.....M112	5533150	.....EC020M02L06CF02 KCU25	.....C22	5533661	.....SPHX150508R20 KCU40	.....J115	5537439	.....DCMT32505FF KCP10B	.....B225
5520802	.....T351MF120X125R6HX-D4 KCK17	.....M112	5533151	.....EC020M02R06CF02 KCU25	.....C22	5534147	.....SPGX060304FP KCU40	.....J104	5537442	.....DCMT3251FF KCP10B	.....B225
5520803	.....T351MF120X150R6HX-D4 KCK17	.....M112	5533156	.....EC020M02N00C02 KCU25	.....C25	5534148	.....SPGX060304RHP KCU40	.....J103	5537443	.....DCMT3251FF KCP25B	.....B225
5520804	.....T351M140X200R6HX-D6 KCK17	.....M112	5533171	.....EC060M06L06CR04 KCU25	.....C25	5534149	.....SPGX060304MD KCU40	.....J103	5537444	.....DCMT3251UF KCP10B	.....B226
5520805	.....T351MF140X125R6HX-D4 KCK17	.....M112	5533172	.....EC060M06L06CR04 KCU25	.....C25	5534230	.....SPGX070304FP KCU40	.....J104	5538857	.....DCMT3251UF KCP25B	.....B226
5520806	.....T351MF140X150R6HX-D4 KCK17	.....M112	5533173	.....EC080M08L06CR04 KCU25	.....C25	5534231	.....SPGX070304RHP KCU40	.....J103	5538858	.....DCMT3252FF KCP10B	.....B225
5520807	.....T471M060X100R6HX-D1 KCK14	.....M115	5533174	.....EC080M08R06CR04 KCU25	.....C25	5534232	.....SPGX070304MD KCU40	.....J103	5538891	.....TCMT18151FF KCP25B	.....B257
5520808	.....T471M080X125R6HX-D1 KCK14	.....M115	5533178	.....EG380110U3GUP KCU25	.....C18	5534233	.....SPPX09T308FP KCU40	.....J104	5538894	.....TCMT221FF KCP10B	.....B257
5520809	.....T471M100X150R6HX-D1 KCK14	.....M115	5533179	.....EG06311FU05GUP KCU25	.....C21	5534234	.....SPPX09T308RHP KCU40	.....J103	5538900	.....TPMT221FF KCP10B	.....B267
5520810	.....T491M060X100R6HX-D74 KCK14	.....M138	5533210	.....EG380110U3GUN KCU25	.....C21	5534235	.....SPPX09T308MD KCU40	.....J103	5538903	.....VBM2332FF KCP10B	.....B281
5520811	.....T491M080X125R6HX-D74 KCK14	.....M138	5533212	.....EG0512M05U04GUP KCU25	.....C17	5534236	.....SPPX120408FP KCU40	.....J104	5538904	.....VBM2332FF KCP25B	.....B281
5520812	.....T491M100X150R6HX-D74 KCK14	.....M138	5533214	.....EG0512M05U04GUN KCU25	.....C17	5534237	.....SPPX120408RHP KCU40	.....J103	5542022	.....SDET433PDSNHDZ KCPM40	.....V143
5523116	.....RIQ06EGR06 KCB305	.....K59	5533216	.....EG0712M06U08GUP KCU25	.....C17	5534238	.....SPPX120408MD KCU40	.....J103	5542023	.....SDET433PDSNGDZ KCPM40	.....V143
5523306	.....CNMG322FN KCP10B	.....B49	5533220	.....EG1012M10U12GUP KCU25	.....C20	5534239	.....SPPX15T508FP KCU40	.....J104	5542024	.....SDET433PDSNHPZ KCPM40	.....V143
5523588	.....DNMG443MR KCP10B	.....B82	5533221	.....EG0512M05U04GUN KCU25	.....C17	5534250	.....SPGX060304FP KCU40	.....J103	5542025	.....SPT433PDSNHPZ KCPM40	.....V143
5524447	.....KTIP04571HP KCP15	.....H32	5533222	.....EG0512M05U08GUN KCU25	.....C20	5534251	.....SPGX060304RHP KCU25	.....J104	5542028	.....RNPJ10T3MOSGD KCPM40	.....V49
5524448	.....KTIP1830HPM KCP15	.....H33	5533223	.....EG1012M10U12GUN KCU25	.....C20	5534252	.....SPGX060304FP KCU40	.....J103	5542029	.....RNPJ10T3MOSHD KCPM40	.....V49
5524449	.....KTIP1840HPM KCP15	.....H33	5533361	.....ER130I03U00GUP KCU25	.....C19	5534253	.....SPGX060304RHP KCU25	.....J104	5542179	.....CNMA433 KCK15B	.....B47
5524610	.....KTIP07620HP KCP15	.....H33	5533363	.....ER192I04U00GUP KCU25	.....C19	5534254	.....SPGX060304MD KCU25	.....J103	5542190	.....RNPJ1204MOSGD KCPM40	.....V56
5528977	.....OFKT64AFENGB KCSM30	.....S52	5533365	.....ER255I06U00GUP KCU25	.....C19	5534255	.....SPGX070304FP KCU25	.....J104	5542191	.....RNPJ1204MOSHD KCPM40	.....V56
5531233	.....CNGG430FS KCU10	.....B46	5533367	.....ER31708U00GUP KCU25	.....C19	5534256	.....SPGX070304RHP KCU25	.....J103	5542192	.....RNPJ1605MOSGD KCPM40	.....V59
5531234	.....CNGG430FS KCU10	.....B46	5533368	.....ER130I03U00GUN KCU25	.....C22	5534257	.....SPGX070304MD KCU25	.....J103	5542193	.....RNPJ1605MOSHD KCPM40	.....V59
5531235	.....CNGG431FS KCU10	.....B46	5533369	.....ER192I04U00GUN KCU25	.....C22	5534258	.....SPPX09T30				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5544148	ER25RBHT40	K123	5551043	T340M060X100R6HX KCK17	M109	5565557	T660NF03125-24RH3-A KSS20	M18	5566097	T662NC03125-18RH3-A KSSM24	M66
5544149	ER25FBHS40	K138	5551044	T340M080X125R6HX KCK17	M109	5565558	T660NF03125-24RH3-A KSSM24	M18	5566098	T662NC03125-18RH5-A KSS20	M66
5544190	ER32RBHT50	K123	5551045	T340MF100X100R6HX KCK17	M109	5565559	T660NF03125-24RH4-A KSS20	M18	5566099	T662NC03125-18RH5-A KSSM24	M66
5544191	ER32FBHS51	K138	5551046	T340M100X150R6HX KCK17	M109	5565560	T660NF03125-24RH4-A KSSM24	M18	5566100	T662NF03125-24RH3-A KSS20	M66
5544192	ER40RBHT66	K123	5551047	T340MF120X150R6HX KCK17	M109	5565561	T660NC03750-16RH3-A KSS20	M18	5566101	T662NF03125-24RH3-A KSSM24	M66
5544193	ER40FBHS67	K138	5551048	T340M120X175R6HX KCK17	M109	5565562	T660NC03750-16RH3-A KSSM24	M18	5566102	T662NF03125-24RH4-A KSS20	M66
5544366	M4D100L1502M100L175	T15	5551049	T340MF140X150R6HX KCK17	M109	5565563	T660NC03750-16RH5-A KSS20	M18	5566103	T662NF03125-24RH3-A KSS20	M66
5544367	M4D125L1503M100L225	T15	5551050	T340M140X200R6HX KCK17	M109	5565564	T660NC03750-16RH5-A KSSM24	M18	5566104	T662NC03750-16RH3-A KSS20	M66
5544368	M4D150L1504M125L225	T15	5551051	T340M160X200R6HX KCK17	M109	5565565	T660NF03750-24RH3-A KSS20	M18	5566105	T662NC03750-16RH3-A KSSM24	M66
5544369	M4D100L1502C100L800	T16	5551052	T340M200X250R6HX KCK17	M109	5565566	T660NF03750-24RH3-A KSSM24	M18	5566106	T662NF03750-16RH5-A KSS20	M66
5544400	M4D125L1503C125L800	T16	5551053	T351NC#6-32R3BX KCK17	M110	5565567	T660NF03750-24RH4-A KSS20	M18	5566107	T662NC03750-16RH5-A KSSM24	M66
5544401	M4D150L1504C125L800	T16	5551054	T351NC#8-32R3BX KCK17	M110	5565568	T660NF03750-24RH4-A KSSM24	M18	5566108	T662NF03750-24RH3-A KSS20	M66
5544402	M4D150L1505S05L157	T17	5551055	T351NF#10-32R3BX KCK17	M110	5565569	T660NC04375-14RH3-A KSS20	M18	5566109	T662NF03750-24RH3-A KSSM24	M66
5544403	M4D200L1505S07L157	T17	5551056	T351NC02500-20R3BX KCK17	M110	5565570	T660NC04375-14RH3-A KSSM24	M18	5566110	T662NF03750-24RH4-A KSS20	M66
5544404	M4D200L1506S07L157	T17	5551057	T351NC03125-18R3BX KCK17	M110	5565571	T660NF04375-20RH3-A KSS20	M18	5566111	T662NF03750-24RH4-A KSSM24	M66
5544405	M4D250L1506S07L157	T17	5551058	T351NC03750-16R3BX KCK17	M110	5565572	T660NF04375-20RH3-A KSSM24	M18	5566112	T662NF03125-24RH3-A KSSM24	M66
5544406	M4D300L1507S100L175	T17	5551059	T351NC04375-14R3BX KCK17	M110	5565573	T660NC05000-13RH3-A KSS20	M18	5566113	T662NC04375-14RH3-A KSSM24	M66
5544407	M4D300L1508S125L200	T17	5551060	T351NC05000-13R3BX KCK17	M110	5565574	T660NC05000-13RH3-A KSSM24	M18	5566114	T662NC04375-14RH5-A KSS20	M66
5544408	M4D400L1511S15L200	T17	5551061	T351NC06250-11R3BX KCK17	M110	5565575	T660NC05000-20RH3-A KSS20	M18	5566115	T662NC03750-16RH5-A KSSM24	M66
5544755	DNMG333FN KCP10B	B79	5551062	T351NC07500-10R3BX KCK17	M110	5565576	T660NF05000-20RH3-A KSSM24	M18	5566116	T662NF04375-20RH3-A KSS20	M66
5545061	EP1408SGD2 KCPM40	T59, T70	5551063	T351M040X070R6HX KCK17	M111	5565577	T660NF05625-18RH3-A KSSM24	M18	5566117	T662NF04375-20RH3-A KSSM24	M66
5545066	EP1412SGD KCPM40	T58, T70	5551064	T351M050X080R6HX KCK17	M111	5565578	T660NF05625-18RH5-A KSSM24	M18	5566118	T662NF03750-20RH3-A KSS20	M66
5545067	EC1408EGD KCPM40	T57, T68	5551065	T351M060X100R6HX KCK17	M111	5565580	T660NC06250-11RH3-A KSSM24	M18	5566119	T662NF04375-20RH3-A KSSM24	M66
5545068	EC1404EGD KCPM40	T57, T68	5551066	T351M080X125R6HX KCK17	M111	5565581	T660NF06250-18RH3-A KSSM24	M18	5566130	T662NC05000-13RH3-A KSS20	M67
5545069	EP1412EHD KCPM40	T57, T68	5551067	T351MF100X100R6HX KCK17	M111	5565582	T660NF06250-18RH5-A KSSM24	M18	5566131	T662NC05000-13RH3-A KSSM24	M67
5545160	EP1408EHD KCPM40	T57, T68	5551068	T351M100X150R6HX KCK17	M111	5565583	T660NC07500-10RH5-A KSSM24	M18	5566132	T662NF03750-20RH3-A KSSM24	M67
5545161	EP1408SGE KCPM40	T58, T69	5551069	T351MF120X150R6HX KCK17	M111	5565584	T660NF07500-16RH3-A KSSM24	M18	5566133	T662NC05000-13RH5-A KSS20	M67
5545162	SDET43PDR8GB KCPM40	T116, T123, U39	5551070	T351M120X175R6HX KCK17	M111	5565585	T660NF07500-16RH5-A KSSM24	M18	5566134	T662NC05000-13RH5-A KSSM24	M67
5545163	SDCT43PDR8LD2 KCPM40	T115, T122, U38	5551071	T351MF140X150R6HX KCK17	M111	5565586	T660NC10000-08RH5-A KSSM24	M18	5566135	T662NF05000-20RH3-A KSS20	M67
5545164	SDET43PDR8GB2 KCPM40	T115, T122, U39	5551072	T351M140X200R6HX KCK17	M111	5565587	T660M025X045RD3-A KSS20	M19	5566136	T662NF05000-20RH3-A KSSM24	M67
5545167	SPCT3125PPER8LD2 KCPM40	T111, U30	5551073	T351M160X200R6HX KCK17	M111	5565588	T660M025X045RD3-A KSSM24	M19	5566137	T662NF05000-20RH5-A KSS20	M67
5545168	SPET3125PPER8GB2 KCPM40	T111, U31	5551077	T471M060X100R6HX KCK17	M114	5565589	T660M030X050RD3-A KSS20	M19	5566138	T662NF05625-18RH3-A KSSM24	M67
5545169	EP0708SGE KCPM40	T25	5551078	T471M080X125R6HX KCK17	M114	5565590	T660M030X050RD3-A KSSM24	M19	5566139	T662NF06250-18RH3-A KSSM24	M67
5545214	EP1008EHD KCPM40	T26	5551079	T471M100X150R6HX KCK17	M114	5565591	T660M040X070RD4-A KSS20	M19	5566140	T662NF06250-18RH5-A KSSM24	M67
5545215	EP1004EHD KCPM40	T36	5551080	T471M120X175R6HX KCK17	M114	5565592	T660M040X070RD4-A KSSM24	M19	5566141	T662NC06250-11RH3-A KSSM24	M67
5545216	EP1008SGD KCPM40	T37	5551081	T471M140X200R6HX KCK17	M114	5565593	T660M050X080RD4-A KSS20	M19	5566142	T662NF06250-18RH5-A KSSM24	M67
5545217	EC1008ELD KCPM40	T36	5551082	T491M050X080R6HX KCK17	M138	5565594	T660M050X080RD4-A KSSM24	M19	5566143	T662NF07500-16RH5-A KSSM24	M67
5545398	EP1816E KCPM40	T83	5551083	T491M060X100R6HX KCK17	M138	5565595	T660M060X100RD5-A KSS20	M19	5566144	T662NF07500-16RH5-A KSSM24	M67
5545399	EP1808E KCPM40	T83	5551084	T491M080X125R6HX KCK17	M138	5565596	T660M060X100RD5-A KSSM24	M19	5566145	T662NF07500-16RH3-A KSSM24	M67
5545400	EP1812E KCPM40	T83	5551085	T491M100X150R6HX KCK17	M138	5565597	T660M070X100RD5-A KSS20	M19	5566146	T662NF07500-16RH5-A KSSM24	M67
5545401	EP1812S KCPM40	T85	5551086	T491M120X175R6HX KCK17	M138	5565598	T660M070X100RD5-A KSSM24	M19	5566147	T662M025X045RD3-A KSS20	M68
5545402	EP1808S KCPM40	T85	5551479	RIQ09EGR06 KD1415	K59	5565599	T660M080X125RD5-A KSS20	M19	5566148	T662M025X045RD3-A KSSM24	M68
5545403	EP1816S KCPM40	T85	5555716	B224A04100HP KCPK15	G44	5565600	T660M080X125RD5-A KSSM24	M19	5566149	T662M030X050RD3-A KSS20	M68
5545562	EP1408EHD2 KCPM40	T58, T69	5565695	SDET4316SNGB KCSM30	T116, T123, U39	5565601	T660MF100X125RD5-A KSS20	M19	5566150	T662M040X070RD4-A KSS20	M68
5546298	VNMG333MIN KCP25B	B146	5558957	S2165C	S10, S14, S58, T17, T53, T78	5565611	T660MF100X150RD5-A KSS20	M19	5566151	T662M040X070RD4-A KSSM24	M68
5547848	LNPU542SRGE KC520M	T19	5565491	T660NC#02-56RH2-A KSS20	M18	5565612	T660M100X150RD5-A KSS20	M19	5566152	T662M050X080RD4-A KSS20	M68
5547849	LNPU542SRGE KC522M	T19	5565492	T660NC#02-56RH2-A KSSM24	M18	5565613	T660M100X150RD5-A KSSM24	M19	5566153	T662M050X080RD4-A KSSM24	M68
5548040	LNPU542SRGE KCK725M	T19	5565493	T660NC#04-40RH2-A KSS20	M18	5565614	T660M120X175RD6-A KSS20	M19	5566154	T662M050X080RD4-A KSSM24	M68
5548041	LNPU542SRGE KCK715M	T19	5565494	T660NC#04-40RH2-A KSSM24	M18	5565615	T660M120X175RD6-A KSSM24	M19	5566155	T662M050X080RD4-A KSSM24	M68
5548042	LNPU542SRGE KCPK30	T19	5565495	T660NC#06-32RH2-A KSS20	M18	5565616	T660M120X175RD6-A KSSM24	M19	5566156	T662M060X100RD5-A KSS20	M68
5548378	B967A09300 KCP7315	G131	5565496	T660NC#06-32RH2-A KSSM24	M18	5565617	T662NC#02-56RH2-A KSS20	M66	5566157	T662M060X100RD5-A KSSM24	M68
5550701	HNGJ43ANENLD KCPM40	S6, S12, S15	5565497	T660NC#06-32RH3-A KSS20	M18	5565618	T662NC#04-40RH2-A KSS20	M66	5566158	T662M070X100RD5-A KSS20	M68
5550702	HNPJ43ANSNHD KCPM40	S7, S13, S16	5565498	T660NC#06-32RH3-A KSSM24	M18	5565619	T662NC#06-32RH2-A KSS20	M66	5566159	T662M070X100RD5-A KSSM24	M68
5550703	HNPJ43ANSNGD KCPM40	S7, S13, S16	5565499	T660NC#06-32RH3-A KSS20	M18	5565620	T662NC#06-32RH2-A KSSM24	M66	5566160	T662M070X100RD5-A KSSM24	M68
5550793	HNGJ535ANSNGD KCPM40	S18, S22	5565510	T660NC#06-40RH2-A KSS20	M18	5565621	T662NC#06-32RH2-A KSS20	M66	5566161	T662M080X125RD5-A KSS20	M68
5550794	HNGJ535ANSNHD KCPM40	S19, S22	5565511	T660NC#06-40RH2-A KSSM24	M18	5565622	T662NC#06-32RH2-A KSSM24	M66	5566162	T662MF100X125RD5-A KSS20	M68
5550795	HNPJ535ANSNGD KCPM40	S19, S22	5565512	T660NC#08-32RH2-A KSS20	M18	5565623	T662NC#06-32RH2-A KSS20	M66	5566163	T662M100X125RD5-A KSS20	M68
5550796	HNPJ535ANSNHD KCPM40	S19, S23	5565513	T660NC#08-32RH2-A KSSM24	M18	5565624	T662NC#08-32RH2-A KSS20	M66	5566164	T662M100X125RD5-A KSSM24	M68
5550797	HNPJ5351ANSNHD KCPM40	S19, S23	5565514	T660NC#08-32RH3-A KSS20	M18	5565625	T662NC#08-32RH2-A KSSM24	M66	5566165	T662M100X150RD6-A KSS20	M68
5550815	HNPJ75ANSNHD KCPM40	S26	5565515	T660NC#08-32RH3-A KSSM24	M18	5565626	T662NC#08-32RH3-A KSS20	M66	5566166	T662M120X175RD6-A KSS20	M68
5550816	HNPJ75ANSNHD KCPM40	S26	5565516	T660NF#08-36RH2-A KSS20	M18	5565627	T662NC#08-32RH2-A KSSM24	M66	5566167	T662M120X175RD6-A KSSM24	M68
5550817	HNGJ75ANENGD KCPM40	S25	5565517	T660NF#08-36RH2-A KSSM24	M18	5565628	T662NC#08-32RH2-A KSS20	M66	5566274	RCMT1204MORP KCP25B	B242
5550819	OFPT64AFEN6GB KCPM40	S52	5565518	T660NC#10-24RH3-A KSS20	M18	5565629	T662NC#08-32RH3-A KSS20	M66	5568064	M4D100L1502M12L125	T14
5550901	OFPT53AFEN4GB KCPM40	S48	5565519	T660NF#10-24RH3-A KSSM24	M18	5565630	T662NC#10-24RH3-A KSS20	M66	5568065	M4D125L1503M16L175	T14
5551030	T340NC#6-32R3BX KCK17	M108	5565520	T660NF#10-24RH3-A KSS20	M18	5565631	T662NC#10-24RH3-A KSSM24	M66	5568066	M4D150L1504M16L175	T14
5551031	T340NC#8-32R3BX KCK17	M108	55655								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5576320	VNMG32FF KCP25B	B146	5591712	CPMT3253MF KCM25B	B207	5591983	CNMG5433RN KCP40B	B53	5593683	KTMDU11L1612N55 KC635M	W32
5577076	LNEU1245R08 KCPM40	U19	5591713	TCMT2152MF KCM25B	B258	5591986	TNMG4322RN KCP40B	B126	5593684	KTMDU11L107N55 KC635M	W32
5577077	LNEU1255R08 KCPM40	U19	5591714	SNMG4322MN KCP40B	B102	5591987	CNMG432UP KCM25B	B54	5593686	KTMDU16L107N55 KC635M	W36
5577078	LNEU1245R04 KCPM40	U19	5591716	CNMG4333MN KCP40B	B50	5591988	SNMG433RN KCP40B	B105	5593687	KTMDU16L0604N55 KC635M	W36
5577079	LNEU1255R04 KCPM40	U19	5591718	WNMG433MN KCP40B	B159	5591989	CNMG643UP KCM25B	B54	5593688	KTMDU11L0515N60 KC610M	W32
5577120	LNEU1245R08SGP KCPM40	U20	5591720	TNMG433MN KCP40B	B124	5591990	SNMG434RN KCP40B	B105	5593689	KTMDU11L1520N60 KC610M	W32
5577121	LNEU1240R08 4 KCPM40	U19	5591721	DNMG433MP KCM25B	B81	5591991	CNMG433UP KCM25B	B54	5593690	KTMDU11L4816N55 KC610M	W32
5577122	LNEU1240R03 4 KCPM40	U19	5591727	DNMG443MN KCP40B	B81	5591992	TNMG544RN KCP40B	B126	5593691	KTMDU11L2525N60 KC610M	W32
5577123	LNEQ1260R04 KCPM40	U20	5591773	CNMG431MN KCP40B	B50	5591993	CNMG431UP KCM25B	B54	5593692	KTMDU11L2540N60 KC610M	W32
5586626	LNEU1260R04 KCPM40	U19	5591774	WNMG432MP KCM25B	B159	5591995	DNMG432UP KCM25B	B84	5593693	KTMDU16L1520N60 KC610M	W36
5580585	WNMG433MP KCP25B	B159	5591775	CNMG544MP KCM25B	B51	5591998	DNMG444RN KCP40B	B83	5593694	KTMDU16L2535N60 KC610M	W36
5585495	B224A05050HP KCPK15	G45	5591776	SCMT3252MP KCM25B	B247	5592000	SNMG432RN KCP40B	B105	5593695	KTMDU16L4060N60 KC610M	W36
5586046	SNHX1102T KCPM40	U14	5591777	CCMT432MP KCM25B	B191	5592003	DNMG432UP KCM25B	B162	5593696	KTMDU11L4816N55 KC610M	W32
5586047	SNHX1103T KCPM40	U14	5591778	VBMT332MP KCM25B	B281	5592005	WNMG432UP KCM25B	B162	5593697	KTMDU11L1612N55 KC610M	W32
5586048	SNHX1203T KCPM40	U14	5591779	CNMG431MP KCM25B	B51	5592006	RNMG64RN KCP40B	B97	5593698	KTMDU11L107N55 KC610M	W32
5586060	SNHX1113PZTNGP KCPM40	U15	5591780	CNMG543MP KCM25B	B51	5592007	DNMG432UP KCM25B	B84	5593699	KTMDU16L12025N60 KC610M	W36
5586061	SNHX1102PZTNGP KCPM40	U15	5591781	VNMG332MP KCM25B	B147	5592008	DNMG442RN KCP40B	B83	5593710	KTMDU16L107N55 KC610M	W36
5586062	SNHX1203PZTNGP KCPM40	U15	5591782	DNMG432MP KCM25B	B81	5592010	TNMG433RN KCP40B	B126	5593711	KTMDU16L0604N55 KC610M	W36
5586626	LNUX301940RRH KCP10B	E57	5591783	CCMT3252MP KCM25B	B191	5592012	CNMG543UP KCM25B	B54	5593712	TM24N32UN KC635M	W6
5588385	LNGU542ERGE KC725M	T18	5591784	DCMT3252MP KCM25B	B226	5592103	CNMG542MR KCP25B	B51	5593713	TM24N28UN KC635M	W6
5588386	LNGU542ERGE KCSM30	T18	5591785	TNMG331MP KCM25B	B124	5592107	WNMG332MR KCP25B	B159	5593714	TM24N24UN KC635M	W6
5588387	LNGU542ERGE KCPM40	T18	5591786	VBMT331MP KCM25B	B281	5592121	WNMG332UP KCP25B	B125	5593715	TM24N20UN KC635M	W6
5588388	LNGU542ERGE KC522M	T18	5591787	CNMG642MP KCM25B	B51	5592123	TNMG432MR KCM25B	B125	5593716	TM24N18UN KC635M	W6
5588513	LNGU541ERGE KC725M	T18	5591788	DNMG441MP KCM25B	B81	5592124	SNMG432MR KCP25B	B103	5593717	TM24N16UN KC635M	W6
5588514	LNGU541ERGE KCSM30	T18	5591789	VNMG331MP KCM25B	B147	5592128	CNMG644MR KCP25B	B51	5593718	TM24N14UN KC635M	W6
5588515	LNGU541ERGE KCPM40	T18	5591790	WNMG433MP KCM25B	B159	5592141	DNMG332MR KCP25B	B82	5593719	TM24N12UN KC635M	W6
5588516	LNGU541ERGE KC522M	T18	5591791	DNMG332MP KCM25B	B81	5592142	DNMG332MR KCP10B	B82	5593720	TM24N10UN KC635M	W6
5588517	LNGU543ERGE KC725M	T18	5591792	CCMT3251MP KCM25B	B191	5592146	TNMG543MR KCP25B	B125	5593721	TM24N050ISO KC635M	W6
5588518	LNGU543ERGE KCSM30	T18	5591793	CCMT433MP KCM25B	B191	5592162	VNMG333MR KCM15	B147	5593722	TM24N050ISO KC635M	W6
5588519	LNGU543ERGE KCPM40	T18	5591794	SCMT432MP KCM25B	B247	5592162	WNMG434MR KCP10B	B159	5593723	TM24N00ISO KC635M	W6
5588550	LNGU543ERGE KC522M	T18	5591795	DNMG443MP KCM25B	B81	5592163	WNMG644MR KCP25B	B159	5593724	TM24N125ISO KC635M	W6
5588937	DFT110508MD KCT140	J101	5591796	TNMG433MP KCM25B	B124	5593105	KTMDUWD058L15721	W29	5593725	TM24N150ISO KC635M	W6
5588973	RIQ09EDR00 KCG005	K59	5591799	CNMG643MP KCM25B	B81	5593106	KTMDUWD081L236Z2	W29	5593726	TM24N175ISO KC635M	W6
5598680	LNPUP763PNSRHD KCPM40	S99, S101	5591900	DNMG442MP KCM25B	B51	5593107	KTMDUWD091L276Z2	W29	5593727	TM24N200ISO KC635M	W6
5590137	410.091	E18-19, E21, E23	5591901	CNMG433MP KCM25B	B51	5593108	KTMDUWD102L315Z3	W29	5593728	TM24N250ISO KC635M	W6
5590777	EP1808EHD KCPM40	T84	5591902	DNMG431MP KCM25B	B81	5593109	KTMDUWD144L374Z3	W34	5593729	TM24EN18NPT KC635M	W6
5591123	DCMT3252FP KCM25B	B225	5591903	DNMG443RN KCP40B	B83	5593120	KTMDUWD122L374Z4	W29	5593740	TM24EN18NPT KC635M	W7
5591124	DCMT3251FP KCM25B	B225	5591904	TCMT3251MP KCM25B	B258	5593121	KTMDUWD165L472Z4	W34	5593741	TM24EN19BSF KC635M	W6
5591126	CCMT2152FP KCM25B	B190	5591906	TCMT3252MP KCM25B	B258	5593125	KTMDUCD058L236Z1	W30	5593742	TM24EN14BSF KC635M	W6
5591127	DCMT2152FP KCM25B	B225	5591907	SNMG432MP KCM25B	B102	5593126	KTMDUCD068L256Z2	W30	5593743	TM24EN19BSPT KC635M	W7
5591128	CCMT3251FP KCM25B	B190	5591908	DNMG434RN KCP40B	B83	5593127	KTMDUCD081L315Z2	W30	5593744	TM24ENBLANK	W7
5591129	DCMT32505FP KCM25B	B225	5591910	TNMG432MP KCM25B	B124	5593132	KTMDUCD091L300Z2	W31	5593745	TM24ENUN KC635M	W26
5591140	CCMT2151FP KCM25B	B190	5591911	SNMG666RN KCP40B	B105	5593133	KTMDUED102L415Z3	W31	5593746	TM41N7UN KC635M	W26
5591141	CCMT21505FP KCM25B	B190	5591912	WNMG332MP KCM25B	B159	5593134	KTMDUED144L512Z3	W34	5593747	TM41N6UN KC635M	W26
5591142	CCMT3252FP KCM25B	B190	5591913	CNMG544RN KCP40B	B53	5593135	KTMDUED122L452Z4	W31	5593748	TM41N5UN KC635M	W26
5591143	DCMT2151FP KCM25B	B225	5591914	CCMT2151MP KCM25B	B191	5593139	KTMDUSD169L158Z4	W35	5593749	TM41N45UN KC635M	W26
5591144	CCMT32505FP KCM25B	B190	5591916	CPMT3252MP KCM25B	B207	5593140	KTMDUSD209L158Z5	W35	5593750	TM41N4UN KC635M	W26
5591146	CCMT431FP KCM25B	B190	5591919	CNMG543RP KCM25B	B53	5593141	TMS25D52L40Z8	W10	5593751	TM41N00ISO KC635M	W26
5591149	TCMT2151LF KCM25B	B257	5591930	DNMG333MP KCM25B	B81	5593142	TMS25D36L34Z5	W10	5593752	TM41N350ISO KC635M	W26
5591151	DCMT2151LF KCM25B	B225	5591931	CNMG643RP KCM25B	B53	5593143	TMS25D44L38Z6	W12	5593753	TM41N400ISO KC635M	W26
5591152	SCMT432LF KCM25B	B246	5591932	DNMG442RP KCM25B	B84	5593145	TMS25D232L158Z9	W10	5593754	TM41N500ISO KC635M	W26
5591154	VBMT221LF KCM25B	B281	5591933	SNMG433MP KCM25B	B102	5593146	TMS25D193L138Z7	W12	5593755	TM41N500ISO KC635M	W26
5591155	DPMT3251LF KCM25B	B232	5591934	SNMG643MP KCM25B	B102	5593147	TMS25D154L126Z5	W12	5593756	TM41N550ISO KC635M	W26
5591156	TCMT3251LF KCM25B	B257	5591935	SNMG644RP KCM25B	B105	5593148	TMS25D154L126Z5	W13	5593757	TM41N600ISO KC635M	W26
5591157	CPMT3251LF KCM25B	B207	5591937	WNMG331MP KCM25B	B159	5593154	TM24D053L102Z1	W4	5593758	TM41EN8NPT KC635M	W26
5591158	CCMT431LF KCM25B	B246	5591938	WNMG433RP KCM25B	B161	5593155	TM24D069L118Z1	W4	5593759	TM41ENBLANK	W26
5591159	TCMT3252LF KCM25B	B257	5591939	SNMG542MP KCM25B	B102	5593156	TM24D063L110Z2	W4	5593760	TM40N8UN KC635M	W20
5591160	TCMT2152LF KCM25B	B257	5591950	CNMG431RP KCM25B	B53	5593157	TM24D063L142Z1	W4	5593762	TM40N16UN KC635M	W20
5591161	TPMT3251LF KCM25B	B268	5591952	SNMG434MP KCM25B	B102	5593158	TMT24D055L102Z1	W5	5593764	TM40N12UN KC635M	W20
5591162	TPMT2151LF KCM25B	B268	5591953	SNMG544RP KCM25B	B105	5593177	TM41D083L177Z1	W24	5593767	TM40N8UN KC635M	W20
5591164	TPMT3252MF KCM25B	B268	5591954	SNMG543MP KCM25B	B102	5593178	TM41D097L169Z2	W24	5593768	TM40N100ISO KC635M	W20
5591166	SCMT432MF KCM25B	B247	5591955	CNMG644RP KCM25B	B53	5593179	TM41D118L256Z3	W24	5593769	TM40N150ISO KC635M	W20
5591167	TCMT3252MF KCM25B	B258	5591956	TNMG333MP KCM25B	B124	5593180	TM41D142L169Z5	W24	5593780	TM40N200ISO KC635M	W20
5591168	SPMT3252MF KCM25B	B253	5591957	CNMG434RP KCM25B	B53	5593181	TM41D142L256Z4	W24	5593782	TM40N300ISO KC635M	W20
5591169	CPMT3252MF KCM25B	B207	5591959	WNMG432RP KCM25B	B161	5593182	TMS41D210L200Z5	W25	5593786	TM40EN1BSF KC635M	W20
5591170	TCMT3253MF KCM25B	B258	5591960	CNMG544RP KCM25B	B53	5593183	TMS41D202L200Z6	W25	5593788	TM40EN08NPT KC635M	W20
5591172	CCMT3251MF KCM25B	B191	5591962	TNMG432RP KCM25B	B127	5593191	TM40D087L169Z3	W17	5593790	TM40EN08NPT KC635M	W21
5591173	DCMT3251MF KCM25B	B226	5591963	CNMG432MW KCM25B	B52	5593192	TM40D087L256Z3	W17	5593791	TM40EN1BSPT KC635M	W21
5591174	CCMT2151MF KCM25B	B191	5591964	TNMG433RP KCM25B	B127	5593193	TM40D118L215Z4	W17	5593792	TM40ENBLANK	W21
5591175	SCMT3252MF KCM25B	B247	5591967	TNMG543RP KCM25B	B127	5593194	TM40D118L315Z3	W17	5593793	TM24N32UN KC610M	W6
5591256	CCMT3253MF KCM25B	B191	5591968	CNMG543RN KCP40B	B105	5593195	TMS40D193L197Z7	W18	5593794	TM24N28UN KC610M	W6
5591610	TNMG431FP KCM25B	B123	5591970	TNMG666RN KCP40B	B126	5593196	TMS40D232L200Z9	W18	5593795	TM24N24UN KC610M	W6
5591611	SNMG432FP KCM25B	B101	5591971	CNMG643RP KCP40B	B53	5593197	TMST40D193L197Z7	W19	5593797	TM24N20	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5593807	TM24N150ISO KC610M	W6	5607204	UJBE0375J6L KCSM15	P52	5615608	VNMG332FP KCP25B	B146	5626747	KSEM1281HPG KCPM45	H58
5593808	TM24N175ISO KC610M	W6	5607205	UJBE0500J6L KCSM15	P52	5615609	VNMG332FN KCP10B	B146	5626748	KSEM3350HPGM KCPM45	H58
5593809	TM24N200ISO KC610M	W6	5607206	UJBE0500J6C KCSM15	P52	5615610	VNMG332FN KCP25B	B146	5626749	KSEM3400HPGM KCPM45	H58
5593830	TM24N250ISO KC610M	W6	5607207	UJBE0625J6L KCSM15	P52	5615650	VNMG332FN KCP25B	B146	5626760	KSEM3450HPGM KCPM45	H58
5593831	TM24N18NPT KC610M	W6	5607208	UJBE0750J6L KCSM15	P52	5615680	HNPX5354SNGE KCK15	S80	5626761	KSEM1375HPG KCPM45	H58
5593832	TM24N18NPTF KC610M	W7	5607209	UJBE1000J6L KCSM15	P52	5615682	HNPX5355SNGE KCK15	S79	5626762	KSEM3500HPGM KCPM45	H58
5593833	TM24N19BSF KC610M	W6	5607300	UJBE0375J6AL KCSM15	P53	5615683	HNPX5355SNGE KCK15	S79	5626763	KSEM1438HPG KCPM45	H58
5593834	TM24N14BSF KC610M	W6	5607301	UJBE0500J6AL KCSM15	P53	5615684	HNPX5354SNGE KCK15	S80	5626764	KSEM3300HPGM KCPM45	H58
5593835	TM24N19BSPT KC610M	W7	5607302	UJBE0625J6AL KCSM15	P53	5615687	HNPX5358SNGE KCK15	S79	5626765	KSEM1460HPG KCPM45	H58
5593837	TM41N8UN KC610M	W26	5607304	UJBE0750J6AL KCSM15	P53	5616165	HNPX5355ENLE KCK15	S78	5626766	KSEM3750HPGM KCPM45	H58
5593838	TM41N7UN KC610M	W26	5607305	UJBE1000J6AL KCSM15	P53	5616166	HNPX5355ENLE KCK15	S78	5626767	KSEM3800HPGM KCPM45	H58
5593839	TM41N6UN KC610M	W26	5607996	LNPU543SRGE KC520M	T19	5616167	HNPX5358SNGE KCK15	S78	5626768	KSEM1514HPG KCPM45	H58
5593840	TM41N5UN KC610M	W26	5607997	LNPU543SRGE KC522M	T19	5616168	HNPX5358SNGE KCK15	S78	5626769	KSEM3900HPGM KCPM45	H58
5593841	TM41N45UN KC610M	W26	5607998	LNPU543SRGE KC725M	T19	5618002	SNMM543RM KCP25B	B107	5627774	LNGU544SRGE KC520M	T19
5593842	TM41N4UN KC610M	W26	5608030	LNPU543SRGE KCPK30	T19	5619961	SDET4316ENGB KC725M	T116, T123, U39	5627785	LNGU544SRGE KC522M	T19
5593843	TM41N300ISO KC610M	W26	5608034	LNPU541SRGE KC520M	T19	5619962	SDET4312SNGB KC725M	T116, T123, U39	5627786	LNGU544SRGE KC725M	T19
5593844	TM41N350ISO KC610M	W26	5608035	LNPU541SRGE KC522M	T19	5619963	SDET4312ENGB KC725M	T116, T123, U39	5627787	LNGU544SRGE KCK15	T19
5593845	TM41N400ISO KC610M	W26	5608036	LNPU541SRGE KC725M	T19	5619964	SDET4316ENGB KC725M	T116, T123, U39	5627788	LNGU544SRGE KCPK30	T19
5593846	TM41N450ISO KC610M	W26	5608037	LNPU541SRGE KCK15	T19	5620156	LNPU763PNSLHD2 KC520M	S99, S101	5627789	LNGU544ERGE KC725M	T18
5593847	TM41N500ISO KC610M	W26	5608038	LNPU541SRGE KCPK30	T19	5620157	LNPU763PNSLHD2 KCPK30	S99, S101	5627870	LNGU544ERGE KCSM30	T18
5593848	TM41N550ISO KC610M	W26	5608090	CNMM644RP KCP25B	B56	5620158	LNPU763PNSRHD2 KCPM40	S99, S101	5627871	LNGU544ERGE KCPM40	T18
5593850	TM41N600ISO KC610M	W26	5608588	T830NC#04-40RH2-XL6 KSP39	M100	5620159	LNPU763PNSRHD2 KCPK30	S99, S101	5628796	CNMG432MR KCPK05	B51
5593851	TM41N8NPT KC610M	W20	5608589	T830NC#06-32RH3-XL6 KSP39	M100	5620360	LNPU763PNSRHD2 KCPK30	S99, S101	5628797	CNMG433MR KCPK05	B51
5593852	TM40N20UN KC610M	W20	5608630	T830NC#08-32RH3-XL6 KSP39	M100	5620361	LNPU763PNSRHD2 KCPK30	S99, S101	5628831	CNMG444RN KCPK05	B53
5593853	TM40N18UN KC610M	W20	5608631	T830NC#10-24RH3-XL6 KSP39	M100	5620362	LNPU763PNSRHD2 KCPK30	S99, S101	5628832	CNMG544RP KCPK05	B53
5593854	TM40N16UN KC610M	W20	5608632	T830NF#10-32RH3-XL6 KSP39	M100	5620363	LNPU763PNSRHD2 KCPK30	S99, S101	5628833	CNMG432MR KCPK05	B82
5593855	TM40N14UN KC610M	W20	5608633	T830NC02500-20RH3-XL6 KSP39	M100	5620364	LNPU763PNSRHD2 KCPK30	S99, S101	5628835	CNMG433RN KCPK05	B83
5593857	TM40N12UN KC610M	W20	5608634	T860NF02500-28RH3-XL6 KSP39	M100	5620365	LNPU763PNSRHD2 KCPK30	S99, S101	5628837	CNMG433MR KCPK05	B82
5593858	TM40N10UN KC610M	W20	5608635	T830NC03125-18RH3-XL6 KSP39	M100	5620366	LNPU763PNSRHD2 KCPK30	S99, S101	5628838	CNMG442MR KCPK05	B82
5593859	TM40N8UN KC610M	W20	5608636	T830NF03125-24RH3-XL6 KSP39	M100	5620367	LNPU763PNSRHD2 KCPK30	S99, S101	5628839	CNMG433RN KCPK05	B83
5593870	TM40N8UN KC610M	W20	5608637	T830NC03750-16RH3-XL6 KSP39	M100	5626642	KSEM1250HPGM KCPM45	H57	5628841	CNMG544RN KCPK05	B105
5593871	TM40N100ISO KC610M	W20	5608638	T830NF03750-24RH3-XL6 KSP39	M100	5626643	KSEM1280HPGM KCPM45	H57	5628844	CNMG432RP KCPK05	B161
5593872	TM40N150ISO KC610M	W20	5608639	T830NC04375-14RH3-XL6 KSP39	M100	5626644	KSEM1300HPGM KCPM45	H57	5628845	CNMG444RN KCPK05	B159
5593873	TM40N200ISO KC610M	W20	5608640	T830NF04375-20RH3-XL6 KSP39	M100	5626645	KSEM1350HPGM KCPM45	H57	5628847	CNMG433RN KCPK05	B161
5593874	TM40N250ISO KC610M	W20	5608642	T830NC05000-13RH3-XL6 KSP39	M100	5626646	KSEM1360HPGM KCPM45	H57	5628849	CNMG433RP KCPK05	B161
5593875	TM40N300ISO KC610M	W20	5608644	T830NF05000-20RH3-XL6 KSP39	M100	5626648	KSEM1380HPGM KCPM45	H57	5628850	CNMG433RN KCPK05	B159
5593876	TM40N16BSF KC610M	W20	5608645	T830NC06250-11RH3-XL6 KSP39	M100	5626649	KSEM10547HPG KCPM45	H57	5629530	CNMG433RN KCPK05	B53
5593877	TM40N14BSF KC610M	W20	5608646	T830NC#04-40RH2-XL4 KSP39	M99	5626700	KSEM1410HPGM KCPM45	H57	5629532	CNMG644RN KCPK05	B53
5593878	TM40N12BSF KC610M	W20	5608647	T830NC#06-32RH3-XL4 KSP39	M99	5626701	KSEM1450HPGM KCPM45	H57	5629534	CNMG544RN KCPK05	B56
5593879	TM40N11BSF KC610M	W20	5608648	T830NC#08-32RH3-XL4 KSP39	M99	5626702	KSEM10578HPG KCPM45	H57	5629536	CNMG432MR KCPK05	B81
5593880	TM40N115NPT KC610M	W20	5608661	T830NF#10-32RH3-XL4 KSP39	M99	5626703	KSEM1500HPGM KCPM45	H57	5629538	CNMG432MR KCPK05	B160
5593881	TM40N100NPT KC610M	W20	5608662	T830NC02500-20RH3-XL4 KSP39	M99	5626704	KSEM1058HPG KCPM45	H57	5629698	T846NPT02500-14R-A KSU30	M153
5593882	TM40N115NPTF KC610M	W21	5608663	T832NC#04-40RH2-XL6 KSP39	M101	5626705	KSEM1550HPGM KCPM45	H57	5629699	T846NPT02500-18R-A KSU30	M153
5593883	TM40N100NPTF KC610M	W21	5608664	T832NC#06-32RH3-XL6 KSP39	M101	5626706	KSEM1580HPGM KCPM45	H57	5629710	T846NPT03750-14R-A KSU30	M153
5593884	TM40N11BSPT KC610M	W21	5608665	T832NC#08-32RH3-XL6 KSP39	M101	5626707	KSEM1625HPG KCPM45	H57	5629711	T846NPT05000-14R-A KSU30	M153
5593886	CNMG432MR KCU10	B51	5608666	T832NF#10-32RH3-XL6 KSP39	M101	5626708	KSEM1600HPGM KCPM45	H57	5629791	T854NPT00625-27R-A KSP39	M152
5593887	CNMG432MR KCU10	B82	5608667	T832NC02500-20RH3-XL6 KSP39	M101	5626709	KSEM1600HPGM KCPM45	H57	5629792	T854NPT00625-27R-A KSP39	M152
5593888	CNMG433MR KCU10	B51	5608668	T832NF03750-24RH3-XL6 KSP39	M101	5626710	KSEM1641HPG KCPM45	H57	5629793	T854NPT02500-27R-A KSP39	M152
5593931	CNMG432MR KCU10	B159	5608669	T832NC03125-18RH3-XL6 KSP39	M101	5626711	KSEM1700HPGM KCPM45	H57	5629794	T854NPT02500-27R-A KSP39	M152
5593933	CNMG432MR KCU10	B103	5608680	T832NC03750-16RH3-XL6 KSP39	M101	5626712	KSEM1700HPGM KCPM45	H57	5629795	T854NPT02500-27R-A KSP39	M152
5593934	CNMG433MR KCU10	B103	5608681	T832NF03750-24RH3-XL6 KSP39	M101	5626713	KSEM1750HPGM KCPM45	H57	5629796	T854NPT02500-27R-A KSP39	M152
5593937	CNMG442MR KCU10	B82	5608682	T832NC04375-14RH3-XL6 KSP39	M101	5626714	KSEM1703HPG KCPM45	H57	5629798	T854NPT02500-18R-A KSP39	M152
5595038	VNMG332FP KCP10B	B146	5608745	T820NC#04-40RH2-XL6 KSP39	M35	5626715	KSEM1850HPGM KCPM45	H57	5629799	T854NPT02500-18R-A KSU31	M152
5596414	CMCT432LF KCM25B	B191	5608746	T820NC#06-32RH3-XL6 KSP39	M35	5626716	KSEM1850HPGM KCPM45	H57	5629800	T854NPT02500-18R-A KSU31	M152
5596415	CMCT3252LF KCM25B	B191	5608747	T820NC#08-32RH3-XL6 KSP39	M35	5626717	KSEM1075HPG KCPM45	H57	5629801	T854NPT03750-18R-A KSU31	M152
5596416	VBMT332LF KCM25B	B281	5608748	T820NC#10-24RH3-XL6 KSP39	M35	5626718	KSEM1076HPG KCPM45	H57	5629802	T854NPT05000-14R-A KSP39	M152
5596417	DCMT3252LF KCM25B	B225	5608749	T820NF#10-32RH3-XL6 KSP39	M35	5626719	KSEM1077HPG KCPM45	H57	5629803	T854NPT01250-27R-A KSP39	M152
5596418	VBMT331LF KCM25B	B281	5608750	T820NC02500-20RH3-XL6 KSP39	M35	5626720	KSEM2050HPGM KCPM45	H57	5629804	T854NPT00625-27R-A KSP39	M152
5596419	DCMT3251LF KCM25B	B225	5608751	T820NF02500-28RH3-XL6 KSP39	M35	5626721	KSEM1084HPG KCPM45	H57	5629805	T854NPT01250-27R-A KSP39	M152
5596450	CMCT3251LF KCM25B	B191	5608752	T820NC03125-18RH3-XL6 KSP39	M35	5626722	KSEM2150HPGM KCPM45	H57	5629807	T854NPT01250-27R-A KSP39	M152
5596451	CMCT2151LF KCM25B	B191	5608753	T820NF03125-24RH3-XL6 KSP39	M35	5626723	KSEM1085HPG KCPM45	H57	5629808	T854NPT01250-27R-A KSP39	M152
5596455	CMCT3252MF KCM25B	B191	5608754	T820NC03750-16RH3-XL6 KSP39	M35	5626724	KSEM1088HPG KCPM45	H57	5629809	T854NPT01250-27R-A KSP39	M152
5596456	CMCT432MF KCM25B	B191	5608755	T820NF03750-24RH3-XL6 KSP39	M35	5626725	KSEM2250HPGM KCPM45	H57	5629810	T854NPT02500-18R-A KSP39	M152
5596457	CNMG432MR KCP40B	B50	5608756	T820NC04375-14RH3-XL6 KSP39	M35	5626726	KSEM1092HPG KCPM45	H57	5629811	T854NPT02500-18R-A KSU31	M152
5596460	CNMG432MP KCM25B	B51	5608757	T820NF04375-20RH3-XL6 KSP39	M35	5626727	KSEM2350HPGM KCPM45	H57	5629812	T854NPT03750-18R-A KSP39	M152
5596461	CNMG433MP KCM25B	B124	5608758	T820NC05000-13RH3-XL6 KSP39	M35	5626728	KSEM2650HPGM KCPM45	H57	5629813	T854NPT03750-14R-A KSU31	M152
5596462	CNMG464RH KCP40B	B55	5608759	T820NF05000-20RH3-XL6 KSP39	M35	5626729	KSEM1096HPG KCPM45	H58	5629814	T854NPT05000-14R-A KSP39	M152
5596463	CNMG444RM KCP40B	B107	5608760	T820NC06250-11RH3-XL6 KSP39	M35	5626730	KSEM2550HPGM KCPM45	H58	5629815	T854NPT05000-14R-A KSU31	M152
5596465	CNMG433RN KCP40B	B53	5608761	T820NC#04-40RH2-XL6 KSP39	M34	5626731	KSEM2550HPGM KCPM45	H58	5629905	T854NPT07500-14R-A KSP39	M152
5596466	CNMG434RN KCP40B	B53	560876								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5630744	SNPJ31253NGD KCPM40	S57	5639700	SCMT3252MP KCK20B	B247	5640492	VBMT331LF KCM15B	B281	5641371	SCMT3252LF KCK20B	B246
5630745	SNPJ31253NGD KCK15	S57	5639701	SCMT432LF KCK20B	B246	5640493	VBMT332LF KCM15B	B281	5641372	SNMA433 KCK20B	B100
5630746	SNPJ4425NGD KCP520	S60	5639702	SCMT432MF KCK20B	B247	5640494	WNMG432FP KCM15B	B158	5641373	SNMG433UN KCK20B	B106
5630747	SNPJ4425NGD KCPM40	S60	5639703	SCMT432MP KCK20B	B247	5640496	WNMG433MW KCM15B	B160	5641375	VBMT331LF KCK20B	B281
5630748	SNPJ4425NGD KCK15	S60	5639705	SCMT433MF KCK20B	B247	5640904	CCMT2151FP KCM15B	B190	5641377	WNMA432 KCK20B	B157
5630749	SNPJ4425NGD KCPK30	S60	5639707	SCMW3252 KCK20B	B248	5640905	CCMT2151MF KCM15B	B191	5641379	WNMG332UN KCK20B	B162
5630751	SNPJ4445NGD KCPM40	S60	5639708	SCMW432 KCK20B	B248	5640906	CCMT2151MP KCM15B	B191	5642146	CNMG433UN KCK20B	B54
5630752	SNPJ4445NGD KCK15	S60	5639709	SCMW433 KCK20B	B248	5640907	CCMT2152LF KCM15B	B191	5642147	CNMG434UN KCK20B	B54
5630753	SNPJ4445NGD KCPK30	S60	5639710	SNMA432 KCK20B	B100	5640908	CCMT3251FP KCM15B	B190	5642148	CNMG542UN KCK20B	B54
5631151	SNMG432RP KCP25B	B105	5639761	SNMG432RP KCK20B	B105	5640909	CCMT3251MF KCM15B	B191	5642149	CNMG543UN KCK20B	B54
5631155	SNMG432RN KCP25B	B105	5639767	SPMT3252LF KCK20B	B252	5640960	CCMT3251MP KCM15B	B191	5642150	CNMG544UN KCK20B	B54
5633113	T822NC#05-40RH2-A KSP39	M28	5639781	TCMT2151FP KCK20B	B257	5640961	CCMT3251MW KCM15B	B192	5642154	DNMA332 KCK20B	B78
5633114	T822NC#06-32RH2-A KSP39	M28	5639782	TCMT2151LF KCK20B	B257	5640962	CCMT2151MP KCM15B	B190	5642155	WNMG433LF KCK20B	B48
5633115	T822NC#06-32RH3-A KSP32	M28	5639784	TCMT2152LF KCK20B	B257	5640963	CCMT3252FW KCM15B	B190	5642158	DNMG432UN KCK20B	B84
5633116	T822NC#06-32RH3-A KSMN34	M28	5639785	TCMT2152MF KCK20B	B258	5640964	CCMT3252MP KCM15B	B191	5642159	DNMG433UN KCK20B	B84
5633117	T822NC#06-32RH3-A KSP39	M28	5639786	TCMT2152MP KCK20B	B258	5640965	CCMT2151MP KCM15B	B192	5642160	DNMG434UN KCK20B	B84
5633118	T822NC#06-32RH4-A KSP39	M28	5639787	TCMT3251LF KCK20B	B257	5640969	CNMG322MP KCM15B	B51	5642161	DNMG442UN KCK20B	B84
5633119	T822NC#06-32RH5-A KSP39	M28	5639788	TCMT3251MP KCK20B	B258	5640970	CNMG431FF KCM15B	B48	5642162	DNMG443UN KCK20B	B84
5633200	T822NC#06-32RH6-A KSP39	M28	5639790	TCMT3252LF KCK20B	B257	5640971	TCMT3251MP KCM15B	B51	5642165	RPH12006MORP KCK20B	B242
5633201	T822NC#06-32RH7-A KSP39	M28	5639791	TCMT3252MF KCK20B	B258	5640973	CNMG431UP KCM15B	B54	5642167	SNMG432UN KCK20B	B106
5633202	T822NF#06-40RH2-A KSP39	M28	5639792	TCMT3252MP KCK20B	B258	5640974	CNMG432FP KCM15B	B48	5642168	SNMG434UN KCK20B	B106
5633203	T822NF#06-40RH2-A KSP39	M28	5639793	TCMT3253LF KCK20B	B257	5640975	CNMG325FW KCM15B	B49	5642173	WNMG322UN KCK20B	B127
5633204	T822NC#08-32RH2-A KSP39	M28	5639794	TCMT3253MF KCK20B	B258	5640976	CNMG432MR KCM15B	B51	5642174	TNMG333UN KCK20B	B127
5633205	T822NC#08-32RH3-A KSP32	M28	5639795	TCMT432LF KCK20B	B257	5640977	CNMG432P KCM15B	B52	5642182	WNMA333 KCK20B	B157
5633206	T822NC#08-32RH3-A KSMN34	M28	5639796	TCMW3251 KCK20B	B258	5640978	CNMG432UP KCM15B	B54	5642185	WNMG432UN KCK20B	B162
5633207	T822NC#08-32RH3-A KSP39	M28	5639797	TCMW3252 KCK20B	B258	5640979	CNMG433MP KCM15B	B51	5642186	WNMG433UN KCK20B	B162
5633208	T822NC#08-32RH4-A KSP32	M28	5639799	TNMA332 KCK20B	B122	5640980	CNMG433MR KCM15B	B51	5650846	TPU221 KCK15B	B178
5633209	T822NC#08-32RH4-A KSP39	M28	5639822	TNMA432 KCK20B	B122	5640981	CNMG434MP KCM15B	B51	5650847	TPJ321 KCK15B	B178
5633210	T822NC#08-32RH6-A KSP39	M28	5639823	TNMA433 KCK20B	B122	5640982	CNMG542MP KCM15B	B51	5650848	TPU322 KCK15B	B178
5633211	T822NC#08-32RH7-A KSP39	M28	5639826	TNMG432RP KCK20B	B127	5640985	CNMG543MP KCM15B	B51	5651220	RPH1204MOTX4 X700	V105
5633212	T822NF#08-36RH2-A KSP39	M28	5639824	TPMT3252LF KCK20B	B268	5640988	CNMG543RP KCM15B	B53	5651222	XLW090408SRD X500	V16
5633213	T822NC#10-24RH3-A KSP32	M28	5639837	TPMT3252MP KCK20B	B269	5640989	CNMG642MP KCM15B	B51	5651223	XLW120508SRD X400	V23
5633214	T822NC#10-24RH3-A KSMN34	M28	5639838	TPMT3253MF KCK20B	B268	5640997	WNMG432S0415FWHMT KBH20	B343	5651479	RPH1204MOTX4 X500	V104
5633215	T822NC#10-24RH3-A KSP39	M28	5639840	VBMT222LF KCK20B	B281	5641044	WNMG543MR KCM15B	B103	5651903	CXE0750MN4-C SP4060	P84
5633217	T822NF#10-32RH3-A KSP32	M28	5639845	CCMT2151FW KCK20B	B190	5641046	WNMG432MR KCM15B	B159	5652140	SDHT120412EN422 SP6519	T132
5633218	T822NF#10-32RH3-A KSMN34	M28	5639849	CCMT2152LF KCK20B	B191	5641047	WNMG433MR KCM15B	B159	5652239	XLW090408SRD X400	V16
5633219	T822NF#10-32RH3-A KSP39	M28	5640382	CCMT3251MF KCK20B	B191	5641048	CNMG431MR KCM15B	B51	5652248	XLDT120512ERD411 X500	V22
5633220	T822NF#10-32RH4-A KSP39	M28	5640383	CCMT3251MP KCK20B	B191	5641055	DNMG442MR KCM15B	B82	5652249	XLDT090412ERD411 SP6519	V15
5633221	T822NC#10-24RH5-A KSP39	M28	5640386	CCMT3252MP KCK20B	B191	5641062	WNMG332MR KCM15B	B147	5652466	CXER0125TN4-F SP4060	P85
5633222	T822NF#10-32RH5-A KSP39	M28	5640387	CCMT3252MW KCK20B	B192	5641064	WNMG332MR KCM15B	B159	5652468	CXER0250NN4-C SP4060	P85
5633223	T822NF#10-32RH6-A KSP39	M28	5640388	CCMT3253MF KCK20B	B191	5641067	CPMG3251 KCM15B	B205	5652476	CXER0500NN4-K SP4060	P85
5633224	T822NC#10-24RH7-A KSP39	M28	5640391	CCMT432MF KCK20B	B191	5641069	CPMT2152MF KCM15B	B207	5652477	CXER0625NN4-F SP4060	P85
5633225	T822NF#10-32RH7-A KSP39	M28	5640392	CCMT432MP KCK20B	B191	5641090	CPMT3251LF KCM15B	B207	5652478	CXER0625NN4-J SP4060	P85
5633227	T822NF#12-28RH3-A KSP39	M28	5640393	CCMT432MW KCK20B	B192	5641091	CPMT3252MF KCM15B	B207	5652479	CXER0750NN4-F SP4060	P85
5633228	T822M030X050RD3-A KSP32	M30	5640394	CCMT433LF KCK20B	B191	5641093	DCMT2151LF KCM15B	B225	5652480	CXER0750NN4-K SP4060	P85
5633229	T822M030X050RD3-A KSMN34	M30	5640397	CCMW2151 KCK20B	B192	5641094	DCMT3252MF KCM15B	B226	5652489	RPH1204MOTX4 SP6519	V105
5633230	T822M030X050RD3-A KSP39	M30	5640399	CCMW3252 KCK20B	B192	5641095	DNMG332FW KCM15B	B80	5652490	XLDT090408ERD41 SP6519	V14
5633231	T822M035X060RD4-A KSP39	M30	5640400	CCMW432 KCK20B	B192	5641096	WNMG431FF KCM15B	B79	5652729	XLDT120508ERD41 SC6525	V21
5633232	T822M040X070RD4-A KSP32	M30	5640401	CCMW433 KCK20B	B192	5641098	DNMG431MP KCM15B	B81	5652800	RPEX10T3M0F701X4 SP4019	V99
5633233	T822M040X070RD4-A KSMN34	M30	5640402	CNMA431 KCK20B	B47	5641099	DNMG432MP KCM15B	B81	5652874	XPNT101043RF SP6519	V115
5633234	T822M040X070RD4-A KSP39	M30	5640403	CNMA432 KCK20B	B47	5641101	DNMG441MP KCM15B	B81	5652899	XLDT120512ERD41 SP6519	V22
5633235	T822M050X080RD4-A KSP32	M30	5640406	CNMA433 KCK20B	B47	5641102	DNMG442MP KCM15B	B81	5653062	XPNT050522RF SP6519	V115
5633236	T822M050X080RD4-A KSMN34	M30	5640408	CNMG434RP KCK20B	B53	5641105	SNMG432MP KCM15B	B102	5653063	XPNT121254RF SP6519	V115
5633237	T822M050X080RD4-A KSP39	M30	5640409	CNMG543RP KCK20B	B53	5641107	SNMG544RP KCM15B	B105	5653064	XPNT161654RF SP6519	V115
5633262	T834NC#05-40RH2-A KSP39	M74	5640416	CPMT2152MF KCK20B	B207	5641108	TCMT2151LF KCM15B	B257	5653106	XLDT090408ERD41 SC6525	V14
5633263	T834NC#06-32RH2-A KSP39	M74	5640418	CPMT3251FW KCK20B	B206	5641109	TNMG331FF KCM15B	B123	5653137	SDHT120412EN422 X500	T132
5633264	T834NC#06-32RH3-A KSP32	M74	5640419	CPMT3251LF KCK20B	B207	5641110	TNMG331FF KCM15B	B124	5653138	SDHT09308EN422 X500	T129
5633265	T834NC#06-32RH3-A KSMN34	M74	5640421	CPMT3252LF KCK20B	B207	5641111	TNMG333MP KCM15B	B124	5653139	XELT160512ERD41 X500	V28
5633266	T834NC#06-32RH3-A KSP39	M74	5640422	CPMT3252MF KCK20B	B207	5641113	TNMG432MP KCM15B	B124	5653140	XELT160512ERD41 SP6519	V28
5633267	T834NC#06-32RH4-A KSP39	M74	5640424	CPMT3252MW KCK20B	B208	5641114	WNMG331FF KCM15B	B146	5653360	CXER0500NN4-C SP4060	P85
5633268	T834NC#06-32RH5-A KSP39	M74	5640425	VBMT331FP KCK20B	B281	5641115	WNMG331MP KCM15B	B147	5653362	CXER0750NN4-C SP4060	P85
5633269	T834NC#06-32RH7-A KSP39	M74	5640427	VBMT332FP KCK20B	B281	5641116	WNMG332MP KCM15B	B147	5653364	CXER0100NN4-L SP4060	B29
5633370	T834NF#06-40RH2-A KSP39	M74	5640428	VBMT332MP KCK20B	B281	5641117	WNMG333MP KCM15B	B147	5653576	SDHT09308EN422 SP6519	T129
5633371	T834NF#06-40RH3-A KSP39	M74	5640429	VBMT333LF KCK20B	B281	5641118	WNMG431FW KCM15B	B158	5653639	CXER0469TN4-E SP4060	P85
5633376	T834M030X050RD3-A KSP32	M88	5640431	VNMG332RP KCK20B	B148	5641119	WNMG431P KCM15B	B160	5653642	CXER0100NN4-F SP4060	P85
5633377	T834M030X050RD3-A KSP39	M88	5640436	WNMG432RP KCK20B	B161	5641120	WNMG432MP KCM15B	B159	5653777	CXER0750NN4-C SP4060	P85
5633378	T834M035X060RD4-A KSP39	M88	5640437	WNMG433RP KCK20B	B161	5641121	WNMG432P KCM15B	B160	5653779	CXER0375NN4-C SP4060	P85
5635433	ND3040L KQU25	D12	5640442	CCMT2151LF KCM15B	B191	5641122	WNMG432RP KCM15B	B161	5653885	SDHT120412EN422 X500	T132
5639385	DCMT3252FP KCK20B	B225	5640443	CCMT3251LF KCM15B	B191	5641123	WPMT3251LF KCM15B	B288	5653890	SDHT09308EN422 SP6519	T129
5639388	DCMT3252MP KCK20B	B226	5640444	CCMT3252LF KCM15B	B191	5641236	CCMT2151LF KCK20B	B191	5653930	XLDT120508ERD41 X500	V21
5639660	DCMT3253MF KCK20B	B226	5640445	CCMT3252MF KCM15B	B191	5641237	CCMT3252LF KCK20B	B191	5653967	XELW160512SRD X400	V28
5639663	DNMA432 KCK20B	B78	5640448	CCMT432MF KCM15B	B191	5641238	CCMT3252MF KCK20B	B191	5653971</		

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5654552	CXE0250MN4-C SP4060	P84	5665804	ZDET16M5PDRF721 GH1	T100	5672834	M-18-M10-CA.750-5.118 S	V32	5676760	RIQ06E1300 KC6005	K58
5654558	CXER0500NN4-C SP4060	P85	5665812	C7792VXE16-A2.50Z5R	V26-27	5672835	M-21-M12-CA1-5.157 S	V32	5676761	RIQ06E1300 KC6105	K58
5654563	CXER0375NN4-F SP4060	P85	5665832	C7792VXD12CA1.2/1.5Z3	V18, V20	5672836	M-29-M16-CA1.25-8.27 S	V32	5676762	RIQ06E1312 KC6005	K58
5654578	CXE0187MTN4-C SP4060	P84	5665928	RPEX1204M0E701X4 X500	V104	5672838	C5505VX10WA1.25R3.00	V112	5676763	RIQ06E1312 KC6105	K58
5654744	RPMT1204M0E41X4 SP6519	V104	5665949	ZDET16M500FR721 GH1	T100	5672839	C5505VX12WA1.50R4.00	V112	5676764	RIQ09E1300 KC6105	K58
5654896	XDLT090408ERD41 X500	V14	5665950	ZDET16M540FR721 GH1	T100	5672840	C5505VX16WA2.00R4.00	V112	5676765	RIQ09E1306 KC6105	K58
5655031	SDHT120412EN423 SP6519	T132	5666016	RPHT10T3M0E421X4 X500	V99	5672841	A5505VX10SA1.25R1.968	V111	5676766	RIQ09E1312 KC6005	K58
5655035	RPHT10T3M0TX4 SP6519	V100	5666067	C7792VXD09WA1.25Z3R3	V10, V13	5672846	C5505VX05CA.75/62R1	V114	5676767	RIQ09E1312 KC6105	K58
5655041	CXER0250NN4-F SP4060	P85	5666264	SDMT09T308EN41 MP91M	T130	5672847	C5505VX06CA.75R1.7	V114	5676768	RIQ06EGR00 KC6105	K59
5655043	CXER0500NN4-L SP4060	P85	5666376	ZDET16M516FR721 GH1	T100	5672848	C5505VX08CA1.00R2.2	V114	5676769	RIQ06EGR00 KC6305	K59
5655044	CXER1000NN4-C SP4060	P85	5666394	RPMT10T3M0E41X4 MP91M	V100	5672871	C5720VZ16-A2.00Z04R	T98	5676770	RIQ06EGR00 KC6005	K59
5655104	XELT160512ERD41 SC6525	V28	5666415	C7792VXE16CA2.00Z3R4	V25, V27	5672872	C5720VZ16-A2.50Z05R	T98	5676771	RIQ06EGR06 KC6005	K59
5655105	SDHT09T308EN423 SP6519	T129	5666519	RPHT10T3M0E422X8 X500	V99	5672885	C5720VZ16CA1.25Z3R3.0	T97	5676772	RIQ06EGR06 KC6105	K59
5655109	XDWL120508SRD X500	V23	5666596	C7792VXD12CA1.25Z2R3	V18, V20	5672990	M-18-M10-CA.750-6.693 S	V32	5676773	RIQ06EGR12 KC6005	K59
5655128	RPHT10T3M0TX4 X500	V100	5667132	RPMT10T3M0E41X4 SP6519	V100	5672991	M-21-M12-CA1-6.142 S	V32	5676774	RIQ06EGR12 KC6105	K59
5655171	XPNT06062515F SP6519	V115	5667399	RPMT1204M0E41X4 MP91M	V104	5672992	M-29-M16-CA1.25-6.3 S	V32	5676775	RIQ06EGR12 KC6305	K59
5655172	XDLT090412ERD41 X500	V105	5667400	RPMT1204M0TX4 MP91M	V105	5672993	M-29-M16-CA1.25-10.2 S	V32	5676776	RIQ06EGR00 KC6005	K59
5655210	CXER0500NN4-F SP4060	P85	5667404	C7792VXD12-A2.00Z4R	V19-20	5673041	C5230VSO9CA2.0Z04R4.0	T127	5676777	RIQ09EGR00 KC6305	K59
5655255	XDWL090408SRD SC6525	V16	5667476	C7792VXD12-A5.00Z2R	V19-20	5673042	C7713VR10-A2.50Z2R	V98	5676778	RIQ09EGR00 KC6005	K59
5655265	XPLT060308ERD41 SC6525	V7	5667487	A7792VXD12SA1.5Z3R1.7 S	V17, V20	5673043	A7713VR10SA1.25Z4R1.7	V97-98	5676779	RIQ09EGR06 KC6005	K59
5655472	XDLT090408ERD721 GH2	V14	5667498	ZDET16M530FR721 GH1	T100	5673044	C7713VR12-A2.00Z4R	V103	5676780	RIQ09EGR06 KC6105	K59
5655817	XELW160512SRD SC3025	V28	5667564	C7792VXD09CA1.00Z2R2	V11, V13	5673045	C7713VR12-A2.00Z6R	V103	5676781	RIQ09EGR06 KC6305	K59
5656081	XDWL090408SRD SC3025	V16	5667570	C7792VXE16-6.00Z1Z2R	V26-27	5673106	C7713VR12-A2.50Z7R	V103	5676782	RIQ06EGR12 KC6005	K59
5656214	XDWL120508SRD SC3025	V23	5667588	C7792VXPO6CA.62Z2R5.5	V5-6	5673111	C5505VX12WA1.50R6.00	V112	5676783	RIQ06EGR12 KC6105	K59
5656242	RPEX10T3M0F701X4 GH1	V99	5667809	C7792VXD12-A2.50Z4R	V19-20	5673112	C5505VX16WA2.00R6.00 S	V112	5676784	RIQ09EGR12 KC6305	K59
5656252	XDLT120508ERD21 GH2	V21	5667832	C7792VXD09-A2.00Z5R	V12-13	5673142	C5505VX10CA1.25R2.2	V114	5676785	RIQ06EDR00 KC6105	K59
5656378	C7792VXD12-A4.00Z9R	V19-20	5667833	C7792VXD12-A4.00Z6R S	V19-20	5673175	C5720VZ16-A2.50Z04R	T98	5676786	RIQ06EDR00 KC6305	K59
5656381	RPMT10T3M0E41X4 X500	V100	5667922	ZDET16M525FR721 GH1	T100	5673176	C5230VSO9-A2.0Z4R2.0	T128	5676787	RIQ06EDR00 KC6005	K59
5656382	C7792VXD12-A2.00Z5R	V19-20	5667941	C7792VXE16-A4.00Z2R	V26-27	5673296	C5505VX06WA.750R2.00	V113	5676788	RIQ06EDR06 KC6005	K59
5656533	SDMT120412EN41 MP91M	T133	5667946	ZDET16M504FR721 GH1	T100	5673338	C5720VZ16-A3.00Z04R	T98	5676790	RIQ06EDR06 KC6105	K59
5656731	C7792VXD09-A1.50Z4R	V12-13	5667958	A7792VXPO6SA1.0Z3R1.4 S	V4, V6	5673343	FP2507T	V4-5	5676791	RIQ06EDR06 KC6305	K59
5656732	C7792VXD12-A2.50Z5R	V19-20	5668072	RPHT1204M0E442X4 X700	V105	5673344	TP15	V114	5676792	RIQ06EDR12 KC6005	K59
5656765	SDMT09T308EN41 X500	T130	5671362	#1/4-28X3/4SHCSA S	T98, T12, V98, V103	5673353	M-21-M12-CA1-7.126 S	V32	5676794	RIQ06EDR12 KC6105	K59
5656911	RPHT10T3M0E421X4 X700	V99	5671373	#3/4-16X1-3/4SHCSA S	V19, V26	5673498	C7713VR12CA1.25Z3R2.7	V102-103	5676795	RIQ06EDR12 KC6305	K59
5656915	C7792VXD12-6.00Z1Z2R	V19-20	5671374	#3/8-24X1SHCSA S	T98, V12, V19, V98, V103	5673530	C5230VSO9-A2.0Z04R3.1	T128	5676796	RIQ09EDR06 KC6005	K59
5656917	RPMT10T3M0TX4 X500	V100	5671375	#5/8-18X1-1/2SHCSA S	T131, V19, V26	5673542	TP8	V111, V113-114	5676797	RIQ09EDR06 KC6105	K59
5656919	C7792VXD12-A3.00Z8R	V19-20	5671599	#1/2-20X1-1/4SHCSA S	T98, T128, T131, V19, V26, V103	5673548	DP5009A S	T96-99	5676798	RIQ09EDR06 KC6305	K59
5657226	RPMT1204M0E41X4 X500	V104	5671642	TB15	V12, V19, V97-98, V102-103	5673549	C5720VZ16CA1.25Z2R3.0	T97	5676799	RIQ09EDR12 KC6005	K59
5657237	C7792VXD12-A2.00Z3R	V19-20	5671687	#1/2-20X1-1/4 LHCSA S	V19, V26	5673588	M-21-M12-CA1-8.110 S	V32	5676800	RIQ09EDR12 KC6105	K59
5657271	SDMT120412EN41 X500	T133	5672329	D6014T S	V112	5673589	M-13-M8-CA.625-3.543 S	V32	5676801	RIQ09EDR12 KC6305	K59
5657681	RPHT1204M0E442X5 X500	V104	5672332	FP2506T	V4-5	5673595	C5505VX08WA1.00R2.37	V112	5681114	A7792VXPO6SA1.25Z5R2 S	V4, V6
5657863	F3510T S	V9-12	5672365	SB3230	T131	5673597	C7713VR10-A1.50Z05R	V98	5681117	C7792VXPO6CA1.25Z5R8	V5-6
5657877	D6018S S	V112	5672367	SB3413	T128	5673598	A7713VR12SA1.50Z5R1.7	V102-103	5681118	C5720VZ16-A1.50Z03R	T98
5658075	C7792VXD09WA1.00Z2R	V10, V13	5672374	D4008T S	V97-98, V102-103	5673603	C5505VX05CA.750R1.377	V111	5682154	ZDET16M500FR721 GH1	T100
5658170	C7792VXD09-A1.50Z5R	V12-13	5672375	D4010T S	V17-19, V103, V111-112, V114	5673629	C5720VZ16WA040Z4R75	T99	5682563	RPEX1204M0F701X4 GH1	V104
5658171	C7792VXD12-A5.00Z11R	V19-20	5672376	D5013T S	V111-112, V114	5673633	C5505VX05CA.62R1.6	V114	5682757	TB20	V26
5658324	RPHT1204M0E442X5 SP6519	V105	5672378	F4011T S	T131	5673704	M-13-M8-CA.625-3.543 S	V32	5682897	NLU-0.375 S	T128, T131
5658507	C7792VXPO6CA.75Z3R6.1	V5-6	5672381	T9 S	T127-128, T131	5673705	M-13-M8-CA.625-4.331 S	V32	5684657	LNPU542SRGE KCPM40	T19
5658650	ZDET16M540ER721 GH1	T100	5672387	D4012T S	V19	5673706	M-29-M16-CA1.25-12.2 S	V32	5684744	RNGN43TGN KYSP30	V150
5659264	RPMT1204M0E442X4 SP6519	V105	5672400	FP3007T S	V111, V114	5673709	C5505VX10WA1.25R4.00	V112	5684745	RNGN43EGN KYSP30	V150
5659355	SDMW120412TN SP6519	T133	5672405	TP20	T96-99, V25-26	5673710	A5505VX05SA.625R1.00	V111	5684746	RNGN43TGN KYSP30	V150
5659561	RPHT1204M0E442X5 X700	V104	5672409	D4007T S	V97	5673745	C5720VZ16-A3.00Z05R	T98	5684747	RNGN43EGN KYSP30	V150
5659562	RPHT10T3M0E422X8 X700	V99	5672410	NLW12SP	T131	5673747	C5230VZ12-A3.0Z5R2.56	T131	5685937	LNPU542SRGE KCPM40	B50
5659564	C7792VXE16CA1.50Z2R4	V25	5672412	SB3232	T131	5673766	C7713VR12-A1.50Z5R	V103	5685253	KNMG6432MM KCPK05	B62
5659603	ZDET16M525ER721 GH1	T100	5672414	FP3006T	V111, V114	5673767	A7713VR12SA1.50Z4R1.7	V102	5689447	DFSP240R5WD32M	J30
5659736	C7792VXD12-6.30Z2R	V19-20	5672415	TP7	V4-5	5673786	C5505VX06CA1/75R1.5	V114	5689448	DFSP250R5WD32M	J30-31
5659840	A7792VXD09SA1.0Z2R1.4 S	V9, V13	5672416	SB3621	T128	5673796	DP5013T S	V25-26	5689449	DFSP260R5WD32M	J30
5659867	RPHT10T3M0E422X4 SP6519	V99	5672469	M-13-M8-CA.625-5.118 S	V32	5673797	C5230VZ12-A2.5Z4R2.24	T131	5689500	DFSP265R5WD32M	J30
5659912	ZDET16M520FR721 GH1	T100	5672470	M-18-M10-CA.750-4.331 S	V32	5673799	C5720VZ16-A2.00Z03R	T98	5689501	DFSP270R5WD32M	J30
5659913	ZDET16M532FR721 GH1	T100	5672471	M-21-M12-CA1-9.094 S	V32	5673826	C7713VR12-A1.50Z4R	V103	5689502	DFSP280R5WD32M	J30
5659914	ZDET16M560FR721 GH1	T100	5672481	C5230VZ12-A2.5Z4R3.70	T131	5673827	C7713VR12-A2.50Z6R	V103	5689503	DFSP290R5WD32M	J30
5659929	A7792VXD12SA1.25Z2R2 S	V17, V20	5672512	A5720VZ16SA1.00Z2R2	T96	5673899	F3508T S	T127-128, V9-11	5689504	DFSP300R5WD32M	J30
5659948	C7792VXD09CA1.25Z3R3	V11, V13	5672521	A5720VZ16SA1.25Z3R2	T96	5674437	RPHT1204M0E442X5 SC6525	V104	5689505	DFSP310R5WD32M	J30
5660042	RPMT1204M0TX4 SP6519	V105	5672523	C7713VR12CA1.00Z2R2.0	V102-103	5674698	RPMT1204M0E432X5 SC6525	V106	5689506	DFSP320R5WD32M	J30-31
5660060	A7792VXPO6SA.75Z2R1.4 S	V4, V6	5672624	A7713VR12SA1.00Z2R1.4	V102-103	5674780	RPMT1204M0E442X8 SC6525	V105	5689507	DFSP330R5WD32M	J30
5660351	RPHT1204M0E442X4 X500	V105	5672718	C5720VZ16CA1.0Z02R2.7	T97	5674803	RPMT1204M0E432X5 X700	V106	5689508	DFSP340R5WD32M	J30
5660449	A7792VXD09SA1.25Z3R2 S	V9, V13	5672719	A5720VZ16SA1.25Z02R2	T96	5674959	RPMT1204M0E432X8 X500	V106	5689515	DFSP400R5WD32M	J30-31
5660462	RPHT10T3M0E422X4 X500	V99	5672766	C5720VZ16WA040Z4R75	T99	5675037	RPMT1204M0E432X5 SP6519	V106	5689516	DFSP410R5WD32	

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5689535	DFSP500R5WD40M	J30	5689813	T672NC#06-32R2B-DA KSMN34	M20	5689901	T682M100X150R6H-DA KSMN34	M70	5691839	DFSP1313R2SSF125	J32
5689536	DFSP510R5WD40M	J30	5689814	T672NC#08-32R2B-DA KSMN34	M20	5689902	T682M120X125R6H-DA KSMN34	M70	5691840	DFSP1313R2SSF150	J32
5689537	DFSP140R2WD20M	J24	5689815	T672NC#10-24R2B-DA KSMN34	M20	5689903	T682M120X150R6H-DA KSMN34	M70	5691841	DFSP1375R2SSF125	J32
5689538	DFSP520R5WD40M	J30	5689816	T672NF#10-32R2B-DA KSMN34	M20	5689904	T682M120X175R6H-DA KSMN34	M70	5691842	DFSP1375R2SSF150	J32
5689539	DFSP145R2WD20M	J24	5689817	T672NC02500-20R3B-DA KSMN34	M20	5689905	DFSP200R5WD32M	J30	5691843	DFSP1438R2SSF125	J32
5689540	DFSP530R5WD40M	J30	5689818	T672NC02500-20R2B-DA KSMN34	M20	5689906	DFSP210R5WD32M	J30-31	5691844	DFSP1469R2SSF125	J32
5689541	DFSP150R2WD20M	J24	5689819	T672NF02500-28R3B-DA KSMN34	M20	5689907	DFSP220R5WD32M	J30	5691845	DFSP1375R2SSF125	J32
5689542	DFSP540R5WD40M	J30	5689820	T672NF02500-28R2B-DA KSMN34	M20	5689908	DFSP230R5WD32M	J30	5691846	DFSP1500R2SSF150	J32
5689543	DFSP155R2WD20M	J24	5689821	T672NC03125-18R3B-DA KSMN34	M20	5689909	DFSP0813R5SSF100	J38	5691847	DFSP1563R2SSF125	J32
5689544	DFSP550R5WD50M	J30-31	5689822	DFSP0750R4SSF100	J36	5689910	DFSP0844R5SSF100	J38-39	5691848	DFSP1563R2SSF150	J32-33
5689545	DFSP160R2WD20M	J24	5689823	T672NC03125-18R2B-DA KSMN34	M20	5689911	DFSP0875R5SSF100	J38	5691849	DFSP1625R2SSF125	J32
5689546	DFSP165R2WD32M	J24	5689824	T672NF03125-24R3B-DA KSMN34	M20	5689912	DFSP0906R5SSF100	J38	5691850	DFSP1625R2SSF150	J32
5689548	DFSP170R2WD32M	J24-25	5689825	DFSP0781R4SSF100	J36	5689913	DFSP0938R5SSF100	J38	5691851	DFSP1656R2SSF150	J32
5689549	DFSP175R2WD32M	J24	5689826	T672NF03125-24R2B-DA KSMN34	M20	5689914	DFSP0969R5SSF100	J38	5691852	DFSP1688R2SSF150	J32-33
5689550	DFSP180R2WD32M	J24	5689827	DFSP0813R4SSF100	J36	5689915	DFSP0984R5SSF100	J38	5691853	DFSP1750R2SSF150	J32
5689551	DFSP230R2WD32M	J24	5689828	T672NC03750-16R3B-DA KSMN34	M20	5689916	T686NF03125-24R3B-DA KSMN34	M71	5691854	DFSP1813R2SSF150	J32
5689552	DFSP190R2WD32M	J24	5689829	DFSP0844R4SSF100	J36-37	5689917	T686NC#04-40R3B-DA KSMN34	M71	5691855	DFSP1875R2SSF150	J32-33
5689553	DFSP195R2WD32M	J24	5689830	T672NC03750-16R2B-DA KSMN34	M20	5689918	T686NC#06-32R2B-DA KSMN34	M71	5691856	DFSP1938R2SSF150	J32
5689554	DFSP200R2WD32M	J24	5689831	DFSP0875R4SSF100	J36	5689919	T686NC#08-32R2B-DA KSMN34	M71	5691857	DFSP1563R2SSF150	J32
5689555	DFSP210R2WD32M	J24-25	5689832	T672NF03750-24R3B-DA KSMN34	M20	5689980	T686NC#10-24R2B-DA KSMN34	M71	5691858	DFSP2000R2SSF200	J32
5689556	DFSP220R2WD32M	J24	5689833	DFSP0906R4SSF100	J36	5689981	T686NF#10-32R2B-DA KSMN34	M71	5691859	DFSP2125R2SSF150	J32
5689557	DFSP230R2WD32M	J24	5689834	T672NF03750-24R2B-DA KSMN34	M20	5689982	T686NC02500-20R3B-DA KSMN34	M71	5691860	DFSP2125R2SSF200	J32-33
5689602	DFSP0563R2SSF075	J32	5689835	DFSP0938R4SSF100	J36	5689983	T686NF02500-28R3B-DA KSMN34	M71	5691861	DFSP240R3WD32M	J26
5689603	DFSP0594R2SSF075	J32	5689836	T672NC04375-14R3B-DA KSMN34	M20	5689984	T686NC03125-18R3B-DA KSMN34	M71	5691862	DFSP250R3WD32M	J26-27
5689604	DFSP0625R2SSF075	J32	5689837	DFSP0969R4SSF100	J36	5689985	T686NF03125-24R3B-DA KSMN34	M71	5691863	DFSP260R3WD32M	J26
5689605	DFSP0656R2SSF075	J32	5689838	DFSP0984R4SSF100	J36	5689986	T686NC03750-16R3B-DA KSMN34	M71	5691864	DFSP265R3WD32M	J26
5689606	DFSP0688R2SSF075	J32-33	5689839	T672NC04375-14R2B-DA KSMN34	M20	5689987	T686NF03750-24R3B-DA KSMN34	M71	5691865	DFSP270R3WD32M	J26
5689607	DFSP0703R2SSF075	J32	5689840	T672NF04375-20R3B-DA KSMN34	M20	5689988	T686NF03125-14R3B-DA KSMN34	M71	5691866	DFSP270R3WD32M	J26
5689608	DFSP0734R2SSF075	J32	5689841	T672NF04375-20R2B-DA KSMN34	M20	5689989	T686NF04375-20R3B-DA KSMN34	M71	5691867	DFSP290R3WD32M	J26
5689609	DFSP0750R2SSF100	J32	5689842	T672NC05000-13R3B-DA KSMN34	M20	5689990	T686NC05000-13R3B-DA KSMN34	M71	5691868	DFSP300R3WD32M	J26
5689620	DFSP0781R2SSF100	J32	5689843	T672NC05000-13R2B-DA KSMN34	M20	5689991	T686NF05000-20R3B-DA KSMN34	M71	5691869	DFSP310R3WD32M	J26
5689621	DFSP0813R2SSF100	J32	5689844	T672NF05000-20R3B-DA KSMN34	M20	5689992	T686M030X050R6H-DA KSMN34	M72	5691870	DFSP320R3WD32M	J26-27
5689622	DFSP0844R2SSF100	J32-33	5689845	T672NF05000-20R2B-DA KSMN34	M20	5689993	T686M040X070R6H-DA KSMN34	M72	5691871	DFSP330R3WD32M	J26
5689623	DFSP0875R2SSF100	J32	5689846	T672M030X050R6H-DA KSMN34	M21	5689994	T686M050X080R6H-DA KSMN34	M72	5691872	DFSP340R3WD32M	J26
5689624	DFSP0906R2SSF100	J32	5689847	T672M035X060R6H-DA KSMN34	M21	5689995	T686M060X100R6H-DA KSMN34	M72	5691873	DFSP350R3WD32M	J26
5689625	DFSP0938R2SSF100	J32	5689848	T672M040X070R6H-DA KSMN34	M21	5689996	T686M080X125R6H-DA KSMN34	M72	5691874	DFSP360R3WD32M	J26
5689626	DFSP0969R2SSF100	J32	5689849	T672M050X080R6H-DA KSMN34	M21	5689997	T686M100X150R6H-DA KSMN34	M72	5691875	DFSP370R3WD32M	J26
5689627	DFSP0984R2SSF100	J32	5689850	T672M060X100R6H-DA KSMN34	M21	5689998	T686M120X150R6H-DA KSMN34	M72	5691876	DFSP375R3WD32M	J26
5689630	DFSP140R3WD20M	J26	5689851	T672M070X100R6H-DA KSMN34	M21	5691735	DFSP1000R3SSF100	J34	5691877	DFSP380R3WD32M	J26
5689631	DFSP145R3WD20M	J26	5689852	T672M080X100R6H-DA KSMN34	M21	5691736	DFSP1000R3SSF125	J34	5691878	DFSP390R3WD32M	J26
5689632	DFSP150R3WD20M	J26	5689853	T672M080X125R6H-DA KSMN34	M21	5691737	DFSP1000R3SSF150	J34-35	5691879	DFSP400R3WD32M	J26-27
5689633	DFSP155R3WD20M	J26	5689856	T672M100X125R6H-DA KSMN34	M21	5691738	DFSP1031R3SSF125	J34	5691880	DFSP410R3WD32M	J26
5689634	DFSP160R3WD20M	J26	5689857	T672M100X150R6H-DA KSMN34	M21	5691739	DFSP1063R3SSF125	J34	5691881	DFSP420R3WD32M	J26
5689635	DFSP165R3WD32M	J26	5689858	T672M120X125R6H-DA KSMN34	M21	5691790	DFSP1094R3SSF125	J34	5691882	DFSP430R3WD32M	J26
5689636	DFSP170R3WD32M	J26-27	5689859	T672M120X150R6H-DA KSMN34	M21	5691791	DFSP1125R3SSF125	J34	5691883	DFSP440R3WD32M	J26
5689637	DFSP175R3WD32M	J26	5689860	T672M120X175R6H-DA KSMN34	M21	5691792	DFSP1156R3SSF125	J34	5691884	DFSP450R3WD40M	J26
5689638	DFSP180R3WD32M	J26	5689863	T682NC#02-56R2B-DA KSMN34	M69	5691793	DFSP1188R3SSF125	J34	5691885	DFSP460R3WD40M	J26
5689639	DFSP185R3WD32M	J26	5689864	T682NC#04-40R3B-DA KSMN34	M69	5691794	DFSP1219R3SSF125	J34	5691886	DFSP470R3WD40M	J26
5689640	DFSP190R3WD32M	J26	5689865	T682NC#05-40R3B-DA KSMN34	M69	5691795	DFSP1250R3SSF125	J34	5691887	DFSP480R3WD40M	J26
5689641	DFSP195R3WD32M	J26	5689866	T682NC#06-32R2B-DA KSMN34	M69	5691796	DFSP1281R3SSF125	J34-35	5691888	DFSP490R3WD40M	J26
5689642	DFSP200R3WD32M	J26	5689867	T682NC#08-32R2B-DA KSMN34	M69	5691797	DFSP1313R3SSF125	J34	5691889	DFSP500R3WD40M	J26
5689643	DFSP210R3WD32M	J26-27	5689869	T682NC#10-24R2B-DA KSMN34	M69	5691798	DFSP1313R3SSF150	J34	5691897	DFSP1004R4SSF100	J36
5689644	DFSP220R3WD32M	J26	5689870	T682NF#10-32R2B-DA KSMN34	M69	5691799	DFSP1375R3SSF125	J34	5691898	DFSP1004R4SSF125	J36
5689645	DFSP230R3WD32M	J26	5689871	T682NC02500-20R3B-DA KSMN34	M69	5691800	DFSP1375R3SSF150	J34	5691899	DFSP1004R4SSF150	J36-37
5689646	DFSP0563R3SSF075	J34	5689872	T682NC02500-20R2B-DA KSMN34	M69	5691801	DFSP1438R3SSF125	J34	5691900	DFSP056R3WD40M	J26
5689647	DFSP0594R3SSF075	J34	5689873	T682NF02500-28R3B-DA KSMN34	M69	5691802	DFSP1469R3SSF125	J34	5691901	DFSP510R3WD40M	J26
5689648	DFSP0625R3SSF075	J34	5689874	T682NF02500-28R2B-DA KSMN34	M69	5691803	DFSP1469R3SSF150	J34	5691902	DFSP1004R3WD40M	J26
5689649	DFSP0656R3SSF075	J34	5689876	T682NC03125-18R3B-DA KSMN34	M69	5691804	DFSP1500R3SSF150	J34	5691903	DFSP530R3WD40M	J26
5689670	DFSP0688R3SSF075	J34-35	5689877	T682NC03125-18R2B-DA KSMN34	M69	5691805	DFSP1563R3SSF150	J34-35	5691904	DFSP540R3WD40M	J26
5689671	DFSP0703R3SSF075	J34	5689878	T682NF03125-24R3B-DA KSMN34	M69	5691806	DFSP1563R3SSF125	J34	5691905	DFSP550R3WD50M	J26
5689672	DFSP0734R3SSF075	J34	5689879	T682NF03125-24R2B-DA KSMN34	M69	5691807	DFSP1625R3SSF150	J34	5692150	DFSP1031R4SSF125	J36
5689673	DFSP0750R3SSF100	J34	5689880	T682NC03750-16R3B-DA KSMN34	M69	5691808	DFSP1656R3SSF150	J34	5692151	DFSP1063R4SSF125	J36
5689674	DFSP0781R3SSF100	J34	5689881	T682NC03750-16R2B-DA KSMN34	M69	5691809	DFSP1688R3SSF150	J34-35	5692152	DFSP1094R4SSF125	J36
5689675	DFSP0813R3SSF100	J34	5689882	T682NF03750-24R3B-DA KSMN34	M69	5691810	DFSP1750R3SSF150	J34	5692153	DFSP1125R4SSF125	J36
5689676	DFSP0844R3SSF100	J34-35	5689883	T682NF03750-24R2B-DA KSMN34	M69	5691811	DFSP1813R3SSF150	J34	5692154	DFSP1156R4SSF125	J36
5689677	DFSP0875R3SSF100	J34	5689884	T682NC04375-14R3B-DA KSMN34	M69	5691812	DFSP1875R3SSF150	J34-35	5692156	DFSP1188R4SSF125	J36
5689678	DFSP0906R3SSF100	J34	5689885	T682NC04375-14R2B-DA KSMN34	M69	5691813	DFSP1938R3SSF150	J34	5692157	DFSP1219R4SSF125	J36
5689679	DFSP0938R3SSF100	J34	5689886	T682NF04375-20R3B-DA KSMN34	M69	5691814	DFSP2000R3SSF150	J34	5692158	DFSP1250R4SSF125	J36
5689680	DFSP0969R3SSF100	J34	5689887	T682NF04375-20R2B-DA KSMN34	M69	5691815	DFSP2000R3SSF200	J34	5692159	DFSP1250R4SSF150	J36-37
5689681	DFSP0984R3SSF100	J34	5689888	T682NC05000-13R3B-DA KSMN34	M69	5691816	DFSP2125R3SSF150	J34	5692200	DFSP1313R4SSF125	J36
5689684	DFSP175R4WD32M	J28	5689889	T682NC05000-13R2B-DA KSMN34	M69	5691817	DFSP2125R3SSF200	J34-35	5692201	DFSP1375R4SSF125	J36
5689685	DFSP180R4WD32M	J28	5689890	T682NF05000-20R3B-DA KSMN34	M69	5691818	DFSP2125R3SSF100	J32	5692202	DFSP1375R4SSF150	J36
5689686	DFSP185R4WD32M	J28	5689891	T682NF05000-20R2B-DA KSMN34	M69	5691819	DFSP2100R2SSF125	J32	5692203	DFSP1406R4SSF150	J36
5689687	DFSP190R4WD32M	J28	5689892	T682M030X050R6H-DA KSMN34	M70	5691830	DFSP1000R2SSF150	J32-33	5692204	DFSP1438R4SSF125	J36
5689688	DFSP195R4WD32M	J28	5689893	T682M035X060R6H-DA KSMN34	M70	5691831	DFSP1031R2SSF125	J32	5692205	DFSP1469R4SSF125	J36
5689689	DFSP200R4WD32M	J28	5689894	T682M040X070R6H-DA KSMN34	M70	5691832	DFSP1063R2SSF1				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5692214	DFSP1938R4SSF150	J36	5692394	DFSP1188R5SSF125	J38	5694171	RCMX1003MORP KCP25B	B242	5697179	TNMG433RN KCP10B	B126
5692215	DFSP2000R4SSF150	J36	5692395	DFSP1219R5SSF125	J38	5694172	SNMM8566RW KCP25B	B107	5697180	TNMG543RN KCP10B	B126
5692216	DFSP2000R4SSF150	J36	5692396	DFSP1250R5SSF125	J38	5694175	CNMM8666RW KCP25B	B56	5697181	TNMG6666RN KCP10B	B126
5692217	DFSP2125R4SSF150	J36	5692397	DFSP1250R5SSF150	J38-39	5694176	TNMM6666MR KCP25B	B128	5697183	TPMT2151LF KCP10B	B268
5692218	DFSP2125R4SSF200	J36-37	5692398	DFSP1313R5SSF125	J38	5694202	170.370	J25, J27, J33, J35	5697184	TPMT3251LF KCP10B	B268
5692238	DFSP240R4WD32M	J28	5692399	DFSP1375R5SSF125	J38	5694627	RCMT1204MORP KCP10B	B242	5697185	VNMG331FF KCP10B	B146
5692239	DFSP250R4WD32M	J28-29	5692400	DFSP1375R5SSF150	J38	5694628	RCMX1003MORP KCP10B	B242	5697186	VNMG331MN KCP10B	B146
5692271	DFSP260R4WD32M	J28	5692401	DFSP1438R5SSF125	J38	5694629	SNMM8566RH KCP10B	B106	5697187	VNMG332RN KCP10B	B148
5692272	DFSP265R4WD32M	J28	5692402	DFSP1500R5SSF125	J38	5694629	SNMM8566RH KCP10B	B106	5697188	VNMG432RN KCP10B	B148
5692273	DFSP270R4WD32M	J28	5692403	DFSP1500R5SSF150	J38	5694740	SNMM8666RH KCP10B	B106	5697189	VNMP331K KCP10B	B149
5692274	DFSP280R4WD32M	J28	5692404	DFSP1563R5SSF150	J38-39	5694866	CNMG431UN KCK15B	B54	5697202	VNMG332MN KCP10B	B159
5692275	DFSP290R4WD32M	J28	5692405	DFSP1625R5SSF150	J38	5694867	CNMG542UN KCK15B	B54	5697203	VNMG332FN KCP10B	B161
5692277	DFSP300R4WD32M	J28	5692406	DFSP1656R5SSF150	J38-39	5694868	CNMG543UN KCK15B	B54	5697204	VNMG433FW KCP10B	B158
5692278	DFSP310R4WD32M	J28	5692407	DFSP1750R5SSF150	J38	5694871	CNMG643UN KCK15B	B54	5697910	CCMT2151MF KCP10B	B191
5692279	DFSP320R4WD32M	J28-29	5692408	DFSP1813R5SSF150	J38	5694872	DNMG333UN KCK15B	B84	5697912	CCMT3251MF KCP10B	B191
5692291	DFSP330R4WD32M	J28	5692409	DFSP1875R5SSF150	J38-39	5694873	DNMG432UN KCK15B	B84	5697914	CCMT3252UF KCP10B	B192
5692292	DFSP340R4WD32M	J28	5692420	DFSP1938R5SSF150	J38	5694874	DNMG442UN KCK15B	B84	5697917	CNMG322MN KCP10B	B50
5692294	DFSP350R4WD32M	J28	5692421	DFSP2000R5SSF150	J38	5694875	DNMG443UN KCK15B	B84	5697919	CNMG431FW KCP10B	B49
5692295	DFSP360R4WD32M	J28	5692422	DFSP2000R5SSF200	J38	5694876	SNMG432UN KCK15B	B106	5697921	CNMG431MN KCP10B	B50
5692296	DFSP370R4WD32M	J28	5692423	DFSP2125R5SSF150	J38	5694877	SNMG543UN KCK15B	B106	5697923	CNMG432FW KCP10B	B49
5692298	DFSP375R4WD32M	J28	5692424	DFSP2125R5SSF200	J38-39	5694882	VNMG332UN KCK15B	B148	5697925	CNMG433FW KCP10B	B49
5692299	DFSP380R4WD32M	J28	5692727	SPGX050204HP KCU25	J103	5694883	VNMG433UN KCK15B	B162	5697927	CNMG433MW KCP10B	B52
5692300	DFSP390R4WD32M	J28	5692728	SPGX050204MD KCU25	J103	5696853	TNMP331K KCP25B	B129	5697929	CNMG434MN KCP10B	B50
5692302	DFSP400R4WD32M	J28-29	5692729	SPGX050204HP KCU40	J103	5696854	TNMP332K KCP25B	B129	5697931	CNMG542MN KCP10B	B50
5692303	DFSP410R4WD32M	J28	5692800	SPGX050204MD KCU40	J103	5696855	TNMP432K KCP25B	B129	5697933	CNMG542RN KCP10B	B53
5692304	DFSP420R4WD32M	J29	5692801	SPGX050204HP KCU140	J103	5696856	TPMT2151LF KCP25B	B268	5697935	CNMG544MN KCP10B	B50
5692305	DFSP430R4WD32M	J29	5692802	SPGX050204MD KCU140	J103	5696857	TPMT3251LF KCP25B	B268	5697937	CNMG642RN KCP10B	B53
5692306	DFSP440R4WD32M	J29	5692803	DFTX20204HP KCU25	J101	5696858	VBM2122LF KCP25B	B281	5697939	CNMG643RP KCP10B	B53
5692307	DFSP450R4WD40M	J29	5692804	DFTX20204MD KCU25	J101	5696930	VNMG331MN KCP25B	B146	5697941	CNMP431K KCP10B	B57
5692308	DFSP460R4WD40M	J29	5692805	DFTX20204HP KCU40	J101	5696931	VNMG332RN KCP25B	B148	5697943	CNMP432K KCP10B	B57
5692309	DFSP470R4WD40M	J29	5692806	DFTX20204MD KCU40	J101	5696932	VNMG333RN KCP25B	B148	5697945	CPMG3251 KCP10B	B205
5692310	DFSP480R4WD40M	J29	5692807	DFTX20204HP KCU140	J101	5696933	VNMG432RN KCP25B	B148	5697947	CPMG3252 KCP10B	B205
5692311	DFSP490R4WD40M	J29	5692808	DFTX20204MD KCU7140	J101	5696935	VNMG332MN KCP25B	B159	5697949	CPMT3251LF KCP10B	B207
5692312	DFSP500R4WD40M	J29	5692809	SPHX060204R21 KCU25	J116	5696936	VNMG432MP KCP25B	B159	5697953	DCMT2151LF KCP10B	B225
5692313	DFSP510R4WD40M	J29	5692810	SPHX070304R21 KCU25	J116	5696937	WPMT3252LF KCP25B	B288	5697956	DCMT3251MF KCP10B	B226
5692314	DFSP520R4WD40M	J29	5692811	SPHX090304R21 KCU25	J116	5696938	CNMG646MN KCP25B	B50	5697958	DCMT3252UF KCP10B	B226
5692315	DFSP530R4WD40M	J29	5692812	SPHX090308R21 KCU25	J116	5696939	SNMG642RN KCP25B	B105	5697960	DCMT3253LF KCP10B	B225
5692316	DFSP540R4WD40M	J29	5692813	SPHX120404R21 KCU25	J116	5696940	CNMP432 KCP25B	B56	5697962	VNMG331MN KCP10B	B81
5692317	DFSP550R4WD50M	J29	5694055	CCMT2151MF KCP25B	B191	5696941	VNMG432LF KCP25B	B145	5697964	DNMG332RN KCP10B	B80
5692319	DFSP240R2WD32M	J24	5694056	CCMT2151UF KCP25B	B192	5696942	VNMG431LF KCP25B	B145	5697965	DNMG332MN KCP10B	B81
5692320	DFSP250R2WD32M	J24-25	5694057	CCMT2152LF KCP25B	B191	5697010	CCMT2151LF KCP10B	B191	5697967	DNMG432MW KCP10B	B82
5692321	DFSP260R2WD32M	J24	5694058	CCMT3251MF KCP25B	B191	5697011	CCMT432LF KCP10B	B191	5697968	DNMG432FN KCP10B	B84
5692322	DFSP265R2WD32M	J24	5694059	CCMT433MF KCP25B	B191	5697012	CNMM543RP KCP10B	B56	5697969	DNMG433CT KCP10B	B79
5692323	DFSP270R2WD32M	J24	5694080	CNMG321MN KCP25B	B50	5697013	CNMM544RN KCP10B	B55	5697970	DNMG441MN KCP10B	B81
5692324	DFSP280R2WD32M	J24	5694081	CNMG322MN KCP25B	B50	5697014	CNMM644RH KCP10B	B55	5697971	DNMG442MW KCP10B	B82
5692325	DFSP290R2WD32M	J24	5694082	CNMG431MN KCP25B	B50	5697015	CNMM644RP KCP10B	B56	5697972	DNMG442RN KCP10B	B83
5692326	DFSP300R2WD32M	J24	5694083	CNMG431RP KCP25B	B53	5697016	CNMM646RH KCP10B	B56	5697973	DNMG443MW KCP10B	B82
5692327	DFSP310R2WD32M	J24	5694084	CNMG433MW KCP25B	B52	5697017	CNMM646RW KCP10B	B56	5697974	DNMG542RN KCP10B	B83
5692329	DFSP320R2WD32M	J24-25	5694085	CNMG434MN KCP25B	B50	5697018	CPMT2151LF KCP10B	B207	5697976	DNMG543RN KCP10B	B83
5692330	DFSP330R2WD32M	J24	5694086	CNMG542MN KCP25B	B50	5697019	DCMT3251LF KCP10B	B225	5697978	DNMP432K KCP10B	B86
5692331	DFSP340R2WD32M	J24	5694087	CNMG542RN KCP25B	B53	5697020	DNMG332FN KCP10B	B79	5697979	DNMG433K KCP10B	B86
5692332	DFSP350R2WD32M	J24	5694088	CNMG542RP KCP25B	B53	5697021	DNMG431FN KCP10B	B79	5697980	DNMP442K KCP10B	B86
5692333	DFSP360R2WD32M	J24	5694090	CNMG642MN KCP25B	B50	5697022	DNMG432FF KCP10B	B79	5697981	DPMT2151LF KCP10B	B232
5692334	DFSP370R2WD32M	J24	5694091	CNMG642RN KCP25B	B53	5697023	DNMG433FN KCP10B	B79	5697982	TPMT3251LF KCP10B	B232
5692335	DFSP375R2WD32M	J24	5694092	CNMG643RP KCP25B	B53	5697027	SNMG432FN KCP10B	B101	5698082	RNMG544RN KCP25B	B97
5692336	DFSP380R2WD32M	J24	5694093	CNMG644RP KCP25B	B53	5697029	TNMG331FN KCP10B	B123	5698083	RNMG644RN KCP25B	B97
5692337	DFSP390R2WD32M	J24	5694094	CNMG646RN KCP25B	B53	5697030	TNMG332RP KCP10B	B127	5698084	RCMT432LF KCP25B	B246
5692338	DFSP400R2WD32M	J24-25	5694095	CNMP431K KCP25B	B57	5697031	TNMG433FN KCP10B	B123	5698085	SNMG431MN KCP25B	B102
5692339	DFSP410R2WD32M	J24	5694096	CNMP432K KCP25B	B57	5697032	TNMM432RP KCP10B	B129	5698086	SNMG432MN KCP25B	B102
5692340	DFSP420R2WD32M	J24	5694097	CPMG3252 KCP25B	B205	5697034	TPMT18151LF KCP10B	B268	5698088	SNMG434MN KCP25B	B102
5692341	DFSP430R2WD32M	J25	5694098	CPMT2152LF KCP25B	B207	5697035	VNMG331FN KCP10B	B146	5698089	SNMG544MN KCP25B	B102
5692342	DFSP440R2WD32M	J25	5694100	CPMT2152MF KCP25B	B207	5697036	VNMG431FN KCP10B	B157	5698110	SNMG544RN KCP25B	B105
5692343	DFSP450R2WD40M	J25	5694101	CPMT3251LF KCP25B	B207	5697037	VNMG432FN KCP10B	B157	5698111	SNMG643MN KCP25B	B102
5692344	DFSP460R2WD40M	J25	5694102	DCMT2151LF KCP25B	B225	5697119	RCMT43 KCP10B	B240	5698112	SNMG643RN KCP25B	B105
5692345	DFSP470R2WD40M	J25	5694103	DCMT3251MF KCP25B	B226	5697160	SCMT432LF KCP10B	B246	5698113	SNMG643RP KCP25B	B105
5692346	DFSP480R2WD40M	J25	5694104	DCMT431LF KCP25B	B225	5697161	SNMG432MN KCP10B	B102	5698116	SPMT3252MF KCP25B	B253
5692347	DFSP490R2WD40M	J25	5694105	DCMT432LF KCP25B	B225	5697163	SNMG544RP KCP10B	B105	5698117	TCMT2151LF KCP25B	B257
5692348	DFSP500R2WD40M	J25	5694106	DNMG331MN KCP25B	B81	5697164	SNMG643RN KCP10B	B105	5698118	TCMT2152LF KCP25B	B257
5692349	DFSP505R2WD40M	J25	5694107	DNMG332MN KCP25B	B81	5697165	SPMT3251UF KCP10B	B253	5698119	TCMT2152MF KCP25B	B258
5692350	DFSP510R2WD40M	J25	5694108	DNMG332RP KCP25B	B84	5697166	TCMT2151LF KCP10B	B257	5698120	TCMT3251LF KCP25B	B257
5692351	DFSP520R2WD40M	J25	5694109	DNMG333RP KCP25B	B84	5697167	TCMT3251LF KCP10B	B257	5698121	TCMT3252LF KCP25B	B257
5692352	DFSP530R2WD40M	J25	5694120	DNMG431MN KCP25B	B81	5697168	TCMT3252LF KCP10B	B257	5698122	TCMT3253MF KCP25B	B258
5692353	DFSP540R2WD40M	J25	5694121	DNMG432RP KCP25B	B84	5697169	TCMT432LF KCP10B	B257	5698123	TCMT3253MF KCP25B	B258
5692354	DFSP550R2WD50M	J25	5694122	DNMG441MN KCP25B	B81	5697170	TNMG331MN KCP10B	B124	5698124	TCMT432LF KCP25B	B257
5692355	DFSP1000R5SSF100	J38	5694123	DNMG442RN KCP25B	B83	5697171	TNMG332RN KCP10B	B123	5698125	TNMG431MN KCP25B	B124
5692356	DFSP1000R5SSF125	J38	5694125	DNMP431K KCP25B	B86	5697172	TNMG332FW KCP10B	B124	5698126	TNMG332MW KCP25B	B126
5692357	DFSP1000R5SSF150	J38-39	5694126	DNMP432K KCP25B	B86	5697173	TNMG332RN KCP10B	B126	5698127	TNMG332RN KCP25B	B126
5692358	DFSP1031R5SSF125	J38	5694127	DPMT2151LF KCP25B	B232	5697174	TNMG333FW KCP10B	B124	5698128	TNMG643RN KCP10B	B124
5692390	DFSP1063R5SSF125	J38	5694128	DPMT3251LF KCP25B	B232	5697175	TNMG333MW KCP10B	B126	5698129	TNMG432MN KCP25B	B124
5692391	DFSP1094R5SSF125	J38	5694157	RCGT0602MORP KCP25B	B239	5697176	TNMG432MN KCP10B	B124	5698130	TNMG432RN KCP25B	B126
5692392	DFSP1125R5SSF125	J38	5694158	RCGT0803MORP KCP25B	B239	5697177	TNMG432RN KCP10B	B126	5698131	TNMG432RP KCP25B	B127
5692393	DFSP1156R5SSF125	J38	5694170	RCMT1606MORP KCP25B	B242	5697					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5698134	TNMG433RN KCP25B	B126	5698772	CPMT3252LF KCK15B	B207	5705119	T694NF03750-24RH4-A KSS29	M65	5705858	T690NC#04-40RH4-A KSS29	M15
5698135	TNMG433RP KCP25B	B127	5698773	CPMT3252MF KCK15B	B207	5705120	T694NC03125-18RH3-A KSS29	M65	5705859	T690NF#04-48RH2-A KSS29	M15
5698136	TNMG433RP KCP25B	B127	5698775	DCMT2151LF KCK15B	B225	5705121	T694NC03125-18RH3-A KSP27	M65	5705860	T690NF#04-48RH2-A KSP27	M15
5698137	TNMG542RN KCP25B	B126	5698777	DNMG432FN KCK15B	B80	5705122	T694NF03125-24RH3-A KSS29	M65	5705861	T690NC#05-40RH2-A KSS29	M15
5698139	TNMG544RN KCP25B	B126	5698778	DNMG442RP KCK15B	B84	5705123	T694NF03125-24RH3-A KSP27	M65	5705862	T690NC#05-40RH2-A KSP27	M15
5698140	TNMG544RP KCP25B	B127	5698781	SCMT3251LF KCK15B	B246	5705124	T694NF03125-24RH4-A KSS29	M65	5705863	T690NC#06-32RH3-A KSS29	M15
5698141	TNMG666RN KCP25B	B126	5698782	SCMT432LF KCK15B	B246	5705125	T694NF06250-11RH3-A KSS29	M65	5705864	T690NC#06-32RH5-A KSS29	M15
5698146	CCMT2151LF KCP25B	B191	5698783	SCMT432MF KCK15B	B247	5705126	T694NC06250-11RH3-A KSP27	M65	5705865	T690NC#06-32RH5-A KSP27	M15
5698147	CCMT431LF KCP25B	B191	5698785	SCMT433MF KCK15B	B247	5705127	T694NF06250-18RH3-A KSS29	M65	5705866	T690NF#06-40RH2-A KSS29	M15
5698148	CCMT432LF KCP25B	B191	5698787	SPMT3251LF KCK15B	B252	5705128	T694NF06250-18RH3-A KSP27	M65	5705867	T690NC#08-32RH3-A KSP27	M15
5698149	CCMT433LF KCP25B	B191	5698788	SPMT3252LF KCK15B	B252	5705129	T694NC04375-14RH5-A KSS29	M65	5705868	T690NC#08-32RH4-A KSP27	M15
5698160	CNMG432MP KCP25B	B51	5698789	SPMT3252MF KCK15B	B253	5705130	T694NF04375-20RH3-A KSP27	M65	5705869	T690NC#08-32RH5-A KSS29	M15
5698161	CNMG432RM KCP25B	B55	5698791	TCMT2151LF KCK15B	B257	5705131	T694NF04375-20RH5-A KSS29	M65	5705870	T690NC#08-32RH5-A KSS29	M15
5698162	CNMG432RP KCP25B	B56	5698792	TCMT2152LF KCK15B	B257	5705385	T690NF#10-32RH3-A KSP27	M15	5705871	T690NC05000-13RH3-A KSS29	M16
5698163	CNMG544RM KCP25B	B55	5698793	TCMT3252LF KCK15B	B257	5705386	T690NF#10-32RH4-A KSS29	M15	5705872	T690NC05000-13RH5-A KSS29	M16
5698164	CNMG546RM KCP25B	B55	5698794	TCMT3252MF KCK15B	B258	5705387	T690NF#10-32RH5-A KSS29	M15	5705873	T690NC05000-13RH7-A KSS29	M16
5698165	CNMG643RM KCP25B	B55	5698796	TCMT432LF KCK15B	B257	5705388	T690NC#02-56RH2-A KSS29	M15	5705874	T690NF05000-20RH3-A KSP27	M16
5698166	CNMG643RP KCP25B	B56	5698799	TPMR221 KCK15B	B177	5705389	T690NC#04-40RH2-A KSS29	M15	5705875	T690NF05000-20RH5-A KSS29	M16
5698167	CNMG644RH KCP25B	B55	5698800	TPMR321 KCK15B	B177	5705410	T690NC#06-32RH3-A KSP27	M15	5705876	T690NC#08-32RH3-A KSP27	M15
5698168	CNMG646RW KCP25B	B56	5698801	TPMR322 KCK15B	B177	5705411	T690NC#08-32RH3-A KSS29	M15	5705877	T690NC02500-20RH3-A KSS29	M15
5698169	CPMT2151LF KCP25B	B207	5698802	TPMT2151LF KCK15B	B268	5705412	T690NC#08-32RH4-A KSS29	M15	5705878	T690NC02500-20RH5-A KSS29	M15
5698170	DCMT3252LF KCP25B	B225	5698804	TPMT3252LF KCK15B	B268	5705413	T690NC05000-13RH3-A KSP27	M16	5705879	T690NC02500-20RH3-A KSP27	M15
5698171	DNMG331FN KCP25B	B79	5698806	TPU222 KCK15B	B178	5705414	T690NF05000-20RH3-A KSS29	M16	5705880	T690NF02500-28RH3-A KSS29	M15
5698172	DNMG432FN KCP25B	B79	5698807	TPU432 KCK15B	B178	5705415	T690NC02500-20RH3-A KSP27	M15	5705881	T690NF02500-28RH4-A KSP27	M15
5698173	DNMG433RM KCP25B	B85	5698808	WNMG432RP KCK15B	B161	5705416	T690NF02500-28RH3-A KSP27	M15	5705882	T690NF02500-28RH5-A KSS29	M15
5698174	DNMG442RM KCP25B	B85	5699571	CNMG432MR KCM25B	B51	5705417	T690NF02500-28RH4-A KSS29	M15	5705883	T690NF02500-28RH5-A KSP27	M15
5698175	DNMG443RM KCP25B	B85	5699572	CNMG433MR KCM25B	B51	5705418	T690NC07500-10RH3-A KSS29	M16	5705884	T690NF02500-28RH6-A KSS29	M15
5698176	DNMG443RP KCP25B	B85	5699574	CNMG544MR KCM25B	B51	5705419	T690NC07500-16RH3-A KSS29	M16	5705885	T690NF02500-28RH6-A KSP27	M15
5698178	SNMG644RN KCP25B	B105	5699575	CNMG543MR KCM25B	B51	5705420	T690NC07500-16RH3-A KSP27	M16	5705886	T690NF02500-28RH7-A KSS29	M15
5698180	SNMG544RM KCP25B	B107	5699576	CNMG643MR KCM25B	B51	5705421	T690NF03750-24RH3-A KSS29	M16	5705887	T690NF07500-16RH3-A KSS29	M16
5698181	SNMG643RH KCP25B	B106	5699578	DNMG432MR KCM25B	B82	5705422	T690NF03750-24RH3-A KSP27	M16	5705888	T690NC03750-16RH3-A KSS29	M16
5698182	SNMG643RM KCP25B	B107	5699580	DNMG442MR KCM25B	B82	5705423	T690NC03125-18RH3-A KSS29	M15	5705889	T690NC03750-16RH5-A KSP27	M16
5698183	SNMG644RH KCP25B	B106	5699582	SNMG432MR KCM25B	B103	5705424	T690NC03125-18RH3-A KSP27	M15	5705890	T690NC03750-16RH7-A KSS29	M16
5698185	SNMG646RH KCP25B	B106	5699584	TNMG332MR KCM25B	B125	5705425	T690NF03125-24RH3-A KSS29	M15	5705891	T690NF03750-24RH4-A KSS29	M16
5698186	SNMG646RP KCP25B	B107	5699586	TNMG433MR KCM25B	B125	5705426	T690NF06250-18RH3-A KSS29	M16	5705892	T690NF03750-24RH5-A KSS29	M16
5698187	TNMG331FN KCP25B	B123	5699590	WNMG432MR KCM25B	B159	5705427	T690NC04375-14RH3-A KSS29	M16	5705893	T690NF03750-24RH6-A KSS29	M16
5698188	TNMG332FN KCP25B	B123	5699591	WNMG433MR KCM25B	B159	5705428	T690NF04375-20RH3-A KSP27	M16	5705894	T690NF03750-24RH7-A KSS29	M16
5698189	TNMG332RP KCP25B	B127	5700484	SCMT3252MF KCK15B	B247	5705429	T690NF04375-20RH3-A KSS29	M16	5705895	T690NC03125-18RH5-A KSS29	M15
5698193	TNMG332RM KCP25B	B128	5700485	WNMA433 KCK15B	B157	5705431	T690M030X050RD3-A KSS29	M17	5705897	T690NC03125-18RH7-A KSS29	M15
5698194	TNMG433RM KCP25B	B128	5700487	VNMA332 KCK15B	B145	5705432	T690M040X070RD4-A KSS29	M17	5705898	T690NF03125-24RH4-A KSP27	M15
5698195	TNMG434RM KCP25B	B128	5701293	MS2263	T4-7	5705433	T690M060X100RD5-A KSP27	M17	5705899	T690NF03125-24RH4-A KSS29	M15
5698196	TPMT18151LF KCP25B	B268	5702495	M4D300L150S5100L175	T17	5705434	T690M060X100RD5-A KSS29	M17	5705900	T690NF03125-24RH5-A KSS29	M16
5698197	VNMG331FN KCP25B	B146	5702496	M4D400L150S6150L200	T17	5705435	T690M080X125RD5-A KSP27	M17	5705901	T690NF03125-24RH6-A KSS29	M16
5698198	WNMG431FN KCP25B	B157	5702497	M4D600L150S8200L238	T17	5705436	T690M080X125RD5-A KSS29	M17	5705902	T690NF03125-24RH7-A KSS29	M16
5698199	WNMG432FN KCP25B	B157	5702498	M4D600L1512S200L238	T17	5705437	T692NC#10-24RH3-A KSS29	M62	5705903	T690NC06250-11RH3-A KSS29	M16
5698210	TNMG432RM KCP25B	B128	5702499	M4D200L1504S075L175	T17	5705438	T692NC#10-32RH2-A KSS29	M62	5705904	T690NC06250-11RH3-A KSP27	M16
5698211	SNMG646RM KCP25B	B107	5702500	M4D500L1507S150L238	T17	5705439	T692NC#06-32RH2-A KSS29	M62	5705905	T690NC06250-11RH3-A KSP27	M16
5698212	CNMG542RP KCP25B	B56	5703876	T694NC#04-40RH2-A KSS29	M65	5705440	T692NC#06-32RH2-A KSS29	M62	5705906	T690NC04375-14RH3-A KSP27	M16
5698214	CCMT2151LF KCK15B	B191	5703877	T694NC#08-32RH3-A KSS29	M65	5705441	T692NC#06-32RH3-A KSS29	M62	5705907	T690NF04375-20RH3-A KSS29	M16
5698215	CCMT3251LF KCK15B	B191	5703878	T694NF#10-32RH3-A KSS29	M65	5705472	T692NC#08-32RH3-A KSS29	M62	5705908	T690NF04375-20RH5-A KSS29	M16
5698216	CCMT3252LF KCK15B	B191	5703879	T694NC02500-20RH3-A KSS29	M65	5705473	T692NC05000-13RH3-A KSS29	M63	5705909	T690NF04375-20RH5-A KSP27	M16
5698217	CCMT3252MF KCK15B	B191	5703930	T694NC#06-32RH3-A KSS29	M65	5705474	T692NF05000-20RH3-A KSS29	M63	5705920	T690M100X150RD6-A KSP27	M17
5698218	CCMT431LF KCK15B	B191	5703931	T694NF02500-28RH3-A KSS29	M65	5705475	T692NF05000-20RH7-A KSS29	M63	5705921	T690M100X150RD6-A KSS29	M17
5698260	CCMT432MF KCK15B	B191	5703932	T694NF04375-20RH3-A KSS29	M65	5705476	T692NC02500-20RH3-A KSP27	M62	5705922	T690M120X175RD6-A KSP27	M17
5698261	CNMA431 KCK15B	B47	5703935	KCRA150RN4303C125L400	V148	5705477	T692NF02500-28RH3-A KSP27	M62	5705923	T690M0250X050RD3-A KSP27	M17
5698262	CNMA432 KCK15B	B47	5703936	KCRA200RN4304S075L175	V149	5705478	T692NC03125-18RH3-A KSS29	M62	5705924	T690M035X060RD4-A KSS29	M17
5698263	CNMA434 KCK15B	B47	5703937	KCRA200RN4306S075L175	V149	5705479	T692NC06250-11RH3-A KSS29	M63	5705925	T690M035X060RD4-A KSP27	M17
5698265	CNMA643 KCK15B	B47	5703938	KCRA250RN4306S075L175	V149	5705480	T692NF04375-20RH3-A KSS29	M63	5705926	T690M030X050RD3-A KSP27	M17
5698266	CNMA644 KCK15B	B47	5703939	KCRA250RN4309S075L175	V149	5705481	T692NC#100X150RD6-A KSS29	M64	5705927	T690M040X070RD4-A KSP27	M17
5698268	CNMG432RP KCK15B	B53	5704050	KCRA300RN4308S100L200	V149	5705482	T692M100X150RD6-A KSS29	M64	5705928	T690M050X080RD4-A KSP27	M17
5698269	CNMG433RP KCK15B	B53	5704051	KCRA300RN4311S100L200	V149	5705483	T692M120X175RD6-A KSS29	M64	5705929	T690M050X080RD4-A KSS29	M17
5698270	CPMT2151LF KCK15B	B207	5704848	T694NC#10-24RH3-A KSS29	M65	5705484	T692M0250X045RD3-A KSS29	M64	5705930	T690M080X100RD5-A KSS29	M17
5698272	DCMT3252LF KCK15B	B225	5705100	T694NF#10-32RH3-A KSP27	M65	5705485	T692M040X070RD4-A KSS29	M64	5705931	T690M080X100RD5-A KSP27	M17
5698277	RCMT1204M0 KCK15B	B240	5705101	T694NC#04-40RH2-A KSP27	M65	5705486	T692M050X080RD4-A KSP27	M64	5707893	TNMG332MP KCP25B	B124
5698278	SCMT3252LF KCK15B	B246	5705102	T694NC#04-40RH3-A KSS29	M65	5705487	T692M050X080RD4-A KSS29	M64	5708200	T692NC#10-24RH5-A KSS29	M62
5698279	SNMA432 KCK15B	B100	5705103	T694NC#05-40RH2-A KSS29	M65	5705488	T692M060X100RD5-A KSS29	M64	5708201	T692NF#10-32RH2-A KSP27	M62
5698280	SNMA433 KCK15B	B100	5705104	T694NC#06-32RH3-A KSP27	M65	5705489	T692M080X125RD5-A KSS29	M64	5708202	T692NF#10-32RH3-A KSS29	M62
5698281	SNMA434 KCK15B	B100	5705105	T694NC#06-32RH5-A KSS29	M65	5705674	T690NC#10-24RH3-A KSS29	M15	5708206	T692NF#10-32RH3-A KSS29	M62
5698284	TNMA332 KCK15B	B122	5705106	T694NF#06-40RH2-A KSS29	M65						



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5708244	T692NC#06-32RH7-A KSS29	M62	5824344	4CH0218R043A KC633M	Q22	5824518	4BN0234R075A KC633M	Q26	5876861	2CH0125L050A KC633M	Q6
5708246	T692NC#06-32RH7-A KSP27	M62	5824345	4CH0218L062A KC633M	Q22	5824519	4BN0250S050A KC633M	Q26	5876862	2CH0125K075A KC633M	Q6
5708248	T692NF#06-40RH2-A KSS29	M62	5824346	4CH0234R075A KC633M	Q23	5824520	4BN0250R075A KC633M	Q26	5876863	2CH0140R056A KC633M	Q6
5708250	T692NC#08-32RH2-A KSS29	M62	5824347	4CH0250S050A KC633M	Q23	5824521	4BN0250R112A KC633M	Q26	5876864	2CH0156R031A KC633M	Q6
5708252	T692NC#08-32RH3-A KSP27	M62	5824348	4CH0250R075A KC633M	Q23	5824522	4BN0250L150A KC633M	Q26	5876865	2CH0156L056A KC633M	Q6
5708254	T692NC#08-32RH4-A KSS29	M62	5824349	4CH0250L112A KC633M	Q23	5824523	4BN0250X150A KC633M	Q26	5876866	2CH0171R062A KC633M	Q6
5708256	T692NC#08-32RH4-A KSP27	M62	5824350	4CH0250X150A KC633M	Q23	5824524	4BN0281R075A KC633M	Q26	5876867	2CH0187R062A KC633M	Q6
5708258	T692NC#08-32RH5-A KSS29	M62	5824352	4CH0265R075A KC633M	Q23	5824525	4BN0312S050A KC633M	Q26	5876868	2CH0187L075A KC633M	Q6
5708260	T692NC#08-32RH5-A KSP27	M62	5824353	4CH0281R075A KC633M	Q23	5824526	4BN0312R081A KC633M	Q26	5876869	2CH0187X112A KC633M	Q6
5708262	T692NC#08-32RH6-A KSS29	M62	5824354	4CH0296R081A KC633M	Q23	5824527	4BN0312L112A KC633M	Q26	5876870	2CH0218R043A KC633M	Q6
5708264	T692NC05000-13RH3-A KSP27	M63	5824355	4CH0312S050A KC633M	Q23	5824528	4BN0312X162A KC633M	Q26	5876871	2CH0218L062A KC633M	Q6
5708266	T692NC05000-13RH5-A KSS29	M63	5824356	4CH0312R081A KC633M	Q23	5824529	4BN0344R100A KC633M	Q26	5876872	2CH0250S050A KC633M	Q7
5708268	T692NC05000-13RH5-A KSP27	M63	5824357	4CH0312L112A KC633M	Q23	5824530	4BN0375S100A KC633M	Q26	5876873	2CH0250R075A KC633M	Q7
5708270	T692NF05000-20RH3-A KSP27	M63	5824358	4CH0312X162A KC633M	Q23	5824531	4BN0375R100A KC633M	Q27	5876874	2CH0250L112A KC633M	Q7
5708272	T692NF05000-20RH5-A KSS29	M63	5824359	4CH0328R100A KC633M	Q23	5824532	4BN0375L112A KC633M	Q27	5876875	2CH0250X112A KC633M	Q7
5708274	T692NF05000-20RH5-A KSP27	M63	5824360	4CH0343R100A KC633M	Q23	5824533	4BN0375X150A KC633M	Q27	5876876	2CH0281R075A KC633M	Q7
5708276	T692NC02500-20RH3-A KSS29	M62	5824371	4CH0359R100A KC633M	Q23	5824534	4BN0437R100A KC633M	Q27	5876877	2CH0312S050A KC633M	Q7
5708278	T692NC02500-20RH5-A KSS29	M62	5824372	4CH0375S100A KC633M	Q23	5824535	4BN0500S100A KC633M	Q27	5876878	2CH0312R081A KC633M	Q7
5708280	T692NF02500-28RH3-A KSS29	M62	5824373	4CH0375R100A KC633M	Q23	5824536	4BN0500R100A KC633M	Q27	5876879	2CH0312L112A KC633M	Q7
5708282	T692NF02500-28RH5-A KSS29	M62	5824374	4CH0375L112A KC633M	Q23	5824537	4BN0500X150A KC633M	Q27	5876880	2CH0312X162A KC633M	Q7
5708284	T692NF02500-28RH6-A KSS29	M62	5824375	4CH0375X175A KC633M	Q23	5824538	4BN0500R200A KC633M	Q27	5876881	2CH0343R100A KC633M	Q7
5708286	T692NF02500-28RH7-A KSS29	M62	5824376	4CH0390R100A KC633M	Q23	5824539	4BN0500L200A KC633M	Q27	5876882	2CH0375S062A KC633M	Q7
5708288	T692NC07500-10RH3-A KSS29	M63	5824377	4CH0406R100A KC633M	Q23	5824540	4BN0500X300A KC633M	Q27	5876883	2CH0375R100A KC633M	Q7
5708300	T692NC07500-10RH5-A KSS29	M63	5824378	4CH0421R100A KC633M	Q23	5824551	4BN0562R125A KC633M	Q27	5876884	2CH0375L112A KC633M	Q7
5708302	T692NF07500-16RH3-A KSS29	M63	5824379	4CH0437S100A KC633M	Q23	5824552	4BN0625R125A KC633M	Q27	5876885	2CH0375X175A KC633M	Q7
5708304	T692NF07500-16RH5-A KSS29	M63	5824380	4CH0437R100A KC633M	Q23	5824553	4BN0625L225A KC633M	Q27	5876886	2CH0406R100A KC633M	Q7
5708306	T692NC03750-16RH3-A KSS29	M63	5824381	4CH0437L200A KC633M	Q23	5824554	4BN0750R150A KC633M	Q27	5876887	2CH0437R100A KC633M	Q7
5708308	T692NC03750-16RH5-A KSP27	M63	5824382	4CH0437X300A KC633M	Q23	5824555	4BN0750L300A KC633M	Q27	5876888	2CH0437L100A KC633M	Q7
5708310	T692NC03750-16RH5-A KSS29	M63	5824383	4CH0453R100A KC633M	Q24	5824556	4BN0875R150A KC633M	Q27	5876889	2CH0437X200A KC633M	Q7
5708312	T692NC03750-16RH5-A KSP27	M63	5824384	4CH0468R100A KC633M	Q24	5824557	4BN1000R150A KC633M	Q27	5876890	2CH0468R100A KC633M	Q7
5708314	T692NF03750-24RH3-A KSS29	M63	5824385	4CH0484R100A KC633M	Q24	5824558	4BN1000L225A KC633M	Q27	5876891	2CH0500S062A KC633M	Q7
5708316	T692NF03750-24RH3-A KSP27	M63	5824386	4CH0500S062A KC633M	Q24	5826308	RIQ09EDR00 KC6105	K59	5876892	2CH0500R100A KC633M	Q7
5708318	T692NF03750-24RH4-A KSS29	M63	5824387	4CH0500R100A KC633M	Q24	5826309	RIQ09EDR00 KC6305	K59	5876893	2CH0500L200A KC633M	Q7
5708320	T692NF03750-24RH4-A KSP27	M63	5824388	4CH0500L200A KC633M	Q24	5826310	RIQ09R0506FT KT6315	K58	5876894	2CH0500X300A KC633M	Q7
5708322	T692NF03750-24RH5-A KSS29	M63	5824389	4CH0500X300A KC633M	Q24	5874646	CNMM546RP KCP10B	B56	5876895	2CH0562R125A KC633M	Q8
5708324	T692NF03750-24RH5-A KSP27	M63	5824390	4CH0562R075A KC633M	Q24	5876721	2BN0031R007A KC633M	Q9	5876896	2CH0562L125A KC633M	Q8
5708326	T692NF03750-24RH6-A KSS29	M63	5824401	4CH0562L125A KC633M	Q24	5876722	2BN0063R018A KC633M	Q9	5876897	2CH0562X225A KC633M	Q8
5708328	T692NC03125-18RH3-A KSP27	M62	5824402	4CH0562X225A KC633M	Q24	5876723	2BN0047R018A KC633M	Q9	5876898	2CH0625R075A KC633M	Q8
5708330	T692NC03125-18RH5-A KSS29	M62	5824403	4CH0625S075A KC633M	Q24	5876724	2BN0094R018A KC633M	Q9	5876899	2CH0625L125A KC633M	Q8
5708332	T692NC03125-18RH5-A KSP27	M62	5824404	4CH0625R125A KC633M	Q24	5876725	2BN0094L037A KC633M	Q9	5876900	2CH0625X225A KC633M	Q8
5708334	T692NC03125-18RH7-A KSS29	M62	5824405	4CH0625L225A KC633M	Q24	5876726	2BN0109R037A KC633M	Q9	5876901	2CH0687R137A KC633M	Q8
5708336	T692NF03125-24RH3-A KSS29	M62	5824406	4CH0625X400A KC633M	Q24	5876727	2BN0125S025A KC633M	Q9	5876902	2CH0750S100A KC633M	Q8
5708338	T692NF03125-24RH3-A KSP27	M62	5824407	4CH0687R137A KC633M	Q24	5876728	2BN0125R050A KC633M	Q9	5876903	2CH0750R150A KC633M	Q8
5708340	T692NF03125-24RH4-A KSS29	M63	5824409	4CH0750R150A KC633M	Q24	5876729	2BN0125L075A KC633M	Q9	5876904	2CH0750R225A KC633M	Q8
5708342	T692NF03125-24RH4-A KSP27	M63	5824410	4CH0750R225A KC633M	Q24	5876730	2BN0125X075A KC633M	Q9	5876905	2CH0750L300A KC633M	Q8
5708344	T692NF03125-24RH6-A KSS29	M63	5824411	4CH0750L300A KC633M	Q24	5876741	2BN0156R031A KC633M	Q9	5876906	2CH0750X400A KC633M	Q8
5708346	T692NF03125-24RH7-A KSS29	M63	5824412	4CH0750X400A KC633M	Q24	5876742	2BN0156L056A KC633M	Q9	5876907	2CH0875R150A KC633M	Q8
5708348	T692NC06250-11RH3-A KSP27	M62	5824413	4CH0875R150A KC633M	Q25	5876743	2BN0187S031A KC633M	Q9	5876908	2CH0875L225A KC633M	Q8
5708360	T692NC06250-11RH5-A KSS29	M63	5824414	4CH0875L225A KC633M	Q25	5876744	2BN0187R062A KC633M	Q9	5876909	2CH1000S150A KC633M	Q8
5708362	T692NC06250-11RH7-A KSS29	M63	5824415	4CH1000S150A KC633M	Q25	5876745	2BN0187L075A KC633M	Q9	5876910	2CH1000R225A KC633M	Q8
5708363	T692NF06250-14RH3-A KSS29	M63	5824416	4CH1000R225A KC633M	Q25	5876746	2BN0187X100A KC633M	Q9	5876911	2CH1000L300A KC633M	Q8
5708364	T692NC04375-14RH3-A KSS29	M63	5824417	4CH1000L300A KC633M	Q25	5876747	2BN0219R062A KC633M	Q9	5876912	2CH1000X400A KC633M	Q8
5708365	T692NC04375-14RH5-A KSS29	M63	5824418	4CH1000X400A KC633M	Q25	5876748	2BN0250S050A KC633M	Q9	5876913	2CH0500R100B KC633M	Q8
5708366	T692NF04375-20RH3-A KSP27	M63	5824420	4CH0500R100B KC633M	Q24	5876749	2BN0250R075A KC633M	Q9	5876914	2CH0500L200B KC633M	Q8
5708367	T692NF04375-20RH5-A KSS29	M63	5824421	4CH0500L200B KC633M	Q24	5876750	2BN0250R112A KC633M	Q9	5876915	2CH0500X300B KC633M	Q8
5708368	T692MF100X125R05-A KSS29	M64	5824422	4CH0562L125B KC633M	Q24	5876751	2BN0250L150A KC633M	Q9	5876916	2CH0562L125B KC633M	Q8
5708369	T692MF100X125R05-A KSP27	M64	5824423	4CH0625R125B KC633M	Q24	5876752	2BN0250X150A KC633M	Q9	5876917	2CH0562X225B KC633M	Q8
5708380	T692M120X175RD6-A KSP27	M64	5824424	4CH0625L225B KC633M	Q24	5876753	2BN0312R081A KC633M	Q9	5876918	2CH0625L125B KC633M	Q8
5708381	T692M025X045RD3-A KSP27	M64	5824425	4CH0750R150B KC633M	Q24	5876754	2BN0312L112A KC633M	Q9	5876919	2CH0625X225B KC633M	Q8
5708382	T692M030X050RD3-A KSP27	M64	5824426	4CH0750R225B KC633M	Q24	5876755	2BN0312X150A KC633M	Q9	5876920	2CH0687R137B KC633M	Q8
5708383	T692M030X050RD3-A KSS29	M64	5824427	4CH0750L300B KC633M	Q24	5876756	2BN0375S062A KC633M	Q9	5876921	2CH0750R225B KC633M	Q8
5708384	T692M040X070RD4-A KSP27	M64	5824428	4CH0875R150B KC633M	Q25	5876757	2BN0375R087A KC633M	Q9	5876922	2CH0750L300B KC633M	Q8
5708385	T692M060X100RD5-A KSP27	M64	5824429	4CH0875L225B KC633M	Q25	5876758	2BN0375L112A KC633M	Q9	5876923	2CH0750X400B KC633M	Q8
5708386	T692MF080X100RD5-A KSS29	M64	5824430	4CH1000R225B KC633M	Q25	5876759	2BN0375X300A KC633M	Q9	5876924	2CH0875R150B KC633M	Q8
5708387	T692MF080X100RD5-A KSP27	M64	5824431	4CH1000L300B KC633M	Q25	5876760	2BN0406R100A KC633M	Q9	5876925	2CH0875L225B KC633M	Q8
5708388	T692M080X1125RD5-A KSP27	M64	5824501	4BN0062R019A KC633M	Q26	5876761	2BN0406R100A KC633M	Q9	5876926	2CH1000R225B KC633M	Q8
5709281	DNMG432FN KCPK05	B79	5824502	4BN0078R019A KC633M	Q26	5876762	2BN0500S062A KC633M	Q10	5876927	2CH1000L300B KC633M	Q8
5712913	KW11008	V148-149	5824503	4BN0094R019A KC633M	Q26	5876763	2BN0500R100A KC633M	Q10	5876928	2CH1000X400B KC633M	Q8
5720114	B285D0800HPS KN15	G83	5824504	4BN0094L037A KC633M	Q26	5876764	2BN0500X150A KC633M	Q10	5878707	SPG0703040M KCPK10	J103
5824029	4BN0031R008A KC633M	Q26	5824505	4BN0109R037A KC633M	Q26	5876765	2BN0500L200A KC633M	Q10	5879813	XNGJ43ANENLD3W KCPM40	S12
5824030	4BN0047R012A KC633M	Q26	5824506	4BN0125S025A KC633M	Q26	5876766	2BN0500X300A KC633M	Q10	5879814	LNPUB63ANSLHD2 KCPM40	S95
5824333	4CH0125S025A KC633M	Q22	5824507	4BN0125R050A KC633M	Q26	5876767	2BN0625R125A KC633M	Q10	5879816	LNPUB63ANSLHD2 KCPK30	S95
5824334	4CH0125R050A KC6										

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5882759	MS5006	W12, W19	5894258	SDET433PDSR8GB KC725M	T116, T123, U39	5941085	EC030M03L06CM02 KCU25	C24	5945387	T624NF07500-16RH10-DA KSP27	M141
5882760	MS5007	W12-13				5941086	EC030M03R06CM02 KCU25	C24	5945388	T624M030X050RD5-DA KSP27	M145
5882761	MS5009	W18, W25	5894812	SDET436ENGB KC725M	T116, T123, U39	5941087	EC040M04L06CM02 KCU25	C24	5945389	T624M040X070RD6-DA KSP27	M145
5882762	MS5008	W12, W18, W25				5941088	EC040M04R06CM02 KCU25	C24	5945390	T624M060X100RD8-DA KSP27	M145
5882863	CNMG432MP KCM35B	B51	5894813	SDET436SNGB KC725M	T116, T123, U39	5941089	EC030M03L06CR02 KCU25	C25	5945401	T624M080X125RD9-DA KSP27	M145
5882865	CNMG433RP KCM35B	B53				5941090	EC030M03R06CR02 KCU25	C25	5945402	T624MF100X125RD9-DA KSP27	M145
5882866	CNMG432RP KCM35B	B53	5894815	SDET434SNGB KC725M	T116, T123, U39	5941091	EC040M04L06CR02 KCU25	C25	5945403	T624M100X150RD10-DA KSP27	M145
5882870	CNMG432UP KCM35B	B54				5941092	EC040M04R06CR02 KCU25	C25	5945404	T624MF120X125RD9-DA KSP27	M145
5882881	TNMG331MP KCM35B	B124	5897007	B967A16500 KC7315	G132	5941093	EG130I03U05GUP KCU25	C18	5945405	T624MF120X150RD9-DA KSP27	M145
5882884	TNMG332MP KCM35B	B124	5898597	M1D300E1404S100L175	T53	5941094	EG130I03U1GUP KCU25	C18	5945406	T624M120X175RD11-DA KSP27	M145
5882886	WNMG432RP KCM35B	B161	5898598	M1D200E1403S075L157	T53	5941095	EG130I03U05GUN KCU25	C21	5945407	T624MF140X150RD11-DA KSP27	M145
5882890	WNMG332MP KCM35B	B159	5903140	M1D150E1403C125L1000	T52	5941096	EG130I03U1GUN KCU25	C18	5945408	T624M140X200RD12-DA KSP27	M145
5882891	WNMG432MP KCM35B	B159	5903579	SNMG543MR KCP05B	B103	5941097	EG192I04U1GUP KCU25	C18	5945409	T624M160X150RD11-DA KSP27	M145
5882892	CNMG543RP KCM35B	B53	5904367	CNMG544MG KCP10B	B57	5941098	EG192I04U1GUN KCU25	C21	5945410	T624M160X200RD12-DA KSP27	M145
5882893	CNMG431MP KCM35B	B51	5904368	DNMG444MG KCP10B	B83	5941099	EG192I04U2GUP KCU25	C18	5945411	T625N033750-16RH5-DA KSP27	M142
5882899	CNMG443RP KCM35B	B84	5904369	DNMG443MG KCP10B	B83	5941100	EG192I04U2GUN KCU25	C21	5945412	T625N03750-16RH7-DA KSP27	M142
5882905	SNMG432MP KCM35B	B102	5910213	CPMT1252MF KCP10B	B207	5941101	EG030M03P02GUP KCU25	C17	5945413	T625NF03750-24RH5-DA KSP27	M142
5882906	WNMG433RP KCM35B	B161	5914006	SCW5E	C58	5941102	EG030M03P04GUP KCU25	C17	5945414	T625NF03750-24RH7-DA KSP27	M142
5882924	TCMT3252LF KCK05B	B257	5914007	SCW8E	C58	5941103	EG040M04P04GUP KCU25	C17	5945415	T625M06000-13RH5-DA KSP27	M142
5882925	WNMG432RP KCK05B	B161	5914680	NG3094RK KCP10B	C162	5941104	EG040M04P08GUP KCU25	C17	5945416	T625N05000-13RH7-DA KSP27	M142
5882934	CCMT1252LF KCK05B	B191	5914889	NGD4M400LK KCU25	C165	5941105	EG030M03P02GUP K313	C17	5945417	T625NF05000-20RH5-DA KSP27	M142
5882966	WNMG432UP KCK05B	B162	5939432	EVSM3232P0432C	C37	5941107	EG030M03P04GUP K313	C17	5945418	T625M06000-20RH7-DA KSP27	M142
5882972	CNMG433UN KCM05B	B54	5939433	EVSM3232P0426C	C37	5941108	EG040M04P04GUP K313	C17	5945419	T625N06250-11RH7-DA KSP27	M142
5882973	CNMA434 KCK05B	B47	5939435	EVSM3252M0426C	C37	5941109	EG040M04P08GUP K313	C17	5945420	T625N06250-11RH10-DA KSP27	M142
5882976	TNMG333UN KCK05B	B124	5939436	EVSM3252M0416C	C37	5941110	EG125I03P05GUP KCU25	C18	5945421	T625M100X175RD11-DA KSP27	M146
5883000	CNMA431 KCK05B	B47	5939437	EVSM3252M0326C	C37	5941111	EG125I03P1GUP KCU25	C18	5945422	T625NF06250-16RH10-DA KSP27	M142
5883011	CNMG433FN KCK05B	B49	5939438	EVSM3252M0316C	C37	5941112	EG187I04P1GUP KCU25	C18	5945423	T625N07500-10RH7-DA KSP27	M142
5883013	WNMG332UN KCK05B	B148	5939439	EVSM3202K0316C	C37	5941113	EG187I04P2GUP KCU25	C18	5945424	T625M06000-16RH5-DA KSP27	M146
5883017	SCMT3252LF KCK05B	B246	5939440	EVSM3202K0416C	C37	5941114	EG125I03P05GUP K313	C18	5945425	T625NF07500-16RH7-DA KSP27	M142
5883018	SNMG433UN KCK05B	B106	5939441	EVSM3202K0322C	C37	5941115	EG125I03P1GUP K313	C18	5945426	T625NF07500-16RH10-DA KSP27	M142
5883022	CNMG434UN KCK05B	B54	5939442	EVSM3202K0316C	C37	5941116	EG187I04P1GUP K313	C18	5945427	T625M06000-16RH8-DA KSP27	M146
5883025	WNMG431FN KCK05B	B157	5939443	EVSM3232P0432C	C36	5941117	EG187I04P2GUP K313	C18	5945428	T625M080X125RD9-DA KSP27	M146
5883443	RPPT1204MOSGD8X5 KCM40	V106	5939444	EVSMR3232P0426C	C36	5941706	EVBSN19G1B14	C58	5945469	T625MF100X125RD9-DA KSP27	M146
5883444	RPPT1204MOSGD8X8 KCM40	V106	5939445	EVSMR2525M0426C	C36	5941707	EVBSN19G0220	C58	5945470	T625M100X150RD10-DA KSP27	M146
5883445	RPHT1204MOSGD8X5 KCM40	V105	5939446	EVSMR2525M0416C	C36	5941708	EVBSN26J1B15	C58	5945471	T625MF120X125RD9-DA KSP27	M146
5883446	RPHT1204MOSGD8X8 KCM40	V105	5939447	EVSMR2525M0326C	C36	5941709	EVBSN26J0230	C58	5945472	T625MF120X150RD9-DA KSP27	M146
5883520	CNMG432RP KCP05B	B53	5939448	EVSMR2525M0316C	C36	5941710	EVBSN26M0230	C58	5945473	T625MF120X175RD11-DA KSP27	M146
5883573	DNMG442MN KCP05B	B81	5939449	EVSMR2020K0422C	C36	5941721	EVBSN26J0340	C58	5945474	T625MF140X150RD11-DA KSP27	M146
5883576	CNMG432MN KCP05B	B50	5939450	EVSMR2020K0416C	C36	5941722	EVBSN26M0340	C58	5945475	T625M140X200RD12-DA KSP27	M146
5883577	DNMG432MN KCP05B	B81	5939451	EVSMR2020K0322C	C36	5941723	EVBSN26J0440	C58	5945476	T625M06000-20RH7-DA KSP27	M146
5883581	TNMG332FN KCP05B	B123	5939452	EVSMR2020K0316C	C36	5941724	EVBSN32M0250	C58	5945477	T625M160X200RD12-DA KSP27	M146
5886541	CNMG433RP KCP40B	B53	5939453	EVSM200432C	C35	5941725	EVBSN32M0350	C58	5945600	T627N02500-20RH4-DA KSP27	M144
5886542	CNMG543RP KCP40B	B53	5939454	EVSMR200426C	C34	5941726	EVBSN32M0450	C58	5945611	T627N02500-20RH6-DA KSP27	M144
5886544	SNMG643RP KCP40B	B105	5939455	EVSMR160426C	C34	5945156	T624NC#06-32RH3-DA KSP27	M141	5945612	T627NF02500-28RH4-DA KSP27	M144
5886545	TNMG643RP KCP40B	B127	5939456	EVSMR160416C	C34	5945157	T624NC#06-32RH5-DA KSP27	M141	5945613	T627NF02500-28RH5-DA KSP27	M144
5886714	SNMG644RP KCP05B	B105	5939457	EVSMR160326C	C34	5945158	T624NC#08-32RH3-DA KSP27	M141	5945614	T627NC03125-18RH5-DA KSP27	M144
5892306	CNMG432MR KCP30B	B51	5939458	EVSMR160316C	C34	5945159	T624NC#08-32RH5-DA KSP27	M141	5945615	T627NC03125-18RH7-DA KSP27	M144
5892307	DNMG432MR KCP30B	B82	5939459	EVSMR120422C	C34	5945160	T624NC#08-32RH5-DA KSP27	M141	5945616	T627NF03125-24RH4-DA KSP27	M144
5892308	WNMG432MN KCP30B	B103	5939460	EVSMR120416C	C34	5945323	T625N02500-20RH4-DA KSP27	M142	5945617	T627NF03125-24RH7-DA KSP27	M144
5892411	CNMG433MN KCP30B	B50	5939461	EVSMR120322C	C34	5945324	T625N02500-20RH6-DA KSP27	M142	5945618	T627NC03125-18RH5-DA KSP27	M144
5892412	WNMG432RN KCP30B	B161	5939462	EVSMR120316C	C34	5945325	T625NF02500-28RH4-DA KSP27	M142	5945619	T627NC03750-16RH5-DA KSP27	M144
5892413	CNMG543RN KCP30B	B53	5939463	EVSMR200432C	C34	5945326	T625NF02500-28RH6-DA KSP27	M142	5945620	T627NF03750-24RH5-DA KSP27	M144
5892414	TNMG543RN KCP30B	B126	5939464	EVSM120316C	C35	5945327	T625NC03125-18RH5-DA KSP27	M142	5945621	T627NF03750-24RH7-DA KSP27	M144
5892415	SNMG643RN KCP30B	B105	5939465	EVSM120322C	C35	5945328	T625NC03125-18RH7-DA KSP27	M142	5945622	T627N05000-13RH7-DA KSP27	M144
5892416	TNMG643RN KCP30B	B126	5939466	EVSM160316C	C35	5945329	T625NF03125-24RH5-DA KSP27	M142	5945623	T627N05000-13RH7-DA KSP27	M144
5892417	CNMG644RN KCP30B	B53	5939467	EVSM160326C	C35	5945330	T625NF03125-24RH7-DA KSP27	M142	5945624	T627NF05000-20RH5-DA KSP27	M144
5892418	CNMG644RN KCP30B	B53	5939468	EVSM120416C	C35	5945351	T624NC#10-24RH6-DA KSP27	M141	5945625	T627NF06250-16RH7-DA KSP27	M144
5892419	TNMG666RN KCP30B	B126	5939469	EVSM120422C	C35	5945352	T624NF#10-32RH4-DA KSP27	M141	5945626	T627N06250-11RH7-DA KSP27	M144
5892420	WNMG433RN KCP30B	B161	5939470	EVSM160416C	C35	5945353	T624NF#10-32RH6-DA KSP27	M141	5945627	T627N06250-11RH10-DA KSP27	M144
5892432	CNMG432MR KCP30B	B54	5939471	EVSM160426C	C35	5945354	T624NC02500-20RH4-DA KSP27	M141	5945628	T627NF06250-16RH7-DA KSP27	M144
5892433	CNMG433P KCP30B	B52	5939472	EVSM200426C	C35	5945355	T624NC02500-20RH6-DA KSP27	M141	5945629	T627NF06250-18RH10-DA KSP27	M144
5892434	CNMG432P KCP30B	B52	5940092	TPMR321 KCP25B	B177	5945356	T624NF02500-28RH4-DA KSP27	M141	5945630	T627N07500-10RH7-DA KSP27	M144
5892435	SNMG644RN KCP30B	B105	5940093	TPMR221 KCP25B	B177	5945357	T624NF02500-28RH6-DA KSP27	M141	5945631	T627N07500-10RH10-DA KSP27	M144
5892436	DNMG432MR KCP30B	B82	5941012	LNMX30194ORRSM KCP10B	E58	5945358	T624NC03125-18RH5-DA KSP27	M141	5945632	T627NF07500-16RH7-DA KSP27	M144
5892437	WNMG432RP KCP30B	B161	5941056	EG0312M03U02GUP KCU25	C17	5945359	T624NC03125-18RH7-DA KSP27	M141	5945633	T627NF07500-16RH10-DA KSP27	M144
5892438	TNMG544RN KCP30B	B126	5941057	EG0312M03U04GUP KCU25	C17	5945360	T624NC03125-24RH5-DA KSP27	M141	5945634	T627M06000-100RD8-DA KSP27	M148
5892441	CNMG543MR KCP30B	B54	5941058	EG0312M03U02GUN KCU25	C20	5945361	T624NF03125-24RH7-DA KSP27	M141	5945635	T627M080X125RD9-DA KSP27	M148
5892442	SNMG432RN KCP30B	B105	5941059	EG0312M03U04GUN KCU25	C20	5945362	T624NC03750-16RH5-DA KSP27	M141	5945636	T627MF100X125RD9-DA KSP27	M148
5892443	TNMG433RN KCP30B	B126	5941071	EG0412M04U04GUP KCU25	C17	5945363	T624NC03750-16RH7-DA KSP27	M141	5945637	T627M100X150RD11-DA KSP27	M148
5892445	SNMG644RN KCP30B	B105	5941072								



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5946046	T626NC#08-32RH3-DA KSP27	M143	5954241	EVSMLR4040R0840C	C36	5955465	EVSML160626C	C35	5964135	KSEM1950SPLM KCM35	H64
5946047	T626NC#08-32RH5-DA KSP27	M143	5954242	EVSMLR4040R0640C	C36	5955466	EVSML200626C	C35	5964136	FSDE0500NDYK KC643M	P100
5946048	T626NC#10-24RH4-DA KSP27	M143	5954243	EVSMLR3232P1032C	C36	5955467	EVSML200632C	C35	5964137	KSEM0781SPL KCM35	H64
5946050	T626NC#10-24RH6-DA KSP27	M143	5954244	EVSMLR3232P0832C	C36	5955468	EVSML240640C	C35	5964139	KSEM0838SPL KCM35	H64
5946051	T626NF#10-32RH4-DA KSP27	M143	5954245	EVSMLR3232P0826C	C36	5955469	EVSML160826C	C35	5964140	FSDE0625NDYB KC643M	P100
5946052	T626NF#10-32RH6-DA KSP27	M143	5954246	EVSMLR3232P0632C	C36	5955470	EVSML200826C	C35	5964151	KSEM2050SPLM KCM35	H64
5946053	T626NF02500-28RH4-DA KSP27	M143	5954247	EVSMLR3232P0626C	C36	5955471	EVSML200832C	C35	5964153	KSEM2005SPLM KCM35	H64
5946054	T626NF02500-20RH6-DA KSP27	M143	5954248	EVSMLR3232P0532C	C36	5955472	EVSML240840C	C35	5964154	FSDE0750NDYK KC643M	P100
5946055	T626NF02500-28RH4-DA KSP27	M143	5954249	EVSMLR3232P0526C	C36	5955473	EVSML201032C	C35	5964155	KSEM2100SPLM KCM35	H64
5946056	T626NF02500-28RH6-DA KSP27	M143	5954250	EVSMLR2525M0826C	C36	5955474	EVSML241040C	C35	5964157	KSEM2150SPLM KCM35	H64
5946057	T626NF03125-18RH5-DA KSP27	M143	5954251	EVSMLR2525M0626C	C36	5955479	NG2M050LK KCU10	C163	5964158	FSDE0750NDYB KC643M	P100
5946058	T626NF03125-18RH7-DA KSP27	M143	5954252	EVSMLR2525M0616C	C36	5955480	NG2M050RK KCU10	C162	5964159	KSEM2200SPLM KCM35	H64
5946059	T626NF03125-24RH5-DA KSP27	M143	5954253	EVSMLR2525M0526C	C36	5955491	NG2M275LK KCU10	C163	5964161	KSEM0875SPL KCM35	H64
5946060	T626NF03125-24RH7-DA KSP27	M143	5954254	EVSMLR2525M0516C	C36	5955492	NGD2M150LK KCU10	C165	5964162	FSDE0750NDYK KC643M	P100
5946061	T626NF03750-16RH5-DA KSP27	M143	5954255	EVSMLR2020K0622C	C36	5955493	NGD2M150RK KCU10	C165	5964163	KSEM2300SPLM KCM35	H64
5946062	T626NF03750-16RH7-DA KSP27	M143	5954256	EVSMLR2020K0616C	C36	5955494	NGD2M200RK KCU10	C165	5964165	KSEM0838SPL KCM35	H64
5946063	T626NF03750-24RH5-DA KSP27	M143	5954257	EVSMLR2020K0522C	C36	5955495	NGD2M250LK KCU10	C165	5964166	FSDE0750NDYK KC643M	P100
5946064	T626NF03750-24RH7-DA KSP27	M143	5954258	EVSMLR2020K0516C	C36	5955496	NGD2M250RK KCU10	C165	5964167	KSEM2400SPLM KCM35	H64
5946065	T626NF05000-13RH5-DA KSP27	M143	5954259	A16MEVEMR0307M	C54	5955498	NGD3M200RK KCU10	C165	5964169	KSEM3000SPLM KCM35	H64
5946066	T626NF05000-13RH7-DA KSP27	M143	5954260	A20QEVEMR0307M	C54	5955499	NGD3M300RK KCU10	C165	5964170	FSDE1000NDYK KC643M	P100
5946067	T626NF05000-20RH5-DA KSP27	M143	5954281	A25REVMR0310M	C54	5955500	NGD3M400LK KCU10	C165	5964171	KSEM1000SPL KCM35	H64
5946068	T626NF05000-20RH7-DA KSP27	M143	5954282	A25REVMR0410M	C54	5955502	NGD3M400RK KCU10	C165	5964173	KSEM1008SPL KCM35	H64
5946069	T626NF06250-11RH7-DA KSP27	M143	5954283	A32SEVMR0312M	C54	5955505	NG2M050LK KCU25	C163	5964174	FSDE1000NDYB KC643M	P100
5946070	T626NF06250-11RH10-DA KSP27	M143	5954284	A32SEVMR0412M	C54	5955506	NG4M450LK KCU25	C164	5964175	KSEM2565SPLM KCM35	H64
5946071	T626NF06250-18RH7-DA KSP27	M143	5954285	A16MEVEMR0307M	C55	5955507	NGD2M150LK KCU25	C165	5964177	KSEM1011SPL KCM35	H64
5946072	T626NF06250-18RH10-DA KSP27	M143	5954286	A20QEVEML0307M	C55	5955508	NGD2M150RK KCU25	C165	5964178	FSDE1000NDYK KC643M	P100
5946073	T626NF07500-10RH7-DA KSP27	M143	5954287	A25REVMR0310M	C55	5955509	NGD2M200LK KCU25	C165	5964179	KSEM1016SPL KCM35	H64
5946074	T626NF07500-10RH10-DA KSP27	M143	5954288	A25REVMR0410M	C55	5955510	NGD2M200RK KCU25	C165	5964181	KSEM1065SPLM KCM35	H64
5946075	T626NF07500-16RH7-DA KSP27	M143	5954289	A32SEVMR0312M	C55	5955521	NGD2M250LK KCU25	C165	5964182	FSDE1000NDYK KC643M	P100
5946076	T626NF07500-16RH10-DA KSP27	M143	5954290	A32SEVMR0412M	C55	5955562	NGD2M250RK KCU25	C165	5964183	KSEM3100SPL KCM35	H64
5946077	T626M030X050RD5-DA KSP27	M147	5954291	A10MEVEMR0307M	C52	5955623	NGD3M200LK KCU25	C165	5964184	KSEM2700SPLM KCM35	H64
5946078	T626M035X060RD6-DA KSP27	M147	5954292	A12QEVEMR0307M	C52	5955624	NGD3M200RK KCU25	C165	5964185	KSEM1125SPL KCM35	H65
5946079	T626M040X070RD6-DA KSP27	M147	5954293	A16REVMR0310I	C52	5955625	NGD3M250LK KCU25	C165	5964186	KSEM3000SPLM KCM35	H65
5946080	T626M050X080RD7-DA KSP27	M147	5954294	A16REVMR0410I	C52	5955626	NGD3M250RK KCU25	C165	5964187	KSEM1250SPL KCM35	H65
5946081	T626M060X100RD8-DA KSP27	M147	5954295	A20SEVMR0312I	C52	5955627	NGD3M300LK KCU25	C165	5964188	KSEM3200SPLM KCM35	H65
5946082	T626M080X125RD9-DA KSP27	M147	5954296	A20SEVMR0412I	C52	5955628	NGD3M300RK KCU25	C165	5964189	KSEM1515SPL KCM35	H65
5946083	T626MF100X125RD9-DA KSP27	M147	5954297	A10MEVEML0307I	C53	5955629	NGD3M400LK KCU25	C165	5964190	KSEM4000SPLM KCM35	H65
5946084	T626M100X150RD10-DA KSP27	M147	5954298	A12QEVEML0307I	C53	5955630	NGD3M400RK KCU25	C165	5964865	RPP12040ME432X8 X700	V106
5946085	T626MF120X125RD9-DA KSP27	M147	5954299	A16REVMR0310I	C53	5955631	NGD3M450LK KCU25	C165	5967744	NG20131K KCP10B	C163
5946086	T626MF120X150RD9-DA KSP27	M147	5954300	A16REVMR0410I	C53	5955632	NGD4M550RK KCU25	C165	5967745	NG2031RK KCP10B	C162
5946087	T626M120X175RD11-DA KSP27	M147	5954301	A20SEVMR0312I	C53	5956449	EVSMLR160226	C34	5967747	NG2047LK KCP10B	C163
5946088	T626M140X150RD11-DA KSP27	M147	5954302	A20SEVMR0412I	C53	5956450	EVSMLR160216	C34	5967748	NG2074RK KCP10B	C162
5946089	T626M140X200RD12-DA KSP27	M147	5955391	EVSBN19G1F16	C58	5956541	EVSMLR120222	C34	5967749	NG2062LK KCP10B	C163
5946090	T626M160X150RD11-DA KSP27	M147	5955392	EVSBN26J1F17	C58	5956542	EVSMLR120216	C34	5967750	NG2062RK KCP10B	C162
5946091	T626M160X200RD12-DA KSP27	M147	5955415	EVM50R0526MC	C59	5956543	EVSML120216	C35	5967802	NG2094RK KCP10B	C163
5947280	LNGU543SRGEM KC520M	T19	5955416	EVM50R0532MC	C59	5956544	EVSML120222	C35	5967803	NG2094RK KCP10B	C162
5947511	LNGU543SRGEM KCK15	T19	5955417	EVM65R0626MC	C59	5956545	EVSML160216	C35	5967804	NG2125LK KCP10B	C163
5947517	KTP03125FEG KCPM45	H36	5955418	EVM65R0826MC	C60	5956546	EVSML160226	C35	5967805	NG2187LK KCP10B	C162
5947518	KTP2000FEGM KCPM45	H36	5955419	EVM50L0526MC	C60	5964045	KSEM1250SPLM KCM35	H64	5967806	NG2M080LK KCP10B	C163
5949101	RCMT12040M KCM25B	B240	5955420	EVM50L0532MC	C60	5964046	KSEM0500SPL KCM35	H64	5967807	NG2M080RK KCP10B	C162
5949288	KSEM2955HPGM KCK7315	H55	5955421	EVM65L0626MC	C60	5964047	KSEM1300SPLM KCM35	H64	5967808	KSEM1000LK KCP10B	C163
5949382	KSEM1600FEGM KCPM45	H67	5955422	EVM65L0826MC	C60	5964048	KSEM1350SPLM KCM35	H64	5967810	NG2M100RK KCP10B	C162
5949383	KSEM2800FEGM KCPM45	H67	5955423	EVM50R0216M	C59	5964049	KSEM1400SPLM KCM35	H64	5967821	NG2M120LK KCP10B	C163
5949384	KSEM4000FEGM KCPM45	H68	5955424	EVM50L0216M	C59	5964050	KSEM0563SPL KCM35	H64	5967822	NG2M120RK KCP10B	C162
5953953	EVSML2525M0226	C37	5955426	EVSML200526C	C35	5964101	KSEM1450SPLM KCM35	H64	5967823	NG2M140LK KCP10B	C163
5953954	EVSML2525M0216	C37	5955427	EVSMLR160826C	C34	5964102	KSEM1500SPLM KCM35	H64	5967825	NG2M140RK KCP10B	C162
5953955	EVSML2020K0222	C37	5955428	EVSMLR160626C	C34	5964103	KSEM1550SPLM KCM35	H64	5967826	NG2M170LK KCP10B	C163
5953956	EVSML2020K0216	C37	5955429	EVSMLR160616C	C34	5964104	KSEM0625SPL KCM35	H64	5967827	NG2M170RK KCP10B	C162
5953957	EVSMLR2525M0226	C36	5955430	EVSMLR160526C	C34	5964105	KSEM1600SPLM KCM35	H64	5967828	NG2M195LK KCP10B	C163
5953958	EVSMLR2525M0216	C36	5955441	EVSMLR160516C	C34	5964106	KSEM0634SPL KCM35	H64	5967829	NG2M195RK KCP10B	C162
5953959	EVSMLR2020K0222	C36	5955442	EVSMLR120622C	C34	5964107	KSEM1615SPLM KCM35	H64	5967830	NG2M200LK KCP10B	C163
5953960	EVSMLR2020K0216	C36	5955443	EVSMLR120616C	C34	5964108	KSEM0641SPL KCM35	H64	5967831	NG2M200RK KCP10B	C162
5954211	EVSML4040R1040C	C37	5955444	EVSMLR120522C	C34	5964109	KSEM1650SPLM KCM35	H64	5967832	NG2M225LK KCP10B	C163
5954212	EVSML4040R0840C	C37	5955445	EVSMLR120516C	C34	5964110	KSEM0656SPL KCM35	H64	5967833	NG2M225RK KCP10B	C162
5954213	EVSML4040R0640C	C37	5955446	EVSMLR200526C	C34	5964111	KSEM1700SPLM KCM35	H64	5967834	NG2M275RK KCP10B	C162
5954214	EVSML3232P1032C	C37	5955447	EVSMLR200532C	C34	5964112	KSEM0688SPL KCM35	H64	5967835	NG2M300LK KCP10B	C163
5954215	EVSML3232P0832C	C37	5955448	EVSMLR200626C	C34	5964113	KSEM1750SPLM KCM35	H64	5967836	NG2M300RK KCP10B	C162
5954216	EVSML3232P0826C	C37	5955449	EVSMLR200632C	C34	5964115	KSEM1800SPLM KCM35	H64	5967837	NG3047LK KCP10B	C163
5954217	EVSML3232P0632C	C37	5955450	EVSMLR240640C	C34	5964116	FSDE0250J7DYA KC643M	P100	5967838	NG3047RK KCP10B	C162
5954218	EVSML3232P0626C	C37	5955451	EVSMLR200826C	C34	5964117	KSEM1850SPLM KCM35	H64	5967839	NG3062RK KCP10B	C162
5954219	EVSML3232P0532C	C37	5955452	EVSMLR200832C	C34	5964119	KSEM1900SPLM KCM35	H64	5967840	NG3072LK KCP10B	C163
5954220	EVSML3232P0526C	C37	5955453	EVSMLR240840C	C34	5964120	FSDE0375J9DYA KC643M	P100	5967841	NG3072RK KCP10B	C162
5954231	EVSML2525M0826C	C37	5955454	EVSMLR201032C	C34	5964121	KSEM0750SPL KCM35	H64	5967842	NG3078LK KCP10B	C163
5954232	EVSML2525M0626C	C37	5955455	EVSMLR241040C	C34	5964123	KSEM1920SPLM KCM35	H64	5967843	NG3078RK KCP10B	C162
5954233	EVSML2525M0616C	C37	5955456	EVSML120516C	C35	5964124	FSDE0375J9DYB KC643M	P100	5967844	KG3094LK KCP10B	C164
5954234	EVSML2525M0526C	C37	5955457	EVSML120522C	C35	5964125	KSEM0757SPL KCM35	H64	5967845	NG3125LK KCP10B	C164
5954235	EVSML2525M0516C	C37	5955459	EVSML160516C	C35	5964127	KSEM0758SPL KCM35	H64	5967846	NG3125RK KCP10B	C162
5954236	EVSML2020K0632C	C37	5955460	EVSML160526C	C35	5964128	FSDE0500NDYK KC643M	P100	5967847	NG3156LK KCP10B	C164
5954237	EVSML2020K0616C	C37	5955461	EVSML200532C	C35	5964129	KSEM0759SPL KCM35	H64	5967848	NG3156RK KCP10B	C162
5954238	EVSML2020K0522C	C37	5955462	EVSML120616C	C35	5964131	KSEM1935SPLM KCM				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5967873	NG3M120RK KCP10B	C162	5968045	NG3M150LK KCP25B	C163	5970229	UJBE0312J6BP KCSM15	P74	5979765	KGMR2525M65C	C68
5967874	NG3M225LK KCP10B	C164	5968047	NG3M150RK KCP25B	C162	5970230	UJBE0375J6CP KCSM15	P74	5979766	KGMR3232P50C	C68
5967875	NG3M225RK KCP10B	C162	5968048	NG3M175LK KCP25B	C163	5970231	UJBE0375J6BP KCSM15	P74	5979767	KGMR3232P65C	C68
5967876	NG3M275LK KCP10B	C164	5968049	NG3M175RK KCP25B	C162	5970232	UJBE0438J6CP KCSM15	P74	5979768	KGML2525M65C	C68
5967877	NG3M275RK KCP10B	C162	5968050	NG3M200LK KCP25B	C163	5970233	UJBE0438J6BP KCSM15	P74	5979769	KGML3232P50C	C68
5967878	NG3M300LK KCP10B	C164	5968051	NG3M200RK KCP25B	C162	5970234	RPPT1204M0E432X4 X700	V106	5979770	KGML3232P65C	C68
5967879	NG3M300RK KCP10B	C162	5968052	NG3M220LK KCP25B	C164	5970235	RPPT1204M0E432X4 X500	V106	5979801	KGMSR1665C	C65
5967880	NG3M400LK KCP10B	C164	5968053	NG3M220RK KCP25B	C162	5970237	RPPT1204M0E432X4 SC6525	V106	5979802	KGMSR2050C	C65
5967881	NG3M400RK KCP10B	C162	5968054	NG3M225LK KCP25B	C164	5971566	BMD800R640S250L250HP	V88	5979803	KGMSR2065C	C65
5967882	NG3M425LK KCP10B	C164	5968055	NG3M225RK KCP25B	C162	5971567	BMD800R640S250L250HP	V91	5979804	KGMSR2450C	C65
5967883	NG3M425RK KCP10B	C163	5968056	NG3M250LK KCP25B	C164	5972039	KTP1394HPM KCP15	H33	5979805	KGMSR2465C	C65
5967884	NG4125LK KCP10B	C164	5968057	NG3M250RK KCP25B	C162	5972205	M4KTD100Z02W100SGECPM40	T21	5979806	KGMSL1665C	C65
5967885	NG4125RK KCP10B	C163	5968058	NG3M275LK KCP25B	C164	5972206	M4KTD125Z03W100SGECPM40	T21	5979807	KGMSL2050C	C65
5967886	NG4189LK KCP10B	C164	5968059	NG3M275RK KCP25B	C162	5972207	M4KTD150Z04W125SGECPM40	T21	5979808	KGMSL2065C	C65
5967887	NG4189RK KCP10B	C163	5968060	NG3M300LK KCP25B	C162	5972208	M4KTD150Z05S05SGECPM40	T21	5979809	KGMSL2450C	C65
5967888	NG4250LK KCP10B	C164	5968061	NG3M300RK KCP25B	C164	5972209	M4KTD200Z06S075SGECPM40	T21	5979810	KGMSL2465C	C65
5967889	NG4250RK KCP10B	C163	5968062	NG3M320LK KCP25B	C164	5972210	M4KTD200Z06S075SGECPM40	T21	5979814	KGMR1665C	C67
5967891	NG4M400LK KCP10B	C164	5968063	NG3M320RK KCP25B	C162	5972351	M4KTD250Z06S075SGECPM40	T21	5979815	KGMR2050C	C67
5967892	NG4M400RK KCP10B	C163	5968064	NG3M325LK KCP25B	C164	5972352	M4KTD300Z07S100SGECPM40	T21	5979816	KGMSR2065C	C67
5967893	NG4M500LK KCP10B	C164	5968065	NG3M325RK KCP25B	C162	5972353	M4KTD400Z08S150SGECPM40	T21	5979817	KGMR2450C	C67
5967894	NG4M500RK KCP10B	C163	5968066	NG3M350LK KCP25B	C164	5972354	M4KTD100Z02C100EGECP725M	T21	5979818	KGMR2465C	C67
5967943	NG2031LK KCP25B	C163	5968067	NG3M350RK KCP25B	C162	5972355	M4KTD125Z03C125EGECP725M	T21	5979819	KGML1665C	C67
5967944	NG2031RK KCP25B	C162	5968068	NG3M400LK KCP25B	C164	5972356	M4KTD150Z05S050EGECP725M	T21	5979820	KGML2050C	C67
5967945	NG2047LK KCP25B	C163	5968069	NG3M400RK KCP25B	C162	5972357	M4KTD200Z05S075EGECP725M	T21	5979852	WNMG432MG KCP10B	B158
5967946	NG2047RK KCP25B	C162	5968070	NG3M425LK KCP25B	C164	5972358	M4KTD200Z06S075EGECP725M	T21	5979853	WNMG432MG KCP25B	B158
5967947	NG2062LK KCP25B	C163	5968072	NG3M425RK KCP25B	C163	5972359	M4KTD250Z06S075EGECP725M	T21	5979881	KGML2065C	C67
5967948	NG2062RK KCP25B	C162	5968073	NG3M450LK KCP25B	C163	5972360	M4KTD300Z07S100EGECP725M	T21	5979882	KGML2450C	C67
5967949	NG2094LK KCP25B	C163	5968074	NG3M450RK KCP25B	C164	5972371	M4KTD100Z02W100SGEMK520M	T21	5979883	KGML2465C	C67
5967950	NG2094RK KCP25B	C162	5968075	NG4125LK KCP25B	C164	5972372	M4KTD125Z03W100SGEMK520M	T21	5980138	EVSTR2525M0316C	C40
5967991	NG2125LK KCP25B	C163	5968076	NG4125RK KCP25B	C163	5972373	M4KTD150Z05S050SGEMK520M	T21	5980139	EVSTR1616K0216	C40
5967992	NG2125RK KCP25B	C162	5968077	NG4189LK KCP25B	C164	5972374	M4KTD200Z06S075SGEMK520M	T21	5980140	EVSTR1616K0316C	C40
5967993	NG2M050LK KCP25B	C163	5968078	NG4189RK KCP25B	C163	5972375	M4KTD250Z07S075SGEMK520M	T21	5980518	A12KEVMR1F05M	C54
5967994	NG2M050RK KCP25B	C162	5968079	NG4250LK KCP25B	C164	5972376	M4KTD300Z08S100SGEMK520M	T21	5980519	A12KEVMR0205M	C54
5967995	NG2M080LK KCP25B	C163	5968080	NG4250RK KCP25B	C163	5972377	M4KTD400Z211S150SGEMK520M	T21	5980520	A16MEVMR1F07M	C54
5967996	NG2M080RK KCP25B	C162	5968081	NG4M300LK KCP25B	C164	5975092	LNEU1235R034 KCPM40	U19	5980621	A16MEVMR207M	C54
5967997	NG2M100LK KCP25B	C163	5968082	NG4M300RK KCP25B	C163	5975093	LNEU1250R04 KCPM40	U19	5980622	A20QEVEMR1F07M	C54
5967998	NG2M100RK KCP25B	C162	5968083	NG4M320LK KCP25B	C164	5975094	LNEU1250R08 KCPM40	U19	5980623	A20QEVEMR0207M	C54
5967999	NG2M120LK KCP25B	C163	5968084	NG4M350LK KCP25B	C164	5976169	LNPUS43SRGE KCPM40	T19	5980624	A25REVMR0210M	C54
5968000	NG2M120RK KCP25B	C162	5968085	NG4M350RK KCP25B	C163	5976170	LNGUS42SRGEM KCPM40	T19	5980625	A12KEVMIL1F05M	C55
5968001	NG2M140LK KCP25B	C163	5968086	NG4M400LK KCP25B	C164	5976671	LNGUS43SRGEM KCPM40	T19	5980626	A12KEVMIL0205M	C55
5968002	NG2M140RK KCP25B	C162	5968087	NG4M400RK KCP25B	C163	5976672	LNGUS44SRGEM KCPM40	T19	5980627	A16MEVMIL1F07M	C55
5968003	NG2M150LK KCP25B	C163	5968088	NG4M450LK KCP25B	C164	5976676	MCC0800HP	V88, V91	5980628	A16MEVMIL0207M	C55
5968004	NG2M150RK KCP25B	C162	5968089	NG4M450RK KCP25B	C163	5976678	SDSW66	V91	5980629	A20QEVEML1F07M	C55
5968005	NG2M170LK KCP25B	C163	5968090	NG4M500LK KCP25B	C164	5977291	LNUX301960RRP KCP10B	E54	5980630	A20QEVEML0207M	C55
5968006	NG2M170RK KCP25B	C162	5968101	NG4M500RK KCP25B	C163	5977292	LNUX301960RRP KCP25B	E54	5980631	A25REVMIL0210M	C55
5968007	NG2M175LK KCP25B	C163	5968102	NG4M550LK KCP25B	C164	5977635	EVBSN26J0540	C58	5980635	A08KEVMR1F05I	C52
5968008	NG2M175RK KCP25B	C162	5968103	NG4M550RK KCP25B	C163	5977636	EVBSN26J0640	C58	5980636	A08KEVMR0205I	C52
5968009	NG2M195LK KCP25B	C163	5968104	NG4M600LK KCP25B	C164	5977637	EVBSN32M0560	C58	5980637	A10MEVMR1F07I	C52
5968010	NG2M195RK KCP25B	C162	5968105	NG4M600RK KCP25B	C163	5977638	EVBSN32M0660	C58	5980638	A10MEVMR0207I	C52
5968011	NG2M200LK KCP25B	C163	5968391	KTIP0800FEGM KCPM45	H36	5977639	EVBSN32M0860	C58	5980639	A12QEVEMR1F07M	C52
5968012	NG2M200RK KCP25B	C162	5968392	KTIP0850FEGM KCPM45	H36	5977640	EVBSN52X06120	C58	5980640	A12QEVEMR0207I	C52
5968013	NG2M220LK KCP25B	C163	5968393	KTIP0900FEGM KCPM45	H36	5977721	EVBSN52X08120	C58	5980671	A16REVMR0210I	C52
5968014	NG2M220RK KCP25B	C162	5968394	KTIP0950FEGM KCPM45	H36	5979010	EVM50R0316MC	C59	5980672	A08KEVMIL1F05I	C53
5968015	NG2M225LK KCP25B	C163	5968395	KTIP1000FEGM KCPM45	H36	5979181	EVM50R0322MC	C59	5980673	A25REVMIL0205I	C53
5968016	NG2M225RK KCP25B	C162	5968396	KTIP1050FEGM KCPM45	H36	5979182	EVM50R0416MC	C59	5980674	A10MEVMIL1F07I	C53
5968017	NG2M250LK KCP25B	C163	5968397	KTIP1100FEGM KCPM45	H36	5979183	EVM50R0422MC	C59	5980675	A10MEVMIL0207I	C53
5968018	NG2M250RK KCP25B	C162	5968398	KTIP1150FEGM KCPM45	H36	5979184	EVM50R0432MC	C59	5980676	A12QEVEML1F07I	C53
5968019	NG2M275LK KCP25B	C163	5968399	KTIP1200FEGM KCPM45	H36	5979185	EVM50L0316MC	C60	5980677	A12QEVEML0207I	C53
5968020	NG2M275RK KCP25B	C162	5968400	KTIP1250FEGM KCPM45	H36	5979186	EVM50L0322MC	C60	5980678	A16REVMIL0210I	C53
5968021	NG2M300LK KCP25B	C163	5968401	KTIP0500FEG KCPM45	H36	5979187	EVM50L0416MC	C60	5980761	EVSTR1616K0416C	C40
5968022	NG2M300RK KCP25B	C162	5968402	KTIP1300FEGM KCPM45	H36	5979188	EVM50L0422MC	C60	5980762	EVSTR2020K0216	C40
5968023	NG2M320RK KCP25B	C162	5968403	KTIP1350FEGM KCPM45	H36	5979189	EVM50L0432MC	C60	5980763	EVSTR2020K0316C	C40
5968024	NG2M325LK KCP25B	C163	5968404	KTIP1400FEGM KCPM45	H36	5979190	KGMSR2525M50C	C66	5980764	EVSTR2020K0326C	C40
5968025	NG2M325RK KCP25B	C162	5968405	KTIP1450FEGM KCPM45	H36	5979191	KGMSL2525M50C	C66	5980765	EVSTR2020K0416C	C40
5968026	NG3047LK KCP25B	C163	5968406	KTIP1500FEGM KCPM45	H36	5979192	KGMR2525M50C	C68	5980766	EVSTR2020K0426C	C40
5968027	NG3047RK KCP25B	C162	5968407	KTIP1550FEGM KCPM45	H36	5979193	KGML2525M50C	C68	5980767	EVSTR2525M0316	C40
5968028	NG3062RK KCP25B	C162	5968408	KTIP1600FEGM KCPM45	H36	5979194	KGMSR1650C	C65	5980768	EVSTR2525M0226	C40
5968029	NG3072LK KCP25B	C163	5968409	KTIP1650FEGM KCPM45	H36	5979195	KGMSL1650C	C65	5980769	EVSTR2525M0326C	C40
5968030	NG3072RK KCP25B	C162	5968410	KTIP1700FEGM KCPM45	H36	5979196	KGMR1650C	C67	5980770	EVSTR2525M0426C	C40
5968031	NG3078LK KCP25B	C163	5968411	KTIP1750FEGM KCPM45	H36	5979197	KGML1650C	C67	5980771	EVSTR2525M0432C	C40
5968032	NG3078RK KCP25B	C162	5968412	KTIP1800FEGM KCPM45	H36	5979198	EVM50R0426MC	C59	5980772	EVSTR2525M0526C	C40
5968034	NG3094LK KCP25B	C164	5968413	KTIP1850FEGM KCPM45	H36	5979199	EVM50L0426MC	C60	5980773	EVSTR2525M0532C	C40
5968035	NG3125LK KCP25B	C164	5968414	KTIP1900FEGM KCPM45	H36	5979200	EVM50R0312MC	C59	5980774	EVSTR3232P0432C	C40
5968036	NG3125RK KCP25B	C162	5968416	KTIP07500FEG KCPM45	H36	5979201	EVM50R0412MC	C59	5980775	EVSTR3232P0540C	C40
5968037	NG3156LK KCP25B	C164	5968417	KTIP1950FEGM KCPM45	H36	5979202	EVM50L0312MC	C60	5980776	EVSTR1616K0416C	C41
5968038	NG3156RK KCP25B	C162	5970222	UJBE0125J6CP KCSM15	P74	5979203	EVM50L0412MC	C60	5980777	EVSTR1616K0216	C41
5968039	NG3189LK KCP25B	C164	5970223	UJBE0125J6BP KCSM15	P74	5979745	KGMSR2525M65C	C66	5980778	EVSTR1616K0316C	C41
5968040	NG3189RK KCP25B	C163	5970224	UJBE0188J6BP KCSM15	P74	5979746	KGMSR3232P50C	C66	5980779	EVSTR1616K0416C	C41
5968041	NG3M100LK KCP25B	C163	5970225	UJBE0188J6CP KCSM15	P74	5979747	KGMSR3232P65C	C66	5980780	EVSTR2020K0216	C41
5968042	NG3M100RK KCP25B	C162	5970226	UJBE0250J6CP KCSM15	P74	5979748	KGMSL2525M65C	C66	5980801	EVSTR2020K0316C	C41
5968043	NG3M120LK KCP25B	C163	5970227	UJBE0250J6BP KCSM15	P74	5979749	KGMSL				



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5980804	.....EVSCTL2020K0426C	.....C41	5981607	.....KSEM3700FEGM KCPM45	.....H68	5987612	.....B286D09921HPS KN15	.....G83	5987776	.....B284D06700HPS KN15	.....G83
5980805	.....EVSCTL2525M0216	.....C41	5981608	.....KSEM3800FEGM KCPM45	.....H68	5987613	.....B286D10000HPS KN15	.....G83	5987777	.....B284D06900HPS KN15	.....G83
5980806	.....EVSCTL2525M0226	.....C41	5981609	.....KSEM1500FEG KCPM45	.....H68	5987614	.....B286D10100HPS KN15	.....G83	5987778	.....B284D07300HPS KN15	.....G83
5980807	.....EVSCTL2525M0326C	.....C41	5981610	.....KSEM3900FEGM KCPM45	.....H68	5987615	.....B286D10200HPS KN15	.....G83	5987779	.....B284D07600HPS KN15	.....G83
5980808	.....EVSCTL2525M0426C	.....C41	5982089	.....VBMT331MP KCP25B	.....B281	5987616	.....B286D10300HPS KN15	.....G83	5987780	.....B284D07700HPS KN15	.....G83
5980809	.....EVSCTL2525M0432C	.....C41	5984676	.....KSEM2670FEGM KCPM45	.....H67	5987617	.....B286D10320HPS KN15	.....G83	5987781	.....B284D08400HPS KN15	.....G83
5980810	.....EVSCTL2525M0526C	.....C41	5986819	.....KGP0300N0189GD KCU45	.....H101	5987618	.....B286D10500HPS KN15	.....G83	5987782	.....B284D08433HPS KN15	.....G83
5980811	.....EVSCTL2525M0532C	.....C41	5987474	.....B286D03000HPS KN15	.....G82	5987619	.....B286D10600HPS KN15	.....G83	5987783	.....B284D08700HPS KN15	.....G83
5980812	.....EVSCTL3232P0432C	.....C41	5987475	.....B286D03100HPS KN15	.....G82	5987620	.....B286D10716HPS KN15	.....G84	5987784	.....B284D08800HPS KN15	.....G83
5980813	.....EVSCTL3232P0540C	.....C41	5987476	.....B286D03175HPS KN15	.....G82	5987631	.....B286D10800HPS KN15	.....G84	5987785	.....B284D08900HPS KN15	.....G83
5980815	.....EVSCTR100216	.....C38	5987477	.....B286D03200HPS KN15	.....G82	5987632	.....B286D11000HPS KN15	.....G84	5987786	.....B284D09100HPS KN15	.....G83
5980816	.....EVSCTR100316C	.....C38	5987478	.....B286D03264HPS KN15	.....G82	5987633	.....B286D11100HPS KN15	.....G84	5987787	.....B284D09300HPS KN15	.....G83
5980817	.....EVSCTR100416C	.....C38	5987479	.....B286D03300HPS KN15	.....G82	5987634	.....B286D11113HPS KN15	.....G84	5987788	.....B284D09400HPS KN15	.....G83
5980818	.....EVSCTR120216	.....C38	5987480	.....B286D03455HPS KN15	.....G82	5987635	.....B286D11200HPS KN15	.....G84	5987789	.....B284D09900HPS KN15	.....G83
5980819	.....EVSCTR120316C	.....C38	5987531	.....B286D03500HPS KN15	.....G82	5987636	.....B286D11300HPS KN15	.....G84	5987790	.....B284D10100HPS KN15	.....G83
5980820	.....EVSCTR120326C	.....C38	5987532	.....B286D03571HPS KN15	.....G82	5987637	.....B286D11400HPS KN15	.....G84	5987791	.....B284D10300HPS KN15	.....G83
5980911	.....EVSCTR120416C	.....C38	5987533	.....B286D03700HPS KN15	.....G82	5987638	.....B286D11500HPS KN15	.....G84	5987792	.....B284D10600HPS KN15	.....G83
5980912	.....EVSCTR120426C	.....C38	5987534	.....B286D03734HPS KN15	.....G82	5987639	.....B286D11509HPS KN15	.....G84	5987793	.....B284D10800HPS KN15	.....G84
5980913	.....EVSCTR160216	.....C38	5987535	.....B286D03900HPS KN15	.....G82	5987640	.....B286D11800HPS KN15	.....G84	5987794	.....B284D11100HPS KN15	.....G84
5980914	.....EVSCTR160226	.....C38	5987536	.....B286D03970HPS KN15	.....G82	5987641	.....B286D11900HPS KN15	.....G84	5987795	.....B284D1200HPS KN15	.....G84
5980915	.....EVSCTR160316C	.....C38	5987537	.....B286D04000HPS KN15	.....G82	5987642	.....B286D12000HPS KN15	.....G84	5987796	.....B284D11300HPS KN15	.....G84
5980916	.....EVSCTR160326C	.....C38	5987538	.....B286D04039HPS KN15	.....G82	5987643	.....B286D12304HPS KN15	.....G84	5987797	.....B284D11400HPS KN15	.....G84
5980917	.....EVSCTR160426C	.....C38	5987539	.....B286D04100HPS KN15	.....G82	5987644	.....B286D12500HPS KN15	.....G84	5987798	.....B284D11500HPS KN15	.....G84
5980918	.....EVSCTR160432C	.....C38	5987540	.....B286D04200HPS KN15	.....G82	5987645	.....B286D12600HPS KN15	.....G84	5987799	.....B284D11509HPS KN15	.....G84
5980919	.....EVSCTR160526C	.....C38	5987551	.....B286D04400HPS KN15	.....G82	5987646	.....B286D12700HPS KN15	.....G84	5987800	.....B284D11800HPS KN15	.....G84
5980920	.....EVSCTR160532C	.....C38	5987552	.....B286D04305HPS KN15	.....G82	5987647	.....B286D13000HPS KN15	.....G84	5987801	.....B284D12304HPS KN15	.....G84
5980932	.....EVSCTR200432C	.....C38	5987553	.....B286D04500HPS KN15	.....G82	5987648	.....B286D13096HPS KN15	.....G84	5987802	.....B284D12600HPS KN15	.....G84
5980933	.....EVSCTR200540C	.....C38	5987554	.....B286D04600HPS KN15	.....G82	5987649	.....B286D13100HPS KN15	.....G84	5987803	.....B284D13000HPS KN15	.....G84
5980938	.....EVSCTL100216	.....C38	5987555	.....B286D04700HPS KN15	.....G82	5987650	.....B286D13300HPS KN15	.....G84	5987804	.....B284D13096HPS KN15	.....G84
5980939	.....EVSCTL100316C	.....C39	5987556	.....B286D04763HPS KN15	.....G82	5987651	.....B286D13400HPS KN15	.....G84	5987805	.....B284D13100HPS KN15	.....G84
5980940	.....EVSCTL100416C	.....C39	5987557	.....B286D04800HPS KN15	.....G82	5987652	.....B286D13500HPS KN15	.....G84	5987806	.....B284D13300HPS KN15	.....G84
5981011	.....EVSCTL120216	.....C39	5987558	.....B286D04900HPS KN15	.....G82	5987653	.....B286D14000HPS KN15	.....G84	5987807	.....B284D13400HPS KN15	.....G84
5981012	.....EVSCTL120316C	.....C39	5987559	.....B286D05000HPS KN15	.....G82	5987654	.....B286D14200HPS KN15	.....G84	5987808	.....B284D13500HPS KN15	.....G84
5981013	.....EVSCTL120326C	.....C39	5987560	.....B286D05100HPS KN15	.....G82	5987655	.....B286D14288HPS KN15	.....G84	5987809	.....B284D14200HPS KN15	.....G84
5981014	.....EVSCTL120416C	.....C39	5987561	.....B286D05106HPS KN15	.....G82	5987656	.....B286D14500HPS KN15	.....G84	5987810	.....B284D14500HPS KN15	.....G84
5981015	.....EVSCTL120426C	.....C39	5987562	.....B286D05159HPS KN15	.....G82	5987657	.....B286D14684HPS KN15	.....G84	5987821	.....B284D14684HPS KN15	.....G84
5981016	.....EVSCTL160216	.....C39	5987563	.....B286D05200HPS KN15	.....G82	5987658	.....B286D15000HPS KN15	.....G84	5987822	.....B284D15000HPS KN15	.....G84
5981017	.....EVSCTL160226	.....C39	5987564	.....B286D05300HPS KN15	.....G82	5987659	.....B286D15083HPS KN15	.....G84	5987823	.....B284D15083HPS KN15	.....G84
5981018	.....EVSCTL160316C	.....C39	5987565	.....B286D05400HPS KN15	.....G82	5987660	.....B286D15100HPS KN15	.....G84	5987824	.....B284D15100HPS KN15	.....G84
5981019	.....EVSCTL160326C	.....C39	5987566	.....B286D05410HPS KN15	.....G82	5987661	.....B286D15300HPS KN15	.....G84	5987825	.....B284D15300HPS KN15	.....G84
5981020	.....EVSCTL160426C	.....C39	5987567	.....B286D05500HPS KN15	.....G82	5987662	.....B286D15400HPS KN15	.....G84	5987826	.....B284D15400HPS KN15	.....G84
5981021	.....EVSCTL160432C	.....C39	5987568	.....B286D05558HPS KN15	.....G82	5987663	.....B286D15475HPS KN15	.....G84	5987827	.....B284D16000HPS KN15	.....G84
5981022	.....EVSCTL160526C	.....C39	5987569	.....B286D05600HPS KN15	.....G83	5987664	.....B286D16000HPS KN15	.....G84	5987828	.....B284D16500HPS KN15	.....G84
5981023	.....EVSCTL160532C	.....C39	5987571	.....B286D05791HPS KN15	.....G83	5987665	.....B286D16500HPS KN15	.....G84	5987829	.....B284D16670HPS KN15	.....G84
5981024	.....EVSCTL200432C	.....C39	5987572	.....B286D06000HPS KN15	.....G83	5987666	.....B286D16670HPS KN15	.....G84	5987830	.....B284D16800HPS KN15	.....G84
5981025	.....EVSCTL200540C	.....C39	5987573	.....B286D06200HPS KN15	.....G83	5987667	.....B286D16800HPS KN15	.....G84	5987831	.....B284D16900HPS KN15	.....G84
5981500	.....KSEM1650FEGM KCPM45	.....H67	5987574	.....B286D06300HPS KN15	.....G83	5987668	.....B286D16900HPS KN15	.....G84	5987832	.....B284D17000HPS KN15	.....G84
5981571	.....KSEM1700FEGM KCPM45	.....H67	5987575	.....B286D06350HPS KN15	.....G83	5987669	.....B286D17000HPS KN15	.....G84	5987833	.....B284D17300HPS KN15	.....G84
5981572	.....KSEM1750FEGM KCPM45	.....H67	5987576	.....B286D06400HPS KN15	.....G83	5987670	.....B286D17300HPS KN15	.....G84	5987834	.....B284D17463HPS KN15	.....G84
5981573	.....KSEM1800FEGM KCPM45	.....H67	5987577	.....B286D06500HPS KN15	.....G83	5987671	.....B286D17463HPS KN15	.....G84	5987835	.....B284D17859HPS KN15	.....G84
5981574	.....KSEM1850FEGM KCPM45	.....H67	5987578	.....B286D06528HPS KN15	.....G83	5987672	.....B286D17500HPS KN15	.....G84	5987836	.....B284D17500HPS KN15	.....G84
5981575	.....KSEM1900FEGM KCPM45	.....H67	5987579	.....B286D06600HPS KN15	.....G83	5987673	.....B286D17859HPS KN15	.....G84	5987837	.....B284D18000HPS KN15	.....G84
5981576	.....KSEM0750FEG KCPM45	.....H67	5987580	.....B286D06630HPS KN15	.....G83	5987674	.....B286D18000HPS KN15	.....G84	5987838	.....B284D19000HPS KN15	.....G84
5981577	.....KSEM1950FEGM KCPM45	.....H67	5987581	.....B286D06700HPS KN15	.....G83	5987675	.....B286D19000HPS KN15	.....G84	5988771	.....EG0200M06P02GUP KCU25	.....C17
5981578	.....KSEM2000FEGM KCPM45	.....H67	5987582	.....B286D06746HPS KN15	.....G83	5987676	.....B286D19050HPS KN15	.....G84	5988772	.....EG0600M06P04GUP KCU25	.....C17
5981579	.....KSEM2050FEGM KCPM45	.....H67	5987583	.....B286D06800HPS KN15	.....G83	5987677	.....B286D20000HPS KN15	.....G84	5988773	.....EG0600M06P08GUP KCU25	.....C17
5981580	.....KSEM2100FEGM KCPM45	.....H67	5987584	.....B286D06900HPS KN15	.....G83	5987680	.....B284D03100HPS KN15	.....G82	5988774	.....EG0500M05P04GUP KCU25	.....C17
5981581	.....KSEM2150FEGM KCPM45	.....H67	5987585	.....B286D07000HPS KN15	.....G83	5987751	.....B284D03264HPS KN15	.....G82	5988775	.....EG0500M05P08GUP KCU25	.....C17
5981582	.....KSEM2200FEGM KCPM45	.....H67	5987587	.....B286D07145HPS KN15	.....G83	5987752	.....B284D03455HPS KN15	.....G82	5988776	.....EG0700M06P08GUP KCU25	.....C17
5981583	.....KSEM2250FEGM KCPM45	.....H67	5987588	.....B286D07300HPS KN15	.....G83	5987753	.....B284D03700HPS KN15	.....G82	5988777	.....EG0800M08P08GUP KCU25	.....C17
5981584	.....KSEM2300FEGM KCPM45	.....H67	5987589	.....B286D07400HPS KN15	.....G83	5987754	.....B284D03734HPS KN15	.....G82	5988778	.....EG0800M08P12GUP KCU25	.....C17
5981585	.....KSEM2350FEGM KCPM45	.....H67	5987590	.....B286D07541HPS KN15	.....G83	5987755	.....B284D03900HPS KN15	.....G82	5988779	.....EG1000M10P12GUP KCU25	.....C17
5981586	.....KSEM2400FEGM KCPM45	.....H67	5987591	.....B286D07600HPS KN15	.....G83	5987756	.....B284D04039HPS KN15	.....G82	5988780	.....ER0300M03P00GUP KCU25	.....C19
5981587	.....KSEM2450FEGM KCPM45	.....H67	5987592	.....B286D07700HPS KN15	.....G83	5987757	.....B284D04100HPS KN15	.....G82	5988781	.....ER0400M04P00GUP KCU25	.....C19
5981588	.....KSEM2500FEGM KCPM45	.....H67	5987593	.....B286D07938HPS KN15	.....G83	5987758	.....B284D04305HPS KN15	.....G82	5988782	.....ER0500M05P00GUP KCU25	.....C19
5981589	.....KSEM1000FEGM KCPM45	.....H67	5987595	.....B286D08000HPS KN15	.....G83	5987759	.....B284D04400HPS KN15	.....G82	5988783	.....ER0600M06P00GUP KCU25	.....C19
5981591	.....KSEM2550FEGM KCPM45	.....H67	5987596	.....B286D08334HPS KN15	.....G83	5987760	.....B284D04600HPS KN15	.....G82	5988785	.....ER0800M08P00GUP KCU25	.....C19
5981592	.....KSEM2600FEGM KCPM45	.....H67	5987597	.....B286D08400HPS KN15	.....G83	5987761	.....B284D04700HPS KN15	.....G82	5988787	.....EG0940P2P05GUP KCU25	.....C18
5981593	.....KSEM2650FEGM KCPM45	.....H67	5987598	.....B286D08433HPS KN15	.....G83	5987762	.....B284D04900HPS KN15	.....G82	5988788	.....EG2500M06P1GUP KCU25	.....C18
5981594	.....KSEM2700FEGM KCPM45	.....H67	5987599	.....B286D08500HPS KN15	.....G83	5987763	.....B284D05106HPS KN15	.....G82	5988789	.....EG2500M06P2GUP KCU25	.....C18
5981595	.....KSEM2750FEGM KCPM45	.....H67	5987600	.....B286D08700HPS KN15	.....G83	5987764	.....B284D05200HPS KN15	.....G82	5988790	.....EG3120M08P3GUP KCU25	.....C18
5981596	.....KSEM2850FEGM KCPM45	.....H67	5987601	.....B286D08733HPS KN15	.....G83						

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
5988837	EG0500M05P08GUP K313	C17	5990983	B285D13000HPS KN15	G84	6000434	KM63XMKZGMR65CY	C70, C147	6012689	EG0300M03P04GUP KCU10	C17
5988838	EG0700M06P08GUP K313	C17	5990984	B285D13096HPS KN15	G84	6000436	KM63XMKZGMLF65CY	C70, C147	6012690	EG0400M04P04GUP KCU10	C17
5988839	EG0800M08P08GUP K313	C17	5990985	B285D13100HPS KN15	G84	6000462	PSC63KGMER65C	C73, C151	6012701	EG0400M04P08GUP KCU10	C17
5988840	EG0800M08P12GUP K313	C17	5990986	B285D13300HPS KN15	G84	6000463	PSC63KGMEL65C	C73, C151	6012702	EG0500M05P04GUP KCU10	C17
5988851	EG1000M10P12GUP K313	C17	5990987	B285D13400HPS KN15	G84	6000464	PSC63KGMRS65C	C72, C150	6012703	EG0500M05P08GUP KCU10	C17
5988858	ER0400M04P00GUP K313	C19	5990988	B285D13500HPS KN15	G84	6000465	PSC63KGMSEL65C	C72, C150	6012704	EG0600M06P04GUP KCU10	C17
5988859	ER0500M05P00GUP K313	C19	5990989	B285D14200HPS KN15	G84	6000466	PSC80KGMER65C	C73, C151	6012705	EG0600M06P08GUP KCU10	C17
5988860	ER0600M06P00GUP K313	C19	5990990	B285D14288HPS KN15	G84	6000467	PSC80KGMEL65C	C73, C151	6012706	EG0631FF05GUP KCU10	C18
5988861	ER0800M08P00GUP K313	C19	5990991	B285D14684HPS KN15	G84	6000468	PSC80KGMRS65C	C72, C150	6012707	EG0700M06P08GUP KCU10	C17
5988903	EG0940I02P05GUP K313	C18	5990992	B285D15000HPS KN15	G84	6000469	PSC80KGMSEL65C	C72, C150	6012708	EG0800M08P08GUP KCU10	C17
5988904	EG0631FF05GUP K313	C18	5990993	B285D15083HPS KN15	G84	6001036	ONGX645SNHB KCK15	S34	6012709	EG0800M08P12GUP KCU10	C17
5988905	ER1250I03P00GUP K313	C20	5990994	B285D15100HPS KN15	G84	6001106	ONGX645ENLE KC514M	S33	6012710	EG0940I02P05GUP KCU10	C18
5988961	EG250I06P1GUP K313	C18	5990995	B285D15300HPS KN15	G84	6001107	ONGX645SNGP KC514M	S33	6012711	EG1000M10P12GUP KCU10	C17
5988962	EG250I06P2GUP K313	C18	5990996	B285D15400HPS KN15	G84	6001108	ONGX645SNGP KCK15	S33	6012712	EG1250I03P05GUP KCU10	C18
5988963	EG31208P3GUP K313	C18	5990997	B285D15875HPS KN15	G84	6001231	LNGU541ERGEJ KC422M	T18	6012713	EG1250I3P1GUP KCU10	C18
5988964	EG375I10P3GUP K313	C18	5990998	B285D16000HPS KN15	G84	6001232	ONGX645SNGP KC422M	T18	6012714	EG1870I04P1GUP KCU10	C18
5988965	ER1870I04P00GUP K313	C20	5990999	B285D16500HPS KN15	G84	6001233	LNPUS45SRGE K725M	T19	6012715	EG1870I04P2GUP KCU10	C18
5988966	ER250I06P00GUP K313	C20	5991000	B285D16670HPS KN15	G84	6001234	LNPUS45SRGE KCPK30	T19	6012716	EG250I06P1GUP KCU10	C18
5988967	ER31208P00GUP K313	C20	5991001	B285D16800HPS KN15	G84	6001235	LNPUS45SRGE KCK15	T19	6012717	EG250I06P2GUP KCU10	C18
5989962	CNMG432MG KCP25B	B57	5991002	B285D16900HPS KN15	G84	6001236	LNPUS45SRGE KCPM40	T19	6012718	EG31208P3GUP KCU10	C18
5989963	CNMG433MG KCP25B	B57	5991003	B285D17000HPS KN15	G84	6001237	LNPUS45SRGE KC522M	T19	6012719	EG375I10P3GUP KCU10	C18
5989965	CNMG432MG KCP10B	B57	5991004	B285D17300HPS KN15	G84	6001244	ONGX645SNHB KC514M	S34	6012720	EG300M03P00GUP KCU10	C19
5989966	CNMG433MG KCP10B	B57	5991005	B285D17463HPS KN15	G84	6001245	ONGX645SNHB KCPK30	S34	6012721	ER0400M04P00GUP KCU10	C19
5989967	CNMG434MG KCP10B	B57	5991006	B285D17500HPS KN15	G84	6001247	ONGX645SNHB KCK20	S34	6012722	EG0500M05P00GUP KCU10	C19
5990785	B285D003100HPS KN15	G82	5991007	B285D17859HPS KN15	G84	6001258	ONGX645SNHB KC514M	S34	6012723	ER0600M06P00GUP KCU10	C19
5990786	B285D003264HPS KN15	G82	5991008	B285D19000HPS KN15	G84	6001259	ONGX645SNHB KCK15	S34	6012724	ER0800M08P00GUP KCU10	C19
5990787	B285D003455HPS KN15	G82	5991009	B285D19050HPS KN15	G84	6001260	ONGX645SNHB KCK20	S34	6012725	ER1250I03P00GUP KCU10	C20
5990788	B285D003500HPS KN15	G82	5991010	B285D20000HPS KN15	G84	6001316	ONGX645ANSNGP KC514M	S33	6012726	ER1870I04P00GUP KCU10	C20
5990789	B285D003571HPS KN15	G82	5991410	KSEM2370HPGM KCPM45	H57	6001317	ONGX645ANSNGP KCK15	S33	6012727	ER250I06P00GUP KCU10	C18
5990790	B285D003700HPS KN15	G82	5999788	KM40TSKGMER50C	C70, C147	6001321	ONPX642SNGP KCK15	S34	6012728	ER31208P00GUP KCU10	C20
5990911	B285D003734HPS KN15	G82	5999789	KM40TSKGMEL50C	C70, C147	6001322	ONPX645SNHB KCK15	S34	6012729	EG0412M04U04GUP KCP10B	C17
5990912	B285D003900HPS KN15	G82	5999790	KM40TSKGMRS50C	C69, C146	6001323	ONGX642SNHB KC514M	S34	6012730	EG0412M04U08GUP KCP10B	C17
5990913	B285D004039HPS KN15	G82	5999861	KM40TSKGMSEL50C	C69, C146	6001324	ONGX645SNHB KCK15	S34	6012741	EG1920I04U1GUP KCU10	C18
5990914	B285D004100HPS KN15	G82	5999862	KM50TSKGMER50C	C70, C147	6001979	MILL16E200Z050N08W	S30	6012742	EG1920I04U2GUP KCP10B	C18
5990915	B285D004305HPS KN15	G82	5999863	KM50TSKGMEL50C	C70, C147	6001980	MILL16E250Z060N08W	S30	6012743	EG255I06U1GUP KCP10B	C18
5990916	B285D004400HPS KN15	G82	5999864	KM50TSKGMRS50C	C69, C146	6002121	MILL16E300Z100N08W	S30	6012744	EG255I06U2GUP KCP10B	C18
5990917	B285D004600HPS KN15	G82	5999865	KM50TSKGMSEL50C	C69, C146	6002122	MILL16E400Z140N08W	S30	6012745	EG0812M08U08GUP KCP10B	C17
5990918	B285D004700HPS KN15	G82	5999946	KM63TSKGMER50C	C70, C147	6002123	MILL16E500Z180N08W	S30	6012746	EG0812M08U12GUP KCP10B	C17
5990919	B285D005100HPS KN15	G82	5999947	KM63TSKGMEL50C	C70, C147	6002124	MILL16E600Z220N08W	S30	6012747	EG0612M06U04GUP KCP10B	C17
5990920	B285D005159HPS KN15	G82	5999948	KM63TSKGMRS50C	C69, C146	6002125	MILL16E800Z280N08W	S30	6012748	EG0612M06U08GUP KCP10B	C17
5990931	B285D005300HPS KN15	G82	5999949	KM63TSKGMSEL50C	C69, C146	6003372	B269A14600HP KCPK15	G64	6012749	EG31708I03GUP KCP10B	C18
5990932	B285D005400HPS KN15	G82	5999950	KM63XMKZGMR50CY	C70, C147	6003373	B269A15200HP KCPK15	G64	6012750	EG0512M05U04GUP KCP10B	C17
5990933	B285D005410HPS KN15	G82	5999971	KM63XMKZGMLF50CY	C70, C147	6003401	B269A17600HP KCPK15	G64	6012751	EG0512M05U08GUP KCP10B	C17
5990934	B285D005791HPS KN15	G83	5999972	KM63XMKZGMSR50CY	C69, C146	6003402	B269A18600HP KCPK15	G64	6012752	EG0712M06U08GUP KCP10B	C17
5990935	B285D006200HPS KN15	G83	5999973	KM63XMKZGMLF50CY	C69, C146	6010729	XDPT090408ERD41 X500	V15	6012753	EG380I10U3GUP KCP10B	C18
5990936	B285D006350HPS KN15	G83	6000012	KM80TSKGMER50C	C70, C147	6010730	XDPT090408ERD41 SP6519	V15	6012754	EG1012M10U12GUP KCP10B	C17
5990937	B285D006528HPS KN15	G83	6000013	KM80TSKGMEL50C	C70, C147	6010771	XDPT090408ERD41 SC6525	V15	6012755	ER0412M04U00GUP KCP10B	C19
5990938	B285D006630HPS KN15	G83	6000014	KM80TSKGMRS50C	C69, C146	6010772	XDPT120508ERD41 X500	V22	6012756	ER1920I04U0GUP KCP10B	C19
5990939	B285D006746HPS KN15	G83	6000015	KM80TSKGMSEL50C	C69, C146	6010773	XDPT120508ERD41 SP6519	V22	6012757	ER0512M05U00GUP KCP10B	C19
5990940	B285D006800HPS KN15	G83	6000016	KM80ATCKGMER50C	C70, C147	6010774	XDPT120508ERD41 SC6525	V22	6012758	ER0612M06U00GUP KCP10B	C19
5990941	B285D006900HPS KN15	G83	6000017	KM80ATCKGMSEL50C	C70, C147	6012527	EG0212M02U02GUN KCU10	C20	6012759	ER255I06U00GUP KCP10B	C18
5990942	B285D007000HPS KN15	G83	6000018	KM80ATCKGMSR50C	C69, C146	6012528	EG0251M02U02GUN KCU10	C20	6012760	ER31708U00GUP KCP10B	C19
5990943	B285D007400HPS KN15	G83	6000019	KM80ATCKGMSEL50C	C69, C146	6012529	EG0312M03U02GUN KCU10	C20	6012761	ER0812M08U00GUP KCP10B	C19
5990944	B285D007541HPS KN15	G83	6000026	PSC40KGMER50C	C73, C151	6012530	EG0312M03U04GUN KCU10	C20	6012762	EG0312M03U04GUP KCP25B	C17
5990945	B285D007600HPS KN15	G83	6000027	PSC40KGMEL50C	C73, C151	6012651	EG0631FF05GUN KCU10	C21	6012763	EG130I03U05GUP KCP25B	C18
5990946	B285D008433HPS KN15	G83	6000028	PSC40KGMRS50C	C72, C150	6012652	EG130I03U05GUN KCU10	C21	6012764	EG130I03U1GUP KCP25B	C18
5990947	B285D008700HPS KN15	G83	6000029	PSC40KGMSEL50C	C72, C150	6012653	EG130I03U1GUN KCU10	C21	6012765	EG012M01U2GUP KCP25B	C17
5990948	B285D008800HPS KN15	G83	6000030	PSC50KGMER50C	C73, C151	6012654	ER0312M03U00GUN KCU10	C21	6012766	EG0251M02U02GUP KCP25B	C17
5990949	B285D008900HPS KN15	G83	6000151	PSC50KGMEL50C	C73, C151	6012655	ER130I03U00GUN KCU10	C22	6012767	ER0312M03U00GUP KCP25B	C19
5990950	B285D009100HPS KN15	G83	6000152	PSC50KGMRS50C	C72, C150	6012656	EG0412M04U04GUN KCP10B	C20	6012768	ER130I03U00GUP KCP25B	C19
5990951	B285D009129HPS KN15	G83	6000153	PSC50KGMSEL50C	C72, C150	6012657	EG0412M04U08GUN KCP10B	C20	6012898	EG0412M04U04GUN KCU10	C20
5990952	B285D009400HPS KN15	G83	6000159	PSC63KGMER50C	C73, C151	6012658	EG1920I04U1GUN KCP10B	C21	6012899	EG0412M04U08GUN KCU10	C20
5990953	B285D009900HPS KN15	G83	6000160	PSC63KGMEL50C	C73, C151	6012659	EG1920I04U2GUN KCP10B	C21	6012900	EG0512M05U04GUN KCU10	C20
5990954	B285D009921HPS KN15	G83	6000199	CNMU443MN KCP05B	B51	6012660	EG255I06U1GUN KCP10B	C21	6012901	EG0512M05U08GUN KCU10	C20
5990955	B285D10100HPS KN15	G83	6000211	PSC63KGMRS50C	C72, C150	6012671	EG255I06U2GUN KCP10B	C21	6012902	EG0612M06U04GUN KCU10	C20
5990956	B285D10200HPS KN15	G83	6000213	PSC63KGMSEL50C	C72, C150	6012672	EG0812M08U08GUN KCP10B	C20	6012903	EG0612M06U08GUN KCU10	C20
5990957	B285D10300HPS KN15	G83	6000214	PSC80KGMER50C	C73, C151	6012673	EG0812M08U12GUN KCP10B	C20	6012904	EG0812M08U08GUN KCU10	C20
5990958	B285D10320HPS KN15	G83	6000215	PSC80KGMEL50C	C73, C151	6012674	EG0612M06U04GUN KCP10B	C20	6012905	EG0812M08U12GUN KCU10	C20
5990959	B285D10600HPS KN15	G83	6000216	PSC80KGMRS50C	C72, C150	6012675	EG31708U3GUN KCP10B	C21	6012906	EG1012M10U12GUN KCU10	C20
5990960	B285D10716HPS KN15	G84	600								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6012944	EG0412M04U04GUP	KCU10	6017489	ER19204U00GUN	KCK20B	6019501	LNP544SRGE	KC520M	6031041	EVM50R1F12M	C59
6012945	EG0412M04U08GUP	KCU10	6017490	ER0512M05U00GUN	KCK20B	6019502	LNP544SRGE	KC522M	6031042	EVM50L1F12M	C60
6012946	EG0512M05U04GUP	KCU10	6017491	ER0612M06U00GUN	KCK20B	6019503	LNP544SRGE	KC725M	6031130	KTIP0852FEGM	KCPM45
6012947	EG0512M05U08GUP	KCU10	6017492	ER25506U00GUN	KCK20B	6019504	LNP544SRGE	KCK15	6033254	XDPW120515SRD	KCPM40
6012948	EG0612M06U04GUP	KCU10	6017493	ER31708U00GUN	KCK20B	6019505	LNP544SRGE	KCPK30	6033255	XDPW120515SRD	KCPK30
6012949	EG0612M06U08GUP	KCU10	6017494	ER0812M08U00GUN	KCK20B	6019506	LNP544SRGE	KCPM40	6033256	XDPW120515SRD	KC522M
6012950	EG0712M07U08GUP	KCU10	6017497	EC030M03L06CF02	KCM35B	6019507	LNGU545SRGEM	KC520M	6033257	XDPW120515SRD	KCK15
6012961	EG0812M08U08GUP	KCU10	6017498	EC030M03R06CF02	KCM35B	6019508	LNGU545SRGEM	KCK15	6033258	XDPW120515SRD	KC510M
6012962	EG0812M08U12GUP	KCU10	6017499	EC014M1BN00CF01	KCM35B	6019509	LNGU545SRGEM	KCPK30	6034358	LNUX19195ORRF	KCP10B
6012963	EG1012M10U12GUP	KCU10	6017500	EC020M02N00CF02	KCM35B	6019510	LNGU545SRGEM	KCPM40	6034359	LNUX19195ORRF	KCP25B
6012964	EG19204U1GUP	KCU10	6017511	EC014M1BN00CL01	KCM35B	6020741	SDET43PDR8GB	KCSM40	6034360	LNUX19195ORRF	KCP10B
6012965	EG19204U2GUP	KCU10	6017512	EC020M02N00CL02	KCM35B			T123, U39	6034411	LNUX19195ORRF	KCP25B
6012966	EG25506U1GUP	KCU10	6017513	EC020M02L06CF02	KCM35B	6023085	B053A01000CPG	KC7325	6035046	KLSS0714C	S30, S32, V19, V26
6012967	EG25506U2GUP	KCU10	6017514	EC020M02R06CF02	KCM35B	6023086	B053A01016CPG	KC7325			
6012968	EG31708U3GUP	KCU10	6017515	EC014M1BL06CL01	KCM35B	6023087	B053A01067CPG	KC7325	6039659	HNGJ43ANSNHD	KCPM40
6012969	EG38010U3GUP	KCU10	6017516	EC014M1BR06CL01	KCM35B	6023088	B053A01100CPG	KC7325	6039660	HNGJ43ANSNHD	KCK15
6012970	ER0412M04U00GUP	KCU10	6017517	EC020M02L06CL02	KCM35B	6023089	B053A01181CPG	KC7325	6039811	HNGJ43ANSNHD	KC522M
6012971	ER0512M05U00GUP	KCU10	6017518	EC020M02R06CL02	KCM35B	6023090	B053A01191CPG	KC7325	6039812	HNGJ43ANSNHD	KCPK30
6012972	ER0612M06U00GUP	KCU10	6017519	EC030M03L06CL02	KCM35B	6023121	B053A01200CPG	KC7325	6039814	SNHJ442SNGD	KCPM40
6012973	ER0812M08U00GUP	KCU10	6017520	EC030M03R06CL02	KCM35B	6023122	B053A01300CPG	KC7325	6039815	SNHJ442SNGD	KCPK30
6012974	ER19204U00GUP	KCU10	6017521	EC014M1BL06CF01	KCM35B	6023123	B053A01321CPG	KC7325	6039816	LNUX19195ORRF	KCK15
6012975	ER25506U00GUP	KCU10	6017522	EC014M1BR06CF01	KCM35B	6023124	B053A01397CPG	KC7325	6039817	SNHJ442SNGD	KC520M
6012976	ER31708U00GUP	KCU10	6017525	EG0412M04U04GUP	KCP25B	6023125	B053A01400CPG	KC7325	6039818	SNHJ442SNGD	KC522M
6013031	EG0212M02U02GUP	KCU10	6017526	EG0412M04U08GUP	KCP25B	6025564	C7792VX16-A2.00Z4R	V26-27	6041797	KSEMP7200FDS71B1M	H110, H119
6013032	EG0251M02U02GUP	KCU10	6017527	EG19204U1GUP	KCP25B	6025565	C7792VX16-A2.50Z6R	V26-27	6041798	KSEMP7400FDS71B1M	H110, H119
6013033	EG0312M03U02GUP	KCU10	6017528	EG19204U2GUP	KCP25B	6025566	C7792VX16-A3.00Z7R	V26-27	6041799	KSEMP7600FDS71B1M	H110, H119
6013034	EG0312M03U04GUP	KCU10	6017529	EG25506U1GUP	KCP25B	6025567	C7792VX16-A4.00Z9R	V26-27	6041800	KSEMP7800FDS71B1M	H110, H119
6013035	EG130I03U05GUP	KCU10	6017530	EG25506U2GUP	KCP25B	6025568	C7792VX16-A5.00Z11R	V26-27	6041881	KSEMP8000FDS80B1M	H110, H120
6013036	EG130I03U1GUP	KCU10	6017541	EG0812M08U08GUP	KCP25B	6025569	C7792VX16-6.00Z13R	V26-27	6041882	KSEMP8200FDS80B1M	H110, H120
6013037	EG0312M03U00GUP	KCU10	6017542	EG0812M08U12GUP	KCP25B	6025584	C7792VXD12-A1.50Z4R	V19-20	6041883	KSEMP8400FDS80B1M	H110, H120
6013038	ER130I03U00GUP	KCU10	6017543	EG0612M06U04GUP	KCP25B	6025582	C7792VXD12-A2.00Z6R	V19-20	6041884	KSEMP8600FDS80B1M	H110, H120
6013040	EG0312M03U02GUP	KCP10B	6017544	EG0612M06U08GUP	KCP25B	6025583	C7792VXD12-A2.50Z7R	V19-20	6041885	KSEMP8800FDS80B1M	H110, H120
6013061	EG0312M03U04GUP	KCP10B	6017545	EG31708U3GUP	KCP25B	6025585	C7792VXD12-A3.00Z9R	V19-20	6041886	KSEMP9000FDS80B1M	H110, H120
6013062	EG130I03U05GUP	KCP10B	6017546	EG0512M05U04GUP	KCP25B	6025588	C7792VXD12-A4.00Z11R	V19-20	6041887	KSEMP9200FDS80B1M	H110, H120
6013063	EG130I03U1GUP	KCP10B	6017547	EG0512M05U08GUP	KCP25B	6025586	C7792VXD12-A5.00Z13R	V19-20	6041888	KSEMP9400FDS80B1M	H110, H120
6013064	EG0212M02U02GUP	KCP10B	6017548	EG0712M06U08GUP	KCP25B	6025589	C7792VXD12-6.00Z15R	V19-20	6041889	KSEMP9600FDS80B1M	H110, H120
6013065	EG0251M02U02GUP	KCP10B	6017549	EG38010U3GUP	KCP25B	6025588	C7792VXD12CA1.25Z3R3	V18, V20	6041890	KSEMP9800FDS80B1M	H110, H120
6013066	EG0631FU05GUP	KCP10B	6017550	EG1012M10U12GUP	KCP25B	6025589	C7792VXD12CA1.50Z4R3	V18, V20	6041901	KSEMP10000FDS90B1M	H110, H120
6013067	ER0312M03U00GUP	KCP10B	6017551	ER0412M04U00GUP	KCP25B	6025590	C7792VXD09CA1.00Z3R2	V11, V13	6041904	KSEMP7100FDS71A1M	H116, H123
6013068	ER130I03U00GUP	KCP10B	6017552	ER19204U00GUP	KCP25B	6025611	C7792VXD09CA1.25Z4R3	V11, V13			
6013069	EG0312M03U02GUP	KCP10B	6017553	ER0512M05U00GUP	KCP25B	6025612	C7792VXD09A2.00Z7R	V12-13	6041906	KSEMP7300FDS71A1M	H116, H123
6013070	EG0312M03U04GUP	KCP10B	6017555	ER0612M06U00GUP	KCP25B	6025665	DFT070408D5 KCU40	J102	6041907	KSEMP7500FDS71A1M	H116, H123
6013091	EG130I03U05GUP	KCP10B	6017556	ER25506U00GUP	KCP25B	6025666	SPPX120408LP KCU40	J104			
6013092	EG130I03U1GUP	KCP10B	6017557	ER31708U00GUP	KCP25B	6025669	DFT030304D5 KCU40	J102	6041908	KSEMP7700FDS71A1M	H116, H123
6013093	EG0212M02U02GUP	KCP10B	6017558	ER0812M08U00GUP	KCP25B	6025670	SPPG070304LP KCU40	J104			
6013095	EG0251M02U02GUP	KCP10B	6017560	EG0412M04U04GUP	KCP25B	6025821	DFTX20204D5 KCU40	J102	6025821	DFTX20204D5 KCU40	H117, H123
6013096	ER0312M03U00GUP	KCP10B	6017581	EG0412M04U08GUP	KCP25B	6025822	SPGX050204LP KCU40	J104	6025822	SPGX050204LP KCU40	H117, H123
6013097	ER130I03U00GUP	KCP10B	6017582	EG19204U1GUP	KCP25B	6025823	DFT057308D5 KCU40	J102	6025823	DFT057308D5 KCU40	H117, H123
6013099	EG0312M03U02GUP	KCP25B	6017583	EG19204U2GUP	KCP25B	6025824	SPPX09T308LP KCU40	J104	6025824	SPPX09T308LP KCU40	H117, H123
6013100	EG0312M03U04GUP	KCP25B	6017584	EG25506U1GUP	KCP25B	6025825	DFT057308D3D5 KCU40	H112	6025825	DFT057308D3D5 KCU40	H117, H123
6013131	EG130I03U05GUP	KCP25B	6017585	EG25506U2GUP	KCP25B	6025826	DFT057308D3D5 KCU40	H112	6025826	DFT057308D3D5 KCU40	H117, H123
6013132	EG130I03U1GUP	KCP25B	6017587	EG0812M08U08GUP	KCP25B	6025827	DFT067308D36D5 KCU40	H112	6025827	DFT067308D36D5 KCU40	H117, H123
6013133	EG0212M02U02GUP	KCP25B	6017588	EG0812M08U12GUP	KCP25B	6025828	DFT067308D39D5 KCU40	H112	6025828	DFT067308D39D5 KCU40	H117, H123
6013134	EG0251M02U02GUP	KCP25B	6017589	EG0612M06U08GUP	KCP25B	6025829	DFT070408D50D5 KCU40	H112	6025829	DFT070408D50D5 KCU40	H117, H123
6013135	EG0631FU05GUP	KCP25B	6017590	EG31708U3GUP	KCP25B	6025892	DFT070408D56D5 KCU40	H112	6025892	DFT070408D56D5 KCU40	H117, H123
6013136	ER0312M03U00GUP	KCP25B	6017601	EG0512M05U04GUP	KCP25B	6025893	DFT090508D63D5 KCU40	H112	6025893	DFT090508D63D5 KCU40	H117, H123
6013137	ER130I03U00GUP	KCP25B	6017603	EG0512M05U08GUP	KCP25B	6025894	DFT090508D85 KCU40	J102	6025894	DFT090508D85 KCU40	H117, H123
6017353	EG0312M03U02GUP	KCK20B	6017604	EG38010U3GUP	KCP25B	6025895	DFC040312028D5 KCU40	H114	6025895	DFC040312028D5 KCU40	H117, H123
6017354	EG0312M03U04GUP	KCK20B	6017605	EG1012M10U12GUP	KCP25B	6025896	DFT067308D36D5 KCU40	H114	6025896	DFT067308D36D5 KCU40	H117, H123
6017356	EG130I03U05GUP	KCK20B	6017606	ER0412M04U00GUP	KCP25B	6025898	DFT070416D45D5 KCU40	H114	6025898	DFT070416D45D5 KCU40	H117, H123
6017357	EG130I03U1GUP	KCK20B	6017607	ER19204U00GUP	KCP25B	6025899	DFC05T312D32D5 KCU40	H114	6025899	DFC05T312D32D5 KCU40	H117, H123
6017358	EG0212M02U02GUP	KCK20B	6017608	ER0512M05U00GUP	KCP25B	6025897	DFC06T312D36D5 KCU40	H114	6025897	DFC06T312D36D5 KCU40	H117, H123
6017359	EG0251M02U02GUP	KCK20B	6017609	ER0612M06U00GUP	KCP25B	6025898	DFT070416D45D5 KCU40	H114	6025898	DFT070416D45D5 KCU40	H117, H123
6017360	EG0631FU05GUP	KCK20B	6017610	ER25506U00GUP	KCP25B	6025899	DFC090520D56D5 KCU40	H114	6025899	DFC090520D56D5 KCU40	H117, H123
6017391	ER0312M03U00GUP	KCK20B	6017611	ER31708U00GUP	KCP25B	6026363	DFT067308D5 KCU40	J102	6026363	DFT067308D5 KCU40	H117, H123
6017392	ER130I03U00GUP	KCK20B	6017612	ER0812M08U00GUP	KCP25B	6026364	SPGX060304LP KCU40	J104	6026364	SPGX060304LP KCU40	H117, H123
6017393	EG0412M04U04GUP	KCK20B	6017693	KM80TSKGMER65C	C70, C147	6026365	TPG432 KCP25B	B177	6026365	TPG432 KCP25B	H117, H123
6017394	EG0412M04U08GUP	KCK20B	6017694	KM80TSKGMEL65C	C70, C147	6026366	SPGF422 KCP25B	B171	6026366	SPGF422 KCP25B	H117, H123
6017395	EG19204U1GUP	KCK20B	6017695	KM80TSKGMRSR65C	C69, C146	6026367	TPGF322 KCP25B	B177	6026367	TPGF322 KCP25B	H117, H123
6017396	EG19204U2GUP	KCK20B	6017696	KM80TSKGMMSL65C	C69, C146	6027457	TPMR322 KCP25B	B177	6027457	TPMR322 KCP25B	H117, H123
6017397	EG25506U1GUP	KCK20B	60								

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6041939	KSEMP7500FDS71B1M	H110, H119	6055296	RHR37000KST300H7SF KCU05	K29	6059343	T848NPTF07500-14R-D55 KSU30	M156	6072335	UKDV0625Y4CQ KCMP15	08
6041940	KSEMP7700FDS71B1M	H110, H119	6055297	RHR38000KST350H7SF KCU05	K29	6059344	T848NPTF10000-11,5R-D55 KSU30	M156	6072337	UKDV0750Y4CQ KCMP15	08
6041991	KSEMP7900FDS71B1M	H110, H120	6055298	RHR39000KST350H7SF KCU05	K29				6072338	UKDV1000Y4CQ KCMP15	08
6041992	KSEMP8100FDS80B1M	H110, H120	6055299	RHR40000KST350H7SF KCU05	K29	6064367	KTIP1080FEGM KCMP45	H36	6072339	UKDV1250Y4CQ KCMP15	08
6041993	KSEMP8300FDS80B1M	H110, H120	6055300	RHR41000KST350H7SF KCU05	K29	6065059	RPPT1204MOSGDGX4 KCM40	V106	6072340	UKDV0375Y4CQ KCMP15	08
6041994	KSEMP8500FDS80B1M	H110, H120	6055301	RHR42000KST350H7SF KCU05	K29	6068043	HNGJ53511ANSNHD KCPM40	S19, S22	6072342	UKDV0500Y4CQ KCMP15	08
6041995	KSEMP8700FDS80B1M	H110, H120	6055302	RHR14000KST115H7HF KCU05	K30	6068798	HNPJ438ANSNHD KCPM40	S7, S13, S16	6072343	UKDV0625Y4CQ KCMP15	08
6041996	KSEMP8900FDS80B1M	H110, H120	6055303	RHR15000KST115H7HF KCU05	K30	6069649	KTIP1490FEGM KCMP45	H36	6072344	UKDV0750Y4CQ KCMP15	08
6041997	KSEMP9100FDS90B1M	H110, H120	6055304	RHR16000KST135H7HF KCU05	K30	6070991	UKBV0375Y4CN KCMP15	018	6072345	UKDV1000Y4CQ KCMP15	08
6041998	KSEMP9300FDS90B1M	H110, H120	6055305	RHR17000KST135H7HF KCU05	K30	6070992	UKBV0500Y4CN KCMP15	018	6072346	UKDV1250Y4CQ KCMP15	08
6041999	KSEMP9500FDS90B1M	H110, H120	6055306	RHR18000KST155H7HF KCU05	K30	6070993	UKBV0625Y4CN KCMP15	018	6072347	ULDV0375Y4CQ KCMS15	09
6042000	KSEMP9700FDS90B1M	H110, H120	6055307	RHR19000KST155H7HF KCU05	K30	6070994	UKBV0750Y4CN KCMP15	018	6072348	ULDV0375Y4CQ KCMS15	09
6042001	KSEMP9900FDS90B1M	H110, H120	6055308	RHR20000KST175H7HF KCU05	K30	6070995	UKBV0500Y4CN KCMP15	018	6072349	ULDV0625Y4CQ KCMS15	09
6042002	KSEMP2875FDS71B1	H110, H119	6055309	RHR21000KST175H7HF KCU05	K30	6072144	UJVB0375Y6CN KCMS15	019	6072350	ULDV0375Y4CQ KCMS15	09
6042003	KSEMP3125FDS80B1	H110, H120	6055310	RHR22000KST175H7HF KCU05	K30	6072145	UJVB0500Y6CN KCMS15	019	6072351	ULDV0500Y4CQ KCMS15	09
6042004	KSEMP3375FDS80B1	H110, H120	6055311	RHR23000KST200H7HF KCU05	K30	6072147	UJVB0625Y6CN KCMS15	019	6072352	ULDV0625Y4CQ KCMS15	09
6042005	KSEMP3625FDS90B1	H110, H120	6055312	RHR24000KST200H7HF KCU05	K30	6072149	UJVB0750Y6CN KCMS15	019	6072353	ULDV0500Y4CQ KCMS15	09
6042006	KSEMP3875FDS90B1	H110, H120	6055313	RHR25000KST200H7HF KCU05	K30	6072150	UJVB1000Y6CN KCMS15	019	6072354	ULDV0500Y4CQ KCMS15	09
6042982	KSDR100031E0W4S KD1400	S105	6055314	RHR26000KST200H7HF KCU05	K30	6072178	UCBV1000Y5CU KCMP15	012	6072355	ULDV0500Y4CQ KCMS15	09
6042983	KSDR100031E0W4S KD1425	S105	6055315	RHR27000KST200H7HF KCU05	K30	6072180	UCBV0500Y5CU KCMP15	012	6072356	ULDV0625Y4CQ KCMS15	09
6042984	KSDR100031E1W4S KD1400	S105	6055316	RHR28000KST250H7HF KCU05	K30	6072201	UCDV0625Y5CU KCMP15	012	6072357	ULDV0625Y4CQ KCMS15	09
6042985	KSDR100031E1W4S KD1425	S105	6055317	RHR29000KST250H7HF KCU05	K30	6072202	UCDV0750Y5CU KCMP15	012	6072358	ULDV0625Y4CQ KCMS15	09
6042986	KSDR100031E3W4S KD1400	S106	6055318	RHR30000KST250H7HF KCU05	K30	6072203	UCDV1000Y5CU KCMP15	012	6072359	ULDV0625Y4CQ KCMS15	09
6042987	KSDR100031E3W4S KD1425	S106	6055319	RHR31000KST250H7HF KCU05	K30	6072204	UCDV1250Y5CU KCMP15	012	6072360	ULDV0625Y4CQ KCMS15	09
6042988	KSDR100039E1W4S KD1400	S105	6055320	RHR32000KST250H7HF KCU05	K30	6072205	UCDV0375Y5CU KCMP15	012	6072361	ULDV0750Y4CQ KCMS15	09
6042989	KSDR100039E1W4S KD1425	S105	6055321	RHR33000KST300H7HF KCU05	K30	6072206	UCDV0500Y5CU KCMP15	012	6072362	ULDV0750Y4CQ KCMS15	09
6042990	KSDR102S KD1400	S106	6055322	RHR34000KST300H7HF KCU05	K30	6072207	UCDV0625Y5CU KCMP15	012	6072363	ULDV0750Y4CQ KCMS15	09
6043031	KSDR102S KD1425	S106	6055323	RHR35000KST300H7HF KCU05	K30	6072208	UCDV0750Y5CU KCMP15	012	6072364	ULDV0750Y4CQ KCMS15	09
6044579	KBDM25S0SD06	S104	6055324	RHR36000KST300H7HF KCU05	K30	6072209	UCDV1000Y5CU KCMP15	012	6072365	ULDV1000Y4CQ KCMS15	09
6044580	KBDM300SD08	S104	6055325	RHR37000KST300H7HF KCU05	K30	6072210	UCDV1250Y5CU KCMP15	012	6072366	ULDV1000Y4CQ KCMS15	09
6044711	KBDM400SD12	S104	6055326	RHR38000KST350H7HF KCU05	K30	6072211	UJVDV0375Y6CQA KCSM15	016	6072367	ULDV1000Y4CQ KCMS15	09
6044712	KBDM500SD16	S104	6055327	RHR39000KST350H7HF KCU05	K30	6072212	UJVDV0375Y6CQB KCSM15	016	6072368	ULDV1000Y4CQ KCMS15	09
6044713	KBDM600SD18	S104	6055328	RHR40000KST350H7HF KCU05	K30	6072213	UJVDV0375Y6CQC KCSM15	016	6072369	ULDV1000Y4CQ KCMS15	09
6044714	KBDM800SD24	S104	6055329	RHR41000KST350H7HF KCU05	K30	6072214	UJVDV0375Y6CQD KCSM15	016	6072370	ULDV1250Y4CQ KCMS15	09
6044824	LNGLU542SRGHE KCSM40	T20	6055330	RHR42000KST350H7HF KCU05	K30	6072215	UJVDV0500Y6CQA KCSM15	016	6072381	ULDV1250Y4CQ KCMS15	09
6048710	KSEM2554HPGM KC7315	H55	6055331	RHR43000KST350H7HF KCU05	K30	6072216	UJVDV0500Y6CQB KCSM15	016	6074027	XDPT120515SRGP KCPM40	V23
6049015	WLJNR32CA19S	E55	6055332	SNMG431MN KCP10B	B102	6072217	UJVDV0500Y6CQC KCSM15	016	6074028	XDPT120515SRGP KCPK30	V23
6049016	WLJNL32CA19S	E55	6055333	B256A11900YPC KCK10	G54	6072218	UJVDV0500Y6CQD KCSM15	016	6074029	XDPT120515SRGP KC725M	V23
6049017	WLJNR32CA30S	E55	6055334	HDWM5EUS	S104	6072219	UJVDV0500Y6CQE KCSM15	016	6074030	XDPT120515SRGP KC522M	V23
6049018	WLJNL32CA30S	E55	6059086	T877G01250-28R-D56 KSP39	M154	6072220	UJVDV0625Y6CQA KCSM15	016	6075752	DFSP140R4WD20M	J28
6054192	KSCMA90UNBF KD1400	S110	6059087	T877G01250-28R-D56 KSU31	M154	6072221	UJVDV0375Y5CQA KC643M	013	6075753	DFSP145R4WD20M	J28
6054193	KSCMA90UNBF KD1420	S110	6059088	T877G02500-19R-D56 KSP39	M154	6072232	UJVDV0375Y5CQB KC643M	013	6075754	DFSP145R4WD20M	J28
6054194	KSCMA90UNBF KD1400	S110	6059089	T877G02500-19R-D56 KSU31	M154	6072233	UJVDV0375Y5CQC KC643M	013	6075755	DFSP155R4WD20M	J28
6054195	KSCMA90UNBF KD1420	S110	6059090	T877G03750-19R-D56 KSP39	M154	6072234	UJVDV0375Y5CQD KC643M	013	6075756	DFSP160R4WD20M	J28
6055137	RMR14000H7SF KCU05	K15	6059101	T877G03750-19R-D56 KSU31	M154	6072235	UJVDV0500Y5CQA KC643M	013	6075757	DFSP160R4WD20M	J28
6055138	RMR15000H7SF KCU05	K15	6059102	T877G05000-14R-D56 KSP39	M154	6072236	UJVDV0500Y5CQB KC643M	013	6075758	DFSP170R4WD20M	J28-29
6055139	RMR16000H7SF KCU05	K15	6059103	T877G05000-14R-D56 KSU31	M154	6072237	UJVDV0500Y5CQC KC643M	013	6076012	SDET43PDER8GB KCSM40	T116, T123, U39
6055140	RMR17000H7SF KCU05	K15	6059104	T877G06250-14R-D56 KSP39	M154	6072238	UJVDV0500Y5CQD KC643M	013			
6055148	CNMM644MR KCP25B	B54	6059105	T877G06250-14R-D56 KSU31	M154	6072239	UJVDV0500Y5CQE KC643M	013			
6055261	RMR18000H7SF KCU05	K15	6059106	T877G07500-14R-D56 KSP39	M154	6072240	UJVDV0625Y5CQA KC643M	013	6079180	EVSBR160616060075C	C47
6055262	RMR19000H7SF KCU05	K15	6059107	T877G07500-14R-D56 KSU31	M154	6072241	UJVDV0625Y5CQB KC643M	013	6079223	EVMSR0620A060075C	C62
6055263	RMR20000H7SF KCU05	K15	6059108	T877G08750-14R-D56 KSP39	M154	6072242	UJVDV0625Y5CQC KC643M	013	6079224	EVMSR0620A075100C	C62
6055264	RMR14000H7HF KCU05	K16	6059109	T877G08750-14R-D56 KSU31	M154	6072243	UJVDV0625Y5CQD KC643M	013	6079225	EVMSR0620A100180C	C62
6055265	RMR15000H7HF KCU05	K16	6059110	T877G10000-11R-D56 KSP39	M154	6072244	UJVDV0625Y5CQE KC643M	016	6079226	EVMSR0620A180250C	C62
6055266	RMR16000H7HF KCU05	K16	6059111	T877G10000-11R-D56 KSU31	M154	6072245	UJVDV0750Y6CQB KCSM15	016	6079227	EVMSR0620A350999C	C62
6055267	RMR17000H7HF KCU05	K16	6059167	T857G01250-28R-D56 KSP39	M155	6072246	UJVDV0750Y6CQC KCSM15	016	6079228	EVMSR0620A350999C	C62
6055268	RMR18000H7HF KCU05	K16	6059168	T857G01250-28R-D56 KSU31	M155	6072247	UJVDV0750Y6CQD KCSM15	016	6079229	EVMSR0620A80180C	C62
6055270	RMR19000H7HF KCU05	K16	6059169	T857G02500-19R-D56 KSP39	M155	6072248	UJVDV0750Y6CQE KCSM15	016	6079230	EVMSR0620A80180C	C62
6055271	RMR20000H7HF KCU05	K16	6059170	T857G02500-19R-D56 KSU31	M155	6072249	UJVDV1000Y6CQB KCSM15	016	6079231	EVMSR0620A80180C	C62
6055272	RHR14000KST115H7SF KCU05	K29	6059171	T857G03750-19R-D56 KSP39	M155	6072250	UJVDV1000Y6CQC KCSM15	016	6079232	EVMSR0620A80180C	C62
6055273	RHR15000KST115H7SF KCU05	K29	6059172	T857G03750-19R-D56 KSU31	M155	6072251	UJVDV0625Y5CQB KC643M	013	6079233	EVMSR0620A80180C	C62
6055274	RHR16000KST135H7SF KCU05	K29	6059173	T857G05000-14R-D56 KSP39	M155	6072252	UJVDV0625Y5CQC KC643M	013	6079234	EVMSR0620A80180C	C62
6055275	RHR17000KST135H7SF KCU05	K29	6059174	T857G05000-14R-D56 KSU31	M155	6072253	UJVDV0625Y5CQD KC643M	013	6079235	EVMSR0620A80180C	C62
6055276	RHR18000KST155H7SF KCU05	K29	6059175	T857G06250-14R-D56 KSP39	M155	6072254	UJVDV0625Y5CQE KC643M	013	6079236	EVMSR0620A80180C	C62
6055277	RHR19000KST155H7SF KCU05	K29	6059176	T857G06250-14R-D56 KSU31	M155	6072255	UJVDV0750Y5CQB KC643M	013	6079237	EVMSR0620A80180C	C62
6055278	RHR20000KST175H7SF KCU05	K29	6059177	T857G07500-14R-D56 KSP39	M155	6072256	UJVDV0750Y5CQC KC643M	013	6079238	EVMSR0620A80180C	C62
6055279	RHR21000KST175H7SF KCU05	K29	6059178	T857G07500-14R-D56 KSU31	M155	6072257	UJVDV0750Y5CQD KC643M	013	6079239	EVMSR0620A80180C	C62
6055280	RHR22000KST175H7SF KCU05	K29	6059179	T857G08750-14R-D56 KSP39	M155	6072258	UJVDV0750Y5CQE KC643M	013	6079240	EVMSR0620A80180C	C

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6079351	EVSBL160616060075C	C48	6079492	EVM50R0520A180250C	C62	6082249	TNGN234S0820 KBK45	B306	6086455	2SE0875L1225A KC633M	Q8
6079352	EVSBR160626060075C	C47	6079493	EVM50R0520A250350C	C62	6082250	TNGN334S0820 KBK45	B306	6086456	2SE1000I5150A KC633M	Q8
6079353	EVSBL160626060075C	C48	6079494	EVM50R0520A350999C	C62	6082261	TNGX334S0820 KBK45	B308	6086457	2SE1000L200A KC633M	Q8
6079354	EVSBR160616075100C	C47	6079495	EVM50L0416A040050C	C62	6083010	B269A02400KMG KCPK15	G62	6086458	2SE1000R300A KC633M	Q8
6079355	EVSBL160616075100C	C48	6079496	EVM50L0416A050060C	C62	6083071	B269A02500KMG KCPK15	G62	6086459	2SE1000R400A KC633M	Q8
6079356	EVSBR160626075100C	C47	6079497	EVM50L0416A060075C	C62	6083072	B269A02600KMG KCPK15	G62	6086460	2SE0500R100B KC633M	Q7
6079357	EVSBR160626075100C	C48	6079498	EVM50L0416A075100C	C62	6083073	B269A02800KMG KCPK15	G62	6086461	2SE0500L200B KC633M	Q7
6079358	EVSBR160616100180C	C47	6079499	EVM50L0426A100180C	C62	6083074	B269A02900KMG KCPK15	G62	6086462	2SE0500K300B KC633M	Q7
6079359	EVSBL160616100180C	C48	6079500	EVM50L0426A180250C	C62	6083075	B269A03400HP KCPK15	G62	6086463	2SE0562L125B KC633M	Q8
6079362	EVSBR160616180250C	C47	6079501	EVM50L0426A250350C	C62	6083076	B269A04100HP KCPK15	G62	6086464	2SE0562K225B KC633M	Q8
6079363	EVSBL160616180250C	C48	6079502	EVM50L0426A350999C	C62	6083077	B269A06400HP KCPK15	G63	6086465	2SE0625L125B KC633M	Q8
6079366	EVSBR160616250350C	C47	6079503	EVM50L0520A050060C	C62	6083078	B707A04200FBS KN15	G110	6086466	2SE0625K225B KC633M	Q8
6079367	EVSBL160616250350C	C48	6079504	EVM50L0520A060075C	C62	6083079	B707A04900FBS KN15	G110	6086467	2SE0687R137B KC633M	Q8
6079370	EVSBR160616350999C	C47	6079505	EVM50L0520A075100C	C62	6083097	VPRG332 KCP25B	E38	6086468	2SE0750R225B KC633M	Q8
6079371	EVSBL160616350999C	C48	6079506	EVM50L0520A100180C	C62	6084947	LNPUB63ANSLHD KCPK30	S95	6086469	2SE0750L300B KC633M	Q8
6079374	EVSBR200632100180C	C47	6079507	EVM50L0520A180250C	C62	6084948	LNPUB63ANSLHD KCPM40	S95	6086470	2SE0750K400B KC633M	Q8
6079375	EVSBL200632100180C	C48	6079508	EVM50L0520A250350C	C62	6086327	2SE016R003A KC633M	Q6	6086471	2SE0875L125B KC633M	Q8
6079376	EVSBR200632180250C	C47	6079509	EVM50L0520A350999C	C62	6086328	2SE0031R007A KC633M	Q6	6086472	2SE0875K150B KC633M	Q8
6079377	EVSBL200632180250C	C48	6080031	EVSBR2020K0312035040C	C49	6086329	2SE0062L018A KC633M	Q6	6086473	2SE1000R225B KC633M	Q8
6079378	EVSBR200632250350C	C47	6080033	EVSBR2020K041604050C	C49	6086330	2SE0062R012A KC633M	Q6	6086474	2SE1000L300B KC633M	Q8
6079379	EVSBL200632250350C	C48	6080035	EVSBR2525M0516050060C	C49	6086333	4SE0500S062A KC633M	Q24	6086475	2SE1000K400B KC633M	Q8
6079380	EVSBR200632350999C	C47	6080037	EVSBL2020K0312035040C	C50	6086334	4SE0500R100A KC633M	Q24	6086511	4SE0625R125A KC633M	Q24
6079381	EVSBL200632350999C	C48	6080038	EVSBL2020K0416050060C	C50	6086335	4SE0500L200A KC633M	Q24	6086512	4SE0625L225A KC633M	Q24
6079411	EVM50R0312B040050C	C63	6080039	EVSBL2525M0516050060C	C50	6086336	4SE0500S300A KC633M	Q24	6086513	4SE0625K100A KC633M	Q24
6079412	EVM50R0312B050060C	C63	6080040	EVSBR2020K0416050060C	C49	6086337	4SE0562R075A KC633M	Q24	6086514	4SE0687R137A KC633M	Q24
6079413	EVM50R0312B060075C	C63	6080051	EVSBL2020K0416050060C	C50	6086338	4SE0562L125A KC633M	Q24	6086515	4SE0750S150A KC633M	Q24
6079414	EVM50R0320B075100C	C63	6080053	EVSBR2525M0320060075C	C49	6086339	4SE0562K225A KC633M	Q24	6086516	4SE0750R150A KC633M	Q24
6079415	EVM50R0320B100180C	C63	6080054	EVSBL2525M0320060075C	C50	6086340	4SE0625S075A KC633M	Q24	6086517	4SE0750R225A KC633M	Q24
6079416	EVM50R0320B180250C	C63	6080055	EVSBR2525M0320075100C	C49	6086381	2SE0062X050A KC633M	Q6	6086518	4SE0750L300A KC633M	Q24
6079417	EVM50R0320B250350C	C63	6080056	EVSBL2525M0320075100C	C50	6086382	2SE0078R018A KC633M	Q6	6086519	4SE0750R150A KC633M	Q24
6079418	EVM50R0320B350999C	C63	6080057	EVSBR2525M0320100180C	C49	6086383	2SE0093R018A KC633M	Q6	6086520	4SE0875R150A KC633M	Q25
6079420	EVM50L0312B035040C	C64	6080059	EVSBL2525M0320100180C	C50	6086384	2SE0093L037A KC633M	Q6	6086521	4SE0875L225A KC633M	Q25
6079421	EVM50L0312B040050C	C64	6080060	EVSBR2525M0320180250C	C49	6086385	2SE0093X062A KC633M	Q6	6086522	4SE1000S150A KC633M	Q25
6079422	EVM50L0312B050060C	C64	6080061	EVSBL2525M0320180250C	C50	6086386	2SE0109R037A KC633M	Q6	6086523	4SE1000R225A KC633M	Q25
6079423	EVM50L0312B060075C	C64	6080066	EVSBR2525M0312100180C	C49	6086387	2SE0125R025A KC633M	Q6	6086524	4SE1000L300A KC633M	Q25
6079424	EVM50L0320B075100C	C64	6080068	EVSBL2525M0312100180C	C50	6086388	2SE0125L050A KC633M	Q6	6086525	4SE1000K400A KC633M	Q25
6079425	EVM50L0320B100180C	C64	6080069	EVSBR2525M0312180250C	C49	6086389	2SE0125X075A KC633M	Q6	6086527	4SE0500R100B KC633M	Q24
6079426	EVM50L0320B180250C	C64	6080070	EVSBL2525M0312180250C	C50	6086390	2SE0140R056A KC633M	Q6	6086528	4SE0500L200B KC633M	Q24
6079427	EVM50L0320B250350C	C64	6080418	EVSBR120312035040C	C46	6086391	2SE0156R031A KC633M	Q6	6086529	4SE0562L125B KC633M	Q24
6079428	EVM50L0320B350999C	C64	6080419	EVSBR120416040050C	C46	6086392	2SE0156L056A KC633M	Q6	6086530	4SE0625R125B KC633M	Q24
6079429	EVM50R0416B040050C	C63	6080420	EVSBR160516050060C	C47	6086393	2SE0171R062A KC633M	Q6	6086541	4SE0625L125B KC633M	Q24
6079430	EVM50R0416B050060C	C63	6080472	EVSBL120312035040C	C46	6086394	2SE0171R062A KC633M	Q6	6086542	4SE0750R150A KC633M	Q24
6079451	EVM50R0416B060075C	C63	6080473	EVSBL120416040050C	C47	6086395	2SE0187L075A KC633M	Q6	6086543	4SE0750R225B KC633M	Q24
6079452	EVM50R0416B075100C	C63	6080474	EVSBL160516050060C	C47-48	6086396	2SE0187X12A KC633M	Q6	6086544	4SE0750L300A KC633M	Q24
6079453	EVM50R0426B100180C	C63	6080475	EVSBL120416050060C	C46	6086397	2SE0218R043A KC633M	Q6	6086545	4SE0875R150B KC633M	Q25
6079454	EVM50R0426B180250C	C63	6080476	EVSBL120416050060C	C47	6086398	2SE0218L062A KC633M	Q7	6086546	4SE0875L225B KC633M	Q25
6079455	EVM50R0426B250350C	C63	6080477	EVSBR160320060075C	C46	6086399	2SE0250S050A KC633M	Q7	6086547	4SE1000R225B KC633M	Q25
6079456	EVM50R0426B350999C	C63	6080478	EVSBL160320060075C	C47	6086400	2SE0250X150A KC633M	Q7	6086548	4SE1000L300B KC633M	Q25
6079457	EVM50R0520B050060C	C63	6080479	EVSBR160320075100C	C46	6086401	2SE0250L112A KC633M	Q7	6086553	4SE0015R003A KC633M	Q22
6079458	EVM50R0520B060075C	C64	6080480	EVSBL160320075100C	C47	6086402	2SE0250X150A KC633M	Q7	6086554	4SE0031R008A KC633M	Q22
6079459	EVM50R0520B75100C	C64	6080481	EVSBR160320100180C	C46	6086403	2SE0281R075A KC633M	Q7	6086555	4SE0062R010A KC633M	Q22
6079460	EVM50R0520B100180C	C64	6080482	EVSBL160320100180C	C47	6086404	2SE0312S050A KC633M	Q7	6086556	4SE0078R018A KC633M	Q22
6079461	EVM50R0520B180250C	C64	6080483	EVSBR160320180250C	C47	6086405	2SE0312R081A KC633M	Q7	6086558	4SE0093R037A KC633M	Q22
6079462	EVM50R0520B250350C	C64	6080484	EVSBL160320180250C	C46	6086406	2SE0312L112A KC633M	Q7	6086559	4SE0100L300B KC633M	Q22
6079463	EVM50R0520B350999C	C64	6080489	EVSBR160312100180C	C46	6086407	2SE0312X162A KC633M	Q7	6086560	4SE0109R037A KC633M	Q22
6079464	EVM50L0416B040050C	C64	6080490	EVSBL160312100180C	C47	6086408	2SE0343R100A KC633M	Q7	6086561	4SE0125S025A KC633M	Q22
6079465	EVM50L0416B050060C	C64	6080491	EVSBR160312180250C	C46	6086409	2SE0375R100A KC633M	Q7	6086562	4SE0125L075A KC633M	Q22
6079466	EVM50L0416B060075C	C64	6080492	EVSBL160312180250C	C47	6086410	2SE0375R100A KC633M	Q7	6086563	4SE0125L075A KC633M	Q22
6079467	EVM50L0416B075100C	C64	6082135	CNGN332T0820 KBK45	B304	6086411	2SE0375L112A KC633M	Q7	6086564	4SE0125X100A KC633M	Q22
6079468	EVM50L0426B100180C	C64	6082136	CNGN333S0820 KBK45	B304	6086412	2SE0375X175A KC633M	Q7	6086565	4SE0140R056A KC633M	Q22
6079469	EVM50L0426B180250C	C64	6082137	CNGN432T0820 KBK45	B304	6086413	2SE0406R100A KC633M	Q7	6086567	4SE0156R056A KC633M	Q22
6079470	EVM50L0426B250350C	C64	6082138	CNGN433S0820 KBK45	B304	6086414	2SE0437R062A KC633M	Q7	6086568	4SE0187R062A KC633M	Q22
6079471	EVM50L0426B350999C	C64	6082139	CNGN434S0820 KBK45	B304	6086415	2SE0437L100A KC633M	Q7	6086569	4SE0187S075A KC633M	Q22
6079472	EVM50L0520B050060C	C64	6082140	CNGX432T0820 KBK45	B307	6086416	2SE0437X200A KC633M	Q7	6086570	4SE0187L075A KC633M	Q22
6079473	EVM50L0520B060075C	C64	6082231	CNGX433S0820 KBK45	B307	6086417	2SE0468R100A KC633M	Q7	6086571	4SE0187X112A KC633M	Q22
6079474	EVM50L0520B075100C	C64	6082232	CNGX434S0820 KBK45	B307	6086418	2SE0500S062A KC633M	Q7	6086572	4SE0203R062A KC633M	Q22
6079475	EVM50L0520B100180C	C64	6082233	RNGN333S0820 KBK45	B304	6086419	2SE0500R100A KC633M	Q7	6086573	4SE0218R043A KC633M	Q22
6079476	EVM50L0520B180250C	C64	6082234	RNGN430S0820 KBK45	B304	6086420	2SE0500L200A KC633M	Q7	6086574		

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6086589	4SE0359R100A K6C33M	Q23	6113085	UJBE0500J6BB KCSM15	P66	6113624	UJDE1000N6FBE KCSM15	P61	6114041	UJDE1250N6FBJ KCSM15	P63
6086590	4SE0375S062A K6C33M	Q23	6113086	UJDE0500J6ZBB KCSM15	P60	6113625	UJDE1000N6FBH KCSM15	P61	6114042	UJDE1250N6FBK KCSM15	P63
6086591	4SE0375R100A K6C33M	Q23	6113088	UJDE0500J6ZBC KCSM15	P60	6113626	UJDE1000N6FBF KCSM15	P61	6114043	UJBE1250N6FB KCSM15	P66
6086592	4SE0375L112A K6C33M	Q23	6113090	UJDE0500J6ZBD KCSM15	P60	6113627	UJDE1000N6FBK KCSM15	P61	6114053	UJDE1250N6HBK KCSM15	P63
6086593	4SE0375X175A K6C33M	Q23	6113102	UJDE0500J6ZBE KCSM15	P60	6113628	UJBE1000N6FB KCSM15	P66	6114054	UJBE1250N6HBD KCSM15	P66
6086594	4SE0390R100A K6C33M	Q23	6113104	UJDE0500J6ZBH KCSM15	P60	6113628	UJBE1000N6FB KCSM15	P66	6114055	UJDE1250N6JBB KCSM15	P63
6086595	4SE0406R100A K6C33M	Q23	6113105	UJDE0500J6ZBC KCSM15	P60	6113629	UJDE1000N6GBC KCSM15	P61	6114056	UJDE1250N6JBC KCSM15	P63
6086596	4SE0421R100A K6C33M	Q23	6113106	UJDE0500J6ZBB KCSM15	P60	6113630	UJDE1000N6GBD KCSM15	P61	6114057	UJDE1250N6JBD KCSM15	P63
6086597	4SE0437S100A K6C33M	Q23	6113108	UJDE0500J6ZBH KCSM15	P60	6113631	UJDE1000N6GBE KCSM15	P61	6114058	UJDE1250N6JBE KCSM15	P63
6086598	4SE0437R100A K6C33M	Q23	6113109	UJDE0500J6ZBC KCSM15	P60	6113632	UJDE1000N6GBH KCSM15	P61	6114059	UJDE1250N6JBH KCSM15	P63
6086599	4SE0437L200A K6C33M	Q23	6113110	UJDE0500J6ZBE KCSM15	P60	6113634	UJDE1000N6GBF KCSM15	P62	6114060	UJDE1250N6JBF KCSM15	P63
6086600	4SE0437X300A K6C33M	Q23	6113134	UJDE0500J6ZBH KCSM15	P60	6113635	UJDE1000N6GBK KCSM15	P62	6114092	UJDE1250N6GBE KCSM15	P63
6086601	4SE0453R100A K6C33M	Q24	6113135	UJDE0500J6ZBB KCSM15	P66	6113636	UJBE1000N6GB KCSM15	P66	6114093	UJDE1250N6GBC KCSM15	P63
6086602	4SE0468R100A K6C33M	Q24	6113136	UJDE0500J6ZBD KCSM15	P60	6113637	UJDE1000N6GBB KCSM15	P62	6114094	UJDE1250N6GBF KCSM15	P63
6086603	4SE0484R100A K6C33M	Q24	6113137	UJDE0500J6ZBE KCSM15	P60	6113638	UJDE1000N6DBC KCSM15	P62	6114095	UJDE1250N6GBJ KCSM15	P63
6087904	5720VZ16HA025Z2R75	T99	6113138	UJDE0500J6ZBC KCSM15	P60	6113638	UJDE1000N6DBC KCSM15	P62	6114096	UJDE1250N6GBC KCSM15	P63
6088510	TPU433 KCK15B	B178	6113139	UJDE0500J6ZBE KCSM15	P60	6113840	UJDE1000N6DBE KCSM15	P62	6114097	UJBE1250N6GB KCSM15	P66
6088651	NPRG52L KCM15B	E33	6113140	UJDE0500J6ZBH KCSM15	P60	6113861	UJDE1000N6DBH KCSM15	P62	6114098	UJDE1250N6DBB KCSM15	P63
6088652	VCMR331 KCM15B	E37	6113152	UJBE0500J6DB KCSM15	P66	6113862	UJDE1000N6DBF KCSM15	P62	6114099	UJDE1250N6DBC KCSM15	P63
6088653	VCMR332 KCM15B	E37	6113155	UJDE0750J6ABB KCSM15	P60	6113863	UJDE1000N6DBK KCSM15	P62	6114100	UJDE1250N6DBD KCSM15	P63
6097181	EVM50R0312A035040C	C61	6113156	UJDE0750J6ABC KCSM15	P60	6113865	UJDE1000N6DBL KCSM15	P62	6114121	UJDE1250N6DBE KCSM15	P63
6097182	EVM50R0312A040050C	C61	6113157	UJDE0750J6ABD KCSM15	P60	6113867	UJDE1000N6HBB KCSM15	P62	6114122	UJDE1250N6DBF KCSM15	P63
6097183	EVM50R0312A050060C	C61	6113158	UJDE0750J6ABE KCSM15	P60	6113869	UJDE1000N6HBC KCSM15	P62	6114123	UJDE1250N6DBG KCSM15	P63
6097184	EVM50R0312A060075C	C61	6113159	UJDE0750J6ABH KCSM15	P60	6113870	UJDE1000N6HBD KCSM15	P62	6114124	UJDE1250N6DBJ KCSM15	P63
6097185	EVM50R0320A075100C	C61	6113201	UJDE0750J6ABF KCSM15	P60	6113881	UJDE1000N6HBE KCSM15	P62	6114125	UJDE1250N6DBK KCSM15	P63
6097186	EVM50R0320A100180C	C61	6113202	UJBE0750J6AB KCSM15	P66	6113882	UJDE1000N6HBF KCSM15	P62	6114126	UJBE1250N6DB KCSM15	P66
6097187	EVM50R0320A180250C	C61	6113205	UJDE0750J6ZBB KCSM15	P60	6113883	UJDE1000N6HBB KCSM15	P62	6114127	UJDE1250N6DBL KCSM15	P63
6097188	EVM50R0320A250350C	C61	6113206	UJDE0750J6ZBC KCSM15	P60	6113884	UJDE1000N6HBC KCSM15	P62	6114128	UJDE1250N6DBM KCSM15	P63
6097189	EVM50R0320A350999C	C61	6113207	UJDE0750J6ZBD KCSM15	P60	6113887	UJBE1000N6HBC KCSM15	P66	6114129	UJDE1250N6DBN KCSM15	P63
6097190	EVM50L0312A035040C	C62	6113208	UJDE0750J6ZBE KCSM15	P60	6113888	UJDE1000N6HBE KCSM15	P62	6114132	UJDE1250N6DBO KCSM15	P63
6097191	EVM50L0312A040050C	C62	6113209	UJDE0750J6ZBH KCSM15	P60	6113889	UJDE1000N6HBB KCSM15	P62	6114133	UJDE1250N6DBP KCSM15	P63
6097192	EVM50L0312A050060C	C62	6113210	UJDE0750J6ZBF KCSM15	P60	6113890	UJDE1000N6HBD KCSM15	P62	6114134	UJDE1250N6DBQ KCSM15	P63
6097193	EVM50L0312A060075C	C62	6113261	UJBE0750J6ZB KCSM15	P66	6113921	UJDE1000N6EBE KCSM15	P62	6114135	UJDE1250N6DBR KCSM15	P63
6097194	EVM50L0320A075100C	C62	6113262	UJDE0750J6ZBB KCSM15	P61	6113922	UJDE1000N6EBH KCSM15	P62	6114181	UJDE1250N6JBJ KCSM15	P63
6097195	EVM50L0320A100180C	C62	6113263	UJDE0750J6ZBC KCSM15	P61	6113923	UJDE1000N6EBF KCSM15	P62	6114182	UJDE1250N6JBC KCSM15	P63
6097196	EVM50L0320A180250C	C62	6113264	UJDE0750J6ZBD KCSM15	P61	6113924	UJDE1000N6EBK KCSM15	P62	6114183	UJBE1250N6JBC KCSM15	P66
6097197	EVM50L0320A250350C	C62	6113265	UJDE0750J6ZBE KCSM15	P61	6113925	UJBE1000N6EB KCSM15	P66	6114184	UJDE1250N6JBB KCSM15	P63
6097198	EVM50L0320A350999C	C62	6113266	UJDE0750J6ZBH KCSM15	P61	6113926	UJDE1250N6ABB KCSM15	P62	6114185	UJDE1250N6JBB KCSM15	P63
6102279	LNPU763PMSLHD2 KCPM40	S99, S101	6113267	UJDE0750J6ZBF KCSM15	P61	6113927	UJDE1250N6ABC KCSM15	P62	6114186	UJDE1250N6JBB KCSM15	P63
6103457	TNMG332MG KCP10B	B125	6113321	UJBE0750J6DB KCSM15	P66	6113928	UJDE1250N6ABD KCSM15	P62	6114187	UJDE1250N6JBB KCSM15	P63
6104860	KSEM2835HPGM KCPM45	H58	6113322	UJDE0750J6DBB KCSM15	P61	6113929	UJDE1250N6ABE KCSM15	P62	6114188	UJDE1250N6JBB KCSM15	P63
6105048	TNMG332CT KCPK05	B122	6113323	UJDE0750J6DBC KCSM15	P61	6113930	UJDE1250N6ABH KCSM15	P62	6114189	UJDE1250N6JBB KCSM15	P63
6105085	CPGM3251 KCP25B	B205	6113324	UJDE0750J6DBD KCSM15	P61	6113961	UJDE1250N6ABF KCSM15	P62	6114190	UJDE1250N6JBB KCSM15	P63
6105089	CNMP542 KCP25B	B56	6113325	UJDE0750J6DBE KCSM15	P61	6113962	UJDE1250N6ABJ KCSM15	P62	6114231	UJDE1250N6EBK KCSM15	P63
6105091	CNML433RN KCP10B	B53	6113326	UJDE0750J6DBF KCSM15	P61	6113963	UJDE1250N6ABK KCSM15	P62	6114232	UJBE1250N6EBK KCSM15	P66
6105093	SPU423 KCP25B	B171	6113327	UJDE0750J6DBH KCSM15	P61	6113964	UJBE1250N6AB KCSM15	P66	6114532	UJDE1500N6XBB KCSM15	P63
6105094	SPU422 KCP25B	B171	6113328	UJBE0750J6EB KCSM15	P66	6113965	UJDE1250N6ABB KCSM15	P62	6114533	UJDE1500N6XBC KCSM15	P64
6105095	SPU421 KCP25B	B171	6113329	UJDE1000N6GBB KCSM15	P61	6113966	UJDE1250N6ABB KCSM15	P62	6114534	UJDE1500N6XBD KCSM15	P64
6105099	TPU321 KCP25B	B178	6113330	UJDE1000N6GBC KCSM15	P61	6113967	UJDE1250N6ABD KCSM15	P62	6114535	UJDE1500N6XBE KCSM15	P64
6105100	TPU432 KCP25B	B178	6113351	UJDE1000N6GBD KCSM15	P61	6113968	UJDE1250N6ABE KCSM15	P62	6114536	UJDE1500N6XBF KCSM15	P64
6105101	TPMR432 KCP25B	B177	6113352	UJDE1000N6GBE KCSM15	P61	6113969	UJDE1250N6ABH KCSM15	P62	6114537	UJDE1500N6XBJ KCSM15	P64
6105102	TPMR222 KCP25B	B177	6113353	UJDE1000N6GBH KCSM15	P61	6113970	UJDE1250N6ABF KCSM15	P62	6114538	UJDE1500N6XBJ KCSM15	P64
6105103	TPU322 KCP25B	B178	6113354	UJDE1000N6GBB KCSM15	P61	6113971	UJDE1250N6ABJ KCSM15	P62	6114539	UJDE1500N6XBK KCSM15	P64
6105104	TPU433 KCP25B	B178	6113355	UJDE1000N6GBC KCSM15	P61	6113972	UJDE1250N6ABK KCSM15	P62	6114540	UJDE1500N6XBD KCSM15	P64
6108706	SNMG434MG KCP25B	B103	6113356	UJBE1000N6GB KCSM15	P66	6113973	UJBE1250N6XBB KCSM15	P66	6114554	UJDE1500N6ABB KCSM15	P64
6109122	SDCT4316ENLD2 KCSM40	T115, T122, U38	6113357	UJDE1000N6GAB KCSM15	P61	6113974	UJDE1250N6XBB KCSM15	P62	6114555	UJDE1500N6ABC KCSM15	P64
6109124	SDET4316SNGB KCSM40	T116, T123, U39	6113358	UJDE1000N6GAB KCSM15	P61	6113975	UJDE1250N6XBC KCSM15	P62	6114556	UJDE1500N6ABD KCSM15	P64
6109130	SDET436ENGB KCSM40	T116, T123, U39	6113359	UJDE1000N6GAB KCSM15	P61	6113976	UJDE1250N6XBD KCSM15	P62	6114557	UJDE1500N6ABE KCSM15	P64
6109210	KTIP1595FEGM KCPM45	H36	6113360	UJDE1000N6GABE KCSM15	P61	6113977	UJDE1250N6XBE KCSM15	P62	6114558	UJDE1500N6ABH KCSM15	P64
6109265	SDET436SNGB KCSM40	T116, T123, U39	6113403	UJBE1000N6GBB KCSM15	P66	6113979	UJDE1250N6XBF KCSM15	P62	6114559	UJDE1500N6ABF KCSM15	P64
6111468	OFK753AFEN4GB KCPM40	S47	6113404	UJDE1000N6GBC KCSM15	P61	6113980	UJDE1250N6XBF KCSM15	P62	6114560	UJDE1500N6ABJ KCSM15	P64
6111469	OFK764AFEN6GB KCPM40	S52	6113405	UJDE1000N6GBC KCSM15	P61	6114001	UJDE1250N6XBJ KCSM15	P62	6114561	UJDE1500N6ABK KCSM15	P64
6111470	OFK764AFSNG6B KCPM40	S52	6113406	UJDE1000N6GCB KCSM15	P61	6114003	UJDE1250N6XBK KCSM15	P62	6114572	UJDE1500N6ABL KCSM15	P64
6111671	SDET433PDER8GB KCPM40	T116, T123, U39	6113407	UJDE1000N6GCB KCSM15	P61	6114004	UJBE1250N6XBB KCSM15	P66	6114573	UJBE1500N6ABB KCSM15	P66
6111672	SDET433PDER8GB2 KCPM40	T115, T122, U39	6113408	UJDE1000N6GCB KCSM15	P61	6114006	UJDE1250N6XBC KCSM15	P62	6114574	UJDE1500N6ABB KCSM15	P64
6111673	SDET435SNGB2 KCPM40	T115, T122, U39	6113409	UJDE1000N6GCB KCSM15	P61	6114007	UJDE1250N6XBD KCSM15	P62	6114575	UJDE1500N6ABB KCSM15	P64
6111674	SDET433PDER8GB2 KCPM40	T115, T122, U39	6113410	UJDE1000N6GCB KCSM15	P61	6114008	UJDE1250N6XBE KCSM15	P62	6114576	UJDE1500N6ABB KCSM15	P64
6111676	SEKT443AEN7GP2 KCPM40	S40	6113511	UJDE1000N6GCB KCSM15	P61	6114009	UJDE1250N6XBF KCSM15	P62	6114577	UJDE1500N6ABB KCSM15	P64
6111677	SEKT443AEN7GP2 KCPM40										



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6114676	UJDE1500N6ZBL KCSM15	P64	6116577	EVSBR2525M0426075100C	C49	6117356	EVSBL120416060075C	C47	6123749	KSEM361R5WD40M	H74
6114677	UJBE1500N6ZB KCSM15	P67	6116578	EVSBL2525M0426075100C	C50	6117357	EVSBR120416075100C	C46	6123750	KSEM370R5WD40M	H74
6114678	UJDE1500N6CBB KCSM15	P64	6116579	EVSBR2525M0426100180C	C49	6117358	EVSBL120416075100C	C47	6123751	KSEM380R5WD40M	H74
6114679	UJDE1500N6CBK KCSM15	P64	6116580	EVSBL2525M0426100180C	C50	6117359	EVSBR160426060075C	C46	6123752	KSEM390R5WD40M	H74
6114680	UJDE1500N6CBD KCSM15	P64	6116581	EVSBR2525M0426180250C	C49	6117360	EVSBL160426060075C	C47	6123753	KSEM400R5WD40M	H74
6114721	UJDE1500N6CBE KCSM15	P64	6116582	EVSBL2525M0426180250C	C50	6117381	EVSBR160426075100C	C46	6123754	KSEM1281R5SSF150	H83
6114722	UJDE1500N6CBK KCSM15	P64	6116583	EVSBR2525M0416100180C	C49	6117382	EVSBL160426075100C	C47	6123755	KSEM1297R5SSF150	H83
6114723	UJDE1500N6CBF KCSM15	P64	6116588	EVSBL2525M0416100180C	C50	6117383	EVSBR160426100180C	C46	6123756	KSEM1313R5SSF150	H83
6114724	UJDE1500N6CBJ KCSM15	P64	6116589	EVSBR2525M0416180250C	C49	6117384	EVSBL160426100180C	C47-48	6123757	KSEM1328R5SSF150	H83
6114725	UJDE1500N6CBK KCSM15	P64	6116590	EVSBL2525M0416180250C	C50	6117386	EVSBR160426180250C	C46	6123758	KSEM1344R5SSF150	H83
6114726	UJDE1500N6CBL KCSM15	P64	6116789	EVM50R0312A075100C	C61	6117387	EVSBL160426180250C	C47-48	6123759	KSEM1375R5SSF150	H83
6114727	UJBE1500N6CB KCSM15	P67	6116790	EVM50L0312A075100C	C62	6117402	EVSBR160416100180C	C46	6123760	KSEM1406R5SSF150	H83
6114729	UJDE1500N6FBB KCSM15	P64	6117023	KSEM3115HPGM KCPM45	H58	6117403	EVSBL160416100180C	C47	6123761	KSEM1422R5SSF150	H83
6114730	UJDE1500N6FBC KCSM15	P64	6117061	EVM50R0312B075100C	C63	6117404	EVSBR160416180250C	C46	6123762	KSEM1438R5SSF150	H83
6114751	UJDE1500N6FBD KCSM15	P64	6117062	EVM50L0312B075100C	C64	6117405	EVSBL160416180250C	C47	6123763	KSEM1469R5SSF150	H83
6114752	UJDE1500N6FBE KCSM15	P64	6117063	EVM50R0312A100180C	C61	6117419	CNMU444MN KCP25B	B51	6123764	KSEM1500R5SSF150	H83
6114753	UJDE1500N6FBH KCSM15	P64	6117064	EVM50L0312A100180C	C62	6117573	DNMM443RP KCP10B	B85	6123765	KSEM1514R5SSF150	H83
6114754	UJDE1500N6FBF KCSM15	P64	6117065	EVM50R0312B100180C	C63	6123362	KSEM3450FEGM KCPM45	H67	6123766	KTIPO313R12SS038	H39
6114755	UJDE1500N6FBK KCSM15	P64	6117066	EVM50L0312B100180C	C64	6123525	KTP080R12SS10M	H38	6123767	KTIPO335R12SS038	H39
6114756	UJDE1500N6FBK KCSM15	P64	6117067	EVM50R0312A180250C	C61	6123526	KTIPO85R12SS10M	H38	6123768	KTIPO354R12SS038	H39
6114757	UJDE1500N6FBL KCSM15	P65	6117068	EVM50L0312A180250C	C62	6123527	KTIPO90R12SS10M	H38	6123769	KTIPO945R12SS100	H39
6114758	UJBE1500N6FB KCSM15	P67	6117069	EVM50R0312B180250C	C63	6123528	KTIPO95R12SS10M	H38	6123770	KTIPO984R12SS100	H39
6114760	UJDE1500N6GBB KCSM15	P65	6117070	EVM50L0312B180250C	C64	6123529	KTIPO100R12SS12M	H38	6123791	KTIPO787R12SS081	H39
6114771	UJDE1500N6GBK KCSM15	P65	6117071	EVM50R0312A250350C	C61	6123530	KTIPO105R12SS12M	H38	6123792	KTIPO512R12SS044	H39
6114772	UJDE1500N6GBD KCSM15	P65	6117072	EVM50L0312A250350C	C62	6123570	WD32FDS28076M	H126	6123793	KTIPO413R12SS044	H39
6114773	UJDE1500N6GBE KCSM15	P65	6117073	EVM50R0312B250350C	C63	6123571	WD32FDS32082M	H126	6123794	KTIPO433R12SS044	H39
6114774	UJDE1500N6GBH KCSM15	P65	6117074	EVM50L0312B250350C	C64	6123572	WD32FDS36092M	H126	6123795	KTIPO453R12SS050	H39
6114775	UJDE1500N6GBF KCSM15	P65	6117075	EVM50R0312A350999C	C61	6123573	WD50FDS40100M	H126	6123796	KTIPO472R12SS050	H39
6114776	UJDE1500N6GBJ KCSM15	P65	6117076	EVM50L0312A350999C	C62	6123575	WD50FDS45112M	H126	6123797	KTIPO492R12SS056	H39
6114777	UJDE1500N6GBK KCSM15	P65	6117077	EVM50R0312B350999C	C63	6123576	WD50FDS50122M	H126	6123798	KTIPO512R12SS056	H39
6114778	UJDE1500N6GBL KCSM15	P65	6117078	EVM50L0312B350999C	C64	6123577	WD50FDS56140M	H126	6123799	KTIPO532R12SS056	H39
6114779	UJBE1500N6GB KCSM15	P67	6117079	EVM50R0416A100180C	C61	6123578	WD50FDS63154M	H126	6123800	KTIPO551R12SS056	H39
6115641	UJDE1500N6DBB KCSM15	P65	6117080	EVM50L0416A100180C	C62	6123579	WD50FDS71172M	H126	6123801	KTIPO571R12SS063	H39
6115642	UJDE1500N6DBC KCSM15	P65	6117091	EVM50R0416B100180C	C63	6123580	WD50FDS80192M	H126	6123802	KTIPO374R12SS044	H39
6115643	UJDE1500N6DBD KCSM15	P65	6117092	EVM50L0416B100180C	C64	6123581	WD50FDS90212M	H126	6123803	KTIPO906R12SS094	H39
6115644	UJDE1500N6DBE KCSM15	P65	6117093	EVM50R0416A180250C	C61	6123582	SSF150FDS280299	H128	6123804	KTIPO591R12SS063	H39
6115645	UJDE1500N6DBH KCSM15	P65	6117094	EVM50L0416A180250C	C62	6123583	SSF150FDS320323	H128	6123805	KTIPO630R12SS069	H39
6115646	UJDE1500N6DBF KCSM15	P65	6117095	EVM50R0416B180250C	C63	6123584	SSF150FDS360362	H128	6123806	KTIPO669R12SS069	H39
6115647	UJDE1500N6DBK KCSM15	P65	6117096	EVM50L0416B180250C	C64	6123585	SSF200FDS400394	H128	6123807	KTIPO709R12SS075	H39
6115648	UJDE1500N6DBL KCSM15	P65	6117097	EVM50R0416A250350C	C61	6123586	SSF200FDS450441	H128	6123808	KTIPO748R12SS075	H39
6115649	UJDE1500N6DBM KCSM15	P65	6117098	EVM50L0416A250350C	C62	6123587	SSF200FDS500480	H128	6123809	KTIPO1024R12SS125	H39
6115650	UJBE1500N6DB KCSM15	P67	6117099	EVM50R0416B250350C	C63	6123588	SSF200FDS560551	H128	6123810	KTIPO1063R12SS125	H39
6115651	UJDE1500N6HBB KCSM15	P65	6117100	EVM50L0416B250350C	C64	6123589	SSF200FDS630606	H128	6123811	KTIPO492R12SS050	H39
6115652	UJDE1500N6HBC KCSM15	P65	6117101	EVM50R0416A350999C	C61	6123590	SSF200FDS710677	H128	6123812	KTIPO374R12SS038	H39
6115653	UJDE1500N6HBD KCSM15	P65	6117102	EVM50L0416A350999C	C62	6123591	SSF200FDS800756	H128	6123813	KTIPO827R12SS088	H39
6115654	UJDE1500N6HBE KCSM15	P65	6117103	EVM50R0416B350999C	C63	6123592	SSF200FDS900835	H128	6123814	KTIPO866R12SS088	H39
6115655	UJDE1500N6HBF KCSM15	P65	6117104	EVM50L0416B350999C	C64	6123601	KTIPO110R12SS12M	H38	6124198	EVSBR2525M0526050060C	C50
6115656	UJDE1500N6HBJ KCSM15	P65	6117105	EVSBR120312040050C	C46	6123602	KTIPO145R12SS12M	H38	6124199	EVSBR2525M0526060075C	C50
6115657	UJDE1500N6HKB KCSM15	P65	6117118	EVSBL120312040050C	C47	6123603	KTIPO120R12SS14M	H38	6124200	EVSBR2525M0516060075C	C49
6115658	UJDE1500N6HKB KCSM15	P65	6117119	EVSBR120312050060C	C46	6123604	KTIPO125R12SS14M	H38	6124211	EVSBL2525M0516060075C	C50
6115659	UJDE1500N6HBL KCSM15	P65	6117120	EVSBL120312050060C	C47	6123605	KTIPO130R12SS14M	H38	6124212	EVSBR2525M0526060075C	C50
6115660	UJBE1500N6HB KCSM15	P67	6117164	EVSBR160526050060C	C47	6123607	KTIPO135R12SS14M	H38	6124213	EVSBL2525M0526060075C	C50
6116297	A32SEVSAR0312M033042	C57	6117165	EVSBL160526050060C	C47-48	6123608	KTIPO140R12SS16M	H38	6124214	EVSBR2525M0516075100C	C49
6116298	A32SEVSAR0312M033042	C57	6117166	EVSBR160516060075C	C46	6123609	KTIPO145R12SS16M	H38	6124215	EVSBL2525M0516075100C	C50
6116299	A40TEVSAR0312M041050	C57	6117167	EVSBL160516060075C	C47-48	6123610	KTIPO150R12SS16M	H38	6124216	EVSBR2525M0526075100C	C50
6116300	A40TEVSAR0312M041050	C57	6117168	EVSBR160526060075C	C47	6123611	KTIPO160R12SS18M	H38	6124217	EVSBL2525M0526075100C	C50
6116521	A25REVSAR0312M026030	C57	6117169	EVSBL160526060075C	C47-48	6123612	KTIPO175R12SS18M	H38	6124218	EVSBR2525M0516100180C	C49
6116522	A25REVSAR0312M030035	C57	6117170	EVSBR160516075100C	C46	6123613	KTIPO180R12SS20M	H38	6124219	EVSBL2525M0516100180C	C50
6116523	A25REVSAR0312M026030	C57	6117261	EVSBL160516075100C	C47-48	6123614	KTIPO190R12SS20M	H38	6124222	EVSBR2525M0516180250C	C49
6116528	A25REVSAR0312M030035	C57	6117262	EVSBR160526075100C	C47	6123615	KTIPO200R12SS25M	H38	6124223	EVSBL2525M0516180250C	C50
6116529	A20SEVSAR0312033042	C56	6117263	EVSBL160526075100C	C47-48	6123616	KTIPO210R12SS25M	H38	6124226	EVSBR2525M0516250350C	C49
6116530	A20SEVSAR0312033042	C56	6117264	EVSBR160516100180C	C46	6123617	KTIPO220R12SS25M	H38	6124227	EVSBL2525M0516250350C	C50
6116531	A24TEVSAR0312041050	C56	6117265	EVSBL160516100180C	C47-48	6123618	KTIPO230R12SS25M	H38	6124230	EVSBR2525M0516350999C	C50
6116532	A24TEVSAR0312041050	C56	6117268	EVSBR160516180250C	C46	6123619	KTIPO240R12SS25M	H38	6124232	EVSBL2525M0516350999C	C50
6116533	A16REVSAR0212026030	C56	6117269	EVSBL160516180250C	C47-48	6123620	KTIPO250R12SS32M	H38	6124235	EVSBR3232P0532100180C	C50
6116534	A16REVSAR0312030035	C56	6117272	EVSBR160516250350C	C46	6123621	KTIPO260R12SS32M	H38	6124236	EVSBL3232P0532100180C	C51
6116539	A16REVSAR0212026030	C56	6117273	EVSBL160516250350C	C47-48	6123622	KTIPO270R12SS32M	H38	6124237	EVSBR3232P0532180250C	C50
6116540	A16REVSAR0312030035	C56	6117276	EVSBR160516350999C	C47	6123704	KSEM321R3WD40M	H74	6124238	EVSBL3232P0532180250C	C50
6116561	EVSBR2020K0312040050C	C49	6117277	EVSBL160516350999C	C47-48	6123705	KSEM330R3WD40M	H74	6124239	EVSBR2525M0532250350C	C50
6116562	EVSBL2020K0312040050C	C50	6117280	EVSBR200532100180C	C47	6123706	KSEM340R3WD40M	H74	6124240	EVSBL3232P0532250350C	C51

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6124677	EVSB2525M0616180250C	C50	6131423	LNGU433SRGEM KCK15	T10	6136883	SS100SLD201000	055	6140141	T839M160X200RD7-A KSP39	M91
6124678	EVSB12525M0616180250C	C51	6131424	LNGU433SRGEM KCPK30	T10	6136884	SS100SLD250350	054	6140142	T839M180X150RD6-A KSP39	M91
6124681	EVSB2525M0616250350C	C50	6131425	LNGU433SRGEM KC520M	T10	6136885	SS100DL251000	055	6140594	T838NC#02-56RH2-A KSP39	M79
6124682	EVSB12525M0616250350C	C51	6131426	LNGU433SRGEM KCPM40	T10	6136886	SS125SLD250425	054	6140596	T838NC#03-48RH2-A KSP39	M79
6124685	EVSB2525M0616350999C	C50	6131428	LNU433SRGE KC522M	T10	6136887	SS125DL251000	055	6140598	T838NC#04-40RH2-A KSP32	M79
6124686	EVSB12525M0616350999C	C51	6131429	LNU433SRGE KCPM40	T10	6136888	SS125SLD320400	054	6140600	T838NC#04-40RH2-A KSP39	M79
6124689	EVSB3232P0632100180C	C50	6131430	LNU433SRGE KC725M	T10	6136889	SS125DL321000	055	6140601	T838NC#04-40RH3-A KSP39	M79
6124690	EVSB1232P0632100180C	C51	6131502	LNU432SRGE KC522M	T10	6136890	SS150SLD320550	054	6140602	T838NC#04-40RH4-A KSP39	M79
6124691	EVSB3232P0632180250C	C50	6131503	LNU432SRGE KCPM40	T10	6136891	SS150DL321000	055	6140603	T838NC#04-40RH5-A KSP39	M79
6124692	EVSB1232P0632180250C	C51	6131504	LNU432SRGE KCK15	T10	6136892	SS200SLD320750	054	6140604	T838NF#04-48RH2-A KSP39	M79
6124693	EVSB3232P0632250350C	C50	6131505	LNU432SRGE KCPK30	T10	6136893	SS200DL321000	055	6140605	T838NC#05-40RH2-A KSP39	M79
6124694	EVSB1232P0632250350C	C51	6131506	LNU432SRGE KC520M	T10	6136895	HSK63ADL10200	052	6140606	T838NC#06-32RH2-A KSP39	M79
6124695	EVSB3232P0632250350C	C50	6131507	LNU432SRGE KCK15	T10	6136896	HSK63ADL12225	052	6140607	T838NC#06-32RH3-A KSP32	M79
6124696	EVSB1232P0632250350C	C51	6131511	LNU433SRGE KCPK30	T10	6136897	HSK63ADL16225	052	6140608	T838NC#06-32RH3-A KSP39	M79
6125373	B271Z15300HPG KCPK20	G69	6131512	LNU433SRGE KC520M	T10	6136898	HSK63ADL20225	052	6140609	T838NC#06-32RH4-A KSP39	M79
6126918	RKDF0375Y4CQA KCSM15	035	6131513	LNU433SRGE KCK15	T10	6136899	HSK63ADL25250	052	6140610	T838NC#06-32RH5-A KSP39	M79
6126919	RKDF0500Y4CQB KCSM15	035	6131514	LNGU431ERGE KC725M	T9	6136900	HSK63ADL32288	052	6140611	T838NC#06-32RH7-A KSP39	M79
6126920	RKDF0625Y4CQB KCSM15	035	6131515	LNGU431ERGE KC522M	T9	6136931	PS063DL10200	052	6140612	T838NF#06-40RH2-A KSP39	M79
6127051	RKDF0750Y6CQB KCSM15	035	6131516	LNGU431ERGE KCPM40	T9	6136932	PS063DL12200	052	6140613	T838NF#06-40RH3-A KSP39	M79
6127052	RKDF1000Y6CQB KCSM15	035	6131541	LNGU432ERGE KC725M	T9	6136933	PS063DL16225	052	6140614	T838NC#08-32RH2-A KSP39	M79
6127058	FSDE0375Y9CQA KC643M	043	6131542	LNGU432ERGE KC522M	T9	6136934	PS063DL20225	052	6140615	T838NC#08-32RH3-A KSP32	M79
6127059	FSDE0375Y9CQB KC643M	043	6131543	LNGU432ERGE KCPM40	T9	6136935	PS063DL25238	052	6140616	T838NC#08-32RH3-A KSP39	M79
6127060	FSDE0375Y9CQC KC643M	043	6131544	LNGU432ERGE KCSM30	T9	6136936	PS063DL32275	052	6140617	T838NC#08-32RH4-A KSP39	M79
6127162	RQBB0375Y4CN KCPM15	036	6131556	LNGU432ERLEJ KC422M	T10	6136937	CV40BDL10162	053	6140618	T838NC#08-32RH5-A KSP39	M79
6127163	RQBB0500Y4CN KCPM15	036	6131557	LNU434SRGE KC522M	T10	6136938	CV40BDL12162	053	6140619	T838NC#08-32RH6-A KSP39	M79
6127165	RQBB0625Y4CN KCPM15	036	6131558	LNU434SRGE KCPM40	T10	6136939	CV40BDL16200	053	6140620	T838NC#08-32RH7-A KSP39	M79
6127166	RQBB0750Y4CN KCPM15	036	6131559	LNU434SRGE KC725M	T10	6136940	CV40BDL20200	053	6140621	T838NC#10-24RH2-A KSP39	M79
6127168	RQBB1000Y4CN KCPM15	036	6131560	LNU434SRGE KCPK30	T10	6136941	CV40BDL25225	053	6140622	T838NC#10-24RH3-A KSP32	M79
6127211	FSDE0375Y9CQB KC643M	043	6131601	LNU434SRGE KC520M	T10	6136942	CV40BDL32250	053	6140623	T838NC#10-24RH3-A KSP39	M79
6127212	FSDE0500Y9CQA KC643M	043	6131602	LNGU432SRGEM KCK15	T10	6136943	BT40BDL10200	053	6140624	T838NC#10-24RH4-A KSP39	M79
6127213	FSDE0500Y9CQB KC643M	043	6131603	LNGU432SRGEM KCPK30	T10	6136944	BT40BDL12200	053	6140625	T838NC#10-24RH5-A KSP39	M79
6127214	FSDE0500Y9CQC KC643M	043	6131604	LNGU432SRGEM KC520M	T10	6136945	BT40BDL16225	053	6140626	T838NC#10-24RH7-A KSP39	M79
6127215	FSDE0500Y9CQD KC643M	043	6131605	LNGU432SRGEM KC522M	T10	6136946	BT40BDL20225	053	6140627	T838NF#10-32RH2-A KSP39	M79
6127216	FSDE0500Y9CQE KC643M	043	6131606	LNGU432SRGEM KCPM40	T10	6136947	BT40BDL25238	053	6140628	T838NF#10-32RH3-A KSP32	M79
6127217	FSDE0625Y11CQA KC643M	043	6132022	LNGU432SRGE KC522M	T9	6136948	BT40BDL32275	053	6140629	T838NF#10-32RH3-A KSP39	M79
6127218	FSDE0625Y11CQB KC643M	043	6132023	LNGU432SRGE KCPM40	T9	6137128	DNMG332FP KCPK05	B80	6140630	T838NF#10-32RH4-A KSP39	M80
6127219	FSDE0625Y11CQC KC643M	043	6132024	LNGU432SRGE KCK15	T9	6137163	DNMG331FP KCPK05	B80	6140631	T838NF#10-32RH5-A KSP39	M80
6127220	FSDE0625Y11CQD KC643M	043	6132025	LNGU432SRGE KCPK30	T9	6139893	M4D1001103M10L110	T4	6140632	T838NF#10-32RH7-A KSP39	M80
6127231	FSDE0625Y11CQE KC643M	043	6132026	LNGU432SRGE KCK15	T9	6139894	M4D1001104M12L125	T4	6140633	T838NF#10-32RH7-A KSP39	M80
6127232	FSDE0750Y15CQB KC643M	043	6132452	KSEM3750SPLM KCM35	H65	6139895	M4D125L1105M16L175	T4	6140634	T838NC#12-24RH3-A KSP39	M80
6127233	FSDE0750Y15CQC KC643M	043	6133656	KSEM2950SPLM KCM35	H65	6139896	M4D1001103W075L175	T5	6140635	T838NF#12-28RH3-A KSP39	M80
6127234	FSDE0750Y15CQD KC643M	043	6134103	MILL16E300Z080N08W	S30	6139897	M4D1001105W125L225	T5	6140636	T838NC02500-20RH2-A KSP39	M80
6127235	FSDE0750Y15CQE KC643M	043	6134104	MILL16E400Z100N08W	S30	6139898	M4D062L1102C062L600	T6	6140637	T838NC02500-20RH3-A KSP32	M80
6127236	FSDE1000Y19CQB KC643M	043	6134105	MILL16E500Z140N08W	S30	6139899	M4D075L1103C075L600	T6	6140638	T838NC02500-20RH3-A KSP39	M80
6127237	FSDE1000Y19CQC KC643M	043	6134106	MILL16E600Z160N08W	S30	6139900	M4D1001104C100L700	T6	6140639	T838NC02500-20RH5-A KSP39	M80
6127238	FSDE1000Y19CQD KC643M	043	6134107	MILL16E800Z200N08W	S30	6139921	M4D125L1104C125L800	T6	6140640	T838NC02500-20RH7-A KSP39	M80
6127239	FSDE1000Y19CQE KC643M	043	6134108	MILL16E1000Z240N08W	S30	6139922	M4D150L1106S050L157	T7	6140671	T838NF02500-28RH2-A KSP39	M80
6127240	FSDE1000Y19CQF KC643M	043	6135413	TWDTLM	056	6139923	M4D125L1107S015L157	T7	6140672	T838NF02500-28RH3-A KSP32	M80
6127351	XADA0375Y4CQA KCPM15	048	6135414	TWTMINsertDL10	056	6139924	M4D300L1108S125L175	T7	6140673	T838NF02500-28RH3-A KSP39	M80
6127352	XADA0500Y5CQA KCPM15	048	6135415	TWTMINsertDL12	056	6139928	M4D062L1102W062L100	T5, T11	6140674	T838NC05000-13RH3-A KSP32	M80
6127353	XADA0625Y6CQA KCPM15	048	6135416	TWTMINsertDL16	056	6139929	M4D075L1102W075L110	T5, T11	6140675	T838NF02500-28RH3-A KSP39	M80
6127415	RQDB0375Y4CVC KCPM15	034	6135417	TWTMINsertDL20	056	6139930	M4D075L1103W075L110	T5, T11	6140676	T838NC05000-13RH3-A KSP39	M80
6127416	RQDB0500Y4CVC KCPM15	034	6135418	TWTMINsertDL25	056	6140051	M4D100L1103W100L175	T5, T11	6140677	T838NF02500-28RH5-A KSP39	M80
6127417	RQDB0625Y4CVC KCPM15	034	6135419	TWTMINsertDL32	056	6140052	M4D125L1104W125L225	T5, T11	6140678	T838NC05000-13RH3-A KSP39	M80
6127418	RQDB0750Y4CVC KCPM15	034	6135420	TWTMINsertDL10W	056	6140053	M4D062L1102C062L400	T6, T11	6140679	T838NF02500-28RH6-A KSP39	M80
6127419	RQDB1000Y5CVC KCPM15	034	6135421	TWTMINsertDL12W	056	6140054	M4D075L1103C075L400	T6, T11	6140680	T838NC05000-13RH7-A KSP39	M80
6127558	FMDF0375Y6CQA KCPM15	042	6135422	TWTMEXT	056	6140055	M4D125L1105C125L500	T6, T11	6140681	T838NF02500-28RH7-A KSP39	M80
6127559	FMDF0500Y6CQB KCPM15	042	6135423	TWTMBC	056	6140056	M4D100L1104C100L450	T6, T11	6140682	T838NF05000-20RH3-A KSP32	M80
6127560	FMDF0625Y6CQB KCPM15	042	6136780	TCMT3253LF KCP10B	B257	6140057	M4D100L1103C100L700	T6	6140683	T838NC03125-18RH3-A KSP32	M80
6127581	FMDF0750Y6CQB KCPM15	042	6136780	SS038SLD1100225	055	6140058	M4D125L1105C125L500	T6, T11	6140684	T838NF05000-20RH3-A KSP39	M80
6127582	FMDF1000Y6CQB KCPM15	042	6136861	SS038DL100375	055	6140059	M4D150L1105S050L157	T7, T11	6140685	T838NC03125-18RH3-A KSP39	M80
6127709	XRDA0375Y4CQC KCPM15	049	6136862	SS050SLD1100250	054	6140060	M4D200L1105S075L157	T7, T11	6140686	T838NF05000-20RH5-A KSP39	M80
6127710	XRDA0375Y4CQE KCPM15	049	6136863	SS050DL100500	055	6140061	M4D200L1107S075L157	T7, T11	6140687	T838NC03125-18RH3-A KSP39	M80
6127711	XRDA0500Y5CQB KCPM15	049	6136864	SS062SLD1100350	054	6140062	M4D250L1107S075L157	T7	6140688	T838NF05000-20RH6-A KSP39	M80
6127712	XRDA0500Y5CQC KCPM15	049	6136865	SS062DL100625	055	6140063	M4D300L1108S100L175	T7	6140689	T838NC03125-18RH7-A KSP39	M80
6127713	XRDA0500Y5CQE KCPM15	049	6136866	SS075SLD1100450	054	6140064	HNEC535ANSN KY3500	S23	6140690	T838NF05000-20RH7-A KSP39	M80
6127714	XRDA0625Y6CQC KCPM15	049	6136867	SS075DL100750	055	6140065	T839M030X050RD3-A KSP39	M91	6140691	T838NF03125-24RH3-A KSP32	M80
6127715	XRDA0625Y6CQE KCPM15	049	6136868	SS050SLD1120250	054	6140066	T839M035X060RD4-A KSP39	M91	6140692	T838NC05625-12RH3-A KSP39	M80
6127885	EP1004SGE KCPM40	T37	6136869	SS050DL100500	055	6140067	T839M040X070RD4-A KSP39	M91	6140693	T838NC05625-12RH3-A KSP32	M80
6127886	EP1008SGE KCPM40	T37	6136870	SS062SLD120325							

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6140707	T838NC06250-11RH7-A KSP39	M80	6140829	T838M080X125RD5-A KSP39	M90	6151115	ABDF0750Y2CU K600	O28	6163130	KSEM2750SPLM KCM35	H64
6140708	T838NF03750-24RH3-A KSP32	M80	6140830	T838NF05625-18RH3-A KSP39	M83	6151491	VDIB1M302040C	C75	6163131	KSEM2800SPLM KCM35	H64
6140709	T838NF06250-18RH3-A KSP32	M80	6140841	T838MF100X125RD5-A KSP39	M80	6151492	VDIB1M402544C	C75	6163132	KSEM2850SPLM KCM35	H64
6140710	T838NF03750-24RH3-A KSP39	M80	6140842	T838NC06250-11RH3-A KSP39	M80	6151493	VDIB2M302040C	C75	6163133	KSEM2900SPLM KCM35	H65
6140711	T838NF06250-18RH3-A KSP39	M80	6140843	T838M100X150RD6-A KSP39	M90	6151494	VDIB2M402544C	C75	6163134	KSEM3050SPLM KCM35	H65
6140712	T838NF03750-24RH4-A KSP39	M80	6140844	T839NC06250-11RH5-A KSP39	M83	6151495	VDIB3M302040C	C76	6163135	KSEM3100SPLM KCM35	H65
6140713	T838NF06250-18RH5-A KSP39	M80	6140845	T838M100X150RD6-A KSP32	M90	6151496	VDIB3M402544C	C76	6163136	KSEM3150SPLM KCM35	H65
6140714	T838NF03750-24RH5-A KSP39	M80	6140846	T839NF06250-18RH3-A KSP39	M83	6151498	VDIB4M302040C	C76	6163137	KSEM3250SPLM KCM35	H65
6140715	T838NF06250-18RH6-A KSP39	M81	6140847	T838MF120X125RD5-A KSP39	M90	6151499	VDIB4M402544C	C76	6163138	KSEM3350SPLM KCM35	H65
6140716	T838NF03750-24RH6-A KSP39	M80	6140848	T839NF06250-18RH5-A KSP39	M80	6151500	VDIB5M302040C	C77	6163139	KSEM3400SPLM KCM35	H65
6140717	T838NF06250-18RH7-A KSP39	M81	6140849	T838MF120X150RD5-A KSP39	M90	6151511	VDIB5M402544C	C77	6163141	KSEM3450SPLM KCM35	H65
6140718	T838NC04375-14RH3-A KSP32	M80	6140850	T839NC07500-10RH3-A KSP39	M83	6151512	VDIB6M302040C	C77	6163142	KSEM3500SPLM KCM35	H65
6140719	T838NC07500-16RH3-A KSP32	M81	6140851	T838M120X175RD6-A KSP32	M90	6151513	VDIB6M402544C	C77	6163143	KSEM3550SPLM KCM35	H65
6140720	T838NC04375-14RH3-A KSP39	M80	6140852	T839NF07500-16RH3-A KSP39	M83	6151514	VDIC1M302070C	C78	6163144	KSEM3600SPLM KCM35	H65
6140721	T838NC07500-10RH3-A KSP39	M81	6140853	T838M120X175RD6-A KSP39	M90	6151515	VDIC1M402585C	C78	6163145	KSEM3650SPLM KCM35	H65
6140722	T838NC04375-14RH5-A KSP39	M80	6140854	T838MF140X150RD6-A KSP39	M90	6151516	VDIC2M302070C	C78	6163146	KSEM3700SPLM KCM35	H65
6140723	T838NC07500-10RH5-A KSP39	M81	6140855	T838M140X200RD7-A KSP39	M90	6151517	VDIC2M402585C	C78	6163147	KSEM3800SPLM KCM35	H65
6140724	T838NC04375-14RH7-A KSP39	M80	6140856	T838MF160X150RD6-A KSP39	M90	6151518	VDIC3M302070C	C79	6163148	KSEM3850SPLM KCM35	H65
6140725	T838NF07500-16RH3-A KSP32	M81	6140857	T838M160X200RD7-A KSP39	M90	6151519	VDIC3M402585C	C79	6163149	KSEM3900SPLM KCM35	H65
6140726	T838NF04375-20RH3-A KSP32	M80	6140858	T838MF180X150RD5-A KSP39	M90	6151520	VDIC4M302070C	C79	6163150	KSEM3950SPLM KCM35	H65
6140727	T838NF07500-16RH3-A KSP39	M81	6140859	T838M180X250RD7-A KSP39	M90	6151521	VDIC4M402585C	C79	6163300	KTIPO350FEG KCPM45	H36
6140728	T838NF04375-20RH3-A KSP39	M80	6143903	3SE0031R007A KC633M	Q16	6151522	CNMG4305LF KCP25B	B50	6163381	KTIPO1010FEGM KCPM45	H36
6140729	T838NF07500-16RH5-A KSP39	M81	6143904	3SE0047R011A KC633M	Q16	6151523	CNMG431LF KCP25B	B50	6163382	KTIPO170FEGM KCPM45	H36
6140730	T838NF04375-20RH5-A KSP39	M81	6143905	3SE0062R019A KC633M	Q16	6151524	CNMG432LF KCP25B	B50	6163383	KSEM1031FEG KCPM45	H67
6140731	T838NC08750-9RH4-A KSP39	M81	6143906	3SE0078R011A KC633M	Q16	6151527	CNMG643MG KCP25B	B57	6163384	KSEM2580FEGM KCPM45	H67
6140732	T838NF04375-20RH6-A KSP39	M80	6143907	3SE0094R037A KC633M	Q16	6151528	CNMM432MR KCP25B	B54	6163385	KSEM1101FEG KCPM45	H67
6140733	T838NF08750-14RH4-A KSP39	M81	6143908	3SE0109R037A KC633M	Q16	6151529	CNMM543MR KCP25B	B54	6163386	KSEM1031FEG KCPM45	H67
6140734	T838NF04375-20RH7-A KSP39	M80	6143909	3SE0125R025A KC633M	Q16	6151530	CNMM544MR KCP25B	B54	6163387	KSEM3050FEGM KCPM45	H67
6140735	T838NC10000-8RH5-A KSP39	M81	6143910	3SE0125L050A KC633M	Q16	6151562	DNMP332K KCP25B	B86	6163388	KSEM3150FEGM KCPM45	H67
6140736	T838NC10000-8RH5-A KSP32	M81	6143911	3SE0125X062A KC633M	Q16	6151565	VNMG632LF KCP25B	B145	6163389	KSEM3950FEGM KCPM45	H67
6140737	T838NF1000-12RH4-A KSP39	M81	6143943	3SE0156R056A KC633M	Q16	6151567	RCMH64K KCP10B	B239	6163390	KSEM3350FEGM KCPM45	H67
6140738	T838NC11250-7RH6-A KSP39	M81	6143944	3SE0188S031A KC633M	Q16	6152251	D315CFA	S31	6163411	KSEM3550FEGM KCPM45	H67
6140739	T839NC#04-40RH2-A KSP39	M82	6143945	3SE0188R056A KC633M	Q16	6152252	D355CFA	S31	6163412	KSEM3650FEGM KCPM45	H68
6140740	T839NC#04-40RH3-A KSP39	M82	6143946	3SE0188L062A KC633M	Q16	6152253	D400CFA	S31	6163413	KSEM3750FEGM KCPM45	H68
6140741	T839NC#04-40RH5-A KSP39	M82	6143947	3SE0188K100A KC633M	Q16	6152254	D500CFA	S31	6163414	KSEM3850FEGM KCPM45	H68
6140742	T839NC#05-40RH2-A KSP39	M82	6143949	3SE0219R062A KC633M	Q16	6153948	ABDE0375Y3CQA K600	O29	6163415	KSEM3950FEGM KCPM45	H68
6140743	T839NC#06-32RH2-A KSP39	M82	6143950	3SE0219L075A KC633M	Q16	6153949	ABDE0375Y3CQB K600	O29	6163504	KSEM029HPG KCPM45	H57
6140744	T839NC#06-32RH3-A KSP39	M82	6143951	3SE0250R050A KC633M	Q16	6153950	ABDE0375Y3CQC K600	O29	6163505	KSEM1965HPG KCPM45	H57
6140745	T839NC#06-32RH5-A KSP39	M82	6143952	3SE0250R075A KC633M	Q16	6153951	ABDE0375Y3CQD K600	O29	6163506	RNGJ1031MDELJ KCSM40	V48
6140746	T839NF#06-40RH2-A KSP39	M82	6143953	3SE0250L100A KC633M	Q16	6153952	ABDE0500Y3CQA K600	O29	6163507	RNGJ1204MOSGDJ KCSM40	V55
6140747	T839NF#06-40RH3-A KSP39	M82	6143954	3SE0250X150A KC633M	Q16	6153953	ABDE0500Y3CQB K600	O29	6163508	RNPJ1605MOSGD KCSM40	V59
6140748	T839NC#08-32RH2-A KSP39	M82	6143955	3SE0281R075A KC633M	Q16	6153954	ABDE0500Y3CQC K600	O29	6163509	LNGU432SRGE KCSM40	T19
6140749	T839NC#08-32RH3-A KSP39	M82	6143956	3SE0281L081A KC633M	Q16	6153955	ABDE0500Y3CQD K600	O29	6165400	LNGU542SRGE KCSM40	T19
6140750	T839NC#08-32RH5-A KSP39	M82	6143957	3SE0312R050A KC633M	Q16	6153956	ABDE0500Y3CQE K600	O29	6165421	LNGU543SRGE KCSM40	T19
6140751	T839NC#10-24RH3-A KSP39	M82	6143958	3SE0312L081A KC633M	Q16	6153957	ABDE0625Y3CQA K600	O29	6165422	LNGU544BERGE KCSM40	T18
6140752	T839NC#10-24RH5-A KSP39	M82	6143962	3SE0375S050A KC633M	Q16	6153958	ABDE0625Y3CQB K600	O29	6165423	LNGU543ERGE KCSM40	T18
6140753	T839NF#10-32RH3-A KSP39	M82	6143963	3SE0375R088A KC633M	Q16	6153959	ABDE0625Y3CQC K600	O29	6165759	HNPJ43ANSNGD KCSM40	S7, S13, S16
6140754	T839NF#10-32RH5-A KSP39	M82	6143964	3SE0375L100A KC633M	Q16	6153960	ABDE0750Y3CQD K600	O29	6165760	HNPJ43ANSNHD KCSM40	S7, S13, S16
6140755	T839NC02500-20RH3-A KSP39	M82	6143965	3SE0375X112A KC633M	Q16	6153961	ABDE0625Y3CQE K600	O29	6165861	HNPJ43ANSNHD KCSM40	S7, S13, S16
6140756	T839NC02500-20RH5-A KSP39	M82	6143967	3SE0437R062A KC633M	Q16	6153963	ABDE0750Y3CQB K600	O29	6165863	XNGJ43ANSLD3W KCSM40	S12
6140757	T839NF02500-20RH3-A KSP39	M82	6143968	3SE0437L088A KC633M	Q16	6153964	ABDE0750Y3CQC K600	O29	6165864	HNGJ432SRGE KCSM40	S7, S12, S16
6140758	T839NF02500-20RH5-A KSP39	M82	6143969	3SE0437X100A KC633M	Q16	6153965	ABDE0750Y3CQD K600	O29	6167534	FSDE0375J9BCA KC643M	P98
6140759	T839NC03125-18RH3-A KSP39	M82	6143970	3SE0500R100A KC633M	Q16	6153966	ABDE0750Y3CQE K600	O29	6167535	FSDE0375J9BCB KC643M	P98
6140800	T839NC03125-18RH5-A KSP39	M82	6143971	3SE0500L200A KC633M	Q17	6153967	ABDE1000Y3CQB K600	O29	6167536	FSDE0500J9BCB KC643M	P98
6140801	T839NF03125-24RH3-A KSP39	M82	6143973	3SE0563R112A KC633M	Q17	6153968	ABDE1000Y3CQC K600	O29	6167537	FSDE0500J9BCB KC643M	P98
6140802	T839NF03125-24RH5-A KSP39	M82	6143974	3SE0625R075A KC633M	Q17	6153969	ABDE1000Y3CQD K600	O29	6167538	FSDE0500J9BCB KC643M	P98
6140803	T839NC03750-16RH3-A KSP39	M82	6143975	3SE0625L125A KC633M	Q17	6153970	ABDE1000Y3CQE K600	O29	6167539	FSDE0500J9BCB KC643M	P98
6140804	T839NC03750-16RH5-A KSP39	M82	6143976	3SE0750R100A KC633M	Q17	6153971	ABDE1000Y3CQF K600	O29	6167540	FSDE0750J9BCA KC643M	P98
6140805	T838M030X050RD3-A KSP32	M90	6143977	3SE0750L150A KC633M	Q17	6159069	MILL16E200Z040N08SC	S32	6167551	FSDE0750J9BCB KC643M	P98
6140806	T839NF03750-24RH3-A KSP39	M82	6143978	3SE0750X225A KC633M	Q17	6159070	MILL16E250Z040N08SC	S32	6167552	FSDE0750J9BCB KC643M	P98
6140807	T838M030X050RD3-A KSP39	M90	6143979	3SE1000R150A KC633M	Q17	6159072	MILL16E300Z050N08SC	S32	6167553	FSDE0750J9BCE KC643M	P98
6140808	T839NF03750-24RH4-A KSP39	M82	6143980	3SE1000X225A KC633M	Q17	6159074	MILL16E400Z060N08SC	S32	6167554	FSDE1000J9BCA KC643M	P98
6140809	T838M035X060RD4-A KSP39	M90	6145034	3SE0563R112B KC633M	Q17	6159076	MILL16E500Z080N08SC	S32	6167555	FSDE1000J9BCB KC643M	P98
6140810	T839NF03750-24RH5-A KSP39	M83	6145035	3SE0625R075B KC633M	Q17	6159078	MILL16E600Z100N08SC	S32	6167556	FSDE1000J9BCC KC643M	P98
6140811	T838M040X070RD4-A KSP32	M90	6145036	3SE0625L125B KC633M	Q17	6159080	MILL16E800Z100N08SC	S32	6167557	FSDE1000J9BCE KC643M	P98
6140812	T839NC04375-14RH3-A KSP39	M83	6145038	3SE0750L150B KC633M	Q17	6159082	MILL16E1000Z120N08SC	S32	6168013	SDCT43PDER8L2 KCSM40	T115, T122, U38
6140813	T838M040X070RD4-A KSP39	M90	6145039	3SE0750X225B KC633M	Q17	6160117	5720VZ16HA050Z4R75	T99	6168014	SDCT433PDER8L2 KCSM40	T115, T122
6140814	T839NC04375-14RH5-A KSP39	M83	6145041	3SE1000X225B KC633M	Q17	6160743	C7792VKE16-A1.5/4.00Z7R	V26	6168015	SDCT433PDER8GB KCSM40	T116, T123, U39
6140815	T838M050X080RD4-A KSP32	M90	6145374	1-16NPTF-JIC	C83	6160744	C7792VKE16-A1.5/4.00Z9R	V26	6168016	SDCT434ENL2 KCSM40	T115, T122, U38
6140816	T839NF04375-20RH3-A KSP39	M83	6145375	1-8NPTF-JIC	C83	6162808	EP1816EHD KCPM40	T84	6168017	SDCT438ENL2 KCSM40	T115, T122
6140817	T838M050X080RD4-A KSP39	M90	6145376	G18-JIC	C83	6162809	EP1832EHD KCPM40	T84	6168018	SDCT43PDER8B2 KCSM40	T115, T122, U39
6140818	T839NF04375-20RH5-A KSP39	M83	6145377	M10-JIC	C83	6162869	KSEM1830SPLM KCM35	H64	6168019	SDCT431ENGB KCSM40	T116, T123, U39
6140819	T838M060X100RD5-A KSP32	M90	6145378	M8-JIC	C83	6162870	KSEM0797SPL KCM35	H64	6168020	SDCT4312NGB KCSM40	T116, T123, U39
6140820	T839NC05000-13RH3-A KSP39	M83	6145379	JICM-JIC-ELB	C83	6163121	KSEM2250SPLM KCM35	H64	6168101	SDCT4312ENGB KCSM40	T116, T123, U39
6140821	T838M060X100RD5-A KSP39	M90	6145380	COOL-HOSE-200	C83	6163122	KSEM2350SPLM K				

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6168102	SDET438SNGB KCSM40	T116, T123, U39	6172686	T839M100X150R6H-D1 KUSJ1	M97	6173083	T838NF10000-12R2B-D4 KSP39	M86	6173271	T838NF#10-32R2B-D1 KUSJ1	M85
6168103	SDET438ENGB KCSM40	T116, T123, U39	6172687	T839M120X175R6H-D6 KSP39	M97	6173084	T838NF10000-12R2B-D4 KUSJ1	M86	6173272	T838NC#12-24R2B-D1 KSP39	M85
6168104	SDET434SNGB KCSM40	T116, T123, U39	6172688	T839M120X175R6H-D6 KUSJ1	M97	6173085	T838NC1250-7R2B-D6 KSP39	M86	6173273	T838NC#12-24R2B-D1 KUSJ1	M85
6168105	SDET434ENGB KCSM40	T116, T123, U39	6172689	T839M140X200R6H-D6 KSP39	M97	6173086	T838NC1250-7R2B-D6 KUSJ1	M86	6173274	T838NF#12-28R2B-D1 KSP39	M85
6168106	SDET433PDR8GB KCSM40	T116, T123, U39	6172690	T839M140X200R6H-D6 KUSJ1	M97	6173087	T838NF1250-12R2B-D4 KSP39	M86	6173275	T838NF#12-28R2B-D1 KUSJ1	M85
6171518	EC1408EGD KCSM40	T57, T68	6172701	T839M160X200R6H-D6 KSP39	M97	6173088	T838NF1250-12R2B-D4 KUSJ1	M86	6173276	T838NC02500-20R2B-D1 KSP39	M85
6171519	EC1412EGD KCSM40	T57, T68	6172702	T839M160X200R6H-D6 KUSJ1	M97	6173089	T838NF12500-7R2B-D6 KSP39	M86	6173277	T838NC02500-20R2B-D1 KUSJ1	M85
6171520	EC1416EGD KCSM40	T57, T68	6172703	T839M180X250R6H-D6 KSP39	M97	6173090	T838NC12500-7R2B-D6 KUSJ1	M86	6173278	T838NC02500-20R2B-D6 KSP39	M85
6171591	EC1431EGD KCSM40	T57, T68	6172704	T839M180X250R6H-D6 KUSJ1	M97	6173091	T838NF12500-12R2B-D4 KSP39	M86	6173279	T838NC02500-20R2B-D6 KUSJ1	M85
6172122	EP1408EHD KCSM40	T57, T68	6172705	T839M200X250R6H-D6 KSP39	M97	6173092	T838NF12500-12R2B-D4 KUSJ1	M86	6173280	T838NF02500-28R2B-D1 KSP39	M85
6172123	EP1412EHD KCSM40	T57, T68	6172706	T839M200X250R6H-D6 KUSJ1	M97	6173093	T838NC13750-6R2B-D6 KSP39	M86	6173281	T838NF02500-28R2B-D1 KUSJ1	M85
6172124	EP1416EHD KCSM40	T57, T68	6172707	T838NC05625-12R2B-D6 KSP39	M85	6173094	T838NC13750-6R2B-D6 KUSJ1	M86	6173282	T838NF02500-28R2B-D4 KSP39	M85
6172125	EP1420EHD KCSM40	T57, T68	6172708	T838NC05625-12R2B-D6 KUSJ1	M85	6173095	T838NC13750-12R2B-D4 KSP39	M86	6173283	T838NC02500-12R2B-D6 KUSJ1	M85
6172126	EP1424EHD KCSM40	T57, T68	6172709	T838NF05625-18R2B-D4 KSP39	M85	6173096	T838NF13750-12R2B-D4 KUSJ1	M86	6173284	T838NC03125-18R2B-D1 KSP39	M85
6172127	EP1431EHD KCSM40	T57, T68	6172710	T838NF05625-18R2B-D4 KUSJ1	M85	6173097	T838NC15000-6R2B-D6 KSP39	M86	6173285	T838NC03125-18R2B-D1 KUSJ1	M85
6172128	EP1435EHD KCSM40	T57, T68	6172711	T838M020X040R6H-D1 KSP39	M95	6173098	T838NC15000-6R2B-D6 KUSJ1	M86	6173286	T838NC03125-18R2B-D4 KSP39	M85
6172129	EP1439EHD KCSM40	T57, T68	6172712	T838M020X040R6H-D1 KUSJ1	M95	6173099	T838NF15000-12R2B-D4 KSP39	M86	6173287	T838NC03125-18R2B-D6 KUSJ1	M85
6172130	EP1412SGD KCSM40	T58, T70	6172713	T838M030X050R6H-D1 KSP39	M95	6173100	T838NF15000-12R2B-D4 KUSJ1	M86	6173288	T838NF03125-24R2B-D4 KSP39	M85
6172131	EP1416SGD KCSM40	T58, T70	6172714	T838M030X050R6H-D1 KUSJ1	M95	6173101	T838NF15000-5R2B-D6 KSP39	M86	6173289	T838NF03125-24R2B-D1 KUSJ1	M85
6172132	EP1408SGE KCSM40	T58, T69	6172715	T838M040X070R6H-D1 KSP39	M95	6173102	T838NC17500-5R2B-D6 KUSJ1	M86	6173290	T838NC03750-16R2B-D1 KSP39	M85
6172133	EP1412SGE KCSM40	T58, T69	6172716	T838M040X070R6H-D1 KUSJ1	M95	6173103	T838NC20000-4,5R2B-D6 KSP39	M86	6173301	T838NC03750-16R2B-D1 KUSJ1	M85
6172134	EP1416SGE KCSM40	T58, T69	6172717	T838M050X080R6H-D1 KSP39	M95	6173104	T838NC20000-4,5R2B-D6 KUSJ1	M86	6173302	T838NC02500-12R2B-D4 KSP39	M85
6172135	EP1418SGE KCSM40	T58, T69	6172718	T838M050X080R6H-D6 KSP39	M95	6173105	T838M160X200R6H-D6 KUSJ1	M95	6173303	T838NC03750-16R2B-D6 KUSJ1	M85
6172136	EP1422SGE KCSM40	T58, T69	6172719	T838M060X100R6H-D1 KSP39	M95	6173106	T838MF180X150R6H-D4 KSP39	M96	6173304	T838NF03750-24R2B-D4 KSP39	M85
6172137	EP1426SGE KCSM40	T58, T69	6172720	T838M060X100R6H-D1 KUSJ1	M95	6173107	T838MF180X150R6H-D4 KUSJ1	M96	6173305	T838NF03750-24R2B-D4 KUSJ1	M85
6172138	EP1812S KCSM40	T85	6172721	T838M060X100R6H-D4 KSP39	M95	6173108	T838MF180X200R6H-D4 KSP39	M96	6173306	T838NC04375-14R2B-D6 KSP39	M85
6172139	EP1816S KCSM40	T85	6172722	T838M060X100R6H-D4 KUSJ1	M95	6173109	T838MF180X200R6H-D4 KUSJ1	M96	6173307	T838NC04375-14R2B-D6 KUSJ1	M85
6172140	EP1820S KCSM40	T85	6172723	T838M060X100R6H-D6 KSP39	M95	6173110	T838MF180X250R6H-D6 KSP39	M96	6173308	T838NF04375-20R2B-D4 KSP39	M85
6172141	EP1824S KCSM40	T85	6172724	T838M060X100R6H-D6 KUSJ1	M95	6173111	T838MF200X250R6H-D6 KUSJ1	M96	6173309	T838NF04375-20R2B-D4 KUSJ1	M85
6172142	EP1828S KCSM40	T85	6172725	T838M060X100R6H-D1 KSP39	M95	6173112	T838MF200X250R6H-D6 KSP39	M96	6173310	T838NF05000-13R2B-D6 KSP39	M85
6172143	EP1832S KCSM40	T85	6172726	T838M060X100R6H-D1 KUSJ1	M95	6173113	T838MF200X250R6H-D6 KUSJ1	M96	6173311	T838NF05000-13R2B-D6 KUSJ1	M85
6172144	EP1836S KCSM40	T85	6172727	T838M060X100R6H-D4 KSP39	M95	6173114	T838MF200X250R6H-D6 KUSJ1	M96	6173312	T838NF05000-20R2B-D4 KSP39	M85
6172145	EP1840S KCSM40	T85	6172728	T838M060X100R6H-D4 KUSJ1	M95	6173115	T838MF200X250R6H-D6 KUSJ1	M96	6173313	T838NF05000-20R2B-D4 KUSJ1	M85
6172146	EP1844S KCSM40	T85	6172729	T838M060X100R6H-D6 KSP39	M95	6173116	T838MF220X250R6H-D4 KSP39	M96	6173314	T838NF05000-24R2B-D4 KSP39	M85
6172147	EP1848S KCSM40	T85	6172730	T838M060X100R6H-D6 KUSJ1	M95	6173117	T838MF220X250R6H-D4 KUSJ1	M96	6173315	T838NF05000-24R2B-D4 KUSJ1	M85
6172148	EP1852S KCSM40	T85	6172731	T838M060X100R6H-D1 KSP39	M95	6173118	T838MF220X250R6H-D6 KSP39	M96	6173316	T838NF05000-24R2B-D4 KUSJ1	M85
6172149	EP1856S KCSM40	T85	6172732	T838M060X100R6H-D1 KUSJ1	M95	6173119	T838MF220X250R6H-D6 KUSJ1	M96	6173317	T838NF05000-24R2B-D4 KUSJ1	M85
6172150	EP1860S KCSM40	T85	6172733	T838M060X100R6H-D4 KSP39	M95	6173120	T838MF220X250R6H-D6 KUSJ1	M96	6173318	T838NF05000-24R2B-D4 KUSJ1	M85
6172151	EP1864S KCSM40	T85	6172734	T838M060X100R6H-D4 KUSJ1	M95	6173121	T838MF220X250R6H-D6 KUSJ1	M96	6173319	T838NF05000-24R2B-D4 KUSJ1	M85
6172152	EP1868S KCSM40	T85	6172735	T838M060X100R6H-D6 KSP39	M95	6173122	T838MF220X250R6H-D6 KUSJ1	M96	6173320	T838NF05000-24R2B-D4 KUSJ1	M85
6172153	EP1872S KCSM40	T85	6172736	T838M060X100R6H-D6 KUSJ1	M95	6173123	T838MF220X250R6H-D6 KUSJ1	M96	6173321	T838NF05000-24R2B-D4 KUSJ1	M85
6172154	EP1876S KCSM40	T85	6172737	T838M060X100R6H-D1 KSP39	M95	6173124	T838MF220X250R6H-D6 KUSJ1	M96	6173322	T838NF05000-24R2B-D4 KUSJ1	M85
6172155	EP1880S KCSM40	T85	6172738	T838M060X100R6H-D1 KUSJ1	M95	6173125	T838MF220X250R6H-D6 KUSJ1	M96	6173323	T838NF05000-24R2B-D4 KUSJ1	M85
6172156	EP1884S KCSM40	T85	6172739	T838M060X100R6H-D4 KSP39	M95	6173126	T838MF220X250R6H-D6 KUSJ1	M96	6173324	T838NF05000-24R2B-D4 KUSJ1	M85
6172157	EP1888S KCSM40	T85	6172740	T838M060X100R6H-D4 KUSJ1	M95	6173127	T838MF220X250R6H-D6 KUSJ1	M96	6173325	T838NF05000-24R2B-D4 KUSJ1	M85
6172158	EP1892S KCSM40	T85	6172741	T838M060X100R6H-D6 KSP39	M95	6173128	T838MF220X250R6H-D6 KUSJ1	M96	6173326	T838NF05000-24R2B-D4 KUSJ1	M85
6172159	EP1896S KCSM40	T85	6172742	T838M060X100R6H-D6 KUSJ1	M95	6173129	T838MF220X250R6H-D6 KUSJ1	M96	6173327	T838NF05000-24R2B-D4 KUSJ1	M85
6172160	EP1900S KCSM40	T85	6172743	T838M060X100R6H-D1 KSP39	M95	6173130	T838MF220X250R6H-D6 KUSJ1	M96	6173328	T838NF05000-24R2B-D4 KUSJ1	M85
6172161	EP1904S KCSM40	T85	6172744	T838M060X100R6H-D1 KUSJ1	M95	6173131	T838MF220X250R6H-D6 KUSJ1	M96	6173329	T838NF05000-24R2B-D4 KUSJ1	M85
6172162	EP1908S KCSM40	T85	6172745	T838M060X100R6H-D4 KSP39	M95	6173132	T838MF220X250R6H-D6 KUSJ1	M96	6173330	T838NF05000-24R2B-D4 KUSJ1	M85
6172163	EP1912S KCSM40	T85	6172746	T838M060X100R6H-D4 KUSJ1	M95	6173133	T838MF220X250R6H-D6 KUSJ1	M96	6173331	T838NF05000-24R2B-D4 KUSJ1	M85
6172164	EP1916S KCSM40	T85	6172747	T838M060X100R6H-D6 KSP39	M95	6173134	T838MF220X250R6H-D6 KUSJ1	M96	6173332	T838NF05000-24R2B-D4 KUSJ1	M85
6172165	EP1920S KCSM40	T85	6172748	T838M060X100R6H-D6 KUSJ1	M95	6173135	T838MF220X250R6H-D6 KUSJ1	M96	6173333	T838NF05000-24R2B-D4 KUSJ1	M85
6172166	EP1924S KCSM40	T85	6172749	T838M060X100R6H-D1 KSP39	M95	6173136	T838MF220X250R6H-D6 KUSJ1	M96	6173334	T838NF05000-24R2B-D4 KUSJ1	M85
6172167	EP1928S KCSM40	T85	6172750	T838M060X100R6H-D1 KUSJ1	M95	6173137	T838MF220X250R6H-D6 KUSJ1	M96	6173335	T838NF05000-24R2B-D4 KUSJ1	M85
6172168	EP1932S KCSM40	T85	6172751	T838M060X100R6H-D4 KSP39	M95	6173138	T838MF220X250R6H-D6 KUSJ1	M96	6173336	T838NF05000-24R2B-D4 KUSJ1	M85
6172169	EP1936S KCSM40	T85	6172752	T838M060X100R6H-D4 KUSJ1	M95	6173139	T838MF220X250R6H-D6 KUSJ1	M96	6173337	T838NF05000-24R2B-D4 KUSJ1	M85
6172170	EP1940S KCSM40	T85	6172753	T838M060X100R6H-D6 KSP39	M95	6173140	T838MF220X250R6H-D6 KUSJ1	M96	6173338	T838NF05000-24R2B-D4 KUSJ1	M85
6172171	EP1944S KCSM40	T85	6172754	T838M060X100R6H-D6 KUSJ1	M95	6173141	T838MF220X250R6H-D6 KUSJ1	M96	6173339	T838NF05000-24R2B-D4 KUSJ1	M85
6172172	EP1948S KCSM40	T85	6172755	T838M060X100R6H-D1 KSP39	M95	6173142	T838MF220X250R6H-D6 KUSJ1	M96	6173340	T838NF05000-24R2B-D4 KUSJ1	M85
6172173	EP1952S KCSM40	T85	6172756	T838M060X100R6H-D1 KUSJ1	M95	6173143	T838MF220X250R6H-D6 KUSJ1	M96	6173341	T838NF05000-24R2B-D4 KUSJ1	M85
6172174	EP1956S KCSM40	T85	6172757	T838M060X100R6H-D4 KSP39	M95	6173144	T838MF220X250R6H-D6 KUSJ1	M96	6173342	T838NF05000-24R2B-D4 KUSJ1	M85
6172175	EP1960S KCSM40	T85	6172758	T838M060X100R6H-D4 KUSJ1	M95	6173145	T838MF220X250R6H-D6 KUSJ1	M96	6173343	T838NF05000-24R2B-D4 KUSJ1	M85
6172176	EP1964S KCSM40	T85	6172759	T838M060X100R6H-D6 KSP39	M95	6173146	T838MF220X250R6H-D6 KUSJ1	M96	6173344	T838NF05000-24R2B-D4 KUSJ1	M85
6172177	EP1968S KCSM40</										



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6179400	EVSCFR080216	C38	6180129	EVSCFR101B16	C42	6202340	ONPX642SNGP KCK20	S34	6231870	EG250106U2GUN KCP10B	C21
6179709	EVSCFL1010K1B10	C45	6180130	EVSCFR101F16	C42	6202371	ONPX645SNHB KCK20	S30	6231881	EG31208U3GUN KCP10B	C21
6179710	EVSCFL1010K1F10	C45	6180141	EVSCFR100216	C42	6205876	BTQSW3L90	S34	6231882	EG375110U3GUN KCP10B	C21
6179721	EVSCFR080316C	C38	6180142	EVSCFR100316C	C42	6214774	M4-11KTD0622Z0062SSEKCPM40	T11	6231883	EG09402U05GUN KCP25B	C21
6179722	EVSCFL081B16	C38	6180143	EVSCFR121B16	C42	6214775	M4-11KTD0622Z0062SSEKCPM40	T11	6231884	EG12503U05GUN KCP25B	C21
6179723	EVSCFL081F16	C38	6180144	EVSCFR121F16	C42	6214776	M4-11KTD0752Z0075SSEKCPM40	T11	6231885	EG12503U1GUN KCP25B	C21
6179724	EVSCFL080216	C38	6180146	EVSCFR120216	C42	6214777	M4-11KTD0752Z0075SSEKCPM40	T11	6231886	EG18704U2GUN KCP25B	C21
6179725	EVSCFL080316C	C39	6180147	EVSCFR120316C	C42	6214778	M4-11KTD0752Z0075SSEKCPM40	T11	6231887	EG18704U2GUN KCP25B	C21
6179726	EVSCFL061B10	C43	6180436	DNMG333CT KCP10B	B79	6214779	M4-11KTD100Z3W100SSEKCPM40	T11	6231888	EG250106U1GUN KCP25B	C21
6179727	EVSCFL060216	C43	6181213	LNUX191940S-WT5 KCP25B	E59	6214780	M4-11KTD100Z4C100SSEKCPM40	T11	6231889	EG250106U2GUN KCP25B	C21
6179728	EVSCFL060210	C43	6181214	NPR13M05F KCP25B	E36	6214801	M4-11KTD125Z4W125SSEKCPM40	T11	6231890	EG31208U3GUN KCP25B	C21
6179729	EVSCFL081B10	C43	6181215	SNMX190640S-WT5 KCP25B	E59	6214802	M4-11KTD125Z5C125SSEKCPM40	T11	6231891	EG375110U3GUN KCP25B	C21
6179730	EVSCFL081B13	C43	6181216	NPR5M05 KCP25B	E36	6214803	M4-11KTD150Z5S050SSEKCPM40	T11	6231892	EG09402U05GUN KCK20B	C21
6179731	EVSCFL081F10	C43	6181217	NPR13M05N KCP25B	E35	6214804	M4-11KTD200Z5S075SSEKCPM40	T11	6231893	EG12503U05GUN KCK20B	C21
6179732	EVSCFL081F13	C43	6181311	CNM1190740RPP KCP10B	E59	6214805	M4-11KTD200Z7S075SSEKCPM40	T11	6231894	EG375110U3GUN KCK20B	C21
6179733	EVSCFL080210	C43	6181316	RCMX2507M076 KCP25B	E59	6214806	M4-11KTD0622Z0062SSEKCPM40	T11	6231895	EG18704U1GUN KCK20B	C21
6179734	EVSCFL080216	C43	6183779	RIQB6C4500S KBHK10	K59	6214807	M4-11KTD0622Z0062SSEKCPM40	T11	6231896	EG18704U2GUN KCK20B	C21
6179735	EVSCFL080310C	C43	6183780	RIQB7C4500S KBHK10	K59	6214808	M4-11KTD0752Z0075SSEKCPM40	T11	6231897	EG250106U1GUN KCK20B	C21
6179736	EVSCFL080316C	C43	6183831	RIQ07C4500S KBHK10	K59	6214809	M4-11KTD0752Z0075SSEKCPM40	T11	6231898	EG250106U2GUN KCK20B	C21
6179737	EVSCFL101B16	C43	6183832	RIQ08C4500S KBHK10	K59	6214810	M4-11KTD100Z3W100SSEKCPM40	T11	6231899	EG31208U3GUN KCK20B	C21
6179738	EVSCFL101F16	C43	6183833	RIQ09C4500S KBHK10	K59	6214821	M4-11KTD100Z4C100SSEKCPM40	T11	6231900	EG375110U3GUN KCK20B	C21
6179739	EVSCFL100216	C43	6183834	RIQB6C4500S KBHK15	K59	6214822	M4-11KTD125Z4W125SSEKCPM40	T11	6231902	ER0212M02U00GUP KCU10	C19
6179740	EVSCFL100316C	C43	6183836	RIQB7C4500S KBHK15	K59	6214823	M4-11KTD125Z5C125SSEKCPM40	T11	6231903	ER0200M02POOGUP KCU10	C19
6179751	EVSCFL121B16	C43	6183837	RIQ07C4500S KBHK15	K59	6214824	M4-11KTD150Z5S050SSEKCPM40	T11	6231904	ER0212M02U00GUP KCU10	C19
6179752	EVSCFL121F16	C43	6183838	RIQ08C4500S KBHK15	K59	6214825	M4-11KTD200Z5S075SSEKCPM40	T11	6231905	ER0212M02U00GUP KCU25	C19
6179753	EVSCFL120216	C43	6183839	RIQ09C4500S KBHK15	K59	6214826	M4-11KTD200Z7S075SSEKCPM40	T11	6231906	ER0200M02POOGUP KCU25	C19
6179754	EVSCFL120316C	C43	6185769	XPT060308ERD41 KCSM40	V7	6226803	LNUX191940RFSM KCP25B	E58	6231907	ER0212M02U00GUP KCU25	C19
6179755	EVSCFR1212K0316C	C40	6185770	XEPT160512ERD41 KCSM40	V28	6228171	NG2031L KCK20B	C170	6231908	ER0212M02U00GUP KCP10B	C19
6179756	EVSCFL1212K0316C	C41	6185921	XDPT090408ERD41 KCSM40	V15	6228172	NG2031R KCK20B	C170	6231910	ER0212M02U00GUP KCP10B	C21
6179757	EVSCFR1212K1B16	C40	6185922	XDPT090412ERD41 KCSM40	V15	6228173	NG2041L KCK20B	C170	6231911	ER0212M02U00GUP KCP25B	C19
6179758	EVSCFR1212K1F16	C40	6187383	SDPT43PDR8GB2 KCSM40	T11, T16, T123, U39	6228174	NG2041R KCK20B	C170	6231913	ER0212M02U00GUP KCP25B	C21
6179759	EVSCFR1212K0216	C40	6187384	SDPT43PDR8GB2 KCSM40	T11, T16, T123, U39	6228175	NG2047R KCK20B	C170	6231914	ER0212M02U00GUP KCK20B	C21
6179760	EVSCFL1212K1B16	C41				6228176	NG2062L KCK20B	C170	6231915	ER09402U00GUN KCU10	C22
6179761	EVSCFL1212K1F16	C41				6228177	NG2062R KCK20B	C170	6231916	ER12503U00GUN KCU10	C22
6179762	EVSCFL1212K0216	C41	6187511	XPPW060310SRD KCPM40	V7	6228178	NG2094L KCK20B	C170	6231917	ER18704U00GUN KCU10	C22
6179763	EVSCFR1010K1B10	C44	6187512	XPPW060310SRD KCPK30	V7	6228179	NG2094R KCK20B	C170	6231918	ER250106U00GUN KCU10	C22
6179764	EVSCFR1010K1F10	C44	6187513	XPPW060310SRD KC522M	V7	6228180	NG2125L KCK20B	C170	6231919	ER31208U00GUN KCU10	C22
6179765	EVSCFR1010K0210	C44	6187514	XPPW060310SRD KC510M	V7	6228181	NG3047L KCK20B	C170	6231920	ER09402U00GUN KCU25	C22
6179766	EVSCFR1212K1B10	C44	6187535	XDPW090412SRD KCPM40	V15	6228182	NG3047R KCK20B	C170	6231921	ER12503U00GUN KCU25	C22
6179767	EVSCFR1212K1B13	C44	6187536	XDPW090412SRD KCPK30	V15	6228183	NG3062L KCK20B	C170	6231922	ER18704U00GUN KCU25	C22
6179768	EVSCFR1212K1F10	C44	6187537	XDPW090412SRD KCK15	V15	6228184	NG3062R KCK20B	C170	6231923	ER250106U00GUN KCU25	C22
6179769	EVSCFR1212K1F13	C44	6187538	XDPW090412SRD KC522M	V15	6228185	NG3072R KCK20B	C170	6231924	ER31208U00GUN KCU25	C22
6179770	EVSCFR1212K0210	C44	6187539	XDPW090412SRD KC510M	V15	6228186	NG3078R KCK20B	C170	6231925	ER09402U00GUN KCP10B	C22
6179771	EVSCFR1212K0216	C44	6187714	XEPW160520SRD KCPM40	V28	6228187	NG3088R KCK20B	C170	6231926	ER12503U00GUN KCP10B	C22
6179772	EVSCFR1212K0316C	C44	6187715	XEPW160520SRD KCPK30	V28	6228188	NG3094L KCK20B	C170	6231927	ER18704U00GUN KCP10B	C22
6179773	EVSCFR1212K0316C	C44	6187716	XEPW160520SRD KCK15	V28	6228189	NG3094R KCK20B	C170	6231928	ER250106U00GUN KCP10B	C22
6179774	EVSCFR1616K1B16	C44	6187717	XEPW160520SRD KC522M	V28	6228190	NG3097R KCK20B	C170	6231929	ER31208U00GUN KCP10B	C22
6179775	EVSCFR1616K1F16	C44	6187806	XDPT120508ERD41 KCSM40	V22	6228191	NG3105R KCK20B	C170	6231930	ER09402U00GUN KCP25B	C22
6179776	EVSCFR1616K0216	C44	6187808	XDPT120512ERD41 KCSM40	V22	6228192	NG3125L KCK20B	C171	6231931	ER12503U00GUN KCP25B	C22
6179777	EVSCFR1616K0316C	C44	6191237	KSDR100031EOWOS KD1400	S105	6228193	NG3125R KCK20B	C170	6231932	ER18704U00GUN KCP25B	C22
6179778	EVSCFR2020K1B16	C44	6191238	KSDR100031EOWOS KD1425	S105	6228194	NG3156R KCK20B	C170	6231933	ER250106U00GUN KCP25B	C22
6179779	EVSCFR2020K1F16	C44	6191358	RCGT64ELF KCSM40	V89	6228195	NG3189L KCK20B	C171	6231934	ER31208U00GUN KCP25B	C22
6179780	EVSCFR2020K0216	C44	6191359	RCGT64SHF KCSM40	V89	6228196	NG3189R KCK20B	C170	6231935	ER09402U00GUN KCK20B	C22
6179781	EVSCFR2020K0316C	C44	6191360	RCGT86ELF KCSM40	V92	6228197	NG4125R KCK20B	C170	6231936	ER12503U00GUN KCK20B	C22
6179921	EVSCFL1010K0210	C45	6191511	RCGT86SHF KCSM40	V92	6228198	NG4189L KCK20B	C171	6231937	ER18704U00GUN KCK20B	C22
6179922	EVSCFL1212K1B10	C45	6191557	XEPT160516ERD41 KCPM40	V28	6228199	NG4189R KCK20B	C170	6231938	ER250106U00GUN KCK20B	C22
6179923	EVSCFL1212K1B13	C45	6191558	XEPT160516ERD41 KCPK30	V28	6228200	NG4250L KCK20B	C171	6231939	ER31208U00GUN KCK20B	C22
6179924	EVSCFL1212K1F10	C45	6191559	XEPT160516ERD41 KC522M	V28	6228201	NG4250R KCK20B	C170	6232054	MDRHEC250S3025 KCPM15	P91
6179925	EVSCFL1212K1F13	C45	6191642	XDPT090412SRGP KCPM40	V16	6231686	EG09402U05GUN KCU10	C21	6232055	MDRHEC250S3075 KCPM15	P91
6179926	EVSCFL1212K0210	C45	6191643	XDPT090412SRGP KCPK30	V16	6231687	EG12503U05GUN KCU10	C21	6295898	CNGA431S0415MT KBH10	B330
6179927	EVSCFL1212K0216	C45	6191644	XDPT090412SRGP KC725M	V16	6231688	EG12503U1GUN KCU10	C21	6295899	CNGA431S0415FWMT KBH10	B330
6179928	EVSCFL1212K0310C	C45	6191645	XDPT090412SRGP KC522M	V16	6231689	EG18704U1GUN KCU10	C21	6295900	CNGA432S0415MT KBH10	B330
6179929	EVSCFL1212K0316C	C45	6197561	DTQ50140	S30	6231690	EG18704U2GUN KCU10	C21	6295921	CNGA432S0415FWMT KBH10	B330
6179930	EVSCFL1616K1B16	C45	6200729	LNQU434SRGEM KCK15	T10	6231851	EG250106U1GUN KCU10	C21	6295922	CNGA433S0415MT KBH10	B330
6179931	EVSCFL1616K1F16	C45	6200730	LNQU434SRGEM KCPK30	T10	6231852	EG250106U2GUN KCU10	C21	6295923	CNGA432S0525MT KBH10	B330
6179932	EVSCFL1616K0216	C45	6201021	LNQU434SRGEM KC520M	T10	6231853	EG31208U3GUN KCU10	C21	6295925	CNGA432S0525FWMT KBH10	B330
6179933	EVSCFL1616K0316C	C45	6201022	LNQU434SRGEM KCPM40	T10	6231854	EG375110U3GUN KCU10	C21	6295926	CNGA433S0525MT KBH10	B330
6179934	EVSCFL2020K1B16	C45	6201279	LNQU431SRGE KC522M	T9	6231855	EG09402U05GUN KCU25	C21	6295927	CNGA433S0525FWMT KBH10	B330
6179935	EVSCFL2020K1F16	C45	6201280	LNQU431SRGE KCPM40	T9	6231856	EG12503U05GUN KCU25	C21	6295928	CNGA432S0735MT KBH10	B330
6179936	EVSCFL2020K0216	C45	6201291	LNQU431SRGE KCSM40	T9	6231857	EG12503U1GUN KCU25	C21	6295929	CNGA433S0735MT KBH10	B330
6179937	EVSCFL2020K0316C	C45	6201292	LNQU431ERLEJ K422M	T8	6231858	EG18704U1GUN KCU25	C21	6295930	DNGA431S0415MT KBH10	B334
6180116	EVSCFR061B10	C42	6201351	LNQU433ERGE KCSM40	T						

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6295953	.....DNGA443S0415MT KBH10	.....B334	6343061	.....TWDL25TM	.....056	6350389	.....B211A03861SGL KCMS15	.....G30	6350481	.....B211A11000SGL KCMS15	.....G32
6295954	.....DNGA442S0525MT KBH10	.....B334	6343062	.....TWDL32TM	.....056	6350390	.....B211A03900SGL KCMS15	.....G30	6350482	.....B211A11100SGL KCMS15	.....G32
6295955	.....DNGA443S0525MT KBH10	.....B334	6348983	.....B273Z16000HPG KCPK15	.....G72	6350391	.....B211A04000SGL KCMS15	.....G30	6350483	.....B211A1113SGL KCMS15	.....G32
6295956	.....SNGA432S0415MT KBH10	.....B337	6348984	.....B274Z13500HPG KCPK15	.....G74	6350392	.....B211A04039SGL KCMS15	.....G30	6350484	.....B211A11200SGL KCMS15	.....G32
6295957	.....SNGA432S0525MT KBH10	.....B337	6348985	.....B274Z14000HPG KCPK15	.....G74	6350393	.....B211A04100SGL KCMS15	.....G30	6350485	.....B211A11400SGL KCMS15	.....G32
6295958	.....SNGA433S0525MT KBH10	.....B337	6348986	.....B274Z15000HPG KCPK15	.....G74	6350394	.....B211A04200SGL KCMS15	.....G30	6350486	.....B211A11500SGL KCMS15	.....G32
6295959	.....TNGA331S0415MT KBH10	.....B339	6348987	.....B275Z02500HPG KCPK20	.....G75	6350395	.....B211A044217SGL KCMS15	.....G30	6350487	.....B211A11700SGL KCMS15	.....G32
6295960	.....TNGA332S0415MT KBH10	.....B339	6348988	.....B275Z03000KMG KCPK20	.....G75	6350396	.....B211A04300SGL KCMS15	.....G30	6350488	.....B211A11800SGL KCMS15	.....G32
6295971	.....TNGA333S0415MT KBH10	.....B339	6348989	.....B275Z03175HPG KCPK20	.....G75	6350397	.....B211A04366SGL KCMS15	.....G30	6350489	.....B211A12000SGL KCMS15	.....G32
6295972	.....TNGA332S0525MT KBH10	.....B339	6348990	.....B275Z03500HPG KCPK20	.....G75	6350398	.....B211A04400SGL KCMS15	.....G30	6350490	.....B211A12100SGL KCMS15	.....G32
6295973	.....TNGA333S0525MT KBH10	.....B339	6349001	.....B275Z03571HPG KCPK20	.....G75	6350399	.....B211A04500SGL KCMS15	.....G30	6350491	.....B211A12200SGL KCMS15	.....G32
6295974	.....TNGA332S0735MT KBH10	.....B339	6349002	.....B275Z03970HPG KCPK20	.....G75	6350400	.....B211A04600SGL KCMS15	.....G30	6350492	.....B211A12300SGL KCMS15	.....G32
6295975	.....TNGA333S0735MT KBH10	.....B339	6349003	.....B275Z04000HPG KCPK20	.....G75	6350401	.....B211A04700SGL KCMS15	.....G30	6350493	.....B211A12400SGL KCMS15	.....G32
6295976	.....VNGA331S0415MT KBH10	.....B342	6349004	.....B275Z04200HPG KCPK20	.....G75	6350402	.....B211A04763SGL KCMS15	.....G31	6350494	.....B211A12700SGL KCMS15	.....G32
6295977	.....VNGA332S0415MT KBH10	.....B342	6349006	.....B275Z04763HPG KCPK20	.....G75	6350403	.....B211A04800SGL KCMS15	.....G31	6350495	.....B211A12800SGL KCMS15	.....G32
6295978	.....VNGA331S0525MT KBH10	.....B342	6349007	.....B275Z05000HPG KCPK20	.....G75	6350404	.....B211A04852SGL KCMS15	.....G31	6350496	.....B211A12900SGL KCMS15	.....G32
6295979	.....VNGA332S0525MT KBH10	.....B342	6349008	.....B275Z05500HPG KCPK20	.....G75	6350405	.....B211A04900SGL KCMS15	.....G31	6350497	.....B211A13000SGL KCMS15	.....G32
6295980	.....WNGA432S0415MT KBH10	.....B343	6349009	.....B275Z05558HPG KCPK20	.....G75	6350406	.....B211A05000SGL KCMS15	.....G31	6350498	.....B211A13100SGL KCMS15	.....G32
6295991	.....WNGA432S0525MT KBH10	.....B343	6349010	.....B275Z06000HPG KCPK20	.....G75	6350407	.....B211A05100SGL KCMS15	.....G31	6350499	.....B211A13200SGL KCMS15	.....G32
6295992	.....CGGW21505S0415MT KBH10	.....B328	6349011	.....B275Z06350HPG KCPK20	.....G75	6350408	.....B211A05106SGL KCMS15	.....G31	6350500	.....B211A13300SGL KCMS15	.....G32
6295993	.....CGGW2151S0415MT KBH10	.....B328	6349012	.....B275Z06500HPG KCPK20	.....G75	6350409	.....B211A05159SGL KCMS15	.....G31	6350501	.....B211A13500SGL KCMS15	.....G32
6295994	.....CGGW32505S0415MT KBH10	.....B328	6349013	.....B275Z06800HPG KCPK20	.....G75	6350410	.....B211A05200SGL KCMS15	.....G31	6350502	.....B211A13700SGL KCMS15	.....G32
6295995	.....CGGW3251S0415MT KBH10	.....B328	6349014	.....B275Z07000HPG KCPK20	.....G75	6350411	.....B211A05300SGL KCMS15	.....G31	6350503	.....B211A14000SGL KCMS15	.....G32
6295996	.....CGGW3252S0415MT KBH10	.....B328	6349015	.....B275Z07145HPG KCPK20	.....G75	6350412	.....B211A05400SGL KCMS15	.....G31	6350504	.....B211A14100SGL KCMS15	.....G32
6295997	.....CGGW3252S0415FWMT KBH10	.....B328	6349016	.....B275Z07500HPG KCPK20	.....G75	6350413	.....B211A05500SGL KCMS15	.....G31	6350505	.....B211A14300SGL KCMS15	.....G33
6295998	.....CGGW3251S0525MT KBH10	.....B328	6349017	.....B275Z07938HPG KCPK20	.....G75	6350414	.....B211A05558SGL KCMS15	.....G31	6350506	.....B211A14400SGL KCMS15	.....G33
6296000	.....CGGW3252S0525MT KBH10	.....B328	6349018	.....B275Z08000HPG KCPK20	.....G75	6350415	.....B211A05600SGL KCMS15	.....G31	6350507	.....B211A14500SGL KCMS15	.....G33
6296002	.....DCGW21505S0415MT KBH10	.....B332	6349020	.....B275Z0833HPG KCPK20	.....G75	6350416	.....B211A05700SGL KCMS15	.....G31	6350508	.....B211A14600SGL KCMS15	.....G33
6296004	.....DCGW2151S0415MT KBH10	.....B332	6349021	.....B275Z09000HPG KCPK20	.....G75	6350417	.....B211A05800SGL KCMS15	.....G31	6350509	.....B211A14800SGL KCMS15	.....G33
6296007	.....DCGW32505S0415MT KBH10	.....B332	6349022	.....B275Z09525HPG KCPK20	.....G75	6350418	.....B211A05900SGL KCMS15	.....G31	6350510	.....B211A15000SGL KCMS15	.....G33
6296008	.....DCGW3251S0415MT KBH10	.....B332	6349023	.....B275Z10000HPG KCPK20	.....G75	6350419	.....B211A05954SGL KCMS15	.....G31	6350511	.....B211A15100SGL KCMS15	.....G33
6296009	.....DCGW3252S0415MT KBH10	.....B332	6349024	.....B275Z10200HPG KCPK15	.....G75	6350420	.....B211A06000SGL KCMS15	.....G31	6350512	.....B211A15300SGL KCMS15	.....G33
6296010	.....DCGW3252S0415FWMT KBH10	.....B332	6349025	.....B275Z10320HPG KCPK15	.....G75	6350421	.....B211A06100SGL KCMS15	.....G31	6350513	.....B211A15500SGL KCMS15	.....G33
6296021	.....DCGW2151S0525MT KBH10	.....B332	6349027	.....B273Z16000HPS KN25	.....G72	6350422	.....B211A06200SGL KCMS15	.....G31	6350514	.....B211A15700SGL KCMS15	.....G33
6296022	.....DCGW3251S0525MT KBH10	.....B332	6349028	.....B274Z13500HPS KN25	.....G74	6350423	.....B211A06300SGL KCMS15	.....G31	6350515	.....B211A15875SGL KCMS15	.....G33
6296023	.....DCGW3252S0525MT KBH10	.....B332	6349029	.....B274Z14000HPS KN25	.....G74	6350424	.....B211A06350SGL KCMS15	.....G31	6350516	.....B211A16000SGL KCMS15	.....G33
6296024	.....DCGW3252S0525FWMT KBH10	.....B332	6349030	.....B274Z15000HPS KN25	.....G74	6350425	.....B211A06400SGL KCMS15	.....G31	6350517	.....B211A16100SGL KCMS15	.....G33
6296025	.....TCGW21505S0415MT KBH10	.....B338	6349031	.....B275Z02500KMS KN25	.....G75	6350426	.....B211A06500SGL KCMS15	.....G31	6350518	.....B211A16500SGL KCMS15	.....G33
6296026	.....TCGW2151S0415MT KBH10	.....B338	6349032	.....B275Z03000HPS KN25	.....G75	6350427	.....B211A06630SGL KCMS15	.....G31	6350519	.....B211A17000SGL KCMS15	.....G33
6296027	.....TCGW2152S0415MT KBH10	.....B338	6349033	.....B275Z03175HPS KN25	.....G75	6350428	.....B211A06700SGL KCMS15	.....G31	6350520	.....B211A17500SGL KCMS15	.....G33
6296028	.....TCGW2151S0525MT KBH10	.....B338	6349034	.....B275Z03500HPS KN25	.....G75	6350429	.....B211A06600SGL KCMS15	.....G31	6350521	.....B211A17700SGL KCMS15	.....G33
6296029	.....TCGW2152S0525MT KBH10	.....B338	6349035	.....B275Z03571HPS KN25	.....G75	6350430	.....B211A06800SGL KCMS15	.....G31	6350522	.....B211A18000SGL KCMS15	.....G33
6296030	.....TPGW221S0415MT KBH10	.....B341	6349036	.....B275Z03970HPS KN25	.....G75	6350431	.....B211A06900SGL KCMS15	.....G31	6350523	.....B211A18500SGL KCMS15	.....G33
6296031	.....TPGW331S0415MT KBH10	.....B341	6349037	.....B275Z04000HPS KN25	.....G75	6350432	.....B211A07000SGL KCMS15	.....G31	6350524	.....B211A19000SGL KCMS15	.....G33
6296032	.....TPGW332S0415MT KBH10	.....B341	6349038	.....B275Z04200HPS KN25	.....G75	6350433	.....B211A07100SGL KCMS15	.....G31	6350525	.....B211A19159SGL KCMS15	.....G33
6296033	.....TPGW221S0525MT KBH10	.....B341	6349039	.....B275Z04500HPS KN25	.....G75	6350434	.....B211A07200SGL KCMS15	.....G31	6350526	.....B211A19300SGL KCMS15	.....G33
6296034	.....TPGW222S0525MT KBH10	.....B341	6349040	.....B275Z04763HPS KN25	.....G75	6350435	.....B211A07300SGL KCMS15	.....G31	6350527	.....B211A20500SGL KCMS15	.....G33
6296035	.....TPGW331S0525MT KBH10	.....B341	6349041	.....B275Z05000HPS KN25	.....G75	6350436	.....B211A07400SGL KCMS15	.....G31	6350528	.....B211A20300SGL KCMS15	.....G30
6296036	.....TPGW332S0525MT KBH10	.....B341	6349042	.....B275Z05500HPS KN25	.....G75	6350437	.....B211A07500SGL KCMS15	.....G31	6350529	.....B21A203175SGL KCMS15	.....G30
6296037	.....VBGW221S0415MT KBH10	.....B341	6349043	.....B275Z05558HPS KN25	.....G75	6350438	.....B211A07600SGL KCMS15	.....G31	6350530	.....B21A203200SGL KCMS15	.....G30
6296038	.....VBGW222S0415MT KBH10	.....B341	6349044	.....B275Z06000HPS KN25	.....G75	6350439	.....B211A07700SGL KCMS15	.....G31	6350551	.....B21A20326ASGL KCMS15	.....G30
6296039	.....VBGW331S0415MT KBH10	.....B341	6349045	.....B275Z06350HPS KN25	.....G75	6350440	.....B211A07800SGL KCMS15	.....G31	6350552	.....B21A203300SGL KCMS15	.....G30
6296040	.....VBGW332S0415MT KBH10	.....B341	6349046	.....B275Z06500HPS KN25	.....G75	6350441	.....B211A07900SGL KCMS15	.....G31	6350553	.....B21A203455SGL KCMS15	.....G30
6300607	.....KNUX160405L1 KCM15B	.....E35	6349047	.....B275Z06800HPS KN25	.....G75	6350442	.....B211A08000SGL KCMS15	.....G31	6350554	.....B21A203500SGL KCMS15	.....G30
6300608	.....KNUX160405L1 KCM25B	.....E35	6349048	.....B275Z07000HPS KN25	.....G75	6350443	.....B211A08000SGL KCMS15	.....G31	6350555	.....B21A203571SGL KCMS15	.....G30
6300609	.....KNUX160405L2 KU10	.....E35	6349049	.....B275Z07145HPS KN25	.....G75	6350444	.....B211A08100SGL KCMS15	.....G31	6350556	.....B21A203658SGL KCMS15	.....G30
6300610	.....KNUX160405R1 KCJ25	.....E35	6349050	.....B275Z07500HPS KN25	.....G75	6350445	.....B211A08200SGL KCMS15	.....G31	6350557	.....B21A203700SGL KCMS15	.....G30
6300611	.....KNUX160405R1 KCM15B	.....E35	6349051	.....B275Z07938HPS KN25	.....G75	6350446	.....B211A08400SGL KCMS15	.....G31	6350558	.....B21A203800SGL KCMS15	.....G30
6300612	.....KNUX160405R1 KCM25B	.....E35	6349052	.....B275Z08000HPS KN25	.....G75	6350447	.....B211A08500SGL KCMS15	.....G31	6350559	.....B21A204000SGL KCMS15	.....G30
6300613	.....KNUX160405R2 KCM25B	.....E35	6349053	.....B275Z08500HPS KN25	.....G75	6350448	.....B211A08600SGL KCMS15	.....G31	6350560	.....B21A204039SGL KCMS15	.....G30
6300614	.....KNUX160410R1 KCM25B	.....E35	6349054	.....B275Z08733HPS KN25	.....G75	6350449	.....B211A08700SGL KCMS15	.....G32	6350561	.....B21A204100SGL KCMS15	.....G30
6300615	.....KNUX160410R2 KCM25B	.....E35	6349055	.....B275Z09000HPS KN25	.....G75	6350450	.....B211A08800SGL KCMS15	.....G32	6350562	.....B21A204200SGL KCMS15	.....G30
6320146	.....RCMH2507MOTUPG KCP10B	.....E66	6349056	.....B275Z09525HPS KN25	.....G75	6350451	.....B211A08900SGL KCMS15	.....G32	6350564	.....B21A204300SGL KCMS15	.....G30
6320147	.....RCMH2507MOTUPG KCP25B	.....E66	6349057	.....B275Z10000HPS KN25	.....G75	6350452	.....B211A09000SGL KCMS15	.....G32	6350565	.....B21A204366SGL KCMS15	.....G30
6320148	.....RCMX2507MOTUPG KCP10B	.....E67	6349058	.....B275Z10200HPS KN25	.....G75	6350453	.....B211A09100SGL KCMS15	.....G32	6350566	.....B21A204500SGL KCMS15	.....G30
6320149	.....RCMX2507MOTUPG KCP25B	.....E67	6349059	.....B275Z10320HPS KN25	.....G75	6350454	.....B211A09200SGL KCMS15	.....G32	6350567	.....B21A204700SGL KCMS15	.....G30
6320150	.....RCMH3209MOTUPG KCP10B	.....E66	6349060	.....B275Z11000HPS KN25	.....G75	6350455	.....B211A09300SGL KCMS15	.....G32	6350568	.....B21A204800SGL KCMS15	.....G31
6320351	.....RCMH3209MOTUPG KCP25B	.....E66	6350374	.....B211A03000SGL KCMS15	.....G30	6350456	.....B211A09400SGL KCMS15	.....G32	6350569	.....B21A204852SGL KCMS15	.....G31
6320352	.....RCMX3209MOTUPG KCP10B	.....E67	6350375	.....B211A03048SGL KCMS15	.....G30	6350457					

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6350595	B212A084000SGL KCMS15	G31	6351278	B272Z025000SGL KCMS20	G70	6351431	B272Z160000SGL KCMS20	G71	6358194	B210A100000SGL KCMS15	G32
6350596	B212A085000SGL KCMS15	G31	6351279	B274Z050000SGL KCMS20	G73	6351432	B275Z060000SGL KCMS20	G75	6358195	B210A102000SGL KCMS15	G32
6350597	B212A088000SGL KCMS15	G32	6351281	B272Z030000SGL KCMS20	G70	6351434	B275Z063500SGL KCMS20	G75	6358196	B210A104000SGL KCMS15	G32
6350598	B212A090000SGL KCMS15	G32	6351282	B274Z051000SGL KCMS20	G73	6351436	B275Z065000SGL KCMS20	G75	6358197	B210A105000SGL KCMS15	G32
6350599	B212A095000SGL KCMS15	G32	6351284	B272Z03175SGL KCMS20	G70	6351438	B275Z068000SGL KCMS20	G75	6358198	B210A10716SGL KCMS15	G32
6350600	B212A100000SGL KCMS15	G32	6351285	B274Z055000SGL KCMS20	G73	6351440	B275Z070000SGL KCMS20	G75	6358199	B210A108000SGL KCMS15	G32
6350601	B212A102000SGL KCMS15	G32	6351287	B272Z035000SGL KCMS20	G70	6351442	B275Z07145SGL KCMS20	G75	6358200	B210A110000SGL KCMS15	G32
6350602	B212A105000SGL KCMS15	G32	6351288	B274Z0558SGL KCMS20	G73	6351444	B275Z075000SGL KCMS20	G75	6358201	B210A112000SGL KCMS15	G32
6350603	B212A110000SGL KCMS15	G32	6351290	B272Z03970SGL KCMS20	G70	6351446	B275Z07938SGL KCMS20	G75	6358202	B210A115000SGL KCMS15	G32
6350604	B212A118000SGL KCMS15	G32	6351301	B274Z060000SGL KCMS20	G73	6351448	B275Z080000SGL KCMS20	G75	6358203	B210A11509SGL KCMS15	G32
6350605	B212A120000SGL KCMS15	G32	6351303	B272Z040000SGL KCMS20	G70	6351450	B275Z085000SGL KCMS20	G75	6358204	B210A120000SGL KCMS15	G32
6350606	B212A125000SGL KCMS15	G32	6351304	B274Z063500SGL KCMS20	G73	6351452	B275Z08733SGL KCMS20	G75	6358205	B210A120000SGL KCMS15	G32
6350607	B212A130000SGL KCMS15	G32	6351306	B272Z045000SGL KCMS20	G70	6351454	B275Z090000SGL KCMS20	G75	6358206	B210A12304SGL KCMS15	G32
6350608	B212A135000SGL KCMS15	G32	6351307	B274Z065000SGL KCMS20	G73	6351456	B275Z09525SGL KCMS20	G75	6358207	B210A125000SGL KCMS15	G32
6350609	B212A140000SGL KCMS15	G32	6351309	B272Z04763SGL KCMS20	G70	6351458	B275Z100000SGL KCMS20	G75	6358208	B210A12700SGL KCMS15	G32
6351164	B271Z025000SGL KCMS20	G68	6351310	B274Z06746SGL KCMS20	G73	6351460	B275Z102000SGL KCMS20	G75	6358209	B210A12800SGL KCMS15	G32
6351166	B271Z030000SGL KCMS20	G68	6351312	B272Z048000SGL KCMS20	G70	6351462	B275Z10320SGL KCMS20	G75	6358210	B210A13000SGL KCMS15	G32
6351168	B271Z03175SGL KCMS20	G68	6351313	B274Z070000SGL KCMS20	G73	6351464	B275Z11000SGL KCMS20	G75	6358211	B210A1349SGL KCMS15	G32
6351170	B271Z035000SGL KCMS20	G68	6351315	B272Z050000SGL KCMS20	G70	6353749	TNMG544RP KCU10	B127	6358212	B210A135000SGL KCMS15	G32
6351172	B271Z03970SGL KCMS20	G68	6351316	B274Z07145SGL KCMS20	G73	6358121	B210A030000SGL KCMS15	G30	6358213	B210A14000SGL KCMS15	G32
6351174	B271Z040000SGL KCMS20	G68	6351318	B272Z050500SGL KCMS20	G70	6358122	B210A03048SGL KCMS15	G30	6358214	B210A14100SGL KCMS15	G32
6351176	B271Z045000SGL KCMS20	G68	6351319	B274Z075000SGL KCMS20	G73	6358123	B210A03264SGL KCMS15	G30	6358215	B210A14200SGL KCMS15	G33
6351178	B271Z04763SGL KCMS20	G68	6351321	B272Z05588SGL KCMS20	G74	6358124	B210A03175SGL KCMS15	G30	6358216	B210A14500SGL KCMS15	G33
6351179	B273Z025000SGL KCMS20	G72	6351322	B274Z07938SGL KCMS20	G70	6358125	B210A03200SGL KCMS15	G30	6358217	B210A15000SGL KCMS15	G33
6351191	B271Z048000SGL KCMS20	G68	6351324	B272Z058000SGL KCMS20	G70	6358126	B210A03300SGL KCMS15	G30	6358218	B210A15500SGL KCMS15	G33
6351192	B273Z030000SGL KCMS20	G72	6351325	B274Z080000SGL KCMS20	G74	6358127	B210A03400SGL KCMS15	G30	6358219	B210A1587SGL KCMS15	G33
6351194	B271Z050000SGL KCMS20	G68	6351327	B272Z060000SGL KCMS20	G70	6358128	B210A03500SGL KCMS15	G30	6358220	B210A16000SGL KCMS15	G33
6351195	B273Z03175SGL KCMS20	G72	6351328	B274Z085000SGL KCMS20	G74	6358129	B210A03500SGL KCMS15	G30	6358221	B210A16129SGL KCMS15	G33
6351197	B271Z055000SGL KCMS20	G68	6351330	B272Z063500SGL KCMS20	G70	6358130	B210A03700SGL KCMS15	G30	6358222	B210A16500SGL KCMS15	G33
6351198	B273Z035000SGL KCMS20	G72	6351331	B274Z08733SGL KCMS20	G74	6358131	B210A03800SGL KCMS15	G30	6358223	B210A16670SGL KCMS15	G33
6351200	B271Z05558SGL KCMS20	G68	6351333	B272Z065000SGL KCMS20	G70	6358132	B210A04000SGL KCMS15	G30	6358224	B210A17000SGL KCMS15	G33
6351201	B273Z040000SGL KCMS20	G72	6351334	B274Z090000SGL KCMS20	G74	6358133	B210A04100SGL KCMS15	G30	6358225	B210A17500SGL KCMS15	G33
6351203	B271Z060000SGL KCMS20	G68	6351336	B274Z09129SGL KCMS20	G74	6358134	B210A04200SGL KCMS15	G30	6358226	B210A18000SGL KCMS15	G33
6351204	B273Z045000SGL KCMS20	G72	6351337	B272Z06746SGL KCMS20	G70	6358135	B210A04300SGL KCMS15	G30	6358227	B210A18500SGL KCMS15	G33
6351206	B271Z063500SGL KCMS20	G68	6351339	B274Z09525SGL KCMS20	G74	6358136	B210A04366SGL KCMS15	G30	6358228	B210A19050SGL KCMS15	G33
6351207	B273Z050000SGL KCMS20	G72	6351340	B272Z070000SGL KCMS20	G70	6358147	B210A04400SGL KCMS15	G30	6358229	B210A19500SGL KCMS15	G33
6351209	B271Z065000SGL KCMS20	G69	6351342	B274Z100000SGL KCMS20	G74	6358148	B210A04700SGL KCMS15	G30	6358230	B210A20000SGL KCMS15	G33
6351210	B273Z055000SGL KCMS20	G72	6351343	B272Z07145SGL KCMS20	G71	6358149	B210A04800SGL KCMS15	G31	6358241	B210Z025000SGL KCMS15	G30
6351212	B271Z06746SGL KCMS20	G69	6351345	B274Z105000SGL KCMS20	G74	6358150	B210A04900SGL KCMS15	G31	6358971	B941Z02500 KCH10	G124
6351213	B273Z060000SGL KCMS20	G72	6351346	B272Z075000SGL KCMS20	G71	6358151	B210A05000SGL KCMS15	G31	6358972	B941A03000 KCH10	G124
6351215	B271Z070000SGL KCMS20	G69	6351348	B274Z11000SGL KCMS20	G74	6358152	B210A05100SGL KCMS15	G31	6358973	B941A03300 KCH10	G124
6351216	B273Z065000SGL KCMS20	G72	6351349	B272Z07938SGL KCMS20	G71	6358153	B210A05106SGL KCMS15	G31	6358974	B941A03400 KCH10	G124
6351218	B271Z07145SGL KCMS20	G69	6351351	B272Z080000SGL KCMS20	G71	6358154	B210A05159SGL KCMS15	G31	6358975	B941A03500 KCH10	G124
6351219	B273Z070000SGL KCMS20	G72	6351352	B274Z11500SGL KCMS20	G74	6358155	B210A05200SGL KCMS15	G31	6358976	B941A04000 KCH10	G124
6351221	B271Z075000SGL KCMS20	G69	6351354	B272Z085000SGL KCMS20	G71	6358156	B210A05300SGL KCMS15	G31	6358977	B941A04200 KCH10	G124
6351222	B273Z080000SGL KCMS20	G72	6351355	B274Z12000SGL KCMS20	G74	6358157	B210A05400SGL KCMS15	G31	6358978	B941A04300 KCH10	G124
6351224	B271Z07938SGL KCMS20	G69	6351357	B272Z08733SGL KCMS20	G71	6358158	B210A05500SGL KCMS15	G31	6358979	B941A04500 KCH10	G124
6351225	B273Z085000SGL KCMS20	G72	6351358	B274Z12700SGL KCMS20	G74	6358159	B210A05600SGL KCMS15	G31	6358980	B941A05000 KCH10	G124
6351227	B271Z080000SGL KCMS20	G69	6351360	B272Z090000SGL KCMS20	G71	6358160	B210A05800SGL KCMS15	G31	6358981	B941A05100 KCH10	G124
6351228	B273Z090000SGL KCMS20	G72	6351361	B274Z13000SGL KCMS20	G74	6358161	B210A05954SGL KCMS15	G31	6358982	B941A05200 KCH10	G124
6351230	B271Z085000SGL KCMS20	G69	6351363	B272Z09525SGL KCMS20	G71	6358162	B210A060000SGL KCMS15	G31	6358983	B941A05300 KCH10	G124
6351231	B273Z100000SGL KCMS20	G72	6351364	B274Z13500SGL KCMS20	G74	6358163	B210A06100SGL KCMS15	G31	6358984	B941A05600 KCH10	G124
6351233	B271Z08733SGL KCMS20	G69	6351366	B272Z100000SGL KCMS20	G71	6358164	B210A06200SGL KCMS15	G31	6358985	B941A06000 KCH10	G124
6351234	B273Z11000SGL KCMS20	G72	6351367	B274Z14000SGL KCMS20	G74	6358165	B210A06300SGL KCMS15	G31	6358986	B941A06900 KCH10	G124
6351236	B271Z090000SGL KCMS20	G69	6351369	B272Z10320SGL KCMS20	G71	6358166	B210A06350SGL KCMS15	G31	6358987	B941A07000 KCH10	G124
6351237	B273Z120000SGL KCMS20	G72	6351370	B274Z15000SGL KCMS20	G74	6358167	B210A06400SGL KCMS15	G31	6358988	B941A07100 KCH10	G124
6351239	B271Z095000SGL KCMS20	G69	6351372	B272Z105000SGL KCMS20	G71	6358168	B210A06900SGL KCMS15	G31	6358989	B941A08000 KCH10	G124
6351240	B273Z13000SGL KCMS20	G72	6351373	B275Z02500SGL KCMS20	G75	6358169	B210A06700SGL KCMS15	G31	6358990	B941A08500 KCH10	G124
6351242	B271Z100000SGL KCMS20	G69	6351375	B275Z03000SGL KCMS20	G75	6358170	B210A06800SGL KCMS15	G31	6358991	B941A08600 KCH10	G124
6351243	B273Z13500SGL KCMS20	G72	6351376	B272Z10716SGL KCMS20	G71	6358171	B210A06900SGL KCMS15	G31	6358992	B941A09000 KCH10	G124
6351245	B271Z10320SGL KCMS20	G69	6351378	B272Z11000SGL KCMS20	G71	6358172	B210A07000SGL KCMS15	G31	6358993	B941A10000 KCH10	G124
6351246	B273Z14000SGL KCMS20	G72	6351379	B275Z03175SGL KCMS20	G75	6358173	B210A07100SGL KCMS15	G31	6358994	B941A10200 KCH10	G124
6351248	B271Z105000SGL KCMS20	G69	6351381	B272Z11113SGL KCMS20	G71	6358174	B210A07145SGL KCMS15	G31	6358995	B941A10400 KCH10	G124
6351249	B273Z15000SGL KCMS20	G72	6351382	B275Z03500SGL KCMS20	G75	6358175	B210A07400SGL KCMS15	G31	6358996	B941A10500 KCH10	G124
6351251	B271Z11000SGL KCMS20	G69	6351384	B275Z03571SGL KCMS20	G75	6358176	B210A07500SGL KCMS15	G31	6358997	B941A11100 KCH10	G124
6351252	B273Z16000SGL KCMS20	G72	6351385	B272Z11500SGL KCMS20	G71	6358177	B210A07800SGL KCMS15	G31	6358998	B941A12000 KCH10	G124
6351254	B271Z11113SGL KCMS20	G69	6351387	B275Z03970SGL KCMS20	G75	6358178	B210A07938SGL KCMS15	G31	6358999	B941A14000 KCH10	G124
6351255	B274Z02500SGL KCMS20	G73	6351388	B272Z12000SGL KCMS20	G71	6358179	B210A08000SGL KCMS15	G31	6359000	B951A03000 KCH10	G125
6351257	B271Z11500SGL KCMS20	G69	6351390	B275Z04000SGL KCMS20	G75	6358180	B210A08100SGL KCMS15	G31	6359011	B951A03175 KCH10	G125
6351258	B274Z03000SGL KCMS20	G73	6351391	B272Z12500SGL KCMS20	G71	6358181	B210A08200SGL KCMS15	G31	6359012	B951A03454 KCH10	G125
6351260	B271Z12000SGL KCMS20	G69	6351393	B275Z04200SGL KCMS20	G75	6358182	B210A08400SGL KCMS15	G31	6359013	B951A03500 KCH10	G125
6351261	B274Z03175SGL KCMS20	G73	6351394	B272Z12700SGL KCMS20	G71	6358183	B210A08433SGL KCMS15	G31	6359014	B951A03800 KCH10	G125
6351263	B271Z12700SGL KCMS20	G69	6351396	B275Z04500SGL KCMS20	G75	6358184	B210A08500SGL KCMS15	G31	6359015	B951A04000 KCH10	G125
6351264	B274Z03500SGL KCMS20	G73	6351397	B272Z13000SGL KCMS20	G71	6358185	B210A08600SGL KCMS15	G31	6359016	B951A04100 KCH10	G125
6351266	B271Z14000SGL KCMS20	G69	6351399	B272Z14000SGL KCMS20	G71	6358186	B210A08900SGL KCMS15	G32	6359017	B951A04200 KCH10	G125
6351267	B2										

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6359025	B951A06000 KCH10	G125	6370422	KTFS25500HPCM KC7410	H13	6370948	KTFS13500HPCM KC7410	H12	6371050	KTFS10400HPLM KCMS15	H15
6359026	B951A06500 KCH10	G125	6370423	KTFS10110HPC KC7410	H13	6370949	KTFS07620HPL KCMS15	H16	6371051	KTFS10500HPLM KCMS15	H15
6359027	B951A06500 KCH10	G125	6370424	KTFS10160HPC KC7410	H13	6370950	KTFS13600HPCM KC7410	H12	6371052	KTFS10600HPLM KCMS15	H15
6359028	B951A06800 KCH10	G125	6370425	KTFS26000HPCM KC7410	H13	6370951	KTFS07656HPL KCMS15	H16	6371053	KTFS10700HPLM KCMS15	H15
6359029	B951A07000 KCH10	G125	6370700	KTFS06000HPCM KC7410	H12	6370952	KTFS13800HPCM KC7410	H12	6371054	KTFS10800HPLM KCMS15	H15
6359030	B951A08000 KCH10	G125	6370871	KTFS06200HPCM KC7410	H12	6370953	KTFS19460HPLM KCMS15	H16	6371055	KTFS10900HPLM KCMS15	H15
6359031	B951A08500 KCH10	G125	6370872	KTFS02500HPCM KC7410	H12	6370954	KTFS05469HPC KC7410	H12	6371056	KTFS11200HPLM KCMS15	H15
6359032	B951A09000 KCH10	G125	6370873	KTFS06500HPCM KC7410	H12	6370955	KTFS19500HPLM KCMS15	H16	6371057	KTFS11100HPLM KCMS15	H15
6359033	B951A09500 KCH10	G125	6370874	KTFS06530HPCM KC7410	H12	6370956	KTFS06000HPLM KCMS15	H15	6371058	KTFS04375HPL KCMS15	H15
6359034	B951A10000 KCH10	G125	6370875	KTFS02656HPC KC7410	H12	6370957	KTFS07813HPL KCMS15	H16	6371059	KTFS11200HPLM KCMS15	H15
6359035	B951A10000 KCH10	G125	6370876	KTFS06700HPCM KC7410	H12	6370958	KTFS14000HPCM KC7410	H12	6371060	KTFS11400HPLM KCMS15	H15
6359036	B951A10200 KCH10	G125	6370877	KTFS06800HPCM KC7410	H12	6370959	KTFS19850HPLM KCMS15	H16	6371061	KTFS11500HPLM KCMS15	H15
6359037	B951A10500 KCH10	G125	6370878	KTFS07000HPCM KC7410	H12	6370960	KTFS05469HPC KC7410	H12	6371062	KTFS11000HPLM KCMS15	H15
6359038	B951A10800 KCH10	G125	6370879	KTFS02813HPC KC7410	H12	6370971	KTFS02500HPL KCMS15	H15	6371063	KTFS11800HPLM KCMS15	H15
6359039	B951A11000 KCH10	G125	6370880	KTFS07300HPCM KC7410	H12	6370972	KTFS20000HPLM KCMS15	H16	6371064	KTFS04688HPL KCMS15	H15
6359040	B951A11500 KCH10	G125	6370881	KTFS07500HPCM KC7410	H12	6370973	KTFS07813HPL KCMS15	H12	6371065	KTFS11200HPLM KCMS15	H15
6359041	B951A11800 KCH10	G125	6370882	KTFS07600HPCM KC7410	H12	6370974	KTFS06500HPLM KCMS15	H15	6371066	KTFS12200HPLM KCMS15	H15
6359042	B951A12000 KCH10	G125	6370883	KTFS07800HPCM KC7410	H12	6370975	KTFS20500HPLM KCMS15	H16	6371067	KTFS04844HPL KCMS15	H15
6359043	B951A12500 KCH10	G125	6370884	KTFS03125HPC KC7410	H12	6370976	KTFS14100HPCM KC7410	H12	6371068	KTFS12500HPLM KCMS15	H15
6359044	B951A12700 KCH10	G125	6370885	KTFS08000HPCM KC7410	H12	6370977	KTFS02610HPL KCMS15	H15	6371069	KTFS06000HPL KCMS15	H15
6359045	B951A12800 KCH10	G125	6370886	KTFS08100HPCM KC7410	H12	6370978	KTFS08125HPL KCMS15	H16	6371070	KTFS12800HPLM KCMS15	H15
6359046	B951A13000 KCH10	G126	6370887	KTFS03230HPC KC7410	H12	6370979	KTFS14600HPCM KC7410	H12	6371071	KTFS12900HPLM KCMS15	H15
6359047	B951A13500 KCH10	G126	6370888	KTFS08500HPCM KC7410	H12	6370980	KTFS06800HPLM KCMS15	H15	6371072	KTFS13000HPLM KCMS15	H15
6359048	B951A14000 KCH10	G126	6370889	KTFS08600HPCM KC7410	H12	6370981	KTFS21200HPLM KCMS15	H16	6371073	KTFS05156HPL KCMS15	H15
6359049	B951A14500 KCH10	G126	6370890	KTFS08700HPCM KC7410	H12	6370982	KTFS121150HPLM KCMS15	H16	6371074	KTFS13200HPLM KCMS15	H15
6359050	B951A15500 KCH10	G126	6370891	KTFS03438HPC KC7410	H12	6370983	KTFS07000HPLM KCMS15	H15	6371075	KTFS06312HPL KCMS15	H15
6359051	B951A16000 KCH10	G126	6370892	KTFS09000HPCM KC7410	H12	6370984	KTFS05781HPC KC7410	H12	6371076	KTFS13500HPLM KCMS15	H15
6370147	KTFS16000HPCM KC7410	H13	6370893	KTFS09100HPCM KC7410	H12	6370985	KTFS21500HPLM KCMS15	H16	6371077	KTFS13800HPLM KCMS15	H15
6370148	KTFS06340HPC KC7410	H13	6370894	KTFS09500HPCM KC7410	H12	6370986	KTFS07500HPLM KCMS15	H15	6371078	KTFS05469HPL KCMS15	H15
6370149	KTFS16100HPCM KC7410	H13	6370895	KTFS03750HPC KC7410	H12	6370987	KTFS07800HPLM KCMS15	H15	6371079	KTFS05471HPL KCMS15	H15
6370150	KTFS16200HPCM KC7410	H13	6370896	KTFS09600HPCM KC7410	H12	6370988	KTFS22000HPLM KCMS15	H16	6371080	KTFS14000HPLM KCMS15	H15
6370351	KTFS06406HPC KC7410	H13	6370897	KTFS09700HPCM KC7410	H12	6370989	KTFS14800HPCM KC7410	H12	6371081	KTFS14100HPLM KCMS15	H15
6370352	KTFS16300HPCM KC7410	H13	6370898	KTFS09800HPCM KC7410	H12	6370990	KTFS03125HPL KCMS15	H15	6371082	KTFS14200HPLM KCMS15	H15
6370353	KTFS16500HPCM KC7410	H13	6370899	KTFS09900HPCM KC7410	H12	6370991	KTFS08750HPL KCMS15	H16	6371083	KTFS05625HPL KCMS15	H15
6370354	KTFS16550HPCM KC7410	H13	6370900	KTFS10000HPCM KC7410	H12	6370992	KTFS08000HPLM KCMS15	H15	6371084	KTFS14300HPLM KCMS15	H15
6370355	KTFS16600HPCM KC7410	H13	6370901	KTFS03946HPC KC7410	H12	6370993	KTFS22500HPLM KCMS15	H16	6371085	KTFS14400HPLM KCMS15	H15
6370356	KTFS06563HPC KC7410	H13	6370902	KTFS10200HPCM KC7410	H12	6370994	KTFS08100HPLM KCMS15	H15	6371086	KTFS14500HPLM KCMS15	H15
6370357	KTFS17000HPCM KC7410	H13	6370903	KTFS10300HPCM KC7410	H12	6370995	KTFS15000HPCM KC7410	H12	6371087	KTFS05781HPL KCMS15	H15
6370358	KTFS06719HPC KC7410	H13	6370904	KTFS04063HPC KC7410	H12	6370996	KTFS23000HPLM KCMS15	H16	6371088	KTFS14800HPLM KCMS15	H16
6370359	KTFS17100HPCM KC7410	H13	6370905	KTFS10500HPCM KC7410	H12	6370997	KTFS03230HPL KCMS15	H15	6371089	KTFS15000HPLM KCMS15	H16
6370360	KTFS17200HPCM KC7410	H13	6370906	KTFS11600HPLM KCMS15	H16	6370998	KTFS05938HPC KC7410	H12	6371090	KTFS15100HPLM KCMS15	H16
6370361	KTFS17300HPCM KC7410	H13	6370907	KTFS06340HPL KCMS15	H16	6370999	KTFS23500HPLM KCMS15	H16	6371111	KTFS15200HPLM KCMS15	H16
6370362	KTFS06875HPC KC7410	H13	6370908	KTFS10600HPCM KC7410	H12	6371000	KTFS03281HPL KCMS15	H15	6371112	KTFS15500HPLM KCMS15	H16
6370363	KTFS17500HPCM KC7410	H13	6370909	KTFS116100HPLM KCMS15	H16	6371001	KTFS15100HPCM KC7410	H12	6371113	KTFS06250HPL KCMS15	H16
6370364	KTFS17550HPCM KC7410	H13	6370910	KTFS10700HPCM KC7410	H12	6371002	KTFS09375HPL KCMS15	H16	6371340	KTFS100R03SS12M	H18
6370365	KTFS17600HPCM KC7410	H13	6370911	KTFS116150HPLM KCMS15	H16	6371003	KTFS08400HPLM KCMS15	H15	6371961	KTFS105R03SS12M	H18
6370366	KTFS17700HPCM KC7410	H13	6370912	KTFS04219HPC KC7410	H12	6371004	KTFS15200HPCM KC7410	H12	6371962	KTFS110R03SS12M	H18
6370367	KTFS17800HPCM KC7410	H13	6370913	KTFS06406HPL KCMS15	H16	6371005	KTFS24000HPLM KCMS15	H16	6371963	KTFS115R03SS12M	H18
6370368	KTFS18000HPCM KC7410	H13	6370914	KTFS10800HPCM KC7410	H12	6371006	KTFS08500HPLM KCMS15	H15	6371964	KTFS120R03SS14M	H18
6370369	KTFS18100HPCM KC7410	H13	6370915	KTFS11000HPCM KC7410	H12	6371007	KTFS15300HPCM KC7410	H12	6371965	KTFS125R03SS14M	H18
6370370	KTFS07188HPC KC7410	H13	6370916	KTFS116500HPLM KCMS15	H16	6371008	KTFS24500HPLM KCMS15	H16	6371966	KTFS130R03SS14M	H18
6370381	KTFS18500HPCM KC7410	H13	6370917	KTFS11100HPCM KC7410	H12	6371009	KTFS08600HPLM KCMS15	H15	6371967	KTFS135R03SS14M	H18
6370382	KTFS18600HPCM KC7410	H13	6370918	KTFS06563HPL KCMS15	H16	6371010	KTFS15500HPCM KC7410	H12	6371968	KTFS140R03SS16M	H18
6370383	KTFS18700HPCM KC7410	H13	6370919	KTFS04375HPC KC7410	H12	6371011	KTFS15800HPLM KCMS15	H16	6371969	KTFS14200HPLM KCMS15	H18
6370384	KTFS19000HPCM KC7410	H13	6370920	KTFS17000HPLM KCMS15	H16	6371012	KTFS08700HPLM KCMS15	H15	6371970	KTFS150R03SS16M	H18
6370385	KTFS07500HPC KC7410	H13	6370921	KTFS11400HPCM KC7410	H12	6371013	KTFS15600HPCM KC7410	H12	6371971	KTFS160R03SS16M	H18
6370386	KTFS07590HPC KC7410	H13	6370922	KTFS06875HPL KCMS15	H16	6371014	KTFS10000HPL KCMS15	H16	6371972	KTFS170R03SS20M	H18
6370387	KTFS07656HPC KC7410	H13	6370923	KTFS11500HPCM KC7410	H12	6371015	KTFS08800HPLM KCMS15	H15	6371973	KTFS100R05SS12M	H18
6370388	KTFS19500HPCM KC7410	H13	6370924	KTFS117480HPLM KCMS15	H16	6371016	KTFS15800HPCM KC7410	H12	6371974	KTFS105R05SS12M	H18
6370389	KTFS19800HPCM KC7410	H13	6370925	KTFS11800HPCM KC7410	H12	6371017	KTFS25500HPLM KCMS15	H16	6371975	KTFS110R05SS12M	H18
6370390	KTFS20000HPCM KC7410	H13	6370926	KTFS117500HPLM KCMS15	H16	6371018	KTFS08900HPLM KCMS15	H15	6371976	KTFS115R05SS12M	H18
6370401	KTFS07969HPC KC7410	H13	6370927	KTFS117700HPLM KCMS15	H16	6371019	KTFS06250HPC KC7410	H12	6371977	KTFS120R05SS14M	H18
6370402	KTFS20300HPCM KC7410	H13	6370928	KTFS04688HPC KC7410	H12	6371020	KTFS25600HPLM KCMS15	H16	6371978	KTFS125R05SS14M	H18
6370403	KTFS20500HPCM KC7410	H13	6370929	KTFS18000HPLM KCMS15	H16	6371031	KTFS09000HPLM KCMS15	H15	6371979	KTFS130R05SS14M	H18
6370404	KTFS08125HPC KC7410	H13	6370930	KTFS12000HPCM KC7410	H12	6371032	KTFS25660HPLM KCMS15	H16	6371980	KTFS135R05SS14M	H18
6370405	KTFS21000HPCM KC7410	H13	6370931	KTFS07188HPL KCMS15	H16	6371033	KTFS09100HPLM KCMS15	H15	6371981	KTFS140R05SS16M	H18
6370406	KTFS08438HPC KC7410	H13	6370932	KTFS04844HPC KC7410	H12	6371034	KTFS10110HPL KCMS15	H16	6371982	KTFS145R05SS16M	H18
6370407	KTFS21500HPCM KC7410	H13	6370933	KTFS118500HPLM KCMS15	H16	6371035	KTFS09200HPLM KCMS15	H15	6371983	KTFS150R05SS16M	H18
6370408	KTFS22000HPCM KC7410	H13	6370934	KTFS12500HPCM KC7410	H12	6371036	KTFS10160HPL KCMS15	H16	6371984	KTFS160R05SS16M	H18
6370409	KTFS08750HPC KC7410	H13	6370935	KTFS07344HPL KCMS15	H16	6371037	KTFS09400HPLM KCMS15	H15	6371985	KTFS170R05SS20M	H18
6370410	KTFS22440HPCM KC7410	H13	6370936	KTFS05000HPC KC7410	H12	6371038	KTFS26000HPLM KCMS15	H16	6371986	KTFS100R08SS12M	H18
6370411	KTFS22500HPCM KC7410	H13	6370937	KTFS19000HPLM KCMS15	H16	6371039	KTFS09500HPLM KCMS15	H15	6371987	KTFS105R08SS12M	H18
6370412	KTFS23000HPCM KC7410	H13	6370938	KTFS13000HPCM KC7410	H12	6371040	KTFS03763HPL KCMS15	H15	6371988	KTFS110R08SS12M	H18
6370413	KTFS09219HPC KC7410	H13	6370939	KTFS07500HPL KCMS15	H16	6371041	KTFS09600HPLM KCMS15	H15	6371989	KTFS115R08SS12M	H18
6370414	KTFS23500HPCM KC7410	H13	6370940	KTFS05156HPC KC7410	H12	6371042	KTFS09600HPLM KCMS15	H15	6371990	KTFS120R08SS14M	H18
6370415	KTFS09375HPC KC7410	H13	6370941	KTFS19200HPLM KCMS15	H16	6371043	KTFS09800HPLM KCMS15	H15	6371991	KTFS125R08SS14M	H18
6370416	KTFS24000HPCM KC7410	H13	6370942	KTFS07570HPL KCMS15	H16	6371044	KTFS09900HPLM KCMS15	H15	6371992	KTFS130R08SS14M	H18
6370417	KTFS24500HPCM KC7410	H13	6370943	KTFS13200HPCM KC7410	H12	6371045	KTFS10000HPLM KCMS15	H15	6371993	KTFS135R08SS14M	H18



Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6371999	.....KTFS170R08SS20M	.....H18	6388533	.....KTFS06340HPG KCP15A	.....H9	6388615	.....KTFS03390HPG KCP15A	.....H8	6388707	.....KTFS22600HPGM KCP15A	.....H10
6372000	.....KTFS0394R03SS044	.....H20	6388534	.....KTFS11610HPGM KCP15A	.....H9	6388616	.....KTFS07590HPG KCP15A	.....H9	6388708	.....KTFS11200HPGM KCP15A	.....H8
6372011	.....KTFS0414R03SS044	.....H20	6388535	.....KTFS16200HPGM KCP15A	.....H9	6388617	.....KTFS08700HPGM KCP15A	.....H9	6388709	.....KTFS22700HPGM KCP15A	.....H10
6372012	.....KTFS0434R03SS044	.....H20	6388536	.....KTFS06406HPG KCP15A	.....H9	6388618	.....KTFS19300HPGM KCP15A	.....H9	6388710	.....KTFS11300HPGM KCP15A	.....H9
6372013	.....KTFS0453R03SS050	.....H20	6388537	.....KTFS16300HPGM KCP15A	.....H9	6388619	.....KTFS07620HPG KCP15A	.....H9	6388711	.....KTFS22800HPGM KCP15A	.....H10
6372014	.....KTFS0473R03SS050	.....H20	6388538	.....KTFS16400HPGM KCP15A	.....H9	6388620	.....KTFS03438HPG KCP15A	.....H8	6388712	.....KTFS11400HPGM KCP15A	.....H9
6372015	.....KTFS0493R03SS050	.....H20	6388539	.....KTFS06000HPGM KCP15A	.....H8	6388621	.....KTFS19400HPGM KCP15A	.....H10	6388713	.....KTFS22900HPGM KCP15A	.....H10
6372016	.....KTFS0512R03SS056	.....H20	6388540	.....KTFS16500HPGM KCP15A	.....H9	6388622	.....KTFS08800HPGM KCP15A	.....H8	6388714	.....KTFS11500HPGM KCP15A	.....H9
6372017	.....KTFS0532R03SS056	.....H20	6388541	.....KTFS06100HPGM KCP15A	.....H8	6388623	.....KTFS07656HPG KCP15A	.....H10	6388715	.....KTFS23000HPGM KCP15A	.....H10
6372018	.....KTFS0552R03SS056	.....H20	6388542	.....KTFS16600HPGM KCP15A	.....H9	6388624	.....KTFS03480HPG KCP15A	.....H8	6388716	.....KTFS04531HPG KCP15A	.....H9
6372019	.....KTFS0571R03SS063	.....H20	6388543	.....KTFS06200HPGM KCP15A	.....H8	6388625	.....KTFS19460HPGM KCP15A	.....H10	6388717	.....KTFS23100HPGM KCP15A	.....H10
6372020	.....KTFS0591R03SS063	.....H20	6388544	.....KTFS06563HPG KCP15A	.....H9	6388626	.....KTFS08900HPGM KCP15A	.....H8	6388718	.....KTFS11600HPGM KCP15A	.....H9
6372021	.....KTFS0630R03SS063	.....H20	6388545	.....KTFS06300HPGM KCP15A	.....H8	6388627	.....KTFS19500HPGM KCP15A	.....H10	6388719	.....KTFS23200HPGM KCP15A	.....H10
6372022	.....KTFS0670R03SS075	.....H20	6388546	.....KTFS16700HPGM KCP15A	.....H9	6388628	.....KTFS09000HPGM KCP15A	.....H8	6388720	.....KTFS11700HPGM KCP15A	.....H9
6372023	.....KTFS0394R0SS044	.....H20	6388547	.....KTFS02500HPG KCP15A	.....H8	6388629	.....KTFS19600HPGM KCP15A	.....H10	6388721	.....KTFS23300HPGM KCP15A	.....H10
6372024	.....KTFS0414R0SS044	.....H20	6388548	.....KTFS16800HPGM KCP15A	.....H9	6388630	.....KTFS03580HPG KCP15A	.....H8	6388722	.....KTFS11800HPGM KCP15A	.....H9
6372025	.....KTFS0434R0SS044	.....H20	6388549	.....KTFS06400HPGM KCP15A	.....H8	6388631	.....KTFS19700HPGM KCP15A	.....H10	6388723	.....KTFS23400HPGM KCP15A	.....H10
6372026	.....KTFS0453R0SS050	.....H20	6388550	.....KTFS16900HPGM KCP15A	.....H9	6388632	.....KTFS09100HPGM KCP15A	.....H8	6388724	.....KTFS11900HPGM KCP15A	.....H9
6372027	.....KTFS0473R0SS050	.....H20	6388551	.....KTFS06500HPGM KCP15A	.....H8	6388633	.....KTFS19800HPGM KCP15A	.....H10	6388725	.....KTFS09219HPG KCP15A	.....H10
6372028	.....KTFS0493R0SS050	.....H20	6388552	.....KTFS17000HPGM KCP15A	.....H9	6388634	.....KTFS03594HPG KCP15A	.....H8	6388726	.....KTFS04688HPG KCP15A	.....H9
6372029	.....KTFS0512R0SS056	.....H20	6388553	.....KTFS06530HPG KCP15A	.....H8	6388645	.....KTFS07813HPG KCP15A	.....H10	6388727	.....KTFS24000HPGM KCP15A	.....H10
6372030	.....KTFS0532R0SS056	.....H20	6388554	.....KTFS06719HPG KCP15A	.....H9	6388646	.....KTFS09200HPGM KCP15A	.....H8	6388728	.....KTFS12000HPGM KCP15A	.....H9
6372051	.....KTFS0552R0SS056	.....H20	6388555	.....KTFS06600HPGM KCP15A	.....H8	6388647	.....KTFS19900HPGM KCP15A	.....H10	6388729	.....KTFS23600HPGM KCP15A	.....H10
6372052	.....KTFS0571R0SS063	.....H20	6388556	.....KTFS17100HPGM KCP15A	.....H9	6388648	.....KTFS09300HPGM KCP15A	.....H8	6388730	.....KTFS12100HPGM KCP15A	.....H9
6372053	.....KTFS0591R0SS063	.....H20	6388557	.....KTFS02610HPG KCP15A	.....H8	6388649	.....KTFS22000HPGM KCP15A	.....H10	6388731	.....KTFS23700HPGM KCP15A	.....H10
6372054	.....KTFS0630R0SS063	.....H20	6388558	.....KTFS17200HPGM KCP15A	.....H9	6388650	.....KTFS03680HPG KCP15A	.....H8	6388732	.....KTFS12200HPGM KCP15A	.....H9
6372055	.....KTFS0670R0SS075	.....H20	6388559	.....KTFS06700HPGM KCP15A	.....H8	6388651	.....KTFS20100HPGM KCP15A	.....H10	6388733	.....KTFS24000HPGM KCP15A	.....H10
6372056	.....KTFS0394R0SS044	.....H20	6388560	.....KTFS17300HPGM KCP15A	.....H9	6388652	.....KTFS09400HPGM KCP15A	.....H8	6388734	.....KTFS04844HPG KCP15A	.....H9
6372057	.....KTFS0414R0SS044	.....H20	6388561	.....KTFS02656HPG KCP15A	.....H8	6388653	.....KTFS20200HPGM KCP15A	.....H10	6388735	.....KTFS09375HPG KCP15A	.....H10
6372058	.....KTFS0434R0SS044	.....H20	6388562	.....KTFS17400HPGM KCP15A	.....H9	6388654	.....KTFS09500HPGM KCP15A	.....H8	6388736	.....KTFS12400HPGM KCP15A	.....H9
6372059	.....KTFS0453R0SS050	.....H20	6388563	.....KTFS06800HPGM KCP15A	.....H8	6388655	.....KTFS07969HPG KCP15A	.....H10	6388737	.....KTFS23900HPGM KCP15A	.....H10
6372060	.....KTFS0473R0SS050	.....H20	6388564	.....KTFS06875HPG KCP15A	.....H9	6388656	.....KTFS03750HPG KCP15A	.....H8	6388738	.....KTFS04911HPG KCP15A	.....H9
6372062	.....KTFS0493R0SS050	.....H20	6388565	.....KTFS06900HPGM KCP15A	.....H8	6388657	.....KTFS20300HPGM KCP15A	.....H10	6388739	.....KTFS24000HPGM KCP15A	.....H10
6372063	.....KTFS0512R0SS056	.....H20	6388566	.....KTFS17480HPGM KCP15A	.....H9	6388658	.....KTFS03763HPG KCP15A	.....H8	6388740	.....KTFS12500HPGM KCP15A	.....H9
6372064	.....KTFS0532R0SS056	.....H20	6388567	.....KTFS02720HPG KCP15A	.....H8	6388659	.....KTFS20500HPGM KCP15A	.....H10	6388741	.....KTFS24100HPGM KCP15A	.....H10
6372065	.....KTFS0552R0SS056	.....H20	6388568	.....KTFS17500HPGM KCP15A	.....H9	6388660	.....KTFS09600HPGM KCP15A	.....H8	6388742	.....KTFS12600HPGM KCP15A	.....H9
6372066	.....KTFS0571R0SS063	.....H20	6388569	.....KTFS07000HPGM KCP15A	.....H8	6388661	.....KTFS20600HPGM KCP15A	.....H10	6388743	.....KTFS24200HPGM KCP15A	.....H10
6372067	.....KTFS0591R0SS063	.....H20	6388570	.....KTFS17600HPGM KCP15A	.....H9	6388662	.....KTFS09700HPGM KCP15A	.....H8	6388744	.....KTFS05000HPG KCP15A	.....H9
6372068	.....KTFS0630R0SS063	.....H20	6388571	.....KTFS07100HPGM KCP15A	.....H8	6388663	.....KTFS08125HPG KCP15A	.....H10	6388745	.....KTFS24300HPGM KCP15A	.....H10
6372069	.....KTFS0670R0SS075	.....H20	6388572	.....KTFS17700HPGM KCP15A	.....H9	6388664	.....KTFS09800HPGM KCP15A	.....H8	6388746	.....KTFS12800HPGM KCP15A	.....H9
6372514	.....KTFS100R03SCF16M	.....H19	6388573	.....KTFS02813HPG KCP15A	.....H8	6388665	.....KTFS20700HPGM KCP15A	.....H10	6388747	.....KTFS24400HPGM KCP15A	.....H10
6372515	.....KTFS105R03SCF16M	.....H19	6388574	.....KTFS17800HPGM KCP15A	.....H9	6388666	.....KTFS09900HPGM KCP15A	.....H8	6388749	.....KTFS24500HPGM KCP15A	.....H9
6372516	.....KTFS110R03SCF16M	.....H19	6388575	.....KTFS07031HPG KCP15A	.....H9	6388667	.....KTFS20800HPGM KCP15A	.....H10	6388750	.....KTFS24500HPGM KCP15A	.....H10
6372517	.....KTFS115R03SCF16M	.....H19	6388576	.....KTFS07200HPGM KCP15A	.....H8	6388668	.....KTFS03900HPG KCP15A	.....H8	6388751	.....KTFS13000HPGM KCP15A	.....H9
6372518	.....KTFS120R03SCF16M	.....H19	6388577	.....KTFS17900HPGM KCP15A	.....H9	6388669	.....KTFS20900HPGM KCP15A	.....H10	6388752	.....KTFS24600HPGM KCP15A	.....H10
6372519	.....KTFS125R03SCF16M	.....H19	6388578	.....KTFS02900HPG KCP15A	.....H8	6388670	.....KTFS10000HPGM KCP15A	.....H8	6388753	.....KTFS05156HPG KCP15A	.....H9
6372520	.....KTFS130R03SCF16M	.....H19	6388579	.....KTFS18000HPGM KCP15A	.....H9	6388671	.....KTFS20990HPG KCP15A	.....H10	6388754	.....KTFS09688HPG KCP15A	.....H10
6372591	.....KTFS135R03SCF16M	.....H19	6388580	.....KTFS07400HPGM KCP15A	.....H8	6388672	.....KTFS03946HPG KCP15A	.....H10	6388755	.....KTFS13200HPGM KCP15A	.....H9
6372592	.....KTFS140R03SCF16M	.....H19	6388581	.....KTFS18100HPGM KCP15A	.....H9	6388673	.....KTFS21000HPGM KCP15A	.....H10	6388756	.....KTFS24700HPGM KCP15A	.....H10
6372593	.....KTFS145R03SCF16M	.....H19	6388582	.....KTFS07500HPGM KCP15A	.....H8	6388674	.....KTFS03970HPG KCP15A	.....H8	6388757	.....KTFS13280HPGM KCP15A	.....H9
6372594	.....KTFS150R03SCF20M	.....H19	6388583	.....KTFS18200HPGM KCP15A	.....H9	6388675	.....KTFS21100HPGM KCP15A	.....H10	6388758	.....KTFS24800HPGM KCP15A	.....H9
6372595	.....KTFS160R03SCF20M	.....H19	6388584	.....KTFS02969HPG KCP15A	.....H8	6388676	.....KTFS10100HPGM KCP15A	.....H8	6388759	.....KTFS13300HPGM KCP15A	.....H9
6372596	.....KTFS170R03SCF20M	.....H19	6388585	.....KTFS07188HPG KCP15A	.....H9	6388677	.....KTFS21200HPGM KCP15A	.....H10	6388760	.....KTFS24900HPGM KCP15A	.....H10
6372597	.....KTFS100R05SCF16M	.....H19	6388586	.....KTFS07600HPGM KCP15A	.....H8	6388678	.....KTFS10200HPGM KCP15A	.....H8	6388761	.....KTFS13400HPGM KCP15A	.....H9
6372598	.....KTFS105R05SCF16M	.....H19	6388587	.....KTFS18300HPGM KCP15A	.....H9	6388679	.....KTFS21300HPGM KCP15A	.....H10	6388762	.....KTFS25000HPGM KCP15A	.....H10
6372599	.....KTFS110R05SCF16M	.....H19	6388588	.....KTFS07700HPGM KCP15A	.....H8	6388680	.....KTFS04404HPG KCP15A	.....H8	6388763	.....KTFS13400HPGM KCP15A	.....H9
6372600	.....KTFS115R05SCF16M	.....H19	6388589	.....KTFS18400HPGM KCP15A	.....H9	6388681	.....KTFS21400HPGM KCP15A	.....H10	6388764	.....KTFS25100HPGM KCP15A	.....H10
6372601	.....KTFS120R05SCF16M	.....H19	6388590	.....KTFS07800HPGM KCP15A	.....H8	6388682	.....KTFS10300HPGM KCP15A	.....H8	6388765	.....KTFS05312HPG KCP15A	.....H9
6372602	.....KTFS125R05SCF16M	.....H19	6388591	.....KTFS18500HPGM KCP15A	.....H9	6388683	.....KTFS08438HPG KCP15A	.....H8	6388766	.....KTFS25200HPGM KCP15A	.....H10
6372603	.....KTFS130R05SCF16M	.....H19	6388592	.....KTFS07900HPGM KCP15A	.....H8	6388684	.....KTFS04663HPG KCP15A	.....H10	6388767	.....KTFS13500HPGM KCP15A	.....H9
6372604	.....KTFS135R05SCF16M	.....H19	6388593	.....KTFS18600HPGM KCP15A	.....H9	6388685	.....KTFS21500HPGM KCP15A	.....H10	6388768	.....KTFS25250HPGM KCP15A	.....H10
6372605	.....KTFS140R05SCF16M	.....H19	6388594	.....KTFS03125HPG KCP15A	.....H8	6388686	.....KTFS10400HPGM KCP15A	.....H8	6388769	.....KTFS13600HPGM KCP15A	.....H9
6372606	.....KTFS145R05SCF16M	.....H19	6388595	.....KTFS07344HPG KCP15A	.....H9	6388687	.....KTFS21700HPGM KCP15A	.....H10	6388770	.....KTFS25300HPGM KCP15A	.....H10
6372607	.....KTFS150R05SCF20M	.....H19	6388596	.....KTFS08000HPGM KCP15A	.....H8	6388688	.....KTFS04130HPG KCP15A	.....H8	6388771	.....KTFS13700HPGM KCP15A	.....H9
6372608	.....KTFS160R05SCF20M	.....H19	6388597	.....KTFS18700HPGM KCP15A	.....H9	6388689	.....KTFS21800HPGM KCP15A	.....H10	6388772	.....KTFS10000HPG KCP15A	.....H10
6372609	.....KTFS170R05SCF20M	.....H19	6388598	.....KTFS08100HPGM KCP15A	.....H8	6388690	.....KTFS10500HPGM KCP15A	.....H8	6388773	.....KTFS13800HPGM KCP15A	.....H9
6372610	.....KTFS100R08SCF16M	.....H19	6388599	.....KTFS03214HPG KCP15A	.....H8	6388691	.....KTFS08594HPG KCP15A	.....H10	6388774	.....KTFS25500HPGM KCP15A	.....H10
6372611	.....KTFS105R08SCF16M	.....H19	6388600	.....KTFS18800HPGM KCP15A	.....H9	6388692	.....KTFS10600HPGM KCP15A	.....H8	6388775	.....KTFS05469HPG KCP15A	.....H9
6372612	.....KTFS110R08SCF16M	.....H19	6388601	.....KTFS18900HPGM KCP15A	.....H9	6388693	.....KTFS21900HPGM KCP15A	.....H10	6388776	.....KTFS25540HPGM KCP15A	.....H10
6372613	.....KTFS115R08SCF16M	.....H19	6388602	.....KTFS03230HPG KCP15A	.....H8	6388694	.....KTFS10700HPGM KCP15A	.....H8	6388777	.....KTFS05471HPG KCP15A	.....H9
6372614	.....KTFS120R08SCF16M	.....H19	6388603	.....KTFS19000HPGM KCP15A	.....H9	6388695	.....KTFS22000HPGM KCP15A	.....H10	6388778	.....KTFS25600HPGM KCP15A	.....H10
6372615	.....KTFS125R08SCF16M	.....H19	6388604	.....KTFS08300HPGM KCP15A	.....H8	6388696	.....KTFS04219HPG KCP15A	.....H8	6388779	.....KTFS13940HPGM KCP15A	.....H9
6372616	.....KTFS130R08SCF16M	.....H19	6388605	.....KTFS07500HPG KCP15A	.....H8	6388697	.....KTFS22100HPGM KCP15A	.....H10	6388780	.....KTFS10110HPG KCP15A	.....H10
6372617	.....KTFS135R08SCF16M	.....H19	6388606	.....KTFS03281HPG KCP1							

Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)	Order No.	Catalog No.	Page(s)
6388790	.....KTFSS26000HPGM KCP15A	.....H10	6389366	.....KTFSS080R03SS10M	.....H18	6389489	.....KTFSS140R12SF16M	.....H18	6406709	.....ONGX64ANENLE KCK20	.....S33
6388791	.....KTFSS14400HPGM KCP15A	.....H9	6389367	.....KTFSS085R03SS10M	.....H18	6389490	.....KTFSS145R12SF16M	.....H18	6406710	.....ONGX645SNPG KCK20	.....S33
6388792	.....KTFSS14500HPGM KCP15A	.....H9	6389368	.....KTFSS090R03SS10M	.....H18	6389501	.....KTFSS150R12SF20M	.....H18	6406851	.....ONGX645SNPG KCPK30	.....S33
6388793	.....KTFSS14600HPGM KCP15A	.....H9	6389369	.....KTFSS095R03SS10M	.....H18	6389502	.....KTFSS160R12SF20M	.....H18	6406852	.....ONGX64ANSNGP KCK20	.....S33
6388794	.....KTFSS05774HPG KCP15A	.....H9	6389370	.....KTFSS060R05SS08M	.....H18	6389503	.....KTFSS170R12SF20M	.....H18	6406853	.....ONPX642SNPG KCPK30	.....S34
6388795	.....KTFSS05781HPG KCP15A	.....H9	6389381	.....KTFSS063R05SS08M	.....H18	6389504	.....KTFSS200R01SCF25M	.....H19	6406854	.....ONPX645SNH B KCPK30	.....S34
6388796	.....KTFSS14700HPGM KCP15A	.....H9	6389382	.....KTFSS066R05SS08M	.....H18	6389505	.....KTFSS210R01SCF25M	.....H19	6408092	.....XADA03754CU60 KCPM15	.....048
6388798	.....KTFSS14800HPGM KCP15A	.....H9	6389383	.....KTFSS070R05SS08M	.....H18	6389506	.....KTFSS220R01SCF25M	.....H19	6408093	.....XADA0500Y5CU60 KCPM15	.....048
6388799	.....KTFSS14900HPGM KCP15A	.....H9	6389384	.....KTFSS075R05SS08M	.....H18	6389507	.....KTFSS230R01SCF25M	.....H19	6408094	.....XADA0625Y6CU60 KCPM15	.....048
6388800	.....KTFSS15000HPGM KCP15A	.....H9	6389385	.....KTFSS080R05SS10M	.....H18	6389508	.....KTFSS240R01SCF25M	.....H19	6432549	.....COOL-HOSE-200-FLEX	.....C83
6388821	.....KTFSS05938HPG KCP15A	.....H9	6389386	.....KTFSS085R05SS10M	.....H18	6389509	.....KTFSS250R01SCF25M	.....H19	6432550	.....COOL-HOSE-300-FLEX	.....C83
6388822	.....KTFSS15100HPGM KCP15A	.....H9	6389387	.....KTFSS090R05SS10M	.....H18	6389510	.....KTFSS200R12SCF25M	.....H19			
6388823	.....KTFSS15200HPGM KCP15A	.....H9	6389388	.....KTFSS095R05SS10M	.....H18	6389561	.....KTFSS210R12SCF25M	.....H19			
6388824	.....KTFSS15300HPGM KCP15A	.....H9	6389389	.....KTFSS060R08SS08M	.....H18	6389562	.....KTFSS220R12SCF25M	.....H19			
6388825	.....KTFSS15380HPGM KCP15A	.....H9	6389390	.....KTFSS063R08SS08M	.....H18	6389563	.....KTFSS230R12SCF25M	.....H19			
6388826	.....KTFSS15400HPGM KCP15A	.....H9	6389391	.....KTFSS066R08SS08M	.....H18	6389564	.....KTFSS240R12SCF25M	.....H19			
6388828	.....KTFSS06094HPG KCP15A	.....H9	6389392	.....KTFSS070R08SS08M	.....H18	6389565	.....KTFSS250R12SCF25M	.....H19			
6388829	.....KTFSS15500HPGM KCP15A	.....H9	6389393	.....KTFSS075R08SS08M	.....H18	6389566	.....KTFSS180R01SS20M	.....H18			
6388830	.....KTFSS15600HPGM KCP15A	.....H9	6389394	.....KTFSS080R08SS10M	.....H18	6389567	.....KTFSS190R01SS20M	.....H18			
6388831	.....KTFSS15700HPGM KCP15A	.....H9	6389395	.....KTFSS085R08SS10M	.....H18	6389568	.....KTFSS180R12SF25M	.....H18			
6388832	.....KTFSS15800HPGM KCP15A	.....H9	6389396	.....KTFSS090R08SS10M	.....H18	6389569	.....KTFSS190R12SF25M	.....H18			
6388833	.....KTFSS06250HPG KCP15A	.....H9	6389397	.....KTFSS095R08SS10M	.....H18	6389570	.....KTFSS060R01SS08M	.....H18			
6388834	.....KTFSS15900HPGM KCP15A	.....H9	6389398	.....KTFSS0237R03SS031	.....H20	6389571	.....KTFSS063R01SS08M	.....H18			
6389147	.....KTFSS180R03SS20M	.....H18	6389399	.....KTFSS0249R03SS031	.....H20	6389572	.....KTFSS066R01SS08M	.....H18			
6389148	.....KTFSS190R03SS20M	.....H18	6389400	.....KTFSS0260R03SS031	.....H20	6389573	.....KTFSS070R01SS08M	.....H18			
6389149	.....KTFSS180R05SS20M	.....H18	6389401	.....KTFSS0276R03SS031	.....H20	6389574	.....KTFSS075R01SS08M	.....H18			
6389150	.....KTFSS190R05SS20M	.....H18	6389402	.....KTFSS0296R03SS031	.....H20	6389575	.....KTFSS080R01SS10M	.....H18			
6389271	.....KTFSS180R08SS20M	.....H18	6389403	.....KTFSS0315R03SS038	.....H20	6389576	.....KTFSS085R01SS10M	.....H18			
6389272	.....KTFSS190R08SS20M	.....H18	6389404	.....KTFSS0335R03SS038	.....H20	6389577	.....KTFSS090R01SS10M	.....H18			
6389273	.....KTFSS0709R03SS075	.....H20	6389405	.....KTFSS0355R03SS038	.....H20	6389578	.....KTFSS095R01SS10M	.....H18			
6389274	.....KTFSS0749R03SS075	.....H20	6389406	.....KTFSS0375R03SS038	.....H20	6389579	.....KTFSS060R12SF12M	.....H18			
6389275	.....KTFSS0709R05SS075	.....H20	6389407	.....KTFSS0237R05SS031	.....H20	6389580	.....KTFSS063R12SF12M	.....H18			
6389276	.....KTFSS0749R05SS075	.....H20	6389408	.....KTFSS0249R05SS031	.....H20	6389581	.....KTFSS066R12SF12M	.....H18			
6389277	.....KTFSS0709R08SS075	.....H20	6389409	.....KTFSS0260R05SS031	.....H20	6389582	.....KTFSS070R12SF12M	.....H18			
6389278	.....KTFSS0749R08SS075	.....H20	6389410	.....KTFSS0276R05SS031	.....H20	6389583	.....KTFSS075R12SF12M	.....H18			
6389279	.....KTFSS180R03SCF25M	.....H19	6389421	.....KTFSS0296R05SS031	.....H20	6389584	.....KTFSS080R12SF12M	.....H18			
6389280	.....KTFSS190R03SCF25M	.....H19	6389422	.....KTFSS0315R05SS038	.....H20	6389585	.....KTFSS085R12SF12M	.....H18			
6389281	.....KTFSS200R03SCF25M	.....H19	6389423	.....KTFSS0335R05SS038	.....H20	6389586	.....KTFSS090R12SF12M	.....H18			
6389282	.....KTFSS210R03SCF25M	.....H19	6389424	.....KTFSS0355R05SS038	.....H20	6389587	.....KTFSS095R12SF12M	.....H18			
6389283	.....KTFSS220R03SCF25M	.....H19	6389425	.....KTFSS0375R05SS038	.....H20	6397378	.....SNXF43ZSNLND KCPK30	.....S89			
6389284	.....KTFSS230R03SCF25M	.....H19	6389426	.....KTFSS0237R08SS031	.....H20	6397379	.....SNXF43ZSNH B KCPK30	.....S89			
6389285	.....KTFSS240R03SCF25M	.....H19	6389427	.....KTFSS0249R08SS031	.....H20	6397380	.....SNXF433SNPG KCPK30	.....S89			
6389286	.....KTFSS250R03SCF25M	.....H19	6389428	.....KTFSS0260R08SS031	.....H20	6397611	.....SNXF433SNH B KCPK30	.....S89			
6389287	.....KTFSS180R05SCF25M	.....H19	6389429	.....KTFSS0276R08SS031	.....H20	6397612	.....SNXF433ENLD KCPK30	.....S89			
6389288	.....KTFSS190R05SCF25M	.....H19	6389430	.....KTFSS0296R08SS031	.....H20	6397613	.....SNXF43ZSNNGP KCPK30	.....S89			
6389289	.....KTFSS200R05SCF25M	.....H19	6389431	.....KTFSS0315R08SS038	.....H20	6397614	.....SNXF43ZSNLND KCK20	.....S89			
6389290	.....KTFSS210R05SCF25M	.....H19	6389432	.....KTFSS0335R08SS038	.....H20	6397615	.....SNXF43ZSNH B KCK20	.....S89			
6389311	.....KTFSS220R05SCF25M	.....H19	6389433	.....KTFSS0355R08SS038	.....H20	6397616	.....SNXF433SNPG KCK20	.....S89			
6389312	.....KTFSS230R05SCF25M	.....H19	6389434	.....KTFSS0375R08SS038	.....H20	6397617	.....SNXF433SNH B KCK20	.....S89			
6389313	.....KTFSS240R05SCF25M	.....H19	6389436	.....KTFSS080R03SCF12M	.....H19	6397618	.....SNXF433ENLD KCK20	.....S89			
6389314	.....KTFSS250R05SCF25M	.....H19	6389437	.....KTFSS085R03SCF12M	.....H19	6397619	.....SNXF43ZSNNGP KCK20	.....S89			
6389315	.....KTFSS180R08SCF25M	.....H19	6389438	.....KTFSS090R03SCF12M	.....H19	6401814	.....A4M50L0314MC	.....C137			
6389316	.....KTFSS190R08SCF25M	.....H19	6389439	.....KTFSS095R03SCF12M	.....H19	6401815	.....A4M50R0314MC	.....C137			
6389317	.....KTFSS200R08SCF25M	.....H19	6389440	.....KTFSS080R05SCF12M	.....H19	6401816	.....A4M50L0414MC	.....C137			
6389318	.....KTFSS210R08SCF25M	.....H19	6389441	.....KTFSS085R05SCF12M	.....H19	6401817	.....A4M50R0414MC	.....C137			
6389319	.....KTFSS220R08SCF25M	.....H19	6389442	.....KTFSS090R05SCF12M	.....H19	6401818	.....A4M50L0519MC	.....C137			
6389320	.....KTFSS230R08SCF25M	.....H19	6389443	.....KTFSS095R05SCF12M	.....H19	6401819	.....A4M50R0519MC	.....C137			
6389331	.....KTFSS240R08SCF25M	.....H19	6389444	.....KTFSS080R08SCF12M	.....H19	6401820	.....A4M65L0522MC	.....C137			
6389332	.....KTFSS250R08SCF25M	.....H19	6389445	.....KTFSS085R08SCF12M	.....H19	6401831	.....A4M65R0522MC	.....C137			
6389333	.....KTFSS0788R03SCF100	.....H20	6389446	.....KTFSS090R08SCF12M	.....H19	6401832	.....A4M65L0620MC	.....C137			
6389334	.....KTFSS0827R03SCF100	.....H20	6389447	.....KTFSS095R08SCF12M	.....H19	6401833	.....A4M65L0626MC	.....C137			
6389335	.....KTFSS0867R03SCF100	.....H20	6389448	.....KTFSS100R01SS12M	.....H18	6401834	.....A4M65R0620MC	.....C137			
6389336	.....KTFSS0906R03SCF100	.....H20	6389449	.....KTFSS105R01SS12M	.....H18	6401835	.....A4M65R0626MC	.....C137			
6389337	.....KTFSS0945R03SCF100	.....H20	6389450	.....KTFSS110R01SS12M	.....H18	6401836	.....A4M65L0820MC	.....C137			
6389338	.....KTFSS0985R03SCF100	.....H20	6389471	.....KTFSS115R01SS12M	.....H18	6401837	.....A4M65L0826MC	.....C137			
6389339	.....KTFSS0788R05SCF100	.....H20	6389472	.....KTFSS120R01SS14M	.....H18	6401838	.....A4M65R0820MC	.....C137			
6389340	.....KTFSS0827R05SCF100	.....H20	6389473	.....KTFSS125R01SS14M	.....H18	6401839	.....A4M65R0826MC	.....C137			
6389341	.....KTFSS0867R05SCF100	.....H20	6389474	.....KTFSS130R01SS14M	.....H18	6401840	.....A4M65L1020MC	.....C137			
6389342	.....KTFSS0906R05SCF100	.....H20	6389475	.....KTFSS135R01SS14M	.....H18	6401851	.....A4M65L1026MC	.....C137			
6389343	.....KTFSS0945R05SCF100	.....H20	6389476	.....KTFSS140R01SS14M	.....H18	6401852	.....A4M65R1020MC	.....C137			
6389344	.....KTFSS0985R05SCF100	.....H20	6389477	.....KTFSS145R01SS16M	.....H18	6401853	.....A4M65R1026MC	.....C137			
6389345	.....KTFSS0788R08SCF100	.....H20	6389478	.....KTFSS150R01SS16M	.....H18	6401854	.....EVS MR2020K0216C	.....C36			
6389346	.....KTFSS0827R08SCF100	.....H20	6389479	.....KTFSS160R01SS16M	.....H18	6401855	.....EVS MR2525M0216C	.....C36			
6389347	.....KTFSS0867R08SCF100	.....H20	6389480	.....KTFSS170R01SS20M	.....H18	6401856	.....EVS MR2525M0226C	.....C36			
6389348	.....KTFSS0906R08SCF100	.....H20	6389481	.....KTFSS100R12SF16M	.....H18	6401857	.....EVS MR2020K0222C	.....C36			
6389349	.....KTFSS0945R08SCF100	.....H20	6389482	.....KTFSS105R12SF16M	.....H18	6401858	.....EVS MR160226C	.....C34			
6389350	.....KTFSS0985R08SCF100	.....H20	6389483	.....KTFSS110R12SF16M	.....H18	6401859	.....EVS MR160216C	.....C34			
6389361	.....KTFSS060R03SS08M	.....H18	6389484	.....KTFSS115R12SF16M	.....H18	6401860	.....EVS MR120222C	.....		

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
#1/2-20X1-1/4 LHCSA S.....	V19, V26	125.820.....	J84-85	170.295.....	H88	193.113.....	I27
#1/2-20X1-1/4SHCSA S.....	T98, T128, T131, V19, V26, V103	125.830.....	J84-85	170.296.....	H88	193.114.....	I27
#1/4-28X3/4SHCSA S.....	T98, V12, V98, V103	125B05RP90BG15CUM.....	S121	170.306.....	H38-41	193.115.....	I27
#3/4-16X1-3/4SHCSA S.....	V19, V26	125B08RP70SP15C2WUFP.....	S70	170.307.....	H38-41	193.116.....	I27
#3/8-24X1SHCSA S.....	T98, V12, V19, V98, V103	125B08RP90BG15C2WUPM.....	S122	170.308.....	H38-41	193.281.....	J10-15, J25, J27, J33, J35
#5/8-18X1-1/2SHCSA S.....	T131, V19, V26	125B10RP70SP12C2WUFP.....	S64	170.309.....	H38-41	193.297.....	C130-131
1-16NPTF-JIC.....	C83	125B10RP90SP12C2WUFP.....	S67	170.314.....	H38-41	193.300.....	S64, S70
1-8NPTF-JIC.....	C83	125B15RP90SP12C3WUFP.....	S67	170.345.....	H122	193.326.....	S123
1.10820R310.....	E15	125H11RP90SP10.....	U25	170.346.....	H122	193.371.....	J87-89
1.10825L310.....	E15	12748308500.....	S82	170.347.....	H122-123	193.372.....	J87-89
1.10825R310.....	E15	12748358200.....	S77, S82, S88	170.348.....	H123	193.389.....	V121-122
1.10825R700.....	E15	12748500200.....	S83	170.350.....	H122	193.390.....	V121-123, V132
1.17125L330.....	E16	12748500400.....	S83	170.352.....	H122	193.391.....	V121-123, V132-133
1.18016L110.....	E16	12748500500.....	S83	170.353.....	H122	193.392.....	V121, V123, V132
1.18016R110.....	E16	12748503400.....	S83	170.355.....	H122-123	193.393.....	V121-123, V132-133
1.18020L110.....	E16	12748600900.....	S77, S82, S88	170.356.....	H122-123	193.394.....	V121-123
1.18020R110.....	E16	12748601000.....	S30-31	170.365.....	H123	193.395.....	V122-123
1.18020R310.....	E16	128.508.....	H87	170.370.....	J25, J27, J33, J35	193.397.....	J75
1.18025L310.....	E16	128.510.....	H87	17X1R022B16STN16N.....	W40	193.407.....	C130
1.18025L315.....	E16	128.610.....	J75	190.076.....	I27	193.409.....	S50, V155-156
1.18025L330.....	E17	129.612.....	J84-85	190.116.....	J75	193.433.....	S44-45
1.18025R110.....	E16	129.616.....	J84-85	190.195.....	I27	193.450.....	J85
1.18025R310.....	E16	12MHCO30M.....	G79	190.371.....	I27	193.451.....	J85
1.18025R310Z.....	E20, E22	12MHCO40M.....	G79	190.458.....	J75	193.462.....	S109
1.18025R315.....	E16	12MHCO50M.....	G79	191.282.....	K76	193.465.....	S109
1.18032L315.....	E16	12MHCO60M.....	G79	191.375.....	J49, J52	193.491.....	J25, J27, J29, J31, J33, J35, J37, J39
1.18032R315.....	E16	12MHCO70M.....	G79	191.405.....	B72, B115-119, B175-176, B186, B217, B220, B236-237, B254-255, B276-279, B395-397	193.492.....	S4-5, S8-10, S14, S17, S20, S56, S58, V51-54, V62
1.38020R021.....	E17	12MHCO80M.....	G79	191.406.....	B72-74, B94, B115-119, B140-142, B174, B186-187, B198, B245, B249-251, B276-279, B394, B397-398, C196, D41	193.523.....	H126-129
1.38025L021.....	E17	12MHC100M.....	G79	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	193.524.....	H126-129
1.38025R021.....	E17	132.151.....	E16	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	193.525.....	H126-129
1.38025R021Z.....	E20, E22	132.156.....	E16	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	193.526.....	H126-129
1.77120L100.....	E18	15X1R020B16STN16C.....	W42	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	193.531.....	S24
1.77120R100.....	E18	15X1R022B16STN16T.....	W42	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	193.537.....	H126-129
1.77125R300.....	E18	160B06RP90BG15CUM.....	S121	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	193.545.....	H126-129
1.77125R300Z.....	E21, E23	160B10RP70SP15C2WUFP.....	S70	191.407.....	B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397	199.123.....	H87
1.77132R400.....	E18	160B10RP90BG15C2WUPM.....	S122	191.698.....	H122, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J84-85	19X1R023B20STN16T.....	W42
1.77225R301.....	E19	160B12RP70SP12C3WUFP.....	S64	191.725.....	I14-15, V155-156	200C16RP70SP12C4WUFP.....	S64
1.77725R301.....	E18	160B12RP90SP12C3WUFP.....	S67	191.725.....	I14-15, V155-156	20MHCO30M.....	G79
1.78012R103.....	E19	160B18RP70SP12C3WUFP.....	S64	191.726.....	H122-123, J49, J52-53	20MHCO40M.....	G79
1.78016R100.....	E19	170.000.....	K76	191.727.....	H122-123, J49, J52-53	20MHCO50M.....	G79
1.78020R100.....	E19	170.002.....	K51	191.728.....	J87, J89-92	20MHCO60M.....	G79
1.78025L100.....	E19	170.003.....	E15-20, E22, E55, E61, I14, K51, S64, S67, S70, S121-123	191.729.....	J91-92	20MHCO70M.....	G79
1.78025L300.....	E19	170.004.....	E17-23, J90, K48-51	191.848.....	J49-50, J52-53, J84-85, V44-47	20MHCO80M.....	G79
1.78025L300Z.....	E21, E23	170.005.....	I14, J91, K48-50	191.916.....	C42-45, H122-123, J25, J27, J29, J31, J33, J35, J37, J39, J85, J114	20MHCO90M.....	G79
1.78025R300.....	E19	170.006.....	J90-91, K48-50	191.916.....	H122, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J84-85, J114, V156	20MHC100M.....	G79
1.78025R300Z.....	E21, E23	170.008.....	J90-92	192.057.....	I27	20MHC110M.....	G79
1.78032L400Z.....	E21, E23	170.023.....	J10-15, J25, J27, J29, J31, J33, J35, J37, J39	192.111.....	J84-85	20MHC120M.....	G79
1.78032R400.....	E19	170.024.....	I25-27, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J114	192.112.....	J84-85	20MHC130M.....	G79
100B04RP90BG15CUM.....	S121	170.025.....	I14-15, I25-27, J25, J27, J29, J31, J33, J35, J37, J39, J49-50, J52-53, J114, S4-5, S8-10, S14, S17, S20, V44-47, V51-54, V62	192.126.....	J92	20MHC140M.....	G79
100B06RP90BG15C2WUPM.....	S122	170.026.....	J49, J52-53, V58	192.156.....	J87-90	20MHC150M.....	G79
100B08RP70SP12C2WUFP.....	S64	170.027.....	J10-15	192.157.....	J87-91	20MHC160M.....	G79
100B08RP90BG15C2WUPM.....	S122	170.028.....	I14-15, J10-15, J25, J27, J29, J31, J33, J35, J37, J39, J114	192.158.....	J92	20MHC160M.....	G79
100B08RP90SP12C2WUFP.....	S67	170.270.....	H72, H81, H85-86, H88	192.158.....	J92	20MHC160M.....	G79
100B12RP70SP12C3WUFP.....	S64	170.271.....	H84, H88	192.158.....	J92	20MHC160M.....	G79
100B12RP90SP12C3WUFP.....	S67	170.272.....	H72, H81, H85-86, H88	192.158.....	J92	20MHC160M.....	G79
100G10RP90SP10.....	U25	170.273.....	H88	192.158.....	J92	20MHC160M.....	G79
10X1R015B20STN11T.....	W42	170.274.....	H72, H81, H85-86, H88	192.158.....	J92	20MHC160M.....	G79
112.244.....	E16	170.275.....	H88	192.158.....	J92	20MHC160M.....	G79
112.403.....	E15-16	170.276.....	H72, H81, H85-86, H88	192.158.....	J92	20MHC160M.....	G79
112.404.....	E15-17, E20, E22	170.277.....	H88	192.158.....	J92	20MHC160M.....	G79
112.505.....	E16	170.278.....	H72, H81, H85-86, H88	192.158.....	J92	20MHC160M.....	G79
114.111.....	E17	170.279.....	H72, H81, H85-86, H88	192.158.....	J92	20MHC160M.....	G79
114.114.....	E17, E20, E22	170.280.....	H88	192.158.....	J92	20MHC160M.....	G79
114.305.....	E55, E61	170.281.....	H84, H88	192.158.....	J92	20MHC160M.....	G79
118.204.....	E18-19	170.282.....	H84, H88	192.158.....	J92	20MHC160M.....	G79
118.314.....	E18-19	170.283.....	H84, H88	192.158.....	J92	20MHC160M.....	G79
11X1R012B12STN11N.....	W40	170.284.....	H84, H88	192.158.....	J92	20MHC160M.....	G79
11X1R020B20STN11N.....	W40	170.285.....	H88	192.158.....	J92	20MHC160M.....	G79
121.612.....	E15-16, E18, S64, S67	170.286.....	H88	192.158.....	J92	20MHC160M.....	G79
121.616.....	E15-17, E19-20, E22, E55, E61, S70	170.287.....	H88	192.158.....	J92	20MHC160M.....	G79
121.808.....	K48-50	170.288.....	H88	192.158.....	J92	20MHC160M.....	G79
121.812.....	E17, K48-50	170.289.....	H72, H81, H86, H88	192.158.....	J92	20MHC160M.....	G79
121.816.....	E17-23	170.290.....	H88	192.158.....	J92	20MHC160M.....	G79
121.825.....	E19, E21, E23	170.291.....	H88	192.158.....	J92	20MHC160M.....	G79
12147629800.....	K116-117	170.292.....	H88	192.158.....	J92	20MHC160M.....	G79
12148006000.....	T24	170.293.....	H88	192.158.....	J92	20MHC160M.....	G79
12148044900.....	S30-31, S77, S82, S88	170.294.....	H72, H81, H88	192.158.....	J92	20MHC160M.....	G79
12148068700.....	K116-117	170.294.....	H72, H81, H88	192.158.....	J92	20MHC160M.....	G79
125.625.....	K48-50	170.294.....	H72, H81, H88	192.158.....	J92	20MHC160M.....	G79

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
2BN0187IS031A KC633M	09	2CH0750IL300A KC633M	08	2SE0750IR225A KC633M	08	3.41220R902 KC7315	116
2BN0187X100A KC633M	09	2CH0750IL300B KC633M	08	2SE0750IR225B KC633M	08	3.41220R903 CS5	116
2BN0219R062A KC633M	09	2CH0750IR150A KC633M	08	2SE0750IS100A KC633M	08	3.41220R903 KC7315	116
2BN0250IL150A KC633M	09	2CH0750IR225A KC633M	08	2SE0750IX400A KC633M	08	3.41220R904 KC7315	117
2BN0250IR075A KC633M	09	2CH0750IR225B KC633M	08	2SE0750IX400B KC633M	08	3.42805R001 CS5	130
2BN0250IR112A KC633M	09	2CH0750IS100A KC633M	08	2SE0875IL225A KC633M	08	3.42805R001 KC7215	130
2BN0250IS050A KC633M	09	2CH0750IX400A KC633M	08	2SE0875IL225B KC633M	08	3.42805R001 KMF	130
2BN0250IX150A KC633M	09	2CH0750IX400B KC633M	08	2SE0875IR150A KC633M	08	3.42805R021 KC7015	130
2BN0312IL112A KC633M	09	2CH0875IL225A KC633M	08	2SE0875IR150B KC633M	08	3.42805R021 KC7315	130
2BN0312IR081A KC633M	09	2CH0875IL225B KC633M	08	2SE1000IL300A KC633M	08	3.42805R081 KC7215	130
2BN0312IX150A KC633M	09	2CH0875IR150A KC633M	08	2SE1000IL300B KC633M	08	3.42807R001 CS5	130
2BN0375IL112A KC633M	09	2CH0875IR150B KC633M	08	2SE1000IR225A KC633M	08	3.42807R001 KC7215	130
2BN0375IR087A KC633M	09	2CH1000IL300A KC633M	08	2SE1000IR225B KC633M	08	3.42807R001 KMF	130
2BN0375IS062A KC633M	09	2CH1000IL300B KC633M	08	2SE1000IS150A KC633M	08	3.42807R021 KC7015	130
2BN0375IX300A KC633M	09	2CH1000IR225A KC633M	08	2SE1000IX400A KC633M	08	3.42807R021 KC7315	130
2BN0406IR100A KC633M	09	2CH1000IR225B KC633M	08	2SE1000IX400B KC633M	08	3.42807R081 KC7215	130
2BN0437IR100A KC633M	09	2CH1000IS150A KC633M	08	3.37042R320	114	3.76045R028V	J82-83
2BN0500IL200A KC633M	010	2CH1000IX400A KC633M	08	3.37042R820	114	3.76050R028V	J82-83
2BN0500IR100A KC633M	010	2CH1000IX400B KC633M	08	3.37051R320	114	3.76055R032V	J82-83
2BN0500IS062A KC633M	09	2SE0016IR003A KC633M	06	3.37051R820	114	3.76058R032V	J82-83
2BN0500IX150A KC633M	010	2SE0031IR007A KC633M	06	3.37052R320	114	3.76063R032V	J82-83
2BN0500IX300A KC633M	010	2SE0062IL018A KC633M	06	3.37052R820	114	3.76063R040V	J82-83
2BN0625IL225A KC633M	010	2SE0062IR012A KC633M	06	3.37060R720	126	3.76068R040V	J82-83
2BN0625IR125A KC633M	010	2SE0062IX050A KC633M	06	3.37061R320	114	3.76073R040V	J82-83
2BN0625IX300A KC633M	010	2SE0078IR018A KC633M	06	3.37061R820	114	3.76078R040V	J82-83
2BN0750IL200A KC633M	010	2SE0093IL037A KC633M	06	3.37062R320	114	3.76078R048V	J82-83
2BN0750IR150A KC633M	010	2SE0093IR018A KC633M	06	3.37062R820	114	3.76084R048V	J82-83
2BN0750IS100A KC633M	010	2SE0093IX062A KC633M	06	3.37071R320	114	3.76090R48V	J82-83
2BN0750IX300A KC633M	010	2SE0109IR037A KC633M	06	3.37071R820	114	3.76096R048V	J82-83
2BN0875IR150A KC633M	010	2SE0125IL050A KC633M	06	3.37080R720	126	3.76096R058V	J82-83
2BN1000IL300A KC633M	010	2SE0125IR025A KC633M	06	3.37081R320	114	3.76102R058V	J82-83
2BN1000IR150A KC633M	010	2SE0125IX075A KC633M	06	3.37081R820	114	3.76108R058V	J82-83
2CH0125IL050A KC633M	06	2SE0140IR056A KC633M	06	3.37091R320	114	3.76115R070V	J82-83
2CH0125IR025A KC633M	06	2SE0156IL056A KC633M	06	3.37091R820	114	3.76122R070V	J82-83
2CH0125IX075A KC633M	06	2SE0156IR031A KC633M	06	3.37092R320	114	3.76130R070V	J82-83
2CH0140IR056A KC633M	06	2SE0171IR062A KC633M	06	3.37092R820	114	3.76140R080V	J82-83
2CH0156IL056A KC633M	06	2SE0187IL075A KC633M	06	3.37100R720	126	3.76150R080V	J82-83
2CH0156IR031A KC633M	06	2SE0187IR062A KC633M	06	3.37101R332	114	3.76158R080V	J82-83
2CH0171IR062A KC633M	06	2SE0187IX112A KC633M	06	3.37101R832	114	3.76162R080V	J82-83
2CH0187IL075A KC633M	06	2SE0218IL062A KC633M	07	3.37111R332	114	3.76180R110	J82-83
2CH0187IR062A KC633M	06	2SE0218IR043A KC633M	06	3.37111R832	114	3.76195R110	J82-83
2CH0187IX112A KC633M	06	2SE0250IL112A KC633M	07	3.37120R732	126	3.76213R125	J82-83
2CH0218IL062A KC633M	07	2SE0250IR075A KC633M	07	3.37121R332	114	3.76230R160	J82-83
2CH0218IR043A KC633M	06	2SE0250IS050A KC633M	07	3.37121R832	114	3.76262R160	J82-83
2CH0250IL112A KC633M	07	2SE0250IX150A KC633M	07	3.37131R332	114	3.77000R023V	J84
2CH0250IR075A KC633M	07	2SE0281IR075A KC633M	07	3.37131R832	114	3.77000R024V	J84
2CH0250IS050A KC633M	07	2SE0312IL112A KC633M	07	3.37140R732	126	3.77000R025V	J84
2CH0250IX150A KC633M	07	2SE0312IR081A KC633M	07	3.37141R332	114	3.77000R026V	J84
2CH0281IR075A KC633M	07	2SE0312IS050A KC633M	07	3.37141R832	114	3.77000R027V	J84
2CH0312IL112A KC633M	07	2SE0312IX162A KC633M	07	3.37151R332	114	3.77000R028V	J84
2CH0312IR081A KC633M	07	2SE0343IR100A KC633M	07	3.37151R832	114	3.77000R029V	J84
2CH0312IS050A KC633M	07	2SE0375IL112A KC633M	07	3.37160R732	126	3.77000R030V	J84
2CH0312IX162A KC633M	07	2SE0375IR100A KC633M	07	3.37161R332	114	3.77000R031V	J84
2CH0343IR100A KC633M	07	2SE0375IS062A KC633M	07	3.37161R832	114	3.77000R038V	J84
2CH0375IL112A KC633M	07	2SE0375IX175A KC633M	07	3.37171R332	114	3.77000R039V	J84
2CH0375IR100A KC633M	07	2SE0406IR100A KC633M	07	3.37171R832	114	3.77000R048V	J84
2CH0375IS062A KC633M	07	2SE0437IL100A KC633M	07	3.37180R732	126	3.77000R049V	J84
2CH0375IX175A KC633M	07	2SE0437IR062A KC633M	07	3.37181R332	114	3.77000R050V	J84
2CH0406IR100A KC633M	07	2SE0437IX200A KC633M	07	3.37181R832	114	3.77000R051V	J84
2CH0437IL100A KC633M	07	2SE0468IR100A KC633M	07	3.37526R006	127	3.77000R052V	J84
2CH0437IR062A KC633M	07	2SE0500IL200A KC633M	07	3.37528R008	127	3.77000R053V	J84
2CH0437IX200A KC633M	07	2SE0500IL200B KC633M	07	3.37530R010	127	3.77000R073V	J84
2CH0468IR100A KC633M	07	2SE0500IR100A KC633M	07	3.37532R012	127	3.77000R074V	J84
2CH0500IL200A KC633M	07	2SE0500IR100B KC633M	07	3.37534R014	127	3.77000R075V	J84
2CH0500IL200B KC633M	07	2SE0500IS062A KC633M	07	3.37538R016	127	3.77000R076V	J84
2CH0500IR100A KC633M	07	2SE0500IX300A KC633M	07	3.37540R018	127	3.77000R077V	J84
2CH0500IR100B KC633M	07	2SE0500IX300B KC633M	07	3.37542R020	127	3.77000R078V	J84
2CH0500IS062A KC633M	07	2SE0562IL125A KC633M	08	3.41020R900 KMF	117	3.77000R079V	J84
2CH0500IX300A KC633M	07	2SE0562IL125B KC633M	08	3.41020R900STF CS5	117	3.77000R080V	J84
2CH0500IX300B KC633M	07	2SE0562IR075A KC633M	08	3.41020R901 CS5	116	3.77000R081V	J84
2CH0562IL125A KC633M	08	2SE0562IX225A KC633M	08	3.41020R901 KC7315	116	3.77000R082V	J84
2CH0562IL125B KC633M	08	2SE0562IX225B KC633M	08	3.41020R902 CS5	116	3.77000R083V	J84
2CH0562IR075A KC633M	08	2SE0625IL125A KC633M	08	3.41020R902 KC7315	116	3.77000R084V	J84
2CH0562IX225A KC633M	08	2SE0625IL125B KC633M	08	3.41020R903 CS5	116	3.77000R085V	J84
2CH0562IX225B KC633M	08	2SE0625IR075A KC633M	08	3.41020R903 KC7315	116	3.77000R086V	J84
2CH0625IL125A KC633M	08	2SE0625IX225A KC633M	08	3.41020R904 KC7315	117	3.77000R087V	J84
2CH0625IL125B KC633M	08	2SE0625IX225B KC633M	08	3.41220R900 KMF	117	3.77000R088V	J84
2CH0625IR075A KC633M	08	2SE0687IR137A KC633M	08	3.41220R900STF CS5	117	3.77000R224V	J85
2CH0625IX225A KC633M	08	2SE0687IR137B KC633M	08	3.41220R900STF CS5	117	3.77000R227V	J85
2CH0625IX225B KC633M	08	2SE0750IL300A KC633M	08	3.41220R901 CS5	116	3.77000R228V	J85
2CH0687IR137A KC633M	08	2SE0750IL300B KC633M	08	3.41220R901 KC7315	116	3.77000R229V	J85
2CH0687IR137B KC633M	08	2SE0750IR150A KC633M	08	3.41220R902 CS5	116	3.77000R230V	J85

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
3.77000R231V.....	J85	3SE0125I050A KC633M.....	Q16	4BN0141R056A KC633M.....	Q26	4CH0500L200B KC633M.....	Q24
3.77000R239V.....	J85	3SE0125I025A KC633M.....	Q16	4BN0156R056A KC633M.....	Q26	4CH0500R100A KC633M.....	Q24
3.77000R248V.....	J85	3SE0125X062A KC633M.....	Q16	4BN0172R062A KC633M.....	Q26	4CH0500R100B KC633M.....	Q24
3.77000R249V.....	J85	3SE0156R056A KC633M.....	Q16	4BN0187L062A KC633M.....	Q26	4CH0500S062A KC633M.....	Q24
3.77000R250V.....	J85	3SE0188L062A KC633M.....	Q16	4BN0187R031A KC633M.....	Q26	4CH0500X300A KC633M.....	Q24
3.77000R251V.....	J85	3SE0188R056A KC633M.....	Q16	4BN0187X100A KC633M.....	Q26	4CH0562L125A KC633M.....	Q24
3.77000R252V.....	J85	3SE0188S031A KC633M.....	Q16	4BN0203R062A KC633M.....	Q26	4CH0562L125B KC633M.....	Q24
3.77000R253V.....	J85	3SE0188X100A KC633M.....	Q16	4BN0219R062A KC633M.....	Q26	4CH0562R075A KC633M.....	Q24
3.77000R274V.....	J85	3SE0219L075A KC633M.....	Q16	4BN0234R075A KC633M.....	Q26	4CH0562X225A KC633M.....	Q24
3.77000R276V.....	J85	3SE0219R062A KC633M.....	Q16	4BN0250L150A KC633M.....	Q26	4CH0625L125B KC633M.....	Q24
3.77000R278V.....	J85	3SE0250L100A KC633M.....	Q16	4BN0250R075A KC633M.....	Q26	4CH0625L225B KC633M.....	Q24
3.77000R280V.....	J85	3SE0250R075A KC633M.....	Q16	4BN0250I112A KC633M.....	Q26	4CH0625R125A KC633M.....	Q24
3.77000R282V.....	J85	3SE0250S050A KC633M.....	Q16	4BN0250S050A KC633M.....	Q26	4CH0625R125B KC633M.....	Q24
3.77000R284V.....	J85	3SE0250X150A KC633M.....	Q16	4BN0250X150A KC633M.....	Q26	4CH0625S075A KC633M.....	Q24
3.77000R286V.....	J85	3SE0281L081A KC633M.....	Q16	4BN0281R075A KC633M.....	Q26	4CH0625X400A KC633M.....	Q24
3.77000R288V.....	J85	3SE0281R075A KC633M.....	Q16	4BN0312L112A KC633M.....	Q26	4CH0687R137A KC633M.....	Q24
302.009.....	J90	3SE0312L081A KC633M.....	Q16	4BN0312R081A KC633M.....	Q26	4CH0750L300A KC633M.....	Q24
302.010.....	J90	3SE0312R050A KC633M.....	Q16	4BN0312S050A KC633M.....	Q26	4CH0750L300B KC633M.....	Q24
302.011.....	J90	3SE0375L100A KC633M.....	Q16	4BN0312X162A KC633M.....	Q26	4CH0750R150A KC633M.....	Q24
302.014.....	J92	3SE0375R088A KC633M.....	Q16	4BN0344R100A KC633M.....	Q26	4CH0750R150B KC633M.....	Q24
30X1R052B25STN27N.....	W40	3SE0375S050A KC633M.....	Q16	4BN0375L112A KC633M.....	Q27	4CH0750R225A KC633M.....	Q24
30X1R092B25STN27L.....	W41	3SE0375X112A KC633M.....	Q16	4BN0375R100A KC633M.....	Q27	4CH0750R225B KC633M.....	Q24
32MHC060M.....	G79	3SE0437L088A KC633M.....	Q16	4BN0375S100A KC633M.....	Q26	4CH0750X400A KC633M.....	Q24
32MHC070M.....	G79	3SE0437R062A KC633M.....	Q16	4BN0375X150A KC633M.....	Q27	4CH0875L225A KC633M.....	Q25
32MHC080M.....	G79	3SE0437X100A KC633M.....	Q16	4BN0437R100A KC633M.....	Q27	4CH0875L225B KC633M.....	Q25
32MHC090M.....	G79	3SE0500L200A KC633M.....	Q17	4BN0500L200A KC633M.....	Q27	4CH0875R150A KC633M.....	Q25
32MHC100M.....	G79	3SE0500R100A KC633M.....	Q16	4BN0500R100A KC633M.....	Q27	4CH0875R150B KC633M.....	Q25
32MHC110M.....	G79	3SE0563R112A KC633M.....	Q17	4BN0500R200A KC633M.....	Q27	4CH1000L300A KC633M.....	Q25
32MHC120M.....	G79	3SE0563R112B KC633M.....	Q17	4BN0500S100A KC633M.....	Q27	4CH1000L300B KC633M.....	Q25
32MHC130M.....	G79	3SE0625L125A KC633M.....	Q17	4BN0500X150A KC633M.....	Q27	4CH1000R225A KC633M.....	Q25
32MHC140M.....	G79	3SE0625L125B KC633M.....	Q17	4BN0500X300A KC633M.....	Q27	4CH1000R225B KC633M.....	Q25
32MHC150M.....	G79	3SE0625R075A KC633M.....	Q17	4BN0562R125A KC633M.....	Q27	4CH1000S150A KC633M.....	Q25
32MHC160M.....	G79	3SE0625R075B KC633M.....	Q17	4BN0625L225A KC633M.....	Q27	4CH1000X400A KC633M.....	Q25
35X1R055B32STNB38N.....	W41	3SE0750L150A KC633M.....	Q17	4BN0625R125A KC633M.....	Q27	4SE0015R003A KC633M.....	Q22
360.510.....	I25-26	3SE0750L150B KC633M.....	Q17	4BN0750L300A KC633M.....	Q27	4SE0031R008A KC633M.....	Q22
360.511.....	I25-26	3SE0750R100A KC633M.....	Q17	4BN0750R150A KC633M.....	Q27	4SE0062R010A KC633M.....	Q22
360.513.....	I25-26	3SE0750X225A KC633M.....	Q17	4BN0875R150A KC633M.....	Q27	4SE0078R018A KC633M.....	Q22
360.516.....	I25	3SE0750X225B KC633M.....	Q17	4BN1000L225A KC633M.....	Q27	4SE0093L062A KC633M.....	Q22
360.550.....	I25-27	3SE1000R150A KC633M.....	Q17	4BN1000R150A KC633M.....	Q27	4SE0093R037A KC633M.....	Q22
360.551.....	H87, I25-27	3SE1000X225A KC633M.....	Q17	4CH0125L075A KC633M.....	Q22	4SE0109R037A KC633M.....	Q22
360.630.....	I26, I29	3SE1000X225B KC633M.....	Q17	4CH0125R050A KC633M.....	Q22	4SE0125L075A KC633M.....	Q22
360.631.....	I26, I29	40A02RP90BG15CUPM.....	S122	4CH0125S025A KC633M.....	Q22	4SE0125R050A KC633M.....	Q22
360.632.....	I26, I29	410.081.....	E15, S64, S67	4CH0125X100A KC633M.....	Q22	4SE0125S025A KC633M.....	Q22
360.633.....	I26, I29	410.083.....	S121-123	4CH0140R056A KC633M.....	Q22	4SE0125X100A KC633M.....	Q22
360.634.....	I26	410.084.....	E18-19, E21, E23, S70	4CH0156R056A KC633M.....	Q22	4SE0140R056A KC633M.....	Q22
360.635.....	I26, I29	410.091.....	E18-19, E21, E23	4CH0187L075A KC633M.....	Q22	4SE0156R056A KC633M.....	Q22
360.636.....	I26, I29	4111492VRS.....	B168, B386	4CH0187R062A KC633M.....	Q22	4SE0187L075A KC633M.....	Q22
360.637.....	I26, I29	4111573VRS.....	B168, B386	4CH0187S075A KC633M.....	Q22	4SE0187R062A KC633M.....	Q22
360.650.....	I25, I29	4111593VRS.....	B168, B386	4CH0187X112A KC633M.....	Q22	4SE0187S075A KC633M.....	Q22
360.651.....	I25, I29	4111603VRS.....	B168, B386	4CH0203R062A KC633M.....	Q22	4SE0187X112A KC633M.....	Q22
360.652.....	I25, I29	4111654VRS.....	B168, B386	4CH0218L062A KC633M.....	Q22	4SE0203R062A KC633M.....	Q22
360.653.....	I25, I29	4111664VRS.....	B168, B386	4CH0218R043A KC633M.....	Q22	4SE0218L062A KC633M.....	Q23
360.654.....	I25, I29	4111674VRS.....	B168, B386	4CH0234R075A KC633M.....	Q23	4SE0218R043A KC633M.....	Q23
360.655.....	I25, I29	420.060.....	S121-123	4CH0250L112A KC633M.....	Q23	4SE0234R075A KC633M.....	Q23
360.660.....	H87	420.101 SCREW.....	S121-123	4CH0250R075A KC633M.....	Q23	4SE0250L112A KC633M.....	Q23
360.661.....	H87	420.121.....	S121-123	4CH0250S050A KC633M.....	Q23	4SE0250R075A KC633M.....	Q23
360.663.....	H87	420.161.....	S121-122	4CH0250X150A KC633M.....	Q23	4SE0250S050A KC633M.....	Q23
360.664.....	H87	420.162.....	S32	4CH0265R075A KC633M.....	Q23	4SE0250X150A KC633M.....	Q23
360.665.....	H87	420.201.....	S17, S20, S24, S32, S45, S50, S121-122, T17	4CH0281R075A KC633M.....	Q23	4SE0265R075A KC633M.....	Q23
360.666.....	H87	420.241.....	S17, S20, S24, S32, S50, S121-122, T17	4CH0296R081A KC633M.....	Q23	4SE0281R075A KC633M.....	Q23
360.667.....	H87	42X2R045B32STN27D.....	W43	4CH0312L112A KC633M.....	Q23	4SE0296R081A KC633M.....	Q23
360.668.....	H87	460.716.....	J92	4CH0312R081A KC633M.....	Q23	4SE0312L112A KC633M.....	Q23
360.669.....	H87	46X1R100B40STNB38L.....	W41	4CH0312S050A KC633M.....	Q23	4SE0312R081A KC633M.....	Q23
360.670.....	H87	470.232.....	S32	4CH0312X162A KC633M.....	Q23	4SE0312S050A KC633M.....	Q23
364.010.....	H72-73, H75, H77, H79, H81-82, H84-86, H122	470.240.....	S17, S20, S24, S45, S50, S121-122	4CH0328R100A KC633M.....	Q23	4SE0312X162A KC633M.....	Q23
364.011.....	H72-75, H77-79, H81-82, H84-86, H122	470.241.....	S17, S20, S24, S32, S50, S121-122	4CH0343R100A KC633M.....	Q23	4SE0328R100A KC633M.....	Q23
364.012.....	H72, H74-76, H78-86, H122-123	470.242.....	S20, S24, S32	4CH0359R100A KC633M.....	Q23	4SE0343R100A KC633M.....	Q23
364.013.....	H72, H74, H76, H78, H80-81, H83-86, H123	470.243.....	S20, S24, S32	4CH0375L112A KC633M.....	Q23	4SE0359R100A KC633M.....	Q23
364.015.....	H72, H74, H81, H83, H85-86, H123	479.100.....	S64, S67, S70	4CH0375R100A KC633M.....	Q23	4SE0375L112A KC633M.....	Q23
364.016.....	H72-73, H75, H81-82, H85-86, H122	4BN00031R008A KC633M.....	Q26	4CH0375S062A KC633M.....	Q23	4SE0375R100A KC633M.....	Q23
364.017.....	H72-73, H75, H81-82, H85-86	4BN00047R012A KC633M.....	Q26	4CH0375X175A KC633M.....	Q23	4SE0375S062A KC633M.....	Q23
37X1R058B32STN27N.....	W40	4BN00062R019A KC633M.....	Q26	4CH0390R100A KC633M.....	Q23	4SE0375X175A KC633M.....	Q23
37X1R098B32STN27L.....	W41	4BN00078R019A KC633M.....	Q26	4CH0406R100A KC633M.....	Q23	4SE0390R100A KC633M.....	Q23
3SE00031R007A KC633M.....	Q16	4BN00094L037A KC633M.....	Q26	4CH0421R100A KC633M.....	Q23	4SE0406R100A KC633M.....	Q23
3SE00047R011A KC633M.....	Q16	4BN00094R019A KC633M.....	Q26	4CH0437L200A KC633M.....	Q23	4SE0421R100A KC633M.....	Q23
3SE00062R019A KC633M.....	Q16	4BN01091R037A KC633M.....	Q26	4CH0437R100A KC633M.....	Q23	4SE0437L200A KC633M.....	Q23
3SE00078R011A KC633M.....	Q16	4BN0125L075A KC633M.....	Q26	4CH0437S100A KC633M.....	Q23	4SE0437R100A KC633M.....	Q23
3SE00094R037A KC633M.....	Q16	4BN0125R050A KC633M.....	Q26	4CH0437X300A KC633M.....	Q23	4SE0437S100A KC633M.....	Q23
3SE01091R037A KC633M.....	Q16	4BN0125S025A KC633M.....	Q26	4CH0453R100A KC633M.....	Q24	4SE0437X300A KC633M.....	Q24
3SE01091R037A KC633M.....	Q16	4BN0125X075A KC633M.....	Q26	4CH0468R100A KC633M.....	Q24	4SE0453R100A KC633M.....	Q24
				4CH0484R100A KC633M.....	Q24	4SE0468R100A KC633M.....	Q24
				4CH0500L200A KC633M.....	Q24	4SE0484R100A KC633M.....	Q24

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
4SE0500IL200A KC633M	Q24	5.34350-090100	J92	848.420.614	K124-126	A08NKQCR05	E46
4SE0500IL200B KC633M	Q24	5.36050-154050	J91	848.550.005	K125	A08RCTFPL2	B183, B389
4SE0500IR100A KC633M	Q24	5.36050154040	J91	848.550.620	K124-126	A08RCTFPR2	B183, B389
4SE0500IR100B KC633M	Q24	50A03RP90BG15CUM	S121	848.720.000	K124-126	A08RCTLNR2	B388
4SE0500IS062A KC633M	Q24	50A03RP90BG15CUPM	S122	848.720.005	K125	A08RCTLPL2	B185, B390
4SE0500IX000A KC633M	Q24	50A04RP70SP12CUFP	S64	848.940.640	K124, K126	A08RCTLPR2	B185, B390
4SE0562IL125A KC633M	Q24	50A04RP90SP12CUFP	S67	880.252.200	K137-139	A08RSCFCR2	B196
4SE0562IL125B KC633M	Q24	50A05RP70SP12CUFP	S64	880.252.250	K137-139	A08RSCFFL2	B212
4SE0562IR075A KC633M	Q24	50A05RP90SP12CUFP	S67	880.252.320	K137-139	A08RSCFFR2	B212
4SE0562IR225A KC633M	Q24	50HC030M	G79	880.252.420	K137-138	A08RSCCL2	B197
4SE0625IL125A KC633M	Q24	50HC040M	G79	880.252.550	K137-138	A08RSCCLR2	B197
4SE0625IL225B KC633M	Q24	50HC050M	G79	881.252.200	K137-139	A08RSCPL2	B213
4SE0625IR125A KC633M	Q24	50HC060M	G79	881.252.250	K137-139	A08RSCPLR2	B213
4SE0625IR125B KC633M	Q24	50HC080M	G79	881.252.320	K137-139	A08RSDUCL2	B230
4SE0625IS075A KC633M	Q24	50HC100M	G79	881.252.420	K137-138	A08RSDUCR2	B230
4SE0625IX400A KC633M	Q24	551.326	B383-384, B391	881.252.550	K137-138	A08RSDUPL2	B234
4SE0687IR137A KC633M	Q24	551.343	B391	881.252.720	K137-138	A08RSDUPR2	B234
4SE0750IL300A KC633M	Q24	552.210	B384	881.252.940	K137-138	A08RSDXCL2	B230
4SE0750IL300B KC633M	Q24	552.221	B383, B391	886038045	K136	A08RSDXCR2	B230
4SE0750IR150A KC633M	Q24	552.230	B391	9X1R012B12STN10M	W40	A08RSDXPL2	B235
4SE0750IR150B KC633M	Q24	552.232	B383-384	9X1R017B20STN10M	W40	A08RSDXPR2	B235
4SE0750IR225A KC633M	Q24	554.260	B383-384, B391	A0306GSCLDL12	B203	A08RSTFCR2	B261
4SE0750IR225B KC633M	Q24	5720VZ16HA025Z2R75	T99	A0306GSCLDR12	B203	A08RSTFDR2	B261
4SE0750IS100A KC633M	Q24	5720VZ16HA032Z3R75	T99	A0306SWLPL15	B291	A08RSTFPL2	B271
4SE0750IX400A KC633M	Q24	5720VZ16HA040Z4R75	T99	A0306SWLPR15	B291	A08RSTLPR2	B271
4SE0875IL225A KC633M	Q25	5720VZ16HA050Z4R75	T99	A03G6STLDR128	B265	A08RSTLCL2	B262
4SE0875IL225B KC633M	Q25	63A03RP90BG15CUM	S121	A03XSC7DL12	B204	A08RSTLCR2	B262
4SE0875IR150A KC633M	Q25	63A04RP90BG15C1WUPM	S122	A03XSC7DR12	B204	A08RSTLPL2	B274
4SE0875IR150B KC633M	Q25	63A04RP90BG15C4WUHPM	S123	A03XSCFDR12	B200	A08RSTLPR2	B274
4SE1000IL300A KC633M	Q25	63A05RP90SP12CUFP	S67	A03XSCDL12	B201	A08RSVMBR2E	B284
4SE1000IL300B KC633M	Q25	63A07RP70SP12CUFP	S64	A03XSCDLR12	B201	A08RSWLCR2	B287
4SE1000IR225A KC633M	Q25	75HC030M	G79	A03XSCDLR12A	B201	A08RSWLPL2	B289
4SE1000IR225B KC633M	Q25	75HC040M	G79	A0406HSCLDL12	B203	A08RSWLPR2	B289
4SE1000IS150A KC633M	Q25	75HC050M	G79	A0406HSCLDR12	B203	A08SCLPR2D	B217
4SE1000IX400A KC633M	Q25	75HC060M	G79	A0406SWLPR15	B291	A10CTFPL2	B183, B389
5.34032-025115	J88	75HC080M	G79	A0406XSOFDR12125	B201	A10CTLNL2	B388
5.34032-025200	J88	75HC100M	G79	A0406XSCLDR12075	B203	A10KNTTOR1	C190
5.34032-028115	J88	75HC120M	G79	A0406XSCLDR12125	B203	A10MEVEML0207L	C53
5.34032-028200	J88	75HC140M	G79	A0408XSOFDR12075	B201	A10MEVEML0307L	C53
5.34032-032125	J88	75HC160M	G79	A04FSCFDR12	B200	A10MEVEML1F07L	C53
5.34050-025300	J88	80A03RP90BG15CUM	S121	A04FSCDL12	B201	A10MEVEMR0207L	C52
5.34050-025450	J88	80A05RP90BG15C1WUPM	S122	A04FSCDLR12	B201	A10MEVEMR0307L	C52
5.34050-028300	J88	80A05RP90BG15C5WUHPM	S123	A04HSTFDR128	B264	A10MEVEMR1F07L	C52
5.34050-028450	J88	80A06RP70SP12C1WUFP	S64	A04HSTLDR128	B265	A10NER1	C190, D36
5.34050-032200	J88	80A06RP90BG15C2WUPM	S122	A04HSWUPR15	B291	A10NKLCR05	E44
5.34050-032500	J88	80A06RP90SP12C1WUFP	S67	A0506KSWLPR18	B215	A10RA4SAL2S12N017021	C134
5.34050-040148	J88	80A08RP70SP12C2WUFP	S64	A0506KSWLPR15	B291	A10RA4SAR2S12N017021	C134
5.34050-040300	J88	80A08RP90SP12C2WUFP	S67	A0506STFPR18	B273	A10SCLPR2D	B217
5.34050-040450	J88	840.142.200	K122-124	A05HSTLDR128	B265	A10SCTFPR2	B183, B389
5.34050-040600	J88	840.142.250	K122-124	A05HSWUPR15	B291	A10SCTLNR2	B388
5.34050-048168	J88	840.142.320	K122-123	A05KSTFPR18	B271	A10SCTLPL2	B185, B390
5.34050-048300	J88	840.142.420	K122-123	A06MCTLPR2	B185, B390	A10SNEL2	C191, D35
5.34050-048450	J88	840.142.550	K122-123	A06MSCFCR2	B196	A10SNER2	C191, D35
5.34050-048600	J88	840.142.720	K122-123	A06MSCFFL2	B212	A10SNKLCLO5	E44
5.34050-058186	J88	840.142.940	K122-123	A06MSCFPR2	B212	A10SSCFCL2	B196
5.34050-058300	J88	841.142.200	K122-124	A06MSCLCL2	B197	A10SSCFCR2	B196
5.34050-058450	J88	841.142.250	K122-124	A06MSCLCR2	B197	A10SSCFFL2	B212
5.34050-058600	J88	841.142.320	K122-123	A06MSCLPL2	B213	A10SSCFFR2	B212
5.34050032350	J88	841.142.420	K122-123	A06MSCLPR2	B213	A10SSCLCL2	B197
5.34125R025150	J87	841.142.550	K122-123	A06MSDUCL2	B230	A10SSCLCL3	B197
5.34128R028150	J87	841.142.720	K122-123	A06MSDUCR2	B230	A10SSCLCR2	B197
5.34132R032100	J87	841.142.940	K122-123	A06MSDUPL2	B234	A10SSCLCR3	B197
5.34132R032200	J87	841.342.200	K122-124	A06MSDUPR2	B234	A10SSCLPL2	B213
5.34140R040200	J87	841.342.420	K122-123	A06MSTFCR2	B261	A10SSCLPL3	B213
5.34148R048200	J87	843.006.000	K124-126, K140	A06MSTFPL2	B271	A10SSCLPL3AP5	B216
5.34158R058300	J87	843.009.000	K124-126, K140	A06MSTFPR2	B271	A10SSCLPR2	B213
5.34170R070186	J87	843.012.000	K124-126	A06MSTLCL2	B262	A10SSCLPR3	B213
5.34170R070300	J87	844.012.000	K124-126	A06MSTLCR2	B262	A10SSCLPR3AP5	B216
5.34170R070500	J87	844.016.000	K124-126	A06MSTLPL2	B274	A10SSDUCL2	B230
5.34180R080204	J87	845.012.000	K124-126	A06MSTLPR2	B274	A10SSDUCR2	B230
5.34180R080300	J87	845.016.000	K124-126	A06MSWLCR2	B287	A10SSDUPL2	B234
5.34180R080500	J87	846.012.000	K124-126	A06MSWLPR2	B289	A10SSDUPR2	B234
5.34240R032100	J87	846.016.000	K124-126	A06NER1	C190, D36	A10SSDXPL2	B235
5.34248R040100	J87	847.012.000	K124-126	A08RCTFPR2	B183, B389	A10SSDXPR2	B235
5.34258R048100	J87	847.016.000	K124-126	A08KEVEML0205L	C53	A10SSTFCR2	B261
5.34270R058100	J87	848.200.005	K125	A08KEVEML1F05L	C53	A10SSTFPR2	B271
5.34280R028080	J87	848.200.407	K124-126	A08KEVEMR0205L	C52	A10SSTLCL2	B262
5.34280R032080	J87	848.250.005	K125	A08KEVEMR1F05L	C52	A10SSTLCR2	B262
5.34280R040080	J87	848.250.409	K124-126	A08NEL2	C191, D35	A10SSTLPL2	B274
5.34280R048080	J87	848.320.005	K125	A08NER1	C190, D36	A10SSTLPR2	B274
5.34280R058080	J87	848.320.413	K124-126	A08NER2	C191, D35	A10SSVMBR2E	B284
5.34280R070150	J87	848.420.005	K125	A08NKQCL05	E46	A10SSVQBL2	B284

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
A10SSVQBR2	B284	A16MNNTOR2	C192	A20MSKNR4	B114	A24UDCLNR5KC4	B68
A10SSVLCR3	B287	A16MTFNL3	B139	A20MTUNR3D	B139	A24UDDPNL4KC3	B91
A10SSWLP3	B289	A16MTFNR3	B139	A20NEL3	C191, D35	A24UDDPNR4KC3	B91
A10SSWLP3	B289	A16NEL3	C191, D35	A20NER3	C191, D35	A24UDDQNL4KC3	B91
A12KEVEMLO205M	C55	A16NER3	C191, D35	A20NKLRO5	E44	A24UDDQNR4KC3	B91
A12KEVEML1F05M	C55	A16NKLRO5	E44	A20NVJCR3	E47	A24UDUNR4KC3	B92
A12KEVEMR0205M	C54	A16NKQCL05	E46	A20NVLCR3	E47	A24UDVUNL3KC3	B154
A12KEVEMR1F05M	C54	A16NKQCR05	E46	A20QEVEMLO207M	C55	A24UDVUNR3KC3	B154
A12MNNNTOL2	C192	A16NKXCR05	E46	A20QEVEMLO307M	C55	A24UMCKNR4	B70
A12MNNTOR1	C190	A16RA4EML0310N	C132	A20QEVEML1F07M	C55	A24UMCLNL4	B71
A12MNNTOR2	C192	A16RA4EML0410N	C132	A20QEVEMR0207M	C54	A24UMCLNR4	B71
A12NEL2	C191, D35	A16RA4EMR0210N	C132	A20QEVEMR0307M	C54	A24UMDNFR4	B93
A12NXQCR05	E46	A16RA4EMR0310N	C132	A20QEVEMR1F07M	C54	A24UMDUNL4	B93
A12QEVEMLO207M	C53	A16RA4EMR0410N	C132	A20QNNNTOL2	C192	A24UMDUNR4	B93
A12QEVEMLO307M	C53	A16RA4SAL2S12M017021	C134	A20QNNTOR2	C192	A24UMTFNR3	B139
A12QEVEML1F07M	C53	A16RA4SAL3S14N026036	C134	A20RA4EML0207M	C133	A24UMTFNR4	B139
A12QEVEMR0207M	C52	A16RA4SAR2S12M017021	C134	A20RA4EML0307M	C133	A24UMVUNL3	B154
A12QEVEMR0307M	C52	A16RA4SAR2S12N026036	C134	A20RA4EML0407M	C133	A24UMVUNR3	B154
A12QEVEMR1F07M	C52	A16RA4SAR3S14N026036	C134	A20RA4EMR0207M	C133	A24UNSL3	C194
A12RA4EML0307N	C132	A16REVEML0210L	C53	A20RA4EMR0307M	C133	A24UNSR3	C194
A12RA4EML0407N	C132	A16REVEML0310L	C53	A20RA4EMR0407M	C133	A24REVEML0210M	C133
A12RA4EMR0207N	C132	A16REVEML0410L	C53	A20RA4SAL2S12M021026	C134	A25RA4EML0310M	C133
A12RA4EMR0307N	C132	A16REVEMR0210L	C52	A20RA4SAR2S12M021026	C134	A25RA4EML0410M	C133
A12RA4EMR0407N	C132	A16REVEMR0310L	C52	A20RA4SAR3S14M021026	C134	A25RA4EMR0210M	C133
A12RA4SAR2S12N021026	C134	A16REVEMR0410L	C52	A20SA4EMR0312N	C132	A25RA4EMR0310M	C133
A12SCLPR3D	B217	A16REVSAL0212026030	C56	A20SA4EMR0412N	C132	A25RA4EMR0410M	C133
A12SCTFPL3	B183, B389	A16REVSAL0312030035	C56	A20SA4EMR0516N	C132	A25RA4SAL2S12M026036	C134
A12SCTFPR3	B183, B389	A16REVSAR0212026030	C56	A20SA4EMR0616N	C132	A25RA4SAL3S14M026036	C134
A12SCTPL3	B185, B390	A16REVSAR0312030035	C56	A20SEVEMLO312L	C53	A25RA4SAR2S12M026036	C134
A12SCTLPR3	B185, B390	A16SCFPR3	B212	A20SEVEMLO412L	C53	A25RA4SAR3S14M026036	C134
A12SNFR2	C191, D35	A16SCLPL3	B213	A20SEVEMR0312L	C52	A25REVEML0210M	C55
A12SNKLCLO5	E44	A16SCLPL3AP5	B216	A20SEVEMR0412L	C52	A25REVEML0310M	C55
A12SNKLCRO5	E44	A16SCLPR3AP5	B216	A20SEVSAL0312033042	C56	A25REVEML0410M	C55
A12SNKQCL05	E46	A16STFC3	B261	A20SEVSAR0312033042	C56	A25REVEMR0210M	C54
A12SNKQCR05	E46	A16STFCR3	B261	A20UCTFPR3	B183, B389	A25REVEMR0310M	C54
A12SSCFCL3	B196	A16STFPR3	B271	A20UDCLNL4KC3	B68	A25REVEMR0410M	C54
A12SSCFCR3	B196	A16STLCL3	B262	A20UDCLNR4KC3	B68	A25REVSAL0212M026030	C57
A12SSCFPL3	B212	A16STLCR3	B262	A20UDDPNR4KC3	B91	A25REVSAL0312M030035	C57
A12SSCFPR3	B212	A16STLPR3	B274	A20UDDQNL4KC3	B91	A25REVSAR0212M026030	C57
A12SSCLCL3	B197	A16SWLPR3	B289	A20UDDQNR4KC3	B91	A25REVSAR0312M030035	C57
A12SSCLCR3	B197	A16TCTFPR3	B183, B389	A20UDDUNR3KC3	B92	A25RNNTOL2	C192
A12SSCLPL3	B213	A16TDCFNR4KC3	B67	A20UDDUNR4KC3	B92	A25RNNTOL3	C192
A12SSCLPL3AP5	B216	A16TDCLNL4KC3	B68	A20UDSKNL3KC2	B113	A25RNNTOR2	C192
A12SSCLPR3	B213	A16TDCLNR3KC2	B68	A20UDVUNR3KC3	B154	A25RNNTOR3	C192
A12SSCLPR3AP5	B216	A16TDCLNR4KC3	B68	A20UMCLNL4	B71	A2732SVSPRW4	B285
A12SSDUCL3	B230	A16TDDUNL3KC3	B92	A20UMCLNR4	B71	A28MDUNL4	B93
A12SSDUCR3	B230	A16TDDUNR3KC3	B92	A20UMDNFR4	B93	A28MDUNR4	B93
A12SSDUP3	B234	A16TDTFNR3KC3	B138	A20UMDUNL4	B93	A28MTFNR3	B139
A12SSDUPR3	B234	A16TMCFNL4	B69	A20UMDUNR4	B93	A28MTFNR4	B139
A12SSDXCR3	B230	A16TMCLNL4	B71	A20UMTFNR3	B139	A28NEL3	C191, D35
A12SSDXPR3	B235	A16TMCLNR4	B71	A20UMVUNL3	B154	A28NEL4	C191, D35
A12SSTFC3	B261	A16TMDUNL3	B93	A20UMVUNR3	B154	A28NER3	C191, D35
A12SSTFCR3	B261	A16TMDUNR3	B93	A20UNSR3	C194	A28NER4	C191, D35
A12SSTFPL3	B271	A16TNEL2	C191, D35	A24CCLNL4MX5	B391	A28UDCLNL4KC3	B68
A12SSTFPR3	B271	A16TNER2	C191, D35	A24CCLNR4MX5	B391	A28UDCLNR4KC3	B68
A12SSTLCL3	B262	A16TNKLCLO5	E44	A24CCLPR4	B165, B389	A28UMCLNL4	B71
A12SSTLCR3	B262	A16TNSL3	C194	A24CTFPL4	B183, B389	A28UMCLNR4	B71
A12SSTLPL3	B274	A16TNSR3	C194	A24CTFPR3	B183, B389	A2906XSCLDR1205	B203
A12SSTLPR3	B274	A16TSCFCR3	B196	A24CTFPR4	B183, B389	A2906XSCLDR121	B203
A12SSVMBR3E	B284	A16TSCCL3	B197	A24MCFNL4	B69	A2908XSCLDR121	B203
A12SSVQBL2	B284	A16TSCLCR3	B197	A24MCFNR4	B69	A3206XSCLDR1205	B203
A12SSVQBR2	B284	A16TSCLP3	B213	A24MCKNL4	B70	A3206XSCLDR121	B203
A12SSVUBL2	B285	A16TSDUCL3	B230	A24MCLNL5	B71	A3208XSCLDR121	B203
A12SSVUBR2	B285	A16TSDUCR3	B230	A24MCLNR4D	B69	A32CCLNL4MX5	B391
A12SSWLP3	B289	A16TSDUPL3	B234	A24MCLNR5	B71	A32CCLNR4MX5	B391
A12SSWLP3	B289	A16TSDUPR3	B234	A24MDPNL4	B92	A32CRGNR4MN5	B391
A16CCLPR4	B165, B389	A16TSDXCL3	B230	A24MDPNR4	B92	A32CTFPR4	B183, B389
A16CRGNL3	B388	A16TSDXCR3	B230	A24MDQNL4	B93	A32MCKNR4	B70
A16CRGNR3	B388	A16TSDXPL3	B235	A24NEL3	C191, D35	A32MCLNL5	B71
A16CTLPL3	B185, B390	A16TSDXPR3	B235	A24NER3	C191, D35	A32MCLNR4D	B69
A16CTLPR3	B185, B390	A16TSMVBR3E	B284	A24NKLRO5	E44	A32MCLNR5	B71
A16MCFNR4	B69	A16TSSVQBL3	B284	A24NVLCR3	E47	A32MCLNR5D	B69
A16MCLNL3	B71	A16TSSVQBR3	B284	A24TA4EML0516N	C132	A32MTFNR4	B139
A16MCLNR3	B71	A16TSSVUBL3	B285	A24TA4EML0616N	C132	A32MVUNL4	B154
A16MCLNR4D	B69	A16TSSVUBR3	B285	A24TA4EMR0416N	C132	A32MVUNR4	B154
A16MEVEMLO207M	C55	A20MCFNR4	B69	A24TA4EMR0516N	C132	A32NEL3	C191, D35
A16MEVEMLO307M	C55	A20MCKNL4	B70	A24TA4EMR0616N	C132	A32NEL4	C191, D35
A16MEVEML1F07M	C55	A20MCKNR4	B70	A24TEVSAL0312041050	C56	A32NEL5	C191, D35
A16MEVEMR0207M	C54	A20MCLNR4D	B69	A24TEVSAR0312041050	C56	A32NEL6	C191, D35
A16MEVEMR0307M	C54	A20MDPNL4	B92	A24UDCFNR4KC3	B67	A32NER3	C191, D35
A16MEVEMR1F07M	C54	A20MDPNR4	B92	A24UDCLNL4KC3	B68	A32NER4	C191, D35
A16MNNNTOL2	C192	A20MDQNL4	B93	A24UDCLNR4KC3	B68	A32NER6	C191, D35

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
A32NVLCR3.....	E47	A4C0305L06CF02 KCU25.....	C113	A4G0300M3SP04GUP KCU25.....	C108	A4G0405M04U04GUP KCP25.....	C102
A32SA4EML0312M.....	C133	A4C0305L10CF02 KCU25.....	C113	A4G0305M03U02B KC5025.....	C108	A4G0405M04U04GUP KCU10.....	C102
A32SA4EML0412M.....	C133	A4C0305N00CF02 KC5025.....	C112	A4G0305M03U02B KCK20.....	C108	A4G0405M04U04GUP KCU25.....	C102
A32SA4EML0516M.....	C133	A4C0305N00CF02 KCU25.....	C112	A4G0305M03U02B KCU25.....	C108	A4G0405M04U08GMN KC5010.....	C106
A32SA4EMR0312M.....	C133	A4C0305R06CF02 KC5025.....	C113	A4G0305M03U02GMN KC5010.....	C106	A4G0405M04U08GMN KC5025.....	C106
A32SA4EMR0412M.....	C133	A4C0305R06CF02 KCU25.....	C113	A4G0305M03U02GMN KC5025.....	C106	A4G0405M04U08GMN KCP10.....	C106
A32SA4EMR0516M.....	C133	A4C0305R10CF02 KC5025.....	C113	A4G0305M03U02GMP KCP10.....	C106	A4G0405M04U08GMN KCP25.....	C106
A32SEVEML0312M.....	C55	A4C0305R10CF02 KCU25.....	C113	A4G0305M03U02GMN KCP25.....	C106	A4G0405M04U08GMN KCU10.....	C106
A32SEVEML0412M.....	C55	A4C0405L06CF02 KCU25.....	C113	A4G0305M03U02GMN KCU10.....	C106	A4G0405M04U08GMN KCU25.....	C106
A32SEVEMR0312M.....	C54	A4C0405L10CF02 KCU25.....	C113	A4G0305M03U02GMP KCU25.....	C106	A4G0405M04U08GMP KC5010.....	C105
A32SEVEMR0412M.....	C54	A4C0405N00CF02 KC5025.....	C112	A4G0305M03U02GMP KC5010.....	C105	A4G0405M04U08GMP KC5025.....	C105
A32SEVSAL0312M033042.....	C57	A4C0405N00CF02 KCU25.....	C112	A4G0305M03U02GMP KC5025.....	C105	A4G0405M04U08GMP KCU25.....	C105
A32SEVSAR0312M033042.....	C57	A4C0405R06CF02 KCU25.....	C113	A4G0305M03U02GMP KCU10.....	C105	A4G0405M04U08GMP KT315.....	C105
A32SNTOL3.....	C192	A4C0405R10CF02 KC5025.....	C113	A4G0305M03U02GMP KCU25.....	C105	A4G0405M04U08GUP KCP10.....	C102
A32SNTOR3.....	C192	A4C0405R10CF02 KCU25.....	C113	A4G0305M03U02GMP KT315.....	C105	A4G0405M04U08GUP KCP25.....	C102
A32TA4EMR0616N.....	C132	A4ENN120305.....	C130	A4G0305M03U02GMP KCP10.....	C102	A4G0405M04U08GUP KCU10.....	C102
A32VDCKNL4KC3.....	B67	A4ENN120407.....	C130	A4G0305M03U02GUP KCP25.....	C102	A4G0405M04U08GUP KCU25.....	C102
A32VDCKNL5KC4.....	B67	A4ENN160305.....	C130	A4G0305M03U02GUP KCU10.....	C102	A4G0405M4SU04GMN KCU10.....	C109
A32VDCKNL4KC3.....	B68	A4ENN160407.....	C130	A4G0305M03U02GUP KCU25.....	C102	A4G0405M4SU04GMN KCU25.....	C109
A32VDCKNL6KC4.....	B68	A4ENN160509.....	C130	A4G0305M03U04GMN KC5010.....	C106	A4G0405M4SU04GUP KCU10.....	C109
A32VDCLNR4KC3.....	B68	A4ENN160611.....	C130	A4G0305M03U04GMN KC5025.....	C106	A4G0405M4SU04GUP KCU25.....	C109
A32VDCLNR5KC4.....	B68	A4ENN160811.....	C130	A4G0305M03U04GMN KCU10.....	C106	A4G0405M4SU04GMN KCU25.....	C109
A32VDDUNR4KC3.....	B92	A4ENN200611.....	C130	A4G0305M03U04GMN KCP25.....	C106	A4G0500M05P04GMP K313.....	C105
A32VMCLNL4.....	B71	A4ENN2020K0305.....	C131	A4G0305M03U04GMN KCU10.....	C106	A4G0500M05P04GMP KC5010.....	C105
A32VMCLNL6.....	B71	A4ENN2020K0407.....	C131	A4G0305M03U04GMN KCU25.....	C106	A4G0500M05P04GMP KC5025.....	C105
A32VMCLNR4.....	B71	A4ENN2020K0611.....	C131	A4G0305M03U04GMP KC5010.....	C105	A4G0500M05P04GMP KCU10.....	C105
A32VMCLNR6.....	B71	A4ENN2525M0305.....	C131	A4G0305M03U04GMP KC5025.....	C105	A4G0500M05P04GMP KCU25.....	C105
A32VMDUNL4.....	B93	A4ENN2525M0407.....	C131	A4G0305M03U04GMP KCU10.....	C105	A4G0500M05P04GUP KCU10.....	C103
A32VMDUNR4.....	B93	A4ENN2525M0509.....	C131	A4G0305M03U04GMP KCU25.....	C105	A4G0500M05P04GUP KCU25.....	C103
A32VNSL3.....	C194	A4ENN2525M0611.....	C131	A4G0305M03U04GMP KT315.....	C105	A4G0500M05P08E KD1405.....	B370, C110
A32VNSR3.....	C194	A4ENN3232P0611.....	C131	A4G0305M03U04GUP KCP10.....	C102	A4G0500M05P08EST KB1630.....	C111
A40MCLNL4.....	B71	A4G0200M02P02GMP KC5010.....	C105	A4G0305M03U04GUP KCP25.....	C102	A4G0500M05P08GMP K313.....	C105
A40MSKNR6.....	B114	A4G0200M02P02GMP KC5025.....	C105	A4G0305M03U04GUP KCU10.....	C102	A4G0500M05P08GMP KC5010.....	C105
A40MVUNL4.....	B154	A4G0200M02P02GMP KCU10.....	C105	A4G0305M03U04GUP KCU25.....	C102	A4G0500M05P08GMP KC5025.....	C105
A40MVUNR4.....	B154	A4G0200M02P02GMP KCU25.....	C105	A4G0305M3SU02GMN KCU25.....	C109	A4G0500M05P08GMP KCU10.....	C105
A40NEL3.....	C191, D35	A4G0200M02P02GUP KCU10.....	C103	A4G0305M3SU02GUP KCU10.....	C109	A4G0500M05P08GUP KCU10.....	C103
A40NER3.....	C191, D35	A4G0200M02P02GUP KCU25.....	C103	A4G0305M3SU02GUP KCU25.....	C109	A4G0500M05P08GUP KCU25.....	C103
A40NER4.....	C191, D35	A4G0200M2SP02GUP KCU10.....	C108	A4G0305M3SU04GMN KCU10.....	C109	A4G0500M05P08S02025ST KB5625.....	C111
A40TA4EML0416M.....	C133	A4G0200M2SP02GUP KCU25.....	C108	A4G0305M3SU04GMN KCU25.....	C109	A4G0500M05P08T01025 KY3500.....	B321, C110
A40TA4EML0516M.....	C133	A4G0205M02U02GMN KC5010.....	C106	A4G0305M3SU04GUP KCU10.....	C109	A4G0500M5SP04GUP KCU25.....	C108
A40TA4EML0616M.....	C133	A4G0205M02U02GMN KC5025.....	C106	A4G0305M3SU04GUP KCU25.....	C109	A4G0500M5SP08GUP KCU10.....	C108
A40TA4EMR0416M.....	C133	A4G0205M02U02GMN KCP10.....	C106	A4G0400M04P02GMP K313.....	C105	A4G0505M05U04B KCK20.....	C108
A40TA4EMR0516M.....	C133	A4G0205M02U02GMN KCU10.....	C106	A4G0400M04P02GMP KC5010.....	C105	A4G0505M05U04B KCU25.....	C108
A40TA4EMR0616M.....	C133	A4G0205M02U02GMN KCU25.....	C106	A4G0400M04P02GMP KC5025.....	C105	A4G0505M05U04GMN KC5010.....	C106
A40TEVSAL0312M041050.....	C57	A4G0205M02U02GMP KCU10.....	C105	A4G0400M04P02GMP KCU10.....	C105	A4G0505M05U04GMN KC5025.....	C106
A40TEVSAR0312M041050.....	C57	A4G0205M02U02GMP KCU25.....	C105	A4G0400M04P02GMP KCU25.....	C105	A4G0505M05U04GMN KCP10.....	C106
A40TNTOL3.....	C192	A4G0205M02U02GUP KCP10.....	C102	A4G0400M04P02GUP KCU10.....	C103	A4G0505M05U04GMN KCP25.....	C106
A40TNTOL4.....	C192	A4G0205M02U02GUP KCP10.....	C102	A4G0400M04P02GUP KCU25.....	C103	A4G0505M05U04GMN KCU10.....	C106
A40TNTOR3.....	C192	A4G0205M02U02GUP KCP25.....	C102	A4G0400M04P04E KD1405.....	B370, C110	A4G0505M05U04GMN KCU25.....	C106
A40TNTOR4.....	C192	A4G0205M02U02GUP KCU10.....	C102	A4G0400M04P04GMP K313.....	C105	A4G0505M05U04GMP KC5010.....	C105
A40VDCLNL4KC3.....	B68	A4G0205M02U02GUP KCU10.....	C102	A4G0400M04P04GMP KCU25.....	C105	A4G0505M05U04GMP KCU25.....	C105
A40VDCLNL6KC4.....	B68	A4G0205M2SU02GMN KCU10.....	C109	A4G0400M04P04GMP KC5010.....	C105	A4G0505M05U04GMP KCP10.....	C105
A40VDCLNR4KC3.....	B68	A4G0205M2SU02GMN KCU25.....	C109	A4G0400M04P04GMP KCU10.....	C105	A4G0505M05U04GMP KCU10.....	C105
A40VDCLNR6KC4.....	B68	A4G0205M2SU02GUP KCU10.....	C109	A4G0400M04P04GMP KCU25.....	C105	A4G0505M05U04GMP KCU25.....	C105
A40VMCLNL5.....	B71	A4G0205M2SU02GUP KCU25.....	C109	A4G0400M04P04GUP KCU10.....	C103	A4G0505M05U04GUP KCP10.....	C102
A40VMCLNR4.....	B71	A4G0250M2BP02GMP KC5010.....	C105	A4G0400M04P04GUP KCU25.....	C103	A4G0505M05U04GUP KCP25.....	C102
A40VMCLNR5.....	B71	A4G0255M2BU02GMP KCU10.....	C105	A4G0400M04P04S02025ST KB1630.....	C111	A4G0505M05U04GUP KCU10.....	C102
A40VMCLNR6.....	B71	A4G0255M2BU02GMP KC5025.....	C106	A4G0400M04P04S02025ST KB5625.....	C111	A4G0505M05U04GUP KCU25.....	C102
A40VNSR3.....	C194	A4G0255M2BU02GMP KC5025.....	C105	A4G0400M04P04T01025 KY3500.....	B321, C110	A4G0505M05U08GMN KC5010.....	C106
A4BHCL26K0317R.....	C135-136	A4G0255M2BU02GMP KCU25.....	C105	A4G0400M04P08GMP KC5010.....	C105	A4G0505M05U08GMN KC5025.....	C106
A4BHCL32K0217L.....	C135-136	A4G0300M03P02GMP K313.....	C105	A4G0400M04P08GMP KC5025.....	C105	A4G0505M05U08GMN KCP10.....	C106
A4BHCL32K0317L.....	C135-136	A4G0300M03P02GMP KCU10.....	C105	A4G0400M04P08GMP KCU10.....	C105	A4G0505M05U08GMN KCP25.....	C106
A4BHCL32K0317R.....	C135-136	A4G0300M03P02GMP KC5025.....	C105	A4G0400M04P08GMP KCU25.....	C105	A4G0505M05U08GMN KCU10.....	C106
A4BHR26K0317L.....	C135-136	A4G0300M03P02GMP KCU10.....	C105	A4G0400M04P08GUP KCU10.....	C103	A4G0505M05U08GMN KCU25.....	C106
A4BHR32K0217R.....	C135-136	A4G0300M03P02GMP KCU25.....	C105	A4G0400M04P08GUP KCU25.....	C103	A4G0505M05U08GMP KC5010.....	C105
A4C0155L06CF01 KC5025.....	C113	A4G0300M03P02GUP KCU10.....	C103	A4G0400M04SP04GUP KCU10.....	C108	A4G0505M05U08GMP KC5025.....	C105
A4C0155N00CF01 KC5025.....	C112	A4G0300M03P02GUP KCU25.....	C103	A4G0400M4SP08GUP KCU10.....	C108	A4G0505M05U08GMP KCP10.....	C105
A4C0155N00CF01 KCU25.....	C112	A4G0300M03P04E KD1405.....	B370, C110	A4G0405M04U04B KCK20.....	C108	A4G0505M05U08GMP KCU25.....	C105
A4C0155R06CF01 KC5025.....	C113	A4G0300M03P04EST KB1630.....	C111	A4G0405M04U04B KCU25.....	C108	A4G0505M05U08GUP KCP10.....	C102
A4C0155R10CF01 KCU25.....	C113	A4G0300M03P04GMP K313.....	C105	A4G0405M04U04GMN KC5010.....	C106	A4G0505M05U08GUP KCP25.....	C102
A4C0155R16CF01 KC5025.....	C113	A4G0300M03P04GMP KC5010.....	C105	A4G0405M04U04GMN KC5025.....	C106	A4G0505M05U08GUP KCU10.....	C102
A4C0205L06CF02 KCU25.....	C113	A4G0300M03P04GMP KC5025.....	C105	A4G0405M04U04GMN KCP25.....	C106	A4G0505M05U08GUP KCU25.....	C102
A4C0205L10CF02 KC5025.....	C113	A4G0300M03P04GMP KCU10.....	C105	A4G0405M04U04GMN KCU10.....	C106	A4G0505M5SU04GMN KCU10.....	C109
A4C0205N00CF02 KC5025.....	C112	A4G0300M03P04GMP KCU25.....	C105	A4G0405M04U04GMN KCU25.....	C106	A4G0505M5SU04GMN KCU25.....	C109
A4C0205N00CF02 KCU25.....	C112	A4G0300M03P04GUP KCU10.....	C103	A4G0405M04U04GMP KC5010.....	C105	A4G0505M5SU04GUP KCU10.....	C109
A4C0205R06CF02 KC5025.....	C113	A4G0300M03P04GUP KCU25.....	C103	A4G0405M04U04GMP KC5025.....	C105	A4G0505M5SU04GUP KCU25.....	C109
A4C0205R06CF02 KCU25.....	C113	A4G0300M03P04S02025ST KB1630.....	C111	A4G0405M04U04GMP KCP10.....	C105	A4G0505M5SU08GUP KCU25.....	C109
A4C0205R10CF02 KCU25.....	C113	A4G0300M03P04S02025ST KB5625.....	C111	A4G0405M04U04GMP KCP25.....	C105	A4G0600M06P04GMP KC5010.....	C105
A4C0255N00CF02 KC5025.....	C112	A4G0300M03P04T01025 KY3500.....	B321, C110	A4G0405M04U04GMP KCU10.....	C105	A4G0600M06P04GMP KCU10.....	C105
A4C0255N00CF02 KCU25.....	C112	A4G0300M3SP02GUP KCU10.....	C108	A4G0405M04U04GMP KCU25.....	C105	A4G0600M06P04GMP KCU25.....	C105
A4C0255R06CF02 KC5025.....	C113	A4G0300M3SP02GUP KCU25.....	C108	A4G0405M04U04GMP KT315.....	C105	A4G0600M06P04GUP KCU10.....	C103
A4C0305L06CF02 KC5025.....	C113	A4G0300M3SP04GUP KCU10.....	C108	A4G0405M04U04GUP KCP10.....	C102	A4G0600M06P04GUP KCU25.....	C103

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
A4G0600M06P08EST KB1630	C111	A4G1005M10U08GMN KCP25	C106	A4M50L0519A080136	C140	A4M65L0624A200-999	C140
A4G0600M06P08GMP KC5010	C105	A4G1005M10U08GMN KCU25	C106	A4M50L0519A120300	C140	A4M65L0624B070-112	C142
A4G0600M06P08GMP KC5025	C105	A4G1005M10U08GMP KCU10	C105	A4M50L0519A250999	C140	A4M65L0624B100-212	C142
A4G0600M06P08GMP KCU10	C105	A4G1005M10U08GMP KCU25	C105	A4M50L0519B058094	C142	A4M65L0624B200-999	C142
A4G0600M06P08GMP KCU25	C105	A4G1005M10U08GUP KCP10	C102	A4M50L0519B080136	C142	A4M65L0626M	C138
A4G0600M06P08GUP KCU10	C103	A4G1005M10U08GUP KCU10	C102	A4M50L0519B120300	C142	A4M65L0626MC	C137
A4G0600M06P08GUP KCU25	C103	A4G1005M10U08GUP KCU25	C102	A4M50L0519B250999	C142	A4M65L0820M	C138
A4G0600M06P08S02025ST KB5625	C111	A4G1005M10U12GMN KC5025	C106	A4M50L0519M	C138	A4M65L0820MC	C137
A4G0600M06P08T01025 KY3500	B321, C110	A4G1005M10U12GMN KCP25	C106	A4M50L0519MC	C137	A4M65L0824B090-200	C142
A4G0605M06U04B KCK20	C108	A4G1005M10U12GUP KCP25	C102	A4M50L2B14M	C138	A4M65L0824B184-999	C142
A4G0605M06U04B KCU25	C108	A4G1005M10U12GUP KCU25	C102	A4M50L2S12B016020	C142	A4M65L0826M	C138
A4G0605M06U04GMN KC5010	C106	A4G125I03P05GMN KC5010	C107	A4M50L2S12B020025	C142	A4M65L0826MC	C137
A4G0605M06U04GMN KC5025	C106	A4G125I03P05GMN KC5025	C107	A4M50L2S12B025036	C142	A4M65L1020M	C138
A4G0605M06U04GMN KCP10	C106	A4G125I03P05GMN KCU10	C107	A4M50L3S14B020025	C142	A4M65L1020MC	C137
A4G0605M06U04GMN KCP25	C106	A4G125I03P05GMN KCU25	C107	A4M50L3S14B025036	C142	A4M65L1024A200-999	C140
A4G0605M06U04GMN KCU10	C106	A4G125I03P05GUP KCU25	C103	A4M50L4S14B035048	C142	A4M65L1024B200-999	C142
A4G0605M06U04GMN KCU25	C106	A4G125I03P1GMN KC5010	C107	A4M50L5S17B028038	C142	A4M65L1026M	C138
A4G0605M06U04GMP KC5010	C105	A4G125I03P1GMN KC5025	C107	A4M50R0212A036046	C139	A4M65L1026MC	C137
A4G0605M06U04GMP KC5025	C105	A4G125I03P1GMN KCU10	C107	A4M50R0212A042054	C139	A4M65R0522MC	C137
A4G0605M06U04GMP KCP25	C105	A4G125I03P1GMN KCU25	C107	A4M50R0212A050064	C139	A4M65R0620M	C138
A4G0605M06U04GUP KCP10	C102	A4G125I03P1GUP KCU25	C103	A4M50R0212A060084	C139	A4M65R0620MC	C137
A4G0605M06U04GUP KCP25	C102	A4G125I03P1T0425 KY3500	B321, C110	A4M50R0212A080124	C139	A4M65R0624A070-112	C139
A4G0605M06U04GUP KCU10	C102	A4G187I04P1GMN KC5010	C107	A4M50R0212A120254	C139	A4M65R0624A100-212	C139
A4G0605M06U04GUP KCU25	C102	A4G187I04P1GMN KCU10	C107	A4M50R0212A250999	C139	A4M65R0624A200-999	C139
A4G0605M06U08GMN KC5010	C106	A4G187I04P1GMN KCU25	C107	A4M50R0212B036046	C141	A4M65R0624B070-112	C141
A4G0605M06U08GMN KC5025	C106	A4G187I04P1GUP KCU25	C103	A4M50R0212B042054	C141	A4M65R0624B100-212	C141
A4G0605M06U08GMN KCP10	C106	A4G187I04P2GMN KC5010	C107	A4M50R0212B050064	C141	A4M65R0624B200-999	C141
A4G0605M06U08GMN KCP25	C106	A4G187I04P2GMN KC5025	C107	A4M50R0212B060084	C141	A4M65R0626M	C138
A4G0605M06U08GMN KCU10	C106	A4G187I04P2GMN KCU10	C107	A4M50R0212B080124	C141	A4M65R0626MC	C137
A4G0605M06U08GMN KCU25	C106	A4G187I04P2GMN KCU25	C107	A4M50R0212B080124	C141	A4M65R0820M	C137
A4G0605M06U08GMP KC5010	C105	A4G25I0I6P1GMN KC5010	C107	A4M50R0212B250999	C141	A4M65R0824A090-200	C139
A4G0605M06U08GMP KC5025	C105	A4G25I0I6P1GMN KCU10	C107	A4M50R0214M	C138	A4M65R0824A184-999	C139
A4G0605M06U08GUP KCP10	C102	A4G25I0I6P1GUP KCU25	C103	A4M50R0314A036048	C139	A4M65R0824A200-999	C141
A4G0605M06U08GUP KCP25	C102	A4G25I0I6P2GMN KC5010	C107	A4M50R0314A042058	C139	A4M65R0824B184-999	C141
A4G0605M06U08GUP KCU10	C102	A4G25I0I6P2GMN KCU10	C107	A4M50R0314A052074	C139	A4M65R0826M	C138
A4G0605M06U08GUP KCU25	C102	A4G25I0I6P2GMN KCU25	C107	A4M50R0314A068100	C139	A4M65R0826MC	C137
A4G0605M06U12GMN KC5010	C106	A4G25I0I6P2GUP KCU25	C103	A4M50R0314A090160	C139	A4M65R1020MC	C137
A4G0605M06U12GMN KC5025	C106	A4G25I0I6P2T0425 KY3500	B321, C110	A4M50R0314A130300	C139	A4M65R1024A200-999	C139
A4G0605M06U12GMN KCP25	C106	A4G312I08P1GMN KC5010	C107	A4M50R0314A190999	C139	A4M65R1024B100-220	C141
A4G0605M06U12GUP KCP10	C102	A4G312I08P1GMN KCU10	C107	A4M50R0314B036048	C141	A4M65R1024B200-999	C141
A4G0605M06U12GUP KCP25	C102	A4G312I08P1GUP KCU25	C103	A4M50R0314B042058	C141	A4M65R1026M	C138
A4G0605M06U12GUP KCU10	C102	A4G375I10P1GMN KC5010	C107	A4M50R0314B042058	C141	A4M65R1026MC	C137
A4G0605M06U12GUP KCU25	C102	A4G375I10P1GUP KCU25	C103	A4M50R0314B052074	C141	A4R0200M2P00GMP KC5010	C106
A4G0800M08P08GMP KC5010	C105	A4G375I10P2GMN KC5010	C107	A4M50R0314B052074	C141	A4R0200M2P00GMP KC5025	C106
A4G0800M08P08GMP KCU25	C105	A4G375I10P2GMN KCU10	C107	A4M50R0314B130300	C141	A4R0200M2P00GMP KCU10	C106
A4G0800M08P08GUP KCU10	C103	A4M50L0212A060084	C140	A4M50R0314B290999	C141	A4R0200M2SP00GMP KCU25	C109
A4G0800M08P08GUP KCU25	C103	A4M50L0212A120254	C140	A4M50R0314M	C138	A4R0200M2U00GMN KC5010	C107
A4G0800M08P08T01025 KY3500	B321, C110	A4M50L0212A250999	C140	A4M50R0414A048072	C139	A4R0205M02U00GMN KC5025	C107
A4G0800M08P12GMP KCU10	C105	A4M50L0212B036046	C142	A4M50R0414A064100	C139	A4R0205M02U00GMN KCP10	C107
A4G0800M08P12GUP KCU10	C103	A4M50L0212B042054	C142	A4M50R0414A082150	C139	A4R0205M02U00GMN KCU25	C107
A4G0800M08P12GUP KCU25	C103	A4M50L0212B050064	C142	A4M50R0414A132300	C139	A4R0300M03P00EST KB1630	B355, C112
A4G0805M08U08B KCK20	C108	A4M50L0212B060084	C142	A4M50R0414A290999	C139	A4R0300M03P00GMP K313	C106
A4G0805M08U08GMN KC5010	C106	A4M50L0212B080124	C142	A4M50R0414B048072	C141	A4R0300M03P00GMP KCU10	C106
A4G0805M08U08GMN KCP10	C106	A4M50L0212B120254	C142	A4M50R0414B064100	C141	A4R0300M03P00GMP KCU25	C106
A4G0805M08U08GMN KCP25	C106	A4M50L0214M	C138	A4M50R0414B092150	C141	A4R0300M03P00GMP KCU10	C106
A4G0805M08U08GMN KCU10	C106	A4M50L0314A036048	C140	A4M50R0414B132300	C141	A4R0300M03P00GMP KCU25	C106
A4G0805M08U08GMN KCU25	C106	A4M50L0314A068100	C140	A4M50R0414B290999	C141	A4R0300M03P00GUP KCU10	C104
A4G0805M08U08GMP KC5025	C105	A4M50L0314A090160	C140	A4M50R0414M	C138	A4R0300M03P00GUP KCU25	C104
A4G0805M08U08GMP KCU25	C105	A4M50L0314A130300	C140	A4M50R0414MC	C137	A4R0300M03P00T01025 KY3500	B321, C110
A4G0805M08U08GUP KCP10	C102	A4M50L0314A290999	C140	A4M50R0519A058094	C139	A4R0300M3SP00GMP KCU25	C109
A4G0805M08U08GUP KCP25	C102	A4M50L0314B036048	C142	A4M50R0519A080136	C139	A4R0305M03U00GMN KC5010	C107
A4G0805M08U08GUP KCU10	C102	A4M50L0314B042058	C142	A4M50R0519A120300	C139	A4R0305M03U00GMN KC5025	C107
A4G0805M08U08GUP KCU25	C102	A4M50L0314B052074	C142	A4M50R0519A250999	C139	A4R0305M03U00GMN KCP10	C107
A4G0805M08U12GMN KC5010	C106	A4M50L0314B068100	C142	A4M50R0519B058094	C141	A4R0305M03U00GMN KCP25	C107
A4G0805M08U12GMN KCP10	C106	A4M50L0314B090160	C142	A4M50R0519B080136	C141	A4R0305M03U00GMN KCU10	C107
A4G0805M08U12GMN KCP25	C106	A4M50L0314B130300	C142	A4M50R0519B120300	C141	A4R0305M03U00GMN KCU25	C107
A4G0805M08U12GMN KCU25	C106	A4M50L0314B290999	C142	A4M50R0519B250999	C141	A4R0305M03U00GUP KCU10	C104
A4G0805M08U12GUP KCP10	C102	A4M50L0314M	C138	A4M50R0519M	C138	A4R0305M03U00GUP KCU25	C104
A4G0805M08U12GUP KCP25	C102	A4M50L0314MC	C137	A4M50R0519MC	C137	A4R0400M04P00EST KB1630	B355, C112
A4G0805M08U12GUP KCU10	C102	A4M50L0414A064100	C140	A4M50R2S12B016020	C141	A4R0400M04P00GMP K313	C106
A4G0805M08U12GUP KCU25	C102	A4M50L0414A092150	C140	A4M50R2S12B020025	C141	A4R0400M04P00GMP KC5010	C106
A4G094I2BP05GMN KC5010	C107	A4M50L0414A132300	C140	A4M50R2S12B025036	C141	A4R0400M04P00GMP KCU25	C106
A4G094I2BP05GMN KCU10	C107	A4M50L0414A290999	C140	A4M50R3S14B020025	C141	A4R0400M04P00GUP KCU10	C106
A4G094I2BP05GUP KCU25	C103	A4M50L0414B048072	C142	A4M50R3S14B025036	C141	A4R0400M04P00GUP KCU25	C106
A4G1000M10P08GUP KCU10	C103	A4M50L0414B064100	C142	A4M50R4S14B025035	C141	A4R0400M04P00GUP KCU25	C104
A4G1000M10P08GUP KCU25	C103	A4M50L0414B092150	C142	A4M50R5S17B028038	C141	A4R0405M04U00GMN KC5010	C107
A4G1000M10P12GUP KCU10	C103	A4M50L0414B132300	C142	A4M65L0522MC	C137	A4R0405M04U00GMN KCP25	C107
A4G1000M10P12GUP KCU25	C103	A4M50L0414B290999	C142	A4M65L0620M	C138	A4R0405M04U00GMN KCP10	C107
A4G1005M10U08B KCK20	C108	A4M50L0414M	C138	A4M65L0620MC	C137	A4R0405M04U00GMN KCP25	C107
A4G1005M10U08GMN KC5025	C106	A4M50L0414MC	C137	A4M65L0624A070-112	C140	A4R0405M04U00GMN KCU10	C107
A4G1005M10U08GMN KCP10	C106	A4M50L0519A058094	C140	A4M65L0624A100-212	C140	A4R0405M04U00GMN KCU25	C107

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
A4R0405M04U00GUP KCU25	C102	A4SBR123S14020025	C129	A4SML3225P0417	C125	A7792VXP06SA1.25Z5R2 S	V4, V6
A4R0500M05P00E KD1405	B370, C111	A4SBR123S14025036	C129	A4SML3225P0522	C125	AADE0125J3D K600	P128
A4R0500M05P00EEST KB1630	B355, C112	A4SBR165S19038058	C129	A4SML3225P0626	C125	AADE0125J3E K600	P128
A4R0500M05P00GMP K313	C106	A4SBR2020K2S12016020	C129	A4SML3225P0826	C125	AADE0188J3C K600	P128
A4R0500M05P00GMP KC5010	C106	A4SBR2020K2S12020025	C129	A4SML3225P1026	C125	AADE0188J3D K600	P128
A4R0500M05P00GMP KC5025	C106	A4SBR2020K2S12025036	C129	A4SMR100214	C122	AADE0188J3E K600	P128
A4R0500M05P00GMP KCU10	C106	A4SBR2020K3S14020025	C129	A4SMR100314	C122	AADE0250J3A K600	P128
A4R0500M05P00GMP KCU25	C106	A4SBR2020K3S14025036	C129	A4SMR100414	C122	AADE0250J3AFB K600	P128
A4R0500M05P00GUP KCU25	C104	A4SBR2020K4S14035048	C129	A4SMR120214	C122	AADE0250J3B K600	P128
A4R0500M05P00T01025 KY3500	B321, C110	A4SBR2525M5S19028038	C129	A4SMR120217	C122	AADE0250J3BRA K600	P128
A4R0500M5SP00GMP KCU25	C109	A4SBR2525M5S19038058	C129	A4SMR120308	C126	AADE0250J3BRB K600	P128
A4R0505M05U00GMN KC5010	C107	A4SCL080113	C127	A4SMR120314	C122	AADE0250J3C K600	P128
A4R0505M05U00GMN KC5025	C107	A4SCL080214	C127	A4SMR120414	C122	AADE0250J3CRA K600	P128
A4R0505M05U00GMN KCP10	C107	A4SCL080314	C127	A4SMR120519	C122	AADE0250J3CRB K600	P128
A4R0505M05U00GMN KCP25	C107	A4SCL100113	C127	A4SMR120620	C122	AADE0250J3D K600	P128
A4R0505M05U00GMN KCU10	C107	A4SCL100217	C127	A4SMR160217	C122	AADE0250J3E K600	P128
A4R0505M05U00GMN KCU25	C107	A4SCL100317	C127	A4SMR160317	C122	AADE0250J3F K600	P128
A4R0505M05U00GUP KCU10	C104	A4SCL120113	C127	A4SMR160417	C122	AADE0250J3FRA K600	P128
A4R0505M05U00GUP KCU25	C104	A4SCL1212K0113	C128	A4SMR160510	C126	AADE0250J3G K600	P128
A4R0600M06P00EEST KB1630	B355, C112	A4SCL1212K0214	C128	A4SMR160520	C122	AADE0312J3A K600	P128
A4R0600M06P00GMP KC5010	C106	A4SCL1616K0113	C128	A4SMR160620	C122	AADE0312J3B K600	P128
A4R0600M06P00GMP KC5025	C106	A4SCL1616K0217	C128	A4SMR160624	C122	AADE0312J3D K600	P128
A4R0600M06P00GMP KCU10	C106	A4SCL1616K0317	C128	A4SMR160820	C122	AADE0312J3DRB K600	P128
A4R0600M06P00GMP KCU25	C106	A4SCL2020K0113	C128	A4SMR160824	C122	AADE0375J3A K600	P128
A4R0600M06P00GUP KCU10	C104	A4SCR060113	C127	A4SMR1616K0214	C124	AADE0375J3B K600	P129
A4R0600M06P00GUP KCU25	C104	A4SCR080113	C127	A4SMR1616K0314	C124	AADE0375J3BRB K600	P128
A4R0600M06P00T01025 KY3500	B321, C110	A4SCR080214	C127	A4SMR200417	C122	AADE0375J3C K600	P128
A4R0605M06U00GMN KC5010	C107	A4SCR080314	C127	A4SMR200522	C122	AADE0375J3C K600	P129
A4R0605M06U00GMN KC5025	C107	A4SCR100113	C127	A4SMR200626	C122	AADE0375J3CRB K600	P129
A4R0605M06U00GMN KCP10	C107	A4SCR100217	C127	A4SMR200826	C122	AADE0375J3CRC K600	P129
A4R0605M06U00GMN KCP25	C107	A4SCR100317	C127	A4SMR201026	C122	AADE0375J3D K600	P129
A4R0605M06U00GMN KCU10	C107	A4SCR1010K0113	C128	A4SMR2016K0317	C124	AADE0375J3DRA K600	P129
A4R0605M06U00GMN KCU25	C107	A4SCR120113	C127	A4SMR2016K0417	C124	AADE0375J3DRB K600	P129
A4R0605M06U00GUP KCU25	C104	A4SCR1212K0113	C128	A4SMR2020K0208	C126	AADE0375J3E K600	P129
A4R0800M08P00GMP KC5010	C106	A4SCR1212K0214	C128	A4SMR2020K0214	C124	AADE0375J3ERA K600	P129
A4R0800M08P00GMP KCU10	C106	A4SCR1212K0314	C128	A4SMR2020K0217	C124	AADE0375J3ERB K600	P129
A4R0800M08P00GMP KCU25	C106	A4SCR1616K0113	C128	A4SMR2020K0308	C126	AADE0375J3ERC K600	P129
A4R0800M08P00GUP KCU25	C104	A4SCR1616K0217	C128	A4SMR2020K0314	C124	AADE0375J3F K600	P128
A4R0800M08P00T01025 KY3500	B321, C110	A4SCR1616K0317	C128	A4SMR2020K0317	C124	AADE0375J3G K600	P128
A4R0805M08U00GMN KC5010	C107	A4SCR2020K0113	C128	A4SMR2020K0408	C126	AADE0375J3H K600	P129
A4R0805M08U00GMN KC5025	C107	A4SML100214	C123	A4SMR2020K0414	C124	AADE0375J3J K600	P129
A4R0805M08U00GMN KCP10	C107	A4SML100314	C123	A4SMR2020K0417	C124	AADE0375J3KRB K600	P129
A4R0805M08U00GMN KCP25	C107	A4SML120217	C123	A4SMR2020K0519	C124	AADE0375J3KRC K600	P129
A4R0805M08U00GMN KCU10	C107	A4SML120314	C123	A4SMR2020K0620	C124	AADE0438J3A K600	P129
A4R0805M08U00GMN KCU25	C107	A4SML120414	C123	A4SMR240626	C122	AADE0500J3A K600	P129
A4R0805M08U00GUP KCU25	C102	A4SML120519	C123	A4SMR240826	C122	AADE0500J3ARB K600	P129
A4R1000M10P00GUP KCU10	C104	A4SML120620	C123	A4SMR2525M0214	C124	AADE0500J3ARC K600	P129
A4R1000M10P00GUP KCU25	C104	A4SML160217	C123	A4SMR2525M0217	C124	AADE0500J3B K600	P129
A4R1005M10U00GMN KCP25	C107	A4SML160317	C123	A4SMR2525M0317	C124	AADE0500J3BRA K600	P129
A4R1005M10U00GMN KCU10	C107	A4SML160417	C123	A4SMR2525M0417	C124	AADE0500J3BRB K600	P129
A4R1005M10U00GMN KCU25	C107	A4SML160520	C123	A4SMR2525M0510	C126	AADE0500J3BRC K600	P129
A4R1005M10U00GUP KCU10	C104	A4SML160620	C123	A4SMR2525M0520	C124	AADE0500J3BRE K600	P129
A4R1005M10U00GUP KCU25	C104	A4SML160624	C123	A4SMR2525M0610	C126	AADE0500J3C K600	P129
A4R125I03P00GMN KC5010	C107	A4SML160824	C123	A4SMR2525M0620	C124	AADE0500J3CRA K600	P129
A4R125I03P00GMN KC5025	C107	A4SML1616K0214	C125	A4SMR2525M0820	C124	AADE0500J3CRB K600	P129
A4R125I03P00GMN KCU10	C107	A4SML1616K0314	C125	A4SMR3225P0417	C124	AADE0500J3CRC K600	P129
A4R125I03P00GMN KCU25	C107	A4SML200417	C123	A4SMR3225P0522	C124	AADE0500J3D K600	P129
A4R125I03P00GUP KCU10	C104	A4SML200522	C123	A4SMR3225P0626	C124	AADE0500J3DRB K600	P129
A4R125I03P00GUP KCU25	C104	A4SML200626	C123	A4SMR3225P0826	C124	AADE0500J3DRC K600	P129
A4R187I04P00GMN KC5010	C107	A4SML201026	C123	A4SMR3225P1026	C124	AADE0500J3E K600	P129
A4R187I04P00GMN KC5025	C107	A4SML2016K0317	C125	A50UNNTOR4	C192	AADE0500J3FRA K600	P129
A4R187I04P00GMN KCU10	C107	A4SML2020K0208	C126	A5505VX05SA.625R1.00	V111	AADE0500J3FRB K600	P129
A4R187I04P00GMN KCU25	C107	A4SML2020K0214	C125	A5505VX06SA.750R1.377	V111	AADE0500J3FRC K600	P129
A4R187I04P00GUP KCU25	C104	A4SML2020K0217	C125	A5505VX08SA1.00R1.575	V111	AADE0500J3G K600	P129
A4R250I06P00GMN KC5010	C107	A4SML2020K0308	C126	A5505VX10SA1.25R1.968	V111	AADE0500J3GBR K600	P129
A4R250I06P00GMN KC5025	C107	A4SML2020K0314	C125	A5720VZ16SA1.00Z2R2	T96	AADE0500J3GRC K600	P129
A4R250I06P00GMN KCU10	C107	A4SML2020K0317	C125	A5720VZ16SA1.25Z0R2	T96	AADE0500J3GRD K600	P129
A4R250I06P00GMN KCU25	C107	A4SML2020K0408	C126	A5720VZ16SA1.25Z3R1	T96	AADE0500J3H K600	P129
A4R250I06P00GUP KCU10	C104	A4SML2020K0414	C125	A7713VR10SA1.25Z4R1.7	V97-98	AADE0500J3K K600	P129
A4R250I06P00GUP KCU25	C104	A4SML2020K0417	C125	A7713VR12SA1.00Z2R1.4	V102-103	AADE0500J3KRB K600	P129
A4R250I06P00T0425 KY3500	B321, C110	A4SML2020K0519	C125	A7713VR12SA1.25Z3R1.7	V102-103	AADE0500J3KRC K600	P129
A4R312I08P00GMN KCU10	C104	A4SML2020K0620	C125	A7713VR12SA1.50Z4R1.7	V102	AADE0500J3K K600	P129
A4R312I08P00GUP KCU10	C104	A4SML240626	C123	A7713VR12SA1.50Z5R1.7	V102-103	AADE0500J3LBR K600	P129
A4R375I10P00GMN KC5025	C107	A4SML2525M0214	C125	A7792VXD09SA1.02Z1R1.4 S	V9, V13	AADE0500J3LRC K600	P129
A4SBL122S12016020	C129	A4SML2525M0217	C125	A7792VXD09SA1.25Z2R1 S	V9, V13	AADE0625J3A K600	P129
A4SBL2020K2S12016020	C129	A4SML2525M0317	C125	A7792VXD12SA1.25Z2R2 S	V17, V20	AADE0625J3B K600	P130
A4SBL2020K2S12025036	C129	A4SML2525M0417	C125	A7792VXD12SA1.5Z3R1.7 S	V17, V20	AADE0625J3D K600	P130
A4SBL2020K3S14020025	C129	A4SML2525M0510	C126	A7792VXP06SA.625Z2R1 S	V4, V6	AADE0625J3DRB K600	P129
A4SBL2020K4S14025035	C129	A4SML2525M0520	C125	A7792VXP06SA.75Z2R1.4 S	V4, V6	AADE0625J3DRE K600	P130
A4SBL2525M5S19038058	C129	A4SML2525M0610	C126	A7792VXP06SA.75Z3R1.4	V4, V6	AADE0625J3E K600	P130
A4SBR122S12016020	C129	A4SML2525M0620	C125	A7792VXP06SA1.0Z3R1.4 S	V4, V6	AADE0625J3F K600	P130
A4SBR122S12020025	C129	A4SML2525M0820	C125	A7792VXP06SA1.0Z4R1.4 S	V4, V6	AADE0625J3FRE K600	P130

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
AADE0625J3G K600	P130	AADF0500J2C K600	P127	ABDE0625J3BRB K600	P117	ABDF0500J2BQE K600	P118
AADE0625J3H K600	P130	AADF0500J2CRA K600	P127	ABDE0625J3BS K600	P117	ABDF0500J2CQ K600	P118
AADE0625J3HRC K600	P130	AADF0500J2CRB K600	P127	ABDE0625Y3CQA K600	.029	ABDF0500J2CQB K600	P118
AADE0750J3A K600	P130	AADF0500J2CRC K600	P127	ABDE0625Y3CQB K600	.029	ABDF0500J2CQC K600	P118
AADE0750J3ARB K600	P130	AADF0500J2D K600	P127	ABDE0625Y3CQC K600	.029	ABDF0500J2CQD K600	P118
AADE0750J3ARC K600	P130	AADF0500J2E K600	P126	ABDE0625Y3CQD K600	.029	ABDF0500J2CQE K600	P118
AADE0750J3B K600	P130	AADF0500J2F K600	P127	ABDE0625Y3CQE K600	.029	ABDF0500Y2CQ K600	.028
AADE0750J3BRB K600	P130	AADF0500J2FRB K600	P126	ABDE0750J3AQ K600	P120	ABDF0625J2AQ K600	P118
AADE0750J3BRC K600	P130	AADF0500J2G K600	P127	ABDE0750J3AQB K600	P120	ABDF0625J2AS K600	P116
AADE0750J3BRE K600	P130	AADF0500J2GRA K600	P127	ABDE0750J3AQE K600	P120	ABDF0625J2BQ K600	P118
AADE0750J3C K600	P130	AADF0500J2GRB K600	P127	ABDE0750J3ARB K600	P117	ABDF0625J2BQB K600	P118
AADE0750J3CRA K600	P130	AADF0500J2GRC K600	P127	ABDE0750J3ARC K600	P117	ABDF0625J2BQE K600	P118
AADE0750J3CRB K600	P130	AADF0625J2BRB K600	P127	ABDE0750J3ARE K600	P117	ABDF0625J2BRB K600	P116
AADE0750J3CRC K600	P130	AADF0625J2FRB K600	P127	ABDE0750J3AS K600	P117	ABDF0625J2BRC K600	P116
AADE0750J3CRE K600	P130	AADF0625J2GRB K600	P127	ABDE0750J3BQ K600	P121	ABDF0625J2BRE K600	P116
AADE0750J3D K600	P130	AADF0750J2B K600	P127	ABDE0750J3BQB K600	P121	ABDF0625J2BS K600	P116
AADE0750J3DRB K600	P130	AADF0750J2BRB K600	P127	ABDE0750J3BQC K600	P121	ABDF0625Y2CQ K600	.028
AADE0750J3DRC K600	P130	AADF0750J2C K600	P127	ABDE0750J3BQD K600	P121	ABDF0750J2AQ K600	P118
AADE0750J3F K600	P130	AADF0750J2CRA K600	P127	ABDE0750J3BQE K600	P121	ABDF0750J2AQB K600	P118
AADE0750J3G K600	P130	AADF0750J2CRB K600	P127	ABDE0750J3BRB K600	P117	ABDF0750J2AQE K600	P118
AADE0750J3GRA K600	P130	AADF0750J2F K600	P127	ABDE0750J3BRC K600	P117	ABDF0750J2ARB K600	P116
AADE0750J3GRB K600	P130	AADF0750J2GRA K600	P127	ABDE0750J3BRE K600	P117	ABDF0750J2ARC K600	P116
AADE0750J3GRD K600	P130	AADF1000J2A K600	P127	ABDE0750J3BS K600	P117	ABDF0750J2ARE K600	P116
AADE0750J3GRE K600	P130	AADF1000J2BRB K600	P127	ABDE0750J3CQ K600	P121	ABDF0750J2AS K600	P116
AADE0750J3H K600	P130	AADF1000J2C K600	P127	ABDE0750J3CQB K600	P121	ABDF0750J2BQ K600	P119
AADE0750J3HRB K600	P130	AADF1000J2D K600	P127	ABDE0750Y3CQB K600	.029	ABDF0750J2BQB K600	P118
AADE0750J3HRD K600	P130	AADF250J2I K600	P126	ABDE0750Y3CQC K600	.029	ABDF0750J2BQC K600	P118
AADE0750J3K K600	P130	AADF375J2G K600	P126	ABDE0750Y3CQD K600	.029	ABDF0750J2BQD K600	P119
AADE1000J3A K600	P130	AADF375J2H K600	P126	ABDE0750Y3CQE K600	.029	ABDF0750J2BQE K600	P119
AADE1000J3ARB K600	P130	AADF500J2B K600	P127	ABDE1000J3AQ K600	P121	ABDF0750J2BRE K600	P116
AADE1000J3B K600	P130	AADF500J2F K600	P127	ABDE1000J3AQB K600	P121	ABDF0750J2BRC K600	P116
AADE1000J3BRC K600	P130	ABDE0188J3ARA K600	P117	ABDE1000J3AQE K600	P121	ABDF0750J2BRS K600	P116
AADE1000J3C K600	P130	ABDE0188J3AS K600	P117	ABDE1000J3ARB K600	P117	ABDF0750J2CQ K600	P119
AADE1000J3CRB K600	P130	ABDE0250J3AQ K600	P120	ABDE1000J3ARC K600	P117	ABDF0750J2CQB K600	P119
AADE1000J3CRC K600	P130	ABDE0250J3AQB K600	P120	ABDE1000J3ARE K600	P117	ABDF0750Y2CQ K600	.028
AADE1000J3D K600	P130	ABDE0250J3ARB K600	P117	ABDE1000J3AS K600	P117	ABDF1000J2AQ K600	P119
AADE1000J3E K600	P130	ABDE0250J3AS K600	P117	ABDE1000J3BQ K600	P121	ABDF1000J2AQB K600	P119
AADE1000J3ERA K600	P130	ABDE0250J3BQ K600	P120	ABDE1000J3BQB K600	P121	ABDF1000J2AQE K600	P119
AADE1000J3ERB K600	P130	ABDE0250J3BQB K600	P120	ABDE1000J3BQE K600	P121	ABDF1000J2ARB K600	P116
AADE1000J3ERE K600	P130	ABDE0250J3CQ K600	P120	ABDE1000J3BRB K600	P117	ABDF1000J2ARC K600	P116
AADE1000J3GRB K600	P130	ABDE0250J3CQB K600	P120	ABDE1000J3BRC K600	P117	ABDF1000J2ARE K600	P116
AADE1000J3H K600	P130	ABDE0312J3AQB K600	P120	ABDE1000J3BRE K600	P117	ABDF1000J2AS K600	P116
AADE1000J3HRA K600	P130	ABDE0312J3ARB K600	P117	ABDE1000J3BS K600	P117	ABDF1000J2BQ K600	P119
AADE1000J3I K600	P130	ABDE0312J3AS K600	P117	ABDE1000J3CQ K600	P121	ABDF1000J2BQB K600	P119
AADE1000J3K K600	P130	ABDE0375J3AQ K600	P120	ABDE1000J3CQB K600	P121	ABDF1000J2BQC K600	P119
AADE125J3F K600	P128	ABDE0375J3AQB K600	P120	ABDE1000Y3CQB K600	.029	ABDF1000J2BRB K600	P116
AADE125J3G K600	P128	ABDE0375J3ARB K600	P117	ABDE1000Y3CQC K600	.029	ABDF1000J2BRC K600	P116
AADE188J3F K600	P128	ABDE0375J3AS K600	P117	ABDE1000Y3CQD K600	.029	ABDF1000J2BRE K600	P116
AADE250J3B K600	P128	ABDE0375J3BQ K600	P120	ABDE1000Y3CQE K600	.029	ABDF1000J2CQ K600	P119
AADE250J3H K600	P128	ABDE0375J3BQB K600	P120	ABDE1000Y3CQF K600	.029	ABDF1000J2CQB K600	P119
AADE375J3I K600	P129	ABDE0375Y3CQA K600	.029	ABDF0188J2ARA K600	P116	AFB90975SCFR06	K134
AADE438J3A K600	P129	ABDE0375Y3CQB K600	.029	ABDF0188J2AS K600	P116	AFB13085SCFR06	K134
AADE500J3H K600	P129	ABDE0375Y3CQC K600	.029	ABDF0250J2AQB K600	P118	AFB17100SCFR06	K134
AADE625J3I K600	P129	ABDE0375Y3CQD K600	.029	ABDF0250J2ARA K600	P116	AFB21110SCFR09	K134
AADE750J3J K600	P130	ABDE0500J3AQ K600	P120	ABDF0250J2ARB K600	P116	AFB24115SCFR09	K134
AADE750J3K K600	P130	ABDE0500J3AQB K600	P120	ABDF0250J2AS K600	P116	AFB27115SCFR09	K134
AADF0125J2A K600	P126	ABDE0500J3AQE K600	P120	ABDF0250J2BQ K600	P118	AFB31115SCFR09	K134
AADF0125J2B K600	P126	ABDE0500J3ARB K600	P117	ABDF0250J2BQB K600	P118	AFB34115SCFR09	K134
AADF0188J2A K600	P126	ABDE0500J3ARC K600	P117	ABDF0250J2CQ K600	P118	AFB38115SCFR09	K134
AADF0188J2B K600	P126	ABDE0500J3ARE K600	P117	ABDF0250J2CQB K600	P118	AFB42115SCFR09	K134
AADF0188J2D K600	P126	ABDE0500J3AS K600	P117	ABDF0312J2AQB K600	P118	AFB47115SCFR09	K134
AADF0250J2A K600	P126	ABDE0500J3BQ K600	P120	ABDF0312J2ARA K600	P116	AFM29115	K135
AADF0250J2B K600	P126	ABDE0500J3BQB K600	P120	ABDF0312J2ARB K600	P116	AFM29SCFR06	K136
AADF0250J2BRA K600	P126	ABDE0500J3BQC K600	P120	ABDF0312J2AS K600	P116	AFM47115	K135
AADF0250J2BRB K600	P126	ABDE0500J3BQD K600	P120	ABDF0375J2AQ K600	P118	AFM47SCFR09	K136
AADF0250J2C K600	P126	ABDE0500J3BQE K600	P120	ABDF0375J2AQB K600	P118	ASPM07001802	T63-64
AADF0250J2E K600	P126	ABDE0500J3CQ K600	P120	ABDF0375J2ARB K600	P116	B041A01000CPG KC7325	.G8
AADF0250J2F K600	P126	ABDE0500J3CQB K600	P120	ABDF0375J2AS K600	P116	B041A01016CPG KC7325	.G8
AADF0250J2FRB K600	P126	ABDE0500J3CQC K600	P120	ABDF0375J2BQ K600	P118	B041A01041CPG KC7325	.G8
AADF0250J2G K600	P126	ABDE0500J3CQD K600	P120	ABDF0375J2BQB K600	P118	B041A01067CPG KC7325	.G8
AADF0375J2B K600	P126	ABDE0500J3CQE K600	P120	ABDF0375Y2CQ K600	.028	B041A01092CPG KC7325	.G8
AADF0375J2C K600	P126	ABDE0500Y3CQA K600	.029	ABDF0500J2AQ K600	P118	B041A01100CPG KC7325	.G8
AADF0375J2CRB K600	P126	ABDE0500Y3CQB K600	.029	ABDF0500J2AQB K600	P118	B041A01181CPG KC7325	.G8
AADF0375J2CRC K600	P126	ABDE0500Y3CQC K600	.029	ABDF0500J2AQE K600	P118	B041A01191CPG KC7325	.G8
AADF0375J2D K600	P126	ABDE0500Y3CQD K600	.029	ABDF0500J2ARB K600	P116	B041A01200CPG KC7325	.G8
AADF0375J2DRA K600	P126	ABDE0500Y3CQE K600	.029	ABDF0500J2ARC K600	P116	B041A01300CPG KC7325	.G8
AADF0375J2DRB K600	P126	ABDE0625J3AQ K600	P120	ABDF0500J2ARE K600	P116	B041A01321CPG KC7325	.G8
AADF0375J2E K600	P126	ABDE0625J3AQB K600	P120	ABDF0500J2AS K600	P116	B041A01397CPG KC7325	.G8
AADF0500J2A K600	P126	ABDE0625J3AS K600	P117	ABDF0500J2BQ K600	P118	B041A01400CPG KC7325	.G8
AADF0500J2B K600	P127	ABDE0625J3BQ K600	P120	ABDF0500J2BQB K600	P118	B041A01500CPG KC7325	.G8
AADF0500J2BRA K600	P127	ABDE0625J3BQB K600	P120	ABDF0500J2BQC K600	P118	B041A01600CPG KC7325	.G8
AADF0500J2BRB K600	P127	ABDE0625J3BQE K600	P120	ABDF0500J2BQD K600	P118	B041A01700CPG KC7325	.G8

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B224A03734HP KCPK15	G44	B224A13100HP KCPK15	G47	B225A06909HP KCPK15	G45	B225A13200HP KCPK15	G47
B224A03800HP KCPK15	G44	B224A13495HP KCPK15	G47	B225A07000HP KCPK15	G45	B225A13300HP KCPK15	G47
B224A03900HP KCPK15	G44	B224A13500HP KCPK15	G47	B225A07100HP KCPK15	G45	B225A13400HP KCPK15	G47
B224A03970HP KCPK15	G44	B224A13891HP KCPK15	G47	B225A07145HP KCPK15	G45	B225A13495HP KCPK15	G47
B224A04000HP KCPK15	G44	B224A14000HP KCPK15	G47	B225A07200HP KCPK15	G45	B225A13500HP KCPK15	G47
B224A04039HP KCPK15	G44	B224A14200HP KCPK15	G47	B225A07300HP KCPK15	G45	B225A13600HP KCPK15	G47
B224A04090HP KCPK15	G44	B224A14288HP KCPK15	G47	B225A07366HP KCPK15	G45	B225A13700HP KCPK15	G47
B224A04100HP KCPK15	G44	B224A14500HP KCPK15	G47	B225A07400HP KCPK15	G45	B225A13800HP KCPK15	G47
B224A04200HP KCPK15	G44	B224A14684HP KCPK15	G47	B225A07500HP KCPK15	G45	B225A13891HP KCPK15	G47
B224A04217HP KCPK15	G44	B224A15083HP KCPK15	G47	B225A07541HP KCPK15	G45	B225A13900HP KCPK15	G47
B224A04366HP KCPK15	G44	B224A15500HP KCPK15	G47	B225A07600HP KCPK15	G45	B225A14000HP KCPK15	G47
B224A04496HP KCPK15	G44	B224A15600HP KCPK15	G47	B225A07700HP KCPK15	G45	B225A14100HP KCPK15	G47
B224A04623HP KCPK15	G44	B224A15875HP KCPK15	G47	B225A07800HP KCPK15	G45	B225A14200HP KCPK15	G47
B224A04700HP KCPK15	G44	B224A16000HP KCPK15	G47	B225A07900HP KCPK15	G45	B225A14288HP KCPK15	G47
B224A04763HP KCPK15	G44	B224A16500HP KCPK15	G47	B225A07938HP KCPK15	G45	B225A14300HP KCPK15	G47
B224A04852HP KCPK15	G44	B224A17000HP KCPK15	G48	B225A08000HP KCPK15	G45	B225A14400HP KCPK15	G47
B224A05000HP KCPK15	G45	B224A17463HP KCPK15	G48	B225A08100HP KCPK15	G45	B225A14500HP KCPK15	G47
B224A05050HP KCPK15	G45	B224A17500HP KCPK15	G48	B225A08200HP KCPK15	G45	B225A14600HP KCPK15	G47
B224A05100HP KCPK15	G45	B224A18000HP KCPK15	G48	B225A08300HP KCPK15	G46	B225A14684HP KCPK15	G47
B224A05106HP KCPK15	G45	B224A19000HP KCPK15	G48	B225A08334HP KCPK15	G46	B225A14700HP KCPK15	G47
B224A05159HP KCPK15	G45	B224A19050HP KCPK15	G48	B225A08400HP KCPK15	G46	B225A14800HP KCPK15	G47
B224A05410HP KCPK15	G45	B224A20000HP KCPK15	G48	B225A08433HP KCPK15	G46	B225A14900HP KCPK15	G47
B224A05500HP KCPK15	G45	B225A03000HP KCPK15	G44	B225A08500HP KCPK15	G46	B225A15000HP KCPK15	G47
B224A05558HP KCPK15	G45	B225A03048HP KCPK15	G44	B225A08600HP KCPK15	G46	B225A15083HP KCPK15	G47
B224A05600HP KCPK15	G45	B225A03100HP KCPK15	G44	B225A08700HP KCPK15	G46	B225A15100HP KCPK15	G47
B224A05616HP KCPK15	G45	B225A03175HP KCPK15	G44	B225A08733HP KCPK15	G46	B225A15200HP KCPK15	G47
B224A05791HP KCPK15	G45	B225A03200HP KCPK15	G44	B225A08800HP KCPK15	G46	B225A15300HP KCPK15	G47
B224A05944HP KCPK15	G45	B225A03264HP KCPK15	G44	B225A08839HP KCPK15	G46	B225A15400HP KCPK15	G47
B224A05954HP KCPK15	G45	B225A03300HP KCPK15	G44	B225A08900HP KCPK15	G46	B225A15479HP KCPK15	G47
B224A06000HP KCPK15	G45	B225A03400HP KCPK15	G44	B225A09000HP KCPK15	G46	B225A15500HP KCPK15	G47
B224A06350HP KCPK15	G45	B225A03455HP KCPK15	G44	B225A09093HP KCPK15	G46	B225A15600HP KCPK15	G47
B224A06500HP KCPK15	G45	B225A03500HP KCPK15	G44	B225A09100HP KCPK15	G46	B225A15700HP KCPK15	G47
B224A06528HP KCPK15	G45	B225A03571HP KCPK15	G44	B225A09129HP KCPK15	G46	B225A15800HP KCPK15	G47
B224A06630HP KCPK15	G45	B225A03600HP KCPK15	G44	B225A09200HP KCPK15	G46	B225A15875HP KCPK15	G47
B224A06700HP KCPK15	G45	B225A03700HP KCPK15	G44	B225A09300HP KCPK15	G46	B225A15900HP KCPK15	G47
B224A06746HP KCPK15	G45	B225A03797HP KCPK15	G44	B225A09347HP KCPK15	G46	B225A16000HP KCPK15	G47
B224A06800HP KCPK15	G45	B225A03800HP KCPK15	G44	B225A09400HP KCPK15	G46	B225A16100HP KCPK15	G47
B224A06909HP KCPK15	G45	B225A03900HP KCPK15	G44	B225A09500HP KCPK15	G46	B225A16500HP KCPK15	G47
B224A07000HP KCPK15	G45	B225A03970HP KCPK15	G44	B225A09525HP KCPK15	G46	B225A16670HP KCPK15	G47
B224A07145HP KCPK15	G45	B225A04000HP KCPK15	G44	B225A09600HP KCPK15	G46	B225A17000HP KCPK15	G48
B224A07366HP KCPK15	G45	B225A04100HP KCPK15	G44	B225A09700HP KCPK15	G46	B225A17463HP KCPK15	G48
B224A07400HP KCPK15	G45	B225A04200HP KCPK15	G44	B225A09800HP KCPK15	G46	B225A17500HP KCPK15	G48
B224A07500HP KCPK15	G45	B225A04300HP KCPK15	G44	B225A09900HP KCPK15	G46	B225A17700HP KCPK15	G48
B224A07541HP KCPK15	G45	B225A04366HP KCPK15	G44	B225A09921HP KCPK15	G46	B225A18000HP KCPK15	G48
B224A07938HP KCPK15	G45	B225A04400HP KCPK15	G44	B225A10000HP KCPK15	G46	B225A18500HP KCPK15	G48
B224A08000HP KCPK15	G45	B225A04496HP KCPK15	G44	B225A10100HP KCPK15	G46	B225A19000HP KCPK15	G48
B224A08200HP KCPK15	G45	B225A04500HP KCPK15	G44	B225A10200HP KCPK15	G46	B225A19050HP KCPK15	G48
B224A08334HP KCPK15	G46	B225A04600HP KCPK15	G44	B225A10300HP KCPK15	G46	B225A19200HP KCPK15	G48
B224A08433HP KCPK15	G46	B225A04700HP KCPK15	G44	B225A10320HP KCPK15	G46	B225A19250HP KCPK15	G48
B224A08500HP KCPK15	G46	B225A04763HP KCPK15	G44	B225A10400HP KCPK15	G46	B225A19300HP KCPK15	G48
B224A08700HP KCPK15	G46	B225A04800HP KCPK15	G44	B225A10500HP KCPK15	G46	B225A19500HP KCPK15	G48
B224A08733HP KCPK15	G46	B225A04900HP KCPK15	G45	B225A10600HP KCPK15	G46	B225A20000HP KCPK15	G48
B224A08800HP KCPK15	G46	B225A05000HP KCPK15	G45	B225A10700HP KCPK15	G46	B225A20500HP KCPK15	G48
B224A08839HP KCPK15	G46	B225A05100HP KCPK15	G45	B225A10716HP KCPK15	G46	B225A21000HP KCPK15	G48
B224A09000HP KCPK15	G46	B225A05106HP KCPK15	G45	B225A10800HP KCPK15	G46	B24CTFPR4	B184, B390
B224A09093HP KCPK15	G46	B225A05159HP KCPK15	G45	B225A10900HP KCPK15	G46	B25A03000YPC KCK10	G52
B224A09129HP KCPK15	G46	B225A05200HP KCPK15	G45	B225A11000HP KCPK15	G46	B225A03048YPC KCK10	G52
B224A09400HP KCPK15	G46	B225A05300HP KCPK15	G45	B225A11100HP KCPK15	G46	B25A03200YPC KCK10	G52
B224A09500HP KCPK15	G46	B225A05400HP KCPK15	G45	B225A11113HP KCPK15	G46	B25A03300YPC KCK10	G52
B224A09525HP KCPK15	G46	B225A05410HP KCPK15	G45	B225A11200HP KCPK15	G46	B25A03454YPC KCK10	G52
B224A09921HP KCPK15	G46	B225A05500HP KCPK15	G45	B225A11300HP KCPK15	G46	B25A03500YPC KCK10	G52
B224A10000HP KCPK15	G46	B225A05558HP KCPK15	G45	B225A11400HP KCPK15	G46	B25A03600YPC KCK10	G52
B224A10200HP KCPK15	G46	B225A05600HP KCPK15	G45	B225A11500HP KCPK15	G46	B25A03800YPC KCK10	G52
B224A10300HP KCPK15	G46	B225A05700HP KCPK15	G45	B225A11509HP KCPK15	G46	B25A03861YPC KCK10	G52
B224A10320HP KCPK15	G46	B225A05791HP KCPK15	G45	B225A11600HP KCPK15	G46	B25A04000YPC KCK10	G52
B224A10400HP KCPK15	G46	B225A05800HP KCPK15	G45	B225A11700HP KCPK15	G46	B25A04039YPC KCK10	G52
B224A10500HP KCPK15	G46	B225A05900HP KCPK15	G45	B225A11800HP KCPK15	G46	B25A040410YPC KCK10	G52
B224A10716HP KCPK15	G46	B225A05944HP KCPK15	G45	B225A11900HP KCPK15	G46	B25A04200YPC KCK10	G52
B224A10800HP KCPK15	G46	B225A05954HP KCPK15	G45	B225A11908HP KCPK15	G46	B25A04500YPC KCK10	G52
B224A11000HP KCPK15	G46	B225A06000HP KCPK15	G45	B225A12000HP KCPK15	G46	B25A04572YPC KCK10	G52
B224A11113HP KCPK15	G46	B225A06100HP KCPK15	G45	B225A12100HP KCPK15	G47	B25A04763YPC KCK10	G52
B224A11500HP KCPK15	G46	B225A06200HP KCPK15	G45	B225A12200HP KCPK15	G47	B25A04800YPC KCK10	G52
B224A11509HP KCPK15	G46	B225A06300HP KCPK15	G45	B225A12300HP KCPK15	G47	B25A05000YPC KCK10	G53
B224A11908HP KCPK15	G46	B225A06350HP KCPK15	G45	B225A12304HP KCPK15	G47	B25A05055YPC KCK10	G53
B224A12000HP KCPK15	G46	B225A06400HP KCPK15	G45	B225A12400HP KCPK15	G47	B25A05100YPC KCK10	G53
B224A12300HP KCPK15	G47	B225A06500HP KCPK15	G45	B225A12500HP KCPK15	G47	B25A05106YPC KCK10	G53
B224A12304HP KCPK15	G47	B225A06528HP KCPK15	G45	B225A12600HP KCPK15	G47	B25A05300YPC KCK10	G53
B224A12500HP KCPK15	G47	B225A06600HP KCPK15	G45	B225A12700HP KCPK15	G47	B25A05500YPC KCK10	G53
B224A12700HP KCPK15	G47	B225A06700HP KCPK15	G45	B225A12800HP KCPK15	G47	B25A05558YPC KCK10	G53
B224A12800HP KCPK15	G47	B225A06746HP KCPK15	G45	B225A12900HP KCPK15	G47	B25A05791YPC KCK10	G53
B224A13000HP KCPK15	G47	B225A06800HP KCPK15	G45	B225A13000HP KCPK15	G47	B25A05800YPC KCK10	G53
B224A13096HP KCPK15	G47	B225A06900HP KCPK15	G45	B225A13100HP KCPK15	G47	B25A06000YPC KCK10	G53

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B254A06100YPC KCK10	653	B254A17859YPC KCK10	655	B255A07900YPC KCK10	653	B255A18000YPC KCK10	655
B254A06200YPC KCK10	653	B254A18000YPC KCK10	655	B255A07938YPC KCK10	653	B255A18258YPC KCK10	655
B254A06500YPC KCK10	653	B254A18200YPC KCK10	655	B255A08000YPC KCK10	653	B255A18500YPC KCK10	655
B254A06528YPC KCK10	653	B254A18258YPC KCK10	655	B255A08100YPC KCK10	653	B255A18800YPC KCK10	655
B254A06600YPC KCK10	653	B254A18500YPC KCK10	655	B255A08200YPC KCK10	653	B255A19000YPC KCK10	655
B254A06700YPC KCK10	653	B254A18800YPC KCK10	655	B255A08300YPC KCK10	653	B255A19500YPC KCK10	655
B254A06746YPC KCK10	653	B254A19000YPC KCK10	655	B255A08433YPC KCK10	654	B255A19700YPC KCK10	655
B254A06800YPC KCK10	653	B254A19050YPC KCK10	655	B255A08500YPC KCK10	654	B255A19800YPC KCK10	655
B254A06900YPC KCK10	653	B254A19800YPC KCK10	655	B255A08600YPC KCK10	654	B255A20000YPC KCK10	655
B254A07000YPC KCK10	653	B254A20000YPC KCK10	655	B255A08700YPC KCK10	654	B255A20500YPC KCK10	655
B254A07100YPC KCK10	653	B254A20638YPC KCK10	656	B255A08800YPC KCK10	654	B255A20638YPC KCK10	656
B254A07366YPC KCK10	653	B254A21000YPC KCK10	656	B255A08839YPC KCK10	654	B255A21000YPC KCK10	656
B254A07493YPC KCK10	653	B254A22000YPC KCK10	656	B255A08900YPC KCK10	654	B255A22000YPC KCK10	656
B254A07500YPC KCK10	653	B254A2225YPC KCK10	656	B255A09000YPC KCK10	654	B255A2225YPC KCK10	656
B254A07600YPC KCK10	653	B254A23416YPC KCK10	656	B255A09093YPC KCK10	654	B255A23416YPC KCK10	656
B254A07800YPC KCK10	653	B254A25000YPC KCK10	656	B255A09100YPC KCK10	654	B255A24000YPC KCK10	656
B254A07938YPC KCK10	653	B255A03000YPC KCK10	652	B255A09129YPC KCK10	654	B255A25000YPC KCK10	656
B254A08000YPC KCK10	653	B255A03048YPC KCK10	652	B255A09200YPC KCK10	654	B256A03000YPC KCK10	652
B254A08100YPC KCK10	653	B255A03175YPC KCK10	652	B255A09300YPC KCK10	654	B256A03175YPC KCK10	652
B254A08200YPC KCK10	653	B255A03200YPC KCK10	652	B255A09400YPC KCK10	654	B256A03264YPC KCK10	652
B254A08334YPC KCK10	653	B255A03250YPC KCK10	652	B255A09500YPC KCK10	654	B256A03500YPC KCK10	652
B254A08400YPC KCK10	654	B255A03300YPC KCK10	652	B255A09525YPC KCK10	654	B256A03700YPC KCK10	652
B254A08433YPC KCK10	654	B255A03400YPC KCK10	652	B255A09600YPC KCK10	654	B256A03800YPC KCK10	652
B254A08500YPC KCK10	654	B255A03500YPC KCK10	652	B255A09700YPC KCK10	654	B256A04000YPC KCK10	652
B254A08600YPC KCK10	654	B255A03600YPC KCK10	652	B255A09800YPC KCK10	654	B256A04100YPC KCK10	652
B254A08700YPC KCK10	654	B255A03700YPC KCK10	652	B255A09921YPC KCK10	654	B256A04200YPC KCK10	652
B254A08800YPC KCK10	654	B255A03797YPC KCK10	652	B255A10000YPC KCK10	654	B256A04300YPC KCK10	652
B254A08839YPC KCK10	654	B255A03800YPC KCK10	652	B255A10200YPC KCK10	654	B256A04366YPC KCK10	652
B254A09000YPC KCK10	654	B255A03861YPC KCK10	652	B255A10262YPC KCK10	654	B256A04500YPC KCK10	652
B254A09100YPC KCK10	654	B255A03970YPC KCK10	652	B255A10300YPC KCK10	654	B256A04623YPC KCK10	652
B254A09200YPC KCK10	654	B255A04000YPC KCK10	652	B255A10320YPC KCK10	654	B256A04700YPC KCK10	652
B254A09400YPC KCK10	654	B255A04039YPC KCK10	652	B255A10400YPC KCK10	654	B256A04800YPC KCK10	652
B254A09500YPC KCK10	654	B255A04100YPC KCK10	652	B255A10500YPC KCK10	654	B256A04852YPC KCK10	652
B254A09525YPC KCK10	654	B255A04200YPC KCK10	652	B255A10600YPC KCK10	654	B256A05000 KC7315	658
B254A09800YPC KCK10	654	B255A04217YPC KCK10	652	B255A10716YPC KCK10	654	B256A05000YPC KCK10	653
B254A09921YPC KCK10	654	B255A04300YPC KCK10	652	B255A10800YPC KCK10	654	B256A05100 KC7315	658
B254A10000YPC KCK10	654	B255A04366YPC KCK10	652	B255A10900YPC KCK10	654	B256A05100YPC KCK10	653
B254A10200YPC KCK10	654	B255A04500YPC KCK10	652	B255A11000YPC KCK10	654	B256A05200YPC KCK10	653
B254A10262YPC KCK10	654	B255A04572YPC KCK10	652	B255A11100YPC KCK10	654	B256A05500 KC7315	658
B254A10300YPC KCK10	654	B255A04600YPC KCK10	652	B255A11113YPC KCK10	654	B256A05500YPC KCK10	653
B254A10320YPC KCK10	654	B255A04700YPC KCK10	652	B255A11200YPC KCK10	654	B256A05600YPC KCK10	653
B254A10490YPC KCK10	654	B255A04800YPC KCK10	652	B255A11500YPC KCK10	654	B256A05800 KC7315	658
B254A10500YPC KCK10	654	B255A04900YPC KCK10	652	B255A11700YPC KCK10	654	B256A05800YPC KCK10	653
B254A10700YPC KCK10	654	B255A05000YPC KCK10	653	B255A11800YPC KCK10	654	B256A05900YPC KCK10	653
B254A10800YPC KCK10	654	B255A05055YPC KCK10	653	B255A11900YPC KCK10	654	B256A06000 KC7315	658
B254A11000YPC KCK10	654	B255A05100YPC KCK10	653	B255A11908YPC KCK10	654	B256A06000YPC KCK10	653
B254A11100YPC KCK10	654	B255A05159YPC KCK10	653	B255A12000YPC KCK10	654	B256A06200YPC KCK10	653
B254A11113YPC KCK10	654	B255A05200YPC KCK10	653	B255A12100YPC KCK10	654	B256A06350YPC KCK10	653
B254A11200YPC KCK10	654	B255A05250YPC KCK10	653	B255A12200YPC KCK10	654	B256A06400YPC KCK10	653
B254A11500YPC KCK10	654	B255A05300YPC KCK10	653	B255A12251YPC KCK10	654	B256A06500 KC7315	658
B254A11800YPC KCK10	654	B255A05400YPC KCK10	653	B255A12300YPC KCK10	654	B256A06500YPC KCK10	653
B254A11908YPC KCK10	654	B255A05410YPC KCK10	653	B255A12304YPC KCK10	654	B256A06600YPC KCK10	653
B254A12000YPC KCK10	654	B255A05500YPC KCK10	653	B255A12500YPC KCK10	655	B256A06700YPC KCK10	653
B254A12200YPC KCK10	654	B255A05558YPC KCK10	653	B255A12700YPC KCK10	655	B256A06800 KC7315	658
B254A12304YPC KCK10	654	B255A05600YPC KCK10	653	B255A13000YPC KCK10	655	B256A06800YPC KCK10	653
B254A12500YPC KCK10	655	B255A05700YPC KCK10	653	B255A13096YPC KCK10	655	B256A07000 KC7315	658
B254A12800YPC KCK10	655	B255A05791YPC KCK10	653	B255A13495YPC KCK10	655	B256A07000YPC KCK10	653
B254A13000YPC KCK10	655	B255A05800YPC KCK10	653	B255A13500YPC KCK10	655	B256A07300YPC KCK10	653
B254A13100YPC KCK10	655	B255A06000YPC KCK10	653	B255A14000YPC KCK10	655	B256A07500YPC KCK10	653
B254A13200YPC KCK10	655	B255A06100YPC KCK10	653	B255A14100YPC KCK10	655	B256A07600YPC KCK10	653
B254A13500YPC KCK10	655	B255A06200YPC KCK10	653	B255A14288YPC KCK10	655	B256A07800 KC7315	658
B254A13800YPC KCK10	655	B255A06300YPC KCK10	653	B255A14500YPC KCK10	655	B256A07800YPC KCK10	653
B254A13891YPC KCK10	655	B255A06350YPC KCK10	653	B255A14600YPC KCK10	655	B256A08000 KC7315	658
B254A14000YPC KCK10	655	B255A06400YPC KCK10	653	B255A14684YPC KCK10	655	B256A08000YPC KCK10	653
B254A14100YPC KCK10	655	B255A06500YPC KCK10	653	B255A15000YPC KCK10	655	B256A08200YPC KCK10	653
B254A14288YPC KCK10	655	B255A06600YPC KCK10	653	B255A15083YPC KCK10	655	B256A08300YPC KCK10	653
B254A14500YPC KCK10	655	B255A06630YPC KCK10	653	B255A15250YPC KCK10	655	B256A08400 KC7315	658
B254A14800YPC KCK10	655	B255A06700YPC KCK10	653	B255A15400YPC KCK10	655	B256A08500 KC7315	658
B254A15000YPC KCK10	655	B255A06746YPC KCK10	653	B255A15500YPC KCK10	655	B256A08500YPC KCK10	654
B254A15200YPC KCK10	655	B255A06800YPC KCK10	653	B255A15800YPC KCK10	655	B256A08600YPC KCK10	654
B254A15250YPC KCK10	655	B255A06900YPC KCK10	653	B255A15875YPC KCK10	655	B256A08700YPC KCK10	654
B254A15400YPC KCK10	655	B255A06909YPC KCK10	653	B255A16000YPC KCK10	655	B256A08800 KC7315	658
B254A15500YPC KCK10	655	B255A07000YPC KCK10	653	B255A16300YPC KCK10	655	B256A08800YPC KCK10	654
B254A15800YPC KCK10	655	B255A07145YPC KCK10	653	B255A16500YPC KCK10	655	B256A09000 KC7315	658
B254A16000YPC KCK10	655	B255A07200YPC KCK10	653	B255A16670YPC KCK10	655	B256A09000YPC KCK10	654
B254A16500YPC KCK10	655	B255A07400YPC KCK10	653	B255A16800YPC KCK10	655	B256A09100YPC KCK10	654
B254A16670YPC KCK10	655	B255A07493YPC KCK10	653	B255A17000YPC KCK10	655	B256A09300YPC KCK10	654
B254A16800YPC KCK10	655	B255A07500YPC KCK10	653	B255A17200YPC KCK10	655	B256A09347YPC KCK10	654
B254A17000YPC KCK10	655	B255A07541YPC KCK10	653	B255A17463YPC KCK10	655	B256A09500 KC7315	658
B254A17463YPC KCK10	655	B255A07600YPC KCK10	653	B255A17500YPC KCK10	655	B256A09500YPC KCK10	654
B254A17500YPC KCK10	655	B255A07700YPC KCK10	653	B255A17800YPC KCK10	655	B256A09600YPC KCK10	654
B254A17800YPC KCK10	655	B255A07800YPC KCK10	653	B255A17859YPC KCK10	655	B256A09700YPC KCK10	654

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B256A09800YPC KCK10	G54	B269A03600HP KCPK15	G62	B269A14100HP KCPK15	G64	B271Z05800HPG KCPK20	G68
B256A10000 K7315	G58	B269A03700HP KCPK15	G62	B269A14288HP KCPK15	G64	B271Z05900HPG KCPK20	G68
B256A10000YPC KCK10	G54	B269A03800HP KCPK15	G62	B269A14500HP KCPK15	G64	B271Z06000HPG KCPK20	G68
B256A10200 K7315	G58	B269A03970HP KCPK15	G62	B269A14600HP KCPK15	G64	B271Z06000HPS KN25	G68
B256A10200YPC KCK10	G54	B269A04000HP KCPK15	G62	B269A14684HP KCPK15	G64	B271Z06000SGL KCMS20	G68
B256A10300YPC KCK10	G54	B269A04100HP KCPK15	G62	B269A15000HP KCPK15	G64	B271Z06200HPG KCPK20	G68
B256A10400YPC KCK10	G54	B269A04200HP KCPK15	G62	B269A15200HP KCPK15	G64	B271Z06200HPS KN25	G68
B256A10500 K7315	G58	B269A04300HP KCPK15	G62	B269A15500HP KCPK15	G64	B271Z06350HPG KCPK20	G68
B256A10500YPC KCK10	G54	B269A04500HP KCPK15	G62	B269A15875HP KCPK15	G64	B271Z06350HPS KN25	G68
B256A10700YPC KCK10	G54	B269A04550HP KCPK15	G62	B269A16000HP KCPK15	G64	B271Z06500SGL KCMS20	G68
B256A10800YPC KCK10	G54	B269A04600HP KCPK15	G62	B269A16500HP KCPK15	G64	B271Z06500HPG KCPK20	G69
B256A11000 K7315	G58	B269A04700HP KCPK15	G62	B269A17000HP KCPK15	G64	B271Z06500HPS KN25	G69
B256A11000YPC KCK10	G54	B269A04763HP KCPK15	G62	B269A17100HP KCPK15	G64	B271Z06500SGL KCMS20	G69
B256A11200YPC KCK10	G54	B269A04800HP KCPK15	G62	B269A17463HP KCPK15	G64	B271Z06528HPG KCPK20	G69
B256A11300YPC KCK10	G54	B269A05000HP KCPK15	G62	B269A17500HP KCPK15	G64	B271Z06746HPG KCPK20	G69
B256A11500YPC KCK10	G54	B269A05100HP KCPK15	G62	B269A17600HP KCPK15	G64	B271Z06746HPS KN25	G69
B256A11600YPC KCK10	G54	B269A05200HP KCPK15	G62	B269A18000HP KCPK15	G64	B271Z06746SGL KCMS20	G69
B256A11800 K7315	G58	B269A05300HP KCPK15	G62	B269A18500HP KCPK15	G64	B271Z06909HPG KCPK20	G69
B256A11800YPC KCK10	G54	B269A05410HP KCPK15	G62	B269A18600HP KCPK15	G64	B271Z07000HPG KCPK20	G69
B256A11900YPC KCK10	G54	B269A05500HP KCPK15	G62	B269A19000HP KCPK15	G64	B271Z07000HPS KN25	G69
B256A12000 K7315	G58	B269A05558HP KCPK15	G62	B269A19050HP KCPK15	G64	B271Z07000SGL KCMS20	G69
B256A12000YPC KCK10	G54	B269A05600HP KCPK15	G62	B269A19500HP KCPK15	G64	B271Z07145HPG KCPK20	G69
B256A12200YPC KCK10	G54	B269A05700HP KCPK15	G62	B269A20000HP KCPK15	G64	B271Z07145HPS KN25	G69
B256A12300YPC KCK10	G54	B269A05800HP KCPK15	G62	B271Z02383KMG KCPK20	G68	B271Z07145SGL KCMS20	G69
B256A12400YPC KCK10	G55	B269A06000HP KCPK15	G62	B271Z02383KMS KN25	G68	B271Z07500HPG KCPK20	G69
B256A12500 K7315	G58	B269A06100HP KCPK15	G63	B271Z02400KMS KN25	G68	B271Z07500HPS KN25	G69
B256A12500YPC KCK10	G55	B269A06200HP KCPK15	G63	B271Z02439KMS KN25	G68	B271Z07500SGL KCMS20	G69
B256A12700YPC KCK10	G55	B269A06350HP KCPK15	G63	B271Z02489KMS KN25	G68	B271Z07541HPG KCPK20	G69
B256A12800YPC KCK10	G55	B269A06400HP KCPK15	G63	B271Z02500KMG KCPK20	G68	B271Z07938HPG KCPK20	G69
B256A13000 K7315	G58	B269A06500HP KCPK15	G63	B271Z02500KMS KN25	G68	B271Z07938SGL KCMS20	G69
B256A13000YPC KCK10	G55	B269A06528HP KCPK15	G63	B271Z02500SGL KCMS20	G68	B271Z08000HPG KCPK20	G69
B256A13096YPC KCK10	G55	B269A06600HP KCPK15	G63	B271Z02578KMS KN25	G68	B271Z08000HPS KN25	G69
B256A13200YPC KCK10	G55	B269A06746HP KCPK15	G63	B271Z02600KMS KN25	G68	B271Z08000SGL KCMS20	G69
B256A13495YPC KCK10	G55	B269A06800HP KCPK15	G63	B271Z02642KMG KCPK20	G68	B271Z08200HPG KCPK20	G69
B256A13500 K7315	G58	B269A06909HP KCPK15	G63	B271Z02705KMG KCPK20	G68	B271Z08334HPG KCPK20	G69
B256A13500YPC KCK10	G55	B269A07000HP KCPK15	G63	B271Z02779KMG KCPK20	G68	B271Z08500HPG KCPK20	G69
B256A13700YPC KCK10	G55	B269A07145HP KCPK15	G63	B271Z02779KMS KN25	G68	B271Z08500HPS KN25	G69
B256A13800YPC KCK10	G55	B269A07500HP KCPK15	G63	B271Z02800KMS KN25	G68	B271Z08500SGL KCMS20	G69
B256A13891YPC KCK10	G55	B269A07541HP KCPK15	G63	B271Z02820KMG KCPK20	G68	B271Z08733HPG KCPK20	G69
B256A14000 K7315	G58	B269A07700HP KCPK15	G63	B271Z02820KMS KN25	G68	B271Z08733HPS KN25	G69
B256A14000YPC KCK10	G55	B269A07800HP KCPK15	G63	B271Z02870KMS KN25	G68	B271Z08733SGL KCMS20	G69
B256A14500YPC KCK10	G55	B269A07938HP KCPK15	G63	B271Z02900KMS KN25	G68	B271Z09000HPG KCPK20	G69
B256A14684YPC KCK10	G55	B269A08000HP KCPK15	G63	B271Z02947KMS KN25	G68	B271Z09000HPS KN25	G69
B256A14800YPC KCK10	G55	B269A08100HP KCPK15	G63	B271Z03000HPG KCPK20	G68	B271Z09000SGL KCMS20	G69
B256A15000 K7315	G58	B269A08200HP KCPK15	G63	B271Z03000HPS KN25	G68	B271Z09100HPG KCPK20	G69
B256A15000YPC KCK10	G55	B269A08334HP KCPK15	G63	B271Z03000SGL KCMS20	G68	B271Z09200HPG KCPK20	G69
B256A15083YPC KCK10	G55	B269A08433HP KCPK15	G63	B271Z03175HPG KCPK20	G68	B271Z09500HPG KCPK20	G69
B256A15200YPC KCK10	G55	B269A08500HP KCPK15	G63	B271Z03175HPS KN25	G68	B271Z09500HPS KN25	G69
B256A15300YPC KCK10	G55	B269A08600HP KCPK15	G63	B271Z03175SGL KCMS20	G68	B271Z09525HPG KCPK20	G69
B256A15500YPC KCK10	G55	B269A08700HP KCPK15	G63	B271Z03200HPG KCPK20	G68	B271Z09525HPS KN25	G69
B256A15800YPC KCK10	G55	B269A08733HP KCPK15	G63	B271Z03200HPS KN25	G68	B271Z09525SGL KCMS20	G69
B256A16000 K7315	G58	B269A09000HP KCPK15	G63	B271Z03350HPG KCPK20	G68	B271Z09750HPG KCPK20	G69
B256A16000YPC KCK10	G55	B269A09100HP KCPK15	G63	B271Z03500HPS KN25	G68	B271Z10000HPG KCPK20	G69
B256A16300YPC KCK10	G55	B269A09129HP KCPK15	G63	B271Z03500SGL KCMS20	G68	B271Z10000HPS KN25	G69
B256A16500YPC KCK10	G55	B269A09500HP KCPK15	G63	B271Z03600HPG KCPK20	G68	B271Z10000SGL KCMS20	G69
B256A16800YPC KCK10	G55	B269A09525HP KCPK15	G63	B271Z03700HPG KCPK20	G68	B271Z10200HPG KCPK20	G69
B256A17000YPC KCK10	G55	B269A09800HP KCPK15	G63	B271Z03970HPG KCPK20	G68	B271Z10200HPS KN25	G69
B256A17500YPC KCK10	G55	B269A09921HP KCPK15	G63	B271Z03970HPS KN25	G68	B271Z10320SGL KCMS20	G69
B256A17800YPC KCK10	G55	B269A10000HP KCPK15	G63	B271Z03970SGL KCMS20	G68	B271Z10500HPG KCPK20	G69
B256A18000YPC KCK10	G55	B269A10200HP KCPK15	G63	B271Z04000HPG KCPK20	G68	B271Z10500HPS KN25	G69
B256A18258YPC KCK10	G55	B269A10300HP KCPK15	G63	B271Z04000HPS KN25	G68	B271Z10500SGL KCMS20	G69
B256A18500YPC KCK10	G55	B269A10320HP KCPK15	G63	B271Z04000SGL KCMS20	G68	B271Z10716HPG KCPK20	G69
B256A18800YPC KCK10	G55	B269A10400HP KCPK15	G63	B271Z04500HPG KCPK20	G68	B271Z10720HPS KN25	G69
B256A19000YPC KCK10	G55	B269A10500HP KCPK15	G63	B271Z04500HPS KN25	G68	B271Z10800HPG KCPK20	G69
B256A19500YPC KCK10	G55	B269A10716HP KCPK15	G63	B271Z04500SGL KCMS20	G68	B271Z11000HPG KCPK20	G69
B256A19800YPC KCK10	G55	B269A10800HP KCPK15	G63	B271Z04623HPG KCPK20	G68	B271Z11000HPS KN25	G69
B256A20000YPC KCK10	G55	B269A11000HP KCPK15	G63	B271Z04763HPG KCPK20	G68	B271Z11000SGL KCMS20	G69
B256A20638YPC KCK10	G56	B269A11113HP KCPK15	G63	B271Z04763HPS KN25	G68	B271Z11113SGL KCMS20	G69
B256A22000YPC KCK10	G56	B269A11200HP KCPK15	G63	B271Z04763SGL KCMS20	G68	B271Z12100HPG KCPK20	G69
B256A22225YPC KCK10	G56	B269A11500HP KCPK15	G63	B271Z04800HPG KCPK20	G68	B271Z12100HPS KN25	G69
B256A25004YPC KCK10	G56	B269A11800HP KCPK15	G63	B271Z04800SGL KCMS20	G68	B271Z12500SGL KCMS20	G69
B269A02400KMG KCPK15	G62	B269A12000HP KCPK15	G63	B271Z05000HPG KCPK20	G68	B271Z12500HPG KCPK20	G69
B269A02500KMG KCPK15	G62	B269A12100HP KCPK15	G63	B271Z05000HPS KN25	G68	B271Z12000HPS KN25	G69
B269A02600KMG KCPK15	G62	B269A12200HP KCPK15	G63	B271Z05000SGL KCMS20	G68	B271Z12000SGL KCMS20	G69
B269A02800KMG KCPK15	G62	B269A12304HP KCPK15	G63	B271Z05060HPG KCPK20	G68	B271Z12500HPG KCPK20	G69
B269A02900KMG KCPK15	G62	B269A12500HP KCPK15	G63	B271Z05260HPG KCPK20	G68	B271Z12500HPS KN25	G69
B269A03000HP KCPK15	G62	B269A12700HP KCPK15	G63	B271Z05410HPG KCPK20	G68	B271Z12700HPG KCPK20	G69
B269A03175HP KCPK15	G62	B269A13000HP KCPK15	G64	B271Z05500HPG KCPK20	G68	B271Z12700HPS KN25	G69
B269A03264HP KCPK15	G62	B269A13100HP KCPK15	G64	B271Z05500HPS KN25	G68	B271Z12700SGL KCMS20	G69
B269A03300HP KCPK15	G62	B269A13500HP KCPK15	G64	B271Z05500SGL KCMS20	G68	B271Z13000HPG KCPK20	G69
B269A03400HP KCPK15	G62	B269A13800HP KCPK15	G64	B271Z05558HPG KCPK20	G68	B271Z13000HPS KN25	G69
B269A03500HP KCPK15	G62	B269A14000HP KCPK15	G64	B271Z05558SGL KCMS20	G68	B271Z13500HPG KCPK20	G69

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B271Z13500HPS KN25	669	B272Z06746HPG KCPK20	G70	B272Z15000SGL KCMS20	G71	B273Z12500HPG KCPK20	G72
B271Z14000HPG KCPK20	669	B272Z06746HPS KN25	G70	B272Z15500HPG KCPK20	G71	B273Z12500HPS KN25	G72
B271Z14000HPS KN25	669	B272Z06746SGL KCMS20	G70	B272Z15500HPS KN25	G71	B273Z12700HPG KCPK20	G72
B271Z14000SGL KCMS20	669	B272Z06800HPG KCPK20	G70	B272Z15500SGL KCMS20	G71	B273Z13000HPG KCPK20	G72
B271Z14288HPG KCPK20	669	B272Z06909HPG KCPK20	G70	B272Z15870HPS KN25	G71	B273Z13000HPS KN25	G72
B271Z14290HPS KN25	669	B272Z07000HPG KCPK20	G71	B272Z15875HPG KCPK20	G71	B273Z13000SGL KCMS20	G72
B271Z14500HPG KCPK20	669	B272Z07000HPS KN25	G71	B272Z16000HPG KCPK20	G71	B273Z13100HPS KN25	G72
B271Z14500SGL KCMS20	669	B272Z07000SGL KCMS20	G71	B272Z16000HPS KN25	G71	B273Z13500HPG KCPK20	G72
B271Z15000HPG KCPK20	669	B272Z07145HPG KCPK20	G71	B272Z16000SGL KCMS20	G71	B273Z13500SGL KCMS20	G72
B271Z15000SGL KCMS20	669	B272Z07145HPS KN25	G71	B272Z02383KMG KCPK20	G72	B273Z14000HPG KCPK20	G72
B271Z15300HPG KCPK20	669	B272Z07145SGL KCMS20	G71	B273Z02383KMS KN25	G72	B273Z14000HPS KN25	G72
B271Z15500HPS KN25	669	B272Z07200HPG KCPK20	G71	B273Z02439KMS KN25	G72	B273Z14000SGL KCMS20	G72
B271Z15870HPS KN25	669	B272Z07500HPG KCPK20	G71	B273Z02500KMG KCPK20	G72	B273Z14288HPG KCPK20	G72
B271Z15875HPG KCPK20	669	B272Z07500HPS KN25	G71	B273Z02500SGL KCMS20	G72	B273Z14290HPS KN25	G72
B271Z16000HPG KCPK20	669	B272Z07500SGL KCMS20	G71	B273Z02600KMG KCPK20	G72	B273Z14500HPG KCPK20	G72
B271Z16000HPS KN25	669	B272Z07541HPG KCPK20	G71	B273Z02779KMS KN25	G72	B273Z14500HPS KN25	G72
B271Z16000SGL KCMS20	669	B272Z07938HPG KCPK20	G71	B273Z02800KMS KN25	G72	B273Z15000HPG KCPK20	G72
B272Z02383KMG KCPK20	G70	B272Z07938SGL KCMS20	G71	B273Z02820KMS KN25	G72	B273Z15000SGL KCMS20	G72
B272Z02383KMS KN25	G70	B272Z08000HPG KCPK20	G71	B273Z02870KMS KN25	G72	B273Z16000HPG KCPK15	G72
B272Z02400KMG KCPK20	G70	B272Z08000HPS KN25	G71	B273Z02947KMS KN25	G72	B273Z16000HPS KN25	G72
B272Z02400KMS KN25	G70	B272Z08000SGL KCMS20	G71	B273Z03000HPG KCPK20	G72	B273Z16000SGL KCMS20	G72
B272Z02439KMS KN25	G70	B272Z08334HPG KCPK20	G71	B273Z03000HPS KN25	G72	B274Z02383KMG KCPK20	G73
B272Z02489KMG KCPK20	G70	B272Z08433HPG KCPK20	G71	B273Z03000SGL KCMS20	G72	B274Z02383KMS KN25	G73
B272Z02489KMS KN25	G70	B272Z08500HPG KCPK20	G71	B273Z03175HPG KCPK20	G72	B274Z02400KMS KN25	G73
B272Z02500KMG KCPK20	G70	B272Z08500HPS KN25	G71	B273Z03175HPS KN25	G72	B274Z02439KMS KN25	G73
B272Z02500KMS KN25	G70	B272Z08500SGL KCMS20	G71	B273Z03175SGL KCMS20	G72	B274Z02500KMG KCPK20	G73
B272Z02500SGL KCMS20	G70	B272Z08733HPG KCPK20	G71	B273Z03500HPG KCPK20	G72	B274Z02500KMS KN25	G73
B272Z02779KMG KCPK20	G70	B272Z08733HPS KN25	G71	B273Z03500HPS KN25	G72	B274Z02500SGL KCMS20	G73
B272Z02800KMS KN25	G70	B272Z08733SGL KCMS20	G71	B273Z03500SGL KCMS20	G72	B274Z02600KMG KCPK20	G73
B272Z02947KMS KN25	G70	B272Z09000HPG KCPK20	G71	B273Z04000HPG KCPK20	G72	B274Z02600KMS KN25	G73
B272Z03000HPG KCPK20	G70	B272Z09000HPS KN25	G71	B273Z04000HPS KN25	G72	B274Z02624KMS KN25	G73
B272Z03000HPS KN25	G70	B272Z09000SGL KCMS20	G71	B273Z04000SGL KCMS20	G72	B274Z02779KMS KN25	G73
B272Z03000SGL KCMS20	G70	B272Z09100HPG KCPK20	G71	B273Z04500HPG KCPK20	G72	B274Z02800KMG KCPK20	G73
B272Z03175HPG KCPK20	G70	B272Z09500HPG KCPK20	G71	B273Z04500HPS KN25	G72	B274Z02800KMS KN25	G73
B272Z03175HPS KN25	G70	B272Z09525HPG KCPK20	G71	B273Z04500SGL KCMS20	G72	B274Z02870KMS KN25	G73
B272Z03175SGL KCMS20	G70	B272Z09525HPS KN25	G71	B273Z05000HPG KCPK20	G72	B274Z02900KMS KN25	G73
B272Z03300HPG KCPK20	G70	B272Z09525SGL KCMS20	G71	B273Z05000HPS KN25	G72	B274Z02947KMS KN25	G73
B272Z03300HPS KN25	G70	B272Z09750HPG KCPK20	G71	B273Z05000SGL KCMS20	G72	B274Z03000HPG KCPK20	G73
B272Z03300SGL KCMS20	G70	B272Z09750HPS KN25	G71	B273Z05100HPG KCPK20	G72	B274Z03000HPS KN25	G73
B272Z03500HPG KCPK20	G70	B272Z10000HPG KCPK20	G71	B273Z05500HPG KCPK20	G72	B274Z03000SGL KCMS20	G73
B272Z03500HPS KN25	G70	B272Z10000HPS KN25	G71	B273Z05500HPS KN25	G72	B274Z03175HPG KCPK20	G73
B272Z03500SGL KCMS20	G70	B272Z10000SGL KCMS20	G71	B273Z05500SGL KCMS20	G72	B274Z03175HPS KN25	G73
B272Z03850HPG KCPK20	G70	B272Z10200HPG KCPK20	G71	B273Z05800HPG KCPK20	G72	B274Z03175SGL KCMS20	G73
B272Z03970HPG KCPK20	G70	B272Z10200HPS KN25	G71	B273Z06000HPG KCPK20	G72	B274Z03500HPG KCPK20	G73
B272Z03970HPS KN25	G70	B272Z10320SGL KCMS20	G71	B273Z06000HPS KN25	G72	B274Z03500HPS KN25	G73
B272Z03970SGL KCMS20	G70	B272Z10500HPG KCPK20	G71	B273Z06000SGL KCMS20	G72	B274Z03500SGL KCMS20	G73
B272Z04000HPG KCPK20	G70	B272Z10500HPS KN25	G71	B273Z06350HPG KCPK20	G72	B274Z03970HPG KCPK20	G73
B272Z04000HPS KN25	G70	B272Z10500SGL KCMS20	G71	B273Z06350HPS KN25	G72	B274Z03970SGL KCMS20	G73
B272Z04000SGL KCMS20	G70	B272Z10716HPG KCPK20	G71	B273Z06500HPG KCPK20	G72	B274Z04000HPG KCPK20	G73
B272Z04500HPG KCPK20	G70	B272Z10716HPS KN25	G71	B273Z06500HPS KN25	G72	B274Z04000HPS KN25	G73
B272Z04500HPS KN25	G70	B272Z10720HPG KCPK20	G71	B273Z06500SGL KCMS20	G72	B274Z04000SGL KCMS20	G73
B272Z04500SGL KCMS20	G70	B272Z11000HPG KCPK20	G71	B273Z06746HPG KCPK20	G72	B274Z04300HPG KCPK20	G73
B272Z04623HPG KCPK20	G70	B272Z11000HPS KN25	G71	B273Z06746HPS KN25	G72	B274Z04500HPG KCPK20	G73
B272Z04763HPG KCPK20	G70	B272Z11000SGL KCMS20	G71	B273Z07000HPG KCPK20	G72	B274Z04500HPS KN25	G73
B272Z04763HPS KN25	G70	B272Z11113SGL KCMS20	G71	B273Z07000HPS KN25	G72	B274Z04500SGL KCMS20	G73
B272Z04763SGL KCMS20	G70	B272Z11500HPG KCPK20	G71	B273Z07000SGL KCMS20	G72	B274Z04763HPG KCPK20	G73
B272Z04800SGL KCMS20	G70	B272Z11500HPS KN25	G71	B273Z07500HPG KCPK20	G72	B274Z04763SGL KCMS20	G73
B272Z05000HPG KCPK20	G70	B272Z11500SGL KCMS20	G71	B273Z08000HPG KCPK20	G72	B274Z05000HPG KCPK20	G73
B272Z05000HPS KN25	G70	B272Z11800HPG KCPK20	G71	B273Z08000HPS KN25	G72	B274Z05000HPS KN25	G73
B272Z05000SGL KCMS20	G70	B272Z12000HPG KCPK20	G71	B273Z08000SGL KCMS20	G72	B274Z05000SGL KCMS20	G73
B272Z05200HPG KCPK20	G70	B272Z12000HPS KN25	G71	B273Z08500HPG KCPK20	G72	B274Z05100HPG KCPK20	G73
B272Z05260HPG KCPK20	G70	B272Z12000SGL KCMS20	G71	B273Z08500HPS KN25	G72	B274Z05100SGL KCMS20	G73
B272Z05410HPG KCPK20	G70	B272Z12500HPG KCPK20	G71	B273Z08500SGL KCMS20	G72	B274Z05500HPG KCPK20	G73
B272Z05500HPG KCPK20	G70	B272Z12500HPS KN25	G71	B273Z08733HPG KCPK20	G72	B274Z05500HPS KN25	G73
B272Z05500HPS KN25	G70	B272Z12500SGL KCMS20	G71	B273Z08733HPS KN25	G72	B274Z05500SGL KCMS20	G73
B272Z05500SGL KCMS20	G70	B272Z12700HPG KCPK20	G71	B273Z09000HPG KCPK20	G72	B274Z05558SGL KCMS20	G73
B272Z05558HPG KCPK20	G70	B272Z12700HPS KN25	G71	B273Z09000HPS KN25	G72	B274Z05700HPG KCPK20	G73
B272Z05558SGL KCMS20	G70	B272Z12700SGL KCMS20	G71	B273Z09525HPS KN25	G72	B274Z06000HPG KCPK20	G73
B272Z05800HPG KCPK20	G70	B272Z13000HPG KCPK20	G71	B273Z10000HPG KCPK20	G72	B274Z06000HPS KN25	G73
B272Z05800HPS KN25	G70	B272Z13000HPS KN25	G71	B273Z10000HPS KN25	G72	B274Z06000SGL KCMS20	G73
B272Z05800SGL KCMS20	G70	B272Z13000SGL KCMS20	G71	B273Z10000SGL KCMS20	G72	B274Z06350HPG KCPK20	G73
B272Z06200HPG KCPK20	G70	B272Z13100HPG KCPK20	G71	B273Z10200HPG KCPK20	G72	B274Z06350HPS KN25	G73
B272Z06200HPS KN25	G70	B272Z13500HPG KCPK20	G71	B273Z10500HPG KCPK20	G72	B274Z06350SGL KCMS20	G73
B272Z06200SGL KCMS20	G70	B272Z13500HPS KN25	G71	B273Z10500HPS KN25	G72	B274Z06500HPG KCPK20	G73
B272Z06350HPG KCPK20	G70	B272Z14000HPG KCPK20	G71	B273Z11000HPG KCPK20	G72	B274Z06500HPS KN25	G73
B272Z06350HPS KN25	G70	B272Z14000HPS KN25	G71	B273Z11000HPS KN25	G72	B274Z06500SGL KCMS20	G73
B272Z06350SGL KCMS20	G70	B272Z14000SGL KCMS20	G71	B273Z11000SGL KCMS20	G72	B274Z06746HPS KN25	G73
B272Z06400HPS KN25	G70	B272Z14500HPG KCPK20	G71	B273Z11500HPG KCPK20	G72	B274Z06746SGL KCMS20	G73
B272Z06500HPG KCPK20	G70	B272Z14500HPS KN25	G71	B273Z11500HPS KN25	G72	B274Z06800HPG KCPK20	G73
B272Z06500HPS KN25	G70	B272Z14500SGL KCMS20	G71	B273Z12000HPG KCPK20	G72	B274Z07000HPG KCPK20	G73
B272Z06500SGL KCMS20	G70	B272Z15000HPG KCPK20	G71	B273Z12000HPS KN25	G72	B274Z07000HPS KN25	G73
B272Z06528HPG KCPK20	G70	B272Z15000HPS KN25	G71	B273Z12000SGL KCMS20	G72	B274Z07000SGL KCMS20	G73

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B274Z07145SGL KCMS20	G73	B275Z04763HPG KCPK20	G75	B284D04600HPS KN15	G82	B284D12700HPS KN15	G84
B274Z07500SGL KCMS20	G73	B275Z04763HPS KN25	G75	B284D04700HPS KN15	G82	B284D13000HPS KN15	G84
B274Z07700HPG KCPK20	G74	B275Z04763SGL KCMS20	G75	B284D04763HPS KN15	G82	B284D13096HPS KN15	G84
B274Z07938HPG KCPK20	G74	B275Z05000HPG KCPK20	G75	B284D04800HPS KN15	G82	B284D13100HPS KN15	G84
B274Z07938SGL KCMS20	G74	B275Z05000HPS KN25	G75	B284D04900HPS KN15	G82	B284D13300HPS KN15	G84
B274Z08000HPG KCPK20	G74	B275Z05000SGL KCMS20	G75	B284D05000HPS KN15	G82	B284D13400HPS KN15	G84
B274Z08000HPS KN25	G74	B275Z05500HPG KCPK20	G75	B284D05100HPS KN15	G82	B284D13500HPS KN15	G84
B274Z08000SGL KCMS20	G74	B275Z05500HPS KN25	G75	B284D05106HPS KN15	G82	B284D14000HPS KN15	G84
B274Z08334HPG KCPK20	G74	B275Z05500SGL KCMS20	G75	B284D05159HPS KN15	G82	B284D14200HPS KN15	G84
B274Z08500HPG KCPK20	G74	B275Z05558HPG KCPK20	G75	B284D05200HPS KN15	G82	B284D14288HPS KN15	G84
B274Z08500HPS KN25	G74	B275Z05558HPS KN25	G75	B284D05300HPS KN15	G82	B284D14500HPS KN15	G84
B274Z08500SGL KCMS20	G74	B275Z0558SGL KCMS20	G75	B284D05400HPS KN15	G82	B284D14684HPS KN15	G84
B274Z08700HPG KCPK20	G74	B275Z06000HPG KCPK20	G75	B284D05410HPS KN15	G82	B284D15000HPS KN15	G84
B274Z08733HPS KN25	G74	B275Z06000HPS KN25	G75	B284D05500HPS KN15	G82	B284D15083HPS KN15	G84
B274Z08733SGL KCMS20	G74	B275Z06000SGL KCMS20	G75	B284D05558HPS KN15	G82	B284D15100HPS KN15	G84
B274Z09000HPG KCPK20	G74	B275Z06000HPG KCPK20	G75	B284D05600HPS KN15	G83	B284D15300HPS KN15	G84
B274Z09000HPS KN25	G74	B275Z06350HPS KN25	G75	B284D05791HPS KN15	G83	B284D15400HPS KN15	G84
B274Z09000SGL KCMS20	G74	B275Z06350SGL KCMS20	G75	B284D05800HPS KN15	G83	B284D15875HPS KN15	G84
B274Z09129SGL KCPK20	G74	B275Z06500HPG KCPK20	G75	B284D05954HPS KN15	G83	B284D16000HPS KN15	G84
B274Z09525HPG KCPK20	G74	B275Z06500HPS KN25	G75	B284D06000HPS KN15	G83	B284D16500HPS KN15	G84
B274Z09525HPS KN25	G74	B275Z06500SGL KCMS20	G75	B284D06200HPS KN15	G83	B284D16670HPS KN15	G84
B274Z09525SGL KCMS20	G74	B275Z06800HPG KCPK20	G75	B284D06300HPS KN15	G83	B284D16800HPS KN15	G84
B274Z10000HPG KCPK20	G74	B275Z06800HPS KN25	G75	B284D06350HPS KN15	G83	B284D16900HPS KN15	G84
B274Z10000HPS KN25	G74	B275Z06800SGL KCMS20	G75	B284D06400HPS KN15	G83	B284D17000HPS KN15	G84
B274Z10000SGL KCMS20	G74	B275Z07000HPG KCPK20	G75	B284D06500HPS KN15	G83	B284D17300HPS KN15	G84
B274Z10200HPG KCPK20	G74	B275Z07000HPS KN25	G75	B284D06528HPS KN15	G83	B284D17463HPS KN15	G84
B274Z10200HPS KN25	G74	B275Z07000SGL KCMS20	G75	B284D06600HPS KN15	G83	B284D17500HPS KN15	G84
B274Z10500HPG KCPK20	G74	B275Z07145HPG KCPK20	G75	B284D06630HPS KN15	G83	B284D17859HPS KN15	G84
B274Z10500SGL KCMS20	G74	B275Z07145HPS KN25	G75	B284D06700HPS KN15	G83	B284D18000HPS KN15	G84
B274Z10716HPG KCPK20	G74	B275Z07145SGL KCMS20	G75	B284D06746HPS KN15	G83	B284D19000HPS KN15	G84
B274Z11000HPG KCPK20	G74	B275Z07500HPG KCPK20	G75	B284D06800HPS KN15	G83	B284D19050HPS KN15	G84
B274Z11000HPS KN25	G74	B275Z07500HPS KN25	G75	B284D06900HPS KN15	G83	B284D20000HPS KN15	G84
B274Z11000SGL KCMS20	G74	B275Z07500SGL KCMS20	G75	B284D07000HPS KN15	G83	B285D03000HPS KN15	G82
B274Z11500HPG KCPK20	G74	B275Z07938HPG KCPK20	G75	B284D07145HPS KN15	G83	B285D03100HPS KN15	G82
B274Z11500HPS KN25	G74	B275Z07938HPS KN25	G75	B284D07300HPS KN15	G83	B285D03175HPS KN15	G82
B274Z11500SGL KCMS20	G74	B275Z07938SGL KCMS20	G75	B284D07400HPS KN15	G83	B285D03200HPS KN15	G82
B274Z11800HPG KCPK20	G74	B275Z08000HPG KCPK20	G75	B284D07500HPS KN15	G83	B285D03264HPS KN15	G82
B274Z12000HPG KCPK20	G74	B275Z08000HPS KN25	G75	B284D07541HPS KN15	G83	B285D03300HPS KN15	G82
B274Z12000HPS KN25	G74	B275Z08000SGL KCMS20	G75	B284D07600HPS KN15	G83	B285D03455HPS KN15	G82
B274Z12000SGL KCMS20	G74	B275Z08500HPS KN25	G75	B284D07700HPS KN15	G83	B285D03500HPS KN15	G82
B274Z12500HPG KCPK20	G74	B275Z08500SGL KCMS20	G75	B284D07938HPS KN15	G83	B285D03571HPS KN15	G82
B274Z12500HPS KN25	G74	B275Z08733HPG KCPK20	G75	B284D08000HPS KN15	G83	B285D03700HPS KN15	G82
B274Z12700HPG KCPK20	G74	B275Z08733HPS KN25	G75	B284D08334HPS KN15	G83	B285D03734HPS KN15	G82
B274Z12700SGL KCMS20	G74	B275Z08733SGL KCMS20	G75	B284D08400HPS KN15	G83	B285D03900HPS KN15	G82
B274Z13000HPG KCPK20	G74	B275Z09000HPG KCPK20	G75	B284D08433HPS KN15	G83	B285D03970HPS KN15	G82
B274Z13000HPS KN25	G74	B275Z09000HPS KN25	G75	B284D08500HPS KN15	G83	B285D04000HPS KN15	G82
B274Z13000SGL KCMS20	G74	B275Z09000SGL KCMS20	G75	B284D08700HPS KN15	G83	B285D04039HPS KN15	G82
B274Z13500HPG KCPK15	G74	B275Z09525HPG KCPK20	G75	B284D08733HPS KN15	G83	B285D04100HPS KN15	G82
B274Z13500HPS KN25	G74	B275Z09525HPS KN25	G75	B284D08800HPS KN15	G83	B285D04200HPS KN15	G82
B274Z13500SGL KCMS20	G74	B275Z09525SGL KCMS20	G75	B284D08900HPS KN15	G83	B285D04305HPS KN15	G82
B274Z14000HPG KCPK15	G74	B275Z10000HPG KCPK20	G75	B284D09000HPS KN15	G83	B285D04400HPS KN15	G82
B274Z14000HPS KN25	G74	B275Z10000HPS KN25	G75	B284D09100HPS KN15	G83	B285D04500HPS KN15	G82
B274Z14000SGL KCMS20	G74	B275Z10000SGL KCMS20	G75	B284D09129HPS KN15	G83	B285D04600HPS KN15	G82
B274Z15000HPG KCPK15	G74	B275Z10200HPG KCPK15	G75	B284D09300HPS KN15	G83	B285D04700HPS KN15	G82
B274Z15000HPS KN25	G74	B275Z10200HPS KN25	G75	B284D09400HPS KN15	G83	B285D04763HPS KN15	G82
B274Z15000SGL KCMS20	G74	B275Z10200SGL KCMS20	G75	B284D09500HPS KN15	G83	B285D04800HPS KN15	G82
B275Z02500KMG KCPK20	G75	B275Z10320HPG KCPK15	G75	B284D09525HPS KN15	G83	B285D04900HPS KN15	G82
B275Z02500KMS KN25	G75	B275Z10320HPS KN25	G75	B284D09900HPS KN15	G83	B285D05000HPS KN15	G82
B275Z02500SGL KCMS20	G75	B275Z10320SGL KCMS20	G75	B284D09921HPS KN15	G83	B285D05100HPS KN15	G82
B275Z03000HPS KN25	G75	B275Z11000HPS KN25	G75	B284D10000HPS KN15	G83	B285D05106HPS KN15	G82
B275Z03000KMG KCPK20	G75	B275Z11000SGL KCMS20	G75	B284D10100HPS KN15	G83	B285D05159HPS KN15	G82
B275Z03000SGL KCMS20	G75	B284D03000HPS KN15	G82	B284D10200HPS KN15	G83	B285D05200HPS KN15	G82
B275Z03175HPG KCPK20	G75	B284D03100HPS KN15	G82	B284D10300HPS KN15	G83	B285D05300HPS KN15	G82
B275Z03175HPS KN25	G75	B284D03175HPS KN15	G82	B284D10320HPS KN15	G83	B285D05400HPS KN15	G82
B275Z03175SGL KCMS20	G75	B284D03200HPS KN15	G82	B284D10500HPS KN15	G83	B285D05410HPS KN15	G82
B275Z03500HPG KCPK20	G75	B284D03264HPS KN15	G82	B284D10600HPS KN15	G83	B285D05500HPS KN15	G82
B275Z03500HPS KN25	G75	B284D03300HPS KN15	G82	B284D10716HPS KN15	G84	B285D05558HPS KN15	G82
B275Z03500SGL KCMS20	G75	B284D03455HPS KN15	G82	B284D10800HPS KN15	G84	B285D05600HPS KN15	G83
B275Z03571HPG KCPK20	G75	B284D03500HPS KN15	G82	B284D11000HPS KN15	G84	B285D05791HPS KN15	G83
B275Z03571HPS KN25	G75	B284D03571HPS KN15	G82	B284D11100HPS KN15	G84	B285D06000HPS KN15	G83
B275Z03571SGL KCMS20	G75	B284D03700HPS KN15	G82	B284D11113HPS KN15	G84	B285D06200HPS KN15	G83
B275Z03970HPG KCPK20	G75	B284D03734HPS KN15	G82	B284D11200HPS KN15	G84	B285D06300HPS KN15	G83
B275Z03970HPS KN25	G75	B284D03900HPS KN15	G82	B284D11300HPS KN15	G84	B285D06350HPS KN15	G83
B275Z03970SGL KCMS20	G75	B284D03970HPS KN15	G82	B284D11400HPS KN15	G84	B285D06400HPS KN15	G83
B275Z04000HPG KCPK20	G75	B284D04000HPS KN15	G82	B284D11500HPS KN15	G84	B285D06500HPS KN15	G83
B275Z04000HPS KN25	G75	B284D04039HPS KN15	G82	B284D11509HPS KN15	G84	B285D06528HPS KN15	G83
B275Z04000SGL KCMS20	G75	B284D04100HPS KN15	G82	B284D11800HPS KN15	G84	B285D06600HPS KN15	G83
B275Z04200HPG KCPK20	G75	B284D04200HPS KN15	G82	B284D11908HPS KN15	G84	B285D06630HPS KN15	G83
B275Z04200HPS KN25	G75	B284D04305HPS KN15	G82	B284D12000HPS KN15	G84	B285D06700HPS KN15	G83
B275Z04200SGL KCMS20	G75	B284D04366HPS KN15	G82	B284D12304HPS KN15	G84	B285D06746HPS KN15	G83
B275Z04500HPS KN25	G75	B284D04400HPS KN15	G82	B284D12500HPS KN15	G84	B285D06800HPS KN15	G83
B275Z04500SGL KCMS20	G75	B284D04500HPS KN15	G82	B284D12600HPS KN15	G84	B285D06900HPS KN15	G83

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B292A05558YPL KC7315	G88	B343S01495HPG KC7315	18	B343S04528HPG KC7315	19	B411A17000 KF1	G95
B292A05600YPL KC7315	G88	B343S01496HPG KC7315	18	B343S04531HPG KC7315	19	B411A17500 KF1	G95
B292A05800YPL KC7315	G88	B343S01563HPG KC7315	18	B343S04606HPG KC7315	19	B411A18000 KF1	G95
B292A06000YPL KC7315	G88	B343S01575HPG KC7315	18	B343S04646HPG KC7315	19	B411A19000 KF1	G95
B292A06200YPL KC7315	G88	B343S01614HPG KC7315	18	B343S04688HPG KC7315	19	B411A19500 KF1	G95
B292A06350YPL KC7315	G89	B343S01654HPG KC7315	18	B343S04724HPG KC7315	19	B411A20000 KF1	G95
B292A06500YPL KC7315	G89	B343S01693HPG KC7315	18	B343S04803HPG KC7315	19	B411A21000 KF1	G95
B292A06528YPL KC7315	G89	B343S01772HPG KC7315	18	B343S04921HPG KC7315	19	B411A22000 KF1	G95
B292A06600YPL KC7315	G89	B343S01811HPG KC7315	18	B343S05000HPG KC7315	19	B411A23000 KF1	G95
B292A06746YPL KC7315	G89	B343S01820HPG KC7315	18	B343S05039HPG KC7315	19	B411A24000 KF1	G95
B292A06800YPL KC7315	G89	B343S01875HPG KC7315	18	B343S05118HPG KC7315	19	B411A25000 KF1	G95
B292A06900YPL KC7315	G89	B343S01929HPG KC7315	18	B343S05197HPG KC7315	19	B501Z04000 K10	G144
B292A07000YPL KC7315	G89	B343S01969HPG KC7315	18	B343S05315HPG KC7315	19	B501Z06000 K10	G144
B292A07100YPL KC7315	G89	B343S02008HPG KC7315	18	B343S05512HPG KC7315	19	B501Z10000 K10	G144
B292A07145YPL KC7315	G89	B343S02047HPG KC7315	18	B343S05591HPG KC7315	19	B501Z12000 K10	G144
B292A07200YPL KC7315	G89	B343S02087HPG KC7315	18	B343S05625HPG KC7315	19	B505Z04000 K10	G144
B292A07400YPL KC7315	G89	B343S02126HPG KC7315	18	B343S05906HPG KC7315	19	B505Z06000 K10	G144
B292A07500YPL KC7315	G89	B343S02130HPG KC7315	18	B343S06102HPG KC7315	19	B505Z08000 K10	G144
B292A07600YPL KC7315	G89	B343S02165HPG KC7315	18	B343S06250HPG KC7315	19	B505Z10000 K10	G144
B292A07900YPL KC7315	G89	B343S02185HPG KC7315	18	B343S06299HPG KC7315	19	B505Z12000 K10	G144
B292A07938YPL KC7315	G89	B343S02188HPG KC7315	18	B343S06496HPG KC7315	19	B505Z16000 K10	G144
B292A08000YPL KC7315	G89	B343S02205HPG KC7315	18	B343S06562HPG KC7315	19	B505Z20000 K10	G144
B292A08100YPL KC7315	G89	B343S02283HPG KC7315	18	B343S06693HPG KC7315	19	B510S08000 A30	J86
B292A08200YPL KC7315	G89	B343S02362HPG KC7315	18	B343S06890HPG KC7315	19	B510S08000 AS3	J86
B292A08334YPL KC7315	G89	B343S02402HPG KC7315	18	B343S06969HPG KC7315	19	B510S10000 A30	J86
B292A08433YPL KC7315	G89	B343S02441HPG KC7315	18	B343S07087HPG KC7315	19	B510S10000 AS3	J86
B292A08500YPL KC7315	G89	B343S02480HPG KC7315	18	B411A03200 KF1	G94	B510S15000 A30	J86
B292A08600YPL KC7315	G89	B343S02500HPG KC7315	18	B411A03300 KF1	G94	B510S15000 AS3	J86
B292A08733YPL KC7315	G89	B343S02520HPG KC7315	18	B411A03800 KF1	G94	B510S20000 A30	J86
B292A08800YPL KC7315	G89	B343S02559HPG KC7315	18	B411A04000 KF1	G94	B510S20000 AS3	J86
B292A08900YPL KC7315	G89	B343S02570HPG KC7315	18	B411A04200 KF1	G94	B510S25000 A30	J86
B292A09000YPL KC7315	G89	B343S02598HPG KC7315	18	B411A04500 KF1	G94	B510S25000 AS3	J86
B292A09130YPL KC7315	G89	B343S02638HPG KC7315	18	B411A04600 KF1	G94	B510S30000 A30	J86
B292A09200YPL KC7315	G89	B343S02656HPG KC7315	19	B411A04650 KF1	G94	B510S30000 AS3	J86
B292A09347YPL KC7315	G89	B343S02677HPG KC7315	19	B411A04800 KF1	G94	B511S08000 KC7315	J86
B292A09500YPL KC7315	G89	B343S02717HPG KC7315	19	B411A04900 KF1	G94	B511S10000 KC7315	J86
B292A09525YPL KC7315	G89	B343S02756HPG KC7315	19	B411A05000 KF1	G94	B511S15000 KC7315	J86
B292A09600YPL KC7315	G89	B343S02813HPG KC7315	19	B411A05100 KF1	G94	B511S20000 KC7315	J86
B292A09700YPL KC7315	G89	B343S02874HPG KC7315	19	B411A05200 KF1	G94	B511S25000 KC7315	J86
B292A09800YPL KC7315	G89	B343S02913HPG KC7315	19	B411A05500 KF1	G94	B511S30000 KC7315	J86
B292A10000YPL KC7315	G89	B343S02953HPG KC7315	19	B411A05550 KF1	G94	B513S08000 A30	J76
B292A10100YPL KC7315	G89	B343S02969HPG KC7315	19	B411A05600 KF1	G94	B513S08000 AS3	J76
B292A10200YPL KC7315	G89	B343S03071HPG KC7315	19	B411A05800 KF1	G94	B513S10000 A30	J76
B292A10320YPL KC7315	G89	B343S03110HPG KC7315	19	B411A06000 KF1	G94	B513S10000 AS3	J76
B292A10500YPL KC7315	G89	B343S03125HPG KC7315	19	B411A06100 KF1	G94	B514S10000 KC7030	J76
B292A10716YPL KC7315	G89	B343S03150HPG KC7315	19	B411A06300 KF1	G94	B514S10000 KC7030	J76
B292A11000YPL KC7315	G89	B343S03189HPG KC7315	19	B411A06400 KF1	G94	B531A03200SPF KDF400	G100
B292A11112YPL KC7315	G89	B343S03228HPG KC7315	19	B411A06500 KF1	G94	B531A03300SPF KDF400	G100
B292A11500YPL KC7315	G89	B343S03268HPG KC7315	19	B411A06600 KF1	G94	B531A03600SPF KDF400	G100
B292A11509YPL KC7315	G89	B343S03281HPG KC7315	19	B411A06800 KF1	G94	B531A04000SPF KDF400	G100
B292A11908YPL KC7315	G89	B343S03307HPG KC7315	19	B411A07000 KF1	G94	B531A04366SPF KDF400	G100
B292A12000YPL KC7315	G90	B343S03320HPG KC7315	19	B411A07400 KF1	G94	B531A04851SPF KDF400	G100
B292A12304YPL KC7315	G90	B343S03346HPG KC7315	19	B411A07500 KF1	G94	B531A04864SPF KDF400	G100
B292A12500YPL KC7315	G90	B343S03386HPG KC7315	19	B411A07700 KF1	G94	B531A05100SPF KDF400	G100
B292A12700YPL KC7315	G90	B343S03425HPG KC7315	19	B411A07800 KF1	G94	B531A05200SPF KDF400	G100
B292A13000YPL KC7315	G90	B343S03438HPG KC7315	19	B411A08000 KF1	G94	B531A06000SPF KDF400	G100
B292A13500YPL KC7315	G90	B343S03465HPG KC7315	19	B411A08400 KF1	G94	B531A06375SPF KDF400	G100
B292A13900YPL KC7315	G90	B343S03543HPG KC7315	19	B411A08500 KF1	G94	B531A06400SPF KDF400	G100
B292A14000YPL KC7315	G90	B343S03583HPG KC7315	19	B411A08700 KF1	G95	B531A06500SPF KDF400	G100
B292A14200YPL KC7315	G90	B343S03680HPG KC7315	19	B411A08800 KF1	G95	B531A07938SPF KDF400	G100
B292A14288YPL KC7315	G90	B343S03701HPG KC7315	19	B411A09000 KF1	G95	B531A09550SPF KDF400	G100
B292A14500YPL KC7315	G90	B343S03740HPG KC7315	19	B411A09300 KF1	G95	B531A09563SPF KDF400	G100
B292A15000YPL KC7315	G90	B343S03750HPG KC7315	19	B411A09500 KF1	G95	B531A11125SPF KDF400	G100
B292A15500YPL KC7315	G90	B343S03819HPG KC7315	19	B411A09800 KF1	G95	B531A12725SPF KDF400	G100
B292A15600YPL KC7315	G90	B343S03858HPG KC7315	19	B411A10000 KF1	G95	B532A03200SPF KDF400	G100
B292A15875YPL KC7315	G90	B343S03906HPG KC7315	19	B411A10200 KF1	G95	B532A03600SPF KDF400	G100
B292A16000YPL KC7315	G90	B343S03937HPG KC7315	19	B411A10500 KF1	G95	B532A03600SPF KDF400	G100
B292A16500YPL KC7315	G90	B343S03976HPG KC7315	19	B411A11000 KF1	G95	B532A04366SPF KDF400	G100
B292A17000YPL KC7315	G90	B343S04016HPG KC7315	19	B411A11200 KF1	G95	B532A04851SPF KDF400	G100
B292A17463YPL KC7315	G90	B343S04055HPG KC7315	19	B411A11500 KF1	G95	B532A05100SPF KDF400	G100
B292A17500YPL KC7315	G90	B343S04063HPG KC7315	19	B411A11800 KF1	G95	B532A05200SPF KDF400	G100
B292A18000YPL KC7315	G90	B343S04094HPG KC7315	19	B411A12000 KF1	G95	B532A06000SPF KDF400	G100
B292A18500YPL KC7315	G90	B343S04134HPG KC7315	19	B411A12500 KF1	G95	B532A06375SPF KDF400	G100
B292A19000YPL KC7315	G90	B343S04173HPG KC7315	19	B411A13000 KF1	G95	B532A06400SPF KDF400	G100
B292A19050YPL KC7315	G90	B343S04213HPG KC7315	19	B411A13500 KF1	G95	B532A06500SPF KDF400	G100
B292A20000YPL KC7315	G90	B343S04219HPG KC7315	19	B411A13800 KF1	G95	B532A06700SPF KDF400	G100
B292A20500YPL KC7315	G90	B343S04252HPG KC7315	19	B411A14000 KF1	G95	B532A07200SPF KDF400	G100
B292A21000YPL KC7315	G90	B343S04331HPG KC7315	19	B411A14500 KF1	G95	B532A07938SPF KDF400	G100
B32CTFPR4	B184, B390	B343S04370HPG KC7315	19	B411A15000 KF1	G95	B532A09563SPF KDF400	G100
B343S01250HPG KC7315	18	B343S04375HPG KC7315	19	B411A15500 KF1	G95	B532A12725SPF KDF400	G100
B343S01339HPG KC7315	18	B343S04409HPG KC7315	19	B411A16000 KF1	G95	B551A04763DAL KN15	G104
B343S01378HPG KC7315	18	B343S04449HPG KC7315	19	B411A16500 KF1	G95	B551A06350DAL KN15	G104

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B551A07938DAL KN15.....	G104	B707A08000FBL KCMS15.....	G111	B707A14500FBS KN15.....	G111	B732A10500HP KCPK15.....	G119
B551A09525DAL KN15.....	G104	B707A08000FBS KN15.....	G111	B707A15000FBL KC7315.....	G111	B732A10716HP KCPK15.....	G119
B551A1113DAL KN15.....	G104	B707A08334FBL KC7315.....	G111	B707A15000FBL KCMS15.....	G111	B732A12000HP KCPK15.....	G119
B551A112700DAL KN15.....	G104	B707A08500FBL KC7315.....	G111	B707A15000FBS KN15.....	G111	B732A12500HP KCPK15.....	G119
B551A14288DAL KN15.....	G104	B707A08500FBL KCMS15.....	G111	B707A15250FBL KC7315.....	G112	B732A13096HP KCPK15.....	G119
B551A15875DAL KN15.....	G104	B707A08500FBS KN15.....	G111	B707A15250FBL KCMS15.....	G112	B732A13495HP KCPK15.....	G119
B556A04763DAL KN15.....	G104	B707A08800FBL KC7315.....	G111	B707A15250FBS KN15.....	G112	B732A14000HP KCPK15.....	G119
B556A04826DAL KN15.....	G104	B707A08800FBL KCMS15.....	G111	B707A15500FBL KC7315.....	G112	B732A16670HP KCPK15.....	G119
B556A06350DAL KN15.....	G104	B707A08800FBS KN15.....	G111	B707A15500FBL KCMS15.....	G112	B732A17463HP KCPK15.....	G119
B556A06375DAL KN15.....	G104	B707A09000FBL KC7315.....	G111	B707A15500FBS KN15.....	G112	B941A03000 KCH10.....	G124
B556A07938DAL KN15.....	G104	B707A09000FBL KCMS15.....	G111	B707A15875FBL KC7315.....	G112	B941A03300 KCH10.....	G124
B556A09525DAL KN15.....	G104	B707A09000FBS KN15.....	G111	B707A15875FBS KN15.....	G112	B941A03400 KCH10.....	G124
B556A11113DAL KN15.....	G104	B707A09129FBL KC7315.....	G111	B707A16000FBL KC7315.....	G112	B941A03500 KCH10.....	G124
B556A12700DAL KN15.....	G104	B707A09500FBL KC7315.....	G111	B707A16000FBS KN15.....	G112	B941A04000 KCH10.....	G124
B556A14288DAL KN15.....	G104	B707A09500FBL KCMS15.....	G111	B707A16000FBS KN15.....	G112	B941A04200 KCH10.....	G124
B556A15875DAL KN15.....	G104	B707A09525FBL KC7315.....	G111	B707A16500FBL KC7315.....	G112	B941A04300 KCH10.....	G124
B707A03000FBL KC7315.....	G110	B707A09525FBS KN15.....	G111	B707A16500FBS KN15.....	G112	B941A05000 KCH10.....	G124
B707A03000FBL KCMS15.....	G110	B707A09800FBL KC7315.....	G111	B707A16500FBL KCMS15.....	G112	B941A05000 KCH10.....	G124
B707A03000FBS KN15.....	G110	B707A09800FBS KN15.....	G111	B707A17000FBL KC7315.....	G112	B941A05100 KCH10.....	G124
B707A03175FBL KC7315.....	G110	B707A10000FBL KC7315.....	G111	B707A17000FBL KCMS15.....	G112	B941A05200 KCH10.....	G124
B707A03175FBL KCMS15.....	G110	B707A10000FBS KN15.....	G111	B707A17000FBS KN15.....	G112	B941A05600 KCH10.....	G124
B707A03175FBS KN15.....	G110	B707A10200FBL KC7315.....	G111	B707A17463FBL KC7315.....	G112	B941A06000 KCH10.....	G124
B707A03500FBL KC7315.....	G110	B707A10200FBS KN15.....	G111	B707A17500FBL KC7315.....	G112	B941A06900 KCH10.....	G124
B707A03500FBL KCMS15.....	G110	B707A10320FBL KC7315.....	G111	B707A17500FBL KCMS15.....	G112	B941A07000 KCH10.....	G124
B707A03500FBS KN15.....	G110	B707A10320FBS KN15.....	G111	B707A17500FBS KN15.....	G112	B941A07100 KCH10.....	G124
B707A03700FBL KC7315.....	G110	B707A10320FBL KCMS15.....	G111	B707A17900FBL KC7315.....	G112	B941A08000 KCH10.....	G124
B707A03700FBL KCMS15.....	G110	B707A10320FBS KN15.....	G111	B707A18000FBL KC7315.....	G112	B941A08500 KCH10.....	G124
B707A03970FBL KC7315.....	G110	B707A10500FBL KC7315.....	G111	B707A18000FBL KCMS15.....	G112	B941A08600 KCH10.....	G124
B707A04000FBL KC7315.....	G110	B707A10500FBS KN15.....	G111	B707A18000FBS KN15.....	G112	B941A08800 KCH10.....	G124
B707A04000FBL KCMS15.....	G110	B707A10600FBL KC7315.....	G111	B707A18500FBL KC7315.....	G112	B941A09000 KCH10.....	G124
B707A04000FBS KN15.....	G110	B707A10600FBS KN15.....	G111	B707A18500FBS KN15.....	G112	B941A10000 KCH10.....	G124
B707A04200FBL KC7315.....	G110	B707A10800FBL KC7315.....	G111	B707A19000FBL KC7315.....	G112	B941A10200 KCH10.....	G124
B707A04200FBL KCMS15.....	G110	B707A10800FBS KN15.....	G111	B707A19000FBL KCMS15.....	G112	B941A10400 KCH10.....	G124
B707A04200FBS KN15.....	G110	B707A11000FBL KC7315.....	G111	B707A19000FBS KN15.....	G112	B941A10500 KCH10.....	G124
B707A04400FBL KC7315.....	G110	B707A11000FBS KN15.....	G111	B707A19050FBL KC7315.....	G112	B941A11100 KCH10.....	G124
B707A04400FBL KCMS15.....	G110	B707A11111FBL KC7315.....	G111	B707A19050FBL KCMS15.....	G112	B941A12000 KCH10.....	G124
B707A04400FBS KN15.....	G110	B707A11111FBS KN15.....	G111	B707A19050FBS KN15.....	G112	B941A12100 KCH10.....	G124
B707A04400FBL KC7315.....	G110	B707A11350FBL KC7315.....	G111	B707A20000FBL KC7315.....	G112	B941A14000 KCH10.....	G124
B707A04400FBL KCMS15.....	G110	B707A11350FBS KN15.....	G111	B707A20000FBL KCMS15.....	G112	B941Z02500 KCH10.....	G124
B707A04500FBS KN15.....	G110	B707A11509FBL KC7315.....	G111	B707A20000FBS KN15.....	G112	B951A03000 KCH10.....	G125
B707A04763FBL KC7315.....	G110	B707A11509FBS KN15.....	G111	B707A21000FBL KC7315.....	G112	B951A03175 KCH10.....	G125
B707A04800FBL KC7315.....	G110	B707A11570FBL KC7315.....	G111	B707A21000FBS KN15.....	G112	B951A03454 KCH10.....	G125
B707A04800FBL KCMS15.....	G110	B707A11570FBS KN15.....	G111	B731A003734HP KCPK15.....	G118	B951A03500 KCH10.....	G125
B707A04800FBS KN15.....	G110	B707A11700FBL KC7315.....	G111	B731A004200HP KCPK15.....	G118	B951A03800 KCH10.....	G125
B707A04900FBL KC7315.....	G110	B707A11700FBS KN15.....	G111	B731A004496HP KCPK15.....	G118	B951A04000 KCH10.....	G125
B707A04900FBS KN15.....	G110	B707A11800FBL KC7315.....	G111	B731A005000HP KCPK15.....	G118	B951A04100 KCH10.....	G125
B707A05000FBL KC7315.....	G110	B707A11800FBS KN15.....	G111	B731A005106HP KCPK15.....	G118	B951A04200 KCH10.....	G125
B707A05000FBL KCMS15.....	G110	B707A11908FBL KC7315.....	G111	B731A005410HP KCPK15.....	G118	B951A04300 KCH10.....	G125
B707A05000FBS KN15.....	G110	B707A12000FBL KC7315.....	G111	B731A006528HP KCPK15.....	G118	B951A04500 KCH10.....	G125
B707A05200FBL KC7315.....	G110	B707A12000FBS KN15.....	G111	B731A006800HP KCPK15.....	G118	B951A05000 KCH10.....	G125
B707A05200FBL KCMS15.....	G110	B707A12100FBL KC7315.....	G111	B731A006909HP KCPK15.....	G118	B951A05500 KCH10.....	G125
B707A05200FBS KN15.....	G110	B707A12100FBS KN15.....	G111	B731A007938HP KCPK15.....	G118	B951A06000 KCH10.....	G125
B707A05560FBL KC7315.....	G110	B707A12100FBL KCMS15.....	G111	B731A008433HP KCPK15.....	G118	B951A06800 KCH10.....	G125
B707A05560FBL KCMS15.....	G110	B707A12100FBS KN15.....	G111	B731A008500HP KCPK15.....	G118	B951A06900 KCH10.....	G125
B707A05560FBS KN15.....	G110	B707A12500FBL KC7315.....	G111	B731A008500HP KCPK15.....	G118	B951A07000 KCH10.....	G125
B707A05800FBL KC7315.....	G110	B707A12500FBS KN15.....	G111	B731A010500HP KCPK15.....	G118	B951A07000 KCH10.....	G125
B707A05800FBL KCMS15.....	G110	B707A12500FBL KCMS15.....	G111	B731A010716HP KCPK15.....	G118	B951A08000 KCH10.....	G125
B707A05900FBL KC7315.....	G110	B707A12700FBL KC7315.....	G111	B731A012000HP KCPK15.....	G118	B951A08500 KCH10.....	G125
B707A05900FBS KN15.....	G110	B707A12700FBS KN15.....	G111	B731A012304HP KCPK15.....	G118	B951A09000 KCH10.....	G125
B707A05900FBL KCMS15.....	G110	B707A12800FBL KC7315.....	G111	B731A012500HP KCPK15.....	G118	B951A09500 KCH10.....	G125
B707A06000FBL KC7315.....	G110	B707A12800FBS KN15.....	G111	B731A013096HP KCPK15.....	G118	B951A09800 KCH10.....	G125
B707A06000FBS KN15.....	G110	B707A12800FBL KCMS15.....	G111	B731A013495HP KCPK15.....	G118	B951A10000 KCH10.....	G125
B707A06000FBL KCMS15.....	G110	B707A12800FBS KN15.....	G111	B731A014000HP KCPK15.....	G118	B951A10000 KCH10.....	G125
B707A06100FBL KC7315.....	G110	B707A12800FBL KCMS15.....	G111	B731A016670HP KCPK15.....	G118	B951A10500 KCH10.....	G125
B707A06100FBS KN15.....	G110	B707A12800FBS KN15.....	G111	B731A017463HP KCPK15.....	G118	B951A10800 KCH10.....	G125
B707A06100FBL KCMS15.....	G110	B707A13000FBL KC7315.....	G111	B731A019446HP KCPK15.....	G118	B951A11000 KCH10.....	G125
B707A06350FBL KC7315.....	G110	B707A13000FBS KN15.....	G111	B732A003734HP KCPK15.....	G119	B951A11500 KCH10.....	G125
B707A06350FBL KCMS15.....	G110	B707A13000FBL KCMS15.....	G111	B732A004200HP KCPK15.....	G119	B951A11800 KCH10.....	G125
B707A06350FBS KN15.....	G110	B707A13500FBL KC7315.....	G111	B732A004496HP KCPK15.....	G119	B951A12000 KCH10.....	G125
B707A06500FBL KC7315.....	G110	B707A13500FBS KN15.....	G111	B732A005000HP KCPK15.....	G119	B951A12500 KCH10.....	G125
B707A06500FBL KCMS15.....	G110	B707A13500FBL KCMS15.....	G111	B732A005106HP KCPK15.....	G119	B951A12700 KCH10.....	G125
B707A06500FBS KN15.....	G110	B707A14000FBL KC7315.....	G111	B732A005410HP KCPK15.....	G119	B951A12800 KCH10.....	G125
B707A06600FBL KC7315.....	G110	B707A14000FBS KN15.....	G111	B732A006528HP KCPK15.....	G119	B951A13000 KCH10.....	G126
B707A06600FBL KCMS15.....	G110	B707A14000FBL KCMS15.....	G111	B732A006800HP KCPK15.....	G119	B951A13500 KCH10.....	G126
B707A06600FBS KN15.....	G110	B707A14000FBS KN15.....	G111	B732A006909HP KCPK15.....	G119	B951A14000 KCH10.....	G126
B707A06800FBL KC7315.....	G110	B707A14288FBL KC7315.....	G111	B732A007938HP KCPK15.....	G119	B951A14500 KCH10.....	G126
B707A06800FBL KCMS15.....	G110	B707A14288FBS KN15.....	G111	B732A008433HP KCPK15.....	G119	B951A15500 KCH10.....	G126
B707A06800FBS KN15.....	G110	B707A14288FBL KCMS15.....	G111	B732A008500HP KCPK15.....	G119	B951A16000 KCH10.....	G126
B707A07000FBL KC7315.....	G110	B707A14500FBL KC7315.....	G111	B732A009921HP KCPK15.....	G119	B966A03000 KC7315.....	G130
B707A07000FBL KCMS15.....	G110	B707A14500FBS KN15.....	G111	B732A10200HP KCPK15.....	G119	B966A03100 KC7315.....	G130
B707A07000FBS KN15.....	G110						
B707A07145FBL KC7315.....	G111						
B707A07400FBS KN15.....	G111						
B707A07500FBL KC7315.....	G111						
B707A07500FBL KCMS15.....	G111						
B707A07500FBS KN15.....	G111						
B707A07800FBL KC7315.....	G111						
B707A07938FBL KCMS15.....	G111						
B707A07938FBS KN15.....	G111						
B707A08000FBL KC7315.....	G111						

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B966A03200 KC7315	G130	B966A11000 KC7315	G131	B967A10800 KC7315	G131	B976A07300 KC7315	G136
B966A03300 KC7315	G130	B966A11100 KC7315	G131	B967A11000 KC7315	G131	B976A07366 KC7315	G136
B966A03400 KC7315	G130	B966A11200 KC7315	G131	B967A11300 KC7315	G131	B976A07400 KC7315	G136
B966A03500 KC7315	G130	B966A11300 KC7315	G131	B967A11500 KC7315	G132	B976A07500 KC7315	G136
B966A03600 KC7315	G130	B966A11400 KC7315	G132	B967A11800 KC7315	G132	B976A07541 KC7315	G136
B966A03700 KC7315	G130	B966A11500 KC7315	G132	B967A12000 KC7315	G132	B976A07600 KC7315	G136
B966A03800 KC7315	G130	B966A11600 KC7315	G132	B967A12500 KC7315	G132	B976A07700 KC7315	G136
B966A03900 KC7315	G130	B966A11700 KC7315	G132	B967A12700 KC7315	G132	B976A07800 KC7315	G136
B966A03960 KC7315	G130	B966A11800 KC7315	G132	B967A12800 KC7315	G132	B976A07900 KC7315	G136
B966A04000 KC7315	G130	B966A11900 KC7315	G132	B967A13000 KC7315	G132	B976A07938 KC7315	G136
B966A04100 KC7315	G130	B966A12000 KC7315	G132	B967A13500 KC7315	G132	B976A08000 KC7315	G136
B966A04200 KC7315	G130	B966A12100 KC7315	G132	B967A14000 KC7315	G132	B976A08020 KC7315	G136
B966A04300 KC7315	G130	B966A12200 KC7315	G132	B967A14500 KC7315	G132	B976A08100 KC7315	G136
B966A04400 KC7315	G130	B966A12300 KC7315	G132	B967A15000 KC7315	G132	B976A08200 KC7315	G136
B966A04500 KC7315	G130	B966A12400 KC7315	G132	B967A15300 KC7315	G132	B976A08300 KC7315	G136
B966A04600 KC7315	G130	B966A12500 KC7315	G132	B967A15500 KC7315	G132	B976A08334 KC7315	G136
B966A04700 KC7315	G130	B966A12600 KC7315	G132	B967A16000 KC7315	G132	B976A08430 KC7315	G136
B966A04800 KC7315	G130	B966A12700 KC7315	G132	B967A16500 KC7315	G132	B976A08433 KC7315	G136
B966A04900 KC7315	G130	B966A12800 KC7315	G132	B976A03000 KC7315	G134	B976A08500 KC7315	G136
B966A05000 KC7315	G130	B966A12900 KC7315	G132	B976A03100 KC7315	G134	B976A08600 KC7315	G136
B966A05040 KC7315	G130	B966A13000 KC7315	G132	B976A03175 KC7315	G134	B976A08700 KC7315	G136
B966A05100 KC7315	G130	B966A13100 KC7315	G132	B976A03180 KC7315	G134	B976A08733 KC7315	G136
B966A05200 KC7315	G130	B966A13200 KC7315	G132	B976A03200 KC7315	G134	B976A08800 KC7315	G136
B966A05300 KC7315	G130	B966A13300 KC7315	G132	B976A03300 KC7315	G134	B976A08839 KC7315	G136
B966A05400 KC7315	G130	B966A13400 KC7315	G132	B976A03454 KC7315	G134	B976A09000 KC7315	G136
B966A05500 KC7315	G130	B966A13500 KC7315	G132	B976A03500 KC7315	G134	B976A09093 KC7315	G136
B966A05600 KC7315	G130	B966A13700 KC7315	G132	B976A03600 KC7315	G134	B976A09100 KC7315	G136
B966A05700 KC7315	G130	B966A14000 KC7315	G132	B976A03700 KC7315	G134	B976A09129 KC7315	G136
B966A05800 KC7315	G130	B966A14200 KC7315	G132	B976A03734 KC7315	G134	B976A09200 KC7315	G136
B966A05900 KC7315	G130	B966A14300 KC7315	G132	B976A03797 KC7315	G134	B976A09300 KC7315	G136
B966A06000 KC7315	G130	B966A14500 KC7315	G132	B976A03800 KC7315	G134	B976A09400 KC7315	G136
B966A06050 KC7315	G130	B966A14700 KC7315	G132	B976A03900 KC7315	G134	B976A09500 KC7315	G136
B966A06100 KC7315	G130	B966A14800 KC7315	G132	B976A03970 KC7315	G134	B976A09525 KC7315	G136
B966A06200 KC7315	G130	B966A15000 KC7315	G132	B976A04000 KC7315	G134	B976A09600 KC7315	G136
B966A06300 KC7315	G131	B966A15500 KC7315	G132	B976A04039 KC7315	G134	B976A09700 KC7315	G136
B966A06350 KC7315	G131	B966A15700 KC7315	G132	B976A04100 KC7315	G134	B976A09750 KC7315	G136
B966A06400 KC7315	G131	B966A16000 KC7315	G132	B976A04200 KC7315	G134	B976A09800 KC7315	G136
B966A06500 KC7315	G131	B966A16500 KC7315	G132	B976A04300 KC7315	G135	B976A09921 KC7315	G136
B966A06600 KC7315	G131	B966A17000 KC7315	G132	B976A04366 KC7315	G135	B976A10000 KC7315	G136
B966A06700 KC7315	G131	B966A17500 KC7315	G132	B976A04496 KC7315	G135	B976A10200 KC7315	G136
B966A06800 KC7315	G131	B966A18000 KC7315	G132	B976A04500 KC7315	G135	B976A10262 KC7315	G136
B966A06900 KC7315	G131	B966A20000 KC7315	G132	B976A04600 KC7315	G135	B976A10300 KC7315	G136
B966A07000 KC7315	G131	B967A03000 KC7315	G130	B976A04620 KC7315	G135	B976A10320 KC7315	G136
B966A07100 KC7315	G131	B967A03100 KC7315	G130	B976A04700 KC7315	G135	B976A10400 KC7315	G136
B966A07200 KC7315	G131	B967A03200 KC7315	G130	B976A04763 KC7315	G135	B976A10500 KC7315	G136
B966A07300 KC7315	G131	B967A03300 KC7315	G130	B976A04800 KC7315	G135	B976A10600 KC7315	G137
B966A07400 KC7315	G131	B967A03500 KC7315	G130	B976A04900 KC7315	G135	B976A10700 KC7315	G137
B966A07500 KC7315	G131	B967A03800 KC7315	G130	B976A05000 KC7315	G135	B976A10716 KC7315	G137
B966A07600 KC7315	G131	B967A04000 KC7315	G130	B976A05100 KC7315	G135	B976A10800 KC7315	G137
B966A07700 KC7315	G131	B967A04200 KC7315	G130	B976A05106 KC7315	G135	B976A11000 KC7315	G137
B966A07800 KC7315	G131	B967A04300 KC7315	G130	B976A05200 KC7315	G135	B976A11113 KC7315	G137
B966A07900 KC7315	G131	B967A04500 KC7315	G130	B976A05250 KC7315	G135	B976A11200 KC7315	G137
B966A08000 KC7315	G131	B967A04800 KC7315	G130	B976A05300 KC7315	G135	B976A11300 KC7315	G137
B966A08100 KC7315	G131	B967A05000 KC7315	G130	B976A05400 KC7315	G135	B976A11500 KC7315	G137
B966A08200 KC7315	G131	B967A05100 KC7315	G130	B976A05410 KC7315	G135	B976A11509 KC7315	G137
B966A08300 KC7315	G131	B967A05200 KC7315	G130	B976A05500 KC7315	G135	B976A11600 KC7315	G137
B966A08400 KC7315	G131	B967A05500 KC7315	G130	B976A05530 KC7315	G135	B976A11700 KC7315	G137
B966A08500 KC7315	G131	B967A05800 KC7315	G130	B976A05558 KC7315	G135	B976A11800 KC7315	G137
B966A08600 KC7315	G131	B967A06000 KC7315	G130	B976A05575 KC7315	G135	B976A11908 KC7315	G137
B966A08700 KC7315	G131	B967A06100 KC7315	G130	B976A05600 KC7315	G135	B976A12000 KC7315	G137
B966A08800 KC7315	G131	B967A06500 KC7315	G131	B976A05700 KC7315	G135	B976A12300 KC7315	G137
B966A08900 KC7315	G131	B967A06600 KC7315	G131	B976A05791 KC7315	G135	B976A12304 KC7315	G137
B966A09000 KC7315	G131	B967A06700 KC7315	G131	B976A05800 KC7315	G135	B976A12500 KC7315	G137
B966A09100 KC7315	G131	B967A06800 KC7315	G131	B976A05944 KC7315	G135	B976A12700 KC7315	G137
B966A09200 KC7315	G131	B967A07000 KC7315	G131	B976A06000 KC7315	G135	B976A12800 KC7315	G137
B966A09300 KC7315	G131	B967A07400 KC7315	G131	B976A06100 KC7315	G135	B976A13000 KC7315	G137
B966A09400 KC7315	G131	B967A07500 KC7315	G131	B976A06200 KC7315	G135	B976A13300 KC7315	G137
B966A09500 KC7315	G131	B967A07800 KC7315	G131	B976A06350 KC7315	G135	B976A13495 KC7315	G137
B966A09600 KC7315	G131	B967A08000 KC7315	G131	B976A06500 KC7315	G135	B976A13500 KC7315	G137
B966A09700 KC7315	G131	B967A08100 KC7315	G131	B976A06528 KC7315	G135	B976A13700 KC7315	G137
B966A09800 KC7315	G131	B967A08500 KC7315	G131	B976A06530 KC7315	G135	B976A14000 KC7315	G137
B966A09900 KC7315	G131	B967A08600 KC7315	G131	B976A06600 KC7315	G135	B976A14100 KC7315	G137
B966A10000 KC7315	G131	B967A08700 KC7315	G131	B976A06700 KC7315	G135	B976A14200 KC7315	G137
B966A10100 KC7315	G131	B967A08800 KC7315	G131	B976A06746 KC7315	G135	B976A14288 KC7315	G137
B966A10200 KC7315	G131	B967A09000 KC7315	G131	B976A06750 KC7315	G135	B976A14500 KC7315	G137
B966A10300 KC7315	G131	B967A09300 KC7315	G131	B976A06800 KC7315	G135	B976A14700 KC7315	G137
B966A10400 KC7315	G131	B967A09500 KC7315	G131	B976A06900 KC7315	G135	B976A15000 KC7315	G137
B966A10500 KC7315	G131	B967A09800 KC7315	G131	B976A06909 KC7315	G135	B976A15500 KC7315	G137
B966A10600 KC7315	G131	B967A10000 KC7315	G131	B976A07000 KC7315	G135	B976A15875 KC7315	G138
B966A10700 KC7315	G131	B967A10200 KC7315	G131	B976A07100 KC7315	G135	B976A16000 KC7315	G138
B966A10800 KC7315	G131	B967A10500 KC7315	G131	B976A07145 KC7315	G135	B976A16200 KC7315	G138
B966A10900 KC7315	G131	B967A10700 KC7315	G131	B976A07200 KC7315	G136	B976A16500 KC7315	G138

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
B978A16500 KC7315	G141	BT40FBHM1691	K133	C7713VR10-A2.50ZBR	V98	C8FX120508RRP KCP25	E12
B978A17000 KC7315	G141	BT40FBHMK1164M	K127, K131	C7713VR10CA1.00Z3R2.0	V97-98	C8FX150603LMP KCP25	E13
B978A17463 KC7315	G141	BT50BHTS22075M	J91	C7713VR10CA1.25Z4R2.7	V97-98	C8FX150603RMP KCP10	E13
B978A17500 KC7315	G141	BT50BHTS32080M	J91	C7713VR12-A1.50Z4R	V103	C8FX150603RMP KCP25	E13
B978A18000 KC7315	G141	BT50BHTS40080M	J91	C7713VR12-A1.50Z5R	V103	C8FX150603RMP KCP40	E13
B978A18500 KC7315	G141	BT50BHTS50080M	J91	C7713VR12-A2.00Z4R	V103	C8FX150603RMP KCU10	E13
B978A19000 KC7315	G141	BT50BKR32040M	K91	C7713VR12-A2.00Z5R	V103	C8FX150605RMP KCU25	E13
B978A19050 KC7315	G141	BT50BKR50040M	K91	C7713VR12-A2.00Z6R	V103	C8FX150605LMP KCP25	E12
B978A19253 KC7315	G141	BT50BKR63060M	K91	C7713VR12-A2.50Z6R	V103	C8FX150605LMP KCP40	E12
B978A19500 KC7315	G141	BT50BKR80060M	K91	C7713VR12-A2.50Z7R	V103	C8FX150605LMP KCU25	E12
B978A19800 KC7315	G141	BT50BSIF100068M	K49	C7713VR12-A3.00Z8R	V103	C8FX150605RRN KCP10	E12
B978A19840 KC7315	G141	BT50BSIF70063M	K49	C7713VR12CA1.00Z2R2.0	V102-103	C8FX150605RRN KCP25	E12
B978A20000 KC7315	G141	BT50BT13088	K142	C7713VR12CA1.25Z3R2.7	V102-103	C8FX150605RRN KCP40	E12
BGHX15L504ERGET KD1415	S125	BTQSW3L90	S30	C7792VXD09-A1.50Z4R	V12-13	C8FX150605RRN KCU10	E12
BGHX15L504PCFRGG K110M	S125	BTQT25	S94, S98, S100	C7792VXD09-A1.50Z5R	V12-13	C8FX150605RRN KCU25	E12
BGHX15L508PCFRGG K110M	S125	C11816W KWH	B407	C7792VXD09-A2.00Z5R	V12-13	C8FX150608RMP KCP25	E12
BGHX15L508PCFRGG KC510M	S125	C11820W KWH	B407	C7792VXD09-A2.00Z6R	V12-13	C8FX150608LMP KCU25	E12
BGHX15L515PCFRGG K110M	S125	C11932W KWH	B409	C7792VXD09-A2.00Z7R	V12-13	C8FX150608RMP KCU25	E12
BGHX15L515PCFRGG KC510M	S125	C11940W KWH	B409	C7792VXD09CA1.00Z2R2	V11, V13	C8FX150608RRN KCP10	E12
BGHX15L5PCFRGGT KD1410	S124	C2FIX110404LMN KCU25	E8	C7792VXD09CA1.00Z3R2	V11, V13	C8FX150608RRN KCP25	E12
BGHX15L5PCFRGGT KD1415	S124	C2FIX110404RMM KCU10	E8	C7792VXD09CA1.25Z3R3	V11, V13	C8FX150608RRN KCP40	E12
BGHX15L5PCFRGGTMM KD1410	S124	C2FIX110405LMN KCP25	E8	C7792VXD09CA1.25Z4R3	V11, V13	C8FX150608RRN KCU25	E12
BGHX15L5PCFRGG K110M	S124	C2FIX110405LMN KCP40	E8	C7792VXD09WA1.00Z2R	V10, V13	C8FX150612LMP KCP25	E12
BGHX15L5PCFRGG KC510M	S124	C2FIX110405LMN KCU10	E8	C7792VXD09WA1.25Z3R	V10, V13	C8FX150612RMP KCP25	E12
BGHX15L5PCSRLET KD1410	S125	C2FIX110405RMM KCP25	E8	C7792VXD12-6.00Z12R	V19-20	C8FX150612RRN KCP25	E12
BGHX15L5PCSRLET KD1415	S125	C2FIX110405RMM KCP40	E8	C7792VXD12-6.00Z15R	V19-20	C8FX180805RMP KCP25	E13
BGHX15L5PCSTRGG K110M	S124	C2FIX110408LMN KCP25	E8	C7792VXD12-6.30Z8R	V19-20	C8FX180808RRN KCP25	E12
BGHX15L5PCSTRGG KC510M	S124	C2FIX150504LMN KCP40	E8	C7792VXD12-A1.50Z4R	V19-20	C8FX180808RRN KCP40	E12
BGHX15L5PCTRHHET KD1410	S125	C2FIX150504LMN KCU25	E8	C7792VXD12-A2.00Z3R	V19-20	C8FX180812LMP KCP25	E12
BMD125R1203C125L700	V69	C2FIX150505LMN KCP25	E8	C7792VXD12-A2.00Z4R	V19-20	C8FX180812RRN KCP25	E12
BMD125R1203M16L150	V68	C2FIX150505LMN KCP40	E8	C7792VXD12-A2.00Z5R	V19-20	C8FX180812RRN KCP40	E12
BMD125R1203W125L200	V68	C2FIX150505LMN KCU10	E8	C7792VXD12-A2.00Z6R	V19-20	C8FX180812RRN KCU25	E12
BMD150R1203C125L800	V69	C2FIX150505RMM KCP25	E8	C7792VXD12-A2.50Z4R	V19-20	C8DB0250JXAS KCON05	P138
BMD150R1204M16L150	V68	C2FIX150508LMN KCP25	E8	C7792VXD12-A2.50Z5R	V19-20	C8DB0375JXAS KCON05	P138
BMD150R1204S050L158	V70	C2FIX150508LMN KCU10	E8	C7792VXD12-A2.50Z7R	V19-20	C8DB0375JXAS KCON05	P138
BMD150R1204W150L200	V68	C2FIX150508LMN KCU25	E8	C7792VXD12-A3.00Z5R	V19-20	C8DB0500JXAS KCON05	P138
BMD150R1602C125L800	V76	C2FIX150510LMN KCP25	E8	C7792VXD12-A3.00Z8R	V19-20	C8DB0500JXAS KCON05	P138
BMD150R1603M16	V75	C2FIX150510LMN KCP40	E8	C7792VXD12-A3.00Z9R	V19-20	C8TF150R2WD20N2M	J14
BMD150R1603W125L200	V75	C2FIX150510RMM KCP25	E8	C7792VXD12-A4.00Z11R	V19-20	C8TF160R2WD20N2M	J14
BMD200R1203S075L200	V70	C2FIX150512RMM KCU25	E8	C7792VXD12-A4.00Z6R S	V19-20	C8TF170R2WD20N2M	J14
BMD200R1205S075L200	V70	C2FIX180610LMN KCP25	E8	C7792VXD12-A4.00Z9R	V19-20	C8TF180R2WD20N2M	J14
BMD200R1603S075L200	V77	C2FIX180610LMN KCP40	E8	C7792VXD12-A5.00Z11R	V19-20	C8TF180R2WD20N3M	J14
BMD200R1604S075L200	V77	C2FIX180610LMN KCU10	E8	C7792VXD12-A5.00Z13R	V19-20	C8TF200R2WD20N2M	J14
BMD200R6403W150L200	V87	C5230VS09-A2.0Z04R3.1	T128	C7792VXD12-A5.00Z3R	V18, V20	C8TF200R2WD20N3M	J14
BMD250R1207S100L200	V70	C5230VS09-A2.0Z4R2.0	T128	C7792VXD12CA1.21.5Z3	V18, V20	C8TF210R2WD20N2M	J14
BMD250R1605S100L200	V77	C5230VS09CA2.0Z04R4.0	T127	C7792VXD12CA1.25Z2R3	V18, V20	C8TF210R2WD20N3M	J14
BMD250R6404S075L200	V88	C5230VS12-A2.5Z4R2.24	T131	C7792VXD12CA1.25Z3R3	V18, V20	C8TF220R2WD20N2M	J14
BMD300R1206S100L200	V70	C5230VS12-A2.5Z4R3.70	T131	C7792VXD12CA1.25Z4R3	V18, V20	C8TF220R2WD20N3M	J14
BMD300R1208S100L200	V70	C5230VS12-A3.0Z5R2.56	T131	C7792VXE16-6.00Z12R	V26-27	C8TF220R2WD20N3M	J14
BMD300R1605S100L200	V77	C5230VS12-A3.0Z5R4.33	T131	C7792VXE16-6.00Z13R	V26-27	C8TF230R2WD20N2M	J14
BMD300R1607S100L200	V77	C5505VX05CA.6Z1R1.6	V114	C7792VXE16-A1.54.00Z7R	V26	C8TF230R2WD20N3M	J14
BMD300R6405S100L200	V88	C5505VX05CA.75/6Z1R1	V114	C7792VXE16-A1.54.00Z9R	V26	C8TF240R2WD20N2M	J14
BMD300R8603S075L200	V91	C5505VX06CA.75R1.7	V114	C7792VXE16-A2.00Z4R	V26-27	C8TF240R2WD20N3M	J14
BMD400R1207S125L200	V70	C5505VX06CA11.75R1.5	V114	C7792VXE16-A2.50Z6R	V26-27	C8TF250R2WD20N2M	J14
BMD400R1209S125L200	V70	C5505VX06WA.750R2.00	V113	C7792VXE16-A2.50Z8R	V26-27	C8TF250R2WD20N3M	J14
BMD400R1608S125L200	V77	C5505VX08CA1.00R2.2	V114	C7792VXE16-A3.00Z6R	V26-27	C8TF260R2WD20N2M	J14
BMD400R6405S125L200	V88	C5505VX08WA1.00R2.37	V112	C7792VXE16-A3.00Z8R	V26-27	C8TF260R2WD20N3M	J14
BMD400R6406S125L200	V88	C5505VX10CA1.25R2.2	V114	C7792VXE16-A4.00Z7R	V26-27	C8TF280R2WD20N3M	J14
BMD400R8605S125L250	V91	C5505VX10WA1.25R3.00	V112	C7792VXE16-A4.00Z9R	V26-27	C8TF300R2WD20N3M	J14
BMD500R6406S150L250	V88	C5505VX10WA1.25R4.00	V112	C7792VXE16-A5.00Z10R	V26-27	C8TF320R2WD20N3M	J14
BMD500R6408S150L250	V88	C5505VX12WA1.50R4.00	V112	C7792VXE16-A5.00Z11R	V26-27	C8TF330R2WD20N3M	J14
BMD500R8606S150L250	V91	C5505VX12WA1.50R6.00	V112	C7792VXE16CA1.50Z2R4	V25	C8TF340R2WD32N3M	J14
BMD600R1610S150L250	V77	C5505VX16WA2.00R4.00	V112	C7792VXE16CA2.00Z3R4	V25, V27	C8TF350R2WD32N3M	J14
BMD600R6407S150L250	V88	C5505VX16WA2.00R6.00 S	V112	C7792VXP06CA.6Z2R5.5	V5-6	C8TF360R2WD32N3M	J14
BMD600R6408S150L250	V88	C5720VZ16-A1.50Z03R	T98	C7792VXP06CA.75Z3R6.1	V5-6	C8TF380R2WD32N3M	J14
BMD600R8607S150L250	V91	C5720VZ16-A2.00Z03R	T98	C7792VXP06CA1.0Z4R6.1	V5-6	C8TF400R2WD32N3M	J14
BMD800R6409S250L250	V88	C5720VZ16-A2.00Z04R	T98	C7792VXP06CA1.25Z5R8	V5-6	C8TF420R2WD32N3M	J14
BMD800R6409S250L250HP	V88	C5720VZ16-A2.50Z04R	T98	C8FX120503LMP KCP10	E13	C8TF460R2WD32N3M	J14
BMD800R8608S250L250	V91	C5720VZ16-A2.50Z05R	T98	C8FX120503RMP KCP25	E13	CC09	B200-204
BMD800R8608S250L250HP	V91	C5720VZ16-A3.00Z04R	T98	C8FX120503RMP KCU10	E13	CC11	B200-203
BP46	B170, B385	C5720VZ16-A3.00Z05R	T98	C8FX120503RMP KCU25	E13	CCGM3251S0525MTCB1 KBH20	B328
BP68	B170, B385	C5720VZ16CA1.0Z02R2.7	T97	C8FX120503RRP KCP25	E12	CCGM3252S0525MTCB1 KBH20	B328
BP812	B170, B385	C5720VZ16CA1.25Z2R3.0	T97	C8FX120504RRP KCP40	E12	CCGT21505HP K313	B189
BT40BDL10200	053	C5720VZ16CA1.25Z3R3.0	T97	C8FX120504RRP KCP25	E12	CCGT21505HP KC5025	B189
BT40BDL12200	053	C6420 KWH	B408	C8FX120505RRP KCP25	E12	CCGT21505HP KCU10	B189
BT40BDL16225	053	C6420W KWH	B408	C8FX120505RRP KCU25	E12	CCGT21505LF KC5010	B189
BT40BDL20225	053	C6424W KWH	B408	C8FX120505RRP KCU25	E12	CCGT21505LF KC5025	B189
BT40BDL25238	053	C6428W KWH	B408	C8FX120508LMP KCP25	E12	CCGT21505LF KCU10	B189
BT40BDL32275	053	C6432W KWH	B408	C8FX120508LMP KCP40	E12	CCGT21505LF KC5010	B189
BT40BKR32030M	K91	C6440W KWH	B408	C8FX120508RRP KCP10	E12	CCGT21505LF KC5025	B189
BT40BKR50050M	K91	C7713VR10-A1.50Z05R	V98				
BT40BSIF80063M	K48	C7713VR10-A2.00Z7R	V98				

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CCGT2150LF KCU10	B189	CCGW325S0415FWMT KBH10	B328	CCMT2151MP KCM25	B191	CCMT3251LF KT315	B191
CCGT2151HP K313	B189	CCGW325S0415FWMT KBH20	B328	CCMT2151MP KCM25B	B191	CCMT3251MF KCK15	B191
CCGT2151HP KC5010	B189	CCGW325S0415MT KB5630	B311, B328	CCMT2151MP KCP10	B191	CCMT3251MF KCK15B	B191
CCGT2151HP KC5025	B189	CCGW325S0415MT KBH10	B328	CCMT2151MP KCP25	B191	CCMT3251MF KCK20	B191
CCGT2151HP KC5410	B189	CCGW325S0415MT KBH20	B328	CCMT2151MP KCU10	B191	CCMT3251MF KCK20B	B191
CCGT2151HP KCU10	B189	CCGW325S0525MT KBH10	B328	CCMT2151UF KC5010	B192	CCMT3251MF KCM15B	B191
CCGT2151HP KCU25	B189	CCGW325S0525MT KBH20	B328	CCMT2151UF KCP05	B192	CCMT3251MF KCM25	B191
CCGT2151LF KC5010	B189	CCGW432S0415MT KBH20	B328	CCMT2151UF KCP10	B192	CCMT3251MF KCM25B	B191
CCGT2151LF KC5025	B189	CCLNL164	B372	CCMT2151UF KCP25	B192	CCMT3251MF KCP10B	B191
CCGT2151LF KCU10	B189	CCLNL164DMX5	B383	CCMT2151UF KCP25B	B192	CCMT3251MF KCP25	B191
CCGT2152HP KC5010	B189	CCLNL204DMX5	B383	CCMT2152FP KCM25	B190	CCMT3251MF KCP25B	B191
CCGT2152HP KC5410	B189	CCLNLP163D	B372	CCMT2152FP KCM25B	B190	CCMT3251MF KCP30	B191
CCGT2152HP KCU25	B189	CCLNR164	B372	CCMT2152FP KCP25	B190	CCMT3251MF KCK20B	B191
CCGT2152LF KC5010	B189	CCLNR164DMX5	B383	CCMT2152FP KCP25B	B190	CCMT3251MF KCM15B	B191
CCGT2152LF KCU10	B189	CCLNR204DMX5	B383	CCMT2152FP KCU10	B190	CCMT3251MF KCM25	B191
CCGT2152LF KCU25	B189	CCLNRP163D	B372	CCMT2152FP KCU25	B190	CCMT3251MF KCM25B	B191
CCGT2152LF KCU5025	B189	CCLPL124B	B165, B376	CCMT2152FP KCP10	B190	CCMT3251MF KCP10	B191
CCGT2152LF KCU5010	B189	CCLPL164C	B165, B376	CCMT2152FP KCP25	B190	CCMT3251MF KCP25	B191
CCGT2152LF KCU5025	B189	CCLPR084V	B165, B376	CCMT2152FW KCK20	B190	CCMT3251MF KCU10	B191
CCGT2152LF KCU5410	B189	CCLPR124B	B165, B376	CCMT2152FW KCP25	B190	CCMT3251MW KC5010	B192
CCGT2152LF KCU5010	B189	CCLPR164C	B165, B376	CCMT2152FW KCP315	B190	CCMT3251MW KCM15B	B192
CCGT2152LF KCU5025	B189	CCMT21505FP KCM25	B190	CCMT2152LF KC5010	B191	CCMT3251MW KCU10	B192
CCGT2152LF KCU5010	B189	CCMT21505FP KCM25B	B190	CCMT2152LF KC5025	B191	CCMT3251MW KT315	B192
CCGT2152LF KCU5025	B189	CCMT21505FP KCP10	B190	CCMT2152LF KCK05	B191	CCMT3251UF KC5010	B192
CCGT2152LF KCU5010	B189	CCMT21505FP KCP25	B190	CCMT2152LF KCK05B	B191	CCMT3251UF KCP10	B192
CCGT2152LF KCU5010	B189	CCMT21505FP KCU10	B190	CCMT2152LF KCK15	B191	CCMT3251UF KCP25	B192
CCGT2152LF KCU5025	B189	CCMT21505FP KCU25	B190	CCMT2152LF KCK15B	B191	CCMT325211 KT315	B190
CCGT2152LF KCU10	B189	CCMT21505FW KC5010	B190	CCMT2152LF KCK20B	B191	CCMT3252FP KCM15B	B190
CCGT2152HP K313	B189	CCMT21505FW KT315	B190	CCMT2152LF KCM15B	B191	CCMT3252FP KCM25	B190
CCGT2152HP KCU10	B189	CCMT21505LF KC5010	B191	CCMT2152LF KCM25	B191	CCMT3252FP KCM25B	B190
CCGT2152HP KCU25	B189	CCMT21505LF KC5025	B191	CCMT2152LF KCP05	B191	CCMT3252FP KCP10	B190
CCGT2152HP KCU5010	B189	CCMT21505LF KT315	B191	CCMT2152LF KCP10	B191	CCMT3252FP KCP10B	B190
CCGT2152HP KCU5025	B189	CCMT215111 KT315	B190	CCMT2152LF KCP25	B191	CCMT3252FP KCP25	B190
CCGT2152HP KCU5410	B189	CCMT2151FP KCM15	B190	CCMT2152LF KCP25B	B191	CCMT3252FP KCP25B	B190
CCGT2152HP KCU25	B189	CCMT2151FP KCM15B	B190	CCMT2152LF KCP30	B191	CCMT3252FP KCU10	B190
CCGT2152HP KCU5010	B189	CCMT2151FP KCM25	B190	CCMT2152LF KT315	B191	CCMT3252FP KCU25	B190
CCGT2152HP KCU5025	B189	CCMT2151FP KCM25B	B190	CCMT32505FP KCM25	B190	CCMT3252FP KTP10	B190
CCGT2152HP KCU5410	B189	CCMT2151FP KCP05	B190	CCMT32505FP KCM25B	B190	CCMT3252FW KC5010	B190
CCGT2152HP KCU10	B189	CCMT2151FP KCP10	B190	CCMT32505FP KCP25	B190	CCMT3252FW KCK20	B190
CCGT2152HP KCU25	B189	CCMT2151FP KCP10B	B190	CCMT32505FP KCP25B	B190	CCMT3252FW KCM15B	B190
CCGT2152HP KCU5010	B189	CCMT2151FP KCP25	B190	CCMT32505FP KCU10	B190	CCMT3252FW KCP25	B190
CCGT2152HP KCU5025	B189	CCMT2151FP KCP25B	B190	CCMT32505FP KCU25	B190	CCMT3252FW KCU10	B190
CCGT2152HP KCU5410	B189	CCMT2151FP KCU10	B190	CCMT32505FP KTP10	B190	CCMT3252FW KT315	B190
CCGT2152HP KCU25	B189	CCMT2151FP KCU25	B190	CCMT32505LF K313	B191	CCMT3252LF K313	B191
CCGT2152HP KCU5010	B189	CCMT2151FP KTP10	B190	CCMT32505LF KC5010	B191	CCMT3252LF KC5010	B191
CCGT2152HP KCU5025	B189	CCMT2151FW KC5010	B190	CCMT32505LF KC5025	B191	CCMT3252LF KCK05	B191
CCGT2152HP KCU5410	B189	CCMT2151FW KCK20B	B190	CCMT32505LF KT315	B191	CCMT3252LF KCK15	B191
CCGT2152HP KCU25	B189	CCMT2151FW KCP25	B190	CCMT32505UF KC5010	B192	CCMT3252LF KCK15B	B191
CCGT2152HP KCU5010	B189	CCMT2151FW KCU10	B190	CCMT32505UF KCP05	B192	CCMT3252LF KCK20	B191
CCGT2152HP KCU5025	B189	CCMT2151FW KT315	B190	CCMT32505UF KCP10	B192	CCMT3252LF KCK20B	B191
CCGT2152HP KCU5410	B189	CCMT2151LF K313	B191	CCMT325111 KT315	B190	CCMT3252LF KCM15B	B191
CCGT2152HP KCU25	B189	CCMT2151LF KC5010	B191	CCMT3251FP KCM15	B190	CCMT3252LF KCM25	B191
CCGT2152HP KCU5010	B189	CCMT2151LF KC5025	B191	CCMT3251FP KCM15B	B190	CCMT3252LF KCM25B	B191
CCGT2152HP KCU5025	B189	CCMT2151LF KCK05	B191	CCMT3251FP KCM25	B190	CCMT3252LF KCM35	B191
CCGT2152HP KCU5410	B189	CCMT2151LF KCK15	B191	CCMT3251FP KCM25B	B190	CCMT3252LF KCP05	B191
CCGT2152HP KCU10	B189	CCMT2151LF KCK15B	B191	CCMT3251FP KCP05	B190	CCMT3252LF KCP10	B191
CCGT2152HP KCU25	B189	CCMT2151LF KCK20	B191	CCMT3251FP KCP10B	B190	CCMT3252LF KCP10B	B191
CCGT2152HP KCU5010	B189	CCMT2151LF KCK20B	B191	CCMT3251FP KCP25	B190	CCMT3252LF KCP25	B191
CCGT2152HP KCU5025	B189	CCMT2151LF KCM15	B191	CCMT3251FP KCP25B	B190	CCMT3252LF KCP25B	B191
CCGT2152HP KCU5410	B189	CCMT2151LF KCM15B	B191	CCMT3251FP KCU10	B190	CCMT3252LF KCP30	B191
CCGT2152HP KCU25	B189	CCMT2151LF KCM25	B191	CCMT3251FP KCU25	B190	CCMT3252LF KT315	B191
CCGW2150S0415C KB5630	B311, B328	CCMT2151LF KCM25B	B191	CCMT3251FP KTP10	B190	CCMT3252MF KC5025	B191
CCGW2150S0415MT KBH10	B328	CCMT2151LF KCM35	B191	CCMT3251FW KC5010	B190	CCMT3252MF KCK15	B191
CCGW2150S0525MT KBH20	B328	CCMT2151LF KCP10	B191	CCMT3251FW KCP25	B190	CCMT3252MF KCK15B	B191
CCGW2151FST KD1400	B362	CCMT2151LF KCP10B	B191	CCMT3251FW KCU10	B190	CCMT3252MF KCK20	B191
CCGW2151FST KD1425	B362	CCMT2151LF KCP25	B191	CCMT3251FW KT315	B190	CCMT3252MF KCP20B	B191
CCGW2151S0415C KB5630	B311, B328	CCMT2151LF KCP25B	B191	CCMT3251LF K313	B191	CCMT3252MF KCM15B	B191
CCGW2151S0415MT KBH10	B328	CCMT2151LF KCP30	B191	CCMT3251LF KC5010	B191	CCMT3252MF KCM25	B191
CCGW2151S0525MT KBH20	B328	CCMT2151MF KT315	B191	CCMT3251LF KC5025	B191	CCMT3252MF KCM25B	B191
CCGW3250S0415MT KBH10	B328	CCMT2151MF KCK15	B191	CCMT3251LF KCK05	B191	CCMT3252MF KCM35	B191
CCGW3250S0525MT KBH20	B328	CCMT2151MF KCK20	B191	CCMT3251LF KCK15	B191	CCMT3252MF KCP10B	B191
CCGW3251FST KD1400	B362	CCMT2151MF KCM15B	B191	CCMT3251LF KCK15B	B191	CCMT3252MF KCP25	B191
CCGW3251FST KD1425	B362	CCMT2151MF KCM25	B191	CCMT3251LF KCK20	B191	CCMT3252MF KCP25B	B191
CCGW3251S0415FWMT KBH20	B328	CCMT2151MF KCM25B	B191	CCMT3251LF KCM15B	B191	CCMT3252MF KCP30	B191
CCGW3251S0415MT KB5630	B311, B328	CCMT2151MF KCM35	B191	CCMT3251LF KCM25	B191	CCMT3252MP KCU10	B191
CCGW3251S0415MT KBH10	B328	CCMT2151MF KCP10	B191	CCMT3251LF KCM25B	B191	CCMT3252MP KCK20B	B191
CCGW3251S0415MT KBH20	B328	CCMT2151MF KCP10B	B191	CCMT3251LF KCM35	B191	CCMT3252MP KCM15B	B191
CCGW3251S0525MT KBH10	B328	CCMT2151MF KCP25	B191	CCMT3251LF KCP10	B191	CCMT3252MP KCM25	B191
CCGW3251S0525MT KBH20	B328	CCMT2151MF KCP25B	B191	CCMT3251LF KCP10B	B191	CCMT3252MP KCM25B	B191
CCGW3252EC KB1345	B311	CCMT2151MF KCP30	B191	CCMT3251LF KCP25	B191	CCMT3252MP KCP10	B191
CCGW3252FST KD1400	B362	CCMT2151MP KCM15	B191	CCMT3251LF KCP25B	B191	CCMT3252MP KCP25	B191
CCGW3252FST KD1425	B362	CCMT2151MP KCM15B	B191	CCMT3251LF KCP30	B191	CCMT3252MP KCU10	B191

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CGMT3252MW KC5010	B192	CGMT433MP KCM25B	B191	CK43	B152-155	CNG454T0820 KYK10	B316
CGMT3252MW KCK20	B192	CGMT433MP KCP25	B191	CK6	B63, B71, B98, B111, B113, B132-137, B163, B373	CNG554T0820 KY1615	B329
CGMT3252MW KCK20B	B192	CGMW2151 KCK20B	B192	CK7	B69, B76, B89-90, B93, B96, B133, B139, B143, B165, B172, B183-185, B376, B389-390, B392	CNG554T2015 KY1615	B329
CGMT3252MW KCM15B	B192	CGMW3252 KCK20	B192	CK7LP	B170, B388, B392-393	CNGA431E KD1405	B362
CGMT3252MW KCP25	B192	CGMW3252 KCK20B	B192	CK9	B62, B65, B98, B111-114, B132-139, B143, B172-173, B179, B181-184, B374-382, B389-390	CNGA431FST KD1400	B362
CGMT3252MW KCU10	B192	CGMW432 KCK20	B192	CKM34	B72-74, B94-95, B115-119, B140-142, B174-176, B186-187, B394-398	CNGA431FST KD1425	B362
CGMT3252MW KCU15	B192	CGMW432 KCK20B	B192	CKM35	B74, B115, B140-142, B186, B397	CNGA431S0415FWMT KBH10	B330
CGMT3252UF KC5010	B192	CGMW433 KCK20	B192	CKM36	B72, B94-95, B115-119	CNGA431S0415FWMT KBH20	B330
CGMT3252UF KCP10B	B192	CGMW433 KCK20B	B192	CKM37	B74, B115-117, B119	CNGA431S0415FWMT KBH20	B330
CGMT3253MF KCK15	B191	CGMW433 KCK20B	B192	CKM41	B74, B94	CNGA431S0415MT KBH10	B330
CGMT3253MF KCK20	B191	CGMW432 KCK20B	B192	CM-72	C193, D31-33, D36, D39	CNGA431S0415MT KBH20	B330
CGMT3253MF KCK20B	B191	CGMW432 KCK20B	B192	CM105	E45	CNGA432E KY25	B350
CGMT3253MF KCM25B	B191	CGMW432 KCK20B	B192	CM106	E44-45	CNGA432E KY30	B350
CGMT3253MF KCP10	B191	CGMW433 KCK20	B192	CM109	C190, D36-37	CNGA432FST KD1400	B362
CGMT3253MF KCP25	B191	CGMW433 KCK20B	B192	CM111	E46	CNGA432FST KD1425	B362
CGMT3253MF KCP25B	B191	CGMW432 KCK20B	B192	CM112	E46	CNGA432S0415FWMT KBH10	B330
CGMT3253MP KCM25	B191	CGMW433 KCK20	B192	CM113	E43, E47, E49	CNGA432S0415FWMT KBH20	B330
CGMT3253MP KCP25	B191	CGMW433 KCK20B	B192	CM114	E43	CNGA432S0415MT KBH10	B330
CGMT3253MP KCU10	B191	CGMW432 KCK20B	B192	CM116	E40, E48	CNGA432S0415MT KBH20	B330
CGMT431FP KCM25B	B190	CGMW433 KCK20	B192	CM117	E40	CNGA432S0415MT KBH20	B330
CGMT431FP KCP10	B190	CGMW433 KCK20B	B192	CM118	E48-49	CNGA432S0415MT KBH20	B330
CGMT431FP KCU10	B190	CGMW432 KCK20B	B192	CM119	E49	CNGA432S0415MT KBH20	B330
CGMT431FP KCU25	B190	CGMW433 KCK20	B192	CM120	C184, C187, C191, D26, D28, D32, D35	CNGA432S0415MT KBH20	B330
CGMT431LF KC5010	B191	CGMW433 KCK20B	B192	CM121	C184, C187, C191, C195, D26, D28, D32, D35, D38	CNGA432S0415MT KBH20	B330
CGMT431LF KCK15	B191	CGMW432 KCK20B	B192	CM144	C184, D28	CNGA432S0415MT KBH20	B330
CGMT431LF KCK20	B191	CGMW433 KCK20	B192	CM145	C195, D38	CNGA432S0415MT KBH20	B330
CGMT431LF KCK20B	B191	CGMW432 KCK20B	B192	CM146	C191-193, D35-37, D39-40	CNGA432S0415MT KBH20	B330
CGMT431LF KCP10	B191	CGMW433 KCK20	B192	CM147	C191-193, D35-37, D39-40	CNGA432S0415MT KBH20	B330
CGMT431LF KCP25	B191	CGMW432 KCK20B	B192	CM180	E42	CNGA432S0415MT KBH20	B330
CGMT431LF KCP25B	B191	CGMW433 KCK20	B192	CM181	E42	CNGA432S0415MT KBH20	B330
CGMT431LF KCP30	B191	CGMW432 KCK20B	B192	CM182	C185, D25	CNGA432S0415MT KBH20	B330
CGMT431MW KC5010	B192	CGMW433 KCK20	B192	CM183	C185, D25	CNGA432S0415MT KBH20	B330
CGMT431MW KCP25	B192	CGMW432 KCK20B	B192	CM184LP	C185, D25	CNGA432S0415MT KBH20	B330
CGMT432FP KCM25	B190	CGMW433 KCK20	B192	CM185LP	C185, D25	CNGA432S0415MT KBH20	B330
CGMT432FP KCP25B	B190	CGMW432 KCK20B	B192	CM209R ASSY	B58-60, B67-68, B87	CNGA432S0415MT KBH20	B330
CGMT432FP KCU10	B190	CGMW433 KCK20	B192	CM210R ASSY	B58-60, B68, B98, B109-110	CNGA432S0415MT KBH20	B330
CGMT432LF KC5010	B191	CGMW432 KCK20B	B192	CM214	B168-169, B386-387	CNGA432S0415MT KBH20	B330
CGMT432LF KCK15	B191	CGMW433 KCK20	B192	CM215R ASSY	B150-151, B154	CNGA432S0415MT KBH20	B330
CGMT432LF KCK20	B191	CGMW432 KCK20B	B192	CM216	B168-169, B386-387	CNGA432S0415MT KBH20	B330
CGMT432LF KCK20B	B191	CGMW433 KCK20	B192	CM219	B168-169, B386-387	CNGA432S0415MT KBH20	B330
CGMT432LF KCP10	B191	CGMW432 KCK20B	B192	CM234R ASSY	B58-60, B67-68, B87-88, B91-92, B98, B109-110, B113, B131, B154, B163	CNGA432S0415MT KBH20	B330
CGMT432LF KCP25	B191	CGMW433 KCK20	B192	CM234R ASSY	B67-68, B92, B138	CNGA432S0415MT KBH20	B330
CGMT432LF KCP25B	B191	CGMW432 KCK20B	B192	CM235R ASSY	B150-151	CNGA432S0415MT KBH20	B330
CGMT432LF KCP30	B191	CGMW433 KCK20	B192	CM66	E41, E45	CNGA432S0415MT KBH20	B330
CGMT432MF KCK15	B191	CGMW432 KCK20B	B192	CM68	E41-42, E44-46	CNGA432S0415MT KBH20	B330
CGMT432MF KCK20	B191	CGMW433 KCK20	B192	CM71	E41, E44-45	CNGA432S0415MT KBH20	B330
CGMT432MF KCK20B	B191	CGMW432 KCK20B	B192	CM72LP	C182-184, C186-189, C191-192, C194-196, D26-30, D35, D38, D41	CNGA432S0415MT KBH20	B330
CGMT432MF KCM15B	B191	CGMW433 KCK20	B192	CM73	C193, D31-33, D36, D39	CNGA432S0415MT KBH20	B330
CGMT432MF KCM25	B191	CGMW432 KCK20B	B192	CM73LP	C182-184, C186-189, C191-192, C194-195, D26-30, D35, D37-38	CNGA432S0415MT KBH20	B330
CGMT432MF KCM25B	B191	CGMW433 KCK20	B192	CM74	C182-183, C185-188, C191-193, C196, D25-27, D29-31, D33, D35-36, D39, D41	CNGA432S0415MT KBH20	B330
CGMT432MF KCP10	B191	CGMW432 KCK20B	B192	CM75	C182-183, C185, C187-188, C191-193, C196, D25-27, D30-31, D33, D35-37, D39, D41	CNGA432S0415MT KBH20	B330
CGMT432MF KCP25	B191	CGMW433 KCK20	B192	CM79	E41, E44-46	CNGA432S0415MT KBH20	B330
CGMT432MF KCP25B	B191	CGMW432 KCK20B	B192	CM80	C182, C187, C191, D26-27, D32, D35	CNGA432S0415MT KBH20	B330
CGMT432MF KCP30	B191	CGMW433 KCK20	B192	CM81	C182, C187, D26-27, D32	CNGA432S0415MT KBH20	B330
CGMT432MP KCK20	B191	CGMW432 KCK20B	B192	CNG431T0820 KY1615	B329	CNGA432S0415MT KBH20	B330
CGMT432MP KCK20B	B191	CGMW433 KCK20	B192	CNG432T0820 KY1615	B329	CNGA432S0415MT KBH20	B330
CGMT432MP KCM25B	B191	CGMW432 KCK20B	B192	CNG433T0820 KY1615	B329	CNGA432S0415MT KBH20	B330
CGMT432MP KCP10	B191	CGMW433 KCK20	B192	CNG434T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT432MP KCP25	B191	CGMW432 KCK20B	B192	CNG435T0820 KY3500	B350	CNGA432S0415MT KBH20	B330
CGMT432MP KCU10	B191	CGMW433 KCK20	B192	CNG436T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT432MW KC5010	B192	CGMW432 KCK20B	B192	CNG437T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT432MW KCK20	B192	CGMW433 KCK20	B192	CNG438T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT432MW KCK20B	B192	CGMW432 KCK20B	B192	CNG439T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT432MW KCP25	B192	CGMW433 KCK20	B192	CNG440T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433FP KCP10	B190	CGMW432 KCK20B	B192	CNG441T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433LF KCK20B	B191	CGMW433 KCK20	B192	CNG442T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433LF KCM25	B191	CGMW432 KCK20B	B192	CNG443T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433LF KCP10	B191	CGMW433 KCK20	B192	CNG444T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433LF KCP25B	B191	CGMW432 KCK20B	B192	CNG445T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MF KC5025	B191	CGMW433 KCK20	B192	CNG446T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MF KCK15	B191	CGMW432 KCK20B	B192	CNG447T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MF KCK20	B191	CGMW433 KCK20	B192	CNG448T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MF KCP25	B191	CGMW432 KCK20B	B192	CNG449T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MF KCP25B	B191	CGMW433 KCK20	B192	CNG450T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCK20	B191	CGMW432 KCK20B	B192	CNG451T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25	B191	CGMW433 KCK20	B192	CNG452T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCU10	B191	CGMW432 KCK20B	B192	CNG453T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCU25	B191	CGMW433 KCK20	B192	CNG454T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25	B191	CGMW432 KCK20B	B192	CNG455T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25B	B191	CGMW433 KCK20	B192	CNG456T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP30	B191	CGMW432 KCK20B	B192	CNG457T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25	B191	CGMW433 KCK20	B192	CNG458T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25B	B191	CGMW432 KCK20B	B192	CNG459T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP10	B191	CGMW433 KCK20	B192	CNG460T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25	B191	CGMW432 KCK20B	B192	CNG461T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCU10	B191	CGMW433 KCK20	B192	CNG462T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCU25	B191	CGMW432 KCK20B	B192	CNG463T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25	B191	CGMW433 KCK20	B192	CNG464T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25B	B191	CGMW432 KCK20B	B192	CNG465T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP30	B191	CGMW433 KCK20	B192	CNG466T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25	B191	CGMW432 KCK20B	B192	CNG467T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25B	B191	CGMW433 KCK20	B192	CNG468T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP10	B191	CGMW432 KCK20B	B192	CNG469T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25	B191	CGMW433 KCK20	B192	CNG470T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25B	B191	CGMW432 KCK20B	B192	CNG471T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP30	B191	CGMW433 KCK20	B192	CNG472T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25	B191	CGMW432 KCK20B	B192	CNG473T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCM25B	B191	CGMW433 KCK20	B192	CNG474T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP10	B191	CGMW432 KCK20B	B192	CNG475T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCP25	B191	CGMW433 KCK20	B192	CNG476T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCU10	B191	CGMW432 KCK20B	B192	CNG477T0820 KY3500	B316	CNGA432S0415MT KBH20	B330
CGMT433MP KCU25	B191	CGMW433 KCK20	B192	CNG478T0820 KY3500	B316	CNGA432S0415MT KBH20	B330

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CNGG430FS KC5010.....	B46	CNMA433 KCK20.....	B47	CNMG431FW KT315.....	B49	CNMG432FW KCU10.....	B49
CNGG430FS KCU10.....	B46	CNMA433 KCK20B.....	B47	CNMG431LF KCP25B.....	B50	CNMG432FW KT315.....	B49
CNGG430LF KC5010.....	B46	CNMA433S0820 KB1340.....	B309	CNMG431MN KCP10.....	B50	CNMG432LF KCP25B.....	B50
CNGG430LF KCU10.....	B46	CNMA434 KCK05.....	B47	CNMG431MN KCP10B.....	B50	CNMG432MG KC5010.....	B57
CNGG431FS KC5010.....	B46	CNMA434 KCK05B.....	B47	CNMG431MN KCP25.....	B50	CNMG432MG KCP10B.....	B57
CNGG431FS KC5025.....	B46	CNMA434 KCK15.....	B47	CNMG431MN KCP25B.....	B50	CNMG432MG KCP25B.....	B57
CNGG431FS KCU10.....	B46	CNMA434 KCK15B.....	B47	CNMG431MN KCP30.....	B50	CNMG432MN KCP05.....	B50
CNGG431FS KCU25.....	B46	CNMA434 KCK20.....	B47	CNMG431MN KCP40B.....	B50	CNMG432MN KCP05B.....	B50
CNGG431LF KC5010.....	B46	CNMA542 KCK15.....	B47	CNMG431MP KC5010.....	B51	CNMG432MN KCP10.....	B50
CNGG431LF KCU10.....	B46	CNMA542 KCK20.....	B47	CNMG431MP KCM15.....	B51	CNMG432MN KCP10B.....	B50
CNGG432FS KC5010.....	B46	CNMA543 KCK15.....	B47	CNMG431MP KCM15B.....	B51	CNMG432MN KCP25.....	B50
CNGG432FS KC5025.....	B46	CNMA543 KCK15B.....	B47	CNMG431MP KCM25.....	B51	CNMG432MN KCP25B.....	B50
CNGG432FS KCU10.....	B46	CNMA543 KCK20.....	B47	CNMG431MP KCM25B.....	B51	CNMG432MN KCP30.....	B50
CNGG432FS KCU25.....	B46	CNMA543 KCK20B.....	B47	CNMG431MP KCM35.....	B51	CNMG432MN KCP30B.....	B50
CNGG432LF KC5010.....	B46	CNMA544 KCK15.....	B47	CNMG431MP KCM35B.....	B51	CNMG432MN KCP40.....	B50
CNGG432LF KCU10.....	B46	CNMA544 KCK20B.....	B47	CNMG431MP KCU10.....	B51	CNMG432MN KCP40B.....	B50
CNGG433LF KC5010.....	B46	CNMA643 KCK05.....	B47	CNMG431MR KCM15B.....	B51	CNMG432MR KCP05.....	B50
CNGG433LF KCU10.....	B46	CNMA643 KCK15.....	B47	CNMG431MS K313.....	B52	CNMG432MR KC5010.....	B51
CNGM431S0525MTCB1 KBH20.....	B330	CNMA643 KCK15B.....	B47	CNMG431MS KC5010.....	B52	CNMG432MP KC5025.....	B51
CNGM432S0525MTCB1 KBH20.....	B330	CNMA643 KCK20.....	B47	CNMG431MS KC5025.....	B52	CNMG432MP KCM15.....	B51
CNGM433S0525MTCB1 KBH20.....	B330	CNMA644 KCK15B.....	B47	CNMG431MS KCU10.....	B52	CNMG432MR KCM15B.....	B51
CNGN332T0820 KBK45.....	B304	CNMA644 KCK20.....	B47	CNMG431MS KCU25.....	B52	CNMG432MP KCM25.....	B51
CNGN333S0820 KBK45.....	B304	CNMA644 KCK20B.....	B47	CNMG431P KC5010.....	B52	CNMG432MP KCM25B.....	B51
CNGN432T0820 KBK45.....	B304	CNMG321FF KC5010.....	B48	CNMG431P KCU10.....	B52	CNMG432MP KCM35.....	B51
CNGN433S0820 KBK45.....	B304	CNMG321FN KCP10.....	B49	CNMG431RP KC5010.....	B53	CNMG432MP KCM35B.....	B51
CNGN434S0820 KBK45.....	B304	CNMG321FN KT315.....	B49	CNMG431RP KC5025.....	B53	CNMG432MP KCP10.....	B51
CNGP430 KCU10.....	B46	CNMG321MN KCP10.....	B50	CNMG431RP KCM25.....	B53	CNMG432MP KCP25.....	B51
CNGP430 KC5410.....	B46	CNMG321MN KCP25B.....	B50	CNMG431RP KCM25B.....	B53	CNMG432MP KCP25B.....	B51
CNGP430 KCU10.....	B46	CNMG321MN KCP30.....	B50	CNMG431RP KCP10.....	B53	CNMG432MP KCU10.....	B51
CNGP4305 KC5010.....	B46	CNMG322FF KC5010.....	B48	CNMG431RP KCP25.....	B53	CNMG432MP KCU25.....	B51
CNGP4305 KC5410.....	B46	CNMG322FN KCK05.....	B49	CNMG431RP KCP25B.....	B53	CNMG432MR KCK15B.....	B51
CNGP4305 KCU10.....	B46	CNMG322FN KCP10.....	B49	CNMG431RP KCU10.....	B53	CNMG432MR KCM15.....	B51
CNGP431 K313.....	B46	CNMG322FN KCP10B.....	B49	CNMG431RP KCU25.....	B53	CNMG432MR KCM15B.....	B51
CNGP431 K68.....	B46	CNMG322MN KCP10.....	B50	CNMG431UN KCK05.....	B54	CNMG432MR KCM25.....	B51
CNGP431 KC5010.....	B46	CNMG322MN KCP10B.....	B50	CNMG431UN KCK15.....	B54	CNMG432MR KCM25B.....	B51
CNGP431 KC5410.....	B46	CNMG322MN KCP25.....	B50	CNMG431UN KCK15B.....	B54	CNMG432MR KCM35.....	B51
CNGP432 K313.....	B46	CNMG322MN KCP25B.....	B50	CNMG431UN KCK20.....	B54	CNMG432MR KCP10B.....	B51
CNGP432 K68.....	B46	CNMG322MN KCP30.....	B50	CNMG431UN KCK20B.....	B54	CNMG432MR KCP25B.....	B51
CNGP432 KC5010.....	B46	CNMG322MP KC5010.....	B51	CNMG431UP KC5010.....	B54	CNMG432MR KCP30B.....	B51
CNGP432 KC5410.....	B46	CNMG322MP KCM15B.....	B51	CNMG431UP KCM15B.....	B54	CNMG432MR KCP40.....	B51
CNGP432 KCU10.....	B46	CNMG322MP KCM25.....	B51	CNMG431UP KCM25.....	B54	CNMG432MR KCP05.....	B51
CNGP432K KC5010.....	B47	CNMG322MP KCU10.....	B51	CNMG431UP KCM25B.....	B54	CNMG432MR KCU10.....	B51
CNGP433 K313.....	B46	CNMG323MN KCP25.....	B50	CNMG432 K313.....	B47	CNMG432MS K313.....	B52
CNGP433 KC5010.....	B46	CNMG4305FN KC5010.....	B49	CNMG432 K68.....	B47	CNMG432MS KC5010.....	B52
CNGP433 KC5410.....	B46	CNMG4305FN KT315.....	B49	CNMG432 KC5010.....	B48	CNMG432MS KC5025.....	B52
CNGP433 KCU10.....	B46	CNMG4305LF KCP25B.....	B50	CNMG432CT KC5010.....	B48	CNMG432MS KCU10.....	B52
CNGP434 KC5010.....	B46	CNMG4305MS KC5010.....	B52	CNMG432CT KCP05.....	B48	CNMG432MS KCU25.....	B52
CNGP543K K313.....	B47	CNMG4305MS KC5025.....	B52	CNMG432CT KCP10B.....	B48	CNMG432MW KCK15B.....	B52
CNGX432T0820 KBK45.....	B307	CNMG4305MS KCU10.....	B52	CNMG432CT KCP25.....	B48	CNMG432MW KCM25B.....	B52
CNGX433S0415 KB1340.....	B307	CNMG4305MS KCU25.....	B52	CNMG432CT KCP25B.....	B48	CNMG432MW KCP05.....	B52
CNGX433S0415FW KB1340.....	B307	CNMG430MS KC5010.....	B52	CNMG432CT KCU10.....	B48	CNMG432MW KCP10.....	B52
CNGX433S0820 KBK45.....	B307	CNMG430MS KC5025.....	B52	CNMG432FF KC5010.....	B48	CNMG432MW KCP10B.....	B52
CNGX434S0820 KB1340.....	B307	CNMG430MS KCU10.....	B52	CNMG432FF KCM15B.....	B48	CNMG432MW KCP25.....	B52
CNGX434S0820 KBK45.....	B307	CNMG430MS KCU25.....	B52	CNMG432FF KCP05.....	B48	CNMG432MW KCP25B.....	B52
CNGX452T0420 KYS25.....	B350	CNMG431 K68.....	B47	CNMG432FF KCP10.....	B48	CNMG432P K313.....	B52
CNGX452T0420 KYS30.....	B350	CNMG431FF KC5010.....	B48	CNMG432FF KCP10B.....	B48	CNMG432P KC5010.....	B52
CNGX452T0420FW KY3500.....	B316	CNMG431FF KCM15B.....	B48	CNMG432FF KCU10.....	B48	CNMG432P KCM15B.....	B52
CNGX452T0820 KY1615.....	B331	CNMG431FF KCP05.....	B48	CNMG432FF KT315.....	B48	CNMG432P KCP30B.....	B52
CNGX453T0420 KYS25.....	B350	CNMG431FF KCP10.....	B48	CNMG432FF KT315.....	B48	CNMG432P KCU10.....	B52
CNGX453T0420 KYS30.....	B350	CNMG431FF KCP10B.....	B48	CNMG432FN KCK05.....	B49	CNMG432P KCK15B.....	B53
CNGX453T0420FW KY3500.....	B316	CNMG431FF KCU10.....	B48	CNMG432FN KCK15B.....	B49	CNMG432RN KCP05.....	B53
CNGX453T0820 KY1615.....	B331	CNMG431FF KT315.....	B48	CNMG432FN KCP05.....	B49	CNMG432RN KCP10.....	B53
CNGX454E KYS30.....	B350	CNMG431FN KCK05.....	B49	CNMG432FN KCP10.....	B49	CNMG432RN KCP10B.....	B53
CNGX454T0420FW KY3500.....	B316	CNMG431FN KCK15B.....	B49	CNMG432FN KCP10B.....	B49	CNMG432RN KCP25.....	B53
CNMA432S0820 KB1340.....	B304	CNMG431FN KCP05.....	B49	CNMG432FN KCP25.....	B49	CNMG432RN KCP25B.....	B53
CNMA433S0820 KB1340.....	B304	CNMG431FN KCP10.....	B49	CNMG432FN KCP25B.....	B49	CNMG432RN KCP30.....	B53
CNMA431 KCK05B.....	B47	CNMG431FN KCP10B.....	B49	CNMG432FP KC5010.....	B49	CNMG432RN KCP30B.....	B53
CNMA431 KCK15.....	B47	CNMG431FN KCP25.....	B49	CNMG432FP KCM15.....	B49	CNMG432RN KCP40.....	B53
CNMA431 KCK15B.....	B47	CNMG431FN KCP25B.....	B49	CNMG432FP KCM15B.....	B49	CNMG432RP KC5010.....	B53
CNMA431 KCK20.....	B47	CNMG431FN KCP30.....	B49	CNMG432FP KCP10B.....	B49	CNMG432RP KC5025.....	B53
CNMA431 KCK20B.....	B47	CNMG431FP KC5010.....	B49	CNMG432FP KCP10.....	B49	CNMG432RP KCM15.....	B53
CNMA432 K68.....	B47	CNMG431FP KCM15.....	B49	CNMG432FP KCP25.....	B49	CNMG432RP KCK05.....	B53
CNMA432 KCK05.....	B47	CNMG431FP KCP10.....	B49	CNMG432FP KCP25B.....	B49	CNMG432RP KCK15.....	B53
CNMA432 KCK15.....	B47	CNMG431FP KCP25B.....	B49	CNMG432FP KCU10.....	B49	CNMG432RP KCK15B.....	B53
CNMA432 KCK15B.....	B47	CNMG431FP KCU10.....	B49	CNMG432FP KCU10.....	B49	CNMG432RP KCK20.....	B53
CNMA432 KCK20.....	B47	CNMG431FP KT315.....	B49	CNMG432FW KC5010.....	B49	CNMG432RP KCK20B.....	B53
CNMA432 KCK20B.....	B47	CNMG431FP KC5010.....	B49	CNMG432FW KCK15B.....	B49	CNMG432RP KCM15.....	B53
CNMA432S0820 KB1340.....	B309	CNMG431FW KC5010.....	B49	CNMG432FW KCM15B.....	B49	CNMG432RP KCM15B.....	B53
CNMA433 KCK05.....	B47	CNMG431FW KCP05.....	B49	CNMG432FW KCP05.....	B49	CNMG432RP KCM25.....	B53
CNMA433 KCK05B.....	B47	CNMG431FW KCP10.....	B49	CNMG432FW KCP05B.....	B49	CNMG432RP KCM25B.....	B53
CNMA433 KCK15.....	B47	CNMG431FW KCP10B.....	B49	CNMG432FW KCP10.....	B49	CNMG432RP KCM35.....	B53
CNMA433 KCK15B.....	B47	CNMG431FW KCU10.....	B49	CNMG432FW KCP10B.....	B49	CNMG432RP KCM35B.....	B53

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CNMG432FP KCP05	B53	CNMG433MW KCP10B	B52	CNMG434UN KCK15B	B54	CNMG543RP KCP40B	B53
CNMG432FP KCP05B	B53	CNMG433MW KCP25	B52	CNMG434UN KCK20	B54	CNMG543RP KCPK05	B53
CNMG432FP KCP10	B53	CNMG433MW KCP25B	B52	CNMG434UN KCK20B	B54	CNMG543RP KCU10	B53
CNMG432FP KCP10B	B53	CNMG433P KC5010	B52	CNMG542MN KCP10	B50	CNMG543RP KCU25	B53
CNMG432FP KCP25	B53	CNMG433P KCP30B	B52	CNMG542MN KCP10B	B50	CNMG543UN KCK15	B54
CNMG432FP KCP25B	B53	CNMG433RN KCP10	B53	CNMG542MN KCP25	B50	CNMG543UN KCK15B	B54
CNMG432FP KCP30	B53	CNMG433RN KCP10B	B53	CNMG542MN KCP25B	B50	CNMG543UN KCK20	B54
CNMG432FP KCP30B	B53	CNMG433RN KCP25	B53	CNMG542MN KCP30	B50	CNMG543UN KCK20B	B54
CNMG432FP KCP40	B53	CNMG433RN KCP25B	B53	CNMG542MP KC5010	B51	CNMG543UP KCM25	B54
CNMG432FP KCPK05	B53	CNMG433RN KCP30	B53	CNMG542MP KCM15B	B51	CNMG543UP KCM25B	B54
CNMG432FP KCU10	B53	CNMG433RN KCP30B	B53	CNMG542MP KCM25	B51	CNMG543UP KCM35	B54
CNMG432FP KCU25	B53	CNMG433RN KCP40	B53	CNMG542MP KCM35	B51	CNMG543UP KCU10	B54
CNMG432UN KCP05	B54	CNMG433RN KCP40B	B53	CNMG542MP KCU10	B51	CNMG544MG KCP10B	B57
CNMG432UN KCK15	B54	CNMG433RN KCPK05	B53	CNMG542MR KCP25B	B51	CNMG544MN KCP10	B50
CNMG432UN KCK15B	B54	CNMG433RP KC5010	B53	CNMG542MS KC5010	B52	CNMG544MN KCP10B	B50
CNMG432UN KCK20	B54	CNMG433RP KC5025	B53	CNMG542MS KC5025	B52	CNMG544MN KCP25	B50
CNMG432UN KCK20B	B54	CNMG433RP KCK05	B53	CNMG542MS KCU10	B52	CNMG544MP KC5010	B51
CNMG432UP KC5010	B54	CNMG433RP KCK15	B53	CNMG542MS KCU25	B52	CNMG544MP KCM25	B51
CNMG432UP KCM15	B54	CNMG433RP KCK15B	B53	CNMG542RN KCP10B	B53	CNMG544MR KCM25B	B51
CNMG432UP KCM15B	B54	CNMG433RP KCK20	B53	CNMG542RN KCP25	B53	CNMG544MR KCP10B	B51
CNMG432UP KCM25	B54	CNMG433RP KCK20B	B53	CNMG542RN KCP25B	B53	CNMG544MR KCP25	B51
CNMG432UP KCM25B	B54	CNMG433RP KCM15B	B53	CNMG542RN KCP30	B53	CNMG544RN KCP10B	B53
CNMG432UP KCM35	B54	CNMG433RP KCM25	B53	CNMG542RP KC5025	B53	CNMG544RN KCP10B	B53
CNMG432UP KCM35B	B54	CNMG433RP KCM25B	B53	CNMG542RP KCK20	B53	CNMG544RN KCP25	B53
CNMG432UP KCU10	B54	CNMG433RP KCM35	B53	CNMG542RP KCU10	B53	CNMG544RN KCP25B	B53
CNMG433 K68	B47	CNMG433RP KCM35B	B53	CNMG542RP KCU25	B53	CNMG544RN KCP40B	B53
CNMG433CT KCP10B	B48	CNMG433RP KCP05	B53	CNMG542RP KCU25B	B53	CNMG544RN KCPK05	B53
CNMG433CT KCP25	B48	CNMG433RP KCP10	B53	CNMG542RP KCU10	B53	CNMG544RN KC5025	B53
CNMG433CT KCP25B	B48	CNMG433RP KCP10B	B53	CNMG542RP KCU25	B53	CNMG544RP KCK20	B53
CNMG433FM KCP10B	B50	CNMG433RP KCP25	B53	CNMG542UN KCK15	B54	CNMG544RP KCM25	B53
CNMG433FM KCP25B	B50	CNMG433RP KCP25B	B53	CNMG542UN KCK15B	B54	CNMG544RP KCM25B	B53
CNMG433FN KCK05B	B49	CNMG433RP KCP30	B53	CNMG542UN KCK20	B54	CNMG544RP KCP10	B53
CNMG433FN KCP10B	B49	CNMG433RP KCP30B	B53	CNMG542UN KCK20B	B54	CNMG544RP KCP10B	B53
CNMG433FN KCP25	B49	CNMG433RP KCP40	B53	CNMG542UP KCM25	B54	CNMG544RP KCP25	B53
CNMG433FN KCP25B	B49	CNMG433RP KCP40B	B53	CNMG542UP KCM35	B54	CNMG544RP KCP25B	B53
CNMG433FN KT315	B49	CNMG433RP KCPK05	B53	CNMG543MN KCP10	B50	CNMG544RP KCPK05	B53
CNMG433FP KCM15	B49	CNMG433RP KCU10	B53	CNMG543MN KCP10B	B50	CNMG544RP KCU25	B53
CNMG433FP KCU10	B49	CNMG433RP KCU25	B53	CNMG543MN KCP25	B50	CNMG544UN KCK15	B54
CNMG433FW KC5010	B49	CNMG433UN KCK05	B54	CNMG543MN KCP25B	B50	CNMG544UN KCK15B	B54
CNMG433FW KCP05	B49	CNMG433UN KCK05B	B54	CNMG543MN KCP30	B50	CNMG544UN KCK20	B54
CNMG433FW KCP10	B49	CNMG433UN KCK15	B54	CNMG543MP KC5010	B51	CNMG544UN KCK20B	B54
CNMG433FW KCP10B	B49	CNMG433UN KCK15B	B54	CNMG543MP KCM15	B51	CNMG642MN KCP10	B50
CNMG433FW KCU10	B49	CNMG433UN KCK20	B54	CNMG543MP KCM15B	B51	CNMG642MN KCP25	B50
CNMG433FW KT315	B49	CNMG433UN KCK20B	B54	CNMG543MP KCM25	B51	CNMG642MN KCP25B	B50
CNMG433MG KCP10B	B57	CNMG433UP KC5010	B54	CNMG543MP KCM25B	B51	CNMG642MN KCP30	B50
CNMG433MG KCP25B	B57	CNMG433UP KCM15	B54	CNMG543MP KCU10	B51	CNMG642MP KC5010	B51
CNMG433MN KCP05	B50	CNMG433UP KCM25	B54	CNMG543MP KCU25	B51	CNMG642MP KCM15B	B51
CNMG433MN KCP10	B50	CNMG433UP KCM25B	B54	CNMG543MR KCM25B	B51	CNMG642MP KCM25	B51
CNMG433MN KCP10B	B50	CNMG433UP KCU10	B54	CNMG543MR KCP10B	B51	CNMG642MP KCM25B	B51
CNMG433MN KCP25	B50	CNMG434CT KCP10	B48	CNMG543MR KCP25B	B51	CNMG642MS KC5010	B52
CNMG433MN KCP25B	B50	CNMG434FN KCP10	B49	CNMG543MR KCP40	B51	CNMG642MS KCU25	B52
CNMG433MN KCP30B	B50	CNMG434FN KCP25	B49	CNMG543MS K313	B52	CNMG642MS KCU10	B52
CNMG433MN KCP40	B50	CNMG434MG KCP10B	B57	CNMG543MS KC5010	B52	CNMG642MS KCU25	B52
CNMG433MN KCP40B	B50	CNMG434MN KCP10	B50	CNMG543MS KC5025	B52	CNMG642MR KCP10B	B53
CNMG433MP KC5010	B51	CNMG434MN KCP10B	B50	CNMG543MS KCU10	B52	CNMG642RN KCP25	B53
CNMG433MP KCM15	B51	CNMG434MN KCP25	B50	CNMG543MS KCU25	B52	CNMG642RN KCP25B	B53
CNMG433MP KCM15B	B51	CNMG434MN KCP25B	B50	CNMG543RN KCP10	B53	CNMG642RN KCP40	B53
CNMG433MP KCM25	B51	CNMG434MP KC5010	B51	CNMG543RN KCP10B	B53	CNMG642UN KCK15	B54
CNMG433MP KCM25B	B51	CNMG434MP KCM15B	B51	CNMG543RN KCP25	B53	CNMG642UN KCK20	B54
CNMG433MP KCM35	B51	CNMG434MR KCP10B	B51	CNMG543RN KCP25B	B53	CNMG643 K68	B47
CNMG433MP KCP10	B51	CNMG434MS KC5010	B52	CNMG543RN KCP30	B53	CNMG643 KCP25	B47
CNMG433MP KCP25	B51	CNMG434MS KC5025	B52	CNMG543RN KCP30B	B53	CNMG643 KCU10	B47
CNMG433MP KCU10	B51	CNMG434MS KCU10	B52	CNMG543RN KCP40	B53	CNMG643MG KCP25B	B57
CNMG433MP KCU25	B51	CNMG434RN KCP10	B53	CNMG543RN KCP40B	B53	CNMG643MN KCP10	B50
CNMG433MR KCK15B	B51	CNMG434RN KCP10B	B53	CNMG543RN KCPK05	B53	CNMG643MN KCP25	B50
CNMG433MR KCM15	B51	CNMG434RN KCP25	B53	CNMG543RP KC5010	B53	CNMG643MN KCP25B	B50
CNMG433MR KCM15B	B51	CNMG434RN KCP25B	B53	CNMG543RP KC5025	B53	CNMG643MN KCP30	B50
CNMG433MR KCM25	B51	CNMG434RN KCP40	B53	CNMG543RP KCK05	B53	CNMG643MP KC5010	B51
CNMG433MR KCM25B	B51	CNMG434RN KCP40B	B53	CNMG543RP KCK15	B53	CNMG643MP KCM15	B51
CNMG433MR KCM35	B51	CNMG434RP KCP05	B53	CNMG543RP KCK20	B53	CNMG643MP KCM25	B51
CNMG433MR KCP10B	B51	CNMG434RP KCP10B	B53	CNMG543RP KCK20B	B53	CNMG643MP KCM25B	B51
CNMG433MR KCP25B	B51	CNMG434RP KCK20B	B53	CNMG543RP KCM15B	B53	CNMG643MP KCU25	B51
CNMG433MR KCPK05	B51	CNMG434RP KCM25	B53	CNMG543RP KCM25	B53	CNMG643MR KCM25	B51
CNMG433MR KCU10	B51	CNMG434RP KCM25B	B53	CNMG543RP KCM25B	B53	CNMG643MR KCM25B	B51
CNMG433MS K313	B52	CNMG434RP KCM35	B53	CNMG543RP KCM35	B53	CNMG643MR KCP25B	B51
CNMG433MS KC5010	B52	CNMG434RP KCP10	B53	CNMG543RP KCM35B	B53	CNMG643MS KC5010	B52
CNMG433MS KC5025	B52	CNMG434RP KCP10B	B53	CNMG543RP KCP10	B53	CNMG643MS KC5025	B52
CNMG433MS KCU10	B52	CNMG434RP KCP25	B53	CNMG543RP KCP10B	B53	CNMG643MS KCU10	B52
CNMG433MS KCU25	B52	CNMG434RP KCP25B	B53	CNMG543RP KCP25	B53	CNMG643MS KCU25	B52
CNMG433MW KCK15B	B52	CNMG434RP KCU10	B53	CNMG543RP KCP25B	B53	CNMG643P KCU10	B52
CNMG433MW KCP05	B52	CNMG434RP KCU25	B53	CNMG543RP KCP30	B53	CNMG643RN KCP10	B53
CNMG433MW KCP10	B52	CNMG434UN KCK05B	B54	CNMG543RP KCP40	B53	CNMG643RN KCP10B	B53

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CNMG643RN KCP25.....	B53	CNMM433RP KCP30.....	B56	CNMP431K KCP10B.....	B57	CPGT2150LF KC5410.....	B206
CNMG643RN KCP25B.....	B53	CNMM434RP KCP25.....	B56	CNMP431K KCP25.....	B57	CPGT2150LF KCU10.....	B206
CNMG643RN KCP30.....	B53	CNMM434RP KCP25B.....	B56	CNMP431K KCP25B.....	B57	CPGT2151HP KC5010.....	B205
CNMG643RN KCP30B.....	B53	CNMM542RP KCP25B.....	B56	CNMP432 K313.....	B56	CPGT2151HP KC5025.....	B205
CNMG643RN KCP40.....	B53	CNMM543MR KCP25B.....	B54	CNMP432 K68.....	B56	CPGT2151HP KC5410.....	B205
CNMG643RN KCP40B.....	B53	CNMM543MR KCP30B.....	B54	CNMP432 KC5410.....	B56	CPGT2151HP KCU10.....	B205
CNMG643RP KC5010.....	B53	CNMM543RM KCP10.....	B55	CNMP432 KCP25B.....	B56	CPGT2151HP KCU25.....	B205
CNMG643RP KC5025.....	B53	CNMM543RM KCP10B.....	B55	CNMP432K KCP10.....	B57	CPGT2151LF KC5010.....	B206
CNMG643RP KCK15.....	B53	CNMM543RM KCP25.....	B55	CNMP432K KCP10B.....	B57	CPGT2151LF KC5025.....	B206
CNMG643RP KCM25.....	B53	CNMM543RM KCP25B.....	B55	CNMP432K KCP25.....	B57	CPGT2151LF KC5410.....	B206
CNMG643RP KCM25B.....	B53	CNMM543RP KCM25B.....	B56	CNMP432K KCP25B.....	B57	CPGT2151LF KCU10.....	B206
CNMG643RP KCM35.....	B53	CNMM543RP KCP10.....	B56	CNMP433 K68.....	B56	CPGT2152HP KC5010.....	B205
CNMG643RP KCP10B.....	B53	CNMM543RP KCP10B.....	B56	CNMP542 KCP25B.....	B56	CPGT2152HP KC5410.....	B205
CNMG643RP KCP25.....	B53	CNMM543RP KCP25.....	B56	CNMP643 K313.....	B56	CPGT2152HP KCU25.....	B205
CNMG643RP KCP25B.....	B53	CNMM543RP KCP40.....	B56	CNMS431FST KD1400.....	B363	CPGT2152LF KC5010.....	B206
CNMG643RP KCP30.....	B53	CNMM544MR KCP25B.....	B54	CNMS432 K68.....	B57	CPGT2152LF KC5025.....	B206
CNMG643RP KCP40B.....	B53	CNMM544MR KCP10.....	B55	CNMS432 KC5410.....	B57	CPGT2152LF KCU10.....	B206
CNMG643RP KCU10.....	B53	CNMM544RM KCP10B.....	B55	CNMS432E KD1405.....	B363	CPGT32505HP K313.....	B205
CNMG643RP KCU25.....	B53	CNMM544RM KCP25.....	B55	CNMS432FST KD1400.....	B363	CPGT32505HP KC5010.....	B205
CNMG643UN KCK15.....	B54	CNMM544RM KCP25B.....	B55	CNMS432FST KD1425.....	B363	CPGT32505HP KC5025.....	B205
CNMG643UN KCK20.....	B54	CNMM544RM KCP30.....	B55	CNMS542 KC5410.....	B57	CPGT32505HP KC5410.....	B205
CNMG643UP KCM25.....	B54	CNMM544RP KCM25.....	B56	CNMS642 K68.....	B57	CPGT32505HP KCU10.....	B205
CNMG643UP KCM25B.....	B54	CNMM544RP KCP10.....	B56	CNMS642 KC5410.....	B57	CPGT32505LF KC5010.....	B206
CNMG644 KCP25.....	B47	CNMM544RP KCP10B.....	B56	CNMS643 K68.....	B57	CPGT32505LF KCU10.....	B206
CNMG644 KCP25B.....	B47	CNMM544RP KCP25.....	B56	CNMMU433RN KCP10B.....	B53	CPGT3251HP K313.....	B205
CNMG644MN KCP10B.....	B50	CNMM544RP KCP25B.....	B56	CNMMU443MN KCP05B.....	B51	CPGT3251HP KC5010.....	B205
CNMG644MN KCP25.....	B50	CNMM544RP KCPK05.....	B56	CNMMU443MN KCP10.....	B51	CPGT3251HP KC5025.....	B205
CNMG644MN KCP25B.....	B50	CNMM546RM KCP10.....	B55	CNMMU444MN KCP25B.....	B51	CPGT3251HP KC5410.....	B205
CNMG644MN KCP30.....	B51	CNMM546RM KCP25B.....	B55	CNMX452T0820 KY3500.....	B316	CPGT3251HP KCU10.....	B205
CNMG644MP KCM25.....	B51	CNMM546RP KCP10B.....	B56	CNMX453T0820 KY3500.....	B316	CPGT3251HP KCU25.....	B205
CNMG644MP KCU10.....	B51	CNMM643RH KCP25.....	B55	CNMX454T0820 KY3500.....	B316	CPGT3251LF KC5010.....	B206
CNMG644MR KCP25B.....	B51	CNMM643RH KCP40.....	B55	COOL-HOSE-200.....	C83	CPGT3251LF KC5025.....	B206
CNMG644MS KCU10.....	B52	CNMM643RM KCP10.....	B55	COOL-HOSE-200-FLEX.....	C83	CPGT3251LF KC5410.....	B206
CNMG644RN KCP10B.....	B53	CNMM643RM KCP25.....	B55	COOL-HOSE-300.....	C83	CPGT3251LF KCU10.....	B206
CNMG644RN KCP25.....	B53	CNMM643RM KCP25B.....	B55	COOL-HOSE-300-FLEX.....	C83	CPGT3252HP KC5010.....	B205
CNMG644RN KCP25B.....	B53	CNMM643RM KCP40.....	B55	CPG421 K313.....	B164	CPGT3252HP KC5410.....	B205
CNMG644RN KCP30.....	B53	CNMM643RP KCM25B.....	B56	CPG421F KD1425.....	B363	CPGT3252HP KCU10.....	B205
CNMG644RN KCP30B.....	B53	CNMM643RP KCP25.....	B56	CPG422 K313.....	B164	CPGT3252HP KCU25.....	B205
CNMG644RN KCP40.....	B53	CNMM644MR KCP25B.....	B54	CPG422 K68.....	B164	CPGT3252LF KC5010.....	B206
CNMG644RN KCP40B.....	B53	CNMM644MR KCP30.....	B55	CPG422F KD1425.....	B363	CPGT3252LF KC5025.....	B206
CNMG644RN KCPK05.....	B53	CNMM644RH KCP10B.....	B55	CPGM21505 K68.....	B205	CPGT3252LF KCU10.....	B206
CNMG644RP KCM25.....	B53	CNMM644RH KCP30.....	B55	CPGM2151 K313.....	B205	CPGW21505FST KD1400.....	B364
CNMG644RP KCM25B.....	B53	CNMM644RH KCP40B.....	B55	CPGM2151 K68.....	B205	CPGW21505FST KD1425.....	B364
CNMG644RP KCM35.....	B53	CNMM644RM KCP10.....	B55	CPGM2151 KC5010.....	B205	CPGW2151FST KD1405.....	B363
CNMG644RP KCP10.....	B53	CNMM644RM KCP10B.....	B55	CPGM3250 KC5010.....	B205	CPGW2151FST KD1400.....	B364
CNMG644RP KCP25B.....	B53	CNMM644RM KCP25.....	B55	CPGM3250 KC5025.....	B205	CPGW2151FWST KD1400.....	B364
CNMG644RP KCP30.....	B53	CNMM644RM KCP25B.....	B55	CPGM3250 KCU10.....	B205	CPGW2151FWST KD1425.....	B364
CNMG644RP KCP30B.....	B53	CNMM644RM KCP30.....	B55	CPGM3250 KCU10.....	B205	CPGW2152FST KD1400.....	B364
CNMG644RP KCP40.....	B53	CNMM644RP KCM25B.....	B56	CPGM3250 KC5010.....	B205	CPGW2152FST KD1425.....	B364
CNMG644RP KCP40B.....	B53	CNMM644RP KCP10.....	B56	CPGM32505 KC5025.....	B205	CPGW3251E KD1405.....	B363
CNMG644RP KCPK05.....	B53	CNMM644RP KCP10B.....	B56	CPGM32505 KCU10.....	B205	CPGW3251FST KD1400.....	B364
CNMG644RP KCU10.....	B53	CNMM644RP KCP25.....	B56	CPGM3251 K313.....	B205	CPGW3251FST KD1425.....	B364
CNMG644RP KCU25.....	B53	CNMM644RP KCP25B.....	B56	CPGM3251 KC5010.....	B205	CPGW3252FST KD1400.....	B364
CNMG644UN KCK15.....	B54	CNMM646RH KCP25.....	B55	CPGM3251 KC5025.....	B205	CPGW3252FST KD1425.....	B364
CNMG644UN KCK20.....	B54	CNMM646RH KCP10B.....	B55	CPGM3251 KC505.....	B205	CPGW3252FWST KD1400.....	B364
CNMG644UP KCM25.....	B54	CNMM646RH KCP10.....	B55	CPGM3251 KCM15B.....	B205	CPGW3252FWST KD1425.....	B364
CNMG646MN KCP25B.....	B50	CNMM646RH KCP25.....	B55	CPGM3251 KCP10B.....	B205	CPGW3252FWST KD1405.....	B364
CNMG646RN KCP25.....	B53	CNMM646RH KCP30.....	B55	CPGM3251 KCP25.....	B205	CPGW432FWST KD1425.....	B364
CNMG646RN KCP25B.....	B53	CNMM646RH KCP40B.....	B55	CPGM3251 KCU10.....	B205	CPMT181505FP KCU10.....	B206
CNMG646RN KCP30.....	B53	CNMM646RM KCP25.....	B55	CPGM3251 KCU25.....	B205	CPMT181505FP KCU25.....	B206
CNMG866 KCP25.....	B47	CNMM646RM KCP25B.....	B55	CPGM3251 K313.....	B205	CPMT18151FP KCU10.....	B206
CNMM190740RRP KCP10B.....	E59	CNMM646RM KCP30.....	B55	CPGM3252 K68.....	B205	CPMT18151FP KCU25.....	B206
CNMM432MR KCP25B.....	B54	CNMM646RP KCM25B.....	B56	CPGM3252 KC5010.....	B205	CPMT18151LF KC5010.....	B207
CNMM432MR KCP30B.....	B54	CNMM646RP KCP25.....	B56	CPGM3252 KC5025.....	B205	CPMT18151LF K313.....	B207
CNMM432RM KCP10.....	B55	CNMM646RW KCP10B.....	B56	CPGM3252 KCU10.....	B205	CPMT18151FP KCU10.....	B206
CNMM432RM KCP25.....	B55	CNMM646RW KCP25B.....	B56	CPGM3252 K68.....	B205	CPMT18151FP KCU25.....	B206
CNMM432RM KCP25B.....	B55	CNMM866RH KCP10.....	B55	CPGM3252 KC5010.....	B205	CPMT18151FP KCU25.....	B206
CNMM432RM KCP30.....	B55	CNMM866RH KCP25.....	B55	CPGM3252 KCP10B.....	B205	CPMT18151LF KC5025.....	B207
CNMM432RP KCM25.....	B56	CNMM866RH KCP25B.....	B55	CPGM3252 KCP25.....	B205	CPMT18151LF KC505.....	B207
CNMM432RP KCM25B.....	B56	CNMM866RH KCP30.....	B55	CPGM3252 KCU10.....	B205	CPMT18151FP K313.....	B207
CNMM432RP KCP05.....	B56	CNMM866RH KCP30B.....	B55	CPGM3252 KCU25.....	B205	CPMT181505FP KCM25.....	B206
CNMM432RP KCP10.....	B56	CNMM866RH KCP40.....	B55	CPGT21505HP KC5010.....	B205	CPMT181505FP KCP10.....	B206
CNMM432RP KCP25.....	B56	CNMM866RM KCP10.....	B55	CPGT21505HP KC5025.....	B205	CPMT181505FP KCP25.....	B206
CNMM432RP KCP40.....	B56	CNMM866RM KCP25.....	B55	CPGT21505HP KC5410.....	B205	CPMT181505FP KCU10.....	B206
CNMM433RM KCP10.....	B55	CNMM866RM KCP25B.....	B55	CPGT21505HP KCU10.....	B205	CPMT181505FP KCU25.....	B206
CNMM433RM KCP10B.....	B55	CNMM866RM KCP40.....	B55	CPGT21505HP KCU25.....	B205	CPMT181505FW K313.....	B206
CNMM433RM KCP25.....	B55	CNMM866RP KCP25.....	B56	CPGT21505LF KC5010.....	B206	CPMT181505FW KCU10.....	B206
CNMM433RM KCP25B.....	B55	CNMM866RW KCP25B.....	B56	CPGT21505LF KC5025.....	B206	CPMT181505FW K313.....	B206
CNMM433RP KCP10B.....	B56	CNMP431 K313.....	B56	CPGT21505LF KCU10.....	B206	CPMT181505LF KC5010.....	B207
CNMM433RP KCP25.....	B56	CNMP431 K68.....	B56	CPGT21505LF KC5010.....	B206	CPMT181505LF KC5025.....	B207
CNMM433RP KCP25B.....	B56	CNMP431 KC5410.....	B56	CPGT2150LF KC5025.....	B206	CPMT21505FP KCK20.....	B206

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CPMT2151FP KCM25	B206	CPMT3251LF KCP10	B207	CRGPR204DV	B169, B387	CTFPR164C	B181, B381
CPMT2151FP KCP10	B206	CPMT3251LF KCP10B	B207	CS412	B168-169, B386-387	CTFPR164D	B181, B381
CPMT2151FP KCP25	B206	CPMT3251LF KCP25	B207	CSDNN124	B374	CTFPR204D	B181, B381
CPMT2151FP KCP25B	B206	CPMT3251LF KCP25B	B207	CSDNN164	B374	CTFPR20CA4	B186, B397
CPMT2151FP KCU10	B206	CPMT3251LF KCP30	B207	CSDNN164DMX5	B383	CTFPR854D	B181, B381
CPMT2151FP KCU25	B206	CPMT3251LF KT315	B207	CSDPN103	B172, B376	CTGNR164	B375
CPMT2151FP KTP10	B206	CPMT3251MW KCU10	B208	CSDPN124	B172, B376	CTGPL102B	B182, B382
CPMT2151FW KC5010	B206	CPMT3251UF KC5010	B208	CSDPN164	B172, B376	CTGPL123B	B182, B382
CPMT2151FW KCK20	B206	CPMT3251UF KCP25	B208	CSDPN644	B172, B376	CTGPL163C	B182, B382
CPMT2151FW KCU10	B206	CPMT3251UF KCP25B	B208	CSDPN856	B172, B376	CTGPL163D	B182, B382
CPMT2151FW KT315	B206	CPMT3252FP KCM25	B206	CSKNL164DMX5	B384	CTGPL164D	B182, B382
CPMT2151LF K313	B207	CPMT3252FP KCP10	B206	CSKNR164DMX5	B384	CTGPL204D	B182, B382
CPMT2151LF K68	B207	CPMT3252FP KCP25B	B206	CSKNR856	B375	CTGPR082B	B182, B382
CPMT2151LF KC5010	B207	CPMT3252FP KCU10	B206	CSKPL164D	B172, B377	CTGPR102B	B182, B382
CPMT2151LF KC5025	B207	CPMT3252FP KCU25	B206	CSKPR12CA4	B174, B394	CTGPR123A	B182, B382
CPMT2151LF KCK05	B207	CPMT3252FP KTP10	B206	CSKPR164D	B172, B377	CTGPR123B	B182, B382
CPMT2151LF KCK15	B207	CPMT3252FW KC5010	B206	CSRPL124B	B173, B377	CTGPR12CA3	B187, B398
CPMT2151LF KCK15B	B207	CPMT3252FW KCK20	B206	CSRPL164D	B173, B377	CTGPR163C	B182, B382
CPMT2151LF KCK20	B207	CPMT3252FW KCP25	B206	CSRPL856D	B173, B377	CTGPR163D	B182, B382
CPMT2151LF KCM15	B207	CPMT3252FW KCU10	B206	CSRPL866E	B173, B377	CTGPR164C	B182, B382
CPMT2151LF KCM25	B207	CPMT3252FW KT315	B206	CSRPR10CA3	B175, B395	CTGPR164D	B182, B382
CPMT2151LF KCP10	B207	CPMT3252LF K68	B207	CSRPR164D	B173, B377	CTGPR204D	B182, B382
CPMT2151LF KCP10B	B207	CPMT3252LF KC5010	B207	CSRPR866E	B173, B377	CV40BDL10162	053
CPMT2151LF KCP25	B207	CPMT3252LF KC5025	B207	CSSPL10CA3	B176, B396	CV40BDL12162	053
CPMT2151LF KCP25B	B207	CPMT3252LF KCK05	B207	CSSPL164D	B173, B378	CV40BDL16200	053
CPMT2151LF KT315	B207	CPMT3252LF KCK15	B207	CSSPL854D	B173, B378	CV40BDL20200	053
CPMT2151UF KC5010	B208	CPMT3252LF KCK15B	B207	CSSPL856D	B173, B378	CV40BDL25225	053
CPMT2151UF KCP10B	B208	CPMT3252LF KCK20	B207	CSSPR10CA3	B176, B396	CV40BDL32250	053
CPMT2151UF KCP25	B208	CPMT3252LF KCK20B	B207	CSSPR164D	B173, B378	CV40BKR32157	K91
CPMT2151UF KCP25B	B208	CPMT3252LF KCM15	B207	CSSPR854D	B173, B378	CV40BKR50236	K91
CPMT2152FP KCM25	B206	CPMT3252LF KCM25	B207	CSWM 035 040	B217, B220, B222-223	CV40BSIF80248	K48
CPMT2152FP KTP10	B206	CPMT3252LF KCP10	B207	CSWM 040 050	B217-223, B245, B276-278	CV40FBHM1691	K134
CPMT2152FW KC5010	B206	CPMT3252LF KCP10B	B207	CSWM 060 050	B72-74, B94, B115-119, B140-142, B174-176, B186-187, B198, B217, B220, B236-237, B245, B249-251, B254-255, B276-279, B394-398, C196, D41	CV40FBHM1691	K127, K131
CPMT2152FW KCK20	B206	CPMT3252LF KCP25	B207			CV50BHTS13M295	J90
CPMT2152FW KCP25	B206	CPMT3252LF KCP25B	B207			CV50BHTS16M295	J90
CPMT2152FW KCU10	B206	CPMT3252LF KCP30	B207			CV50BHTS22M295	J90
CPMT2152FW KT315	B206	CPMT3252LF KT315	B207			CV50BHTS27M295	J90
CPMT2152LF K313	B207	CPMT3252MF KCK15	B207			CV50BHTS32M314	J90
CPMT2152LF KC5010	B207	CPMT3252MF KCK15B	B207			CV50BHTS40M314	J90
CPMT2152LF KC5025	B207	CPMT3252MF KCK20	B207			CV50BHTS50M314	J90
CPMT2152LF KCK05	B207	CPMT3252MF KCK20B	B207			CV50BKR32157	K91
CPMT2152LF KCK15	B207	CPMT3252MF KCM15	B207			CV50BKR50157	K91
CPMT2152LF KCM25	B207	CPMT3252MF KCM15B	B207			CV50BKR63236	K91
CPMT2152LF KCP10	B207	CPMT3252MF KCM25	B207			CV50BKR80275	K91
CPMT2152LF KCP25	B207	CPMT3252MF KCM25B	B207			CV50BSIF100236	K48
CPMT2152LF KCP25B	B207	CPMT3252MF KCM35	B207			CV50BSIF70236	K48
CPMT2152LF KCP30	B207	CPMT3252MF KCP10	B207			CV50BT13069	K142
CPMT2152LF KT315	B207	CPMT3252MF KCP10B	B207			CV50RMHTS13M394	J90
CPMT2152MF KCK15	B207	CPMT3252MF KCP25	B207			CV50RMHTS16M394	J90
CPMT2152MF KCK20	B207	CPMT3252MF KCP25B	B207			CV50RMHTS22M394	J90
CPMT2152MF KCK20B	B207	CPMT3252MP KCK20	B207			CV50RMHTS27M394	J90
CPMT2152MF KCM15B	B207	CPMT3252MP KCM25	B207			CV50RMHTS32M394	J90
CPMT2152MF KCM25B	B207	CPMT3252MP KCM25B	B207			CV50RMHTS40M413	J90
CPMT2152MF KCP10B	B207	CPMT3252MP KCP10	B207			CV50RMHTS50M413	J90
CPMT2152MF KCP25B	B207	CPMT3252MP KCP25	B207			CW16	S30-31
CPMT2152MP KCP25B	B207	CPMT3252MP KCP25B	B207			CWLN164DMX5	B384
CPMT2152MP KCU10	B207	CPMT3252MP KCP25B	B207			CWLN204DMX5	B384
CPMT32505FP KCM25	B206	CPMT3252MW KC5010	B208			CWLN204DMX5	B384
CPMT32505FP KCU10	B206	CPMT3252MW KCK20	B208			CWLN204DMX5	B384
CPMT32505LF KC5010	B207	CPMT3252MW KCK20B	B208			CWLN204DMX5	B384
CPMT32505LF KT315	B207	CPMT3252MW KCP25	B208			CWLN204DMX5	B384
CPMT3251FP KCM15	B206	CPMT3253MF KCM25B	B207			CX0125MTN4-C SP4060	P84
CPMT3251FP KCM25	B206	CPMT3253MF KCP25	B207			CX0187MTN4-C SP4060	P84
CPMT3251FP KCP10	B206	CRDPN162DV	B168, B386			CX0250MN4-C SP4060	P84
CPMT3251FP KCP25B	B206	CRDPN163DV	B168, B386			CX0375MN4-C SP4060	P84
CPMT3251FP KCU10	B206	CRDPN164DV	B168, B386			CX0375MN4-C SP4060	P84
CPMT3251FP KCU25	B206	CRDPN203DV	B168, B386			CX0500MN4-C SP4060	P84
CPMT3251FW KC5010	B206	CRDPN204DV	B168, B386			CX0750MN4-C SP4060	P84
CPMT3251FW KCK20B	B206	CRGNL123	B373			CX0750MN4-C SP4060	P84
CPMT3251FW KCP25	B206	CRGNL163	B373			CX0750MN4-E SP4060	P85
CPMT3251FW KT315	B206	CRGNL164	B373			CX0750MN4-E SP4060	P85
CPMT3251LF KC5010	B207	CRGNLP204D	B374			CX0750MN4-E SP4060	P85
CPMT3251LF KC5025	B207	CRGNR123	B373			CX0750MN4-E SP4060	P85
CPMT3251LF KCK05	B207	CRGNR163	B373			CX0750MN4-E SP4060	P85
CPMT3251LF KCK15B	B207	CRGNR164	B373			CX0750MN4-E SP4060	P85
CPMT3251LF KCK20	B207	CRGNR244F	B373			CX0750MN4-E SP4060	P85
CPMT3251LF KCK20B	B207	CRGNRP163D	B374			CX0750MN4-E SP4060	P85
CPMT3251LF KCM15	B207	CRGNRP164D	B374			CX0750MN4-E SP4060	P85
CPMT3251LF KCM15B	B207	CRGNRP204D	B374			CX0750MN4-E SP4060	P85
CPMT3251LF KCM25	B207	CRGPL162DV	B169, B387			CX0750MN4-E SP4060	P85
CPMT3251LF KCM25B	B207	CRGPL203DV	B169, B387			CX0750MN4-E SP4060	P85
CPMT3251LF KCP05	B207	CRGPR162DV	B169, B387			CX0750MN4-E SP4060	P85

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
CXER0750NN4-L SP4060	P85	DCGT21505HP KCU10	B224	DCLNL165CKC4	B59	DCMT3251FP KCP25	B225
CXER1000NN4-C SP4060	P85	DCGT21505HP KCU25	B224	DCLNL165DKC4	B59	DCMT3251FP KCP25B	B225
CXER1000NN4-F SP4060	P85	DCGT2150LF KC5010	B224	DCLNL204DKC3	B59	DCMT3251FP KCU10	B225
CXER1000NN4-L SP4060	P85	DCGT2150LF KC5025	B224	DCLNL205DKC4	B59	DCMT3251FP KCU25	B225
D16TTB16	B409	DCGT2150LF KCU10	B224	DCLNL206DKC4	B59	DCMT3251FP KTP10	B225
D20TTB18	B409	DCGT2151HP K313	B224	DCLNL244DKC3	B59	DCMT3251FW KC5010	B225
D24TTB21	B409	DCGT2151HP KC5010	B224	DCLNL245DKC4	B59	DCMT3251FW KCK20	B225
D28TTB25	B409	DCGT2151HP KC5025	B224	DCLNL246DKC4	B59	DCMT3251FW KCP25	B225
D28TTB26KM40	B410	DCGT2151HP KC5410	B224	DCLNR123BK3	B59	DCMT3251FW KCU10	B225
D2FX110403LHP KCU10	E9	DCGT2151HP KCU10	B224	DCLNR124BK3	B59	DCMT3251LF K313	B225
D2FX110403RHP KCP25	E9	DCGT2151HP KCU25	B224	DCLNR163DKC3	B59	DCMT3251LF KC5010	B225
D2FX110403RHP KCU10	E9	DCGT2152HP KC5010	B224	DCLNR164CKC3	B59	DCMT3251LF KC5025	B225
D2FX110404RHP KCU25	E9	DCGT2152HP KC5025	B224	DCLNR164DKC3	B59	DCMT3251LF KCK05	B225
D2FX110405LMN KCP25	E9	DCGT2152HP KC5410	B224	DCLNR165CKC4	B59	DCMT3251LF KCK15	B225
D2FX110405LMN KCP40	E9	DCGT2152HP KCU10	B224	DCLNR165DKC4	B59	DCMT3251LF KCK20	B225
D2FX110405RMIN KCP25	E9	DCGT2150LF KC5025	B224	DCLNR166DKC4	B59	DCMT3251LF KCK20B	B225
D2FX110405RMIN KCP40	E9	DCGT32505HP K313	B224	DCLNR204DKC3	B59	DCMT3251LF KCM15	B225
D2FX150503LHP KCU10	E9	DCGT32505HP KC5010	B224	DCLNR205DKC4	B59	DCMT3251LF KCM15B	B225
D2FX150503LMS KCU10	E10	DCGT32505HP KC5025	B224	DCLNR206DKC4	B59	DCMT3251LF KCM25	B225
D2FX150503RHP KCP25	E9	DCGT32505HP KC5410	B224	DCLNR244DKC3	B59	DCMT3251LF KCM25B	B225
D2FX150503RHP KCU10	E9	DCGT32505HP KCU10	B224	DCLNR245DKC4	B59	DCMT3251LF KCP05	B225
D2FX150503RMIN KCP25	E9	DCGT32505HP KCU25	B224	DCLNR246DKC4	B59	DCMT3251FP KCP10B	B225
D2FX150503RMIN KCU10	E10	DCGT3250LF KC5010	B224	DCMT2150511 KT315	B224	DCMT3251FP KCP10B	B225
D2FX150504RHP KCU10	E9	DCGT3250LF KC5025	B224	DCMT21505FP KCM25	B225	DCMT3251FP KCP25	B225
D2FX150504RHP KCU25	E9	DCGT3250LF KCU10	B224	DCMT21505FP KCP25B	B225	DCMT3251FP KCP25B	B225
D2FX150504RMIN KCP25	E9	DCGT3251HP K313	B224	DCMT21505FP KCU10	B225	DCMT3251FP KCP30	B225
D2FX150504RMIN KCU10	E10	DCGT3251HP KC5010	B224	DCMT21505FP KTP10	B225	DCMT3251FP K315	B225
D2FX150505LMS KCU10	E10	DCGT3251HP KC5025	B224	DCMT21505LF K313	B225	DCMT3251MF KCK15	B226
D2FX150505LRN KCP25	E10	DCGT3251HP KC5410	B224	DCMT21505LF KC5010	B225	DCMT3251MF KCK20	B226
D2FX150505RFN KCP25	E10	DCGT3251HP KCU10	B224	DCMT21505LF KC5025	B225	DCMT3251MF KCM15	B226
D2FX150505RFN KCU10	E10	DCGT3252HP K313	B224	DCMT215111 KT315	B224	DCMT3251MF KCM25	B226
D2FX150505RMIN KCP10	E9	DCGT3252HP K313	B224	DCMT2151FP KCM15	B225	DCMT3251MF KCM25B	B226
D2FX150505RMIN KCP25	E9	DCGT3252HP KC5010	B224	DCMT2151FP KCM25	B225	DCMT3251MF KCP10	B226
D2FX150505RMIN KCP40	E9	DCGT3252HP KC5025	B224	DCMT2151FP KCM25B	B225	DCMT3251MF KCP10B	B226
D2FX150505RMIN KCU10	E10	DCGT3252HP KC5410	B224	DCMT2151FP KCP10	B225	DCMT3251MF KCP25	B226
D2FX150505RRN KCP10	E10	DCGT3252HP KCU10	B224	DCMT2151FP KCP25	B225	DCMT3251MF KCP25B	B226
D2FX150505RRN KCP40	E10	DCGT3252HP KCU25	B224	DCMT2151FP KCU10	B225	DCMT3251MF KCP30	B226
D2FX150508LHP KCU10	E9	DCGT325XOLF KC5025	B224	DCMT2151FP KCU25	B225	DCMT3251MP KCP10	B226
D2FX150508LMN KCP25	E9	DCGT432LF KC5010	B224	DCMT2151LF K313	B225	DCMT3251MP KCP25	B226
D2FX150508RHP KCU10	E9	DCGT432LF KCU10	B224	DCMT2151LF KC5010	B225	DCMT3251MP KCU10	B226
D2FX150508RHP KCU25	E9	DGGW21505S0415C KB5630	B311, B332	DCMT2151LF KC5025	B225	DCMT3251MW KCU10	B226
D2FX150508RMIN KCP25	E9	DGGW21505S0415MT KBH10	B332	DCMT2151LF KCK15B	B225	DCMT3251UF KC5010	B226
D315CFA	S31	DGGW21505S0525MT KBH20	B332	DCMT2151LF KCK20	B225	DCMT3251UF KCP05	B226
D32TTB28	B409	DGGW2151FST KD1400	B364	DCMT2151LF KCM15	B225	DCMT3251UF KCP10B	B226
D32TTB29KM40	B410	DGGW2151FST KD1425	B364	DCMT2151LF KCM15B	B225	DCMT3251UF KCP25B	B226
D355CFA	S31	DGGW2151S0415C KB5630	B311, B332	DCMT2151LF KCM25	B225	DCMT3251UF KCP30	B226
D4007T S	V97	DGGW2151S0415MT KBH10	B332	DCMT2151LF KCM25B	B225	DCMT3252FP KCK20B	B225
D4008T S	V97-98, V102-103	DGGW2151S0415MT KBH20	B332	DCMT2151LF KCM35	B225	DCMT3252FP KCM15	B225
D400CFA	S31	DGGW2151S0525MT KBH10	B332	DCMT2151LF KCP10	B225	DCMT3252FP KCM25	B225
D4010T S	V17-19, V103, V111-112, V114	DGGW2151S0525MT KBH20	B332	DCMT2151LF KCP10B	B225	DCMT3252FP KCM25B	B225
D4012T S	V19	DGGW32505S0415MT KBH10	B332	DCMT2151LF KCP25	B225	DCMT3252FP KCP05	B225
D40TTB35	B409	DGGW32505S0525MT KBH20	B332	DCMT2151LF KCP25B	B225	DCMT3252FP KCP10	B225
D40TTB36KM40	B410	DGGW3251FST KD1400	B364	DCMT2151LF KCP30	B225	DCMT3252FP KCP10B	B225
D48TTB42	B409	DGGW3251FST KD1425	B364	DCMT2151LF K315	B225	DCMT3252FP KCP25	B225
D48TTB45KM63	B410	DGGW3251S0415MT KB1345	B312	DCMT2151UF KC5010	B226	DCMT3252FP KCU10	B225
D4FX140603RMIN KCP10	E11	DGGW3251S0415MT KB5630	B312, B332	DCMT2151UF KCP25	B226	DCMT3252FP KCU25	B225
D4FX140603RMIN KCP25	E11	DGGW3251S0415MT KBH10	B332	DCMT2152FP KCM25	B225	DCMT3252FP KTP10	B225
D4FX140604RMIN KCP40	E11	DGGW3251S0415MT KBH20	B332	DCMT2152FP KCM25B	B225	DCMT3252PW KCP25	B225
D4FX140604RMIN KCU25	E11	DGGW3251S0525MT KBH10	B332	DCMT2152FP KCP05	B225	DCMT3252PW KCU10	B225
D4FX140605RMIN KCP10	E11	DGGW3251S0525MT KBH20	B332	DCMT2152FP KCP25	B225	DCMT3252PW KT315	B225
D4FX140605RMIN KCP25	E11	DGGW3252S0415FWMT KBH10	B332	DCMT2152FP KCP25B	B225	DCMT3252LF K313	B225
D4FX140608LMN KCP25	E11	DGGW3252S0415FWMT KBH20	B332	DCMT2152FP KCU10	B225	DCMT3252LF KC5010	B225
D4FX140608RMIN KCP10	E11	DGGW3252S0415MT KB1345	B312	DCMT32505FP KCM25	B225	DCMT3252LF KC5025	B225
D4FX140608RMIN KCP25	E11	DGGW3252S0415MT KB5630	B312, B332	DCMT32505FP KCM25B	B225	DCMT3252LF KCK05	B225
D4FX140608RMIN KCU10	E11	DGGW3252S0415MT KBH10	B332	DCMT32505FP KCP10B	B225	DCMT3252LF KCK15	B225
D4FX140608RMIN KCU25	E11	DGGW3252S0415MT KBH20	B332	DCMT32505FP KCP25	B225	DCMT3252LF KCK15B	B225
D500CFA	S31	DGGW3252S0525FWMT KBH10	B332	DCMT32505FP KCP25B	B225	DCMT3252LF KCK20	B225
D5013T S	V111-112, V114	DGGW3252S0525MT KBH10	B332	DCMT32505FP KCU10	B225	DCMT3252LF KCK20B	B225
D5420W	B407	DGGW3252S0525MT KBH20	B332	DCMT32505FP KCU25	B225	DCMT3252LF KCM15	B225
D5424W	B407	DCKNL164DKC3	B58	DCMT32505FP KTP10	B225	DCMT3252LF KCM15B	B225
D5428W	B407	DCKNL204DKC3	B58	DCMT32505LF KC5010	B225	DCMT3252LF KCM25	B225
D5432W	B407	DCKNR124BK3	B58	DCMT32505LF KC5025	B225	DCMT3252LF KCM25B	B225
D5440W	B407	DCKNR164CKC3	B58	DCMT32505LF KT315	B225	DCMT3252LF KCP10	B225
D6014T S	V112	DCKNR164DKC3	B58	DCMT32505UF KC5010	B226	DCMT3252LF KCP10B	B225
D6018S S	V112	DCKNR204DKC3	B58	DCMT32505UF KCP05	B226	DCMT3252LF KCP25	B225
D64TTB56	B409	DCKNR205DKC4	B58	DCMT325111 KT315	B224	DCMT3252LF KCP25B	B225
D64TTB58KM63	B410	DCKNR206DKC4	B58	DCMT3251FP KCM15	B225	DCMT3252LF KCU10	B225
D6GM3251S0525MTBC1 KBH20	B331	DCLNL123BK3	B59	DCMT3251FP KCM25	B225	DCMT3252LF KT315	B225
DCGT21505HP K313	B224	DCLNL124BK3	B59	DCMT3251FP KCM25B	B225	DCMT3252MF KCK15	B226
DCGT21505HP KC5010	B224	DCLNL163DKC3	B59	DCMT3251FP KCP05	B225	DCMT3252MF KCK20	B226
DCGT21505HP KC5025	B224	DCLNL164CKC3	B59	DCMT3251FP KCP10	B225	DCMT3252MF KCM15	B226
DCGT21505HP KC5410	B224	DCLNL164DKC3	B59	DCMT3251FP KCP10B	B225	DCMT3252MF KCM15B	B226

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
DCMT3252MF KCM25	B226	DDQNR204DKC3	B88	DFR0703R3SSF100	J14	DFR190R2WD32M	J10
DCMT3252MF KCM35	B226	DFC040310D28DS KCJ40	H114	DFR0703R4SSF100	J15	DFR190R3WD25M	J11
DCMT3252MF KCP10	B226	DFC040310D28HP KCJ25	H114	DFR0734R3SSF075	J14	DFR190R3WD32M	J11
DCMT3252MF KCP10B	B226	DFC040310D28HP KCJ40	H114	DFR0734R3SSF100	J14	DFR190R4WD32M	J12
DCMT3252MF KCP25	B226	DFC040310D28MD KC7140	H114	DFR0734R4SSF100	J15	DFR195R2WD32M	J10
DCMT3252MF KCP25B	B226	DFC05T312D32DS KCJ40	H114	DFR0750R2SSF100	J13	DFR195R3WD25M	J11
DCMT3252MF KCP30	B226	DFC05T312D32HP KCJ25	H114	DFR0750R3SSF075	J14	DFR195R3WD32M	J11
DCMT3252MP KCK20	B226	DFC05T312D32HP KCJ40	H114	DFR0750R3SSF100	J14	DFR195R4WD32M	J12
DCMT3252MP KCK20B	B226	DFC05T312D32MD KC7140	H114	DFR0750R4SSF100	J15	DFR200R2WD32M	J10
DCMT3252MP KCM15	B226	DFC06T312D36DS KCJ40	H114	DFR0781R3SSF075	J14	DFR200R3WD25M	J11
DCMT3252MP KCM25	B226	DFC06T312D36HP KCJ25	H114	DFR0781R3SSF100	J14	DFR200R3WD32M	J11
DCMT3252MP KCM25B	B226	DFC06T312D36HP KCJ40	H114	DFR0781R4SSF100	J15	DFR200R4WD32M	J12
DCMT3252MP KCP10	B226	DFC06T312D36MD KC7140	H114	DFR0813R2SSF100	J13	DFR205R2WD32M	J10
DCMT3252MP KCP25	B226	DFC070416D45DS KCJ40	H114	DFR0813R3SSF075	J14	DFR205R3WD25M	J11
DCMT3252MP KCP25B	B226	DFC070416D45HP KCJ25	H114	DFR0813R3SSF100	J14	DFR205R3WD32M	J11
DCMT3252MP KCU10	B226	DFC070416D45HP KCJ40	H114	DFR0813R4SSF100	J15	DFR205R4WD32M	J12
DCMT3252MP KCU25	B226	DFC070416D45MD KC7140	H114	DFR0844R3SSF075	J14	DFR210R2WD32M	J10
DCMT3252MF KC5010	B226	DFC090520D56DS KCJ40	H114	DFR0844R3SSF100	J14	DFR210R3WD25M	J11
DCMT3252MF KCP05	B226	DFC090520D56HP KCJ25	H114	DFR0844R4SSF100	J15	DFR210R3WD32M	J11
DCMT3252MF KCP10	B226	DFC090520D56HP KCJ40	H114	DFR0875R2SSF100	J13	DFR210R4WD32M	J12
DCMT3252MF KCP10B	B226	DFC090520D56MD KC7140	H114	DFR0875R3SSF075	J14	DFR220R2WD32M	J10
DCMT3252MF KCP25	B226	DFR020204GD KC7140	J97	DFR0875R3SSF100	J14	DFR220R3WD25M	J11
DCMT3253FP KCP10	B225	DFR020204GD KCPK10	J97	DFR0875R4SSF100	J15	DFR220R3WD32M	J11
DCMT3253LF KC5010	B225	DFR020204GD KCJ25	J97	DFR0906R3SSF100	J15	DFR220R4WD32M	J12
DCMT3253LF KCP10	B225	DFR020204GD KCJ40	J97	DFR0906R4SSF100	J15	DFR230R2WD32M	J10
DCMT3253LF KCP10B	B225	DFR020204LD KC7140	J97	DFR0938R2SSF100	J13	DFR230R3WD25M	J11
DCMT3253LF KCP25	B225	DFR020204LD KCPK10	J97	DFR0938R3SSF100	J14	DFR230R3WD32M	J11
DCMT3253MF KCK15	B226	DFR020204LD KCJ25	J97	DFR0938R4SSF100	J15	DFR230R4WD32M	J12
DCMT3253MF KCK20	B226	DFR020204LD KCJ40	J97	DFR0969R3SSF100	J14	DFR240R2WD32M	J10
DCMT3253MF KCK20B	B226	DFR020204MD KC7140	J97	DFR0969R4SSF100	J15	DFR240R3WD25M	J11
DCMT3253MF KCP10	B226	DFR020204MD KCJ25	J97	DFR0984R3SSF100	J14	DFR240R3WD32M	J11
DCMT3253MF KCP10B	B226	DFR020204MD KCJ40	J97	DFR0984R4SSF100	J15	DFR240R4WD32M	J12
DCMT3253MF KCP25	B226	DFR030204GD KC7140	J97	DFR1000R2SSF100	J13	DFSP0563R2SSF075	J32
DCMT3253MF KCP25B	B226	DFR030204GD KCPK10	J97	DFR1000R3SSF100	J14	DFSP0563R3SSF075	J34
DCMT3253MF KCU10	B226	DFR030204GD KCJ25	J97	DFR1000R3SSF125	J14	DFSP0594R2SSF075	J32
DCMT431FP KCM25	B225	DFR030204GD KCJ40	J97	DFR1000R4SSF100	J15	DFSP0594R3SSF075	J34
DCMT431FP KCP10	B225	DFR030204LD KC7140	J97	DFR1000R4SSF125	J15	DFSP0625R2SSF075	J32
DCMT431LF KC5010	B225	DFR030204LD KCPK10	J97	DFR125R2WD20M	J10	DFSP0625R3SSF075	J34
DCMT431LF KC5025	B225	DFR030204LD KCJ25	J97	DFR125R3WD20M	J11	DFSP0656R2SSF075	J32
DCMT431LF KCP10	B225	DFR030204LD KCJ40	J97	DFR125R4WD20M	J12	DFSP0656R3SSF075	J34
DCMT431LF KCP25B	B225	DFR030204MD KC7140	J97	DFR127R2WD20M	J10	DFSP0688R2SSF075	J32-33
DCMT432FP KCM25	B225	DFR030204MD KCJ25	J97	DFR127R3WD20M	J11	DFR127R3WD20M	J34-35
DCMT432FP KCP05	B225	DFR030204MD KCJ40	J97	DFR127R4WD20M	J12	DFSP0703R2SSF075	J32
DCMT432FP KCU10	B225	DFR040304D28GD KCJ25	H113	DFR130R2WD20M	J10	DFSP0703R3SSF075	J34
DCMT432LF KC5010	B225	DFR040304D28GD KCJ40	H113	DFR130R3WD20M	J11	DFSP0734R2SSF075	J32
DCMT432LF KC5025	B225	DFR040304D28LD KC7225	H113	DFR130R4WD20M	J12	DFSP0734R3SSF075	J34
DCMT432LF KCK20	B225	DFR040304D28MD KC7140	H113, J97	DFR135R2WD20M	J10	DFSP0750R2SSF100	J32
DCMT432LF KCK20B	B225	DFR040304GD KC7140	J97	DFR135R3WD20M	J11	DFSP0750R3SSF100	J34
DCMT432LF KCP10	B225	DFR040304GD KCPK10	J97	DFR135R4WD20M	J12	DFSP0750R4SSF100	J36
DCMT432LF KCP10B	B225	DFR040304LD KCJ25	J97	DFR140R2WD20M	J10	DFSP0781R2SSF100	J32
DCMT432LF KCP25	B225	DFR040304LD KCJ40	J97	DFR140R3WD20M	J11	DFSP0781R3SSF100	J34
DCMT432LF KCP25B	B225	DFR040304LD KC7140	J97	DFR140R4WD20M	J12	DFSP0781R4SSF100	J36
DCRNL164DKC3	B60	DFR040304LD KCPK10	J97	DFR145R2WD20M	J10	DFSP0813R2SSF100	J32
DCRNL204DKC3	B60	DFR040304LD KCJ25	J97	DFR145R3WD20M	J11	DFSP0813R3SSF100	J34
DCRNR124BK3	B60	DFR040304LD KCJ40	J97	DFR145R4WD20M	J12	DFSP0813R4SSF100	J36
DCRNR164DK3	B60	DFR040304MD KC7140	J97	DFR150R2WD20M	J10	DFSP0813R5SSF100	J38
DCRNR204DK3	B60	DFR040304MD KCJ25	J97	DFR150R3WD20M	J11	DFSP0844R2SSF100	J32-33
DCRNR206DK4	B60	DFR040304MD KCJ40	J97	DFR150R4WD20M	J12	DFSP0844R3SSF100	J34-35
DCRNR245DK4	B60	DFR040304ST KD1425	J98	DFR155R2WD20M	J10	DFSP0844R4SSF100	J36-37
DDJNL123BK3	B87	DFR0500R2SSF075	J13	DFR155R3WD20M	J11	DFSP0844R5SSF100	J38-39
DDJNL163CK3	B87	DFR0500R3SSF075	J14	DFR155R4WD20M	J12	DFSP0875R2SSF100	J32
DDJNL163DK3	B87	DFR0500R4SSF075	J15	DFR160R2WD20M	J10	DFSP0875R3SSF100	J34
DDJNL164CK3	B87	DFR0531R3SSF075	J14	DFR160R3WD20M	J11	DFSP0875R4SSF100	J36
DDJNL164DK3	B87	DFR0531R4SSF075	J15	DFR160R4WD20M	J12	DFSP0875R5SSF100	J38
DDJNL165DK4	B87	DFR0563R2SSF075	J13	DFR165R2WD32M	J10	DFSP0906R2SSF100	J32
DDJNL204DK3	B87	DFR0563R3SSF075	J14	DFR165R3WD32M	J11	DFSP0906R3SSF100	J34
DDJNL205DK4	B87	DFR0563R4SSF075	J15	DFR165R4WD32M	J12	DFSP0906R4SSF100	J36
DDJNR123BK3	B87	DFR0594R3SSF075	J14	DFR170R2WD32M	J10	DFSP0906R5SSF100	J38
DDJNR163CK3	B87	DFR0594R4SSF075	J15	DFR170R3WD32M	J11	DFSP0938R2SSF100	J32
DDJNR163DK3	B87	DFR0625R2SSF075	J13	DFR170R4WD32M	J12	DFSP0938R3SSF100	J34
DDJNR164CK3	B87	DFR0625R3SSF075	J14	DFR175R2WD32M	J10	DFSP0938R4SSF100	J36
DDJNR164DK3	B87	DFR0625R3SSF100	J14	DFR175R3WD25M	J11	DFSP0938R5SSF100	J38
DDJNR165DK4	B87	DFR0625R4SSF075	J15	DFR175R3WD32M	J11	DFSP0969R2SSF100	J32
DDJNR203DK3	B87	DFR0625R4SSF100	J15	DFR175R4WD32M	J12	DFSP0969R3SSF100	J34
DDJNR204DK3	B87	DFR0656R3SSF075	J14	DFR180R2WD32M	J10	DFSP0969R4SSF100	J36
DDJNR245DK4	B87	DFR0656R3SSF100	J14	DFR180R3WD25M	J11	DFSP0969R5SSF100	J38
DDPNV164DK3	B88	DFR0656R4SSF100	J15	DFR180R3WD32M	J11	DFSP0984R2SSF100	J32
DDQNL164CK3	B88	DFR0688R2SSF075	J13	DFR180R4WD32M	J12	DFSP0984R3SSF100	J34
DDQNL164DK3	B88	DFR0688R3SSF075	J14	DFR185R2WD32M	J10	DFSP0984R4SSF100	J36
DDQNL204DK3	B88	DFR0688R3SSF100	J14	DFR185R3WD25M	J11	DFSP0984R5SSF100	J38
DDQNR164CK3	B88	DFR0688R4SSF100	J15	DFR185R3WD32M	J11	DFSP1000R2SSF100	J32
DDQNR164DK3	B88	DFR0703R3SSF075	J14	DFR185R4WD32M	J12	DFSP1000R2SSF125	J32

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
DFSP1000R2SSF150.....	J32-33	DFSP150R4WD20M.....	J28	DFSP2125R4SSF200.....	J36-37	DFSP390R5WD32M.....	J30
DFSP1000R3SSF100.....	J34	DFSP155R2WD20M.....	J24	DFSP2125R5SSF150.....	J38	DFSP400R2WD32M.....	J24-25
DFSP1000R3SSF125.....	J34	DFSP155R3WD20M.....	J26	DFSP2125R5SSF200.....	J38-39	DFSP400R3WD32M.....	J26-27
DFSP1000R3SSF150.....	J34-35	DFSP155R4WD20M.....	J28	DFSP220R2WD32M.....	J24	DFSP400R4WD32M.....	J28-29
DFSP1000R4SSF100.....	J36	DFSP156R2SSF125.....	J32	DFSP220R3WD32M.....	J26	DFSP400R5WD32M.....	J30-31
DFSP1000R4SSF125.....	J36	DFSP156R3R2SSF150.....	J32-33	DFSP220R4WD32M.....	J28	DFSP410R2WD32M.....	J24
DFSP1000R4SSF150.....	J36-37	DFSP156R3R3SSF150.....	J34-35	DFSP220R5WD32M.....	J30	DFSP410R3WD32M.....	J26
DFSP1000R5SSF100.....	J38	DFSP156R4SSF150.....	J36	DFSP230R2WD32M.....	J24	DFSP410R4WD32M.....	J28
DFSP1000R5SSF125.....	J38	DFSP156R5SSF150.....	J38-39	DFSP230R3WD32M.....	J26	DFSP410R5WD32M.....	J30
DFSP1000R6SSF150.....	J38-39	DFSP160R2WD20M.....	J24	DFSP230R4WD32M.....	J28	DFSP420R2WD32M.....	J25
DFSP1031R2SSF125.....	J32	DFSP160R3WD20M.....	J26	DFSP230R5WD32M.....	J30	DFSP420R3WD32M.....	J27
DFSP1031R3SSF125.....	J34	DFSP160R4WD20M.....	J28	DFSP240R2WD32M.....	J24	DFSP420R4WD32M.....	J29
DFSP1031R4SSF125.....	J36	DFSP162R2SSF125.....	J32	DFSP240R3WD32M.....	J26	DFSP420R5WD32M.....	J30
DFSP1031R5SSF125.....	J38	DFSP162R3SSF150.....	J32	DFSP240R4WD32M.....	J28	DFSP430R2WD32M.....	J25
DFSP1063R2SSF125.....	J32	DFSP162R4SSF150.....	J34	DFSP240R5WD32M.....	J30	DFSP430R3WD32M.....	J27
DFSP1063R3SSF125.....	J34	DFSP162R5R3SSF150.....	J34	DFSP250R2WD32M.....	J24-25	DFSP430R4WD32M.....	J29
DFSP1063R4SSF125.....	J36	DFSP162R5R4SSF150.....	J36-37	DFSP250R3WD32M.....	J26-27	DFSP430R5WD32M.....	J30-31
DFSP1063R5SSF125.....	J38	DFSP162R5R5SSF150.....	J38	DFSP250R4WD32M.....	J28-29	DFSP440R2WD32M.....	J25
DFSP1094R2SSF125.....	J32	DFSP165R2SSF150.....	J32	DFSP250R5WD32M.....	J30-31	DFSP440R3WD32M.....	J27
DFSP1094R3SSF125.....	J34	DFSP165R3SSF150.....	J34	DFSP260R2WD32M.....	J24	DFSP440R4WD32M.....	J29
DFSP1094R4SSF125.....	J36	DFSP165R4SSF150.....	J36-37	DFSP260R3WD32M.....	J26	DFSP440R5WD32M.....	J30
DFSP1094R5SSF125.....	J38	DFSP165R5SSF150.....	J38-39	DFSP260R4WD32M.....	J28	DFSP450R2WD40M.....	J25
DFSP1125R2SSF125.....	J32	DFSP165R2WD32M.....	J24	DFSP260R5WD32M.....	J30	DFSP450R3WD40M.....	J27
DFSP1125R3SSF125.....	J34	DFSP165R3WD32M.....	J26	DFSP265R2WD32M.....	J24	DFSP450R4WD40M.....	J29
DFSP1125R4SSF125.....	J36	DFSP165R4WD20M.....	J28	DFSP265R3WD32M.....	J26	DFSP450R5WD40M.....	J30
DFSP1125R5SSF125.....	J38	DFSP168R2SSF150.....	J32-33	DFSP265R4WD32M.....	J28	DFSP460R2WD40M.....	J25
DFSP1156R2SSF125.....	J32	DFSP168R3SSF150.....	J34-35	DFSP265R5WD32M.....	J30	DFSP460R3WD40M.....	J27
DFSP1156R3SSF125.....	J34	DFSP170R2WD32M.....	J24-25	DFSP270R2WD32M.....	J24	DFSP460R4WD40M.....	J29
DFSP1156R4SSF125.....	J36	DFSP170R3WD32M.....	J26-27	DFSP270R3WD32M.....	J26	DFSP460R5WD40M.....	J30
DFSP1156R5SSF125.....	J38	DFSP170R4WD20M.....	J28-29	DFSP270R4WD32M.....	J28	DFSP470R2WD40M.....	J25
DFSP1188R2SSF125.....	J32	DFSP1750R2SSF150.....	J32	DFSP270R5WD32M.....	J30	DFSP470R3WD40M.....	J27
DFSP1188R3SSF125.....	J34	DFSP1750R3SSF150.....	J34	DFSP280R2WD32M.....	J24	DFSP470R4WD40M.....	J29
DFSP1188R4SSF125.....	J36	DFSP1750R4SSF150.....	J36	DFSP280R3WD32M.....	J26	DFSP470R5WD40M.....	J30
DFSP1188R5SSF125.....	J38	DFSP1750R5SSF150.....	J38	DFSP280R4WD32M.....	J28	DFSP480R2WD40M.....	J25
DFSP1219R2SSF125.....	J32	DFSP175R2WD32M.....	J24	DFSP280R5WD32M.....	J30	DFSP480R3WD40M.....	J27
DFSP1219R3SSF125.....	J34	DFSP175R3WD32M.....	J26	DFSP290R2WD32M.....	J24	DFSP480R4WD40M.....	J29
DFSP1219R4SSF125.....	J36	DFSP175R4WD32M.....	J28	DFSP290R3WD32M.....	J26	DFSP480R5WD40M.....	J30-31
DFSP1219R5SSF125.....	J38	DFSP180R2WD32M.....	J24	DFSP290R4WD32M.....	J28	DFSP490R2WD40M.....	J25
DFSP1250R2SSF125.....	J32-33	DFSP180R3WD32M.....	J26	DFSP290R5WD32M.....	J30	DFSP490R3WD40M.....	J27
DFSP1250R3SSF125.....	J34	DFSP180R4WD32M.....	J28	DFSP300R2WD32M.....	J24	DFSP490R4WD40M.....	J29
DFSP1250R4SSF125.....	J36	DFSP181R3R2SSF150.....	J32	DFSP300R3WD32M.....	J26	DFSP490R5WD40M.....	J30
DFSP1250R5SSF150.....	J36-37	DFSP181R3R3SSF150.....	J34	DFSP300R4WD32M.....	J28	DFSP500R2WD40M.....	J25
DFSP1250R6SSF125.....	J38	DFSP181R3R4SSF150.....	J36	DFSP300R5WD32M.....	J30	DFSP500R3WD40M.....	J27
DFSP1250R7SSF150.....	J38-39	DFSP181R3R5SSF150.....	J38	DFSP310R2WD32M.....	J24	DFSP500R4WD40M.....	J29
DFSP1281R3SSF125.....	J34-35	DFSP185R2WD32M.....	J24	DFSP310R3WD32M.....	J26	DFSP500R5WD40M.....	J30
DFSP1313R2SSF125.....	J32	DFSP185R3WD32M.....	J26	DFSP310R4WD32M.....	J28	DFSP505R2WD40M.....	J25
DFSP1313R2SSF150.....	J32	DFSP185R4WD32M.....	J28	DFSP310R5WD32M.....	J30	DFSP505R3WD40M.....	J27
DFSP1313R3SSF125.....	J34	DFSP187R5R2SSF150.....	J32-33	DFSP320R2WD32M.....	J24-25	DFSP510R2WD40M.....	J25
DFSP1313R3SSF150.....	J34	DFSP187R5R3SSF150.....	J34-35	DFSP320R3WD32M.....	J26-27	DFSP510R3WD40M.....	J27
DFSP1313R4SSF125.....	J36	DFSP187R5R4SSF150.....	J36-37	DFSP320R4WD32M.....	J28-29	DFSP510R4WD40M.....	J29
DFSP1313R5SSF125.....	J38	DFSP187R5R5SSF150.....	J38-39	DFSP320R5WD32M.....	J30-31	DFSP510R5WD40M.....	J30
DFSP1375R2SSF125.....	J32	DFSP190R2WD32M.....	J24	DFSP330R2WD32M.....	J24	DFSP520R2WD40M.....	J25
DFSP1375R2SSF150.....	J32	DFSP190R3WD32M.....	J26	DFSP330R3WD32M.....	J26	DFSP520R3WD40M.....	J27
DFSP1375R3SSF125.....	J34	DFSP190R4WD32M.....	J28	DFSP330R4WD32M.....	J28	DFSP520R4WD40M.....	J29
DFSP1375R3SSF150.....	J34	DFSP1938R2SSF150.....	J32	DFSP330R5WD32M.....	J30	DFSP520R5WD40M.....	J30
DFSP1375R4SSF125.....	J36	DFSP1938R3SSF150.....	J34	DFSP340R2WD32M.....	J24	DFSP530R2WD40M.....	J25
DFSP1375R4SSF150.....	J36	DFSP1938R4SSF150.....	J36	DFSP340R3WD32M.....	J26	DFSP530R3WD40M.....	J27
DFSP1375R5SSF125.....	J38	DFSP1938R5SSF150.....	J38	DFSP340R4WD32M.....	J28	DFSP530R4WD40M.....	J29
DFSP1375R5SSF150.....	J38	DFSP195R2WD32M.....	J24	DFSP340R5WD32M.....	J30	DFSP530R5WD40M.....	J30
DFSP1406R4SSF150.....	J36	DFSP195R3WD32M.....	J26	DFSP350R2WD32M.....	J24	DFSP540R2WD40M.....	J25
DFSP140R2WD20M.....	J24	DFSP195R4WD32M.....	J28	DFSP350R3WD32M.....	J26	DFSP540R3WD40M.....	J27
DFSP140R3WD20M.....	J26	DFSP2000R2SSF150.....	J32	DFSP350R4WD32M.....	J28	DFSP540R4WD40M.....	J29
DFSP140R4WD20M.....	J28	DFSP2000R2SSF200.....	J32	DFSP350R5WD32M.....	J30	DFSP540R5WD40M.....	J30
DFSP1438R2SSF125.....	J32	DFSP2000R3SSF150.....	J34	DFSP360R2WD32M.....	J24	DFSP550R2WD50M.....	J25
DFSP1438R3SSF125.....	J34	DFSP2000R3SSF200.....	J34	DFSP360R3WD32M.....	J26	DFSP550R3WD50M.....	J27
DFSP1438R4SSF125.....	J36	DFSP2000R4SSF150.....	J36	DFSP360R4WD32M.....	J28	DFSP550R4WD50M.....	J29
DFSP1438R5SSF125.....	J38	DFSP2000R4SSF200.....	J36	DFSP360R5WD32M.....	J30	DFSP550R5WD50M.....	J30-31
DFSP145R2WD20M.....	J24	DFSP2000R5SSF150.....	J38	DFSP370R2WD32M.....	J24	DFT030204GD KCPK10.....	J101
DFSP145R3WD20M.....	J26	DFSP2000R5SSF200.....	J38	DFSP370R3WD32M.....	J26	DFT030204GD KCUJ25.....	J101
DFSP145R4WD20M.....	J28	DFSP200R2WD32M.....	J24	DFSP370R4WD32M.....	J28	DFT030204GD KCUJ40.....	J101
DFSP1469R2SSF125.....	J32	DFSP200R3WD32M.....	J26	DFSP370R5WD32M.....	J30	DFT030204HP KC7140.....	J101
DFSP1469R3SSF125.....	J34	DFSP200R4WD32M.....	J28	DFSP375R2WD32M.....	J24	DFT030204HP KCPK10.....	J101
DFSP1500R2SSF125.....	J32	DFSP200R5WD32M.....	J30	DFSP375R3WD32M.....	J26	DFT030204HP KCUJ25.....	J101
DFSP1500R2SSF150.....	J32	DFSP210R2WD32M.....	J24-25	DFSP375R4WD32M.....	J28	DFT030204HP KCUJ40.....	J101
DFSP1500R3SSF125.....	J34	DFSP210R3WD32M.....	J26-27	DFSP375R5WD32M.....	J30	DFT030204HP KMF.....	J101
DFSP1500R3SSF150.....	J34	DFSP210R4WD32M.....	J28-29	DFSP380R2WD32M.....	J24	DFT030204MD KC7140.....	J101
DFSP1500R4SSF125.....	J36	DFSP210R5WD32M.....	J30-31	DFSP380R3WD32M.....	J26	DFT030204MD KCUJ25.....	J101
DFSP1500R4SSF150.....	J36	DFSP2125R2SSF150.....	J32	DFSP380R4WD32M.....	J28	DFT030204MD KCUJ40.....	J101
DFSP1500R5SSF125.....	J38	DFSP2125R2SSF200.....	J32-33	DFSP380R5WD32M.....	J30	DFT030304DS KCUJ40.....	J102
DFSP1500R5SSF150.....	J38	DFSP2125R3SSF150.....	J34	DFSP390R2WD32M.....	J24	DFT030304GD KC7140.....	J101
DFSP150R2WD20M.....	J24	DFSP2125R3SSF200.....	J34-35	DFSP390R3WD32M.....	J26	DFT030304GD KCPK10.....	J101
DFSP150R3WD20M.....	J26	DFSP2125R4SSF150.....	J36	DFSP390R4WD32M.....	J28	DFT030304GD KCUJ25.....	J101

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
DFT030304GD KCJ40	J101	DFT090508D56HP KCJ40	H112	DFT1563R4SSF125	J53	DFT390R2WD32M	J48
DFT030304HP KC7140	J101	DFT090508D56MD KC7140	H113	DFT1563R4SSF150	J53	DFT390R2WD40M	J48
DFT030304HP KCPK10	J101	DFT090508D63DS KCJ40	H112	DFT1625R2SSF125	J51	DFT390R4WD40M	J50
DFT030304HP KCJ25	J101	DFT090508D63HP KCJ25	H112	DFT1625R2SSF150	J51	DFT400R2WD32M	J48
DFT030304HP KCJ40	J101	DFT090508D63HP KCJ40	H112	DFT1625R4SSF125	J53	DFT400R2WD40M	J48
DFT030304HP KMF	J101	DFT090508D63MD KC7140	H113	DFT1625R4SSF150	J53	DFT400R4WD40M	J50
DFT030304MD KC7140	J101	DFT090508DS KCJ40	J102	DFT1688R2SSF125	J51	DFT410R2WD32M	J48
DFT030304MD KCJ25	J101	DFT090508GD KC7140	J101	DFT1688R2SSF150	J51	DFT410R2WD40M	J48
DFT030304MD KCJ40	J101	DFT090508GD KCPK10	J101	DFT1688R4SSF125	J53	DFT410R4WD40M	J50
DFT05T308D32DS KCJ40	H112	DFT090508GD KCJ25	J101	DFT1688R4SSF150	J53	DFT420R2WD32M	J48
DFT05T308D32HP KCJ25	H112	DFT090508GD KCJ40	J101	DFT1750R2SSF150	J51	DFT420R2WD40M	J48
DFT05T308D32HP KCJ40	H112	DFT090508HP KC7140	J101	DFT1750R4SSF150	J51	DFT420R4WD40M	J50
DFT05T308D32MD KC7140	H113	DFT090508HP KCPK10	J101	DFT1813R2SSF150	J51	DFT430R2WD32M	J48
DFT05T308D33DS KCJ40	H112	DFT090508HP KCJ25	J101	DFT1813R4SSF150	J53	DFT430R2WD40M	J48
DFT05T308D33HP KCJ25	H112	DFT090508HP KCJ40	J101	DFT1875R2SSF150	J53	DFT430R4WD40M	J50
DFT05T308D33HP KCJ40	H112	DFT090508HP KMF	J101	DFT1875R4SSF150	J53	DFT440R2WD32M	J48
DFT05T308D33MD KC7140	H113	DFT090508MD KC7140	J101	DFT1938R2SSF150	J52	DFT440R2WD40M	J48
DFT05T308DS KCJ40	J102	DFT090508MD KCJ25	J101	DFT1938R4SSF150	J53	DFT440R4WD40M	J50
DFT05T308GD KC7140	J101	DFT090508MD KCJ40	J101	DFT2000R2SSF150	J52	DFT440R2WD40M	J48
DFT05T308GD KCPK10	J101	DFT090508ST KD1425	J98	DFT2000R4SSF200	J52	DFT450R2WD50M	J48
DFT05T308GD KCJ25	J101	DFT0906R2SSF125	J51	DFT2000R4SSF150	J53	DFT450R4WD40M	J50
DFT05T308GD KCJ40	J101	DFT0938R2SSF125	J51	DFT2125R2SSF200	J52	DFT460R2WD40M	J48
DFT05T308HP KC7140	J101	DFT0969R2SSF125	J51	DFT2125R4SSF150	J53	DFT460R2WD50M	J48
DFT05T308HP KCPK10	J101	DFT0984R2SSF125	J51	DFT2125R4SSF200	J53	DFT460R4WD40M	J50
DFT05T308HP KCJ25	J101	DFT0984R4SSF100	J53	DFT2125R4SSF150	J53	DFT470R2WD40M	J48
DFT05T308HP KCJ40	J101	DFT1000R2SSF125	J51	DFT2125R4SSF200	J53	DFT470R2WD50M	J48
DFT05T308HP KMF	J101	DFT1000R2SSF150	J51	DFT2250R2SSF200	J52	DFT470R4WD40M	J50
DFT05T308MD KC7140	J101	DFT1000R4SSF100	J53	DFT2375R2SSF200	J52	DFT480R2WD40M	J48
DFT05T308MD KCJ25	J101	DFT1000R4SSF125	J53	DFT2500R2SSF200	J52	DFT480R2WD50M	J48
DFT05T308MD KCJ40	J101	DFT1000R4SSF150	J53	DFT250R2WD32M	J48	DFT480R4WD40M	J50
DFT05T308ST KD1425	J98	DFT1031R2SSF125	J51	DFT250R2WD40M	J48	DFT490R2WD40M	J48
DFT06T308D36DS KCJ40	H112	DFT1031R4SSF125	J53	DFT250R4WD32M	J50	DFT490R2WD50M	J48
DFT06T308D36HP KCJ25	H112	DFT1063R2SSF125	J51	DFT250R4WD40M	J50	DFT500R2WD40M	J48
DFT06T308D36HP KCJ40	H112	DFT1063R4SSF125	J53	DFT260R2WD32M	J48	DFT500R2WD50M	J48
DFT06T308D36MD KC7140	H113	DFT1094R2SSF125	J51	DFT260R2WD40M	J48	DFT510R2WD40M	J48
DFT06T308D39DS KCJ40	H112	DFT1094R4SSF125	J53	DFT260R4WD32M	J50	DFT510R2WD50M	J48
DFT06T308D39HP KCJ25	H112	DFT110508MD KC7140	J101	DFT260R4WD40M	J50	DFT520R2WD40M	J48
DFT06T308D39HP KCJ40	H112	DFT110508ST KD1425	J98	DFT270R2WD32M	J48	DFT520R2WD50M	J48
DFT06T308D39MD KC7140	H113	DFT1125R2SSF125	J51	DFT270R2WD40M	J48	DFT530R2WD40M	J48
DFT06T308D44DS KCJ40	H112	DFT1125R4SSF125	J53	DFT270R4WD32M	J50	DFT530R2WD50M	J48
DFT06T308D44HP KCJ25	H112	DFT1125R4SSF150	J53	DFT270R4WD40M	J50	DFT540R2WD40M	J48
DFT06T308D44HP KCJ40	H112	DFT1156R2SSF125	J51	DFT2750R2SSF200	J52	DFT540R2WD50M	J48
DFT06T308D44MD KC7140	H113	DFT1156R4SSF125	J53	DFT280R2WD32M	J48	DFT550R2WD50M	J48
DFT06T308DS KCJ40	J102	DFT1188R2SSF125	J51	DFT280R2WD40M	J48	DFT560R2WD50M	J48
DFT06T308GD KC7140	J101	DFT1188R4SSF125	J53	DFT280R4WD32M	J50	DFT570R2WD50M	J48
DFT06T308GD KCPK10	J101	DFT1219R2SSF125	J51	DFT280R4WD40M	J50	DFT580R2WD50M	J48
DFT06T308GD KCJ25	J101	DFT1219R2SSF150	J51	DFT290R2WD32M	J48	DFT590R2WD50M	J48
DFT06T308GD KCJ40	J101	DFT1219R4SSF125	J53	DFT290R2WD40M	J48	DFT600R2WD50M	J48
DFT06T308HP KC7140	J101	DFT1250R2SSF125	J51	DFT290R4WD32M	J50	DFT610R2WD50M	J49
DFT06T308HP KCPK10	J101	DFT1250R2SSF150	J51	DFT290R4WD40M	J50	DFT620R2WD50M	J49
DFT06T308HP KCJ25	J101	DFT1250R4SSF125	J53	DFT3000R2SSF200	J52	DFT630R2WD50M	J49
DFT06T308HP KCJ40	J101	DFT1281R2SSF125	J51	DFT300R2WD32M	J48	DFT640R2WD50M	J49
DFT06T308HP KMF	J101	DFT1281R2SSF150	J51	DFT300R2WD40M	J48	DFT650R2WD50M	J49
DFT06T308MD KC7140	J101	DFT1281R4SSF125	J53	DFT300R4WD32M	J50	DFT660R2WD50M	J49
DFT06T308MD KCJ25	J101	DFT1313R2SSF125	J51	DFT310R2WD32M	J48	DFT670R2WD50M	J49
DFT06T308MD KCJ40	J101	DFT1313R2SSF150	J51	DFT310R4WD32M	J50	DFT680R2WD50M	J49
DFT06T308ST KD1425	J98	DFT1313R4SSF125	J53	DFT310R4WD40M	J50	DFT690R2WD50M	J49
DFT070408D45DS KCJ40	H112	DFT1375R2SSF125	J51	DFT320R2WD32M	J48	DFT700R2WD50M	J49
DFT070408D45HP KCJ25	H112	DFT1375R2SSF150	J51	DFT320R2WD40M	J48	DFT710R2WD50M	J49
DFT070408D45HP KCJ40	H112	DFT1375R4SSF125	J53	DFT320R4WD32M	J50	DFT720R2WD50M	J49
DFT070408D45MD KC7140	H113	DFT1375R4SSF150	J53	DFT320R4WD40M	J50	DFT730R2WD50M	J49
DFT070408D50DS KCJ40	H112	DFT1406R2SSF125	J51	DFT3250R2SSF200	J52	DFT740R2WD50M	J49
DFT070408D50HP KCJ25	H112	DFT1406R2SSF150	J51	DFT330R2WD32M	J48	DFT750R2WD50M	J49
DFT070408D50MD KC7140	H113	DFT1406R4SSF125	J53	DFT330R2WD40M	J48	DFT760R2WD50M	J49
DFT070408DS KCJ40	J102	DFT1438R2SSF125	J51	DFT330R4WD32M	J48	DFT770R2WD50M	J49
DFT070408GD KC7140	J101	DFT1438R2SSF150	J51	DFT330R4WD40M	J50	DFT780R2WD50M	J49
DFT070408GD KCPK10	J101	DFT1438R4SSF125	J53	DFT340R2WD32M	J48	DFT790R2WD50M	J49
DFT070408GD KCJ25	J101	DFT1438R4SSF150	J53	DFT340R2WD40M	J48	DFT800R2WD50M	J49
DFT070408GD KCJ40	J101	DFT1469R2SSF125	J51	DFT340R4WD32M	J50	DFT810R2WD50M	J49
DFT070408HP KC7140	J101	DFT1469R2SSF150	J51	DFT350R2WD32M	J48	DFT820R2WD50M	J49
DFT070408HP KCPK10	J101	DFT1469R4SSF125	J53	DFT350R2WD40M	J48	DFTX20204DS KCJ40	J102
DFT070408HP KCJ25	J101	DFT1500R2SSF125	J51	DFT350R4WD32M	J50	DFTX20204HP KC7140	J101
DFT070408HP KCJ40	J101	DFT1500R2SSF150	J51	DFT360R2WD32M	J48	DFTX20204HP KCJ25	J101
DFT070408HP KMF	J101	DFT1500R4SSF125	J53	DFT360R2WD40M	J48	DFTX20204HP KCJ40	J101
DFT070408MD KC7140	J101	DFT1500R4SSF150	J53	DFT360R4WD32M	J50	DFTX20204MD KC7140	J101
DFT070408MD KCJ25	J101	DFT1531R2SSF125	J51	DFT370R2WD32M	J48	DFTX20204MD KCJ25	J101
DFT070408MD KCJ40	J101	DFT1531R2SSF150	J51	DFT370R2WD40M	J48	DFTX20204MD KCJ40	J101
DFT070408ST KD1425	J98	DFT1531R4SSF125	J53	DFT370R4WD32M	J50	DH35M	S39, T113
DFT0875R2SSF125	J51	DFT1531R4SSF150	J53	DFT380R2WD32M	J48	DNG451T0820 KY1615	B333
DFT090508D56DS KCJ40	H112	DFT1563R2SSF125	J51	DFT380R2WD40M	J48	DNG452T0820 KY1615	B333
DFT090508D56HP KCJ25	H112	DFT1563R2SSF150	J51	DFT380R4WD32M	J50	DNG453T0820 KY1615	B333
						DNG454T0820 KY1615	B333

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
DNGA431E KD1405.....	B364	DNGM433S0525MTCB1 KBH20.....	B334	DNMG332FF KCP05B.....	B79	DNMG431FN KCP25B.....	B79
DNGA431FST KD1400.....	B365	DNGM442S0525MTCB1 KBH20.....	B334	DNMG332FF KCP10.....	B79	DNMG431FN KT315.....	B79
DNGA431FST KD1425.....	B365	DNGM443S0525MTCB1 KBH20.....	B334	DNMG332FF KCP10B.....	B79	DNMG431FP KC5010.....	B80
DNGA431S0415MT KBH10.....	B334	DNGN120408S02020 KBK45.....	B304	DNMG332FF KCU10.....	B79	DNMG431FP KCM15.....	B80
DNGA431S0415MT KBH20.....	B334	DNGN120412S02020 KBK45.....	B304	DNMG332FF KT315.....	B79	DNMG431FP KCU10.....	B80
DNGA431S0425MT KB5630.....	B310, B334	DNGP430 KC5010.....	B77	DNMG332FN KCK05.....	B79	DNMG431FP KT315.....	B80
DNGA431S0525MT KBH20.....	B334	DNGP4305 KC5010.....	B77	DNMG332FN KCP05.....	B79	DNMG431FW KC5010.....	B80
DNGA431S0735MT KBH20.....	B334	DNGP4305 KC5410.....	B77	DNMG332FN KCP10.....	B79	DNMG431FW KCP10.....	B80
DNGA431T0820 KY1615.....	B333	DNGP4305 KCU10.....	B77	DNMG332FN KCP10B.....	B79	DNMG431FW KCU10.....	B80
DNGA432FST KD1400.....	B365	DNGP431 K313.....	B77	DNMG332FN KCP25B.....	B79	DNMG431FW KT315.....	B80
DNGA432FST KD1425.....	B365	DNGP431 KC5010.....	B77	DNMG332FN KCT315.....	B79	DNMG431MN KCP10.....	B81
DNGA432S0415FWMT KBH10.....	B333	DNGP431 KC5410.....	B77	DNMG332FP KC5010.....	B80	DNMG431MN KCP10B.....	B81
DNGA432S0415FWMT KBH20.....	B333	DNGP431 KCU10.....	B77	DNMG332FP KCM15.....	B80	DNMG431MN KCP25.....	B81
DNGA432S0415MT KBH10.....	B334	DNGP432 K313.....	B77	DNMG332FP KCP10.....	B80	DNMG431MN KCP25B.....	B81
DNGA432S0415MT KBH20.....	B334	DNGP432 KC5010.....	B77	DNMG332FP KCPK05.....	B80	DNMG431MN KCP30.....	B81
DNGA432S0420MT KB1345.....	B310	DNGP432 KC5410.....	B77	DNMG332FP KCU10.....	B80	DNMG431MP KC5010.....	B81
DNGA432S0425MT KB5630.....	B310, B334	DNGP432 KCU10.....	B77	DNMG332FP KT315.....	B80	DNMG431MP KCM15B.....	B81
DNGA432S0525FWMT KBH10.....	B333	DNGP441 K313.....	B77	DNMG332FW KCM15B.....	B80	DNMG431MP KCM25.....	B81
DNGA432S0525MT KBH10.....	B334	DNGP441 KC5410.....	B77	DNMG332FW KCP05.....	B80	DNMG431MP KCM25B.....	B81
DNGA432S0525MT KBH20.....	B334	DNGP441 KCU10.....	B77	DNMG332FW KCP10.....	B80	DNMG431MP KCM35.....	B81
DNGA432T0420 KYS30.....	B351	DNGP442 KC5010.....	B77	DNMG332FW KCP10B.....	B80	DNMG431MP KCU10.....	B81
DNGA432T0820 KY1615.....	B333	DNGP442 KCU10.....	B77	DNMG332FW KT315.....	B80	DNMG431MS K313.....	B82
DNGA432T0820 KY3500.....	B314	DNGX120708T02020 KY3500.....	B317	DNMG332MN KCP05.....	B81	DNMG431MS KC5010.....	B82
DNGA433S0415FWMT KBH20.....	B333	DNGX120712T02020 KY3500.....	B317	DNMG332MN KCP10.....	B81	DNMG431MS KC5025.....	B82
DNGA433S0415MT KBH10.....	B334	DNGX120712T02020 KYK25.....	B317	DNMG332MN KCP10B.....	B81	DNMG431MS KCU10.....	B82
DNGA433S0415MT KBH20.....	B334	DNGX120716T02020 KY3500.....	B317	DNMG332MN KCP25.....	B81	DNMG431MS KCU25.....	B82
DNGA433S0525FWMT KBH10.....	B333	DNGX452T0420 KYS25.....	B351	DNMG332MN KCP25B.....	B81	DNMG431P KC5010.....	B83
DNGA433S0525MT KBH10.....	B334	DNGX452T0820 KY1615.....	B317, B335	DNMG332MN KCP30.....	B81	DNMG431P KCU10.....	B83
DNGA433S0525MT KBH20.....	B334	DNGX452T0820 KY3500.....	B317	DNMG332MP KC5010.....	B81	DNMG431P KCM15.....	B84
DNGA433S0525MT KBH10.....	B334	DNGX453T0420 KYS25.....	B351	DNMG332MP KCM15.....	B81	DNMG431P KCM25.....	B84
DNGA433S0525MT KBH20.....	B334	DNGX453T0420 KYS30.....	B351	DNMG332MP KCM25.....	B81	DNMG431P KCU10.....	B84
DNGA433S0735MT KBH10.....	B334	DNGX453T0820 KY3500.....	B317	DNMG332MP KCM25B.....	B81	DNMG432 K68.....	B78
DNGA433T0420 KYS30.....	B351	DNGX453T0820 KYK25.....	B317	DNMG332MP KCU10.....	B81	DNMG432CT KC5010.....	B79
DNGA433T0820 KY1615.....	B333	DNGX454T0420 KYS30.....	B351	DNMG332MR KCP10B.....	B82	DNMG432CT KCP10.....	B79
DNGA433T0820 KY3500.....	B314	DNGX454T0820 KY3500.....	B317	DNMG332MR KCP25B.....	B82	DNMG432CT KCP10B.....	B79
DNGA434T0820 KYK10.....	B314	DNMA332 KCK05.....	B78	DNMG332MS KC5010.....	B82	DNMG432CT KCP25.....	B79
DNGA434T0820 KYK25.....	B314	DNMA332 KCK20B.....	B78	DNMG332MS KC5025.....	B82	DNMG432FF KC5010.....	B79
DNGA441S0415MT KBH10.....	B334	DNMA332S0820 KB1340.....	B309	DNMG332MS KCU10.....	B82	DNMG432FF KCP05.....	B79
DNGA441S0525MT KBH20.....	B334	DNMA333S0820 KB1340.....	B309	DNMG332MS KCU25.....	B82	DNMG432FF KCP10.....	B79
DNGA441S0735MT KBH20.....	B334	DNMA432 KCK05.....	B78	DNMG332MP KC5010.....	B84	DNMG432FF KCP10B.....	B79
DNGA441T0820 KY1615.....	B333	DNMA432 KCK15.....	B78	DNMG332RP KCK20B.....	B84	DNMG432FF KCU10.....	B79
DNGA442S0415MT KBH10.....	B334	DNMA432 KCK20.....	B78	DNMG332RP KCM15.....	B84	DNMG432FF KT315.....	B79
DNGA442S0415MT KBH20.....	B334	DNMA432 KCK20B.....	B78	DNMG332RP KCP10.....	B84	DNMG432FN KCK05.....	B79
DNGA442S0525MT KBH10.....	B334	DNMA433 KCK05.....	B78	DNMG332RP KCP25B.....	B84	DNMG432FN KCP05.....	B79
DNGA442S0525MT KBH20.....	B334	DNMA433 KCK15.....	B78	DNMG332RP KCU10.....	B84	DNMG432FN KCP10.....	B79
DNGA442T0820 KY1615.....	B333	DNMA433 KCK20.....	B78	DNMG332RP KCU25.....	B84	DNMG432FN KCP10B.....	B79
DNGA442T0820 KY3500.....	B314	DNMA434 KCK20B.....	B78	DNMG332UN KCK15.....	B84	DNMG432FN KCP25.....	B79
DNGA443S0415MT KBH10.....	B334	DNMA442 KCK05.....	B78	DNMG332UN KCK15B.....	B84	DNMG432FN KCP25B.....	B79
DNGA443S0415MT KBH20.....	B334	DNMA442 KCK15.....	B78	DNMG332UN KCK20.....	B84	DNMG432FN KCPK05.....	B79
DNGA443S0525MT KBH10.....	B334	DNMA442 KCK20.....	B78	DNMG332UN KCM25.....	B84	DNMG432FN KT315.....	B79
DNGA443S0525MT KBH20.....	B334	DNMA443 KCK20.....	B78	DNMG332UN KCP10B.....	B79	DNMG432FN KCU10.....	B80
DNGA443T0820 KY1615.....	B333	DNMA443 KCK20B.....	B78	DNMG333FN KCP05.....	B79	DNMG432FP KCM15.....	B80
DNGA443T0820 KY3500.....	B314	DNMG331 33 KT315.....	B78	DNMG333FN KCP10B.....	B79	DNMG432FP KCP10.....	B80
DNGA443S0415MT KBH10.....	B334	DNMG331FF KC5010.....	B79	DNMG333MN KCP10.....	B81	DNMG432FP KCP25.....	B80
DNGA443S0415MT KBH20.....	B334	DNMG331FF KCP05.....	B79	DNMG333MN KCP25.....	B81	DNMG432FP KCU10.....	B80
DNGA443S0525MT KBH10.....	B334	DNMG331FF KCP10.....	B79	DNMG333MN KCP25B.....	B81	DNMG432FP KT315.....	B80
DNGA443S0525MT KBH20.....	B334	DNMG331FF KCU10.....	B79	DNMG333MP KCM15.....	B81	DNMG432FW KCK15B.....	B80
DNGA443T0820 KY1615.....	B333	DNMG331FF KT315.....	B79	DNMG333MP KCM25B.....	B81	DNMG432FW KCP05.....	B80
DNGA443T0820 KY3500.....	B314	DNMG331FN KCK05.....	B79	DNMG333RP KCP25B.....	B84	DNMG432FW KCP10B.....	B80
DNGG3305FS KC5010.....	B77	DNMG331FN KCP05.....	B79	DNMG333RP KCU10.....	B84	DNMG432FW KCU10.....	B80
DNGG3305FS KCU10.....	B77	DNMG331FN KCP10.....	B79	DNMG333UN KCK15B.....	B84	DNMG432FW KT315.....	B80
DNGG331FS KCU10.....	B77	DNMG331FN KCP10B.....	B79	DNMG333UN KCK20.....	B84	DNMG432MN KCP05B.....	B81
DNGG332FS KCU10.....	B77	DNMG331FN KCP25B.....	B79	DNMG4305MS KC5010.....	B82	DNMG432MN KCP10.....	B81
DNGG4305FS KC5010.....	B77	DNMG331FN KT315.....	B79	DNMG4305MS KCU10.....	B82	DNMG432MN KCP10B.....	B81
DNGG4305FS KCU10.....	B77	DNMG331FP KC5010.....	B80	DNMG4305MS KCU25.....	B82	DNMG432MN KCP25.....	B81
DNGG4305LF KC5010.....	B77	DNMG331FP KCM15.....	B80	DNMG430MS KCU10.....	B82	DNMG432MN KCP25B.....	B81
DNGG4305LF KCU10.....	B77	DNMG331FP KCM15B.....	B80	DNMG431CT KC5010.....	B79	DNMG432MN KCP30.....	B81
DNGG430FS KCU10.....	B77	DNMG331FP KCPK05.....	B80	DNMG431CT KCP10.....	B79	DNMG432MN KCP30B.....	B81
DNGG431FS KC5010.....	B77	DNMG331FP KCU10.....	B80	DNMG431CT KCP25.....	B79	DNMG432MN KCP40.....	B81
DNGG431FS KC5025.....	B77	DNMG331FW KCP10.....	B80	DNMG431CT KCP25B.....	B79	DNMG432MN KCPK05.....	B81
DNGG431FS KCU10.....	B77	DNMG331FW KCU10.....	B80	DNMG431CT KCU10.....	B79	DNMG432MP KC5010.....	B81
DNGG431LF KC5010.....	B77	DNMG331FW KT315.....	B80	DNMG431FF KC5010.....	B79	DNMG432MP KCM15B.....	B81
DNGG431LF KCU10.....	B77	DNMG331MN KCP05.....	B81	DNMG431FF KCM15B.....	B79	DNMG432MP KCM25.....	B81
DNGG432FS KC5010.....	B77	DNMG331MN KCP10B.....	B81	DNMG431FF KCP10.....	B79	DNMG432MP KCM25B.....	B81
DNGG432FS KCU10.....	B77	DNMG331MN KCP25.....	B81	DNMG431FF KCU10.....	B79	DNMG432MP KCM35.....	B81
DNGG432FS KCU25.....	B77	DNMG331MN KCP25B.....	B81	DNMG431FF KT315.....	B79	DNMG432MP KCP10.....	B81
DNGG432LF KC5010.....	B77	DNMG331MN KCP30.....	B81	DNMG431FN KCK05.....	B79	DNMG432MP KCP25.....	B81
DNGG432LF KCU10.....	B77	DNMG33233 KT315.....	B78	DNMG431FN KCK15B.....	B79	DNMG432MP KCU10.....	B81
DNGG433FS KC5010.....	B77	DNMG332CT KCP05.....	B79	DNMG431FN KCP05.....	B79	DNMG432MR KCM15.....	B82
DNGG441FS KCU10.....	B77	DNMG332CT KCP10.....	B79	DNMG431FN KCP10.....	B79	DNMG432MR KCM25B.....	B82
DNGG442FS KCU10.....	B77	DNMG332CT KCP10B.....	B79	DNMG431FN KCP10B.....	B79	DNMG432MR KCP10B.....	B82
DNGM432S0525MTCB1 KBH20.....	B334	DNMG332FF KCP05.....	B79	DNMG431FN KCP25.....	B79	DNMG432MR KCP25B.....	B82

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
DNMG432MR KCP30B.....	B82	DNMG434RP KCU10.....	B84	DNMG442MP KCU25.....	B81	DNMG443MW KCP10B.....	B82
DNMG432MR KCPK05.....	B82	DNMG434UN KCK20.....	B84	DNMG442MR KCK15B.....	B82	DNMG443MW KCP25.....	B82
DNMG432MR KCU10.....	B82	DNMG434UN KCK20B.....	B84	DNMG442MR KCM15B.....	B82	DNMG443RN KCP05.....	B83
DNMG432MS K313.....	B82	DNMG44133 KT315.....	B78	DNMG442MR KCM25.....	B82	DNMG443RN KCP10.....	B83
DNMG432MS KC5010.....	B82	DNMG441CT KCP10.....	B79	DNMG442MR KCM25B.....	B82	DNMG443RN KCP10B.....	B83
DNMG432MS KC5025.....	B82	DNMG441FF KC5010.....	B79	DNMG442MR KCP10B.....	B82	DNMG443RN KCP25.....	B83
DNMG432MS KCU10.....	B82	DNMG441FF KCP10B.....	B79	DNMG442MR KCP25B.....	B82	DNMG443RN KCP25B.....	B83
DNMG432MS KCU25.....	B82	DNMG441FF KT315.....	B79	DNMG442MR KCU10.....	B82	DNMG443RN KCP30.....	B83
DNMG432MW KCP05.....	B82	DNMG441FN KCK05.....	B79	DNMG442MS K313.....	B82	DNMG443RN KCP40B.....	B83
DNMG432MW KCP10B.....	B82	DNMG441FN KCK15B.....	B79	DNMG442MS KC5010.....	B82	DNMG443RN KCPK05.....	B83
DNMG432MW KCP25.....	B82	DNMG441FN KCP05.....	B79	DNMG442MS KC5025.....	B82	DNMG443RP KCK05.....	B84
DNMG432P KC5010.....	B83	DNMG441FN KCP10.....	B79	DNMG442MS KCU10.....	B82	DNMG443RP KCK15.....	B84
DNMG432P KCU10.....	B83	DNMG441FN KCP10B.....	B79	DNMG442MS KCU25.....	B82	DNMG443RP KCK20.....	B84
DNMG432RN KCP10.....	B83	DNMG441FN KCP25.....	B79	DNMG442MW KCP05.....	B82	DNMG443RP KCK20B.....	B84
DNMG432RN KCP10B.....	B83	DNMG441FN KCP25B.....	B79	DNMG442MW KCP10.....	B82	DNMG443RP KCM25.....	B84
DNMG432RN KCP25.....	B83	DNMG441FN KT315.....	B79	DNMG442MW KCP10B.....	B82	DNMG443RP KCM35B.....	B84
DNMG432RN KCP25B.....	B83	DNMG441FF KC5010.....	B80	DNMG442MW KCP25.....	B82	DNMG443RP KCP10.....	B84
DNMG432RN KCP30B.....	B83	DNMG441FF KCM15.....	B80	DNMG442MW KCPK05.....	B82	DNMG443RP KCP10B.....	B84
DNMG432RN KCP40.....	B83	DNMG441FF KCU10.....	B80	DNMG442P KC5010.....	B83	DNMG443RP KCP25.....	B84
DNMG432RP KC5010.....	B84	DNMG441FW KCP05.....	B80	DNMG442RN KCP05.....	B83	DNMG443RP KCP25B.....	B84
DNMG432RP KC5025.....	B84	DNMG441FW KCP10B.....	B80	DNMG442RN KCP10.....	B83	DNMG443RP KCU10.....	B84
DNMG432RP KCK05.....	B84	DNMG441FW KCU10.....	B80	DNMG442RN KCP10B.....	B83	DNMG443RN KCK20.....	B84
DNMG432RP KCK20.....	B84	DNMG441MN KCP10.....	B81	DNMG442RN KCP25.....	B83	DNMG443UN KCK15.....	B84
DNMG432RP KCK20B.....	B84	DNMG441MN KCP10B.....	B81	DNMG442RN KCP25B.....	B83	DNMG443UN KCK15B.....	B84
DNMG432RP KCM15.....	B84	DNMG441MN KCP25.....	B81	DNMG442RN KCP30.....	B83	DNMG443UN KCK20.....	B84
DNMG432RP KCM25.....	B84	DNMG441MN KCP25B.....	B81	DNMG442RN KCP40B.....	B83	DNMG443UN KCK20B.....	B84
DNMG432RP KCM25B.....	B84	DNMG441MN KCP30.....	B81	DNMG442RP KC5010.....	B84	DNMG444MG KCP10B.....	B83
DNMG432RP KCM35.....	B84	DNMG441MP KC5010.....	B81	DNMG442RP KC5025.....	B84	DNMG444MG KCP10.....	B81
DNMG432RP KCP10.....	B84	DNMG441MP KCM15B.....	B81	DNMG442RP KCK15B.....	B84	DNMG444MR KCP25B.....	B82
DNMG432RP KCP10B.....	B84	DNMG441MP KCM25.....	B81	DNMG442RP KCK20.....	B84	DNMG444RN KCP10.....	B83
DNMG432RP KCP25.....	B84	DNMG441MP KCM25B.....	B81	DNMG442RP KCM15.....	B84	DNMG444RN KCP25.....	B83
DNMG432RP KCP25B.....	B84	DNMG441MP KCM35.....	B81	DNMG442RP KCM25.....	B84	DNMG444RN KCP25B.....	B83
DNMG432RP KCU10.....	B84	DNMG441MP KCU10.....	B81	DNMG442RP KCM25B.....	B84	DNMG444RN KCP40B.....	B83
DNMG432RP KCU25.....	B84	DNMG441MS K313.....	B82	DNMG442RP KCM25B.....	B84	DNMG444RN KCP40B.....	B83
DNMG432UN KCK05.....	B84	DNMG441MS KC5010.....	B82	DNMG442RP KCP05.....	B84	DNMG444RP KCP10.....	B84
DNMG432UN KCK15.....	B84	DNMG441MS KC5025.....	B82	DNMG442RP KCP05.....	B84	DNMG444RP KCP10B.....	B84
DNMG432UN KCK15B.....	B84	DNMG441MS KCU10.....	B82	DNMG442RP KCP10.....	B84	DNMG444RP KCP25.....	B84
DNMG432UN KCK20.....	B84	DNMG441MS KCU25.....	B82	DNMG442RP KCP10B.....	B84	DNMG444RP KCP25B.....	B84
DNMG432UN KCK20B.....	B84	DNMG441UP KCM25.....	B84	DNMG442RP KCP25.....	B84	DNMG444RP KCU25.....	B84
DNMG432UP KC5010.....	B84	DNMG44233 KT315.....	B78	DNMG442RP KCP25B.....	B84	DNMG444UN KCK15B.....	B84
DNMG432UP KCM15.....	B84	DNMG442CT KCP10.....	B79	DNMG442RP KCP30.....	B84	DNMG444UN KCK20.....	B84
DNMG432UP KCM25.....	B84	DNMG442CT KCP10B.....	B79	DNMG442RP KCU10.....	B84	DNMG542RN KCP10B.....	B83
DNMG432UP KCM25B.....	B84	DNMG442CT KCP25.....	B79	DNMG442RP KCU25.....	B84	DNMG542RN KCP25.....	B83
DNMG432UP KCM35.....	B84	DNMG442FF KC5010.....	B79	DNMG442RP KCU25B.....	B84	DNMG542RN KCP30.....	B83
DNMG432UP KCU10.....	B84	DNMG442FF KCP10.....	B79	DNMG442RP KCU25B.....	B84	DNMG543M KCP30.....	B81
DNMG433CT KCP10B.....	B79	DNMG442FF KCP10B.....	B79	DNMG442RP KCU25B.....	B84	DNMG543M KCP30B.....	B81
DNMG433CT KCU10.....	B79	DNMG442FF KT315.....	B79	DNMG442UP KCP05.....	B84	DNMG543M KCP10B.....	B83
DNMG433FN KCK05.....	B79	DNMG442FN KCK05.....	B79	DNMG442UP KCM15.....	B84	DNMG543M KCP25.....	B83
DNMG433FN KCP05.....	B79	DNMG442FN KCK15B.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433FN KCP10B.....	B79	DNMG442FN KCP05.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433FN KT315.....	B79	DNMG442FN KCP10.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433FP KCU10.....	B80	DNMG442FN KCP10B.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MN KCP05.....	B81	DNMG442FN KCP25.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MN KCP10B.....	B81	DNMG442FN KCP25B.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MN KCP25.....	B81	DNMG442FN KT315.....	B79	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MN KCP25B.....	B81	DNMG442FP KC5010.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MN KCP30B.....	B81	DNMG442FP KCM15.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MN KCP40B.....	B81	DNMG442FP KCP10.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MP KC5010.....	B81	DNMG442FP KCP10B.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MP KCM25.....	B81	DNMG442FP KCP25.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MP KCU10.....	B81	DNMG442FP KCP25B.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MR KCP10B.....	B82	DNMG442FP KCU10.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MR KCPK05.....	B82	DNMG442FW KCK15B.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MS KC5010.....	B82	DNMG442FW KCP05.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MS KCU10.....	B82	DNMG442FW KCP10.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433MS KCU25.....	B82	DNMG442FW KCP10B.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433MW KCP05.....	B82	DNMG442FW KCU10.....	B80	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433RN KCP10B.....	B83	DNMG442MN KCP05B.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433RN KCP25.....	B83	DNMG442MN KCP10.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433RN KCP25B.....	B83	DNMG442MN KCP10B.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433RN KCPK05.....	B83	DNMG442MN KCP25.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433RP KCM35.....	B84	DNMG442MN KCP25B.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433RP KCP10B.....	B84	DNMG442MN KCP40.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433RP KCP25.....	B84	DNMG442MP KC5010.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433RP KCP25B.....	B84	DNMG442MP KCM15.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433RP KCP30.....	B84	DNMG442MP KCM15B.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433RP KCU10.....	B84	DNMG442MP KCM25.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG433RP KCU25.....	B84	DNMG442MP KCM25B.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG433UN KCK20B.....	B84	DNMG442MP KCM35.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG434RN KCP25.....	B83	DNMG442MP KCP10.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
DNMG434RN KCP40B.....	B83	DNMG442MP KCP25.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP30.....	B83
DNMG434RP KC5010.....	B84	DNMG442MP KCU10.....	B81	DNMG442UP KCM25B.....	B84	DNMG543RN KCP25.....	B83
				DNMG442MP KCU10.....	B81	DNMG443MW KCP05.....	B82

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
E16NER3 KWH.....	C193, D36	EC020M02N00CLO2 KCM35B.....	C23	EC1012FLDJ KC410M.....	T35, T44	EG0212M02U02GUP KCP10B.....	C17
E16NKNR1 KWH.....	E45	EC020M02N00CLO2 KCU25.....	C23	EC1016ELD KC522M.....	T36, T45	EG0212M02U02GUP KCP25B.....	C17
E16RNNTOL2 KWH.....	C193	EC020M02N00CM02 KCU25.....	C24	EC1016ELD KC725M.....	T36, T45	EG0212M02U02GUP KCU10.....	C17
E16RNNTOR2 KWH.....	C193	EC020M02N00CR02 KCU25.....	C25	EC1016ELD KCPK30.....	T36, T45	EG0212M02U02GUP KCU25.....	C17
E16SCLPL3 KWH.....	B214	EC020M02R06CF02 KCM35B.....	C22	EC1016ELD KCSM40.....	T36	EG0251M02U02GUP KCK20B.....	C20
E16SCLPL3AP5 KWH.....	B216	EC020M02R06CF02 KCU25.....	C22	EC1016ELDJ KC422M.....	T35, T45	EG0251M02U02GUP KCP10B.....	C20
E16SCLPR3 KWH.....	B214	EC020M02R06CLO2 KCM35B.....	C23	EC1016FLDJ KC410M.....	T35, T44	EG0251M02U02GUP KCP25B.....	C20
E16SCLPR3AP5 KWH.....	B216	EC020M02R06CLO2 KCU25.....	C23	EC1020ELD KC725M.....	T36, T45	EG0251M02U02GUP KCU10.....	C20
E16STFPR3 KWH.....	B272	EC020M02R06CM02 KCU25.....	C24	EC1020ELD KCPK30.....	T36, T45	EG0251M02U02GUP KCU25.....	C20
E16STLPL3 KWH.....	B275	EC020M02R06CR02 KCU25.....	C25	EC1020ELDJ KC422M.....	T35, T45	EG0251M02U02GUP KCP10B.....	C17
E16STLPR3 KWH.....	B275	EC030M03L06CF02 KCM35B.....	C22	EC1020FLDJ KC410M.....	T35, T44	EG0251M02U02GUP KCP25B.....	C17
E16SWLPR3 KWH.....	B290	EC030M03L06CF02 KCU25.....	C22	EC1024ELD KC522M.....	T36, T45	EG0251M02U02GUP KCU10.....	C17
E16TCTFPR3 KWH.....	B184, B392	EC030M03L06CLO2 KCM35B.....	C23	EC1024ELD KC725M.....	T36, T45	EG0251M02U02GUP KCU25.....	C17
E16TSCLCR3.....	B197	EC030M03L06CLO2 KCU25.....	C23	EC1024ELD KCSM40.....	T36	EG0300M03P02GUP K313.....	C17
E16TSDUPL3 KWH.....	B234	EC030M03L06CM02 KCU25.....	C24	EC1024ELDJ KC422M.....	T35, T45	EG0300M03P02GUP KCU10.....	C17
E16TSDUPR3 KWH.....	B234	EC030M03L06CR02 KCU25.....	C25	EC1031ELD KC725M.....	T36	EG0300M03P02GUP KCU25.....	C17
E20SNNTOR2 KWH.....	C193	EC030M03N00CF02 KCM35B.....	C22	EC1031ELD KCPK30.....	T36, T45	EG0300M03P04GUP K313.....	C17
E25MSC7DR12.....	B204	EC030M03N00CF02 KCU25.....	C22	EC1031ELD KCSM40.....	T36	EG0300M03P04GUP KCU10.....	C17
E2908XSCLDR12088.....	B203	EC030M03N00CLO2 KCM35B.....	C23	EC1031FLDJ KC410M.....	T35, T44	EG0300M03P04GUP KCU25.....	C17
E2910XSCLDR12088.....	B203	EC030M03N00CLO2 KCU25.....	C23	EC1402FLDJ KC410M.....	T55, T66	EG0312M03U02GUP KCK20B.....	C20
E2FX1100505LHP KCU10.....	E11	EC030M03N00CM02 KCU25.....	C24	EC1404EGD KC725M.....	T57, T68	EG0312M03U02GUP KCP10B.....	C20
E2FX1100505RHP KCU10.....	E11	EC030M03N00CR02 KCU25.....	C25	EC1404EGD KCPM40.....	T57, T68	EG0312M03U02GUP KCP25B.....	C20
E3208XSCLDR121.....	B203	EC030M03R06CF02 KCM35B.....	C22	EC1404ELD KC522M.....	T56, T67	EG0312M03U02GUP KCU10.....	C20
E3210KXSCLDR122.....	B203	EC030M03R06CF02 KCU25.....	C22	EC1404ELDJ KC422M.....	T56, T67	EG0312M03U02GUP KCU25.....	C20
EADDE178JAQX KYS40.....	P156	EC030M03R06CLO2 KCM35B.....	C23	EC1404FLDJ KC410M.....	T55, T66	EG0312M03U02GUP KCP10B.....	C17
EADDE188JAQX KYS40.....	P156	EC030M03R06CLO2 KCU25.....	C23	EC1408EGD KC725M.....	T57, T68	EG0312M03U02GUP KCU10.....	C17
EADDE188J6ARX KYS40.....	P157	EC030M03R06CM02 KCU25.....	C24	EC1408EGD KCPM40.....	T57, T68	EG0312M03U02GUP KCU25.....	C17
EADDE238JAQX KYS40.....	P156	EC030M03R06CR02 KCU25.....	C25	EC1408EGD KCSM40.....	T57, T68	EG0312M03U04GUP KCK20B.....	C20
EADDE250JAQX KYS40.....	P156	EC040M04L06CF02 KCM35B.....	C22	EC1408ELD KC522M.....	T56, T67	EG0312M03U04GUP KCP10B.....	C20
EADDE250J6ARX KYS40.....	P157	EC040M04L06CF02 KCU25.....	C22	EC1408ELDJ KC422M.....	T56, T67	EG0312M03U04GUP KCP25B.....	C20
EADDE297JAQX KYS40.....	P156	EC040M04L06CLO2 KCU25.....	C23	EC1408FLDJ KC410M.....	T55, T66	EG0312M03U04GUP KCU10.....	C20
EADDE0313JAQX KYS40.....	P156	EC040M04L06CM02 KCU25.....	C24	EC1412EGD KC725M.....	T57, T68	EG0312M03U04GUP KCU25.....	C20
EADDE0313J6ARX KYS40.....	P157	EC040M04L06CR02 KCU25.....	C25	EC1412EGD KCSM40.....	T57, T68	EG0312M03U04GUP KCP10B.....	C17
EADDE0356JAQX KYS40.....	P156	EC040M04N00CF02 KCM35B.....	C22	EC1412ELD KC522M.....	T56, T67	EG0312M03U04GUP KCP25B.....	C17
EADDE0375JAQX KYS40.....	P156	EC040M04N00CF02 KCU25.....	C22	EC1412FLDJ KC410M.....	T55, T66	EG0312M03U04GUP KCU10.....	C17
EADDE0375J6ARX KYS40.....	P157	EC040M04N00CLO2 KCM35B.....	C23	EC1416EGD KC725M.....	T57, T68	EG0312M03U04GUP KCU25.....	C17
EADDE0475JAQX KYS40.....	P156	EC040M04N00CLO2 KCU25.....	C23	EC1416EGD KCSM40.....	T57, T68	EG0400M04P04GUP K313.....	C17
EADDE0500JAQX KYS40.....	P156	EC040M04N00CM02 KCU25.....	C24	EC1416ELD KC522M.....	T56, T67	EG0400M04P04GUP KCU10.....	C17
EADDE0500J6ARX KYS40.....	P157	EC040M04N00CR02 KCU25.....	C25	EC1416FLDJ KC410M.....	T55, T66	EG0400M04P04GUP KCU25.....	C17
EB10801281100.....	K144	EC040M04R06CF02 KCM35B.....	C22	EC1424ELDJ KC422M.....	T56, T67	EG0400M04P08GUP K313.....	C17
EB13030150.....	K143	EC040M04R06CF02 KCU25.....	C22	EC1431EGD KC725M.....	T57, T68	EG0400M04P08GUP KCU10.....	C17
EB16301281650.....	K144	EC040M04R06CLO2 KCU25.....	C23	EC1431EGD KCSM40.....	T57, T68	EG0400M04P08GUP KCU25.....	C17
EB18030200.....	K143	EC040M04R06CM02 KCU25.....	C24	EC1431ELD KC522M.....	T56, T67	EG0412M04U04GUP KCK20B.....	C20
EB23035250.....	K143	EC040M04R06CR02 KCU25.....	C25	EC1431FLDJ KC410M.....	T55, T66	EG0412M04U04GUP KCP10B.....	C20
EB28035300.....	K143	EC050M05N00CF03 KCM35B.....	C22	EC1440FLDJ KC410M.....	T55, T66	EG0412M04U04GUP KCP25B.....	C20
EB33040350.....	K143	EC050M05N00CF03 KCU25.....	C22	EC1804E KC725M.....	T83	EG0412M04U04GUP KCU10.....	C20
EB38040400.....	K143	EC050M05N00CM03 KCU25.....	C24	EC1804E KCPM40.....	T83	EG0412M04U04GUP KCU25.....	C20
EB43040450.....	K143	EC050M05N00CR03 KCU25.....	C25	EC1804FJ KC410M.....	T81	EG0412M04U04GUP KCP10B.....	C17
EB48040500.....	K143	EC060M06L06CR04 KCU25.....	C25	EC1808E KC725M.....	T83	EG0412M04U04GUP KCP25B.....	C17
EB53050550.....	K143	EC060M06N00CM03 KCU25.....	C24	EC1808E KCPM40.....	T83	EG0412M04U04GUP KCU10.....	C17
EB58050600.....	K143	EC060M06N00CR03 KCU25.....	C25	EC1808E2 KC522M.....	T82	EG0412M04U04GUP KCU25.....	C17
EB630128650.....	K144	EC060M06R06CR04 KCU25.....	C25	EC1808EJ KC422M.....	T82	EG0412M04U08GUP KCK20B.....	C20
EBM1580160162.....	K136	EC070M06N00CM04 KCU25.....	C24	EC1808FJ KC410M.....	T81	EG0412M04U08GUP KCP10B.....	C20
EBM8015086.....	K136	EC070M06N00CR04 KCU25.....	C25	EC1812E KC725M.....	T83	EG0412M04U08GUP KCP25B.....	C20
EBSLD1105.....	K144	EC080M08L06CR04 KCU25.....	C25	EC1812E KCPM40.....	T83	EG0412M04U08GUP KCU10.....	C20
EBSLD2205.....	K144	EC080M08N00CM04 KCU25.....	C24	EC1812EJ KC422M.....	T82	EG0412M04U08GUP KCU25.....	C20
EBUCW0074.....	K145	EC080M08N00CR04 KCU25.....	C25	EC1812FJ KC410M.....	T81	EG0412M04U08GUP KCP10B.....	C17
EBUFF0975.....	K145	EC080M08R06CR04 KCU25.....	C25	EC1816E KC522M.....	T82	EG0412M04U08GUP KCP25B.....	C17
EBURF1975PKG.....	K145	EC1002ELD KC725M.....	T36, T45	EC1816EJ KC422M.....	T82	EG0412M04U08GUP KCU10.....	C17
EC014M1BL06CF01 KCM35B.....	C22	EC1002ELD KCPK30.....	T36, T45	EC1816FJ KC410M.....	T81	EG0412M04U08GUP KCU25.....	C17
EC014M1BL06CF01 KCU25.....	C22	EC1002FLDJ KC410M.....	T35, T44	EC1820FJ KC410M.....	T81	EG0500M05P04GUP K313.....	C17
EC014M1BL06CLO1 KCM35B.....	C23	EC1004ELD KC520M.....	T36, T45	EC1824EJ KC422M.....	T82	EG0500M05P04GUP KCU10.....	C17
EC014M1BL06CLO1 KCU25.....	C23	EC1004ELD KC522M.....	T36, T45	EC1824FJ KC410M.....	T81	EG0500M05P04GUP KCU25.....	C17
EC014M1BL06CM01 KCU25.....	C24	EC1004ELD KC725M.....	T36, T45	EC1832E KC522M.....	T82	EG0500M05P08GUP K313.....	C17
EC014M1BN00CF01 KCM35B.....	C22	EC1004ELDJ KCPK30.....	T36, T45	EC1832EJ KC422M.....	T82	EG0500M05P08GUP KCU10.....	C17
EC014M1BN00CF01 KCU25.....	C22	EC1004ELDJ KC422M.....	T35, T45	EC1832FJ KC410M.....	T81	EG0500M05P08GUP KCU25.....	C17
EC014M1BN00CLO1 KCM35B.....	C23	EC1004FLDJ KC410M.....	T35, T44	EC1840E KC522M.....	T82	EG0512M05U04GUP KCK20B.....	C20
EC014M1BN00CLO1 KCU25.....	C23	EC1004FR-PCD KD1410.....	T34	EC1840FJ KC410M.....	T81	EG0512M05U04GUP KCP10B.....	C20
EC014M1BR06CF01 KCM35B.....	C22	EC1008ELD KC510M.....	T36, T45	EC1848E KC522M.....	T82	EG0512M05U04GUP KCP25B.....	C20
EC014M1BR06CF01 KCU25.....	C22	EC1008ELD KC520M.....	T36, T45	EC1848FJ KC410M.....	T81	EG0512M05U04GUP KCU10.....	C20
EC014M1BR06CLO1 KCU25.....	C23	EC1008ELD KC522M.....	T36, T45	EC1850FJ KC410M.....	T81	EG0512M05U04GUP KCU25.....	C20
EC014M1BR06CLO1 KCM35B.....	C23	EC1008ELD KC725M.....	T36, T45	EC1864E KC522M.....	T82	EG0512M05U04GUP KCP10B.....	C17
EC014M1BR06CLO1 KCU25.....	C23	EC1008ELD KCK15.....	T36, T45	EC1864EJ KC422M.....	T82	EG0512M05U04GUP KCP25B.....	C17
EC014M1BR06CM01 KCU25.....	C24	EC1008ELD KCPK30.....	T36, T45	EC1864FJ KC410M.....	T81	EG0512M05U04GUP KCU10.....	C17
EC020M02L06CF02 KCM35B.....	C22	EC1008ELD KCPM40.....	T36	EG0200M02P02GUP K313.....	C17	EG0512M05U04GUP KCU25.....	C17
EC020M02L06CF02 KCU25.....	C22	EC1008ELD KCSM40.....	T36	EG0200M02P02GUP KCU10.....	C17	EG0512M05U08GUP KCK20B.....	C20
EC020M02L06CLO2 KCM35B.....	C23	EC1008ELDJ KC422M.....	T35, T45	EG0200M02P02GUP KCU25.....	C17	EG0512M05U08GUP KCP10B.....	C20
EC020M02L06CLO2 KCU25.....	C23	EC1008FLDJ KC410M.....	T35, T44	EG0212M02U02GUP KCK20B.....	C20	EG0512M05U08GUP KCP25B.....	C20
EC020M02L06CM02 KCU25.....	C24	EC1008FR-PCD KD1410.....	T34	EG0212M02U02GUP KCP10B.....	C20	EG0512M05U08GUP KCU10.....	C20
EC020M02L06CR02 KCM35B.....	C23	EC1012ELD KC522M.....	T36, T45	EG0212M02U02GUP KCP25B.....	C20	EG0512M05U08GUP KCU25.....	C20
EC020M02L06CR02 KCU25.....	C23	EC1012ELD KC725M.....	T36, T45	EG0212M02U02GUP KCU10.....	C20	EG0512M05U08GUP KCP10B.....	C17
EC020M02N00CF02 KCM35B.....	C22	EC1012ELD KCSM40.....	T36	EG0212M02U02GUP KCU25.....	C20	EG0512M05U08GUP KCP25B.....	C17
EC020M02N00CF02 KCU25.....	C22						

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
EG0512M05U08GUP KCU10.....	C17	EG1012M10U12GUP KCU25.....	C17	EG250106U2GUN KCP25B.....	C21	EP1008EHD KCPK30.....	T36, T46
EG0512M05U08GUP KCU25.....	C17	EG125I03P05GUP K313.....	C18	EG250106U2GUN KCU10.....	C21	EP1008EHD KCPM40.....	T36
EG0600M06P04GUP K313.....	C17	EG125I03P05GUP KCU10.....	C18	EG250106U2GUN KCU25.....	C21	EP1008EHD KCSM40.....	T36
EG0600M06P04GUP KCU10.....	C17	EG125I03P05GUP KCU25.....	C18	EG255I06U1GUN KCK20B.....	C21	EP1008SGD KC520M.....	T37, T47
EG0600M06P04GUP KCU25.....	C17	EG125I03P1GUP K313.....	C18	EG255I06U1GUN KCP10B.....	C21	EP1008SGD KC725M.....	T37, T47
EG0600M06P08GUP K313.....	C17	EG125I03P1GUP KCU10.....	C18	EG255I06U1GUN KCP25B.....	C21	EP1008SGD KCK15.....	T37, T47
EG0600M06P08GUP KCU10.....	C17	EG125I03P1GUP KCU25.....	C18	EG255I06U1GUN KCU10.....	C21	EP1008SGD KCPK30.....	T37, T47
EG0600M06P08GUP KCU25.....	C17	EG125I03U05GUN KCK20B.....	C21	EG255I06U1GUN KCU25.....	C21	EP1008SGD KCPM40.....	T37
EG0612M06U04GUN KCK20B.....	C20	EG125I03U05GUN KCP10B.....	C21	EG255I06U1GUP KCP10B.....	C18	EP1008SGE KC522M.....	T37, T46
EG0612M06U04GUN KCP10B.....	C20	EG125I03U05GUN KCP25B.....	C21	EG255I06U1GUP KCP25B.....	C18	EP1008SGE KC725M.....	T37, T46
EG0612M06U04GUN KCU10.....	C20	EG125I03U05GUN KCU10.....	C21	EG255I06U1GUP KCU10.....	C18	EP1008SGE KCPK30.....	T37, T46
EG0612M06U04GUN KCU25.....	C20	EG125I03U05GUN KCU25.....	C21	EG255I06U1GUP KCU25.....	C18	EP1008SGE KCPM40.....	T37
EG0612M06U04GUP KCP10B.....	C17	EG125I03U1GUN KCK20B.....	C21	EG255I06U2GUN KCK20B.....	C21	EP1008SGE KCSM40.....	T37
EG0612M06U04GUP KCP25B.....	C17	EG125I03U1GUN KCP10B.....	C21	EG255I06U2GUN KCP10B.....	C21	EP1010EHD KC522M.....	T36, T46
EG0612M06U04GUP KCU10.....	C17	EG125I03U1GUN KCP25B.....	C21	EG255I06U2GUN KCP25B.....	C21	EP1010EHD KCK15.....	T36, T46
EG0612M06U04GUP KCU25.....	C17	EG125I03U1GUN KCU10.....	C21	EG255I06U2GUN KCU10.....	C21	EP1010EHD KCPK30.....	T36, T46
EG0612M06U08GUN KCK20B.....	C20	EG125I03U1GUN KCU25.....	C21	EG255I06U2GUN KCU25.....	C21	EP1010EHD KCPM40.....	T36
EG0612M06U08GUN KCP25B.....	C20	EG130I03U05GUN KCK20B.....	C21	EG255I06U2GUP KCP10B.....	C18	EP1010EHD KCSM40.....	T36
EG0612M06U08GUN KCU10.....	C20	EG130I03U05GUN KCP10B.....	C21	EG255I06U2GUP KCP25B.....	C18	EP1012EHD KC522M.....	T36, T46
EG0612M06U08GUN KCU25.....	C20	EG130I03U05GUN KCU10.....	C21	EG255I06U2GUP KCU10.....	C18	EP1012EHD KCPK30.....	T36, T46
EG0612M06U08GUP KCP10B.....	C17	EG130I03U05GUN KCU25.....	C21	EG255I06U2GUP KCU25.....	C18	EP1012EHD KCPM40.....	T36
EG0612M06U08GUP KCP25B.....	C17	EG130I03U05GUP KCP10B.....	C18	EG312I08P3GUP K313.....	C18	EP1012EHD KCSM40.....	T36
EG0612M06U08GUP KCU10.....	C17	EG130I03U05GUP KCU10.....	C18	EG312I08P3GUP KCU10.....	C18	EP1012SGD KC520M.....	T37, T47
EG0612M06U08GUP KCU25.....	C17	EG130I03U05GUP KCP25B.....	C18	EG312I08P3GUP KCU25.....	C18	EP1012SGD KCK15.....	T37, T47
EG06311FP05GUP K313.....	C18	EG130I03U05GUP KCU10.....	C18	EG312I08U3GUN KCK20B.....	C21	EP1012SGD KCPK30.....	T37, T47
EG06311FP05GUP KCU10.....	C18	EG130I03U05GUP KCU25.....	C18	EG312I08U3GUN KCP10B.....	C21	EP1012SGE KC522M.....	T37, T46
EG06311FP05GUP KCU25.....	C18	EG130I03U1GUN KCK20B.....	C21	EG312I08U3GUN KCP25B.....	C21	EP1012SGE KCPK30.....	T37, T46
EG06311FU05GUN KCK20B.....	C21	EG130I03U1GUN KCP10B.....	C21	EG312I08U3GUN KCU10.....	C21	EP1012SGE KCSM40.....	T37
EG06311FU05GUN KCP10B.....	C21	EG130I03U1GUN KCP25B.....	C21	EG312I08U3GUN KCU25.....	C21	EP1012SGE KCPK30.....	T37, T46
EG06311FU05GUN KCP25B.....	C21	EG130I03U1GUN KCU10.....	C21	EG317I08U3GUN KCK20B.....	C21	EP1012SGE KCSM40.....	T37
EG06311FU05GUN KCU10.....	C21	EG130I03U1GUP KCU25.....	C18	EG317I08U3GUN KCP10B.....	C21	EP1016EHD KC522M.....	T36, T46
EG06311FU05GUN KCU25.....	C21	EG130I03U1GUP KCP10B.....	C18	EG317I08U3GUN KCP25B.....	C21	EP1016EHD KCPK30.....	T36, T46
EG0700M06P08GUP K313.....	C17	EG130I03U1GUP KCP25B.....	C18	EG317I08U3GUN KCU10.....	C21	EP1016EHD KCPM40.....	T36
EG0700M06P08GUP KCU10.....	C17	EG130I03U1GUP KCU10.....	C18	EG317I08U3GUN KCU25.....	C21	EP1016SGD KCPK30.....	T36, T46
EG0700M06P08GUP KCU25.....	C17	EG130I03U1GUP KCU25.....	C18	EG317I08U3GUP KCP10B.....	C18	EP1016SGD KCSM40.....	T36
EG0712M06U08GUP KCP10B.....	C17	EG187I04P1GUP K313.....	C18	EG317I08U3GUP KCP25B.....	C18	EP1016SGD KC725M.....	T37, T47
EG0712M06U08GUP KCP25B.....	C17	EG187I04P1GUP KCU10.....	C18	EG317I08U3GUP KCU25.....	C18	EP1016SGE KC522M.....	T37, T46
EG0712M06U08GUP KCU10.....	C17	EG187I04P1GUP KCU25.....	C18	EG375I10P3GUP KCU10.....	C18	EP1016SGE KCPK30.....	T37, T46
EG0712M06U08GUP KCU25.....	C17	EG187I04P2GUP K313.....	C18	EG375I10P3GUP KCU25.....	C18	EP1016SGE KCSM40.....	T37
EG0800M08P08GUP K313.....	C17	EG187I04P2GUP KCU10.....	C18	EG375I10P3GUP KCU25.....	C18	EP1020EHD KC725M.....	T36, T46
EG0800M08P08GUP KCU10.....	C17	EG187I04P2GUP KCU25.....	C18	EG375I10U3GUN KCK20B.....	C21	EP1020EHD KCPK30.....	T36, T46
EG0800M08P08GUP KCU25.....	C17	EG187I04U1GUN KCK20B.....	C21	EG375I10U3GUN KCP10B.....	C21	EP1020EHD KCPM40.....	T36
EG0800M08P12GUP K313.....	C17	EG187I04U1GUN KCP10B.....	C21	EG375I10U3GUN KCP25B.....	C21	EP1024EHD KCSM40.....	T36
EG0800M08P12GUP KCU10.....	C17	EG187I04U1GUN KCP25B.....	C21	EG375I10U3GUN KCU10.....	C21	EP1024EHD KCPK30.....	T36, T46
EG0800M08P12GUP KCU25.....	C17	EG187I04U1GUN KCU10.....	C21	EG375I10U3GUN KCU25.....	C21	EP1031EHD KC522M.....	T36, T46
EG0812M08U08GUN KCK20B.....	C20	EG187I04U1GUN KCU25.....	C21	EG380I10U3GUN KCK20B.....	C21	EP1031EHD KCPK30.....	T36, T46
EG0812M08U08GUN KCP10B.....	C20	EG187I04U2GUN KCK20B.....	C21	EG380I10U3GUN KCP10B.....	C21	EP1031EHD KCSM40.....	T36
EG0812M08U08GUN KCP25B.....	C20	EG187I04U2GUN KCP10B.....	C21	EG380I10U3GUN KCP25B.....	C21	EP1031SGE KC522M.....	T37, T46
EG0812M08U08GUN KCU10.....	C20	EG187I04U2GUN KCP25B.....	C21	EG380I10U3GUN KCU10.....	C21	EP1031SGE KCPK30.....	T37, T46
EG0812M08U08GUN KCU25.....	C20	EG187I04U2GUN KCU10.....	C21	EG380I10U3GUN KCU25.....	C21	EP1031SGE KCSM40.....	T37
EG0812M08U08GUP KCP10B.....	C17	EG187I04U2GUN KCU25.....	C21	EG380I10U3GUP KCP10B.....	C18	EP1031SGE KCSM40.....	T37
EG0812M08U08GUP KCP25B.....	C17	EG192I04U1GUN KCK20B.....	C21	EG380I10U3GUP KCP25B.....	C18	EP1404EHD KC520M.....	T57, T68
EG0812M08U08GUP KCU10.....	C17	EG192I04U1GUN KCP10B.....	C21	EG380I10U3GUP KCU10.....	C18	EP1404EHD KC522M.....	T57, T68
EG0812M08U08GUP KCU25.....	C17	EG192I04U1GUN KCP25B.....	C21	EG380I10U3GUP KCU25.....	C21	EP1404EHD KCPK30.....	T57, T68
EG0812M08U12GUN KCK20B.....	C20	EG192I04U1GUN KCU10.....	C21	EG380I10U3GUP KCP10B.....	C18	EP1404EHD KCPM40.....	T57, T68
EG0812M08U12GUN KCP10B.....	C20	EG192I04U1GUN KCU25.....	C21	EG380I10U3GUP KCP25B.....	C18	EP1404SGE KC522M.....	T58, T69
EG0812M08U12GUN KCP25B.....	C20	EG192I04U1GUP KCP10B.....	C18	EG380I10U3GUP KCU10.....	C21	EP1404SGE KCPK30.....	T58, T69
EG0812M08U12GUN KCU10.....	C20	EG192I04U1GUP KCP25B.....	C18	EG380I10U3GUP KCU25.....	C21	EP1408EHD KC520M.....	T57, T68
EG0812M08U12GUN KCU25.....	C20	EG192I04U1GUP KCU10.....	C18	EG453T0820 KY1615.....	B335	EP1408EHD KC522M.....	T57, T68
EG0812M08U12GUP KCP10B.....	C17	EG192I04U1GUP KCU25.....	C18	ENG454T0820 KY1615.....	B335	EP1408EHD KCPK30.....	T57, T68
EG0812M08U12GUP KCP25B.....	C17	EG192I04U2GUN KCK20B.....	C21	ENG454T0820 KY3500.....	B317	EP1408EHD KCPM40.....	T57, T68
EG0812M08U12GUP KCU10.....	C17	EG192I04U2GUN KCP10B.....	C21	EP0708SGE KC522M.....	T25	EP1408EHD KCSM40.....	T57, T68
EG0812M08U12GUP KCU25.....	C17	EG192I04U2GUN KCP25B.....	C21	EP0708SGE KC725M.....	T25	EP1408EHD KCK15.....	T57, T68
EG094I02P05GUP K313.....	C18	EG192I04U2GUN KCU10.....	C21	EP0708SGE KCPK30.....	T25	EP1408EHD KCPK30.....	T57, T68
EG094I02P05GUP KCU10.....	C18	EG192I04U2GUN KCU25.....	C21	EP0708SGE KCPM40.....	T25	EP1408EHD KCK15.....	T57, T68
EG094I02P05GUP KCU25.....	C18	EG192I04U2GUP KCP10B.....	C18	EP0708SGE KCSM30.....	T25	EP1408EHD KCPK30.....	T57, T68
EG094I02U05GUN KCK20B.....	C21	EG192I04U2GUP KCP25B.....	C18	EP1004EHD KC520M.....	T36, T46	EP1408EHD KCPM40.....	T57, T68
EG094I02U05GUN KCP10B.....	C21	EG192I04U2GUP KCU10.....	C18	EP1004EHD KC522M.....	T36, T46	EP1408EHD KC520M.....	T57, T68
EG094I02U05GUN KCP25B.....	C21	EG192I04U2GUP KCU25.....	C18	EP1004EHD KCK15.....	T36, T46	EP1408EHD KC522M.....	T57, T68
EG094I02U05GUN KCU10.....	C21	EG250I06P1GUP K313.....	C18	EP1004EHD KCPK30.....	T36, T46	EP1408EHD KCPK30.....	T57, T68
EG094I02U05GUN KCU25.....	C21	EG250I06P1GUP KCU10.....	C18	EP1004EHD KCPM40.....	T36	EP1408EHD KCSM40.....	T57, T68
EG1000M10P12GUP K313.....	C17	EG250I06P1GUP KCU25.....	C18	EP1004SGD KC725M.....	T37, T47	EP1408EHD KCPK30.....	T57, T68
EG1000M10P12GUP KCU10.....	C17	EG250I06P2GUP K313.....	C18	EP1004SGD KCK15.....	T37, T47	EP1408EHD KCPM40.....	T57, T68
EG1000M10P12GUP KCU25.....	C17	EG250I06P2GUP KCU10.....	C18	EP1004SGD KCPK30.....	T37, T47	EP1408EHD KCSM40.....	T57, T68
EG1012M10U12GUN KCK20B.....	C20	EG250I06P2GUP KCU25.....	C18	EP1004SGE KC520M.....	T37, T46	EP1408EHD KC522M.....	T58, T69
EG1012M10U12GUN KCP10B.....	C20	EG250I06U1GUN KCK20B.....	C21	EP1004SGE KC725M.....	T37, T46	EP1408EHD2 KC725M.....	T58, T69
EG1012M10U12GUN KCP25B.....	C20	EG250I06U1GUN KCP10B.....	C21	EP1004SGE KCPK30.....	T37, T46	EP1408EHD2 KCK15.....	T58, T69
EG1012M10U12GUN KCU10.....	C20	EG250I06U1GUN KCP25B.....	C21	EP1004SGE KCPM40.....	T37	EP1408EHD2 KCPK30.....	T58, T69
EG1012M10U12GUN KCU25.....	C20	EG250I06U1GUN KCU10.....	C21	EP1008EHD KC520M.....	T36, T46	EP1408EHD2 KCPM40.....	T58, T69
EG1012M10U12GUP KCP10B.....	C17	EG250I06U1GUN KCU25.....	C21	EP1008EHD KC522M.....	T36, T46	EP1408SGD KC520M.....	T58, T70
EG1012M10U12GUP KCP25B.....	C17	EG250I06U2GUN KCK20B.....	C21	EP1008EHD KC725M.....	T36, T46	EP1408SGD KCPK30.....	T58, T70
EG1012M10U12GUP KCU10.....	C17	EG250I06U2GUN KCP10B.....	C21	EP1008EHD KCK15.....	T36, T46		

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
EP1408SGD KCPM40	T58, T70	EP1808SGE KCSM40	T84	ER0400M04P00GUP K313	C19	ER1920I4U00GUN KCU25	C22
EP1408SGD KCSM40	T58, T70	EP1812E KC725M	T83	ER0400M04P00GUP KCU10	C19	ER1920I4U00GUP KCP10B	C19
EP1408SGD2 KC520M	T59, T70	EP1812E KCPM40	T83	ER0400M04P00GUP KCU25	C19	ER1920I4U00GUP KCP25B	C19
EP1408SGD2 KC725M	T59, T70	EP1812EHD KC725M	T84	ER0412M04U00GUN KCK20B	C21	ER1920I4U00GUP KCU10	C19
EP1408SGD2 KCPK30	T59, T70	EP1812EHD KCPK30	T84	ER0412M04U00GUN KCP10B	C21	ER1920I4U00GUP KCU25	C19
EP1408SGD2 KCPM40	T59, T70	EP1812EHD KCSM40	T84	ER0412M04U00GUN KCP25B	C21	ER2500I6P00GUP K313	C20
EP1408SGE KC522M	T58, T69	EP1812S KC725M	T85	ER0412M04U00GUN KCU10	C21	ER2500I6P00GUP KCU10	C20
EP1408SGE KC725M	T58, T69	EP1812S KCK15	T85	ER0412M04U00GUN KCU25	C21	ER2500I6P00GUP KCU25	C20
EP1408SGE KCPK30	T58, T69	EP1812S KCPK30	T85	ER0412M04U00GUP KCP10B	C19	ER2500I6U00GUN KCK20B	C22
EP1408SGE KCPM40	T58, T69	EP1812S KCPM40	T85	ER0412M04U00GUP KCP25B	C19	ER2500I6U00GUN KCP10B	C22
EP1408SGE KCSM40	T58, T69	EP1812S KCSM40	T85	ER0412M04U00GUP KCU10	C19	ER2500I6U00GUN KCP25B	C22
EP1412EHD KC520M	T57, T68	EP1812SGE KC522M	T84	ER0412M04U00GUP KCU25	C19	ER2500I6U00GUN KCU10	C22
EP1412EHD KC522M	T57, T68	EP1812SGE KCPK30	T84	ER0500M05P00GUP K313	C19	ER2500I6U00GUP KCU25	C22
EP1412EHD KC725M	T57, T68	EP1812SGE KCSM40	T84	ER0500M05P00GUP KCU10	C19	ER2500I6U00GUN KCK20B	C22
EP1412EHD KCK15	T57, T68	EP1816E KC522M	T83	ER0500M05P00GUP KCU25	C19	ER2500I6U00GUN KCP10B	C22
EP1412EHD KCPK30	T57, T68	EP1816E KC725M	T83	ER0512M05U00GUN KCK20B	C21	ER2500I6U00GUN KCP25B	C22
EP1412EHD KCPM40	T57, T68	EP1816E KCPK30	T83	ER0512M05U00GUN KCP10B	C21	ER2500I6U00GUN KCU10	C22
EP1412EHD KCSM40	T57, T68	EP1816E KCPM40	T83	ER0512M05U00GUN KCP25B	C21	ER2500I6U00GUN KCU25	C22
EP1412SGD KC520M	T58, T70	EP1816E KCSM40	T83	ER0512M05U00GUN KCU10	C21	ER2500I6U00GUP KCP10B	C19
EP1412SGD KC725M	T58, T70	EP1816EHD KC725M	T84	ER0512M05U00GUN KCU25	C21	ER2500I6U00GUP KCP25B	C19
EP1412SGD KCPK30	T58, T70	EP1816EHD KCPK30	T84	ER0512M05U00GUP KCP10B	C19	ER2500I6U00GUP KCU10	C19
EP1412SGD KCPM40	T58, T70	EP1816EHD KCPM40	T84	ER0512M05U00GUP KCP25B	C19	ER2500I6U00GUP KCU25	C19
EP1412SGD KCSM40	T58, T70	EP1816EHD KCSM40	T84	ER0512M05U00GUP KCU10	C19	ER2500I6U00GUP KCU25	C19
EP1412SGE KC522M	T58, T69	EP1816S KC725M	T85	ER0512M05U00GUP KCU25	C19	ER2500I6U00GUP KCU25	C19
EP1412SGE KC725M	T58, T69	EP1816S KCPK30	T85	ER0600M06P00GUP K313	C19	ER2500I6U00GUP KCP10B	C19
EP1412SGE KCPK30	T58, T69	EP1816S KCPM40	T85	ER0600M06P00GUP KCU10	C19	ER2500I6U00GUP KCP25B	C19
EP1412SGE KCSM40	T58, T69	EP1816S KCSM40	T85	ER0600M06P00GUP KCU25	C19	ER2500I6U00GUP KCU10	C22
EP1416EHD KC522M	T57, T68	EP1816SGE KCSM40	T84	ER0612M06U00GUN KCK20B	C21	ER2500I6U00GUP KCP10B	C19
EP1416EHD KC725M	T57, T68	EP1824E KC725M	T83	ER0612M06U00GUN KCP10B	C21	ER2500I6U00GUP KCP25B	C19
EP1416EHD KCK15	T57, T68	EP1832E KC520M	T83	ER0612M06U00GUN KCP25B	C21	ER2500I6U00GUP KCU10	C22
EP1416EHD KCPK30	T57, T68	EP1832E KC522M	T83	ER0612M06U00GUN KCU10	C21	ER2500I6U00GUP KCU25	C22
EP1416EHD KCPM40	T57, T68	EP1832E KC725M	T83	ER0612M06U00GUN KCU25	C21	ER2500I6U00GUP KCU10	C19
EP1416EHD KCSM40	T57, T68	EP1832E KCPK30	T83	ER0612M06U00GUP KCP10B	C19	ER2500I6U00GUP KCU25	C22
EP1416SGD KC520M	T58, T70	EP1832E KCPM40	T83	ER0612M06U00GUP KCP25B	C19	ER2500I6U00GUP KCU10	C19
EP1416SGD KC725M	T58, T70	EP1832EHD KC725M	T84	ER0612M06U00GUP KCU10	C19	ER2500I6U00GUP KCP25B	C19
EP1416SGD KCPK30	T58, T70	EP1832EHD KCPK30	T84	ER0612M06U00GUP KCU25	C19	ER2500I6U00GUP KCU10	C19
EP1416SGD KCPM40	T58, T70	EP1832EHD KCPM40	T84	ER0612M06U00GUP KCP10B	C19	ER2500I6U00GUP KCU25	C22
EP1416SGD KCSM40	T58, T70	EP1832EHD KCSM40	T84	ER0612M06U00GUP KCP25B	C19	ER2500I6U00GUP KCU10	C19
EP1416SGE KC522M	T58, T69	EP1832S KC725M	T85	ER0800M08P00GUP K313	C19	ER2500I6U00GUP KCU25	C19
EP1416SGE KC725M	T58, T69	EP1832S KCPK30	T85	ER0800M08P00GUP KCU10	C19	ER2500I6U00GUP KCP10B	C19
EP1416SGE KCPK30	T58, T69	EP1832S KCPM40	T85	ER0800M08P00GUP KCU25	C19	ER2500I6U00GUP KCP25B	C19
EP1416SGE KCSM40	T58, T69	EP1832SGE KCPK30	T84	ER0812M08U00GUN KCK20B	C21	ER2500I6U00GUP KCU10	C19
EP1420EHD KC522M	T57, T68	EP1832SGE KCPM40	T84	ER0812M08U00GUN KCP10B	C21	ER2500I6U00GUP KCU25	C19
EP1420EHD KC725M	T57, T68	EP1840EHD KC725M	T84	ER0812M08U00GUN KCP25B	C21	ER2500I6U00GUP KCU10	C19
EP1420EHD KCPK30	T57, T68	EP1840EHD KCSM40	T84	ER0812M08U00GUP KCU10	C19	ER2500I6U00GUP KCP25B	C19
EP1420EHD KCPM40	T57, T68	EP1848E KC725M	T83	ER0812M08U00GUP KCU25	C19	ER2500I6U00GUP KCU10	C19
EP1420EHD KCSM40	T57, T68	EP1848E KCPK30	T83	ER0812M08U00GUP KCP10B	C19	ER2500I6U00GUP KCU25	C19
EP1424EHD KC522M	T57, T68	EP1848EHD KC725M	T84	ER0812M08U00GUP KCP25B	C19	ER2500I6U00GUP KCU10	C19
EP1424EHD KC725M	T57, T68	EP1848EHD KCPK30	T84	ER0940I2U00GUN KCK20B	C22	ER2500I6U00GUP KCU25	C19
EP1424EHD KCPK30	T57, T68	EP1848EHD KCPM40	T84	ER0940I2U00GUN KCP10B	C22	ER2500I6U00GUP KCP10B	C19
EP1424EHD KCPM40	T57, T68	EP1848S KCSM40	T85	ER0940I2U00GUN KCP25B	C22	ER2500I6U00GUP KCP25B	C19
EP1424EHD KCSM40	T57, T68	EP1864E KC522M	T83	ER0940I2U00GUN KCU10	C22	ER2500I6U00GUP KCU10	C19
EP1431EHD KC522M	T57, T68	EP1864E KC725M	T83	ER0940I2U00GUN KCU25	C22	ER2500I6U00GUP KCU25	C19
EP1431EHD KC725M	T57, T68	EP1864E KCPK30	T83	ER1250I3P00GUP K313	C20	ER2500I6U00GUP KCP10B	C19
EP1431EHD KCPK30	T57, T68	EP1864E KCPM40	T83	ER1250I3P00GUP KCU10	C20	ER2500I6U00GUP KCP25B	C19
EP1431EHD KCSM40	T57, T68	EP1864EHD KC725M	T84	ER1250I3P00GUP KCU25	C20	ER2500I6U00GUP KCU10	C19
EP1431SGE KC725M	T58, T69	EP1864EHD KCPK30	T84	ER1250I3U00GUN KCK20B	C20	ER2500I6U00GUP KCU25	C19
EP1431SGE KCPK30	T58, T69	EP1864S KC725M	T85	ER1250I3U00GUN KCP10B	C22	ER2500I6U00GUP KCU10	C19
EP1431SGE KCPM40	T58, T69	EP1864S KCPK30	T85	ER1250I3U00GUN KCP25B	C22	ER2500I6U00GUP KCU25	C19
EP1431SGE KCSM40	T58, T69	EP1864S KCPM40	T85	ER1250I3U00GUN KCU10	C22	ER2500I6U00GUP KCP10B	C19
EP1440EHD KC522M	T57, T68	ER0200M02P00GUP KCU10	C19	ER1250I3U00GUN KCU25	C22	ER2500I6U00GUP KCP25B	C19
EP1440EHD KC725M	T57, T68	ER0200M02P00GUP KCU25	C19	ER130I3U00GUN KCK20B	C22	ER2500I6U00GUP KCU10	C19
EP1440EHD KCPK30	T57, T68	ER0212M02U00GUN KCK20B	C21	ER130I3U00GUN KCP10B	C22	ER2500I6U00GUP KCU25	C19
EP1440EHD KCPM40	T57, T68	ER0212M02U00GUN KCP10B	C21	ER130I3U00GUN KCP25B	C22	ER2500I6U00GUP KCU10	C19
EP1440EHD KCSM40	T57, T68	ER0212M02U00GUN KCP25B	C21	ER130I3U00GUN KCU10	C22	ER2500I6U00GUP KCP25B	C19
EP1808E KC520M	T83	ER0212M02U00GUN KCU10	C21	ER130I3U00GUN KCU25	C22	ER2500I6U00GUP KCU10	C19
EP1808E KC725M	T83	ER0212M02U00GUP KCU25	C19	ER130I3U00GUP KCP10B	C19	ER2500I6U00GUP KCU25	C19
EP1808E KCPK30	T83	ER0212M02U00GUP KCP10B	C19	ER130I3U00GUP KCP25B	C19	ER2500I6U00GUP KCU10	C19
EP1808E KCPM40	T83	ER0212M02U00GUP KCP25B	C19	ER130I3U00GUP KCU10	C19	ER2500I6U00GUP KCP25B	C19
EP1808E KCSM40	T83	ER0212M02U00GUP KCU25	C19	ER130I3U00GUP KCU25	C19	ER2500I6U00GUP KCU10	C19
EP1808EHD KC725M	T84	ER0300M03P00GUP K313	C19	ER17I04P00GUP K313	C20	ER2500I6U00GUP KCU25	C19
EP1808EHD KCPK30	T84	ER0300M03P00GUP KCU10	C19	ER17I04P00GUP KCU10	C20	ER2500I6U00GUP KCP10B	C19
EP1808EHD KCPM40	T84	ER0300M03P00GUP KCU25	C19	ER17I04P00GUP KCU25	C20	ER2500I6U00GUP KCP25B	C19
EP1808EHD KCSM40	T84	ER0312M03U00GUN KCK20B	C21	ER17I04U00GUN KCK20B	C22	ER2500I6U00GUP KCU10	C19
EP1808S KC725M	T85	ER0312M03U00GUN KCP10B	C21	ER17I04U00GUN KCP10B	C22	ER2500I6U00GUP KCU25	C19
EP1808S KCK15	T85	ER0312M03U00GUN KCP25B	C21	ER17I04U00GUN KCP25B	C22	ER2500I6U00GUP KCU10	C19
EP1808S KCPK30	T85	ER0312M03U00GUN KCU10	C21	ER17I04U00GUN KCU10	C22	ER2500I6U00GUP KCP25B	C19
EP1808S KCPM40	T85	ER0312M03U00GUP KCU25	C21	ER17I04U00GUN KCU25	C22	ER2500I6U00GUP KCU10	C19
EP1808S KCSM40	T85	ER0312M03U00GUP KCP10B	C19	ER1920I4U00GUN KCK20B	C22	ER2500I6U00GUP KCP10B	C19
EP1808SGE KC522M	T84	ER0312M03U00GUP KCP25B	C19	ER1920I4U00GUN KCP10B	C22	ER2500I6U00GUP KCP25B	C19
EP1808SGE KC725M	T84	ER0312M03U00GUP KCU10	C19	ER1920I4U00GUN KCP25B	C22	ER2500I6U00GUP KCU10	C19
EP1808SGE KCPK30	T84	ER0312M03U00GUP KCU25	C19	ER1920I4U00GUN KCU10	C22	ER2500I6U00GUP KCU25	C19

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
EVM50L0312B180250C	C64	EVM50R0312B250350C	C63	EVM65L0820B180999C	C64	EVSBL2525M0320075100C	C50
EVM50L0312B250350C	C64	EVM50R0312B350999C	C63	EVM65L0826MC	C60	EVSBL2525M0320100180C	C50
EVM50L0312B350999C	C64	EVM50R0312MC	C59	EVM65R0616MC	C59	EVSBL2525M0320180250C	C50
EVM50L0312MC	C60	EVM50R0316MC	C59	EVM65R0620A060075C	C62	EVSBL2525M0416100180C	C50
EVM50L0316MC	C60	EVM50R0320A075100C	C61	EVM65R0620A075100C	C62	EVSBL2525M0416180250C	C50
EVM50L0320A075100C	C62	EVM50R0320A100180C	C61	EVM65R0620A100180C	C62	EVSBL2525M0426060075C	C50
EVM50L0320A100180C	C62	EVM50R0320A180250C	C61	EVM65R0620A180250C	C62	EVSBL2525M0426075100C	C50
EVM50L0320A180250C	C62	EVM50R0320A250350C	C61	EVM65R0620A250350C	C62	EVSBL2525M0426100180C	C50
EVM50L0320A250350C	C62	EVM50R0320A350999C	C61	EVM65R0620A350999C	C62	EVSBL2525M0426060075C	C50
EVM50L0320A350999C	C62	EVM50R0320B075100C	C63	EVM65R0620B060075C	C64	EVSBL2525M0516050060C	C50
EVM50L0320B075100C	C64	EVM50R0320B100180C	C63	EVM65R0620B075100C	C64	EVSBL2525M0516060075C	C50
EVM50L0320B100180C	C64	EVM50R0320B180250C	C63	EVM65R0620B100180C	C64	EVSBL2525M0516075100C	C50
EVM50L0320B180250C	C64	EVM50R0320B250350C	C63	EVM65R0620B180250C	C64	EVSBL2525M0516100180C	C50
EVM50L0320B250350C	C64	EVM50R0320B350999C	C63	EVM65R0620B250350C	C64	EVSBL2525M0516180250C	C50
EVM50L0320B350999C	C64	EVM50R0322MC	C59	EVM65R0620B350999C	C64	EVSBL2525M0516250350C	C50
EVM50L0322MC	C60	EVM50R0412MC	C59	EVM65R0626MC	C59	EVSBL2525M0516350999C	C50
EVM50L0412MC	C60	EVM50R0416A040050C	C61	EVM65R0632MC	C59	EVSBL2525M0526050060C	C50
EVM50L0416A040050C	C62	EVM50R0416A050060C	C61	EVM65R0816MC	C59	EVSBL2525M0526060075C	C50
EVM50L0416A050060C	C62	EVM50R0416A060075C	C61	EVM65R0820A080180C	C62	EVSBL2525M0526075100C	C50
EVM50L0416A060075C	C62	EVM50R0416A075100C	C61	EVM65R0820A180999C	C62	EVSBL2525M0616060075C	C51
EVM50L0416A075100C	C62	EVM50R0416A100180C	C61	EVM65R0820B080180C	C64	EVSBL2525M0616100180C	C51
EVM50L0416A100180C	C62	EVM50R0416A180250C	C61	EVM65R0820B180999C	C64	EVSBL2525M0616100180C	C51
EVM50L0416A180250C	C62	EVM50R0416A250350C	C61	EVM65R0826MC	C59	EVSBL2525M0616180250C	C51
EVM50L0416A250350C	C62	EVM50R0416A350999C	C61	EVSBL120312035040C	C47	EVSBL2525M0616250350C	C51
EVM50L0416A350999C	C62	EVM50R0416B040050C	C63	EVSBL120312040050C	C47	EVSBL2525M0616350999C	C51
EVM50L0416B040050C	C64	EVM50R0416B050060C	C63	EVSBL120312050060C	C47	EVSBL2525M0626060075C	C51
EVM50L0416B050060C	C64	EVM50R0416B060075C	C63	EVSBL120312060075C	C47	EVSBL2525M0626075100C	C51
EVM50L0416B060075C	C64	EVM50R0416B075100C	C63	EVSBL120312075100C	C47	EVSBL3232P0532100180C	C51
EVM50L0416B075100C	C64	EVM50R0416B100180C	C63	EVSBL120416040050C	C47	EVSBL3232P0532180250C	C51
EVM50L0416B100180C	C64	EVM50R0416B180250C	C63	EVSBL120416050060C	C47	EVSBL3232P0532250350C	C51
EVM50L0416B180250C	C64	EVM50R0416B250350C	C63	EVSBL120416060075C	C47	EVSBL3232P0532350999C	C51
EVM50L0416B250350C	C64	EVM50R0416B350999C	C63	EVSBL120416075100C	C47	EVSBL3232P0632100180C	C51
EVM50L0416B350999C	C64	EVM50R0416MC	C59	EVSBL160312100180C	C47	EVSBL3232P0632180250C	C51
EVM50L0416MC	C60	EVM50R0422MC	C59	EVSBL160312180250C	C47	EVSBL3232P0632250350C	C51
EVM50L0422MC	C60	EVM50R0426A100180C	C61	EVSBL160320060075C	C47	EVSBL3232P0632350999C	C51
EVM50L0426A100180C	C62	EVM50R0426A180250C	C61	EVSBL160320075100C	C47	EVSBR120312035040C	C46
EVM50L0426A180250C	C62	EVM50R0426A250350C	C61	EVSBL160320100180C	C47	EVSBR120312040050C	C46
EVM50L0426A250350C	C62	EVM50R0426A350999C	C61	EVSBL160320180250C	C47	EVSBR120312050060C	C46
EVM50L0426A350999C	C62	EVM50R0426B100180C	C63	EVSBL160416100180C	C47	EVSBR120312060075C	C46
EVM50L0426B100180C	C64	EVM50R0426B180250C	C63	EVSBL160416180250C	C47	EVSBR120312075100C	C46
EVM50L0426B180250C	C64	EVM50R0426B250350C	C63	EVSBL160426060075C	C47	EVSBR120416040050C	C46
EVM50L0426B250350C	C64	EVM50R0426B350999C	C63	EVSBL160426075100C	C47	EVSBR120416050060C	C46
EVM50L0426B350999C	C64	EVM50R0426MC	C59	EVSBL160426100180C	C47-48	EVSBR120416060075C	C46
EVM50L0426MC	C60	EVM50R0432MC	C59	EVSBL160426180250C	C47-48	EVSBR120416075100C	C46
EVM50L0432MC	C60	EVM50R0512MC	C59	EVSBL160516050060C	C47-48	EVSBR160312100180C	C46
EVM50L0512MC	C60	EVM50R0516MC	C59	EVSBL160516060075C	C47-48	EVSBR160312180250C	C46
EVM50L0516MC	C60	EVM50R0520A050060C	C61	EVSBL160516075100C	C47-48	EVSBR160320060075C	C46
EVM50L0520A050060C	C62	EVM50R0520A060075C	C62	EVSBL160516100180C	C47-48	EVSBR160320075100C	C46
EVM50L0520A060075C	C62	EVM50R0520A075100C	C62	EVSBL160516180250C	C47-48	EVSBR160320100180C	C46
EVM50L0520A075100C	C62	EVM50R0520A100180C	C62	EVSBL160516250350C	C47-48	EVSBR160320180250C	C46
EVM50L0520A100180C	C62	EVM50R0520A180250C	C62	EVSBL160516350999C	C47-48	EVSBR160416100180C	C46
EVM50L0520A180250C	C62	EVM50R0520A250350C	C62	EVSBL160526050060C	C47-48	EVSBR160416180250C	C46
EVM50L0520A250350C	C62	EVM50R0520A350999C	C62	EVSBL160526060075C	C47-48	EVSBR160426060075C	C46
EVM50L0520A350999C	C62	EVM50R0520B050060C	C63	EVSBL160526075100C	C47-48	EVSBR160426075100C	C46
EVM50L0520B050060C	C64	EVM50R0520B060075C	C64	EVSBL160616060075C	C48	EVSBR160426100180C	C46
EVM50L0520B060075C	C64	EVM50R0520B075100C	C64	EVSBL160616075100C	C48	EVSBR160426180250C	C46
EVM50L0520B075100C	C64	EVM50R0520B100180C	C64	EVSBL160616100180C	C48	EVSBR160516050060C	C46
EVM50L0520B100180C	C64	EVM50R0520B180250C	C64	EVSBL160616180250C	C48	EVSBR160516060075C	C46
EVM50L0520B180250C	C64	EVM50R0520B250350C	C64	EVSBL160616250350C	C48	EVSBR160516075100C	C46
EVM50L0520B250350C	C64	EVM50R0520B350999C	C64	EVSBL160616350999C	C48	EVSBR160516100180C	C46
EVM50L0520B350999C	C64	EVM50R0526MC	C59	EVSBL160626060075C	C48	EVSBR160516180250C	C46
EVM50L0526MC	C60	EVM50R0532MC	C59	EVSBL160626075100C	C48	EVSBR160516250350C	C46
EVM50L0532MC	C60	EVM50R1F12M	C59	EVSBL200532100180C	C47-48	EVSBR160516350999C	C47
EVM50L1F12M	C60	EVM65L0616MC	C60	EVSBL200532180250C	C47-48	EVSBR160526050060C	C47
EVM50R0212M	C59	EVM65L0620A060075C	C62	EVSBL200532250350C	C48	EVSBR160526060075C	C47
EVM50R0216M	C59	EVM65L0620A075100C	C62	EVSBL200532350999C	C48	EVSBR160526075100C	C47
EVM50R0312A035040C	C61	EVM65L0620A100180C	C62	EVSBL200632100180C	C48	EVSBR160616060075C	C47
EVM50R0312A040050C	C61	EVM65L0620A180250C	C62	EVSBL200632180250C	C48	EVSBR160616075100C	C47
EVM50R0312A050060C	C61	EVM65L0620A250350C	C62	EVSBL200632250350C	C48	EVSBR160616100180C	C47
EVM50R0312A060075C	C61	EVM65L0620A350999C	C62	EVSBL200632350999C	C48	EVSBR160616180250C	C47
EVM50R0312A075100C	C61	EVM65L0620B060075C	C64	EVSBL2020K0312035040C	C50	EVSBR160616250350C	C47
EVM50R0312A100180C	C61	EVM65L0620B075100C	C64	EVSBL2020K0312040050C	C50	EVSBR160616350999C	C47
EVM50R0312A180250C	C61	EVM65L0620B100180C	C64	EVSBL2020K0312050060C	C50	EVSBR160626060075C	C47
EVM50R0312A250350C	C61	EVM65L0620B180250C	C64	EVSBL2020K0312060075C	C50	EVSBR160626075100C	C47
EVM50R0312A350999C	C61	EVM65L0620B250350C	C64	EVSBL2020K0312075100C	C50	EVSBR200532100180C	C47
EVM50R0312B035040C	C63	EVM65L0620B350999C	C64	EVSBL2020K0416040050C	C50	EVSBR200532180250C	C47
EVM50R0312B040050C	C63	EVM65L0626MC	C60	EVSBL2020K0416050060C	C50	EVSBR200532250350C	C47
EVM50R0312B050060C	C63	EVM65L0632MC	C60	EVSBL2020K0416060075C	C50	EVSBR200532350999C	C47
EVM50R0312B060075C	C63	EVM65L0816MC	C60	EVSBL2020K0416075100C	C50	EVSBR200632100180C	C47
EVM50R0312B075100C	C63	EVM65L0820A080180C	C62	EVSBL2525M0312100180C	C50	EVSBR200632180250C	C47
EVM50R0312B100180C	C63	EVM65L0820A180999C	C62	EVSBL2525M0312180250C	C50	EVSBR200632250350C	C47
EVM50R0312B180250C	C63	EVM65L0820B080180C	C64	EVSBL2525M0320060075C	C50	EVSBR200632350999C	C47

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
EVSBR2020K0312035040C	C49	EVSCFL2020K0316C	C45	EVSCFL2525M0532C	C41	EVSML2020K0422C	C37
EVSBR2020K0312040050C	C49	EVSCFL2020K1B16	C45	EVSCFL3232P0432C	C41	EVSML2020K0516C	C37
EVSBR2020K0312050060C	C49	EVSCFL2020K1F16	C45	EVSCFL3232P0540C	C41	EVSML2020K0522C	C37
EVSBR2020K0312060075C	C49	EVSCFR060210	C42	EVSCFR080216	C38	EVSML2020K0616C	C37
EVSBR2020K0312075100C	C49	EVSCFR061B10	C42	EVSCFR080316C	C38	EVSML2020K0622C	C37
EVSBR2020K0416040050C	C49	EVSCFR061F10	C42	EVSCFR081B16	C38	EVSML240640C	C35
EVSBR2020K0416050060C	C49	EVSCFR080210	C42	EVSCFR081F16	C38	EVSML240840C	C35
EVSBR2020K0416060075C	C49	EVSCFR080216	C42	EVSCFR100216	C38	EVSML241040C	C35
EVSBR2020K0416075100C	C49	EVSCFR080310C	C42	EVSCFR100316C	C38	EVSML2525M0216	C37
EVSBR2525M0312100180C	C49	EVSCFR080316C	C42	EVSCFR100416C	C38	EVSML2525M0216C	C37
EVSBR2525M0312180250C	C49	EVSCFR081B10	C42	EVSCFR120216	C38	EVSML2525M0226	C37
EVSBR2525M0320060075C	C49	EVSCFR081B13	C42	EVSCFR120316C	C38	EVSML2525M0316C	C37
EVSBR2525M0320075100C	C49	EVSCFR081F10	C42	EVSCFR120326C	C38	EVSML2525M0326C	C37
EVSBR2525M0320100180C	C49	EVSCFR081F13	C42	EVSCFR120416C	C38	EVSML2525M0416C	C37
EVSBR2525M0320180250C	C49	EVSCFR100216	C42	EVSCFR120426C	C38	EVSML2525M0426C	C37
EVSBR2525M0416100180C	C49	EVSCFR100316C	C42	EVSCFR1212K0216	C40	EVSML2525M0516C	C37
EVSBR2525M0416180250C	C49	EVSCFR1010K0210	C44	EVSCFR1212K0316C	C40	EVSML2525M0526C	C37
EVSBR2525M0426060075C	C49	EVSCFR1010K1B10	C44	EVSCFR1212K1B16	C40	EVSML2525M0616C	C37
EVSBR2525M0426075100C	C49	EVSCFR1010K1F10	C44	EVSCFR1212K1F16	C40	EVSML2525M0626C	C37
EVSBR2525M0426100180C	C49	EVSCFR101B16	C42	EVSCFR160216	C38	EVSML2525M0826C	C37
EVSBR2525M0426180250C	C49	EVSCFR101F16	C42	EVSCFR160226	C38	EVSML3232P0426C	C37
EVSBR2525M0516050060C	C49	EVSCFR120216	C42	EVSCFR160316C	C38	EVSML3232P0432C	C37
EVSBR2525M0516060075C	C49	EVSCFR120316C	C42	EVSCFR160326C	C38	EVSML3232P0526C	C37
EVSBR2525M0516075100C	C49	EVSCFR1212K0210	C44	EVSCFR160426C	C38	EVSML3232P0532C	C37
EVSBR2525M0516100180C	C49	EVSCFR1212K0216	C44	EVSCFR160432C	C38	EVSML3232P0626C	C37
EVSBR2525M0516180250C	C49	EVSCFR1212K0310C	C44	EVSCFR160526C	C38	EVSML3232P0632C	C37
EVSBR2525M0516250350C	C49	EVSCFR1212K0316C	C44	EVSCFR160532C	C38	EVSML3232P0826C	C37
EVSBR2525M0516350999C	C50	EVSCFR1212K1B10	C44	EVSCFR1616K0216	C40	EVSML3232P0832C	C37
EVSBR2525M0526050060C	C50	EVSCFR1212K1B13	C44	EVSCFR1616K0316C	C40	EVSML3232P1032C	C37
EVSBR2525M0526060075C	C50	EVSCFR1212K1F10	C44	EVSCFR1616K0416C	C40	EVSML4040R0640C	C37
EVSBR2525M0526075100C	C50	EVSCFR1212K1F13	C44	EVSCFR200432C	C38	EVSML4040R0840C	C37
EVSBR2525M0616060075C	C50	EVSCFR121B16	C42	EVSCFR200540C	C38	EVSML4040R1040C	C37
EVSBR2525M0616075100C	C50	EVSCFR121F16	C42	EVSCFR2020K0216	C40	EVSML120216	C34
EVSBR2525M0616100180C	C50	EVSCFR1616K0216	C44	EVSCFR2020K0316C	C40	EVSML120222	C34
EVSBR2525M0616180250C	C50	EVSCFR1616K0316C	C44	EVSCFR2020K0326C	C40	EVSML120222C	C34
EVSBR2525M0616250350C	C50	EVSCFR1616K1B16	C44	EVSCFR2020K0416C	C40	EVSML120316C	C34
EVSBR2525M0616350999C	C50	EVSCFR1616K1F16	C44	EVSCFR2020K0426C	C40	EVSML120322C	C34
EVSBR2525M0626060075C	C50	EVSCFR2020K0216	C44	EVSCFR2525M0216	C40	EVSML120416C	C34
EVSBR2525M0626075100C	C50	EVSCFR2020K0316C	C44	EVSCFR2525M0226	C40	EVSML120422C	C34
EVSBR3232P0532100180C	C50	EVSCFR2020K1B16	C44	EVSCFR2525M0316C	C40	EVSML120516C	C34
EVSBR3232P0532180250C	C50	EVSCFR2020K1F16	C44	EVSCFR2525M0326C	C40	EVSML120522C	C34
EVSBR3232P0532250350C	C50	EVSCFL080216	C38	EVSCFR2525M0426C	C40	EVSML120526C	C34
EVSBR3232P0532350999C	C50	EVSCFL080316C	C39	EVSCFR2525M0432C	C40	EVSML120532C	C34
EVSBR3232P0632100180C	C50	EVSCFL081B16	C38	EVSCFR2525M0526C	C40	EVSML120542C	C34
EVSBR3232P0632180250C	C50	EVSCFL081F16	C38	EVSCFR2525M0532C	C40	EVSML120552C	C34
EVSBR3232P0632250350C	C50	EVSCFL100216	C38	EVSCFR2525M0616C	C40	EVSML120616C	C34
EVSBR3232P0632350999C	C50	EVSCFL100316C	C39	EVSCFR2525M0626C	C40	EVSML120622C	C34
EVSCFL060210	C43	EVSCFL100416C	C39	EVSCFR2525M0632C	C40	EVSML120626C	C34
EVSCFL061B10	C43	EVSCFL120216	C39	EVSCFR2525M0632C	C40	EVSML120632C	C34
EVSCFL061F10	C43	EVSCFL120316C	C39	EVSCFR2525M0632C	C40	EVSML120636C	C34
EVSCFL080210	C43	EVSCFL120326C	C39	EVSCFR2525M0632C	C40	EVSML120642C	C34
EVSCFL080216	C43	EVSCFL120416C	C39	EVSCFR2525M0632C	C40	EVSML120646C	C34
EVSCFL080310C	C43	EVSCFL120426C	C39	EVSCFR2525M0632C	C40	EVSML1206516C	C34
EVSCFL080316C	C43	EVSCFL1212K0216	C41	EVSCFR2525M0632C	C40	EVSML120656C	C34
EVSCFL081B10	C43	EVSCFL1212K0316C	C41	EVSCFR2525M0632C	C40	EVSML1206616C	C34
EVSCFL081B13	C43	EVSCFL1212K1B16	C41	EVSCFR2525M0632C	C40	EVSML120666C	C34
EVSCFL081F10	C43	EVSCFL1212K1F16	C41	EVSCFR2525M0632C	C40	EVSML120672C	C34
EVSCFL081F13	C43	EVSCFL160216	C39	EVSCFR2525M0632C	C40	EVSML120676C	C34
EVSCFL100216	C43	EVSCFL160226	C39	EVSCFR2525M0632C	C40	EVSML1206826C	C34
EVSCFL100316C	C43	EVSCFL160316C	C39	EVSCFR2525M0632C	C40	EVSML120686C	C34
EVSCFL1010K0210	C45	EVSCFL160326C	C39	EVSCFR2525M0632C	C40	EVSML120692C	C34
EVSCFL1010K1B10	C45	EVSCFL160426C	C39	EVSCFR2525M0632C	C40	EVSML120696C	C34
EVSCFL1010K1F10	C45	EVSCFL160432C	C39	EVSCFR2525M0632C	C40	EVSML120702C	C34
EVSCFL101B16	C43	EVSCFL160526C	C39	EVSCFR2525M0632C	C40	EVSML120706C	C34
EVSCFL101F16	C43	EVSCFL160532C	C39	EVSCFR2525M0632C	C40	EVSML120712C	C34
EVSCFL120216	C43	EVSCFL1616K0216	C41	EVSCFR2525M0632C	C40	EVSML120716C	C34
EVSCFL120316C	C43	EVSCFL1616K0316C	C41	EVSCFR2525M0632C	C40	EVSML120722C	C34
EVSCFL1212K0210	C45	EVSCFL1616K0416C	C41	EVSCFR2525M0632C	C40	EVSML120726C	C34
EVSCFL1212K0216	C45	EVSCFL200432C	C39	EVSCFR2525M0632C	C40	EVSML120732C	C34
EVSCFL1212K0310C	C45	EVSCFL200540C	C39	EVSCFR2525M0632C	C40	EVSML120736C	C34
EVSCFL1212K0316C	C45	EVSCFL2020K0216	C41	EVSCFR2525M0632C	C40	EVSML120742C	C34
EVSCFL1212K1B10	C45	EVSCFL2020K0316C	C41	EVSCFR2525M0632C	C40	EVSML120746C	C34
EVSCFL1212K1B13	C45	EVSCFL2020K0326C	C41	EVSCFR2525M0632C	C40	EVSML120752C	C34
EVSCFL1212K1F10	C45	EVSCFL2020K0416C	C41	EVSCFR2525M0632C	C40	EVSML120756C	C34
EVSCFL1212K1F13	C45	EVSCFL2020K0426C	C41	EVSCFR2525M0632C	C40	EVSML120762C	C34
EVSCFL121B16	C43	EVSCFL2525M0216	C41	EVSCFR2525M0632C	C40	EVSML120766C	C34
EVSCFL121F16	C43	EVSCFL2525M0226	C41	EVSCFR2525M0632C	C40	EVSML120772C	C34
EVSCFL1616K0216	C45	EVSCFL2525M0316C	C41	EVSCFR2525M0632C	C40	EVSML120776C	C34
EVSCFL1616K0316C	C45	EVSCFL2525M0326C	C41	EVSCFR2525M0632C	C40	EVSML120782C	C34
EVSCFL1616K1B16	C45	EVSCFL2525M0426C	C41	EVSCFR2525M0632C	C40	EVSML120786C	C34
EVSCFL1616K1F16	C45	EVSCFL2525M0432C	C41	EVSCFR2525M0632C	C40	EVSML120792C	C34
EVSCFL2020K0216	C45	EVSCFL2525M0526C	C41	EVSCFR2525M0632C	C40	EVSML120796C	C34

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
EVSMR2525M0226	C36	FSDE0750Y15CQC KC643M	043	H24NER8W	C195, D38	HNEC535ANSN KY3500	S23
EVSMR2525M0226C	C36	FSDE0750Y15CQD KC643M	043	H24NVLPR3W	E49	HNE090508S KY3500	S79
EVSMR2525M0316C	C36	FSDE0750Y15CQE KC643M	043	H28MCLN4	B76	HNE0905ANSN KD200	S79
EVSMR2525M0326C	C36	FSDE1000JJBBCA KC643M	P98	H28MCLNR4	B76	HNE0905ANSN KY3500	S79
EVSMR2525M0416C	C36	FSDE1000JJBBCB KC643M	P98	H28MDUNL4	B96	HNE0905ANSN KY3500	S79
EVSMR2525M0426C	C36	FSDE1000JJBCC KC643M	P98	H28MDUNR4	B96	HNGJ438ANENLD KC725M	S6, S12, S15
EVSMR2525M0516C	C36	FSDE1000JJBCE KC643M	P98	H28MTFNR3	B143	HNGJ438ANENLD KCPK30	S6, S12, S15
EVSMR2525M0526C	C36	FSDE1000NJDYA KC643M	P100	H28MVLNR4	B163	HNGJ438ANENLD KC510M	S6, S12, S15
EVSMR2525M0616C	C36	FSDE1000NJDYB KC643M	P100	H28NEL3W	C195, D38	HNGJ438ANENLD KC520M	S6, S12, S15
EVSMR2525M0626C	C36	FSDE1000NJDYC KC643M	P100	H28NER3W	C195, D38	HNGJ438ANENLD KC522M	S6, S12, S15
EVSMR2525M0826C	C36	FSDE1000NJDYE KC643M	P100	H28NER4W	C195, D38	HNGJ438ANENLD KC725M	S6, S12, S15
EVSMR3232P0426C	C36	FSDE1000Y19CQB KC643M	043	H28NER6W	C195, D38	HNGJ438ANENLD KCK15	S6, S12, S15
EVSMR3232P0432C	C36	FSDE1000Y19CQC KC643M	043	H32CRGNR4	B170, B393	HNGJ438ANENLD KCPK30	S6, S12, S15
EVSMR3232P0526C	C36	FSDE1000Y19CQD KC643M	043	H32LSE3	D76	HNGJ438ANENLD KCPM40	S6, S12, S15
EVSMR3232P0532C	C36	FSDE1000Y19CQE KC643M	043	H32LSE4	D76	HNGJ438ANENLDJ K313	S6, S11, S15
EVSMR3232P0626C	C36	FSDE1000Y19CQF KC643M	043	H32LSE5	D76	HNGJ438ANENLDJ KC410M	S6, S11, S15
EVSMR3232P0632C	C36	FT10	K42	H32MCFNR5	B75	HNGJ438ANSNHD KC522M	S7, S12, S16
EVSMR3232P0826C	C36	FT15	K85, K124-125	H32MCKNR4	B75	HNGJ438ANSNHD KCK15	S7, S16
EVSMR3232P0832C	C36	FT20	K124-125	H32MCKNR5	B76	HNGJ438ANSNHD KCPK30	S7, S16
EVSMR3232P1032C	C36	FT5	K78	H32MCKNR6	B76	HNGJ438ANSNHD KCPM40	S7, S12, S16
EVSMR4040R0640C	C36	FT6	K79, T24	H32MCKNR7	B76	HNGJ438ANSNHD KCSM40	S7, S12, S16
EVSMR4040R0840C	C36	FT7	K78-80, K85, K89-90, K124-125	H32MCKNR8	B76	HNGJ53511ANSNHD KC520M	S19, S22
EVSMR4040R1040C	C36	FT8	K42, K85	H32MCKNR9	B76	HNGJ53511ANSNHD KC725M	S19, S22
F3508T S	T127-128, V9-11	FUWVCL	E63	H32MCKNR10	B76	HNGJ53511ANSNHD KCPK30	S19, S22
F3510T S	V9-12	FUWVCR	E63	H32MDUNL4	B96	HNGJ53511ANSNHD KCPM40	S19, S22
F4011T S	T131	G14-G18-RED	C83	H32MDUNR3	B96	HNGJ53511ANSNHD KCSM40	S19, S22
F7IP	T29, T40	G18-JIC	C83	H32MDUNR4	B96	HNGJ535ANENLD KC520M	S18, S21
FAS100302GD KC7015	H42	G32TTB41KM40	B410	H32MSKNR4	B120	HNGJ535ANENLD KC522M	S18, S21
FAS100302GD KC7215	H42	G40TTB51KM40	B410	H32MTFNR4	B143	HNGJ535ANENLD KC725M	S18, S21
FBSCFCL09CA06F	K116	G48TTB63KM63	B410	H32MVUNL3	B155	HNGJ535ANENLD KCK15	S18, S21
FBSCFCR09CA06F	K116	GPCD505 KC5025	B238	H32MVUNL4	B155	HNGJ535ANENLD KCPK30	S18, S21
FBSCCLCL09CA06F	K116	GPCD505 KCU25	B238	H32MVUNR3	B155	HNGJ535ANENLD KCSM40	S18, S21
FBSCLCR09CA06F	K116	GPCD51 KCU25	B238	H32MVUNR4	B155	HNGJ535ANENLDJ KC410M	S18, S21
FBSCUCR09CA06F	K117	H16LSE3	D76	H32MVLN4	B163	HNGJ535ANSNGD KC725M	S18, S22
FBSTFCR09CA11F	K117	H16MCLN4	B76	H32MVLNR4	B163	HNGJ535ANSNGD KCK15	S18, S22
FC11	B265	H16MCLNR4	B76	H32NDQPL4W	E48	HNGJ535ANSNGD KCPK30	S18, S22
FC14	B264-265	H16MDUNL3	B96	H32NEL3W	C195, D38	HNGJ535ANSNGD KCPM40	S18, S22
FMDF0375Y6CQA KCPM15	042	H16MDUNR3	B96	H32NEL4W	C195, D38	HNGJ535ANSNGD KCSM40	S18, S22
FMDF0500Y6CQB KCPM15	042	H16MVLN3	B163	H32NER3W	C195, D38	HNGJ535ANSNHD KC520M	S19, S22
FMDF0625Y6CQB KCPM15	042	H16SCLCR3	B198	H32NER4W	C195, D38	HNGJ535ANSNHD KC725M	S19, S22
FMDF0750Y6CQB KCPM15	042	H16SDUPL3	B237	H32NER6W	C195, D38	HNGJ535ANSNHD KCK15	S19, S22
FMDF1000Y6CQB KCPM15	042	H16SDUPR3	B237	H36NER4W	C195, D38	HNGJ535ANSNHD KCPK30	S19, S22
FP2506T	V4-5	H16STFPR2	B279	H40CTFPR4W	B188, B393	HNGJ535ANSNHD KCPM40	S19, S22
FP2507T	V4-5	H20CTFPR3W	B188, B393	H40LSE3	D76	HNGJ535ANSNHD KCSM40	S19, S22
FP3006T	V111, V114	H20LSE3	D76	H40MCFNR6	B75	HNGJ75ANENGD KC725M	S25
FP3007T S	V111, V114	H20MCFNR4	B75	H40MCKNL5	B75	HNGJ75ANENGD KCPK30	S25
FSDE0250J7DYA KC643M	P100	H20MCLN4	B76	H40MCKNR5	B75	HNGJ75ANENGD KCPM40	S25
FSDE0375J9BCA KC643M	P98	H20MCLNR4	B76	H40MCKNR6	B75	HNGJ535ANSNGD KCK15	S79
FSDE0375J9BCB KC643M	P98	H20MDUNL4	B96	H40MCLN4	B76	HNPX5354ENLE KC514M	S78
FSDE0375J9DYA KC643M	P100	H20MDUNR4	B96	H40MCLN5	B76	HNPX5354ENLE KCK15	S78
FSDE0375J9DYB KC643M	P100	H20MTFNR3	B143	H40MCLN6	B76	HNPX5354SNGE KC514M	S79
FSDE0375Y9CQA KC643M	043	H20MVUNL3	B155	H40MCLNR4	B76	HNPX5354SNGE KCK15	S79
FSDE0375Y9CQB KC643M	043	H20MVUNR3	B155	H40MCLNR5	B76	HNPX5355ENLE KC514M	S78
FSDE0375Y9CQC KC643M	043	H20MVLNR4	B163	H40MCLNR6	B76	HNPX5355ENLE KCK15	S78
FSDE0375Y9CQD KC643M	043	H20NDLPR4W	E48	H40MDUNL4	B96	HNPX5355SNGE KC514M	S79
FSDE0500J9BCA KC643M	P98	H20NDXPL4W	E49	H40MDUNR4	B96	HNPX5355SNGE KCK15	S79
FSDE0500J9BCB KC643M	P98	H20NEL3W	C195, D38	H40MSKNL6	B120	HNPX5355SNGE KCK15	S79
FSDE0500J9BCC KC643M	P98	H20NER3W	C195, D38	H40MSKNR6	B120	HNPX53ANSNGE KC514M	S78
FSDE0500N9DYA KC643M	P100	H24CRGNR4	B170, B393	H40MSSNR6	B120	HNPX53ANSNGE KCK15	S78
FSDE0500N9DYB KC643M	P100	H24LSE3	D76	H40MTFNR4	B143	HNPJ438ANSNHD KC522M	S7, S13, S16
FSDE0500N9DYC KC643M	P100	H24LSE4	D76	H40MVUNL3	B155	HNPJ438ANSNHD KC725M	S7, S13, S16
FSDE0500Y9CQA KC643M	043	H24MCFNR4	B75	H40MVUNL4	B155	HNPJ438ANSNHD KCK15	S7, S13, S16
FSDE0500Y9CQB KC643M	043	H24MCKNR4	B75	H40MVUNR3	B155	HNPJ438ANSNHD KCPK30	S7, S13, S16
FSDE0500Y9CQC KC643M	043	H24MCLN4	B76	H40MVUNR4	B155	HNPJ438ANSNHD KCPM40	S7, S13, S16
FSDE0500Y9CQD KC643M	043	H24MCLN5	B76	H40NDXPL4W	E49	HNPJ438ANSNHD KCSM40	S7, S13, S16
FSDE0500Y9CQE KC643M	043	H24MCLNR4	B76	H40NEL3W	C195, D38	HNPJ438ANSNGD KC520M	S7, S13, S16
FSDE0625JBBCB KC643M	P98	H24MCLNR5	B76	H40NEL4W	C195, D38	HNPJ438ANSNGD KC522M	S7, S13, S16
FSDE0625NBDBY KC643M	P100	H24MDPNR4	B96	H40NER3W	C195, D38	HNPJ438ANSNGD KC725M	S7, S13, S16
FSDE0625Y11CQA KC643M	043	H24MDUNL4	B96	H40NER4W	C195, D38	HNPJ438ANSNGD KCK15	S7, S13, S16
FSDE0625Y11CQB KC643M	043	H24MDUNR3	B96	H40NER6W	C195, D38	HNPJ438ANSNGD KCPK30	S7, S13, S16
FSDE0625Y11CQC KC643M	043	H24MDUNR4	B96	HDWM5EUS	S104	HNPJ438ANSNGD KCPM40	S7, S13, S16
FSDE0625Y11CQD KC643M	043	H24MSKNR4	B120	HFB1023SCFFR06	K130	HNPJ438ANSNGD KCSM40	S7, S13, S16
FSDE0625Y11CQE KC643M	043	H24MSSNR4	B120	HFB1223SCFFR06	K130	HNPJ438ANSNHD KC520M	S7, S13, S16
FSDE0750JFBCA KC643M	P98	H24MTFNR3	B143	HFB14FBHS1440	K130	HNPJ438ANSNHD KC522M	S7, S13, S16
FSDE0750JFBCB KC643M	P98	H24MVUNL3	B155	HFB1627SCFFR06	K130	HNPJ438ANSNHD KC725M	S7, S13, S16
FSDE0750JFBCC KC643M	P98	H24MVUNR3	B155	HFB16FBHS1640	K130	HNPJ438ANSNHD KCK15	S7, S13, S16
FSDE0750JFBCE KC643M	P98	H24MVLN4	B163	HFB19FBHS1840	K130	HNPJ438ANSNHD KCPK30	S7, S13, S16
FSDE0750NFDYA KC643M	P100	H24MVLNR4	B163	HFB2127SCFFR06	K130	HNPJ438ANSNHD KCPM40	S7, S13, S16
FSDE0750NFDYB KC643M	P100	H24NDLPR4W	E48	HFB2427SCFFR06	K130	HNPJ438ANSNHD KCSM40	S7, S13, S16
FSDE0750NFDYC KC643M	P100	H24NDXPR4W	E49	HFB2727SCFFR06	K130	HNPJ53511ANSNHD KC522M	S19, S23
FSDE0750NFDYE KC643M	P100	H24NEL3W	C195, D38	HFB3127SCFFR06	K130	HNPJ53511ANSNHD KC725M	S19, S23
FSDE0750Y15CQB KC643M	043	H24NER3W	C195, D38	HFB3427SCFFR06	K130	HNPJ53511ANSNHD KCK15	S19, S23

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
HNPJ53511ANSNHD KCPK30	S19, S23	HPFSS500S5063 KCPM15	P109	HPHV250S4125CH KCPM15	P17	HPHV625S4075L KCPM15	P19
HNPJ53511ANSNHD KCPM40	S19, S23	HPFSS500S5125 KCPM15	P109	HPHV250S4125R030 KCPM15	P17	HPHV625S4075LR015 KCPM15	P18
HNPJ53511ANSNHD KCSM40	S19, S23	HPFSS500S5200 KCPM15	P109	HPHV250S4175R015 KCPM15	P17	HPHV625S4075LR030 KCPM15	P18
HNPJ535ANSNGD KC520M	S19, S22	HPFSS625S5075 KCPM15	P109	HPHV250S4175R030 KCPM15	P17	HPHV625S4075LR060 KCPM15	P18
HNPJ535ANSNGD KC522M	S19, S22	HPFSS625S5163 KCPM15	P109	HPHV312S4050 KCPM15	P17	HPHV625S4075R060 KCPM15	P18
HNPJ535ANSNGD KC725M	S19, S22	HPFSS750S5088 KCPM15	P109	HPHV312S4050CH KCPM15	P17	HPHV625S4125 KCPM15	P19
HNPJ535ANSNGD KCK15	S19, S22	HPFSS750S5163 KCPM15	P109	HPHV312S4050L KCPM15	P17	HPHV625S4125CH KCPM15	P19
HNPJ535ANSNGD KCPK30	S19, S22	HPFSS750S5325 KCPM15	P109	HPHV312S4050LR015 KCPM15	P17	HPHV625S4125R030 KCPM15	P19
HNPJ535ANSNGD KCPM40	S19, S22	HPFT1000S6150 KC635M	P110	HPHV312S4050R030 KCPM15	P17	HPHV625S4125R060 KCPM15	P19
HNPJ535ANSNHD KC520M	S19, S23	HPFT1000S6225 KC635M	P110	HPHV312S4075 KCPM15	P17	HPHV625S4125R090 KCPM15	P19
HNPJ535ANSNHD KC522M	S19, S23	HPFT1000S6400 KC635M	P110	HPHV312S4075CH KCPM15	P17	HPHV625S4163 KCPM15	P19
HNPJ535ANSNHD KC725M	S19, S23	HPFT250S6038 KC635M	P110	HPHV312S4075R015 KCPM15	P17	HPHV625S4163R030 KCPM15	P19
HNPJ535ANSNHD KCK15	S19, S23	HPFT250S6075 KC635M	P110	HPHV312S4075R030 KCPM15	P17	HPHV625S4163R060 KCPM15	P19
HNPJ535ANSNHD KCPK30	S19, S23	HPFT312S6081 KC635M	P110	HPHV312S4075R060 KCPM15	P17	HPHV625S4163R120 KCPM15	P19
HNPJ535ANSNHD KCPM40	S19, S23	HPFT375S6088 KC635M	P110	HPHV312S4125R030 KCPM15	P17	HPHV625S4213 KCPM15	P19
HNPJ535ANSNHD KCSM40	S19, S23	HPFT375S6113 KC635M	P110	HPHV312S4075R030 KCPM15	P17	HPHV625S4213R030 KCPM15	P19
HNPJ755ANSNGD KC520M	S25	HPFT500S6063 KC635M	P110	HPHV312S4075R060 KCPM15	P17	HPHV625S4213R120 KCPM15	P19
HNPJ755ANSNGD KC725M	S25	HPFT500S6100 KC635M	P110	HPHV312S4050L KCPM15	P17	HPHV625S4225R060 KCPM15	P19
HNPJ755ANSNGD KCPK30	S25	HPFT500S6200 KC635M	P110	HPHV312S4050LR015 KCPM15	P17	HPHV750S4088 KCPM15	P19
HNPJ755ANSNHD KC725M	S26	HPFT625S6125 KC635M	P110	HPHV312S4050LR030 KCPM15	P17	HPHV750S4088CH KCPM15	P19
HNPJ755ANSNHD KCPK30	S26	HPFT750S6150 KC635M	P110	HPHV312S4050R030 KCPM15	P17	HPHV750S4088L KCPM15	P19
HNPJ755ANSNHD KCPM40	S26	HPFT750S6225 KC635M	P110	HPHV312S4088 KCPM15	P17	HPHV750S4088R030 KCPM15	P19
HNPJ759ANSNHD KC520M	S26	HPFT750S6300 KC635M	P110	HPHV312S4088CH KCPM15	P17	HPHV750S4150 KCPM15	P19
HNPJ759ANSNHD KCK15	S26	HPFT750S6400 KC635M	P110	HPHV312S4088L KCPM15	P17	HPHV750S4150CH KCPM15	P19
HNPJ759ANSNHD KCPK30	S26	HPHV1000S4150 KCPM15	P19	HPHV312S4088LR015 KCPM15	P17	HPHV750S4150R015 KCPM15	P19
HNPJ759ANSNHD KC725M	S26	HPHV1000S4150CH KCPM15	P19	HPHV312S4088LR030 KCPM15	P17	HPHV750S4150R030 KCPM15	P19
HNPJ759ANSNHD KCK15	S26	HPHV1000S4150R030 KCPM15	P19	HPHV312S4088LR090 KCPM15	P17	HPHV750S4150R060 KCPM15	P19
HNPJ759ANSNHD KCPK30	S26	HPHV1000S4150R120 KCPM15	P19	HPHV312S4088R015 KCPM15	P17	HPHV750S4150R090 KCPM15	P19
HNPJ759ANSNHD KCPM40	S26	HPHV1000S4150R250 KCPM15	P19	HPHV312S4088R030 KCPM15	P17	HPHV750S4150R120 KCPM15	P19
HNPJ759ANSNHD KCSM40	S26	HPHV1000S4200 KCPM15	P20	HPHV312S4088R060 KCPM15	P17	HPHV750S4163CH KCPM15	P19
HNPX5354SNGE KCK15	S80	HPHV1000S4200R030 KCPM15	P19	HPHV312S4088R090 KCPM15	P17	HPHV750S4163R030 KCPM15	P19
HNPX5354SNGE KCK15	S80	HPHV1000S4200R060 KCPM15	P19	HPHV312S4100 KCPM15	P17	HPHV750S4163R060 KCPM15	P19
HNPX5358SNGE KCK15	S80	HPHV1000S4200R120 KCPM15	P19	HPHV312S4100R015 KCPM15	P17	HPHV750S4163R120 KCPM15	P19
HPBNDM125S4013 KC633M	P150	HPHV1000S4225 KCPM15	P20	HPHV312S4100R030 KCPM15	P17	HPHV750S4225 KCPM15	P19
HPBNDM188S4019 KC633M	P150	HPHV1000S4225CH KCPM15	P20	HPHV312S4100R060 KCPM15	P17	HPHV750S4225CH KCPM15	P19
HPBNDM250S4025 KC633M	P150	HPHV1000S4225R030 KCPM15	P20	HPHV312S4100R090 KCPM15	P17	HPHV750S4225R030 KCPM15	P19
HPBNDM375S4038 KC633M	P150	HPHV1000S4225R060 KCPM15	P20	HPHV312S4125 KCPM15	P17	HPHV750S4225R060 KCPM15	P19
HPBNDM500S4050 KC633M	P150	HPHV1000S4263 KCPM15	P20	HPHV312S4125R060 KCPM15	P17	HPHV750S4300 KCPM15	P19
HPBNDM625S4063 KC633M	P150	HPHV1000S4263CH KCPM15	P20	HPHV312S4125R015 KCPM15	P17	HPHV750S4300CH KCPM15	P19
HPBNDM750S4075 KC633M	P150	HPHV1000S4263R030 KCPM15	P20	HPHV312S4125R030 KCPM15	P17	HPHV750S4400R030 KCPM15	P19
HPFDM1000S5150 KC633M	P148	HPHV1000S4300CH KCPM15	P20	HPHV312S4150R030 KCPM15	P17	HPHV750S4400R060 KCPM15	P19
HPFDM1000S6250 KC633M	P148	HPHV1000S4300R030 KCPM15	P20	HPHV312S4150R060 KCPM15	P17	HPHV750S4400R090 KCPM15	P19
HPFDM1000S6350 KC633M	P148	HPHV1000S4300R060 KCPM15	P20	HPHV312S4250R030 KCPM15	P17	HPHV750S4400R120 KCPM15	P19
HPFDM250S4038 KC633M	P148	HPHV1000S4400CH KCPM15	P20	HPHV312S4250R060 KCPM15	P17	HPHV750S4400R150 KCPM15	P19
HPFDM250S4063 KC633M	P148	HPHV1000S4400R030 KCPM15	P20	HPHV312S4250R090 KCPM15	P17	HPHV750S4400R180 KCPM15	P19
HPFDM250S4088 KC633M	P148	HPHV1000S4400R060 KCPM15	P20	HPHV312S4250R120 KCPM15	P17	HPHV750S4400R210 KCPM15	P19
HPFDM312S4050 KC633M	P148	HPHV1250S4225CH KCPM15	P20	HPHV312S4250R150 KCPM15	P17	HPHV750S4400R240 KCPM15	P19
HPFDM312S4075 KC633M	P148	HPHV1250S4225R030 KCPM15	P20	HPHV312S4250R180 KCPM15	P17	HPHV750S4400R270 KCPM15	P19
HPFDM312S4113 KC633M	P148	HPHV125S4025 KCPM15	P16	HPHV312S4250R210 KCPM15	P17	HPHV750S4400R300 KCPM15	P19
HPFDM375S4056 KC633M	P148	HPHV125S4025CH KCPM15	P16	HPHV312S4250R240 KCPM15	P17	HPHV750S4400R330 KCPM15	P19
HPFDM375S5094 KC633M	P148	HPHV125S4025LR015 KCPM15	P16	HPHV312S4250R270 KCPM15	P17	HPHV750S4400R360 KCPM15	P19
HPFDM375S5131 KC633M	P148	HPHV125S4050 KCPM15	P16	HPHV312S4250R300 KCPM15	P17	HPHV750S4400R390 KCPM15	P19
HPFDM500S4075 KC633M	P148	HPHV125S4050CH KCPM15	P16	HPHV312S4250R330 KCPM15	P17	HPHV750S4400R420 KCPM15	P19
HPFDM500S6125 KC633M	P148	HPHV125S4050L KCPM15	P16	HPHV312S4250R360 KCPM15	P17	HPHV750S4400R450 KCPM15	P19
HPFDM500S6175 KC633M	P148	HPHV125S4050R015 KCPM15	P16	HPHV312S4250R390 KCPM15	P17	HPHV750S4400R480 KCPM15	P19
HPFDM625S4094 KC633M	P148	HPHV188S4031 KCPM15	P16	HPHV312S4250R420 KCPM15	P17	HPHV750S4400R510 KCPM15	P19
HPFDM625S6156 KC633M	P148	HPHV188S4031CH KCPM15	P16	HPHV312S4250R450 KCPM15	P17	HPHV750S4400R540 KCPM15	P19
HPFDM625S6219 KC633M	P148	HPHV188S4031L KCPM15	P16	HPHV312S4250R480 KCPM15	P17	HPHV750S4400R570 KCPM15	P19
HPFDM750S4113 KC633M	P148	HPHV188S4031LR015 KCPM15	P16	HPHV312S4250R510 KCPM15	P17	HPHV750S4400R600 KCPM15	P19
HPFDM750S6188 KC633M	P148	HPHV188S4063 KCPM15	P16	HPHV312S4250R540 KCPM15	P17	HPHV750S4400R630 KCPM15	P19
HPFDM750S6263 KC633M	P148	HPHV188S4063CH KCPM15	P16	HPHV312S4250R570 KCPM15	P17	HPHV750S4400R660 KCPM15	P19
HPFSS1000S5200 KCPM15	P109	HPHV188S4063L KCPM15	P16	HPHV312S4250R600 KCPM15	P17	HPHV750S4400R690 KCPM15	P19
HPFSS1000S5325 KCPM15	P109	HPHV188S4063LR015 KCPM15	P16	HPHV312S4250R630 KCPM15	P17	HPHV750S4400R720 KCPM15	P19
HPFSS125S3025 KC635M	P108	HPHV188S4063LR030 KCPM15	P16	HPHV312S4250R660 KCPM15	P17	HPHV750S4400R750 KCPM15	P19
HPFSS125S5025 KC635M	P109	HPHV188S4063R015 KCPM15	P16	HPHV312S4250R690 KCPM15	P17	HPHV750S4400R780 KCPM15	P19
HPFSS156S5056 KC635M	P109	HPHV188S4063R030 KCPM15	P16	HPHV312S4250R720 KCPM15	P17	HPHV750S4400R810 KCPM15	P19
HPFSS188S3031 KC635M	P108	HPHV250S4038 KCPM15	P16	HPHV312S4250R750 KCPM15	P17	HPHV750S4400R840 KCPM15	P19
HPFSS188S5031 KC635M	P109	HPHV250S4038CH KCPM15	P16	HPHV312S4250R780 KCPM15	P17	HPHV750S4400R870 KCPM15	P19
HPFSS188S5056 KCPM15	P109	HPHV250S4038LR015 KCPM15	P16	HPHV312S4250R810 KCPM15	P17	HPHV750S4400R900 KCPM15	P19
HPFSS250S3038 KC635M	P108	HPHV250S4038R030 KCPM15	P16	HPHV312S4250R840 KCPM15	P17	HPHV750S4400R930 KCPM15	P19
HPFSS250S3050 KC635M	P108	HPHV250S4050 KCPM15	P16	HPHV312S4250R870 KCPM15	P17	HPHV750S4400R960 KCPM15	P19
HPFSS250S5038 KCPM15	P109	HPHV250S4050R015 KCPM15	P16	HPHV312S4250R900 KCPM15	P17	HPHV750S4400R990 KCPM15	P19
HPFSS250S5075 KCPM15	P109	HPHV250S4050R030 KCPM15	P16	HPHV312S4250R930 KCPM15	P17	HPHV750S4400R1020 KCPM15	P19
HPFSS250S5125 KCPM15	P109	HPHV250S4050R060 KCPM15	P16	HPHV312S4250R960 KCPM15	P17	HPHV750S4400R1050 KCPM15	P19
HPFSS312S3081 KC635M	P108	HPHV250S4075 KCPM15	P17	HPHV312S4250R990 KCPM15	P17	HPHV750S4400R1080 KCPM15	P19
HPFSS375S3050 KC635M	P108	HPHV250S4075CH KCPM15	P17	HPHV312S4250R1020 KCPM15	P17	HPHV750S4400R1110 KCPM15	P19
HPFSS375S3088 KC635M	P108	HPHV250S4075R015 KCPM15	P16	HPHV312S4250R1050 KCPM15	P17	HPHV750S4400R1140 KCPM15	P19
HPFSS375S5050 KCPM15	P109	HPHV250S4075R030 KCPM15	P16	HPHV312S4250R1080 KCPM15	P17	HPHV750S4400R1170 KCPM15	P19
HPFSS375S5088 KCPM15	P109	HPHV250S4075R060 KCPM15	P17	HPHV312S4250R1110 KCPM15	P17	HPHV750S4400R1200 KCPM15	P19
HPFSS375S5150 KCPM15	P109	HPHV250S4100 KCPM15	P17	HPHV312S4250R1140 KCPM15	P17	HPHV750S4400R1230 KCPM15	P19
HPFSS500S3063 KC635M	P108	HPHV250S4100R015 KCPM15	P17	HPHV312S4250R1170 KCPM15	P17	HPHV750S4400R1260 KCPM15	P19
HPFSS500S3125 KC635M	P108	HPHV250S4125 KCPM15	P17	HPHV312S4250R1200 KCPM15	P17	HPHV750S4400R1290 KCPM15	P19

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
HPRSS625S3163 KCPM15.....	P90	ICSN432 K9.....	B72-74	KC3M.....	V155-156	KDMT0750R748A075HNC.....	V133
HPRSS750S3163 KCPM15.....	P90	ICSN433 K9.....	B58-65, B67-71, B75-76	KCRA150RN4303C125L400.....	V148	KDMT0750R827A075SN.....	V132
HPRST1000S4150 KC643M.....	P92	ICSN442 K9.....	B66, B371	KCRA200RN4304S075L175.....	V149	KDMT0750SRHF KC515M.....	V135
HPRST1000S6150 KC643M.....	P92	ICSN443 K9.....	B58-60	KCRA200RN4306S075L175.....	V149	KDMT10002ERGC KC515M.....	V134
HPRST250S4038 KC643M.....	P92	ICSN533 K9.....	B61-65, B67-69, B71, B74-76	KCRA250RN4306S075L175.....	V149	KDMT10004ERGC KC515M.....	V134
HPRST250S4075 KC643M.....	P92	ICSN543 K9.....	B58-60	KCRA250RN4309S075L175.....	V149	KDMT1000R630A100SN.....	V132
HPRST375S4050 KC643M.....	P92	ICSN633 K9.....	B59, B61-65, B68, B71, B74-76	KCRA300RN4308S100L200.....	V149	KDMT1000R906A100SN.....	V132
HPRST375S4088 KC643M.....	P92	ICSN643 K9.....	B58-60	KCRA300RN4311S100L200.....	V149	KDR100R1003C100L600.....	V46
HPRST500S4063 KC643M.....	P92	ICSN846 K9.....	B63-64	KDMB0250MOERGP KC515M.....	V126	KDR100R1003M12L125.....	V44
HPRST500S4125 KC643M.....	P92	IDSN322 K9.....	B87, B89-90, B92, B96	KDMB0250MOERLD K115M.....	V126	KDR100R1003W100L200.....	V45
HPRST625S4075 KC643M.....	P92	IDSN432 K9.....	B94-95	KDMB025R394A025HN.....	V123	KDR125R1202C125L900.....	V53
HPRST625S4125 KC643M.....	P92	IDSN443 K9.....	B87-93, B96	KDMB025R394A038HN.....	V123	KDR125R1202W100L200.....	V52
HPRST625S6125 KC643M.....	P92	IDSN533 K9.....	B89-90	KDMB025R591A025HN.....	V123	KDR150R1005S050L157.....	V47
HPRST750S4088 KC643M.....	P92	IDSN543 K9.....	B87	KDMB025R788A025HN.....	V123	KDR150R1204M16L150.....	V51
HPRST750S4150 KC643M.....	P92	IRSN33 K9.....	B98	KDMB0312MOERGP KC505M.....	V126	KDR150R1204S050L157.....	V54
HPRST750S6150 KC643M.....	P92	IRSN43 K9.....	B98	KDMB0312MOERLD K115M.....	V126	KDR200R1006S075L200.....	V47
HSFS0125.....	H86, H128-129, J13-15, J52-53, J89	IRSN44 K9.....	B98-99, B371	KDMB0312R551A031ST.....	V122	KDR200R1204S075L200.....	V54
HSFS0500.....	H128-129	IRSN63 K9.....	B98	KDMB0312R591A038HN.....	V123	KDR200R1205S075L200.....	V54
HSK100AHTS40085M.....	J92	IRSN64 K9.....	B98	KDMB0375MOERGP KC505M.....	V126	KDR200R1604S075L200.....	V58
HSK100AHTS50090M.....	J92	IRSN84 K9.....	B98	KDMB0375MOERLD K115M.....	V126	KDR250R1207S075L200.....	V54
HSK100AKR32075M.....	K92	ISSN322 K9.....	B111, B113	KDMB0375MOERLD K115M.....	V126	KDR300R1208S100L200.....	V54
HSK100AKR50085M.....	K92	ISSN332 K9.....	B113	KDMB0375R354A038SN.....	V121	KDR300R1208S125L200.....	V54
HSK100AKR63100M.....	K92	ISSN432 K9.....	B115-117, B119	KDMB0375R472A038HNC.....	V123	KDR300R1607S100L200.....	V58
HSK100AKR80090M.....	K92	ISSN433 K9.....	B109, B111-113, B120	KDMB0375R591A038HNC.....	V123	KDR300R1607S125L200.....	V58
HSK100ASIF100070M.....	K50	ISSN443 K9.....	B109-110	KDMB0375R591A038ST.....	V122	KDR400R1606S150L200.....	V58
HSK100ASIF70050M.....	K50	ISSN533 K9.....	B111-113	KDMB0500MOERGN KC515M.....	V126	KDR400R1608S150L200.....	V58
HSK100ASVUBB2124MCLB.....	K78	ISSN633 K9.....	B111-115, B119-120	KDMB0500MOERGP KC505M.....	V126	KDR400R1608S150L200.....	V58
HSK100BT13075.....	K143	ISSN643 K9.....	B109-110	KDMB0500MOERHC KC530M.....	V126	KDR620S22R12X.....	V62
HSK63AAVS0B126MCLB.....	K83	ISSN846 K9.....	B111-112	KDMB0500MOERLD K115M.....	V126	KDR63206S22R12X.....	V62
HSK63AAVS0B143MCLB.....	K83	ITSN322 K9.....	B140-142	KDMB0500R472A050HNC.....	V123	KDR80207S27R12X.....	V62
HSK63AAVS1B127MCLB.....	K83	ITSN323 K9.....	B131-135, B137, B139, B143	KDMB0500R512A050SN.....	V121	KF2X100W0902C100L800.....	V37
HSK63AAVS2B139MCLB.....	K83	ITSN333 K9.....	B135-136	KDMB0500R512A050SN.....	V121	KF2X100W0902C100L800.....	V37
HSK63AAVS3B139MCLB.....	K83	ITSN433 K9.....	B132-143	KDMB0500R591A050SN.....	V121	KF2X125W0903C125L800.....	V37
HSK63ADL10200.....	052	ITSN443 K9.....	B131	KDMB0500R630A050HNC.....	V123	KF2X125W0903C125L800.....	V37
HSK63ADL12225.....	052	ITSN534 K9.....	B133-137	KDMB0500R630A050HNC.....	V123	KF2X125W0903M16L169.....	V36
HSK63ADL20225.....	052	ITSN636 K9.....	B134, B137	KDMB0500R630A050ST.....	V122	KF2X150W0903C125L600.....	V37
HSK63ADL25250.....	052	IVSN322 K9.....	B150-155	KDMB0625MOERGP KC505M.....	V126	KF2X150W0903C125L800.....	V37
HSK63ADL32288.....	052	IVSN432 K9.....	B150-151	KDMB0625MOERHC KC530M.....	V126	KF2X150W0904M16L169.....	V36
HSK63AKR32075M.....	K92	IVSN433 K9.....	B152-155	KDMB0625MOERLD K115M.....	V126	KF2X150W0904M16L169.....	V36
HSK63AKR50080M.....	K92	IVSN433 K9.....	B163	KDMB0625R551A063SN.....	V121	KF2X150W0904S050L157.....	V38
HSK63ASIF70066M.....	K50	IVSN433 K9.....	B163	KDMB0625R630A063HNC.....	V123	KF2X150W0904S050L157.....	V38
HSK63ASIF80063M.....	K50	JICM-JICF-ELB.....	C83	KDMB0625R630A063HNC.....	V123	KF2X200W0906S075L157.....	V38
HSK63ASVS4B139M.....	K84	JICM-JICM-STR.....	C83	KDMB0750MOERGN KC515M.....	V126	KF2X200W0906S075L157.....	V38
HSK63ASVS5B139M.....	K84	K067TM2RW075STN11D.....	W43	KDMB0750MOERGP KC505M.....	V126	KF2X250W0906S075L175.....	V38
HSK63ASVUBB1095MCLB.....	K76	K102TM2RW100STN16D.....	W43	KDMB0750MOERGP KC515M.....	V126	KF2X300W0907S100L175.....	V38
HSK63ASVUBB2116MCLB.....	K78	K120Z328RF60HNO9WSC.....	S82	KDMB0750MOERHC KC530M.....	V126	KG2508ELDJKC410M.....	T93
HSK63FBHM1696.....	K132	K165TM2RW125STN27D.....	W43	KDMB0750MOERLD K115M.....	V126	KG2512ELDJKC410M.....	T93
HSK63FBHMKIT164M.....	K127, K131	K315AG2RF60HNO9C.....	S82	KDMB0750R51A075HNC.....	V123	KG2516ELDJKC410M.....	T93
HSK63FBH101695.....	K128	K400B14RF45HNO9C.....	S77	KDMB0750R630A075SN.....	V121	KG2520ELDJKC410M.....	T93
HSK63FBHS24.....	K137	K500B18RF45HNO9C.....	S77	KDMB0750R689A075SN.....	V121	KG2531ELDJKC410M.....	T93
HSK63FBHS31.....	K137	K600B164RF60HNO9C.....	S82	KDMB0750R748A075SN.....	V122	KG2540ELDJKC410M.....	T93
HSK63FBHS40.....	K137	KAP1250632.....	U7-8	KDMB0750R827A075HNC.....	V123	KG2550ELDJKC410M.....	T93
HSK63FBHS51.....	K137	KAP1250634.....	U7-8	KDMB0750R827A075SN.....	V121	KG2564ELDJKC410M.....	T93
HSK63FBHS67.....	K137	KAP1250764.....	U7-8	KDMB1000MOERGN KC515M.....	V126	KGEM0750R1SS075.....	H100
HSK63FBHS87.....	K137	KAP1871004.....	U7-8	KDMB1000MOERGP KC505M.....	V126	KGEM0750R3SS075.....	H100
HSK63RBHT24.....	K122	KAP2251254.....	U7-8	KDMB1000MOERGP KC515M.....	V126	KGEM1588R1WN20M.....	H100
HSK63RBHT30.....	K122	KAP3121254.....	U7-8	KDMB1000MOERHC KC530M.....	V126	KGEM1905R1WN20M.....	H100
HSK63RBHT40.....	K122	KAP3502004.....	U7-8	KDMB1000MOERLD K115M.....	V126	KGEM1905R3WN20M.....	H100
HSK63RBHT50.....	K122	KAP5502004.....	U8	KDMB1000R630A100HNC.....	V123	KGIP0125N0189GD KCJ45.....	H101
HSK63RBHT66.....	K122	KBDM250SD06.....	S104	KDMB1000R630A100SN.....	V121	KGIP0300N0189GD KCJ45.....	H101
HSK63RBHT87.....	K122	KBDM300SD08.....	S104	KDMB1000R748A100SN.....	V121	KGML1650C.....	C67
HSK80ASIF70066M.....	K50	KBDM400SD12.....	S104	KDMB1000R827A100ST.....	V122	KGML1650N.....	C145
HTSR040R025M.....	J75	KBDM500SD16.....	S104	KDMB1000R906A100HNC.....	V123	KGML1665C.....	C67
HTSR043R025M.....	J75	KBDM600SD18.....	S104	KDMB1250MOERGP KC505M.....	V126	KGML1665N.....	C145
HTSR046R028M.....	J75	KBDM800SD24.....	S104	KDMB1250MOERLD K115M.....	V126	KGML2050C.....	C67
HTSR049R028M.....	J75	KBFI10.....	.115	KDMB1250MOERLD K115M.....	V126	KGML2050N.....	C145
HTSR052R028M.....	J75	KBFI11.....	.115	KDMB1250R689A125SN.....	V121	KGML2450C.....	C67
HTSR10CE.....	J75	KBFI12.....	.115	KDMB1250R827A125SN.....	V121	KGML2465C.....	C67
HTSR10CI.....	J75	KBFI13.....	.115	KDMB1250R945A125ST.....	V122	KGML2465N.....	C145
HTSR11CI.....	J75	KBFI14.....	.115	KDMT05002ERGC KC515M.....	V134	KGML2525M50.....	C145
HTSR12CI.....	J75	KBFI15.....	.115	KDMT05002ERGN KC515M.....	V134	KGML2525M50C.....	C145
HTSR13CI.....	J75	KBFI16.....	.115	KDMT05004ERGC KC515M.....	V134	KGML2525M65C.....	C68
HTSR14CI.....	J75	KBFI17.....	.115	KDMT05004ERGN KC515M.....	V134	KGML2525M65.....	C145
HUWTC.....	E63	KBFI18.....	.115	KDMT0500R512A050SN.....	V132	KGML2525M65C.....	C68
HUWTCR.....	E63	KBFI4.....	.115	KDMT0500R591A050SN.....	V132	KGML2525M65C.....	C68
ICSN332 K9.....	B59, B63	KBFI5B.....	.115	KDMT0500R630A050HNC.....	V133	KGML3232P50.....	C145
		KBFI6B.....	.115	KDMT06254ERGN KC515M.....	V134	KGML3232P50C.....	C68
		KBFI7.....	.115	KDMT0625R630A063SN.....	V132	KGML3232P65.....	C145
		KBFI8.....	.115	KDMT07502ERGC KC515M.....	V134	KGML3232P65C.....	C68
		KBFI9.....	.115	KDMT07502ERGN KC515M.....	V134	KGMR1650C.....	C67
		KCI1.....	V156	KDMT07504ERGN KC515M.....	V134	KGMR1650N.....	C145
		KCI2.....	V155-156	KDMT0750R630A075SN.....	V132	KGMR1665C.....	C67

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KGMR1665N	C145	KHSST08148	M124	KHSST08554	M128	KHSST09140	M157
KGMR2050C	C67	KHSST08149	M127	KHSST08561	M125	KHSST09143	M157
KGMR2050N	C145	KHSST08151	M124	KHSST08562	M128	KHSST09147	M157
KGMR2065C	C67	KHSST08152	M127	KHSST08566	M36	KHSST09151	M157
KGMR2065N	C145	KHSST08156	M36	KHSST08574	M125	KHSST09608	M36
KGMR2450C	C67	KHSST08157	M36	KHSST08575	M128	KHSST09609	M36
KGMR2450N	C145	KHSST08159	M40	KHSST08578	M36	KHSST09611	M36
KGMR2465C	C67	KHSST08160	M40	KHSST08595	M125-126	KHSST09615	M36
KGMR2525M50	C145	KHSST08172	M124	KHSST08596	M128	KHSST27709	M130
KGMR2525M50C	C68	KHSST08173	M127	KHSST08599	M36	KHSST27710	M131
KGMR2525M65	C145	KHSST08175	M36	KHSST08608	M126	KHSST27711	M41
KGMR2525M65C	C68	KHSST08192	M124	KHSST08609	M128	KHSST27719	M41
KGMR3232P50	C145	KHSST08193	M127	KHSST08616	M126	KHSST27721	M130
KGMR3232P50C	C68	KHSST08197	M127	KHSST08617	M128-129	KHSST27722	M131
KGMR3232P65	C145	KHSST08203	M36	KHSST08630	M126	KHSST27723	M41
KGMR3232P65C	C68	KHSST08205	M36	KHSST08631	M129	KHSST27729	M130
KGMSL1650C	C65	KHSST08218	M124	KHSST08703	M157	KHSST27730	M131
KGMSL1650N	C143	KHSST08234	M124	KHSST08704	M157	KHSST27731	M41
KGMSL1665C	C65	KHSST08235	M127	KHSST08705	M157	KHSST27737	M130
KGMSL1665N	C143	KHSST08238	M124	KHSST08709	M157	KHSST27738	M131
KGMSL2050C	C65	KHSST08239	M127	KHSST08712	M157	KHSST27739	M41
KGMSL2050N	C143	KHSST08243	M36	KHSST08715	M157	KHSST27741	M130
KGMSL2065C	C65	KHSST08245	M36	KHSST08724	M157	KHSST27742	M131
KGMSL2065N	C143	KHSST08246	M40	KHSST09000	M124	KHSST27743	M41
KGMSL2450C	C65	KHSST08261	M124	KHSST09003	M127	KHSST27749	M130
KGMSL2450N	C143	KHSST08262	M127	KHSST09004	M124	KHSST27750	M131
KGMSL2465C	C65	KHSST08268	M124	KHSST09008	M124	KHSST27751	M41
KGMSL2465N	C143	KHSST08269	M127	KHSST09009	M127	KHSST27757	M130
KGMSL2525M50	C144	KHSST08272	M124	KHSST09010	M124	KHSST27758	M131
KGMSL2525M50C	C66	KHSST08273	M127	KHSST09011	M127	KHSST27759	M41
KGMSL2525M65	C144	KHSST08280	M36	KHSST09012	M124	KHSST27765	M130
KGMSL2525M65C	C66	KHSST08282	M36	KHSST09013	M127	KHSST27766	M131
KGMSL3232P50	C144	KHSST08294	M124	KHSST09014	M124	KHSST27767	M41
KGMSL3232P50C	C66	KHSST08295	M127	KHSST09015	M127	KHSST27773	M130
KGMSL3232P65	C144	KHSST08296	M36	KHSST09018	M125	KHSST27781	M130
KGMSL3232P65C	C66	KHSST08316	M125	KHSST09019	M128	KHSST27787	M41
KGMSR1650C	C65	KHSST08317	M128	KHSST09021	M128	KHSST27793	M130
KGMSR1650N	C143	KHSST08320	M125	KHSST09022	M125	KHSST27796	M130
KGMSR1665C	C65	KHSST08321	M128	KHSST09025	M128-129	KHSST27798	M41
KGMSR1665N	C143	KHSST08324	M125	KHSST09026	M125	KHSST27800	M130
KGMSR2050C	C65	KHSST08327	M128	KHSST09027	M128	KHSST27809	M130
KGMSR2050N	C143	KHSST08331	M36	KHSST09028	M125	KHSST28002	M157
KGMSR2065C	C65	KHSST08332	M36	KHSST09029	M128	KHSST28003	M128-129
KGMSR2065N	C143	KHSST08333	M40	KHSST09030	M125	KHSST28004	M126
KGMSR2450C	C65	KHSST08334	M36	KHSST09035	M128	KHSST28008	M129
KGMSR2450N	C143	KHSST08336	M36	KHSST09039	M128	KHSST28009	M126
KGMSR2465C	C65	KHSST08353	M125	KHSST09041	M128	KHSST28015	M129
KGMSR2465N	C143	KHSST08354	M128	KHSST09042	M126	KHSST28016	M126
KGMSR2525M50	C144	KHSST08355	M125	KHSST09043	M128	KHSST28020	M129
KGMSR2525M50C	C66	KHSST08356	M128	KHSST09047	M129	KHSST28021	M126
KGMSR2525M65	C144	KHSST08364	M36	KHSST09048	M126	KHSST28028	M129
KGMSR2525M65C	C66	KHSST08380	M125	KHSST09054	M130	KHSST28029	M126
KGMSR3232P50	C144	KHSST08381	M128	KHSST09101	M36	KHSST28032	M129
KGMSR3232P50C	C66	KHSST08391	M36	KHSST09103	M36	KHSST28033	M126
KGMSR3232P65	C144	KHSST08392	M128	KHSST09104	M36	KHSST28040	M126
KGMSR3232P65C	C66	KHSST08393	M36	KHSST09105	M36	KHSST28043	M126
KHDA0250JGANA KC639M	P143	KHSST08409	M125	KHSST09106	M36	KHSST28047	M102
KHDA0312JGANA KC639M	P143	KHSST08411	M125	KHSST09108	M36	KHSST28048	M104
KHDA0375JGANA KC639M	P143	KHSST08419	M36	KHSST09109	M36	KHSST28049	M102
KHDA0500JGANA KC639M	P143	KHSST08434	M125	KHSST09111	M36	KHSST28053	M132
KHDA0625JGANA KC639M	P143	KHSST08435	M128	KHSST09112	M36	KHSST28057	M158
KHDA0750JGANA KC639M	P143	KHSST08443	M36	KHSST09113	M36	KHSST28058	M158
KHSST08003	M124	KHSST08444	M36	KHSST09114	M36	KHSST28060	M157
KHSST08015	M124	KHSST08459	M125	KHSST09115	M36	KHSST28062	M102
KHSST08039	M124	KHSST08460	M128	KHSST09116	M36	KHSST28064	M132
KHSST08043	M36	KHSST08461	M125	KHSST09119	M36	KHSST28067	M158
KHSST08044	M40	KHSST08467	M36	KHSST09120	M36	KHSST28068	M158
KHSST08061	M36	KHSST08477	M125	KHSST09121	M36	KHSST28072	M38
KHSST08067	M124	KHSST08478	M128	KHSST09122	M36	KHSST28073	M104
KHSST08082	M124	KHSST08484	M36	KHSST09123	M36	KHSST28074	M102
KHSST08083	M127	KHSST08493	M125	KHSST09124	M36	KHSST28077	M134
KHSST08087	M124	KHSST08494	M128	KHSST09125	M36	KHSST28078	M133
KHSST08088	M127	KHSST08498	M36	KHSST09126	M36	KHSST28080	M38
KHSST08090	M36	KHSST08508	M125	KHSST09127	M36	KHSST28081	M102
KHSST08091	M40	KHSST08510	M125	KHSST09128	M36	KHSST28082	M104
KHSST08101	M124	KHSST08516	M36	KHSST09129	M41	KHSST28083	M102
KHSST08104	M36	KHSST08530	M125	KHSST09130	M41	KHSST28085	M133
KHSST08112	M124	KHSST08531	M128	KHSST09131	M41	KHSST28086	M132
KHSST08116	M124	KHSST08537	M36	KHSST09132	M41	KHSST28091	M158
KHSST08117	M127	KHSST08545	M125	KHSST09133	M41	KHSST28092	M158
KHSST08119	M36	KHSST08546	M128	KHSST09135	M41	KHSST28093	M158
KHSST08140	M124	KHSST08553	M125	KHSST09137	M157	KHSST28094	M158

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KHSST28102	M128	KHSST28251	M37	KHSST28372	M124	KHSST28744	M38
KHSST28104	M158	KHSST28252	M36	KHSST28373	M127	KHSST28745	M102
KHSST28106	M157	KHSST28253	M36	KHSST28374	M127	KHSST28746	M104
KHSST28107	M157	KHSST28254	M36	KHSST28375	M127	KHSST28747	M102
KHSST28109	M157	KHSST28255	M36	KHSST28376	M124	KHSST28751	M134
KHSST28111	M36	KHSST28256	M36	KHSST28379	M127	KHSST28752	M133
KHSST28112	M36	KHSST28257	M36	KHSST28380	M124	KHSST28757	M36
KHSST28113	M36	KHSST28258	M36	KHSST28384	M127	KHSST28761	M102
KHSST28114	M129	KHSST28259	M36	KHSST28388	M127	KHSST28762	M102
KHSST28115	M126	KHSST28260	M36	KHSST28389	M124	KHSST28774	M102
KHSST28116	M125	KHSST28261	M36	KHSST28394	M127	KHSST28776	M38
KHSST28117	M128	KHSST28262	M36	KHSST28395	M127	KHSST28779	M102
KHSST28118	M126	KHSST28263	M36	KHSST28396	M124	KHSST28780	M104
KHSST28119	M128	KHSST28264	M36	KHSST28397	M124	KHSST28781	M133
KHSST28120	M125	KHSST28265	M36	KHSST28399	M127	KHSST28784	M38
KHSST28121	M125	KHSST28266	M36	KHSST28400	M124	KHSST28785	M102
KHSST28122	M128	KHSST28267	M36	KHSST28401	M124	KHSST28786	M104
KHSST28123	M125	KHSST28268	M36	KHSST28403	M127	KHSST28787	M102
KHSST28124	M129	KHSST28269	M36	KHSST28406	M127	KHSST28791	M133
KHSST28125	M126	KHSST28270	M36	KHSST28407	M124	KIPR062RP21229	V156
KHSST28127	M125	KHSST28271	M36	KHSST28410	M124	KIPR075RP21332	V156
KHSST28128	M127	KHSST28272	M36	KHSST28412	M127	KIPR100RP32438	V156
KHSST28129	M124	KHSST28273	M36	KHSST28413	M124	KIPR100RP32M1203	V155
KHSST28130	M127	KHSST28274	M36	KHSST28416	M127	KIPR125RP43540	V156
KHSST28131	M127	KHSST28275	M36	KHSST28417	M124	KIPR125RP43555	V156
KHSST28132	M124	KHSST28276	M36	KHSST28419	M127	KIPR125RP43M1603	V155
KHSST28133	M127	KHSST28277	M36	KHSST28420	M127	KIPR150RP43655	V156
KHSST28134	M124	KHSST28278	M129	KHSST28423	M127	KISBR150SP10T30F	T107
KHSST28135	M127	KHSST28279	M126	KHSST28425	M124	KISBR200SP10T30F	T107
KHSST28136	M124	KHSST28281	M126	KHSST28426	M124	KISR075SP10T30F	T108
KHSST28137	M102	KHSST28282	M129	KHSST28427	M124	KISR100SP10T30F	T108
KHSST28139	M157	KHSST28283	M126	KHSST28428	M124	KISR125SP10T30F	T108
KHSST28140	M157	KHSST28286	M126	KHSST28429	M127	KISR150SP10T30F	T108
KHSST28141	M157	KHSST28287	M128	KHSST28433	M124	KISR125SD430C4A02	V140
KHSST28142	M157	KHSST28289	M128	KHSST28440	M124	KISR150SD430C5A03	V140
KHSST28152	M41	KHSST28290	M128	KHSST28443	M157	KISR200SD430C6A04	V140
KHSST28162	M39	KHSST28291	M125	KHSST28444	M157	KL23	B132, B134-136
KHSST28163	M104	KHSST28293	M125	KHSST28445	M157	KL33	B63, B71
KHSST28165	M102	KHSST28294	M128	KHSST28446	M157	KL33L	B93, B96, B139, B143, B163
KHSST28167	M132	KHSST28295	M128	KHSST28447	M41	KL34	B111, B113
KHSST28172	M158	KHSST28296	M125	KHSST28448	M41	KL34L	B63, B89-90, B96, B98, B132-137, B139, B143, B152-155
KHSST28173	M158	KHSST28298	M125	KHSST28455	M131	KL44	B69, B71, B76, B114
KHSST28177	M157	KHSST28301	M128	KHSST28458	M131	KL46	B60-65, B69-71, B75-76, B98, B111-113, B120, B132-139, B143, B152-155, B163
KHSST28178	M157	KHSST28302	M126	KHSST28462	M131	KL46L	B66, B89-90, B92-93, B96, B99, B371
KHSST28181	M157	KHSST28304	M128	KHSST28465	M131	KL58	B61-65, B69, B71, B75-76, B89-90, B111-113, B133-137
KHSST28184	M132	KHSST28305	M126	KHSST28476	M103	KL68	B61-65, B71, B75-76, B98, B111-114, B120
KHSST28187	M102	KHSST28308	M128	KHSST28478	M103	KL68L	B134, B137
KHSST28188	M104	KHSST28309	M125	KHSST28526	M39	KL810	B63-64, B98, B111-112
KHSST28189	M102	KHSST28311	M128	KHSST28527	M39	KLM33	B72, B115-119
KHSST28192	M38	KHSST28313	M128	KHSST28528	M39	KLM33L	B94, B140-142
KHSST28194	M134	KHSST28314	M125	KHSST28529	M39	KLM34	B140-142
KHSST28195	M133	KHSST28317	M128	KHSST28531	M39	KLM43	B72-74, B115-119
KHSST28196	M158	KHSST28318	M125	KHSST28532	M39	KLM46	B72, B74, B94-95, B140-142
KHSST28197	M158	KHSST28319	M128	KHSST28534	M39	KLM46S	B72-74, B94-95, B115-117, B119
KHSST28201	M102	KHSST28323	M125	KHSST28670	M102	KLM54	B115-117, B119
KHSST28204	M38	KHSST28329	M129	KHSST28671	M104	KLM58	B74
KHSST28207	M132	KHSST28330	M126	KHSST28672	M102	KLM68	B74, B115, B119
KHSST28209	M38	KHSST28338	M129	KHSST28674	M102	KL20C	T78
KHSST28210	M102	KHSST28339	M126	KHSST28675	M132	KLSS0714C	S30, S32, V19, V26
KHSST28211	M102	KHSST28340	M128	KHSST28681	M41	KM25LSEL1630	D77
KHSST28212	M104	KHSST28341	M125	KHSST28682	M130	KM25LSER1630	D77
KHSST28213	M102	KHSST28342	M128	KHSST28683	M103	KM25LSSL1630	D77
KHSST28217	M134	KHSST28343	M125	KHSST28692	M103	KM25LSSL2230	D77
KHSST28218	M133	KHSST28344	M128	KHSST28695	M130	KM25LSSR1630	D77
KHSST28219	M40	KHSST28345	M126	KHSST28698	M130	KM25LSSR2230	D77
KHSST28220	M38	KHSST28346	M126	KHSST28700	M103	KM25NEL330	D30
KHSST28221	M102	KHSST28347	M128	KHSST28707	M103	KM25NEL430	D30
KHSST28223	M102	KHSST28348	M125	KHSST28709	M103	KM25NER230	D30
KHSST28226	M134	KHSST28349	M125	KHSST28716	M103	KM25NER330	D30
KHSST28228	M39	KHSST28350	M128	KHSST28721	M103	KM25NER430	D30
KHSST28231	M102	KHSST28351	M125	KHSST28723	M103	KM25NSL230	D30
KHSST28233	M132	KHSST28352	M126	KHSST28726	M103	KM25NSL330	D30
KHSST28235	M128-129	KHSST28353	M128	KHSST28730	M40	KM25NSL430	D30
KHSST28239	M132	KHSST28356	M125	KHSST28731	M36	KM25NSR230	D30
KHSST28242	M125-126	KHSST28358	M125	KHSST28732	M36	KM25NSR330	D30
KHSST28244	M36	KHSST28359	M125	KHSST28733	M36	KM25NSR430	D30
KHSST28245	M36	KHSST28361	M125	KHSST28737	M38	KM25NSR230	D30
KHSST28246	M37	KHSST28364	M125	KHSST28738	M102	KM25NSR330	D30
KHSST28247	M37	KHSST28365	M126	KHSST28739	M104	KM32FBHS24	K137
KHSST28248	M36	KHSST28366	M125	KHSST28740	M102	KM32FBHS31	K137
KHSST28249	M36	KHSST28368	M127	KHSST28742	M133		
KHSST28250	M37	KHSST28371	M127	KHSST28743	M40		

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KM32RBHT24	K122	KM50TSAVS1B118MCLB	K82	KR32AVS0B116MCLB	K82	KRDE193026M	K89, K114
KM32RBHT30	K122	KM50TSAVS2B128MCLB	K82	KR32AVS1B100MCLB	K82	KRDEA012AM	K79
KM40FBH01660	K128	KM50TSAVS3B128MCLB	K82	KR32AVS2B115MCLB	K82	KRDEA046AM	K79
KM40FBHS40	K137	KM50TSFBHM1677	K132	KR32AVS3B115MCLB	K82	KRDEA051AM	K79
KM40RBHT40	K122	KM50TSFBHMKIT164M	K127, K131	KR32KR32038050M	K93	KRM018030CLB004NE	K94
KM40TSAVSO0B111MCLB	K82	KM50TSKGMEL50C	C70, C147	KR32KR32038100M	K93	KS254BLNE1240	U18
KM40TSAVSOB128MCLB	K82	KM50TSKGMEL65C	C70, C147	KR32KR32047050M	K93	KS255BLNE1245	U18
KM40TSAVS1B112MCLB	K82	KM50TSKGMER50C	C70, C147	KR32KR32047100M	K93	KS33SNH1103	U13
KM40TSAVS2B127MCLB	K82	KM50TSKGMER65C	C70, C147	KR32SVUBB1060MCLB	K76	KS34LNE1240	U17
KM40TSE16JNEL2 KWH	D40	KM50TSKGMMSL50C	C69, C146	KR32SVUBB2085MCLB	K77	KS426SNH1102	U13
KM40TSE16JNER2 KWH	D40	KM50TSKGMMSL65C	C69, C146	KR50KR50065050M	K93	KS43SNH1103	U13
KM40TSKGMEL50C	C70, C147	KM50TSKGMMSR50C	C69, C146	KR50KR50065100M	K93	KS44BLNE1240	U18
KM40TSKGMERS0C	C70, C147	KM50TSKGMMSR65C	C69, C146	KR50SVS4B094M	K83	KS44LNE1240	U17
KM40TSKGMMSL50C	C69, C146	KM50TSSVUBB2100MCLB	K77	KR50SVS5B094M	K83	KS45BLNE1245	U18
KM40TSKGMMSR50C	C69, C146	KM63BT13065	K141	KR50SVU65110MCLB	K88	KS45LNE1245	U17
KM40TSLSEL16N	D79	KM63SVS4B110M	K84	KR50SVUBB2075MCLB	K77	KS46BLNE1245	U18
KM40TSLSER16N	D79	KM63SVS5B110M	K84	KR63KR63085050M	K93	KS46LNE1245	U17
KM40TSLSER22N	D79	KM63TSAVS3B130MCLB	K82	KR63KR63085100M	K93	KS48BLNE1255	U18
KM40TSLSER27N	D79	KM63TSKGMEL50C	C70, C147	KR63SV6B126M	K83	KS48LNE1255	U17
KM40TSLSSL16	D78	KM63TSKGMEL65C	C70, C147	KR80KR80095050M	K93	KS526SNH1103	U13
KM40TSLSSL22	D78	KM63TSKGMER50C	C70, C147	KR80KR80095100M	K93	KS53SNH1103	U13
KM40TSLSSL27	D78	KM63TSKGMER65C	C70, C147	KR80SVU92152MCLB	K88	KS54BLNE1240	U17
KM40TSLSSR16	D78	KM63TSKGMMSL50C	C69, C146	KRBB10FABDRS204C	K78, K100	KS55LNE1245	U17
KM40TSLSSR22	D78	KM63TSKGMMSL65C	C69, C146	KRBB10SCFPRO6085C	K78, K100	KS56LNE1245	U17
KM40TSLSSR27	D78	KM63TSKGMMSR50C	C69, C146	KRBB10SCFPRO6110C	K78, K101	KS58LNE1255	U17
KM40TSNEL2	D31	KM63TSKGMMSR65C	C69, C146	KRBB10SCFPRO6135C	K78, K101	KS63SNH1103	U13
KM40TSNEL3	D31	KM63UTFBHS116	K137	KRBB10SCDR4060C	K78, K100	KS64LNE1240	U17
KM40TSNEL4	D31	KM63UTFBHS87	K137	KRBB16SCFPRO6085A	K79, K102	KS65LNE1245	U17
KM40TSNER2	D31	KM63UTRBHT115	K122	KRBB16SCFPRO611A	K79, K102	KS66LNE1245	U17
KM40TSNER3	D31	KM63UTRBHT87	K122	KRBB16SCFPRO6135A	K79, K102	KS68LNE1255	U17
KM40TSNER4	D31	KM63XMZKGMELF50CY	C70, C147	KRBB16SCFPRO616A	K79, K103	KS84LNE1240	U17
KM40TSNR13045M	D33	KM63XMZKGMELF65CY	C70, C147	KRBB16SCFPRO619A	K79, K103	KS85LNE1245	U17
KM40TSNR3045M	D33	KM63XMZKGMER50CY	C70, C147	KRBB16SCFPRO622A	K79, K103	KS86LNE1245	U17
KM40TSS12E1NEL2	D39	KM63XMZKGMER65CY	C70, C147	KRBB16SCDRS406A	K79, K102	KS88LNE1255	U17
KM40TSS12E2NER2	D39	KM63XMZKGMMSL50C	C69, C146	KRCSFPRO61A	K86	KSCM125R16CAB40U	S109
KM40TSS12E3NER2	D39	KM63XMZKGMMSL65C	C69, C146	KRCSFPRO61B	K86	KSCMA90QFBF KD1400	S110
KM40TSS16F1NEL2	D39	KM63XMZKGMMSL65Y	C148	KRCSFPRO61C	K86	KSCMA90QFBF KD1420	S110
KM40TSS16F2NER2	D39	KM63XMZKGMMSR50CY	C69, C146	KRCSFPRO61D	K86	KSCMA90UNBF KD1400	S110
KM40TSS20G1NEL2	D39	KM63XMZKGMMSR65C	C69, C146	KRCSFPRO61E	K89, K108-109	KSCMA90UNBF KD1420	S110
KM40TSS20G2NER2	D39	KM80ATCKGMEL50C	C70, C147	KRCSFPRO61F	K89, K110-114	KSCMCA75HR KD1420	S111
KM40TSS25E1NEL2	D39	KM80ATCKGMEL65C	C70, C147	KRCSFPRO61G	K86	KSCMCA75PT KD1420	S111
KM40TSS25E2NER2	D39	KM80ATCKGMER50C	C70, C147	KRCSFPRO61H	K85	KSCMCA750F KD1420	S111
KM40TSS25E3NER2	D39	KM80ATCKGMER65C	C70, C147	KRCSFPRO61I	K85	KSCMCA75UN KD1420	S111
KM40TSS25H1NER2	D39	KM80ATCKGMMSL50C	C69, C146	KRCSFPRO61J	K85	KSCMCA90QF KD1420	S110
KM40TSS25H2NER2	D39	KM80ATCKGMMSL65C	C69, C146	KRCSFPRO61K	K86	KSCMCA90QFBF KD1420	S110
KM40TSS25H3NER2	D39	KM80ATCKGMSR50C	C69, C146	KRCSFPRO62A	K86	KSCMCA90UN KD1420	S110
KM40TSS32G1NEL3	D39	KM80BT13070	K141	KRCSFPRO62B	K86	KSCMCA90UN KD1420	S110
KM40TSS32G2NER3	D39	KM80SVS6B150M	K84	KRCSFPRO62C	K86	KSCMCA90UNBF KD1420	S110
KM40TSS32G3NER3	D39	KM80TSKGMEL50C	C70, C147	KRCSFPRO62D	K86	KSDR100031E0WOS KD1400	S105
KM40TSS32H1NER3	D39	KM80TSKGMEL65C	C70, C147	KRCSFPRO62E	K89, K108-109	KSDR100031E0WOS KD1425	S105
KM40TSS32H2NER3	D39	KM80TSKGMEL65C	C70, C147	KRCSFPRO62F	K89, K110-114	KSDR100031E0WAS KD1400	S105
KM40TSS32H3NER3	D39	KM80TSKGMER50C	C70, C147	KRCSFPRO62G	K86	KSDR100031E0WAS KD1425	S105
KM40TSS32J1NER3	D39	KM80TSKGMER65C	C70, C147	KRCSFPRO62H	K85	KSDR100031E1W4S KD1400	S105
KM40TSS32J2NER3	D39	KM80TSKGMMSL50C	C69, C146	KRCSFPRO62I	K85	KSDR100031E1W4S KD1425	S105
KM40TSS32J3NER3	D39	KM80TSKGMMSL65C	C69, C146	KRCSFPRO62J	K85	KSDR100031E3W4S KD1400	S106
KM4X100NEL3	D32	KM80TSKGMMSR50C	C69, C146	KRCSFPRO62K	K85	KSDR100031E3W4S KD1425	S106
KM4X100NEL4	D32	KM80TSKGMMSR65C	C69, C146	KRCSFPRO62L	K86	KSDR100093E1W4S KD1400	S105
KM4X100NEL5	D32	KMDA0250J6ANA KC639M	P142	KRCSFPRO62M	K86	KSDR100093E1W4S KD1425	S105
KM4X100NEL6	D32	KMDA0312J6ANA KC639M	P142	KRCSFPRO62N	K86	KSDR102S KD1400	S106
KM4X100NER3	D32	KMDA0375J6ANA KC639M	P142	KRCSFPRO62O	K89, K108-109	KSDR102S KD1425	S106
KM4X100NER4	D32	KMDA0500J6ANA KC639M	P142	KRCSFPRO62P	K89, K110-114	KSEM0493R1 S5F075	H81
KM4X100NER5	D32	KMDA0625J6ANA KC639M	P142	KRCSFPRO62Q	K86	KSEM0493R1 S5F075F45	H86
KM4X100NER6	D32	KMDA0750J6ANA KC639M	P142	KRCSFPRO62R	K85	KSEM0500HP KC7315	H52
KM4X63KGMEL50C	C71, C149	KMSP315IP	B59, B87, B92, B113, B131, B150-151, B154, B163	KRCSFPRO62S	K85	KSEM0500HPL KC7410	H60
KM4X63KGMEL65C	C71, C149	KMSP415IP	B58-60, B67-68, B87-88, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62T	K85	KSEM0500HP KC7315	H54
KM4X63KGMERS0C	C71, C149	KMSP515IP	B58-60, B67-68, B87, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62U	K90	KSEM0500HPG KCPM45	H57
KM4X63KGMMSL50C	C71, C148-149	KMSP625IP	B58-60, B67-68, B87, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62V	K80	KSEM0509HPL KC7320	H62
KM4X63KGMMSL65C	C71, C148	KMSP515IP	B58-60, B67-68, B87, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62W	K85	KSEM0500R10SS075	H79
KM4X63KGMMSR50C	C71, C148-149	KMSP515IP	B58-60, B67-68, B87, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62X	K85	KSEM0500R3SS075	H77
KM4X63KGMMSR65C	C71, C148	KMSP625IP	B58-60, B67-68, B87, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62Y	K85	KSEM0500R3SS075	H82
KM50FBH01670	K128	KMSP625IP	B58-60, B67-68, B87, B91-92, B98, B109-110, B131, B150-151, B163	KRCSFPRO62Z	K80	KSEM0500R5SS050	H77
KM50FBHS51	K137	KNUX160405L1 KCM15B	E35	KRCSFPRO62AA	K80	KSEM0500R5SS075	H82
KM50FBHS67	K137	KNUX160405L2 KCM25B	E35	KRCSFPRO62AB	K80	KSEM0500R7SS075	H79
KM50FBHS87	K137	KNUX160405L2 KU10	E35	KRCSFPRO62AC	K80	KSEM0500R7SS075	H79
KM50RBHT50	K122	KNUX160405R1 KCM15B	E35	KRCSFPRO62AD	K89, K108	KSEM0509HPL KC7410	H60
KM50RBHT66	K122	KNUX160405R1 KCM25B	E35	KRCSFPRO62AE	K89, K108	KSEM0509HPL KC7315	H54
KM50RBHT87	K122	KNUX160405R1 KCU25	E35	KRCSFPRO62AF	K89, K109	KSEM0509HPG KCPM45	H57
KM50SVS4B125M	K84	KNUX160405R2 KCM25B	E35	KRCSFPRO62AG	K89, K110	KSEM0509HPL KC7320	H62
KM50SVS5B125M	K84	KNUX160410R1 KCM25B	E35	KRCSFPRO62AH	K89, K110-111	KSEM0509R10SS075	H79
KM50TSAVSO0B117MCLB	K82	KNUX160410R2 KCM25B	E35	KRCSFPRO62AI	K89, K111	KSEM0509R3SS075	H77
KM50TSAVSOB134MCLB	K82	KR32AVS00B099MCLB	K82	KRCSFPRO62AJ	K89, K113	KSEM0509R3SS075	H82

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KSEM0969HP KC7315	H52	KSEM1063R10SS125	H80	KSEM1250HPCC L KC7410	H61	KSEM1344R3SSF150	H83
KSEM0969HPCC L KC7410	H60	KSEM1063R3SS125	H78	KSEM1250HPCC L M KC7410	H60	KSEM1344R5SS150	H78
KSEM0969HPG KC7315	H55	KSEM1063R3SSF125	H83	KSEM1250HPG KC7315	H55	KSEM1344R5SSF150	H83
KSEM0969HPG KCPM45	H58	KSEM1063R5SS125	H78	KSEM1250HPG KCPM45	H58	KSEM1350HPCC L M KC7410	H60
KSEM0969HPL KC7320	H62	KSEM1063R5SSF125	H83	KSEM1250HPGM KC7315	H54	KSEM1350HPGM KC7315	H54
KSEM0969R10SS100	H79	KSEM1063R7SS125	H80	KSEM1250HPGM KCPM45	H57	KSEM1350HPGM KCPM45	H57
KSEM0969R3SS100	H78	KSEM1063R8SSF125	H84	KSEM1250HPL KC7320	H62	KSEM1350HPLM KC7320	H62
KSEM0969R3SSF100	H82	KSEM1094HP KC7315	H53	KSEM1250HPLM KC7320	H62	KSEM1350HPM KC7315	H52
KSEM0969R5SS100	H78	KSEM1094HPCC L KC7410	H60	KSEM1250HPM KC7315	H52	KSEM1350PCM KC7135	H70
KSEM0969R5SSF100	H82	KSEM1094HPG KC7315	H55	KSEM1250PCM KC7135	H70	KSEM1350SPLM KCMS35	H64
KSEM0969R7SS100	H79	KSEM1094HPG KCPM45	H58	KSEM1250R10SS125	H80	KSEM135R10WN16M	H75
KSEM0984R10SS100	H79	KSEM1094HPL KC7320	H63	KSEM1250R10SS150	H80	KSEM135R3WN16M	H73
KSEM0984R3SS100	H78	KSEM1094R10SS125	H80	KSEM1250R3SS125	H78	KSEM135R5WN16M	H73
KSEM0984R3SSF100	H82	KSEM1094R3SSF125	H83	KSEM1250R3SS150	H78	KSEM135R7WN16M	H75
KSEM0984R5SS100	H78	KSEM1094R5SS125	H78	KSEM1250R3SSF125	H83	KSEM135SEFM	H87
KSEM0984R5SSF100	H82	KSEM1094R7SS125	H80	KSEM1250R3SSF150	H83	KSEM1360HPGM KC7315	H54
KSEM0984R7SS100	H79	KSEM1103R1SSF125	H81	KSEM1250R5SS125	H78	KSEM1360HPGM KCPM45	H57
KSEM0984R8SSF100	H84	KSEM1103R1SSF125F45	H86	KSEM1250R5SS150	H78	KSEM1360HPLM KC7320	H62
KSEM1000FEG KCPM45	H67	KSEM1109HP KC7315	H53	KSEM1250R5SSF125	H83	KSEM1360HPLM KC7320	H62
KSEM1000HP KC7315	H52	KSEM1109HPCC L KC7410	H61	KSEM1250R5SSF150	H83	KSEM136R10WN16M	H75
KSEM1000HPCC L KC7410	H60	KSEM1109HPG KC7315	H55	KSEM1250R5SSF150	H83	KSEM136R1WN16F45M	H85-86
KSEM1000HPG KC7315	H55	KSEM1109HPG KCPM45	H58	KSEM1250R7SS125	H80	KSEM136R1WN16M	H72
KSEM1000HPG KCPM45	H58	KSEM1109HPL KC7320	H63	KSEM1250R7SS150	H80	KSEM136R3WN16M	H73
KSEM1000HPL KC7320	H62	KSEM1109R3SS125	H78	KSEM1250R8SSF125	H84	KSEM136R5WN16M	H73
KSEM1000R10SS100	H79	KSEM1109R3SSF125	H83	KSEM1250R8SSF150	H84	KSEM136R7WN16M	H75
KSEM1000R10SS125	H79	KSEM1109R5SS125	H78	KSEM1250R8SSF150	H84	KSEM1370HPGM KC7315	H54
KSEM1000R3SS100	H78	KSEM1125HP KC7315	H53	KSEM1250R8SSF150	H84	KSEM1370HPM KC7315	H52
KSEM1000R3SS100	H83	KSEM1125HPCC L KC7410	H61	KSEM1250R8SS125	H83	KSEM1375HP KC7315	H53
KSEM1000R3SSF125	H83	KSEM1125HPG KC7315	H55	KSEM1250R8SS150	H83	KSEM1375HPG KC7315	H55
KSEM1000R5SS100	H78	KSEM1125HPG KCPM45	H58	KSEM1250R8SS150	H83	KSEM1375HPG KCPM45	H58
KSEM1000R5SS125	H78	KSEM1125HPL KC7320	H63	KSEM1250R8SS150	H83	KSEM1375HPL KC7320	H63
KSEM1000R5SSF100	H83	KSEM1125R10SS125	H80	KSEM1250R8SS150	H83	KSEM1375R3SS150	H78
KSEM1000R5SSF125	H83	KSEM1125R3SS125	H78	KSEM1250R8SS150	H83	KSEM1375R3SSF150	H83
KSEM1000R5SSF100	H79	KSEM1125R3SSF125	H83	KSEM1250R8SS150	H83	KSEM1375R5SS150	H78
KSEM1000R7SS125	H79	KSEM1125R5SS125	H78	KSEM1250R8SS150	H83	KSEM1375R5SSF150	H83
KSEM1000R8SSF100	H84	KSEM1125R5SSF125	H83	KSEM1250R8SS150	H83	KSEM1380HPGM KC7315	H54
KSEM1000R8SSF125	H84	KSEM1125R7SS125	H80	KSEM1250R8SS150	H83	KSEM1380HPGM KCPM45	H57
KSEM1000SPL KCMS35	H64	KSEM1125R8SSF125	H84	KSEM1250R8SS150	H83	KSEM1380HPLM KC7320	H62
KSEM1008HP KC7315	H52	KSEM1125SPL KCMS35	H65	KSEM1250R8SS150	H83	KSEM1380HPM KC7315	H52
KSEM1008HPG KC7315	H55	KSEM1156HP KC7315	H53	KSEM1250R8SS150	H83	KSEM1380PCM KC7135	H70
KSEM1008HPG KCPM45	H58	KSEM1156HPCC L KC7410	H61	KSEM1250R8SS150	H83	KSEM1400HPCC L M KC7410	H60, H111
KSEM1008HPL KC7320	H62	KSEM1156HPG KC7315	H55	KSEM1250R8SS150	H83	KSEM1400HPGM KC7315	H54
KSEM1008SPL KCMS35	H64	KSEM1156HPG KCPM45	H58	KSEM1250R8SS150	H83	KSEM1400HPGM KCPM45	H57
KSEM1010HPG KC7315	H55	KSEM1156HPL KC7320	H63	KSEM1250R8SS150	H83	KSEM1400HPLM KC7320	H62
KSEM1010HPG KCPM45	H58	KSEM1156R10SS125	H80	KSEM1250R8SS150	H83	KSEM1400HPLM KC7320	H62
KSEM1011HP KC7315	H52	KSEM1156R3SS125	H78	KSEM1250R8SS150	H83	KSEM1400HPM KC7315	H52
KSEM1011HPCC L KC7410	H60	KSEM1156R3SSF125	H83	KSEM1250R8SS150	H83	KSEM1400PCM KC7135	H70, H111
KSEM1011HPG KC7315	H55	KSEM1156R5SS125	H78	KSEM1250R8SS150	H83	KSEM1400SPLM KCMS35	H64
KSEM1011HPG KCPM45	H58	KSEM1156R7SS125	H80	KSEM1250R8SS150	H83	KSEM1406HPG KC7315	H55
KSEM1011HPL KC7320	H63	KSEM1172HP KC7315	H53	KSEM1250R8SS150	H83	KSEM1406HPL KC7320	H63
KSEM1011R10SS125	H79	KSEM1172HPCC L KC7410	H61	KSEM1250R8SS150	H83	KSEM1406R3SS150	H78
KSEM1011R3SS125	H78	KSEM1172HPG KC7315	H55	KSEM1250R8SS150	H83	KSEM1406R5SSF150	H83
KSEM1011R3SSF100	H83	KSEM1172HPG KCPM45	H58	KSEM1250R8SS150	H83	KSEM1406R5SSF150	H83
KSEM1011R5SS125	H78	KSEM1172HPL KC7320	H63	KSEM1250R8SS150	H83	KSEM140R10WN16M	H75
KSEM1011R7SS125	H79	KSEM1172R3SS125	H78	KSEM1250R8SS150	H83	KSEM140R3WN16M	H73
KSEM1011SPL KCMS35	H64	KSEM1172R5SS125	H78	KSEM1250R8SS150	H83	KSEM140R5WN16M	H73
KSEM1016FEG KCPM45	H67	KSEM1172R5SSF125	H78	KSEM1250R8SS150	H83	KSEM140R7WN16M	H75
KSEM1016HPG KCPM45	H58	KSEM1182R1SSF125	H81	KSEM1250R8SS150	H83	KSEM140SEFM	H87
KSEM1016HPL KC7320	H63	KSEM1182R1SSF125F45	H86	KSEM1250R8SS150	H83	KSEM1410HPGM KC7315	H54
KSEM1016SPL KCMS35	H64	KSEM1188HP KC7315	H53	KSEM1250R8SS150	H83	KSEM1410HPGM KCPM45	H57
KSEM1024R1SSF125	H81	KSEM1188HPCC L KC7410	H61	KSEM1250R8SS150	H83	KSEM1410HPLM KC7320	H62
KSEM1024R1SSF125F45	H86	KSEM1188HPG KC7315	H55	KSEM1250R8SS150	H83	KSEM1410HPM KC7315	H52
KSEM1031FEG KCPM45	H67	KSEM1188HPG KCPM45	H58	KSEM1250R8SS150	H83	KSEM1410PCM KC7135	H70
KSEM1031HP KC7315	H53	KSEM1188HPL KC7320	H63	KSEM1250R8SS150	H83	KSEM1415HPLM KC7320	H62
KSEM1031HPCC L KC7410	H60	KSEM1188R10SS125	H80	KSEM1250R8SS150	H83	KSEM1418R1SSF125	H81
KSEM1031HPG KC7315	H55	KSEM1188R3SS125	H78	KSEM1250R8SS150	H83	KSEM1418R1SSF125F45	H86
KSEM1031HPG KCPM45	H58	KSEM1188R3SSF125	H83	KSEM1250R8SS150	H83	KSEM1420HPGM KC7315	H54
KSEM1031HPL KC7320	H63	KSEM1188R5SS125	H78	KSEM1250R8SS150	H83	KSEM1420HPLM KC7320	H62
KSEM1031R10SS125	H80	KSEM1188R5SSF125	H83	KSEM1250R8SS150	H83	KSEM1420HPM KC7315	H52
KSEM1031R3SS125	H78	KSEM1188R7SS125	H80	KSEM1250R8SS150	H83	KSEM1422HPG KC7315	H55
KSEM1031R3SSF125	H83	KSEM1188R8SSF125	H84	KSEM1250R8SS150	H83	KSEM1422R3SSF150	H83
KSEM1031R5SS125	H78	KSEM1203HPG KC7315	H55	KSEM1250R8SS150	H83	KSEM1422R5SS150	H78
KSEM1031R7SS125	H80	KSEM1203R3SSF125	H83	KSEM1250R8SS150	H83	KSEM1422R5SSF150	H83
KSEM1031SPL KCMS35	H64	KSEM1203R5SS125	H78	KSEM1250R8SS150	H83	KSEM1438HPG KC7315	H55
KSEM1047HP KC7315	H53	KSEM1219HP KC7315	H53	KSEM1250R8SS150	H83	KSEM1438HPG KCPM45	H58
KSEM1047HPCC L KC7410	H60	KSEM1219HPG KC7315	H55	KSEM1250R8SS150	H83	KSEM1438R3SS150	H78
KSEM1047HPG KC7315	H55	KSEM1219HPG KCPM45	H58	KSEM1250R8SS150	H83	KSEM1438R3SSF150	H83
KSEM1047HPG KCPM45	H58	KSEM1219R10SS125	H80	KSEM1250R8SS150	H83	KSEM1438R5SS150	H78
KSEM1047HPL KC7320	H63	KSEM1219R3SS125	H78	KSEM1250R8SS150	H83	KSEM1438R5SSF150	H83
KSEM1047R3SSF125	H83	KSEM1219R5SS125	H78	KSEM1250R8SS150	H83	KSEM1440HPGM KC7315	H54
KSEM1047R5SS125	H78	KSEM1219R7SS125	H80	KSEM1250R8SS150	H83	KSEM1440HPM KC7315	H52
KSEM1047SPL KCMS35	H64	KSEM1250FEG KCPM45	H67	KSEM1250R8SS150	H83	KSEM1450HPCC L M KC7410	H60
KSEM1047SPL KCMS35	H64	KSEM1250HP KC7315	H53	KSEM1250R8SS150	H83	KSEM1450HPGM KC7315	H54

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KSEM1450HPGM KCPM45	H57	KSEM1600HPCCLM KC7410	H60, H111	KSEM180R7WN20M	H75	KSEM2050HPLM KC7320	H62
KSEM1450HPLM KC7320	H62	KSEM1600HPGM KC7315	H54	KSEM180SEFM	H87	KSEM2050HPM KC7315	H52
KSEM1450HPM KC7315	H52	KSEM1600HPGM KCPM45	H57	KSEM181R10WN25M	H75	KSEM2050PCM KC7135	H70
KSEM1450PCGM KC7135	H70	KSEM1600HPLM KC7320	H62	KSEM181R1WN25F45M	H85-86	KSEM2050SPLM KCMS35	H64
KSEM1450SPLM KCMS35	H64	KSEM1600HPM KC7315	H52	KSEM181R1WN25M	H72	KSEM205R10WN25M	H75
KSEM145R10WN20M	H75	KSEM1600PCM KC7135	H70, H111	KSEM181R5WN25M	H73	KSEM205R3WN25M	H73
KSEM145R3WN20M	H73	KSEM1600SPLM KCMS35	H64	KSEM1830SPLM KCMS35	H64	KSEM205R5WN25M	H73
KSEM145R5WN20M	H73	KSEM1604HPGM KC7315	H54	KSEM1850FEGM KCPM45	H67	KSEM205R7WN25M	H75
KSEM145R7WN20M	H75	KSEM160R10WN20M	H75	KSEM1850HPCCLM KC7410	H60	KSEM205SEFM	H87
KSEM145SEFM	H87	KSEM160R1WN20F45M	H85-86	KSEM1850HPGM KC7315	H54	KSEM2070HPGM KC7315	H54
KSEM1460HPGM KC7315	H54	KSEM160R1WN20M	H72	KSEM1850HPGM KCPM45	H57	KSEM2100FEGM KCPM45	H67
KSEM1460HPLM KC7320	H62	KSEM160R3WN20M	H73	KSEM1850HPLM KC7320	H62	KSEM2100HPCCLM KC7410	H60, H111
KSEM1460PCGM KC7135	H70	KSEM160R5WN20M	H73	KSEM1850HPM KC7315	H52	KSEM2100HPGM KC7315	H54
KSEM1469HPG KC7315	H55	KSEM160R7WN20M	H75	KSEM1850PCM KC7135	H70	KSEM2100HPM KCPM45	H57
KSEM1469HPG KCPM45	H58	KSEM160SEFM	H87	KSEM1850SPLM KCMS35	H64	KSEM2100HPLM KC7320	H62
KSEM1469R3SSF150	H83	KSEM1610HPLM KC7320	H62	KSEM185R10WN25M	H75	KSEM2100HPM KC7315	H52
KSEM1469R5SS150	H78	KSEM1615HPLM KC7320	H62	KSEM185R3WN25M	H73	KSEM2100PCM KC7135	H70, H111
KSEM1469R5SSF150	H83	KSEM1615SPLM KCMS35	H64	KSEM185R5WN25M	H73	KSEM2100SPLM KCMS35	H64
KSEM146R10WN20M	H75	KSEM1619HPGM KC7315	H54	KSEM185R7WN25M	H75	KSEM210R10WN25M	H75
KSEM146R1WN20F45M	H85-86	KSEM1620HPGM KC7315	H54	KSEM185SEFM	H87	KSEM210R3WN25M	H73
KSEM146R1WN20M	H72	KSEM1620HPGM KCPM45	H57	KSEM1860HPGM KC7315	H54	KSEM210R5WN25M	H73
KSEM146R3WN20M	H73	KSEM1620HPLM KC7320	H62	KSEM1860HPLM KC7320	H62	KSEM210R7WN25M	H75
KSEM146R5WN20M	H73	KSEM1620HPM KC7315	H52	KSEM1880HPGM KC7315	H54	KSEM210SEFM	H87
KSEM146R7WN20M	H75	KSEM1620PCM KC7135	H70	KSEM1890HPLM KC7320	H62	KSEM2110HPGM KC7315	H54
KSEM1480HPGM KC7315	H54	KSEM1650FEGM KCPM45	H67	KSEM1900FEGM KCPM45	H67	KSEM2115HPLM KC7320	H62
KSEM1480HPLM KC7320	H62	KSEM1650HPCCLM KC7410	H60	KSEM1900HPCCLM KC7410	H60, H111	KSEM2120HPGM KC7315	H54
KSEM1480HPM KC7315	H52	KSEM1650HPGM KC7315	H54	KSEM1900HPGM KC7315	H54	KSEM2133HPGM KC7315	H55
KSEM1480PCGM KC7135	H70	KSEM1650HPGM KCPM45	H57	KSEM1900HPM KCPM45	H57	KSEM2133HPLM KC7320	H62
KSEM1500FEG KCPM45	H68	KSEM1650HPLM KC7320	H62	KSEM1900HPLM KC7320	H62	KSEM2150FEGM KCPM45	H67
KSEM1500HP KC7315	H53	KSEM1650HPM KC7315	H52	KSEM1900HPM KC7315	H52	KSEM2150HPCCLM KC7410	H60
KSEM1500HPCCLM KC7410	H60, H111	KSEM1650PCM KC7135	H70	KSEM1900PCM KC7135	H70, H111	KSEM2150HPGM KC7315	H55
KSEM1500HPG KC7315	H55	KSEM1650SPLM KCMS35	H64	KSEM1900SPLM KCMS35	H64	KSEM2150HPM KCPM45	H57
KSEM1500HPG KCPM45	H58	KSEM165R10WN20M	H75	KSEM190R10WN25M	H75	KSEM2150HPLM KC7320	H62
KSEM1500HPGM KC7315	H54	KSEM165R3WN20M	H73	KSEM190R3WN25M	H73	KSEM2150HPM KC7315	H52
KSEM1500HPGM KCPM45	H57	KSEM165R5WN20M	H73	KSEM190R5WN25M	H73	KSEM2150PCM KC7135	H70
KSEM1500HPL KC7320	H63	KSEM165R7WN20M	H75	KSEM190R7WN25M	H75	KSEM2150SPLM KCMS35	H64
KSEM1500HPLM KC7320	H62	KSEM165SEFM	H87	KSEM190SEFM	H87	KSEM215R10WN25M	H75
KSEM1500HPM KC7315	H52	KSEM1660HPGM KC7315	H54	KSEM1920HPGM KCPM45	H57	KSEM215R3WN25M	H73
KSEM1500PCGM KC7135	H70, H111	KSEM1700FEGM KCPM45	H67	KSEM1920HPLM KC7320	H62	KSEM215R5WN25M	H73
KSEM1500R3SS150	H78	KSEM1700HPCCLM KC7410	H60, H111	KSEM1920SPLM KCMS35	H64	KSEM215R7WN25M	H75
KSEM1500R3SSF150	H83	KSEM1700HPGM KC7315	H54	KSEM1932HPGM KC7315	H54	KSEM215SEFM	H87
KSEM1500R5SS150	H78	KSEM1700HPGM KCPM45	H57	KSEM1935HPGM KC7315	H54	KSEM2170HPGM KC7315	H55
KSEM1500R5SSF150	H83	KSEM1700HPLM KC7320	H62	KSEM1935HPLM KC7320	H62	KSEM2200FEGM KCPM45	H67
KSEM1500SPLM KCMS35	H64	KSEM1700HPM KC7315	H52	KSEM1935SPLM KCMS35	H64	KSEM2200HPCCLM KC7410	H60, H111
KSEM150R10WN20M	H75	KSEM1700PCM KC7135	H70, H111	KSEM1936HPLM KC7320	H62	KSEM2200HPGM KC7315	H55
KSEM150R3WN20M	H73	KSEM1700SPLM KCMS35	H64	KSEM1938HPLM KC7320	H62	KSEM2200HPM KCPM45	H57
KSEM150R5WN20M	H73	KSEM170R10WN20M	H75	KSEM1950FEGM KCPM45	H67	KSEM2200HPLM KC7320	H62
KSEM150R7WN20M	H75	KSEM170R3WN20M	H73	KSEM1950HPCCLM KC7410	H60	KSEM2200HPM KC7315	H52
KSEM150SEFM	H87	KSEM170R5WN20M	H73	KSEM1950HPGM KC7315	H54	KSEM2200PCM KC7135	H70, H111
KSEM1514HPG KC7315	H55	KSEM170R7WN20M	H75	KSEM1950HPGM KCPM45	H57	KSEM2200SPLM KCMS35	H64
KSEM1514HPG KCPM45	H58	KSEM170SEFM	H87	KSEM1950HPLM KC7320	H62	KSEM220R10WN25M	H75
KSEM1514HPL KC7320	H63	KSEM1735HPGM KC7315	H54	KSEM1950HPM KC7315	H52	KSEM220R3WN25M	H73
KSEM1514R3SS150	H78	KSEM1750FEGM KCPM45	H67	KSEM1950PCM KC7135	H70	KSEM220R5WN25M	H73
KSEM1514R3SSF150	H83	KSEM1750HPCCLM KC7410	H60	KSEM1950SPLM KCMS35	H64	KSEM220R7WN25M	H75
KSEM1514R5SS150	H78	KSEM1750HPGM KC7315	H54	KSEM195R10WN25M	H75	KSEM220SEFM	H87
KSEM1514R5SSF150	H83	KSEM1750HPGM KCPM45	H57	KSEM195R3WN25M	H73	KSEM2210HPCCLM KC7410	H60
KSEM1514SPL KCMS35	H65	KSEM1750HPLM KC7320	H62	KSEM195R5WN25M	H73	KSEM2210HPGM KC7315	H55
KSEM1530HPGM KC7315	H54	KSEM1750HPM KC7315	H52	KSEM195R7WN25M	H75	KSEM2215HPGM KC7315	H55
KSEM1530HPM KC7315	H52	KSEM1750PCGM KC7135	H70	KSEM195SEFM	H87	KSEM221R10WN25M	H75
KSEM1550HPCCLM KC7410	H60	KSEM1750SPLM KCMS35	H64	KSEM1965HPGM KCPM45	H57	KSEM221R1WN25F45M	H85-86
KSEM1550HPGM KC7315	H54	KSEM175R10WN20M	H75	KSEM1970HPGM KC7315	H54	KSEM221R1WN25M	H72
KSEM1550HPGM KCPM45	H57	KSEM175R3WN20M	H73	KSEM2000FEGM KCPM45	H67	KSEM221R5WN25M	H73
KSEM1550HPLM KC7320	H62	KSEM175R5WN20M	H73	KSEM2000HPCCLM KC7410	H60, H111	KSEM2250FEGM KCPM45	H67
KSEM1550HPM KC7315	H52	KSEM175R7WN20M	H75	KSEM2000HPGM KC7315	H54	KSEM2250HPCCLM KC7410	H60
KSEM1550PCGM KC7135	H70	KSEM175SEFM	H87	KSEM2000HPGM KCPM45	H57	KSEM2250HPGM KC7315	H55
KSEM1550SPLM KCMS35	H64	KSEM1760HPCCLM KC7410	H60	KSEM2000HPLM KC7320	H62	KSEM2250HPM KCPM45	H57
KSEM155R10WN20M	H75	KSEM1760HPGM KC7315	H54	KSEM2000HPM KC7315	H52	KSEM2250HPLM KC7320	H62
KSEM155R3WN20M	H73	KSEM1770HPGM KC7315	H54	KSEM2000PCM KC7135	H70, H111	KSEM2250HPM KC7315	H52
KSEM155R5WN20M	H73	KSEM1775HPLM KC7320	H62	KSEM2000SPLM KCMS35	H64	KSEM2250PCGM KC7135	H70
KSEM155R7WN20M	H75	KSEM1780HPLM KC7320	H62	KSEM200R10WN25M	H75	KSEM2250SPLM KCMS35	H64
KSEM155SEFM	H87	KSEM1790HPLM KC7320	H62	KSEM200R1WN25F45M	H85-86	KSEM225R10WN25M	H75
KSEM1560HPGM KC7315	H54	KSEM1800FEGM KCPM45	H67	KSEM200R1WN25M	H72	KSEM225R3WN25M	H74
KSEM1560HPLM KC7320	H62	KSEM1800HPCCLM KC7410	H60, H111	KSEM200R3WN25M	H73	KSEM225R5WN25M	H74
KSEM1560HPM KC7315	H52	KSEM1800HPGM KC7315	H54	KSEM200R5WN25M	H73	KSEM225R7WN25M	H75
KSEM1560PCGM KC7135	H70	KSEM1800HPGM KCPM45	H57	KSEM200R7WN25M	H75	KSEM225SEFM	H87
KSEM1570HPGM KC7315	H54	KSEM1800HPLM KC7320	H62	KSEM200SEFM	H87	KSEM2277HPLM KC7320	H62
KSEM1570HPM KC7315	H52	KSEM1800HPM KC7315	H52	KSEM2010HPLM KC7320	H62	KSEM2300FEGM KCPM45	H67
KSEM1580HPGM KC7315	H54	KSEM1800PCGM KC7135	H70, H111	KSEM2035HPLM KC7320	H62	KSEM2300HPCCLM KC7410	H60, H111
KSEM1580HPGM KCPM45	H57	KSEM1800SPLM KCMS35	H64	KSEM2050FEGM KCPM45	H67	KSEM2300HPGM KC7315	H55
KSEM1580HPM KC7315	H52	KSEM180R10WN20M	H75	KSEM2050HPCCLM KC7410	H60	KSEM2300HPM KCPM45	H57
KSEM1580PCGM KC7135	H70	KSEM180R3WN20M	H73	KSEM2050HPGM KC7315	H54	KSEM2300HPLM KC7320	H62
KSEM1600FEGM KCPM45	H67	KSEM180R5WN20M	H73	KSEM2050HPGM KCPM45	H57	KSEM2300HPM KC7315	H52

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KSEM2300PCM KC7135	H70, H111	KSEM255R10WN32M	H75	KSEM281R10WN32M	H76	KSEM3100SPLM KCMS35	H65
KSEM2300SPLM KCMS35	H64	KSEM255R3WN32M	H74	KSEM281R1WN32F45M	H85-86	KSEM310R10WN32M	H76
KSEM2305HPGM KC7315	H55	KSEM255R5WN32M	H74	KSEM281R1WN32M	H72	KSEM310R3WN32M	H74
KSEM230R10WN25M	H75	KSEM255R7WN32M	H75	KSEM281R5WN32M	H74	KSEM310R5WN32M	H74
KSEM230R3WN25M	H74	KSEM255SEFM	H87	KSEM2835HPGM KCPM45	H58	KSEM310R7WN32M	H76
KSEM230R5WN25M	H74	KSEM2565HPLM KC7320	H63	KSEM2850FEGM KCPM45	H67	KSEM310SEFM	H87
KSEM230R7WN25M	H75	KSEM2565SPLM KCMS35	H64	KSEM2850HPCCCLM KC7410	H61	KSEM3115HPGM KCPM45	H58
KSEM230SEFM	H87	KSEM2580FEGM KCPM45	H67	KSEM2850HPGM KC7315	H55	KSEM3125HPGM KC7315	H55
KSEM2310HPGM KC7315	H55	KSEM2600FEGM KCPM45	H67	KSEM2850HPGM KCPM45	H58	KSEM3150FEGM KCPM45	H67
KSEM2325HPGM KC7315	H55	KSEM2600HPCCCLM KC7410	H60, H111	KSEM2850HPLM KC7320	H63	KSEM2850HPLM KC7315	H55
KSEM2330HPGM KC7315	H55	KSEM2600HPGM KC7315	H55	KSEM2850HPM KC7315	H53	KSEM3150HPGM KCPM45	H58
KSEM2350FEGM KCPM45	H67	KSEM2600HPGM KCPM45	H58	KSEM2850PCM KC7135	H70	KSEM3150HPLM KC7320	H63
KSEM2350HPCCCLM KC7410	H60	KSEM2600HPLM KC7320	H63	KSEM2850SPLM KCMS35	H64	KSEM3150HPM KC7315	H53
KSEM2350HPGM KC7315	H55	KSEM2600HPM KC7315	H53	KSEM285R10WN32M	H76	KSEM3150SPLM KCMS35	H65
KSEM2350HPGM KCPM45	H57	KSEM2600PCM KC7135	H70, H111	KSEM285R3WN32M	H74	KSEM315R3WN32M	H74
KSEM2350HPLM KC7320	H62	KSEM2600SPLM KCMS35	H64	KSEM285R5WN32M	H74	KSEM285R5WN32M	H74
KSEM2350HPM KC7315	H52	KSEM260R10WN32M	H76	KSEM285R7WN32M	H76	KSEM315R7WN32M	H76
KSEM2350PCM KC7135	H70	KSEM260R3WN32M	H74	KSEM285SEFM	H87	KSEM315SEFM	H87
KSEM2350SPLM KCMS35	H64	KSEM260R5WN32M	H74	KSEM2900FEGM KCPM45	H67	KSEM3200FEGM KCPM45	H67
KSEM235R10WN25M	H75	KSEM260R7WN32M	H76	KSEM2900HPCCCLM KC7410	H61, H111	KSEM3200HPCCCLM KC7410	H61, H111
KSEM235R3WN25M	H74	KSEM260SEFM	H87	KSEM2900HPGM KC7315	H55	KSEM3200HPGM KC7315	H55
KSEM235R5WN25M	H74	KSEM261R10WN32M	H76	KSEM2900HPGM KCPM45	H58	KSEM3200HPGM KCPM45	H58
KSEM235R7WN25M	H75	KSEM261R1WN32F45M	H85-86	KSEM2900HPLM KC7320	H63	KSEM3200HPLM KC7320	H63
KSEM235SEFM	H87	KSEM261R1WN32M	H72	KSEM2900HPM KC7315	H53	KSEM3200HPM KC7315	H53
KSEM2370HPGM KCPM45	H57	KSEM261R5WN32M	H74	KSEM2900PCM KC7135	H70, H111	KSEM3200PCM KC7135	H70, H111
KSEM2400FEGM KCPM45	H67	KSEM2630SPLM KCMS35	H64	KSEM2900SPLM KCMS35	H65	KSEM3200SPLM KCMS35	H65
KSEM2400HPCCCLM KC7410	H60, H111	KSEM2650FEGM KCPM45	H67	KSEM290R10WN32M	H76	KSEM320R10WN32M	H76
KSEM2400HPGM KC7315	H55	KSEM2650HPCCCLM KC7410	H60	KSEM290R3WN32M	H74	KSEM320R3WN32M	H74
KSEM2400HPGM KCPM45	H57	KSEM2650HPGM KC7315	H55	KSEM290R5WN32M	H74	KSEM320R5WN32M	H74
KSEM2400HPLM KC7320	H62	KSEM2650HPGM KCPM45	H58	KSEM290R7WN32M	H76	KSEM320R7WN32M	H76
KSEM2400HPM KC7315	H52	KSEM2650HPLM KC7320	H63	KSEM290SEFM	H87	KSEM320SEFM	H87
KSEM2400PCM KC7135	H70, H111	KSEM2650HPM KC7315	H53	KSEM2950FEGM KCPM45	H67	KSEM321R1WD50F45M	H85-86
KSEM2400SPLM KCMS35	H64	KSEM2650PCM KC7135	H70	KSEM2950HPCCCLM KC7410	H61	KSEM321R1WD50M	H72
KSEM240R10WN25M	H75	KSEM2650SPLM KCMS35	H64	KSEM2950HPGM KC7315	H55	KSEM321R3WD40M	H74
KSEM240R3WN25M	H74	KSEM2653HPGM KC7315	H55	KSEM2950HPGM KCPM45	H58	KSEM321R3WD50M	H74
KSEM240R5WN25M	H74	KSEM265R10WN32M	H76	KSEM2950HPLM KC7320	H63	KSEM321R5WD40M	H74
KSEM240R7WN25M	H75	KSEM265R3WN32M	H74	KSEM2950HPM KC7315	H53	KSEM321R5WD50M	H74
KSEM240SEFM	H87	KSEM265R5WN32M	H74	KSEM2950PCM KC7135	H70	KSEM3220HPGM KC7315	H55
KSEM241R10WN32M	H75	KSEM265R7WN32M	H76	KSEM2950SPLM KCMS35	H65	KSEM3234HPGM KC7315	H55
KSEM241R1WN32F45M	H85-86	KSEM265SEFM	H87	KSEM2955HPGM KC7315	H55	KSEM3250FEGM KCPM45	H67
KSEM241R1WN32M	H72	KSEM2670FEGM KCPM45	H67	KSEM295R10WN32M	H76	KSEM3250HPGM KC7315	H55
KSEM241R5WN32M	H74	KSEM2670HPGM KC7315	H55	KSEM295R3WN32M	H74	KSEM3250HPGM KCPM45	H58
KSEM2430HPGM KC7315	H55	KSEM2670HPLM KC7320	H63	KSEM295R5WN32M	H74	KSEM3250HPM KC7315	H53
KSEM2450FEGM KCPM45	H67	KSEM2700FEGM KCPM45	H67	KSEM295R7WN32M	H76	KSEM3250SPLM KCMS35	H65
KSEM2450HPCCCLM KC7410	H60	KSEM2700HPCCCLM KC7410	H60, H111	KSEM295SEFM	H87	KSEM3300FEGM KCPM45	H67
KSEM2450HPGM KC7315	H55	KSEM2700HPGM KC7315	H55	KSEM2973HPGM KC7315	H55	KSEM3300HPCCCLM KC7410	H61, H111
KSEM2450HPGM KCPM45	H57	KSEM2700HPGM KCPM45	H58	KSEM3000FEGM KCPM45	H67	KSEM3300HPGM KC7315	H55
KSEM2450HPLM KC7320	H62	KSEM2700HPLM KC7320	H63	KSEM3000HPCCCLM KC7410	H61, H111	KSEM3300HPGM KCPM45	H58
KSEM2450HPM KC7315	H52	KSEM2700HPM KC7315	H53	KSEM3000HPGM KC7315	H55	KSEM3300HPLM KC7320	H63
KSEM2450PCM KC7135	H70	KSEM2700PCM KC7135	H70, H111	KSEM3000HPGM KCPM45	H58	KSEM3300HPM KC7315	H53
KSEM2450SPLM KCMS35	H64	KSEM2700SPLM KCMS35	H64	KSEM3000HPLM KC7320	H63	KSEM3300PCM KC7135	H70, H111
KSEM245R10WN32M	H75	KSEM270R10WN32M	H76	KSEM3000HPM KC7315	H53	KSEM330R3WD40M	H74
KSEM245R3WN32M	H74	KSEM270R3WN32M	H74	KSEM3000PCM KC7135	H70, H111	KSEM330R3WD50M	H74
KSEM245R5WN32M	H74	KSEM270R5WN32M	H76	KSEM3000SPLM KCMS35	H65	KSEM330R5WD40M	H74
KSEM245R7WN32M	H75	KSEM270R7WN32M	H76	KSEM300R10WN32M	H76	KSEM330R5WD50M	H74
KSEM245SEFM	H87	KSEM270SEFM	H87	KSEM300R3WN32M	H74	KSEM3350FEGM KCPM45	H67
KSEM2470HPGM KC7315	H55	KSEM2750FEGM KCPM45	H67	KSEM300R5WN32M	H74	KSEM3350HPGM KC7315	H55
KSEM2500FEGM KCPM45	H67	KSEM2750HPCCCLM KC7410	H60	KSEM300R7WN32M	H76	KSEM3350HPGM KCPM45	H58
KSEM2500HPCCCLM KC7410	H60, H111	KSEM2750HPGM KC7315	H55	KSEM300SEFM	H87	KSEM3350SPLM KCMS35	H65
KSEM2500HPGM KC7315	H55	KSEM2750HPGM KCPM45	H58	KSEM301R10WN32M	H76	KSEM3400FEGM KCPM45	H67
KSEM2500HPGM KCPM45	H58	KSEM2750HPLM KC7320	H63	KSEM301R1WN32F45M	H85-86	KSEM3400HPCCCLM KC7410	H61, H111
KSEM2500HPLM KC7320	H62	KSEM2750HPM KC7315	H53	KSEM301R1WN32M	H72	KSEM3400HPGM KC7315	H55
KSEM2500HPM KC7315	H52	KSEM2750SPLM KCMS35	H64	KSEM301R5WN32M	H74	KSEM3400HPGM KCPM45	H58
KSEM2500PCM KC7135	H70, H111	KSEM275R10WN32M	H76	KSEM3050FEGM KCPM45	H67	KSEM3400HPLM KC7320	H63
KSEM2500SPLM KCMS35	H64	KSEM275R3WN32M	H74	KSEM3050HPCCCLM KC7410	H61	KSEM3400HPM KC7315	H53
KSEM2507HPLM KC7320	H62	KSEM275R5WN32M	H74	KSEM3050HPGM KC7315	H55	KSEM3400PCM KC7135	H70, H111
KSEM250R10WN32M	H75	KSEM275R7WN32M	H76	KSEM3050HPGM KCPM45	H58	KSEM3400SPLM KCMS35	H65
KSEM250R3WN32M	H74	KSEM275SEFM	H87	KSEM3050HPLM KC7320	H63	KSEM340R3WD40M	H74
KSEM250R5WN32M	H74	KSEM2800FEGM KCPM45	H67	KSEM3050HPM KC7315	H53	KSEM340R3WD50M	H74
KSEM250R7WN32M	H75	KSEM2800HPCCCLM KC7410	H61, H111	KSEM3050PCM KC7135	H70	KSEM340R5WD40M	H74
KSEM250SEFM	H87	KSEM2800HPGM KC7315	H55	KSEM3050SPLM KCMS35	H65	KSEM340R5WD50M	H74
KSEM2525SPLM KCMS35	H64	KSEM2800HPGM KCPM45	H58	KSEM305R3WN32M	H74	KSEM3450FEGM KCPM45	H67
KSEM2530SPLM KCMS35	H64	KSEM2800HPLM KC7320	H63	KSEM305R5WN32M	H74	KSEM3450HPGM KC7315	H55
KSEM2550FEGM KCPM45	H67	KSEM2800HPM KC7315	H53	KSEM305R7WN32M	H76	KSEM3450HPGM KCPM45	H58
KSEM2550HPCCCLM KC7410	H60	KSEM2800PCM KC7135	H70, H111	KSEM305SEFM	H87	KSEM3450SPLM KCMS35	H65
KSEM2550HPGM KC7315	H55	KSEM2800SPLM KCMS35	H64	KSEM3100FEGM KCPM45	H67	KSEM3500FEGM KCPM45	H67
KSEM2550HPGM KCPM45	H58	KSEM280R10WN32M	H76	KSEM3100HPCCCLM KC7410	H61, H111	KSEM3500HPCCCLM KC7410	H61, H111
KSEM2550HPLM KC7320	H62	KSEM280R3WN32M	H74	KSEM3100HPGM KC7315	H55	KSEM3500HPGM KC7315	H55
KSEM2550HPM KC7315	H52	KSEM280R5WN32M	H74	KSEM3100HPGM KCPM45	H58	KSEM3500HPGM KCPM45	H58
KSEM2550PCM KC7135	H70	KSEM280R7WN32M	H76	KSEM3100HPLM KC7320	H63	KSEM3500HPLM KC7320	H63
KSEM2550SPLM KCMS35	H64	KSEM280SEFM	H87	KSEM3100HPM KC7315	H53	KSEM3500HPM KC7315	H53
KSEM2554HPGM KC7315	H55	KSEM2810HPLM KC7320	H63	KSEM3100PCM KC7135	H70, H111	KSEM3500PCM KC7135	H70, H111

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KSEM3500SPLM KCMS35.....	H65	KSEM4000HPCCLM KC7410.....	H61, H11	KSEM3100FDS28B1M.....	H108, H118	KSEM5600FDS56B1M.....	H109, H119
KSEM350R3WD40M.....	H74	KSEM4000HPGM KC7315.....	H65	KSEM3100HPGM KC7315.....	H111	KSEM5700FDS56A1M.....	H105, H116, H122
KSEM350R3WD50M.....	H74	KSEM4000HPGM KCPM45.....	H58	KSEM3125FDS80A1.....	H106, H117, H123	KSEM5700FDS56B1M.....	H109, H119
KSEM350R5WD40M.....	H74	KSEM4000PLM KC7320.....	H63	KSEM3125FDS80B1.....	H10, H120	KSEM5800FDS56A1M.....	H105, H116, H122
KSEM350R5WD50M.....	H74	KSEM4000HPM KC7315.....	H63	KSEM3200FDS32A1M.....	H104, H115, H122	KSEM5800FDS56B1M.....	H109, H119
KSEM3550FEGM KCPM45.....	H67	KSEM4000PCM KC7135.....	H70, H111	KSEM3200FDS32B1M.....	H108, H118	KSEM5900FDS56A1M.....	H105, H116, H122
KSEM3550HPGM KC7315.....	H65	KSEM4000SPLM KCMS35.....	H65	KSEM3200HPGM KC7315.....	H111	KSEM5900FDS56B1M.....	H109, H119
KSEM3550HPM KC7315.....	H53	KSEM400R3WD40M.....	H74	KSEM3250FDS80A1.....	H106, H117, H123	KSEM6000FDS56A1M.....	H105, H116, H122
KSEM3550SPLM KCMS35.....	H65	KSEM400R3WD50M.....	H74	KSEM3250FDS80B1.....	H10, H120	KSEM6000FDS56B1M.....	H109, H119
KSEM3600FEGM KCPM45.....	H68	KSEM400R5WD40M.....	H74	KSEM3300FDS32A1M.....	H104, H115, H122	KSEM6100FDS56A1M.....	H105, H116, H122
KSEM3600HPCCLM KC7410.....	H61, H111	KSEM400R5WD50M.....	H74	KSEM3300FDS32B1M.....	H108, H118	KSEM6100FDS56B1M.....	H109, H119
KSEM3600HPGM KC7315.....	H55	KSEMP10000FDS90A1M.....	H106, H117, H123	KSEM3300HPGM KC7315.....	H111	KSEM6200FDS56A1M.....	H105, H116, H122
KSEM3600HPGM KCPM45.....	H58	KSEMP10000FDS90B1M.....	H110, H120	KSEM3320FDS32A1M.....	H104, H115, H122	KSEM6200FDS56B1M.....	H109, H119
KSEM3600HPLM KC7320.....	H63	KSEMP1125FDS28A1.....	H104, H115, H122	KSEM3320FDS32B1M.....	H108, H118	KSEM6300FDS63A1M.....	H105, H116, H122
KSEM3600HPM KC7315.....	H53	KSEMP1125FDS28B1.....	H108, H118	KSEM3375FDS90A1.....	H106, H117, H123	KSEM6300FDS63B1M.....	H109, H119
KSEM3600PCM KC7135.....	H70, H111	KSEMP1156FDS28A1.....	H104, H115, H122	KSEM3375FDS80B1.....	H10, H120	KSEM6400FDS63A1M.....	H105, H116, H123
KSEM3600SPLM KCMS35.....	H65	KSEMP1156FDS28B1.....	H108, H118	KSEM3400FDS32A1M.....	H104, H115, H122	KSEM6400FDS63B1M.....	H109, H119
KSEM360R3WD40M.....	H74	KSEMP1188FDS28A1.....	H104, H115, H122	KSEM3400FDS32B1M.....	H108, H118	KSEM6500FDS63A1M.....	H105, H116, H123
KSEM360R3WD50M.....	H74	KSEMP1188FDS28B1.....	H108, H118	KSEM3400HPGM KC7315.....	H111	KSEM6500FDS63B1M.....	H109, H119
KSEM360R5WD40M.....	H74	KSEMP1219FDS28A1.....	H104, H115, H122	KSEM3500FDS32A1M.....	H104, H115, H122	KSEM6600FDS63A1M.....	H105, H116, H122
KSEM360R5WD50M.....	H74	KSEMP1219FDS28B1.....	H108, H118	KSEM3500FDS32B1M.....	H108, H118	KSEM6600FDS63B1M.....	H109, H119
KSEM361R11WD50F45M.....	H85-86	KSEMP1250FDS32A1.....	H104, H115, H122	KSEM3500FDS80A1.....	H106, H117, H123	KSEM6700FDS63A1M.....	H105, H116, H123
KSEM361R11WD50M.....	H72	KSEMP1250FDS32B1.....	H108, H118	KSEM3500FDS80B1.....	H10, H120	KSEM6700FDS63B1M.....	H109, H119
KSEM361R3WD40M.....	H74	KSEMP1300HPGM KC7315.....	H111	KSEM3500HPGM KC7315.....	H111	KSEM6800FDS63A1M.....	H105, H116, H123
KSEM361R3WD50M.....	H74	KSEMP1313FDS32A1.....	H104, H115, H122	KSEM3600FDS36A1M.....	H104, H116, H122	KSEM6800FDS63B1M.....	H109, H119
KSEM361R5WD40M.....	H74	KSEMP1313FDS32B1.....	H108, H118	KSEM3600FDS36B1M.....	H108, H118	KSEM6900FDS63A1M.....	H105, H116, H123
KSEM361R5WD50M.....	H74	KSEMP1375FDS32A1.....	H104, H115, H122	KSEM3600HPGM KC7315.....	H111	KSEM6900FDS63B1M.....	H109, H119
KSEM3650FEGM KCPM45.....	H68	KSEMP1375FDS32B1.....	H108, H118	KSEM3625FDS90A1.....	H106, H117, H123	KSEM7000FDS63A1M.....	H105, H116, H123
KSEM3650HPGM KC7315.....	H55	KSEMP1400HPGM KC7315.....	H111	KSEM3625FDS90B1.....	H10, H120	KSEM7000FDS63B1M.....	H109, H119
KSEM3650SPLM KCMS35.....	H65	KSEMP1438FDS36A1.....	H104, H116, H122	KSEM3700FDS36A1M.....	H104, H116, H122	KSEM7100FDS71A1M.....	H106, H117, H123
KSEM3700FEGM KCPM45.....	H68	KSEMP1438FDS36B1.....	H108, H118	KSEM3700FDS36B1M.....	H108, H118	KSEM7100FDS71B1M.....	H10, H119
KSEM3700HPCCLM KC7410.....	H61, H111	KSEMP1500FDS36A1.....	H104, H116, H122	KSEM3700HPGM KC7315.....	H111	KSEM7200FDS71A1M.....	H106, H116, H123
KSEM3700HPGM KC7315.....	H55	KSEMP1500FDS36B1.....	H108, H118	KSEM3750FDS36A1M.....	H104, H116, H122	KSEM7200FDS71B1M.....	H10, H119
KSEM3700HPGM KCPM45.....	H58	KSEMP1500HPGM KC7315.....	H111	KSEM3750FDS36B1M.....	H108, H118	KSEM7300FDS71A1M.....	H106, H116, H123
KSEM3700HPLM KC7320.....	H63	KSEMP1563FDS36A1.....	H104, H116, H122	KSEM3750FDS90A1.....	H106, H117, H123	KSEM7300FDS71B1M.....	H10, H119
KSEM3700HPM KC7135.....	H70, H111	KSEMP1563FDS36B1.....	H108, H118	KSEM3750FDS90B1.....	H10, H120	KSEM7400FDS71A1M.....	H106, H116, H123
KSEM3700SPLM KCMS35.....	H65	KSEMP1600HPGM KC7315.....	H111	KSEM3800FDS36A1M.....	H104, H116, H122	KSEM7400FDS71B1M.....	H10, H119
KSEM370R3WD40M.....	H74	KSEMP1625FDS40A1.....	H104, H116, H122	KSEM3800FDS36B1M.....	H108, H118	KSEM7500FDS71A1M.....	H106, H116, H123
KSEM370R3WD50M.....	H74	KSEMP1625FDS40B1.....	H108, H118	KSEM3800HPGM KC7315.....	H111	KSEM7500FDS71B1M.....	H10, H119
KSEM370R5WD40M.....	H74	KSEMP1700HPGM KC7315.....	H111	KSEM3875FDS90A1.....	H106, H117, H123	KSEM7600FDS71A1M.....	H106, H117, H123
KSEM370R5WD50M.....	H74	KSEMP1750FDS40A1.....	H104, H116, H122	KSEM3875FDS90B1.....	H10, H120	KSEM7600FDS71B1M.....	H10, H119
KSEM3750FEGM KCPM45.....	H68	KSEMP1750FDS40B1.....	H108, H118	KSEM3900FDS36A1M.....	H104, H116, H122	KSEM7700FDS71A1M.....	H106, H117, H123
KSEM3750HPGM KC7315.....	H55	KSEMP1800HPGM KC7315.....	H111	KSEM3900FDS36B1M.....	H108, H118	KSEM7700FDS71B1M.....	H10, H119
KSEM3750HPGM KCPM45.....	H58	KSEMP1875FDS45A1.....	H105, H116, H122	KSEM3900HPGM KC7315.....	H111	KSEM7800FDS71A1M.....	H106, H117, H123
KSEM3750HPM KC7320.....	H63	KSEMP1875FDS45B1.....	H109, H119	KSEM3920FDS36A1M.....	H104, H116, H122	KSEM7800FDS71B1M.....	H10, H119
KSEM3750HPM KC7315.....	H53	KSEMP1900HPGM KC7315.....	H111	KSEM3920FDS36B1M.....	H108, H118	KSEM7900FDS71A1M.....	H106, H117, H123
KSEM3750SPLM KCMS35.....	H65	KSEMP2000FDS50A1.....	H105, H116, H122	KSEM4000FDS40A1M.....	H104, H116, H122	KSEM7900FDS71B1M.....	H10, H120
KSEM3800FEGM KCPM45.....	H68	KSEMP2000FDS50B1.....	H109, H119	KSEM4000FDS40B1M.....	H108, H118	KSEM8000FDS80A1M.....	H106, H117, H123
KSEM3800HPCCLM KC7410.....	H61, H111	KSEMP2000HPGM KC7315.....	H111	KSEM4000FDS90A1.....	H106, H117, H123	KSEM8000FDS80B1M.....	H10, H120
KSEM3800HPGM KC7315.....	H55	KSEMP2125FDS50A1.....	H105, H116, H122	KSEM4000FDS90B1.....	H10, H120	KSEM8100FDS80A1M.....	H106, H117, H123
KSEM3800HPGM KCPM45.....	H58	KSEMP2125FDS50B1.....	H109, H119	KSEM4000HPGM KC7315.....	H111	KSEM8100FDS80B1M.....	H10, H120
KSEM3800HPLM KC7320.....	H63	KSEMP2200HPGM KC7315.....	H111	KSEM4100FDS40A1M.....	H104, H116, H122	KSEM8200FDS80A1M.....	H106, H117, H123
KSEM3800HPM KC7135.....	H53	KSEMP2250FDS56A1.....	H105, H116, H122	KSEM4100FDS40B1M.....	H108, H118	KSEM8200FDS80B1M.....	H10, H120
KSEM3800SPLM KCMS35.....	H65	KSEMP2250FDS56B1.....	H109, H119	KSEM4200FDS40B1M.....	H108, H118	KSEM8300FDS80A1M.....	H106, H117, H123
KSEM380R3WD40M.....	H74	KSEMP2300HPGM KC7315.....	H111	KSEM4300FDS40A1M.....	H104, H116, H122	KSEM8300FDS80B1M.....	H10, H120
KSEM380R3WD50M.....	H74	KSEMP2375FDS56A1.....	H105, H116, H122	KSEM4300FDS40B1M.....	H108, H118	KSEM8400FDS80A1M.....	H106, H117, H123
KSEM380R5WD40M.....	H74	KSEMP2375FDS56B1.....	H109, H119	KSEM4400FDS40A1M.....	H104, H116, H122	KSEM8400FDS80B1M.....	H10, H120
KSEM380R5WD50M.....	H74	KSEMP2400HPGM KC7315.....	H111	KSEM4400FDS40B1M.....	H108, H118	KSEM8500FDS80A1M.....	H106, H117, H123
KSEM3850FEGM KCPM45.....	H68	KSEMP2500FDS63A1.....	H105, H116, H123	KSEM4400FDS40B1M.....	H108, H118	KSEM8500FDS80B1M.....	H10, H120
KSEM3850HPGM KC7315.....	H55	KSEMP2500FDS63B1.....	H109, H119	KSEM4500FDS45A1M.....	H105, H116, H122	KSEM8600FDS80A1M.....	H106, H117, H123
KSEM3850HPM KC7315.....	H53	KSEMP2500HPGM KC7315.....	H111	KSEM4500FDS45B1M.....	H109, H119	KSEM8600FDS80B1M.....	H10, H120
KSEM3850SPLM KCMS35.....	H65	KSEMP2600HPGM KC7315.....	H111	KSEM4600FDS45A1M.....	H105, H116, H122	KSEM8700FDS80A1M.....	H106, H117, H123
KSEM3900FEGM KCPM45.....	H68	KSEMP2625FDS63A1.....	H105, H116, H123	KSEM4600FDS45B1M.....	H109, H119	KSEM8700FDS80B1M.....	H10, H120
KSEM3900HPCCLM KC7410.....	H61, H111	KSEMP2625FDS63B1.....	H109, H119	KSEM4700FDS45A1M.....	H105, H116, H122	KSEM8800FDS80A1M.....	H106, H117, H123
KSEM3900HPGM KC7315.....	H55	KSEMP2700HPGM KC7315.....	H111	KSEM4700FDS45B1M.....	H109, H119	KSEM8800FDS80B1M.....	H10, H120
KSEM3900HPGM KCPM45.....	H58	KSEMP2750FDS63A1.....	H105, H116, H123	KSEM4800FDS45A1M.....	H105, H116, H122	KSEM8900FDS80A1M.....	H106, H117, H123
KSEM3900HPLM KC7320.....	H63	KSEMP2750FDS63B1.....	H109, H119	KSEM4800FDS45B1M.....	H109, H119	KSEM8900FDS80B1M.....	H10, H120
KSEM3900HPM KC7315.....	H53	KSEMP2800FDS28A1M.....	H104, H115, H122	KSEM4900FDS45A1M.....	H105, H116, H122	KSEM9000FDS90A1M.....	H106, H117, H123
KSEM3900PCM KC7135.....	H70, H111	KSEMP2800FDS28B1M.....	H108, H118	KSEM4900FDS45B1M.....	H109, H119	KSEM9000FDS90B1M.....	H10, H120
KSEM3900SPLM KCMS35.....	H65	KSEMP2800HPGM KC7315.....	H111	KSEM5000FDS50A1M.....	H105, H116, H122	KSEM9100FDS90A1M.....	H106, H117, H123
KSEM390R3WD40M.....	H74	KSEMP2875FDS71A1.....	H106, H116, H123	KSEM5000FDS50B1M.....	H109, H119	KSEM9100FDS90B1M.....	H10, H120
KSEM390R3WD50M.....	H74	KSEMP2875FDS71B1.....	H110, H119	KSEM5100FDS50A1M.....	H105, H116, H122	KSEM9200FDS90A1M.....	H106, H117, H123
KSEM390R5WD40M.....	H74	KSEMP2900FDS28A1M.....	H104, H115, H122	KSEM5100FDS50B1M.....	H109, H119	KSEM9200FDS90B1M.....	H10, H120
KSEM390R5WD50M.....	H74	KSEMP2900FDS28B1M.....	H108, H118	KSEM5200FDS50A1M.....	H105, H116, H122	KSEM9300FDS90A1M.....	H106, H117, H123
KSEM3920HPCCLM KC7410.....	H61	KSEMP2900HPGM KC7315.....	H111	KSEM5200FDS50B1M.....	H109, H119	KSEM9300FDS90B1M.....	H10, H120
KSEM3950FEGM KCPM45.....	H68	KSEMP3000FDS28A1M.....	H104, H115, H122	KSEM5300FDS50A1M.....	H105, H116, H122	KSEM9400FDS90A1M.....	H106, H117, H123
KSEM3950HPGM KC7315.....	H55	KSEMP3000FDS28B1M.....	H108, H118	KSEM5300FDS50B1M.....	H109, H119	KSEM9400FDS90B1M.....	H10, H120
KSEM3950HPM KC7315.....	H53	KSEMP3000FDS71A1.....	H106, H117, H123	KSEM5400FDS50A1M.....	H105, H116, H122	KSEM9500FDS90A1M.....	H106, H117, H123
KSEM3950SPLM KCMS35.....	H65	KSEMP3000FDS71B1.....	H110, H119	KSEM5400FDS50B1M.....	H109, H119	KSEM9500FDS90B1M.....	H10, H120
KSEM3975HPGM KC7315.....	H55	KSEMP3000HPGM KC7315.....	H111	KSEM5500FDS50A1M.....	H105, H116, H122	KSEM9600FDS90A1M.....	H106, H117, H123
KSEM4000FEGM KCPM45.....	H68	KSEMP3100FDS28A1M.....	H104, H115, H122	KSEM5500FDS50B1M.....	H109, H119	KSEM9600FDS90B1M.....	H10, H120
				KSEM5600FDS56A1M.....	H105, H116, H122		

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KSEMP9700FDS90B1M.....	H110, H120	KSQM1250F5345M3.....	S44	KSSIR600SD430M8.....	T113	KSSZR400SD430F5A09.....	V141
KSEMP9800FDS90A1M.....	H106, H117, H123	KSQM125203C1000F53X.....	S44	KSSIR630SE44345C6.....	S39	KSSZR400SD430F6A09.....	V141
KSEMP9800FDS90B1M.....	H110, H120	KSQM1500F5345F3.....	S44	KSSIR630SE44345M6.....	S39	KSSZR400SD430M5A08.....	V141
KSEMP9900FDS90A1M.....	H106, H117, H123	KSQM1500F5345M3.....	S44	KSSIR787SE44345C10.....	S39	KSSZR400SD430M6A08.....	V141
KSEMP9900FDS90B1M.....	H110, H120	KSQM1502040F53S050X.....	S45	KSSIR787SE44345M10.....	S39	KSSZR500SD430M6A09.....	V141
KSHR1000HN5345C10.....	S20	KSQM2000F5345M3.....	S45	KSSIR800SD430C10.....	T113	KST115115AS.....	K42
KSHR1000HN7545C10.....	S24	KSQM2002060F53S075X.....	S45	KSSIR800SD430F10.....	T113	KST1135155AS.....	K42
KSHR1000HN7545M10.....	S24	KSQM2500F5345M3.....	S45	KSSIR800SD430M10.....	T113	KST175200AS.....	K42
KSHR1000O2C075HN06L480.....	S9	KSQM2500F6445F3.....	S50	KSSM87D200SN440S075Z05.....	S58	KST175200RK.....	K43
KSHR1000O2W075HN06.....	S8	KSQM2500F6445M3.....	S50	KSSM87D300SN440S100Z07.....	S58	KST175200S.....	K43
KSHR1000O3C075HN06L480.....	S9	KSQM2502070F53S075X.....	S45	KSSM87D300SN440S100Z09.....	S58	KST200CS.....	K43
KSHR1000O3C100HN06L800.....	S9	KSQM3000F5345M4.....	S45	KSSM87D400SN440S150Z08.....	S58	KST250250AS.....	K42
KSHR1000O3W075HN06.....	S8	KSQM3000F6445F4.....	S50	KSSM87D400SN440S150Z11.....	S58	KST250250FK.....	K43
KSHR1200HN5345C10.....	S20	KSQM3000F6445M4.....	S50	KSSM87D600SN440S150Z12.....	S58	KST250CS.....	K43
KSHR1250O3C100HN06L520.....	S9	KSQM3002090F53S100X.....	S45	KSSM87D600SN440S150Z16.....	S58	KST300350AS.....	K42
KSHR1250O3W100HN06.....	S8	KSQM4000F5345M5.....	S45	KSSM88D200SN3125S075Z05.....	S56	KST300350FK.....	K43
KSHR1250O4C100HN06L520.....	S9	KSQM4000F6445F5.....	S50	KSSM88D200SN3125S075Z06.....	S56	KST300CS.....	K43
KSHR1250O4W100HN06.....	S8	KSQM4000F6445M5.....	S50	KSSM88D300SN3125S100Z07.....	S56	KST350CS.....	K43
KSHR150HN4345F2.....	S10	KSQM5000F5345F6.....	S45	KSSM88D300SN3125S100Z09.....	S56	KT15.....	K76, K89-90, S122-123, V121-123
KSHR150HN4345M3.....	S10	KSQM5000F5345M6.....	S45	KSSM88D400SN3125S100Z08.....	S56	KT20.....	V121-123, V132-133
KSHR200HN4345C3.....	S10	KSQM5000F6445F6.....	S50	KSSP200R3SD43L125.....	T120	KT25.....	C143, C145
KSHR200HN4345F3.....	S10	KSQM6000F6445F8.....	S50	KSSP200R3SD43L168.....	T120	KT27.....	K77-78, K88
KSHR200HN4345M3.....	S10	KSQM6000F6445M8.....	S50	KSSP200R3SD43L200HC.....	T120	KT30.....	V121-123, V132
KSHR200HN5345C3.....	S20	KSRM125R430C125L1000.....	V82	KSSP200R3SD43W125L169.....	T119	KT30L.....	C143, C145
KSHR200HN5345M3.....	S20	KSRM125R430C125L600.....	V82	KSSP250R3SD43L200.....	T120	KT6.....	V123
KSHR250HN4345C3.....	S10	KSRM125R430C125L1000.....	V82	KSSP300R4SD43L200.....	T120	KT8.....	K76, V122-123
KSHR250HN4345F3.....	S10	KSRM125R430M16L150.....	V81	KSSP300R4SD43L400HC.....	T120	KT9.....	S64, S67, S70
KSHR250HN5345C3.....	S20	KSRM150R430C125L1000.....	V82	KSSR150SP10T30F2.....	T109	KTF50237R08SS031.....	H20
KSHR250HN5345M3.....	S20	KSRM150R430C125L600.....	V82	KSSR200SP10T30F3.....	T109	KTF50237R08SS031.....	H20
KSHR250HN5345M3.....	S20	KSRM150R430M16L150.....	V81	KSSR250SN434M3.....	S88	KTF50237R08SS031.....	H20
KSHR250HN5345M3.....	S20	KSRM200R430S075L197.....	V83	KSSR250SP10T30F4.....	T109	KTF50249R08SS031.....	H20
KSHR300HN4345C4.....	S10	KSRM200R430S075L197.....	V83	KSSR300SN434M4.....	S88	KTF50249R08SS031.....	H20
KSHR300HN4345F4.....	S10	KSRM250R430S075L197.....	V83	KSSR300SP10T30F4.....	T109	KTF50249R08SS031.....	H20
KSHR300HN5345C4.....	S20	KSRM250R430S075L197.....	V83	KSSR400SN434M5.....	S88	KTF50260R08SS031.....	H20
KSHR300HN5345M4.....	S20	KSRM300R430S100L197.....	V83	KSSR400SP10T30F5.....	T109	KTF50260R08SS031.....	H20
KSHR300HN5345M4.....	S20	KSRM300R430S100L197.....	V83	KSSS1000ASD43N709-813.....	U35	KTF50260R08SS031.....	H20
KSHR300HN5345M4.....	S24	KSSC551-630L.....	U28-29	KSSS1000ASD43N750.....	U33	KTF50276R08SS031.....	H20
KSHR400HN4345C6.....	S10	KSSC551-630R.....	U28-29	KSSS1000ASD43R750.....	U32	KTF50276R08SS031.....	H20
KSHR400HN4345F6.....	S10	KSSC630-709L.....	U28	KSSS1200ASD43N709-813.....	U35	KTF50276R08SS031.....	H20
KSHR400HN4345M6.....	S10	KSSC630-709R.....	U28	KSSS1200ASD43N813-917.....	U36	KTF50296R08SS031.....	H20
KSHR400HN5345C5.....	S20	KSSC709-813L.....	U35, U37	KSSS1200ASP10N630-709.....	U28	KTF50296R08SS031.....	H20
KSHR400HN5345F5.....	S20	KSSC709-813R.....	U35, U37	KSSS1200BSD43N709-813.....	U37	KTF50296R08SS031.....	H20
KSHR400HN5345M5.....	S20	KSSC709813LX.....	U35	KSSS400ASP10L625.....	U25	KTF50315R08SS038.....	H20
KSHR400HN5345M5.....	S20	KSSC709813RX.....	U35	KSSS400ASP10N551-630.....	U28	KTF50315R08SS038.....	H20
KSHR400HN5345M5.....	S24	KSSC813-917L.....	U36	KSSS400ASP10N625.....	U26	KTF50315R08SS038.....	H20
KSHR500HN4345C6.....	S10	KSSC813-917R.....	U36	KSSS400BSP10N551-630.....	U29	KTF50335R08SS038.....	H20
KSHR500HN4345F6.....	S10	KSSC813917LX.....	U36	KSSS400BSP10N625.....	U27	KTF50335R08SS038.....	H20
KSHR500HN4345M6.....	S10	KSSC813917RX.....	U36	KSSS500ASD43N709-813.....	U35	KTF50335R08SS038.....	H20
KSHR500HN5345C6.....	S20	KSSCP551-709.....	U28-29	KSSS500ASD43N709-813.....	U35	KTF50335R08SS038.....	H20
KSHR500HN5345M6.....	S20	KSSCP709-917.....	U35-37	KSSS500ASP10L625.....	U25	KTF50335R08SS038.....	H20
KSHR500HN5345M6.....	S24	KSSIR1000SD430M10.....	T113	KSSS500ASP10N625.....	U26	KTF50359R08SS038.....	H20
KSHR600HN5345C8.....	S20	KSSIR197SE44345C3.....	S39	KSSS500ASP10N630-709.....	U28	KTF50359R08SS038.....	H20
KSHR600HN5345M8.....	S20	KSSIR197SE44345M3.....	S39	KSSS500BSD43N709-813.....	U37	KTF50359R08SS038.....	H20
KSHR600HN5345C8.....	S20	KSSIR200SD430C3.....	T113	KSSS500BSP10N625.....	U27	KTF50394R08SS044.....	H20
KSHR600HN5345F8.....	S24	KSSIR200SD430F3.....	T113	KSSS600ASD43L750.....	U32	KTF50394R08SS044.....	H20
KSHR600HN5345M8.....	S24	KSSIR200SD430M3.....	T113	KSSS600ASD43N709-813.....	U35	KTF50394R08SS044.....	H20
KSHR800HN5345C10.....	S20	KSSIR248SE44345C4.....	S39	KSSS600ASD43N750.....	U33	KTF50414R08SS044.....	H20
KSHR800HN5345M10.....	S24	KSSIR248SE44345M4.....	S39	KSSS600ASD43N813-917.....	U36	KTF50414R08SS044.....	H20
KSHRH150HN43F2.....	S14	KSSIR250SD430F4.....	T113	KSSS600ASD43R750.....	U32	KTF50414R08SS044.....	H20
KSHRH150HN43M2.....	S14	KSSIR250SD430M4.....	T113	KSSS600ASP10N551-630.....	U28	KTF50414R08SS044.....	H20
KSHRH200HN43C3.....	S14	KSSIR300SD430C4.....	T113	KSSS600ASP10N625.....	U26	KTF50434R08SS044.....	H20
KSHRH200HN43M3.....	S14	KSSIR300SD430F4.....	T113	KSSS600BSD43N750.....	U34	KTF50434R08SS044.....	H20
KSHRH250HN43M3.....	S14	KSSIR300SD430M4.....	T113	KSSS800ASD43L750.....	U32	KTF50434R08SS044.....	H20
KSHRH300HN43C4.....	S14	KSSIR315SE44345C4.....	S39	KSSS800ASD43N750.....	U33	KTF50453R08SS050.....	H20
KSHRH300HN43M4.....	S14	KSSIR315SE44345M4.....	S39	KSSS800ASD43N813-917.....	U36	KTF50453R08SS050.....	H20
KSHRH400HN43C6.....	S14	KSSIR394SE44345C5.....	S39	KSSS800ASD43R750.....	U32	KTF50453R08SS050.....	H20
KSHRH400HN43M6.....	S14	KSSIR394SE44345M5.....	S39	KSSS800ASP10N551-630.....	U28	KTF50473R08SS050.....	H20
KSHRH500HN43C6.....	S14	KSSIR400SD430C5.....	T113	KSSS800BSP10N625.....	U34	KTF50473R08SS050.....	H20
KSHRH500HN43M6.....	S14	KSSIR400SD430F5.....	T113	KSSW551-630.....	U28-29	KTF50493R08SS050.....	H20
KSHRH1000O2C075HN43L480.....	S4	KSSIR400SD430M5.....	T113	KSSW630-709.....	U28	KTF50493R08SS050.....	H20
KSHRH1000O3C075HN43L480.....	S4	KSSIR400SD430M6.....	T113	KSSW709-813.....	U35, U37	KTF50512R08SS056.....	H20
KSHRH1250O4C100HN43L520.....	S4	KSSIR492SE44345C6.....	S39	KSSW813-917.....	U36	KTF50512R08SS056.....	H20
KSHRH150HN43F3.....	S5	KSSIR492SE44345M6.....	S39	KSSZR200SD430C3A04.....	V141	KTF50512R08SS056.....	H20
KSHRH200HN43M3.....	S5	KSSIR500SD430C6.....	T113	KSSZR200SD430M3A05.....	V141	KTF50532R08SS056.....	H20
KSHRH200HN43M3.....	S17	KSSIR500SD430F6.....	T113	KSSZR250SD430C3A05.....	V141	KTF50532R08SS056.....	H20
KSHRH250HN43M3.....	S5	KSSIR500SD430M6.....	T113	KSSZR250SD430M3A06.....	V141	KTF50532R08SS056.....	H20
KSHRH250HN5315C3.....	S17	KSSIR600SD430C6.....	T113	KSSZR300SD430C4A05.....	V141	KTF50552R08SS056.....	H20
KSHRH250HN5315C3.....	S17	KSSIR600SD430F6.....	T113	KSSZR300SD430F4A07.....	V141	KTF50552R08SS056.....	H20
KSHRH300HN43M4.....	S5	KSSIR600SD430C8.....	T113	KSSZR300SD430M4A06.....	V141	KTF50552R08SS056.....	H20
KSHRH400HN5315C5.....	S17	KSSIR600SD430F6.....	T113	KSSZR400SD430C5A07.....	V141	KTF50552R08SS056.....	H20
KSHRH500HN5315C6.....	S17	KSSIR600SD430M6.....	T113	KSSZR400SD430C6A07.....	V141	KTF50571R08SS063.....	H20
KSHRH500HN5315C6.....	S17	KSSIR600SD430M6.....	T113				

For page references F-X, please see Volume II • Rotating Tools Catalog.

Index

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KTFS08500HPGM KCP15A	H8	KTFS15900HPGM KCP15A	H9	KTFS24000HPGM KCP15A	H10	KTFT07188HPC KC7410	H13
KTFS08594HPG KCP15A	H10	KTFS16000HPGM KCP15A	H9	KTFS24100HPGM KCP15A	H10	KTFT07188HPL KCMS15	H16
KTFS08600HPGM KCP15A	H8	KTFS16080HPGM KCP15A	H9	KTFS24200HPGM KCP15A	H10	KTFT07300HPCM KC7410	H12
KTFS08700HPGM KCP15A	H8	KTFS16100HPGM KCP15A	H9	KTFS24300HPGM KCP15A	H10	KTFT07344HPL KCMS15	H16
KTFS08750HPG KCP15A	H10	KTFS16200HPGM KCP15A	H9	KTFS24400HPGM KCP15A	H10	KTFT07500HPC KC7410	H13
KTFS08800HPGM KCP15A	H8	KTFS16300HPGM KCP15A	H9	KTFS24500HPGM KCP15A	H10	KTFT07500HPCM KC7410	H12
KTFS08900HPGM KCP15A	H8	KTFS16400HPGM KCP15A	H9	KTFS24600HPGM KCP15A	H10	KTFT07500HPL KCMS15	H16
KTFS09000HPGM KCP15A	H8	KTFS16500HPGM KCP15A	H9	KTFS24700HPGM KCP15A	H10	KTFT07500HPLM KCMS15	H15
KTFS09100HPGM KCP15A	H8	KTFS16600HPGM KCP15A	H9	KTFS24800HPGM KCP15A	H10	KTFT07570HPL KCMS15	H16
KTFS09200HPGM KCP15A	H8	KTFS16700HPGM KCP15A	H9	KTFS24900HPGM KCP15A	H10	KTFT07580HPL KCMS15	H16
KTFS09219HPG KCP15A	H10	KTFS16800HPGM KCP15A	H9	KTFS25000HPGM KCP15A	H10	KTFT07590HPC KC7410	H13
KTFS09300HPGM KCP15A	H8	KTFS16900HPGM KCP15A	H9	KTFS25100HPGM KCP15A	H10	KTFT07590HPL KCMS15	H16
KTFS09375HPG KCP15A	H10	KTFS17000HPGM KCP15A	H9	KTFS25200HPGM KCP15A	H10	KTFT07600HPCM KC7410	H12
KTFS09400HPGM KCP15A	H8	KTFS17100HPGM KCP15A	H9	KTFS25250HPGM KCP15A	H10	KTFT07620HPL KCMS15	H16
KTFS09500HPGM KCP15A	H8	KTFS17200HPGM KCP15A	H9	KTFS25300HPGM KCP15A	H10	KTFT07656HPC KC7410	H13
KTFS09600HPGM KCP15A	H8	KTFS17300HPGM KCP15A	H9	KTFS25500HPGM KCP15A	H10	KTFT07656HPL KCMS15	H16
KTFS09688HPG KCP15A	H10	KTFS17400HPGM KCP15A	H9	KTFS25540HPGM KCP15A	H10	KTFT07800HPCM KC7410	H12
KTFS09700HPGM KCP15A	H8	KTFS17480HPGM KCP15A	H9	KTFS25600HPGM KCP15A	H10	KTFT07800HPLM KCMS15	H15
KTFS09800HPGM KCP15A	H8	KTFS17500HPGM KCP15A	H9	KTFS25700HPGM KCP15A	H10	KTFT07813HPL KCMS15	H16
KTFS09900HPGM KCP15A	H8	KTFS17600HPGM KCP15A	H9	KTFS25800HPGM KCP15A	H10	KTFT07969HPC KC7410	H13
KTFS10000HPG KCP15A	H10	KTFS17700HPGM KCP15A	H9	KTFS25900HPGM KCP15A	H10	KTFT08000HPCM KC7410	H12
KTFS10000HPGM KCP15A	H8	KTFS17800HPGM KCP15A	H9	KTFS26000HPGM KCP15A	H10	KTFT08000HPLM KCMS15	H15
KTFS10100HPGM KCP15A	H8	KTFS17900HPGM KCP15A	H9	KTFT02500HPC KC7410	H12	KTFT08100HPCM KC7410	H12
KTFS10110HPG KCP15A	H10	KTFS18000HPGM KCP15A	H9	KTFT02500HPL KCMS15	H15	KTFT08100HPLM KCMS15	H15
KTFS10160HPG KCP15A	H10	KTFS18100HPGM KCP15A	H9	KTFT02610HPL KCMS15	H15	KTFT08125HPC KC7410	H13
KTFS10200HPGM KCP15A	H8	KTFS18200HPGM KCP15A	H9	KTFT02656HPC KC7410	H12	KTFT08125HPL KCMS15	H16
KTFS10300HPGM KCP15A	H8	KTFS18300HPGM KCP15A	H9	KTFT02813HPC KC7410	H12	KTFT08400HPLM KCMS15	H15
KTFS10400HPGM KCP15A	H8	KTFS18400HPGM KCP15A	H9	KTFT03125HPC KC7410	H12	KTFT08438HPC KC7410	H13
KTFS10500HPGM KCP15A	H8	KTFS18500HPGM KCP15A	H9	KTFT03125HPL KCMS15	H15	KTFT08500HPCM KC7410	H12
KTFS10600HPGM KCP15A	H8	KTFS18600HPGM KCP15A	H9	KTFT03230HPC KC7410	H12	KTFT08500HPLM KCMS15	H15
KTFS10700HPGM KCP15A	H8	KTFS18700HPGM KCP15A	H9	KTFT03230HPL KCMS15	H15	KTFT08600HPCM KC7410	H12
KTFS10800HPGM KCP15A	H8	KTFS18800HPGM KCP15A	H9	KTFT03281HPL KCMS15	H15	KTFT08600HPLM KCMS15	H15
KTFS10900HPGM KCP15A	H8	KTFS18900HPGM KCP15A	H9	KTFT03438HPC KC7410	H12	KTFT08700HPCM KC7410	H12
KTFS11000HPGM KCP15A	H8	KTFS19000HPGM KCP15A	H9	KTFT03750HPC KC7410	H12	KTFT08700HPLM KCMS15	H15
KTFS11100HPGM KCP15A	H8	KTFS19100HPGM KCP15A	H9	KTFT03763HPL KCMS15	H15	KTFT08750HPC KC7410	H13
KTFS11200HPGM KCP15A	H8	KTFS19200HPGM KCP15A	H9	KTFT03906HPC KC7410	H12	KTFT08750HPL KCMS15	H16
KTFS11300HPGM KCP15A	H9	KTFS19300HPGM KCP15A	H9	KTFT03946HPC KC7410	H12	KTFT08800HPLM KCMS15	H15
KTFS11400HPGM KCP15A	H9	KTFS19400HPGM KCP15A	H10	KTFT04063HPC KC7410	H12	KTFT08900HPLM KCMS15	H15
KTFS11500HPGM KCP15A	H9	KTFS19460HPGM KCP15A	H10	KTFT04063HPL KCMS15	H15	KTFT09000HPCM KC7410	H12
KTFS11600HPGM KCP15A	H9	KTFS19500HPGM KCP15A	H10	KTFT04219HPC KC7410	H12	KTFT09000HPLM KCMS15	H15
KTFS11700HPGM KCP15A	H9	KTFS19600HPGM KCP15A	H10	KTFT04375HPC KC7410	H12	KTFT09100HPCM KC7410	H12
KTFS11800HPGM KCP15A	H9	KTFS19700HPGM KCP15A	H10	KTFT04375HPL KCMS15	H15	KTFT09100HPLM KCMS15	H15
KTFS11900HPGM KCP15A	H9	KTFS19800HPGM KCP15A	H10	KTFT04688HPC KC7410	H12	KTFT09200HPLM KCMS15	H15
KTFS12000HPGM KCP15A	H9	KTFS19900HPGM KCP15A	H10	KTFT04688HPL KCMS15	H15	KTFT09219HPC KC7410	H13
KTFS12100HPGM KCP15A	H9	KTFS20000HPGM KCP15A	H10	KTFT04844HPC KC7410	H12	KTFT09375HPC KC7410	H13
KTFS12200HPGM KCP15A	H9	KTFS20100HPGM KCP15A	H10	KTFT04844HPL KCMS15	H15	KTFT09375HPL KCMS15	H16
KTFS12400HPGM KCP15A	H9	KTFS20200HPGM KCP15A	H10	KTFT05000HPC KC7410	H12	KTFT09400HPLM KCMS15	H15
KTFS12500HPGM KCP15A	H9	KTFS20300HPGM KCP15A	H10	KTFT05000HPL KCMS15	H15	KTFT09500HPCM KC7410	H12
KTFS12600HPGM KCP15A	H9	KTFS20500HPGM KCP15A	H10	KTFT05156HPC KC7410	H12	KTFT09500HPLM KCMS15	H15
KTFS12800HPGM KCP15A	H9	KTFS20600HPGM KCP15A	H10	KTFT05156HPL KCMS15	H15	KTFT09600HPCM KC7410	H12
KTFS12900HPGM KCP15A	H9	KTFS20700HPGM KCP15A	H10	KTFT05312HPC KC7410	H12	KTFT09600HPLM KCMS15	H15
KTFS13000HPGM KCP15A	H9	KTFS20800HPGM KCP15A	H10	KTFT05312HPL KCMS15	H15	KTFT09688HPC KC7410	H13
KTFS13200HPGM KCP15A	H9	KTFS20900HPGM KCP15A	H10	KTFT05469HPC KC7410	H12	KTFT09700HPCM KC7410	H12
KTFS13280HPGM KCP15A	H9	KTFS20990HPGM KCP15A	H10	KTFT05469HPL KCMS15	H15	KTFT09700HPLM KCMS15	H15
KTFS13300HPGM KCP15A	H9	KTFS21000HPGM KCP15A	H10	KTFT05471HPL KCMS15	H15	KTFT09800HPCM KC7410	H12
KTFS13380HPGM KCP15A	H9	KTFS21100HPGM KCP15A	H10	KTFT05625HPC KC7410	H12	KTFT09800HPLM KCMS15	H15
KTFS13400HPGM KCP15A	H9	KTFS21200HPGM KCP15A	H10	KTFT05625HPL KCMS15	H15	KTFT09900HPLM KCMS15	H15
KTFS13500HPGM KCP15A	H9	KTFS21300HPGM KCP15A	H10	KTFT05781HPC KC7410	H12	KTFT10000HPC KC7410	H13
KTFS13600HPGM KCP15A	H9	KTFS21400HPGM KCP15A	H10	KTFT05781HPL KCMS15	H15	KTFT10000HPCM KC7410	H12
KTFS13700HPGM KCP15A	H9	KTFS21500HPGM KCP15A	H10	KTFT05938HPC KC7410	H12	KTFT10000HPL KCMS15	H16
KTFS13800HPGM KCP15A	H9	KTFS21700HPGM KCP15A	H10	KTFT06000HPCM KC7410	H12	KTFT10000HPLM KCMS15	H15
KTFS13940HPGM KCP15A	H9	KTFS21800HPGM KCP15A	H10	KTFT06000HPLM KCMS15	H15	KTFT10100HPLM KCMS15	H15
KTFS14000HPGM KCP15A	H9	KTFS21900HPGM KCP15A	H10	KTFT06200HPCM KC7410	H12	KTFT10110HPC KC7410	H13
KTFS14100HPGM KCP15A	H9	KTFS22000HPGM KCP15A	H10	KTFT06250HPC KC7410	H13	KTFT10110HPL KCMS15	H16
KTFS14200HPGM KCP15A	H9	KTFS22100HPGM KCP15A	H10	KTFT06250HPL KCMS15	H16	KTFT10160HPC KC7410	H13
KTFS14300HPGM KCP15A	H9	KTFS22200HPGM KCP15A	H10	KTFT06340HPC KC7410	H13	KTFT10160HPL KCMS15	H16
KTFS14400HPGM KCP15A	H9	KTFS22400HPGM KCP15A	H10	KTFT06340HPL KCMS15	H16	KTFT10200HPCM KC7410	H12
KTFS14500HPGM KCP15A	H9	KTFS22500HPGM KCP15A	H10	KTFT06406HPC KC7410	H13	KTFT10200HPLM KCMS15	H15
KTFS14600HPGM KCP15A	H9	KTFS22600HPGM KCP15A	H10	KTFT06406HPL KCMS15	H16	KTFT10300HPCM KC7410	H12
KTFS14700HPGM KCP15A	H9	KTFS22700HPGM KCP15A	H10	KTFT06500HPCM KC7410	H12	KTFT10300HPLM KCMS15	H15
KTFS14800HPGM KCP15A	H9	KTFS22800HPGM KCP15A	H10	KTFT06500HPLM KCMS15	H15	KTFT10400HPLM KCMS15	H15
KTFS14900HPGM KCP15A	H9	KTFS22900HPGM KCP15A	H10	KTFT06530HPCM KC7410	H12	KTFT10500HPCM KC7410	H12
KTFS15000HPGM KCP15A	H9	KTFS23000HPGM KCP15A	H10	KTFT06563HPC KC7410	H13	KTFT10500HPLM KCMS15	H15
KTFS15100HPGM KCP15A	H9	KTFS23100HPGM KCP15A	H10	KTFT06563HPL KCMS15	H16	KTFT10600HPCM KC7410	H12
KTFS15200HPGM KCP15A	H9	KTFS23200HPGM KCP15A	H10	KTFT06700HPCM KC7410	H12	KTFT10600HPLM KCMS15	H15
KTFS15300HPGM KCP15A	H9	KTFS23300HPGM KCP15A	H10	KTFT06719HPC KC7410	H13	KTFT10700HPCM KC7410	H12
KTFS15380HPGM KCP15A	H9	KTFS23400HPGM KCP15A	H10	KTFT06800HPCM KC7410	H12	KTFT10700HPLM KCMS15	H15
KTFS15400HPGM KCP15A	H9	KTFS23500HPGM KCP15A	H10	KTFT06800HPLM KCMS15	H15	KTFT10800HPCM KC7410	H12
KTFS15500HPGM KCP15A	H9	KTFS23600HPGM KCP15A	H10	KTFT06875HPC KC7410	H13	KTFT10800HPLM KCMS15	H15
KTFS15600HPGM KCP15A	H9	KTFS23700HPGM KCP15A	H10	KTFT06875HPL KCMS15	H16	KTFT10900HPCM KCMS15	H15
KTFS15700HPGM KCP15A	H9	KTFS23800HPGM KCP15A	H10	KTFT07000HPCM KC7410	H12	KTFT11000HPCM KC7410	H12
KTFS15800HPGM KCP15A	H9	KTFS23900HPGM KCP15A	H10	KTFT07000HPLM KCMS15	H15	KTFT11000HPLM KCMS15	H15

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KTFS11100HPCM KC7410	H12	KTFS19000HPLM KCMS15	H16	KTIPO374R8SS038	H39	KTIPO532R5SS056	H39
KTFS11100HPLM KCMS15	H15	KTFS19200HPLM KCMS15	H16	KTIPO374R8SS044	H39	KTIPO532R8SCF063	H41
KTFS11200HPLM KCMS15	H15	KTFS19460HPLM KCMS15	H16	KTIPO3750HP KCP15	H32	KTIPO532R8SS056	H39
KTFS11400HPCM KC7410	H12	KTFS19500HPCM KC7410	H13	KTIPO3763HP KCP15	H32	KTIPO5469HP KCP15	H33
KTFS11400HPLM KCMS15	H15	KTFS19500HPLM KCMS15	H16	KTIPO3770HP KCP15	H32	KTIPO5471HP KCP15	H33
KTFS11500HPCM KC7410	H12	KTFS19800HPCM KC7410	H13	KTIPO3820HP KCP15	H32	KTIPO551R12SS056	H39
KTFS11500HPLM KCMS15	H15	KTFS19850HPLM KCMS15	H16	KTIPO3860HP KCP15	H32	KTIPO551R3SCF063	H41
KTFS11600HPLM KCMS15	H15	KTFS20000HPCM KC7410	H13	KTIPO3906HP KCP15	H32	KTIPO551R3SS056	H39
KTFS11800HPCM KC7410	H12	KTFS20000HPLM KCMS15	H16	KTIPO3946HP KCP15	H32	KTIPO551R5SCF063	H41
KTFS11800HPLM KCMS15	H15	KTFS20300HPCM KC7410	H13	KTIPO394R12SS044	H39	KTIPO551R5SS056	H39
KTFS12000HPCM KC7410	H12	KTFS20500HPCM KC7410	H13	KTIPO394R3SCF063	H41	KTIPO551R8SCF063	H41
KTFS12000HPLM KCMS15	H15	KTFS20500HPLM KCMS15	H16	KTIPO394R3SS044	H39	KTIPO551R8SS056	H39
KTFS12200HPLM KCMS15	H15	KTFS21000HPCM KC7410	H13	KTIPO394R5SCF063	H41	KTIPO5625HP KCP15	H33
KTFS12500HPCM KC7410	H12	KTFS21000HPLM KCMS15	H16	KTIPO394R5SS044	H39	KTIPO571R12SS063	H39
KTFS12500HPLM KCMS15	H15	KTFS21150HPLM KCMS15	H16	KTIPO394R8SCF063	H41	KTIPO571R3SCF063	H41
KTFS12800HPLM KCMS15	H15	KTFS21500HPCM KC7410	H13	KTIPO394R8SS044	H39	KTIPO571R3SS063	H39
KTFS12900HPLM KCMS15	H15	KTFS21500HPLM KCMS15	H16	KTIPO3970HP KCP15	H32	KTIPO571R5SCF063	H41
KTFS13000HPCM KC7410	H12	KTFS22000HPCM KC7410	H13	KTIPO4040HP KCP15	H32	KTIPO571R5SS063	H39
KTFS13000HPLM KCMS15	H15	KTFS22000HPLM KCMS15	H16	KTIPO4063HP KCP15	H32	KTIPO571R8SCF063	H41
KTFS13200HPCM KC7410	H12	KTFS22440HPCM KC7410	H13	KTIPO4130HP KCP15	H32	KTIPO571R8SS063	H39
KTFS13200HPLM KCMS15	H15	KTFS22500HPCM KC7410	H13	KTIPO413R12SS044	H39	KTIPO5774HP KCP15	H33
KTFS13300HPCM KC7410	H12	KTFS22500HPLM KCMS15	H16	KTIPO413R3SCF063	H41	KTIPO5781HP KCP15	H33
KTFS13500HPCM KC7410	H12	KTFS23000HPCM KC7410	H13	KTIPO413R3SS044	H39	KTIPO591R12SS063	H39
KTFS13500HPLM KCMS15	H15	KTFS23000HPLM KCMS15	H16	KTIPO413R5SCF063	H41	KTIPO591R3SCF075	H41
KTFS13600HPCM KC7410	H12	KTFS23500HPCM KC7410	H13	KTIPO413R5SS044	H39	KTIPO591R3SS063	H39
KTFS13800HPCM KC7410	H12	KTFS23500HPLM KCMS15	H16	KTIPO413R8SCF063	H41	KTIPO591R5SCF075	H41
KTFS13800HPLM KCMS15	H15	KTFS24000HPCM KC7410	H13	KTIPO413R8SS044	H39	KTIPO591R5SS063	H39
KTFS14000HPCM KC7410	H12	KTFS24000HPLM KCMS15	H16	KTIPO4219HP KCP15	H32	KTIPO591R8SCF075	H41
KTFS14000HPLM KCMS15	H15	KTFS24500HPCM KC7410	H13	KTIPO433R12SS044	H39	KTIPO591R8SS063	H39
KTFS14100HPCM KC7410	H12	KTFS24500HPLM KCMS15	H16	KTIPO433R3SCF063	H41	KTIPO5938HP KCP15	H33
KTFS14100HPLM KCMS15	H15	KTFS25000HPCM KC7410	H13	KTIPO433R3SS044	H39	KTIPO6094HP KCP15	H33
KTFS14200HPLM KCMS15	H15	KTFS25000HPLM KCMS15	H16	KTIPO433R5SCF063	H41	KTIPO6250HP KCP15	H33
KTFS14300HPLM KCMS15	H15	KTFS25070HPCM KC7410	H13	KTIPO433R5SS044	H39	KTIPO630R12SS069	H39
KTFS14400HPLM KCMS15	H15	KTFS25500HPCM KC7410	H13	KTIPO433R8SCF063	H41	KTIPO630R3SCF075	H41
KTFS14500HPCM KC7410	H12	KTFS25500HPLM KCMS15	H16	KTIPO433R8SS044	H39	KTIPO630R3SS069	H39
KTFS14500HPLM KCMS15	H15	KTFS25600HPLM KCMS15	H16	KTIPO4375HP KCP15	H32	KTIPO630R5SCF075	H41
KTFS14600HPCM KC7410	H12	KTFS25650HPLM KCMS15	H16	KTIPO4531HP KCP15	H32	KTIPO630R5SS069	H39
KTFS14800HPCM KC7410	H12	KTFS26000HPCM KC7410	H13	KTIPO453R12SS050	H39	KTIPO630R8SCF075	H41
KTFS14800HPLM KCMS15	H16	KTFS26000HPLM KCMS15	H16	KTIPO453R3SCF063	H41	KTIPO630R8SS069	H39
KTFS15000HPCM KC7410	H12	KTIPO3125FEG KCPM45	H36	KTIPO453R3SS050	H39	KTIPO6310HP KCP15	H33
KTFS15000HPLM KCMS15	H16	KTIPO3125HP KCP15	H32	KTIPO453R5SCF063	H41	KTIPO6330HP KCP15	H33
KTFS15100HPCM KC7410	H12	KTIPO313R12SS038	H39	KTIPO453R5SS050	H39	KTIPO6406HP KCP15	H33
KTFS15100HPLM KCMS15	H16	KTIPO313R3SCF050	H41	KTIPO453R8SCF063	H41	KTIPO6563HP KCP15	H33
KTFS15200HPCM KC7410	H12	KTIPO313R3SS038	H39	KTIPO453R8SS050	H39	KTIPO669R12SS069	H39
KTFS15200HPLM KCMS15	H16	KTIPO313R5SCF050	H41	KTIPO4571HP KCP15	H32	KTIPO669R3SCF075	H41
KTFS15300HPCM KC7410	H12	KTIPO313R5SS038	H39	KTIPO4688HP KCP15	H33	KTIPO669R3SS069	H39
KTFS15500HPCM KC7410	H13	KTIPO313R8SCF050	H41	KTIPO472R12SS050	H39	KTIPO669R5SCF075	H41
KTFS15500HPLM KCMS15	H16	KTIPO313R8SS038	H39	KTIPO472R3SCF063	H41	KTIPO669R5SS069	H39
KTFS15600HPCM KC7410	H13	KTIPO3214HP KCP15	H32	KTIPO472R3SS050	H39	KTIPO669R8SCF075	H41
KTFS15800HPCM KC7410	H13	KTIPO3230HP KCP15	H32	KTIPO472R5SCF063	H41	KTIPO669R8SS069	H39
KTFS16000HPCM KC7410	H13	KTIPO3281HP KCP15	H32	KTIPO472R5SS050	H39	KTIPO6719HP KCP15	H33
KTFS16000HPLM KCMS15	H16	KTIPO3320HP KCP15	H32	KTIPO472R8SCF063	H41	KTIPO6875HP KCP15	H33
KTFS16100HPCM KC7410	H13	KTIPO335R12SS038	H39	KTIPO472R8SS050	H39	KTIPO7031HP KCP15	H33
KTFS16100HPLM KCMS15	H16	KTIPO335R3SCF050	H41	KTIPO4844HP KCP15	H33	KTIPO709R12SS075	H39
KTFS16150HPLM KCMS15	H16	KTIPO335R3SS038	H39	KTIPO4911HP KCP15	H33	KTIPO709R3SCF075	H41
KTFS16200HPCM KC7410	H13	KTIPO335R5SCF050	H41	KTIPO492R12SS050	H39	KTIPO709R3SS075	H39
KTFS16300HPCM KC7410	H13	KTIPO335R5SS038	H39	KTIPO492R12SS056	H39	KTIPO709R5SCF075	H41
KTFS16500HPCM KC7410	H13	KTIPO335R8SCF050	H41	KTIPO492R3SCF063	H41	KTIPO709R5SS075	H39
KTFS16500HPLM KCMS15	H16	KTIPO335R8SS038	H39	KTIPO492R3SS050	H39	KTIPO709R8SCF075	H41
KTFS16550HPCM KC7410	H13	KTIPO3390HP KCP15	H32	KTIPO492R3SS056	H39	KTIPO709R8SS075	H39
KTFS16600HPCM KC7410	H13	KTIPO3438HP KCP15	H32	KTIPO492R5SCF063	H41	KTIPO7188HP KCP15	H33
KTFS17000HPCM KC7410	H13	KTIPO3480HP KCP15	H32	KTIPO492R5SS050	H39	KTIPO7344HP KCP15	H33
KTFS17000HPLM KCMS15	H16	KTIPO354R12SS038	H39	KTIPO492R5SS056	H39	KTIPO748R12SS075	H39
KTFS17100HPCM KC7410	H13	KTIPO354R3SCF050	H41	KTIPO492R8SCF063	H41	KTIPO748R3SCF075	H41
KTFS17200HPCM KC7410	H13	KTIPO354R3SS038	H39	KTIPO492R8SS050	H39	KTIPO748R3SS075	H39
KTFS17300HPCM KC7410	H13	KTIPO354R5SCF050	H41	KTIPO492R8SS056	H39	KTIPO748R5SCF075	H41
KTFS17480HPLM KCMS15	H16	KTIPO354R5SS038	H39	KTIPO5000FEG KCPM45	H36	KTIPO748R5SS075	H39
KTFS17500HPCM KC7410	H13	KTIPO354R8SCF050	H41	KTIPO5000HP KCP15	H33	KTIPO748R8SCF075	H41
KTFS17500HPLM KCMS15	H16	KTIPO354R8SS038	H39	KTIPO5080HP KCP15	H33	KTIPO748R8SS075	H39
KTFS17550HPCM KC7410	H13	KTIPO3580HP KCP15	H32	KTIPO512R12SS056	H39	KTIPO7500FEG KCPM45	H36
KTFS17600HPCM KC7410	H13	KTIPO3594FEG KCPM45	H36	KTIPO512R3SCF063	H41	KTIPO7500HP KCP15	H33
KTFS17700HPCM KC7410	H13	KTIPO3594HP KCP15	H32	KTIPO512R3SS056	H39	KTIPO7570HP KCP15	H33
KTFS17700HPLM KCMS15	H16	KTIPO3680HP KCP15	H32	KTIPO512R5SCF063	H41	KTIPO7580HP KCP15	H33
KTFS17800HPCM KC7410	H13	KTIPO374R12SS038	H39	KTIPO512R5SS056	H39	KTIPO7620HP KCP15	H33
KTFS18000HPCM KC7410	H13	KTIPO374R12SS044	H39	KTIPO512R8SCF063	H41	KTIPO7656HP KCP15	H33
KTFS18000HPLM KCMS15	H16	KTIPO374R3SCF050	H41	KTIPO512R8SS056	H39	KTIPO7813HP KCP15	H34
KTFS18100HPCM KC7410	H13	KTIPO374R3SS038	H39	KTIPO5156HP KCP15	H33	KTIPO787R12SS081	H39
KTFS18500HPCM KC7410	H13	KTIPO374R3SS044	H39	KTIPO5312HP KCP15	H33	KTIPO787R3SCF100	H41
KTFS18500HPLM KCMS15	H16	KTIPO374R5SCF050	H41	KTIPO532R12SS056	H39	KTIPO787R3SS081	H39
KTFS18600HPCM KC7410	H13	KTIPO374R5SS038	H39	KTIPO532R3SCF063	H41	KTIPO787R5SCF100	H41
KTFS18700HPCM KC7410	H13	KTIPO374R5SS044	H39	KTIPO532R3SS056	H39	KTIPO787R5SS081	H39
KTFS19000HPCM KC7410	H13	KTIPO374R8SCF050	H41	KTIPO532R5SCF063	H41	KTIPO787R8SCF100	H41

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KTIP0787R8SS081	H39	KTIP0940HPM KCP15	H32	KTIP1063R3SS125	H39	KTIP1300FEGM KCPM45	H36
KTIP07969HP KCP15	H34	KTIP0945R12SS100	H39	KTIP1063R5SCF100	H41	KTIP1300HPM KCP15	H33
KTIP0800FEGM KCPM45	H36	KTIP0945R3SCF100	H41	KTIP1063R5SS125	H39	KTIP13012SS14M	H38
KTIP0800HPM KCP15	H32	KTIP0945R3SS100	H39	KTIP1063R8SCF100	H41	KTIP1301SCF16M	H40
KTIP080R12SS10M	H38	KTIP0945R5SCF100	H41	KTIP1063R8SS125	H39	KTIP130R1SS14M	H38
KTIP080R1SCF12M	H40	KTIP0945R5SS100	H39	KTIP1070HPM KCP15	H32	KTIP130R3BF13M	H11
KTIP080R1SS10M	H38	KTIP0945R8SCF100	H41	KTIP1080FEGM KCPM45	H36	KTIP130R3BF14M	H11
KTIP080R3BF08M	H11	KTIP0945R8SS100	H39	KTIP1080HPM KCP15	H32	KTIP130R3SCF16M	H40
KTIP080R3BF09M	H11	KTIP0950FEGM KCPM45	H36	KTIP1090HPM KCP15	H32	KTIP130R3SS14M	H38
KTIP080R3SCF12M	H40	KTIP0950HPM KCP15	H32	KTIP10938HP KCP15	H34	KTIP130R4BF14M	H12
KTIP080R3SS10M	H38	KTIP095R12SS10M	H38	KTIP1100FEGM KCPM45	H36	KTIP130R5BF14M	H13
KTIP080R4BF09M	H12	KTIP095R1SCF12M	H40	KTIP1100HPM KCP15	H32	KTIP130R5SCF16M	H40
KTIP080R5BF09M	H13	KTIP095R1SS10M	H38	KTIP110R12SS12M	H38	KTIP130R5SS14M	H38
KTIP080R5SCF12M	H40	KTIP095R3BF10M	H11	KTIP110R1SCF16M	H40	KTIP130R8SCF16M	H40
KTIP080R5SS10M	H38	KTIP095R3SCF12M	H40	KTIP110R1SS12M	H38	KTIP130R8SS14M	H38
KTIP080R8SCF12M	H40	KTIP095R3SS10M	H38	KTIP110R3BF11M	H11	KTIP130R8SS14M	H38
KTIP080R8SS10M	H38	KTIP095R4BF10M	H12	KTIP110R3BF12M	H11	KTIP1328HPM KCP15	H33
KTIP0810HPM KCP15	H32	KTIP095R5BF10M	H13	KTIP110R3SCF16M	H40	KTIP1330HPM KCP15	H33
KTIP08125HP KCP15	H34	KTIP095R5SCF12M	H40	KTIP110R3SS12M	H38	KTIP1330HPM KCP15	H33
KTIP0827R12SS088	H39	KTIP095R5SS10M	H38	KTIP110R4BF12M	H12	KTIP1340HPM KCP15	H33
KTIP0827R3SCF100	H41	KTIP095R8SCF12M	H40	KTIP110R5BF12M	H13	KTIP1350FEGM KCPM45	H36
KTIP0827R3SS088	H39	KTIP095R8SS10M	H38	KTIP110R5SCF16M	H40	KTIP1350HPM KCP15	H33
KTIP0827R5SCF100	H41	KTIP0960HPM KCP15	H32	KTIP110R5SS12M	H38	KTIP135R12SS14M	H38
KTIP0827R5SS088	H39	KTIP09688HP KCP15	H34	KTIP110R8SCF16M	H40	KTIP135R1SCF16M	H40
KTIP0827R8SCF100	H41	KTIP0983HPM KCP15	H32	KTIP110R8SS12M	H38	KTIP135R1SS14M	H38
KTIP0827R8SS088	H39	KTIP0984R12SS100	H39	KTIP1110HPM KCP15	H32	KTIP135R3BF14M	H11
KTIP0830HPM KCP15	H32	KTIP0984R3SCF100	H41	KTIP1120HPM KCP15	H32	KTIP135R3SCF16M	H40
KTIP0840HPM KCP15	H32	KTIP0984R3SS100	H39	KTIP1130HPM KCP15	H32	KTIP135R3SS14M	H38
KTIP08438HP KCP15	H34	KTIP0984R5SCF100	H41	KTIP1140HPM KCP15	H32	KTIP135R4BF14M	H12
KTIP0850FEGM KCPM45	H36	KTIP0984R5SS100	H39	KTIP1150FEGM KCPM45	H36	KTIP135R5BF14M	H13
KTIP0850HPM KCP15	H32	KTIP0984R8SCF100	H41	KTIP1150HPM KCP15	H32	KTIP135R5SCF16M	H40
KTIP0852FEGM KCPM45	H36	KTIP0984R8SS100	H39	KTIP115R12SS12M	H38	KTIP135R5SS14M	H38
KTIP085R12SS10M	H38	KTIP0990HPM KCP15	H32	KTIP115R1SCF16M	H40	KTIP135R8SCF16M	H40
KTIP085R1SCF12M	H40	KTIP1000HP KCP15	H34	KTIP115R1SS12M	H38	KTIP135R8SS14M	H38
KTIP085R1SS10M	H38	KTIP1000FEGM KCPM45	H36	KTIP115R3BF12M	H11	KTIP1360HPM KCP15	H33
KTIP085R3BF09M	H11	KTIP1000HPM KCP15	H32	KTIP115R3SCF16M	H40	KTIP1370HPM KCP15	H33
KTIP085R3SCF12M	H40	KTIP100R12SS12M	H38	KTIP115R3SS12M	H38	KTIP1380HPM KCP15	H33
KTIP085R3SS10M	H38	KTIP100R1SCF16M	H40	KTIP115R4BF12M	H12	KTIP1384HPM KCP15	H33
KTIP085R4BF09M	H12	KTIP100R1SS12M	H38	KTIP115R5BF12M	H13	KTIP1400FEGM KCPM45	H36
KTIP085R5BF09M	H13	KTIP100R3BF10M	H11	KTIP115R5SCF16M	H40	KTIP1400HPM KCP15	H33
KTIP085R5SCF12M	H40	KTIP100R3BF11M	H11	KTIP115R5SS12M	H38	KTIP140R12SS16M	H38
KTIP085R5SS10M	H38	KTIP100R3SCF16M	H40	KTIP115R8SCF16M	H40	KTIP140R1SCF16M	H40
KTIP085R8SCF12M	H40	KTIP100R3SS12M	H38	KTIP115R8SS12M	H38	KTIP140R1SS16M	H38
KTIP085R8SS10M	H38	KTIP100R4BF11M	H12	KTIP1160HPM KCP15	H32	KTIP140R3BF14M	H11
KTIP0860HPM KCP15	H32	KTIP100R5BF11M	H13	KTIP1170FEGM KCPM45	H36	KTIP140R3BF15M	H11
KTIP0866R12SS088	H39	KTIP100R5SCF16M	H40	KTIP1170HPM KCP15	H32	KTIP140R3SS16M	H38
KTIP0866R3SCF100	H41	KTIP100R5SS12M	H38	KTIP1180HPM KCP15	H32	KTIP140R4BF15M	H12
KTIP0866R3SS088	H39	KTIP100R8SCF16M	H40	KTIP1190HPM KCP15	H32	KTIP140R5BF15M	H13
KTIP0866R5SCF100	H41	KTIP100R8SS12M	H38	KTIP1200FEGM KCPM45	H36	KTIP140R5SCF16M	H40
KTIP0866R5SS088	H39	KTIP1010FEGM KCPM45	H36	KTIP1200HPM KCP15	H33	KTIP140R5SS16M	H38
KTIP0866R8SCF100	H41	KTIP1010HPM KCP15	H32	KTIP120R12SS14M	H38	KTIP140R8SCF16M	H40
KTIP0866R8SS088	H39	KTIP10110HP KCP15	H34	KTIP120R1SCF16M	H40	KTIP140R8SS16M	H38
KTIP0870HPM KCP15	H32	KTIP10160HP KCP15	H34	KTIP120R1SS14M	H38	KTIP1410HPM KCP15	H33
KTIP08750HP KCP15	H34	KTIP1020HPM KCP15	H32	KTIP120R3BF12M	H11	KTIP1420HPM KCP15	H33
KTIP0880HPM KCP15	H32	KTIP1024R12SS125	H39	KTIP120R3BF13M	H11	KTIP1420HPM KCP15	H33
KTIP0890HPM KCP15	H32	KTIP1024R3SCF100	H41	KTIP120R3SCF16M	H40	KTIP1430HPM KCP15	H33
KTIP0900FEGM KCPM45	H36	KTIP1024R3SS125	H39	KTIP120R3SS14M	H38	KTIP1440HPM KCP15	H33
KTIP0900HPM KCP15	H32	KTIP1024R5SCF100	H41	KTIP120R4BF13M	H12	KTIP1450FEGM KCPM45	H36
KTIP0906R12SS094	H39	KTIP1024R5SS125	H39	KTIP120R5BF13M	H13	KTIP1450HPM KCP15	H33
KTIP0906R12SS094	H39	KTIP1024R8SCF100	H41	KTIP120R5SCF16M	H40	KTIP145R12SS16M	H38
KTIP0906R3SS094	H39	KTIP1024R8SS125	H39	KTIP120R5SS14M	H38	KTIP145R1SCF16M	H40
KTIP0906R5SCF100	H41	KTIP1030HPM KCP15	H32	KTIP120R8SCF16M	H40	KTIP145R1SS16M	H38
KTIP0906R5SS094	H39	KTIP10310HP KCP15	H34	KTIP120R8SS14M	H38	KTIP145R3BF15M	H11
KTIP0906R8SCF100	H41	KTIP1040HPM KCP15	H32	KTIP1210HPM KCP15	H33	KTIP145R3SCF16M	H40
KTIP0906R8SS094	H39	KTIP10469HP KCP15	H34	KTIP1220HPM KCP15	H33	KTIP145R3SS16M	H38
KTIP090R12SS10M	H38	KTIP1050FEGM KCPM45	H36	KTIP1240HPM KCP15	H33	KTIP145R4BF15M	H12
KTIP090R1SCF12M	H40	KTIP1050HPM KCP15	H32	KTIP1250FEGM KCPM45	H36	KTIP145R5BF15M	H13
KTIP090R1SS10M	H38	KTIP105R12SS12M	H38	KTIP1250HPM KCP15	H33	KTIP145R5SCF16M	H40
KTIP090R3BF09M	H11	KTIP105R1SCF16M	H40	KTIP125R12SS14M	H38	KTIP145R5SS16M	H38
KTIP090R3BF10M	H11	KTIP105R1SS12M	H38	KTIP125R1SCF16M	H40	KTIP145R8SCF16M	H40
KTIP090R3SCF12M	H40	KTIP105R3BF11M	H11	KTIP125R1SS14M	H38	KTIP145R8SS16M	H38
KTIP090R3SS10M	H38	KTIP105R3SCF16M	H40	KTIP125R3BF13M	H11	KTIP145R8SS16M	H38
KTIP090R4BF10M	H12	KTIP105R3SS12M	H38	KTIP125R3SCF16M	H40	KTIP1470HPM KCP15	H33
KTIP090R5BF10M	H13	KTIP105R4BF11M	H12	KTIP125R3SS14M	H38	KTIP1480HPM KCP15	H33
KTIP090R5SCF12M	H40	KTIP105R5BF11M	H13	KTIP125R4BF13M	H12	KTIP1490FEGM KCPM45	H36
KTIP090R5SS10M	H38	KTIP105R5SCF16M	H40	KTIP125R5BF13M	H13	KTIP1490HPM KCP15	H33
KTIP090R8SCF12M	H40	KTIP105R5SS12M	H38	KTIP125R5SCF16M	H40	KTIP1500FEGM KCPM45	H36
KTIP090R8SS10M	H38	KTIP105R8SCF16M	H40	KTIP125R5SS14M	H38	KTIP1500HPM KCP15	H33
KTIP0910HPM KCP15	H32	KTIP105R8SS12M	H38	KTIP125R8SCF16M	H40	KTIP150R12SS16M	H38
KTIP0920HPM KCP15	H32	KTIP1060HPM KCP15	H32	KTIP125R8SS14M	H38	KTIP150R1SCF20M	H40
KTIP0930HPM KCP15	H32	KTIP1063R12SS125	H39	KTIP125R8SS14M	H38	KTIP150R1SS16M	H38
KTIP09375HP KCP15	H34	KTIP1063R3SCF100	H41	KTIP1280HPM KCP15	H33	KTIP150R3BF15M	H11

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
KTIP150R3BF16M	..111	KTIP180R5SS20M	..H38	KTIP230R3SCF25M	..H40	KTMDUCD08L1315Z2	..W30
KTIP150R3SCF20M	..H40	KTIP180R8SCF25M	..H40	KTIP230R3SS25M	..H38	KTMDUED09L1300Z2	..W31
KTIP150R3SS16M	..H38	KTIP180R8SS20M	..H38	KTIP230R5SCF25M	..H40	KTMDUED102L415Z3	..W31
KTIP150R4BF16M	..112	KTIP1810HPM KCP15	..H33	KTIP230R5SS25M	..H38	KTMDUED122L452Z4	..W31
KTIP150R5BF16M	..113	KTIP1820HPM KCP15	..H33	KTIP230R8SCF25M	..H40	KTMDUED144L512Z3	..W34
KTIP150R5SCF20M	..H40	KTIP1830HPM KCP15	..H33	KTIP230R8SS25M	..H38	KTMDUSCREW1	..W29-31
KTIP150R5SS16M	..H38	KTIP1840HPM KCP15	..H33	KTIP2350HPM KCP15	..H34	KTMDUSD169L158Z4	..W35
KTIP150R8SCF20M	..H40	KTIP1850FEGM KCPM45	..H36	KTIP2400HPM KCP15	..H34	KTMDUSD209L158Z5	..W35
KTIP150R8SS16M	..H38	KTIP1850HPM KCP15	..H33	KTIP240R12SS25M	..H38	KTMDUW058L157Z1	..W29
KTIP1510HPM KCP15	..H33	KTIP1860HPM KCP15	..H33	KTIP240R1SCF25M	..H40	KTMDUW081L236Z2	..W29
KTIP1520HPM KCP15	..H33	KTIP1870HPM KCP15	..H33	KTIP240R1SS25M	..H38	KTMDUW091L276Z2	..W29
KTIP1530HPM KCP15	..H33	KTIP1880HPM KCP15	..H33	KTIP240R3SCF25M	..H40	KTMDUW102L315Z3	..W29
KTIP1538HPM KCP15	..H33	KTIP1890HPM KCP15	..H33	KTIP240R3SS25M	..H38	KTMDUW122L374Z4	..W29
KTIP1540HPM KCP15	..H33	KTIP1900FEGM KCPM45	..H36	KTIP240R5SCF25M	..H40	KTMDUW144L374Z3	..W34
KTIP1550FEGM KCPM45	..H36	KTIP1900HPM KCP15	..H33	KTIP240R5SS25M	..H38	KTMDUW165L472Z4	..W34
KTIP1550HPM KCP15	..H33	KTIP190R12SS20M	..H38	KTIP240R8SCF25M	..H40	KTMS21S25SD06H	..U3
KTIP1560HPM KCP15	..H33	KTIP190R1SCF25M	..H40	KTIP240R8SS25M	..H38	KTMS25S25SD06H	..U3
KTIP1570HPM KCP15	..H33	KTIP190R1SS20M	..H38	KTIP2450HPM KCP15	..H34	KTMS32S32SD08H	..U3
KTIP1580HPM KCP15	..H33	KTIP190R3SCF25M	..H40	KTIP2500HPM KCP15	..H34	KTMS40S32SD12H	..U3
KTIP1595FEGM KCPM45	..H36	KTIP190R3SS20M	..H38	KTIP250R12SS32M	..H38	KTMS50S32SD12H	..U3
KTIP1600FEGM KCPM45	..H36	KTIP190R5SCF25M	..H40	KTIP250R1SCF25M	..H40	KTMSZ125SD430CM16A02	..V139
KTIP1600HPM KCP15	..H33	KTIP190R5SS20M	..H38	KTIP250R1SS32M	..H38	KTMSZ150SD430CM16A03	..V139
KTIP160R12SS18M	..H38	KTIP190R8SCF25M	..H40	KTIP250R3SCF25M	..H40	KTMSZ200SD430CM16A04	..V139
KTIP160R1SCF20M	..H40	KTIP190R8SS20M	..H38	KTIP250R3SS32M	..H38	KUAM20	..B217-223, B245, B276-278
KTIP160R1SS18M	..H38	KTIP1910HPM KCP15	..H33	KTIP250R5SCF25M	..H40	KUAM22	..B72-74, B94, B115-119, B140-142, B174, B186-187, B394, B397-398
KTIP160R3BF16M	..111	KTIP1920HPM KCP15	..H33	KTIP250R5SS32M	..H38	KUAM23	..B198, B245, B249-251, B276-279, C196, D41
KTIP160R3BF17M	..111	KTIP1930HPM KCP15	..H33	KTIP250R8SCF25M	..H40	KUAM25	..B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397
KTIP160R3SCF20M	..H40	KTIP1940HPM KCP15	..H33	KTIP250R8SS32M	..H38	KUAM26	..B74, C196, D41
KTIP160R3SS18M	..H38	KTIP1950FEGM KCPM45	..H36	KTIP2550HPM KCP15	..H34	KUAM27	..B74, B115, B119, T91-92
KTIP160R4BF17M	..112	KTIP1950HPM KCP15	..H33	KTIP2600HPM KCP15	..H34	KUAM28	..B72, B115-119, B175-176, B186, B217, B220, B236-237, B254-255, B276-279, B395-397
KTIP160R5BF17M	..113	KTIP1970HPM KCP15	..H34	KTIP260R12SS32M	..H38	KUAM30	..B72, B115-119, B175-176, B186, B217, B220, B236-237, B254-255, B276-279, B395-397
KTIP160R5SCF20M	..H40	KTIP1980HPM KCP15	..H34	KTIP260R1SCF25M	..H40	KUAM31	..B72-74, B94, B115-119, B140-142, B174, B186-187, B198, B245, B249-251, B276-279, B394, B397-398, C196, D41
KTIP160R5SS18M	..H38	KTIP1990HPM KCP15	..H34	KTIP260R1SS32M	..H38	KUAM32	..B72-74, B94-95, B115-117, B119, B140-142, B186, B198, B249, B397
KTIP160R8SCF20M	..H40	KTIP2000FEGM KCPM45	..H36	KTIP260R3SCF25M	..H40	KUAM33	..B119, B142, C196, D41
KTIP1610HPM KCP15	..H33	KTIP2000HPM KCP15	..H34	KTIP260R3SS32M	..H38	KUAM34	..B217-223, B245, B276-278
KTIP1620HPM KCP15	..H33	KTIP200R12SS25M	..H38	KTIP260R5SCF25M	..H40	KUAM35	..B217, B220, B222-223
KTIP1630HPM KCP15	..H33	KTIP200R1SCF25M	..H40	KTIP260R5SS32M	..H38	KVNS020630D	..U7
KTIP1640HPM KCP15	..H33	KTIP200R1SS25M	..H38	KTIP260R8SCF25M	..H40	KVNS021180D	..U7
KTIP1650FEGM KCPM45	..H36	KTIP200R3SCF25M	..H40	KTIP260R8SS32M	..H38	KVNS030630D	..U7
KTIP1650HPM KCP15	..H33	KTIP200R3SS25M	..H38	KTIP2650HPM KCP15	..H34	KVNS031180D	..U7
KTIP1660HPM KCP15	..H33	KTIP200R5SCF25M	..H40	KTIP2700HPM KCP15	..H34	KVNS031580D	..U7
KTIP1670HPM KCP15	..H33	KTIP200R5SS25M	..H38	KTIP270R12SS32M	..H38	KVNS031970D	..U8
KTIP1680HPM KCP15	..H33	KTIP200R8SCF25M	..H40	KTIP270R1SCF25M	..H40	KVNS032360D	..U8
KTIP1690HPM KCP15	..H33	KTIP200R8SS25M	..H38	KTIP270R1SS32M	..H38	KVNS040630D	..U7
KTIP1700FEGM KCPM45	..H36	KTIP2010HPM KCP15	..H34	KTIP270R3SCF25M	..H40	KVNS040870D	..U7
KTIP1700HPM KCP15	..H33	KTIP2020HPM KCP15	..H34	KTIP270R3SS32M	..H38	KVNS041180D	..U7
KTIP170R12SS18M	..H38	KTIP2030HPM KCP15	..H34	KTIP270R5SCF25M	..H40	KVNS041580D	..U7
KTIP170R1SCF20M	..H40	KTIP2050HPM KCP15	..H34	KTIP270R5SS32M	..H38	KVNS042360D	..U8
KTIP170R1SS18M	..H38	KTIP2060HPM KCP15	..H34	KTIP270R8SCF25M	..H40	KVNS050630D	..U7
KTIP170R3BF17M	..111	KTIP2070HPM KCP15	..H34	KTIP270R8SS32M	..H38	KVNS050870D	..U7
KTIP170R3BF18M	..111	KTIP2080HPM KCP15	..H34	KTIP2750HPM KCP15	..H34	KVNS051180D	..U7
KTIP170R3SCF20M	..H40	KTIP2090HPM KCP15	..H34	KTIP2799HPM KCP15	..H34	KVNS051580D	..U7
KTIP170R3SS18M	..H38	KTIP2099HPM KCP15	..H34	KTMDU11L0515N60 KC635M	..W32	KVNS060870D	..U7
KTIP170R4BF18M	..112	KTIP2100HPM KCP15	..H34	KTMDU11L107N55 KC610M	..W32	KVNS081180D	..U7
KTIP170R5BF18M	..113	KTIP210R12SS25M	..H38	KTMDU11L1107N55 KC610M	..W32	KVNS101180D	..U7
KTIP170R5SCF20M	..H40	KTIP210R1SCF25M	..H40	KTMDU11L1107N55 KC635M	..W32	KVNS102360D	..U8
KTIP170R5SS18M	..H38	KTIP210R1SS25M	..H38	KTMDU11L1520N60 KC610M	..W32	KV1008	..V148-149
KTIP170R8SCF20M	..H40	KTIP210R3SCF25M	..H40	KTMDU11L1520N60 KC635M	..W32	LO5MNERIS	..D37
KTIP170R8SS18M	..H38	KTIP210R3SS25M	..H38	KTMDU11L1612N55 KC610M	..W32	LO5MCLPL2	..B215
KTIP1710HPM KCP15	..H33	KTIP210R5SCF25M	..H40	KTMDU11L1612N55 KC635M	..W32	LO5MCLPR2	..B215
KTIP1720HPM KCP15	..H33	KTIP210R5SS25M	..H38	KTMDU11L2025N60 KC610M	..W32	LO6MNERIS	..D37
KTIP1730HPM KCP15	..H33	KTIP210R8SCF25M	..H40	KTMDU11L2025N60 KC635M	..W32	LO6MSCFP2	..B213
KTIP1740HPM KCP15	..H33	KTIP210R8SS25M	..H38	KTMDU11L2525N60 KC610M	..W32	LO6MCLPL2	..B215
KTIP1750FEGM KCPM45	..H36	KTIP2110HPM KCP15	..H34	KTMDU11L2525N60 KC635M	..W32	LO6MSCLP2	..B215
KTIP1750HPM KCP15	..H33	KTIP2150HPM KCP15	..H34	KTMDU11L2540N60 KC610M	..W32	LO6MSDUP2	..B235
KTIP1760HPM KCP15	..H33	KTIP2200HPM KCP15	..H34	KTMDU11L2540N60 KC635M	..W32	LO6MSDUP2	..B235
KTIP1770FEGM KCPM45	..H36	KTIP220R12SS25M	..H38	KTMDU11L4816N55 KC610M	..W32		
KTIP1770HPM KCP15	..H33	KTIP220R1SCF25M	..H40	KTMDU16L0604N55 KC610M	..W36		
KTIP1780HPM KCP15	..H33	KTIP220R1SS25M	..H38	KTMDU16L0604N55 KC635M	..W36		
KTIP1790HPM KCP15	..H33	KTIP220R3SCF25M	..H40	KTMDU16L1107N55 KC610M	..W36		
KTIP1800FEGM KCPM45	..H36	KTIP220R3SS25M	..H38	KTMDU16L1520N60 KC610M	..W36		
KTIP1800HPM KCP15	..H33	KTIP220R5SCF25M	..H40	KTMDU16L1612N55 KC610M	..W36		
KTIP180R12SS20M	..H38	KTIP220R5SS25M	..H38	KTMDU16L1612N55 KC635M	..W36		
KTIP180R1SCF25M	..H40	KTIP220R8SCF25M	..H40	KTMDU16L1612N55 KC610M	..W36		
KTIP180R1SS20M	..H38	KTIP220R8SS25M	..H38	KTMDU16L2535N60 KC610M	..W36		
KTIP180R3BF18M	..111	KTIP2250HPM KCP15	..H34	KTMDU16L2535N60 KC635M	..W36		
KTIP180R3SCF25M	..H40	KTIP2280HPM KCP15	..H34	KTMDU16L4060N60 KC610M	..W36		
KTIP180R3SS20M	..H38	KTIP2300HPM KCP15	..H34	KTMDU16L4060N60 KC635M	..W36		
KTIP180R4BF18M	..112	KTIP230R12SS25M	..H38	KTMDUCD058L236Z1	..W30		
KTIP180R5BF18M	..113	KTIP230R1SCF25M	..H40	KTMDUCD068L256Z2	..W30		
KTIP180R5SCF25M	..H40	KTIP230R1SS25M	..H38				

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
L06MSTFPR2	B273	LNEU1260R04 KC725M	U19	LNGU544SRGE KC522M	T19	LNUX191940RRSM KCP25B	E58
L08RNE1L	D37	LNEU1260R04 KCPM40	U19	LNGU544SRGE KC725M	T19	LNUX191940S-WT5 KCP25B	E59
L08RNER1S	D37	LNGU431ERGE KC522M	T9	LNGU544SRGE KCK15	T19	LNUX191950RRF KCP10B	E54
L08RNER2	D37	LNGU431ERGE KC725M	T9	LNGU544SRGE KCPK30	T19	LNUX191950RRF KCP25B	E54
L08RSCFFP1	B213	LNGU431ERGE KCPM40	T9	LNGU544SRGEM KC520M	T19	LNUX191950RRP KCP10B	E54
L08RSCFFP2	B213	LNGU431ERLEJ KC422M	T8	LNGU544SRGEM KCK15	T19	LNUX191950RRP KCP25B	E54
L08RSCPL1	B215	LNGU431SRGE KC522M	T9	LNGU544SRGEM KCPK30	T19	LNUX301940RRF KCP10	E57
L08RSCPL2	B215	LNGU431SRGE KCPM40	T9	LNGU544SRGEM KCPM40	T19	LNUX301940RRH KCP10B	E57
L08RSDUPL	B235	LNGU431SRGE KCSM40	T9	LNGU545SRGEM KC520M	T19	LNUX301940RRH KCP25	E57
L08RSDUPR2	B235	LNGU432ERGE KC522M	T9	LNGU545SRGEM KCK15	T19	LNUX301940RRP KCP25	E58
L08RSTFPR2	B273	LNGU432ERGE KC725M	T9	LNGU545SRGEM KCPK30	T19	LNUX301940RRSM KCP10B	E58
L10RNER2	D37	LNGU432ERGE KCPM40	T9	LNGU545SRGEM KCPM40	T19	LNUX301960RRP KCP10B	E54
L10RSCFFP2	B213	LNGU432ERGE KCSM30	T9	LNP432SRGE KC520M	T10	LNUX301960RRP KCP25B	E54
L10RSCPL3	B215	LNGU432ERGE KCSM40	T9	LNP432SRGE KC522M	T10	LS103	S104
L10RSCPLR2	B215	LNGU432ERLEJ KC422M	T8	LNP432SRGE KC725M	T10	LSASL103	D71
L10RSCPLR3	B215	LNGU432SRGE KC522M	T9	LNP432SRGE KCK15	T10	LSASL123	D71
L10RSDUPR2	B235	LNGU432SRGE KC725M	T9	LNP432SRGE KCPK30	T10	LSASL163	D71
L10RSTFPR2	B273	LNGU432SRGE KCK15	T9	LNP432SRGE KCPM40	T10	LSASL164	D71
L12RNER2	D37	LNGU432SRGE KCPK30	T9	LNP433SRGE KC520M	T10	LSASL83	D71
L12RSCFFP3	B213	LNGU432SRGE KCPM40	T9	LNP433SRGE KC522M	T10	LSASR103	D71
L12RSCPL3	B215	LNGU432SRGE KCSM40	T9	LNP433SRGE KC725M	T10	LSASR123	D71
L12RSCPLR3	B215	LNGU432SRGEM KC520M	T10	LNP433SRGE KCK15	T10	LSASR163	D71
L12RSDUPR3	B235	LNGU432SRGEM KC522M	T10	LNP433SRGE KCPK30	T10	LSASR164	D71
L12RSTFPR3	B273	LNGU432SRGEM KCK15	T10	LNP433SRGE KCPM40	T10	LSASR203	D71
L16SNER3	D37	LNGU432SRGEM KCPK30	T10	LNP434SRGE KC520M	T10	LSASR83	D71
L16SSCFFP3	B213	LNGU432SRGEM KCPM40	T10	LNP434SRGE KC522M	T10	LSSL123D	D71
L16SSCPL3	B215	LNGU433ERGE KC522M	T9	LNP434SRGE KC725M	T10	LSSL163D	D71
L16SSCPLR3	B215	LNGU433ERGE KCPM40	T9	LNP434SRGE KCPK30	T10	LSSL164D	D71
LNEU1235R03 4 KC725M	U20	LNGU433ERGE KCSM40	T9	LNP434SRGE KCPM40	T10	LSSR123D	D71
LNEU1235R03 4 KCK15	U20	LNGU433SRGEM KC520M	T10	LNP434SRGE KC520M	T10	LSSR163D	D71
LNEU1240R03 4 KC725M	U20	LNGU433SRGEM KCK15	T10	LNP434SRGE KC522M	T10	LSSR164D	D71
LNEU1240R03 4 KCPK30	U20	LNGU433SRGEM KCPK30	T10	LNP434SRGE KCPM40	T10	LSSR203D	D71
LNEU1245R04 KC520M	U20	LNGU433SRGEM KCPM40	T10	LNP434SRGE KC520M	T10	LSSR204D	D71
LNEU1245R04 KC725M	U20	LNGU434SRGEM KC520M	T10	LNP434SRGE KC522M	T10	LSSRDH123C	D72
LNEU1245R04 KCK15	U20	LNGU434SRGEM KCK15	T10	LNP434SRGE KC725M	T10	LSSRDH164D	D72
LNEU1245R04 KCPK30	U20	LNGU434SRGEM KCPK30	T10	LNP434SRGE KCPK30	T10	LT11NL10ISO KC5025	D63
LNEU1250R04 KCK15	U20	LNGU434SRGEM KCPM40	T10	LNP434SRGE KCPM40	T10	LT11NL15ISO KC5025	D63
LNEU1255R04 KC725M	U20	LNGU541ERGE KC522M	T18	LNP434SRGE KC520M	T10	LT11NL32UN KC5025	D67
LNEU1255R04 KCK15	U20	LNGU541ERGE KC725M	T18	LNP434SRGE KCPK30	T10	LT11NL60 KC5025	D60
LNEU1260R04 KC725M	U20	LNGU541ERGE KCPM40	T18	LNP434SRGE KC522M	T19	LT11NR05ISO KC5025	D63
LNEU1260R04 KCK15	U20	LNGU541ERGE KCSM30	T18	LNP434SRGE KC520M	T19	LT11NR075ISO KC5025	D63
LNEU1260R04 KCPM40	U20	LNGU541ERLEJ KC422M	T18	LNP434SRGE KC725M	T19	LT11NR10ISO KC5025	D64
LNEU1235R03 4 KC520M	U19	LNGU541SRGE KC520M	T19	LNP434SRGE KCPK30	T19	LT11NR10ISO KC5025	D63
LNEU1235R03 4 KC725M	U19	LNGU541SRGE KC522M	T19	LNP434SRGE KCPM40	T19	LT11NR10ISO CB KC5025	D64
LNEU1235R03 4 KCPM40	U19	LNGU541SRGE KC725M	T19	LNP434SRGE KC520M	T19	LT11NR125ISO KC5025	D63
LNEU1235R03SGP 4 KC725M	U20	LNGU541SRGE KCK15	T19	LNP434SRGE KC522M	T19	LT11NR125ISO CB KC5025	D64
LNEU1240R03 4 KC520M	U19	LNGU541SRGE KCPK30	T19	LNP434SRGE KC725M	T19	LT11NR148SPT KC5025	D62
LNEU1240R03 4 KC725M	U19	LNGU542ERGE KC522M	T18	LNP434SRGE KC725M	T19	LT11NR14NPT KC5010	D64
LNEU1240R03 4 KCPM40	U19	LNGU542ERGE KC725M	T18	LNP434SRGE KCK15	T19	LT11NR14NPT KC5025	D64
LNEU1240R03SGP 4 KC725M	U20	LNGU542ERGE KCPM40	T18	LNP434SRGE KCPK30	T19	LT11NR14NPTF KC5025	D65
LNEU1240R08 4 KC520M	U19	LNGU542ERGE KCSM40	T18	LNP434SRGE KCPM40	T19	LT11NR14UNJ KC5025	D68
LNEU1240R08 4 KC725M	U19	LNGU542ERGE KCSM40	T18	LNP434SRGE KC522M	T19	LT11NR14W KC5025	D69
LNEU1240R08 4 KCPM40	U19	LNGU542ERGEJ KC422M	T18	LNP434SRGE KC725M	T19	LT11NR15ISO KC5010	D63
LNEU1240R16 4 KC725M	U19	LNGU542SRGE KC520M	T19	LNP434SRGE KCK15	T19	LT11NR15ISO KC5025	D63
LNEU1245R04 KC520M	U19	LNGU542SRGE KC522M	T19	LNP434SRGE KCPK30	T19	LT11NR15ISO CB KC5025	D64
LNEU1245R04 KC725M	U19	LNGU542SRGE KC725M	T19	LNP434SRGE KCPM40	T19	LT11NR16UN KC5010	D67
LNEU1245R04 KCPK30	U19	LNGU542SRGE KCK15	T19	LNP434SRGE KC520M	S99, S101	LT11NR16UN CB KC5025	D67
LNEU1245R04 KCPM40	U19	LNGU542SRGE KCPK30	T19	LNP434SRGE KC522M	S99, S101	LT11NR16UNCB KC5025	D68
LNEU1245R04SGP KC725M	U20	LNGU542SRGE KCSM40	T19	LNP434SRGE KCPK30	S99, S101	LT11NR16UNJ KC5025	D68
LNEU1245R08 KC520M	U19	LNGU542SRGEH KCSM40	T20	LNP434SRGE KCPM40	S99, S101	LT11NR175ISO KC5025	D63
LNEU1245R08 KC725M	U19	LNGU542SRGEM KC520M	T19	LNP434SRGE KC725M	S99, S101	LT11NR18NPT KC5025	D64
LNEU1245R08 KCPM40	U19	LNGU542SRGEM KCK15	T19	LNP434SRGE KCPK30	S99, S101	LT11NR18UN KC5025	D67
LNEU1245R08SGP KC725M	U20	LNGU542SRGEM KCPK30	T19	LNP434SRGE KCPM40	S99, S101	LT11NR18UNCB KC5025	D68
LNEU1245R08SGP KCPM40	U20	LNGU543ERGE KC522M	T18	LNP434SRGE KC520M	S99, S101	LT11NR18UNJ KC5025	D68
LNEU1245R16 KC725M	U19	LNGU543ERGE KC725M	T18	LNP434SRGE KCK15	S99, S101	LT11NR19W KC5025	D69
LNEU1245R16SGP KC725M	U20	LNGU543ERGE KCPM40	T18	LNP434SRGE KCPM40	S99, S101	LT11NR24UN KC5025	D63
LNEU1245R32 KC520M	U19	LNGU543ERGE KCSM30	T18	LNP434SRGE KCSM40	S99, S101	LT11NR20UN KC5025	D67
LNEU1245R32 KC725M	U19	LNGU543ERGE KCSM40	T18	LNP434SRGE KCPK30	S99, S101	LT11NR20UNCB KC5025	D68
LNEU1250R04 KC725M	U19	LNGU543SRGE KC520M	T19	LNP434SRGE KC522M	S99, S101	LT11NR24UNCB KC5025	D68
LNEU1250R04 KCPM40	U19	LNGU543SRGE KC522M	T19	LNP434SRGE KC725M	S99, S101	LT11NR28UN KC5025	D67
LNEU1250R04SGP KC725M	U20	LNGU543SRGE KC725M	T19	LNP434SRGE KCK15	S99, S101	LT11NR32UN KC5025	D67
LNEU1250R08 KC725M	U19	LNGU543SRGE KCK15	T19	LNP434SRGE KCPK30	S99, S101	LT11NR32UNCB KC5025	D68
LNEU1250R08 KCPM40	U19	LNGU543SRGE KCPK30	T19	LNP434SRGE KCPM40	S99, S101	LT11NR40UN KC5025	D67
LNEU1250R08SGP KC725M	U20	LNGU543SRGE KCSM40	T19	LNP434SRGE KCSM40	S99, S101	LT11NRA55 KC5025	D60
LNEU1255R04 KC725M	U19	LNGU543SRGEM KC520M	T19	LNP434SRGEH KCK15	S99, S101	LT11NRA60 KC5010	D60
LNEU1255R04 KCPM40	U19	LNGU543SRGEM KCK15	T19	LNP434SRGEH KCPK30	S99, S101	LT11NRA60 CB KC5025	D61
LNEU1255R08 KC520M	U19	LNGU543SRGEM KCPM40	T19	LNUX191940RRF KCP10	E57	LT16E05ISO KC5025	D54
LNEU1255R08 KC725M	U19	LNGU544ERGE KC725M	T18	LNUX191940RRF KCP25	E57	LT16E075ISO KC5025	D54
LNEU1255R08 KCPM40	U19	LNGU544ERGE KCPM40	T18	LNUX191940RRH KCP10	E57	LT16E075ISO KC5025	D54
LNEU1255R16 KC725M	U19	LNGU544ERGE KCSM30	T18	LNUX191940RRH KCP25	E57	LT16E10ISO KC5025	D54
LNEU1255R32 KC725M	U19	LNGU544SRGE KC520M	T19	LNUX191940RRP KCP10	E58	LT16E11W KC5025	D59
				LNUX191940RRP KCP25	E58		

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
LT16EL125ISO KC5025	D64	LT16ER16UN KC5025	D57	LT16ERAG60 KUJ25T	D52	LT16NR8RD KC5025	D65
LT16EL12UN KC5025	D57	LT16ER16UNCB KC5010	D58	LT16ER65 KC5025	D51	LT16NR8STACME KC5025	D66
LT16EL14UN KC5025	D57	LT16ER16UNCB KC5025	D58	LT16ER660 KC5010	D51	LT16NR8UN KC5025	D67
LT16EL14W KC5025	D69	LT16ER16UNJ KC5010	D58	LT16ER660 KC5025	D51	LT16NR8UNCB KC5025	D68
LT16EL15ISO KC5010	D54	LT16ER16UNJ KC5025	D58	LT16NL10ISO KC5025	D63	LT16NR8W KC5025	D69
LT16EL15ISO KC5025	D54	LT16ER16W KC5025	D59	LT16NL10UN KC5025	D67	LT16NRA55 KC5025	D60
LT16EL16UN KC5025	D57	LT16ER175ISO KC5010	D54	LT16NL11W KC5025	D69	LT16NRA60 KC5010	D60
LT16EL16UNJ KC5025	D58	LT16ER175ISO KC5025	D54	LT16NL12UN KC5025	D67	LT16NRA60 KC5025	D60
LT16EL175ISO KC5025	D54	LT16ER175ISO CB KC5010	D54	LT16NL15ISO KC5025	D63	LT16NRA65 KC5025	D60
LT16EL18UN KC5025	D57	LT16ER175ISO CB KC5025	D54	LT16NL16UN KC5025	D67	LT16NRA60 KC5010	D60
LT16EL18UNJ KC5025	D58	LT16ER18NPT KC5010	D55	LT16NL20ISO KC5025	D63	LT16NRA60 KC5025	D60
LT16EL20UN KC5025	D57	LT16ER18NPT KC5025	D55	LT16NL25ISO KC5025	D63	LT16NRA60 CB KC5025	D61
LT16EL24UN KC5025	D57	LT16ER18UN KC5010	D57	LT16NL30ISO KC5025	D63	LT16NRA60 KUJ25T	D61
LT16EL25ISO KC5025	D54	LT16ER18UN KC5025	D57	LT16NLA60 KC5025	D60	LT16NRG55 KC5025	D60
LT16EL28UN KC5025	D57	LT16ER18UNCB KC5010	D58	LT16NLAG60 KC5025	D60	LT16NRG60 KC5010	D60
LT16EL30ISO KC5025	D54	LT16ER18UNCB KC5025	D58	LT16NLG60 KC5025	D60	LT16NRG60 KC5025	D60
LT16EL8APIRD KC5025	D53	LT16ER18UNJ KC5010	D58	LT16NR05ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16EL8UN KC5025	D57	LT16ER18UNJ KC5025	D58	LT16NR075ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ELAG60 KC5025	D51	LT16ER18W KC5025	D59	LT16NR10ACME KC5025	D61	LT16NRG60 CB KC5025	D61
LT16ELAG60 KC5025	D51	LT16ER19W KC5010	D59	LT16NR10APIRD KC5025	D62	LT16NRG60 CB KC5025	D61
LT16ELAG60 KC5025	D51	LT16ER19W KC5025	D59	LT16NR10ISO KC5010	D63	LT16NRG60 CB KC5025	D61
LT16ELG60 KC5025	D51	LT16ER20ISO KC5010	D54	LT16NR10ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER05ISO KC5025	D54	LT16ER20ISO KC5025	D54	LT16NR10ISO CB KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER05ISO CB KC5010	D54	LT16ER20ISO CB KC5010	D54	LT16NR10STACME KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER05ISO CB KC5025	D54	LT16ER20ISO CB KC5025	D54	LT16NR10UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER075ISO KC5025	D54	LT16ER20UN KC5010	D57	LT16NR10UNCB KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER075ISO CB KC5010	D54	LT16ER20UN KC5025	D57	LT16NR10W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER075ISO CB KC5025	D54	LT16ER20UNCB KC5010	D58	LT16NR115NPT KC5010	D64	LT16NRG60 CB KC5025	D61
LT16ER10ACME KC5025	D52	LT16ER20UNCB KC5025	D58	LT16NR115NPT KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER10APIRD KC5025	D53	LT16ER20UNJ KC5010	D58	LT16NR115NPT CB KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER10ISO KC5010	D54	LT16ER20UNJ KC5025	D58	LT16NR11BSPT KC5025	D62	LT16NRG60 CB KC5025	D61
LT16ER10ISO KC5025	D54	LT16ER20W KC5025	D59	LT16NR11W KC5010	D69	LT16NRG60 CB KC5025	D61
LT16ER10ISO CB KC5010	D54	LT16ER24UN KC5010	D57	LT16NR11W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER10ISO CB KC5025	D54	LT16ER24UN KC5025	D57	LT16NR11WCB KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER10STACME KC5025	D56	LT16ER24UNCB KC5010	D58	LT16NR125ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER10UN KC5025	D57	LT16ER24UNCB KC5025	D58	LT16NR12ACME KC5025	D61	LT16NRG60 CB KC5025	D61
LT16ER10UNCB KC5025	D58	LT16ER24UNJ KC5025	D58	LT16NR12STACME KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER10W KC5025	D59	LT16ER24W KC5025	D59	LT16NR12UN KC5010	D67	LT16NRG60 CB KC5025	D61
LT16ER115NPT KC5010	D55	LT16ER25ISO KC5010	D54	LT16NR12UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER115NPT KC5025	D55	LT16ER25ISO KC5025	D54	LT16NR12UNCB KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER115NPT CB KC5025	D55	LT16ER25ISO CB KC5025	D54	LT16NR12UNJ KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER115NPT CB KC5025	D56	LT16ER27NPT KC5025	D55	LT16NR12W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER11BSPT KC5025	D53	LT16ER28UN KC5010	D57	LT16NR14BSPT KC5025	D62	LT16NRG60 CB KC5025	D61
LT16ER11W KC5010	D59	LT16ER28UN KC5025	D57	LT16NR14NPT KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER11W KC5025	D59	LT16ER28UNCB KC5010	D58	LT16NR14NPT CB KC5025	D65	LT16NRG60 CB KC5025	D61
LT16ER11WCB KC5025	D59	LT16ER28UNCB KC5025	D58	LT16NR14NPT CB KC5025	D65	LT16NRG60 CB KC5025	D61
LT16ER125ISO KC5010	D54	LT16ER28UNJ KC5025	D58	LT16NR14STACME KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER125ISO KC5025	D54	LT16ER28W KC5025	D59	LT16NR14UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER125ISO CB KC5010	D54	LT16ER2TR KC5025	D57	LT16NR14UNCB KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER125ISO CB KC5025	D54	LT16ER30ISO KC5010	D54	LT16NR14W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER12ACME KC5025	D52	LT16ER30ISO KC5025	D54	LT16NR14WCB KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER12STACME KC5025	D56	LT16ER30ISO CB KC5010	D54	LT16NR15ISO KC5010	D63	LT16NRG60 CB KC5025	D61
LT16ER12UN KC5010	D57	LT16ER30ISO CB KC5025	D54	LT16NR15ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER12UN KC5025	D57	LT16ER32UN KC5010	D57	LT16NR15SO CB KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER12UNCB KC5010	D58	LT16ER32UN KC5025	D57	LT16NR16STACME KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER12UNCB KC5025	D58	LT16ER32UNCB KC5010	D58	LT16NR16UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER12UNJ KC5010	D58	LT16ER32UNCB KC5025	D58	LT16NR16UNCB KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER12UNJ KC5025	D58	LT16ER32UNJ KC5025	D58	LT16NR16UNJ KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER12W KC5025	D59	LT16ER36UN KC5025	D57	LT16NR16W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER14BSPT KC5025	D53	LT16ER3TR KC5025	D57	LT16NR175ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER14NPT KC5010	D55	LT16ER40UN KC5025	D57	LT16NR18UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER14NPT KC5025	D55	LT16ER48UN KC5025	D57	LT16NR18UNCB KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER14NPT CB KC5010	D55	LT16ER6STACME KC5025	D56	LT16NR19W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER14NPT CB KC5025	D55	LT16ER8ACME KC5025	D52	LT16NR20ISO KC5010	D63	LT16NRG60 CB KC5025	D61
LT16ER14NPT CB KC5025	D55	LT16ER8APIRD KC5025	D53	LT16NR20ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER14UN KC5010	D57	LT16ER8APIRD KC5025	D53	LT16NR20ISO CB KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER14UN KC5025	D57	LT16ER8NPT KC5025	D55	LT16NR20UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER14UNCB KC5010	D58	LT16ER8RD KC5025	D56	LT16NR20UNCB KC5025	D68	LT16NRG60 CB KC5025	D61
LT16ER14UNCB KC5025	D58	LT16ER8STACME KC5025	D56	LT16NR20W KC5025	D69	LT16NRG60 CB KC5025	D61
LT16ER14UNJ KC5010	D58	LT16ER8UN KC5025	D57	LT16NR24UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER14UNJ KC5025	D58	LT16ER8UNCB KC5010	D58	LT16NR24UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER14UNJ KC5025	D58	LT16ER8UNCB KC5025	D58	LT16NR25ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER14W KC5010	D59	LT16ER8W KC5025	D59	LT16NR25ISO CB KC5025	D64	LT16NRG60 CB KC5025	D61
LT16ER14W KC5025	D59	LT16ER9W KC5025	D59	LT16NR28UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER14WCB KC5010	D59	LT16ERA55 KC5025	D51	LT16NR2TR KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER14WCB KC5025	D59	LT16ERA60 KC5010	D51	LT16NR30ISO KC5010	D63	LT16NRG60 CB KC5025	D61
LT16ER15ISO KC5010	D54	LT16ERA60 KC5025	D51	LT16NR30ISO KC5025	D63	LT16NRG60 CB KC5025	D61
LT16ER15ISO KC5025	D54	LT16ERA65 KC5010	D51	LT16NR32UN KC5025	D67	LT16NRG60 CB KC5025	D61
LT16ER15ISO CB KC5010	D54	LT16ERA65 KC5025	D51	LT16NR3TR KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER15ISO CB KC5025	D54	LT16ERAG60 KC5010	D51	LT16NR6STACME KC5025	D66	LT16NRG60 CB KC5025	D61
LT16ER16ACME KC5025	D52	LT16ERAG60 KC5025	D51	LT16NR8ACME KC5025	D61	LT16NRG60 CB KC5025	D61
LT16ER16STACME KC5025	D56	LT16ERAG60 CB KC5010	D51	LT16NR8ACME KC5025	D61	LT16NRG60 CB KC5025	D61
LT16ER16UN KC5010	D57	LT16ERAG60 CB KC5025	D51	LT16NR8APIRD KC5025	D62	LT16NRG60 CB KC5025	D61
		LT16ERAG60 CB KC5025	D51	LT16NR8NPT KC5025	D64	LT16NRG60 CB KC5025	D61
						M-13-M8-CA.625-3.543 S	V32
						M-13-M8-CA.625-4.331 S	V32
						M-13-M8-CA.625-5.118 S	V32
						M-13-M8-CA.625-6.693 S	V32
						M-18-M10-CA.750-4.331 S	V32
						M-18-M10-CA.750-5.118 S	V32
						M-18-M10-CA.750-6.693 S	V32
						M-21-M12-CA1-5.157 S	V32
						M-21-M12-CA1-6.142 S	V32
						M-21-M12-CA1-7.126 S	V32
						M-21-M12-CA1-8.110 S	V32
						M-21-M12-CA1-9.094 S	V32
						M-29-M16-CA1-25-10.2 S	V32
						M-29-M16-CA1-25-12.2 S	V32
						M-29-M16-CA1-25-6.3 S	V32
						M-29-M16-CA1-25-8.27 S	V32
						M10-JIC	C83
						M10D05E0702C050L400	T24
						M10D05E1001C062L350	T31
						M10D62E0703C062L500	T24
						M10D62E1002C062L670	T31

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
M1D062E1002C062L670R	T32	M1D150E1004S075L157	T33	M1HR200ED10S075ZL240C25	T43	M4D300L1509S100L175	T17
M1D062E1002C075L400	T31	M1D150E1006CM16	T29	M1HR250E14S100Z3L250C9	T64, T72	M4D400L1506S150L200	T17
M1D062E1002CM08	T29	M1D150E1006S075L157	T33	M1HR250E14S100Z3L300C12	T64, T72	M4D400L1508S150L200	T17
M1D062E1002W075L100	T30	M1D150E1403C125L1000	T52	M1HR250E14S100Z4L250C12	T64, T72	M4D400L1511S150L200	T17
M1D062E1401W075L150	T49	M1D150E1404C125L1000	T52	M4-11K1TD062Z2C062S2GKCPM40	T11	M4D500L1507S150L238	T17
M1D075E0705C075L600	T24	M1D150E1404W125L225	T50	M4-11K1TD062Z2W062S2GKCPM40	T11	M4D500L1509S150L238	T17
M1D075E1002C075L450	T31	M1D150E1405C125L800	T52	M4-11K1TD062Z2W062S2GKCPM40	T11	M4D500L1511S150L238	T17
M1D075E1002C075L670	T31	M1D150E1405CV40L300	T54	M4-11K1TD062Z2W062S2GKCPM40	T11	M4D600L1508S200L238	T17
M1D075E1002CM10	T29	M1D150E1405S075L157	T53	M4-11K1TD075Z2W075S2GKCPM40	T11	M4D600L1510S200L238	T17
M1D075E1002W075L110	T30	M1D150E1405W125L225	T50	M4-11K1TD075Z3C075S2GKCPM40	T11	M4D600L1512S200L238	T17
M1D075E1003C075L450	T31	M1D150E1405W125L225R	T50	M4-11K1TD075Z3C075S2GKCPM40	T11	M4K1TD100Z02C100EGKCPM40	T21
M1D075E1003C075L670	T31	M1D150E1803C125L1000	T77	M4-11K1TD075Z3W075S2GKCPM40	T11	M4K1TD100Z02W100S2GKCPM40	T21
M1D075E1003C075L670R	T32	M1D150E1803C125L1000AL	T77	M4-11K1TD075Z3W075S2GKCPM40	T11	M4K1TD100Z02W100S2GKCPM40	T21
M1D075E1003CM10	T29	M1D150E1803C125L800	T77	M4-11K1TD100Z3W100S2GKCPM40	T11	M4K1TD125Z03C125EGKCPM40	T21
M1D075E1003W075L110	T30	M1D150E1803W125L225	T76	M4-11K1TD100Z3W100S2GKCPM40	T11	M4K1TD125Z03C125EGKCPM40	T21
M1D075E1002C075L650	T52	M1D150E1803W125L425	T76	M4-11K1TD100Z4C100S2GKCPM40	T11	M4K1TD125Z03W100S2GKCPM40	T21
M1D075E1402C075L800	T52	M1D150E1803W125L425R	T76	M4-11K1TD100Z4C100S2GKCPM40	T11	M4K1TD150Z04W125S2GKCPM40	T21
M1D075E1402W075L175	T49	M1D150E1804BT40L488	T80	M4-11K1TD125Z4W125S2GKCPM40	T11	M4K1TD150Z05S050EGKCPM40	T21
M1D075E1402W075L175DE	T51	M1D150E1804CV40L288	T79	M4-11K1TD125Z4W125S2GKCPM40	T11	M4K1TD150Z05S050S2GKCPM40	T21
M1D088E1003C075L670	T31	M1D150E1804CV40L488	T79	M4-11K1TD125Z5C125S2GKCPM40	T11	M4K1TD150Z05S050S2GKCPM40	T21
M1D088E1402W100L175	T49	M1D150E1804W125L225	T76	M4-11K1TD125Z5C125S2GKCPM40	T11	M4K1TD200Z05S075EGKCPM40	T21
M1D097E1403W100L175	T49	M1D150E1804W125L225R	T76	M4-11K1TD150Z5S050S2GKCPM40	T11	M4K1TD200Z05S075EGKCPM40	T21
M1D097E1802W100L175	T75	M1D150K2502C125L200	T89	M4-11K1TD150Z5S050S2GKCPM40	T11	M4K1TD200Z06S075EGKCPM40	T21
M1D100E1003C075L480	T31	M1D150K2502C125L400	T89	M4-11K1TD200Z5S075EGKCPM40	T11	M4K1TD200Z06S075EGKCPM40	T21
M1D100E1003C100L480	T31	M1D150K2502HSK63L477	T91	M4-11K1TD200Z5S075EGKCPM40	T11	M4K1TD200Z06S075EGKCPM40	T21
M1D100E1003C100L800	T31	M1D150K2502W125L200	T89	M4-11K1TD200Z7S075EGKCPM40	T11	M4K1TD250Z06S075EGKCPM40	T21
M1D100E1003C100L800R	T32	M1D200E1005S075L157	T33	M4-11K1TD200Z7S075EGKCPM40	T11	M4K1TD250Z06S075EGKCPM40	T21
M1D100E1003CM12	T29	M1D200E1008S075L157	T33	M4D062L1102C062L600	T6, T11	M4K1TD250Z06S075EGKCPM40	T21
M1D100E1003W075L125	T30	M1D200E1403S075L157	T53	M4D062L1102C062L600	T6	M4K1TD300Z07S100EGKCPM40	T21
M1D100E1003W100L125	T30	M1D200E1405S075L157	T53	M4D062L1102W062L100	T5, T11	M4K1TD300Z07S100EGKCPM40	T21
M1D100E1004C075L480	T31	M1D200E1406S075L157	T53	M4D075L1102C075L600	T6	M4K1TD300Z09S100S2GKCPM40	T21
M1D100E1004C100L480	T31	M1D200E1803S075L157	T78	M4D075L1102W075L110	T5, T11	M4K1TD400Z08S150S2GKCPM40	T21
M1D100E1004C100L800	T31	M1D200E1803S075L157AL	T78	M4D075L1103C075L600	T6, T11	M4K1TD400Z11S150S2GKCPM40	T21
M1D100E1004C100L800R	T32	M1D200E1805S075L157	T78	M4D075L1103C075L600	T6	M6-JIC	C83
M1D100E1004CM12	T29	M1D200E1805W125L225	T76	M4D075L1103M10L110	T4	M8-JIC	C83
M1D100E1004W075L125	T30	M1D200K2502S075L200	T90	M4D075L1103W075L110	T5, T11	MB115RBHT12F	K124
M1D100E1004W100L125	T30	M1D200K2503C125L200	T89	M4D100L1103C100L700	T6	MB115RBHT16LF	K124
M1D100E1402C100L1000	T52	M1D200K2503CV50L700	T92	M4D100L1103W075L175	T5	MB115RBHT16LK	K125
M1D100E1402W100L175	T49	M1D250E1006S075L157	T33	M4D100L1103W100L175	T5, T11	MB24RBHT06F	K124
M1D100E1403C100L750	T52	M1D250E1009S075L157	T33	M4D100L1104C075L450	T6	MB24RBHT06K	K125
M1D100E1403CV40L300	T54	M1D250E1405S075L157	T53	M4D100L1104C100L450	T6, T11	MB30RBHT06K	K124
M1D100E1403W075L175	T50	M1D250E1407S075L157	T53	M4D100L1104C100L700	T6	MB30RBHT06K	K125
M1D100E1403W100L175	T49	M1D250E1804S075L157AL	T78	M4D100L1104M12L125	T4	MB40RBHT09F	K124
M1D100E1403W100L175DE	T51	M1D250E1806S075L157	T78	M4D100L1502C100L1000	T16	MB40RBHT09K	K125
M1D100E1403W100L175R	T50	M1D250K2503S100L225	T90	M4D100L1502C100L800	T16	MB50RBHT09K	K124
M1D100E1802BT40L450	T80	M1D300E1008S100L175	T33	M4D100L1502M12L125	T14	MB50RBHT09K	K125
M1D100E1802C100L1000	T77	M1D300E1010S100L175	T33	M4D100L1502W100L175	T15	MB66RBHT12K	K124
M1D100E1802C100L800	T77	M1D300E1404S100L175	T53	M4D100L1502W100L175	T15	MB66RBHT12K	K125
M1D100E1802CV40L250	T79	M1D300E1406S100L175	T53	M4D125L1104C125L800	T6	MB66RBHT12LF	K124
M1D100E1802CV40L450	T79	M1D300E1408S100L175	T53	M4D125L1104W125L225	T5, T11	MB66RBHT12LK	K125
M1D100E1802W075L175	T76	M1D300E1804S100L175AL	T78	M4D125L1105C100L500	T6	MB87RBHT12F	K124
M1D100E1802W100L175	T75	M1D300E1805S100L175	T78	M4D125L1105C125L500	T6, T11	MB87RBHT12K	K125
M1D100E1802W100L175R	T75	M1D300E1807S100L175	T78	M4D125L1105M16L175	T4	MB87RBHT16LF	K124
M1D100E1802W100L375	T75	M1D300K2503S100L225	T90	M4D125L1503C125L1000	T16	MB87RBHT16LK	K125
M1D100E1802W100L375R	T75	M1D400E1008S150L200	T33	M4D125L1503C125L800	T16	MCC080001	V88, V91
M1D110E1004C100L800	T31	M1D400E1408S150L200	T53	M4D125L1503M16L175	T14	MCC0800HP	V88, V91
M1D125E1004C125L520	T31	M1D400E1410S150L200	T53	M4D125L1503W100L225	T15	MCFNL10CA3	B72
M1D125E1004C125L800	T31	M1D400E1806S150L200	T78	M4D125L1503W125L225	T15	MCFNL12CA4	B72
M1D125E1004W125L160	T30	M1D400E1808S150L200	T78	M4D150L1105S050L157	T7, T11	MCFNL164D	B60
M1D125E1005C125L520	T31	M1D400K2504S125L225	T90	M4D150L1105W125L225	T5	MCFNR10CA3	B72
M1D125E1005C125L800	T31	M1D500E1809S150L200	T78	M4D150L1106S050L157	T7	MCFNR124B	B60
M1D125E1005C125L800R	T32	M1D600E1808S150L200	T78	M4D150L1503W125L225	T16	MCFNR12CA4	B72
M1D125E1005CM16	T29	M1D600E1808S200L200	T78	M4D150L1504C125L1000	T15	MCFNR164C	B60
M1D125E1005W125L160	T30	M1D800E1812S250L250	T78	M4D150L1504C125L800	T16	MCFNR164D	B60
M1D125E1403C125L1000	T52	M1HR075ED10W075Z2L110C4	T42	M4D150L1504M16L175	T14	MCFNR16CA4	B72
M1D125E1403W100L225	T50	M1HR075ED10W075Z2L140C6	T41	M4D150L1504W125L225	T15	MCFNR20CA4	B72
M1D125E1404C125L800	T52	M1HR100ED10C100Z2L110C4	T42	M4D150L1505S050L157	T17	MCGNL124B	B61
M1D125E1404CV40L300	T54	M1HR100ED10W100Z2L180C8	T41	M4D200L1105S075L157	T7, T11	MCGNL164C	B61
M1D125E1404S050L157	T53	M1HR125E14W125Z2L200C4	T63, T72	M4D200L1107S075L157	T7, T11	MCGNL164D	B61
M1D125E1404W100L225	T50	M1HR125ED10M16Z2L160C4	T40	M4D200L1504S075L175	T17	MCGNR124B	B61
M1D125E1404W125L225	T49	M1HR125ED10M16Z3L160C6	T40	M4D200L1505S075L157	T17	MCGNR164C	B61
M1D125E1404W125L225R	T50	M1HR125ED10W125Z2L210C10	T41	M4D200L1506S075L157	T17	MCGNR164D	B61
M1D125E1802C125L1000	T77	M1HR125ED10W125Z3L210C15	T41	M4D250L1107S075L157	T7	MCHNN164C	B61
M1D125E1802C125L800	T77	M1HR150E14W125Z3L200C6	T63, T72	M4D250L1107S100L157	T7	MCHNN205D	B61
M1D125E1802W100L225	T76	M1HR150E14W125Z3L250C9	T63, T72	M4D250L1107S100L157	T7	MCHNN246D	B61
M1D125E1803CV40L288	T79	M1HR150E14W125Z3L300C12	T63, T72	M4D250L1506S075L157	T17	MCKNL124B	B62
M1D125E1803CV40L488	T79	M1HR150ED10S075Z3L200C12	T43	M4D250L1507S100L175	T17	MCKNL12CA4	B73
M1D125E1803W100L225	T76	M1HR150ED10S075Z5L200C20	T43	M4D300L1108S100L175	T7	MCKNL164C	B62
M1D125E1803W125L225	T75	M1HR200E14S075Z3L200C6	T64, T72	M4D300L1108S125L175	T7	MCKNL164D	B62
M1D125E1803W125L225R	T75	M1HR200E14S075Z3L250C9	T64, T72	M4D300L1505S100L175	T17	MCKNL165D	B62
M1D125E1803W125L425	T75	M1HR200E14W150Z3L300C12	T63, T72	M4D300L1507S100L175	T17	MCKNL204D	B62
M1D125E1803W125L425R	T75	M1HR200ED10S075Z3L240C15	T43	M4D300L1508S125L200	T17	MCKNL205D	B62

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
MCKNL206D	B62	MCRNL205D	B65	MEGA45D1200LN863C10	S94	MS1160	C34-45, C52-57, C122-129, C134
MCKNL246D	B62	MCRNL206D	B65	MEGA45D1200LN863M10	S94	MS1162	C52-57, C65-73, C143-151, S94, S98, S100, V87-88, V91
MCKNR124B	B62	MCRNL246E	B65	MEGA45D500LN863M6	S94	MS1163	C65-73, C143-151
MCKNR12CA4	B73	MCRNR124B	B65	MEGA60D1200LN76M10	S98	MS1200	C183, C185, C188, C192-193, D30
MCKNR164C	B62	MCRNR164C	B65	MEGA60D500LN76M6	S98	MS1234CG	V62
MCKNR165D	B62	MCRNR164D	B65	MEGA60D600LN76M8	S98	MS125	B186, B397
MCKNR16CA4	B73	MCRNR165D	B65	MEGA60D800LN76M10	S98	MS1273	C52-55, T119-120
MCKNR204D	B62	MCRNR166D	B65	MEGA90D1000LN76C10	S100	MS1276	J91
MCKNR205D	B62	MCRNR204D	B65	MEGA90D1200LN76C10	S100	MS1281	U17-18
MCKNR206D	B62	MCRNR205D	B65	MEGA90D1200LN76M10	S100	MS1282	U17-18
MCKNR246D	B62	MCRNR206D	B65	MEGA90D500LN76M6	S100	MS1284	U17-18
MCLNL083A	B63	MCRNR246D	B65	MEGA90D600LN76M8	S100	MS1285	C52-55
MCLNL103A	B63	MCRNR246E	B65	MILL16E1000Z120N08WC	S32	MS1294CG	V62
MCLNL123B	B63	MDJNL123B	B89	MILL16E1000Z240N08WC	S30	MS1321	B168-169, B386-387
MCLNL124A	B63	MDJNL124A	B89	MILL16E1000Z340N08WC	S30	MS1374	T89-92
MCLNL124B	B63	MDJNL124B	B89	MILL16E1200Z420N08WC	S31	MS1375	K89-90
MCLNL12CA4	B74	MDJNL12CA3	B94	MILL16E1400Z480N08WSC	S31	MS1438	B290-291
MCLNL164C	B63	MDJNL163C	B89	MILL16E1600Z560N08WSC	S31	MS1454	B203, K79
MCLNL164D	B63	MDJNL163D	B89	MILL16E2000Z700N08WSC	S31	MS1488	D31, D33, D39-40
MCLNL165C	B63	MDJNL164C	B89	MILL16E2000Z040N08WC	S32	MS1489	D31-33, D39
MCLNL165D	B63	MDJNL164D	B89	MILL16E2000Z050N08WC	S30	MS1490	C34-41, C47-48, C50-51, C122-125, C130, D32
MCLNL166C	B63	MDJNL16CA4	B94	MILL16E250Z040N08WC	S32	MS1571	C135-136
MCLNL166D	B63	MDJNL203D	B89	MILL16E300Z050N08WC	S32	MS1595	C34-41, C46-47, C49-50, C52-55, C122-126, C129, C131-133
MCLNL16CA4	B74	MDJNL204D	B89	MILL16E300Z080N08WC	S30	MS1861	H100
MCLNL204D	B63	MDJNL205D	B89	MILL16E300Z100N08WC	S30	MS1933	B214-215, B217, B220, B222-223, B271-272
MCLNL20CA4	B74	MDJNL245D	B89	MILL16E400Z060N08WC	S32	MS1939	B197, B212-215, B287, B289
MCLNL244D	B64	MDJNL245E	B89	MILL16E500Z080N08WC	S30	MS1944	C38-41, C122-125, C127-128
MCLNL245D	B64	MDJNR123B	B89	MILL16E500Z180N08WC	S30	MS1970	C34-41, C46-51, C122-126, C129-133
MCLNL245E	B64	MDJNR124A	B89	MILL16E600Z100N08WC	S32	MS2002	C65-73, C143-151
MCLNL246D	B64	MDJNR124B	B89	MILL16E600Z160N08WC	S30	MS2038	V62
MCLNL246E	B64	MDJNR12CA3	B94	MILL16E600Z220N08WC	S30	MS2038CG	V62
MCLNL248E	B64	MDJNR163C	B89	MILL16E800Z100N08WC	S32	MS2055	B197
MCLNL25CA6	B74	MDJNR163D	B89	MILL16E800Z200N08WC	S30	MS2060	S32
MCLNL326F	B64	MDJNR164C	B89	MILL16E800Z280N08WC	S30	MS2066	B197
MCLNL854D	B64	MDJNR164D	B89	MRGNL164D	B98	MS2077	U35-37, V68-70
MCLNL866E	B64	MDJNR165D	B89	MRGNL166D	B98	MS2078	S39, T113, U32-34
MCLNR083A	B63	MDJNR16CA4	B94	MRGNL204D	B98	MS2085	T120, V81-83
MCLNR103A	B63	MDJNR203D	B89	MRGNL206D	B98	MS2089	C132-133
MCLNR123B	B63	MDJNR204D	B89	MRGNL246D	B98	MS2090	C130-131
MCLNR124A	B63	MDJNR205D	B89	MRGNL248E	B98	MS2091	C34-41, C122-125, C127-128, C130-131
MCLNR124B	B63	MDJNR20CA4	B94	MRGNLC204D	B99, B371	MS2111	C183, C185, C188-189, C192, D30
MCLNR12CA4	B74	MDJNR245D	B89	MRGNLC244D	B99, B371	MS2126	T75-80
MCLNR163C	B63	MDQNL124B	B90	MRGNR123B	B98	MS2148	T63-64, T107-109, U25-29
MCLNR163D	B63	MDQNL164C	B90	MRGNR124B	B98	MS2166	T49-54
MCLNR164C	B63	MDQNL164D	B90	MRGNR163D	B98	MS2167	T49, T51-52
MCLNR164D	B63	MDQNL16CA4	B95	MRGNR164C	B98	MS2173	B217, B220, B222-223
MCLNR165C	B63	MDQNL164D	B90	MRGNR164D	B98	MS2175	B217-223, B245, B276-278
MCLNR165D	B63	MDQNL204D	B90	MRGNR166D	B98	MS2191C00	T63, T65, V139-140, V142
MCLNR166C	B63	MDQNL20CA4	B95	MRGNR204D	B98	MS2191C06	T63, T65, V139-140, V142
MCLNR166D	B63	MDQNL244D	B90	MRGNR206D	B98	MS2191C08	T63, T65, V139-142
MCLNR16CA4	B74	MDQNL244E	B90	MRGNR246D	B98	MS2191C12	T63, T65, V139-142
MCLNR204D	B63	MDQNR124B	B90	MRGNR248E	B98	MS2191C14	T63, T65, V139-140, V142
MCLNR205D	B63	MDQNR124C	B90	MRGNRC164D	B99, B371	MS2191C16	T63-65, V139-140, V142
MCLNR206D	B63	MDQNR164C	B90	MRGNRC204D	B99, B371	MS2191C18	T63, T65, V139-140, V142
MCLNR20CA4	B74	MDQNR164D	B90	MS-1896	K85	MS2191C20	T63-65, V139-140, V142
MCLNR244D	B63	MDQNR16CA4	B95	MS-2071	T14-17, V75-77	MS2197	V139-141
MCLNR245D	B63	MDQNR204D	B90	MS1025	C196, D41	MS2205	T29-33, T40-43
MCLNR245E	B63	MDQNR20CA4	B95	MS1027	B209-212, B216	MS2206	U3
MCLNR246D	B63	MDQNR244D	B90	MS1028	B210-211	MS2207	U3
MCLNR246E	B63	MDRHEC100S5150 KCPM15	P91	MS1034	C190	MS2208	U3
MCLNR248E	B63	MDRHEC250S3025 KCPM15	P91	MS1152	B273, B276-278, J25, J27, J29, J31, J33, J35, J37, J39	MS2219	V36-38
MCLNR25CA4	B74	MDRHEC250S4025 KCPM15	P91	MS1153	B193-197, B209-215, B217-223, B227-230, B234-237, B243-245, B259-262, B270-279, B282-285, B287, B289-290, B292, K78-80, K85, K89-90	MS2236	V123
MCLNR25CA5	B74	MDRHEC312S4081 KCPM15	P91	MS1155	B193, B195-198, B212-215, B217, B220, B227-230, B234-235, B237, B245, B254-255, B261-262, B271-279	MS2260	V58
MCLNR25CA6	B74	MDRHEC375S4038 KCPM15	P91	MS1156	B193-196, B227-229, B243-244, B259-260, B282, C127-128	MS2263	T4-7
MCLNR326F	B63	MDRHEC375S4088 KCPM15	P91	MS1157	B198, B249-251	MS364	B74, B115, B119
MCLNR854D	B63	MDRHEC500S4050 KCPM15	P91	MS1158	B194, B243	MS412	C196, D41
MCLNRC164D	B66, B371	MDRHEC500S4100 KCPM15	P91			MS5006	W12, W19
MCMNN124B	B64	MDRHEC625S4125 KCPM15	P91			MS5007	W12-13
MCMNN164C	B64	MDRHEC750S4075 KCPM15	P91			MS5008	W12, W18, W25
MCMNN164D	B64	MEGA45D1000LN863C10	S94			MS5009	W18, W25
MCMNN166D	B64	MEGA45D1000LN863M10	S94			MS9000	W17-19, W24-25
MCMNN204D	B64					MSDNN083	B111
MCMNN206D	B64					MSDNN103	B111
MCMNN246D	B64					MSDNN123	B111
MCMNN246E	B64					MSDNN124	B111
MCRNL124B	B65					MSDNN164	B111
MCRNL164C	B65						
MCRNL164D	B65						
MCRNL165D	B65						
MCRNL166D	B65						
MCRNL204D	B65						

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
MSDNR206	B111	MTANLS123	B133	MTJNR103B	B136	NA3R4 KC5025	D11
MSDNR246	B111	MTANLS163	B133	MTJNR123B	B136	NA3R4 KCJ25	D11
MSDNR854	B111	MTANLS164	B133	MTJNR163C	B136	NA3R5 KC5010	D11
MSDNR855	B111	MTANLS205	B133	MTJNR163D	B136	NA3R5 KC5025	D11
MSDNR856	B111	MTANR082B	B132	MTJNR164D	B136	NA3R5 KCJ10	D11
MSKNL12CA4	B115	MTANR103B	B132	MTJNR204D	B136	NA3R5 KCJ25	D11
MSKNL205D	B111	MTANR123B	B132	MTJNR205D	B136	NA3R6 KC5010	D11
MSKNL206D	B111	MTANR164D	B132	MTJNRS123	B137	NA3R6 KC5025	D11
MSKNL20CA5	B115	MTANRS123	B133	MTJNRS124	B137	NA3R6 KCJ10	D11
MSKNL246D	B111	MTANRS163	B133	MTJNRS163	B137	NA3R6 KCJ25	D11
MSKNR10CA3	B115	MTANRS164	B133	MTJNRS164	B137	NA3R8 KC5010	D11
MSKNR124B	B111	MTANRS205	B133	MTJNRS165	B137	NA3R8 KC5025	D11
MSKNR12CA4	B115	MTCNN083	B133	MTJNRS204	B137	NA3R8 KCJ10	D11
MSKNR164C	B111	MTCNN124	B133	MTJNRS205	B137	NA3R8 KCJ25	D11
MSKNR164D	B111	MTCNN443	B133	MTJNRS246	B137	NA4L4 KC5025	D11
MSKNR16CA4	B115	MTCNN644	B133	MTJNRS864	B137	NA4L4 KCJ10	D11
MSKNR205D	B111	MTENNS082	B134	MTRNR164D	B138	NA4L5 KC5025	D11
MSKNR206D	B111	MTENNS103	B134	MTUNL12CA3	B142	NA4L6 KC5025	D11
MSKNR20CA5	B115	MTENNS123	B134	MTUNL16CA3	B142	NA4R4 KCJ25	D11
MSKNR248	B111	MTENNS163	B134	MTUNR20CA4	B142	NA4R4 KC5010	D11
MSKNR25CA6	B115	MTENNS164	B134	MVJNL123A	B152	NA4R4 KC5025	D11
MSRNL124B	B112	MTENNS205	B134	MVJNL123B	B152	NA4R4 KCJ25	D11
MSRNL12CA4	B116	MTENNS246	B134	MVJNL163C	B152	NA4R5 KC5025	D11
MSRNL164C	B112	MTENNS854	B134	MVJNL163D	B152	NA4R6 KC5025	D11
MSRNL164D	B112	MTFNL123B	B134	MVJNL164C	B152	NA6L2 KC5010	D11
MSRNL165C	B112	MTFNL12CA3	B140	MVJNL164D	B152	NA6L2 KC5025	D11
MSRNL16CA4	B116	MTFNL164C	B134	MVJNL203D	B152	NA6L2 KCJ25	D11
MSRNL204D	B112	MTFNL164D	B134	MVJNL204D	B152	NA6L25 KCJ25	D11
MSRNL205D	B112	MTFNL16CA3	B140	MVJNL244D	B152	NA6L3 KC5025	D11
MSRNL206D	B112	MTFNL204D	B134	MVJNR123A	B152	NA6L3 KCJ25	D11
MSRNL20CA5	B116	MTFNL20CA4	B140	MVJNR123B	B152	NA6R2 KC5010	D11
MSRNL246D	B112	MTFNL245D	B134	MVJNR124B	B152	NA6R2 KC5025	D11
MSRNL246E	B112	MTFNL246E	B134	MVJNR163C	B152	NA6R2 KCJ10	D11
MSRNL854D	B112	MTFNL854D	B134	MVJNR163D	B152	NA6R2 KCJ25	D11
MSRNR10CA3	B116	MTFNLS164	B135	MVJNR164C	B152	NA6R25 KC5025	D11
MSRNR124B	B112	MTFNR123B	B134	MVJNR164D	B152	NA6R3 KC5025	D11
MSRNR12CA4	B116	MTFNR12CA3	B140	MVJNR203D	B152	NA6R3 KCJ25	D11
MSRNR164C	B112	MTFNR164C	B134	MVJNR204D	B152	NAS3L10 KC5025	D12
MSRNR164D	B112	MTFNR164D	B134	MVJNR243D	B152	NAS3L10 KCJ10	D12
MSRNR165C	B112	MTFNR16CA3	B140	MVJNR244D	B152	NAS3L12 KC5025	D12
MSRNR16CA4	B116	MTFNR204D	B134	MVUNL204D	B153	NAS3L4 KC5025	D12
MSRNR205D	B112	MTFNR205D	B134	MVUNL244D	B153	NAS3L4 KCJ25	D12
MSRNR206D	B112	MTFNR20CA4	B140	MVUNR204C	B153	NAS3L5 KC5025	D12
MSRNR246D	B112	MTFNR246E	B134	MVUNR204D	B153	NAS3L5 KCJ10	D12
MSRNR246E	B112	MTFNRS164	B135	MVUNR244D	B153	NAS3L6 KC5010	D12
MSRNR248	B112	MTGNL103B	B135	MVNN123B	B153	NAS3L6 KC5025	D12
MSRNR328	B112	MTGNL123B	B135	MVNN163C	B153	NAS3L6 KCJ10	D12
MSRNR856D	B112	MTGNL124B	B135	MVNN163D	B153	NAS3L6 KCJ25	D12
MSSNL10CA3	B117	MTGNL12CA3	B141	MVNN164D	B153	NAS3L8 KC5010	D12
MSSNL12CA4	B117	MTGNL164C	B135	MVNN203D	B153	NAS3L8 KC5025	D12
MSSNL164C	B113	MTGNL164D	B135	MVNN204D	B153	NAS3L8 KCJ10	D12
MSSNL164D	B113	MTGNL204D	B135	MVNN244E	B153	NAS3L8 KCJ25	D12
MSSNL165D	B113	MTGNL205D	B135	MW25	U28-29, V148-149	NAS3R10 KC5010	D12
MSSNL205D	B113	MTGNL20CA4	B141	MW3	U35-37	NAS3R10 KC5025	D12
MSSNL206D	B113	MTGNR082B	B135	NA3L10 KC5025	D11	NAS3R10 KCJ10	D12
MSSNL246D	B113	MTGNR103B	B135	NA3L10 KCJ25	D11	NAS3R12 KC5025	D12
MSSNL854D	B113	MTGNR123B	B135	NA3L12 KC5010	D11	NAS3R12 KCJ25	D12
MSSNR10CA3	B117	MTGNR124B	B135	NA3L12 KC5025	D11	NAS3R16 KC5025	D12
MSSNR123B	B113	MTGNR12CA3	B141	NA3L16 KCJ10	D11	NAS3R4 KC5025	D12
MSSNR124B	B113	MTGNR164C	B135	NA3L4 K68	D11	NAS3R4 KCJ25	D12
MSSNR12CA4	B117	MTGNR164D	B135	NA3L4 KC5010	D11	NAS3R5 KC5025	D12
MSSNR164C	B113	MTGNR165C	B135	NA3L4 KC5025	D11	NAS3R5 KCJ10	D12
MSSNR164D	B113	MTGNR16CA3	B141	NA3L4 KCJ10	D11	NAS3R6 KC5010	D12
MSSNR165D	B113	MTGNR204D	B135	NA3L4 KCJ25	D11	NAS3R6 KC5025	D12
MSSNR16CA4	B117	MTGNR205D	B135	NA3L5 KC5010	D11	NAS3R6 KCJ10	D12
MSSNR205D	B113	MTJNLO82B	B136	NA3L5 KC5025	D11	NAS3R8 KC5010	D12
MSSNR206D	B113	MTJNL103B	B136	NA3L5 KCJ25	D11	NAS3R8 KC5025	D12
MSSNR20CA5	B117	MTJNL123B	B136	NA3L6 KC5010	D11	NAS3R8 KCJ10	D12
MSSNR246D	B113	MTJNL163C	B136	NA3L6 KC5025	D11	NAS3R8 KCJ25	D12
MSSNR854D	B113	MTJNL163D	B136	NA3L6 KCJ25	D11	NASL062D	C185, D25
MSTNR10CA3	B118	MTJNL164D	B136	NA3L8 KC5010	D11	NASL082D	C185, D25
MSTNR12CA4	B118	MTJNL204D	B136	NA3L8 KC5025	D11	NASL083D	C185, D25
MSYNL10CA3	B119	MTJNL205D	B136	NA3L8 KCJ10	D11	NASL1010M2Q	C185
MSYNL12CA4	B119	MTJNLS123	B137	NA3L8 KCJ25	D11	NASL102B	C185, D25
MSYNL20CA15	B119	MTJNLS124	B137	NA3R10 KC5010	D11	NASL103B	C185, D25
MSYNR10CA3	B119	MTJNLS163	B137	NA3R10 KC5025	D11	NASL1212M2Q	C185
MSYNR12CA4	B119	MTJNLS164	B137	NA3R10 KCJ10	D11	NASL1616K3Q	C185
MSYNR16CA4	B119	MTJNLS165	B137	NA3R10 KCJ25	D11	NASR062D	C185, D25
MSYNR25CA19	B119	MTJNLS204	B137	NA3R12 KC5025	D11	NASR082D	C185, D25
MTANL103B	B132	MTJNLS205	B137	NA3R12 KCJ10	D11	NASR083D	C185, D25
MTANL123B	B132	MTJNLS246	B137	NA3R16 KCJ10	D11	NASR1010M2Q	C185
MTANL164D	B132	MTJNR082B	B136	NA3R4 KC5010	D11	NASR102B	C185, D25

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
NASR103B.....	C185, D25	NER1616H2.....	C188	NG2041L KC5025.....	C170	NG2125L KCU10.....	C170
NASR1212M2Q.....	C185	NER162C.....	C187, D26	NG2041L KCK20B.....	C170	NG2125L KCU25.....	C170
NASR1616K3Q.....	C185	NER163C.....	C187, D26	NG2041L KCU25.....	C170	NG2125LK KC5010.....	C163
NB2L K313.....	C176	NER163D.....	C187, D26	NG2041R K313.....	C170	NG2125LK KCU5025.....	C163
NB2R K313.....	C176	NER164C.....	C187, D26	NG2041R KC5010.....	C170	NG2125LK KCP10B.....	C163
NB3L K313.....	C176	NER164D.....	C187, D26	NG2041R KC5025.....	C170	NG2125LK KCP25B.....	C163
NB3R K313.....	C176	NER2020K2.....	C188	NG2041R KCK20B.....	C170	NG2125LK KCU10.....	C163
NB4L K313.....	C176	NER203D.....	C187, D26	NG2041R KCU10.....	C170	NG2125LK KCU25.....	C163
NB4R K313.....	C176	NER204D.....	C187, D26	NG2041R KCU25.....	C170	NG2125R KC5010.....	C170
NBD2R K313.....	C177	NER205D.....	C187, D26	NG2047L KC5010.....	C170	NG2125R KCU10.....	C170
NBD3L K313.....	C177	NER206D.....	C187, D26	NG2047L KCU10.....	C170	NG2125R KCU25.....	C170
NBD3R K313.....	C177	NER243D.....	C187, D26	NG2047L KCU25.....	C170	NG2125RK KC5010.....	C162
ND3038L KC5025.....	D12	NER244D.....	C187, D26	NG2047LK KC5010.....	C163	NG2125RK KC5025.....	C162
ND3038R KC5025.....	D12	NER2525M2.....	C188	NG2047LK KC5025.....	C163	NG2125RK KCP10B.....	C162
ND3040L KCU25.....	D12	NER2525M3.....	C188	NG2047LK KCP10B.....	C163	NG2125RK KCP25B.....	C162
ND3040R KC5025.....	D12	NER2525M4.....	C188	NG2047LK KCP25B.....	C163	NG2125RK KCU10.....	C162
ND4050R KCU25.....	D12	NER3225P3.....	C188	NG2047LK KCU10.....	C163	NG2125RK KCU25.....	C162
NDC3040L3 KC5010.....	D13	NER3225P4.....	C188	NG2047R KCU25.....	C163	NG2125RK KT315.....	C162
NDC3040R3 KC5025.....	D13	NER3232P4.....	C188	NG2047R KC5010.....	C170	NG2M050LK KC5010.....	C163
NDC310RDL75 KC5025.....	D13	NER853D.....	C187, D26	NG2047R KCK20B.....	C170	NG2M050LK KCP25B.....	C163
NDC310RDR75 KC5025.....	D13	NF3125L K313.....	C175	NG2047R KCU10.....	C170	NG2M050LK KCU25.....	C163
NDC3115V75 KC5010.....	D14	NF3125LK KC5025.....	C173	NG2047R KCU25.....	C170	NG2M050LK KCU25.....	C163
NDC3115V75 KCU10.....	D14	NF3125LK KCU25.....	C173	NG2047RK KC5010.....	C162	NG2M050RK KC5010.....	C162
NDC3115V75 KC5010.....	D14	NF3125R K313.....	C175	NG2047RK KC5025.....	C162	NG2M050RK KCP25B.....	C162
NDC3115V75 KCU10.....	D14	NF3125RK KC5025.....	C173	NG2047RK KCP10B.....	C162	NG2M050RK KCU10.....	C162
NDC314V75 KCU10.....	D14	NF3125RK KCU25.....	C173	NG2047RK KCP25B.....	C162	NG2M050RK KCU25.....	C162
NDC327V75 KCU10.....	D14	NF3156LK KCU25.....	C173	NG2047RK KCU10.....	C162	NG2M050RK KC5025.....	C163
NDC38RDL75 KC5010.....	D13	NF3156RK KCU25.....	C173	NG2047RK KCU25.....	C162	NG2M080LK KCP10B.....	C163
NDC38RDL75 KC5025.....	D13	NF3188L KCU25.....	C175	NG2047RK KT315.....	C162	NG2M080LK KCP25B.....	C163
NDC38RDL75 KCU25.....	D13	NF3188R KCU25.....	C175	NG2058R KC5025.....	C170	NG2M080LK KCU10.....	C163
NDC38RDR75 KC5010.....	D13	NF3M200LK KC5025.....	C173	NG2058R KC5025.....	C170	NG2M080LK KCU25.....	C163
NDC38RDR75 KC5025.....	D13	NF3M200RK KC5025.....	C173	NG2058R KCU25.....	C170	NG2M080RK KC5025.....	C162
NDC38RDR75 KCU25.....	D13	NF3M300LK KC5025.....	C173	NG2062L K313.....	C170	NG2M080RK KCP10B.....	C162
NDC38V75 KC5010.....	D14	NF3M300RK KC5025.....	C173	NG2062L KC5010.....	C170	NG2M080RK KCP25B.....	C162
NDC38V75 KC5010.....	D14	NFD3125LK KC5025.....	C174	NG2062L KC5025.....	C170	NG2M080RK KCU10.....	C162
NDC4038L2 KC5025.....	D13	NFD3125LK KCU25.....	C174	NG2062L KCK20B.....	C170	NG2M080RK KCU25.....	C162
NDC4038R2 KC5025.....	D13	NFD3125LK KCU25.....	C174	NG2062L KCU10.....	C170	NG2M100LK KC5010.....	C163
NDC4040R3 KC5025.....	D13	NFD3125RK KC5025.....	C174	NG2062L KCU25.....	C170	NG2M100LK KC5025.....	C163
NDC4050L2 KC5025.....	D13	NFD3125RK KCU25.....	C174	NG2062LK KC5010.....	C163	NG2M100LK KCP10B.....	C163
NDC4050R2 KC5025.....	D13	NFD3125RK KCU25.....	C174	NG2062LK KC5025.....	C163	NG2M100LK KCP25B.....	C163
NDC4050R3 KC5025.....	D13	NFD3125RK KCU25.....	C174	NG2062LK KCP10B.....	C163	NG2M100LK KCU10.....	C163
NDC68RDR75M KCU10.....	D13	NFD3189LK KCU25.....	C174	NG2062LK KCP25B.....	C163	NG2M100LK KCU25.....	C163
NDC8115V75M KCU10.....	D14	NFD3189RK KCU25.....	C174	NG2062LK KCU10.....	C163	NG2M100RK KC5010.....	C162
NDC88V75M KC5010.....	D14	NFD3M300LK KC5025.....	C174	NG2062LK KCU25.....	C163	NG2M100RK KC5025.....	C162
NDC88V75M KC5010.....	D14	NFD3M300RK KC5025.....	C174	NG2062R K313.....	C170	NG2M100RK KCP10B.....	C162
NDC88V75M KCU10.....	D14	NFD4189LK KC5025.....	C174	NG2062R KC5010.....	C170	NG2M100RK KCP25B.....	C162
NDLPL164D.....	E40	NFD4189LK KCU25.....	C174	NG2062R KC5025.....	C170	NG2M100RK KCU10.....	C162
NDLPR164D.....	E40	NFD4189RK KCU25.....	C174	NG2062R KCK20B.....	C170	NG2M100RK KCU25.....	C162
NDPPN164D.....	E40	NFD4250LK KCU25.....	C174	NG2062R KCU10.....	C170	NG2M120LK KC5010.....	C163
NEL062.....	C187, D26	NFD4250RK KCU25.....	C174	NG2062R KCU25.....	C170	NG2M120LK KC5025.....	C163
NEL082V.....	C187, D26	NG1031L KCU25.....	C170	NG2062RK KC5010.....	C162	NG2M120LK KCP10B.....	C163
NEL102B.....	C187, D26	NG1047L KC5025.....	C170	NG2062RK KC5025.....	C162	NG2M120LK KCP25B.....	C163
NEL122B.....	C187, D26	NG1047L KCU25.....	C170	NG2062RK KCP10B.....	C162	NG2M120LK KCU10.....	C163
NEL123B.....	C187, D26	NG1062L KC5025.....	C170	NG2062RK KCP25B.....	C162	NG2M120LK KCU25.....	C163
NEL12CA2.....	C196, D41	NG1062L KCU25.....	C170	NG2062RK KCU10.....	C162	NG2M120RK KC5010.....	C162
NEL1616H2.....	C188	NG1094L KC5025.....	C170	NG2062RK KCU25.....	C162	NG2M120RK KC5025.....	C162
NEL162C.....	C187, D26	NG1094L KCU25.....	C170	NG2062RK KT315.....	C162	NG2M120RK KCP10B.....	C162
NEL163C.....	C187, D26	NG2031L K313.....	C170	NG2094L K313.....	C170	NG2M120RK KCP25B.....	C162
NEL163D.....	C187, D26	NG2031L KC5010.....	C170	NG2094L KC5010.....	C170	NG2M120RK KCU10.....	C162
NEL164C.....	C187, D26	NG2031L KCK20B.....	C170	NG2094L KCK20B.....	C170	NG2M120RK KCU25.....	C162
NEL164D.....	C187, D26	NG2031L KCU10.....	C170	NG2094L KCU10.....	C170	NG2M140LK KC5025.....	C163
NEL2020K2.....	C188	NG2031L KCU25.....	C170	NG2094L KCU25.....	C170	NG2M140LK KCP10B.....	C163
NEL203D.....	C187, D26	NG2031LK KC5010.....	C163	NG2094LK KC5010.....	C163	NG2M140LK KCP25B.....	C163
NEL204D.....	C187, D26	NG2031LK KC5025.....	C163	NG2094LK KC5025.....	C163	NG2M140LK KCU10.....	C163
NEL205D.....	C187, D26	NG2031LK KCP10B.....	C163	NG2094LK KCP10B.....	C163	NG2M140LK KCU25.....	C163
NEL206D.....	C187, D26	NG2031LK KCP25B.....	C163	NG2094LK KCP25B.....	C163	NG2M140RK KC5010.....	C162
NEL243D.....	C187, D26	NG2031LK KCU10.....	C163	NG2094LK KCU10.....	C163	NG2M140RK KC5025.....	C162
NEL244D.....	C187, D26	NG2031LK KCU25.....	C163	NG2094LK KCU25.....	C163	NG2M140RK KCP10B.....	C162
NEL2525M2.....	C188	NG2031R K313.....	C170	NG2094R K313.....	C170	NG2M140RK KCP25B.....	C162
NEL2525M3.....	C188	NG2031R KC5010.....	C170	NG2094R KC5010.....	C170	NG2M140RK KCU10.....	C162
NEL2525M4.....	C188	NG2031R KC5025.....	C170	NG2094R KCK20B.....	C170	NG2M140RK KCU25.....	C162
NEL25CA3.....	C196, D41	NG2031R KCK20B.....	C170	NG2094R KCU10.....	C170	NG2M150LK KC5025.....	C163
NEL3225P3.....	C188	NG2031R KCU10.....	C170	NG2094R KCU25.....	C170	NG2M150LK KCP25B.....	C163
NEL3225P4.....	C188	NG2031R KCU25.....	C170	NG2094RK KC5010.....	C162	NG2M150LK KCU25.....	C163
NEL3232P4.....	C188	NG2031RK KC5010.....	C162	NG2094RK KC5025.....	C162	NG2M150RK KC5025.....	C162
NEL853D.....	C187, D26	NG2031RK KC5025.....	C162	NG2094RK KCP10B.....	C162	NG2M150RK KCP25B.....	C162
NER062.....	C187, D26	NG2031RK KCP10B.....	C162	NG2094RK KCP25B.....	C162	NG2M150RK KCU25.....	C162
NER082V.....	C187, D26	NG2031RK KCP25B.....	C162	NG2094RK KCU10.....	C162	NG2M170LK KC5010.....	C163
NER102B.....	C187, D26	NG2031RK KCU10.....	C162	NG2094RK KCU25.....	C162	NG2M170LK KC5025.....	C163
NER122B.....	C187, D26	NG2031RK KCU25.....	C162	NG2094RK KT315.....	C162	NG2M170LK KCP10B.....	C163
NER123B.....	C187, D26	NG2031RK KT315.....	C162	NG2125L KC5010.....	C170	NG2M170LK KCP25B.....	C163
NER12CA2.....	C196, D41	NG2041L KC5010.....	C170	NG2125L KCK20B.....	C170	NG2M170LK KCU25.....	C163

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
NG2M170RK KC5010	C162	NG3047L K313	C170	NG3078RK KCU25	C162	NG3125RK KCP25B	C162
NG2M170RK KC5025	C162	NG3047L KC5010	C170	NG3088L KC5010	C170	NG3125RK KCU10	C162
NG2M170RK KCP10B	C162	NG3047L KCK20B	C170	NG3088L KCU10	C170	NG3125RK KCU25	C162
NG2M170RK KCP25B	C162	NG3047L KCU10	C170	NG3088R KC5025	C170	NG3125RS0820ST KB1630	C177
NG2M170RK KCU10	C162	NG3047L KCU25	C170	NG3088R KCK20B	C170	NG3125RS0820ST KB5625	C177
NG2M170RK KCU25	C162	NG3047LK KC5010	C163	NG3088R KCU10	C170	NG3142L KCU10	C171
NG2M175LK KC5025	C163	NG3047LK KC5025	C163	NG3088R KCU25	C170	NG3142L KCU25	C171
NG2M175LK KCP25B	C163	NG3047LK KCP10B	C163	NG3094L K313	C170	NG3142R KC5010	C170
NG2M175LK KCU25	C163	NG3047LK KCP25B	C163	NG3094L KC5010	C170	NG3142R KCU25	C170
NG2M175RK KCP25B	C162	NG3047LK KCU10	C163	NG3094L KC5025	C170	NG3156L KC5025	C171
NG2M175RK KCU25	C162	NG3047LK KCU25	C163	NG3094L KCK20B	C170	NG3156L KCU25	C171
NG2M195LK KC5010	C163	NG3047R K313	C170	NG3094L KCU10	C170	NG3156L KCU25	C171
NG2M195LK KCP10B	C163	NG3047R KC5010	C170	NG3094L KCU25	C170	NG3156L KCU25	C171
NG2M195LK KCP25B	C163	NG3047R KC5025	C170	NG3094L KCU25	C170	NG3156L KCU25	C171
NG2M195LK KCU10	C163	NG3047R KCK20B	C170	NG3094L KCU25	C170	NG3156L KCU25	C171
NG2M195LK KCU25	C163	NG3047R KCU10	C170	NG3094L KCU25	C170	NG3156L KCU25	C171
NG2M195RK KC5010	C162	NG3047R KCU25	C170	NG3094LEST KB1630	C177	NG3156L KCU25	C171
NG2M195RK KC5025	C162	NG3047R KCU25	C170	NG3094LEST KD1425	C177	NG3156L KCU25	C171
NG2M195RK KCP10B	C162	NG3047RK KC5010	C162	NG3094LK KC5010	C164	NG3156L KCU25	C171
NG2M195RK KCP25B	C162	NG3047RK KC5025	C162	NG3094LK KCU25	C164	NG3156L KCU25	C171
NG2M195RK KCU10	C162	NG3047RK KCP10B	C162	NG3094LK KCU25	C164	NG3156L KCU25	C171
NG2M195RK KCU25	C162	NG3047RK KCP25B	C162	NG3094LK KCU25	C164	NG3156L KCU25	C171
NG2M200LK KC5010	C163	NG3047RK KCU10	C162	NG3094LK KCU25	C164	NG3156L KCU25	C171
NG2M200LK KC5025	C163	NG3047RK KCU25	C162	NG3094LK KCU25	C164	NG3156L KCU25	C171
NG2M200LK KCP10B	C163	NG3062L K313	C170	NG3094L K313	C170	NG3156L KCU25	C171
NG2M200LK KCP25B	C163	NG3062L KC5010	C170	NG3094R KC5010	C170	NG3156L KCU25	C171
NG2M200LK KCU10	C163	NG3062L KC5025	C170	NG3094R KC5025	C170	NG3156L KCU25	C171
NG2M200LK KCU25	C163	NG3062L KCK20B	C170	NG3094R KCK20B	C170	NG3156L KCU25	C171
NG2M200RK KC5010	C162	NG3062L KCU10	C170	NG3094R KCU10	C170	NG3156L KCU25	C171
NG2M200RK KC5025	C162	NG3062L KCU25	C170	NG3094R KCU25	C170	NG3156L KCU25	C171
NG2M200RK KCP10B	C162	NG3062LEST KB1630	C177	NG3094REST KB1630	C177	NG3156L KCU25	C171
NG2M200RK KCP25B	C162	NG3062LEST KD1425	C177	NG3094REST KD1425	C177	NG3156L KCU25	C171
NG2M200RK KCU10	C162	NG3062LK KC5010	C163	NG3094RK KC5010	C162	NG3156L KCU25	C171
NG2M200RK KCU25	C162	NG3062LK KC5025	C163	NG3094RK KC5025	C162	NG3156L KCU25	C171
NG2M200RK KCU25	C162	NG3062LK KCU10	C163	NG3094RK KCP10B	C162	NG3156L KCU25	C171
NG2M200RK K315	C162	NG3062LK KCU25	C163	NG3094RK KCU10	C162	NG3156L KCU25	C171
NG2M220LK KCP25B	C163	NG3062R K313	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M220LK KCU25	C163	NG3062R KC5010	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M220RK KC5010	C162	NG3062R KC5025	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M220RK KC5025	C162	NG3062R KCK20B	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M220RK KCP25B	C162	NG3062R KCU10	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M220RK KCU10	C162	NG3062R KCU25	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M220RK KCU25	C162	NG3062R KCU25	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225LK KC5025	C163	NG3062R K313	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225LK KCP10B	C163	NG3062R KC5010	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225LK KCP25B	C163	NG3062R KC5025	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225LK KCU10	C163	NG3062R KCK20B	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225LK KCU25	C163	NG3062R KCU10	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KC5025	C162	NG3062R KCU25	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCP10B	C162	NG3062REST KB1630	C177	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCP25B	C162	NG3062REST KD1425	C177	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCU10	C162	NG3062RK KC5010	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCU25	C162	NG3062RK KC5025	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCU25	C162	NG3062RK KCP10B	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCU25	C162	NG3062RK KCP25B	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCU10	C162	NG3062RK KCU10	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M225RK KCU25	C162	NG3062RK KCU25	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M250LK KC5025	C163	NG3062RK K315	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M250LK KCP25B	C163	NG3072L KC5010	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M250LK KCU25	C163	NG3072L KCU10	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M250RK KC5025	C162	NG3072LK KC5010	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M250RK KCP25B	C162	NG3072LK KC5025	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M250RK KCU25	C162	NG3072LK KCP10B	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275LK KC5010	C163	NG3072LK KCP25B	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275LK KCP25B	C163	NG3072LK KCU10	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275LK KCU10	C163	NG3072LK KCU25	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275LK KCU25	C163	NG3072R KC5010	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275RK KC5025	C162	NG3072R KCK20B	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275RK KCP10B	C162	NG3072R KCU10	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275RK KCP25B	C162	NG3072R KCU25	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275RK KCU10	C162	NG3072RK KC5010	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M275RK KCU25	C162	NG3072RK KCP10B	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300LK KC5010	C163	NG3072RK KCP25B	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300LK KC5025	C163	NG3072RK KCU10	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300LK KCP10B	C163	NG3072RK KCU25	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300LK KCP25B	C163	NG3078LK KC5010	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300LK KCU10	C163	NG3078LK KC5025	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300LK KCU25	C163	NG3078LK KCP10B	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300RK KC5010	C162	NG3078LK KCP25B	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300RK KC5025	C162	NG3078LK KCU10	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300RK KCP10B	C162	NG3078LK KCU25	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300RK KCP25B	C162	NG3078RK KC5010	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300RK KCU10	C162	NG3078RK KCK20B	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M300RK KCU25	C162	NG3078RK KCU10	C170	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M320RK KCP25B	C163	NG3078RK KCU25	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M325LK KCP25B	C163	NG3078RK KCU25	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M325LK KCU25	C163	NG3078RK KCU25	C163	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M325RK KC5025	C162	NG3078RK KCP10B	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M325RK KCP25B	C162	NG3078RK KCP25B	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171
NG2M325RK KCU25	C162	NG3078RK KCU10	C162	NG3094RK KCU25	C162	NG3156L KCU25	C171

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
NG3M175RK KC5025	C162	NG3M400LK KCU25	C164	NG4M300LK KCP25B	C164	NGD3094RK KC5010	C165
NG3M175RK KCP25B	C162	NG3M400RK KC5010	C162	NG4M300LK KCU25	C164	NGD3094RK KC5025	C165
NG3M175RK KCU25	C162	NG3M400RK KC5025	C162	NG4M300RK KCP25B	C163	NGD3094RK KCU10	C165
NG3M200LK KC5025	C163	NG3M400RK KCP10B	C162	NG4M300RK KCU25	C163	NGD3094RK KCU25	C165
NG3M200LK KCP25B	C163	NG3M400RK KCP25B	C162	NG4M320LK KCP25B	C164	NGD3125LK K313	C165
NG3M200LK KCU25	C163	NG3M400RK KCU10	C162	NG4M350LK KCP25B	C164	NGD3125LK KC5010	C165
NG3M200LS02020ST KB5625	C177	NG3M400RK KCU25	C162	NG4M350LK KCU25	C164	NGD3125LK KC5025	C165
NG3M200RK KC5025	C162	NG3M400RS02020ST KB5625	C177	NG4M350RK KCP25B	C163	NGD3125LK KCU10	C165
NG3M200RK KCP25B	C162	NG3M425LK KCP10B	C164	NG4M350RK KCU25	C163	NGD3125LK KCU25	C165
NG3M200RK KCU25	C162	NG3M425LK KCP25B	C164	NG4M400LK KCP10B	C164	NGD3125RK K313	C165
NG3M200RK KT315	C162	NG3M425LK KCU10	C164	NG4M400LK KCP25B	C164	NGD3125RK KC5010	C165
NG3M200RS02020ST KB1630	C177	NG3M425LK KCU25	C164	NG4M400LK KCU10	C164	NGD3125RK KC5025	C165
NG3M200RS02020ST KB5625	C177	NG3M425RK KC5025	C163	NG4M400LK KCU25	C164	NGD3125RK KCU10	C165
NG3M220LK KC5025	C164	NG3M425RK KCP10B	C163	NG4M400RK KC5010	C163	NGD3125RK KCU25	C165
NG3M220LK KCP25B	C164	NG3M425RK KCP25B	C163	NG4M400RK KCP10B	C163	NGD3189L K313	C171
NG3M220LK KCU25	C164	NG3M425RK KCU10	C163	NG4M400RK KCP10B	C163	NGD3189L KC5010	C171
NG3M220RK KC5025	C162	NG3M425RK KCU25	C163	NG4M400RK KCP25B	C163	NGD3189L KCU10	C171
NG3M220RK KCP25B	C162	NG3M450LK KCP25B	C164	NG4M400RK KCU25	C163	NGD3189LK KC5010	C165
NG3M220RK KCU25	C162	NG3M450LK KCU25	C164	NG4M450LK KC5025	C164	NGD3189LK KC5025	C165
NG3M225LK KCP10B	C164	NG3M450RK KCP25B	C163	NG4M450LK KCP25B	C164	NGD3189LK KCU10	C165
NG3M225LK KCP25B	C164	NG3M450RK KCU25	C163	NG4M450LK KCU25	C164	NGD3189LK KCU25	C165
NG3M225LK KCU10	C164	NG4125L K313	C171	NG4M450RK KCP25B	C163	NGD3189R K313	C171
NG3M225LK KCU25	C164	NG4125L KCU10	C171	NG4M450RK KCU25	C163	NGD3189R KCU10	C171
NG3M225RK KC5010	C162	NG4125L KCU25	C171	NG4M500LK KC5010	C164	NGD3189RK KC5010	C165
NG3M225RK KC5025	C162	NG4125LK KCP10B	C164	NG4M500LK KCP10B	C164	NGD3189RK KC5025	C165
NG3M225RK KCP10B	C162	NG4125LK KCP25B	C164	NG4M500LK KCP25B	C164	NGD3189RK KCU10	C165
NG3M225RK KCP25B	C162	NG4125LK KCU10	C164	NG4M500LK KCU10	C164	NGD3189RK KCU25	C165
NG3M225RK KCU10	C162	NG4125LK KCU25	C164	NG4M500RK KC5025	C164	NGD3M200LK KC5025	C165
NG3M225RK KCU25	C162	NG4125R K313	C170	NG4M500RK KCP10B	C163	NGD3M200LK KCU25	C165
NG3M250LK KC5025	C164	NG4125R KCK20B	C170	NG4M500RK KCU10	C163	NGD3M200RK KC5010	C165
NG3M250LK KCP25B	C164	NG4125R KCU10	C170	NG4M500RK KCP25B	C163	NGD3M200RK KC5025	C165
NG3M250LK KCU25	C164	NG4125R KCU25	C170	NG4M500RK KCU25	C163	NGD3M200RK KCU10	C165
NG3M250RK KC5025	C162	NG4125RK KC5010	C163	NG4M550LK KCP25B	C164	NGD3M200RK KCU25	C165
NG3M250RK KCP25B	C162	NG4125RK KCP10B	C163	NG4M550RK KCP25B	C163	NGD3M250LK KC5025	C165
NG3M250RK KCU25	C162	NG4125RK KCP25B	C163	NG4M600LK KCP25B	C164	NGD3M250LK KCU25	C165
NG3M275LK KC5025	C164	NG4125RK KCU10	C163	NG4M600LK KCU25	C164	NGD3M250RK KC5010	C165
NG3M275LK KCP10B	C164	NG4125RK KCU25	C163	NG4M600RK KCP25B	C163	NGD3M250RK KC5025	C165
NG3M275LK KCP25B	C164	NG4189L KC5010	C171	NG4M600RK KCU25	C163	NGD3M250RK KCU25	C165
NG3M275LK KCU10	C164	NG4189L KCK20B	C171	NG4M600RK KCU25	C163	NGD3M250RK KC5010	C165
NG3M275LK KCU25	C164	NG4189L KCU10	C171	NG4M600RK KCP25B	C163	NGD3M250RK KC5025	C165
NG3M275RK KC5010	C162	NG4189L KCU25	C171	NG4M600RK KCU25	C163	NGD3M250RK KCU25	C165
NG3M275RK KC5025	C162	NG4189LEST KB1630	C171, C177	NG6312R KCU25	C170	NGD3M300LK KC5010	C165
NG3M275RK KCP10B	C162	NG4189LK KC5010	C164	NG6375R KCU25	C170	NGD3M300LK KC5025	C165
NG3M275RK KCP25B	C162	NG4189LK KC5025	C164	NGC2C130L055K KCU25	C168	NGD3M300LK KCU10	C165
NG3M275RK KCU10	C162	NG4189LK KCP10B	C164	NGC2C130R055K KCU25	C168	NGD3M300LK KCU25	C165
NG3M275RK KCU25	C162	NG4189LK KCP25B	C164	NGC2C185L125K KCU25	C168	NGD3M300RK KC5010	C165
NG3M300LK KC5010	C164	NG4189LK KCU10	C164	NGC2C215L150K KCU25	C168	NGD3M300RK KC5025	C165
NG3M300LK KC5025	C164	NG4189L K313	C170	NGC2C215R150K KCU25	C168	NGD3M300RK KCU10	C165
NG3M300LK KCP10B	C164	NG4189R K313	C170	NGD2M150LK KC5025	C165	NGD3M300RK KCU25	C165
NG3M300LK KCP25B	C164	NG4189R KC5010	C170	NGD2M150LK KCU10	C165	NGD3M350LK KC5025	C165
NG3M300LK KCU25	C164	NG4189R KCK20B	C170	NGD2M150LK KCU25	C165	NGD3M400LK KC5010	C165
NG3M300RK KC5010	C162	NG4189R KCU10	C170	NGD2M150RK KC5010	C165	NGD3M400LK KCU10	C165
NG3M300RK KC5025	C162	NG4189R KCU25	C170	NGD2M150RK KCU10	C165	NGD3M400LK KCU25	C165
NG3M300RK KCP10B	C162	NG4189REST KB1630	C177	NGD2M200LK KC5010	C165	NGD3M400RK KC5010	C165
NG3M300RK KCP25B	C162	NG4189RK KC5010	C163	NGD2M200LK KCU10	C165	NGD3M400RK KC5025	C165
NG3M300RK KCU10	C162	NG4189RK KC5025	C163	NGD2M200LK KCU25	C165	NGD4125LK KC5010	C165
NG3M300RK KCU25	C162	NG4189RK KCP10B	C163	NGD2M200RK KC5010	C165	NGD4125LK KC5025	C165
NG3M300RS02020ST KB1630	C177	NG4189RK KCP25B	C163	NGD2M200RK KCU10	C165	NGD4125LK KCU10	C165
NG3M300RS02020ST KB5625	C177	NG4189RK KCU10	C163	NGD2M200RK KCU25	C165	NGD4125RK KC5010	C165
NG3M320LK KC5025	C164	NG4189RK KCU25	C163	NGD2M200RK KC5025	C165	NGD4125RK KCU10	C165
NG3M320LK KCP25B	C164	NG4213R KCU25	C170	NGD2M250LK KC5010	C165	NGD4125RK KCU25	C165
NG3M320LK KCU25	C164	NG4250L KC5010	C171	NGD2M250LK KCU10	C165	NGD4125RK KC5025	C165
NG3M320RK KC5025	C162	NG4250L KCK20B	C171	NGD2M250LK KCU25	C165	NGD4125RK KC5010	C165
NG3M320RK KCP25B	C162	NG4250L KCU10	C171	NGD2M250RK KC5025	C165	NGD4125RK KC5025	C165
NG3M320RK KCU25	C162	NG4250L KCU25	C171	NGD2M250RK KCU10	C165	NGD4125RK KC5010	C165
NG3M325LK KC5025	C164	NG4250LK KC5010	C164	NGD2M250RK KCU25	C165	NGD4189L KC5010	C165
NG3M325LK KCP25B	C164	NG4250LK KC5025	C164	NGD2M250RK KCU10	C165	NGD4189L KC5025	C165
NG3M325LK KCU25	C164	NG4250LK KCP10B	C164	NGD2M250RK KC5025	C165	NGD4189L KCU10	C165
NG3M325RK KC5025	C162	NG4250LK KCP25B	C164	NGD2M250RK KC5010	C165	NGD4189LK KC5010	C165
NG3M325RK KCP25B	C162	NG4250LK KCU10	C164	NGD3062LK KC5010	C165	NGD4189LK KC5025	C165
NG3M325RK KCU25	C162	NG4250LK KCU25	C164	NGD3062LK KCU10	C165	NGD4189RK KCU25	C165
NG3M350LK KC5025	C164	NG4250RK KC5010	C170	NGD3062LK KCU25	C165	NGD4250L K313	C171
NG3M350LK KCP25B	C164	NG4250RK KC5025	C170	NGD3062RK KC5010	C165	NGD4250L KC5010	C171
NG3M350LK KCU25	C164	NG4250R KCK20B	C170	NGD3062RK KC5025	C165	NGD4250L KCU10	C171
NG3M350RK KC5025	C162	NG4250R KCU10	C170	NGD3062RK KCU10	C165	NGD4250LK KC5025	C165
NG3M350RK KCP25B	C162	NG4250R KCU25	C170	NGD3062RK KCU25	C165	NGD4250LK KCU10	C165
NG3M350RK KCU25	C162	NG4250RK KC5010	C163	NGD3094LK K313	C165	NGD4250LK KC5025	C165
NG3M400LK KC5025	C164	NG4250RK KC5025	C163	NGD3094LK KC5010	C165	NGD4250RK K313	C171
NG3M400LK KCP10B	C164	NG4250RK KCP10B	C163	NGD3094LK KCU10	C165	NGD4250RK KCU10	C171
NG3M400LK KCP25B	C164	NG4250RK KCP25B	C163	NGD3094LK KCU25	C165	NGD4250RK KC5010	C165
NG3M400LK KCU10	C164	NG4250RK KCU25	C163	NGD3094RK K313	C165	NGD4250RK KC5025	C165

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
NGD4250RK KCU25.....	C165	NJP3014R12 KC5010	D16	NPL13M05N KCU10	E35	NR2031L KCU25	C172
NGD4M400LK KCU25.....	C165	NJP3014R12 KC5025	D16	NPL13M10N K68.....	E35	NR2031R KC5010	C172
NGD4M500LK KCU25.....	C165	NJP3014R12 KCU10	D16	NPL13M10N KCU10	E35	NR2031R KC5025	C172
NGD4M550RK KCU25.....	C165	NJP3014R12 KCU25	D16	NPL332F KCU10.....	E34	NR2031R KCU10	C172
NGP2031L KCU10	C168	NJP3020L8 KC5025	D16	NPL505 K313.....	E35	NR2031R KCU25	C172
NGP2031R KC5010	C168	NJP3020R8 KC5010	D16	NPL505 K68.....	E35	NR2047L KCU25	C172
NGP2031R KCU10	C168	NJP3020R8 KC5025	D16	NPL505 KC5010.....	E35	NR2047R KCU25.....	C172
NGP2062L KCU10	C168	NJP3020R8 KCU25	D16	NPL505 KCU25.....	E35	NR2062L KC5010	C172
NGP2062R KC5010	C168	NKCL0805V.....	E41	NPL505 KD1425.....	E35	NR2062L KCU10	C172
NGP2062R KCU10	C168	NKCL1005B.....	E41	NPL508 K313.....	E35	NR2062L KCU25	C172
NGP2125L KCU10	C168	NKCL1205A.....	E41	NPL508 KCU10.....	E35	NR2062R KC5010	C172
NGP2125R KCU10	C168	NKCL1205B.....	E41	NPL508 KCU25.....	E35	NR2062R KCU10	C172
NGP3088L KCU10	C168	NKCL1605C.....	E41	NPL508 KD1425.....	E35	NR2062R KCU25	C172
NGP3088R KCU10	C168	NKCLCF0805D.....	E42	NPL51 K313.....	E35	NR2M050L KC5010	C172
NGP3088R KD1425	C168	NKLCR0805V.....	E41	NPL51 K68.....	E35	NR2M050L KCU10	C172
NGP3125L KC5010	C168	NKLCR1005B.....	E41	NPL51 KC5010.....	E35	NR2M050L KCU25	C172
NGP3125R KC5010	C168	NKLCR1205A.....	E41	NPL51 KC5025.....	E35	NR2M050R KC5010	C172
NGP3125R KCU10	C168	NKLCR1205B.....	E41	NPL51 KCU10.....	E35	NR2M050R KC5025	C172
NGP3125R KD1425	C168	NKLCR1605C.....	E41	NPL51 KCU25.....	E35	NR2M050R KCU10	C172
NGP3156R KCU10	C168	NKLCRF0805D.....	E42	NPL51 KD1425.....	E35	NR2M050R KCU25	C172
NGP4189R KCU10	C168	NKLCRF1005B.....	E42	NPL52 K313.....	E35	NR2M075R KC5010	C172
NGP4250L KCU10	C168	NKLN121B.....	E41	NPL52 K68.....	E35	NR2M075R KCU10	C172
NGP4250R KC5010	C168	NKLN161C.....	E41	NPL52 KC5010.....	E35	NR2M100L KC5025	C172
NJ3010L16 KC5025.....	D15	NKLN161C.....	E41	NPL52 KCU25.....	E35	NR2M100R KC5010	C172
NJ3010R16 K68.....	D15	NKLN161C.....	E41	NPL5M02 K68.....	E36	NR2M100R KC5025	C172
NJ3010R16 KC5025.....	D15	NKPCN1205B.....	E42	NPL5M02 KC5010.....	E36	NR2M100R KCU10	C172
NJ3010R16 KCU25.....	D15	NLW-0.375 S.....	T128, T131	NPL5M02 KCU10.....	E36	NR2M125R KC5025	C172
NJ3014L12 KC5010.....	D15	NLW12SP.....	T131	NPL5M05 K68.....	E36	NR2M150L KC5025	C172
NJ3014L12 KC5025.....	D15	NP2002RK KC5010.....	C167	NPL5M05 KC5010.....	E36	NR2M150R KC5025	C172
NJ3014R12 KC5010.....	D15	NP2002RK KC5025.....	C167	NPL5M05 KCU10.....	E36	NR2M175R KC5025	C172
NJ3014R12 KC5025.....	D15	NP2002RK KCU10.....	C167	NPR1305 K68.....	E34	NR3031L K313.....	C172
NJ3014R12 KCU10.....	D15	NP2002RK KCU25.....	C167	NPR1305 KCU10.....	E34	NR3031L KC5010	C172
NJ3014R12 KCU25.....	D15	NP2012RK KCU25.....	C167	NPR1308 KCU10.....	E34	NR3031L KC5025	C172
NJ3020L8 KC5025.....	D15	NP3002RK KC5010.....	C167	NPR131F KC5010.....	E34	NR3031L KCU10.....	C172
NJ3020R8 KC5010.....	D15	NP3002RK KCU10.....	C167	NPR131F KCU25.....	E34	NR3031L KCU25.....	C172
NJ3020R8 KC5025.....	D15	NP3002RK KCU25.....	C167	NPR132F KC5010.....	E34	NR3031LK KC5010	C166
NJ3020R8 KC5025.....	D15	NP3002RK KCU25.....	C167	NPR132F KCU10.....	E34	NR3031LK KC5025.....	C166
NJ3005R32 KC5010.....	D15	NP3012RK KCU25.....	C167	NPR132F KCU25.....	E34	NR3031LK KCU10.....	C166
NJ3005R32 KCU10.....	D15	NP3012RK KC5010.....	C167	NPR13M05F KC5010.....	E35	NR3031LK KCU25.....	C166
NJ3006R28 KC5010.....	D15	NP3012RK KC5025.....	C167	NPR13M05F KCP25B.....	E36	NR3031R K313.....	C172
NJ3006R28 KC5025.....	D15	NP3002RK KCU25.....	C167	NPR13M05F KCU10.....	E35	NR3031R KC5010.....	C172
NJ3007L24 KC5010.....	D15	NP3002RK KC5025.....	C167	NPR13M05N K68.....	E35	NR3031R KC5025.....	C172
NJ3007R24 KC5010.....	D15	NP3012RK KC5010.....	C167	NPR13M05N KCP25B.....	E35	NR3031R KCU10.....	C172
NJ3007R24 KC5025.....	D15	NP3012RK KCU10.....	C167	NPR13M10N K68.....	E35	NR3031R KCU25.....	C172
NJ3008L20 KC5010.....	D15	NP3012RK KCU25.....	C167	NPR13M10N KCU10.....	E35	NR3031RK KC5010.....	C166
NJ3008R20 KC5010.....	D15	NPGR51L K68.....	E33	NPR331N KCU25.....	E34	NR3031RK KC5025.....	C166
NJ3008R20 KC5025.....	D15	NPGR51L KC5010.....	E33	NPR332 KCU10.....	E34	NR3031RK KCU10.....	C166
NJ3009R18 K68.....	D15	NPGR51L KC5025.....	E33	NPR505 K313.....	E35	NR3031RK KCU25.....	C166
NJ3009R18 KC5010.....	D15	NPGR51L KCU10.....	E33	NPR505 K68.....	E35	NR3047L K313.....	C172
NJ3009R18 KC5025.....	D15	NPGR51L KCU25.....	E33	NPR505 KC5010.....	E35	NR3047L KC5010.....	C172
NJ3009R18 KCU25.....	D15	NPGR51L KT315.....	E33	NPR505 KC5025.....	E35	NR3047L KCU10.....	C172
NJ3010L16 KC5010.....	D15	NPGR51LFP KCM25.....	E33	NPR505 KCU10.....	E35	NR3047L KCU25.....	C172
NJ3010R16 KC5010.....	D15	NPGR51LFP KCP10.....	E33	NPR505 KD1425.....	E35	NR3047LK KC5010.....	C166
NJ3010R16 KC5025.....	D15	NPGR51LFP KCP25.....	E33	NPR508 K313.....	E35	NR3047LK KC5025.....	C166
NJ3012R14 KC5010.....	D15	NPGR51LFP KCJ25.....	E33	NPR508 KC5010.....	E35	NR3047LK KCU10.....	C166
NJ3012R14 KC5025.....	D15	NPGR51R K68.....	E33	NPR508 KCU10.....	E35	NR3047LK KCU25.....	C166
NJ3012R14 KCU25.....	D15	NPGR51R KC5010.....	E33	NPR508 KD1425.....	E35	NR3047R KC5010.....	C172
NJ3012R14 KC5025.....	D16	NPGR51R KCU10.....	E33	NPR508 KT315.....	E35	NR3047R KCU10.....	C172
NJ3005R32 KC5010.....	D16	NPGR51R KCU25.....	E33	NPR51 K313.....	E35	NR3047R KCU25.....	C172
NJ3005R32 KC5025.....	D16	NPGR51R KD1425.....	E33	NPR51 K68.....	E35	NR3047RK KC5010.....	C166
NJ3006L28 KC5025.....	D16	NPGR51R KD1425.....	E33	NPR51 KC5010.....	E35	NR3047RK KC5025.....	C166
NJ3006R28 KC5010.....	D16	NPGR51R KT315.....	E33	NPR51 KC5025.....	E35	NR3047RK KCU10.....	C166
NJ3006R28 KCU25.....	D16	NPGR51RFP KCM25.....	E33	NPR51 KC5410.....	E35	NR3062L K313.....	C172
NJ3006R28 KC5010.....	D16	NPGR51RFP KCP10.....	E33	NPR51 KCU10.....	E35	NR3062L KC5010.....	C172
NJ3007R24 KC5010.....	D16	NPGR51RFP KCP25.....	E33	NPR51 KCU25.....	E35	NR3062L KC5025.....	C172
NJ3007R24 KC5025.....	D16	NPGR52L KC5025.....	E33	NPR51 KD1425.....	E35	NR3062L KCU10.....	C172
NJ3007R24 KCU25.....	D16	NPGR52L KCJ25.....	E33	NPR51 KT315.....	E35	NR3062L KCU25.....	C172
NJ3008R20 KC5010.....	D16	NPGR52L KCM15B.....	E33	NPR52 K68.....	E35	NR3062LK KC5010.....	C166
NJ3008R20 KC5025.....	D16	NPGR52L KCU10.....	E33	NPR52 KC5010.....	E35	NR3062LK KC5025.....	C166
NJ3008R20 KCU10.....	D16	NPGR52L KCU25.....	E33	NPR52 KC5025.....	E35	NR3062LK KCU10.....	C166
NJ3008R20 KCU25.....	D16	NPGR52L KD1425.....	E33	NPR52 KCU10.....	E35	NR3062LK KCU25.....	C166
NJ3009R18 KC5010.....	D16	NPGR52LFP KCP10.....	E33	NPR52 KT315.....	E35	NR3062R K313.....	C172
NJ3009R18 KC5025.....	D16	NPGR52LFP KCP25.....	E33	NPR5M02 K68.....	E36	NR3062R KC5010.....	C172
NJ3010R16 KC5010.....	D16	NPGR52R KCU10.....	E33	NPR5M02 KC5010.....	E36	NR3062R KC5025.....	C172
NJ3010R16 KC5025.....	D16	NPGR52R KCJ25.....	E33	NPR5M05 K68.....	E36	NR3062R KCU10.....	C172
NJ3010R16 KCU25.....	D16	NPGR52R KT315.....	E33	NPR5M05 KC5010.....	E36	NR3062R KCU25.....	C172
NJ3012R14 KC5010.....	D16	NPGR52RFP KCP10.....	E33	NPR5M05 KCP25B.....	E36	NR3062RK KC5010.....	C166
NJ3012R14 KC5025.....	D16	NPL131F KC5010.....	E34	NPR5M05 KCU10.....	E36	NR3062RK KC5025.....	C166
NJ3010L16 KC5025.....	D16	NPL131F KCJ25.....	E34	NR2031L KC5010.....	C172	NR3062RK KCU10.....	C166
NJ3010R16 KC5010.....	D16	NPL132F K68.....	E34	NR2031L KC5025.....	C172	NR3062RK KCU25.....	C166
NJ3010R16 KC5025.....	D16	NPL132F KC5010.....	E34	NR2031L KCU10.....	C172		
NJ3010R16 KCU10.....	D16	NPL132F KCJ25.....	E34				
NJ3014L12 KC5010.....	D16	NPL13M05N K68.....	E35				
NJ3014R12 K68.....	D16						

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
NR3078LK KC5010	C166	NRD4125R KCU25	C173	NSR164D	C184, D28	NT3R KCU25	D17
NR3078LK KC5025	C166	NRL123B	C189	NSR166D	C184, D28	NT3RCK KC5010	D19
NR3078LK KCU25	C166	NRL163C	C189	NSR168D	C184, D28	NT3RCK KC5025	D19
NR3078R K313	C172	NRL163D	C189	NSR2020K2	C183	NT3RCK KCU10	D19
NR3078RK KC5010	C166	NRL2020K3	C189	NSR2020K3	C183	NT3RCK KCU25	D19
NR3078RK KCU10	C166	NRL203D	C189	NSR203D	C182, D27	NT3RK KC5010	D22
NR3078RK KCU25	C166	NRL2525M3	C189	NSR204C	C184, D28	NT3RK KC5025	D22
NR3094L K313	C172	NRL3225P3	C189	NSR204D	C184, D28	NT3RK KCU10	D22
NR3094L KC5010	C172	NRP3031L KC5010	C169	NSR205D	C182, D27	NT3RK KCU25	D22
NR3094L KC5025	C172	NRP3031L KCU10	C169	NSR206D	C184, D28	NT4L K68	D17
NR3094L KCU25	C172	NRP3031R KC5010	C169	NSR243D	C182, D27	NT4L KC5010	D17
NR3094R KC5010	C172	NRP3031R KCU10	C169	NSR243E	C182, D27	NT4L KC5025	D17
NR3094R KC5025	C172	NRP3047L KC5010	C169	NSR244D	C184, D28	NT4L KCU10	D17
NR3094R KCU10	C172	NRP3047L KCU10	C169	NSR244E	C184, D28	NT4L KCU25	D17
NR3094R KCU25	C172	NRP3047R K313	C169	NSR245D	C182, D27	NT4LCK KC5025	D19
NR3M100L KC5025	C172	NRP3047R KC5010	C169	NSR246D	C184, D28	NT4LCK KCU25	D19
NR3M100R KC5025	C172	NRP3047R KCU10	C169	NSR2525M2	C183	NT4LK KC5010	D22
NR3M150L KC5010	C172	NRP3062L KC5010	C169	NSR2525M3	C183	NT4LK KC5025	D22
NR3M150L KC5025	C172	NRP3062R KC5010	C169	NSR2525M4	C183	NT4LK KCU10	D22
NR3M150L KCU10	C172	NRP3062R KCU10	C169	NSR3225P3	C183	NT4LK KCU25	D22
NR3M150R KC5025	C172	NRP3094L KC5010	C169	NSR3225P4	C183	NT4R K68	D17
NR3M200L KC5025	C172	NRP3094L KCU10	C169	NSR3232P3	C183	NT4R KC5010	D17
NR3M200R KC5025	C172	NRP3094R KC5010	C169	NSR3232P4	C183	NT4R KC5025	D17
NR4062LK KC5010	C166	NRP3094R KCU10	C169	NSR853D	C182, D27	NT4R KCU10	D17
NR4062LK KCU10	C166	NRR123B	C189	NSR854D	C184, D28	NT4R KCU25	D17
NR4062LK KCU25	C166	NRR163C	C189	NSR864E	C184, D28	NT4RCK KC5010	D19
NR4062RK KC5010	C166	NRR163D	C189	NSRDH122B	C186, D29	NT4RCK KC5025	D19
NR4062RK KCU10	C166	NRR2020K3	C189	NSRDH123A	C186, D29	NT4RCK KCU25	D19
NR4062RK KCU25	C166	NRR203D	C189	NSRDH162C	C186, D29	NT4RK KC5010	D22
NR4094LK KC5010	C166	NRR243D	C189	NSRDH163C	C186, D29	NT4RK KC5025	D22
NR4094LK KC5025	C166	NRR2525M3	C189	NSRDH163D	C186, D29	NT4RK KCU10	D22
NR4094LK KCU10	C166	NRR3225P3	C189	NSRDH203D	C186, D29	NT4RK KCU25	D22
NR4094LK KCU25	C166	NSL062	C182, D27	NSRDH204D	C186, D29	NTB2LB KC5010	D18
NR4094R K313	C172	NSL082V	C182, D27	NST1	B168-169, B386-387	NTB2LB KCU10	D18
NR4094RK KC5010	C166	NSL1010E2	C183	NST2	B168-169, B386-387	NTB2RA K68	D17
NR4094RK KCU10	C166	NSL102B	C182, D27	NST3	B168-169, B386-387	NTB2RB KC5010	D18
NR4094RK KCU25	C166	NSL1212F2	C183	NSUL164D	D29	NTB3L12B KC5010	D18
NR4125L KC5010	C172	NSL122B	C182, D27	NSUR124C	D29	NTB3LA K68	D17
NR4125L KCU25	C172	NSL123A	C182, D27	NSUR164D	D29	NTB3LA KC5010	D17
NR4125LK KC5010	C166	NSL123B	C182, D27	NT1L K68	D23	NTB3LA KC5025	D17
NR4125LK KCU10	C166	NSL1616H2	C183	NT1L KC5010	D23	NTB3LB K68	D18
NR4125LK KCU25	C166	NSL162C	C182, D27	NT1L KC5025	D23	NTB3LB KC5010	D18
NR4125R KC5010	C172	NSL163C	C182, D27	NT1L KCU10	D23	NTB3LB KC5025	D18
NR4125R KCU10	C172	NSL163D	C182, D27	NT1L KCU25	D23	NTB3LB KCU10	D18
NR4125R KCU25	C172	NSL164C	C184, D28	NT2L K313	D17	NTB3R12B KC5010	D18
NR4125RK KC5010	C166	NSL164D	C184, D28	NT2L K68	D17	NTB3RA KC5025	D17
NR4125RK KC5025	C166	NSL166D	C184, D28	NT2L KC5010	D17	NTB3RA KCU10	D17
NR4125RK KCU10	C166	NSL2020K2	C183	NT2L KC5025	D17	NTB3RB K68	D18
NR4125RK KCU25	C166	NSL2020K3	C183	NT2L KCU10	D17	NTB3RB KC5010	D18
NRD3031L KC5010	C173	NSL203D	C182, D27	NT2L KCU25	D17	NTB3RB KC5025	D18
NRD3031L KC5025	C173	NSL204C	C184, D28	NT2LK KC5010	D22	NTB3RB KCU10	D18
NRD3031L KCU10	C173	NSL204D	C184, D28	NT2LK KC5025	D22	NTB3RB KCU25	D18
NRD3031L KCU25	C173	NSL205D	C182, D27	NT2LK KCU10	D22	NTB4LB KC5010	D18
NRD3031R KC5010	C173	NSL206D	C184, D28	NT2LK KCU25	D22	NTB4LB KC5025	D18
NRD3031R KC5025	C173	NSL243D	C182, D27	NT2R K313	D17	NTB4RA KCU10	D17
NRD3031R KCU10	C173	NSL243E	C182, D27	NT2R K68	D17	NTB4RB KC5010	D18
NRD3031R KCU25	C173	NSL244D	C184, D28	NT2R KC5010	D17	NTB4RB KC5025	D18
NRD3062L KC5010	C173	NSL244E	C184, D28	NT2R KC5025	D17	NTB4RB KCU10	D18
NRD3062L KC5025	C173	NSL246D	C184, D28	NT2R KCU10	D17	NTC3L10E KCU10	D20
NRD3062L KCU10	C173	NSL2525M2	C183	NT2R KCU25	D17	NTC3L10I KC5025	D18
NRD3062L KCU25	C173	NSL2525M3	C183	NT2RK KC5010	D22	NTC3L12E KCU10	D20
NRD3062R KC5010	C173	NSL2525M4	C183	NT2RK KC5025	D22	NTC3L12I KC5025	D18
NRD3062R KC5025	C173	NSL3225P3	C183	NT2RK KCU10	D22	NTC3L14I KC5025	D18
NRD3062R KCU10	C173	NSL3225P4	C183	NT2RK KCU25	D22	NTC3L16E KCU10	D20
NRD3062R KCU25	C173	NSL3232P3	C183	NT3L K68	D17	NTC3L16I KC5025	D18
NRD4062L KC5010	C173	NSL3232P4	C183	NT3L KC5010	D17	NTC3L8E KC5010	D20
NRD4062L KC5025	C173	NSL853D	C182, D27	NT3L KC5025	D17	NTC3L8I KC5025	D18
NRD4062L KCU10	C173	NSL854D	C184, D28	NT3L KCU10	D17	NTC3MR150E KC5010	D19
NRD4062L KCU25	C173	NSLDH203D	C186, D29	NT3L KCU25	D17	NTC3MR150E KC5025	D19
NRD4062R KC5010	C173	NSR062	C182, D27	NT3LCK KC5010	D19	NTC3MR150E KCU10	D19
NRD4062R KCU10	C173	NSR082V	C182, D27	NT3LCK KC5025	D19	NTC3MR200E KC5010	D19
NRD4062R KCU25	C173	NSR1010E2	C183	NT3LCK KCU10	D19	NTC3R10E KC5010	D20
NRD4094L KC5010	C173	NSR102B	C182, D27	NT3LCK KCU25	D19	NTC3R10E KC5025	D20
NRD4094L KCU10	C173	NSR1212F2	C183	NT3LK KC5010	D22	NTC3R11E KC5025	D20
NRD4094L KCU25	C173	NSR122B	C182, D27	NT3LK KC5025	D22	NTC3R11E KCU10	D20
NRD4094R KC5010	C173	NSR123A	C182, D27	NT3LK KCU10	D22	NTC3R12E KC5010	D20
NRD4094R KCU10	C173	NSR123B	C182, D27	NT3LK KCU25	D22	NTC3R12E KC5025	D20
NRD4125L KC5010	C173	NSR1616H2	C183	NT3R K313	D17	NTC3R12E KCU25	D20
NRD4125L KC5025	C173	NSR162C	C182, D27	NT3R K68	D17	NTC3R12I KC5025	D18
NRD4125L KCU10	C173	NSR163C	C182, D27	NT3R KC5010	D17	NTC3R13E KC5010	D20
NRD4125L KCU25	C173	NSR163D	C182, D27	NT3R KC5025	D17	NTC3R13E KC5025	D20
NRD4125R KC5010	C173	NSR164C	C184, D28	NT3R KCU10	D17	NTC3R14E KC5010	D20

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
NTC3R14E KC5025	D20	NTP4L KC5025	D22	OFKT64AFEN6GB KCPK30	S52	PKG7001	K128
NTC3R16E KC5010	D20	NTP4R KC5010	D22	OFKT64AFEN6GB KCPM40	S52	PKG994	K145
NTC3R16E KC5025	D20	NTP4R KC5025	D22	OFKT64AFEN6GB KCSM30	S52	PMTO4525	C71, C149
NTC3R18E KC5010	D20	NTP4R KCJ10	D22	OFKT64AFEN6GB KCSM40	S52	PROON164D	B170, B385
NTC3R18E KC5025	D20	NTP4R KCJ25	D22	OFKT64AFEN6LB KC522M	S51	PROON204D	B170, B385
NTC3R18E KCJ25	D20	NTU4R KC5025	D22	OFKT64AFEN6LB KC725M	S51	PROON206D	B170, B385
NTC3R20E KC5010	D20	NTU4R KCJ25	D22	OFKT64AFEN6LB KCPK30	S51	PROON208D	B170, B385
NTC3R20E KC5025	D20	NU3094L KC5025	C175	OFKT64AFEN6LB KCSM40	S51	PROON244D	B170, B385
NTC3R20E KCJ10	D20	NU3094L KCJ25	C175	OFKT64AFEN6LB KC410M	S51	PROON246	B170, B385
NTC3R24E KC5010	D20	NU3094R KC5025	C175	OFKT64AFEN6GB KCS22M	S52	PSC40KGMEL50C	C73, C151
NTC3R24E KC5025	D20	NU3125L KC5025	C175	OFKT64AFEN6GB KC522M	S52	PSC40KGMER50C	C73, C151
NTC3R28E KC5025	D20	NU3125R KCJ25	C175	OFKT64AFEN6HB KC725M	S52	PSC40KGMEL50C	C72, C150
NTC3R32E KC5025	D20	NU3156L KC5025	C175	OFKT64AFEN6HB KCPK30	S52	PSC40KGMER50C	C72, C150
NTC3R32E KCJ10	D20	NUFRL	E64	OFKT64AFEN6HB KCSM40	S52	PSC50KGMEL50C	C73, C151
NTC3R7E KC5025	D20	NUFRR	E64	OFKT64AFEN6HB KCSM40	S52	PSC50KGMEL65C	C73, C151
NTC3R8E KC5010	D20	NWUTC	E65	OFKT64AFEN6LB KCPK30	S51	PSC50KGMER50C	C73, C151
NTC3R8E KC5025	D20	NV3RJ KCJ25	C176	OFKT64AFEN6LB KCPK30	S51	PSC50KGMER65C	C73, C151
NTC3R8E KCJ10	D20	NV4LL KCJ25	C176	OFPT53AFEN4GB KC520M	S48	PSC50KGMEL50C	C72, C150
NTC3R9E KCJ10	D20	NV4RL KCJ25	C176	OFPT53AFEN4GB KCPK30	S48	PSC50KGMEL65C	C72, C150
NTF2L K68	D21	NVLCL123B	E43	OFPT53AFEN4GB KCK15	S48	PSC50KGMER50C	C72, C150
NTF2L KC5010	D21	NVLCL163D	E43	OFPT53AFEN4GB KCPK30	S48	PSC50KGMER65C	C72, C150
NTF2L KC5025	D21	NVLCL203D	E43	OFPT53AFEN4GB KCPM40	S48	PSC63DL10200	052
NTF2L KCJ10	D21	NVLCL243D	E43	OFPT53AFEN4GB KC520M	S48	PSC63DL12200	052
NTF2L KCJ25	D21	NVLCR123B	E43	OFPT53AFEN4HB KCPK30	S48	PSC63DL16225	052
NTF2R K68	D21	NVLCR163D	E43	OFPT53AFEN4HB KCK15	S48	PSC63DL20225	052
NTF2R KC5010	D21	NVLCR203D	E43	OFPT53AFEN4HB KCPK30	S48	PSC63DL25238	052
NTF2R KC5025	D21	NVLCR243D	E43	OFPT53AFEN4HB KCSM40	S48	PSC63DL32275	052
NTF2R KCJ10	D21	NWOCN163D	E43	OFPT64AFEN6GB KC520M	S52	PSC63KGMEL50C	C73, C151
NTF2R KCJ25	D21	NWC3L111 KC5025	D23	OFPT64AFEN6GB KC522M	S52	PSC63KGMEL65C	C73, C151
NTF3L K68	D21	NWC3R11E KC5010	D23	OFPT64AFEN6GB KC725M	S52	PSC63KGMER50C	C73, C151
NTF3L KC5010	D21	NWC3R11E KC5025	D23	OFPT64AFEN6GB KCK15	S52	PSC63KGMER65C	C73, C151
NTF3L KC5025	D21	NWC3R14E KC5010	D23	OFPT64AFEN6GB KCPK30	S52	PSC63KGMEL50C	C72, C150
NTF3L KCJ10	D21	NWC3R14E KCJ25	D23	OFPT64AFEN6GB KCPM40	S52	PSC63KGMEL65C	C72, C150
NTF3L KCJ25	D21	ODC1063IEGD KMF	D29	OFPT64AFEN6HB KC522M	S52	PSC63KGMER50C	C72, C150
NTF3R K68	D21	ODC2087IEGD KMF	U9	OFPT64AFEN6HB KCPK30	S52	PSC63KGMER65C	C72, C150
NTF3R KC5010	D21	ODC3125IEGD KMF	U9	OFPT64AFEN6HB KCK15	S52	PSC80KGMEL50C	C73, C151
NTF3R KC5025	D21	ODC4158IEGD KMF	U9	OFPT64AFEN6HB KCPK30	S52	PSC80KGMEL65C	C73, C151
NTF3R KCJ10	D21	ODG1063ISGB KC735M	U9	OFPT64AFEN6HB KCSM40	S52	PSC80KGMER50C	C73, C151
NTF3R KCJ25	D21	ODG1063ISGB KCPK30	U9	ONGX642SNHB KC514M	S34	PSC80KGMER65C	C73, C151
NTF4R KC5025	D21	ODG1063ISGD KC735M	U9	ONGX642SNHB KCK15	S34	PSC80KGMEL50C	C72, C150
NTK2L K68	D21	ODG1063ISGD KCPK30	U9	ONGX645ENLE KC514M	S33	PSC80KGMEL65C	C72, C150
NTK2L KC5010	D21	ODG2087ISGB KC735M	U9	ONGX645ENLE KCK15	S33	PSC80KGMER50C	C72, C150
NTK2L KC5025	D21	ODG2087ISGB KCPK30	U9	ONGX645ENLE KCK20	S33	PSC80KGMER65C	C72, C150
NTK2L KCJ10	D21	ODG2087ISGD KC735M	U9	ONGX645SNGP KC514M	S33	PT00163	E60
NTK2L KCJ25	D21	ODG2087ISGD KCPK30	U9	ONGX645SNGP KCK15	S33	QC21	B265
NTK2R K68	D21	ODG3125ISGB KC735M	U9	ONGX645SNGP KCK20	S33	QTM20 WG	B292
NTK2R KC5010	D21	ODG3125ISGB KCPK30	U9	ONGX645SNGP KCPK30	S33	R125FBHS09	K140
NTK2R KC5025	D21	ODG3125ISGD KC735M	U9	ONGX645SNHB KC514M	S34	R24FBHS06	K140
NTK2R KCJ10	D21	ODG3125ISGD KCPK30	U9	ONGX645SNHB KCK15	S34	R24FBHS06LF	K140
NTK2R KCJ25	D21	ODG4158ISGB KC735M	U9	ONGX645SNHB KCK20	S34	R30FBHS06	K140
NTK3L K68	D21	ODG4158ISGB KCPK30	U9	ONGX645SNHB KCPK30	S34	R31FBHS06	K140
NTK3L KC5010	D21	ODG4158ISGD KC735M	U9	ONGX648SNHB KC514M	S34	R31FBHS06LF	K140
NTK3L KC5025	D21	ODG4158ISGD KCPK30	U9	ONGX648SNHB KCK15	S34	R38FBHS06	K140
NTK3L KCJ10	D21	ODG6197ISGB KC735M	U10	ONGX648SNHB KCK20	S34	R40FBHS06	K140
NTK3L KCJ25	D21	ODG6236ISGB KC735M	U10	ONGX64ANENLE KC514M	S33	R40FBHS06LF	K140
NTK3R K68	D21	ODG6236ISGB KCPK30	U10	ONGX64ANENLE KCK15	S33	R48FBHS06	K140
NTK3R KC5010	D21	OFKT53AFEN4GB KC520M	S47	ONGX64ANENLE KCK20	S33	R51FBHS06	K140
NTK3R KC5025	D21	OFKT53AFEN4GB KC522M	S47	ONGX64ANSNGP KC514M	S33	R51FBHS06LF	K140
NTK3R KCJ10	D21	OFKT53AFEN4GB KC725M	S47	ONGX64ANSNGP KCK15	S33	R65FBHS06	K140
NTK3R KCJ25	D21	OFKT53AFEN4GB KCK15	S47	ONGX64ANSNGP KCK20	S33	R67FBHS06	K140
NTP2L K68	D22	OFKT53AFEN4GB KCPK30	S47	ONPX642SNGP KCK15	S34	R67FBHS09	K140
NTP2L KC5010	D22	OFKT53AFEN4GB KCPM40	S47	ONPX642SNGP KCK20	S34	R67FBHS09LF	K140
NTP2L KC5025	D22	OFKT53AFEN4GB KCSM40	S47	ONPX642SNGP KCPK30	S34	R82154	K78
NTP2L KCJ10	D22	OFKT53AFEN4LBJ KC422M	S46	ONPX645SNHB KCK15	S34	R85FBHS06	K140
NTP2L KCJ25	D22	OFKT53AFEN6LB KC522M	S47	ONPX645SNHB KCK20	S34	R85FBHS09	K140
NTP2R K68	D22	OFKT53AFEN6LB KC725M	S47	ONPX645SNHB KCPK30	S34	RCG443 KC5010	B238
NTP2R KC5010	D22	OFKT53AFEN6LB KCK15	S47	PDC251A04763DA KD1415	G106	RCG443 KCJ10	B238
NTP2R KC5025	D22	OFKT53AFEN6LB KCPK30	S47	PDC251A06350DA KD1415	G106	RCG443MP KC5010	B238
NTP2R KCJ10	D22	OFKT53AFEN6LB KCSM40	S47	PDC251A07938DA KD1415	G106	RCGK152FS KCJ10	E69
NTP2R KCJ25	D22	OFKT53AFEN4LBJ KC410M	S46	PDC251A09525DA KD1415	G106	RCGK152HP K313	E69
NTP3L K68	D22	OFKT53AFEN4LBJ KC410M	S46	PDC251A11113DA KD1415	G106	RCGK152HP KC5010	E69
NTP3L KC5010	D22	OFKT53AFSN4HB KC522M	S47	PDC251A12700DA KD1415	G106	RCGK152HP KCJ10	E69
NTP3L KC5025	D22	OFKT53AFSN4HB KC725M	S47	PKG-8001	K132-134	RCGK23FS KC5010	E69
NTP3L KCJ10	D22	OFKT53AFSN4HB KCPK30	S47	PKG0002	K145	RCGK23FS KCJ10	E69
NTP3L KCJ25	D22	OFKT53AFSN4HB KCSM40	S47	PKG0011	K130	RCGK23HP KC5010	E69
NTP3R K68	D22	OFKT53AFSN6LB KC520M	S47	PKG1402	K130	RCGK23HP KC5410	E69
NTP3R KC5010	D22	OFKT53AFSN6LB KC522M	S47	PKG1565	K141-143	RCGK23HP KCJ10	E69
NTP3R KC5025	D22	OFKT53AFSN6LB KC725M	S47	PKG156502	K143-144	RCGK35FS KC5010	E69
NTP3R KC5410	D22	OFKT53AFSN6LB KCPK30	S47	PKG1602	K130	RCGK35FS KC5025	E69
NTP3R KCJ10	D22	OFKT64AFEN6GB KC520M	S52	PKG1802	K130	RCGK35FS KCJ10	E69
NTP3R KCJ25	D22	OFKT64AFEN6GB KC522M	S52	PKG2025	K134, K136	RCGK35HP KC5410	E69
NTP4L KC5010	D22	OFKT64AFEN6GB KC725M	S52	PKG3242	K134, K136	RCGK35HP KCJ10	E69

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
RCGK46FS KCU10	E69	RCMH2507MORU KCP25	E66	RCMT2006MOUNG KCP25B	E66	RHM22500KST200H7HF KT6215	K33
RCGK46HP KC5410	E69	RCMH2507MOTUPG KCP10B	E66	RCMT2006MOUNG KCPK05	E66	RHM22500KST200H7SF KT325	K31
RCGK46HP KCU10	E69	RCMH2507MOTUPG KCP25B	E66	RCMT215 KC5010	B240	RHM22500KST200H7SF KT6215	K31
RCGN33T0415 KBK45	B308	RCMH3209MORU KCP25	E66	RCMT215 KCP25	B240	RHM23000KST200H7HF KT325	K33
RCGT0602MORP KCP25B	B239	RCMH3209MOTUPG KCP10B	E66	RCMT215 KCU10	B240	RHM23000KST200H7HF KT6215	K33
RCGT0803MOHP K313	B238	RCMH3209MOTUPG KCP25B	E66	RCMT325 K313	B240	RHM23000KST200H7SF KT325	K31
RCGT0803MOHP K68	B238	RCMH64K KCP10B	B239	RCMT325 KC5010	B240	RHM23000KST200H7SF KT6215	K31
RCGT0803MOHP KC5010	B238	RCMK152 K313	E69	RCMT325 KCP25	B240	RHM23810KST200H7HF KT325	K33
RCGT0803MOHP KC5410	B238	RCMK152 KC5010	E69	RCMT325 KCU10	B240	RHM23810KST200H7HF KT6215	K33
RCGT0803MOHP KCU25	B238	RCMK23 K313	E69	RCMT43 KC5010	B240	RHM23810KST200H7SF KT325	K31
RCGT0803MOMS KC5010	B239	RCMK23 KC5010	E69	RCMT43 KCK20	B240	RHM23810KST200H7SF KT6215	K31
RCGT0803MOMS KCU10	B239	RCMK23 KCU10	E69	RCMT43 KCM25	B240	RHM24000KST200H7HF KT325	K33
RCGT0803MORP KCP25B	B239	RCMK23MP KC510	E69	RCMT43 KCP10B	B240	RHM24000KST200H7HF KT6215	K33
RCGT10T3MOHP K313	B238	RCMK35 K313	E69	RCMT43MP KC510	B240	RHM24000KST200H7SF KT325	K31
RCGT10T3MOHP KC5010	B238	RCMK35 KC5010	E69	RCMX1003MORP KCP10B	B242	RHM24000KST200H7SF KT6215	K31
RCGT10T3MOHP KC5025	B238	RCMK35MP KC510	E69	RCMX1003MORP KCP25B	B242	RHM25000KST200H7HF KT325	K33
RCGT10T3MOHP KC5410	B238	RCMK46 KC5010	E69	RCMX2507M076 KCP25B	E59	RHM25000KST200H7HF KT6215	K33
RCGT10T3MOHP KCU10	B238	RCMK46MP KC510	E69	RCMX2507MORH KCP10	B241	RHM25000KST200H7SF KT325	K31
RCGT10T3MOHP KCU25	B238	RCMT0602M0 K313	B240	RCMX2507MORH KCP25	B241	RHM25000KST200H7SF KT6215	K31
RCGT1204MOHP K313	B238	RCMT0602M0 K68	B240	RCMX2507MORP KCP25	B242	RHM25400KST200H7HF KT325	K33
RCGT1204MOHP KC5010	B238	RCMT0602M0 KC5010	B240	RCMX2507MORP KCP30	B242	RHM25400KST200H7HF KT6215	K33
RCGT1204MOHP KC5025	B238	RCMT0602M0 KCM25	B240	RCMX2507MORU KCK20	E67	RHM25400KST200H7SF KT325	K31
RCGT1204MOHP KCU10	B238	RCMT0602M0 KCP25	B240	RCMX2507MOTUPG KCP10B	E67	RHM25400KST200H7SF KT6215	K31
RCGT1204MOMS KC5010	B239	RCMT0602M0 KCP30	B240	RCMX2507MOTUPG KCP25B	E67	RHM26000KST200H7HF KT325	K33
RCGT1204MOMS KCU10	B239	RCMT0602M0 KCU10	B240	RCMX3209MORH KCP25	B241	RHM26000KST200H7SF KT325	K31
RCGT1204MOMS KCU25	B239	RCMT0803M0 K313	B240	RCMX3209MORU KCK20	E67	RHM26990KST200H7HF KT325	K33
RCGT1204MORP KCP25	B239	RCMT0803M0 KC5010	B240	RCMX3209MORU KCP10	E67	RHM26990KST200H7HF KT6215	K33
RCGT1204MORP KCU10	B239	RCMT0803M0 KCK20B	B240	RCMX3209MOTUPG KCP10B	E67	RHM26990KST200H7SF KT325	K31
RCGT1606MOMS KCU10	B239	RCMT0803M0 KCM25	B240	RCMX3209MOTUPG KCP25B	E67	RHM26990KST200H7SF KT6215	K31
RCGT1606MOMS KCU25	B239	RCMT0803M0 KCP25	B240	RHM14000KST115H7HF KT325	K33	RHM27000KST200H7HF KT325	K33
RCGT64ELF KCP25M	V89	RCMT0803M0 KCU10	B240	RHM14000KST115H7HF KT6215	K33	RHM27000KST200H7HF KT6215	K33
RCGT64ELF KCPK30	V89	RCMT10T3M0 KC5010	B240	RHM14000KST115H7SF KT325	K31	RHM27000KST200H7SF KT325	K31
RCGT64ELF KCSM40	V89	RCMT10T3M0 KCK20B	B240	RHM14000KST115H7SF KT6215	K31	RHM27500KST250H7HF KT325	K31
RCGT64ELFJ KCSM30	V89	RCMT10T3M0 KCM25	B240	RHM14288KST115H7HF KT325	K33	RHM27500KST250H7HF KT6215	K33
RCGT64SGF KC522M	V89	RCMT10T3M0 KCP25	B240	RHM14288KST115H7HF KT6215	K33	RHM27500KST250H7HF KT6215	K32
RCGT64SGF KCP25M	V89	RCMT10T3M0 KCP30	B240	RHM14288KST115H7SF KT325	K31	RHM27500KST250H7SF KT6215	K32
RCGT64SGFJ KCPM40	V89	RCMT10T3M0 KCU10	B240	RHM15000KST115H7HF KT325	K33	RHM28000KST250H7HF KT325	K34
RCGT64SHF KCP25M	V89	RCMT10T3M0 KCM25	B240	RHM15000KST115H7HF KT6215	K33	RHM28000KST250H7HF KT6215	K32
RCGT64SHF KCPK30	V89	RCMT10T3M0MP KC510	B240	RHM15875KST115H7HF KT325	K31	RHM28000KST250H7SF KT325	K34
RCGT64SHF KCSM40	V89	RCMT1204M0 K313	B240	RHM15875KST115H7HF KT6215	K31	RHM28000KST250H7SF KT6215	K32
RCGT64SHFJ KCPM40	V89	RCMT1204M0 KC5010	B240	RHM15875KST115H7SF KT325	K33	RHM28000KST250H7SF KT6215	K32
RCGT86ELF KCP25M	V92	RCMT1204M0 KCK15B	B240	RHM16000KST115H7SF KT6215	K31	RHM28000KST250H7SF KT6215	K34
RCGT86ELF KCPK30	V92	RCMT1204M0 KCK20	B240	RHM16000KST135H7HF KT325	K33	RHM28580KST250H7HF KT325	K34
RCGT86ELF KCSM40	V92	RCMT1204M0 KCK20B	B240	RHM16000KST135H7HF KT6215	K33	RHM28580KST250H7SF KT325	K32
RCGT86SGF KC522M	V92	RCMT1204M0 KCM25	B240	RHM16000KST135H7SF KT325	K31	RHM29000KST250H7HF KT325	K34
RCGT86SGF KCP25M	V92	RCMT1204M0 KCP25B	B240	RHM17000KST135H7HF KT325	K33	RHM29000KST250H7SF KT325	K34
RCGT86SGFJ KCPM40	V92	RCMT1204M0 KCP30	B240	RHM17000KST135H7HF KT6215	K33	RHM29000KST250H7SF KT6215	K32
RCGT86SHF KCP25M	V92	RCMT1204M0 KCU10	B240	RHM17000KST135H7SF KT325	K31	RHM30000KST250H7HF KT325	K34
RCGT86SHF KCPK30	V92	RCMT1204M0MP KC510	B240	RHM17463KST135H7HF KT325	K33	RHM30000KST250H7HF KT6215	K32
RCGT86SHF KCSM40	V92	RCMT1204MORP KCK15	B242	RHM17463KST135H7HF KT6215	K33	RHM30000KST250H7SF KT325	K34
RCGT86SHFJ KCPM40	V92	RCMT1204MORP KCK20	B242	RHM17463KST135H7SF KT325	K31	RHM30000KST250H7SF KT6215	K32
RCGV23 KC5010	B166	RCMT1204MORP KCP10B	B242	RHM18000KST155H7HF KT325	K33	RHM30160KST250H7HF KT325	K34
RCGV23 KCU10	B166	RCMT1204MORP KCP25	B242	RHM18000KST155H7HF KT6215	K33	RHM30160KST250H7SF KT325	K32
RCGV23E KYS25	B351	RCMT1204MORP KCP25B	B242	RHM18000KST155H7SF KT325	K31	RHM30160KST250H7SF KT6215	K34
RCGV23E KYS30	B351	RCMT1605M0 K313	B240	RHM19000KST155H7HF KT325	K33	RHM30160KST250H7SF KT6215	K32
RCGV23MP KC510	B166	RCMT1605M0 KC5010	B240	RHM19000KST155H7HF KT6215	K33	RHM31000KST250H7HF KT325	K34
RCGV35 KC5010	B166	RCMT1605M0 KCK20	B240	RHM19000KST155H7SF KT325	K31	RHM31000KST250H7HF KT6215	K34
RCGV35E KYS25	B351	RCMT1605M0 KCM25	B240	RHM19000KST155H7SF KT6215	K33	RHM31000KST250H7SF KT325	K32
RCGV35E KYS30	B351	RCMT1605M0 KCP25	B240	RHM19050KST155H7HF KT325	K31	RHM31000KST250H7SF KT6215	K34
RCGV35T0225 KYS30	B351	RCMT1605M0 KCU10	B240	RHM19050KST155H7HF KT6215	K33	RHM31750KST250H7HF KT325	K34
RCGV35T0420 KY1615	B335	RCMT1606MOMP KC510	B240	RHM19050KST155H7HF KT6215	K33	RHM31750KST250H7HF KT6215	K34
RCGV35T0420 KYS25	B351	RCMT1606MORP KCK15	B242	RHM20000KST175H7HF KT325	K31	RHM31750KST250H7SF KT325	K32
RCGV35T0420 KYS30	B335	RCMT1606MORP KCP25	B242	RHM20000KST175H7HF KT6215	K33	RHM31750KST250H7SF KT6215	K32
RCGV35T0820 KY1615	B335	RCMT1606MORP KCP25B	B242	RHM20000KST175H7SF KT325	K31	RHM32000KST250H7HF KT325	K34
RCGV35T4015 KY1615	B335	RCMT1606MOUNG KCK15B	E66	RHM20640KST175H7HF KT325	K33	RHM32000KST250H7HF KT6215	K34
RCGV35T8015 KY1615	B335	RCMT1606MOUNG KCP10B	E66	RHM20640KST175H7HF KT6215	K33	RHM32500KST300H7HF KT325	K32
RCGV45 K313	B166	RCMT1606MOUNG KCPK05	E66	RHM20640KST175H7SF KT325	K31	RHM32500KST300H7HF KT6215	K34
RCGV45 KC5010	B166	RCMT1606MOUNG KCP25B	E66	RHM20640KST175H7SF KT6215	K33	RHM32500KST300H7SF KT325	K32
RCGV45E KYS25	B351	RCMT1606MOUNG KCP25	B240	RHM21000KST175H7HF KT325	K33	RHM32500KST300H7SF KT6215	K34
RCGV45E KYS30	B351	RCMT2006M0 K313	B240	RHM21000KST175H7HF KT6215	K33	RHM33000KST300H7HF KT325	K34
RCGV45MP KC510	B166	RCMT2006M0 KC5010	B240	RHM21000KST175H7SF KT325	K31	RHM33000KST300H7HF KT6215	K32
RCGV45T0420 KYS25	B351	RCMT2006M0 KCK20B	B240	RHM21000KST175H7SF KT6215	K33	RHM33000KST300H7SF KT325	K34
RCGV45T0420 KYS30	B351	RCMT2006M0 KCM25	B240	RHM21000KST175H7SF KT6215	K33	RHM33000KST300H7SF KT6215	K32
RCGV45T0425 KYS25	B351	RCMT2006M0 KCP25	B240	RHM21000KST175H7SF KT6215	K33	RHM33000KST300H7SF KT6215	K32
RCGV45T0425 KYS30	B351	RCMT2006M0 KCU10	B240	RHM22000KST175H7HF KT325	K33	RHM33000KST300H7SF KT325	K34
RCGV45T0820 KY1615	B335	RCMT2006MORH KCP10	B241	RHM22000KST175H7HF KT6215	K33	RHM33340KST300H7HF KT325	K34
RCGV45T4015 KY1615	B335	RCMT2006MORH KCP25	B241	RHM22000KST175H7SF KT6215	K31	RHM33340KST300H7SF KT325	K32
RCGV45T8015 KY1615	B335	RCMT2006MORM KCP25	B241	RHM22230KST175H7HF KT325	K33	RHM33340KST300H7SF KT6215	K32
RCGV88T8015 KY1615	B335	RCMT2006MORP KCK20	B242	RHM22230KST175H7HF KT6215	K33	RHM34000KST300H7HF KT325	K34
RCGW1204MOT01020 KY1615	B336	RCMT2006MORP KCK20B	B242	RHM22230KST175H7SF KT325	K31	RHM34000KST300H7SF KT6215	K32
RCGX0907-001 KY1615	B336	RCMT2006MORP KCP25	B242	RHM22230KST175H7SF KT6215	K31	RHM34930KST300H7HF KT325	K34
RCGX151000T20015 KY1615	B335	RCMT2006MOUNG KCK15B	E66	RHM22500KST200H7HF KT325	K33	RHM34930KST300H7HF KT6215	K34
RCGX191000T20015 KY1615	B335	RCMT2006MOUNG KCP10B	E66				

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
RHM34930KST300H7SF KT325	K32	RHME19050KST155H6SF KC6005	K35	RHR14000KST115H7HF KCU05	K30	RIQ06EGR06 KC6305	K59
RHM34930KST300H7SF KT6215	K32	RHME19050KST155H6SF KC6305	K35	RHR14000KST115H7SF KCU05	K29	RIQ06EGR06 KD1415	K59
RHM35000KST300H7HF KT325	K34	RHME20000KST175H6HF KC6005	K36	RHR15000KST115H7HF KCU05	K30	RIQ06EGR12 KC6005	K59
RHM35000KST300H7HF KT6215	K34	RHME20000KST175H6HF KC6305	K36	RHR15000KST115H7SF KCU05	K29	RIQ06EGR12 KC6105	K59
RHM35000KST300H7SF KT325	K32	RHME20000KST175H6SF KC6005	K35	RHR16000KST135H7HF KCU05	K30	RIQ06EGR12 KC6305	K59
RHM35000KST300H7SF KT6215	K32	RHME20000KST175H6SF KC6305	K35	RHR16000KST135H7SF KCU05	K29	RIQ06R2000 KD1415	K57
RHM36000KST300H7HF KT325	K34	RHME21000KST175H6HF KC6005	K36	RHR17000KST135H7HF KCU05	K30	RIQ06R400FB KT6225	K58
RHM36000KST300H7HF KT6215	K34	RHME21000KST175H6SF KC6305	K36	RHR17000KST135H7SF KCU05	K29	RIQ06R400S KBH10	K57
RHM36510KST300H7SF KT325	K32	RHME22000KST175H6HF KC6005	K35	RHR18000KST155H7HF KCU05	K30	RIQ06R500FT KT6315	K58
RHM36510KST300H7SF KT6215	K32	RHME22000KST175H6HF KC6305	K35	RHR18000KST155H7SF KCU05	K29	RIQ07C4500S KBH10	K59
RHM36510KST300H7HF KT325	K34	RHME22000KST175H6SF KC6005	K36	RHR19000KST155H7HF KCU05	K30	RIQ07C4500S KBH15	K59
RHM36510KST300H7HF KT6215	K34	RHME22000KST175H6SF KC6305	K36	RHR19000KST155H7SF KCU05	K29	RIQ08C4500S KBH10	K59
RHM37000KST300H7HF KT325	K34	RHME22225KST175H6HF KC6005	K36	RHR20000KST175H7HF KCU05	K30	RIQ09C4500S KBH10	K59
RHM37000KST300H7HF KT6215	K34	RHME22225KST175H6HF KC6305	K36	RHR20000KST175H7SF KCU05	K29	RIQ09C4500S KBH15	K59
RHM37000KST350H7HF KT325	K32	RHME22225KST175H6SF KC6005	K35	RHR21000KST175H7HF KCU05	K30	RIQ09C4500S KBH15	K59
RHM37000KST350H7HF KT6215	K32	RHME22225KST175H6SF KC6305	K35	RHR21000KST175H7SF KCU05	K29	RIQ09C4500S KBH15	K58
RHM37500KST350H7HF KT325	K34	RHME22225KST175H6SF KC6005	K35	RHR22000KST175H7HF KCU05	K30	RIQ09E1300 KC6105	K58
RHM37500KST350H7HF KT6215	K34	RHME22225KST175H6SF KC6305	K35	RHR22000KST175H7SF KCU05	K29	RIQ09E1300 KC6305	K58
RHM37500KST350H7SF KT325	K32	RHME23000KST200H6HF KC6005	K36	RHR23000KST200H7HF KCU05	K30	RIQ09E1306 KC6005	K58
RHM37500KST350H7SF KT6215	K32	RHME23000KST200H6HF KC6305	K36	RHR23000KST200H7SF KCU05	K29	RIQ09E1306 KC6105	K58
RHM38000KST350H7HF KT325	K32	RHME23000KST200H6SF KC6005	K35	RHR24000KST200H7HF KCU05	K30	RIQ09E1306 KC6305	K58
RHM38000KST350H7HF KT6215	K32	RHME23000KST200H6SF KC6305	K35	RHR24000KST200H7SF KCU05	K29	RIQ09E1312 KC6005	K58
RHM38100KST350H7HF KT325	K34	RHME23813KST200H6HF KC6005	K36	RHR25000KST200H7HF KCU05	K30	RIQ09E1312 KC6105	K58
RHM38100KST350H7HF KT6215	K34	RHME23813KST200H6HF KC6305	K36	RHR25000KST200H7SF KCU05	K29	RIQ09E1312 KC6305	K58
RHM39000KST350H7HF KT325	K34	RHME23813KST200H6SF KC6005	K35	RHR26000KST200H7HF KCU05	K30	RIQ09EDR00 KC6005	K59
RHM39000KST350H7HF KT6215	K34	RHME23813KST200H6SF KC6305	K35	RHR26000KST200H7SF KCU05	K29	RIQ09EDR00 KC6105	K59
RHM39000KST350H7HF KT6215	K34	RHME24000KST200H6HF KC6005	K36	RHR27000KST200H7HF KCU05	K30	RIQ09EDR00 KC6305	K59
RHM39000KST350H7SF KT325	K32	RHME24000KST200H6HF KC6305	K36	RHR27000KST200H7SF KCU05	K29	RIQ09EDR06 KC6005	K59
RHM39000KST350H7SF KT6215	K32	RHME24000KST200H6SF KC6005	K35	RHR28000KST250H7HF KCU05	K30	RIQ09EDR06 KC6105	K59
RHM39690KST350H7HF KT325	K34	RHME24000KST200H6SF KC6305	K35	RHR28000KST250H7SF KCU05	K29	RIQ09EDR06 KC6305	K59
RHM39690KST350H7HF KT6215	K34	RHME25000KST200H6HF KC6005	K36	RHR29000KST250H7HF KCU05	K30	RIQ09EDR06 KD1415	K59
RHM39690KST350H7SF KT325	K32	RHME25000KST200H6HF KC6305	K36	RHR29000KST250H7SF KCU05	K29	RIQ09EDR12 KC6005	K59
RHM39690KST350H7SF KT6215	K32	RHME25000KST200H6SF KC6005	K35	RHR30000KST250H7HF KCU05	K30	RIQ09EDR12 KC6105	K59
RHM40000KST350H7HF KT325	K34	RHME25400KST200H6HF KC6005	K36	RHR30000KST250H7SF KCU05	K29	RIQ09EDR12 KC6305	K59
RHM40000KST350H7HF KT6215	K34	RHME25400KST200H6HF KC6305	K36	RHR31000KST250H7HF KCU05	K30	RIQ09EGR00 KC6005	K59
RHM41000KST350H7HF KT325	K32	RHME25400KST200H6SF KC6005	K35	RHR31000KST250H7SF KCU05	K29	RIQ09EGR00 KC6105	K59
RHM41000KST350H7HF KT6215	K32	RHME26000KST200H6HF KC6005	K36	RHR32000KST250H7HF KCU05	K30	RIQ09EGR00 KC6305	K59
RHM41000KST350H7SF KT325	K34	RHME26000KST200H6HF KC6305	K36	RHR33000KST250H7HF KCU05	K29	RIQ09EGR06 KC6005	K59
RHM41000KST350H7SF KT6215	K34	RHME26000KST200H6SF KC6005	K35	RHR33000KST250H7SF KCU05	K30	RIQ09EGR06 KC6105	K59
RHM41280KST350H7HF KT325	K34	RHME26000KST200H6SF KC6305	K35	RHR34000KST300H7HF KCU05	K29	RIQ09EGR06 KC6305	K59
RHM41280KST350H7HF KT6215	K34	RHME26000KST200H6SF KC6005	K35	RHR34000KST300H7SF KCU05	K30	RIQ09EGR06 KD1415	K59
RHM41280KST350H7SF KT325	K32	RHME26000KST200H6SF KC6305	K35	RHR34000KST300H7SF KCU05	K29	RIQ09EGR12 KC6005	K59
RHM41280KST350H7SF KT6215	K32	RHME27000KST200H6HF KC6005	K36	RHR35000KST300H7HF KCU05	K30	RIQ09EGR12 KC6105	K59
RHM42000KST350H7HF KT325	K34	RHME27000KST200H6HF KC6305	K36	RHR35000KST300H7SF KCU05	K29	RIQ09EGR12 KC6305	K59
RHM42000KST350H7HF KT6215	K34	RHME27000KST200H6SF KC6005	K35	RHR36000KST300H7HF KCU05	K30	RIQ09EGR12 KC6005	K59
RHM42000KST350H7SF KT325	K32	RHME28000KST250H6HF KC6005	K36	RHR36000KST300H7SF KCU05	K29	RIQ09R400S KB1610	K57
RHM42000KST350H7SF KT6215	K32	RHME28000KST250H6HF KC6305	K36	RHR37000KST300H7HF KCU05	K30	RIQ09R500FT KT6315	K58
RHME14000KST115H6HF KC6005	K36	RHME28000KST250H6SF KC6005	K35	RHR37000KST300H7SF KCU05	K29	RIQ06C4500S KBH10	K59
RHME14000KST115H6HF KC6305	K36	RHME28000KST250H6SF KC6305	K35	RHR38000KST350H7HF KCU05	K30	RIQ06C4500S KBH15	K59
RHME14288KST115H6SF KC6005	K35	RHME30000KST250H6HF KC6005	K36	RHR38000KST350H7SF KCU05	K29	RIQ07C4500S KBH10	K59
RHME14288KST115H6SF KC6305	K35	RHME30000KST250H6HF KC6305	K36	RHR39000KST350H7HF KCU05	K30	RIQ07C4500S KBH15	K59
RHME14288KST115H6SF KC6005	K35	RHME31750KST250H6HF KC6005	K36	RHR39000KST350H7SF KCU05	K29	RI01E1306 KC6105	K56
RHME14288KST115H6SF KC6305	K35	RHME31750KST250H6HF KC6305	K36	RHR40000KST350H7HF KCU05	K30	RI01E1312 KC6105	K56
RHME15000KST115H6HF KC6005	K36	RHME31750KST250H6SF KC6005	K35	RHR40000KST350H7SF KCU05	K29	RI01E1312 KC6305	K56
RHME15000KST115H6HF KC6305	K36	RHME31750KST250H6SF KC6305	K35	RHR42000KST350H7HF KCU05	K30	RI02E1312 KC6105	K56
RHME15000KST115H6SF KC6005	K35	RHME32000KST250H6HF KC6005	K36	RHR42000KST350H7SF KCU05	K29	RI02E1312 KC6305	K56
RHME15000KST115H6SF KC6305	K35	RHME32000KST250H6HF KC6305	K36	RIQ06E1300 KC6005	K58	RI04E1312 KC6105	K56
RHME16000KST135H6HF KC6005	K36	RHME32000KST250H6SF KC6005	K35	RIQ06E1300 KC6105	K58	RI04E1312 KC6305	K56
RHME16000KST135H6HF KC6305	K36	RHME32000KST250H6SF KC6305	K35	RIQ06E1306 KC6005	K58	RI04E1312 KC6005	K56
RHME16000KST135H6SF KC6005	K35	RHME34000KST300H6HF KC6005	K36	RIQ06E1306 KC6105	K58	RI04E1312 KC6005	K56
RHME16000KST135H6SF KC6305	K35	RHME34000KST300H6HF KC6305	K36	RIQ06E1306 KC6305	K58	RI04E1312 KC6005	K56
RHME17000KST135H6HF KC6005	K36	RHME34000KST300H6SF KC6005	K35	RIQ06E1312 KC6005	K58	RI04E1312 KC6005	K56
RHME17000KST135H6HF KC6305	K36	RHME34000KST300H6SF KC6305	K35	RIQ06E1312 KC6105	K58	RI04E1312 KC6005	K56
RHME17463KST135H6HF KC6005	K36	RHME36000KST300H6HF KC6005	K36	RIQ06E1312 KC6305	K58	RI04E1312 KC6005	K56
RHME17463KST135H6HF KC6305	K36	RHME36000KST300H6HF KC6305	K36	RIQ06EDR00 KC6005	K59	RI04E1312 KC6005	K56
RHME17463KST135H6SF KC6005	K35	RHME36000KST300H6SF KC6005	K35	RIQ06EDR00 KC6105	K59	RI04E1312 KC6005	K56
RHME17463KST135H6SF KC6305	K35	RHME36000KST300H6SF KC6305	K35	RIQ06EDR00 KC6305	K59	RI04E1312 KC6005	K56
RHME18000KST155H6HF KC6005	K36	RHME38000KST350H6HF KC6005	K36	RIQ06EDR06 KC6005	K59	RI04E1312 KC6005	K56
RHME18000KST155H6HF KC6305	K36	RHME38000KST350H6HF KC6305	K36	RIQ06EDR06 KC6105	K59	RI04E1312 KC6005	K56
RHME18000KST155H6SF KC6005	K35	RHME38000KST350H6SF KC6005	K35	RIQ06EDR06 KC6305	K59	RI04E1312 KC6005	K56
RHME18000KST155H6SF KC6305	K35	RHME38000KST350H6SF KC6305	K35	RIQ06EDR06 KD1415	K59	RI04E1312 KC6005	K56
RHME19000KST155H6HF KC6005	K36	RHME40000KST350H6HF KC6005	K36	RIQ06EDR12 KC6005	K59	RI04E1312 KC6005	K56
RHME19000KST155H6HF KC6305	K36	RHME40000KST350H6HF KC6305	K36	RIQ06EDR12 KC6105	K59	RI04E1312 KC6005	K56
RHME19050KST155H6HF KC6005	K36	RHME42000KST350H6HF KC6005	K36	RIQ06EDR12 KC6305	K59	RI04E1312 KC6005	K56
RHME19050KST155H6HF KC6305	K36	RHME42000KST350H6HF KC6305	K36	RIQ06EGR00 KC6005	K59	RI04E1312 KC6005	K56
				RIQ06EGR00 KC6105	K59	RI04E1312 KC6005	K56
				RIQ06EGR00 KC6305	K59	RI04E1312 KC6005	K56
				RIQ06EGR06 KC6005	K59	RI04E1312 KC6005	K56
				RIQ06EGR06 KC6105	K59	RI04E1312 KC6005	K56
				RIQ06EGR06 KC6305	K59	RI04E1312 KC6005	K56
				RIQ06EGR12 KC6005	K59	RI04E1312 KC6005	K56
				RIQ06EGR12 KC6105	K59	RI04E1312 KC6005	K56
				RIQ06EGR12 KC6305	K59	RI04E1312 KC6005	K56
				RIQ06R2000 KD1415	K57	RI04E1312 KC6005	K56
				RIQ06R400FB KT6225	K58	RI04E1312 KC6005	K56
				RIQ06R400S KBH10	K57	RI04E1312 KC6005	K56
				RIQ06R500FT KT6315	K58	RI04E1312 KC6005	K56
				RIQ07C4500S KBH10	K59	RI04E1312 KC6005	K56
				RIQ07C4500S KBH15	K59	RI04E1312 KC6005	K56
				RIQ08C4500S KBH10	K59	RI04E1312 KC6005	K56
				RIQ08C4500S KBH15	K59	RI04E1312 KC6005	K56
				RIQ09C4500S KBH10	K59	RI04E1312 KC6005	K56
				RIQ09C4500S KBH15	K59	RI04E1312 KC6005	K56
				RIQ09E1300 KC6105	K58	RI04E1312 KC6005	K56
				RIQ09E1300 KC6305	K58	RI04E1312 KC6005	K56
				RIQ09E1306 KC6005	K58	RI04E1312 KC6005	K56
				RIQ09E1306 KC6105	K58	RI04E1312 KC6005	K56
				RIQ09E1312 KC6105	K58	RI04E1312 KC6005	K56
				RIQ09E1312 KC6305	K58	RI04E1312 KC6005	K56
				RIQ09EDR00 KC6005	K59	RI04E1312 KC6005	K56
				RIQ09EDR00 KC6105	K59	RI04E1312 KC6005	K56
				RIQ09EDR00 KC6305	K59	RI04E1312 KC6005	K56
				RIQ09EDR06 KC6005	K59	RI04E1312 KC6005	

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
S1620LSER4	D74	SB2322	T131	SCLPR083V	B210	SCMT3253MF KCP25B	B247
S19	B165, B183, B376, B389	SB3413	T128	SCLPR08CA06	B220	SCMT43111 KT315	B246
S2020LSER3	D74	SB3621	T128	SCLPR10CA09	B220	SCMT431FP KCP25	B246
S2020LSER4	D74	SCACLO62D	B193	SCLPR123B	B210	SCMT431FP KCU10	B246
S2043	S39	SCACLO83D	B193	SCLPRF062D	B211	SCMT431LF KC5010	B246
S2044	S39, U27	SCACLO83D	B193	SCLPRF083D	B211	SCMT431LF KCM25B	B246
S2044CG	T53, T78	SCACRO52D	B193	SCMCN062	B195	SCMT431LF KCP10	B246
S2112	C182, C184-187, C189, C191, C194-195, D25-29, D35, D37-38	SCACRO62D	B193	SCMCN082	B195	SCMT431LF KCP25	B246
S2160	V87, V91	SCACRO83D	B193	SCMCN083	B195	SCMT431LF KCP30	B246
S2162C	S17, S20, S24, S45, S50, V70, V77, V88, V141	SCACR103B	B193	SCMCN103	B195	SCMT431MP KCM25	B247
S2163C	S10, S14, S58, V77, V88, V91, V141	SCAPLO52D	B209	SCMCN123	B195	SCMT431MP KCU10	B247
S2164C	T90, V91	SCAPLO83D	B209	SCMCN163	B195	SCMT43211 KT315	B246
S2165C	S10, S14, S58, T17, T53, T78	SCAPRO52D	B209	SCMPN062	B211	SCMT432FP KCM25	B246
S2172CG	V54, V58	SCAPRO62D	B209	SCMPN083V	B211	SCMT432FP KCP25B	B246
S2192C	T17	SCAPRO83D	B209	SCMPN123B	B211	SCMT432FP KCU10	B246
S304	C190, D36-37	SCFCLO82	B193	SCMT325111 KT315	B246	SCMT432LF KC5010	B246
S310	C182, C185-187, C191, C193, D25-27, D29, D35-37	SCFCRO82	B193	SCMT3251FP KCM25	B246	SCMT432LF KC5025	B246
S316	B409	SCFFLO83V	B209	SCMT3251FP KCP10	B246	SCMT432LF KCK05	B246
S319PKG	B406-407	SCFFLO8CA06	B217	SCMT3251FP KCP25	B246	SCMT432LF KCK15	B246
S321	B409	SCFFRO6CA05	B217	SCMT3251FP KCU10	B246	SCMT432LF KCK15B	B246
S322	B406-407	SCFFRO83V	B209	SCMT3251FP KCU25	B246	SCMT432LF KCK20	B246
S325	B409	SCFFRO8CA06	B217	SCMT3251LF KC5010	B246	SCMT432LF KCK20B	B246
S327	B406-407, B409	SCFFR10CA09	B217	SCMT3251LF KCM5025	B246	SCMT432LF KCM15	B246
S329	B409	SCG332FW KY3500	B320	SCMT3251LF KCK05	B246	SCMT432LF KCM25	B246
S330	B406-407, B409	SCGCL123	B194	SCMT3251LF KCK15B	B246	SCMT432LF KCM25B	B246
S337	B406-407, B409	SCGCL163	B194	SCMT3251LF KCK20	B246	SCMT432LF KCP10B	B246
S340	B406-407, B409	SCGCR062	B194	SCMT3251LF KCM25	B246	SCMT432LF KCP25	B246
S350	B406-407, B409	SCGCR082	B194	SCMT3251LF KCP10	B246	SCMT432LF KCP25B	B246
S352	C182, C187, C191, D26-27, D35	SCGCR102	B194	SCMT3251FP KCP10B	B246	SCMT432LF KCP30	B246
S353	B406-407, B409	SCGCR103	B194	SCMT3251LF KCP25	B246	SCMT432MF KCK15	B247
S39	C191, C193, D35-37	SCGCR123	B194	SCMT3251LF KCP25B	B246	SCMT432MF KCK15B	B247
S411	B285	SCGCR163	B194	SCMT3251FP KCP30	B246	SCMT432MF KCK20	B247
S412	B407-408, C184, C187, C193, C195, D26, D28, D36, D38, E43, E47, E49	SCGN332S0415WCB KBK45	B309	SCMT3251LF KT315	B246	SCMT432MF KCK20B	B247
S415	B407-408	SCGN332S0415WCC KBK45	B309	SCMT3251MP KCK20	B247	SCMT432MF KCM15	B247
S422	B408, C184, C195, D28, D38, T109, V47, V54	SCGPL062	B210	SCMT3251MP KCM15	B247	SCMT432MF KCM25	B247
S422CG	T53, V54, V70	SCGPL083V	B210	SCMT3251MP KCM25	B247	SCMT432MF KCM35	B247
S424	S10, S14, S45, T7, V38, V70	SCGPL123B	B210	SCMT3251MP KCU10	B247	SCMT432MF KCP10	B247
S425	B408, S122	SCGPR062	B210	SCMT325111 KT315	B246	SCMT432MF KCP25	B247
S432	B408	SCGPR083V	B210	SCMT3252FP KCK20	B246	SCMT432MF KCP25B	B247
S435	B408	SCGPR08CA06	B218	SCMT3252FP KCM15	B246	SCMT432MF KCP30	B247
S4416W	B406	SCGPR123B	B210	SCMT3252FP KCP10	B246	SCMT432MF KCK20	B247
S4420W	B406	SCKPL08CA06	B219	SCMT3252FP KCP25	B246	SCMT432MF KCK20B	B247
S4424W	B406	SCKPR08CA06	B219	SCMT3252FP KCP25B	B246	SCMT432MF KCM25	B247
S4428W	B406	SCCL052	B194	SCMT3252FP KCU10	B246	SCMT432MF KCM25B	B247
S4432W	B406	SCCL062	B194	SCMT3252FP KCU25	B246	SCMT432MP KCP10	B247
S4440W	B406	SCCL082	B194	SCMT3252FP KTP10	B246	SCMT432MP KCP25	B247
S4440W48	B406	SCCL102	B194	SCMT3252LF KC5010	B246	SCMT432MP KCU10	B247
S445	S5, S10, S14, S17, S20, S32, S45, S50, S56, S58, S64, S67, S121-123, T7, T33, T109, T113, V38, V47, V54	SCCL103	B194	SCMT3252LF KCM5025	B246	SCMT433FP KCP25	B246
S445CG	S17, S20, T53, T78, T90, V54, V88, V91, V141	SCCL123	B194	SCMT3252LF KCK05	B246	SCMT433FP KCU10	B246
S446	S67, S121-122, V58, V70, V77, V83, V149	SCCL124B	B194	SCMT3252LF KCK05B	B246	SCMT433LF KC5010	B246
S446CG	V70, V77	SCCL12CA12	B198	SCMT3252LF KCK15	B246	SCMT433LF KCK20	B246
S447	T64	SCCL163	B194	SCMT3252LF KCK15B	B246	SCMT433LF KCP10B	B246
S449	T64	SCCL164D	B194	SCMT3252LF KCK20	B246	SCMT433LF KCP25B	B246
S458	S5, S10, S14, S17, S20, S24, S32, S45, S50, S56, S58, S64, S67, S121-123, T7, T33, T113, U18, U29, V38, V54, V58	SCCLCF062D	B195	SCMT3252LF KCK20B	B246	SCMT433MF KCK15	B247
S458CG	S17, S20, S24, T90, V54, V88, V141	SCCLCF082D	B195	SCMT3252LF KCM25	B246	SCMT433MF KCK20	B247
S459	V70, V77, V83, V149	SCCLCF083D	B195	SCMT3252LF KCP10	B246	SCMT433MF KCK20B	B247
S459CG	T90, V70	SCCLCF103B	B195	SCMT3252LF KCP10B	B246	SCMT433MF KCP10	B247
S464	T64	SCLCR052	B194	SCMT3252LF KCP25	B246	SCMT433MF KCP25	B247
S467	T7, U27, U37, V54, V58	SCLCR062	B194	SCMT3252LF KCP25B	B246	SCMT433MF KCP25B	B247
S518	E44-46	SCLCR082	B194	SCMT3252MF KCK15	B247	SCMT433MP KCM25	B247
S524	E41-42, E44-46	SCLCR102	B194	SCMT3252MF KCK15B	B247	SOMW3251 KCK20	B248
S532	E40, E48-49	SCLCR103	B194	SCMT3252MF KCK20	B247	SOMW3252 KCK20	B248
S625	E41, E45	SCLCR123	B194	SCMT3252MF KCM25	B247	SOMW432 KCK20	B248
S959	E41-47, E49	SCLCR124B	B194	SCMT3252MF KCP10	B247	SOMW433 KCK20	B248
S965	D29	SCLCR12CA12	B198	SCMT3252MF KCP25	B247	SOMW433 KCK20B	B248
SALS25	S104	SCLCR163	B194	SCMT3252MF KCP25B	B247	SCRCL083	B196
SALS30	S104	SCLCR164D	B194	SCMT3252MP KCK20B	B247	SCRCL083	B196
SALS40	S104	SCLCR16CA12	B198	SCMT3252MP KCM15	B247	SCRCL083	B196
SALS50	S104	SCLCR16CA12	B198	SCMT3252MP KCM25	B247	SCRCL083	B196
SALS6150	S104	SCLCRF062D	B195	SCMT3252MP KCM25B	B247	SCRPL062	B212
SB3230	T131	SCLCRF082D	B195	SCMT3252MP KCM25B	B247	SCRPL083V	B212
		SCLCRF083D	B195	SCMT3252MP KCP10	B247	SCRPR062	B212
		SCLCRF103B	B195	SCMT3252MP KCP25	B247	SCRPR083V	B212
		SCLCRF523Z	B195	SCMT3252MP KCP25B	B247	SCRPR08CA06	B212
		SCLPL062	B210	SCMT3252MP KCU10	B247	SCSPL06CA05	B222
		SCLPL083V	B210	SCMT3252UF KC5010	B247	SCSPL08CA06	B222
		SCLPL08CA06	B220	SCMT3252UF KCP05	B247	SCSPRO6CA05	B222
		SCLPL10CA09	B220	SCMT3252UF KCP10	B247	SCSPRO8CA06	B222
		SCLPL123B	B210				
		SCLPLF062D	B211				
		SCLPLF083D	B211				
		SCLPRO62	B210				
		SCLPRO6CA05	B220				

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
SCTPL08CA06	B223	SDET433PDSNGDZ KC725M	V143	SDJCR083	B228	SEF875937RSS150	125
SCTPR06CA05	B223	SDET433PDSNGDZ KCPK30	V143	SDJCR102	B228	SEF937101ORSS150	125
SCTPR08CA06	B223	SDET433PDSNGDZ KCPM40	V143	SDJCR103	B228	SEKT443AEEN7GP2 KC520M	S40
SCW5E	C58	SDET433PDSR8GB KC725M	T116, T123, U39	SDJCR123	B228	SEKT443AEEN7GP2 KC725M	S40
SCW8E	C58	SDET433PDSR8GB KCSM40	T116, T123, U39	SDJCR163	B228	SEKT443AEEN7GP2 KCK15	S40
SDACL062D	B227	SDET434ENGB KCSM40	T116, T123, U39	SDJCRF062D	B228	SEKT443AEEN7GP2 KCPK30	S40
SDACL082D	B227	SDET434SNGB KC725M	T116, T123, U39	SDJCRF082D	B228	SEKT443AEEN7GP2 KCPM40	S40
SDACL083D	B227	SDET434SNGB KCSM40	T116, T123, U39	SDJCRF083D	B228	SEKT443AEEN7GP2 KC520M	S40
SDACL103B	B227	SDET434SNGB2 KC520M	T115, T122, U39	SDJCRF103B	B228	SEKT443AEEN7GP2 KC725M	S40
SDACR062D	B227	SDET434SNGB2 KC725M	T115, T122, U39	SDJPL10CA07	B236	SEKT443AEEN7GP2 KCK15	S40
SDACR082D	B227	SDET434SNGB2 KCK15	T115, T122, U39	SDJPR10CA07	B236	SEKT443AEEN7GP2 KCPK30	S40
SDACR083D	B227	SDET434SNGB2 KCPK30	T115, T122, U39	SDMT060304EGG KC730M	U4	SEKT443AEEN7GP2 KCPM40	S40
SDACR103B	B227	SDET435SNGB2 KC520M	T115, T122, U39	SDMT060304EGG KC735M	U4	SEPT443AEEN7GB2 KC725M	S41
SDB115RBHT12F	K126	SDET435SNGB2 KC725M	T115, T122, U39	SDMT080308EGG KC505M	U4	SEPT443AEEN7GB2 KCK15	S41
SDB115RBHT16LF	K126	SDET435SNGB2 KCK15	T115, T122, U39	SDMT080308EGG KC730M	U4	SEPT443AEEN7GB2 KCPK30	S41
SDB24RBHT06F	K126	SDET435SNGB2 KCPK30	T115, T122, U39	SDMT080308EGG KC735M	U4	SEPT443AEEN7GB2 KC725M	S41
SDB30RBHT06F	K126	SDET435SNGB2 KCPM40	T115, T122, U39	SDMT09T308EN41 KCSM40	T130	SEPT443AEEN7GB2 KCK15	S41
SDB40RBHT09F	K126	SDET436ENGB KC725M	T116, T123, U39	SDMT09T308EN41 MP91M	T130	SEPT443AEEN7GB2 KCPK30	S41
SDB50RBHT09F	K126	SDET436ENGB KCSM40	T116, T123, U39	SDMT09T308EN41 SP6519	T130	SF075FBHS24	K138
SDB66RBHT112F	K126	SDET436SNGB KC725M	T116, T123, U39	SDMT09T308EN41 X500	T130	SF075FBHT24	K123
SDB66RBHT12F	K126	SDET436SNGB KCSM40	T116, T123, U39	SDMT120408EGG KC505M	U4	SF100FBH160	K129
SDB87RBHT12F	K126	SDET436SNGB2 KC725M	T115, T122, U39	SDMT120408EGG KC730M	U4	SF100FBHS31	K138
SDB87RBHT16LF	K126	SDET436SNGB2 KCK15	T115, T122, U39	SDMT120408EGG KC735M	U4	SF100FBHS51	K138
SDCT4316ENLD2 KC725M	T115, T122, U38	SDET436SNGB2 KCPK30	T115, T122, U39	SDMT120412EN41 KCSM40	T133	SF100RBHT30	K123
SDCT4316ENLD2 KCSM40	T115, T122, U38	SDET438ENGB KC725M	T116, T123, U39	SDMT120412EN41 MP91M	T133	SF100RBHT50	K123
SDCT431PDEL8LD2 KC725M	T115, T122, U38	SDET438ENGB KCSM40	T116, T123, U39	SDMT120412EN41 SP6519	T133	SF125FBHS40	K138
SDCT431PDER8LD2 KC725M	T115, T122, U38	SDET438SNGB KCSM40	T116, T123, U39	SDMT120412EN41 X500	T133	SF125FBHS67	K138
SDCT431PDFL8LE KC410M	T114, T121, U38, V143	SDET438SNGB2 KC520M	T115, T122, U39	SDMW09T308TN KCSM40	T130	SF125RBHT40	K123
SDCT431PDFR8LE KC410M	T114, T121, U38, V143	SDET438SNGB2 KC725M	T115, T122, U39	SDMW120412TN KCSM40	T133	SF125RBHT66	K123
SDCT433PDEL8LD2 KC725M	T115, T122, U38	SDET438SNGB2 KCK15	T115, T122, U39	SDMW120412TN SP6519	T133	SF200FBH101660	K129
SDCT433PDER8LD2 KC725M	T115, T122, U38	SDET438SNGB2 KCPK30	T115, T122, U39	SDPCN062D	B229	SF150FBHS87	K138
SDCT433PDER8LD2 KCSM40	T115, T122, U38	SDET438XENGB2 KC725M	T115, T122, U39	SDPCN082D	B229	SF150RBHT87	K123
SDCT433PDFL8LE KC410M	T114, T121, U38, V143	SDET433PDEL8GB2 KC520M	T115, T122, U39	SDPCN083D	B229	SF200FBHS116	K138
SDCT433PDFR8LE KC410M	T114, T121, U38, V143	SDET433PDEL8GB2 KC725M	T115, T122, U39	SDPCN103B	B229	SF200RBHT115	K123
SDCT434ENLD2 KC725M	T115, T122, U38	SDET433PDEL8GB2 KCK15	T115, T122, U39	SDPT433PDENHPZ KC725M	V143	SF300M1LA1RA	K68
SDCT434ENLD2 KCSM40	T115, T122, U38	SDET433PDEL8GB2 KCPK30	T115, T122, U39	SDPT433PDENHPZ KCPK30	V143	SF300M1RS	K68
SDCT434FNLE KC410M	T114, T121, U38, V143	SDET433PDER8GB KC520M	T116, T123, U39	SDPT433PDENHPZ KCPM40	V143	SF750M1LA1RA	K68
SDCT435ENLD2 KC725M	T115, T122, U38	SDET433PDER8GB KCSM40	T116, T123, U39	SDPT433PDSNHPZ KC725M	V143	SF750M1RS	K68
SDCT435FNLE KC410M	T114, T121, U38, V143	SDET433PDER8GB2 KC520M	T115, T122, U39	SDPT433PDSNHPZ KCPK30	V143	SFCPS	K70
SDCT436ENLD2 KC725M	T115, T122, U38	SDET433PDER8GB2 KC725M	T115, T122, U39	SDPT433PDSNHPZ KCPM40	V143	SFCR20	K71
SDCT436FNLE KC410M	T114, T121, U38, V143	SDET433PDER8GB2 KCK15	T115, T122, U39	SDPT433PDER8GB2 KC725M	T116, T123, U39	SFCR20S	K71
SDCT436ENLD2 KCSM40	T115, T122, U38	SDET433PDER8GB2 KCPK30	T115, T122, U39	SDPT433PDER8GB2 KCK15	T116, T123, U39	SFCRHSK3263	K71
SDCT438ENLD2 KC522M	T115, T122, U38	SDET433PDER8GB2 KCPM40	T115, T122, U39	SDPT433PDER8GB2 KCPK30	T116, T123, U39	SFCRHSK63100	K71
SDCT438ENLD2 KC725M	T115, T122, U38	SDET433PDER8GB2 KCSM40	T115, T122, U39	SDPT433PDER8GB2 KCPM40	T116, T123, U39	SFEBCH	K70
SDCT438ENLD2 KCSM30	T115, T122, U38	SDET433PDSL8GB2 KC725M	T115, T122, U39	SDPT433PDER8GB2 KCSM40	T116, T123, U39	SFEBS	K70
SDCT438ENLD2 KCSM40	T115, T122, U38	SDET433PDSL8GB2 KCPK30	T115, T122, U39	SDPT433PDSR8GB2 KC725M	T116, T123, U39	SFMGS	K71
SDCT438FNLE KC410M	T114, T121, U38, V143	SDET433PDSR8GB KC725M	T116, T123, U39	SDPT433PDSR8GB2 KCK15	T116, T123, U39	SFRHEC100S3150 KC625M	P131
SDCT439PDEL8LD2 KC725M	T115, T122, U38	SDET433PDSR8GB KCPK30	T116, T123, U39	SDPT433PDSR8GB2 KCPK30	T116, T123, U39	SFRHEC100S3225 K600	P131
SDCT439PDER8LD2 KC520M	T115, T122, U38	SDET433PDSR8GB KCPM40	T116, T123, U39	SDPT433PDSR8GB2 KCPM40	T116, T123, U39	SFRHEC100S3225 KC625M	P131
SDCT439PDER8LD2 KC725M	T115, T122, U38	SDET433PDSR8GB KCSM30	T116, T123, U39	SDPT433PDSR8GB2 KCSM40	T116, T123, U39	SFRHEC250S3075 K600	P131
SDCT439PDER8LD2 KCSM40	T115, T122, U38	SDET433PDSR8GB KCSM40	T116, T123, U39	SDSW66	V91	SFRHEC312S3075 KC625M	P131
SDCT43PDFL8LE KC410M	T114, T121, U38, V143	SDET433PDSR8GB2 KC520M	T115, T122, U39	SDUCL082	B229	SFRHEC375S3088 K600	P131
SDCT43PDFR8LE KC410M	T114, T121, U38, V143	SDET433PDSR8GB2 KC725M	T115, T122, U39	SDUCL083	B229	SFRHEC375S3088 KC625M	P131
SDCW433PDSR8GB KY3500	T117, T124	SDET433PDSR8GB2 KCK15	T115, T122, U39	SDUCL103	B229	SFRHEC500S3100 K600	P131
SDCW433EDSR8GB KY3500	T117, T124	SDET433PDSR8GB2 KCPK30	T115, T122, U39	SDUCR082	B229	SFRHEC500S3100 KC625M	P131
SDCW433PDSR8GB KY3500	T117, T124	SDET433PDSR8GB2 KCPM40	T115, T122, U39	SDUCR083	B229	SFRHEC500S3200 K600	P131
SDET4312ENGB KC725M	T116, T123, U39	SDHT09T308EN422 KCSM40	T129	SDUCR103	B229	SFRHEC500S3200 KC625M	P131
SDET4312ENGB KCSM40	T116, T123, U39	SDHT09T308EN422 SP6519	T129	SDUPR10CA07	B237	SFRHEC625S3225 K600	P131
SDET4316ENGB KC725M	T116, T123, U39	SDHT09T308EN422 X500	T129	SECT443AEEN7LD2 KC725M	S40	SFRHEC625S3225 KC625M	P131
SDET4316ENGB KCSM40	T116, T123, U39	SDHT09T308EN423 KCSM40	T129	SECT443AEFN7LE KC410M	S40	SFRHEC750S3150 K600	P131
SDET4316ENGB KCPK30	T116, T123, U39	SDHT09T308EN423 SP6519	T129	SECW443AEEN22GNW KC725M	S41	SFRHEC750S3150 KC625M	P131
SDET4316ENGB KC520M	T116, T123, U39	SDHT09T308EN423 X500	T129	SECW443AEEN7GN KY3500	S41	SFRHEC750S3225 K600	P131
SDET4316ENGB KC725M	T116, T123, U39	SDHT09T3AEEN422 SP6519	T129	SEF040060RSS075M	I26	SFRHEC750S3225 KC625M	P131
SDET4316SNGB KCPK30	T116, T123, U39	SDHT120412EN422 KCSM40	T132	SEF060080RSS075M	I26	SFSB450	K70
SDET4316SNGB KCSM30	T116, T123, U39	SDHT120412EN422 SP6519	T132	SEF080100RSS100M	I26	SFSB900	K70
SDET4316SNGB KCSM40	T116, T123, U39	SDHT120412EN422 X500	T132	SEF100120RSS125M	I26	SFSLA	K69
SDET4316SNGB2 KCPK30	T115, T122, U39	SDHT120412EN423 KCSM40	T132	SEF120140RSS125M	I26	SFSLLS	K69
SDET433PDEL8GB2 KC520M	T115, T122, U39	SDHT120412EN423 SP6519	T132	SEF140160RSS125M	I26	SFSLRA	K69
SDET433PDEL8GB2 KC725M	T115, T122, U39	SDHT120412EN423 X500	T132	SEF156187RSS075	I25	SFSLRS	K69
SDET433PDEL8GB2 KCK15	T115, T122, U39	SDJCL062	B228	SEF160180RSS125M	I26	SFSLSS	K69
SDET433PDENGDZ KC725M	V143	SDJCL082	B228	SEF180200RSS125M	I26	SFVB	K69
SDET433PDENGDZ KCPK30	V143	SDJCL083	B228	SEF218250RSS075	I25	SIF100HC12090M	K51
SDET433PDENGDZ KCPM40	V143	SDJCL102	B228	SEF265312RSS075	I25	SIF100HC20100M	K51
SDET433PDER8GB KC725M	T116, T123, U39	SDJCL103	B228	SEF328375RS075	I25	SIF100HC25100M	K51
SDET433PDER8GB KCPM40	T116, T123, U39	SDJCL123	B228	SEF390437RSS100	I25	SIF70HC12090M	K51
SDET433PDER8GB KCSM40	T116, T123, U39	SDJCL163	B228	SEF453500RSS100	I25	SIF70HC20100M	K51
SDET433PDER8GB2 KC520M	T115, T122, U39	SDJCLF062D	B228	SEF500562RSS100	I25	SIF80HC12090M	K51
SDET433PDER8GB2 KC725M	T115, T122, U39	SDJCLF082D	B228	SEF562625RSS125	I25	SIF80HC20100M	K51
SDET433PDER8GB2 KCK15	T115, T122, U39	SDJCLF083D	B228	SEF625687RSS125	I25	SIF80HC25100M	K51
SDET433PDER8GB2 KCPK30	T115, T122, U39	SDJCLF103B	B228	SEF687750RSS125	I25	SKCP343 K9	B193-196
SDET433PDER8GB2 KCPM40	T115, T122, U39	SDJCR062	B228	SEF750812RSS125	I25	SKCP453 K9	B194
SDET433PDSNGDZ KC522M	V143	SDJCR082	B228	SEF812875RSS150	I25	SKDP343 K9	B227-229

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
SKSN566K K9	B115-117, B119	SNG455T8015 KY1615	B337	SNHX1203PZTNGP KCPK30	U15	SNMG432MR KCUI0	B103
SKTP343 K9	B259-260	SNG554T0820 KY1615	B337	SNHX1203PZTNGP KCPM40	U15	SNMG432MS KC5010	B103
SKWN343 K9	B282	SNG634T0820 KY3500	B318	SNHX1203T KC725M	U14	SNMG432MS KC5025	B103
SL344	B170, B172, B179, B181-182, B372-374, B376, B378, B381-382, B393, C184, D28, E41, E45	SNG644E KYS25	B353	SNHX1203T KCPM40	U14	SNMG432MS KCUI0	B103
SM-906 KC720	S94, S98, S100	SNG644T0420 KYS30	B353	SNHX12045T KC725M	U14	SNMG432MS KCUI25	B103
SM-906LH KC720	S94, S98, S100	SNG656E KYS30	B353	SNHX1204T KC725M	U14	SNMG432MW KCP25	B104
SM119 K9	B179, B181-182, B378, B381-382	SNGA432S0415MT KBH10	B337	SNHX1205T KC725M	U14	SNMG432RN KCP10	B105
SM120 K9	B172, B376	SNGA432S0525MT KBH10	B337	SNHX12L4PZTNGP KCPK30	U15	SNMG432RN KCP25	B105
SM216 K9	B375	SNGA432T0820 KY1615	B337	SNHX12L5PZFNGE K110M	U14	SNMG432RN KCP25B	B105
SM218 K9	B373	SNGA432T0820 KY3500	B314	SNHX12L5PZFNGE KC510M	U14	SNMG432RN KCP30B	B105
SM26 K9	B375	SNGA432T0820 KYK10	B314	SNHX12L5PZTNGP K110M	U15	SNMG432RN KCP40B	B105
SM271 K9	E41, E45	SNGA432T0820 KYK25	B314	SNHX12L5PZTNGP KC725M	U15	SNMG432RP KC5010	B105
SM272 K9	E41	SNGA432T0820 KYK25	B314	SNHX12L5PZTNGP KCPK30	U15	SNMG432RP KC5025	B105
SM285 K9	E41-42, E44-46	SNGA433S0525MT KBH10	B337	SNMG322S0820 KB1340	B306	SNMG432RP KCK20	B105
SM286 K9	E41-42, E44-46	SNGA433S0525MT KBH20	B337	SNMG324S0820 KB1340	B306	SNMG432RP KCK20B	B105
SM36 K9	B172-173, B376-378	SNGA433T0420 KYS25	B353	SNMG424S0820 KB1340	B306	SNMG432RP KCM25	B105
SM369 K9	B165, B376, B389	SNGA433T0420 KYS30	B353	SNMG434S0820 KB1340	B306	SNMG432RP KCM35	B105
SM37 K9	B179-184, B188, B378-382, B389-390, B393	SNGA433T0820 KY1615	B337	SNMA432 K68	B100	SNMG432RP KCP05	B105
SM396 K9	B372	SNGA433T0820 KY3500	B314	SNMA432 KCK15B	B100	SNMG432RP KCP10	B105
SM40 K9	B172-173, B376-378	SNGA433T0820 KYK25	B314	SNMA432 KCK20	B100	SNMG432RP KCU25	B105
SM41 K9	B179-184, B188, B378-382, B389-390, B393	SNGA543T KY3500	B314	SNMA433 KCK15	B100	SNMG432RP KCU10	B105
SM412 K9	E43, E47, E49	SNGA543T0820 KYK25	B314	SNMA433 KCK15B	B100	SNMG432RP KCU25	B105
SM414 K9	E40, E48-49	SNGA544T KY3500	B314	SNMA433 KCK20	B100	SNMG432UN KCK15	B106
SM416 K9	C184, D28	SNGA643T0820 KY3500	B314	SNMA433 KCK20B	B100	SNMG432UN KCK15B	B106
SM417 K9	B210-211	SNGN332S0415WCB KBK45	B306	SNMA433S0820 KB1340	B310	SNMG432UN KCK20	B106
SM419 K9	C184, D28	SNGN332S0415WCB KBK45	B306	SNMA543 KCK15B	B100	SNMG432UN KCK20B	B106
SM420 K9	C184, D28	SNGN432T0820 KBK45	B305	SNMA543 KCK20	B100	SNMG432UP KC5010	B106
SM427 K9	D38	SNGN433S0820 KBK45	B305	SNMA643 K68	B100	SNMG432UP KCM35	B106
SM432 K9	B372-373	SNGN434S0820 KBK45	B305	SNMA643 KCK20	B100	SNMG433 K68	B100
SM434 K9	B374	SNGP431 KC5010	B100	SNMG321FF KC5010	B101	SNMG433FN KCP10	B101
SM437 K9	B170, B374, B393	SNGP432 KC5010	B100	SNMG321FF KCUI0	B101	SNMG433FN KCP25	B101
SM449 K9	T113	SNGX432T0820 KBK45	B308	SNMG322FF KC5010	B101	SNMG433FN KCP10B	B102
SM45 K9	B373	SNGX433S0820 KBK45	B308	SNMG322FF KCP10	B101	SNMG433MN KCP10B	B102
SM455 K9	S39	SNGX434S0820 KBK45	B308	SNMG322FF KCU10	B101	SNMG433MN KCP25	B102
SM46 K9	B373	SNGX453T0420 KYS30	B353	SNMG322FF KT315	B101	SNMG433MN KCP25B	B102
SM47 K9	B374	SNGX453T0820 KY1615	B338	SNMG322FN KCK05	B101	SNMG433MN KCP30	B102
SM48 K9	B375	SNGX453T0820 KY3500	B318	SNMG322FN KCK15B	B101	SNMG433MN KCP40	B102
SM837 K9	B186, B397	SNGX453T0820 KYK10	B318	SNMG322FN KCP10	B101	SNMG433MN KCP40B	B102
SMRN42B K9	B170, B385	SNGX453T0820 KYK25	B318	SNMG322MN KCP10	B102	SNMG433MP KC5010	B102
SMRN63B K9	B170, B385	SNGX454T0820 KBK45	B318	SNMG322MN KCP10B	B102	SNMG433MP KCM15	B102
SMRN84B K9	B170, B385	SNGX454T0820 KYK25	B318	SNMG322MN KCP25	B102	SNMG433MP KCM25	B102
SMYE3 K9	D71-72, D74-75, D77-79	SNGX454T0820 KY3500	B318	SNMG322MN KCP30	B102	SNMG433MP KCM35	B102
SMYE4 K9	D71-72, D74, D77-78	SNGX556T0820 KY3500	B318	SNMG323MN KCP10	B102	SNMG433MP KCU10	B102
SMYE5 K9	D78	SNHJ31252ENLD KC520M	S57	SNMG323MN KCP25	B102	SNMG433MP KCU25	B102
SMY3 K9	D71, D74-79	SNHJ31252ENLD KC725M	S57	SNMG323MN KCP30	B102	SNMG433MR KCM25	B103
SMY4 K9	D71, D74-79	SNHJ31252ENLD KCK15	S57	SNMG431FN KCK05	B101	SNMG433MR KCP10B	B103
SMY5 K9	D76, D78-79	SNHJ31252ENLD KCK15	S57	SNMG431FN KCP05	B101	SNMG433MR KCP25B	B103
SN2TPKG	W40, W42-43	SNHJ31252ENLD KCPK30	S57	SNMG431FN KCP10B	B101	SNMG433MR KCU10	B103
SN3TM	W40, W42	SNHJ31253ENLD KC725M	S57	SNMG431FP KCM15	B101	SNMG433MS KC5010	B103
SN3TPKG	D74-75, W40-43	SNHJ31253ENLD KCK15	S57	SNMG431FP KCU10	B101	SNMG433MS KCUI0	B103
SN5TM	W40-43	SNHJ442ENLD KC520M	S59	SNMG431MN KCP10B	B102	SNMG433MR KCU25	B103
SN7T	W40	SNHJ442ENLD KC725M	S59	SNMG431MN KCP25B	B102	SNMG433MW KCP10	B104
SNG322T0820 KY1615	B337	SNHJ442ENLD KCK15	S59	SNMG432 K313	B100	SNMG433P KCU10	B104
SNG322T0820 KY3500	B318	SNHJ442ENLD KCPK30	S59	SNMG432FF KC5010	B101	SNMG433RN KCP10	B105
SNG432T0220 KY1615	B337	SNHJ442SNGD KC520M	S59	SNMG432FN KCP10	B101	SNMG433RN KCP10B	B105
SNG432T0420 KYS30	B353	SNHJ442SNGD KC522M	S59	SNMG432FN KCP10B	B101	SNMG433RN KCP25	B105
SNG432T0820 KY1615	B337	SNHJ442SNGD KCK15	S59	SNMG432FN KCP25B	B101	SNMG433RN KCP25B	B105
SNG432T0820 KY3500	B318	SNHJ442SNGD KCPK30	S59	SNMG432FP KCM15	B101	SNMG433RN KCP30B	B105
SNG432T0820 KYK25	B318	SNHJ442SNGD KCPM40	S59	SNMG432FP KCM25B	B101	SNMG433RN KCP40	B105
SNG433T0420 KYS30	B353	SNHJ442SNGD KCSM40	S59	SNMG432FP KCU10	B101	SNMG433RN KCP40B	B105
SNG433T0820 KY1615	B337	SNHJ444ENLD KC520M	S59	SNMG432FW KCP05	B102	SNMG433RN KCPK05	B105
SNG433T0820 KY3500	B318	SNHJ444ENLD KC725M	S59	SNMG432FW KCP10	B102	SNMG433RP KC5010	B105
SNG433T0820 KYK25	B318	SNHJ444ENLD KCK15	S59	SNMG432MN KCP10	B102	SNMG433RP KC5025	B105
SNG434T0420 KYS25	B353	SNHJ444ENLD KCPK30	S59	SNMG432MN KCP10B	B102	SNMG433RP KCK05	B105
SNG434T0420 KYS30	B353	SNHX1102PZTNGP K110M	U15	SNMG432MN KCP25	B102	SNMG433RP KCK15	B105
SNG434T0820 KY1615	B337	SNHX1102PZTNGP KC725M	U15	SNMG432MN KCP25B	B102	SNMG433RP KCK15B	B105
SNG434T0820 KY3500	B318	SNHX1102PZTNGP KCPK30	U15	SNMG432MN KCP30	B102	SNMG433RP KCK20	B105
SNG434T0820 KYK25	B318	SNHX1102PZTNGP KCPM40	U15	SNMG432MN KCP30B	B102	SNMG433RP KCM25	B105
SNG438T0820 KY3500	B318	SNHX1102T KC725M	U14	SNMG432MN KCP40	B102	SNMG433RP KCM25B	B105
SNG451T0820 KY1615	B337	SNHX1103T KC725M	U14	SNMG432MN KCP40B	B102	SNMG433RP KCP05	B105
SNG452T0820 KY1615	B337	SNHX1103T KCPK30	U14	SNMG432MP KC5010	B102	SNMG433RP KCP10	B105
SNG452T0820 KY3500	B318	SNHX1103T KCPM40	U14	SNMG432MP KCM15	B102	SNMG433RP KCP10B	B105
SNG453T0820 KY1615	B337	SNHX11T3PZFNGE KC510M	U14	SNMG432MP KCM15B	B102	SNMG433RP KCP25	B105
SNG453T0820 KYK25	B318	SNHX11T3PZFNGE KC725M	U15	SNMG432MP KCM25	B102	SNMG433RP KCP25B	B105
SNG454T0820 KY3500	B318	SNHX11T3PZTNGP KC725M	U15	SNMG432MP KCM25B	B102	SNMG433RP KCP30	B105
SNG454T0820 KY1615	B337	SNHX11T3PZTNGP KCPM40	U15	SNMG432MP KCM35B	B102	SNMG433RP KCP40	B105
SNG454T0820 KY3500	B318	SNHX1203PZFNGE KC510M	U14	SNMG432MP KCU10	B102	SNMG433RP KCU10	B105
SNG455T0820 KY1615	B337	SNHX1203PZTNGP K110M	U15	SNMG432MR KCM25B	B103	SNMG433RP KCU25	B105
SNG455T4015 KY1615	B337	SNHX1203PZTNGP KC725M	U15	SNMG432MR KCP25B	B103	SNMG433UN KCK05B	B106

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
SNMG433UN KCK15B.....	B106	SNMG643RN KCP30B.....	B105	SNMM646RM KCP25B.....	B107	SNXF43ZNSNHE KCK15.....	S89
SNMG433UN KCK20.....	B106	SNMG643RN KCP40.....	B105	SNMM646RM KCP40B.....	B107	SNXF43ZNSNHE KCK20.....	S89
SNMG433UN KCK20B.....	B106	SNMG643RP KC5010.....	B105	SNMM646RP KCM25.....	B107	SNXF43ZNSNHE KCPK30.....	S89
SNMG433UP KCM25.....	B106	SNMG643RP KC5025.....	B105	SNMM646RP KCP25.....	B107	SPCT31251PPER8LD2 K725M.....	T111, U30
SNMG433UP KCM35.....	B106	SNMG643RP KCM25B.....	B105	SNMM646RP KCP25B.....	B107	SPCT31251PPER8LD2 K725M.....	T111, U30
SNMG434FN KCP10.....	B101	SNMG643RP KCM35.....	B105	SNMM646RW KCP25B.....	B107	SPCT31251PPFL8LE KC410M.....	T110, U30
SNMG434MG KCP25B.....	B103	SNMG643RP KCP10.....	B105	SNMM856RH KCP10.....	B106	SPCT31251PPER8LD2 K410M.....	T110, U30
SNMG434MN KCP25.....	B102	SNMG643RP KCP25B.....	B105	SNMM856RH KCP10B.....	B106	SPCT31253PPER8LD2 K725M.....	T111, U30
SNMG434MN KCP25B.....	B102	SNMG643RP KCP40B.....	B105	SNMM856RH KCP25.....	B106	SPCT31253PPER8LD2 K725M.....	T111, U30
SNMG434MP KCM25B.....	B102	SNMG643RP KCU10.....	B105	SNMM856RH KCP25B.....	B106	SPCT31253PPER8LD2 K410M.....	T110, U30
SNMG434MP KCM35.....	B102	SNMG643RP KCU25.....	B105	SNMM856RH KCP30.....	B106	SPCT31255FNLE K410M.....	T110, U30
SNMG434RN KCP10B.....	B105	SNMG643UN KCK15.....	B106	SNMM856RH KCP40.....	B106	SPCT31254ENLD2 KCSM30.....	T111, U30
SNMG434RN KCP25.....	B105	SNMG643UN KCK20.....	B106	SNMM856RH KCP40B.....	B106	SPCT31255ENLD2 K725M.....	T111, U30
SNMG434RN KCP25B.....	B105	SNMG644 KCP40.....	B100	SNMM856RM KCP10.....	B107	SPCT31255FNLE K410M.....	T110, U30
SNMG434RN KCP40.....	B105	SNMG644MN KCP25.....	B102	SNMM856RM KCP25.....	B107	SPCT3125PPER8LD2 K725M.....	T111, U30
SNMG434RN KCP40B.....	B105	SNMG644MP KC5010.....	B102	SNMM856RP KCM25.....	B107	SPCT3125PPER8LD2 KC520M.....	T111, U30
SNMG434RP KC5025.....	B105	SNMG644RN KCP10.....	B105	SNMM856RP KCP25.....	B107	SPCT3125PPER8LD2 K725M.....	T111, U30
SNMG434RP KCP10.....	B105	SNMG644RN KCP25.....	B105	SNMM856RP KCP40.....	B107	SPCT3125PPER8LD2 KCPM40.....	T111, U30
SNMG434RP KCU10.....	B105	SNMG644RN KCP25B.....	B105	SNMM856RW KCP25B.....	B107	SPCT3125PPFL8LE K410M.....	T110, U30
SNMG434UN KCK20.....	B106	SNMG644RN KCP30B.....	B105	SNMM866RH KCP10.....	B106	SPCT3125PPER8LE K410M.....	T110, U30
SNMG434UN KCK20B.....	B106	SNMG644RN KCP40B.....	B105	SNMM866RH KCP10B.....	B106	SPCT31251PPER8LD2 K725M.....	T111, U31
SNMG542MP KCM25B.....	B102	SNMG644RN KCPK05.....	B105	SNMM866RH KCP25.....	B106	SPET31251PPER8LD2 KCK15.....	T111, U31
SNMG542MS KCU25.....	B103	SNMG644RP KC5025.....	B105	SNMM866RH KCP25B.....	B106	SPET31251PEL8GB2 KCPK30.....	T111, U31
SNMG542RN KCP10.....	B105	SNMG644RP KCK20.....	B105	SNMM866RH KCP30.....	B106	SPET31251PPER8GB2 K725M.....	T111, U31
SNMG542RN KCP25.....	B105	SNMG644RP KCM25.....	B105	SNMM866RH KCP40.....	B106	SPET31251PPER8GB2 KCK15.....	T111, U31
SNMG543MN KCP10B.....	B102	SNMG644RP KCM25B.....	B105	SNMM866RH KCP40B.....	B106	SPET31251PPER8GB2 KCPK30.....	T111, U31
SNMG543MN KCP25.....	B102	SNMG644RP KCP10.....	B105	SNMM866RM KCP25.....	B107	SPET31251PPER8GB2 KC520M.....	T111, U31
SNMG543MN KCP25B.....	B102	SNMG644RP KCP40.....	B105	SNMM866RM KCP30.....	B107	SPET31251PPER8GB2 K725M.....	T111, U31
SNMG543MP KC5010.....	B102	SNMG644RP KCPK05.....	B105	SNMM866RM KCP40.....	B107	SPET31251PPER8GB2 KCK15.....	T111, U31
SNMG543MP KCM15.....	B102	SNMG644RP KCU10.....	B105	SNMM866RP KCM25.....	B107	SPET31251PPER8GB2 KCPK30.....	T111, U31
SNMG543MP KCM25.....	B102	SNMG644RP KCU25.....	B105	SNMM866RP KCM25B.....	B107	SPET31251PPER8GB2 KC520M.....	T111, U31
SNMG543MP KCM25B.....	B102	SNMG644UN KCK20.....	B106	SNMM866RP KCP25.....	B107	SPET31251PPER8GB2 K725M.....	T111, U31
SNMG543MP KCU10.....	B102	SNMG646RN KCP25.....	B105	SNMP432K KCP25.....	B108	SPET31251PPER8GB2 KCK15.....	T111, U31
SNMG543MR KCM15B.....	B103	SNMG646RN KCP30.....	B105	SNMP643 K313.....	B108	SPET31251PPER8GB2 KCPK30.....	T111, U31
SNMG543MR KCPK05.....	B103	SNMG866 KCP25.....	B100	SNMP643 K68.....	B108	SPET31251PPER8GB2 KCPM40.....	T111, U31
SNMG543MS KCU25.....	B103	SNMG866 KCP40.....	B100	SNMS432 K68.....	B108	SPET31251PPSL8GB2 K725M.....	T111, U31
SNMG543RN KCP10B.....	B105	SNMG866 KCU10.....	B100	SNMS643 K68.....	B108	SPET31251PPSL8GB2 KCPK30.....	T111, U31
SNMG543RN KCP25.....	B105	SNMG866RM KC5010.....	B104	SNMS643 KC5410.....	B108	SPET31251PPSR8GB2 KC520M.....	T111, U31
SNMG543RN KCP25B.....	B105	SNMG866RM KCP25.....	B104	SNMX190640S-WT5 KCP25B.....	E59	SPET31251PPSR8GB2 K725M.....	T111, U31
SNMG543RN KCP40.....	B105	SNMG866RM KCU10.....	B104	SNMX453T0820 KY3500.....	B319	SPET31251PPSR8GB2 KCK15.....	T111, U31
SNMG543RN KCP40B.....	B105	SNMG866RN KCP40B.....	B105	SNMX454T0820 KY3500.....	B319	SPET31251PPSR8GB2 KCPK30.....	T111, U31
SNMG543RN KCPK05.....	B105	SNMM432RM KCP25.....	B107	SNMX554T0820 KY3500.....	B319	SPG321 K68.....	B171
SNMG543RP KCM35.....	B105	SNMM432RP KCM35.....	B107	SNPJ31252SNGD KC520M.....	S57	SPG321 KC5010.....	B171
SNMG543RP KCP10B.....	B105	SNMM432RP KCP25.....	B107	SNPJ31252SNGD KCK15.....	S57	SPG322 K68.....	B171
SNMG543RP KCP25.....	B105	SNMM433RM KCP25.....	B107	SNPJ31252SNGD KCPK30.....	S57	SPG322 KC5010.....	B171
SNMG543RP KCP25B.....	B105	SNMM433RP KCM25.....	B107	SNPJ31252SNGD KCPM40.....	S57	SPG322 KCK15.....	B171
SNMG543RP KCP40.....	B105	SNMM433RP KCP25.....	B107	SNPJ31253SNGD KCK15.....	S57	SPG322T0420 KY1615.....	B338
SNMG543RP KCU10.....	B105	SNMM543RM KCP10.....	B107	SNPJ31253SNGD KCPK40.....	S57	SPG421 K68.....	B171
SNMG543RP KCU25.....	B105	SNMM543RM KCP25.....	B107	SNPJ442SNGD KC520M.....	S60	SPG421 KC5010.....	B171
SNMG543UN KCK15B.....	B106	SNMM543RM KCP25B.....	B107	SNPJ442SNGD KCK15.....	S60	SPG421 KCU10.....	B171
SNMG543UN KCK20.....	B106	SNMM543RP KCP25.....	B107	SNPJ442SNGD KCPK30.....	S60	SPG422 K313.....	B171
SNMG543UP KCM15.....	B106	SNMM544RM KCP10.....	B107	SNPJ442SNGD KCPM40.....	S60	SPG422 K68.....	B171
SNMG543UP KCM25.....	B106	SNMM544RM KCP25.....	B107	SNPJ444SNGD KCK15.....	S60	SPG422 KC5010.....	B171
SNMG543UP KCU10.....	B106	SNMM544RM KCP25B.....	B107	SNPJ444SNGD KCPK30.....	S60	SPG422 KCU10.....	B171
SNMG544MN KCP25B.....	B102	SNMM544RP KCM25.....	B107	SNPJ444SNGD KCPM40.....	S60	SPG422T0420 KY1615.....	B338
SNMG544MP KCM25.....	B102	SNMM544RP KCP10.....	B107	SNXF433AMSN KY3500.....	S90	SPG423 K68.....	B171
SNMG544MP KCU10.....	B102	SNMM643RH KCP25B.....	B106	SNXF433ENLD KC514M.....	S89	SPG423 KC5010.....	B171
SNMG544RN KCP25.....	B105	SNMM643RH KCP30.....	B106	SNXF433ENLD KC524M.....	S89	SPG433 KCU10.....	B171
SNMG544RN KCP25B.....	B105	SNMM643RM KCP10.....	B107	SNXF433ENLD KCK15.....	S89	SPG632 K68.....	B171
SNMG544RN KCP30B.....	B105	SNMM643RM KCP25.....	B107	SNXF433ENLD KCK20.....	S89	SPG633 K313.....	B171
SNMG544RN KCPK05.....	B105	SNMM643RM KCP25B.....	B107	SNXF433ENLD KCPK30.....	S89	SPG633 KCU10.....	B171
SNMG544RP KCM15B.....	B105	SNMM643RM KCP40.....	B107	SNXF433SNGP KC514M.....	S89	SPGF322 KC5010.....	B171
SNMG544RP KCM25B.....	B105	SNMM643RP KCP25.....	B107	SNXF433SNGP KC524M.....	S89	SPGF322 KCU10.....	B171
SNMG544RP KCP10B.....	B105	SNMM643RP KCP40.....	B107	SNXF433SNGP KCK15.....	S89	SPGF422 KCP25B.....	B171
SNMG544RP KCP25.....	B105	SNMM644RH KCP10.....	B106	SNXF433SNGP KCK20.....	S89	SPGT3251LF KC5010.....	B252
SNMG544RP KCU25.....	B105	SNMM644RH KCP25.....	B106	SNXF433SNGP KCPK30.....	S89	SPGT3251LF KC5025.....	B252
SNMG544UN KCK15.....	B106	SNMM644RH KCP25B.....	B106	SNXF433SNHE KC524M.....	S89	SPGT3251LF KCU10.....	B252
SNMG544UN KCK20.....	B106	SNMM644RH KCP30.....	B106	SNXF433SNHE KCK15.....	S89	SPGT3252LF KC5010.....	B252
SNMG642RN KCP25B.....	B105	SNMM644RH KCP40.....	B106	SNXF433SNHE KCK20.....	S89	SPGT3252LF KC5025.....	B252
SNMG642RN KCP30.....	B105	SNMM644RM KCP10.....	B107	SNXF433SNHE KCPK30.....	S89	SPGT3252LF KC5410.....	B252
SNMG643 KCU10.....	B100	SNMM644RM KCP25.....	B107	SNXF432NAMSN KY3500.....	S90	SPGT3252LF KCU10.....	B252
SNMG643MN KCP10.....	B102	SNMM644RM KCP25B.....	B107	SNXF432ENLD KC514M.....	S89	SPGX050204HP K7140.....	J103
SNMG643MN KCP25B.....	B102	SNMM644RM KCP40B.....	B107	SNXF432ENLD KC524M.....	S89	SPGX050204HP KCU25.....	J103
SNMG643MP KCM15.....	B102	SNMM644RP KCM25.....	B107	SNXF432ENLD KCK15.....	S89	SPGX050204HP KCU40.....	J103
SNMG643MP KCM25.....	B102	SNMM644RP KCM25B.....	B107	SNXF432ENLD KCK20.....	S89	SPGX050204LP KCU40.....	J104
SNMG643MP KCM25B.....	B102	SNMM644RP KCP40.....	B107	SNXF432ENLD KCPK30.....	S89	SPGX050204MD K7140.....	J103
SNMG643MP KCM35.....	B102	SNMM646RH KCP10.....	B106	SNXF432SNGP KC514M.....	S89	SPGX050204MD KCU25.....	J103
SNMG643MS KC5025.....	B103	SNMM646RH KCP25.....	B106	SNXF432SNGP KC524M.....	S89	SPGX050204MD KCU40.....	J103
SNMG643MS KCU25.....	B103	SNMM646RH KCP25B.....	B106	SNXF432SNGP KCK15.....	S89	SPGX060304FP KCPK10.....	J104
SNMG643RN KCP10B.....	B105	SNMM646RH KCP30.....	B106	SNXF432SNGP KCK20.....	S89	SPGX060304FP KCU25.....	J104
SNMG643RN KCP25.....	B105	SNMM646RH KCP40B.....	B106	SNXF432NSNGP KCPK30.....	S89	SPGX060304FP KCU40.....	J104
SNMG643RN KCP25B.....	B105	SNMM646RM KCP25.....	B107	SNXF432NSNHE KC514M.....	S89	SPGX060304LP KCU40.....	J104

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
SPGX060304MD KC7140	J103	SPHX120404R21 KCU40	J116	SPMT3251LF KCP10	B252	SPPX15T508MD KCU40	J103
SPGX060304MD KCPK10	J103	SPHX120404R21 KM1	J116	SPMT3251LF KCP25	B252	SPPX15T508RHP KC7140	J103
SPGX060304MD KCU25	J103	SPHX120404R22 KM1	J117	SPMT3251LF KT315	B252	SPPX15T508RHP KCU25	J103
SPGX060304MD KCU40	J103	SPHX120408R20 KCU25	J115	SPMT3251UF KC5010	B253	SPPX15T508RHP KCU40	J103
SPGX060304RHP KC7140	J103	SPHX120408R20 KCU40	J115	SPMT3251UF KCP10B	B253	SPPX15T512FP KCPK10	J104
SPGX060304RHP KCU25	J103	SPHX120408R21 KC7215	J116	SPMT3252FF KCU10	B252	SPPX15T512FP KCU25	J104
SPGX060304RHP KCU40	J103	SPHX120410R20 KC7215	J115	SPMT3252LF K68	B252	SPPX15T512FP KCU40	J104
SPGX070304FP KCPK10	J104	SPHX120410R21 KC7215	J116	SPMT3252LF KC5010	B252	SPPX15T512HP KCPK10	J103
SPGX070304FP KCU25	J104	SPHX120412R20 KC7215	J115	SPMT3252LF KC5025	B252	SPPX15T512HP KCU25	J103
SPGX070304FP KCU40	J104	SPHX120412R21 KC7215	J116	SPMT3252LF KCK15	B252	SPPX15T512HP KCU40	J103
SPGX070304MD KC7140	J103	SPHX120416R20 KC7215	J115	SPMT3252LF KCK15B	B252	SPPX15T512MD KCPK10	J103
SPGX070304MD KCPK10	J103	SPHX120416R21 KC7215	J116	SPMT3252LF KCK20	B252	SPPX15T512MD KCU25	J103
SPGX070304MD KCU25	J103	SPHX120420R20 KC7215	J115	SPMT3252LF KCK20B	B252	SPPX15T512MD KCU40	J103
SPGX070304MD KCU40	J103	SPHX120420R21 KC7215	J116	SPMT3252LF KCP10B	B252	SPU421 K68	B171
SPGX070304RHP KC7140	J103	SPHX120508PCSRGP KCK15	S68	SPMT3252LF KCP25	B252	SPU421 KCP25B	B171
SPGX070304RHP KCU25	J103	SPHX1205PCELGPB KCK15	S68-69	SPMT3252LF KCP25B	B252	SPU422 K68	B171
SPGX070304RHP KCU40	J103	SPHX1205PCER-GP1WB KC520M	S69	SPMT3252MF KCK15	B253	SPU422 KCP25	B171
SPGX070308FP KCPK10	J104	SPHX1205PCER-GP1WB KCK15	S69	SPMT3252MF KCK15B	B253	SPU422T0220 KY1615	B338
SPGX070308FP KCU25	J104	SPHX1205PCERGN1WB KCPK30	S69	SPMT3252MF KCK20	B253	SPU423 KCP25B	B171
SPGX070308FP KCU40	J104	SPHX1205PCERGN1WB KB1340	S69	SPMT3252MF KCM25B	B253	SR3 KWH	B243-244
SPGX070308HP KCPK10	J103	SPHX1205PCERGP4S KC520M	S68	SPMT3252MF KCP10	B253	SR4	B243
SPGX070308HP KCU25	J103	SPHX1205PCERGP4S KC520M	S68	SPMT3252MF KCP25	B253	SRACL162D	B243
SPGX070308HP KCU40	J103	SPHX1205PCERGPB KC520M	S68	SPMT3252MF KCP25B	B253	SRACL164D	B243
SPGX070308MD KCPK10	J103	SPHX1205PCERGPB KCK15	S68	SPMT3252MP KCK20	B253	SRACL202D	B243
SPGX070308MD KCU25	J103	SPHX1205PCERGPB KCPK30	S68	SPMT3252MP KCM15	B253	SRACL203D	B243
SPGX070308MD KCU40	J103	SPHX1205PCFLGN1WB KCK15	S69	SPMT3252MP KCU10	B253	SRACL204D	B243
SPHX060202R20 KC7215	J115	SPHX1205PCFRGN1WB KC520M	S69	SPMT432MF KCK15	B253	SRACL244D	B243
SPHX060202R21 KC7215	J116	SPHX1205PCFRGN1WB KCPK30	S69	SPMT432MF KCK20	B253	SRACR162D	B243
SPHX060204R20 KC7140	J115	SPHX1205PCFRGN1WB KCK15	S69	SPMT432MF KCM25	B253	SRACR163D	B243
SPHX060204R20 KCU25	J115	SPHX1205PCFRGN1WB KTKP20	S69	SPMT432MF KCP25	B253	SRACR164D	B243
SPHX060204R20 KCU40	J115	SPHX1205PCFRGN1WB KY3500	S69	SPMT432MF KCP30	B253	SRACR202D	B243
SPHX060204R21 KCPK10	J116	SPHX1205PCSRGPB KC725M	S68	SPMT432MP KCP25	B253	SRACR203D	B243
SPHX060204R21 KCU25	J116	SPHX1205PCSRGPB KCK15	S68	SPMT432MP KCU10	B253	SRACR204D	B243
SPHX060204R21 KCU40	J116	SPHX1205PCSRGPB KCPK30	S68	SPPT3125PPER8GB2 KCK15	T112, U31	SRACR244D	B243
SPHX060204R21 KM1	J116	SPHX1205PCTLGPBK KY3500	S68	SPPT3125PPER8GB2 KCPK30	T112, U31	SRCLL162D	B243
SPHX060204R22 KM1	J117	SPHX1205PCTR-GP1WB KY3500	S69	SPPT3125PPSR8GB2 KCK15	T112, U31	SRCLL163D	B243
SPHX060206R20 KC7215	J115	SPHX1205PCTRGP4SBK KY3500	S68	SPPT3125PPSR8GB2 KCPK30	T112, U31	SRCLL203D	B243
SPHX060206R21 KC7215	J116	SPHX1205PCTRGPB KTKP20	S68	SPPT3125PPSR8GB2 KTKP20	T112, U31	SRCCR122B	B243
SPHX060206R20 KCU25	J115	SPHX1205PCTRGPBK KY3500	S68	SPPX070304LP KCU10	J104	SRCCR123B	B243
SPHX060206R21 KCU25	J115	SPHX1205ZCELP KC520M	S65	SPPX09T308FP KCPK10	J104	SRCCR162D	B243
SPHX070302R20 KC7215	J115	SPHX1205ZCELP KCK15	S65	SPPX09T308FP KCU25	J104	SRCCR163D	B243
SPHX070304R20 KC7140	J115	SPHX1205ZCER-GP1W KC520M	S66	SPPX09T308FP KCU40	J104	SRCCR203D	B243
SPHX070304R20 KCU25	J115	SPHX1205ZCER-GP1W KCK15	S66	SPPX09T308LP KCU40	J104	SRGL162	B244
SPHX070304R20 KCU40	J115	SPHX1205ZCERGN1WB KB1340	S66	SPPX09T308MD KC7140	J103	SRGL203	B244
SPHX070304R21 KCPK10	J116	SPHX1205ZCERGP KC520M	S65	SPPX09T308MD KCU25	J103	SRGCR08A06	B245
SPHX070304R21 KCU25	J116	SPHX1205ZCERGP KCK15	S65	SPPX09T308MD KCU40	J103	SRGR122	B244
SPHX070304R21 KCU40	J116	SPHX1205ZCERGP KCPK30	S65	SPPX09T308RHP KC7140	J103	SRGR122A1	B244
SPHX070304R21 KM1	J116	SPHX1205ZCERGP4S KCK15	S65	SPPX09T308RHP KCU25	J103	SRGR162	B245
SPHX070304R22 KM1	J117	SPHX1205ZCFRGN1WB KC520M	S66	SPPX09T308RHP KCU40	J103	SRGR163	B244
SPHX070306R20 KC7215	J115	SPHX1205ZCFRGN1WB KCK15	S66	SPPX09T310FP KCPK10	J104	SRGCR203	B244
SPHX070306R21 KC7215	J116	SPHX1205ZCFRGN1WB KY3500	S66	SPPX09T310FP KCU25	J104	SRGCR162	B245
SPHX070308R20 KC7215	J115	SPHX1205ZCSRGP KCK15	S65	SPPX09T310FP KCU40	J104	SRGCR163	B244
SPHX070308R21 KCPK10	J116	SPHX1205ZCSRGP KCPK30	S65	SPPX09T310HP KCPK10	J103	SRGCR203	B244
SPHX070308R21 KCU40	J116	SPHX1205ZCTLGPB KY3500	S65	SPPX09T310HP KCU25	J103	SRGCR162	B245
SPHX070310R20 KC7215	J115	SPHX1205ZCTR-GP1WK KY3500	S66	SPPX09T310HP KCU40	J103	SRGCR163	B244
SPHX070310R21 KC7215	J116	SPHX1205ZCTRGP KTKP20	S65	SPPX09T310MD KCPK10	J103	SRGCR203	B244
SPHX070312R20 KC7215	J115	SPHX1205ZCTRGP4SK KY3500	S65	SPPX09T310MD KCU25	J103	SRGCR162	B245
SPHX090304R20 KC7140	J115	SPHX1205ZCTRGPB KY3500	S65	SPPX09T310MD KCU40	J103	SRGCR163	B244
SPHX090304R20 KC7215	J115	SPHX150504R20 KCU25	J115	SPPX120408FP KCPK10	J104	SRGCR203	B244
SPHX090304R20 KCU25	J115	SPHX150504R20 KCU40	J115	SPPX120408FP KCU25	J104	SRGCR162	B245
SPHX090304R20 KCU40	J115	SPHX150504R21 KM1	J116	SPPX120408FP KCU40	J104	SRGCR163	B244
SPHX090304R21 KCPK10	J116	SPHX150504R22 KM1	J117	SPPX120408LP KCU40	J104	SRGCR203	B244
SPHX090304R21 KCU25	J116	SPHX150508R20 KCU25	J115	SPPX120408MD KC7140	J103	SRGCR162	B245
SPHX090304R21 KCU40	J116	SPHX150508R20 KCU40	J115	SPPX120408MD KCU25	J103	SRGCR163	B244
SPHX090304R21 KM1	J116	SPHX150512R20 KC7215	J115	SPPX120408MD KCU40	J103	SRGCR203	B244
SPHX090304R22 KM1	J117	SPHX150516R20 KC7215	J115	SPPX120408RHP KC7140	J103	SRGCR162	B245
SPHX090308R20 KCU25	J115	SPHX150520R20 KC7215	J115	SPPX120408RHP KCU25	J103	SRGCR163	B244
SPHX090308R20 KCU40	J115	SPHX15T6ZCERGP KCK15	S71	SPPX120408RHP KCU40	J103	SRGCR203	B244
SPHX090308R21 KCPK10	J116	SPHX15T6ZCERGP KCPK30	S71	SPPX120412FP KCPK10	J104	SRGCR162	B245
SPHX090308R21 KCU25	J116	SPHX15T6ZCERGP4S KCK15	S71	SPPX120412FP KCU25	J104	SRGCR163	B244
SPHX090308R21 KCU40	J116	SPHX15T6ZCFRGN1W KCK15	S72	SPPX120412FP KCU40	J104	SRGCR203	B244
SPHX090310R20 KC7215	J115	SPHX15T6ZCSRGP K110M	S71	SPPX120412HP KCPK10	J103	SRGCR162	B245
SPHX090310R21 KC7215	J116	SPHX15T6ZCSRGP KCPK30	S71	SPPX120412HP KCU25	J103	SRGCR163	B244
SPHX090312R20 KC7215	J115	SPHX15T6ZCTRGP4SK KY3500	S71	SPPX120412HP KCU40	J103	SRGCR203	B244
SPHX090312R21 KC7215	J116	SPHX15T6ZCTRGPB KY3500	S71	SPPX120412MD KCPK10	J103	SRGCR162	B245
SPHX090316R20 KC7215	J115	SPMT3251FP KCP25	B252	SPPX120412MD KCU25	J103	SRGCR163	B244
SPHX090316R21 KC7215	J116	SPMT3251FP KCU10	B252	SPPX120412MD KCU40	J103	SRGCR203	B244
SPHX120404R20 KC7140	J115	SPMT3251FP KCU25	B252	SPPX15T508FP KCPK10	J104	SRGCR162	B245
SPHX120404R20 KCU25	J115	SPMT3251LF KC5010	B252	SPPX15T508FP KCU25	J104	SRGCR163	B244
SPHX120404R20 KCU40	J115	SPMT3251LF KC5025	B252	SPPX15T508FP KCU40	J104	SRGCR203	B244
SPHX120404R21 KCPK10	J116	SPMT3251LF KCK15B	B252	SPPX15T508MD KC7140	J103	SRGCR162	B245
SPHX120404R21 KCU25	J116	SPMT3251LF KCK20	B252	SPPX15T508MD KCU25	J103	SRGCR163	B244

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
SS100SLDL160450	054	SSF200FDS560551	H128	STC20	B60-64, B66, B69-71, B75-76, B89-90, B92, B96, B98-99, B120, B155, B163, B371-372, B374	STN1611BSW KC610M	W46
SS100SLDL200375	054	SSF200FDS561020	H128	STC26	B165, B389	STN1611BSW KC635M	W46
SS100SLDL250350	054	SSF200FDS561507	H129	STC27	B183-185, B388-390, B392	STN1612UNI KC635M	W44
SS125DL251000	055	SSF200FDS562240	H129	STC4	B61-65, B69, B71, B75-76, B89-90, B93, B96, B98, B111-114, B120, B132-139, B143, B152-155, B165, B172-173, B179-184, B188, B373-382, B389-390, B393	STN1612UNI KC635M	W44
SS125DL321000	055	SSF200FDS562783	H129	STC5	B63, B71, B89-90, B93, B96, B98, B111, B113, B132-137, B163, B172, B179, B373, B376, B378	STN1614BSW KC635M	W46
SS125SLDL250425	054	SSF200FDS630606	H128	STC8	B165, B172-173, B179-184, B188, B376-382, B389-390, B393	STN1614BSW KC635M	W46
SS125SLDL320400	054	SSF200FDS631138	H128	STC9	B69, B76, B132-133, B135-136, B139, B143, B165, B170, B179, B181-185, B376, B378, B381-382, B388-390, B392-393	STN1614NPT KC635M	W46
SS150DL321000	055	SSF200FDS631688	H129	STCM11	U28-29, U35-36	STN1614NPT KC635M	W46
SS150SLDL320550	054	SSF200FDS632515	H129	STCM20	B74	STN1614NPT KC635M	W44
SS16KST115AR3M	K42	SSF200FDS633066	H129	STCM25	V148-149	STN1616UNI KC635M	W44
SS16KST115AR5M	K42	SSF200FDS710677	H128	STCM32	U28	STN1616UNI KC610M	W44
SS200DL321000	055	SSF200FDS711150	H128	STCM37	B140-142	STN16175ISOI KC635M	W45
SS200SLDL320750	054	SSF200FDS711780	H129	STCM38	B72-74, B94, B115-119, B140-142, B174-176, B186-187, B394-398	STN16175ISOI KC635M	W45
SS20FBHS24	K139	SSF200FDS800756	H128	STCM40	B74, B94, B115-117, B119	STN22300ISOIC KC610M	W45
SS20KST135AR3M	K42	SSF200FDS801287	H128	STCM8	B74, B115, B119, B186, B397	STN2711BSW KC635M	W46
SS20KST135AR5M	K42	SSF200FDS801996	H129	STCM9	B72-74, B94-95, B115-117, B119, B140-142	STN27200ISOE KC610M	W45
SS20KST155AR3M	K42	SSF200FDS900835	H128	STFCLO62	B259	STN27350ISOIC KC610M	W45
SS20KST155AR5M	K42	SSF200FDS901425	H128	STFCR062	B259	STTPR08CA09	B278
SS20KST175AR3M	K42	SSF200FDS902213	H129	STFCR163	B259	STTPR12CA11	B278
SS20KST175AR5M	K42	SSF200HTS130239	J89	STFPL08CA09	B276	STTPR12CA16	B279
SS20KST175RR3M	K43	SSF200HTS130450	J89	STFPL10CA11	B276	SU3	E65
SS20KST175RR5M	K43	SSF200HTS130664	J89	STFPL12CA16	B276	SUJWCL	E64
SS20KST200AR3M	K42	SSF200HTS131114	J89	STFPR062	B270	SUJWTCR	E64
SS20KST200AR5M	K42	SSF200HTS131764	J89	STFPR08CA09	B276	SVABLO62D	B282
SS20KST200RR3M	K43	SSF200HTS160239	J89	STFPR10CA11	B276	SVABLO82D	B282
SS20KST200RR5M	K43	SSF200HTS160450	J89	STFPR12CA16	B276	SVABL103B	B282
SS20RBHT24	K124	SSF200HTS160714	J89	STGCL062	B260	SVABR062D	B282
SS25FBHS31	K139	SSF200HTS162124	J89	STGCL082	B260	SVABR082D	B282
SS25KST250AR3M	K42	SSF200HTS161964	J89	STGCL103	B260	SVABR103B	B282
SS25KST250AR5M	K42	SSF200HTS220297	J89	STGCL123	B260	SVJBL062	B282
SS25KST250RR3M	K43	SSF200HTS220550	J89	STGCL163	B260	SVJBL082	B282
SS25KST250RR5M	K43	SSF200HTS220922	J89	STGCR062	B260	SVJBL102	B282
SS25RBHT30	K124	SSF200HTS221572	J89	STGCR082	B260	SVJBL163	B282
SS32KST300AR3M	K42	SSF200HTS222572	J89	STGCR103	B260	SVJBLF062D	B283
SS32KST300AR5M	K42	SSF200HTS270297	J89	STGCR123	B260	SVJBLF082D	B283
SS32KST300RR3M	K43	SSF200HTS270550	J89	STGCR163	B260	SVJBLF103B	B283
SS32KST300RR5M	K43	SSF200HTS271122	J89	STGPL062	B270	SVJBR062	B282
SS32KST350AR3M	K42	SSF200HTS271922	J89	STGPL082V	B270	SVJBR082	B282
SS32KST350AR5M	K42	SSF200HTS273122	J89	STGPL08CA09	B277	SVJBR102	B282
SS32KST350RR3M	K43	SSF200HTS320305	J89	STGPL10CA11	B277	SVJBR123	B282
SS32KST350RR5M	K43	SSF200HTS320550	J89	STGPR062	B270	SVJBR163	B282
SSA3T	D71-72, D74-79	SSF200HTS320805	J89	STGPR082V	B270	SVJBRF062D	B283
SSA4T	D71-72, D74-79	SSF200HTS321305	J89	STGPR10CA11	B277	SVJBRF082D	B283
SSA5T	D76, D78-79	SSF200HTS321805	J89	STGPR12CA16	B277	SVJBRF103B	B283
SSE075FBHS24	K139	SSF250HTS400355	J89	STJCRF062D	B261	SVUBL082	B283
SSE100FBHS31	K139	SSF250HTS400650	J89	STJCRF082D	B261	SVUBL102	B283
SSE125FBHS40	K139	SSF250HTS401055	J89	STJCRF102B	B261	SVUBR082	B283
SSF150FDS280299	H128	SSF250HTS401555	J89	STN10075ISOI KC635M	W45	SVUBR102	B283
SSF150FDS280502	H128	SSF250HTS402555	J89	STN10100ISOI KC620M	W45	SWLCRF082D	B287
SSF150FDS280746	H129	SSF300HTS500413	J89	STN10100ISOI KC635M	W45	SWSM515	S104
SSF150FDS281112	H129	SSF300HTS500700	J89	STN10125ISOI KC635M	W45	SYB115RBHT16LF	K125
SSF150FDS281356	H129	SSF300HTS501313	J89	STN10150ISOI KC635M	W45	SYB24RBHT06F	K125
SSF150FDS320323	H128	SSF300HTS502113	J89	STN1018UNI KC635M	W44	SYB30RBHT06F	K125
SSF150FDS320573	H128	SSF300HTS503113	J89	STN1020UNI KC635M	W44	SYB40RBHT09F	K125
SSF150FDS320850	H129	SSKCL12CA12	B249	STN11100ISOI KC635M	W45	SYB50RBHT09F	K125
SSF150FDS321263	H129	SSKCR12CA12	B249	STN1114UNI KC635M	W44	SYB66RBHT12F	K125
SSF150FDS321539	H129	SSKCR16CA12	B249	STN11150ISOI KC635M	W45	SYB87RBHT12F	K125
SSF150FDS360362	H128	SSKPR10CA09	B254	STN1118NPT KC635M	W46	SYB87RBHT16LF	K125
SSF150FDS360652	H128	SSN2T	D74-75	T15 S	T127-128, V9-12, V17-19, V102-103, V111-112	T20 S	T131, V111-112
SSF150FDS360960	H129	SSP025016M	B58-60, B67-68, B87-88, B91-92, B98, B109-110, B113, B131, B138, B150-151, B154, B163	T320M060X100R6HX KC7542	M4	T320M080X125R6HX KC7542	M4
SSF150FDS361421	H129	SSP025018M	B67-68	T320M100X150R6HX KC7542	M4	T320M120X125R6HX KC7542	M4
SSF150FDS361728	H129	SSP8	S104	T320M160X200R6HX KC7542	M4	T320M200X250R6HX KC7542	M4
SSF150HTS130239	J89	SSRCL12CA12	B250	T320M240X300R6HX KC7542	M4	T320M300X350R6HX KC7542	M4
SSF150HTS130450	J89	SSRCR12CA12	B250	T320M360X450R6HX KC7542	M4	T320M450X540R6HX KC7542	M4
SSF150HTS130664	J89	SSRPR10CA09	B254	T320M540X630R6HX KC7542	M4	T320M630X720R6HX KC7542	M4
SSF150HTS131114	J89	SSSCL12CA12	B251	T320M720X810R6HX KC7542	M4	T320M810X900R6HX KC7542	M4
SSF150HTS131764	J89	SSSCR12CA12	B251	T320M900X990R6HX KC7542	M4	T320M1080X1170R6HX KC7542	M4
SSF200FDS400394	H128	SSSPL10CA09	B255	T320M1260X1440R6HX KC7542	M4	T320M1540X1720R6HX KC7542	M4
SSF200FDS400721	H128	SSSPR10CA09	B255	T320M1920X2100R6HX KC7542	M4	T320M2200X2380R6HX KC7542	M4
SSF200FDS401066	H129	SSY3T	D71-72, D74-79	T320M2880X3160R6HX KC7542	M4	T320M3360X3640R6HX KC7542	M4
SSF200FDS401586	H129	SSY4T	D71-72, D74-79	T320M4320X4600R6HX KC7542	M4	T320M5160X5440R6HX KC7542	M4
SSF200FDS401933	H129	SSY5T K9	D76, D78-79	T320M6000X6380R6HX KC7542	M4	T320M7200X7580R6HX KC7542	M4
SSF200FDS450441	H128	STACR062D	B259	T320M9000X9380R6HX KC7542	M4	T320M10800X11200R6HX KC7542	M4
SSF200FDS450809	H128	STACR082D	B259	T320M14400X14800R6HX KC7542	M4	T320M17200X17600R6HX KC7542	M4
SSF200FDS451196	H129	STACR103B	B259	T320M21600X22000R6HX KC7542	M4	T320M25200X25600R6HX KC7542	M4
SSF200FDS451775	H129	STC11	B71, B165, B180, B183-185, B372-373, B379-380, B389-390, B392	T320M33600X34000R6HX KC7542	M4	T320M40800X41200R6HX KC7542	M4
SSF200FDS452161	H129	STC19	B63-64, B98, B111-112, B172, B376	T320M48000X48400R6HX KC7542	M4	T320M57600X58000R6HX KC7542	M4
SSF200FDS500480	H128			T320M64800X65200R6HX KC7542	M4	T320M75600X76000R6HX KC7542	M4
SSF200FDS500896	H128			T320M86400X86800R6HX KC7542	M4	T320M100800X101200R6HX KC7542	M4
SSF200FDS501330	H129			T320M115200X115600R6HX KC7542	M4	T320M134400X134800R6HX KC7542	M4
SSF200FDS501980	H129			T320M153600X154000R6HX KC7542	M4	T320M172800X173200R6HX KC7542	M4
SSF200FDS502413	H129			T320M192000X192400R6HX KC7542	M4	T320M220800X221200R6HX KC7542	M4

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
T320NC04375-14R3BX KC7542	M4	T353M080X125R6HX-D1 KCK17	M113	T620M060X100R6HX-A KP6525	M10	T620NC03750-16R2BX-A KP6525	M6
T320NC05000-13R3BX KC7542	M4	T353M100X150R6HX-D1 KCK17	M113	T620M060X100R6HX-D1 KM6515	M11	T620NC03750-16R3BX-A KM6515	M6
T321M100X150R6HX KC7542	M5	T353M120X175R6HX-D6 KCK17	M113	T620M060X100R6HX-D1 KP6525	M11	T620NC03750-16R3BX-A KP6525	M6
T321M120X175R6HX KC7542	M5	T353M140X200R6HX-D6 KCK17	M113	T620M080X100R6HX-A KP6525	M10	T620NC03750-16R3BX-D1 KP6525	M8
T321M140X200R6HX KC7542	M5	T410M030X050R6HX-D1 KCU36	M116	T620M080X125R6HX-A KM6515	M10	T620NC04375-14R3BX-A KM6515	M7
T321M160X200R6HX KC7542	M5	T410M040X070R6HX-D1 KCU36	M116	T620M080X125R6HX-A KP6525	M10	T620NC04375-14R3BX-A KP6525	M7
T321MF120X150R6HX KC7542	M5	T410M050X080R6HX-D1 KCU36	M116	T620M080X125R6HX-D1 KM6515	M11	T620NC04375-14R3BX-D6 KP6525	M8
T321MF140X150R6HX KC7542	M5	T410M060X100R6HX-D1 KCU36	M116	T620M080X125R6HX-D1 KP6525	M11	T620NC05000-13R3BX-A KM6515	M7
T331M060X100R6HX KC7542	M45	T410M080X125R6HX-D1 KCU36	M116	T620M100X150R6HX-A KM6515	M10	T620NC05000-13R3BX-A KP6525	M7
T331M080X125R6HX KC7542	M45	T410M100X150R6HX-D1 KCU36	M116	T620M100X150R6HX-D1 KM6515	M10	T620NC05000-13R3BX-D6 KP6525	M8
T331M100X150R6HX KC7542	M45	T410M120X175R6HX-D6 KCU36	M116	T620M100X150R6HX-D1 KM6515	M11	T620NC06250-11R3BX-A KM6515	M7
T331M120X175R6HX KC7542	M45	T410M140X200R6HX-D6 KCU36	M116	T620M100X150R6HX-D1 KP6525	M11	T620NC06250-11R3BX-A KP6525	M7
T331M140X200R6HX KC7542	M45	T410MF080X100R6HX-D4 KCU36	M116	T620M120X175R6HX-A KM6515	M10	T620NC07500-10R3BX-A KM6515	M7
T331M160X200R6HX KC7542	M45	T410MF100X100R6HX-D4 KCU36	M116	T620M120X175R6HX-D1 KM6515	M10	T620NC07500-10R3BX-A KP6525	M7
T331MF120X150R6HX KC7542	M45	T410MF120X150R6HX-D4 KCU36	M116	T620M120X175R6HX-D6 KM6515	M11	T620NF#06-40R2BX-D1 KP6525	M8
T331MF140X150R6HX KC7542	M45	T410MF140X150R6HX-D4 KCU36	M116	T620M120X175R6HX-D6 KP6525	M11	T620NF#08-36R3BX-A KM6515	M6
T331NC2500-20R3BX KC7542	M44	T410MF160X150R6HX-D4 KCU36	M116	T620M140X200R6HX-D6 KM6515	M11	T620NF#08-36R3BX-A KP6525	M6
T331NC3125-18R3BX KC7542	M44	T471M060X100R6HX KCN14	M114	T620M140X200R6HX-D6 KP6525	M11	T620NF#10-32R2BX-A KM6515	M6
T331NC3750-16R3BX KC7542	M44	T471M060X100R6HX-D1 KCN14	M114	T620M160X200R6HX-D6 KM6515	M11	T620NF#10-32R2BX-A KP6525	M6
T331NC4375-14R3BX KC7542	M44	T471M080X125R6HX KCN14	M114	T620M160X200R6HX-D6 KP6525	M11	T620NF#10-32R2BX-D1 KP6525	M8
T331NC5000-13R3BX KC7542	M44	T471M080X125R6HX-D1 KCN14	M114	T620M200X250R6HX-D6 KM6515	M11	T620NF#10-32R3BX-A KM6515	M6
T331NF2500-28R3BX KC7542	M44	T471M100X150R6HX KCN14	M115	T620M200X250R6HX-D6 KP6525	M11	T620NF02500-28R2BX-A KM6515	M6
T340M040X070R6HX KCK17	M109	T471M100X150R6HX-D1 KCN14	M115	T620M240X300R6HX-XL KP6525	M14	T620NF02500-28R2BX-A KP6525	M6
T340M050X080R6HX KCK17	M109	T471M120X175R6HX KCN14	M114	T620M240X300R6HX-D6 KP6525	M13	T620NF02500-28R2BX-A KM6515	M6
T340M060X100R6HX KCK17	M109	T471M140X200R6HX KCN14	M114	T620M300X350R6HX-XL KP6525	M14	T620NF02500-28R3BX-A KM6515	M6
T340M080X125R6HX KCK17	M109	T491M050X080R6HX KCN14	M138	T620M300X350R6HX-D6 KP6525	M13	T620NF02500-28R3BX-A KP6525	M6
T340M100X150R6HX KCK17	M109	T491M060X100R6HX KCN14	M138	T620M300X350R6HX-XL KP6525	M14	T620NF02500-28R3BX-D1 KP6525	M8
T340M120X175R6HX KCK17	M109	T491M060X100R6HX-D74 KCN14	M138	T620M330X350R6HX-D6 KP6525	M13	T620NF03250-24R3BX-A KM6515	M6
T340M140X200R6HX KCK17	M109	T491M080X125R6HX KCN14	M138	T620M360X400R6HX-XL KP6525	M14	T620NF03250-24R3BX-A KP6525	M6
T340M160X200R6HX KCK17	M109	T491M080X125R6HX-D74 KCN14	M138	T620M360X400R6HX-D6 KP6525	M13	T620NF03250-24R3BX-D1 KP6525	M8
T340M200X250R6HX KCK17	M109	T491M100X150R6HX KCN14	M138	T620M420X450R6HX-XL KP6525	M14	T620NF03750-24R3BX-A KM6515	M6
T340MF100X100R6HX KCK17	M109	T491M100X150R6HX-D74 KCN14	M138	T620M420X450R6HX-D6 KP6525	M13	T620NF03750-24R3BX-A KP6525	M6
T340MF120X150R6HX KCK17	M109	T491M120X175R6HX KCN14	M138	T620MF080X100R6HX-A KM6515	M10	T620NF03750-24R3BX-D1 KP6525	M8
T340MF140X150R6HX KCK17	M109	T600M030X050R6HX-D1 KSP21	M22	T620MF080X100R6HX-D4 KM6515	M11	T620NF04375-20R3BX-A KM6515	M7
T340NC#10-24R3BX KCK17	M108	T600M040X070R6HX-D1 KSP21	M22	T620MF080X100R6HX-D4 KP6525	M11	T620NF04375-20R3BX-A KP6525	M7
T340NC#6-32R3BX KCK17	M108	T600M050X080R6HX-D1 KSP21	M22	T620MF100X100R6HX-D4 KM6515	M11	T620NF04375-20R3BX-D6 KP6525	M8
T340NC#8-32R3BX KCK17	M108	T600M060X100R6HX-D1 KSP21	M22	T620MF100X100R6HX-D4 KP6525	M11	T620NF05000-20R3BX-A KM6515	M7
T340NC02500-20R3BX KCK17	M108	T600M080X125R6HX-D1 KSP21	M22	T620MF100X125R6HX-D4 KP6525	M11	T620NF05000-20R3BX-A KP6525	M7
T340NC03125-18R3BX KCK17	M108	T600M100X150R6HX-D1 KSP21	M22	T620MF120X150R6HX-D4 KM6515	M11	T620NF05000-20R3BX-D6 KP6525	M8
T340NC03750-16R3BX KCK17	M108	T600M120X175R6HX-D6 KSP21	M22	T620MF120X150R6HX-D4 KP6525	M11	T621M050X080R6HX-D1 KM6515	M12
T340NC05000-13R3BX KCK17	M108	T600M140X200R6HX-D6 KSP21	M22	T620MF140X150R6HX-D4 KM6515	M11	T621M050X080R6HX-D1 KP6525	M12
T340NF#10-32R3BX KCK17	M108	T600M160X200R6HX-D6 KSP21	M22	T620MF140X150R6HX-D4 KP6525	M11	T621M060X100R6HX-D1 KM6515	M12
T340NF03750-24R3BX KCK17	M108	T600M180X250R6HX-D6 KSP21	M22	T620MF160X150R6HX-D4 KM6515	M11	T621M060X100R6HX-D1 KP6525	M12
T340NF05000-20R3BX KCK17	M108	T600M200X250R6HX-D6 KSP21	M22	T620MF160X150R6HX-D4 KP6525	M11	T621M080X125R6HX-D1 KM6515	M12
T340NF05625-18R3BX KCK17	M108	T600MF080X100R6HX-D4 KSP21	M22	T620MF180X150R6HX-D4 KM6515	M11	T621M080X125R6HX-D1 KP6525	M12
T351M040X070R6HX KCK17	M111	T600MF100X100R6HX-D4 KSP21	M22	T620NC#02-56R2BX-A KM6515	M6	T621M100X150R6HX-D1 KM6515	M12
T351M050X080R6HX KCK17	M111	T600MF100X125R6HX-D4 KSP21	M22	T620NC#02-56R2BX-A KP6525	M6	T621M100X150R6HX-D1 KP6525	M12
T351M060X100R6HX KCK17	M111	T600MF120X125R6HX-D4 KSP21	M22	T620NC#02-56R3BX-A KM6515	M6	T621M120X175R6HX-D6 KM6515	M12
T351M060X100R6HX-D1 KCK17	M112	T600MF120X150R6HX-D4 KSP21	M22	T620NC#02-56R3BX-A KP6525	M6	T621M120X175R6HX-D6 KP6525	M12
T351M070X100R6HX-D1 KCK17	M112	T600MF140X150R6HX-D4 KSP21	M22	T620NC#04-40R2BX-A KM6515	M6	T621M140X200R6HX-D6 KM6515	M12
T351M080X125R6HX KCK17	M111	T600MF160X150R6HX-D4 KSP21	M22	T620NC#04-40R2BX-A KP6525	M6	T621M160X200R6HX-D6 KP6525	M12
T351M080X125R6HX-D1 KCK17	M112	T604M030X050R6HX-D1 KSH26	M73	T620NC#04-40R3BX-A KM6515	M6	T621M160X200R6HX-D6 KM6515	M12
T351M090X125R6HX-D1 KCK17	M112	T604M040X070R6HX-D1 KSH26	M73	T620NC#04-40R3BX-A KP6525	M6	T621M180X250R6HX-D6 KM6515	M12
T351M100X150R6HX KCK17	M111	T604M050X080R6HX-D1 KSH26	M73	T620NC#04-40R3BX-A KM6515	M6	T621MF080X100R6HX-D4 KM6515	M12
T351M100X150R6HX-D1 KCK17	M112	T604M060X100R6HX-D1 KSH26	M73	T620NC#04-40R3BX-A KP6525	M6	T621MF100X100R6HX-D4 KM6515	M12
T351M120X175R6HX KCK17	M111	T604M080X125R6HX-D1 KSH26	M73	T620NC#05-40R3BX-A KM6515	M6	T621MF100X100R6HX-D4 KP6525	M12
T351M120X175R6HX-D6 KCK17	M112	T604M100X150R6HX-D1 KSH26	M73	T620NC#05-40R3BX-A KP6525	M6	T621MF120X125R6HX-D4 KM6515	M12
T351M140X200R6HX KCK17	M111	T604M120X175R6HX-D6 KSH26	M73	T620NC#06-32R2BX-A KM6515	M6	T621MF120X125R6HX-D4 KP6525	M12
T351M140X200R6HX-D6 KCK17	M112	T604M140X200R6HX-D6 KSH26	M73	T620NC#06-32R2BX-A KP6525	M6	T621MF140X150R6HX-D4 KM6515	M12
T351M160X200R6HX KCK17	M111	T604M160X200R6HX-D6 KSH26	M73	T620NC#06-32R2BX-A KM6515	M6	T621MF140X150R6HX-D4 KP6525	M12
T351M160X200R6HX-D6 KCK17	M112	T604M180X250R6HX-D6 KSH26	M73	T620NC#06-32R3BX-A KM6515	M6	T621MF160X150R6HX-D4 KM6515	M12
T351MF100X100R6HX KCK17	M111	T604M200X250R6HX-D6 KSH26	M73	T620NC#06-32R3BX-A KP6525	M6	T621MF160X150R6HX-D4 KP6525	M12
T351MF100X100R6HX-D4 KCK17	M112	T604MF080X100R6HX-D4 KSH26	M73	T620NC#08-32R2BX-A KM6515	M6	T621MF180X150R6HX-D4 KM6515	M12
T351MF100X125R6HX-D4 KCK17	M112	T604MF100X100R6HX-D4 KSH26	M73	T620NC#08-32R2BX-A KP6525	M6	T621MF180X150R6HX-D4 KP6525	M12
T351MF120X125R6HX-D4 KCK17	M112	T604MF100X125R6HX-D4 KSH26	M73	T620NC#08-32R3BX-A KM6515	M6	T621NF02500-28R3BX-D1 KP6525	M9
T351MF120X125R6HX-D4 KP6525	M112	T604MF120X125R6HX-D4 KSH26	M73	T620NC#08-32R3BX-A KP6525	M6	T621NF03250-24R3BX-D1 KP6525	M9
T351MF120X150R6HX-D4 KCK17	M112	T604MF120X150R6HX-D4 KSH26	M73	T620NC#10-24R2BX-D1 KM6515	M8	T621NF03250-24R3BX-D1 KP6525	M9
T351MF120X150R6HX-D4 KP6525	M112	T604MF140X150R6HX-D4 KSH26	M73	T620NC#10-24R2BX-D1 KP6525	M8	T621NF03750-24R3BX-D1 KP6525	M9
T351MF140X150R6HX KCK17	M111	T604MF140X150R6HX-D4 KSH26	M73	T620NC#10-24R3BX-A KM6515	M6	T621NF04375-20R3BX-D6 KP6525	M9
T351MF140X150R6HX-D4 KCK17	M112	T604MF160X150R6HX-D4 KSH26	M73	T620NC#10-24R3BX-A KP6525	M6	T621NF05000-20R3BX-D6 KP6525	M9
T351MF140X150R6HX-D4 KP6525	M112	T620M030X050R6HX-A KM6515	M10	T620NC#12-24R3BX-A KM6515	M6	T622M030X050R6HX-D74 KSN28	M139
T351NC#6-32R3BX KCK17	M110	T620M030X050R6HX-A KP6525	M10	T620NC#12-24R3BX-A KP6525	M6		
T351NC#8-32R3BX KCK17	M110	T620M030X050R6HX-D1 KM6515	M11	T620NC02500-20R2BX-A KM6515	M6		
T351NC02500-20R3BX KCK17	M110	T620M030X050R6HX-D1 KP6525	M11	T620NC02500-20R2BX-A KP6525	M6		
T351NC03125-18R3BX KCK17	M110	T620M040X070R6HX-A KM6515	M10	T620NC02500-20R3BX-A KM6515	M6		
T351NC03750-16R3BX KCK17	M110	T620M040X070R6HX-A KP6525	M10	T620NC02500-20R3BX-A KP6525	M6		
T351NC04375-14R3BX KCK17	M110	T620M040X070R6HX-D1 KM6515	M11	T620NC02500-20R3BX-D1 KP6525	M8		
T351NC05000-13R3BX KCK17	M110	T620M050X080R6HX-A KM6515	M10	T620NC03125-18R2BX-A KM6515	M6		
T351NC06250-11R3BX KCK17	M110	T620M050X080R6HX-A KP6525	M10	T620NC03125-18R2BX-A KP6525	M6		
T351NC07500-10R3BX KCK17	M110	T620M050X080R6HX-D1 KM6515	M11	T620NC03125-18R3BX-A KM6515	M6		
T351NF#10-32R3BX KCK17	M110	T620M050X080R6HX-D1 KP6525	M11	T620NC03125-18R3BX-A KP6525	M6		
T353M040X070R6HX-D1 KCK17	M113	T620M060X100R6HX-A KM6515	M10	T620NC03750-16R2BX-A KM6515	M6		
T353M050X080R6HX-D1 KCK17	M113						
T353M060X100R6HX-D1 KCK17	M113						

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
T662NC04375-14RH3-A KSS20	M66	T672NF03750-24R3B-DA KSMN34	M20	T690M100X150RD6-A KSP27	M17	T690NF03750-24RH5-A KSS29	M16
T662NC04375-14RH3-A KSM24	M66	T672NF04375-20R2B-DA KSMN34	M20	T690M100X150RD6-A KSS29	M17	T690NF03750-24RH6-A KSS29	M16
T662NC04375-14RH5-A KSS20	M66	T672NF04375-20R3B-DA KSMN34	M20	T690M120X175RD6-A KSP27	M17	T690NF04375-24RH7-A KSS29	M16
T662NC04375-14RH5-A KSM24	M66	T672NF05000-20R2B-DA KSMN34	M20	T690M120X175RD6-A KSS29	M17	T690NF04375-20RH3-A KSP27	M16
T662NC05000-13RH3-A KSS20	M67	T672NF05000-20R3B-DA KSMN34	M20	T690MF080X100RD5-A KSP27	M17	T690NF04375-20RH3-A KSS29	M16
T662NC05000-13RH3-A KSM24	M67	T682M030X050R6H-DA KSMN34	M70	T690MF080X100RD5-A KSS29	M17	T690NF04375-20RH5-A KSP27	M16
T662NC05000-13RH5-A KSS20	M67	T682M035X060R6H-DA KSMN34	M70	T690NC#02-56RH2-A KSP27	M15	T690NF04375-20RH5-A KSS29	M16
T662NC05000-13RH5-A KSM24	M67	T682M040X070R6H-DA KSMN34	M70	T690NC#02-56RH2-A KSS29	M15	T690NF05000-20RH3-A KSP27	M16
T662NC06250-11RH3-A KSM24	M67	T682M050X080R6H-DA KSMN34	M70	T690NC#04-40RH2-A KSP27	M15	T690NF05000-20RH3-A KSS29	M16
T662NC07500-10RH5-A KSM24	M67	T682M060X100R6H-DA KSMN34	M70	T690NC#04-40RH2-A KSS29	M15	T690NF05000-20RH5-A KSP27	M16
T662NC10000-08RH5-A KSM24	M67	T682M070X100R6H-DA KSMN34	M70	T690NC#04-40RH3-A KSP27	M15	T690NF05000-20RH7-A KSS29	M16
T662NF#06-40RH2-A KSS20	M66	T682M080X125R6H-DA KSMN34	M70	T690NC#04-40RH3-A KSS29	M15	T690NF06250-18RH3-A KSP27	M16
T662NF#06-40RH2-A KSM24	M66	T682M100X150R6H-DA KSMN34	M70	T690NC#04-40RH4-A KSP27	M15	T690NF06250-18RH3-A KSS29	M16
T662NF#08-36RH2-A KSS20	M66	T682M120X175R6H-DA KSMN34	M70	T690NC#05-40RH2-A KSP27	M15	T690NF07500-16RH3-A KSS29	M16
T662NF#08-36RH2-A KSM24	M66	T682MF080X100R6H-DA KSMN34	M70	T690NC#05-40RH2-A KSS29	M15	T692M0250X045RD3-A KSP27	M64
T662NF#10-32RH2-A KSS20	M66	T682MF100X125R6H-DA KSMN34	M70	T690NC#06-32RH3-A KSP27	M15	T692M0250X050RD3-A KSS29	M64
T662NF#10-32RH2-A KSM24	M66	T682MF120X125R6H-DA KSMN34	M70	T690NC#06-32RH3-A KSS29	M15	T692M030X050RD3-A KSP27	M64
T662NF#10-32RH3-A KSS20	M66	T682MF120X150R6H-DA KSMN34	M70	T690NC#06-32RH3-A KSS29	M15	T692M030X050RD3-A KSS29	M64
T662NF#10-32RH3-A KSM24	M66	T682NC#02-56R2B-DA KSMN34	M69	T690NC#06-32RH5-A KSP27	M15	T692M040X070RD4-A KSP27	M64
T662NF02500-28RH3-A KSS20	M66	T682NC#02-56R2B-DA KSMN34	M69	T690NC#06-32RH5-A KSS29	M15	T692M040X070RD4-A KSS29	M64
T662NF02500-28RH3-A KSM24	M66	T682NC#04-40R3B-DA KSMN34	M69	T690NC#08-32RH3-A KSP27	M15	T692M050X080RD4-A KSP27	M64
T662NF02500-28RH4-A KSS20	M66	T682NC#04-40R3B-DA KSMN34	M69	T690NC#08-32RH3-A KSS29	M15	T692M050X080RD4-A KSS29	M64
T662NF02500-28RH4-A KSM24	M66	T682NC#05-40R3B-DA KSMN34	M69	T690NC#08-32RH4-A KSP27	M15	T692M060X100RD5-A KSP27	M64
T662NF02500-28RH5-A KSS20	M66	T682NC#05-40R3B-DA KSMN34	M69	T690NC#08-32RH4-A KSS29	M15	T692M060X100RD5-A KSS29	M64
T662NF02500-28RH5-A KSM24	M66	T682NC#10-24R2B-DA KSMN34	M69	T690NC#08-32RH6-A KSP27	M15	T692M080X125RD5-A KSP27	M64
T662NF03125-24RH3-A KSS20	M66	T682NC02500-20R2B-DA KSMN34	M69	T690NC#08-32RH6-A KSS29	M15	T692M080X125RD5-A KSS29	M64
T662NF03125-24RH3-A KSM24	M66	T682NC02500-20R3B-DA KSMN34	M69	T690NC#10-24RH3-A KSP27	M15	T692M080X125RD5-A KSS29	M64
T662NF03125-24RH3-A KSS20	M66	T682NC03125-18R2B-DA KSMN34	M69	T690NC#10-24RH3-A KSS29	M15	T692M100X150RD6-A KSP27	M64
T662NF03125-24RH3-A KSM24	M66	T682NC03125-18R3B-DA KSMN34	M69	T690NC#10-24RH3-A KSS29	M15	T692M100X150RD6-A KSS29	M64
T662NF03125-24RH4-A KSS20	M66	T682NC03750-16R2B-DA KSMN34	M69	T690NC02500-20RH3-A KSP27	M15	T692M120X175RD6-A KSP27	M64
T662NF03125-24RH4-A KSM24	M66	T682NC03750-16R3B-DA KSMN34	M69	T690NC02500-20RH3-A KSS29	M15	T692M120X175RD6-A KSS29	M64
T662NF03750-24RH3-A KSS20	M66	T682NC04375-14R2B-DA KSMN34	M69	T690NC02500-20RH5-A KSP27	M15	T692MF080X100RD5-A KSP27	M64
T662NF03750-24RH3-A KSM24	M66	T682NC04375-14R3B-DA KSMN34	M69	T690NC02500-20RH5-A KSS29	M15	T692MF080X100RD5-A KSS29	M64
T662NF03750-24RH4-A KSS20	M66	T682NC05000-13R2B-DA KSMN34	M69	T690NC03125-18RH3-A KSP27	M15	T692MF100X125RD5-A KSP27	M64
T662NF03750-24RH4-A KSM24	M66	T682NC05000-13R3B-DA KSMN34	M69	T690NC03125-18RH3-A KSS29	M15	T692MF100X125RD5-A KSS29	M64
T662NF04375-20RH3-A KSS20	M66	T682NF#10-32R2B-DA KSMN34	M69	T690NC03125-18RH5-A KSP27	M15	T692NC#02-56RH2-A KSP27	M62
T662NF04375-20RH3-A KSM24	M66	T682NF02500-28R2B-DA KSMN34	M69	T690NC03125-18RH5-A KSS29	M15	T692NC#02-56RH2-A KSS29	M62
T662NF04375-20RH5-A KSS20	M66	T682NF02500-28R3B-DA KSMN34	M69	T690NC03125-18RH7-A KSP27	M15	T692NC#03-48RH2-A KSP27	M62
T662NF04375-20RH5-A KSM24	M66	T682NF03125-24R2B-DA KSMN34	M69	T690NC03125-18RH7-A KSS29	M15	T692NC#03-48RH2-A KSS29	M62
T662NF05000-20RH3-A KSS20	M67	T682NF03125-24R3B-DA KSMN34	M69	T690NC03750-16RH3-A KSP27	M16	T692NC#04-40RH2-A KSP27	M62
T662NF05000-20RH3-A KSM24	M67	T682NF03750-24R2B-DA KSMN34	M69	T690NC03750-16RH3-A KSS29	M16	T692NC#04-40RH2-A KSS29	M62
T662NF05000-20RH5-A KSS20	M67	T682NF03750-24R3B-DA KSMN34	M69	T690NC03750-16RH5-A KSP27	M16	T692NC#04-40RH3-A KSP27	M62
T662NF05000-20RH5-A KSM24	M67	T682NF04375-20R2B-DA KSMN34	M69	T690NC03750-16RH5-A KSS29	M16	T692NC#04-40RH3-A KSS29	M62
T662NF05625-18RH3-A KSS20	M67	T682NF04375-20R3B-DA KSMN34	M69	T690NC03750-16RH7-A KSP27	M16	T692NC#05-40RH2-A KSP27	M62
T662NF05625-18RH3-A KSM24	M67	T682NF04375-20R3B-DA KSMN34	M69	T690NC03750-16RH7-A KSS29	M16	T692NC#05-40RH2-A KSS29	M62
T662NF06250-18RH3-A KSS20	M67	T682NF05000-20R2B-DA KSMN34	M69	T690NC04375-14RH3-A KSP27	M16	T692NC#06-32RH2-A KSP27	M62
T662NF06250-18RH3-A KSM24	M67	T682NF05000-20R3B-DA KSMN34	M69	T690NC04375-14RH3-A KSS29	M16	T692NC#06-32RH3-A KSP27	M62
T662NF06250-18RH5-A KSS20	M67	T682NF05000-20R3B-DA KSMN34	M69	T690NC05000-13RH3-A KSP27	M16	T692NC#06-32RH3-A KSS29	M62
T662NF06250-18RH5-A KSM24	M67	T686M030X050R6H-DA KSMN34	M72	T690NC05000-13RH3-A KSS29	M16	T692NC#06-32RH5-A KSP27	M62
T662NF07500-16RH3-A KSS20	M67	T686M040X070R6H-DA KSMN34	M72	T690NC05000-13RH5-A KSP27	M16	T692NC#06-32RH5-A KSS29	M62
T662NF07500-16RH5-A KSM24	M67	T686M050X080R6H-DA KSMN34	M72	T690NC05000-13RH7-A KSP27	M16	T692NC#06-32RH7-A KSP27	M62
T672M030X050R6H-DA KSMN34	M21	T686M060X100R6H-DA KSMN34	M72	T690NC06250-11RH3-A KSP27	M16	T692NC#06-32RH7-A KSS29	M62
T672M040X070R6H-DA KSMN34	M21	T686M080X125R6H-DA KSMN34	M72	T690NC06250-11RH3-A KSS29	M16	T692NC#08-32RH2-A KSP27	M62
T672M050X080R6H-DA KSMN34	M21	T686M100X150R6H-DA KSMN34	M72	T690NC06250-11RH3-A KSS29	M16	T692NC#08-32RH2-A KSS29	M62
T672M060X100R6H-DA KSMN34	M21	T686MF120X150R6H-DA KSMN34	M72	T690NC6250-11RH3-A KSP27	M16	T692NC#08-32RH3-A KSP27	M62
T672M070X100R6H-DA KSMN34	M21	T686NC#02-56R2B-DA KSMN34	M71	T690NC6250-11RH3-A KSS29	M16	T692NC#08-32RH3-A KSS29	M62
T672M080X125R6H-DA KSMN34	M21	T686NC#04-40R3B-DA KSMN34	M71	T690NF#04-48RH2-A KSP27	M15	T692NC#08-32RH4-A KSP27	M62
T672M100X150R6H-DA KSMN34	M21	T686NC#04-40R3B-DA KSMN34	M71	T690NF#04-48RH2-A KSS29	M15	T692NC#08-32RH4-A KSS29	M62
T672M120X175R6H-DA KSMN34	M21	T686NC#06-32R2B-DA KSMN34	M71	T690NF#06-40RH2-A KSP27	M15	T692NC#08-32RH5-A KSP27	M62
T672M2F080X100R6H-DA KSMN34	M21	T686NC#06-32R2B-DA KSMN34	M71	T690NF#06-40RH2-A KSS29	M15	T692NC#08-32RH5-A KSS29	M62
T672M2F100X125R6H-DA KSMN34	M21	T686NC#08-32R2B-DA KSMN34	M71	T690NF#10-32RH2-A KSP27	M15	T692NC#10-24RH3-A KSP27	M62
T672M2F120X125R6H-DA KSMN34	M21	T686NC#08-32R2B-DA KSMN34	M71	T690NF#10-32RH2-A KSS29	M15	T692NC#10-24RH3-A KSS29	M62
T672M2F120X150R6H-DA KSMN34	M21	T686NC#10-24R2B-DA KSMN34	M71	T690NF#10-32RH3-A KSP27	M15	T692NC#10-24RH4-A KSP27	M62
T672NC#02-56R2B-DA KSMN34	M20	T686NC#10-24R2B-DA KSMN34	M71	T690NF#10-32RH3-A KSS29	M15	T692NC#10-24RH5-A KSP27	M62
T672NC#04-40R3B-DA KSMN34	M20	T686NC02500-20R3B-DA KSMN34	M71	T690NF#10-32RH4-A KSP27	M15	T692NC#10-24RH5-A KSS29	M62
T672NC#05-40R3B-DA KSMN34	M20	T686NC03125-18R3B-DA KSMN34	M71	T690NF#10-32RH4-A KSS29	M15	T692NC02500-20RH3-A KSP27	M62
T672NC#06-32R2B-DA KSMN34	M20	T686NC03750-16R3B-DA KSMN34	M71	T690NF#10-32RH4-A KSS29	M15	T692NC02500-20RH3-A KSS29	M62
T672NC#08-32R2B-DA KSMN34	M20	T686NC04375-14R3B-DA KSMN34	M71	T690NF#10-32RH5-A KSP27	M15	T692NC02500-20RH5-A KSP27	M62
T672NC#10-24R2B-DA KSMN34	M20	T686NC05000-13R3B-DA KSMN34	M71	T690NF#10-32RH5-A KSS29	M15	T692NC02500-20RH7-A KSP27	M62
T672NC02500-20R2B-DA KSMN34	M20	T686NF#10-32R2B-DA KSMN34	M71	T690NF#10-32RH6-A KSP27	M15	T692NC03125-18RH3-A KSP27	M62
T672NC02500-20R3B-DA KSMN34	M20	T686NF02500-28R3B-DA KSMN34	M71	T690NF#10-32RH6-A KSS29	M15	T692NC03125-18RH3-A KSS29	M62
T672NC03125-18R2B-DA KSMN34	M20	T686NF03125-24R3B-DA KSMN34	M71	T690NF#10-32RH6-A KSS29	M15	T692NC03125-18RH5-A KSP27	M62
T672NC03125-18R3B-DA KSMN34	M20	T686NF03750-24R3B-DA KSMN34	M71	T690NF#10-32RH6-A KSS29	M15	T692NC03125-18RH5-A KSS29	M62
T672NC03125-18R3B-DA KSMN34	M20	T686NF04375-20R3B-DA KSMN34	M71	T690NF#10-32RH7-A KSP27	M15	T692NC03750-16RH3-A KSP27	M63
T672NC03125-18R2B-DA KSMN34	M20	T686NF05000-20R3B-DA KSMN34	M71	T690NF#10-32RH7-A KSS29	M15	T692NC03750-16RH3-A KSS29	M63
T672NC03125-18R3B-DA KSMN34	M20	T690M025X045RD3-A KSP27	M17	T690NF#10-32RH7-A KSS29	M15	T692NC03750-16RH5-A KSP27	M63
T672NC03750-16R2B-DA KSMN34	M20	T690M025X045RD3-A KSS29	M17	T690NF#10-32RH7-A KSS29	M15	T692NC03750-16RH5-A KSS29	M63
T672NC03750-16R3B-DA KSMN34	M20	T690M030X050RD3-A KSP27	M17	T690NF#10-32RH8-A KSP27	M15	T692NC04375-14RH3-A KSP27	M63
T672NC03750-16R3B-DA KSMN34	M20	T690M030X050RD3-A KSS29	M17	T690NF#10-32RH8-A KSS29	M15	T692NC04375-14RH3-A KSS29	M63
T672NC04375-14R2B-DA KSMN34	M20	T690M035X060RD4-A KSP27	M17	T690NF#10-32RH8-A KSS29	M15	T692NC04375-14RH5-A KSP27	M63
T672NC04375-14R3B-DA KSMN34	M20	T690M035X060RD4-A KSS29	M17	T690NF03125-24RH3-A KSP27	M15	T692NC04375-14RH5-A KSS29	M63
T672NC05000-13R2B-DA KSMN34	M20	T690M040X070RD4-A KSP27	M17	T690NF03125-24RH3-A KSS29	M15	T692NC05000-13RH3-A KSP27	M63
T672NC05000-13R3B-DA KSMN34	M20	T690M040X070RD4-A KSS29	M17	T690NF03125-24RH3-A KSS29	M15	T692NC05000-13RH3-A KSS29	M63
T672NF#10-32R2B-DA KSMN34	M20	T690M050X080RD4-A KSP27	M17	T690NF03125-24RH4-A KSP27	M15	T692NC05000-13RH5-A KSP27	M63
T672NF02500-28R2B-DA KSMN34	M20	T690M050X080RD4-A KSS29	M17	T690NF03125-24RH4-A KSS29	M15	T692NC05000-13RH5-A KSS29	M63
T672NF02500-28R3B-DA KSMN34	M20	T690M060X100RD5-A KSP27	M17	T690NF03125-24RH4-A KSS29	M15	T692NC06250-11RH3-A KSP27	M63
T672NF03125-24R2B-DA KSMN34	M20	T690M060X100RD5-A KSS29	M17	T690NF03125-24RH7-A KSP27	M16	T692NC06250-11RH3-A KSS29	M63
T672NF03125-24R3B-DA KSMN34	M20	T690M080X125RD5-A KSP27	M17	T690NF03750-24RH3-A KSP27	M16	T692NC06250-11RH5-A KSP27	M63
T672NF03750-24R2B-DA KSMN34	M20	T690M080X125RD5-A KSS29	M17	T690NF03750-24RH3-A KSS29	M16	T692NC06250-11RH7-A KSP27	M63
				T690NF03750-24RH4-A KSP27	M16	T692NC07500-10RH3-A KSP27	M63
				T690NF03750-24RH4-A KSS29	M16		

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
T692NC07500-10RH5-A KSS29	M63	T820M025X045R6G-D1 KSP39	M31	T820M200X250R6H-D6 KSP39	M32	T820NC#08-32RH7-A KSP39	M23
T692NF#04-40RH5-A KSS29	M62	T820M025X045R6H-D1 KSP39	M31	T820M200X250R6H-J KJU30	M33	T820NC#10-24R2B-D1 KSP39	M26
T692NF#06-40RH2-A KSS29	M62	T820M030X050R6G-D1 KSP39	M31	T820M220X250R6H-D6 KSP39	M32	T820NC#10-24RH3-A KSMN34	M24
T692NF#10-32RH2-A KSP27	M62	T820M030X050R6H-D1 KSP32	M31	T820M240X300R6H-D6 KSP39	M32	T820NC#10-24RH3-A KSP32	M24
T692NF#10-32RH2-A KSS29	M62	T820M030X050R6H-D1 KSP39	M31	T820M270X300R6H-D6 KSP39	M32	T820NC#10-24RH3-A KSP39	M24
T692NF#10-32RH3-A KSP27	M62	T820M030X050R6H-J KJU30	M33	T820M300X350R6H-D6 KSP39	M32	T820NC#10-24RH3-XL6 KSP39	M35
T692NF#10-32RH3-A KSS29	M62	T820M030X050R6H-J KJU31	M33	T820M330X350R6H-D6 KSP39	M32	T820NC#10-24RH4-XL4 KSP39	M34
T692NF#10-32RH5-A KSS29	M62	T820M030X050RD3-A KSMN34	M29	T820M360X400R6H-D6 KSP39	M32	T820NC#10-24RH5-A KSP39	M24
T692NF#10-32RH7-A KSS29	M62	T820M030X050RD3-A KSP32	M29	T820MF040X050R6H-D4 KSP39	M31	T820NC#10-24RH7-A KSP39	M24
T692NF02500-28RH3-A KSP27	M62	T820M030X050RD3-A KSP39	M29	T820MF050X050R6H-D4 KSP39	M31	T820NC02500-20R2B-D1 KSP39	M26
T692NF02500-28RH3-A KSS29	M62	T820M035X060R6H-D1 KSP39	M31	T820MF060X050R6H-D4 KSP39	M31	T820NC02500-20RH2-A KSP39	M24
T692NF02500-28RH5-A KSS29	M62	T820M035X060RD4-A KSP39	M29	T820MF060X075R6H-D4 KSP39	M31	T820NC02500-20RH3-A KSMN34	M24
T692NF02500-28RH6-A KSS29	M62	T820M040X070R6H-D1 KSP39	M31	T820MF080X100R6H-D4 KSP39	M29	T820NC02500-20RH3-XL6 KSP39	M24
T692NF02500-28RH7-A KSS29	M62	T820M040X070R6H-D1 KSP32	M31	T820MF080X100RD5-A KSP39	M29	T820NC02500-20RH3-A KSP39	M24
T692NF03125-24RH3-A KSP27	M62	T820M040X070R6H-D1 KSP39	M31	T820MF100X100R6H-D4 KSP39	M31	T820NC02500-20RH3-XL4 KSP39	M34
T692NF03125-24RH3-A KSS29	M62	T820M040X070R6H-J KJU30	M33	T820MF100X125R6H-D4 KSP39	M31	T820NC02500-20RH3-XL6 KSP39	M35
T692NF03125-24RH4-A KSS29	M63	T820M040X070R6H-J KJU31	M33	T820MF100X125RD5-A KSP39	M29	T820NC02500-20RH5-A KSP39	M24
T692NF03125-24RH5-A KSS29	M63	T820M040X070RD4-A KSMN34	M29	T820MF120X100R6H-D4 KSP39	M32	T820NC02500-20RH7-A KSP39	M24
T692NF03125-24RH6-A KSS29	M63	T820M040X070RD4-A KSP32	M29	T820MF120X125R6H-D4 KSP39	M32	T820NC02500-20RH3-XL4 KSP39	M34
T692NF03125-24RH7-A KSS29	M63	T820M040X070RD4-A KSP39	M29	T820MF120X125R6H-J KJU30	M33	T820NC02500-20RH3-XL6 KSP39	M35
T692NF03750-24RH3-A KSP27	M63	T820M050X080R6G-D1 KSP39	M31	T820MF120X150R6H-D4 KSP39	M32	T820NC02500-20RH5-A KSP39	M24
T692NF03750-24RH3-A KSS29	M63	T820M050X080R6H-D1 KSP32	M31	T820MF120X150R6H-D4 KSP39	M32	T820NC02500-20RH7-A KSP39	M24
T692NF03750-24RH4-A KSP27	M63	T820M050X080R6H-D1 KSP39	M31	T820MF120X150RD6-A KSP39	M29	T820NC03125-18RH3-A KSMN34	M24
T692NF03750-24RH4-A KSS29	M63	T820M050X080R6H-J KJU30	M33	T820MF120X150RD6-A KSP39	M29	T820NC03125-18RH3-XL6 KSP39	M35
T692NF03750-24RH5-A KSS29	M63	T820M050X080R6H-J KJU31	M33	T820MF140X100R6H-D4 KSP39	M32	T820NC03125-18RH5-A KSP39	M24
T692NF03750-24RH6-A KSS29	M63	T820M050X080RD4-A KSMN34	M29	T820MF140X100R6H-D4 KSP39	M32	T820NC03125-18RH7-A KSP39	M24
T692NF03750-24RH7-A KSS29	M63	T820M050X080RD4-A KSP32	M29	T820MF140X125R6H-D4 KSP39	M32	T820NC03750-16R2B-D1 KSP39	M26
T692NF04375-20RH3-A KSP27	M63	T820M060X100R6G-D1 KSP39	M31	T820MF140X150R6H-D4 KSP39	M32	T820NC03750-16RH3-A KSP39	M24
T692NF04375-20RH3-A KSS29	M63	T820M060X100R6H-D1 KSP32	M31	T820MF140X150RD6-A KSP39	M29	T820NC03750-16RH3-XL6 KSP39	M35
T692NF04375-20RH5-A KSS29	M63	T820M060X100R6H-D1 KSP39	M31	T820MF160X100R6H-D4 KSP39	M32	T820NC03750-16RH5-A KSP39	M24
T692NF04375-20RH6-A KSS29	M63	T820M060X100R6H-J KJU30	M33	T820MF160X100R6H-D4 KSP39	M32	T820NC03750-16RH7-A KSP39	M24
T692NF04375-20RH7-A KSS29	M63	T820M060X100RD5-A KSMN34	M29	T820MF160X125R6H-D4 KSP39	M32	T820NC04375-14R2B-D6 KSP39	M26
T692NF05000-20RH3-A KSP27	M63	T820M060X100RD5-A KSP32	M29	T820MF180X100R6H-D4 KSP39	M32	T820NC04375-14RH3-A KSMN34	M24
T692NF05000-20RH3-A KSS29	M63	T820M060X100RD5-A KSP39	M29	T820MF180X100R6H-D4 KSP39	M32	T820NC04375-14RH3-XL6 KSP39	M35
T692NF05000-20RH5-A KSS29	M63	T820M070X100R6G-D1 KSP39	M31	T820MF180X125R6H-D4 KSP39	M32	T820NC05000-13R2B-D6 KSP39	M26
T692NF05000-20RH6-A KSS29	M63	T820M070X100R6H-D1 KSP32	M31	T820MF200X100R6H-D4 KSP39	M32	T820NC05000-13RH3-A KSMN34	M24
T692NF05000-20RH7-A KSS29	M63	T820M070X100R6H-D1 KSP39	M31	T820MF200X200R6H-D4 KSP39	M32	T820NC05000-13RH3-A KSP32	M24
T692NF06250-18RH3-A KSS29	M63	T820M080X125R6G-D1 KSP39	M31	T820MF220X100R6H-D4 KSP39	M32	T820NC05000-13RH5-A KSP39	M24
T692NF06250-18RH3-A KSS29	M63	T820M080X125R6H-D1 KSP32	M31	T820MF220X200R6H-D4 KSP39	M32	T820NC05000-13RH3-XL6 KSP39	M35
T692NF06250-18RH5-A KSS29	M63	T820M080X125R6H-D1 KSP39	M31	T820MF240X100R6H-D4 KSP39	M32	T820NC05000-13RH5-A KSP39	M24
T692NF06250-18RH6-A KSS29	M63	T820M080X125R6H-D1 KSP39	M31	T820NC#02-56RH2-A KSP39	M23	T820NC05000-13RH7-A KSP39	M24
T692NF06250-18RH7-A KSS29	M63	T820M080X125R6H-J KJU30	M33	T820NC#02-56RH3-A KSP39	M23	T820NC05625-12R2B-D6 KSP39	M26
T692NF07500-16RH3-A KSS29	M63	T820M080X125R6H-J KJU31	M33	T820NC#02-56RH4-A KSP39	M23	T820NC05625-12RH3-A KSP32	M24
T692NF07500-16RH5-A KSS29	M63	T820M080X125R6H-J KJU31	M33	T820NC#02-56RH5-A KSP39	M23	T820NC05625-12RH3-XL6 KSP39	M35
T692NF07500-16RH7-A KSS29	M63	T820M080X125RD5-A KSMN34	M29	T820NC#03-48RH2-A KSP39	M23	T820NC05625-12RH3-XL6 KSP39	M35
T692NF07500-16RH3-A KSP27	M63	T820M080X125RD5-A KSP32	M29	T820NC#03-48RH3-A KSP39	M23	T820NC06250-11RH3-A KSMN34	M24
T692NF07500-16RH3-A KSS29	M63	T820M080X125RD5-A KSP39	M29	T820NC#03-48RH4-A KSP39	M23	T820NC06250-11RH3-A KSP32	M24
T692NF07500-16RH5-A KSS29	M63	T820M100X150R6G-D1 KSP39	M31	T820NC#03-48RH5-A KSP39	M23	T820NC06250-11RH3-XL6 KSP39	M35
T692NF07500-16RH7-A KSS29	M63	T820M100X150R6H-D1 KSP32	M31	T820NC#04-40R2B-D1 KSP39	M26	T820NC06250-11RH5-A KSP39	M24
T692NF07500-16RH3-A KSP27	M63	T820M100X150R6H-D1 KSP39	M31	T820NC#04-40R3B-D1 KSP39	M27	T820NC06250-11RH7-A KSP39	M24
T692NF07500-16RH3-A KSS29	M63	T820M100X150R6H-D1 KSP39	M31	T820NC#04-40RH2-A KSP32	M23	T820NC06250-11RH3-XL6 KSP39	M35
T692NF07500-16RH5-A KSS29	M63	T820M100X150R6H-D6 KSP39	M31	T820NC#04-40RH3-A KSP39	M27	T820NC06250-11RH3-XL6 KSP39	M35
T692NF07500-16RH7-A KSS29	M63	T820M100X150R6H-J KJU30	M33	T820NC#04-40RH4-A KSP39	M27	T820NC07500-10R2B-D6 KSP39	M26
T692NF07500-16RH3-A KSP27	M63	T820M100X150R6H-J KJU31	M33	T820NC#04-40RH5-A KSP39	M27	T820NC07500-10RH3-A KSMN34	M24
T692NF07500-16RH3-A KSS29	M63	T820M100X150RD6-A KSMN34	M29	T820NC#04-40RH6-A KSP39	M27	T820NC07500-10RH3-A KSP32	M24
T692NF07500-16RH5-A KSS29	M63	T820M100X150RD6-A KSP32	M29	T820NC#04-40RH7-A KSP39	M27	T820NC07500-10RH3-XL6 KSP39	M35
T692NF07500-16RH6-A KSS29	M63	T820M100X150RD6-A KSP39	M29	T820NC#05-40R2B-D1 KSP39	M26	T820NC07500-10RH3-XL6 KSP39	M35
T692NF07500-16RH7-A KSS29	M63	T820M100X150RD6-A KSP39	M29	T820NC#05-40RH2-A KSP39	M26	T820NC07500-10RH3-XL6 KSP39	M35
T692NF07500-16RH3-A KSP27	M63	T820M120X175R6G-D6 KSP39	M32	T820NC#05-40RH3-A KSP39	M26	T820NC08750-9R2B-D6 KSP39	M26
T692NF07500-16RH3-A KSS29	M63	T820M120X175R6H-D6 KSP32	M32	T820NC#05-40RH4-A KSP39	M26	T820NC08750-9RH4-A KSMN34	M25
T692NF07500-16RH5-A KSS29	M63	T820M120X175R6H-D6 KSP39	M32	T820NC#06-32R2B-D1 KSP39	M27	T820NC08750-9RH4-A KSP32	M25
T692NF07500-16RH6-A KSS29	M63	T820M120X175R6H-J KJU30	M33	T820NC#06-32R3B-D1 KSP39	M27	T820NC10000-8R2B-D6 KSP39	M26
T692NF07500-16RH7-A KSS29	M63	T820M120X175R6H-J KJU31	M33	T820NC#06-32RH2-A KSP39	M27	T820NC10000-8RH3-A KSMN34	M25
T692NF07500-16RH3-A KSP27	M63	T820M120X175R6H-J KJU31	M33	T820NC#06-32RH3-A KSP39	M27	T820NC10000-8RH5-A KSP32	M25
T692NF07500-16RH3-A KSS29	M63	T820M120X175RD6-A KSMN34	M29	T820NC#06-32RH4-A KSP39	M27	T820NC10000-8RH5-A KSP39	M25
T692NF07500-16RH5-A KSS29	M63	T820M120X175RD6-A KSP32	M29	T820NC#06-32RH5-A KSP39	M27	T820NC11250-7RH6-A KSP39	M25
T692NF07500-16RH6-A KSS29	M63	T820M120X175RD6-A KSP39	M29	T820NC#06-32RH6-A KSP39	M27	T820NC12500-7RH6-A KSP39	M25
T692NF07500-16RH7-A KSS29	M63	T820M140X200R6G-D6 KSP39	M32	T820NC#06-32RH7-A KSP39	M27	T820NF#04-48RH3-A KSP39	M23
T692NF07500-16RH3-A KSP27	M63	T820M140X200R6H-D6 KSP32	M32	T820NC#06-32RH8-A KSP39	M27	T820NF#04-48RH4-A KSP39	M23
T692NF07500-16RH3-A KSS29	M63	T820M140X200R6H-D6 KSP39	M32	T820NC#06-32RH9-A KSP39	M27	T820NF#06-40R2B-D1 KSP39	M26
T692NF07500-16RH5-A KSS29	M63	T820M140X200R6H-J KJU30	M33	T820NC#06-32RH0-A KSP39	M27	T820NF#06-40RH2-A KSP39	M26
T692NF07500-16RH6-A KSS29	M63	T820M140X200RD7-A KSP39	M29	T820NC#06-32RH1-A KSP39	M27	T820NF#06-40RH3-A KSP39	M26
T692NF07500-16RH7-A KSS29	M63	T820M160X200R6G-D6 KSP39	M32	T820NC#06-32RH2-A KSP39	M27	T820NF#06-40RH4-A KSP39	M26
T692NF07500-16RH3-A KSP27	M63	T820M160X200R6H-D6 KSP32	M32	T820NC#06-32RH3-A KSP39	M27	T820NF#08-36RH2-A KSP39	M23
T692NF07500-16RH3-A KSS29	M63	T820M160X200R6H-D6 KSP39	M32	T820NC#06-32RH4-A KSP39	M27	T820NF#08-36RH3-A KSP39	M23
T692NF07500-16RH5-A KSS29	M63	T820M160X200R6H-J KJU30	M33	T820NC#06-32RH5-A KSP39	M27	T820NF#10-32R2B-D1 KSP39	M26
T692NF07500-16RH6-A KSS29	M63	T820M160X200R6H-J KJU31	M33	T820NC#06-32RH6-A KSP39	M27	T820NF#10-32RH3-A KSP39	M23
T692NF07500-16RH7-A KSS29	M63	T820M160X200RD7-A KSMN34	M29	T820NC#06-32RH7-A KSP39	M27	T820NF#10-32RH3-XL4 KSP39	M34
T692NF07500-16RH3-A KSP27	M63	T820M160X200RD7-A KSP32	M29	T820NC#06-32RH8-A KSP39	M27	T820NF#10-32RH3-XL6 KSP39	M35
T692NF07500-16RH3-A KSS29	M63	T820M160X200RD7-A KSP39	M29	T820NC#06-32RH9-A KSP39	M27	T820NF#10-32RH4-A KSP39	M23
T692NF06250-18RH3-A KSP27	M63	T820M180X250R6H-D6 KSP32	M32	T820NC#08-32R2B-D1 KSP39	M23	T820NF#10-32RH5-A KSP39	M23
T692NF06250-18RH3-A KSS29	M63	T820M180X250R6H-J KJU30	M33	T820NC#08-32RH3-A KSP39	M23		
T820M020X040R6G-D1 KSP39	M31	T820M200X250R6H-D6 KSP32	M32				
T820M020X040R6H-D1 KSP32	M31						
T820M020X040R6H-D1 KSP39	M31						

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
T830NF#06-40RH2-A KSP39	M74	T832M030X050R6H-D1 KSP32	M94	T832NF#06-40RH3-A KSP39	M77	T838M200X250R6H-D6 KSP39	M96
T830NF#06-40RH3-A KSP39	M74	T832M030X050R6H-D1 KSP39	M94	T832NF#10-32RH3-A KSP39	M77	T838M200X250R6H-D6 KSJ31	M96
T830NF#10-32R2B-D1 KSP39	M84	T832M030X050RD3-A KSP39	M89	T832NF#10-32RH3-XL6 KSP39	M101	T838M220X250R6H-D6 KSP39	M96
T830NF#10-32R3B-D1 KSP39	M87	T832M035X060RD4-A KSP39	M89	T832NF#10-32RH5-A KSP39	M77	T838M220X250R6H-D6 KSJ31	M96
T830NF#10-32RH2-A KSP39	M75	T832M040X070R6H-D1 KSP32	M94	T832NF02500-28RH3-A KSP39	M77	T838M240X300R6H-D6 KSP39	M96
T830NF#10-32RH3-A KSMN34	M75	T832M040X070R6H-D1 KSP39	M94	T832NF02500-28RH3-XL6 KSP39	M101	T838M240X300R6H-D6 KSJ31	M96
T830NF#10-32RH3-A KSP32	M75	T832M040X070RD4-A KSP39	M89	T832NF02500-28RH5-A KSP39	M77	T838M270X300R6H-D6 KSP39	M96
T830NF#10-32RH3-A KSP39	M75	T832M050X080R6H-D1 KSP32	M94	T832NF03125-24RH3-A KSP39	M77	T838M270X300R6H-D6 KSJ31	M96
T830NF#10-32RH3-XL4 KSP39	M99	T832M050X080R6H-D1 KSP39	M94	T832NF03125-24RH5-A KSP39	M77	T838M300X350R6H-D6 KSP39	M96
T830NF#10-32RH3-XL6 KSP39	M100	T832M050X080RD4-A KSP39	M89	T832NF03750-24RH3-A KSP39	M77	T838M300X350R6H-D6 KSJ31	M96
T830NF#10-32RH4-A KSP39	M75	T832M060X100R6H-D1 KSP32	M94	T832NF03750-24RH3-XL6 KSP39	M101	T838M330X350R6H-D6 KSP39	M96
T830NF#10-32RH5-A KSP39	M75	T832M060X100R6H-D1 KSP39	M94	T832NF03750-24RH4-A KSP39	M77	T838M330X350R6H-D6 KSJ31	M96
T830NF#10-32RH6-A KSP39	M75	T832M060X100RD5-A KSP39	M89	T832NF03750-24RH5-A KSP39	M77	T838M360X400R6H-D6 KSP39	M96
T830NF#10-32RH7-A KSP39	M75	T832M070X100RD5-A KSP39	M89	T832NF04375-20RH3-A KSP39	M78	T838M360X400R6H-D6 KSJ31	M96
T830NF#12-28RH3-A KSP39	M75	T832M080X125R6H-D1 KSP32	M94	T832NF04375-20RH4-A KSP39	M78	T838M390X400R6H-D6 KSP39	M96
T830NF02500-28R2B-D1 KSP39	M84	T832M080X125R6H-D1 KSP39	M94	T832NF05000-32RH3-A KSP39	M78	T838M390X400R6H-D6 KSJ31	M96
T830NF02500-28R3B-D1 KSP39	M87	T832M080X125RD5-A KSP39	M89	T832NF05625-18RH3-A KSP39	M78	T838M420X450R6H-D6 KSP39	M96
T830NF02500-28RH2-A KSP39	M75	T832M100X150R6H-D1 KSP32	M94	T832NF06250-18RH3-A KSP39	M78	T838M420X450R6H-D6 KSJ31	M96
T830NF02500-28RH3-A KSMN34	M75	T832M100X150R6H-D1 KSP39	M94	T832NF06250-18RH4-A KSP39	M78	T838M480X500R6H-D6 KSP39	M96
T830NF02500-28RH3-A KSP32	M75	T832M100X150RD6-A KSP39	M89	T832NF07500-16RH3-A KSP39	M78	T838M480X500R6H-D6 KSJ31	M96
T830NF02500-28RH3-A KSP39	M75	T832M120X175R6H-D6 KSP32	M94	T834M030X050RD3-A KSP32	M88	T838M520X500R6H-D6 KSP39	M96
T830NF02500-28RH4-A KSP39	M75	T832M120X175R6H-D6 KSP39	M94	T834M030X050RD3-A KSP39	M88	T838M520X500R6H-D6 KSJ31	M96
T830NF02500-28RH5-A KSP39	M75	T832M120X175RD6-A KSP39	M89	T834NC#05-40RH2-A KSP39	M74	T838M600X075R6H-D4 KSP39	M95
T830NF02500-28RH6-A KSP39	M75	T832M140X200R6H-D6 KSP32	M94	T834NC#06-32RH2-A KSP39	M74	T838M600X075R6H-D4 KSJ31	M95
T830NF02500-28RH7-A KSP39	M75	T832M140X200R6H-D6 KSP39	M94	T834NC#06-32RH3-A KSMN34	M74	T838M600X075R6H-D4 KSP39	M95
T830NF03125-24R2B-D1 KSP39	M84	T832M140X200RD7-A KSP39	M89	T834NC#06-32RH3-A KSP32	M74	T838M600X075R6H-D4 KSJ31	M95
T830NF03125-24R3B-D1 KSP39	M87	T832M160X200R6H-D6 KSP32	M94	T834NC#06-32RH4-A KSP39	M74	T838M680X075R6H-D4 KSP39	M95
T830NF03125-24RH3-A KSMN34	M75	T832M160X200RD7-A KSP39	M89	T834NC#06-32RH4-A KSP39	M74	T838M680X075R6H-D4 KSJ31	M95
T830NF03125-24RH3-A KSP32	M75	T832M180X250R6H-D6 KSP32	M94	T834NC#06-32RH5-A KSP39	M74	T838M680X100R6H-D4 KSP39	M95
T830NF03125-24RH3-A KSP39	M75	T832M180X250R6H-D6 KSP39	M94	T834NC#06-32RH5-A KSP39	M74	T838M680X100R6H-D4 KSJ31	M95
T830NF03125-24RH3-XL6 KSP39	M100	T832M200X250R6H-D6 KSP32	M94	T834NC#06-32RH7-A KSP39	M74	T838M680X100RD5-A KSP39	M90
T830NF03125-24RH5-A KSP39	M75	T832M200X250R6H-D6 KSP39	M94	T834NF#06-40RH2-A KSP39	M74	T838M680X100RD5-A KSP39	M90
T830NF03125-24RH7-A KSP39	M75	T832MF080X100R6H-D4 KSP32	M94	T834NF#06-40RH3-A KSP39	M74	T838M680X100RD5-A KSP39	M90
T830NF03750-24R2B-D1 KSP39	M84	T832MF080X100R6H-D4 KSP39	M94	T838M020X040R6H-D1 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF03750-24R3B-D1 KSP39	M87	T832MF080X100RD5-A KSP39	M89	T838M020X040R6H-D1 KSJ31	M95	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH3-A KSMN34	M75	T832MF100X125R6H-D4 KSP32	M94	T838M030X050R6H-D1 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH3-A KSP32	M75	T832MF100X125RD5-A KSP39	M89	T838M030X050RD3-A KSP32	M90	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH3-A KSP39	M75	T832MF120X125R6H-D4 KSP32	M94	T838M030X050RD3-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH3-XL6 KSP39	M100	T832MF120X125RD5-A KSP39	M89	T838M035X060RD4-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH4-A KSP39	M75	T832MF120X150R6H-D4 KSP32	M94	T838M040X070R6H-D1 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH5-A KSP39	M75	T832MF120X150R6H-D4 KSP39	M94	T838M040X070R6H-D1 KSJ31	M95	T838M680X100RD5-A KSP39	M90
T830NF03750-24RH6-A KSP39	M75	T832MF120X150RD5-A KSP39	M89	T838M040X070RD4-A KSP32	M90	T838M680X100RD5-A KSP39	M90
T830NF04375-20R2B-D6 KSP39	M84	T832MF140X150R6H-D4 KSP32	M94	T838M040X070RD4-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF04375-20R3B-D6 KSP39	M87	T832MF140X150RD6-A KSP39	M89	T838M050X080R6H-D1 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF04375-20RH3-A KSMN34	M75	T832MF160X150RD6-A KSP39	M89	T838M050X080R6H-D1 KSJ31	M95	T838M680X100RD5-A KSP39	M90
T830NF04375-20RH3-A KSP32	M75	T832MF180X150RD6-A KSP39	M89	T838M050X080R6H-D6 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF04375-20RH3-A KSP39	M75	T832NC#04-40RH2-A KSP39	M77	T838M050X080R6H-D6 KSJ31	M95	T838M680X100RD5-A KSP39	M90
T830NF04375-20RH3-XL6 KSP39	M100	T832NC#04-40RH2-XL6 KSP39	M101	T838M050X080RD4-A KSP32	M90	T838M680X100RD5-A KSP39	M90
T830NF04375-20RH5-A KSP39	M75	T832NC#04-40RH3-A KSP39	M77	T838M060X100R6H-D1 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF04375-20RH6-A KSP39	M75	T832NC#04-40RH3-A KSP39	M77	T838M060X100R6H-D6 KSP39	M95	T838M680X100RD5-A KSP39	M90
T830NF05000-20R2B-D6 KSP39	M84	T832NC#04-40RH5-A KSP39	M77	T838M060X100R6H-D6 KSJ31	M95	T838M680X100RD5-A KSP39	M90
T830NF05000-20R3B-D6 KSP39	M87	T832NC#06-32RH2-A KSP39	M77	T838M060X100RD5-A KSP32	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH3-A KSMN34	M75	T832NC#06-32RH2-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH3-A KSP32	M75	T832NC#06-32RH3-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH3-A KSP39	M75	T832NC#06-32RH3-XL6 KSP39	M101	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH3-XL6 KSP39	M100	T832NC#06-32RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH5-A KSP39	M75	T832NC#08-32RH2-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH6-A KSP39	M75	T832NC#08-32RH3-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05000-20RH7-A KSP39	M75	T832NC#08-32RH3-XL6 KSP39	M101	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05625-18R2B-D6 KSP39	M84	T832NC#08-32RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05625-18RH3-A KSMN34	M76	T832NC#08-32RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05625-18RH3-A KSP32	M76	T832NC#10-24RH3-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05625-18RH3-A KSP39	M76	T832NC#10-24RH4-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF05625-18RH5-A KSP39	M76	T832NC#10-24RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF06250-18R2B-D6 KSP39	M84	T832NC02500-20RH3-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF06250-18RH3-A KSMN34	M76	T832NC02500-20RH3-XL6 KSP39	M101	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF06250-18RH3-A KSP32	M76	T832NC02500-20RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF06250-18RH3-A KSP39	M76	T832NC03125-18RH3-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF06250-18RH5-A KSP39	M76	T832NC03125-18RH3-XL6 KSP39	M101	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF06250-18RH7-A KSP39	M76	T832NC03125-18RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF07500-16R2B-D6 KSP39	M84	T832NC03750-16RH3-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF07500-16RH3-A KSMN34	M76	T832NC03750-16RH3-XL6 KSP39	M101	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF07500-16RH3-A KSP32	M76	T832NC03750-16RH5-A KSP39	M77	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF07500-16RH3-A KSP39	M76	T832NC04375-14RH3-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF07500-16RH5-A KSP39	M76	T832NC04375-14RH3-XL6 KSP39	M101	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF07500-16RH7-A KSP39	M76	T832NC04375-14RH5-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF08750-14R2B-D6 KSP39	M84	T832NC05000-13RH3-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF08750-14RH4-A KSMN34	M76	T832NC05625-12RH3-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF08750-14RH4-A KSP39	M76	T832NC05625-12RH5-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF08750-9R2B-D6 KSP39	M84	T832NC06250-11RH3-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF1000-12RH4-A KSP39	M76	T832NC06250-11RH5-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
T830NF10000-12R2B-D6 KSP39	M84	T832NC07500-10RH3-A KSP39	M78	T838M060X100RD5-A KSP39	M90	T838M680X100RD5-A KSP39	M90
		T832NF#06-40RH2-A KSP39	M77	T838M100X150R6H-D1 KSP39	M95	T838M680X100RD5-A KSP39	M90
				T838M100X150R6H-D1 KSJ31	M95	T838M680X100RD5-A KSP39	M90
				T838M100X150RD6-A KSP39	M90	T838M680X100RD5-A KSP39	M90
				T838M100X150RD6-A KSP39	M90	T838M680X100RD5-A KSP39	M90
				T838M120X175R6H-D6 KSP39	M95	T838M680X100RD5-A KSP39	M90
				T838M120X175R6H-D6 KSJ31	M95	T838M680X100RD5-A KSP39	M90
				T838M120X175RD6-A KSP39	M90	T838M680X100RD5-A KSP39	M90
				T838M120X175RD6-A KSP39	M90	T838M680X100RD5-A KSP39	M90
				T838M140X200R6H-D6 KSP39	M95	T838M680X100RD5-A KSP3	

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
T838NC#04-40RH2-A KSP39.....	M79	T838NC07500-10R2B-D6 KSUJ31	M85	T838NF05625-18R2B-D4 KSUJ31	M85	T839NC02500-20RH5-A KSP39.....	M82
T838NC#04-40RH3-A KSP39.....	M79	T838NC07500-10RH3-A KSP32.....	M81	T838NF06250-18RH3-A KSP39.....	M80	T839NC03125-18RH3-A KSP39.....	M82
T838NC#04-40RH4-A KSP39.....	M79	T838NC07500-10RH3-A KSP39.....	M81	T838NF05625-18RH5-A KSP39.....	M80	T839NC03125-18RH5-A KSP39.....	M82
T838NC#04-40RH5-A KSP39.....	M79	T838NC07500-10RH5-A KSP39.....	M81	T838NF06250-18R2B-D4 KSP39.....	M85	T839NC03750-16RH3-A KSP39.....	M82
T838NC#05-40RH2-A KSP39.....	M79	T838NC08750-9R2B-D6 KSP39.....	M86	T838NF06250-18R2B-D4 KSUJ31	M85	T839NC03750-16RH5-A KSP39.....	M82
T838NC#06-32R2B-D1 KSP39.....	M85	T838NC08750-9R2B-D6 KSUJ31	M86	T838NF06250-18RH3-A KSP32.....	M80	T839NC04375-14RH3-A KSP39.....	M83
T838NC#06-32R2B-D1 KSUJ31.....	M85	T838NC08750-9RH4-A KSP39.....	M81	T838NF06250-18RH3-A KSP39.....	M80	T839NC04375-14RH5-A KSP39.....	M83
T838NC#06-32RH2-A KSP39.....	M79	T838NC10000-8R2B-D6 KSP39.....	M86	T838NF06250-18RH5-A KSP39.....	M80	T839NC05000-13RH3-A KSP39.....	M83
T838NC#06-32RH3-A KSP32.....	M79	T838NC10000-8R2B-D6 KSUJ31	M86	T838NF06250-18RH6-A KSP39.....	M81	T839NC05000-13RH5-A KSP39.....	M83
T838NC#06-32RH3-A KSP39.....	M79	T838NC10000-8RH5-A KSP32.....	M81	T838NF06250-18RH7-A KSP39.....	M81	T839NC05625-12RH3-A KSP39.....	M83
T838NC#06-32RH4-A KSP39.....	M79	T838NC10000-8RH5-A KSP39.....	M81	T838NF07500-16R2B-D4 KSP39.....	M85	T839NC05625-12RH5-A KSP39.....	M83
T838NC#06-32RH5-A KSP39.....	M79	T838NC11250-7R2B-D6 KSP39.....	M86	T838NF07500-16R2B-D4 KSUJ31	M85	T839NC06250-11RH3-A KSP39.....	M83
T838NC#06-32RH7-A KSP39.....	M79	T838NC11250-7R2B-D6 KSUJ31	M86	T838NF07500-16RH3-A KSP32.....	M81	T839NC06250-11RH5-A KSP39.....	M83
T838NC#08-32R2B-D1 KSP39.....	M85	T838NC11250-7RH6-A KSP39.....	M81	T838NF07500-16RH3-A KSP39.....	M81	T839NC07500-10RH3-A KSP39.....	M83
T838NC#08-32R2B-D1 KSUJ31.....	M85	T838NC12500-7R2B-D6 KSP39.....	M86	T838NF07500-16RH5-A KSP39.....	M81	T839NF#06-40RH2-A KSP39.....	M82
T838NC#08-32R2B-D1 KSUJ31.....	M79	T838NC12500-7R2B-D6 KSUJ31	M86	T838NF07500-16RH6-A KSP39.....	M81	T839NF#06-40RH3-A KSP39.....	M82
T838NC#08-32RH2-A KSP39.....	M85	T838NC13750-6R2B-D6 KSP39.....	M86	T838NF07500-16RH7-A KSP39.....	M81	T839NF#10-32RH3-A KSP39.....	M82
T838NC#08-32RH3-A KSP32.....	M79	T838NC13750-6R2B-D6 KSUJ31	M86	T838NF07500-16RH8-A KSP39.....	M81	T839NF#10-32RH5-A KSP39.....	M82
T838NC#08-32RH3-A KSP39.....	M79	T838NC13750-6RH6-A KSP39.....	M86	T838NF08750-14RH4-A KSP39.....	M81	T839NF02500-20RH3-A KSP39.....	M82
T838NC#08-32RH4-A KSP39.....	M79	T838NC15000-6R2B-D6 KSP39.....	M86	T838NF08750-14RH4-A KSP39.....	M81	T839NF02500-20RH5-A KSP39.....	M82
T838NC#08-32RH4-A KSP39.....	M79	T838NC15000-6R2B-D6 KSUJ31	M86	T838NF10000-12RH4-A KSP39.....	M81	T839NF02500-28RH3-A KSP39.....	M82
T838NC#08-32RH6-A KSP39.....	M79	T838NC15000-6R2B-D6 KSP39.....	M86	T838NF10000-12R2B-D4 KSP39.....	M86	T839NF02500-28RH5-A KSP39.....	M82
T838NC#08-32RH7-A KSP39.....	M79	T838NC15000-6R2B-D6 KSUJ31	M86	T838NF10000-12R2B-D4 KSUJ31	M86	T839NF03125-24RH3-A KSP39.....	M82
T838NC#10-24R2B-D1 KSP39.....	M85	T838NC17500-5R2B-D6 KSP39.....	M86	T838NF10000-12R2B-D4 KSP39.....	M86	T839NF03125-24RH5-A KSP39.....	M82
T838NC#10-24R2B-D1 KSUJ31.....	M85	T838NC17500-5R2B-D6 KSUJ31	M86	T838NF12500-12R2B-D4 KSP39.....	M86	T839NF03125-24RH5-A KSP39.....	M82
T838NC#10-24RH2-A KSP39.....	M79	T838NC20000-4,5R2B-D6 KSP39.....	M86	T838NF12500-12R2B-D4 KSUJ31	M86	T839NF03750-24RH3-A KSP39.....	M83
T838NC#10-24RH3-A KSP32.....	M79	T838NC20000-4,5R2B-D6 KSUJ31	M86	T838NF12500-12R2B-D4 KSP39.....	M86	T839NF03750-24RH5-A KSP39.....	M83
T838NC#10-24RH3-A KSP39.....	M79	T838NF#04-48RH2-A KSP39.....	M79	T838NF12500-12R2B-D4 KSUJ31	M86	T839NF03750-24RH5-A KSP39.....	M83
T838NC#10-24RH4-A KSP39.....	M79	T838NF#06-40R2B-D1 KSP39.....	M85	T838NF13750-12R2B-D4 KSP39.....	M86	T839NF04375-20RH3-A KSP39.....	M83
T838NC#10-24RH5-A KSP39.....	M79	T838NF#06-40R2B-D1 KSUJ31.....	M85	T838NF13750-12R2B-D4 KSUJ31	M86	T839NF04375-20RH5-A KSP39.....	M83
T838NC#10-24RH7-A KSP39.....	M79	T838NF#06-40RH2-A KSP39.....	M79	T838NF15000-12R2B-D4 KSP39.....	M86	T839NF05000-20RH3-A KSP39.....	M83
T838NC#12-24R2B-D1 KSP39.....	M85	T838NF#06-40RH3-A KSP39.....	M79	T838NF15000-12R2B-D4 KSUJ31	M86	T839NF05625-18RH3-A KSP39.....	M83
T838NC#12-24R2B-D1 KSUJ31.....	M85	T838NF#08-36R2B-D1 KSP39.....	M85	T838NF15000-12R2B-D4 KSP39.....	M86	T839NF05625-18RH5-A KSP39.....	M83
T838NC#12-24RH3-A KSP39.....	M80	T838NF#08-36R2B-D1 KSUJ31.....	M85	T839M030X050R6H-D1 KSP39.....	M97	T839NF06250-18RH3-A KSP39.....	M83
T838NC02500-20R2B-D1 KSP39.....	M85	T838NF#10-32R2B-D1 KSP39.....	M85	T839M030X050R6H-D1 KSUJ31.....	M97	T839NF06250-18RH5-A KSP39.....	M83
T838NC02500-20R2B-D1 KSUJ31.....	M85	T838NF#10-32RH2-A KSP39.....	M79	T839M030X050RD3-A KSP39.....	M91	T839NF07500-16RH3-A KSP39.....	M83
T838NC02500-20R2B-D6 KSP39.....	M85	T838NF#10-32RH3-A KSP32.....	M79	T839M035X060RD4-A KSP39.....	M91	T846NPT01250-27R-A KSUJ30.....	M153
T838NC02500-20R2B-D6 KSUJ31.....	M85	T838NF#10-32RH3-A KSP39.....	M79	T839M040X070R6H-D1 KSP39.....	M97	T846NPT02500-18R-A KSUJ30.....	M153
T838NC02500-20RH2-A KSP39.....	M80	T838NF#10-32RH4-A KSP39.....	M80	T839M040X070R6H-D1 KSUJ31.....	M97	T846NPT03750-18R-A KSUJ30.....	M153
T838NC02500-20RH3-A KSP32.....	M80	T838NF#10-32RH4-A KSP39.....	M80	T839M040X070RD4-A KSP39.....	M91	T846NPT05000-14R-A KSUJ30.....	M153
T838NC02500-20RH3-A KSP39.....	M80	T838NF#10-32RH5-A KSP39.....	M80	T839M050X080R6H-D1 KSP39.....	M97	T846NPT07500-14R-A KSUJ30.....	M153
T838NC02500-20RH5-A KSP39.....	M80	T838NF#10-32RH6-A KSP39.....	M80	T839M050X080R6H-D1 KSUJ31.....	M97	T848NPT00625-27R-D55 KSUJ30.....	M156
T838NC02500-20RH7-A KSP39.....	M80	T838NF#10-32RH7-A KSP39.....	M80	T839M050X080RD4-A KSP39.....	M91	T848NPT01250-27R-A KSUJ30.....	M156
T838NC02500-20RH7-A KSP39.....	M80	T838NF#12-28R2B-D1 KSP39.....	M85	T839M060X100R6H-D1 KSP39.....	M97	T848NPT02500-18R-D55 KSUJ30.....	M156
T838NC03125-18R2B-D1 KSP39.....	M85	T838NF#12-28R2B-D1 KSUJ31.....	M85	T839M060X100R6H-D1 KSUJ31.....	M97	T848NPT03750-18R-D55 KSUJ30.....	M156
T838NC03125-18R2B-D1 KSUJ31.....	M85	T838NF02500-28R2B-D1 KSP39.....	M85	T839M060X100RD5-A KSP39.....	M91	T848NPT05000-14R-D55 KSUJ30.....	M156
T838NC03125-18R2B-D6 KSP39.....	M85	T838NF02500-28R2B-D1 KSUJ31.....	M85	T839M060X100RD5-A KSP39.....	M91	T848NPT07500-14R-D55 KSUJ30.....	M156
T838NC03125-18R2B-D6 KSUJ31.....	M85	T838NF02500-28R2B-D4 KSP39.....	M85	T839M080X125R6H-D1 KSP39.....	M97	T848NPT10000-11,5R-D55 KSUJ30.....	M152
T838NC03125-18RH3-A KSP32.....	M80	T838NF02500-28R2B-D4 KSUJ31.....	M85	T839M080X125R6H-D1 KSUJ31.....	M97	T848NPT01250-27R-D55 KSUJ30.....	M156
T838NC03125-18RH3-A KSP39.....	M80	T838NF02500-28RH2-A KSP39.....	M80	T839M080X125RD5-A KSP39.....	M91	T848NPT02500-18R-D55 KSUJ30.....	M156
T838NC03125-18RH5-A KSP39.....	M80	T838NF02500-28RH3-A KSP32.....	M80	T839M100X150R6H-D1 KSP39.....	M97	T848NPT03750-18R-D55 KSUJ30.....	M156
T838NC03125-18RH7-A KSP39.....	M80	T838NF02500-28RH3-A KSP39.....	M80	T839M100X150R6H-D1 KSUJ31.....	M97	T848NPT05000-14R-D55 KSUJ30.....	M156
T838NC03750-16R2B-D1 KSP39.....	M85	T838NF02500-28RH4-A KSP39.....	M80	T839M100X150RD6-A KSP39.....	M91	T848NPT07500-14R-D55 KSUJ30.....	M156
T838NC03750-16R2B-D1 KSUJ31.....	M85	T838NF02500-28RH5-A KSP39.....	M80	T839M120X175R6H-D6 KSP39.....	M97	T848NPT10000-11,5R-D55 KSUJ30.....	M152
T838NC03750-16R2B-D6 KSP39.....	M85	T838NF02500-28RH6-A KSP39.....	M80	T839M120X175R6H-D6 KSUJ31.....	M97	T854NPT00625-27R-A KSP39.....	M152
T838NC03750-16R2B-D6 KSUJ31.....	M85	T838NF02500-28RH7-A KSP39.....	M80	T839M140X200R6H-D6 KSP39.....	M97	T854NPT01250-27R-A KSP39.....	M152
T838NC03750-16RH3-A KSP32.....	M80	T838NF02500-28RH8-A KSP39.....	M80	T839M140X200R6H-D6 KSUJ31.....	M97	T854NPT02500-27R-A KSUJ31.....	M152
T838NC03750-16RH3-A KSP39.....	M80	T838NF03125-24R2B-D4 KSP39.....	M85	T839M140X200RD7-A KSP39.....	M91	T854NPT03750-18R-A KSP39.....	M152
T838NC03750-16RH3-A KSP39.....	M80	T838NF03125-24R2B-D4 KSUJ31.....	M85	T839M160X200R6H-D6 KSP39.....	M97	T854NPT05000-14R-A KSP39.....	M152
T838NC03750-16RH5-A KSP39.....	M80	T838NF03125-24RH3-A KSP32.....	M80	T839M160X200R6H-D6 KSUJ31.....	M97	T854NPT07500-14R-A KSP39.....	M152
T838NC03750-16RH7-A KSP39.....	M80	T838NF03125-24RH3-A KSP39.....	M80	T839M160X200RD7-A KSP39.....	M91	T854NPT10000-11,5R-A KSUJ31.....	M152
T838NC04375-14R2B-D6 KSP39.....	M85	T838NF03125-24RH5-A KSP39.....	M80	T839M180X250R6H-D6 KSP39.....	M97	T854NPT1250-27R-A KSUJ31.....	M152
T838NC04375-14R2B-D6 KSUJ31.....	M85	T838NF03125-24RH7-A KSP39.....	M80	T839M180X250R6H-D6 KSUJ31.....	M97	T854NPT01250-27R-A KSUJ31.....	M152
T838NC04375-14RH3-A KSP32.....	M80	T838NF03750-24RH7-A KSP39.....	M85	T839M200X250R6H-D6 KSP39.....	M97	T854NPT02500-18R-A KSP39.....	M152
T838NC04375-14RH3-A KSP39.....	M80	T838NF03750-24R2B-D4 KSP39.....	M85	T839M200X250R6H-D6 KSUJ31.....	M97	T854NPT03750-18R-A KSP39.....	M152
T838NC04375-14RH5-A KSP39.....	M80	T838NF03750-24R2B-D4 KSUJ31.....	M85	T839MF080X100RD5-A KSP39.....	M91	T854NPT05000-14R-A KSP39.....	M152
T838NC04375-14RH7-A KSP39.....	M80	T838NF03750-24RH3-A KSP39.....	M80	T839MF100X125RD5-A KSP39.....	M91	T854NPT07500-14R-A KSP39.....	M152
T838NC05000-13R2B-D6 KSP39.....	M85	T838NF03750-24RH3-A KSP39.....	M80	T839MF120X125RD5-A KSP39.....	M91	T854NPT10000-11,5R-A KSP39.....	M152
T838NC05000-13R2B-D6 KSUJ31.....	M85	T838NF03750-24RH4-A KSP39.....	M80	T839MF120X150RD5-A KSP39.....	M91	T854NPT1250-27R-A KSP39.....	M152
T838NC05000-13RH3-A KSP32.....	M80	T838NF03750-24RH5-A KSP39.....	M80	T839MF140X150RD6-A KSP39.....	M91	T854NPT01250-27R-A KSUJ31.....	M152
T838NC05000-13RH3-A KSP39.....	M80	T838NF04375-20R2B-D4 KSP39.....	M85	T839MF160X150RD6-A KSP39.....	M91	T854NPT02500-18R-A KSP39.....	M152
T838NC05000-13RH5-A KSP39.....	M80	T838NF04375-20R2B-D4 KSUJ31.....	M85	T839MF180X150RD6-A KSP39.....	M91	T854NPT03750-18R-A KSP39.....	M152
T838NC05000-13RH7-A KSP39.....	M80	T838NF04375-20RH3-A KSP32.....	M80	T839NF04375-20RH3-A KSP39.....	M82	T854NPT05000-14R-A KSP39.....	M152
T838NC05625-12R2B-D6 KSP39.....	M85	T838NF04375-20RH3-A KSP39.....	M80	T839NF04375-20RH5-A KSP39.....	M82	T854NPT07500-14R-A KSP39.....	M152
T838NC05625-12R2B-D6 KSUJ31.....	M85	T838NF04375-20RH5-A KSP39.....	M80	T839NF04375-20RH7-A KSP39.....	M82	T854NPT10000-11,5R-A KSUJ31.....	M152
T838NC05625-12RH3-A KSP32.....	M80	T838NF04375-20RH6-A KSP39.....	M80	T839NF05000-20R2B-D4 KSP39.....	M82	T854NPT1250-27R-A KSUJ31.....	M152
T838NC05625-12RH3-A KSP39.....	M80	T838NF04375-20RH6-A KSP39.....	M80	T839NF05000-20R2B-D4 KSUJ31.....	M85	T854NPT01250-27R-A KSUJ31.....	M152
T838NC05625-12RH5-A KSP39.....	M80	T838NF04375-20RH7-A KSP39.....	M80	T838NF05000-20RH3-A KSP32.....	M80	T854NPT02500-18R-A KSP39.....	M152
T838NC05625-12RH5-A KSP39.....	M80	T838NF05000-20R2B-D4 KSP39.....	M85	T838NF05000-20RH3-A KSP39.....	M80	T854NPT03750-18R-A KSP39.....	M152
T838NC06250-11R2B-D6 KSP39.....	M85	T838NF05000-20R2B-D4 KSUJ31.....	M85	T838NF05000-20RH5-A KSP39.....	M80	T854NPT05000-14R-A KSP39.....	M152
T838NC06250-11R2B-D6 KSUJ31.....	M85	T838NF05000-20RH3-A KSP32.....	M80	T838NF05000-20RH5-A KSP39.....	M80	T854NPT07500-14R-A KSP39.....	M152
T838NC06250-11RH3-A KSP39.....	M80	T838NF05000-20RH3-A KSP39.....	M80	T838NF05000-20RH7-A KSP39.....	M80	T854NPT10000-11,5R-A KSP39.....	M152
T838NC06250-11RH3-A KSP39.....	M80	T838NF05000-20RH5-A KSP39.....	M80	T838NF05625-18R2B-D4 KSP39.....	M85	T857G01250-28R-D56 KSP39.....	M155
T838NC06250-11RH5-A KSP39.....	M80	T838NF05625-18R2B-D4 KSUJ31.....	M85	T839NC02500-20RH3-A KSP39.....	M82	T857G01250-28R-D56 KSUJ31.....	M155
T838NC06250-11RH7-A KSP39.....	M80						
T838NC07500-10R2B-D6 KSP39.....	M85						

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
T857G02500-19R-D56 KSP39	M155	TCMT18151FP KCU25	B257	TCMT3251LF KCK20B	B257	TCMT432LF KCK20B	B257
T857G02500-19R-D56 KSU31	M155	TCMT18152FP KCU10	B257	TCMT3251LF KCM15	B257	TCMT432LF KCP10B	B257
T857G03750-19R-D56 KSP39	M155	TCMT18152FP KCU25	B257	TCMT3251LF KCM25	B257	TCMT432LF KCP25	B257
T857G03750-19R-D56 KSU31	M155	TCMT21505FP KCU25	B257	TCMT3251LF KCM25B	B257	TCMT432LF KCP25B	B257
T857G05000-14R-D56 KSP39	M155	TCMT21505FP KTP10	B257	TCMT3251LF KCM35	B257	TCMW3251 KCK20B	B258
T857G05000-14R-D56 KSU31	M155	TCMT21505LF KC5010	B257	TCMT3251LF KCP10	B257	TCMW3252 KCK20B	B258
T857G06250-14R-D56 KSP39	M155	TCMT21505LF KC5025	B257	TCMT3251LF KCP10B	B257	TD6P K68	B266
T857G06250-14R-D56 KSU31	M155	TCMT2151111 KT315	B256	TCMT3251LF KCP25	B257	TD6P05 KC5010	B266
T857G07500-14R-D56 KSP39	M155	TCMT2151FP KCK20B	B257	TCMT3251LF KCP25B	B257	TD6P1 KC5010	B266
T857G07500-14R-D56 KSU31	M155	TCMT2151FP KCM25	B257	TCMT3251LF KT315	B257	TD6P2 KC5010	B266
T857G08750-14R-D56 KSP39	M155	TCMT2151FP KCP10	B257	TCMT3251MP KCK20B	B258	TDHB12807501 KC5010	B263
T857G08750-14R-D56 KSU31	M155	TCMT2151FP KCP25	B257	TCMT3251MP KCM25	B258	TDHB12807501 KCU25	B263
T857G10000-11R-D56 KSP39	M155	TCMT2151FP KCU10	B257	TCMT3251MP KCM25B	B258	TDHB12807501 KT315	B263
T857G10000-11R-D56 KSU31	M155	TCMT2151FP KCU25	B257	TCMT3251MP KCP25	B258	TDHB12807505 KC5010	B263
T860NF02500-28RH3-XL6 KSP39	M100	TCMT2151FP KTP10	B257	TCMT3251MP KCU10	B258	TDHB12807505 KC5025	B263
T877G01250-28R-D56 KSP39	M154	TCMT2151LF KC5010	B257	TCMT325211 KT315	B256	TDHB12807505 KCU10	B263
T877G01250-28R-D56 KSU31	M154	TCMT2151LF KC5025	B257	TCMT3252FP KCM25	B257	TDHB12807505 KCU25	B263
T877G02500-19R-D56 KSP39	M154	TCMT2151LF KCK05	B257	TCMT3252FP KCP10	B257	TDHB1280751 KC5010	B263
T877G02500-19R-D56 KSU31	M154	TCMT2151LF KCK15	B257	TCMT3252FP KCP25	B257	TDHB1280751 KC5025	B263
T877G03750-19R-D56 KSP39	M154	TCMT2151LF KCK15B	B257	TCMT3252FP KCU10	B257	TDHB1280751 KCU10	B263
T877G03750-19R-D56 KSU31	M154	TCMT2151LF KCK20	B257	TCMT3252FP KCU25	B257	TDHB1280751 KCU25	B263
T877G05000-14R-D56 KSP39	M154	TCMT2151LF KCK20B	B257	TCMT3252FP KTP10	B257	TDHB1280751 KT315	B263
T877G05000-14R-D56 KSU31	M154	TCMT2151LF KCM15	B257	TCMT3252LF KC5010	B257	TDHB1280752 KC5025	B263
T877G06250-14R-D56 KSP39	M154	TCMT2151LF KCM15B	B257	TCMT3252LF KC5025	B257	TDHH12807505L KC5010	B263
T877G06250-14R-D56 KSU31	M154	TCMT2151LF KCM25B	B257	TCMT3252LF KCK05B	B257	TDHH12807505L KCU10	B263
T877G07500-14R-D56 KSP39	M154	TCMT2151LF KCM35	B257	TCMT3252LF KCK15	B257	TDHH12807505L KCU25	B263
T877G07500-14R-D56 KSU31	M154	TCMT2151LF KCP10	B257	TCMT3252LF KCK15B	B257	TDHH12807505R KCU10	B263
T877G08750-14R-D56 KSP39	M154	TCMT2151LF KCP10B	B257	TCMT3252LF KCK20	B257	TDHH1280751L KC5010	B263
T877G08750-14R-D56 KSU31	M154	TCMT2151LF KCP25	B257	TCMT3252LF KCK20B	B257	TDHH1280751L KCU10	B263
T877G10000-11R-D56 KSP39	M154	TCMT2151LF KCP25B	B257	TCMT3252LF KCM25	B257	TDHH1280751L KCU25	B263
T877G10000-11R-D56 KSU31	M154	TCMT2151LF KCP30	B257	TCMT3252LF KCM25B	B257	TDHH1280751R KCU10	B263
T9 S	T127-128, T131	TCMT2151LF KT315	B257	TCMT3252LF KCM35	B257	THW2M	T63, T65, V77, V139-142
TB15	V12, V19, V97-98, V102-103	TCMT2151UF KC5010	B258	TCMT3252LF KCP10	B257	THW3M	U28-29, U35-37
TB20	V26	TCMT2151UF KCP25	B258	TCMT3252LF KCP10B	B257	TK01338D	E60
TCGT21505HP KC5010	B256	TCMT2152FP KCM15	B257	TCMT3252LF KCP25	B257	TK01339D	E60
TCGT21505HP KC5410	B256	TCMT2152FP KCP25	B257	TCMT3252LF KCP25B	B257	TM24D053L102Z1	W4
TCGT21505HP KCU25	B256	TCMT2152FP KCU10	B257	TCMT3252LF KCP30	B257	TM24D059L118Z1	W4
TCGT2150LF KC5025	B256	TCMT2152FP KCU25	B257	TCMT3252LF KT315	B257	TM24D063L110Z2	W4
TCGT2150LF KCU10	B256	TCMT2152LF KC5010	B257	TCMT3252MF KCK15	B258	TM24D063L142Z1	W4
TCGT2151HP K313	B256	TCMT2152LF KC5025	B257	TCMT3252MF KCK15B	B258	TM24EN14BSF KC610M	W6
TCGT2151HP KC5010	B256	TCMT2152LF KCK05	B257	TCMT3252MF KCK20	B258	TM24EN14BSF KC635M	W6
TCGT2151HP KC5025	B256	TCMT2152LF KCK15	B257	TCMT3252MF KCK20B	B258	TM24EN18NPT KC610M	W6
TCGT2151HP KC5410	B256	TCMT2152LF KCK15B	B257	TCMT3252MF KCM25	B258	TM24EN18NPT KC610M	W6
TCGT2151HP KCU10	B256	TCMT2152LF KCK20	B257	TCMT3252MF KCM25B	B258	TM24EN18NPT KC635M	W7
TCGT2151HP KCU25	B256	TCMT2152LF KCK20B	B257	TCMT3252MF KCM35	B258	TM24EN18NPT KC635M	W7
TCGT2151LF KC5010	B256	TCMT2152LF KCM15	B257	TCMT3252MF KCP10	B258	TM24EN19BSF KC610M	W6
TCGT2151LF KC5025	B256	TCMT2152LF KCM25B	B257	TCMT3252MF KCP25	B258	TM24EN19BSF KC635M	W6
TCGT2151LF KCU10	B256	TCMT2152LF KCP10	B257	TCMT3252MF KCP25B	B258	TM24EN19BSPT KC610M	W7
TCGT2152HP KC5010	B256	TCMT2152LF KCP25	B257	TCMT3252MF KCP30	B258	TM24EN19BSPT KC635M	W7
TCGT32505HP KC5010	B256	TCMT2152LF KCP25B	B257	TCMT3252MP KCK20B	B258	TM24ENBLANK	W7
TCGT32505HP KCU25	B256	TCMT2152LF KCP30	B257	TCMT3252MP KCM15	B258	TM24N050ISO KC610M	W6
TCGT32505LF KC5010	B256	TCMT2152LF KT315	B257	TCMT3252MP KCM25	B258	TM24N050ISO KC635M	W6
TCGT3250LF KCU10	B256	TCMT2152MF KCK15	B258	TCMT3252MP KCM25B	B258	TM24N075ISO KC610M	W6
TCGT3251HP K313	B256	TCMT2152MF KCK20	B258	TCMT3252MP KCM35	B258	TM24N075ISO KC635M	W6
TCGT3251HP KC5010	B256	TCMT2152MF KCK20B	B258	TCMT3252MP KCP10	B258	TM24N100ISO KC610M	W6
TCGT3251HP KC5025	B256	TCMT2152MF KCM25B	B258	TCMT3252MP KCP25	B258	TM24N100ISO KC635M	W6
TCGT3251HP KC5410	B256	TCMT2152MF KCP25	B258	TCMT3252UF KC5010	B258	TM24N10UN KC610M	W6
TCGT3251HP KCU10	B256	TCMT2152MF KCP25B	B258	TCMT3252UF KCP25	B258	TM24N10UN KC635M	W6
TCGT3251LF KC5010	B256	TCMT2152MP KCK20B	B258	TCMT3253FP KCP10	B257	TM24N125ISO KC610M	W6
TCGT3251LF KCU10	B256	TCMT2152MP KCP25	B258	TCMT3253FP KCU10	B257	TM24N125ISO KC635M	W6
TCGT3252HP K313	B256	TCMT2152MP KCU10	B258	TCMT3253FP KCU25	B257	TM24N12UN KC610M	W6
TCGT3252HP KC5010	B256	TCMT2152UF KC5010	B258	TCMT3253LF KC5010	B257	TM24N12UN KC635M	W6
TCGT3252HP KC5025	B256	TCMT221FP KCP10B	B257	TCMT3253LF KCK15	B257	TM24N14UN KC610M	W6
TCGT3252HP KC5410	B256	TCMT221FP KCU10	B257	TCMT3253LF KCK20	B257	TM24N14UN KC635M	W6
TCGT3252HP KCU10	B256	TCMT221FP KCU25	B257	TCMT3253LF KCK20B	B257	TM24N150ISO KC610M	W6
TCGT3252LF KC5010	B256	TCMT222FP KCP05	B257	TCMT3253LF KCM25	B257	TM24N14UN KC635M	W6
TCGT3252LF KCU10	B256	TCMT222FP KCU10	B257	TCMT3253MF KCK20	B258	TM24N16UN KC610M	W6
TCGW181505S0415MT KBH20	B338	TCMT222FP KCU25	B257	TCMT3253MF KCK25	B258	TM24N16UN KC635M	W6
TCGW18151S0415MT KBH20	B338	TCMT223FP KCP05	B257	TCMT3253MF KCK20B	B258	TM24N175ISO KC610M	W6
TCGW21505S0415MT KBH10	B338	TCMT223FP KCU10	B257	TCMT3253MF KCM25B	B258	TM24N175ISO KC635M	W6
TCGW21505S0415MT KBH20	B338	TCMT32505LF KC5010	B257	TCMT3253MF KCP10	B258	TM24N18UN KC610M	W6
TCGW2151FST KD1400	B366	TCMT32505LF KC5025	B257	TCMT3253MF KCP25B	B258	TM24N18UN KC635M	W6
TCGW2151FST KD1425	B366	TCMT325111 KT315	B256	TCMT3253MP KCU10	B258	TM24N200ISO KC610M	W6
TCGW2151S0415MT KBH10	B338	TCMT3251FP KCP10	B257	TCMT3253MP KCP25	B258	TM24N200ISO KC635M	W6
TCGW2151S0415MT KBH20	B338	TCMT3251FP KCP25	B257	TCMT432FP KCM25	B257	TM24N24UN KC610M	W6
TCGW2151S0525MT KBH10	B338	TCMT3251FP KCU10	B257	TCMT432FP KCP05	B257	TM24N24UN KC635M	W6
TCGW2152S0415MT KBH10	B338	TCMT3251FP KCU25	B257	TCMT432FP KCP25	B257	TM24N24UN KC610M	W6
TCGW2152S0415MT KBH20	B338	TCMT3251LF KC5010	B257	TCMT432FP KCU10	B257	TM24N24UN KC635M	W6
TCGW2152S0525MT KBH10	B338	TCMT3251LF KC5025	B257	TCMT432FP KCU25	B257	TM24N250ISO KC610M	W6
TCGW3251FST KD1400	B366	TCMT3251LF KCK05	B257	TCMT432LF KC5010	B257	TM24N250ISO KC635M	W6
TCMT18151FP KCP25B	B257	TCMT3251LF KCK15	B257	TCMT432LF KC5025	B257	TM24N28UN KC610M	W6
TCMT18151FP KCU10	B257	TCMT3251LF KCK20	B257	TCMT432LF KCK15B	B257	TM24N28UN KC635M	W6

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
TM24N32UN KC610M	W6	TM40N300ISO KC610M	W20	TM731M100X150R2DHA KCU32	M167	TNGA433T0820 KY1615	B339
TM24N32UN KC635M	W6	TM40N300ISO KC635M	W20	TM731M120X175R2DHA KCU32	M167	TNGG3305FS KC5025	B121
TM25BLANK	W15	TM40N8UN KC610M	W20	TM731M160X200R2DHA KCU32	M167	TNGG3305LF KC5010	B121
TM25D17L2622	W10	TM40N8UN KC635M	W20	TM731MF080X100R2DHA KCU32	M167	TNGG3305LF KCU10	B121
TM25D17L3622	W10	TM40N9UN KC610M	W20	TM741M060X100R2DHA KCU36	M169	TNGG331FS KC5010	B121
TM25D20L3723	W10	TM41D083L17721	W24	TM741M080X125R2DHA KCU36	M169	TNGG331FS KC5025	B121
TM25D20L4423	W10	TM41D097L16922	W24	TM741M100X150R2DHA KCU36	M169	TNGG331FS KCU10	B121
TM25D22L4323	W10	TM41D118L256Z3	W24	TM741M120X175R2DHA KCU36	M169	TNGG331LF KC5010	B121
TM25D22L5523	W10	TM41D142L169Z5	W24	TM741M140X200R2DHA KCU36	M169	TNGG332LF KC5010	B121
TM25D30L5525	W10	TM41D142L256Z4	W24	TM741M160X200R2DHA KCU36	M169	TNGG432FS KCU10	B121
TM25EN115NPT KC610M	W15	TM41EN8NPT KC610M	W26	TM741M180X250R2DHA KCU36	M169	TNGM32S0525MTCB1 KBH20	B340
TM25EN115NPT KC635M	W15	TM41EN8NPT KC635M	W26	TM741M200X250R2DHA KCU36	M169	TNGN234S0820 KBK45	B306
TM25EN11BSPT KC610M	W15	TM41ENBLANK	W26	TM741MF080X100R2DHA KCU36	M169	TNGN334S0820 KBK45	B306
TM25EN11W KC610M	W15	TM41N300ISO KC610M	W26	TM741MF100X100R2DHA KCU36	M169	TNGP3305 KC5010	B121
TM25EN11W KC635M	W15	TM41N300ISO KC635M	W26	TM741MF100X125R2DHA KCU36	M169	TNGP3305 KCU10	B121
TM25EN12W KC610M	W15	TM41N350ISO KC610M	W26	TM741MF120X150R2DHA KCU36	M169	TNGP331 KC5010	B121
TM25EN14BSPT KC610M	W15	TM41N350ISO KC635M	W26	TM741NC0500-13R2DHA KCU36	M168	TNGP331 KC5410	B121
TM25EN14NPT KC610M	W15	TM41N400ISO KC610M	W26	TM741NC0750-10R2DHA KCU36	M168	TNGP331 KCU10	B121
TM25EN14NPT KC635M	W15	TM41N400ISO KC635M	W26	TM741NC0750-16R2DHA KCU36	M168	TNGP332 KC5010	B121
TM25EN14W KC610M	W15	TM41N450ISO KC610M	W26	TM741NC2500-20R2DHA KCU36	M168	TNGP332 KC5410	B121
TM25EN14W KC635M	W15	TM41N450ISO KC635M	W26	TM741NC3125-18R2DHA KCU36	M168	TNGP332 KCU10	B121
TM25INSERTSCREW	W4-5, W10-13, W17-19, W24-25	TM41N45UN KC610M	W26	TM741NC3750-16R2DHA KCU36	M168	TNGX334S0820 KBK45	B308
TM25N100ISO KC610M	W14	TM41N45UN KC635M	W26	TM741NF0500-20R2DHA KCU36	M168	TNMA332 K68	B122
TM25N100ISO KC635M	W14	TM41N4UN KC610M	W26	TM741NF0625-18R2DHA KCU36	M168	TNMA332 KCK15	B122
TM25N10UN KC610M	W14	TM41N4UN KC635M	W26	TM741NF2500-28R2DHA KCU36	M168	TNMA332 KCK15B	B122
TM25N10UN KC635M	W14	TM41N500ISO KC610M	W26	TM741NF3125-24R2DHA KCU36	M168	TNMA332 KCK20	B122
TM25N12UN KC610M	W14	TM41N500ISO KC635M	W26	TM741NF3750-24R2DHA KCU36	M168	TNMA332 KCK20B	B122
TM25N12UN KC635M	W14	TM41N550ISO KC610M	W26	TMC25D30L80Z4	W10	TNMA333 KCK15	B122
TM25N14UN KC610M	W14	TM41N550ISO KC635M	W26	TMS25D154L126Z5	W12	TNMA333 KCK20	B122
TM25N14UN KC635M	W14	TM41N5UN KC610M	W26	TMS25D193L138Z7	W12	TNMA333 KCK15	B122
TM25N150ISO KC610M	W14	TM41N5UN KC635M	W26	TMS25D232L158Z9	W12	TNMA334 KCK20	B122
TM25N150ISO KC635M	W14	TM41N600ISO KC610M	W26	TMS25D36L34Z5	W10	TNMA432 K68	B122
TM25N16UN KC610M	W14	TM41N600ISO KC635M	W26	TMS25D44L38Z6	W10	TNMA432 KCK05	B122
TM25N16UN KC635M	W14	TM41N6UN KC610M	W26	TMS25D52L40Z8	W10	TNMA432 KCK20B	B122
TM25N18UN KC610M	W14	TM41N6UN KC635M	W26	TMS40D193L19Z7	W18	TNMA433 KCK15B	B122
TM25N18UN KC635M	W14	TM41N7UN KC610M	W26	TMS40D232L200Z9	W18	TNMA433 KCK20B	B122
TM25N200ISO KC610M	W14	TM41N7UN KC635M	W26	TMS41D210L200Z5	W25	TNMA544 KCK15	B122
TM25N200ISO KC635M	W14	TM41N8UN KC610M	W26	TMS41D250L200Z6	W25	TNMG221FF KCU10	B123
TM25N20UN KC610M	W14	TM41N8UN KC635M	W26	TMT25D154L126Z5	W13	TNMG221FF KCP25	B123
TM25N20UN KC635M	W14	TM711M030X050R2DHA KCU33	M165	TMT25D154L126Z5	W13	TNMG222FF KC5010	B123
TM25N250ISO KC610M	W14	TM711M040X070R2DHA KCU33	M165	TMT25D154L126Z5	W13	TNMG222FF KCP10	B123
TM25N250ISO KC635M	W14	TM711M050X080R2DHA KCU33	M165	TMT25D067L110Z2	W11	TNMG222FF KCP25	B123
TM25N300ISO KC610M	W14	TM711M060X100R2DHA KCU33	M165	TMT25D087L170Z3	W11	TNMG3305MS KC5010	B125
TM25N300ISO KC635M	W14	TM711M080X125R2DHA KCU33	M165	TMT25D110L170Z4	W11	TNMG3305MS KC5025	B125
TM25N8UN KC610M	W14	TM711M100X150R2DHA KCU33	M165	TMT25D17L26Z2	W11	TNMG3305MS KCU10	B125
TM25N8UN KC635M	W14	TM711M120X175R2DHA KCU33	M165	TMT25D22L43Z3	W11	TNMG3305MS KCU25	B125
TM25N9UN KC610M	W14	TM711M140X200R2DHA KCU33	M165	TMT25D28L43Z4	W11	TNMG331FF KC5010	B123
TM25N9UN KC635M	W14	TM711M160X200R2DHA KCU33	M165	TMT25D28L43Z4	W11	TNMG331FF KCK05	B123
TM40D087L169Z3	W17	TM711M180X250R2DHA KCU33	M165	TNG222T0820 KY1615	B339	TNMG331FF KCU10	B123
TM40D087L256Z3	W17	TM711M200X250R2DHA KCU33	M165	TNG332T0820 KY1615	B319, B339	TNMG331FF KCU10	B123
TM40D118L215Z4	W17	TM711MF040X050R2DHA KCU33	M165	TNG332T0820 KY3500	B319	TNMG331FF KT315	B123
TM40D118L315Z3	W17	TM711MF050X050R2DHA KCU33	M165	TNG333T0820 KY1615	B339	TNMG331FN KCK05	B123
TM40EN008NPT KC610M	W20	TM711MF060X075R2DHA KCU33	M165	TNG334T0820 KY1615	B339	TNMG331FN KCP10	B123
TM40EN008NPT KC635M	W20	TM711MF080X075R2DHA KCU33	M165	TNG334T0820 KY3500	B319	TNMG331FN KCP10B	B123
TM40EN008NPTF KC610M	W21	TM711MF080X100R2DHA KCU33	M165	TNG432T0820 KY1615	B354	TNMG331FN KCP05	B123
TM40EN008NPTF KC635M	W21	TM711MF100X100R2DHA KCU33	M165	TNG432T0820 KY1615	B339	TNMG331FN KCP10	B123
TM40EN011BSPT KC610M	W21	TM711MF120X150R2DHA KCU33	M165	TNG432T0820 KY3500	B354	TNMG331FN KCP10B	B123
TM40EN011BSPT KC635M	W21	TM711MF140X150R2DHA KCU33	M165	TNG434T0820 KY25	B354	TNMG331FN KCP25B	B123
TM40EN0115NPT KC610M	W20	TM711MF160X150R2DHA KCU33	M165	TNG434T0820 KY3500	B319	TNMG331FN KT315	B123
TM40EN0115NPTF KC610M	W21	TM711MF180X150R2DHA KCU33	M165	TNGA331S0415MT KBH10	B339	TNMG331FF KC5010	B123
TM40EN11BSF KC610M	W20	TM711MF200X150R2DHA KCU33	M165	TNGA331S0415MT KBH20	B339	TNMG331FF KCM15	B123
TM40EN11BSF KC635M	W20	TM721M060X100R2DHA KCU32	M166	TNGA331S0525MT KBH20	B339	TNMG331FF KCU10	B123
TM40EN12BSF KC610M	W20	TM721M080X125R2DHA KCU32	M166	TNGA331S0735MT KBH20	B339	TNMG331FF KT315	B123
TM40EN14BSF KC610M	W20	TM721M100X150R2DHA KCU32	M166	TNGA332S0415MT KBH10	B339	TNMG331FW KC5010	B124
TM40EN16BSF KC610M	W20	TM721M120X175R2DHA KCU32	M166	TNGA332S0415MT KBH20	B339	TNMG331FW KCP05	B124
TM40ENBLANK	W21	TM721M140X200R2DHA KCU32	M166	TNGA332S0415MT KBH20	B339	TNMG331FW KCP10	B124
TM40N100ISO KC610M	W20	TM721M160X200R2DHA KCU32	M166	TNGA332S0735MT KBH10	B339	TNMG331FW KCP25	B124
TM40N100ISO KC635M	W20	TM721M180X250R2DHA KCU32	M166	TNGA332S0735MT KBH20	B339	TNMG331MN KCP10	B124
TM40N10UN KC610M	W20	TM721MF120X125R2DHA KCU32	M166	TNGA332T0820 KY1615	B339	TNMG331MN KCP25	B124
TM40N12UN KC610M	W20	TM721MF140X150R2DHA KCU32	M166	TNGA332T0820 KY3500	B314	TNMG331MN KCP25B	B124
TM40N12UN KC635M	W20	TM721MF160X150R2DHA KCU32	M166	TNGA332T0820 KY10	B314	TNMG331MN KCP30	B124
TM40N14UN KC610M	W20	TM721MF180X150R2DHA KCU32	M166	TNGA333S0415MT KBH10	B339	TNMG331MP KC5010	B124
TM40N150ISO KC610M	W20	TM721MF200X150R2DHA KCU32	M166	TNGA333S0415MT KBH20	B339	TNMG331MP KCM15	B124
TM40N150ISO KC635M	W20	TM721NC0500-13R2DHA KCU32	M166	TNGA333S0525MT KBH20	B339	TNMG331MP KCM15B	B124
TM40N16UN KC610M	W20	TM721NC0625-11R2DHA KCU32	M166	TNGA333S0735MT KBH10	B339	TNMG331MP KCM25B	B124
TM40N16UN KC635M	W20	TM721NC2500-20R2DHA KCU32	M166	TNGA333S0735MT KBH20	B339	TNMG331MP KCM35B	B124
TM40N18UN KC610M	W20	TM721NC3125-18R2DHA KCU32	M166	TNGA333T0820 KY1615	B339	TNMG331MP KCU10	B124
TM40N200ISO KC610M	W20	TM721NC3750-16R2DHA KCU32	M166	TNGA334T0820 KY3500	B314	TNMG331MS KC5010	B125
TM40N200ISO KC635M	W20	TM721NC4375-14R2DHA KCU32	M166	TNGA432T0820 KY1615	B339	TNMG331MS KC5025	B125
TM40N20UN KC610M	W20	TM731M040X070R2DHA KCU32	M167				
TM40N20UN KC635M	W20	TM731M050X080R2DHA KCU32	M167				
TM40N250ISO KC610M	W20	TM731M060X100R2DHA KCU32	M167				
		TM731M080X125R2DHA KCU32	M167				

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
TNMG331MS KCJ10	B125	TNMG332UP KCM15	B128	TNMG432MS KCJ10	B125	TNMG543RP KCM25B	B127
TNMG331MS KCJ25	B125	TNMG332UP KCM25	B128	TNMG432MS KCJ25	B125	TNMG543RP KCM35	B127
TNMG331P KC5010	B126	TNMG333FN KCK05	B123	TNMG432P KCJ10	B126	TNMG543RP KCP10	B127
TNMG331P KCJ10	B126	TNMG333FN KCP05	B123	TNMG432RN KCP10B	B126	TNMG543RP KCP25	B127
TNMG331UP KCM25	B128	TNMG333FN KCP10B	B123	TNMG432RN KCP25	B126	TNMG543RP KCJ10	B127
TNMG332CT KCPK05	B122	TNMG333FN KCP25	B123	TNMG432RN KCP25B	B126	TNMG543RP KCJ25	B127
TNMG332FF KC5010	B123	TNMG333FN KT315	B123	TNMG432RN KCP30	B126	TNMG544MS K313	B125
TNMG332FF KCP05	B123	TNMG333FP KC5010	B123	TNMG432RN KCP30B	B126	TNMG544RN KCP10	B126
TNMG332FF KCP10B	B123	TNMG333FP KCM15	B123	TNMG432RN KCP40	B126	TNMG544RN KCP25	B126
TNMG332FF KCJ10	B123	TNMG333FP KCJ10	B123	TNMG432RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332FF KT315	B123	TNMG333FW KCP05	B124	TNMG432RP KC5010	B127	TNMG544RN KCP30B	B126
TNMG332FN KCK05	B123	TNMG333FW KCP10B	B124	TNMG432RP KC5025	B127	TNMG544RN KCP40B	B127
TNMG332FN KCK15B	B123	TNMG333FW KT315	B124	TNMG432RP KCK20B	B127	TNMG544RP KCP25	B127
TNMG332FN KCP05B	B123	TNMG333MN KCP10B	B124	TNMG432RP KCM25	B127	TNMG544RP KCP25B	B127
TNMG332FN KCP10	B123	TNMG333MN KCP25	B124	TNMG432RP KCM25B	B127	TNMG544RP KCJ10	B127
TNMG332FN KCP10B	B123	TNMG333MN KCP25B	B124	TNMG432RP KCP10B	B127	TNMG544RN KCP25B	B126
TNMG332FN KCP25	B123	TNMG333MN KCP40	B124	TNMG432RP KCP25	B127	TNMG544RN KCP30B	B126
TNMG332FN KCP25B	B123	TNMG333MP KC5010	B124	TNMG432RP KCP25B	B127	TNMG544RN KCP40B	B127
TNMG332FN KT315	B123	TNMG333MP KCM15B	B124	TNMG432RP KCP40B	B127	TNMG544RN KCP40B	B127
TNMG332FP KC5010	B123	TNMG333MP KCM25	B124	TNMG432RP KCJ10	B127	TNMG544RN KCP25B	B126
TNMG332FP KCM15	B123	TNMG333MP KCM25B	B124	TNMG432RP KCJ25	B127	TNMG544RN KCP30B	B126
TNMG332FP KCP10	B123	TNMG333MR KCK15B	B125	TNMG432UN KCK20	B127	TNMG544RN KCP40B	B127
TNMG332FP KCJ10	B123	TNMG333MR KCP10B	B125	TNMG432UP KCM25	B128	TNMG544RN KCP25	B126
TNMG332FP KT315	B123	TNMG333MR KCP25B	B125	TNMG432UP KCM35	B128	TNMG544RN KCP25B	B126
TNMG332FW KCP05	B124	TNMG333MW KCP10	B126	TNMG433 K68	B122	TNMG544RN KCP25B	B126
TNMG332FW KCP10B	B124	TNMG333MW KCP10B	B126	TNMG433FN KCP10B	B123	TNMG544RN KCP25B	B126
TNMG332FW KT315	B124	TNMG333MW KCP25	B126	TNMG433FN KCP25	B123	TNMG544RN KCP25B	B126
TNMG332MG KCP10B	B125	TNMG333RN KCP10B	B126	TNMG433MN KCP10B	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP05	B124	TNMG333RN KCP25	B126	TNMG433MN KCP25	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP10	B124	TNMG333RN KCP25B	B126	TNMG433MN KCP25B	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP10B	B124	TNMG333RN KCP30	B126	TNMG433MN KCP30	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP25	B124	TNMG333RP KC5025	B127	TNMG433MN KCP40B	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP25B	B124	TNMG333RP KCK20	B127	TNMG433MP KC5010	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP30	B124	TNMG333RP KCM25	B127	TNMG433MP KCM25	B124	TNMG544RN KCP25B	B126
TNMG332MN KCP30B	B124	TNMG333RP KCM35	B127	TNMG433MP KCM25B	B124	TNMG544RN KCP25B	B126
TNMG332MP KC5010	B124	TNMG333RP KCP05	B127	TNMG433MR KCM25B	B125	TNMG544RN KCP25B	B126
TNMG332MP KCM15	B124	TNMG333RP KCP10	B127	TNMG433MS KCJ10	B125	TNMG544RN KCP25B	B126
TNMG332MP KCM15B	B124	TNMG333RP KCP10B	B127	TNMG433MS KCJ25	B125	TNMG544RN KCP25B	B126
TNMG332MP KCM25	B124	TNMG333RP KCP25	B127	TNMG433P KCJ10	B126	TNMG544RN KCP25B	B126
TNMG332MP KCM25B	B124	TNMG333RP KCU25	B127	TNMG433RN KCP10	B126	TNMG544RN KCP25B	B126
TNMG332MP KCM35	B124	TNMG333UN KCK05	B127	TNMG433RN KCP10B	B126	TNMG544RN KCP25B	B126
TNMG332MP KCM35B	B124	TNMG333UN KCK05B	B127	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332MP KCP25	B124	TNMG333UN KCK15B	B127	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332MP KCP25B	B124	TNMG333UN KCK20	B127	TNMG433RN KCP30B	B126	TNMG544RN KCP25B	B126
TNMG332MR KCJ10	B125	TNMG333UN KCK20B	B127	TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332MR KCM25	B125	TNMG334RP KCP10	B127	TNMG433RP KCM25	B127	TNMG544RN KCP25B	B126
TNMG332MR KCM25B	B125	TNMG334UN KCK20	B127	TNMG433RP KCM25B	B127	TNMG544RN KCP25B	B126
TNMG332MR KCP10B	B125	TNMG431FN KCP25	B123	TNMG433RN KCP10B	B126	TNMG544RN KCP25B	B126
TNMG332MR KCP25B	B125	TNMG431FP KC5010	B123	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332MS KC5010	B125	TNMG431FP KCM15	B123	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332MS KC5025	B125	TNMG431FP KCM25B	B123	TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
TNMG332MS KCJ10	B125	TNMG431FP KCJ10	B123	TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332MS KCJ25	B125	TNMG431MN KCP10	B124	TNMG433RP KCM25	B127	TNMG544RN KCP25B	B126
TNMG332MW KCP05	B126	TNMG431MN KCP25	B124	TNMG433RP KCM25B	B127	TNMG544RN KCP25B	B126
TNMG332MW KCP10	B126	TNMG431MN KCP25B	B124	TNMG433RN KCP10	B126	TNMG544RN KCP25B	B126
TNMG332MW KCP25	B126	TNMG431MN KCP30	B124	TNMG433RN KCP10B	B126	TNMG544RN KCP25B	B126
TNMG332MW KCP25B	B126	TNMG431MS KC5010	B125	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332P KCJ10	B126	TNMG431MS KC5025	B125	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332RN KCP10	B126	TNMG431MS KCJ10	B125	TNMG433RN KCP30B	B126	TNMG544RN KCP25B	B126
TNMG332RN KCP10B	B126	TNMG431MS KCJ25	B125	TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332RN KCP25	B126	TNMG431P KCJ10	B126	TNMG433RP KCM25	B127	TNMG544RN KCP25B	B126
TNMG332RN KCP25B	B126	TNMG432FN KCP10B	B123	TNMG433RP KCM25B	B127	TNMG544RN KCP25B	B126
TNMG332RN KCP30	B126	TNMG432FN KCP25	B123	TNMG433RN KCU25	B127	TNMG544RN KCP25B	B126
TNMG332RP KC5010	B127	TNMG432FP KCM15	B123	TNMG433RN KCP10	B126	TNMG544RN KCP25B	B126
TNMG332RP KC5025	B127	TNMG432FP KCJ10	B123	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332RP KCK05	B127	TNMG432MN KCP10	B124	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332RP KCK20	B127	TNMG432MN KCP10B	B124	TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
TNMG332RP KCM15	B127	TNMG432MN KCP25	B124	TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
TNMG332RP KCM25	B127	TNMG432MN KCP25B	B124	TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332RP KCP05	B127	TNMG432MN KCP40	B124	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332RP KCP10	B127	TNMG432MP KC5010	B124	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332RP KCP10B	B127	TNMG432MP KCM15B	B124	TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
TNMG332RP KCP25	B127	TNMG432MP KCM25	B124	TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
TNMG332RP KCP25B	B127	TNMG432MP KCM25B	B124	TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332RP KCP30	B127	TNMG432MP KCP10B	B124	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332RP KCJ10	B127	TNMG432MP KCJ10	B124	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332RP KCJ25	B127	TNMG432MR KCM25	B125	TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
TNMG332UN KCK05	B127	TNMG432MR KCM25B	B125	TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
TNMG332UN KCK15	B127	TNMG432MR KCP10B	B124	TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
TNMG332UN KCK15B	B127	TNMG432MS K313	B125	TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
TNMG332UN KCK20	B127	TNMG432MS KC5010	B125	TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
TNMG332UN KCK20B	B127	TNMG432MS KC5025	B125	TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP30	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP40B	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25	B126	TNMG544RN KCP25B	B126
				TNMG433RN KCP25B	B126	TNMG544RN KCP25B	B126
				TNMG			

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
TPG223T0420 KY1615.....	B340	TPGT3251HP KC5010	B267	TPMT2151LF KCM25B	B268	TPU321 K68.....	B178
TPG3205 K313.....	B177	TPGT3251HP KC5025	B267	TPMT2151LF KCP10	B268	TPU321 KCK15B.....	B178
TPG3205 K68.....	B177	TPGT3251HP KC5410	B267	TPMT2151LF KCP10B.....	B268	TPU321 KCP25B.....	B178
TPG3205 KC5010	B177	TPGT3251HP KCU10	B267	TPMT2151LF KCP25	B268	TPU321T0220 KY1615.....	B341
TPG321 K313.....	B177	TPGT3251HP KCQ25	B267	TPMT2151LF KCP25B.....	B268	TPU322 K68.....	B178
TPG321 K68.....	B177	TPGT3251LF KC5010	B267	TPMT2151LF KT315.....	B268	TPU322 KCK15B.....	B178
TPG321 KC5010.....	B177	TPGT3251LF KC5025.....	B267	TPMT2151UF KC5010.....	B269	TPU322 KCP25B.....	B178
TPG321 KCU10.....	B177	TPGT3252HP KC5010.....	B267	TPMT2151UF KCP05.....	B269	TPU322T0220 KY1615.....	B341
TPG321F KD1425.....	B367	TPGT3252HP KC5410.....	B267	TPMT2152FP KCU10.....	B267	TPU323T0220 KY1615.....	B341
TPG321T0220 KY1615.....	B340	TPGT3252HP KCU10.....	B267	TPMT2152LF KC5010.....	B268	TPU432 K68.....	B178
TPG321T0420 KY1615.....	B340	TPGT3252HP KCQ25.....	B267	TPMT2152LF KC5025.....	B268	TPU432 KCK15B.....	B178
TPG322 K313.....	B177	TPGT3252LF KC5010.....	B267	TPMT2152LF KCM25.....	B268	TPU432 KCP25B.....	B178
TPG322 K68.....	B177	TPGT3252LF KC5410.....	B267	TPMT2152LF KCP10B.....	B268	TPU433 K68.....	B178
TPG322 KC5010.....	B177	TPGT3252LF KCU10.....	B267	TPMT2152LF KCP25.....	B268	TPU433 KCK15B.....	B178
TPG322 KCU10.....	B177	TPGW2150S0415MT KBH20.....	B341	TPMT2152LF KCP25B.....	B268	TPU433 KCP25B.....	B178
TPG322F KD1425.....	B367	TPGW2151EC KB1345.....	B312	TPMT2152LF KT315.....	B268	TRAOL1615D.....	E70
TPG322T0220 KY1615.....	B340	TPGW2151FST KD1400.....	B367	TPMT2152MF KCK15.....	B268	TRAOL162D.....	E70
TPG322T0420 KY1615.....	B340	TPGW2151FST KD1425.....	B367	TPMT2152MF KCK20.....	B268	TRAOL163D.....	E70
TPG322T0820 KY3500.....	B320	TPGW2151S0415MT KBH20.....	B341	TPMT2152MF KCM25.....	B268	TRAOL164D.....	E70
TPG323 K313.....	B177	TPGW2152S0415C KB5630.....	B312, B340	TPMT2152MF KCP25.....	B268	TRAOL2015D.....	E70
TPG323 KC5010.....	B177	TPGW2152S0415MT KBH20.....	B341	TPMT2152MF KCP25B.....	B268	TRAOL202D.....	E70
TPG323T0420 KY1615.....	B340	TPGW2152S0415MT KBH20.....	B341	TPMT2152MP KCP25.....	B269	TRAOL203D.....	E70
TPG323T0820 KY3500.....	B320	TPGW221S0415MT KBH10.....	B341	TPMT221FP KCP10B.....	B267	TRAOL204D.....	E70
TPG323T0820 KYK10.....	B320	TPGW221S0525MT KBH10.....	B341	TPMT221FP KCU10.....	B267	TRAOL2415E.....	E70
TPG324 K68.....	B177	TPGW222S0525MT KBH10.....	B341	TPMT221FP KCU25.....	B267	TRAOL242E.....	E70
TPG324 KC5010.....	B177	TPGW3251FST KD1425.....	B367	TPMT222FP KCU10.....	B267	TRAOL243E.....	E70
TPG431 K313.....	B177	TPGW3251S0415MT KBH20.....	B341	TPMT3251FP KCK20.....	B267	TRAOL244E.....	E70
TPG431 K68.....	B177	TPGW3252FST KD1400.....	B367	TPMT3251FP KCM25.....	B267	TRAOR1615D.....	E70
TPG431 KC5010.....	B177	TPGW3252FST KD1425.....	B367	TPMT3251FP KCP10.....	B267	TRAOR162D.....	E70
TPG431 KCU10.....	B177	TPGW3252S0415MT KBH20.....	B341	TPMT3251FP KCP25.....	B267	TRAOR163D.....	E70
TPG432 K313.....	B177	TPGW3252S0525MT KBH20.....	B341	TPMT3251FP KCU10.....	B267	TRAOR164D.....	E70
TPG432 K68.....	B177	TPGW331S0415MT KBH10.....	B341	TPMT3251FP KCQ25.....	B267	TRAOR2015D.....	E70
TPG432 KC5010.....	B177	TPGW331S0525MT KBH10.....	B341	TPMT3251LF KC5010.....	B268	TRAOR202D.....	E70
TPG432 KCP25B.....	B177	TPGW332S0415MT KBH10.....	B341	TPMT3251LF KC5025.....	B268	TRAOR203D.....	E70
TPG432 KCU10.....	B177	TPGW332S0525MT KBH10.....	B341	TPMT3251LF KCK05.....	B268	TRAOR204D.....	E70
TPG432F KD1425.....	B367	TPGX0902ZPRGD KC7015.....	H85	TPMT3251LF KCK15.....	B268	TRAOR2415E.....	E70
TPG432T0820 KY3500.....	B320	TPGX0902ZPRGD KC7140.....	H85	TPMT3251LF KCM15.....	B268	TRAOR242E.....	E70
TPG433 K68.....	B177	TPGX0902ZPRGD KC7315.....	H85	TPMT3251LF KCM25B.....	B268	TRAOR243E.....	E70
TPG433 KC5010.....	B177	TPGX1102ZPRGD KC7015.....	H85	TPMT3251LF KCP10.....	B268	TRAOR244E.....	E70
TPG433 KCU10.....	B177	TPGX1102ZPRGD KC7140.....	H85	TPMT3251LF KCP10B.....	B268	TRHOR1615D.....	E70
TPG433T0820 KY3500.....	B320	TPGX1102ZPRGD KC7315.....	H85	TPMT3251LF KCP25.....	B268	TRHOR162D.....	E70
TPG434 K68.....	B177	TPGX1303ZPRGD KC7015.....	H85	TPMT3251LF KCP25B.....	B268	TRHOR2015D.....	E70
TPG434 KC5010.....	B177	TPGX1303ZPRGD KC7140.....	H85	TPMT3251LF KT315.....	B268	TRM50L0432M.....	E71
TPGF221 KC5010.....	B177	TPGX1303ZPRGD KC7315.....	H85	TPMT3252FP KCP10.....	B267	TRM50L0620M.....	E71
TPGF222 KCU10.....	B177	TPGX1603ZPRGD KC7015.....	H85	TPMT3252FP KCP25.....	B267	TRM50L0632M.....	E71
TPGF321 KC5010.....	B177	TPGX1603ZPRGD KC7140.....	H85	TPMT3252FP KCU25.....	B267	TRM50L0640M.....	E71
TPGF321 KCU10.....	B177	TPGX1603ZPRGD KC7315.....	H85	TPMT3252LF KC5010.....	B268	TRM50L0920M.....	E71
TPGF322 KC5010.....	B177	TPMR221 KCK15B.....	B177	TPMT3252LF KC5025.....	B268	TRM50L0932M.....	E71
TPGF322 KCP25B.....	B177	TPMR221 KCP25B.....	B177	TPMT3252LF KCK05.....	B268	TRM50L0950M.....	E71
TPGF322 KCU10.....	B177	TPMR222 KCP25B.....	B177	TPMT3252LF KCK15.....	B268	TRM50R0432M.....	E71
TPGF431 KCU10.....	B177	TPMR321 KCK15B.....	B177	TPMT3252LF KCK15B.....	B268	TRM50R0620M.....	E71
TPGF432 KCU10.....	B177	TPMR321 KCP25B.....	B177	TPMT3252LF KCK20.....	B268	TRM50R0632M.....	E71
TPGH321 KCU10.....	B266	TPMR322 KCK15B.....	B177	TPMT3252LF KCK20B.....	B268	TRM50R0640M.....	E71
TPGH321 KCU25.....	B266	TPMR322 KCP25B.....	B177	TPMT3252LF KCM25.....	B268	TRM50R0720M.....	E71
TPGH322 KC5010.....	B266	TPMR432 KCP25B.....	B177	TPMT3252LF KCP10B.....	B268	TRM50R0920M.....	E71
TPGT181505LF KC5010.....	B267	TPMT181505LF KC5010.....	B268	TPMT3252LF KCP25.....	B268	TRM50R0932M.....	E71
TPGT181505LF KCU10.....	B267	TPMT18151FP KCU10.....	B267	TPMT3252LF KCP25B.....	B268	TRM50R0940M.....	E71
TPGT18151LF KC5010.....	B267	TPMT18151LF KC5010.....	B268	TPMT3252LF KT315.....	B268	TRM50R0950M.....	E71
TPGT18151LF KC5025.....	B267	TPMT18151LF KC5025.....	B268	TPMT3252MF KCK15.....	B268	TRTOR1615D.....	E71
TPGT18151LF KC5410.....	B267	TPMT18151LF KCK05.....	B268	TPMT3252MF KCK20.....	B268	TRTOR162D.....	E71
TPGT18151LF KCU10.....	B267	TPMT18151LF KCK15.....	B268	TPMT3252MF KCM15.....	B268	TRTOR2015D.....	E71
TPGT21505HP KC5010.....	B267	TPMT18151LF KCM15B.....	B268	TPMT3252MF KCM25B.....	B268	TRTOR202D.....	E71
TPGT21505HP KC5025.....	B267	TPMT18151LF KCP10B.....	B268	TPMT3252MF KCP10.....	B268	TT15.....	K42-43, T119-120, U17-18
TPGT21505HP KCU10.....	B267	TPMT18151LF KCP25.....	B268	TPMT3252MF KCP25.....	B268	TT25.....	K42-43, V87-88, V91, W40-43
TPGT21505LF KC5010.....	B267	TPMT18151LF KCP25B.....	B268	TPMT3252MF KCP30.....	B268	TT30.....	K42-43, W41
TPGT21505LF KC5025.....	B267	TPMT18151LF KT315.....	B268	TPMT3252MP KCK20B.....	B269	TPP15.....	S44-45, T120, U35-37
TPGT21505LF KCU10.....	B267	TPMT18152FP KCP25.....	B267	TPMT3252MP KCP25.....	B269	TPP20.....	S32, S50, V155-156
TPGT2150LF KCU10.....	B267	TPMT18152FP KCU10.....	B267	TPMT3252UF KCP10.....	B269	TPP25.....	S24
TPGT2151HP KC5010.....	B267	TPMT18152FP KCU25.....	B267	TPMT3253MF KCK15.....	B268	TPP9.....	U28-29
TPGT2151HP KC5025.....	B267	TPMT21505FP KCU10.....	B267	TPMT3253MF KCK20.....	B268	TWDL10TM.....	.056
TPGT2151HP KC5410.....	B267	TPMT21505LF KC5010.....	B268	TPMT3253MF KCK20B.....	B268	TWDL12TM.....	.056
TPGT2151HP KCU25.....	B267	TPMT21505UF KCP05.....	B269	TPMT3253MF KCP25.....	B268	TWDL16TM.....	.056
TPGT2151LF KC5010.....	B267	TPMT2151FP KCP10.....	B267	TPMT3253MP KCP25.....	B269	TWDL20TM.....	.056
TPGT2151LF KC5025.....	B267	TPMT2151FP KCP25.....	B267	TPMT432LF KC5010.....	B268	TWDL25TM.....	.056
TPGT2151LF KC5410.....	B267	TPMT2151FP KCU10.....	B267	TPMT432LF KC5025.....	B268	TWDL32TM.....	.056
TPGT2151LF KCU10.....	B267	TPMT2151FP KCU25.....	B267	TPMT432LF KCK20.....	B268	TWDLTM.....	.056
TPGT2152HP KC5010.....	B267	TPMT2151LF K313.....	B268	TPU221 K68.....	B178	TWTMBC.....	.056
TPGT2152HP KC5410.....	B267	TPMT2151LF KC5010.....	B268	TPU221 KCK15B.....	B178	TWTMEXT.....	.056
TPGT2152LF KC5010.....	B267	TPMT2151LF KC5025.....	B268	TPU221T0220 KY1615.....	B341	TWTMINSERTDL10.....	.056
TPGT2152LF KCU10.....	B267	TPMT2151LF KCK15B.....	B268	TPU222 K68.....	B178	TWTMINSERTDL10W.....	.056
TPGT32505HP KC5010.....	B267	TPMT2151LF KCK20.....	B268	TPU222 KCK15B.....	B178	TWTMINSERTDL12.....	.056
TPGT32505HP KCU10.....	B267	TPMT2151LF KCM15.....	B268	TPU222T0220 KY1615.....	B341	TWTMINSERTDL12W.....	.056

For page references F-X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
TWTMINSERTDL16	056	UCDE188J5BRA KCPM15	P30	UCDE750K5ARB KC643M	P32	UEBD0375J2A KC643M	P168
TWTMINSERTDL20	056	UCDE188J5BRB KC643M	P30	UCDE750K5ARB KCPM15	P32	UEBD0375J3A KC643M	P169
TWTMINSERTDL25	056	UCDE188J5BRB KCPM15	P30	UCDE750K5BRB KC643M	P30	UEBD0437J2A KC643M	P168
TWTMINSERTDL32	056	UCDE188J5BS KC643M	P30	UCDE750K5BRB KCPM15	P30	UEBD0437J3A KC643M	P169
UADE0250J4AQA KCPM15	P21	UCDE188J5BS KCPM15	P30	UCDE750K5BRF KC643M	P31	UEBD0500J2A KC643M	P168
UADE0250J4AQB KCPM15	P21	UCDE219J5BS KC643M	P30	UCDE750K5BS KC643M	P31	UEBD0500J3A KC643M	P169
UADE0375J4AQA KCPM15	P21	UCDE250J5ARA KC643M	P32	UCDE750K5BS KCPM15	P31	UEDE0078J3AS KC643M	P166
UADE0375J4AQB KCPM15	P21	UCDE250J5ARA KCPM15	P32	UCDV0375Y5CU KCPM15	012	UEDE0094J3AS KC643M	P166
UADE0500J4AQB KCPM15	P21	UCDE250J5BRA KC643M	P30	UCDV0375Y5CV KCPM15	012	UEDE0125J3AS KC643M	P166
UADE0625J4AQB KCPM15	P21	UCDE250J5BRA KCPM15	P30	UCDV0500Y5CU KCPM15	012	UEDE0156J3AS KC643M	P166
UADE0750J4AQB KCPM15	P21	UCDE250J5BRB KC643M	P30	UCDV0500Y5CV KCPM15	012	UEDE0156J4AH KC643M	P167
UADE0750J4BQB KCPM15	P21	UCDE250J5BRB KCPM15	P30	UCDV0625Y5CU KCPM15	012	UEDE0188J3AS KC643M	P167
UADE1000J4ARA KC643M	P19	UCDE250J5BS KC643M	P30	UCDV0625Y5CV KCPM15	012	UEDE0188J4AH KC643M	P167
UADE1000J4ARB KC643M	P19	UCDE250J5BS KCPM15	P30	UCDV0750Y5CU KCPM15	012	UEDE0250J3AS KC643M	P166
UADE1000J4ARC KC643M	P19	UCDE281J5BS KC643M	P30	UCDV0750Y5CV KCPM15	012	UEDE0250J4AH KC643M	P167
UADE1000J4ARB KC643M	P19	UCDE312J5BRA KC643M	P30	UCDV1000Y5CU KCPM15	012	UEDE0312J3AS KC643M	P166
UADE1000J4ARF KC643M	P19	UCDE312J5BRA KCPM15	P30	UCDV1000Y5CV KCPM15	012	UEDE0312J4AH KC643M	P167
UADE1000J4BQB KCPM15	P21	UCDE312J5BRB KC643M	P30	UCDV1250Y5CU KCPM15	012	UEDE0375J3AS KC643M	P166
UADE1000J4ARA KC643M	P16	UCDE312J5BRB KCPM15	P30	UCDV1250Y5CV KCPM15	012	UEDE0375J4AH KC643M	P167
UADE250J4ARC KC643M	P17	UCDE312J5BS KC643M	P30	UDDE1000J5BRB KC643M	P33	UEDE0437J3AS KC643M	P166
UADE375J4ARA KC643M	P17	UCDE312J5BS KCPM15	P30	UDDE1000J5BRF KC643M	P33	UEDE0437J4AH KC643M	P167
UADE375J4ARB KC643M	P17	UCDE344J5BS KC643M	P30	UDDE1000J5BS KC643M	P33	UEDE0500J3AS KC643M	P166
UADE375J4ARC KC643M	P18	UCDE375J5ARA KC643M	P32	UDDE1000K5BRB KC643M	P33	UEDE0500J4AH KC643M	P167
UADE375J4BRA KC643M	P18	UCDE375J5ARA KCPM15	P32	UDDE1000K5BRF KC643M	P33	UGDE0250J5AE KC643M	P38
UADE375J4BRB KC643M	P18	UCDE375J5BRA KC643M	P30	UDDE1000K5BS KC643M	P33	UGDE0250J5ARA KC643M	P38
UADE500J4ARA KC643M	P18	UCDE375J5BRA KCPM15	P30	UDDE500J5BRA KC643M	P33	UGDE0250J5ARB KC643M	P38
UADE500J4ARB KC643M	P18	UCDE375J5BRB KC643M	P30	UDDE500J5BRB KC643M	P33	UGDE0250J5BE KC643M	P39
UADE500J4ARC KC643M	P18	UCDE375J5BRB KCPM15	P30	UDDE500J5BRF KC643M	P33	UGDE0250J5BRA KC643M	P39
UADE500J4ARE KC643M	P18	UCDE375J5BS KC643M	P30	UDDE500J5BS KC643M	P33	UGDE0250J5BRB KC643M	P39
UADE500J4BRA KC643M	P18	UCDE375J5BS KCPM15	P30	UDDE500K5BRA KC643M	P33	UGDE0312J5AE KC643M	P38
UADE500J4BRB KC643M	P18	UCDE375J5CRA KC643M	P30	UDDE500K5BRB KC643M	P33	UGDE0312J5ARA KC643M	P38
UADE500J4BRC KC643M	P18	UCDE375J5CRB KC643M	P30	UDDE500K5BRF KC643M	P33	UGDE0312J5ARB KC643M	P38
UADE500J4BRD KC643M	P18	UCDE438J5BS KC643M	P30	UDDE500K5BS KC643M	P33	UGDE0312J5BE KC643M	P39
UADE500J4BRE KC643M	P18	UCDE500J5BRA KC643M	P30	UDDE625J5BRB KC643M	P33	UGDE0312J5BRA KC643M	P39
UADE500J4CRA KC643M	P18	UCDE500J5BRA KCPM15	P30	UDDE625J5BS KC643M	P33	UGDE0312J5BRB KC643M	P39
UADE500J4CRB KC643M	P18	UCDE500J5BRB KC643M	P30	UDDE625K5BRB KC643M	P33	UGDE0375J5AE KC643M	P38
UADE500J4CRC KC643M	P18	UCDE500J5BRB KCPM15	P30	UDDE625K5BS KC643M	P33	UGDE0375J5ARA KC643M	P38
UADE500J4CRD KC643M	P18	UCDE500J5BRD KC643M	P30	UDDE750J5BRB KC643M	P33	UGDE0375J5ARB KC643M	P38
UADE500J4CRE KC643M	P18	UCDE500J5BRF KC643M	P30	UDDE750J5BRF KC643M	P33	UGDE0375J5BRC KC643M	P39
UADE625J4ARB KC643M	P19	UCDE500J5BRF KCPM15	P30	UDDE750J5BS KC643M	P33	UGDE0375J5BE KC643M	P39
UADE625J4ARC KC643M	P19	UCDE500J5BS KC643M	P30	UDDE750K5BRB KC643M	P33	UGDE0375J5BRA KC643M	P39
UADE750J4ARB KC643M	P19	UCDE500J5BS KCPM15	P30	UDDE750K5BRF KC643M	P33	UGDE0375J5BRB KC643M	P39
UADE750J4ARE KC643M	P19	UCDE500K5ARB KC643M	P32	UDDE750K5BS KC643M	P33	UGDE0375J5BRC KC643M	P39
UADE750J4BRA KC643M	P19	UCDE500K5ARB KCPM15	P32	UDDV0375Y5CQA KC643M	013	UGDE0500J5AE KC643M	P38
UADE750J4BRB KC643M	P19	UCDE500K5BRA KC643M	P30	UDDV0375Y5CQB KC643M	013	UGDE0500J5ARA KC643M	P38
UADE750J4BRC KC643M	P19	UCDE500K5BRB KC643M	P30	UDDV0375Y5CQC KC643M	013	UGDE0500J5ARB KC643M	P38
UADE750J4BRE KC643M	P19	UCDE500K5BRB KCPM15	P30	UDDV0375Y5CQD KC643M	013	UGDE0500J5ARC KC643M	P38
UBDE0500N4AQA KCSM15	P21	UCDE500K5BRB KCPM15	P30	UDDV0500Y5CQA KC643M	013	UGDE0500J5ARB KC643M	P38
UBDE0500N4AQB KCSM15	P21	UCDE500K5BRF KC643M	P30	UDDV0500Y5CQB KC643M	013	UGDE0500J5ARC KC643M	P38
UBDE0625N4AQB KCSM15	P21	UCDE500K5BRF KCPM15	P30	UDDV0500Y5CQC KC643M	013	UGDE0500J5ARB KC643M	P38
UBDE0625N4AQC KCSM15	P21	UCDE500K5BS KC643M	P30	UDDV0500Y5CQD KC643M	013	UGDE0500J5ARC KC643M	P38
UBDE0750N4AQB KCSM15	P21	UCDE500K5BS KCPM15	P30	UDDV0625Y5CQA KC643M	013	UGDE0625J5AE KC643M	P38
UBDE0750N4AQC KCSM15	P21	UCDE562J5BRA KC643M	P30	UDDV0625Y5CQB KC643M	013	UGDE0625J5ARA KC643M	P38
UBDE0750N4AQE KCSM15	P21	UCDE562J5BRB KC643M	P30	UDDV0625Y5CQC KC643M	013	UGDE0625J5ARB KC643M	P38
UBDE0750N4AQB KCSM15	P21	UCDE562J5BS KC643M	P30	UDDV0625Y5CQD KC643M	013	UGDE0625J5ARC KC643M	P38
UBDE0750N4BQB KCSM15	P21	UCDE625J5BRA KC643M	P30	UDDV0625Y5CQE KC643M	013	UGDE0625J5ARB KC643M	P38
UBDE0750N4BQC KCSM15	P21	UCDE625J5BRB KC643M	P30	UDDV0750Y5CQB KC643M	013	UGDE0625J5BRC KC643M	P39
UBDE0750N4BQD KCSM15	P21	UCDE625J5BRB KCPM15	P30	UDDV0750Y5CQC KC643M	013	UGDE0625J5BRB KC643M	P39
UBDE0750N4BQE KCSM15	P21	UCDE625J5BRD KC643M	P30	UDDV0750Y5CQD KC643M	013	UGDE0625J5BRC KC643M	P39
UBDE1000N4BOB KCSM15	P21	UCDE625J5BS KC643M	P30	UDDV0750Y5CQE KC643M	013	UGDE0750J5ARA KC643M	P38
UBDE1000N4BQC KCSM15	P21	UCDE625J5BS KCPM15	P30	UDDV1000Y5CQB KC643M	013	UGDE0750J5ARB KC643M	P38
UBDE1000N4BQE KCSM15	P21	UCDE625K5ARB KC643M	P32	UDDV1000Y5CQC KC643M	013	UGDE0750J5ARC KC643M	P38
UCDE1000J5BRA KC643M	P31	UCDE625K5ARB KCPM15	P32	UDDV1000Y5CQD KC643M	013	UGDE0750J5ARB KC643M	P38
UCDE1000J5BRB KC643M	P31	UCDE625K5BRB KC643M	P30	UDDV1000Y5CQE KC643M	013	UGDE0750J5ARC KC643M	P38
UCDE1000J5BRB KCPM15	P31	UCDE625K5BRB KCPM15	P30	UDDV1000Y5CQF KC643M	013	UGDE0750J5ARC KC643M	P38
UCDE1000J5BRD KC643M	P31	UCDE625K5BS KC643M	P30	UDDV1250Y5CQD KC643M	013	UGDE0750J5BE KC643M	P39
UCDE1000J5BRD KCPM15	P31	UCDE625K5BS KCPM15	P30	UDDV1250Y5CQF KC643M	013	UGDE0750J5BRB KC643M	P39
UCDE1000J5BRE KC643M	P31	UCDE750J5BRA KC643M	P30	UEBD0078J2A KC643M	P168	UGDE0750J5BRB KC643M	P39
UCDE1000J5BRE KCPM15	P31	UCDE750J5BRB KC643M	P30	UEBD0078J3A KC643M	P169	UGDE0750J5BRD KC643M	P39
UCDE1000J5BRF KC643M	P31	UCDE750J5BRD KC643M	P31	UEBD0094J2A KC643M	P168	UGDE1000J5AE KC643M	P38
UCDE1000J5BRF KCPM15	P31	UCDE750J5BRD KCPM15	P31	UEBD0094J3A KC643M	P169	UGDE1000J5ARA KC643M	P38
UCDE1000J5BS KC643M	P31	UCDE750J5BRE KC643M	P31	UEBD0125J2A KC643M	P168	UGDE1000J5ARB KC643M	P38
UCDE1000J5BS KCPM15	P31	UCDE750J5BRE KCPM15	P31	UEBD0125J3A KC643M	P169	UGDE1000J5ARB KC643M	P38
UCDE1000K5ARB KC643M	P32	UCDE750J5BRF KC643M	P31	UEBD0156J2A KC643M	P168	UGDE1000J5ARC KC643M	P38
UCDE1000K5ARB KCPM15	P32	UCDE750J5BRF KCPM15	P31	UEBD0156J3A KC643M	P169	UGDE1000J5ARC KC643M	P38
UCDE1000K5BRB KC643M	P31	UCDE750J5BRF KCPM15	P31	UEBD0188J2A KC643M	P168	UGDE1000J5BRB KC643M	P39
UCDE1000K5BRB KCPM15	P31	UCDE750J5BS KC643M	P31	UEBD0188J3A KC643M	P169	UGDE1000J5BRB KC643M	P39
UCDE1000K5BRF KC643M	P31	UCDE750J5BS KCPM15	P31	UEBD0250J2A KC643M	P168	UGDE1000J5BRB KC643M	P39
UCDE1000K5BRF KCPM15	P31	UCDE750J5CRB KC643M	P31	UEBD0250J3A KC643M	P169	UGDE1000J5BRB KC643M	P39
UCDE1000K5BS KC643M	P31	UCDE750J5CRD KC643M	P31	UEBD0312J2A KC643M	P168	UGDE1000J5BRB KC643M	P39
UCDE1000K5BS KCPM15	P31	UCDE750J5CRF KC643M	P31	UEBD0312J3A KC643M	P169	UJBE0125J6BP KCSM15	P74
UCDE188J5BRA KC643M	P30	UCDE750J5CS KC643M	P31				

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
UJDE1500N6FBD KCSM15	P64	UJDE750N6CRB KCSM15	P45	VBGT220LF KC5410	B280	VBMT221LF KCP05	B281
UJDE1500N6FBE KCSM15	P64	UJDE750N6CRC KCSM15	P45	VBGT220LF KCU10	B280	VBMT221LF KCP10	B281
UJDE1500N6FBF KCSM15	P64	UJDE750N6CRD KCSM15	P45	VBGT221HP KC5010	B280	VBMT221LF KCP10B	B281
UJDE1500N6FBH KCSM15	P64	UJDE750N6CRE KCSM15	P45	VBGT221HP KC5025	B280	VBMT221LF KCP25	B281
UJDE1500N6FBJ KCSM15	P64	UJDE750N6CS KCSM15	P45	VBGT221HP KC5410	B280	VBMT221LF KCP25B	B281
UJDE1500N6FBK KCSM15	P64	UJDV0375Y6CQA KCSM15	016	VBGT221HP KCU10	B280	VBMT221LF KT315	B281
UJDE1500N6FBL KCSM15	P65	UJDV0375Y6CQB KCSM15	016	VBGT221HP KCU25	B280	VBMT222FP KCM15	B281
UJDE1500N6GBB KCSM15	P65	UJDV0375Y6CQC KCSM15	016	VBGT221LF K313	B280	VBMT222FP KCP25	B281
UJDE1500N6GBC KCSM15	P65	UJDV0375Y6CQD KCSM15	016	VBGT221LF KC5010	B280	VBMT222FP KCU10	B281
UJDE1500N6GBD KCSM15	P65	UJDV0500Y6CQA KCSM15	016	VBGT221LF KC5025	B280	VBMT222FP KCU25	B281
UJDE1500N6GBE KCSM15	P65	UJDV0500Y6CQB KCSM15	016	VBGT221LF KCU10	B280	VBMT222LF KC5010	B281
UJDE1500N6GBF KCSM15	P65	UJDV0500Y6CQC KCSM15	016	VBGT22X0LF KC5025	B280	VBMT222LF KC5025	B281
UJDE1500N6GBH KCSM15	P65	UJDV0500Y6CQD KCSM15	016	VBGT3305LF K313	B280	VBMT222LF KCP05	B281
UJDE1500N6GBJ KCSM15	P65	UJDV0500Y6CQE KCSM15	016	VBGT3305LF KC5010	B280	VBMT222LF KCK20B	B281
UJDE1500N6GBK KCSM15	P65	UJDV0625Y6CQA KCSM15	016	VBGT3305LF KC5025	B280	VBMT222LF KCM25	B281
UJDE1500N6GBL KCSM15	P65	UJDV0625Y6CQB KCSM15	016	VBGT3305LF KC5410	B280	VBMT222LF KCP05	B281
UJDE1500N6GBM KCSM15	P65	UJDV0625Y6CQC KCSM15	016	VBGT3305LF KCU10	B280	VBMT222LF KCP10	B281
UJDE1500N6GBN KCSM15	P65	UJDV0625Y6CQD KCSM15	016	VBGT330LF KC5010	B280	VBMT222LF KCP25	B281
UJDE1500N6HBB KCSM15	P65	UJDV0625Y6CQE KCSM15	016	VBGT330LF KC5025	B280	VBMT222LF KCP25B	B281
UJDE1500N6HBC KCSM15	P65	UJDV0750Y6CQB KCSM15	016	VBGT330LF KCU10	B280	VBMT3305FP KCM25	B281
UJDE1500N6HBD KCSM15	P65	UJDV0750Y6CQC KCSM15	016	VBGT331HP K313	B280	VBMT3305FP KCP25	B281
UJDE1500N6HBE KCSM15	P65	UJDV0750Y6CQD KCSM15	016	VBGT331HP K68	B280	VBMT3305FP KCU10	B281
UJDE1500N6HBF KCSM15	P65	UJDV0750Y6CQE KCSM15	016	VBGT331HP KC5010	B280	VBMT3305FP KCU25	B281
UJDE1500N6HBH KCSM15	P65	UJDV1000Y6CQB KCSM15	016	VBGT331HP KC5025	B280	VBMT3305FP KTP10	B281
UJDE1500N6HBJ KCSM15	P65	UJDV1000Y6CQC KCSM15	016	VBGT331HP KC5410	B280	VBMT3305LF K313	B281
UJDE1500N6HBK KCSM15	P65	UJDV1000Y6CQD KCSM15	016	VBGT331HP KCU10	B280	VBMT3305LF KC5010	B281
UJDE1500N6HBL KCSM15	P65	UJDV1000Y6CQE KCSM15	016	VBGT331HP KCU25	B280	VBMT3305LF KC5025	B281
UJDE1500N6HBM KCSM15	P63	UJDV1250Y6CQA KCSM15	016	VBGT331LF KC5010	B280	VBMT3305LF K315	B281
UJDE1500N6HBN KCSM15	P63	UJDV1250Y6CQB KCSM15	016	VBGT331LF KC5025	B280	VBMT3311F KT315	B280
UJDE1500N6HBC KCSM15	P64	UJDV1250Y6CQC KCSM15	016	VBGT331LF KC5410	B280	VBMT3311F KCK20B	B281
UJDE1500N6HBD KCSM15	P64	UJKBV0375Y4CN KCPM15	018	VBGT331LF KCU10	B280	VBMT3311F KCM15	B281
UJDE1500N6HBE KCSM15	P64	UJKBV0500Y4CN KCPM15	018	VBGT332HP K313	B280	VBMT3311F KCM25	B281
UJDE1500N6HBF KCSM15	P64	UJKBV0625Y4CN KCPM15	018	VBGT332HP KC5010	B280	VBMT3311F KCP05	B281
UJDE1500N6HBM KCSM15	P64	UJKBV0750Y4CN KCPM15	018	VBGT332HP KC5025	B280	VBMT3311F KCP10	B281
UJDE1500N6HBN KCSM15	P64	UJKBV1000Y4CN KCPM15	018	VBGT332HP KC5410	B280	VBMT3311F KCP10B	B281
UJDE1500N6HBC KCSM15	P64	UKDV0375Y4CU KCPM15	08	VBGT332HP KCU10	B280	VBMT3311F KCP25	B281
UJDE1500N6HBD KCSM15	P64	UKDV0375Y4CV KCPM15	08	VBGT332HP KCU25	B280	VBMT3311F KCP25B	B281
UJDE1500N6HBE KCSM15	P64	UKDV0500Y4CU KCPM15	08	VBGT33X0LF KC5025	B280	VBMT3311F KCU10	B281
UJDE1500N6HBF KCSM15	P64	UKDV0500Y4CV KCPM15	08	VBGW221FST KD1400	B368	VBMT3311F KCU25	B281
UJDE1500N6HBM KCSM15	P64	UKDV0625Y4CU KCPM15	08	VBGW221FST KD1425	B368	VBMT3311F KTP10	B281
UJDE1500N6HBN KCSM15	P64	UKDV0625Y4CV KCPM15	08	VBGW221S0415MT KBH10	B341	VBMT3311F K313	B281
UJDE1500N6HBC KCSM15	P46	UKDV1000Y4CU KCPM15	08	VBGW221S0415MT KBH20	B341	VBMT3311F KC5010	B281
UJDE1500N6HBD KCSM15	P46	UKDV0750Y4CV KCPM15	08	VBGW221S0415MT KBH20	B341	VBMT3311F KC5025	B281
UJDE1500N6HBE KCSM15	P46	UKDV1250Y4CU KCPM15	08	VBGW222S0415MT KBH10	B341	VBMT3311F KCK15	B281
UJDE1500N6HBF KCSM15	P46	UKDV1250Y4CV KCPM15	08	VBGW222S0415MT KBH20	B341	VBMT3311F KCK15B	B281
UJDE1500N6HBM KCSM15	P44	UKDV1250Y4CQ KCPM15	08	VBGW331FST KD1400	B368	VBMT3311F KCK20B	B281
UJDE1500N6HBN KCSM15	P44	UKDV1250Y4CQ KCPM15	08	VBGW331FST KD1425	B368	VBMT3311F KCM15	B281
UJDE1500N6HBC KCSM15	P44	ULDV0375Y4CQA KCSM15	09	VBGW331S0415MT KB5630	B312, B341	VBMT3311F KCM15B	B281
UJDE1500N6HBD KCSM15	P44	ULDV0375Y4CQB KCSM15	09	VBGW331S0415MT KBH10	B341	VBMT3311F KCM25	B281
UJDE1500N6HBE KCSM15	P44	ULDV0375Y4CQC KCSM15	09	VBGW332E KD1405	B367	VBMT3311F KCM25B	B281
UJDE1500N6HBF KCSM15	P44	ULDV0375Y4CQD KCSM15	09	VBGW332S0415MT KB5630	B312, B341	VBMT3311F KCP05	B281
UJDE1500N6HBM KCSM15	P44	ULDV0500Y4CQA KCSM15	09	VBGW332S0415MT KBH10	B341	VBMT3311F KCP10	B281
UJDE1500N6HBN KCSM15	P44	ULDV0500Y4CQB KCSM15	09	VBGW332S0415MT KBH20	B341	VBMT3311F KCP10B	B281
UJDE1500N6HBC KCSM15	P44	ULDV0500Y4CQC KCSM15	09	VBMR2205FP KCP25	E36	VBMT3311F KCP25	B281
UJDE1500N6HBD KCSM15	P44	ULDV0500Y4CQD KCSM15	09	VBMR221 KC5010	E36	VBMT3311F KCP25B	B281
UJDE1500N6HBE KCSM15	P44	ULDV0625Y4CQA KCSM15	09	VBMR221 KC5025	E36	VBMT3311F KCP30	B281
UJDE1500N6HBF KCSM15	P44	ULDV0625Y4CQB KCSM15	09	VBMR221 KT315	E36	VBMT3311F KT315	B281
UJDE1500N6HBM KCSM15	P44	ULDV0625Y4CQC KCSM15	09	VBMR221FP KCP10	E36	VBMT331MP KCM25	B281
UJDE1500N6HBN KCSM15	P44	ULDV0625Y4CQD KCSM15	09	VBMR221FP KCP25	E36	VBMT331MP KCM25B	B281
UJDE1500N6HBC KCSM15	P44	ULDV0625Y4CQE KCSM15	09	VBMR221FP KCU25	E36	VBMT331MP KCP25	B281
UJDE1500N6HBD KCSM15	P44	ULDV0750Y4CQB KCSM15	09	VBMR222FP KCU10	E36	VBMT331MP KCP25B	B281
UJDE1500N6HBE KCSM15	P44	ULDV0750Y4CQC KCSM15	09	VBMT220511 KT315	B280	VBMT33211F KT315	B280
UJDE1500N6HBF KCSM15	P44	ULDV0750Y4CQD KCSM15	09	VBMT2205FP KCP25	B281	VBMT332FP KCK20	B281
UJDE1500N6HBM KCSM15	P44	ULDV1000Y4CQB KCSM15	09	VBMT2205FP KCU10	B281	VBMT332FP KCM25	B281
UJDE1500N6HBN KCSM15	P44	ULDV1000Y4CQC KCSM15	09	VBMT2205LF KC5010	B281	VBMT332FP KCP05	B281
UJDE1500N6HBC KCSM15	P44	ULDV1000Y4CQD KCSM15	09	VBMT2205LF KT315	B281	VBMT332FP KCP10	B281
UJDE1500N6HBD KCSM15	P44	ULDV1250Y4CQA KCSM15	09	VBMT22111 KT315	B280	VBMT332FP KCP10B	B281
UJDE1500N6HBE KCSM15	P44	ULDV1250Y4CQB KCSM15	09	VBMT221FP KCM15	B281	VBMT332FP KCP25	B281
UJDE1500N6HBF KCSM15	P44	ULDV1250Y4CQC KCSM15	09	VBMT221FP KCM25	B281	VBMT332FP KCP25B	B281
UJDE1500N6HBM KCSM15	P44	VBGT2205HP KC5010	B280	VBMT221FP KCU10	B281	VBMT332FP KCU10	B281
UJDE1500N6HBN KCSM15	P44	VBGT2205HP KC5025	B280	VBMT221FP KCP25	B281	VBMT332FP KCU25	B281
UJDE1500N6HBC KCSM15	P45	VBGT2205HP KCU10	B280	VBMT221FP KCU25	B281	VBMT332FP KTP10	B281
UJDE1500N6HBD KCSM15	P46	VBGT2205LF K68	B280	VBMT221FP K313	B281	VBMT332FP K313	B281
UJDE1500N6HBE KCSM15	P44	VBGT2205LF KC5010	B280	VBMT221LF K313	B281	VBMT332LF KC5010	B281
UJDE1500N6HBF KCSM15	P44	VBGT2205LF KC5025	B280	VBMT221LF KC5010	B281	VBMT332LF KC5025	B281
UJDE1500N6HBM KCSM15	P44	VBGT2205LF KCU10	B280	VBMT221LF KC5025	B281	VBMT332LF KCK15	B281
UJDE1500N6HBN KCSM15	P44	VBGT220LF KC5010	B280	VBMT221LF KCK05	B281	VBMT332LF KCK15B	B281
UJDE1500N6HBC KCSM15	P44	VBGT220LF KC5025	B280	VBMT221LF KCM15	B281	VBMT332LF KCK20	B281
UJDE1500N6HBD KCSM15	P44	VBGT220LF KC5025	B280	VBMT221LF KCM25B	B281	VBMT332LF KCM15	B281

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
VBMT332LF KCM15B	B281	VNGA332S0425MT KB5630	B313, B342	VNMG331MN KCP25B	B146	VNMG332UN KCK15B	B148
VBMT332LF KCM25	B281	VNGA332S0525MT KBH10	B342	VNMG331MN KCP30	B146	VNMG332UN KCK20	B148
VBMT332LF KCM25B	B281	VNGA332S0525MT KBH20	B342	VNMG331MP KC5010	B147	VNMG332UP KC5010	B148
VBMT332LF KCM35	B281	VNGA332S0735MT KBH20	B342	VNMG331MP KCM15	B147	VNMG332UP KCM15	B148
VBMT332LF KCP05	B281	VNGA332T0820 KY1615	B342	VNMG331MP KCM15B	B147	VNMG332UP KCM25	B148
VBMT332LF KCP10	B281	VNGA332T0820 KY3500	B315	VNMG331MP KCM25	B147	VNMG332UP KCU10	B148
VBMT332LF KCP10B	B281	VNGA333S0525MT KBH20	B342	VNMG331MP KCM25B	B147	VNMG333 K68	B145
VBMT332LF KCP25	B281	VNGA333T0820 KY1615	B342	VNMG331MP KCM35	B147	VNMG333MN KCP10	B146
VBMT332LF KCP25B	B281	VNGA432T0820 KY1615	B342	VNMG331MP KCU10	B147	VNMG333MN KCP25	B146
VBMT332LF KCP30	B281	VNGA432T0820 KYK25	B315	VNMG331MS K313	B147	VNMG333MN KCP25B	B146
VBMT332LF KT315	B281	VNMG3305FS KC5010	B144	VNMG331MS KC5010	B147	VNMG333MN KCP30	B146
VBMT332MP KCK20	B281	VNMG3305FS KCU10	B144	VNMG331MS KC5025	B147	VNMG333MP KCU10	B147
VBMT332MP KCM20B	B281	VNMG3305FS KCU25	B144	VNMG331MS KCU10	B147	VNMG333MP KCM15B	B147
VBMT332MP KCM25	B281	VNMG3305LF KC5010	B144	VNMG331MS KCU25	B147	VNMG333MP KCU10	B147
VBMT332MP KCM25B	B281	VNMG3305LF KCU10	B144	VNMG331P KC5010	B147	VNMG333MR KCU10	B147
VBMT332MP KCP25	B281	VNMG3305FS KCU10	B144	VNMG331P KCU10	B147	VNMG333RN KCP10	B148
VBMT332MP KCP25B	B281	VNMG331FS KC5010	B144	VNMG331UN KCK15	B148	VNMG333RN KCP25	B148
VBMT333FP KCP10B	B281	VNMG331FS KC5025	B144	VNMG331UN KCK20	B148	VNMG333RN KCP25B	B148
VBMT333FP KCP25	B281	VNMG331FS KCU10	B144	VNMG331UP KC5010	B148	VNMG333RP KCK15	B148
VBMT333FP KCP25B	B281	VNMG331FS KCU25	B144	VNMG331UP KCM15	B148	VNMG333RP KCK15B	B148
VBMT333LF KCK05	B281	VNMG331LF KC5010	B144	VNMG331UP KCM25	B148	VNMG333RP KCU10	B148
VBMT333LF KCK20	B281	VNMG331LF KCU10	B144	VNMG332 K68	B145	VNMG333RP KCM25	B148
VBMT333LF KCK20B	B281	VNMG332FS KC5010	B144	VNMG332FF KC5010	B146	VNMG333RP KCP10	B148
VBMT333LF KCP25	B281	VNMG332FS KC5025	B144	VNMG332FF KCP05	B146	VNMG333RP KCP25	B148
VCGW331S0415MT KBH20	B342	VNMG332FS KCU10	B144	VNMG332FF KCP10	B146	VNMG333RP KCU10	B148
VCGW331S0525MT KBH20	B342	VNMG332FS KCU25	B144	VNMG332FF KCP10B	B146	VNMG333RP KCU25	B148
VCGW332S0415MT KBH20	B342	VNMG332LF K313	B144	VNMG332FF KCP25B	B146	VNMG333UP KCM15	B148
VCGW332S0525MT KBH20	B342	VNMG332LF KC5010	B144	VNMG332FF KCU10	B146	VNMG431LF KCP25B	B145
VCMR331 KC5010	E37	VNMG332LF KCU10	B144	VNMG332FF KT315	B146	VNMG431MS KC5010	B147
VCMR331 KC5025	E37	VNMG432LF KC5010	B144	VNMG332FN KCK05	B146	VNMG431MS KCU10	B147
VCMR331 KCM15B	E37	VNMG432LF KCU10	B144	VNMG332FN KCK15B	B146	VNMG431MS KCU25	B147
VCMR331 KCU25	E37	VNMG332S0525MT CB1 KBH20	B342	VNMG332FN KCP05	B146	VNMG432 K68	B145
VCMR331 KT315	E37	VNMG333S0525MT CB1 KBH20	B342	VNMG332FN KCP10	B146	VNMG432LF KCP25B	B145
VCMR331FP KCM25	E37	VNMG330 KC5010	B144	VNMG332FN KCP10B	B146	VNMG432MS KC5010	B147
VCMR331FP KCP10	E37	VNMG330 KC5410	B144	VNMG332FN KCP25	B146	VNMG432MS KC5025	B147
VCMR331FP KCP25	E37	VNMG330 KCU10	B144	VNMG332FN KCP25B	B146	VNMG432MS KCU10	B147
VCMR331FP KCU10	E37	VNMG3305 KC5010	B144	VNMG332FN KT315	B146	VNMG432MS KCU25	B147
VCMR331FP KCU25	E37	VNMG3305 KC5410	B144	VNMG332FP KC5010	B146	VNMG432RN KCP10	B148
VCMR332 KC5010	E37	VNMG3305 KCU10	B144	VNMG332FP KCM15	B146	VNMG432RN KCP10B	B148
VCMR332 KC5025	E37	VNMG331K K313	B145	VNMG332FP KCP10	B146	VNMG432RN KCP25	B148
VCMR332 KCM15B	E37	VNMG332K K313	B145	VNMG332FP KCP25B	B146	VNMG432RN KCP25B	B148
VCMR332 KCU10	E37	VNMG431 KC5010	B144	VNMG332FP KCU10	B146	VNMG432RN KCP30	B148
VCMR332 KCU25	E37	VNMG431 KCU10	B144	VNMG332FP KT315	B146	VNMG432RN KCP40	B148
VCMR332 KT315	E37	VNMG432 K313	B144	VNMG332LF KCP25B	B145	VNMG433 K68	B145
VCMR332FP KCK05	E37	VNMG432 KC5010	B144	VNMG332MN KCP05	B146	VNMG433RN KCP10	B148
VCMR332FP KCM25	E37	VNMG432 KCU10	B144	VNMG332MN KCP05B	B146	VNMG433RN KCP25	B148
VCMR332FP KCP10	E37	VNMG353T0820 KY3500	B319	VNMG332MN KCP10	B146	VNMG433RN KCP30	B148
VCMR332FP KCP25	E37	VNMG354T0820 KY3500	B319	VNMG332MN KCP10B	B146	VNMP331 K313	B149
VDIB1M302040C	C75	VNMA332 KCK05	B145	VNMG332MN KCP25	B146	VNMP331 K68	B149
VDIB1M402544C	C75	VNMA332 KCK15	B145	VNMG332MN KCP25B	B146	VNMP331K K68	B149
VDIB2M302040C	C75	VNMA332 KCK15B	B145	VNMG332MN KCP30	B146	VNMP331K KCP10B	B149
VDIB2M402544C	C75	VNMA332 KCK20	B145	VNMG332MP KC5010	B147	VNMP331K KCP25	B149
VDIB3M302040C	C76	VNMG3305MS K313	B147	VNMG332MP KCM15	B147	VNMP332 K313	B149
VDIB3M402544C	C76	VNMG3305MS KC5010	B147	VNMG332MP KCM15B	B147	VNMP332 K68	B149
VDIB4M302040C	C76	VNMG3305MS KC5025	B147	VNMG332MP KCM25	B147	VNMP332K K68	B149
VDIB4M402544C	C76	VNMG3305MS KCU10	B147	VNMG332MP KCM25B	B147	VNMP332K KCP10	B149
VDIB5M302040C	C77	VNMG3305MS KCU25	B147	VNMG332MP KCM35	B147	VNMP332K KCP10B	B149
VDIB5M402544C	C77	VNMG330MS KC5010	B147	VNMG332MP KCU10	B147	VNMP332K KCP25	B149
VDIB6M302040C	C77	VNMG330MS KCU10	B147	VNMG332MR KCM15B	B147	VNMS331 K68	B149
VDIB6M402544C	C77	VNMG330MS KCU25	B147	VNMG332MS K313	B147	VNMS331 KC5410	B149
VDIC1M302070C	C78	VNMG331FF KC5010	B146	VNMG332MS KC5010	B147	VNMS331E KD1405	B368
VDIC1M402585C	C78	VNMG331FF KCM15B	B146	VNMG332MS KC5025	B147	VNMS331FST KD1400	B368
VDIC2M302070C	C78	VNMG331FF KCP05	B146	VNMG332MS KCU10	B147	VNMS331FST KD1425	B368
VDIC2M402585C	C78	VNMG331FF KCP10	B146	VNMG332MS KCU25	B147	VNMS332 K68	B149
VDIC3M302070C	C79	VNMG331FF KCP10B	B146	VNMG332P K313	B147	VNMS332 KC5410	B149
VDIC3M402585C	C79	VNMG331FF KCU10	B146	VNMG332P KC5010	B147	VNMS332E KD1405	B368
VDIC4M302070C	C79	VNMG331FF KT315	B146	VNMG332P KCU10	B147	VNMS332FST KD1400	B368
VDIC4M402585C	C79	VNMG331FN KCK05	B146	VNMG332RN KCP10	B148	VNMS332FST KD1425	B368
VNGA331 K68	B144	VNMG331FN KCK15B	B146	VNMG332RN KCP10B	B148	VPGN331 KD1425	B369, E38
VNGA331FST KD1400	B368	VNMG331FN KCP05	B146	VNMG332RN KCP25	B148	VPGN332 KD1425	B369, E38
VNGA331S0415MT KBH10	B342	VNMG331FN KCP10	B146	VNMG332RN KCP25B	B148	VPGP443K KC5410	B145
VNGA331S0415MT KBH20	B342	VNMG331FN KCP10B	B146	VNMG332RP KC5010	B148	VPGR3305 K68	E38
VNGA331S0425MT KB5630	B313, B342	VNMG331FN KCP25	B146	VNMG332RP KC5025	B148	VPGR3305 KC5010	E38
VNGA331S0525MT KBH10	B342	VNMG331FN KCP25B	B146	VNMG332RP KCK15	B148	VPGR3305 KC5025	E38
VNGA331S0525MT KBH20	B342	VNMG331FN KT315	B146	VNMG332RP KCK20B	B148	VPGR3305 KCU5410	E38
VNGA331S0735MT KBH20	B342	VNMG331FP KC5010	B146	VNMG332RP KCM15	B148	VPGR3305 KCU10	E38
VNGA331T0820 KY1615	B342	VNMG331FP KCM15	B146	VNMG332RP KCP10	B148	VPGR3305 KCU25	E38
VNGA332 K68	B144	VNMG331FP KCU10	B146	VNMG332RP KCP25	B148	VPGR3305FP KCP10	E39
VNGA332FST KD1400	B368	VNMG331FP KT315	B146	VNMG332RP KCU10	B148	VPGR331 K313	B369, E38
VNGA332FST KD1425	B368	VNMG331MN KCP10	B146	VNMG332RP KCU25	B148	VPGR331 K68	E38
VNGA332S0415MT KBH10	B342	VNMG331MN KCP10B	B146	VNMG332UN KCK05B	B148	VPGR331 KC5010	E38
VNGA332S0415MT KBH20	B342	VNMG331MN KCP25	B146	VNMG332UN KCK15	B148	VPGR331 KC5025	E38

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
VPGR331 KC5410	E38	WD50FDS63779M	H127	WNMG332FN KCP10	B157	WNMG431MS KCU25	B160
VPGR331 KCP25	E38	WD50FDS71172M	H126	WNMG332FN KCP25	B157	WNMG431P KC5010	B160
VPGR331 KCU10	E38	WD50FDS71292M	H126	WNMG332FN KT315	B157	WNMG431P KCM15B	B160
VPGR331 KCU25	E38	WD50FDS71452M	H127	WNMG332FP KC5010	B158	WNMG431P KCU10	B160
VPGR331 KD1425	B369, E38	WD50FDS80192M	H126	WNMG332FP KCM15	B158	WNMG431UN KCK15	B162
VPGR331 KT315	E38	WD50FDS80327M	H126	WNMG332FP KCP10	B158	WNMG431UN KCK20	B162
VPGR331FP KCM25	E39	WD50FDS80507M	H127	WNMG332FW KC5010	B158	WNMG432FF KC5010	B157
VPGR331FP KCP10	E39	WD50FDS90212M	H126	WNMG332FW KCP05	B158	WNMG432FF KCP10	B157
VPGR331FP KCP25	E39	WD50FDS90362M	H126	WNMG332FW KCP10	B158	WNMG432FN KCK05	B157
VPGR331FP KCU10	E39	WD50FDS90562M	H127	WNMG332FW KCU10	B158	WNMG432FN KCK15B	B157
VPGR331HP K313	E39	WLFNL32CA19S	E61	WNMG332FW KT315	B158	WNMG432FN KCP05	B157
VPGR332 K313	B369, E38	WLFNR32CA19S	E61	WNMG332MN KCP10	B159	WNMG432FN KCP10	B157
VPGR332 K68	E38	WLNJL32CA19S	E55	WNMG332MN KCP10B	B159	WNMG432FN KCP10B	B157
VPGR332 KC5010	E38	WLNJL32CA30S	E55	WNMG332MN KCP25	B159	WNMG432FN KCP25	B157
VPGR332 KC5025	E38	WLNJR32CA19S	E55	WNMG332MN KCP25B	B159	WNMG432FN KCP25B	B157
VPGR332 KC5410	E38	WLNJR32CA30S	E55	WNMG332MN KCP30	B159	WNMG432FN KT315	B157
VPGR332 KCP25B	E38	WLLNL32CA19S	E61	WNMG332MP KC5010	B159	WNMG432FF KC5010	B158
VPGR332 KCU10	E38	WLLNL32CA30S	E61	WNMG332MP KCM15	B159	WNMG432FP KCM15	B158
VPGR332 KCU25	E38	WLLNR32CA19S	E61	WNMG332MP KCM25	B159	WNMG432FP KCM15B	B158
VPGR332 KD1425	B369, E38	WLLNR32CA30S	E61	WNMG332MP KCM25B	B159	WNMG432FF KCP10	B158
VPGR332 KT315	E38	WNGA431S0415MT KBH20	B343	WNMG332MP KCM35B	B159	WNMG432FP KCP25	B158
VPGR332FP KCK05	E39	WNGA432FST KD1425	B369	WNMG332MP KCP25	B159	WNMG432FP KCU10	B158
VPGR332FP KCM25	E39	WNGA432S0415FWMHT KBH20	B343	WNMG332MP KCU10	B159	WNMG432FW KC5010	B158
VPGR332FP KCP10	E39	WNGA432S0415FWMT KBH20	B343	WNMG332MR KCM15B	B159	WNMG432FW KCP05	B158
VPGR332FP KCP25	E39	WNGA432S0415MT KBH10	B343	WNMG332MR KCP25B	B159	WNMG432FW KCP10	B158
VPGR333 K68	B369, E38	WNGA432S0415MT KBH20	B343	WNMG332MS K313	B160	WNMG432FW KCP10B	B158
VPGR333 KC5010	E38	WNGA432S0525MT KBH10	B343	WNMG332MS KC5010	B160	WNMG432FW KCU10	B158
VPGR333 KCU10	E38	WNGA432S0525MT KBH20	B343	WNMG332MS KC5025	B160	WNMG432FW KT315	B158
VPGR333 KCU25	E38	WNGA432S0735MT KBH20	B343	WNMG332MS KCU10	B160	WNMG432MG KCP10B	B158
VPGR333 KD1425	B369, E38	WNGA432T0420 KYS30	B354	WNMG332MS KCU25	B160	WNMG432MG KCP25B	B158
VPGR333FP KCK05	E39	WNGA432T0420FW KY3500	B315	WNMG332MW KCP10	B160	WNMG432MN KCP05	B159
VPGR333FP KCM25	E39	WNGA432T0820 KY3500	B315	WNMG332MW KCP25	B160	WNMG432MN KCP10	B159
VPGR333FP KCP10	E39	WNGA432T0820 KYK25	B315	WNMG332RN KCP10B	B161	WNMG432MN KCP10B	B159
VPGR333FP KCP25	E39	WNGA433T0820 KY3500	B315	WNMG332RN KCP25	B161	WNMG432MN KCP25	B159
VPGR334 KC5010	E38	WNGA433T0820 KYK25	B315	WNMG332RN KCP25B	B161	WNMG432MN KCP25B	B159
VPGR334 KCU10	E38	WNGA434T0420 KYS30	B354	WNMG332RP KC5010	B161	WNMG432MN KCP30	B159
VPGR334FP KCP25	E39	WNGA434T0820 KY3500	B315	WNMG332RP KCM15	B161	WNMG432MN KCP30B	B159
WCMT2151FP KCU10	B286	WNGG4305LF KC5010	B156	WNMG332RP KCM25	B161	WNMG432MN KCP40	B159
WCMT2151FP KCU25	B286	WNGG4305LF KCU10	B156	WNMG332RP KCM25B	B161	WNMG432MP KC5010	B159
WCMT2151LF KC5010	B286	WNGG430LF KC5010	B156	WNMG332RP KCP10B	B161	WNMG432MP KCM15	B159
WCMT3252FP KCP25	B286	WNGG431FS KCU10	B156	WNMG332RP KCP25	B161	WNMG432MP KCM15B	B159
WCMT3252FP KCU10	B286	WNGG431LF KC5010	B156	WNMG332RP KCU10	B161	WNMG432MP KCM25	B159
WCMT3252LF KC5010	B286	WNGG431LF KCU10	B156	WNMG332RP KCU25	B161	WNMG432MP KCM25B	B159
WCMT3252LF KC5025	B286	WNGG432FS KCU10	B156	WNMG332UN KCK15	B162	WNMG432MP KCM35	B159
WD32FDS28076M	H126	WNGG432LF KC5010	B156	WNMG332UN KCK20B	B162	WNMG432MP KCM35B	B159
WD32FDS28128M	H126	WNGP432K KC5010	B156	WNMG332UP KCM25B	B162	WNMG432MP KCP10	B159
WD32FDS28190M	H127	WNGP432K KC5410	B156	WNMG333FW KCP10	B158	WNMG432MP KCP25	B159
WD32FDS28283M	H127	WNGX453T0820 KY3500	B319	WNMG333MN KCP10	B159	WNMG432MP KCP25B	B159
WD32FDS28345M	H127	WNGX453T0820 KYK10	B319	WNMG333MN KCP25	B159	WNMG432MP KCU10	B159
WD32FDS32082M	H126	WNMA332 KCK15	B157	WNMG333MN KCP30B	B159	WNMG432MR KCK15B	B159
WD32FDS32146M	H126	WNMA333 KCK20	B157	WNMG333MP KCM25	B159	WNMG432MR KCM15B	B159
WD32FDS32216M	H127	WNMA333 KCK20B	B157	WNMG333RN KCP25	B161	WNMG432MR KCM25	B159
WD32FDS32321M	H127	WNMA432 KCK05	B157	WNMG333RP KCP10	B161	WNMG432MR KCM25B	B159
WD32FDS32391M	H127	WNMA432 KCK15	B157	WNMG333RP KCP25	B161	WNMG432MR KCM35	B159
WD32FDS36092M	H126	WNMA432 KCK20	B157	WNMG4305MS KC5010	B160	WNMG432MR KCP10B	B159
WD32FDS36166M	H126	WNMA432 KCK20B	B157	WNMG4305MS KCU10	B160	WNMG432MR KCP25B	B159
WD32FDS36244M	H127	WNMA433 KCK15	B157	WNMG4305MS KCU25	B160	WNMG432MR KCPK05	B159
WD32FDS36361M	H127	WNMA433 KCK15B	B157	WNMG430MS KCU10	B160	WNMG432MR KCU10	B159
WD32FDS36439M	H127	WNMA433 KCK20	B157	WNMG431FF KC5010	B157	WNMG432MS K313	B160
WD50FDS40100M	H126	WNMA434 KCK20	B157	WNMG431FF KCU10	B157	WNMG432MS KCU10	B160
WD50FDS40183M	H126	WNMG331FF KCP10	B157	WNMG431FN KCK05	B157	WNMG432MS KCU25	B160
WD50FDS40271M	H127	WNMG331FN KCK05	B157	WNMG431FN KCP05	B157	WNMG432MW KCP10	B160
WD50FDS40403M	H127	WNMG331FN KCP10	B157	WNMG431FN KCP10	B157	WNMG432MW KCP10B	B160
WD50FDS40491M	H127	WNMG331FP KC5010	B158	WNMG431FN KCP10B	B157	WNMG432MW KCP25	B160
WD50FDS45112M	H126	WNMG331FP KCM15	B158	WNMG431FN KCP25B	B157	WNMG432MW KCP10B	B160
WD50FDS45206M	H126	WNMG331FP KCU10	B158	WNMG431FN KT315	B157	WNMG432MW KCP25	B160
WD50FDS45304M	H127	WNMG331FW KCP05	B158	WNMG431FP KC5010	B158	WNMG432MW KCP25B	B160
WD50FDS45451M	H127	WNMG331FW KCP05B	B158	WNMG431FP KCM15	B158	WNMG432MW KCPK05	B160
WD50FDS45549M	H127	WNMG331FW KCU10	B158	WNMG431FP KCP10	B158	WNMG432P KC5010	B160
WD50FDS50122M	H126	WNMG331FW KCU10	B158	WNMG431FP KCP25	B158	WNMG432P KCM15B	B160
WD50FDS50228M	H126	WNMG331FW KT315	B158	WNMG431FP KCU10	B158	WNMG432P KCU10	B160
WD50FDS50338M	H127	WNMG331MN KCP10	B159	WNMG431FW KCM15B	B158	WNMG432RN KCP10	B161
WD50FDS50503M	H127	WNMG331MN KCP25	B159	WNMG431FW KCP05	B158	WNMG432RN KCP10B	B161
WD50FDS50613M	H127	WNMG331MP KC5010	B159	WNMG431FW KCP10	B158	WNMG432RN KCP25	B161
WD50FDS506140M	H126	WNMG331MP KCM15	B159	WNMG431FW KCU10	B158	WNMG432RN KCP25B	B161
WD50FDS506259M	H126	WNMG331MP KCM25B	B159	WNMG431FW KT315	B158	WNMG432RN KCP30	B161
WD50FDS56383M	H127	WNMG331MP KCU10	B159	WNMG431MS K313	B160	WNMG432RN KCP30B	B161
WD50FDS56569M	H127	WNMG332FF KC5010	B157	WNMG431MS KC5010	B160	WNMG432RN KCP40	B161
WD50FDS56693M	H127	WNMG332FF KCP10	B157	WNMG431MS KC5025	B160	WNMG432RP KC5010	B161
WD50FDS63154M	H126	WNMG332FF KCU10	B157	WNMG431MS KCU10	B160	WNMG432RP KC5025	B161
WD50FDS63289M	H126	WNMG332FF KCU10	B157				
WD50FDS63429M	H127	WNMG332FF KT315	B157				
WD50FDS63639M	H127	WNMG332FN KCK15B	B157				

For page references F–X, please see Volume II • Rotating Tools Catalog.

Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)	Catalog No.	Page(s)
WNMG432RP KCK05	B161	WNMG433RP KCP05	B161	XDLT120508ERD721 GH2	V21	XRDA0500Y5CUC KCPM15	049
WNMG432RP KCK05B	B161	WNMG433RP KCP10	B161	XDLT120512ERD411 SP6519	V22	XRDA0500Y5CUE KCPM15	049
WNMG432RP KCK15	B161	WNMG433RP KCP10B	B161	XDLT120512ERD411 X500	V22	XRDA0625Y6CUC KCPM15	049
WNMG432RP KCK15B	B161	WNMG433RP KCP25	B161	XDWL090408SRD SC3025	V16	XRDA0625Y6CUE KCPM15	049
WNMG432RP KCK20	B161	WNMG433RP KCP25B	B161	XDWL090408SRD SC6525	V16	ZDET16M504FR721 GH1	T100
WNMG432RP KCK20B	B161	WNMG433RP KCP30	B161	XDWL090408SRD X400	V16	ZDET16M508FR721 GH1	T100
WNMG432RP KCM15	B161	WNMG433RP KCPK05	B161	XDWL090408SRD X500	V16	ZDET16M512FR721 GH1	T100
WNMG432RP KCM15B	B161	WNMG433RP KCU10	B161	XDWL120508SRD SC3025	V23	ZDET16M516FR721 GH1	T100
WNMG432RP KCM25	B161	WNMG433RP KCU25	B161	XDWL120508SRD X400	V23	ZDET16M520FR721 GH1	T100
WNMG432RP KCM25B	B161	WNMG433UN KCK05	B162	XDWL120508SRD X500	V23	ZDET16M525FR721 GH1	T100
WNMG432RP KCM35	B161	WNMG433UN KCK15	B162	XDPT090408ERD41 KCSM40	V15	ZDET16M525FR721 GH1	T100
WNMG432RP KCM35B	B161	WNMG433UN KCK15B	B162	XDPT090408ERD41 SC6525	V15	ZDET16M530FR721 GH1	T100
WNMG432RP KCP05	B161	WNMG433UN KCK20	B162	XDPT090408ERD41 SP6519	V15	ZDET16M530FR721 GH1	T100
WNMG432RP KCP10	B161	WNMG433UN KCK20B	B162	XDPT090408ERD41 X500	V15	ZDET16M532FR721 GH1	T100
WNMG432RP KCP10B	B161	WNMG433UP KC5010	B162	XDPT090412ERD411 KCSM40	V15	ZDET16M540FR721 GH1	T100
WNMG432RP KCP25	B161	WNMG433UP KCM25	B162	XDPT090412SRGP KC522M	V16	ZDET16M540FR721 GH1	T100
WNMG432RP KCP25B	B161	WNMG433UP KCM35	B162	XDPT090412SRGP KC725M	V16	ZDET16M550FR721 GH1	T100
WNMG432RP KCP30B	B161	WNMG433UP KCU10	B162	XDPT090412SRGP KCPK30	V16	ZDET16M560FR721 GH1	T100
WNMG432RP KCP40B	B161	WNMG434MN KCP25	B159	XDPT090412SRGP KCPM40	V16	ZDET16M5PDFR721 GH1	T100
WNMG432RP KCPK05	B161	WNMG434MN KCP25B	B159	XDPT120508ERD41 KCSM40	V22		
WNMG432RP KCU10	B161	WNMG434MR KCP10B	B159	XDPT120508ERD41 SC6525	V22		
WNMG432RP KCU25	B161	WNMG434MR KCP25B	B159	XDPT120508ERD41 SP6519	V22		
WNMG432UN KCK05B	B162	WNMG434RN KCP10	B161	XDPT120508ERD41 X500	V22		
WNMG432UN KCK15	B162	WNMG434RN KCP10B	B161	XDPT120512ERD411 KCSM40	V22		
WNMG432UN KCK15B	B162	WNMG434RN KCP25	B161	XDPT120515SRGP KC522M	V23		
WNMG432UN KCK20	B162	WNMG434RN KCP25B	B161	XDPT120515SRGP KC725M	V23		
WNMG432UN KCK20B	B162	WNMG434RP KCP10	B161	XDPT120515SRGP KCPK30	V23		
WNMG432UP KC5010	B162	WNMG434RP KCP25	B161	XDPT120515SRGP KCPM40	V23		
WNMG432UP KCM15	B162	WNMG434RP KCP25B	B161	XDPW090412SRD KC510M	V15		
WNMG432UP KCM25	B162	WNMG434RP KCU25	B161	XDPW090412SRD KC522M	V15		
WNMG432UP KCM25B	B162	WNMG434UN KCK15B	B162	XDPW090412SRD KCK15	V15		
WNMG432UP KCU10	B162	WNMG434UN KCK20	B162	XDPW090412SRD KCPK30	V15		
WNMG433FP KC5010	B158	WOEJ090512SRGD KC522M	V39	XDPW090412SRD KCPM40	V15		
WNMG433FP KCM15	B158	WOEJ090512SRGD KC725M	V39	XDPW120515SRD KC510M	V23		
WNMG433FW KCP05	B158	WOEJ090512SRGD KCPK30	V39	XDPW120515SRD KC522M	V23		
WNMG433FW KCP10	B158	WOEJ090512SRGD KCPM30	V39	XDPW120515SRD KCK15	V23		
WNMG433FW KCP10B	B158	WOEJ090512SRGD KCSM30	V39	XDPW120515SRD KCPK30	V23		
WNMG433MN KCP10	B159	WOEJ090512SRHD KC522M	V39	XDPW120515SRD KCPM40	V23		
WNMG433MN KCP10B	B159	WOEJ090512SRHD KC725M	V39	XELT160512ERD41 SC6525	V28		
WNMG433MN KCP25	B159	WOEJ090512SRHD KCPK30	V39	XELT160512ERD41 SP6519	V28		
WNMG433MN KCP25B	B159	WOEJ090512SRHD KCPM40	V39	XELT160512ERD41 X500	V28		
WNMG433MN KCP40B	B159	WPGT15105UF KC5010	B288	XELW160512SRD SC3025	V28		
WNMG433MP KC5010	B159	WPGT15105UF KCU10	B288	XELW160512SRD X400	V28		
WNMG433MP KCM15	B159	WPGT1510UF KC5010	B288	XEPT160512ERD41 KCSM40	V28		
WNMG433MP KCM25	B159	WPGT1510UF KCU10	B288	XEPT160516ERD41 KC522M	V28		
WNMG433MP KCM25B	B159	WPGT21505UF KCU10	B288	XEPT160516ERD41 KCPK30	V28		
WNMG433MP KCM35	B159	WPMT15121FP KCP25	B288	XEPT160516ERD41 KCPM40	V28		
WNMG433MP KCP10	B159	WPMT15121FP KCU10	B288	XEPW160520SRD KC522M	V28		
WNMG433MP KCP25B	B159	WPMT15121LF KC5025	B288	XEPW160520SRD KCK15	V28		
WNMG433MP KCU10	B159	WPMT2151FP KCM25	B288	XEPW160520SRD KCPK30	V28		
WNMG433MR KCM15B	B159	WPMT2151FP KCP25	B288	XEPW160520SRD KCPM40	V28		
WNMG433MR KCM25B	B159	WPMT2151FP KCU10	B288	XNGJ43ANENLD3W KC510M	S12		
WNMG433MR KCM35	B159	WPMT2151LF KC5010	B288	XNGJ43ANENLD3W KC522M	S12		
WNMG433MR KCP10B	B159	WPMT2151LF KC5025	B288	XNGJ43ANENLD3W KC725M	S12		
WNMG433MR KCP25B	B159	WPMT2151LF KCK20	B288	XNGJ43ANENLD3W KCPM40	S12		
WNMG433MR KCPK05	B159	WPMT2151LF KCP10	B288	XNGJ43ANENLD3W KCSM40	S12		
WNMG433MW KCM15B	B160	WPMT3251FP KCU10	B288	XNGJ43ANFNLDJ3W KC410M	S11		
WNMG433MW KCP05	B160	WPMT3251LF KC5010	B288	XNGJ535ANFNLDJ3W KC410M	S21		
WNMG433MW KCP10	B160	WPMT3251LF KCM15B	B288	XNGJ535ANSNGD3W KC725M	S21		
WNMG433MW KCP10B	B160	WPMT3251LF KCP25	B288	XNGJ535ANSNGD3W KCK15	S21		
WNMG433MW KCP25	B160	WPMT3252FP KCU10	B288	XNGJ535ANSNGD3W KCPK30	S21		
WNMG433MW KCP25B	B160	WPMT3252LF KC5010	B288	XNGJ535ANSNGD3W KCSM40	S21		
WNMG433RN KCP05	B161	WPMT3252LF KCK05	B288	XNXF43ZNEFLD3W KCK15	S90		
WNMG433RN KCP10	B161	WPMT3252LF KCM15	B288	XNXF43ZNEFLD3W KY3500	S90		
WNMG433RN KCP10B	B161	WPMT3252LF KCP25B	B288	XPLT060308ERD41 SC6525	V7		
WNMG433RN KCP25	B161	WXXNL4455X-FL	E60	XPLT060308ERD41 SP6519	V7		
WNMG433RN KCP25B	B161	WXXNR4455X-FL	E60	XPLT060308ERD41 X400	V7		
WNMG433RN KCP30	B161	XADA0375Y4CU45 KCPM15	048	XPLT060308ERD41 X500	V7		
WNMG433RN KCP30B	B161	XADA0375Y4CU60 KCPM15	048	XPNT050522RF SP6519	V115		
WNMG433RN KCP40B	B161	XADA0500Y5CU45 KCPM15	048	XPNT0602515RF SP6519	V115		
WNMG433RN KCPK05	B161	XADA0500Y5CU60 KCPM15	048	XPNT080832RF SP6519	V115		
WNMG433RP KC5010	B161	XADA0625Y6CU45 KCPM15	048	XPNT101043RF SP6519	V115		
WNMG433RP KCK05	B161	XADA0625Y6CU60 KCPM15	048	XPNT121254RF SP6519	V115		
WNMG433RP KCK15	B161	XDLT090408ERD41 SC6525	V14	XPNT161654RF SP6519	V115		
WNMG433RP KCK15B	B161	XDLT090408ERD41 SP6519	V14	XPPT060308ERD41 KCSM40	V7		
WNMG433RP KCK20	B161	XDLT090408ERD41 X500	V14	XPW060310SRD KC510M	V7		
WNMG433RP KCK20B	B161	XDLT090408ERD721 GH2	V14	XPW060310SRD KC522M	V7		
WNMG433RP KCM15	B161	XDLT090412ERD411 SP6519	V15	XPW060310SRD KCPK30	V7		
WNMG433RP KCM25	B161	XDLT090412ERD411 X500	V15	XPW060310SRD KCPM40	V7		
WNMG433RP KCM25B	B161	XDLT120508ERD41 SC6525	V21	XRDA0375Y4CUC KCPM15	049		
WNMG433RP KCM35	B161	XDLT120508ERD41 SP6519	V21	XRDA0375Y4CUE KCPM15	049		
WNMG433RP KCM35B	B161	XDLT120508ERD41 X500	V21	XRDA0500Y5CUB KCPM15	049		

For page references F–X, please see Volume II • Rotating Tools Catalog.

▶ North America

United States

General Sales: 1 800 446 7738
FtMill.Service@kennametal.com
 Technical Support: 1 800 835 3668
na.techsupport@kennametal.com

Canada

General Sales: 800 446 7738
toronto.service@kennametal.com
 Technical Support: 1 800 835 3668
na.techsupport@kennametal.com

Mexico

General Sales: 001 888 402 4963
k-mx.service@kennametal.com

▶ Central/South America

Argentina

General Sales: +54 11 4719 0700
buenos-aires.ventas@kennametal.com

Brazil

General Sales: +55 19 3936 9200
bra.marketing@kennametal.com

Chile

General Sales: +56 2 2264 1177
kennametalchile@kennametalchile.cl

Venezuela

Hertec Group
 General Sales: +58 212 7510924
ventas@hertecgroup.com

El Salvador

Prometca S.A. DE C.V.
 General Sales: +503 2219 7579
portilloprometca@gmail.com

▶ Africa

Egypt

General Sales: +44 1384 408060
na.techsupport@kennametal.com

South Africa

General Sales: +27 11 748 9300
na.techsupport@kennametal.com

▶ Europe

Austria

General Sales: +43 2236 3798980
brunn.sales@kennametal.com
 Technical Support: 0800 202873
eu.techsupport@kennametal.com

Belgium

General Sales: 0800 81 372
belgium.sales@kennametal.com
 Technical Support: 0800 80850
eu.techsupport@kennametal.com

Czech Republic

Ricany Jazlovice
 General Sales: 800 900 840
k-prha.sales@kennametal.com

Denmark

Technical Support: 808 89298
na.techsupport@kennametal.com

Finland

Technical Support: 0800 919412
na.techsupport@kennametal.com

France

General Sales: +33 1 60 12 81 00
info.fr@kennametal.com
 Technical Support: 0805 540 367
eu.techsupport@kennametal.com

Germany

General Sales: +49 6003 8277 0
rosbach.sales@kennametal.com
 Technical Support: 0800 0006651
eu.techsupport@kennametal.com

Great Britain

General Sales: +44 1384 408060
kingswinford.service@kennametal.com
 Technical Support: 0800 032 8339
na.techsupport@kennametal.com

Hungary

General Sales: +36 96 618 150
gyoer.sales@kennametal.com

Ireland

General Sales: +44 1384 408060
na.techsupport@kennametal.com

Italy

General Sales: +39 02 895 961
milano.vendite@kennametal.com
 Technical Support: 800 916561
eu.techsupport@kennametal.com

Luxembourg

General Sales: +32 4 248 48 48
liege.sales@kennametal.com

Netherlands

General Sales: 0800 44 33 201
netherlands.sales@kennametal.com
 Technical Support: 0800 0201130
eu.techsupport@kennametal.com

Norway

Technical Support: 800 10080
na.techsupport@kennametal.com

Poland

General Sales: +48 61 6656501
poland.service@kennametal.com
 Technical Support: 00800 4411887
eu.techsupport@kennametal.com

Portugal

General Sales: +351 22 4119 400
porto.service@kennametal.com

Russia

General Sales: +7 495 4115386
moscow.information@kennametal.com
 Technical Support:
 Landline: 08800 5556394
 Cell Phone: +7 8005556394
eu.techsupport@kennametal.com

Slovakia

General Sales: 0800 044 053
k-eu-zilina.sales@kennametal.com

Spain

General Sales: +34 93 586 03 50
barcelona.service@kennametal.com

Sweden

Technical Support: 020799246
na.techsupport@kennametal.com

Turkey

General Sales: +90 216 574 4780
tr.information@kennametal.com

Ukraine

Technical Support: 0800502664
eu.techsupport@kennametal.com

 **East/Asia Pacific****Australia**

General Sales: 1 800 666 667
k-au.service@kennametal.com
Technical Support: 1 800 67 4037
ap-kmt.techsupport@kennametal.com

Bahrain

General Sales: +971 (0) 5529983
info@passtech.overmach.com

China

General Sales: +86 400 889 2135
Technical Support: 400 889 2238
k-cn.techsupport@kennametal.com

Dubai

General Sales: +971 (0) 5529983
info@passtech.overmach.com

India

General Sales: 1800 103 5138
Technical Support: 1800 103 5227
in.techsupport@kennametal.com

Indonesia

General Sales: +65 6265 9222
k-sg.sales@kennametal.com
Technical Support: 1800 6221031
ap-kmt.techsupport@kennametal.com

Israel

General Sales: +97 23 558 1313
arnold1@inter.net.il
Technical Support: 1809 449889
na.techsupport@kennametal.com

Japan

General Sales: +813 3820 2855
Technical Support: +813 3820 2855
ap-kmt.techsupport@kennametal.com

Korea

General Sales: +82 2 2109 6100
Technical Support: +080 728 0880
ap-kmt.techsupport@kennametal.com

Kuwait

General Sales: +971 (0) 5529983
info@passtech.overmach.com

Malaysia

General Sales: +6 03 5569 9080
Technical Support: 1800812990
ap-kmt.techsupport@kennametal.com

New Zealand

General Sales: 0800 536626
k-nz.service@kennametal.com
Technical Support: 0800 450941
ap-kmt.techsupport@kennametal.com

Oman

General Sales: +971 (0) 6 5529983
info@passtech.overmach.com

Pakistan

General Sales: +92 21 2465305
itsystem@brain.net.pk

Qatar

General Sales: +971 (0) 6 5529983
info@passtech.overmach.com

Saudi Arabia

General Sales: +971 (0) 6 5529983
info@passtech.overmach.com

Singapore*

General Sales: +65 62659222
k-sg.sales@kennametal.com
Technical Support: 1800 6221031
ap-kmt.techsupport@kennametal.com

** Vietnam and Philippines individuals should contact the Singapore office.*

Taiwan

General Sales: +886 4 2350 1920
taiwan.service@kennametal.com
Technical Support: 0800 666 197
ap-kmt.techsupport@kennametal.com

Thailand

General Sales: +662 642 3455
Technical Support: 18004417820
ap-kmt.techsupport@kennametal.com

United Arab Emirates

General Sales: +971 (0) 6 5529983
info@passtech.overmach.com

Visit **kennametal.com** for additional contact information for locations.



Turning Icons

Shank: KM-TS™ (ISO 26622)	Shank: KM4X™	Shank: VDI Shank	DIN Number 69880	Through Coolant
Through Coolant: 100 bar	Through Coolant: 1500 psi	Through Coolant: 80 bar	Through Coolant: 1200 psi	ISO: 26622
ISO: 10889	Turning	Profiling	Facing	Face Grooving
Chamfering	Back Boring	Threading	Grooving	Cut-Off
I.D. Turning	I.D. Chamfering	I.D. Facing	I.D. Grooving	I.D. Face Grooving
Deep Grooving	I.D. Internal Threading			

Holemaking Icons

Countersinking/Stroke Chamfering	Taper Drilling	Counterboring	Drilling	Drilling: Inclined Entry
Drilling: Inclined Exit	Drilling: Exit Offset	Drilling: Flat Bottom	Drilling: Stacked Plates	Drilling: Convex
Drilling: Blind Hole	Drilling: Concave	Drilling: Chain	Drilling: Cross Hole	Drilling: Half Cylinder
Drilling: Corner Drilling 45°	Reaming: Through Hole	Reaming: Blind Hole	Reaming: Through Cross	Reaming: Blind and Cross Holes
Reaming: Interrupted Cut	Drilling Depth: 1 x D	Drilling Depth: 3 x D	Drilling Depth: 5 x D	Drilling Depth: 8 x D
Drilling Depth: 10 x D	Drilling Depth: 12 x D	Drilling Depth: 7 x D	Drilling Depth: 4 x D	Drilling Depth: 1.5 x D

(continued)

(Holemaking Icons — continued)

Corner Style: Corner Chamfer	Corner Style: Square End	Shank: Cylindrical Plain	Shank: Cylindrical Plain ≤h6	Shank: Cylindrical Weldon®
Shank: Cylindrical Whistle Notch	Shank: Cylindrical Whistle Notch 2°	Shank: Cylindrical with Flat	SK Shank: Rübüg	Shank: SK BT JIS B 6339
Shank: SK CAT(CV) ANSI B5.50	Shank: SK DV DIN 69871	Shank: Cylindrical Whistle Notch with Drive and Flange	Shank: Cylindrical with Flat and Flange	KM™ Shank
Shank: HSK DIN 69893	Shank: HSK DIN 69893 Form A	Shank: KM-TS™ (ISO 26622)	Shank: KM-XMZ	Shank: ER
Helix Angle: 0°	Helix Angle: 15°	Helix Angle: 30°	Tip Angle: 118°	Tip Angle: 130°
Balance (G 6.3/25,000)	Balance (G 6.3/10,000)	Balance (G 6.3/6,000)	Balance (G 16/20,000)	DIN Number 6537
DIN Number 6535	DIN Number 69893	DIN Number 69090-3	Drilling: No Coolant	Through Coolant: Radial: Drilling
Through Coolant: Radial: Reaming	Through Coolant: Radial: Indexable Drilling	Flood Coolant: Drilling	Through Coolant: MQL (Minimum Quantity Lubricant): Drilling	Through Coolant: Axial: Drilling
Through Coolant: Axial: Reaming	Through Coolant: Coolant Entry AD	Through Coolant: Coolant Entry AD/B	Tool Dimensions: 2 Flute/2 Margin/ Coolant	Tool Dimensions: 2 Flute/2 Margin/ No Coolant
Tool Dimensions: 2 Flute/3 Margin/ Coolant	Tool Dimensions: 2 Flute/4 Margin/ Coolant	Tool Dimensions: 2 Flute/4 Margin/ No Coolant	Tool Dimensions: 2 Flute/4 Margin/ X/Coolant	Tool Dimensions: 3 Flute/3 Margin/ Coolant
Tool Dimensions: 3 Flute/3 Margin/ No Coolant	Tool Dimensions: Flute Configuration: 2	Tool Dimensions: Flute Configuration: 3	Tool Dimensions: Flute Configuration: 4	

Tapping Icons

Countersinking/ Stroke Chamfering	Drilling: Flat Bottom	Drilling: Blind	Tapping: Through Hole	Tapping: Blind Hole
Tapping: Pipe Thread	Threading: Through Hole	HSS: High-Speed Steel	HSS-E: High-Speed Steel with Cobalt Alloy for Materials with Higher Hardness	HSS-E-PM: High-Speed Steel with Cobalt Alloy for Materials with Higher Hardness (PM = Powder Metal Steel)
HM: (Carbide)	Drilling Depth: 2 x D	Chamfer Form (3-4)	Chamfer Form B (3.5-5.5)	Chamfer Form C (2-3)
Chamfer Form D (3.5-5)	Chamfer Form E (1.5-2)	Chamfer Form (3-5)	Chamfer Form (2.5-3.5)	Chamfer Form (1-2)
Tapping Helix Angle: 0°	Tapping Helix Angle: 10°	Tapping Helix Angle: 15°	Tapping Helix Angle: L15°	Tapping Helix Angle: 25°
Tapping Helix Angle: 42°	Tapping Helix Angle: 45°	Multipurpose Taps: Spiral Point	Tension/ Compression	DIN Number 371
DIN Number 374	DIN Number 376	DIN Number 5156	DIN Number 2174	DIN ANSI
Through Coolant: Radial: Tapping	Flood Coolant: Tapping	Through Coolant: Axial: Tapping	Manufacturer's Specs: ISO 2	Manufacturer's Specs: ISO 3
Manufacturer's Specs: JIS	Class of Fit: 2B	Class of Fit: 3B	Class of Fit: 6H	Class of Fit: 6HX
Class of Fit: 6G	Class of Fit: 2BX	Class of Fit: 3BX	Unified Fine Thread	Unified Course Thread
American Tapered Pipe Thread for Threads with Dryseal Material	American Tapered Pipe Thread for Threads without Dryseal Material	American National Standards Institute	American Standard Straight Pipe Thread	American Standard Straight Pipe Thread Dryseal
Whitworth Pipe Thread	Unified Course Thread: J Profile	Unified Fine Thread: J Profile	ISO Metric Coarse Thread	ISO Metric Fine Thread

Solid End Milling Icons

Face Milling	Plunge Milling	Plunge Milling: Ball Nose	Ramping: Blank	Ramping: Up to 2°
Ramping: Up to 3°	Slotting: Ball Nose	Slotting: Ball Nose with AP Dimension	Slotting: Square End	Slotting: Square End with AP Dimension
Trochoidal Milling	Trochoidal Milling: Ball Nose	Side Milling/ Shoulder Milling: Ball Nose	Side Milling/ Shoulder Milling: Ball Nose with AE/AP Dimensions	Side Milling/ Shoulder Milling: Square End
Side Milling/ Shoulder Milling: Square End with AE/AP Dimensions	Side Milling/ Shoulder Milling: Eased Chamfer	Side Milling/ Shoulder Milling: Eased Chamfer with AE/AP Dimensions	Side Milling/ Shoulder Milling: Fine Finishing	Side Milling/ Shoulder Milling: Fine Finishing with AE/AP Dimensions
Side Milling/ Shoulder Milling: Finishing	Side Milling/ Shoulder Milling: Finishing with AE/AP Dimensions	Side Milling/ Shoulder Milling: Thin Wall Solid End Milling	Side Milling/ Shoulder Milling: Radius	Side Milling/ Shoulder Milling: Radius with AE/AP Dimensions
3D Profiling	3D Profiling with AE/AP Dimensions	3D Profiling with Square End Mill	Corner Style: Ball Nose	Corner Style: Corner Chamfer
Corner Style: Corner Radius	Corner Style: Square End	Corner Style: Torus	Corner Style: Taper Ball Nose	Shank: Cylindrical Plain
Shank: Cylindrical Weldon®	Shank: SK BT JIS B 6339	Shank: HSK: CAT: Drawbar Thread: 5/8-11 UNC	Shank: HSK A/ DIN69893	Shank: Safe-Lock™ ≤h6
Shank: Safe-Lock™	Shank: PSC Shank	Duo-Lock™ Connection	Helix Angle: 0°	Helix Angle: 15°
Helix Angle: 20°	Helix Angle: 25°	Helix Angle: 30°	Helix Angle: 35°	Helix Angle: 37°
Helix Angle: 38°	Helix Angle: 40°	Helix Angle: 45°	Helix Angle: 50°	Helix Angle: 43°
Helix Angle: 36°	Helix Angle: 35°/38°	Helix Angle: 37°/39°	Balance (G 2.5/25,000)	Through Coolant

(continued)

(Solid End Milling Icons — continued)

Through Coolant: Axial: Solid End Mill	Tool Dimensions: Flute Configuration: X (Variable)	Tool Dimensions: Flute Configuration: 2	Tool Dimensions: Flute Configuration: 3	Tool Dimensions: Flute Configuration: 4
Tool Dimensions: Flute Configuration: 5	Tool Dimensions: Flute Configuration: 6	Tool Dimensions: Flute Configuration: 12	ISO 26622	

Indexable Milling Icons

Counterboring	Spiral Circular	Drilling	Face Milling	Helical Milling
Plunge Milling	Plunge Milling: Ball Nose	Ramping: Blank	Slotting: Ball Nose	Slotting: Side
Slotting: Side with AE/AP Dimensions	Slotting: Side Milling: Ball Nose	Slotting: Square End	Slotting: T	Slotting: T with AP Dimension
Side Milling/ Shoulder Milling: Ball Nose	Side Milling/ Shoulder Milling: Bottom Shouldering	Side Milling/ Shoulder Milling: Square End	Side Milling/ Shoulder Milling: Eased Chamfer	Slotting: Shoulder Profiling
Slotting: Shoulder	3D Profiling	3D Profiling with Square End Mill	PCD PCD Tool	Pocketing
Shank: Cylindrical Plain	Shank: Cylindrical Weldon®	Shank: Cylindrical Weldon 2 Flat	Shank: Screw-On	SK Shank: R8
Shank: SK BT JIS B 6339	Shank: SK CAT(CV) ANSI B5.50	Shank: HSK DIN 69893	Shell Mill Shank	Milling: Through Coolant
Axial: Nozzle	Through Coolant: Pressurized Air Coolant: Radial: Indexable Milling			

Service and Support


Customer Application Support (CAS)

Get Fast and Reliable Answers to Your Toughest Metalcutting Problems

Our Customer Application Support (CAS) Team is the metalworking industry's leading help desk resource for tooling application solutions and problem resolution.

Easy Access to Proven Metalworking Expertise!

Kennametal Customer Application Engineers assist customers and engineering groups throughout the world with expert tool selection and application recommendations for the entire range of Kennametal tooling.

SERVICE LEVEL EXCELLENCE	Fast telephone response. Quick technical solutions. Efficient case management.	
SERVICES	Operating parameters. Process optimization. Hardware support. Tooling selection. Troubleshooting.	
BEST-IN-CLASS SUPPORT TOOLS AND TECHNOLOGY	Materials database. Application calculators. Tooling performance experts.	

Originating Country	Language	Phone	E-mail
Australia	English	1800 666 667	ap-kmt.techsupport@kennametal.com
Austria	German	0800 202873	eu.techsupport@kennametal.com
Belgium	English/French	0800 80850	eu.techsupport@kennametal.com
China	Chinese	400 889 2238	k-cn.techsupport@kennametal.com
Denmark	English	808 89298	na.techsupport@kennametal.com
Finland	English	0800 919412	na.techsupport@kennametal.com
France	French	080 5540 367	eu.techsupport@kennametal.com
Germany	German	0800 0006651	eu.techsupport@kennametal.com
India	English	1 800 103 5227	in.techsupport@kennametal.com
Israel	English	1809 449889	na.techsupport@kennametal.com
Italy	Italian	800 916561	eu.techsupport@kennametal.com
Japan	English	03 3820 2855	ap-kmt.techsupport@kennametal.com
Korea (South)	English	+82 2 2100 6100	ap-kmt.techsupport@kennametal.com
Malaysia	English	1800 812 990	ap-kmt.techsupport@kennametal.com
Mexico	Spanish	1800 253 0758	na.techsupport@kennametal.com
Netherlands	English	0800 0201 130	eu.techsupport@kennametal.com
New Zealand	English	0800 450 941	ap-kmt.techsupport@kennametal.com
Norway	English	800 10080	na.techsupport@kennametal.com
Poland	Polish	0080 04411887	eu.techsupport@kennametal.com
Russia (landline)	Russian	8800 5556394	eu.techsupport@kennametal.com
Russia (cell phone)	Russian	+7 8005556394	eu.techsupport@kennametal.com
Singapore	English	1800 6221031	ap-kmt.techsupport@kennametal.com
South Africa	English	0800 981643	na.techsupport@kennametal.com
Sweden	English	020799246	na.techsupport@kennametal.com
Taiwan	English	0800 666 197	ap-kmt.techsupport@kennametal.com
Thailand	English	1800 4417820	ap-kmt.techsupport@kennametal.com
UK	English	0800 032 8339	na.techsupport@kennametal.com
Ukraine	Russian	0800502664	eu.techsupport@kennametal.com
USA	English	800 835 3668	na.techsupport@kennametal.com

Numbers shown only serve the originating country listed.

P Steel	N Non-Ferrous	H Hardened Materials
M Stainless Steel	S High-Temp Alloys	C CFRP Materials
K Cast Iron		

material group	description	content	tensile strength RM (MPa)*	hardness (HB)	hardness (HRC)	material number
P0	Low-Carbon Steels, Long Chipping	C <0,25%	<530	<125	–	A36, 1008, 1010, 1018 through 1029; 1108, 1117
P1	Low-Carbon Steels, Short Chipping, Free Machining	C <0,25%	<530	<125	–	10L18, 1200 Series, 1213, 12L14
P2	Medium- and High-Carbon Steels	C >0,25%	>530	<220	<25	1035, 1045, 10L45, 1050, 10L50, 1080, 1137, 1144, 11L44, 1525, 1545, 1572
P3	Alloy Steels and Tool Steels	C >0,25%	600–850	<330	<35	1300, 2000, 3000, 4000, 5000, 8000, P20, SAE: A, D, H, O, S, M, T
P4	Alloy Steels and Tool Steels	C >0,25%	850–1400	340–450	35–48	1300, 2000, 3000, 4000, 5000, 8000, P20, SAE: A, D, H, O, S, M, T
P5	Ferritic, Martensitic, and PH Stainless Steels	–	600–900	<330	<35	15–5 PH, 13–8 PH, 17–4 PH, 400 and 500 Series
P6	High-Strength Ferritic, Martensitic, and PH Stainless Steels	–	900–1350	350–450	35–48	15–5 PH, 13–8 PH, 17–4 PH, 400 and 500 Series
M1	Austenitic Stainless Steel	–	<600	130–200	–	200 Series, 301, 302, 304, 304L, 309
M2	High-Strength Austenitic Stainless and Cast Stainless Steels	–	600–800	150–230	<25	310, 316, 316L, 321, 347, 384 ASTM Cast XM-1, XM-5, XM-7, XM-21
M3	Duplex Stainless Steel	–	<800	135–275	<30	323, 329, F55, 2205, S329000
K1	Gray Cast Iron	–	125–500	120–290	<32	class 20, 25, 30, 35, 40, 45, 50, 55, 60, G1800, G3000, G3500, G4000
K2	Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)	–	<600	130–260	<28	60-40-18, 65-45-12, 80-55-06; SAE J434: D4018, D4512, D5506; ASTM A47: Grade 32510, 35018; SAE J158: Grade M3210, M4504, M5003, M5503, M7002; ASTMA842: Grade 250, 300, 350, 400, 450
K3	High-Strength Ductile Irons and Austempered Ductile Iron (ADI)	–	>600	180–350	<43	ASTM A536:100-70-03, 120-90-02, SAE J434: D7003, SAE J158: Grade M8501AST A897: 125-80-10, 150-100-7, 175-125-4, 200-150-1, 230-185
N1	Wrought Aluminum	–	–	–	–	2025, 5050, 7050, 1000, 2017
N2	Low-Silicon Aluminum Alloys and Magnesium Alloys	Si <12,2%	–	–	–	2024, 6061, 7075
N3	High-Silicon Aluminum Alloys and Magnesium Alloys	Si >12,2%	–	–	–	–
N4	Copper-, Brass-, Zinc-Based on Machinability Index Range of 70–100	–	–	–	–	C81500
N5	Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass	–	–	–	–	–
N6	Carbon, Graphite Composites, CFRP	–	–	–	–	Graphite, CFK, CFRP
N7	Metal Matrix Composites (MMC)	–	–	–	–	C63000
S1	Iron-Based, Heat-Resistant Alloys	–	500–1200	160–260	25–48	A-286, INCOLOY® 800 Series, A608, A567, Discaloy™, INVAR®, N-155, 16-25-6, 19-9 DL; Cast: ASTM A-297, A-351, A-567, A-608
S2	Cobalt-Based, Heat-Resistant Alloys	–	1000–1450	250–450	25–48	Haynes® 25 (L605), Haynes 188, J-1570, Stellite, AiResist 213; Cast: AiResist 13, Haynes 21, MAR-M302, MAR-M509, NASA Co-W-Re, WI-52
S3	Nickel-Based, Heat-Resistant Alloys	–	600–1700	160–450	<48	Astroloy™, Hastelloy® B/C/ C-276 /X, INCONEL® 600 and 700 Series, IN102, INCOLOY 900 Series, Rene 41, Waspalloy, Monel®, K-500, MAR-M20, NIMONIC®, UDIMET®
S4	Titanium and Titanium Alloys	–	900–1600	300–400	33–48	Pure: Ti 98.8, Ti 98.9, Ti 99.9; Alloyed: Ti 5Al-2.5Sn, Ti6Al-4V, Ti6Al-2Sn-4Zr-2Mo, Ti-3Al-8V-6Cr-4Mo-4Zr, Ti-10V-2Fe-3Al, Ti-13V-11Cr-3Al
H1	Hardened Materials	–	–	–	44–48	Tool Steel H10, H11, H13, D2, D3, 4340, P20
H2	Hardened Materials	–	–	–	48–55	Tool Steel H10, H11, H13, D2, D3, 4340, P20
H3	Hardened Materials	–	–	–	56–60	Tool Steel H10, H11, H13, D2, D3, 4340, P20
H4	Hardened Materials	–	–	–	>60	Tool Steel H10, H11, H13, D2, D3, 4340, P20
C1	CFRP, CFRP/CFRP	–	–	–	–	–
C2	CFRP/Non-Ferrous	–	–	–	–	–
C3	CFRP/High-Temp	–	–	–	–	–
C4	CFRP/Stainless Steel	–	–	–	–	–
C5	CFRP/Non-Ferrous/High-Temp	–	–	–	–	–

P Steel	N Non-Ferrous	H Hardened Materials
M Stainless Steel	S High-Temp Alloys	C CFRP Materials
K Cast Iron		

material group	description	content	tensile strength RM (MPa)*	hardness (HB)	hardness (HRC)	material number
P0	Low-Carbon Steels, Long Chipping	C <0,25%	<530	<125	-	-
P1	Low-Carbon Steels, Short Chipping, Free Machining	C <0,25%	<530	<125	-	C15, Ck22, ST37-2, S235JR, 9SMnPb28, GS38
P2	Medium- and High-Carbon Steels	C >0,25%	>530	<220	<25	ST52, S355JR, C35, GS60, Cf53
P3	Alloy Steels and Tool Steels	C >0,25%	600–850	<330	<35	16MnCr5, Ck45, 21CrMoV5-7, 38SMn28
P4	Alloy Steels and Tool Steels	C >0,25%	850–1400	340–450	35–48	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P5	Ferritic, Martensitic, and PH Stainless Steels	-	600–900	<330	<35	100Cr6, 30CrNiMo8, 42CrMo4, C70W2, S6525, X120Mn12
P6	High-Strength Ferritic, Martensitic, and PH Stainless Steels	-	900–1350	350–450	35–48	X102CrMo17, G-X120Cr29
M1	Austenitic Stainless Steel	-	<600	130–200	-	X5CrNi 18 10, X2CrNiMo 17 13 2, G-X25CrNiSi18 9, X15CrNiSi 20 12
M2	High-Strength Austenitic Stainless and Cast Stainless Steels	-	600–800	150–230	<25	X2CrNiMo 13 4, X5NiCr 32 21, X5CrNiNb 18 10, G-X15CrNi 25-20
M3	Duplex Stainless Steel	-	<800	135–275	<30	X8CrNiMo27 5, X2CrNiMoN22 5 3, X20CrNiSi25 4, G-X40CrNiSi27 4
K1	Gray Cast Iron	-	125–500	120–290	<32	GG15, GG25, GG30, GG40, GTW40
K2	Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)	-	<600	130–260	<28	GGG40, GTS35
K3	High-Strength Ductile Irons and Austempered Ductile Iron (ADI)	-	>600	180–350	<43	GGG60, GTW55, GTS65
N1	Wrought Aluminum	-	-	-	-	AlMg1, Al99.5, AlCuMg1, AlCuBiPb, AlMgSi1, AlMgSiPb
N2	Low-Silicon Aluminum Alloys and Magnesium Alloys	Si <12,2%	-	-	-	GAISiCu4, GDAISi10Mg
N3	High-Silicon Aluminum Alloys and Magnesium Alloys	Si >12,2%	-	-	-	G-ALSi12, G-AISi17Cu4, G-AISi21CuNiMg
N4	Copper-, Brass-, Zinc-Based on Machinability Index Range of 70–100	-	-	-	-	CuZn40, Ms60, G-CuSn5ZnPb, CuZn37, CuSi3Mn
N5	Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass	-	-	-	-	Lexan®, Hostalen™, Polystyrol, Makrolon®
N6	Carbon, Graphite Composites, CFRP	-	-	-	-	CFK, GFK
N7	Metal Matrix Composites (MMC)	-	-	-	-	-
S1	Iron-Based, Heat-Resistant Alloys	-	500–1200	160–260	25–48	X1NiCrMoCu32 28 7, X12NiCrSi36 16, X5NiCrAlTi31 20, X40CoCrNi20 20
S2	Cobalt-Based, Heat-Resistant Alloys	-	1000–1450	250–450	25–48	Haynes® 188, Stellite® 6,21,31
S3	Nickel-Based, Heat-Resistant Alloys	-	600–1700	160–450	<48	INCONEL® 690, INCONEL 625, Hastelloy®, NIMONIC® 75
S4	Titanium and Titanium Alloys	-	900–1600	300–400	33–48	Ti1, TiAl5Sn2, TiAl6V4, TiAl4Mo4Sn2
H1	Hardened Materials	-	-	-	44–48	GX260NiCr42, GX330NiCr42, GX300CrNiSi952, GX300CrMo153, Hardox® 400
H2	Hardened Materials	-	-	-	48–55	-
H3	Hardened Materials	-	-	-	56–60	-
H4	Hardened Materials	-	-	-	>60	-
C1	CFRP, CFRP/CFRP	-	-	-	-	-
C2	CFRP/Non-Ferrous	-	-	-	-	-
C3	CFRP/High Temp	-	-	-	-	-
C4	CFRP/Stainless Steel	-	-	-	-	-
C5	CFRP/Non-Ferrous/High-Temp	-	-	-	-	-

P0 Workpiece Materials Listing • Steel • P0

P0 Low-Carbon Steels, Long Chipping

Content: C <.25%

Tensile Strength RM (MPa)*: <530

Hardness (HB): <125

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
1013	US1 34-1	-	-	G10130	-	-	-	1233	-	-	1.0055	-
1010	C 10	045 M 10	S 10 C	G10100	C 10	XC 10	C 10	-	-	-	1.0301	-
1008	DD 11 (SIW 22)	HR 3	SPHD	-	DD 11	1 C	-	-	-	-	1.0332	-
1020	C 22	050 A 20	S 22 C	G10200	1 C 22	C 20	C 20	1450	-	-	1.0402	-
1025	C 25	070 M 26	S 22 C	G10250	1 C 25	C 25	C 25	-	-	-	1.0406	-
1012	B 500 H	-	S 12 C	G10120	B 500 B	XC 12	B 500 B	1332	-	-	1.0439	-
1018	C16.8	080 A 17	-	G10180	-	-	-	-	-	-	1.0453	-
1108	10 S 20	210 M 15	-	G 11080	10 S 20	10 F 1	CF 10 S 20	-	-	-	1.0721	-
1010	Ck 10	040 A 10	S 10 C	G10100	2 C 10	XC 10	C 10	1265	-	-	1.1121	-
1022	20 Mn 5	120 M 19	SMn 420	G 10220	20 Mn 5	20 M 5	G 22 Mn 3	-	-	-	1.1133	-
1015	Ck 15	080 M 15	S 15 C	G 10150	2 C 15	XC 15	C 15	1370	-	-	1.1141	-
1021	22 B 2	-	SWRCHB 220	G10210	C 22 BE 69	21 B 3	-	-	-	-	1.5508	-
-	PS 275 TM	S 275 M	-	-	S 275 M	S 275 M	S 275 M	-	-	-	1.8818	-
-	DI-MC 355 B	-	-	-	S 355 M	E 355	S 355 M	-	-	-	1.8823	-
-	DI-MC 420 B	S 420 M	-	-	S 420 M	E 420	S 420 M	-	-	-	1.8825	-
-	S 460 M	S 460 M	-	-	S 460 M	E460; S460M	S460M	-	-	-	1.8827	-
-	BTSIE 355 TM	S 355 ML	-	-	S 355 ML	E 355	S 355 ML	-	-	-	1.8834	-
-	BTSIE 420 TM	S 420 MI	-	-	S 420 ML	E 420	S 420 ML	-	-	-	1.8836	-
-	St E 320-3Z	-	-	-	S 320 GD + ZA	-	-	-	-	-	1.0250	-

P1 Workpiece Materials Listing • Steel • P1

P1 Low-Carbon Steels, Short Chipping, Free Machining

Content: C <.25%

Tensile Strength RM (MPa)*: <530

Hardness (HB): <125

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	R St 34-2/ S 205 G2T	34/20CR	-	K02502	-	-	-	-	-	-	1.0034	-
-	St 33	HR 15	SS 330	K01400	-	A 33	Fe 320	-	-	-	1.0035	-
A 570 Gr. 33	UST 37-2	4360-40 B	SS 34	K 02502	S 235 JR G1	E 24-2	Fe 360 BFU	1311	-	-	1.0036	-
-	St 37-2	HS 37/23	STKR 400	K02702	S 235 JR	E 28-2	Fe 430 C	1412	-	-	1.0037	-
A 570 Gr. 36	R St 37-2/S235 JRG2	4260-40 C	SS 34	K 02502	S235 JR G 2	E 24-2 NE	Fe 360 BFN	1312	-	-	1.0038	-
-	S 235 JRH	S 235 JRH	-	-	S235JRH	E 24-2	S 235 JRH	-	-	-	1.0039	-
-	R St 42-1	-	-	K02507	-	-	-	-	-	-	1.0077	-
-	S235J2G3/Fe 360 D1	S 235 J 2 G 3	-	K01501	S 235 J2 G3	E 24-4	S 235 J2G3	1313	-	-	1.0161	-
-	C 10 Pb	-	-	-	C 10 GPb	-	-	-	-	-	1.0302	-
-	QSt 32-3	-	SWRCH6R	-	CB 4 FF KD	-	CB 4 F U	-	-	-	1.0303	-
-	St 35.8	-	STPT 38	K01201	-	-	-	-	-	-	1.0305	-
-	St 37-2	360	STKM 12 A	K02504	S 235 JR	E 24-2	Fe 360	1412	-	-	1.0308	-
-	C10D	-	SWRM 10	-	C 10 D	FM 10	C 10 D	-	-	-	1.0310	-
-	C12D	-	SWRM 12	-	C 12 D	-	C 12 D	-	-	-	1.0311	-
-	R St 15	FeP05	-	-	Fe P05	FeP05	FeP05	-	-	-	1.0312	-
-	D 6-2	0 1 5 A 03	SWRM 6	G10050	C 4 D	-	3 CD 5	-	-	-	1.0314	-
-	St 37.8	-	STB 35	-	-	-	Fe 37	-	-	-	1.0315	-
-	St 13	CR 3	SPCD	-	-	-	-	-	-	-	1.0333	-
-	D D 13 (SIW 24)	HS 3	SPHE	-	DD 13	3C	-	-	-	-	1.0335	-
-	UST 4/DC 04 G	-	-	-	D C 04 G 1	-	-	-	-	-	1.0336	-
-	Ro St 4/DC 04 GT	-	-	-	DC 04 GT	-	-	-	-	-	1.0337	-
-	St 4	DC 04/FeP04	SPCE	-	Fe P04	Fe 14	DC04/FeP04	-	-	-	1.0338	-
-	DC01Cu	-	-	-	DC 01 Cu	-	-	-	-	-	1.0344	-
-	RR St 3	CR 3	SPCD	-	Fe P03	F 13	DC 03/FeP 03	-	-	-	1.0347	-
-	U H/P 195GH	-	SGV 480	-	P 195 Gh	-	-	-	-	-	1.0348	-
-	St 14 Cu 3	-	-	-	DC 04 Cu	-	-	-	-	-	1.0354	-
-	-	3 CR	-	-	D D 12	D D 12	-	-	-	-	1.0398	-
1015	C 15	080 M 15	S 15 C	G10170	C 15	C 12	C 15	1350	-	-	1.0401	-
-	LSt 45.8	-	-	-	C 16	-	C 16	-	-	-	1.0407	-
-	C15D	-	SWRM 15	-	C 15 D	FM 15	C 15 D	-	-	-	1.0413	-
-	C20D	-	SWRM 20	-	C 20 D	FM 20	C 20 D	-	-	-	1.0414	-
-	C26D	-	SWRH 27	-	C 26 D	FM 26	C 26 D	-	-	-	1.0415	-
-	C18D	-	SWRM 17	-	C 18 D	FM 18	C 18 D	-	-	-	1.0416	-
-	RSt 44-2	440	-	G10160	-	-	-	-	-	-	1.0419	-
-	P265 NB	-	SG 295	-	P 265 NB	BS 2	-	-	-	-	1.0423	-
-	P 265 GH	151-400	SG 30	K02801	P 265 GH	A42CP	P 265 GH	1430	-	-	1.0425	-
-	C 22.3	-	-	-	C 22 G 1	-	-	-	-	-	1.0427	-
-	BSt 420 S	-	-	-	Fe B 400	-	-	-	-	-	1.0428	-
-	C 21	-	SFVC 1	K03504	P 305 GH	-	-	-	-	-	1.0432	-
-	GS-45	A1	SC 450	J03001	GE 230	E23-45M	-	1305	-	-	1.0446	-
-	TStE 275 (S 275 NL)	40EE	-	-	S 275 NL	S 275 NL	S 275 NL	-	-	-	1.0491	-
-	St 42.8	-	STPT 42	-	-	-	Fe 42	-	-	-	1.0498	-
-	S 335 N (StE 355)	50 E	-	-	S 355 N	E 355	S 355 N	2134	-	-	1.0545	-
-	S 355 NL (TStE 355)	50 E E	-	-	S 355 NL	E 355	S 355 N L	2135	-	-	1.0546	-
-	R 7 S 6/C 7 RG 2	-	-	-	C 7 RG 2	-	-	-	-	-	1.0709	-
B1112	9 S 20	220 M 07	SUM 21	G 11120	-	-	CF 9 S 22	-	-	-	1.0711	-
1213	9 SMn 28/11 SMn 30	230 M 07	SUM 22	G 12130	11 SMn 28	S 250	CF 9 SMn 28	1912	-	-	1.0715	-
12L13	9 SMnPb 28	-	SUM 22 L	G 12134	11 SMnPb 28	S 250 Pb	CF 9 SMnPb 28	1914	-	-	1.0718	-
-	15 S 22/15 S 20	En32M	SUM 32	-	15 S 22	-	-	1922	-	-	1.0723	-
-	15 SMn 13	15 SMn 13	-	-	15 SMn 13	15 SMn 13	-	-	-	-	1.0725	-
1215	9 SMn 36/11 S Mn 37	240 M 07	SUM 25	G 12150	11 SMn 37	S 300	CF 9 SMn 36	-	-	-	1.0736	-
12L14	9 SMnPb 36/11 SMnPb 37	-	-	G 12144	11 SMnPb 37	S 300 Pb	CF 9 SMnPb 36	1926	-	-	1.0737	-
-	11 SMnPbTe 37	11 SMn 37	-	-	11 SMn 37	-	-	-	-	-	1.0738	-
-	15 SPb 20/15 SPb 22	-	-	-	15 SPb 22	-	-	-	-	-	1.0753	-
-	36 SMn 14	36SMn14	-	-	36SMn14	36SMn14	-	-	-	-	1.0764	-
-	C10D2	-	-	-	C 10 D 2	FM 10	C 10 D 2	-	-	-	1.1114	-
-	Cq 10 (C 10 C)	-	SWRCH 10 K	-	C 10 KD	-	-	-	-	-	1.1122	-
-	C15D2	-	-	-	C 15 D 2	FM 15	C 15 D 2	-	-	-	1.1126	-
-	C 18D2	-	-	-	C 18 D 2	FM 18	C 18 D 2	-	-	-	1.1129	-

(continued)

P1
Workpiece Materials Listing • Steel • P1 (continued)
P1 Low-Carbon Steels, Short Chipping, Free Machining
Content: C <.25%
Tensile Strength RM (MPa): <530*
Hardness (HB): <125

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	GS-16 Mn 5	-	-	-	G 17 Mn 5	G 17 Mn 5	G17Mn5	-	-	-	1.1131	-
-	C20D2	-	-	-	C 20 D 2	FM 20	C20D 2	-	-	-	1.1137	-
-	C26D2	-	-	-	C 26 D 2	FM 26	C26D 2	-	-	-	1.1139	-
-	GC 16 E/GS-Ck 16	-	-	-	GC 16 E	-	-	-	-	-	1.1142	-
-	C 16 E	C 16 E	-	-	C 16 E	XC 18	-	-	-	-	1.1148	-
-	Cm 22	070 M 20	C 22 R (3 C 22)	-	3 C 22	XC 18 u	C 22 R	-	-	-	1.1149	-
-	Ck 22	050 A 20	S 22 C	G10230	2 C 22	XC 25	C 20	-	-	-	1.1151	-
-	Cq 22	-	SWRCH20K	-	C 21 KD	-	CB 20 FF	-	-	-	1.1152	-
-	Ck 25	070 M 26	S 25 C	G10250	2 C 25	XC 25	C 25	-	-	-	1.1158	-
-	C2D1	-	-	-	C 2 D 1	-	C 2 D 1	-	-	-	1.1185	-
-	19 MnVS 6	-	-	-	19 MnVS 6	-	-	-	-	-	1.1301	-
-	PS 275 TM	S 275 M	-	-	S 275 M	S 275 M	S 275 M	-	-	-	1.8818	-
-	DI-MC 355 B	-	-	-	S 355 M	E 355	S 355 M	-	-	-	1.8823	-
-	DI-MC 420 B	S 420 M	-	-	S 420 M	E 420	S 420 M	-	-	-	1.8825	-
-	S 460 M	S 460 M	-	-	S 460 M	E460/S460M	S460M	-	-	-	1.8827	-
-	BTSIE 355 TM	S 355 ML	-	-	S 355 ML	E 355	S 355 ML	-	-	-	1.8834	-
-	BTSIE 420 TM	S 420 ML	-	-	S 420 ML	E 420	S 420 ML	-	-	-	1.8836	-
-	S 235 J 0 W (Allwesta 360)	S 235 J 0 W	SMA 400 BW	-	S 235 JO W	S 235 J 0 W	-	-	-	-	1.8958	-
-	S 355 J 0 W (Allwesta 510)	WR 50 B	SMA 490 BW	-	S 235 JO W	E24W-3	S 235 JO W	-	-	-	1.8959	-
-	WTSt 37-2/S235JRW	WR 50 B	SMA 41 A	K11538	S 235 JR W	E 24 W-2	-	-	-	-	1.8960	-
-	WTSt 37-3	WR 50 C	SMA 50 A	-	S 235 J2 W	S 235 J 2 W	Fe 360 D FF	-	-	-	1.8961	-
-	USI 42-2	-	SS 41	-	-	HS 18-0-2-10	-	-	-	-	1.0040	-
-	St 37-2	-	-	-	S 235 JRC	E 24-2	S 235 JRC	-	-	-	1.0120	-
-	S 235 JR G1F	-	-	-	S 235 JRG 1 F	-	-	-	-	-	1.0160	-
-	St 12	DC 01/FeP01	SPCC	-	Fe P01	DC 01/FeP01	DC 01/FeP0 1	-	-	-	1.0330	-
-	GS-38	A1	-	-	GE 200	230-400M	-	1306	-	-	1.0420	-
-	GS-20 Mn 5	-	SMnC 420	H15220	-	-	-	-	-	-	1.1120	-
-	G 20 Mn 5	-	-	-	G 20 Mn 5	-	G 20 Mn 5	-	-	-	1.6220	-

P2
Workpiece Materials Listing • Steel • P2
P2 Medium- and High-Carbon Steels
Content: C >.25%
Tensile Strength RM (MPa): >530*
Hardness (HB): <220 (HRC): <25

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	S 355 JR	En 50 B	SM 490 YA	-	S 1207	E36-2	Fe 510 BFN	-	-	-	1.0045	-
1035	C 35	060 A 35	S 35 C	G 10350	1 C 35	CC 35	C 35	1550	-	-	1.0501	-
1045	GS-C 45	080 M 46	S 45 C	G10450	1 C 45	CC 45	C 45	1650	-	-	1.0503	-
1040	C 40	080 M 40	S 40 C	G 10 400	1 C 40	C 40	C 40	-	-	-	1.0511	-
1046	S 355 K 2 G 4 Cu	-	-	G10460	S 355 K2 G4 Cu	-	-	-	-	-	1.0519	-
1030	C30	080 M 30	SUP 7	G 10 300	1 C 30	C 32	C 30	-	-	-	1.0528	-
1055	C 55	070 M 55	S 55 C	J05000	1 C 55	C 55	C 55	1655	-	-	1.0535	-
1551	C 50 Pb	-	-	G15510	C 50 G Pb	-	-	-	-	-	1.0542	-
-	GS-60	A3	-	-	GE 300	320-560M	C 45	1606	-	-	1.0558	-
1037	36 Mn4	170 H 36	-	G10370	-	-	-	-	-	-	1.0561	-
-	PSt 52-3 (S 355 J2 G3 F)	-	-	-	S 355 J2 G3 F	-	FE 510 C	-	-	-	1.0572	-
-	S 355 J2H (RoSt 52-3)	50D	-	-	S355J2H	-	S355J2H	-	-	-	1.0576	-
1060	C 60	080 A 62	S 60 C-CSP	G 10600	1 C 60	AF 70 C 55	C 60	-	-	-	1.0601	-
1070	C 67	CS 70	S 70 C -CSP	G10700	1 CS 67	C 68	C 67	-	-	-	1.0603	-
1074	C 75	CS 80	-	G10740	1 CS 75	C 75	C 75	-	-	-	1.0605	-
1059	C58D	-	S 58 C	G10590	C 58 D	FM 58	C 58 D	-	-	-	1.0609	-
1075	C76D	-	-	G10750	C 76 D	FM 76	C 76 D	-	-	-	1.0614	-
1080	C86D	CS 80	-	G10860	C 86 D	FM 86	C 86 D	-	-	-	1.0616	-
1095	C92D	95 CS	-	G10950	C 92 D	-	C 92 D	-	-	-	1.0618	-
1110	U 10 S 10	-	SUM 12	G11100	-	-	-	-	-	-	1.0702	-
11L08	10 SPb 20	-	-	G 11084	10 SPb 20	10 Pb F 2	CF 10 SPb 20	-	-	-	1.0722	-
1140	35 S 20	212 M 36	-	G 11400	35 S 20	35 MF 4	-	1957	-	-	1.0726	-
1146	45 S 20	212 M 44	-	G 11460	45 S 20	45 MF 4	-	1973	-	-	1.0727	-
1151	60 S 20	-	-	G11510	60 S 20	60 MF 4	-	-	-	-	1.0728	-
1141	36 Mn 6	212 M 36	S Mn 443	G 11410	-	-	-	-	-	-	1.1127	-
1039	40 Mn 4	150 M 36	-	G10390	-	35 M 5	-	-	-	-	1.1157	-
1536	34 Mn 5	En15B	SS 55	G15360	-	-	-	-	-	-	1.1166	-
1030	Cq 35	-	F.1133 (C 35 DF)	G 10300	C 35 KD	-	CB 35	-	-	-	1.1172	-
1034	Ck 34	080 M 34	S 34 C	G 10340	2 C 34	-	C 34	-	-	-	1.1173	-
1038 H	Ck 38	-	-	G 10380	-	XF 38	-	-	-	-	1.1176	-
1030	Ck 30	080 M 30	S 30 C	G 10300	2 C 30	XC 32	C 30	-	-	-	1.1178	-
1034	Ck 35	080 M 36	S 35 C	G 10340	2 C 35	XC 38 H1	C 35	1572	-	-	1.1181	-
1035	Cf 35	060 A 35	S 35 C	G 10350	C 35 G	XC 38 TS	C 35	1572	-	-	1.1183	-
1040	Ck 40	080 A 40	S 40 C	G 10400	2 C 40	XC 42 H1	C 40	-	-	-	1.1186	-
1045	Cf 45	060 A 47	S 45 C	G10450	C 45 G	XC 42 TS	C 43	1672	-	-	1.1193	-
1055	Ck 55	070 M 55	S 55 C	G10550	2 C 55	XC 55 H1	C 55	1655	-	-	1.1203	-
1050	Ck 50	080 M 50	S 50 C	G10500	2 C 50	XC 48 H1	C 50	1674	-	-	1.1206	-
1055	Cm 55	070 M 55	-	G 10550	3 C 55	XC 55 H1	C 55 R	-	-	-	1.1209	-
1053	Ck 53	En43C	S 53 C	G 10530	-	-	-	-	-	-	1.1210	-
1050	Cf 53	060 A 57	S 50 C	G 10500	C 53 G	XC 48 TS	C 48	1674	-	-	1.1213	-
1060	Ck 60	060 A 62	S 58 C	G 10640	2 C 60	XC 60	C 60	1678	-	-	1.1221	-
1552	52 Mn 5	-	-	G15520	-	-	-	-	-	-	1.1226	-
1065	FD (Federstahlrohr)	095 A 65	-	G10650	C 68 D	-	-	-	-	-	1.1230	-
1070	Ck 67	060 A 67	S 70 C-CSP	G 10700	C 67 S	XC 68	C 70	1770	-	-	1.1231	-
1069	Ck 68	-	-	G10690	C 70 D	-	-	-	-	-	1.1234	-
1080	Ck 75	060 A 78	C 75	G 10800	C 75 S	XC 75	C 75	1774	-	-	1.1248	-
-	Cf 70	-	-	-	C 70 G	XC 70	-	-	-	-	1.1249	-
1090	Ck 85	-	SK 5 -CSP	G 10900	C 85 S	XC 90	C 90	-	-	-	1.1269	-
1085	90 Mn 4	080 A 83	SUP4	G 10850	-	-	-	-	-	-	1.1273	-
1095	Ck 101	060 A 96	SUP 4	G 10950	C 100 S	XC 100	C 100	1870	-	-	1.1274	-
1050	C 50	080 M 50	S 50 C	G 10 500	1 C 50	C 50	C 50	1674	-	-	1.0540	-
-	St 52-3 G	4360-50 B	SM 50 YB	-	S 355 J 2 G 3	E 36-3	Fe 510 B	2132	-	-	1.0570	-
1078	C78D	-	SWRH 77 B	G10780	C 78 D	FM 78	C 78 D	-	-	-	1.0620	-
1035	Cm 35	080 M 36	-	G 10350	3 C 35	38 H1 k	C 35 R	1572-03	-	-	1.1180	-
1566	66 Mn 4	-	-	G15660	-	-	-	-	-	-	1.1260	-
1084	C 85 W	-	SK 5	G10840	C 90 U	Y3 90	-	-	-	-	1.1830	-

NOTE: For legend, see page Y237.

P3

Workpiece Materials Listing • Steel • P3

P3 Alloy Steels and Tool Steels

Content: C >.25%

Tensile Strength RM (MPa)*: 600–850

Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
1330	GS-30 Mn 5	120 M 36	SMn 433 H; SCMn 2	K13300	–	35 M 5	–	1330	–	–	1.1165	–
1330	28 Mn 6	150 M 28	SCMn 1	G 13300	28 Mn 6	35 M 5	C 28 Mn	–	–	–	1.1170	–
1335	36 Mn 5	150 M 36	SMn 438(H)	G13350	–	40 M 5	–	2120	–	–	1.1167	–
1345	StSch 90 C/GP 280 GH	–	–	G13450	GP 280 GH	GP 280 GH	GP 280 GH	–	–	–	1.0625	–
1513	P265	HR 40/30	–	G15130	–	12 M 5	–	–	–	–	1.0424	–
4142	43 CrMo 4	–	–	G41420	–	43 Cr Mo 4	–	–	–	–	1.3563	–
4147	48 CrMo 4	817 M 40	SNC 836	H41470	–	48 Cr Mo 4	–	–	–	–	1.3565	–
4419	GS-22 Mo 4	243-430	SCPH 11	G44190	G 20 Mo 5	G20Mo5	G 22 Mo 5	–	–	–	1.5419	–
4520	16 Mo 5	1503-245-420	SBC 690	K11522	–	16 Mo 5	–	–	–	–	1.5423	–
5015	15 Cr 3	523 M15	SCR 415 H	G50150	15 Cr 2	12 C 3	–	–	–	–	1.7015	–
5046	44 Cr 2	–	–	H50460	46 Cr 1 KD	44 Cr 2	–	–	–	–	1.3561	–
5115	16 MnCr 5	527 M 17	SCR 415	G 51150	16 MnCr 5 KD	16 MC 5	16 MnCr 5	2173	–	–	1.7131	–
5117	17 Cr 3	17 Cr 3	–	G51170	(15 Cr 2 KD)	18 C 3	–	–	–	–	1.7016	–
5130	28 Cr 4	530 A 30	–	G51300	28 Cr 4	30 CD 4	–	–	–	–	1.7030	–
5140	41 Cr 4	530 M 40	SCR 440 H	G51400	41 Cr 4	42 C 4	41 Cr 4	–	–	–	1.7035	–
5140	42 Cr 4	530 A 40	SCR 440	–	40 NiCrMo 3	42 C 4 TS	40 NiCrMo 3	2245	–	–	1.7045	–
9255	51 Si 7	250 A 53	–	G92550	–	51 S 7	48 Si 7	2090	–	–	1.0903	–
9255	55 Si 7	250 A 53	SKH 1; SKT 4	G92550	55 NiCrMoV 7	55 S 7	55 Si 7	2085	–	–	1.0904	–
9260	60 Si 7	251 A 60	–	G92600	60 Si 7	60 S 7	60 Si 7	–	–	–	1.5027	–
9262	60 SiCr 7	250 A 61	SUP 7	G92620	60 SiCr 8	60 SC 7	60 SiCr 8	–	–	–	1.0961	–
9262	60 SC 7	–	–	G92620	60 SiCr 8	61 SC 7	60 SiCr 8	–	–	–	1.5092	–
9262	60 SiCr 7	–	–	–	–	–	–	–	–	–	1.7108	–
15B21 H	19 MnB 4	170 H 20	SWRCHB 420	H15211	19 MnB 4	20 MB 5	–	–	–	–	1.5523	–
15B21 H	20 MnB 5	–	SWRCHB 620	–	20 MnB 5	20 MnB 5	20 MnB 5	–	–	–	1.5530	–
50B40	37 CrB 1	120 M 36	SMnc 3 H	H50401	38 Cr 2	35 CB 1	–	–	–	–	1.7007	–
5130 H	34 Cr 4	530 A 32	SCR 430 H	G51300	34 Cr 4 KD	32 C 4	34 Cr 4 KB	–	–	–	1.7033	–
5132 H	37 Cr 4	530 A 36	SCR 435 H	G51320	37 Cr 4	38 C 4	36 CrMn 4	–	–	–	1.7034	–
A 204 Gr. A	15 Mo 3	1501-240	STFA 12	K11820	16 Mo 3	15 D3	16 Mo 3 KW	2912	–	–	1.5415	–
A 350-LF 5	10 Ni 14	503	SL 3 N 26	K31718	12 Ni 14	12Ni14	18 Ni 14 KT	–	–	–	1.5637	–
A 387 Gr. 12 Cl. 2	16 CrMo 4 4	–	–	K11564	–	–	A 18 CrMo 4 5 KW	–	–	–	1.7337	–
A 570 Gr. 36	St 37-3	4360-40 C	–	K01501	S 235 J2 G3	Fe 360 D1(2); E 24-3	Fe 360 D1(2)	1312	–	–	1.0116	–
A 570 Gr. 40	St 44-2	4360-43 B	SM 41 B	K 02502	S 275 JR	E 28-2	Fe 430 BFN	1412	–	–	1.0044	–
A 570 Gr. 50	St 50-2	4360-50 B	SS 50	–	E 295	A 50-2	Fe 490	2172	–	–	1.0050	–
A 573 Gr. 70	St 44-3	4360-43 C	SM 41 B	–	Fe 430 D1(2); S 275 J2 G3 (4)	Fe 430 D1(2); E 28-4	Fe 430 D FF	1414	–	–	1.0144	–
A 633 Gr. C	St E 355	P 355 N	SM 50 YB	K12000	P 355 N	E 355 R/FP	Fe E 355 KG	2132	–	–	1.0562	–
A 633 Gr. E	St E 420	S 420 N	SM 50 C	K02002	FeE 420 KGN	E 420-I	Fe E 420 KG	2143	–	–	1.8902	–
A 633 Gr. E	St E 460	P 460 N	SM 53 B	K02900	P 460 N	E 460-I	Fe E 460 KG	2143	–	–	1.8905	–
A-6	C 67 W	–	–	T30106	–	Y1 70	–	–	–	–	1.1744	–
E 52100	100 Cr 6	535 A 99	SUJ 2	G52986	100 Cr 6	100 C 6	100 Cr 6	2258	–	–	1.3505	–
O 2	90 MnCrV 8	BO 2	–	T31502	90 Mn V 8	90 MV 8	90 MnCrV 8 KU	–	–	–	1.2842	–
P21	90 Cr 3	–	–	T51621	–	–	–	–	–	–	1.2056	–
P3	10 NC 6	–	–	T51603	15 NiCr 6	10 NC 6	–	–	–	–	1.5713	–
P6	15 NiCr 14	–	SNC 22	T51606	–	10 NC 12	–	–	–	–	1.2735	–
T 8	C 80 W2	BW 1B	SKC 3	T12008	–	Y1 80	C 80 KU	–	–	–	1.1625	–
W 108	C 80 W1	–	–	T72301	C 80 U	Y1 90	C 80 KU	1880	–	–	1.1525	–
W 110	C 105 W1	B W 1 A	–	T72301	C 105 U	Y 105	C 100 KU	1880	–	–	1.1545	–
W 112	C 125 W	–	–	C 125 U	–	–	–	–	–	–	1.1563	–
W 112	C 125 W	–	SK 2	T72301	C 120 U	Y2 120	C 120 KU	–	–	–	1.1663	–
W 210	100 V 1	BW 2	SKS 43	T72302	100 V 2	Y1 105 V	102 V 2 KU	–	–	–	1.2833	–
–	St 50-1	–	–	–	–	–	–	–	–	–	1.0052	–
–	S 235 JO/ Fe 360 C	En 40C	–	–	S 235 JO	E24-3	Fe 360 CFN	–	–	–	1.0114	–
–	QSt 37-3	–	SWRCH 12R	–	–	–	–	–	–	–	1.0123	–
–	S 275 JO	En43C; S275JO	–	–	S 275 JO/ Fe 430 C	S 275 JO; E 28-3	S275JO; Fe430CFN	–	–	–	1.0143	–
–	S 275 J2 G4/ Fe 430 D 2	S 275 J2 G4	–	–	S 275 J2 G4	E28-4; S 275 J2 G4	S 275 J2 G4	1414	–	–	1.0145	–
–	Ro St 44-2	43C	–	–	S 275 JO H	–	S 275 JO H	–	–	–	1.0149	–
–	St 37.0	–	STPG 38	–	P 235 T1	–	–	–	–	–	1.0254	–
–	C9D	–	SWRM 8	–	C 9 D	FM 9	C 9 D	–	–	–	1.0304	–
–	C7D	C 7 D	SWRM 8	G10060	C 7 D	FM 8	C 7 D	–	–	–	1.0313	–
–	P235 GH	P 235 GH	SPV 50	K02503	P 235 GH	A 37 CP	Fe E 235	1330	–	–	1.0345	–
–	C 25 Pb	–	–	–	C 25 GPb	–	–	–	–	–	1.0411	–
–	L 245 MB	430	–	K03006	L 245 MB	L 245 MB	–	–	–	–	1.0418	–
–	P310 NB	224-410	SG 325	K02100	P280GH	BS 2	P 275 N	2103	–	–	1.0426	–
–	L 290 MB	–	–	–	L290MB	L 290 MB	–	–	–	–	1.0429	–
–	H III/P285NH	–	Sm 38	–	P 285 NH	–	–	–	–	–	1.0435	–
–	P310 NB	224-430	SG 325	K02100	P305GH	P 275 N	P 275 N	2103	–	–	1.0436	–
–	A St 41	P 275 N	STK 400	K02100	S 275 N	BS 3	P 275 N	2103	–	–	1.0437	–
–	B 500 A	–	SD 490	–	B 500 A	–	B 500 A	–	–	–	1.0438	–
–	H IV/P295NH	–	SG 37	K03102	–	–	Fe 460-2 KW	–	–	–	1.0445	–
–	SIE 240.7	–	–	–	L 245 NB	L 245 NB	–	–	–	–	1.0457	–
–	TSIE 255	–	–	K11535	–	–	–	–	–	–	1.0463	–
–	15 Mn 3 Al	–	–	–	C 14 GAI	–	–	–	–	–	1.0468	–
–	19 Mn 6/P 355 GH	P 355 GH	SGV 46	K03300	P355GH	A 52 CP	Fe E355-2	2101	–	–	1.0473	–
–	17 Mn 4/P 295 GH	224-460B	SG 37	K03501	P 295 GH	A 48 CP	Fe E 295	2102	–	–	1.0481	–
–	19 Mn 5	224-460	SG 37	K 03102	–	A 52 CP; AP; FP	Fe 460-2 KW	–	–	–	1.0482	–
–	L 290 AG	–	–	–	L290GA	TS E 290	–	–	–	–	1.0483	–
–	L 290 NB	–	–	–	L290NB	L 290 NB	–	–	–	–	1.0484	–
–	21 Mn 6	–	–	K12320	–	–	–	–	–	–	1.0485	–
–	St E 285	P 275 N	SM 41 A	K 01802	P 275 N	P 275 N	Fe E 285 KG	–	–	–	1.0486	–
–	W St E 285	P 275 N	–	K 01802	P 275 NH	P 275 N	Fe E 285 KW	–	–	–	1.0487	–
–	T St E 285	P 275 NL 1	SLA 235 A	K 01803	P 275 NL 1	P 275 NL 1	Fe E 285 KT	–	–	–	1.0488	–
–	H 300/ZSt E 300	H280LA	–	–	H 280 LA	E 280 C	–	–	–	–	1.0489	–
–	S 275 NH	S 275 NH	–	–	S 275 NH	–	S 275 NH	–	–	–	1.0493	–
–	S 275 NLH	S275NLH	–	–	S 275 NLH	–	S275NLH	–	–	–	1.0497	–
–	C 35 Pb/C 35 GPb	–	–	–	C 35 Pb	–	–	–	–	–	1.0502	–
–	St E 315/P 315N	–	SM 50 A	K11506	P 315 N	–	Fe E 315 KG	–	–	–	1.0505	–
–	W St E 315	–	SNC 1	K02404	P 315 NH	–	Fe E 315 KW	2107	–	–	1.0506	–
–	St 55	–	STKM 16A	–	–	–	Fe 540	–	–	–	1.0507	–
–	T St E315	–	SLA 325 A	K02404	P 315 NL	–	–	2106	–	–	1.0508	–
–	C 40 Pb	–	–	–	C 40 G Pb	–	–	–	–	–	1.0512	–
–	C38D	–	SWRH 37	–	C 38 D	FM 38	C 38 D	–	–	–	1.0516	–
–	C48D	–	SWRH 48	–	C 48 D	FM 48	C 48 D	–	–	–	1.0517	–
–	C56D	–	–	–	C 56 D	FM 56	C 56 D	–	–	–	1.0518	–
–	S 355 NH	S 355 NH	–	–	S 355 NH	–	S 355 NH	–	–	–	1.0539	–
–	C42D	–	SWRH 42 B	–	C 42 D	FM 42	C 42 D	–	–	–	1.0541	–
–	S 355 JO H	50 C	–	–	S 355 JO H	–	S 355 JO H	–	–	–	1.0547	–
–	ZSIE 340/ H 340	H 320 L A	–	–	H 320 LA	E 315 C	–	–	–	–	1.0548	–
–	S 335 NLH	50 EE	–	–	S 355 N LH	–	S 355 N L H	–	–	–	1.0549	–
–	S 355 JO	En 50 C; S 355 JO	SM 520 M	–	S 355 JO	S 355 JO; E 36-3	S 355 JO; Fe 510 C FN	–	–	–	1.0553	–
–	GS-70	50 C	–	–	S 355 JO C	E 36-3	Fe 510 C	–	–	–	1.0554	–

P3
Workpiece Materials Listing • Steel • P3 (continued)
P3 Alloy Steels and Tool Steels
Content: C >.25%
Tensile Strength RM (MPa): 600–850*
Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	ZStE 420/H 420	46/40HR, HS, CS	–	–	H 400 LA	H 400 LA	–	–	–	–	1.0556	–
–	P355 NB	–	SG 365	–	P 355 NB	BS 4	–	–	–	–	1.0557	–
–	W St E 355	P 355 NH	–	K01600	P 355 NH	P 355 NH	Fe E 355 KW	–	–	–	1.0565	–
–	T St E355	P 355 NL1	SLA 37	–	P 355 NL1	P 355 NL1	Fe E 355 KT	–	–	–	1.0566	–
–	P355 QH1	P 355 QH	–	–	P 355 QH	P 355 QH	–	–	–	–	1.0571	–
–	S 355 J 2 G 4	S 355 J 2 G 4	–	–	S 355 J 2 G 4	S 355 J 2 G 4	S 355 J 2 G 4	–	–	–	1.0577	–
–	L 360 MB	–	–	–	L 360 MB	L 360 MB	–	–	–	–	1.0578	–
–	St 52.4	–	STS 49	–	–	–	–	–	–	–	1.0581	–
–	L 360 NB/STE 360.7	–	–	–	L360NB	L 360 NB	–	–	–	–	1.0582	–
–	S 355 J 2 G 3 Cu/St 52-3 Cu3	–	–	–	S 355 J2 G3 Cu + CR	–	–	–	–	–	1.0585	–
–	C50D	–	–	–	C 50 D	FM 50	C 50 D	–	–	–	1.0586	–
–	QSt 52-3 Cu 3	–	–	–	S 355 J2 G3 Cu C	–	–	–	–	–	1.0587	–
–	D 53-2	–	SWRH 52 B	–	C 52 D	FM 52	C 52 D	–	–	–	1.0588	–
–	S 355 J 2 G 4 Cu	–	–	–	S 355 J2 G4 Cu	–	–	–	–	–	1.0592	–
–	S355k2G3/Fe 510 DD1 (MULTIST)	S 355 K 2 G 3	SM 520 C	K02505	S 355 K 2 G 3	E36-4	S 355 K 2 G 3	–	–	–	1.0595	–
–	S355k2G4/Fe 510 DD 2 (MULTIST)	S 355 K 2 G 4	–	–	S 355 K 2 G 4	S 355 K 2 G 4	S 355 K 2 G 4	–	–	–	1.0596	–
–	C62D	–	SWRH 62 B	–	C 62 D	FM 62	C 62 D	–	–	–	1.0611	–
–	C66D	–	–	–	C 66 D	FM 66	C 66 D	–	–	–	1.0612	–
–	C68D	–	SWRH 67 B	–	C 68 D	FM 68	C 68 D	–	–	–	1.0613	–
–	C70D	–	–	–	C 70 D	FM 70	C 70 D	–	–	–	1.0615	–
–	C72D	–	SWRH 72 B	–	C 72 D	FM 72	C 72 D	–	–	–	1.0617	–
–	GS-C 25	–	SCPH 1	–	GP 240 GH	GP 240 GH	GP 240 Gh	–	–	–	1.0619	–
–	C80D	–	–	–	C 80 D	FM 80	C 80 D	–	–	–	1.0622	–
–	C82D	–	SWRH 82 B	–	C 82 D	FM 82	C 82 D	–	–	–	1.0626	–
–	35 SPb 20	35 SPb 20	–	–	35 SPb 20	35 SPb 20	–	–	–	–	1.0756	–
–	45 SPb 20	–	–	–	46 SPb 20	–	–	–	–	–	1.0757	–
–	38 SMnPb 28	38 SMnPb 28	–	–	38 SMnPb 28	38 SMnPb 28	–	–	–	–	1.0761	–
–	44 SMn 28	44 SMn 28	–	–	44 SMn 28	44 SMn 28	–	–	–	–	1.0762	–
–	44 SMnPb 28	44 SMnPb 28	–	–	44 SMnPb 28	44 SMnPb 28	–	–	–	–	1.0763	–
–	36 SMnPb 14	36 SMnPb 14	–	–	36 SMnPb 14	36 SMnPb 14	–	–	–	–	1.0765	–
–	QSt E 690 TM (S 700 MC)	–	–	–	S 700 MC	S 690 MC	S 700 MC	–	–	–	1.0966	–
–	QSt E 260 N 7 S 260 NC	–	AE 275 NC	–	S 260 NC	–	S 260 NCX	–	–	–	1.0971	–
–	QSt E 300 TM/S 315 MC	43 F35 HR, HS, CS	–	–	S 315 MC	E 315 D	S 315 MC	–	–	–	1.0972	–
–	QSt E 300 N 7/S 315 NC	–	AE 340 NC	–	S 315 NC	–	S 315 NC	–	–	–	1.0973	–
–	QSt E340 TM	HR 40/30	–	–	S 340 MC	E 335 D	–	–	–	–	1.0974	–
–	QSt E340 N	–	–	–	S 340 NC	–	Fe E 355 TD	–	–	–	1.0975	–
–	QSt E 360TM	–	–	–	S 355 MC	E 355 D	Fe E 355 TM	–	–	–	1.0976	–
–	QSt E360 N	–	–	–	S 355 NC	–	Fe E 355 TD	–	–	–	1.0977	–
–	QSt E380 TM	–	–	–	S 380 MC	E 390 D	–	–	–	–	1.0978	–
–	QSt E380 N	–	–	–	S 380 NC	–	Fe E 380 TD	–	–	–	1.0979	–
–	QSt E420 TM	HR 50 F 45	–	–	S 420 MC	E 430 D	Fe E 420 TM	–	–	–	1.0980	–
–	QSt E 420 N	–	–	–	S 420 NC	–	Fe E 420 TD	–	–	–	1.0981	–
–	QSt E 460 TM	50/45 HR	–	–	S 460 MC	E 445 D	–	–	–	–	1.0982	–
–	QSt E 460 N	–	–	–	S 460 NC	–	Fe E 460 TD	–	–	–	1.0983	–
–	QSt E500 TM	–	–	–	S 500 MC	E 490 D	Fe E 490 TM	2662	–	–	1.0984	–
–	QSt E500 N	–	–	–	S 500 NC	–	–	–	–	–	1.0985	–
–	QSt E550 TM	60/55 HS	–	–	S 550 MC	E 560 D	Fe E 560 TM	–	–	–	1.0986	–
–	QSt E550 N	–	–	–	S 550 NC	–	–	–	–	–	1.0987	–
–	ESiE 285	P 275 NL 2	STK 400	–	P 275 NL 2	P 275 NL 2	P 275 NL 2	–	–	–	1.1104	–
–	ESiE 315	–	–	–	S 315 NL 1	–	–	–	–	–	1.1105	–
–	ESiE 355	P 355 NL 2	STK 500	–	P 355 NL 2	P 355 NL 2	P 355 NL 2	–	–	–	1.1106	–
–	C5D2	–	–	–	C 5 D 2	FM 6	C 5 D 2	–	–	–	1.1111	–
–	C8D2	–	–	–	C 8 D 2	FM 8	C 8 D 2	–	–	–	1.1113	–
–	C 10 E W/RSD 11	–	–	–	C 10 EW	–	–	–	–	–	1.1115	–
–	C32D2	–	–	–	C 32 D 2	FM 32	C 32 D 2	–	–	–	1.1143	–
–	C36D2	–	–	–	C 36 D 2	FM 36	C 36 D 2	–	–	–	1.1145	–
–	C40D2	–	–	–	C 40 D 2	FM 40	C 40 D 2	–	–	–	1.1153	–
–	C42D2	–	–	–	C 42 D 2	FM 42	C 42 D 2	–	–	–	1.1154	–
–	C46D2	–	–	–	C 46 D 2	FM 46	C46D 2	–	–	–	1.1162	–
–	C 25 R	C 25 R	–	–	C 25 R	C 25 R	C 25 R	–	–	–	1.1163	–
–	C48D2	–	–	–	C 48 D 2	FM 48	C48 D 2	–	–	–	1.1164	–
–	20 Mn 6	150 M 19	–	–	–	20 M 5	20 Mn 6	–	–	–	1.1169	–
–	C50D2	–	–	–	C 50 D 2	FM 50	C50D 2	–	–	–	1.1171	–
–	C 30 R	C 30 R	C 30 R (3 C 30)	–	C 30 R	C 30 R	C 30 R	–	–	–	1.1179	–
–	C3D1	–	–	–	C 3 D 1	–	C 3 D 1	–	–	–	1.1187	–
–	C40R/Cm 40	C 40 R	–	–	C 40 R	C 40 R	C 40	–	–	–	1.1189	–
–	Ck 45	080 M 46	S 45 C	–	2 C 45	XC 42	C 40	1672	–	–	1.1191	–
–	Cq 45	–	SWRCH45K	–	C 45 KD	–	–	–	–	–	1.1192	–
–	C 45 R	080 M 46	S 50 C	–	C 45 R	XC 48 Htu	C 45 R	1672	–	–	1.1201	–
–	C52D2	–	–	–	C 52 D 2	FM 52	C 52 D 2	–	–	–	1.1202	–
–	C 53 R/Cm 53	–	–	–	C 53 R	–	–	–	–	–	1.1205	–
–	C 10 R	C 10 R	–	–	C 10 R	C 10 R	–	–	–	–	1.1207	–
–	C 16 R	C 16 R	–	–	C 16 R	C 16 R	–	–	–	–	1.1208	–
–	C58D2	–	–	–	C 58 D 2	FM 58	C 58 D 2	–	–	–	1.1212	–
–	C62D2	–	–	–	C 62 D 2	FM 62	C 62 D 2	–	–	–	1.1222	–
–	Cm 60	C 60 R	–	–	3 C 60	C 60 R	C 60 R	–	–	–	1.1223	–
–	C60D2	–	–	–	C 60 D 2	FM 60	C 60 D 2	–	–	–	1.1228	–
–	C68D2	–	–	–	C 68 D 2	FM 68	C 68 D 2	–	–	–	1.1232	–
–	C66D2	–	–	–	C 66 D 2	FM 66	C 66 D 2	–	–	–	1.1236	–
–	C50R	C 50 R	–	–	C 50 R	FM 50	C 50 R	–	–	–	1.1241	–
–	C72D2	–	–	–	C 72 D 2	FM 72	C 72 D 2	–	–	–	1.1242	–
–	C70D2	–	–	–	C 70 D 2	FM 70	C 70 D 2	–	–	–	1.1251	–
–	C78D2	–	–	–	C 78 D 2	FM 78	C 78 D 2	–	–	–	1.1252	–
–	C76D2	–	–	–	C 76 D 2	FM 76	C 76 D 2	–	–	–	1.1253	–
–	C80D2	–	–	–	C 80 D 2	FM 80	C 80 D 2	–	–	–	1.1255	–

NOTE: For legend, see page Y237.

(continued)

P3

Workpiece Materials Listing • Steel • P3 (continued)

P3 Alloy Steels and Tool Steels

Content: C >.25%

Tensile Strength RM (MPa)*: 600–850

Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	C82D2	-	-	-	C 82 D 2	FM 82	C 82 D 2	-	-	-	1.1262	-
-	C86D2	-	-	-	C 86 D 2	FM 86	C 86 D 2	-	-	-	1.1265	-
-	C88D2	-	-	-	C 88 D 2	-	C 88 D 2	-	-	-	1.1272	-
-	C92D2	-	-	-	C 92 D 2	-	C 92 D 2	-	-	-	1.1282	-
-	C98D2	-	-	-	C 98 D 2	-	C 98 D 2	-	-	-	1.1283	-
-	46 MnVS 6	-	-	-	46 MnVS 6	-	-	-	-	-	1.1304	-
-	C 90 U	-	-	-	C90U	-	-	-	-	-	1.1535	-
-	85 Cr 1	-	-	-	-	Y1 100 C 2	-	-	-	-	1.2004	-
-	140 Cr 3	-	-	-	140 Cr 2	Y2 140 C	-	-	-	-	1.2008	-
-	21 MnCr 5	-	SKS 8	-	21 MnCr 5	20 NC 5	-	-	-	-	1.2162	-
-	40 CrMnNiMo 8 6 4	-	SCR 420 H	-	40 CrMnNiMo 8-6-4	-	-	-	-	-	1.2738	-
-	16 CrNiMo 6	820A16	-	-	-	16 NCD 6	16NiCrMo6	-	-	-	1.3531	-
-	100 CrMn 7 3	-	-	-	100 CrMnMo 7	100 CD 7	-	-	-	-	1.3536	-
-	100 CrMo 7	-	SUS 4	K19965	100 CrMo 7	100 CD 7	100CrMo7	-	-	-	1.3537	-
-	100 CrMnMo 8	-	-	-	-	100 CrMnMo 8	-	-	-	-	1.3539	-
-	46 Si 7	-	-	-	45 Si	46 S 7	-	-	-	-	1.5024	-
-	55 Si 7	250 A 53	-	G92550	56 Si 7	55 S 7	55 Si 8	2085	-	-	1.5026	-
-	37 MnSi 5	-	-	-	-	38 MS 5	-	F.130.A	-	-	1.5122	-
-	15 MnMoV 4 5	-	-	-	15 MnMoV 4-5	15 MDV 4.05	-	-	-	-	1.5402	-
-	11 MnMo 4 5	-	-	-	K11123	11 MnMo 45 KE	-	-	-	-	1.5425	-
-	13 MnMo 6 5	-	-	-	K11424	11 MnMo 65 KE	-	-	-	-	1.5426	-
-	35 B 2	-	SWRCHB 237	-	C 35 B	35 B 3	-	-	-	-	1.5511	-
-	24 Ni 8	-	SCPL 21	J22501	G 9 Ni 10	22 N 8	G9Ni10	-	-	-	1.5633	-
-	10 NiCr 5 4	10NiCr5-4	-	-	10 NiCr 5-4	10 NiCr 5-4	-	-	-	-	1.5805	-
-	18 MnMoNi 5 5	-	-	-	18 MnMoNi 5-5	-	-	-	-	-	1.6308	-
-	20 MnMoNi 4 5	-	SQV 2 B	K12539	20 MnMoNi 4-5	-	-	-	-	-	1.6311	-
-	15 MnCrMoNiV 5 3	-	-	-	15 MnCrMoNiV 5-3	-	-	-	-	-	1.6920	-
-	17 CrS 3	17 CrS3	-	-	17 CrS 3	17 CrS 3	-	-	-	-	1.7014	-
-	28 CrS 4	-	-	-	28CrS4	28CrS4	-	-	-	-	1.7036	-
-	34 CrS 4	34 CrS 4	-	-	34 CrS 4	34 CrS 4	34 CrS 4	-	-	-	1.7037	-
-	41 CrS 4	41 CrS 4	-	-	41 CrS 4	41 CrS 4	41 CrS 4	2245	-	-	1.7039	-
-	38 Cr 4	-	-	-	38 Cr 4	-	-	-	-	-	1.7043	-
-	16 CrMo 4	18 CrMo4	SCM 418 H	-	18 CrMo 4	15 CD 3.5	18 CrMo 4	-	-	-	1.7242	-
-	12 CrMo 11 10	-	-	-	-	-	-	-	-	-	1.7305	-
-	22 CrMoS 3 5	-	-	-	22 CrMoS 3-5	22 CrMoS 3-5	-	-	-	-	1.7333	-
-	12 CrMo 19 5	3606-625	SCMV 6	K41545	X 12 CrMo 5	2 10 CD 5.05	16 CrMo 20 5	-	-	-	1.7362	-
-	X 7 CrMo 6 1	B 5	-	S50281	CM 5-IG	-	-	-	-	-	1.7373	-
-	51 CrMoV 4	-	-	-	51 CrMoV 4	51 CDV 4	51 CrMoV 4	-	-	-	1.7701	-
-	21 CrMoV 5 7	-	-	K14073	21 CrMoV 5-7	20 CDV 5.07	-	-	-	-	1.7709	-
-	20 CrMoVTiB 4 10	-	-	-	20 CrMoVTiB 4-10	20 CrMoVTiB 4-10	-	-	-	-	1.7729	-
-	PS 275 TMK	S 275 ML	-	-	S 275 ML	S 275 ML	S 275 ML	-	-	-	1.8819	-
-	S 500 M	-	-	-	S 500 m	-	-	-	-	-	1.8829	-
-	BTSIE 460 TM	S 460 ML	-	-	S 460 ML	E 460	S 460 ML	-	-	-	1.8838	-
-	S 500 ML	-	-	-	S 500 ML	-	-	-	-	-	1.8839	-
-	S 275 MH	-	-	-	S 275 MH	-	S 275 MH	-	-	-	1.8843	-
-	S 275 MLH	-	-	-	S 275 MLH	-	S 275 MLH	-	-	-	1.8844	-
-	S 355 MH	-	-	-	S 355 MH	-	S 355 MH	-	-	-	1.8845	-
-	S 355 MLH	-	-	-	S 355 MLH	-	S 355 MLH	-	-	-	1.8846	-
-	S 420 MH	-	-	-	S 420 MH	-	S 420 MH	-	-	-	1.8847	-
-	S 420 MLH	-	-	-	S 420 MLH	-	S 420 MLH	-	-	-	1.8848	-
-	S 460 MH	-	-	-	S 460 MH	-	S 460 MH	-	-	-	1.8849	-
-	SIE 460	S 460 N	-	-	S 460 N	E 460	S 460 N	-	-	-	1.8901	-
-	TSIE 460	S 460 L	-	-	S 460 NL	E460	S 460 NL	-	-	-	1.8903	-
-	S 550 Q	-	-	-	S 550 Q	E 550	S 550 Q	-	-	-	1.8904	-
-	S 460 Q	55 F	-	-	S 460 Q	E 460	S 460 Q	-	-	-	1.8908	-
-	S 420 NL/TSIE 420	S 420 NL	STK 540	K02002	S 420 NL	E 420 T-I	Fe E 420 KT	-	-	-	1.8912	-
-	S 620 Q	-	-	-	S 620 Q	E 620	S 620 Q	-	-	-	1.8914	-
-	T St E 460/P460NL1	P 460 NL 1	-	K02900	P 460 NL1	E 460 T-I	Fe E 460 KT	-	-	-	1.8915	-
-	S 460 QL1	55 F	-	-	S 460 QL 1	-	-	-	-	-	1.8916	-
-	T St E 500	-	-	K02001	-	E 500 T-I	-	-	-	-	1.8917	-
-	ESIE 460/P460NI2	P 460 NL 2	-	-	P 460 NL 2	P 460 NL 2	P 460 NL 2	-	-	-	1.8918	-
-	ESIE 500/S500NL1	-	-	-	S 500 NL 1	-	-	-	-	-	1.8919	-
-	TSIE 690 VA/S690G1QL	-	-	-	S 690 G 1 QL	-	-	-	-	-	1.8920	-
-	TSIE 690 VB/S690G2QL	-	-	-	S 690 G 2 QL	-	-	-	-	-	1.8921	-
-	S 690 G 4 QL/TSIE 690 VC	-	-	-	S 690 G 4 QL	-	-	-	-	-	1.8922	-
-	S 590 QL/TSIE 590 V	-	-	-	S 590 QL	-	-	-	-	-	1.8923	-
-	S 500 Q (SIE 500 V)	-	-	-	S 500 Q	E 500	S 500 Q	2614	-	-	1.8924	-
-	S 890 QL 1 (ESIE 90 V)	-	-	-	S 890 QL 1	-	-	-	-	-	1.8925	-
-	S 690 QL (TSIE 690 V)	-	-	-	S 690 QL	-	-	-	-	-	1.8928	-
-	S 690 Q/SIE 690 V	-	SHY 685 NS	-	S 690 Q	E 690	S 690 Q	-	-	-	1.8931	-
-	WSt E 420/P420NH	S 420 NL	STK 540	K02002	S 420 NL	S 420 NL	Fe E 420 KW	-	-	-	1.8932	-
-	S 960 QL/TSIE 960 V	-	-	-	S 960 QL	-	-	-	-	-	1.8933	-
-	WSt E 460/P460NH	P 460 NH	-	K02900	P 460 NH	P 460 NH	Fe E 460 KW	-	-	-	1.8935	-
-	S 960 Q	-	-	-	S 960 Q	E 960 T-II	S 960 Q	-	-	-	1.8941	-
-	S 355 J 0 WP	WR 50 A	-	-	S 355 JO WP	E 36 W-A3	S 355 JO WP	-	-	-	1.8945	-
-	S 355 J 2 WP	S 355 J 2 WP	-	-	S 355 J2 WP	E36W-A4	S 355 J2 WP	-	-	-	1.8946	-
-	L 415 QB	-	-	-	L 415 QB	L 415 QB	-	-	-	-	1.8947	-
-	L 360 QB	-	-	-	L 360 QB	L 360 QB	-	-	-	-	1.8948	-
-	L 450 QB	-	-	-	L 450 QB	L 450 QB	-	-	-	-	1.8952	-
-	S 460 NH (FGS 47)	-	-	-	S 460 NH	-	S 460 NH	-	-	-	1.8953	-
-	L 485 QB	-	-	-	L 485 QB	L 485 QB	-	-	-	-	1.8955	-
-	S 460 NLH/FG S 47	-	-	-	S 460 NLH	-	S460NLH	-	-	-	1.8956	-
-	L 555 QB	-	-	-	L 555 QB	L 555 QB	-	-	-	-	1.8957	-
-	9 CrNiCuP 3 2 4	WR 50 A	SPA-H	K11430	-	-	-	-	-	-	1.8962	-
-	WTSI 52-3	WR 50 C	SMA 58 W	K11430	S 355 J 2 G 1 W	E 36 W-A2	-	-	-	-	1.8963	-
-	S 355 J 2 G 2 W	S 355 J 2 G 2 W	-	-	S 355 J 2 G 2 W	S 355 J 2 G 2 W	S 355 J 2 G 2 W	-	-	-	1.8965	-

(continued)

P3
Workpiece Materials Listing • Steel • P3 (continued)
P3 Alloy Steels and Tool Steels
Content: C >.25%
Tensile Strength RM (MPa): 600–850*
Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	S 355 K 2 G 1 W	S 355 K 2 G 1 W	SMA 490 CW	–	S 355 K 2 G 1 W	S 355 K 2 G 1 W	S 355 K 2 G 1 W	–	–	–	1.8966	–
–	S 355 K 2 G 2 W	S 355 K 2 G 2 W	–	–	S 355 K 2 G 2 W	S 355 K 2 G 2 W	S 355 K 2 G 2 W	–	–	–	1.8967	–
–	QStE 600 TM/S 600 MC	–	–	–	S 600 MC	E 620 D	S 600 MC	–	–	–	1.8969	–
–	SfE 415.7/L 415 NB	–	–	–	L 415 NB	L 415 NB	–	–	–	–	1.8972	–
–	SfE 415.7 TM/L 415 MB	–	–	–	L 415 MB	L 415 MB	–	–	–	–	1.8973	–
–	S 700 MC (QStE 690 TM)	–	–	–	S 700 MC	E 690 D	S 700 MC	–	–	–	1.8974	–
–	L 450 MB/SfE 445.7 TM	–	–	–	L 450 MB	L 450 MB	–	–	–	–	1.8975	–
–	S 650 MC (QStE 650 TM)	–	–	–	S 650 MC	E 620 D	S 650 MC	–	–	–	1.8976	–
–	L 485 MB/SfE 480.7 TM	–	–	–	L 485 MB	L 485 MB	–	–	–	–	1.8977	–
–	SfE 550.7 TM/L 555 MB	–	–	–	L 555 MB	L 555 MB	–	–	–	–	1.8978	–
–	St 60-2	4360-55 E	SM 58	–	E 335	A 60-2	Fe 60-2	1650	–	–	1.0060	–
–	St 70-2	E 360	–	–	E 360	A 70-2	Fe 70-2	1655	–	–	1.0070	–
–	C 4D	–	–	–	C 4 D	FM 5	C 4 D	–	–	–	1.0300	–
–	C 22 B	–	–	–	P 250 GH	–	–	–	–	–	1.0460	–
–	H 260/ZSt E 260	H 240 LA	–	–	H 240 LA	E 240 C	–	–	–	–	1.0480	–
–	C 32D	–	SWRH 32	K02701	C 32 D	FM 32	C 32 D	–	–	–	1.0530	–
–	ZStE 380/H 380	H 360 L A	–	–	H 360 LA	E 355 C	–	–	–	–	1.0550	–
–	C 60D	–	–	–	C 60 D	FM 60	C 60 D	–	–	–	1.0610	–
–	38 SMn 28	38 SMn 28	–	–	38 SMn 28	38 SMn 28	–	–	–	–	1.0760	–
–	QSt E 260 TM/S 260 MC	–	–	–	S 260 MC	41 S 7	Fe E 275 TM	–	–	–	1.0970	–
–	C 3D2	–	–	–	C 3 D 2	FM 5	C 3 D 2	–	–	–	1.1110	–
–	C 38D2	–	–	–	C 38 D 2	FM 38	C 38 D 2	–	–	–	1.1150	–
–	C 42 E AI/Ck 42 AI	–	–	–	S 355 G15	–	–	–	–	–	1.1190	–
–	C 56D2/D 55-2	–	–	–	C 56 D 2	FM 56	C 56 D 2	–	–	–	1.1220	–
–	C 70 W1	–	–	–	CT 70	C 70 E 2 U	C 70 K U	–	–	–	1.1520	–
–	C 45 W	–	–	–	C 45 U	Y3 42	–	–	–	–	1.1730	–
–	C 60 W	–	SK 7	–	–	Y3 55	–	–	–	–	1.1740	–
–	100 CrMn 6	–	–	K19195	100 CrMn 6	100 CM 6	–	–	–	–	1.3520	–
–	28 B 2	–	SWRCHB 26	–	C 30 B	20 B 3	–	–	–	–	1.5510	–
–	St E 380	–	SM 50 B	–	S 380 N	–	Fe E 390 KG	–	–	–	1.8900	–
–	TSfE 380/S380NL	–	–	–	S 380 NL	–	Fe E 390 KT	2117	–	–	1.8910	–
–	S 890 Q	–	–	–	S 890 Q	S 890 Q	–	–	–	–	1.8940	–
–	46 Si 7	–	–	–	45 Si	46 S 7	–	–	–	–	1.5024	–
–	55 Si 7	250 A 53	–	G92550	56 Si 7	55 S 7	55 Si 8	2085	–	–	1.5026	–
–	37 MnSi 5	–	–	–	–	38 MS 5	–	F.130.A	–	–	1.5122	–
–	15 MnMoV 4 5	–	–	–	15 MnMoV 4-5	15 MDV 4.05	–	–	–	–	1.5402	–
–	11 MnMo 4 5	–	–	K11123	11 MnMo 45 KE	–	–	–	–	–	1.5425	–
–	13 MnMo 6 5	–	–	K11424	11 MnMo 65 KE	–	–	–	–	–	1.5426	–
–	35 B 2	–	SWRCHB 237	–	C 35 B	35 B 3	–	–	–	–	1.5511	–
–	24 Ni 8	–	SCPL 21	J22501	G 9 Ni 10	22 N 8	G9Ni10	–	–	–	1.5633	–
–	10 NiCr 5 4	10NiCr5-4	–	–	10 NiCr 5-4	10 NiCr 5-4	–	–	–	–	1.5805	–
–	18 MnMoNi 5 5	–	–	–	18 MnMoNi 5-5	–	–	–	–	–	1.6308	–
–	20 MnMoNi 4 5	–	SQV 2 B	K12539	20 MnMoNi 4-5	–	–	–	–	–	1.6311	–
–	15 MnCrMoNiV 5 3	–	–	–	15 MnCrMoNiV 5-3	–	–	–	–	–	1.6920	–
–	17 CrS 3	17 CrS3	–	–	17 CrS 3	17 CrS 3	–	–	–	–	1.7014	–
–	28 CrS 4	–	–	–	28CrS4	28CrS4	–	–	–	–	1.7036	–
–	34 CrS 4	34 CrS 4	–	–	34 CrS 4	34 CrS 4	34 CrS 4	–	–	–	1.7037	–
–	41 CrS 4	41 CrS 4	–	–	41 CrS 4	41 CrS 4	41 CrS 4	2245	–	–	1.7039	–
–	38 Cr 4	–	–	–	38 Cr 4	–	38 Cr 4	–	–	–	1.7043	–
–	16 CrMo 4	18 CrMo4	SCM 418 H	–	18 CrMo 4	15 CD 3.5	18 CrMo 4	–	–	–	1.7242	–
–	12 CrMo 11 10	–	–	–	–	–	–	–	–	–	1.7305	–
–	22 CrMoS 3 5	–	–	–	22 CrMoS 3-5	22 CrMoS 3-5	–	–	–	–	1.7333	–
–	12 CrMo 19 5	3606-625	SCMV 6	K41545	X 12 CrMo 5	Z 10 GD 5.05	16 CrMo 20 5	–	–	–	1.7362	–
–	X 7 CrMo 6 1	B 5	–	S50281	CM 5-IG	–	–	–	–	–	1.7373	–
–	51 CrMoV 4	–	–	–	51 CrMoV 4	51 CDV 4	51 CrMoV 4	–	–	–	1.7701	–
–	21 CrMoV 5 7	–	–	K14073	21 CrMoV 5-7	20 CDV 5.07	–	–	–	–	1.7709	–
–	20 CrMoVTiB 4 10	–	–	–	20 CrMoVTiB 4-10	20 CrMoVTiB 4-10	–	–	–	–	1.7729	–
–	PS 275 TMK	S 275 ML	–	–	S 275 ML	S 275 ML	S 275 ML	–	–	–	1.8819	–
–	S 500 M	–	–	–	S 500 m	–	–	–	–	–	1.8829	–
–	BTSfE 460 TM	S 460 ML	–	–	S 460 ML	E 460	S 460 ML	–	–	–	1.8838	–
–	S 500 ML	–	–	–	S 500 ML	–	–	–	–	–	1.8839	–
–	S 275 MH	–	–	–	S 275 MH	–	S 275 MH	–	–	–	1.8843	–
–	S 275 MLH	–	–	–	S 275 MLH	–	S 275 MLH	–	–	–	1.8844	–
–	S 355 MH	–	–	–	S 355 MH	–	S 355 MH	–	–	–	1.8845	–
–	S 355 MLH	–	–	–	S 355 MLH	–	S 355 MLH	–	–	–	1.8846	–
–	S 420 MH	–	–	–	S 420 MH	–	S 420 MH	–	–	–	1.8847	–
–	S 420 MLH	–	–	–	S 420 MLH	–	S 420 MLH	–	–	–	1.8848	–
–	S 460 MH	–	–	–	S 460 MH	–	S 460 MH	–	–	–	1.8849	–
–	SfE 460	S 460 N	–	–	S 460 N	E 460	S 460N	–	–	–	1.8901	–
–	TSfE 460	S 460 L	–	–	S 460 NL	E460	S 460 NL	–	–	–	1.8903	–
–	S 550 Q	–	–	–	S 550 Q	E 550	S 550 Q	–	–	–	1.8904	–
–	S 460 Q	55 F	–	–	S 460 Q	E 460	S 460 Q	–	–	–	1.8908	–
–	S 420 NL/TSfE 420	S 420 NL	STK 540	K02002	S 420 NL	E 420 T-I	Fe E 420 KT	–	–	–	1.8912	–
–	S 620 Q	–	–	–	S 620 Q	E 620	S 620 Q	–	–	–	1.8914	–
–	T St E 460/P460NL1	P 460 NL 1	–	K02900	P 460 NL 1	E 460 T-I	Fe E 460 KT	–	–	–	1.8915	–
–	S 460 QL 1	55 F	–	–	S 460 QL 1	–	–	–	–	–	1.8916	–
–	T St E 500	–	–	K02001	–	E 500 T-I	–	–	–	–	1.8917	–
–	ESfE 460/P460Ni2	P 460 NL 2	–	–	P 460 NL 2	P 460 NL 2	P 460 NL 2	–	–	–	1.8918	–
–	ESfE 500/S500NL1	–	–	–	S 500 NL 1	–	–	–	–	–	1.8919	–
–	TSfE 690 VA/S690G1QL	–	–	–	S 690 G 1 QL	–	–	–	–	–	1.8920	–
–	TSfE 690 VB/S690G2QL	–	–	K11646	S 690 G 2 QL	–	–	–	–	–	1.8921	–
–	S 690 G 4 QL/TSfE 690 VC	–	–	–	S 690 G 4 QL	–	–	–	–	–	1.8922	–
–	S 590 QL/TSfE 590 V	–	–	–	S 590 QL	–	–	–	–	–	1.8923	–
–	S 500 Q (SfE 500 V)	–	–	–	S 500 Q	E 500	S 500 Q	2614	–	–	1.8924	–
–	S 890 QL 1 (ESfE 90 V)	–	–	–	S 890 QL 1	–	–	–	–	–	1.8925	–
–	S 690 QL (TSfE 690 V)	–	SHY 685 NS	–	S 690 QL	–	–	–	–	–	1.8928	–
–	S 690 Q/SfE 690 V	–	SHY 685 N	–	S 690 Q	E 690	S 690 Q	–	–	–	1.8931	–

NOTE: For legend, see page Y237.

(continued)

P3

Workpiece Materials Listing • Steel • P3 (continued)

P3 Alloy Steels and Tool Steels

Content: C >.25%

Tensile Strength RM (MPa)*: 600–850

Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	WSt E 420/P420NH	S 420 NL	STK 540	K02002	S 420 NL	S 420 NL	Fe E 420 KW	-	-	-	1.8932	-
-	S 960 QL/TSIE 960 V	-	-	-	S 960 QL	-	-	-	-	-	1.8933	-
-	WSt E 460/P460NH	P 460 NH	-	K02900	P 460 NH	P 460 NH	Fe E 460 KW	-	-	-	1.8935	-
-	S 960 Q	-	-	-	S 960 Q	E 960 T-II	S 960 Q	-	-	-	1.8941	-
-	S 355 J 0 WP	WR 50 A	-	-	S 355 J0 WP	E 36 W-A3	S 355 J0 WP	-	-	-	1.8945	-
-	S 355 J 2 WP	S 355 J 2 WP	-	-	S 355 J2 WP	E36W-A4	S 355 J2 WP	-	-	-	1.8946	-
-	L 415 OB	-	-	-	L 415 OB	L 415 OB	-	-	-	-	1.8947	-
-	L 360 OB	-	-	-	L 360 OB	L 360 OB	-	-	-	-	1.8948	-
-	L 450 OB	-	-	-	L 450 OB	L 450 OB	-	-	-	-	1.8952	-
-	S 460 NH (FGS 47)	-	-	-	S 460 NH	-	S 460 NH	-	-	-	1.8953	-
-	L 485 OB	-	-	-	L 485 OB	L 485 OB	-	-	-	-	1.8955	-
-	S 460 NLH/FG S 47	-	-	-	S 460 NLH	-	S460NLH	-	-	-	1.8956	-
-	L 555 OB	-	-	-	L 555 OB	L 555 OB	-	-	-	-	1.8957	-
-	9 CrNiCuP 3 2 4	WR 50 A	SPA-H	K11430	-	-	-	-	-	-	1.8962	-
-	WTSt 52-3	WR 50 C	SMA 58 W	K11430	S 355 J 2 G 1 W	E 36 W-A2	-	-	-	-	1.8963	-
-	S 355 J 2 G 2 W	S 355 J 2 G 2 W	-	-	S 355 J 2 G 2 W	S 355 J 2 G 2 W	S 355 J 2 G 2 W	-	-	-	1.8965	-
-	S 355 K 2 G 1 W	S 355 K 2 G 1 W	SMA 490 CW	-	S 355 K2 G1 W	S 355 K2 G1 W	S 355 K 2 G 1 W	-	-	-	1.8966	-
-	S 355 K 2 G 2 W	S 355 K 2 G 2 W	-	-	S 355 K2G2W	S 355 K 2 G 2 W	S 355 K 2 G 2 W	-	-	-	1.8967	-
-	QStE 600 TM/S 600 MC	-	-	-	S 600 MC	E 620 D	S 600 MC	-	-	-	1.8969	-
-	SIE 415.7/L 415 NB	-	-	-	L 415 NB	L 415 NB	-	-	-	-	1.8972	-
-	SIE 415.7 TML 415 MB	-	-	-	L 415 MB	L 415 MB	-	-	-	-	1.8973	-
-	S 700 MC (QStE 690 TM)	-	-	-	S 700 MC	E 690 D	S 700 MC	-	-	-	1.8974	-
-	L 450 MB/SIE 445.7 TM	-	-	-	L 450 MB	L 450 MB	-	-	-	-	1.8975	-
-	S 650 MC (QStE 650 TM)	-	-	-	S 650 MC	E 620 D	S 650 MC	-	-	-	1.8976	-
-	L 485 MB/SIE 480.7 TM	-	-	-	L 485 MB	L 485 MB	-	-	-	-	1.8977	-
-	SIE 550.7 TML 555 MB	-	-	-	L 555 MB	L 555 MB	-	-	-	-	1.8978	-
-	St 60-2	4360-55 E	SM 58	-	E 335	A 60-2	Fe 60-2	1650	-	-	1.0060	-
-	St 70-2	E 360	-	-	E 360	A 70-2	Fe 70-2	1655	-	-	1.0070	-
-	C 4 D	-	-	-	C 4 D	FM 5	C 4 D	-	-	-	1.0300	-
-	C 22 8	-	-	-	P 250 GH	-	-	-	-	-	1.0460	-
-	H 260/ZSt E 260	H 240 LA	-	-	H 240 LA	E 240 C	-	-	-	-	1.0480	-
-	C 32 D	-	SWRH 32	K02701	C 32 D	FM 32	C 32 D	-	-	-	1.0530	-
-	ZStE 380/H 380	H 360 L A	-	-	H 360 LA	E 355 C	-	-	-	-	1.0550	-
-	C 60 D	-	-	-	C 60 D	FM 60	C 60 D	-	-	-	1.0610	-
-	38 SMn 28	38 SMn 28	-	-	38 SMn 28	38 SMn 28	-	-	-	-	1.0760	-
-	QSt E 260 TM/5260 MC	-	-	-	S 260 MC	41 S 7	Fe E 275 TM	-	-	-	1.0970	-
-	C 3 D 2	-	-	-	C 3 D 2	FM 5	C 3 D 2	-	-	-	1.1110	-
-	C 38 D 2	-	-	-	C 38 D 2	FM 38	C 38 D 2	-	-	-	1.1150	-
-	C 42 E Al/Ck 42 Al	-	-	-	S 355 G15	-	-	-	-	-	1.1190	-
-	C 56 D 2/D 55-2	-	-	-	C 56 D 2	FM 56	C 56 D 2	-	-	-	1.1220	-
-	C 70 W 1	-	-	-	CT 70	C 70 E 2 U	C 70 K U	-	-	-	1.1520	-
-	C 45 W	-	-	-	C 45 U	Y3 42	-	-	-	-	1.1730	-
-	C 60 W	-	SK 7	-	-	Y3 55	-	-	-	-	1.1740	-
-	100 CrMn 6	-	-	K19195	100 CrMn 6	100 CM 6	-	-	-	-	1.3520	-
-	28 B 2	-	SWRCHB 26	-	C 30 B	20 B 3	-	-	-	-	1.5510	-
-	St E 380	-	SM 50 B	-	S 380 N	-	Fe E 390 KG	-	-	-	1.8900	-
-	TSIE 380/S380NL	-	-	-	S 380 NL	-	Fe E 390 KT	2117	-	-	1.8910	-
-	S 890 Q	-	-	-	S 890 Q	S 890 Q	S 890 Q	-	-	-	1.8940	-

P4

Workpiece Materials Listing • Steel • P4

P4 Alloy Steels and Tool Steels

Content: C >.25%

Tensile Strength RM (MPa)*: 850–1400

Hardness (HB): 350–450 (HRC): 35–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
A 570 Gr. 40	St 44-2	4360-43 B	SM 41 B	K 02502	S 275 JR	E 28-2	Fe 430 BFN	1412	-	-	1.0044	-
-	S 235 J0/Fe 360 C	En 40C	-	-	S 235 J0	E24-3	Fe 360 CFN	-	-	-	1.0114	-
A 570 Gr. 36	St 37-3	4360-40 C	-	K01501	S 235 J2 G3	Fe 360 D1(2); E 24-3	Fe 360 D1(2)	1312	-	-	1.0116	-
-	QSt 37-3	-	SWRCH 12R	-	-	-	-	-	-	-	1.0123	-
-	S 275 J0	En43C; S275J0	-	-	S 275 J0/Fe 430 C	S 275 J0; E 28-3	S275J0; Fe430CFN	-	-	-	1.0143	-
A 573 Gr. 70	St 44-3	4360-43 C	SM 41 B	-	Fe 430 D1(2); S 275 J2 G3 (4)	Fe 430 D1(2); E 28-4	Fe 430 D FF	1414	-	-	1.0144	-
-	S 275 J2 G4/Fe 430 D 2	S 275 J2 G4	-	-	S 275 J2 G4	E28-4; S 275 J2 G4	S 275 J2 G4	1414	-	-	1.0145	-
-	Ro St 44-2	43C	-	-	S 275 J0 H	-	S 275 J0 H	-	-	-	1.0149	-
-	St 37.0	-	STPG 38	-	P 235 T1	-	-	-	-	-	1.0254	-
-	C 9 D	-	SWRM 8	-	C 9 D	FM 9	C 9 D	-	-	-	1.0304	-
-	C 7 D	C 7 D	SWRM 8	G10060	C 7 D	FM 8	C 7 D	-	-	-	1.0313	-
-	L 210 GA	-	-	-	L 210 GA	TS E 220 class 2	-	-	-	-	1.0319	-
-	USD 7/C 8 G 1 W	-	-	-	C 8 G 1 W	-	-	-	-	-	1.0323	-
-	RSD 7/C8G2W	-	-	-	C 8 G 2 W	-	-	-	-	-	1.0324	-
-	RSD 10 Si/C10WSi	-	-	-	C 10 W Si	-	-	-	-	-	1.0339	-
-	P 235 GH	P 235 GH	SPV 50	K02503	P 235 GH	A 37 CP	Fe E 235	1330	-	-	1.0345	-
-	RRSD 10/C10 W	-	-	-	C 10 W	-	-	-	-	-	1.0351	-
-	St 45.8	-	STB 410	K02727	-	-	-	-	-	-	1.0405	-
-	C 25 Pb	-	-	-	C 25 GPb	-	-	-	-	-	1.0411	-
-	L 245 MB	430	-	K03006	L 245 MB	L 245 MB	-	-	-	-	1.0418	-
1513	P 265	HR 40/30	-	G15130	-	12 M 5	-	-	-	-	1.0424	-
-	P 310 NB	224-410	SG 325	K02100	P280GH	BS 2	P 275 N	2103	-	-	1.0426	-
-	L 290 MB	-	-	-	L290MB	L 290 MB	-	-	-	-	1.0429	-
-	H III/P285NH	-	Sm 38	-	P 285 NH	-	-	-	-	-	1.0435	-
-	P 310 NB	224-430	SG 325	K02100	P305GH	P 275 N	P 275 N	2103	-	-	1.0436	-
-	A St 41	P 275 N	STK 400	K02100	S 275 N	BS 3	P 275 N	2103	-	-	1.0437	-
-	B 500 A	-	SD 490	-	B 500 A	-	B 500 A	-	-	-	1.0438	-
-	GS-45	-	SC 450	-	-	-	-	-	-	-	1.0443	-
-	H IV/P295NH	-	SG 37	K03102	-	-	Fe 460-2 KW	-	-	-	1.0445	-

(continued)

P4
Workpiece Materials Listing • Steel • P4 (continued)
P4 Alloy Steels and Tool Steels
Content: C>.25%
Tensile Strength RM (MPa): 850–1400*
Hardness (HB): 350–450 (HRC): 35–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	StE 240.7	-	-	-	L 245 NB	L 245 NB	-	-	-	-	1.0457	-
-	H11/L 235 GA	-	-	-	L 235 GA	-	-	-	-	-	1.0458	-
-	L 245 GA/RSIE 240.7	-	-	-	L 245 GA	TS E 250	-	-	-	-	1.0459	-
-	St E255	-	-	K01800	-	-	-	-	-	-	1.0461	-
-	TSIE 255	-	-	K11535	-	-	-	-	-	-	1.0463	-
-	15 Mn 3 Al	-	-	-	C 14 GAI	-	-	-	-	-	1.0468	-
-	21 Mn 4	-	-	-	-	-	20 Mn 4	-	-	-	1.0469	-
-	19 Mn 6/P 355 GH	P 355 GH	SGV 46	K03300	P355GH	A 52 CP	Fe E355-2	2101	-	-	1.0473	-
-	17 Mn 4/P 295 GH	224-460B	SG 37	K03501	P 295 GH	A 48 CP	Fe E 295	2102	-	-	1.0481	-
-	19 Mn 5	224-460	SG 37	K 03102	-	A 52 CP; AP; FP	Fe 460-2 KW	-	-	-	1.0482	-
-	L 290 AG	-	-	-	L290GA	TS E 290	-	-	-	-	1.0483	-
-	L 290 NB	-	-	-	L290NB	L 290 NB	-	-	-	-	1.0484	-
-	21 Mn 6	-	-	K12320	-	-	-	-	-	-	1.0485	-
-	St E 285	P 275 N	SM 41 A	K 01802	P 275 N	P 275 N	Fe E 285 KG	-	-	-	1.0486	-
-	W St E 285	P 275 N	-	K 01802	P 275 NH	P 275 N	Fe E 285 KW	-	-	-	1.0487	-
-	T St E 285	P 275 NL 1	SLA 235 A	K 01803	P 275 NL 1	P 275 NL 1	Fe E 285 KT	-	-	-	1.0488	-
-	H 300/ZSt E 300	H280LA	-	-	H 280 LA	E 280 C	-	-	-	-	1.0489	-
-	S 275 NH	S 275 NH	-	-	S 275 NH	-	S 275 NH	-	-	-	1.0493	-
-	S 275 NLH	S275NLH	-	-	S 275 NLH	-	S275NLH	-	-	-	1.0497	-
-	L 360 GA	-	-	-	L 360 GA	-	-	-	-	-	1.0499	-
-	C 35 Pb/C 35 GPb	-	-	-	C 35 Pb	-	-	-	-	-	1.0502	-
-	St E 315/P 315N	-	SM 50 A	K11506	P 315 N	-	Fe E 315 KG	-	-	-	1.0505	-
-	W St E 315	-	SNC 1	K02404	P 315 NH	-	Fe E 315 KW	2107	-	-	1.0506	-
-	St 55	-	STKM 16A	-	-	-	Fe 540	-	-	-	1.0507	-
-	T St E315	-	SLA 325 A	K02404	P 315 NL	-	-	2106	-	-	1.0508	-
-	C 40 Pb	-	-	-	C 40 G Pb	-	-	-	-	-	1.0512	-
-	C38D	-	SWRH 37	-	C 38 D	FM 38	C 38 D	-	-	-	1.0516	-
-	C48D	-	SWRH 48	-	C 48 D	FM 48	C 48 D	-	-	-	1.0517	-
-	C56D	-	-	-	C 56 D	FM 56	C 56 D	-	-	-	1.0518	-
-	StSch 700 (R 0 700)	-	-	-	R 0700	-	-	-	-	-	1.0521	-
-	StSch800 (R 0 800)	-	-	-	R 0800	-	-	-	-	-	1.0524	-
-	Cf 45 Pb	-	-	-	-	-	C 46	-	-	-	1.0526	-
-	C32D	-	SWRH 32	K02701	C 32 D	FM 32	C 32 D	-	-	-	1.0530	-
-	GL-A 40 (S 390 G 1 S)	-	-	-	S 390 G 1 S	-	-	-	-	-	1.0532	-
-	S 355 NH	S 355 NH	-	-	S 355 NH	-	S 355 NH	-	-	-	1.0539	-
-	C42D	-	SWRH 42 B	-	C 42 D	FM 42	C 42 D	-	-	-	1.0541	-
-	Schienen 60 F(R 0600/ St Sch 60)	-	-	-	R 0600	-	-	-	-	-	1.0544	-
-	S 355 JO H	50 C	-	-	S 355 JO H	-	S 355 JO H	-	-	-	1.0547	-
-	ZStE 340/H 340	H 320 L A	-	-	H 320 LA	E 315 C	-	-	-	-	1.0548	-
-	S 335 NLH	50 EE	-	-	S 355 N LH	-	S 355 N L H	-	-	-	1.0549	-
-	GS-52	A2	-	-	GE 260	-	-	-	-	-	1.0552	-
-	S 355 JO	En 50 C; S 355 JO	SM 520 M	-	S 355 JO	S 355 JO; E 36-3	S 355 JO; Fe 510 C FN	-	-	-	1.0553	-
-	GS-70	50 C	-	-	S 355 JO C	E 36-3	Fe 510 C	-	-	-	1.0554	-
-	GS-62	-	-	-	S 355 GO 1	-	-	-	-	-	1.0555	-
-	ZStE 420/H 420	46/40HR,HS,CS	-	-	H 400 LA	H 400 LA	-	-	-	-	1.0556	-
-	P355 NB	-	SG 365	-	P 355 NB	BS 4	-	-	-	-	1.0557	-
-	GS-62.3	-	-	-	S 355 GO 2	-	-	-	-	-	1.0559	-
A 633 Gr. C	St E 355	P 355 N	SM 50 YB	K12000	P 355 N	E 355 R/FP	Fe E 355 KG	2132	-	-	1.0562	-
-	N 80	-	-	-	-	-	-	-	-	-	1.0564	-
-	W St E 355	P 355 NH	-	K01600	P 355 NH	P 355 NH	Fe E 355 KW	-	-	-	1.0565	-
-	T St E355	P 355 NL1	SLA 37	-	P 355 NL1	P 355 NL1	Fe E 355 KT	-	-	-	1.0566	-
-	32 Mn 3	-	-	-	-	-	-	-	-	-	1.0567	-
-	P355 QH1	P 355 QH	-	-	P 355 QH	P 355 QH	-	-	-	-	1.0571	-
-	ZStE 460/H 460	-	-	-	-	-	-	-	-	-	1.0574	-
-	S 355 J 2 G 4	S 355 J 2 G 4	-	-	S 355 J 2 G 4	S 355 J 2 G 4	S 355 J 2 G 4	-	-	-	1.0577	-
-	L 360 MB	-	-	-	L 360 MB	L 360 MB	-	-	-	-	1.0578	-
-	St 52.4	-	STS 49	-	-	-	-	-	-	-	1.0581	-
-	L 360 NB/StE 360.7	-	-	-	L360NB	L 360 NB	-	-	-	-	1.0582	-
-	S 355 J 2 G 3 Cu/St 52-3 Cu3	-	-	-	S 355 J2 G3 Cu + CR	-	-	-	-	-	1.0585	-
-	C50D	-	-	-	C 50 D	FM 50	C 50 D	-	-	-	1.0586	-
-	QSt 52-3 Cu 3	-	-	-	S 355 J2 G3 Cu C	-	-	-	-	-	1.0587	-
-	D 53-2	-	SWRH 52 B	-	C 52 D	FM 52	C 52 D	-	-	-	1.0588	-
-	FSIE 355 OS 3/S355G03	-	-	K12000	S 355 G03	-	-	-	-	-	1.0591	-
-	S 355 J 2 G 4 Cu	-	-	-	S 355 J2 G4 Cu	-	-	-	-	-	1.0592	-
-	S355K2G3/Fe 510 DD1 (MULTIST)	S 355 K 2 G 3	SM 520 C	K02505	S 355 K 2 G 3	E36-4	S 355 K 2 G 3	-	-	-	1.0595	-
-	S355K2G4/Fe 510 DD 2 (MULTIST)	S 355 K 2 G 4	-	-	S 355 K 2 G 4	S 355 K 2 G 4	S 355 K 2 G 4	-	-	-	1.0596	-
-	C 30 Pb	-	-	-	C 3 0 GPb	-	-	-	-	-	1.0598	-
-	C 60 Pb	-	-	-	C 60 GPb	-	-	-	-	-	1.0602	-
-	C 67 GPb/C 67 Pb	-	-	-	C 67 GPb	-	-	-	-	-	1.0606	-
-	C 75 GPb/C 75 Pb	-	-	-	C 75 GPb	-	-	-	-	-	1.0607	-

NOTE: For legend, see page Y237.

(continued)

P4

■ Workpiece Materials Listing • Steel • P4 (continued)

P4 Alloy Steels and Tool Steels

Content: C>.25%

Tensile Strength RM (MPa)*: 850–1400

Hardness (HB): 350–450 (HRC): 35–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	C62D	-	SWRH 62 B	-	C 62 D	FM 62	C 62 D	-	-	-	1.0611	-
-	C66D	-	-	-	C 66 D	FM 66	C 66 D	-	-	-	1.0612	-
-	C68D	-	SWRH 67 B	-	C 68 D	FM 68	C 68 D	-	-	-	1.0613	-
-	C70D	-	-	-	C 70 D	FM 70	C 70 D	-	-	-	1.0615	-
-	C72D	-	SWRH 72 B	-	C 72 D	FM 72	C 72 D	-	-	-	1.0617	-
-	GS-C 25	-	SCPH 1	-	GP 240 GH	GP 240 GH	GP 240 Gh	-	-	-	1.0619	-
-	GP 240 GR	-	-	-	GP 240 GR	GP 240 GR	GP 240 GR	-	-	-	1.0621	-
-	C80D	-	-	-	C 80 D	FM 80	C 80 D	-	-	-	1.0622	-
-	StSch 900 A (R 0900)	-	-	-	R 0900	-	-	-	-	-	1.0623	-
-	StSch 900 B (R 0900 Mn)	-	-	-	R 0900 Mn	-	-	-	-	-	1.0624	-
1345	StSch 90 C/GP 280 GH	-	-	G13450	GP 280 GH	GP 280 GH	GP 280 GH	-	-	-	1.0625	-
-	C82D	-	SWRH 82 B	-	C 82 D	FM 82	C 82 D	-	-	-	1.0626	-
-	C88D	-	-	-	C 88 D	-	C 88 D	-	-	-	1.0628	-
-	StSch 1200 (R 1200)	-	-	-	R 1200	-	-	-	-	-	1.0631	-
-	C 61/60 Mn 3	-	-	-	C 61	-	C 61	-	-	-	1.0642	-
-	C 85/85 Mn 3	-	-	-	C 85	-	C 85	-	-	-	1.0647	-
-	35 SPb 20	35 SPb 20	-	-	35 SPb 20	35 SPb 20	-	-	-	-	1.0756	-
-	45 SPb 20	-	-	-	46 SPb 20	-	-	-	-	-	1.0757	-
-	38 SMnPb 28	38 SMnPb 28	-	-	38 SMnPb 28	38 SMnPb 28	38 SMnPb 28	-	-	-	1.0761	-
-	44 SMn 28	44 SMn 28	-	-	44 SMn 28	44 SMn 28	44 SMn 28	-	-	-	1.0762	-
-	44 SMnPb 28	44 SMnPb 28	-	-	44 SMnPb 28	44 SMnPb 28	44 SMnPb 28	-	-	-	1.0763	-
-	36 SMnPb 14	36 SMnPb 14	-	-	36 SMnPb 14	36 SMnPb 14	-	-	-	-	1.0765	-
9255	51 Si 7	250 A 53	-	G92550	-	51 S 7	48 Si 7	2090	-	-	1.0903	-
9255	55 Si 7	250 A 53	SKH 1; SKT 4	G92550	55 NiCrMoV 7	55 S 7	55 Si 8	2085	-	-	1.0904	-
-	StSch 1100 (R 1100 Cr)	-	-	-	R 1100 Cr	-	-	-	-	-	1.0915	-
9262	60 SiCr 7	250 A 61	SUP 7	G92620	60 SiCr 8	60 SC 7	60 SiCr 8	-	-	-	1.0961	-
-	QSt E 690 TM (S 700 MC)	-	-	-	S 700 MC	S 690 MC	S 700 MC	-	-	-	1.0966	-
-	QSt E 260 N 7 S 260 NC	-	AE 275 NC	-	S 260 NC	-	S 260 NCX	-	-	-	1.0971	-
-	QSt E 300 TM/S 315 MC	43 F35 HR,HS,CS	-	-	S 315 MC	E 315 D	S 315 MC	-	-	-	1.0972	-
-	QSt E 300 N 7/S 315 NC	-	AE 340 NC	-	S 315 NC	-	S 315 NC	-	-	-	1.0973	-
-	QSt E 340 TM	HR 40/30	-	-	S 340 MC	E 335 D	-	-	-	-	1.0974	-
-	QSt E 340 N	-	-	-	S 340 NC	-	Fe E 355 TD	-	-	-	1.0975	-
-	QSt E 360TM	-	-	-	S 355 MC	E 355 D	Fe E 355 TM	-	-	-	1.0976	-
-	QSt E 360 N	-	-	-	S 355 NC	-	Fe E 355 TD	-	-	-	1.0977	-
-	QSt E 380 TM	-	-	-	S 380 MC	E 390 D	-	-	-	-	1.0978	-
-	QSt E 380 N	-	-	-	S 380 NC	-	Fe E 380 TD	-	-	-	1.0979	-
-	QSt E 420 TM	HR 50 F 45	-	-	S 420 MC	E 430 D	Fe E 420 TM	-	-	-	1.0980	-
-	QSt E 420 N	-	-	-	S 420 NC	-	Fe E 420 TD	-	-	-	1.0981	-
-	QSt E 460 TM	50/45 HR	-	-	S 460 MC	E 445 D	-	-	-	-	1.0982	-
-	QSt E 460 N	-	-	-	S 460 NC	-	Fe E 460 TD	-	-	-	1.0983	-
-	QSt E 500 TM	-	-	-	S 500 MC	E 490 D	Fe E 490 TM	2662	-	-	1.0984	-
-	QSt E 500 N	-	-	-	S 500 NC	-	-	-	-	-	1.0985	-
-	QSt E 550 TM	60/55 HS	-	-	S 550 MC	E 560 D	Fe E 560 TM	-	-	-	1.0986	-
-	QSt E 550 N	-	-	-	S 550 NC	-	-	-	-	-	1.0987	-
-	FSiE 355 QS 3/S355G04	-	-	-	S 355 G04	-	-	-	-	-	1.1102	-
-	ESiE 285	P 275 NL 2	STK 400	-	P 275 NL 2	P 275 NL 2	P 275 NL 2	-	-	-	1.1104	-
-	ESiE 315	-	-	-	S 315 NL 1	-	-	-	-	-	1.1105	-
-	ESiE 355	P 355 NL 2	STK 500	-	P 355 NL 2	P 355 NL 2	P 355 NL 2	-	-	-	1.1106	-
-	C5D2	-	-	-	C 5 D 2	FM 6	C 5 D 2	-	-	-	1.1111	-
-	USD 5/C 8 E1 W	-	-	-	C 8 E 1 W	-	-	-	-	-	1.1112	-
-	C8D2	-	-	-	C 8 D 2	FM 8	C 8 D 2	-	-	-	1.1113	-
-	C 10 E W/RSD 11	-	-	-	C 10 EW	-	-	-	-	-	1.1115	-
-	USD 6/C 8 E2 W	-	-	-	C 8 E 2 W	-	-	-	-	-	1.1116	-
-	G 24 Mn 4/GS 24 Mn 4	-	-	-	G 24 Mn 4	-	-	-	-	-	1.1136	-
-	C32D2	-	-	-	C 32 D 2	FM 32	C 32 D 2	-	-	-	1.1143	-
-	C36D2	-	-	-	C 36 D 2	FM 36	C 36 D 2	-	-	-	1.1145	-
-	C38D2	-	-	-	C 38 D 2	FM 38	C 38 D 2	-	-	-	1.115	-
-	C 25 R	C 25 R	-	-	C 25 R	C 25 R	C 25 R	-	-	-	1.1163	-
-	C48D2	-	-	-	C 48 D 2	FM 48	C 48 D 2	-	-	-	1.1164	-
1330	GS-30 Mn 5	120 M 36	SMn 433 H; SCMn 2	K13300	-	35 M 5	-	1330	-	-	1.1165	-
1335	36 Mn 5	150 M 36	SMn 438(H)	G13350	-	40 M 5	-	2120	-	-	1.1167	-
-	G 40 Mn 5/GS 40 Mn 5	-	-	-	G 40 Mn 5	-	-	-	-	-	1.1168	-
-	20 Mn 6	150 M 19	-	-	-	20 M 5	20 Mn 6	-	-	-	1.1169	-
-	C50D2	-	-	-	C 50 D 2	FM 50	C50D 2	-	-	-	1.1171	-
-	Ck 38 Pb	-	-	-	25 Mn 4	-	-	-	-	-	1.1177	-
-	C 30 R	C 30 R	C 30 R (3 C 30)	-	C 30 R	C 30 R	C 30 R	-	-	-	1.1179	-
-	Ck 35 Pb	-	-	-	S 355 G 13	-	-	-	-	-	1.1182	-
-	Ck 36	-	-	-	S 355 G 14	-	-	-	-	-	1.1184	-
-	C3D1	-	-	-	C 3 D 1	-	C 3 D 1	-	-	-	1.1187	-
-	C40R/Cm 40	C 40 R	-	-	C 40 R	C 40 R	C 40	-	-	-	1.1189	-
-	C52D2	-	-	-	C 52 D 2	FM 52	C 52 D 2	-	-	-	1.1202	-
-	C 53 R/Cm 53	-	-	-	C 53 R	-	-	-	-	-	1.1205	-
-	C 10 R	C 10 R	-	-	C 10 R	C 10 R	-	-	-	-	1.1207	-
-	C 16 R	C 16 R	-	-	C 16 R	C 16 R	-	-	-	-	1.1208	-
-	C58D2	-	-	-	C 58 D 2	FM 58	C 58 D 2	-	-	-	1.1212	-
-	Ck 53 Pb	-	-	-	C 90 S	-	-	-	-	-	1.1217	-
-	C62D2	-	-	-	C 62 D 2	FM 62	C 62 D 2	-	-	-	1.1222	-
-	Cm 60	C 60 R	-	-	3 C 60	C 60 R	C 60 R	-	-	-	1.1223	-
-	C60D2	-	-	-	C 60 D 2	FM 60	C 60 D 2	-	-	-	1.1228	-
-	C68D2	-	-	-	C 68 D 2	FM 68	C 68 D 2	-	-	-	1.1232	-
-	C66D2	-	-	-	C 66 D 2	FM 66	C 66 D 2	-	-	-	1.1236	-
-	C50R	C 50 R	-	-	C 50 R	FM 50	C 50 R	-	-	-	1.1241	-
-	C72D2	-	-	-	C 72 D 2	FM 72	C 72 D 2	-	-	-	1.1242	-
-	C70D2	-	-	-	C 70 D 2	FM 70	C 70 D 2	-	-	-	1.1251	-
-	C78D2	-	-	-	C 78 D 2	FM 78	C 78 D 2	-	-	-	1.1252	-
-	C76D2	-	-	-	C 76 D 2	FM 76	C 76 D 2	-	-	-	1.1253	-
-	C80D2	-	-	-	C 80 D 2	FM 80	C 80 D 2	-	-	-	1.1255	-
-	C82D2	-	-	-	C 82 D 2	FM 82	C 82 D 2	-	-	-	1.1262	-
-	C86D2	-	-	-	C 86 D 2	FM 86	C 86 D 2	-	-	-	1.1265	-
-	C88D2	-	-	-	C 88 D 2	-	C 88 D 2	-	-	-	1.1272	-
-	C92D2	-	-	-	C 92 D 2	-	C 92 D 2	-	-	-	1.1282	-
-	C98D2	-	-	-	C 98 D 2	-	C 98 D 2	-	-	-	1.1283	-
-	46 MnVS 6	-	-	-	46 MnVS 6	-	-	-	-	-	1.1304	-
-	C 90 U	-	-	-	C90U	-	-	-	-	-	1.1535	-
-	C 110 U	-	-	-	C 110 U	-	-	-	-	-	1.1554	-
-	C 120 U	-	-	-	C120U	-	-	-	-	-	1.1555	-
T 8	C 80 W2	BW 1B	SKC 3	T12008	-	Y1 80	C 80 KU	-	-	-	1.1625	-
-	C 105 W2	-	SK 3	-	-	-	-	-	-	-	1.1645	-
-	C 135 W	-	SK 1	-	-	Y2 140	C 140 KU	-	-	-	1.1673	-
A-6	C 67 W	-	-	T30106	-	Y1 70	-	-	-	-	1.1744	-

(continued)

P4
Workpiece Materials Listing • Steel • P4 (continued)
P4 Alloy Steels and Tool Steels
Content: C>.25%
Tensile Strength RM (MPa): 850–1400*
Hardness (HB): 350–450 (HRC): 35–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	125 Cr 1	–	–	–	125 Cr 2	Y2 120 C	–	–	–	–	1.2002	–
–	85 Cr 1	–	–	–	–	Y1 100 C 2	–	–	–	–	1.2004	–
–	140 Cr 3	–	SKS 8	–	140 Cr 2	Y2 140 C	–	–	–	–	1.2008	–
–	105 Cr 4	–	SKC 11	–	–	–	–	–	–	–	1.2057	–
–	21 MnCr 5	–	SCR 420 H	–	21 MnCr 5	20 NC 5	–	–	–	–	1.2162	–
–	35 CrMo 7	–	–	–	35 CrMo 7	–	–	–	–	–	1.2302	–
–	48 CrMoV 67	–	–	–	–	45 CDV 6	–	–	–	–	1.2323	–
P6	15 NiCr 14	–	SNC 22	T51606	–	10 NC 12	–	–	–	–	1.2735	–
–	40 CrMnNiMo 8 6 4	–	–	–	40 CrMnNiMo 8-6-4	–	–	–	–	–	1.2738	–
–	57 NiCrMoV 7 7	–	–	–	55 NiCrMoV 7	–	–	–	–	–	1.2744	–
–	70 MnMoCr 8	–	–	–	70 MnMoCr 8	–	–	–	–	–	1.2824	–
–	95 MnWCr 5	–	–	–	95 MnWCr 5	–	–	–	–	–	1.2825	–
–	60 MnSi 4	–	–	–	–	60 MSC 4	–	–	–	–	1.2826	–
–	101 Cr 6	–	–	–	–	–	102 Cr 6 KU	–	–	–	1.3514	–
–	16 CrNiMo 6	820A16	–	–	–	16 NCD 6	16NiCrMo6	–	–	–	1.3531	–
–	100 CrMn 7 3	–	–	–	100 CrMnMo 7	100 CD 7	–	–	–	–	1.3536	–
–	100 CrMo 7	–	SUS 4	K19965	100 CrMo 7	100 CD 7	100CrMo7	–	–	–	1.3537	–
–	100 CrMnMo 8	–	–	–	–	100 CrMnMo 8	–	–	–	–	1.3539	–
5046	44 Cr 2	–	–	H50460	46 Cr 1 KD	44 Cr 2	–	–	–	–	1.3561	–
4142	43 CrMo 4	–	–	G41420	–	43 Cr Mo 4	–	–	–	–	1.3563	–
4147	48 CrMo 4	817 M 40	SNC 836	H41470	–	48 CrMo 4	–	–	–	–	1.3565	–
–	46 Si 7	–	–	–	45 Si	46 S 7	–	–	–	–	1.5024	–
9259H	51 Si 7	–	–	–	50 Si 7	–	48 Si 7	2090	–	–	1.5025	–
–	55 Si 7	250 A 53	–	G92550	56 Si 7	55 S 7	55 Si 8	2085	–	–	1.5026	–
9260	60 Si 7	251 A 60	–	G92600	60 Si 7	60 S 7	60 Si 7	–	–	–	1.5027	–
–	65 Si 7	–	SUP 7	–	–	–	–	–	–	–	1.5028	–
–	12 Mn 8	–	–	–	11 Mn 8 KE	–	–	–	–	–	1.5086	–
9262	60 SC 7	–	–	G92620	60 SiCr 8	61 SC 7	60 SiCr 8	–	–	–	1.5092	–
–	37 MnSi 5	–	–	–	–	38 MS 5	–	F.130.A	–	–	1.5122	–
–	50 MnSi 4	–	–	K04800	–	–	–	–	–	–	1.5131	–
–	15 MnMoV 4 5	–	–	–	15 MnMoV 4-5	15 MDV 4.05	–	–	–	–	1.5402	–
A 204 Gr. A	15 Mo 3	1501-240	STFA 12	K11820	16 Mo 3	15 D3	16 Mo 3 KW	2912	–	–	1.5415	–
4419	GS-22 Mo 4	243-430	SCPH 11	G44190	G 20 Mo 5	G20Mo5	G 22 Mo 5	–	–	–	1.5419	–
–	20 MnMo 3 5	–	–	K12121	–	–	–	–	–	–	1.5421	–
–	G 18 Mo 5	–	–	–	G18Mo5	–	G 18 Mo5	–	–	–	1.5422	–
4520	16 Mo 5	1503-245-420	SBC 690	K11522	–	–	16 Mo 5	–	–	–	1.5423	–
–	11 MnMo 4 5	–	–	K11123	11 MnMo 45 KE	–	–	–	–	–	1.5425	–
–	13 MnMo 6 5	–	–	K11424	11 MnMo 65 KE	–	–	–	–	–	1.5426	–
–	13 MnMo 8 5	–	–	K11423	11 MnMo 85 KE	–	–	–	–	–	1.5427	–
–	35 B 2	–	SWRCHB 237	–	C 35 B	35 B 3	–	–	–	–	1.5511	–
15B21 H	19 MnB 4	170 H 20	SWRCHB 420	H15211	19 MnB 4	20 MB 5	–	–	–	–	1.5523	–
15B21 H	20 MnB 5	–	SWRCHB 620	–	20 MnB 5	20 MB 5	20 MnB 5	–	–	–	1.553	–
–	24 Ni 8	–	SCPL 21	J22501	G 9 Ni 10	22 N 8	G9Ni10	–	–	–	1.5633	–
A 350-LF 5	10 Ni 14	503	SL 3 N 26	K31718	12 Ni 14	12Ni14	18 Ni 14 KT	–	–	–	1.5637	–
P3	10 NC 6	–	–	T51603	15 NiCr 6	10 NC 6	–	–	–	–	1.5713	–
–	10 NiCr 5 4	10NiCr5-4	–	–	10 NiCr 5-4	10 NiCr 5-4	–	–	–	–	1.5805	–
–	18 MnMoNi 5 5	–	–	–	18 MnMoNi 5-5	–	–	–	–	–	1.6308	–
–	20 MnMoNi 4 5	–	SQV 2 B	K12539	20 MnMoNi 4-5	–	–	–	–	–	1.6311	–
–	10 NiMnMo 6 5	–	–	K11160	–	–	–	–	–	–	1.6312	–
–	16 NiCrMo 12 6	–	–	–	–	16 NCD 13	–	–	–	–	1.6782	–
–	15 MnCrMoNiV 5 3	–	–	–	15 MnCrMoNiV 5-3	–	–	–	–	–	1.6920	–
50B40	37 CrB 1	120 M 36	SMnC 3 H	H50401	38 Cr 2	–	35 CB 1	–	–	–	1.7007	–
–	13 Cr 2	–	–	–	–	–	–	–	–	–	1.7012	–
–	17 CrS 3	17 CrS3	–	–	17 CrS 3	17 CrS 3	–	–	–	–	1.7014	–
5015	15 Cr 3	523 M15	SCr 415 H	G50150	15 Cr 2	12 C 3	–	–	–	–	1.7015	–
5117	17 Cr 3	17 Cr 3	–	G51170	(15 Cr 2 KD)	18 C 3	–	–	–	–	1.7016	–
5130 H	34 Cr 4	530 A 32	SCr 430 H	G51300	34 Cr 4 KD	32 C 4	34 Cr 4 KB	–	–	–	1.7033	–
5132 H	37 Cr 4	530 A 36	SCr 435 H	G51320	37 Cr 4	38 C 4	36 CrMn 4	–	–	–	1.7034	–
5140	41 Cr 4	530 M 40	SCr 440 H	G51400	41 Cr 4	42 C 4	41 Cr 4	–	–	–	1.7035	–
–	28 CrS 4	–	–	–	28CrS4	28CrS4	–	–	–	–	1.7036	–
–	34 CrS 4	34 CrS 4	–	–	34 CrS 4	34 CrS 4	34 CrS 4	–	–	–	1.7037	–
–	41 CrS 4	41 CrS 4	–	–	41 CrS 4	41 CrS 4	41 CrS 4	2245	–	–	1.7039	–
–	38 Cr 4	–	–	–	38 Cr 4	–	38 Cr 4	–	–	–	1.7043	–
5140	42 Cr 4	530 A 40	SCr 440	–	40 NiCrMo 3	42 C 4 TS	40 NiCrMo 3	2245	–	–	1.7045	–
–	54 SiCr 6	–	–	–	–	54 SC 6	–	–	–	–	1.7102	–
–	67 SiCr 5	–	–	–	67 SiCr 5	–	67 SiCr 5	–	–	–	1.7103	–
9262	60 SiCr 7	–	–	–	60 SiCr 8	–	–	–	–	–	1.7108	–
–	52 SiCrNi 5	–	–	–	–	52 SCN 5	–	–	–	–	1.7117	–
5115	16 MnCr 5	527 M 17	SCR 415	G 51150	16 MnCr 5 KD	16 MC 5	16 MnCr 5	2173	–	–	1.7131	–
–	49 CrMo 4	–	SCM 445	–	–	–	–	–	–	–	1.7238	–
–	16 CrMo 4	18 CrMo4	SCM 418 H	–	18 CrMo 4	15 CD 3.5	18 CrMo 4	–	–	–	1.7242	–
–	10 CrMo 11	–	–	–	–	12 CD 10	–	–	–	–	1.7276	–
–	16 CrMo 9 3	–	–	–	–	20 CD 8	–	–	–	–	1.7281	–
–	22 CrMoS 3 5	–	–	–	22 CrMoS 3-5	22 CrMoS 3-5	–	–	–	–	1.7333	–
A 387 Gr. 12 Cl. 2	16 CrMo 4 4	–	–	K11564	–	–	A 18 CrMo 4 5 KW	–	–	–	1.7337	–
–	12 CrMo 8 5	–	–	K21509	–	–	–	–	–	–	1.7358	–
–	12 CrMo 19 5	3606-625	SCMV 6	K41545	X 12 CrMo 5	Z 10 CD 5.05	16 CrMo 20 5	–	–	–	1.7362	–
–	X 7 CrMo 6 1	B 5	–	S50281	CM 5-IG	–	–	–	–	–	1.7373	–
–	12 CrMo 9 10	–	–	–	–	12 CrMo 9-10	–	–	–	–	1.7375	–
–	SG-CrMo 9	–	–	S50480	–	–	–	–	–	–	1.7388	–
–	51 CrMoV 4	–	–	–	51 CrMoV 4	51 CDV 4	51 CrMoV 4	–	–	–	1.7701	–
–	21 CrMoV 5 7	–	–	K14073	21 CrMoV 5-7	20 CDV 5.07	–	–	–	–	1.7709	–
–	20 CrMoVTiB 4 10	–	–	–	20 CrMoVTiB 4-10	20 CrMoVTiB 4-10	–	–	–	–	1.7729	–
6150	50 CrV 4	735 A 50	SUP 10	G61500	51 CrV 4	50 CV 4	50 CrV 4	2230	–	–	1.8159	–
–	PS 275 TMK	S 275 ML	–	–	S 275 ML	S 275 ML	S 275 ML	–	–	–	1.8819	–
–	S 355 G1 M	–	–	–	S 355 G 1 M	–	–	–	–	–	1.8822	–
–	BTSIE 460 TM	S 460 ML	–	–	S 460 ML	E 460	S 460 ML	–	–	–	1.8838	–
–	S 500 ML	–	–	–	S 500 ML	–	–	–	–	–	1.8839	–

NOTE: For legend, see page Y237.

(continued)

P4

Workpiece Materials Listing • Steel • P4 (continued)

P4 Alloy Steels and Tool Steels

Content: C>.25%

Tensile Strength RM (MPa)*: 850–1400

Hardness (HB): 350–450 (HRC): 35–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	S 275 MH	-	-	-	S 275 MH	-	S 275 MH	-	-	-	1.8843	-
-	S 275 MLH	-	-	-	S 275 MLH	-	S 275 MLH	-	-	-	1.8844	-
-	S 355 MH	-	-	-	S 355 MH	-	S 355 MH	-	-	-	1.8845	-
-	S 355 MLH	-	-	-	S 355 MLH	-	S 355 MLH	-	-	-	1.8846	-
-	S 420 MH	-	-	-	S 420 MH	-	S 420 MH	-	-	-	1.8847	-
-	S 420 MLH	-	-	-	S 420 MLH	-	S 420 MLH	-	-	-	1.8848	-
-	S 460 MH	-	-	-	S 460 MH	-	S 460 MH	-	-	-	1.8849	-
-	S 460 MLH	-	-	-	S 460 MLH	-	S 460 MLH	-	-	-	1.885	-
-	FSiE 355 OS 4/ S420G5Q	-	-	-	S 420 G 2	-	-	-	-	-	1.8853	-
-	P 550 QL	-	-	-	P 550 QL	-	-	-	-	-	1.8878	-
-	SiE 460	S 460 N	-	-	S 460 N	E 460	S 460N	-	-	-	1.8901	-
A 633 Gr. E	St E 420	S 420 N	SM 50 C	K02002	FeE 420 KGN	E 420-I	Fe E 420 KG	2143	-	-	1.8902	-
-	TSiE 460	S 460 L	-	-	S 460 NL	E460	S 460 NL	-	-	-	1.8903	-
-	S 550 Q	-	-	-	S 550 Q	E 550	S 550 Q	-	-	-	1.8904	-
A 633 Gr. E	St E 460	P 460 N	SM 53 B	K02900	P 460 N	E 460-I	Fe E 460 KG	2143	-	-	1.8905	-
-	BGH 8906	55 F	-	-	S 460 QL	S 460 QL	S 460 QL	-	-	-	1.8906	-
-	St E 500	-	SM 58	K02001	-	-	-	-	-	-	1.8907	-
-	S 460 Q	55 F	-	-	S 460 Q	E 460	S 460 Q	-	-	-	1.8908	-
-	S 420 NL/TSiE 420	S 420 NL	STK 540	K02002	S 420 NL	E 420 T-I	Fe E 420 KT	-	-	-	1.8912	-
-	ESiE 420/ S420NL1	-	STK 540	-	-	-	-	-	-	-	1.8913	-
-	S 620 Q	-	-	-	S 620 Q	E 620	S 620 Q	-	-	-	1.8914	-
-	T Si E 460/ P460NL1	P 460 NL 1	-	K02900	P 460 NL1	E 460 T-I	Fe E 460 KT	-	-	-	1.8915	-
-	S 460 QL1	55 F	-	-	S 460 QL 1	-	-	-	-	-	1.8916	-
-	T Si E 500	-	-	K02001	-	E 500 T-I	-	-	-	-	1.8917	-
-	ESiE 460/ P460NL2	P 460 NL 2	-	-	P 460 NL 2	P 460 NL 2	P 460 NL 2	-	-	-	1.8918	-
-	ESiE 500/ S500NL1	-	-	-	S 500 NL 1	-	-	-	-	-	1.8919	-
-	TSiE 690 VB/ S690G2QL	-	-	K11646	S 690 G 2 QL	-	-	-	-	-	1.8921	-
-	S 690 G 4 QL/ TSiE 690 VC	-	-	-	S 690 G 4 QL	-	-	-	-	-	1.8922	-
-	S 590 QL/TSiE 590 V	-	-	-	S 590 QL	-	-	-	-	-	1.8923	-
-	S 500 Q (StE 500 V)	-	-	-	S 500 Q	E 500	S 500 Q	2614	-	-	1.8924	-
-	S 890 QL 1 (ESiE 90 V)	-	-	-	S 890 QL 1	-	-	-	-	-	1.8925	-
-	S 690 QL (TSiE 690 V)	-	SHY 685 NS	-	S 690 QL	-	-	-	-	-	1.8928	-
-	TSiE 690 VD/ S690G3QL	-	-	-	S 690 G 3 QL	-	-	-	-	-	1.8929	-
-	S 690 Q/TSiE 690 V	-	SHY 685 N	-	S 690 Q	E 690	S 690 Q	-	-	-	1.8931	-
-	WSt E 420/ P420NH	S 420 NL	STK 540	K02002	S 420 NL	S 420 NL	Fe E 420 KW	-	-	-	1.8932	-
-	S 960 QL/TSiE 960 V	-	-	-	S 960 QL	-	-	-	-	-	1.8933	-
-	WSt E 460/ P460NH	P 460 NH	-	K02900	P 460 NH	P 460 NH	Fe E 460 KW	-	-	-	1.8935	-
-	P420 QH	-	-	-	P 420 QH	-	-	-	-	-	1.8936	-
-	TSiE 770 V/ S770QL	-	-	-	S 770 QL	-	-	-	-	-	1.8938	-
-	ESiE 790 V/ S790QL1	-	-	-	S 790 QL 1	-	-	-	-	-	1.8939	-
-	S 960 Q	-	-	-	S 960 Q	E 960 T-II	S 960 Q	-	-	-	1.8941	-
-	S 550 G 1 QL 1/ ESiE 550 VA	-	-	-	S 550 G 1 QL 1	-	-	-	-	-	1.8944	-
-	S 355 J 0 WP	WR 50 A	-	-	S 355 J0 WP	E 36 W-A3	S 355 J0 WP	-	-	-	1.8945	-
-	S 355 J 2 WP	S 355 J 2 WP	-	-	S 355 J2 WP	E36W-A4	S 355 J2 WP	-	-	-	1.8946	-
-	L 415 QB	-	-	-	L 415 QB	L 415 QB	-	-	-	-	1.8947	-
-	L 360 QB	-	-	-	L 360 QB	L 360 QB	-	-	-	-	1.8948	-
-	L 450 QB	-	-	-	L 450 QB	L 450 QB	-	-	-	-	1.8952	-
-	S 460 NH (FGS 47)	-	-	-	S 460 NH	-	S 460 NH	-	-	-	1.8953	-
-	ESiE620VA/S 620 G 1 QL 1	-	-	-	S 620 G 1 QL 1	-	-	-	-	-	1.8954	-
-	L 485 QB	-	-	-	L 485 QB	L 485 QB	-	-	-	-	1.8955	-
-	S 460 NLH/FGS 47	-	-	-	S 460 NLH	-	S460NLH	-	-	-	1.8956	-
-	L 555 QB	-	-	-	L 555 QB	L 555 QB	-	-	-	-	1.8957	-
-	9 CrNiCuP 3 2 4	WR 50 A	SPA-H	K11430	-	-	-	-	-	-	1.8962	-
-	WTSI 52-3	WR 50 C	SMA 58 W	K11430	S 355 J 2 G 1 W	E 36 W-A2	-	-	-	-	1.8963	-
-	ESiE 690 VA	-	-	-	S 690 G1 QL1	-	-	-	-	-	1.8964	-
-	S 355 J 2 G 2 W	S 355 J 2 G 2 W	-	-	S 355 J 2 G 2 W	S 355 J 2 G 2 W	S 355 J 2 G 2 W	-	-	-	1.8965	-
-	S 355 K 2 G 1 W	S 355 K 2 G 1 W	SMA 490 CW	-	S 355 K2 G1 W	S 355 K2 G1 W	S 355 K 2 G 1 W	-	-	-	1.8966	-
-	S 355 K 2 G 2 W	S 355 K 2 G 2 W	-	-	S 355 K2G2W	S 355 K 2 G 2 W	S 355 K 2 G 2 W	-	-	-	1.8967	-
-	QSiE 600 TM/S 600 MC	-	-	-	S 600 MC	E 620 D	S 600 MC	-	-	-	1.8969	-
-	SiE 415..7/L 415 NB	-	-	-	L 415 NB	L 415 NB	-	-	-	-	1.8972	-
-	SiE 415.7 TM/L 415 MB	-	-	-	L 415 MB	L 415 MB	-	-	-	-	1.8973	-
-	S 700 MC (QSiE 690 TM)	-	-	-	S 700 MC	E 690 D	S 700 MC	-	-	-	1.8974	-
-	L 450 MB/TSiE 445.7 TM	-	-	-	L 450 MB	L 450 MB	-	-	-	-	1.8975	-
-	S 650 MC (QSiE 650 TM)	-	-	-	S 650 MC	E 620 D	S 650 MC	-	-	-	1.8976	-
-	L 485 MB/TSiE 480.7 TM	-	-	-	L 485 MB	L 485 MB	-	-	-	-	1.8977	-
-	SiE 550.7 TM/L 555 MB	-	-	-	L 555 MB	L 555 MB	-	-	-	-	1.8978	-

(continued)



P4

Workpiece Materials Listing • Steel • P4 (continued)

P4 Alloy Steels and Tool Steels

Content: C>.25%

Tensile Strength RM (MPa)*: 850–1400

Hardness (HB): 350–450 (HRC): 35–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
A 570 Gr. 50	St 50-2	4360-50 B	SS 50	–	E 295	A 50-2	Fe 490	2172	–	–	1.0050	–
–	St 60-2	4360-55 E	SM 58	–	E 335	A 60-2	Fe 60-2	1650	–	–	1.0060	–
–	St 70-2	E 360	–	–	E 360	A 70-2	Fe 70-2	1655	–	–	1.0070	–
–	C4D	–	–	–	C 4 D	FM 5	C 4 D	–	–	–	1.0300	–
–	C 22 8	–	–	–	P 250 GH	–	–	–	–	–	1.0460	–
–	H 260/ZSt E 260	H 240 LA	–	–	H 240 LA	E 240 C	–	–	–	–	1.0480	–
–	ZStE 380/H 380	H 360 L A	–	–	H 360 LA	E 355 C	–	–	–	–	1.0550	–
–	GL-E - 40 (S 390 G 3 S)	–	–	–	S 390 G 3 S	–	–	–	–	–	1.0560	–
–	C60D	–	–	–	C 60 D	FM 60	C 60 D	–	–	–	1.0610	–
–	C 64/64 Mn 3	–	–	–	C 64	–	–	–	–	–	1.0640	–
–	38 SMn 28	38 SMn 28	–	–	38 SMn 28	38 SMn 28	–	–	–	–	1.0760	–
–	QSt E 260 TM/5260 MC	–	–	–	S 260 MC	41 S 7	Fe E 275 TM	–	–	–	1.0970	–
–	C3D2	–	–	–	C 3 D 2	FM 5	C 3 D 2	–	–	–	1.1110	–
1330	28 Mn 6	150 M 28	SCMn 1	G 13300	28 Mn 6	35 M 5	C 28 Mn	–	–	–	1.1170	–
–	C 42 E Al/Ck 42 Al	–	–	–	S 355 G15	–	–	–	–	–	1.1190	–
–	C56D2/D 55-2	–	–	–	C 56 D 2	FM 56	C 56 D 2	–	–	–	1.1220	–
–	C 70 W1	–	–	–	CT 70	C 70 E 2 U	C 70 KU	–	–	–	1.1520	–
–	C 70 W2	–	–	–	C 70 U	–	–	–	–	–	1.1620	–
–	C 45 W	–	–	–	C 45 U	Y3 42	–	–	–	–	1.1730	–
–	C 60 W	–	SK 7	–	–	Y3 55	–	–	–	–	1.1740	–
–	100 CrMn 6	–	–	K19195	100 CrMn 6	100 CM 6	–	–	–	–	1.3520	–
–	28 B 2	–	SWRCHB 26	–	C 30 B	20 B 3	–	–	–	–	1.5510	–
5130	28 Cr 4	530 A 30	–	G51300	28 Cr 4	30 CD 4	–	–	–	–	1.7030	–
–	S 420 G1 M	–	–	–	P 550 M	–	–	–	–	–	1.8830	–
–	St E 380	–	SM 50 B	–	S 380 N	–	Fe E 390 KG	–	–	–	1.8900	–
–	TSIE 380/ S380NL	–	–	–	S 380 NL	–	Fe E 390 KT	2117	–	–	1.8910	–
–	TSIE 690 VA/ S690G1QL	–	–	–	S 690 G 1 QL	–	–	–	–	–	1.8920	–
–	WSt E 380/ P380Nh	–	–	–	P 380 NH	–	Fe E 390 KW	2116	–	–	1.8930	–
–	S 890 Q	–	–	–	S 890 Q	S 890 Q	S 890 Q	–	–	–	1.8940	–

P5

Workpiece Materials Listing • Steel • P5

P5 Ferritic, Martensitic, and PH Stainless Steels

Tensile Strength RM (MPa)*: 600–900

Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
410 S	X 7 Cr 14	–	–	–	–	–	–	–	–	–	1.4001	–
405	X 6 CrAl 13	405 S 17	SUS 405	S40500	X 6 CrAl 13	Z 6 CA 13	X 6 CrAl 13	2302	–	–	1.4002	–
–	X 2 CrNi 1 2	–	–	–	Hyfab3/12	CLC4003	F12N(Mn<1.50)	–	–	–	1.4003	–
416	X 12CrS 13	416 S 21	SUS416	S41600	X 12 CrS 13	Z 12 CF 13	X12CrS13	2380	–	–	1.4005	ATI 416™
410	X 12Cr 13	410 S 21	SUS410	S 41000	(X 12 Cr 13 KD)	Z 12 C 13	X12Cr13	2302	–	–	1.4006	ATI 410™
414	GX 8 CrNi 1 3	410 C 21	SCS 1	S41400	GX 7 CrNiMo 12-1	Z 12 CN 13 M	GX 12 Cr 13	–	–	–	1.4008	–
–	X 8 Cr 14	–	SUS Y 410	S41080	X 8 Cr 13 KE	–	–	–	–	–	1.4009	B13Fe
–	GX 12 Cr 1 2	–	–	–	GX12Cr12	GX12Cr12	–	–	–	–	1.4011	–
–	N 3 2 0 (LW)	–	–	–	3S62	–	–	–	–	–	1.4014	–
–	X 8 Cr 18	–	SUS Y 430	S43080	–	–	–	–	–	–	1.4015	B17Fe
430	X 8 Cr 17	430 S 15	SUS430	S 43000	X 8 Cr 17	Z8C17	X8Cr17	2320	–	–	1.4016	ATI 430™
–	X 6 CrNi 17 1	–	–	–	X6CrNi17-1	F17N	X6CrNi17-1	–	–	–	1.4017	–
420	X20Cr13	420 S 37	SUS 420J1	S42000	X 20 Cr 13	Z20C13	X20Cr13	2303	–	–	1.4021	ATI 420™
403	X 15 Cr 13	420 S 29	SUS 410 J1	J91201	X 15 Cr 13	Z 12 C 13 M	X 12 Cr 13	2301	–	A403M	1.4024	ATI 403™
–	GX 20 Cr 1 4	420 C 29	SCS 2	–	–	Z 20 C 13 M	–	–	–	A743-4	1.4027	–
420	X 40 Cr 13	–	SUS 420 J2	S42080	X 40 Cr 13	Z 40 C 14	X 40 Cr 14	2304	–	–	1.4031	–
–	GX 120 Cr 29	425 C 11	–	–	–	–	–	–	–	F30C	1.4086	–
430 F	X 12 CrMoS 17	441 S 29	SUS 430 F	S 43020	X 14 CrMoS 17	Z 10 CF 17	X 10 CrS 17	2383	–	–	1.4104	–
430	X 4 CrMoS 18	–	SUS 430F	–	X 6 CrMoS 17	Z 6 CDF 18 - 02	–	–	–	–	1.4105	–
–	X 2 CrMoSiS 18 2 1	–	–	J91151	–	–	–	–	–	CA15	1.4106	–
–	GX 8 CrNi 1 2	–	–	–	GX 8 CrNi 12	GX8CrNi 12	G X 8 CrNi 12	–	–	–	1.4107	–
434	X 6CrMo 17	434 S 17	SUS434	S43400	434S17	Z8CD17-01	X8CrMo17	2325	–	–	1.4113	AL 434
–	X 15 CrMo 13	–	–	–	–	–	–	–	–	–	1.4119	–
–	GX 70 CrMo 29 2	–	–	–	–	Z 60 CD 29.2 M	–	–	–	–	1.4136	–
–	X 2 CrNi 24 12	309 S 93	–	–	X 2 CrNi 24 13 KE	Z 2 CN 24-14	–	–	–	–	1.4332	CN23/12-IG
–	X 5 NiCr 32 21	–	–	S33200	–	–	–	–	–	B536	1.4333	H521
–	GX 5 CrNiMo 16 5	–	–	–	GX 4 CrNiMo 16-5-1	GX4CrNiMo 16-5-1	G X 4 CrNiMo 16-5-1	–	–	–	1.4405	–
–	ERO 4411 A	–	–	–	GX 4 CrNiMo 16-5-2	GX 4 CrNiMo 16-5-2	–	–	–	–	1.4411	–
–	X 38 CrMo 14	–	–	–	–	–	–	–	–	–	1.4419	–
–	X 8 CrTi 18	–	–	–	X 6 Cr 18 KE	–	–	–	–	–	1.4502	–
430 Nb	X 6 CrNb 17	–	SUS 430 LX	–	X 3 CrNb 17	Z 8 CNb 17	X 6 CrNb 17	–	–	–	1.4511	AXC525
409	X 6 CrTi 12	409 S 19	SUH 409	S40900	X 5 CrTi 12	Z 6 CT 12	X 6 CrTi 12	–	–	–	1.4512	–
–	X 6 CrNiTi 12	–	–	–	X 6 CrNiTi 12	X 6 CrNiTi 12	X 6 CrNiTi 12	–	–	–	1.4516	–
–	X 2 CrTi 12	–	SUS 430 LX	–	X 2 CrTi 17	F 20T	X 2 CrTi 17	–	–	–	1.4520	–
–	X 8 CrMoTi 17	–	–	–	X 2 CrMoTiS 18 2	X2CrMoTiS18-2	–	–	–	–	1.4523	1802
–	GX 5 CrNiCu 16 4	–	–	–	GX 5 CrNiCu 16-4	GX 5 CrNiCu 16-4	–	–	–	–	1.4525	–
–	X 6 CrMoNb 17 1	–	–	–	X 6 CrMoNb 17-1	X6CrMoNb 17-1	F 17 Mnb	–	–	–	1.4526	–
904 L	X 1 NiCrMoCuNb 25 20 5	904 S 13	–	N08904	X 1 NiCrMoCuNb 25 20 5	Z 1 NCDU 25 20	–	2562	–	–	1.4539	ATI 904L™
348	X 5 CrNiNb 18 10	S 527	–	J92640	–	–	X 6 CrNiNb 18 11	–	–	–	1.4546	ATI 348™
–	X 5 CrNiNb 19 9	–	SUS Y 347	S34780	X 5 CrNiNb 20 10 KE	Z 6 CNNb 20-10	–	–	–	–	1.4551	–
–	GX 7 NiCrMoCuNb 42 20	–	–	–	GX 7 NiCrMoCuNb 42 20	–	–	–	–	–	1.4559	–
–	X 5 CrNiMoNb 19 12	318 S 96	–	S31980	X 5 CrNiMoNb 19 12 03 KE	Z 4 CND5Nb 19-12-03	–	–	–	–	1.4576	–
–	X 2 CrAlTi 18 2	–	–	–	X 2 CrAlTi 18-2	DMV 59	X 2 CrAlTi 18-2	–	–	–	1.4605	–
–	X 10 CrAl 7	–	–	–	X 10 CrAl 7	–	–	–	–	–	1.4713	–

NOTE: For legend, see page Y237.

(continued)



P5

Workpiece Materials Listing • Steel • P5 (continued)

P5 Ferritic, Martensitic, and PH Stainless Steels

Tensile Strength RM (MPa)*: 600–900

Hardness (HB): <330 (HRC): <35

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	X 215 Cr 12	-	-	-	-	-	-	-	-	-	1.4721	-
H-12	X 10 CrAl 13	BH 12	SUS 405	T20812	X 10 CrAl 13	Z 10 C 13	X 10 CrAl 12	-	-	-	1.4724	-
430	X 10 CrAl 18	(430 S 15)	SUH 21	S43000	-	Z 10 CAS 18	(X 8 Cr 17)	-	-	-	1.4742	-
446	X 10 CrAl 25	-	SUH 442	S44600	X 10 CrAl 24	Z 10 CAS 24	X 16 Cr 26	2322	-	-	1.4762	-
-	GX 40 CrNiSi 27 4	-	-	J92605	-	-	-	-	-	-	1.4823	-
-	X 12 CrNi 22 12	311 S 94	SUS Y 309	S30980	X 15 CrNi 23 13	-	X 16 CrNi 23 14	-	-	309	1.4829	-
-	X 9 CrNiSiNCe 21 11 2	-	-	-	X 9 CrNiSiNCe 21-11-2	-	-	-	-	-	1.4835	-
314	X 15 CrNiSi 25 20	314 S 25	SUH 310	S31400	X 15 CrNiSi 25 20	Z 15 CNS 25.20	X 16 CrNiSi 25 20	-	-	-	1.4841	Cronifer® 2520
-	X 12 CrNi 25 20	310 S 94	-	S31080	X 12 CrNi 26 21 KE	Z 12 CN 26-21	-	-	-	-	1.4842	-
-	CrNi 25 20	-	SCS 18	S31400	-	-	-	-	-	-	1.4843	-
310 S	X 12 CrNi 25 21	310 S 24	SUS 310 S	S31008	X 8 CrNi 25 21	Z 12 CN 25.20	X 6 CrNi 25 20	2361	-	-	1.4845	ATI 310S™
HK	X 40 CrNiSi 25 20	310 C 40	SCH 21	J94204	-	-	GX 40 CrNi 26 20	-	-	-	1.4848	-
-	GX 40 NiCrSiNb 38-18	-	-	-	3072.76	-	-	-	-	-	1.4849	-
-	GX 10 NiCrNb 32 20	-	-	J95151	-	-	-	-	-	-	1.4859	-
330	X 12 NiCrSi 35 16	NA 17	SUH 330	N08330	X 12 NiCrSi 35 1 6	Z 12 NCS 37.18	-	-	-	-	1.4864	-
-	X40NiCrSi38-18	330 C 40	SCH15/SCH16	J94605	330C11/330C40/331C40	-	GX50NiCr39-19	-	-	-	1.4865	-
-	GX 50 CrNi 30-30	-	-	N08801	-	Z5NCT3220	-	-	-	-	1.4868	-
B163	X 10 NiCrAlTi 32 20	NA 15	NCF800(TP)	-	NA15(H)	Z10NC32.21	-	-	B163	-	1.4876	B163
-	X 6 NiCrNbCe 32 27	-	-	-	X 6 NiCrNbCe 32-27	-	-	-	-	-	1.4877	-
-	X 12 NiCrSi 35 19	-	-	N08830	X1 0 NiCrSi 35 19	-	-	-	-	-	1.4886	330
-	X 10 NiCrSiNb 35 22	-	-	-	X10NiCrSiNb35-22	-	-	-	-	-	1.4887	-
-	X 10 CrMoV 9 1	-	-	S59180	X 10 CrMoV 9-1	-	-	-	-	-	1.4903	-
-	X 20 CrMoV 12 1	-	-	-	X 20 CrMoV 11-1	-	X 20 CrMoV 12 01 KW	2317	-	-	1.4922	-
-	GX 22 CrMoV 12 1	-	-	-	G-X 22 CrMoV 12 1	GX23CrMoV12-1	G X 23 CrMoV 12-1	-	-	-	1.4931	-
422	X 20 CrMoWV 12 1	-	SUH 616	S42200	-	-	X 22 CrMoWV 12 1	-	-	-	1.4935	-
661	X 12 CrCoNi 21 20	-	SUH 661	R30155	-	-	-	-	-	-	1.4971	-
R30155	X 12 CrCoNiMoWNB 21 20 20	-	-	R30155	X 12 CrCoNiMoWNB 21 20 20	Z 12 CKNDWNB 21.20.20	N-155	-	-	-	1.4974	-
-	X 40 CoCrNi 20 20	-	-	-	-	Z 42 CNKDWNB	-	-	-	-	1.4977	-
403	X 6 Cr 13	403 S 17	SUS 403	S 40300	X 6 Cr 13	Z 6 C 13	X 6 Cr 13	2301	-	A240	1.4000	ATI 410S™
439	X 6 CrTi 17	-	SUS 430 LX	S 43035	X 8 CrTi 1 7	Z 8 CT 1 7	X 6 CrTi 17	-	-	-	1.4510	430 Ti
-	X 22 CrMoV 1 -1 = ST12T	-	-	-	-	-	-	-	-	A437-76 Grade B4B	-	ATI FV448™
409 Cb	-	-	-	-	-	-	-	-	-	-	-	ATI 409Cb™
436 S	-	-	-	-	-	-	-	-	-	-	-	ATI 436S™
439 HP	-	-	-	S43035	-	-	-	-	-	-	-	ATI 439 HP™
441 HP	-	-	-	-	-	-	-	-	-	-	-	ATI 441 HP™
-	-	-	-	S44735	-	-	-	-	-	A240	-	AL 29-4C®
-	-	-	-	-	-	-	-	-	-	B625	-	ATI E-BRITE®
403Cb	-	-	-	-	-	-	-	-	-	-	-	T656
420 modified	-	-	-	-	-	-	-	-	-	-	-	Stavax ESR
-	-	-	-	-	-	-	-	-	-	-	-	420HC
-	-	-	-	-	-	-	-	-	-	-	-	CPM 154
-	-	-	-	-	-	-	-	-	-	-	-	CPM® S30V®
-	-	-	-	-	-	-	-	-	-	-	-	CPM® S35VN®
420 V	-	-	-	-	-	-	-	-	-	-	-	CPM® S90V®
-	-	-	-	-	-	-	-	-	-	-	-	M390
422	-	-	-	S42200	-	-	-	-	-	-	-	616

P6
Workpiece Materials Listing • Steel • P6
P6 High-Strength Ferritic, Martensitic, and PH Stainless Steels Tensile Strength RM (MPa): 900–1350
Hardness (HB): 350–450 (HRC): 35–48*

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	17-7 PH	301 S 81	SUS 631	S17700	X 7 CrNiAl 17-7	X7CrNiAl17-7; Z9CNA17-07	X 7 CrNiAl 17-7	2388	–	A693	1.4564	ATI 17-7™
–	GX 22 CrNi 17	ANC 2	–	J91803	–	Z 20 CN 17.2 M	–	–	–	CB30	1.4059	–
–	GX 30 CrSi 6	–	–	–	–	–	–	–	–	–	1.4710	–
–	GX 4 CrNi 13 4	–	–	–	GX 4 CrNi 13-4	GX 4 CrNi 13-4	GX 4 CrNi 13-4	–	–	–	1.4317	–
–	GX 40 CrSi 17	–	–	–	–	–	GX 35 Cr 17	–	–	–	1.4740	–
–	GX 40 CrSi 24	–	SCH 1	–	–	–	GX 35 Cr 13	–	–	–	1.4745	–
–	GX 40 CrSi 28	452 C 11	SCH 2	J92605	–	–	GX 35 Cr 28	–	–	CC50	1.4776	–
–	X 105 CrCoMo 18 2	–	–	–	–	–	–	–	–	–	1.4528	N690
440 C	X 105CrMo 17	–	SUS 440C	S44004	X 105 CrMo 17	Z 100 CD 17	X 105 CrMo 17	–	–	–	1.4125	ATI 440C™
–	X 110 CrMoV 15	–	SUS 430 LX	–	–	Z 4 CN b 17	X 6 CrNb 17	–	–	–	1.4111	–
5718.9	X 12 CrNiMo 12	S.151	–	S64152	–	Z12CNDV12	–	–	–	–	1.4939	ATI Jethete™ M152
–	X 12 CrNiMoV 12 3	–	–	–	X 12 CrNiMoV 12-3	X 12 CrNiMoV 12-3	–	–	–	–	1.4938	T522
–	X 15 TN	–	–	–	420S25	Z40CDV16-02	X40CrNiMoVN16-2	–	–	F899	1.4123	X 15 TN
15-5 PH	X 15 U 5 W	–	–	S15500	–	Z6CNU15.05	–	–	–	A564/ A693/A705	1.4545	ATI 15-5™
–	X 19 CrMoNbVN 11 1	–	–	–	–	Z 21 CDNbV 11	–	–	–	–	1.4913	Jethete X19
431	X 19 CrNi 17 2	431 S 29	SUS 431	S 43100	X 19 CrNi 17 2	Z 15 CN 16.02	X 16 CrNi 16	2321	–	–	1.4057	431 (HT)
–	X 20 CrMo 17 1	–	–	–	–	–	–	–	–	–	1.4115	B17MoFe
420F Mod	X 22 CrMoNiS 13 1	–	–	–	–	–	–	–	–	–	1.4121	Bioline 4C27A
–	X 22 CrMoV 12 1	762	–	–	X 22 CrMoV 12-1	Z 21 CDV 12	X 22 CrMoV 12 1	–	–	–	1.4923	Jethete X20
420	X 29 CrS 13	416 S 37	SUS 416	–	X 29 CrS 13	Z29CF13	X 29 CrS 13	–	–	–	1.4029	–
–	X 3 CrNiCuTi 12 9	–	–	S45500	–	–	X 6 CrNiNb 18 11	–	–	–	1.4543	ATI 455™
13-8 PH	X 3 CrNiMoAl 13 8 2	–	–	S13800	–	Z4 CNDAT 13 09	–	–	–	–	1.4534	ATI 13-8Mo™
420 F	X 30 Cr 13	420 S 45	SUS420J2	S42020	X 30 Cr 13	Z 30 C 13	X 30 Cr 13	2304	–	CA40	1.4028	–
–	X 30CrMoN 15 1	–	–	–	420S45	Z33C13	–	2304	–	–	1.4108	N360
–	X 35 CrMo 17	–	–	–	X 39 CrMo 17 1	X39CrMo17-1	X 35 CrMo 17	–	–	–	1.4122	–
–	X 4 CrNiCuNb 16 4	–	–	J92200	–	Z 4 CNUbV 16.4 M	–	–	–	–	1.4540	–
415 M	X 4 CrNiMo 16 5 1	–	–	–	X 4 CrNiMo 16 5 1	Z 6 CND 16.05.01	–	2387	–	–	1.4418	APX4
–	X 40 CrNi 25 21	310 S 98	SCH 13	–	–	–	–	–	–	–	1.4846	–
–	X 40 CrSiMo 10 2	–	SUH3	–	X 40 CrSiMo 10-2	Z40CSD10	–	–	–	–	1.4731	–
420	X 45 Cr 13	(420 S45)	–	–	–	Z 40 C 14	X 40 Cr 14	–	–	–	1.4034	–
–	X 45 CrMoV 15	–	–	–	X 50 CrMoV 15	Z 50 CD 15	X 50 CrMo V 15	–	–	–	1.4116	UGI 4116N
HNV3	X 45 CrSi 9 3	–	SUH1	–	401S45	Z45CS9	X45CrSi8	–	HNV3	–	1.4718	–
HNV 2	X 45 SiCr 4	–	–	S64006	–	–	–	–	–	–	1.4704	–
CA 6-NM	X 5 CrNi 134	425 C 11	SCS 5	J91540	X 3 CrNiMo 13 4	Z 4 CDN 13.4	X 6 CrNi 13 04	2385	–	–	1.4313	–
630	X 5 CrNiCuNb 16 4	–	SUS 630	–	X 5 CrNiCuNb 16-4	Z6CNU17.04	–	–	–	CB7Cu	1.4542	UGIMA® 4542
17-4 PH	X 5 CrNiCuNb 17 4 4	–	SUS 630	S17400	X 5 CrNiCuNb 16-4	X5CrNiCuNb16.4	–	–	–	A693	1.4548	–
–	X 5 CrNiMoCuNb 14 5	–	–	–	X 5 CrNiMoCuNb 14-5	X 5 CrNiMoCuNb 14-5	X 5 CrNiMoCuNb 14-5	–	–	–	1.4594	–
–	X 50 CoCrNi 20 20	–	–	–	–	–	–	–	–	–	1.4978	–
EV8	X 53 CrMnNiN 2 9	349 S 54	SUH35/SUH36	S63008	349S54	Z52CMN21.09	X53CrMnNiN21-9	–	EV8	–	1.4871	–
–	X 55 CrMo 14	–	–	–	–	Z 50 CD 13	–	–	–	–	1.4110	–
–	X 60 CrMnMoVbN 21 10	–	–	–	–	Z 60 CMDVbN 21-10 Az	–	–	–	–	1.4785	–
440 A	X 65 CrMo 14	–	SUS 440A	S44002	X 70 CrMo 15	Z 70 CD 14	–	–	–	–	1.4109	ATI 440A™
–	X 7 CrNiAl 17 7	301 S 81	SUS 631	S17700	X 7 CrNiAl 17-7	X7CrNiAl17-7; Z9CNA17-07	X 7 CrNiAl 17-7	2388	–	A693	1.4568	–
632	X 7 CrNiMoAl 15 7	–	–	S15700	–	–	–	–	–	–	1.4574	PH 15-7 Mo®
–	X 8 CrCoNiMo 10 6	Z 9 CKD 11	–	–	S152	Z10CKD10	–	–	–	–	1.4911	ATI FV535™
15-7 PH	X 8 CrNiMoAl 15 7 2	–	–	S15700	X 8 CrNiMoAl 15-7-2	Z8CNDAl15.07	X 8 CrNiMoAl 15-7-2	–	–	A693	1.4532	ATI 15-7™
HNV 6	X 80 CrNiSi 20	443 S 65	SUH 4	S65006	X 80 CrNiSi 20	Z 80 CSN 20.02	X 80 CrSiNi 20	–	–	–	1.4747	–
–	X 85 CrMoV 18 2	–	–	–	X 85 CrMoV 18 2	Z 85 CDMV 18.02	X 85 CrMoV 19 3	–	–	–	1.4748	–
440 B	X 90 CrMoV 18	409 S 1 9	SUS 440 B	S44003	X 90 CrMoV 18	Z 3 CT 1 2	X 6 Cr Ti 1 2	–	–	–	1.4112	–
–	X45CrNiW18-9	331 S 40	SUH31	–	X 45 CrNiW 18 9	Z35CNWS14.14	X45CrNiW18-9	–	–	–	1.4873	–

NOTE: For legend, see page Y237.

M1 ■ Workpiece Materials Listing • Stainless Steel • M1

M1 Austenitic Stainless Steel

Tensile Strength RM (MPa)*: <600

Hardness (HB): 130–200

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
CF-8	X 6 CrNi 18 9	304 C 15	SCS 13	–	X 2 CrNiN 18 7	Z 6 CN 18.10 M	G X 5 CrNi 19-10	2333	–	CF8	1.4308	CF-8
–	X 2 NiCr 18 16	–	–	–	–	Z 3 CDT 18-02	–	–	–	–	1.4321	–
–	X 1 CrNi 25 21	–	–	–	X 1 CrNi 25 21	X1CrNi25-21	X 1 CrNi 25-21	–	–	–	1.4335	Uranus 65
610	X1CrNiSi 18-15-4	–	–	S30600	X 1 CrNiSi 18-15-4	Z1 CNS 17.5	X 1 CrNiSi 18-15-4	–	–	A240-97A	1.4361	ATI 610™
CF-8M	X 6 CrNiMo 18 10	316 C 16	SCS 14	J92900	GX 5 CrNiMo 19-11-2	GX5CrNiMo 19-11-2	G X 5 CrNiMo 19-11-2	2343	–	–	1.4408	–
–	GX 2 CrNiMo 19 11 2	–	–	–	GX 2 CrNiMo 19-11-2	GX 2 CrNiMo 19-11-2	GX 2 CrNiMo 19-11-2	–	–	–	1.4409	–
–	ERO 4412 AHMo	–	–	J92900	GX 5 CrNiMo19-11-3	GX 5 CrNiMo 19-11-3	–	–	–	A743CF8M	1.4412	–
–	ERO 4416 AHCRMo	–	–	–	GX 2 NiCrMoN 25-20-5	GX2NiCrMoN 25-20-5	–	–	–	–	1.4416	–
–	GX 6 CrNiMo 18 12	317 C 12	–	–	–	–	–	–	–	–	1.4437	–
–	X 2 CrNiMo 18 16 5	–	–	S31780	–	–	–	–	–	–	1.4440	–
–	GX 2 CrNiMoN 17 1 3 4	–	–	–	GX 2 CrNiMoN 17 1 3 4	–	–	–	–	–	1.4446	–
–	GX 6 CrNiMo 17 13	317 C 16	–	J93000	–	–	–	–	–	C68M	1.4448	–
–	GX 2 NiCrMo 28 20 2	–	–	–	GX 2 NiCrMo 28-20-2	GX 2 NiCrMo 28-20-2	GX 2 NiCrMo 28-20-2	–	–	–	1.4458	–
–	GX 4 NiCrCuMo 30 20 4	–	–	–	GX 4 NiCrCuMo 30-20-4	GX 4 NiCrCuMo 30-20-4	–	–	–	–	1.4527	–
–	GX 5 CrNiNb 18 9	347 C 17	SCS 21	J92710	GX 5 CrNiNb 19-11	Z 4 C2NNb 19.10 M	G-X 5 CrNiNb 19-11	–	–	–	1.4552	–
–	GX 2 CrNiMoCuN 20 18 6	–	–	–	GX 2 CrNiMoCuN 20-18-6	GX 2 CrNiMoCuN 20-18-6	–	–	–	–	1.4557	–
–	X 3 CrNiCuMo 17 11 3 2	–	–	–	X 3 CrNiCuMo17 11 3 2	X3CrNiCuMo 17-11-3-2	X 3 CrNiCuMo 17-11-3-2	–	–	–	1.4578	–
–	GX 5 CrNiMoNb 18 10	318 C 17	SCS 22	–	GX 5 CrNiMoNb 19-11-2	Z 4 C2NDNb 18.12 M	GX 5 CrNiMoNb 19-11-2	–	–	–	1.4581	–
–	GX 2 NiCrMoCu 25 2 0 5	–	–	–	GX 2 NiCrMoCu 25-20-5	GX 2 NiCrMoCu 25-20-5	–	–	–	–	1.4584	–
–	GX 7 CrNiMoCuNb 18 18	–	–	J94651	–	–	–	–	–	–	1.4585	–
–	GX 2 NiCrMoCuN 29 25 5	–	–	–	GX 2 NiCrMoCuN 29-25-5	GX 2 NiCrMoCuN 29-25-5	–	–	–	–	1.4587	–
–	GX 2 NiCrMoCuN 25 20 6	–	–	–	GX 2 NiCrMoCuN 25-20-6	GX 2 NiCrMoCuN 25-20-6	–	–	–	–	1.4588	–
–	GX 25 CrNiSi 18 9	302 C 35	–	J92602	–	–	G X 16 CrNi 20 10	–	–	CF20	1.4825	–
–	GX 40 CrNiSi 22 9	–	SCH 12	J92603	–	–	–	–	–	–	1.4826	–
–	GX 50 CrNiNb 25 22	–	–	–	–	–	–	–	–	–	1.4836	–
–	GX 40 CrNiSi 25 12	309 C 30	SCS 17	J93503	–	–	GX 35 CrNi 25 12	–	–	CE30	1.4837	–
334	X 8 CrNiAlTi 20 20	–	–	S33400	–	–	–	–	–	–	1.4847	ATI 334™
–	GX 40 NiCrSiNb 38 18	–	–	N08004	–	–	–	–	–	–	1.4849	–
–	GX 40 NiCrSiNb 35 25	–	–	–	–	–	–	–	–	–	1.4852	–
–	GX 40 NiCrSi 35 25	–	–	J95705	–	–	GX 50 NiCr 35 25	–	–	–	1.4857	–
105 MA	BGH 4892	–	–	–	–	–	–	–	–	–	1.4892	–
–	X 3 CrNi 18 11	–	–	–	–	–	X 2 CrNiN 18 11	–	–	–	1.4949	–
–	X 2 CrNiMo 19 12	316 S 93	–	S31683	x 2 CrNiMo 19 13 03 KE	Z 2 CND 19-12-03	–	–	–	–	1.4430	–
–	GX 7 NiCrMoCuNb 25 20	–	SCS 23	J95150	10.204.3.1B	Z 3 NCDU 25.20 M	GX 5 NiCrCuMo 29 21	–	–	–	1.4500	–
–	X 3 CrNiCu 19 9 2	–	–	–	S 124 M	PHYHQ 4560	304 RH1	–	–	–	1.4560	ACX276
–	–	–	–	S63198	–	–	–	–	–	19-9 DL	–	19-9 DL
–	X 2 CrNiMoN 17 13 3	–	–	–	–	Z 2 CND 17.13	X 2 CrNiMoN 17 13 3	–	–	–	–	–
332	–	–	–	N08800	–	–	–	–	–	–	–	ATI 332™
–	–	–	–	N08367	–	–	–	–	–	–	–	AL-6XN®
611	–	–	–	S30601	–	–	–	–	–	A240-97A	–	ATI 611™

M2 ■ Workpiece Materials Listing • Stainless Steel • M2

M2 High-Strength Austenitic Stainless and Cast Stainless Steels

Tensile Strength RM (MPa)*: 600–800

Hardness (HB): 150–230 (HRC): <25

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
304 H	X 5 CrNi 18 10	304 S 15	SUS 304	S30409	X 6 CrNi 18 10 KD	Z 6 CN 18.09	X 5 CrNi 18 10	2332	–	–	1.4301	–
–	X 5 CrNi 19 9	308 S 96	–	S30888	X 6CrNi 20 10 KE	–	–	–	–	–	1.4302	–
305	X 4 CrNi 18 12	305 S 19	SUS 305	S30500	X 4 CrNi18 12 KD	Z 5 CN 18.12	X 4 CrNi 19 10	–	–	–	1.4303	–
303	X 10 CrNiS 18 9	303 S 21	SUS 303	S30300	X 10 CrNiS 18 9	Z 10 CNF 18.09	X 10 CrNiS 18 09	2346	–	–	1.4305	ATI 303™
304 L	X 2 CrNi 19 11	304 C 12	SUS 304L	S30403	X 3 CrNi18 10 KD	Z 2 CN 18.09	GX 2 CrNi 19 10	2352	–	CF3	1.4306	ATI 304L™
304 L	X 2 CrNi 18 9	304 S 11	SUS 304L	–	X 2 CrNi 18 9	CLC18.9.L	X 2 CrNi 18-9	–	–	–	1.4307	–
–	GX 2 CrNi 19 11	304 C 12	–	J92500	GX2CrNi19-11	GX2CrNi19-11	GX2CrNi19-11	2352	–	CF3	1.4309	–
304 LN	X 2 CrNiN 18 10	304 S 62	SUS 304 LN	S30453	X 2 CrNiN 18 10	Z 8 CN 18.12	X 8 CrNi 19 10	2371	–	–	1.4311	–
305	GX 10 CrNi 18 8	302 C 25	SCS 12	–	–	Z 10 CN 18.9 M	–	–	–	–	1.4312	ATI 305™
308 L	X 2 CrNi 19 9	308 S 92	SUS Y 308L	S30883	X 2 CrNi 20 10 KE	Z 2 CN 20.10	–	–	–	–	1.4316	–
–	X 2 CrNiN 18 7	–	–	–	X 2 CrNiN 18-7	18-7L	18-7L	–	–	–	1.4318	–
302	X 10 CrNi 18 9	302 S 26	SUS 302	S20200	302S31	Z10CN18-09	X 10 CrNi 18 09	2330	–	–	1.4319	ATI 302™
301	X 10 CrNi 18 9	302 S 26	–	J92501	X 10 CrNi 18 9	–	–	–	–	–	1.4324	–
–	X 10 CrNi 30 9	312 S 94	–	–	X 12 CrNi 30 09 KE	Z 10 CN 31-10	–	–	–	–	1.4337	–
–	X 3 CrNi 13 4	–	–	S41086	X 3 CrNi 14 04 KE	–	–	–	–	–	1.4351	410NiMo
202	X 3CrMnNiN 18 8 7	–	–	–	284S16	Z8CMN18-08-05	–	–	–	–	1.4371	–
201	X 12 CrMnNiN 17 7 5	284 S 16	SUS 201	–	X 12 CrMnNiN 17-7-5	X 12 CrMnNiN17-7-5	X 12 CrMnNiN 17-7-5	–	–	–	1.4372	ACX060
316	X 5 CrNiMo 17 12 2	316 S 16	SUS 316	S31600	X6 CrNiMo 17 12 2 KD	Z 6 CND 17.11	X 5 CrNiMo 17 12	2347	–	–	1.4401	ATI 316™
316L	X 2 CrNiMo 17 13 2	316 S 12	SUS 316 L	S31603	GX 3 CrNiMo 17 12 2 KD	Z 3 CND 19.10 M	GX 2 CrNiMo 19 11	2348	–	–	1.4404	ATI 316L™
316 LN	X 2 CrNiMoN 17 12 2	316 S 61	SUS 316 LN	S31653	X 3 CrNiMoN 17 12 2	Z 2 CND 17.12 Az	X 2 CrNiMoN 17 12	2353	–	–	1.4406	ATI 316LN™
–	X 5 CrNiMo 13 4	–	–	J91550	–	Z 6 CND 16.05.01	–	–	–	–	1.4407	–
–	X12CrNiMoS18-11	–	–	–	–	Z3CND17-13	–	–	–	–	1.4427	Chronifer® Special KL
316L	X 2 CrNiMo 17 12 3	316 S 13	SUS 316L	–	X 2 CrNiMo 17 12 2	Z 3 CND 17-13-30	X 2 CrNiMo 17-12-3	2348/2353/2354	–	–	1.4432	–
–	X 2 CrNiMoN 18 12 4	–	–	–	317 LN	CLC18.12.4.LN	X2CrNiMoN1812-4	–	–	–	1.4434	–
316 L	X 2 CrNiMo 18 14 3	316 S 11	SCS 16	S31603	X 2 CrNiMo 18 16	Z 2 CND 17.13	X 2 CrNiMo 17 13	2353	–	–	1.4435	–
316	X 5 CrNiMo 17 1 3 3	316 S 16	SUS 316	S31600	X6 CrNiMo 18 13 3 KD	Z 6 CND 17.12	X 5 CrNiMo 17 13	2343	–	–	1.4436	–
317 L	X 2 CrNiMo 18 16 4	317 S 12	SUS 317 L	S31703	X 3 CrNiMo 18 16 4	Z 2 CND 19.15	X 2 CrNiMo 18 15	2367	–	–	1.4438	ATI 317L™
–	X 2 CrNiMoN 17 13 5	–	–	–	X 3 CrNiMo 17 13 5	Z 3 CND 18.14-05 AZ	–	–	–	–	1.4439	–
–	X 2 CrNiMo 18 15 4	–	–	S31675	–	X 3 CrNiMoN 19-14	–	–	–	–	1.4442	–
317	X 5 CrNiMo 17 13	317 S 16	SUS 317	S31700	–	–	X 5 CrNiMo 18 15	–	–	–	1.4449	AL 317L+E55
–	X 5 CrNiCuNb 16 4	–	–	–	–	Z7CNU16.04	–	–	–	–	1.4452	–
–	–	–	–	S21904	–	–	–	–	–	A666	1.4454	ATI 219
–	X 2 CrNiMnMoN 20 16	–	–	–	X 2 CrNiMnMoN 20 15 08 KE	–	–	–	–	–	1.4455	–
–	X 1 CrNiMoN 25 2 5 2	–	–	S31050	–	–	–	–	–	–	1.4465	2RE69

(continued)

M2 ■ Workpiece Materials Listing • Stainless Steel • M2 (continued)
 M2 High-Strength Austenitic Stainless and Cast Stainless Steels Tensile Strength RM (MPa)*: 600–800
 Hardness (HB): 150–230 (HRC): <25

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	X 1 CrNiMoN 25 22 2	–	–	–	725 LN	DMV 25.22.2	X 1 CrNiMoN 25-22-2	–	–	–	1.4466	–
–	X 1 NiCrMoCuN 25 20 6	–	–	–	–	–	–	–	–	–	1.4529	Uranus B26 6Mo
–	GX 2 NiCrMoCuN 25 20	–	–	J94650	GX 2 CrNiMoCuN 25-20-6	–	–	–	–	–	1.4536	–
–	X 1 CrNiMoCuN 25 25 5	–	–	–	–	X 1 CrNiMoCuN 25-25-5	X 1 CrNiMoCuN 25-25-5	–	–	–	1.4537	–
321	X 6 CrNiTi 18 10	321 S 12	SUS 321	S32100	X 6 CrNiTi 18 10	Z 6 CNT 18.10	X 6 CrNiTi 18 11	2337	–	–	1.4541	ATI 321™
321	A 700	304 S 31	–	J92630	–	Z 10 CNT 18 11	X 6 CrNiTi 18 11	–	–	–	1.4544	–
–	X 1 CrNiMoCuN 20 18 7	X 1 CrNiMoCuN 20 18 7	–	S31254	X 1 CrNiMoCuN 20-18-7	X 1 CrNiMoCuN 20-18-7	X 1 CrNiMoCuN 20-18-7	–	–	–	1.4547	Uranus B25 6Mo
–	X 2 NiCrAlTi 32 20	–	NCF 800 TB	–	–	–	–	–	–	–	1.4558	–
–	X 1 NiCrMoCuN 31 27 4	–	–	–	X 1 NiCrMoCu 31 27 4	X 1 NiCrMoCuN 31-27-4	X 1 NiCrMoCuN 31-27-4	2584	–	–	1.4563	–
–	X 3 CrNiCu 18 9 4	394 S 17	SUS XM7	–	X3CrNiCu18-9-4	304CU	304K	–	–	–	1.4567	–
316 Ti	X 6 CrNiMoTi 17 12 2	320 S 31	SUS 316Ti	–	X 6 CrNiMoTi 17 12 2	Z 6 CNDT 17.12	X 6 CrNiMoTi 17 12	2350	–	–	1.4571	ATI 316Ti™
–	GX 5 CrNiMoNb 23 9	–	–	–	–	–	–	–	–	–	1.4572	–
316 Ti	X 10 CrNiMoTi 18 12	320 S 33	SUS 316Ti	S31635	–	–	X 6 CrNiMoTi 17 13	–	–	–	1.4573	–
318	X 10 CrNiMoNb 18 12	–	–	–	–	–	X 6 CrNiMoNb 17 13	–	–	–	1.4583	–
–	X 2 CrNiCu 19 10	–	–	–	X 2 CrNiCu 19-10	TX 304L	–	–	–	–	1.4650	–
–	X1CrNiMoCuN24-22-8	–	–	S32654	–	–	–	–	–	–	1.4652	654 SMO®
–	153 MA	–	–	S30415	X 6 CrNiSiNce 19 10	–	–	–	–	–	1.4818	153 MA™
–	X 20 CrNiSi 25 4	–	–	S44635	X 15 CrNiSi 25 4	Z 20 CNS 25.04	X 20 CrNiSi 25 4	–	–	–	1.4821	–
309	X 15 CrNiSi 20 12	309 S 24	SUH 309	S30900	X 15 CrNiSi 20 12	Z 15 CNS 20.12	X 16 CrNiSi 25,20	–	–	–	1.4828	ATI 309™
309 S	X 7 CrNi 23 14	309 S 24	SUS 309 S	J93400	X 12 CrNi 23 13	Z 15 CN 24.13	X 6 CrNi 23 14	–	–	–	1.4833	–
–	353 MA	–	–	S35315	X 6 NiCrSiNce 35-25	–	–	–	–	–	1.4854	353 MA®
–	X 8 NiCrSi 38 18	NA 17	–	N08330	–	Z 12 NCS 37.18	–	–	–	–	1.4862	–
–	X 33 CrNiMnN 23 8	–	–	–	X 33 CrNiMnN 23-8	X 33 CrNiMnN 23-8	–	–	–	–	1.4866	–
EV 12	X 55 CrMnNiN 20 8	–	–	S63012	X 55 CrMnNiN 20-8	Z 55 CMN 20.08 Az	–	–	–	–	1.4875	–
321	X 12 CrNiTi 18 9	321 S 20	SUS 321	S32100	X 10 CrNiTi 18 10	Z 6 CNT 18.12	X 6 CrNiTi 18.11	2337	–	–	1.4878	ACX315
EV 11	X 70 CrMnNiN 21 6	–	–	S63011	–	–	X 70 CrMnNiN 21 6	–	–	–	1.4881	–
–	X 50 CrMnNiNbN 21 9	–	–	–	X 50 CrMnNiNbN 21-9	Z 50 CMNNb 21.09	–	–	–	–	1.4882	–
–	X 7 CrNiNb 18 10	–	SUS347H	S34709	X7CrNiNb18-10	X7CrNiNb18-10	–	–	–	–	1.4912	–
316 H	X 6 CrNiMo 17 13	316 S 51	–	S31609	X 6 CrNiMo 17 12 2	Z 6 CND 17-13 B	–	–	–	–	1.4919	–
321 H	X 8 CrNiTi 18 10	–	–	–	X 6 CrNiTiB 18-10	Z 6 CNT 18-10 B	X 6 CrNiTiB 11	–	–	–	1.4941	–
A660	X 4 NiCrTi 25 15	HR251	SUH 660	S66286	–	Z 6 NCTDV 25.15 B	–	–	–	–	1.4943	Discaloy
–	X 6 CrNiWNB 16 16	–	–	–	–	–	–	–	–	–	1.4945	–
–	X 6 CrNi 18 11	304 S 51	–	S30480	X 6 CrNi 18 10	Z 6 CN 18-09	X 5 CrNi 18 10 KW	2333	–	–	1.4948	–
–	X 6 CrNi 25 20	–	–	–	310 H	–	–	–	–	–	1.4951	–
–	X 8 CrNiNb 16 13	347 S 51	–	–	–	–	–	–	–	–	1.4961	–
–	Esshete 12 50	–	–	S21500	X 10 CrNiMoMnNbVB 15-10-1	X 10 CrNiMoMnNbVB 15-10-1	–	–	–	A213	1.4982	Esshete 1250
–	X 8 CrNiMoNB 16 16	–	–	–	X 7 CrNiMoNB 16-16	–	–	–	–	–	1.4986	–
301	X 12 CrNi 17 7	301 S 21	SUS 301	S30100	X 12 CrNi 17 7	Z 12 CN 17.07	X 12 CrNi 17 07	2331	–	–	1.4310	ATI 301™
–	GX 40 CrNi 27 4	–	–	J92615	–	–	GX 35 CrNi 28 05	–	–	–	1.4340	–
304	X 5 CrNi 18 9	304 S 31	SUS 304	S30400	1	Z6CN18.09	X5CrNi1810	2332/2333	–	A276	1.4350	ATI 304™
–	X 15 CrNiMn 18 8	307 S 98	–	–	X 15 CrNiMn 18 08 KE	Z 8 CNM 19-09-07	–	–	–	–	1.4370	–
S32750	GX 10 CrNiMo 18 9	–	SCS 14 A	S32750	X 2 CrNiMoN 25-7-4	Z 5 CND 20.10 M	X 2 CrNiMoN 25-7-4	–	–	–	1.4410	–
–	X 5 CrNiMo 18 11	315 S 16	–	–	–	–	–	2340	–	–	1.4420	–
347	X 6 CrNiNb 18 10	347 S 17	SUS 347	S34700	X 6 CrNiNb 18 10	Z 6 CANN 18.10	X 6 CrNiNb 18 11	2338	–	–	1.4550	ATI 347™
316 Cb	X 6 CrNiMoNb 17 12 2	318 S 17	–	–	X 6 CrNiMoNb 17 12 2	Z 6 CNDNb 17.12	X 6 CrNiMoNb 17 12	–	–	–	1.4580	–
–	X 3 CrNiMoN 17 13	–	–	–	X 3 CrNiMoN 17-13-3	–	X 2 CrNiMoN 17 12	–	–	–	1.4910	–
–	X 6 CrNi 23 13	–	–	–	309 H	–	–	–	–	–	1.4950	–
A286	X 6 NiCrTiMoVB 25-15-2	286 S 31	–	S66286	X 6 NiCrTiMoVB 21-15-2	–	–	–	–	–	1.4980	Incoloy A 286
XM-19	–	–	–	S20910	–	–	–	–	–	F1314	–	ATI XM-19™
303 plus X	–	–	–	S30310	–	–	–	–	–	XM-5	–	303 plus X
–	X 2 CrNi 18 13 3	–	–	–	–	–	–	–	–	–	–	Staybrite® 4435NCu
218	–	–	–	S21800	–	–	–	–	–	–	–	Nitronic 60
201LN	–	–	–	S20153	–	–	–	–	–	–	–	ATI 201LN™-MIL
–	X 2 CrNiMoN 17 13 3	–	–	–	–	Z 2 CND 17.13	X 2 CrNiMoN 17 13 3	–	–	–	–	AL 316LXN
–	–	–	–	S31675	–	–	–	–	–	F1586	–	ATI REX 734™
–	–	–	–	–	–	–	–	–	–	–	–	P558
–	X 1 NiCrMoCu 22 24 6	–	–	–	–	–	–	–	–	–	–	Uranus B66
–	–	–	–	–	–	–	–	–	–	–	–	ATI Datalloy 2®
–	–	–	–	–	–	–	–	–	–	–	–	ATI Staballoy® AG17®
–	–	–	–	–	–	–	–	–	–	–	–	P530
–	X 1 NiCrMoCu 31 27 4	–	–	N08028	–	–	–	–	–	–	–	Uranus B28
–	–	–	–	–	–	–	–	–	–	–	–	P750
–	–	–	–	–	–	–	–	–	–	–	–	P750-I
–	X 4 CrNiMoN 21 9 4	–	–	–	–	–	–	–	–	F1586	–	M30NW
–	–	–	–	–	–	–	–	–	–	–	–	P550
–	–	–	–	–	–	–	–	–	–	–	–	P580
–	–	–	–	–	–	–	–	–	–	–	–	P650
–	–	–	–	–	–	–	–	–	–	–	–	ATI Datalloy HP™

NOTE: For legend, see page Y237.

M3 ■ Workpiece Materials Listing • Stainless Steel • M3

M3 Duplex Stainless Steel Tensile Strength RM (MPa)*: <800 Hardness (HB): 135–275 (HRC): <30

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	GX 120 CrMo 29 2	–	–	–	–	–	–	–	–	F30M	1.4138	PK324
–	X 2 CrMnNiN 21 5 1	–	–	S32101	–	–	–	–	–	–	1.4162	LDX2101
–	GX 6 CrNiN 26 7	–	–	–	GX 6 CrNiN 26-7	–	–	–	–	–	1.4347	–
S32304	X 2 CrNiN 23 4	–	–	S32304	SAF 2304	35 N	X 2 CrNiN 23-4	2327	–	A240	1.4362	ATI 2304™
S31500	X 2 CrNiMoSi 19 5	–	–	S39215	GX 2 CrNiMoN 25-7-3	GX 2 CrNiMoN 25-7-3	–	2376	–	–	1.4417	–
S31803	X 2 CrNiMoN 22 5 3	318 S 13	SUS 329J 3L	S31803, S32205	X 2 CrNiMoN 22 5 3	Z 3 CNL 22.05 AZ	X 2 CrNiMoN 22-5-3	2377	F51	2205	1.4462	ATI 2205™
–	GX 6 CrNiMo 24 8 2	–	–	–	–	–	–	–	–	–	1.4463	–
–	GX 2 CrNiMoN 25 6 3	–	–	–	GX 2 CrNiMoN 25-6-3	GX 2 CrNiMoN 25-6-3	–	–	–	–	1.4468	–
–	GX 2 CrNiMoN 26 7 4	–	–	J93404	GX 2 CrNiMoN 26-7-4	GX 2 CrNiMoN 26-7-4	GX 2 CrNiMoN 26-7-4	–	–	–	1.4469	–
–	X 2 CrNiMoCuWN 25 7 4	–	–	S32760	X 2 CrNiMoCuWN 25 7 4	X 2 CrNiMoCuWN 25-7-4	X 2 CrNiMoCuWN 25-7-4	–	F 55	–	1.4501	F55
2507	X 2 CrNiMoCuN 25 6 3	–	–	–	X 2 CrNiMoCuN 25-6-3	DMV25.7Cu	329SK	–	–	–	1.4507	Uranus 52N+
–	GX 2 CrNiMoCuWN 25 8 4	–	–	–	X 6 CrNiCu 18 10 4 KD	Z 4 CNUD 17-11-03 FF	–	–	–	–	1.4508	–
–	GX 2 CrNiMoCuN 25 6 3 3	–	–	–	GX 2 CrNiMoCuN 25-6-3-3	GX 2 CrNiMoCuN 25-6-3-3	GX 2 CrNiMoCuN 25-6-3-3	–	–	–	1.4517	–
–	X 4 CrNiMoNb 25 7	–	SCS 22	–	–	–	–	–	–	–	1.4582	PK343
–	BGH 4593	–	–	–	GX 3 CrNiMoCuN 24 6 2 3	–	–	–	–	–	1.4593	Noridur®
329	X 4 CrNiMo 27 5 2	–	SUS 329 J1	S32900	X 3 CrNiMo 27 5 2	X 2 CrNiMo 25-7-3	X 3 CrNiMo 27-5-2	2324	–	A240	1.4460	10RE51
–	GX 2 CrNiMoN 22 5 3	–	–	–	GX 2 CrNiMoN 22-5-3	GX 2 CrNiMoN 22-5-3	GX 2 CrNiMoN 22-5-3	–	–	–	1.4470	–
S32550	–	–	–	S32550	–	–	–	–	–	–	–	Ferralum® alloy 255
–	–	–	–	S32003	–	–	–	–	–	–	–	ATI 2003®
–	–	–	–	S80211	–	–	–	–	–	–	–	ATI 2102™
–	–	–	–	S32550	–	–	–	–	–	–	–	ATI 255™
–	–	–	–	S34565	–	–	–	–	–	–	–	ATI 4565™
–	X 2 CrNiMoN 25 6 3	–	–	–	–	–	–	–	–	–	–	Uranus 47N+
–	–	–	–	–	–	–	F60	–	–	32760	–	Zeron® 100

Cast Iron

K1 ■ Workpiece Materials Listing • Cast Iron • K1

K1 Gray Cast Iron Tensile Strength RM (MPa)*: 125–500 Hardness (HB): 120–290 (HRC): <32

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	GG-150HB	–	–	–	GJL-HB 170	–	–	–	–	–	0.6012	–
A48-25 B	GG-15	Grade 150	FC 150	–	GJL-150	FGL 150	G 15	0115-00	–	A 48 Class 25	0.6015	–
–	GG-170HB	–	–	N06985	GJL-HB 205	–	–	–	–	–	0.6017	–
–	GG-190HB	–	–	N06022	GJL-HB 230	–	–	–	–	–	0.6022	–
A48-35 B	GG-25	Grade 260	FC 250	–	GJL-250	FGL 250	G 25	0125-00	–	A 48 Class 35	0.6025	–
–	GG-26	–	FC260	–	–	–	G 26	0126-00	–	–	0.6026	–
–	GG-220HB	–	–	W06027	GJL-HB 250	FGL 250	–	–	–	–	0.6027	–
–	GG-240HB	–	–	–	GJL-HB 275	–	–	–	–	–	0.6032	–
A48-50 B	GG-35	Grade 350	FC 350	–	GJL-350	FGL 350	G 35	0135-00	–	A 48 Class 50	0.6035	–
–	GG-260HB	–	–	–	GJL-HB 275	–	–	–	–	–	0.6037	–
A48-20 B	GG-10	Grade 100	FC 100	–	GJL-100	FGL 100	G 10	0110-00	–	A 48 Class 20	0.6010	–
A48-30 B	GG-20	Grade 220	FC 200	W06020	GJL-200	FGL 200	G 20	0120-00	–	A 48 Class 30	0.6020	–
A48-45 B	GG-30	Grade 300	FC 300	–	GJL-300	FGL 300	G 30	0130-00	–	A 48 Class 45	0.6030	–
A48-55 B	GG-40	Grade 400	–	–	GJL-400	FGL 400	–	0140-00	–	A 48 Class 55	0.6040	–
A48-40	–	–	–	–	–	–	–	–	–	A 48 Class 40	–	–
A48-60	–	–	–	–	–	–	–	–	–	A 48 Class 60	–	–
–	–	–	–	–	–	–	–	–	G1800	A 159 G1800	–	–
–	–	–	–	–	–	–	–	–	G3000	A 159 G3000	–	–
–	–	–	–	–	–	–	–	–	G10H18	A 159 G3000	–	–
–	–	–	–	–	–	–	–	–	G11H18	A 159 G3000	–	–
–	–	–	–	–	–	–	–	–	G3500	A 159 G3500	–	–
–	–	–	–	–	–	–	–	–	G11H20	A 159 G3500	–	–
–	–	–	–	–	–	–	–	–	G4000	A 159 G4000	–	–
–	–	–	–	–	–	–	–	–	G13H19	A 159 G4000	–	–
–	–	–	–	–	–	–	–	–	G12H21	A 159 G4000	–	–
–	–	–	–	–	–	–	–	–	G9H12	A 159 G1800	–	–
–	GG-26-Cr	–	–	–	–	–	–	–	–	–	–	–
–	GG-25-Cr	–	–	–	–	–	–	–	–	–	–	–

K2 ■ Workpiece Materials Listing • Cast Iron • K2
*K2 Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI)
Hardness (HB): 130–260 (HRC): <28*
Tensile Strength RM (MPa): <600*

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	GGL-NiMn137	L-NiMn 13 7	FCA NiMn 13 7	F43000	GJLA-XNiMn 13-7	L-NM 13 7	-	-	-	-	0.6652	-
A 436 Type 1	GGL-NiCuCr1562	L-NiCuCr 15 6 2	FCA-NiCuCr 15 6 2	F41000	GJLA-XNiCuCr 15-6-2	L-NUC 15 6 2	-	-	-	-	0.6655	-
A 436 Type 1b	GGL-NiCuCr1563	L-NiCuCr 15 6 3	FCA-NiCuCr 15 6 3	F41001	GJLA-XNiCuCr 15-6-3	L-NUC 15 6 3	-	-	-	-	0.6656	-
A 436 Type 2b	GGL-NiCr203	L-NiCr 20 3	FCA-NiCr 20 3	F41003	GJLA-XNiCr 20-3	L-NC 20 3	-	-	-	-	0.6661	-
-	GGL-NiSiCr2053	L-NiSiCr 20 5 3	FCA-NiSiCr 20 5 3	-	GJLA-XNiSiCr 20-5-3	L-NSC 20 5 3	-	-	-	-	0.6667	-
A 436 Type 3	GGL-NiCr303	L-NiCr 30 3	FCA-NiCr 30 3	F41004	GJLA-XNiCr 30-3	L-NC 30 3	-	-	-	-	0.6676	-
-	GGG-35.3	-	-	-	GJS-350-22	-	-	0717-15	-	-	0.7033	-
-	GGG-40.3	SNG 370/17	FCD 370	-	GJS-400-18	FGS 370-17	GSO 42/15	0717-15	-	-	0.7043	-
-	GGG-45	-	FCD 450	-	-	-	-	-	-	-	0.7045	-
-	-	-	-	-	-	FGS450.10	-	-	-	-	0.7049	-
-	GGG-65	-	-	-	-	-	-	-	-	-	0.7065	-
-	GGG-NiMn137	S-NiMn 13 7	FCDA-NiMn 13 7	-	GJSA-XNiMn 13-7	S-Mn 13 7	-	0772-00	-	-	0.7652	-
-	GGG-NiCrNb202	S2W	FCDA-NiCrNb 20 2	-	GJSA-XNiCrNb 20-2	-	-	-	-	-	0.7659	-
A 439 Type D-2B	GGG-NiCr203	S-NiCr 20 3	FCDA-NiCr 20 3	F43001	GJSA-XNiCr 20-3	-	-	-	-	-	0.7661	-
-	GGG-NiSiCr2052	S-NiSiCr 20 5 2	FCDA-NiSiCr 20 5 2	-	GJSA-XNiSiCr 20-5-2	S-NSC 20 5 2	-	-	-	-	0.7665	-
A 571 Type D-2M	GGG-NiMn234	S-NiMn 23 4	FCDA-NiMn 23 4	-	GJSA-XNiMn 23-4	S-NM 23 4	-	-	-	-	0.7673	-
A 439 Type D-3	GGG-NiCr303	S-NiCr 30 3	FCDA-NiCr 30 3	F43003	GJSA-XNiCr 30-3	S-NC 30 3	-	-	-	-	0.7676	-
A 439 Type D-3A	GGG-NiCr301	S-NiCr 30 1	FCDA-NiCr 30 1	F43004	GJSA-XNiCr 30-1	S-NC 30 1	-	-	-	-	0.7677	-
-	GGG-NiSiCr3055	-	FCDA-NiSiCr 30 5 5	-	GJSA-XNiSiCr 30-5-5	-	-	-	-	-	0.7679	-
A 439 Type D-5	GGG-Ni35	S-Ni 35	FCDA-Ni 35	F43006	GJSA-XNi 35	S-N 35	-	-	-	-	0.7683	-
A 439 Type D-5A	GGG-NiCr353	S-NiCr 35 3	FCDA-NiCr 35 3	F43007	GJSA-XNiCr 35-3	S-NC 35 3	-	-	-	-	0.7685	-
-	GGG-NiSiCr3552	-	FCDA-NiSiCr 35 5 2	-	GJSA-XNiSiCr 35-5-2	FGS Ni35 Si 5 Cr2	-	-	-	-	0.7688	-
-	GTW-35-04	W 35-04	FCMW 330 class 1	-	GJMW-35-0-4	MB 35-7	W 35-04	-	-	-	0.8035	-
-	GTW-S-38-1 2	W 38-12	-	-	GJMW-360-12	MB 300-12	-	-	-	-	0.8038	-
-	GTW-45-07	W 45-07	FCMWP 440 class 3	-	GJMW-450-7	MB 450-7	GMB 45	-	-	-	0.8045	-
-	GTW-55	-	-	-	-	-	GMB 55	-	-	-	0.8055	-
-	GTW-65	-	-	-	-	-	GMB 65	-	-	-	0.8065	-
32510	GTS-35-10	B 340/12	FCMP 330	-	GJMB-350-10	MN 350-10	-	815	-	-	0.8135	-
40010	GTS-45-06	P 440/7	FCMP 440	-	GJMB-450-6	MN 450 - 6	P 45-06	852	-	-	0.8145	-
50005	GTS-55-04	P 510/4	FCMP 490	-	GJMB-550-4	MN 550-4	P 55-04	854	-	-	0.8155	-
70003	GTS-65-02	P 570/3	FCMP 540	-	GJMB-650-2	MN 650-3	P 65-02	0858-00, 0856-00	-	-	0.8165	-
90001	GTS-70-02	P 690/2	FCMP 690	-	GJMB-700-2	MN 700-2	P 70-02	0862-03; 0864-03	-	-	0.8170	-
-	GGV-30	-	-	-	GJV-300	-	-	-	-	-	0.9991	-
A 436 Type 2	GGL-NiCr202	L-NiCr 20 2	FCA-NiCr 20 2	F41002	GJLA-XNiCr 20-2	L-NC 20 2	-	0523-00	-	-	0.6660	-
A 436 Type 4	GGL-NiSiCr3055	L-NiSiCr 30 5 5	FCA-NiSiCr 30 5 5	F41005	GJLA-XNiSiCr 30-5-5	L-NSC 30 5 5	-	-	-	-	0.6680	-
60-40-18	GGG-40	SNG 420/12	FCD 400 class 1	F32800	GJS-400-15	FGS400-12	GS400-12	0717-02	60-40-18	60-40-18	0.7040	-
65-45-12	GGG-50	SNG 500/7	FCD 500	F33100	GJS-500-7	FGS 500-7	GS 500/7	0727-02	65-45-12	65-45-12	0.7050	-
-	GGG-60	SNG 600/3	FCD 600-3	-	GJS-600-3	-	GS 600/3	-	80-55-06	80-55-06	0.7060	-
100-70-03	GGG-70	SNG 700/2	FCD 700	F34800	GJS-700-2	FGS 700-2	GS 700-2	0737-01	100-70-03	100-70-03	0.7070	-
120-90-02	GGG-80	SNG 800/2	FCD 800	F36200	GJS-800-2	FGS 800-2	GS 800-2	-	120-90-02	120-90-02	0.7080	-
A 439 Type D-2	GGG-NiCr202	L-NiCuCr 20 2	FCDA-NiCr 20 2	-	GJSA-XNiCr 20-2	L-NC 20 2	-	0523-00	-	-	0.7660	-
A 439 Type D-2C	GGG-Ni22	S-Ni 22	FCDA-Ni 22	F43002	GJSA-XNi 22	S-N 22	-	-	-	-	0.7670	-
A 439 Type D-4	GGG-NiSiCr3053	S-NiSiCr 30 5 3	FCDA-NiSiCr 30 5 3	F43005	GJSA-XNiSiCr 30-5-3	S-NSC 30 5 3	-	-	-	-	0.7680	-
-	GTW-40-05	W 40-05	FCMW 370	-	GJMW-400-5	MB 400-5	GMB 40	-	-	-	0.8040	-
-	GGV-40	-	-	-	GJV-400	-	-	-	-	-	0.9990	-
80-55-06	-	-	-	F33800	-	FGS 350-22	-	0732-03	D5506	-	-	-
-	-	-	-	-	-	-	-	-	D4018	-	-	-
-	-	-	-	-	-	-	-	-	D400	-	-	-
-	-	-	-	-	-	-	-	-	D4512	-	-	-
-	-	-	-	-	-	-	-	-	D450	-	-	-
-	-	-	-	-	-	-	-	-	M3210	-	-	-
-	-	-	-	-	-	-	-	-	M4504	-	-	-
-	-	-	-	-	-	-	-	-	M5003	-	-	-
-	-	-	-	-	-	-	-	-	M5503	-	-	-
-	-	-	-	-	-	-	-	-	M7002	-	-	-
-	-	-	-	-	-	-	-	-	D7003	-	-	-
-	-	-	-	-	-	-	-	-	M8501	A 602 M8501	-	-
-	GGV-45	-	-	-	GJV-450	-	-	-	-	-	-	-
-	GGG-SiMn3.08	-	-	-	-	-	-	-	-	-	-	-
-	GGG-SiMn4.10	-	-	-	-	-	-	-	-	-	-	-
-	GGG-SiMn5.10	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	HPI C13 06
-	GGV-35	-	-	-	GJV-350	-	-	-	-	-	-	-
-	GGV-50	-	-	-	GJV-500	-	-	-	-	-	-	-

K3 ■ Workpiece Materials Listing • Cast Iron • K3
K3 High-Strength Ductile Irons and Austempered Ductile Iron (ADI)
Tensile Strength RM (MPa): >600*
Hardness (HB): 180–350 (HRC): <43

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	-	-	-	-	-	-	-	-	-	A 897 125-80-10	-	-
-	-	-	-	-	-	-	-	-	-	A 897 150-100-7	-	-
-	-	-	-	-	-	-	-	-	-	A 897 175-125-4	-	-
-	-	-	-	-	-	-	-	-	-	A 897 200-150-1	-	-
-	-	-	-	-	-	-	-	-	-	A 897 230-185	-	-

NOTE: For legend, see page Y237.

N1

■ Workpiece Materials Listing • Non-Ferrous Metals • N1

N1 Wrought Aluminum

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
1080	A199.8	-	1A	-	-	-	-	-	-	-	3.0128	-
1050	A199.5	L 31	1B	-	-	A 59050 C	-	-	-	-	3.0255	-
-	SG-A1 99.5	-	-	-	-	-	-	-	-	-	3.0259	-
1070	A199.7	-	-	-	-	-	4508	-	-	-	3.0275	-
3103	AlMn	-	N3	-	-	-	-	-	-	-	3.0515	-
3003	AlMnCu	-	-	-	-	-	-	-	-	-	3.0517	-
3005	AlMn1Mg0.5	-	-	-	-	-	-	-	-	-	3.0525	-
3004	AlMn1Mg1	-	-	-	-	-	-	-	-	-	3.0526	-
-	AlMgSiPb	-	-	-	-	-	-	-	-	-	3.0615	-
-	SG-A1 99.5Ti	-	-	-	-	-	-	-	-	-	3.0805	-
-	SG-A1 99.5 Ti	-	-	-	-	-	-	-	-	-	3.0805	-
2014	AlCuSiMn	-	H15	-	-	A-U4SG	3581	-	-	-	3.1255	-
2017	AlCuMg 1	-	-	-	AW-2017 A	A-U4G	3579	-	-	-	3.1325	-
2024	AlCuMg 2	-	L97	-	AW-2024	A-U4G1	-	-	-	-	3.1355	-
-	AlCuMgPb	-	-	-	-	-	-	-	-	-	3.1645	-
2011	AlCuBiPb	-	FC1	-	-	A-U5PbBi	6362	-	-	-	3.1655	-
6082	AlMgSi 1	-	H30	-	AW-6005 A	A-SGMO.7	3571	-	-	-	3.2315	-
6060	AlMgSi0.5	-	-	-	-	-	-	-	-	-	3.3206	-
6063	AlMgSi0.7	-	H9	-	-	A-GS	3569	-	-	-	3.3206	-
6463	EAlMgSi0.5	-	91E	-	-	-	-	-	-	-	3.3207	-
5005	AlMg 1	-	N41	-	AW-6082	A-G0.6	5764-66	-	-	-	3.3315	-
5050	-	-	-	-	-	-	-	-	-	-	3.3316	-
5052	AlMg2.5	-	2L56	-	-	A-G2.5C	4574	-	-	-	3.3523	-
5754	AlMg 3	-	N5	-	-	A-G3M	3575	-	-	-	3.3535	-
5454	AlMg2.5Mn	-	N51	-	-	A-G2.5MC	7789	-	-	-	3.3537	-
5086	AlMg4Mn	-	-	-	-	-	-	-	-	-	3.3545	-
-	SG-A1 Mg 4.5 Mn Zr	-	-	-	-	-	-	-	-	-	3.3546	-
5083	AlMg4.5Mn	-	N8	-	-	A-G4.5MC	7790	-	-	-	3.3547	-
5056	AlMg5	-	N6	-	-	A-G5	3576	-	-	-	3.3549	-
-	AlMg 5	-	-	-	-	-	-	-	-	-	3.3555	-
7050	AlZnMgCu0.5	L 86	-	-	-	AZ 4 GU/9051	811-04	-	-	-	3.4144	-
7020	AlZn4.5Mg1	-	H17	-	-	A-Z5G	-	-	-	-	3.4335	-
7022	AlZnMgCu0.5	-	-	-	-	-	-	-	-	-	3.4345	-
-	AlZn5.5MgCu	-	-	-	-	-	-	-	-	-	3.4365	-
7075	AlZnMgCu 1.5	-	DTD5074	A97075	AL-P7075	A-Z5GU	3735	-	7075	-	3.4365	-
1000	A199.5H	L31	-	-	-	A59050C	-	-	-	-	3.0250	-
-	A199.8	-	-	-	-	-	-	-	-	-	3.0280	-
-	AlMg3Mn	-	-	-	-	-	-	-	-	-	-	-
2025	-	-	A 2025 FD	A92025	-	-	-	-	2025	B 247 2025	-	-
1100	-	-	-	-	-	-	-	-	-	-	-	-
3105	-	-	-	-	-	-	-	-	-	-	-	-
5657	AlMg0.8Si	-	-	-	-	-	-	-	-	-	-	-
6070	-	-	-	-	-	-	-	-	-	-	-	-
6262	-	-	-	-	-	-	-	-	-	-	-	-
7003	-	-	-	-	-	-	-	-	-	-	-	-
2050	-	-	-	-	-	-	-	-	-	-	-	-
7475	-	-	-	-	-	-	-	-	-	-	-	-
7175	-	-	-	-	-	-	-	-	-	-	-	-
7178	-	-	-	-	-	-	-	-	-	-	-	-
5251	AlMg2Mo3	-	N4	-	-	A-G2M	3574	-	-	-	-	-
6151	-	-	-	-	-	-	-	-	-	-	-	-
7001	-	-	-	-	-	-	-	-	-	-	-	-
7040	-	-	-	-	-	-	-	-	-	-	-	-

N2

■ Workpiece Materials Listing • Non-Ferrous Metals • N2

N2 Low-Silicon Aluminum Alloys and Magnesium Alloys Content: Si <12.2%

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	SG-A199.8	-	-	-	-	-	-	-	-	-	3.0286	-
-	G-AlCu 4 TiMg	-	-	-	-	-	-	-	-	-	3.1371	-
-	G-AlCu 4 TiMg	-	-	-	-	-	-	-	-	-	3.1371	-
-	G-AlCu 5 Ni 1.5	-	-	-	-	-	-	-	-	-	3.1754	-
-	G-AlCu 4 Ti	-	-	-	-	-	-	-	-	-	3.1841	-
-	G-AISI 5 Cu 1	-	-	-	-	-	-	-	-	-	3.2131	-
-	G-AISI 6 Cu 4	-	-	-	-	-	-	-	-	-	3.2151	-
-	G-AISI 8 Cu 3	-	-	-	-	-	-	-	-	-	3.2161	-
-	G-AISI 9 Cu 3	-	-	-	-	-	-	-	-	-	3.2163	-
-	G-AISI 1 1	-	-	-	-	-	-	-	-	-	3.2211	-
-	SG-AISI 5	-	-	-	-	-	-	-	-	-	3.2245	-
-	SG-AISI 5	-	-	-	-	-	-	-	-	-	3.2245	-
-	G-AISI 5 Mg	-	-	-	-	-	-	-	-	-	3.2341	-
4218 B	G-AISI 7 Mg	-	-	-	-	-	-	-	-	-	3.2371	-
-	G-AISI 9 Mg	-	-	-	-	-	-	-	-	-	3.2373	-
-	G-AISI 10 Mg	-	-	-	-	-	-	-	-	-	3.2381	-
-	G-D AISI 10 Mg	-	-	-	-	-	-	-	-	-	3.2382	-
A 360.2	G-AISI 10 Mg(Cu)	LM 9	-	-	-	-	-	4253	-	-	3.2383	-
A 413.0	G-D AISI 12	-	-	-	-	-	-	4247	-	-	3.2582	-
-	SG-AISI 12	-	-	-	-	-	-	-	-	-	3.2585	-
-	G-D AISI 12(Cu)	-	-	-	-	-	-	-	-	-	3.2982	-
6061	AlMgSiCu	-	H20	-	-	A-GSUC	6170	-	-	-	3.3211	-
-	G-AIMg 3 Si	-	-	-	-	-	-	-	-	-	3.3241	-
-	G-AIMg 5 Si	-	-	-	-	-	-	-	-	-	3.3261	-
-	G-D AIMg 9	-	-	-	-	-	-	-	-	-	3.3292	-
-	G-AIMg5Si(Cu,Mn)	-	-	-	-	-	-	-	-	-	3.3458	-
-	SG-AIMg 3	-	-	-	-	-	-	-	-	-	3.3536	-

N2 ■ Workpiece Materials Listing • Non-Ferrous Metals • N2 (continued)

N2 Low-Silicon Aluminum Alloys and Magnesium Alloys Content: Si <12.2%

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	G-AlMg 3	-	-	-	-	-	-	-	-	-	3.3541	-
-	SG-AlMg 4.5 Mn	-	-	-	-	-	-	-	-	-	3.3548	-
-	SG-AlMg 5	-	-	-	-	-	-	-	-	-	3.3556	-
-	G-AlMg 5	-	-	-	-	-	-	-	-	-	3.3561	-
ZE 41	G-MgZn 4 SE 1 Zr 1	MAG 5	-	-	MCMgZn 4 RE 1 Zr	G-Z 4 TR	-	-	-	-	3.5101	-
-	G-MgZn 5 Th 2 Zr 1	-	-	-	-	-	-	-	-	-	3.5102	-
EZ 33	MgSE 3 Zn 2 Zr 1	MAG 6	-	-	MCMgRE 3 Zn 2 Zr	G-TR 3 Z 2	-	-	-	-	3.5103	-
-	MgAl 9 Zn 1	-	-	-	-	-	-	-	-	-	3.5104	-
-	G-MgTh 3 Zn 2 Zr 1	-	-	-	-	-	-	-	-	-	3.5105	-
QE 22	G-MgAg 3 SE 2 Zr 1	MAG 12	-	-	MCMgRE 2 Ag 2 Zr	G-Ag 22.5	-	-	-	-	3.5106	-
-	G-D MgAl 6 Zn 1	-	-	-	-	-	-	-	-	-	3.5612	-
-	G-D MgAl 6	-	-	-	-	-	-	-	-	-	3.5662	-
AZ 81	G-MgAl 8 Zn 1	MAG 1	-	-	MCMgAl 8 Zn 1	G-A 9	-	-	-	-	3.5812	-
AZ 91	G-MgAl 9 Zn 1	MAG 7	-	-	MCMgAl 9 Zn 1	G-A 9 Z 1	-	-	-	-	3.5912	-
-	G-MgAl 8 Zn 1	-	-	-	-	-	-	-	-	-	3.5200	-
AS 41	G-D MgAl 4 Si 1	-	-	-	MCMgAl4Si	G-A4S 1	-	-	-	-	3.5470	-
-	G-AlZn10Si8Mg	-	-	-	-	-	-	-	-	-	-	-
AS 7 G	AlSi7Mg	-	-	-	-	-	-	-	-	-	-	-
2117	-	-	-	-	-	-	-	-	-	-	-	-
2218	AlCuMgNi2	-	-	-	-	-	-	-	-	-	-	-
2091	-	-	-	-	-	-	-	-	-	-	-	-
8090	-	-	-	-	-	-	-	-	-	-	-	-
2090	-	-	-	-	-	-	-	-	-	-	-	-
2224	-	-	-	-	-	-	-	-	-	-	-	-
2094	-	-	-	-	-	-	-	-	-	-	-	-
2095	-	-	-	-	-	-	-	-	-	-	-	-
2097	-	-	-	-	-	-	-	-	-	-	-	-
2098	-	-	-	-	-	-	-	-	-	-	-	-
2099	-	-	-	-	-	-	-	-	-	-	-	-
2195	-	-	-	-	-	-	-	-	-	-	-	-
2196	-	-	-	-	-	-	-	-	-	-	-	-
2197	-	-	-	-	-	-	-	-	-	-	-	-
2198	-	-	-	-	-	-	-	-	-	-	-	-
2297	-	-	-	-	-	-	-	-	-	-	-	-
2397	-	-	-	-	-	-	-	-	-	-	-	-
8017	-	-	-	-	-	-	-	-	-	-	-	-
8024	-	-	-	-	-	-	-	-	-	-	-	-
8091	-	-	-	-	-	-	-	-	-	-	-	-
8093	-	-	-	-	-	-	-	-	-	-	-	-
2199	-	-	-	-	-	-	-	-	-	-	-	-

N3 ■ Workpiece Materials Listing • Non-Ferrous Metals • N3

N3 High-Silicon Aluminum Alloys and Magnesium Alloys Content: Si >12.2%

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
A 413.1	G-AISI 12(Cu)	LM 20	-	-	-	-	-	4260	-	-	3.2583	-
A 413.2	G-AISI 12	LM 6	-	-	-	-	-	4261	-	-	3.2581	-
-	G-AISI17Cu4Mg	-	-	-	-	-	-	-	-	-	-	-
-	GK-AISI18CuNiMg	-	-	-	-	-	-	-	-	-	-	-
-	GK-AISI21CuNiMg	-	-	-	-	-	-	-	-	-	-	-
-	GK-AISI12CuNiMg	-	-	-	-	-	-	-	-	-	-	-
-	GK-AISI25CuNiMg	-	-	-	-	-	-	-	-	-	-	-
-	G-AISI 21 CuNiMg	-	-	-	-	-	-	-	-	-	-	-
4032	-	-	-	-	-	-	-	-	-	-	-	-

N4 ■ Workpiece Materials Listing • Non-Ferrous Metals • N4

N4 Copper-, Brass-, Zinc-Based on Machinability Index Range of 70-100

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
C 11000	E-Cu 58	C 101	-	-	-	Cn-a2	-	-	-	-	2.0065	-
C 81100	G-CuL 45	HCC 1	-	-	-	-	-	-	-	-	2.0082	-
C 81100	G-Cu L 50	HCC 1	-	-	-	-	-	-	-	-	2.0085	-
-	CuZn 40 MnPb	-	-	-	-	-	-	-	-	-	2.0241	-
C 26000	CuZn 30	CZ 102	C 2600	-	-	CuZn 30	-	-	-	-	2.0265	-
C 27200	CuZn 37	CZ 108	-	-	-	CuZn 37	C 2720	-	-	-	2.0321	-
-	CuZn 36 Pb 1.5	-	-	-	-	-	-	-	-	-	2.0331	-
-	S-CuZn40	-	-	-	-	-	-	-	-	-	2.0366	-
-	CuZn 39 Pb 3 + D567	-	-	-	-	-	-	-	-	-	2.0401	-
-	CuZn 40 Pb 2	-	-	-	-	-	-	-	-	-	2.0402	-
B-198	G-CuZn 15Si 4	-	-	-	-	-	-	-	-	-	2.0492	-
-	CuZn 40Al 1	-	-	-	-	-	-	-	-	-	2.0561	-
-	G-KCuZn 38 Al	-	-	-	-	-	-	-	-	-	2.0591	-
C 86500	G-CuZn 35 Al 1	HTB 1	-	-	-	U-Z 36 N 3	-	-	-	-	2.0592	-
-	G-KCuZn 37 Al 1	-	-	-	-	-	-	-	-	-	2.0595	-
C 86200	G-CuZn 34 Al 2	HTB 1	-	-	-	U-Z 36 N 3	-	-	-	-	2.0596	-
-	G-CuZn 25 Al 5	-	-	-	-	-	-	-	-	-	2.0598	-
-	S - CuNi 30 Fe	-	-	-	-	-	-	-	-	-	2.0837	-
-	CuNi 10 Fe 1 Mn	-	-	-	-	-	-	-	-	-	2.0872	-

NOTE: For legend, see page Y237.

(continued)

N4 ■ Workpiece Materials Listing • Non-Ferrous Metals • N4 (continued)

N4 Copper-, Brass-, Zinc-Based on Machinability Index Range of 70–100

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	S - CuNi 10 Fe	–	–	–	–	–	–	–	–	–	2.0873	–
–	CuNi 30 Mn 1 Fe	–	–	–	–	–	–	–	–	–	2.0882	–
–	SG-Cu Al 8	–	–	–	–	–	–	–	–	–	2.0921	–
–	SG-CuAl 8 Ni 2	–	–	–	–	–	–	–	–	–	2.0922	–
–	SG-CuAl 9 Ni5 Fe	–	–	–	–	–	–	–	–	–	2.0927	–
–	CuAl 10 Fe 3 Mn 2	CA 103	–	–	–	U-A 10 Fe	–	–	–	–	2.0936	–
–	SG-Cu Al 10 Fe	–	–	–	–	–	–	–	–	–	2.0937	–
C 63000	CuAl 10 Ni 5 Fe 4	Ca 104	–	–	–	U-A 10 N	–	–	–	–	2.0966	–
B-148-52	G-CuAl 10 Ni	–	–	–	–	–	–	–	–	–	2.0975	–
–	SG-Cu Sn	–	–	–	–	–	–	–	–	–	2.1006	–
–	SG-Cu Sn 6	–	–	–	–	–	–	–	–	–	2.1022	–
C 90800	G-CuSn 12	Pb 2	–	–	–	UE 12 P	–	–	–	–	2.1052	–
–	G-CuSn 12 Pb	–	–	–	–	–	–	–	–	–	2.1061	–
–	G-CuSn 10 Zn	–	–	–	–	–	–	–	–	–	2.1086	–
C 93200	G-CuSn 7 ZnPb	–	–	–	–	U-E 7 Z 5 Pb 4	–	–	–	–	2.1090	–
–	G-CuSn 6 ZnNi	LG 4	–	–	–	–	–	–	–	–	2.1093	–
C 83600	G-CuSn 5 ZnPb	LG 2	–	–	–	U-E 5 Pb 5 Z 5	–	–	–	–	2.1096	–
–	G-CuSn 2 ZnPb	–	–	–	–	–	–	–	–	–	2.1098	–
C 93700	G-CuPb 10 Sn	LB 2	–	–	–	U-E 10 Pb 10	–	–	–	–	2.1176	–
C 93800	G-CuPb 15 Sn	LB 1	–	–	–	U-Pb 15 E 8	–	–	–	–	2.1182	–
C 94100	G-CuPb 20 Sn	LB 5	–	–	–	U-Pb 20	–	–	–	–	2.1188	–
C 81500	G-CuCrF 35	CC1-FF	–	–	–	–	–	–	–	–	2.1292	–
C 18200	CuCrZr	CC 102	–	–	–	U-Cr 0,8 Zr	–	–	–	–	2.1293	–
–	SG-Cu Mn 13 Al 7	–	–	–	–	–	–	–	–	–	2.1367	–
–	SG-Cu Si 3	–	–	–	–	–	–	–	–	–	2.1461	–
CuSi 3 Mn	–	–	–	–	–	–	–	–	–	–	2.1525	–
–	OF-Cu	–	–	–	–	–	–	–	–	–	2.0040	–
B-120	E-Cu 57	–	–	–	–	–	–	–	–	–	2.0060	–
C 10300	SE-Cu	C 101	–	–	–	Cu-c1	–	–	–	–	2.0070	–
–	CuZn 5	–	–	–	–	–	–	–	–	–	2.0220	–
C 23000	CuZn 15	CZ 102	C 2300	–	–	CuZn 15	–	–	–	–	2.0240	–
–	G-CuZn 33 Pb	–	–	–	–	–	–	–	–	–	2.0290	–
–	CuZn 36 Pb 2	–	–	–	–	–	–	–	–	–	2.0330	–
–	G-CuZn 37 Pb	–	–	–	–	–	–	–	–	–	2.0340	–
–	CuZn 40	–	–	–	–	–	–	–	–	–	2.0360	–
–	CuZn 39 Pb 2	–	–	–	–	–	–	–	–	–	2.0380	–
–	CuZn 20 Al 2	–	–	–	–	–	–	–	–	–	2.0460	–
–	CuZn 37Al 1	–	–	–	–	–	–	–	–	–	2.0510	–
–	CuZn 40 Al 2	–	–	–	–	–	–	–	–	–	2.0550	–
–	G-CuZn 40 Fe	–	–	–	–	–	–	–	–	–	2.0590	–
–	G-CuAl 10 Fe	–	–	–	–	–	–	–	–	–	2.0940	–
C 90700	G-CuSn 10	CT 1	–	–	–	–	–	–	–	–	2.1050	–
C 91700	G-CuSn 12 Ni	–	–	–	–	–	–	–	–	–	2.1060	–
–	C35100	–	–	–	–	–	–	–	–	–	–	–
–	17665	–	–	C95500	–	–	–	–	–	–	–	–
–	MS60	–	–	–	–	–	–	–	–	–	–	–

N5 ■ Workpiece Materials Listing • Non-Ferrous Metals • N5

N5 Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	LEXAN	–	–	–	–	–	–	–	–	–	–	–
–	HOSTALEN	–	–	–	–	–	–	–	–	–	–	–
–	Polystyrol	–	–	–	–	–	–	–	–	–	–	–
–	Makralon	–	–	–	–	–	–	–	–	–	–	–

N6 ■ Workpiece Materials Listing • Non-Ferrous Metals • N6

N6 Carbon, Graphite Composites, CFRP

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	GFK	–	–	–	–	–	–	–	–	–	–	–
–	CFK	–	–	–	–	–	–	–	–	–	–	–
Graphite	–	–	–	–	–	–	–	–	–	–	–	–
CFRP	–	–	–	–	–	–	–	–	–	–	–	–

S1

Workpiece Materials Listing • High-Temp Alloys • S1

S1 Iron-Based, Heat-Resistant Alloys

Tensile Strength RM (MPa)*: 500–1200

Hardness (HB): 160–260 (HRC): 25–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	X 10 Cr 25	-	-	-	-	-	-	-	-	-	1.3811	-
-	D 1 a	-	-	-	-	-	-	-	-	-	1.3915	-
-	D 3	BD 3	-	-	X 210 Cr 1 2	Z 200 C 12	X 205 Cr 12 KU	-	-	-	1.3916	-
-	RNi 12	-	-	-	-	-	-	-	-	-	1.3926	-
-	RNi 8	-	-	-	-	-	-	-	-	-	1.3927	-
-	GX 2 NiCoMoTi1 7 10	-	-	-	-	-	-	-	-	-	1.6351	Maraging
6501, 6512, 6520	X 2 NiCoMo 18 8 5	-	-	UNS K92890	S162	Z2NKD18.8	-	-	-	ASTM A646	1.6359	ATI VascoMax® C-250
-	X 2 NiCoMo 18-8-5	-	-	K92890	-	-	-	-	-	-	1.6359	Maraging
-	X 1 CrNiCoMo 13 8 5	-	-	-	-	-	-	-	-	-	-	Maraging
-	Ni 36	-	-	-	-	-	-	-	-	-	1.3910	Magnifer 36
-	Ni 46	-	-	-	-	-	-	-	-	-	1.3920	-
-	X 2 CrNiCoMo 12 8 5	-	-	-	-	-	-	-	-	-	1.6980	Maraging
ASTM B463	-	-	-	UNS N08020	-	-	-	-	-	ASTM B463	2.4660	20CB-3
ASTM A666	-	-	-	-	-	-	-	-	-	ASTM A666	-	6/21/09
ASTM B753	-	-	-	-	-	-	-	-	-	ASTM B753	-	AL 4750
S66286	-	-	NAS 660	UNS S66286	-	-	-	A-286	-	-	-	ATI A286™
-	-	-	-	UNS K92810	-	-	-	-	-	-	-	ATI VascoMax® C-200
6514	-	-	-	UNS K93120	-	-	-	-	-	-	-	ATI VascoMax® C-300
-	-	-	-	-	-	-	-	-	-	-	-	ATI VascoMax® C-350
-	-	-	-	-	-	-	-	-	-	-	-	ATI VascoMax® T-200
6518, 6519, 6591	-	-	-	-	-	-	-	-	-	-	-	ATI VascoMax® T-250
-	-	-	-	-	-	-	-	-	-	-	-	ATI VascoMax® T-300
5725	-	-	-	-	-	Z3NCT25	-	-	SAE 16-25-6	-	-	Discaloy 16-25-6
ASTM A638	-	-	-	-	-	Z3NCT25	-	-	Discaloy	ASTM A638	-	Discaloy 24
5768	X 12 CrCoNi 21 20	-	-	R30556	-	Z12CKNDWNb21.20.20	-	-	-	-	-	Haynes® 556
ASTM F30	-	-	-	-	-	-	-	-	Invar	ASTM F30	-	Haynes 556
5768	-	-	-	UNS R30155	-	Z12CNKDW20	-	-	-	-	-	Invar 42
5533	X 40 CoCrNi 20 20	-	-	-	-	Z42CKNDW	-	-	-	-	-	Multimet N-155
-	X 2 NiCrAlTi 32 20	-	-	-	-	-	-	-	-	-	-	Multimet N-156
AISI:665	-	-	-	-	-	Z8NCTDA2613	-	-	-	-	-	S 590
-	-	-	-	-	-	-	-	-	-	-	-	Sanicro 30
-	-	-	-	-	-	-	-	-	-	-	-	W-545

S2

Workpiece Materials Listing • High-Temp Alloys • S2

S2 Cobalt-Based, Heat-Resistant Alloys

Tensile Strength RM (MPa)*: 1000–1450

Hardness (HB): 250–450 (HRC): 25–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	CoCr 26 Ni 9 Mo	-	-	-	-	-	-	-	-	-	2.4681	-
-	CoCr 25 NiW	-	-	-	-	KC25WN	-	-	-	ASTM A567	2.4682	Stellite® 31 (X40)
-	CoCr 22 NiW	-	-	-	-	-	-	-	-	-	2.4683	-
-	CoCr 28 Mo	-	-	-	-	KC27D5NFe	-	-	-	ASTM F-75	2.4691	HS 21
-	CoCr 20 Ni 15 Mo	-	-	-	-	-	-	-	-	-	2.4711	-
-	CoCr 29 Mo	-	-	-	-	-	-	-	-	-	2.4723	-
-	CoCr 33 W	-	-	-	-	-	-	-	-	-	2.4775	-
-	CoCr 28	-	-	-	-	-	-	-	-	-	2.4778	-
-	CoCr 28 Nb	-	-	-	-	-	-	-	-	-	2.4779	-
-	-	-	-	-	-	-	-	-	-	-	2.4964	F 90
-	-	-	-	R30605	-	KC20WN	-	-	-	ASTM F90	2.4964	Haynes 25
-	CoCr 20 W 15 Ni	HR 240	-	R30605	-	KC20WN	-	-	-	5759	2.4964	L 605
-	CoCr 20 W 15 Ni	-	-	CAST Version of L605	-	KC20WN	-	-	-	5759	2.4964	Stellite 25
AMS 5399	NiCr 19 Co 11 MoTi	-	-	-	-	NC 19 KDT	-	-	-	-	2.4973	-
-	CoCr 20 Ni 20 W	-	-	-	-	-	-	-	-	5534	2.4979	S 816
-	CoCr20NiW	-	-	-	-	-	-	-	-	-	2.4989	-
-	-	-	-	R31537 & R31538	-	CoCr28Mo	-	-	-	ASTM F1537	-	F 1537
-	-	-	-	-	-	-	-	-	-	ASTM F562	-	F 562
-	-	-	-	-	-	-	-	-	-	ASTM F563	-	F 563
-	-	-	-	R30188	-	KC22N22W14Fe	-	-	-	-	-	Haynes 188
AISI 670	CoCr 20 W 15 Ni	-	-	-	-	KC20WN	-	-	-	-	-	HS 25
-	CoCr 26 Ni 14 Mo	-	-	-	-	-	-	-	-	5380	-	HS 30
-	CoCr 19 W 14 NiB	-	-	-	-	-	-	-	-	-	-	HS 36
-	-	-	-	-	-	-	-	-	-	-	-	L 251
-	CoCrW 10 TaZrB	-	-	-	-	KC21W10Ta9	-	-	-	-	-	MAR-M 302
-	CoCr 22 W 9 TaZrNb	-	-	-	-	KC21W9Ta	-	-	-	-	-	MAR-M 322
-	CoCr 24 Ni 10 WTaZrB	-	-	-	-	KC23N10W7Ta	-	-	-	-	-	MAR-M 509
-	-	-	-	-	-	KC20N20Ta7	-	-	-	-	-	MAR-M 905
-	CoCr 20 Ni 20 Ta	-	-	-	-	KC20N20Ta7	-	-	-	-	-	MAR-M 918
-	-	-	-	R30159	-	-	-	-	-	-	-	MP159
-	-	-	-	R30035	-	-	-	-	-	-	-	MP35N
-	-	-	-	-	-	KC33W13	-	-	-	-	-	Stellite 1
-	-	-	-	-	-	KC28W8	-	-	-	-	-	Stellite 12
-	-	-	-	-	-	KC22N22W14Fe	-	-	-	-	-	Stellite 188
-	-	-	-	-	-	KC26NW	-	-	-	-	-	Stellite 6
-	-	-	-	-	-	-	-	-	-	-	-	Stellite 8 (F75)
-	CoCr 25 Ni 20 MoWNB	-	-	-	-	KC25N20DFeWNB	-	-	-	-	-	V-36
-	CoCr 21 Mo 11 W	-	-	-	-	KC21W11ANbT	-	-	-	-	-	WI-52
-	-	-	-	-	-	KC25N10W7Fe	-	-	-	-	-	X 45
-	-	-	-	-	-	-	-	-	J-1570	-	-	-
-	K13C20N126Fe15D7	-	-	R3003 & R3008	-	K13C20N126Fe15D7	-	-	-	ASTM F1058	-	-

NOTE: For legend, see page Y237.

S3

Workpiece Materials Listing • High-Temp Alloys • S3

S3 Nickel-Based, Heat-Resistant Alloys

Tensile Strength RM (MPa)*: 600–1700

Hardness (HB): 160–450 (HRC): <48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
--	X 7 NiCrCoMo 54 20	--	--	--	--	--	--	--	--	--	1.2789	--
--	Ni 99.7 Mg 0.07	--	--	J24053	--	--	--	--	--	A 915 J24053	2.4053	--
--	LC-Ni 99.6	--	--	N02201	--	--	--	--	--	--	2.4061	--
--	--	--	--	N02200	--	--	--	--	--	--	2.4066	200
Nickel 200	Ni 99.2	NA 11	--	N02200	--	--	--	--	--	--	2.4066	--
--	--	--	--	N02201	--	--	--	--	--	--	2.4068	201
Nickel 201	LC-Ni 99	NA 12	--	--	--	--	--	--	--	--	2.4068	--
--	NiMn 1	--	--	--	--	--	--	--	--	--	2.4106	--
--	NiMn 1 C	--	--	--	--	--	--	--	--	--	2.4108	--
--	NiMn 1.5	--	--	--	--	--	--	--	--	--	2.4109	--
--	NiMn 3 Al	--	--	--	--	--	--	--	--	--	2.4122	--
--	NiMn 3 SiMg	--	--	--	--	--	--	--	--	--	2.4126	--
--	NiCr 2 Mn	--	--	--	--	--	--	--	--	--	2.4145	--
--	NiCr 2 MnSi	--	--	--	--	--	--	--	--	--	2.4146	--
--	NiCr 5 MnSi	--	--	--	--	--	--	--	--	--	2.4151	--
--	SG-NiTi 4	NA32	--	--	NA 32	--	--	--	--	--	2.4155	--
CZ-100	G-Ni 93 C	--	--	--	--	--	--	--	--	--	2.4175	--
--	NiCr 4 Mn	--	--	--	--	--	--	--	--	--	2.4199	--
M 35-1/2	G-NiCu 30 Nb	--	--	N24030	--	--	--	--	--	--	2.4365	--
--	EL-NiCu 30 Mn	--	--	N04402	--	--	--	--	--	--	2.4366	--
M 30-H	G-NiCu 30 Si 3	--	--	--	--	--	--	--	--	--	2.4367	--
M-255	G-NiCu 30 Si 4	--	--	--	--	--	--	--	--	--	2.4368	--
--	NiCu 30 Al	--	--	--	--	--	--	--	--	--	2.4374	--
--	NiCu 30 Al	NA 18	--	N05500	3072.76	NU 30 AT	--	--	--	--	2.4375	Monel® K500
--	SG-NiCu 30 MnTi	NA 33	--	--	--	--	--	--	--	--	2.4377	--
--	NiFe 16 CuCr	--	--	--	--	--	--	--	--	--	2.4501	--
--	G-NiMo 16 CrW	--	--	--	--	--	--	--	--	--	2.4537	--
--	NiCr 21 Mo 14 W	--	--	N26022	--	--	--	--	--	--	2.4602	INCONEL® alloy 622
--	NiCr 30 FeMo	--	--	--	--	--	--	--	--	--	2.4603	Hastelloy® G-30
--	--	--	--	N06059	--	--	--	--	--	ASTM B575	2.4605	Allcorr
--	NiCr 23 Mo 16 Al	--	--	--	--	--	--	--	--	--	2.4605	--
--	SG/UP-NiCr 23 Mo 16	--	--	--	--	--	--	--	--	--	2.4607	--
--	NiCr 26 MoW	--	--	--	--	--	--	--	--	--	2.4608	--
--	SG-NiMo 27	--	--	--	--	--	--	--	--	--	2.4615	--
--	NiMo 28	--	--	N10665	--	NiMo 28	--	--	--	--	2.4617	--
--	NiCr 22 Mo 6 Cu	--	--	--	--	--	--	--	--	--	2.4618	--
--	--	--	--	N06985	--	--	--	--	--	--	2.4619	Hastelloy G-3
--	NiCr 22 Mo 7 Cu	--	--	N06985	--	--	--	--	--	--	2.4619	--
--	SG-NiCr 23 Al	NA 49	--	--	--	--	--	--	--	--	2.4626	--
--	SG-NiCr 22 Co 12 Mo	NA 50	--	--	--	--	--	--	--	--	2.4627	--
--	NiCr 20 Ti	HR5	--	N06075	HR5, 203.4	NC 20 T	--	--	--	--	2.4630	Nimonic® 75
--	NiCr 20 TiAl	NA 20	NCF 80A	N07080	HR401, 601	NC 20 TA	--	--	--	--	2.4631	Nimonic 80A
--	NiCr 20 Co 18 Ti	NA 36	--	N07090	HR2, 202	NC20KTA	--	--	--	--	2.4632	Nimonic 90
--	NiCo 20 Cr 15 MoAlTi	--	--	N13021	HR3	NCKD20ATV	--	--	--	--	2.4634	Nimonic 105
--	NiCo 15 Cr 15 MoAlTi	HR4	--	--	HR401, 601	NCVK15ATD	--	--	--	--	2.4636	Nimonic 115
AISI 687	NiCo 15 Cr 15 MoAlTi	--	--	--	--	NCKD20AT	--	--	--	--	2.4636	Udimet® 700
--	NiCr 22 Mo 8 AlCuTi	--	--	--	--	--	--	--	--	--	2.4637	--
--	SG-NiCr 20	NA 34	--	--	--	--	--	--	--	--	2.4639	--
--	NiCr 21 Mo 6 Cu	--	NCF 600 TP	--	--	--	--	--	--	--	2.4641	--
--	NiCr 29 Fe	--	NCF 690	N06690	--	NC 30 Fe	--	--	--	--	2.4642	INCONEL® alloy 690
--	NiCr 25 FeAlYC	--	--	--	--	--	--	--	--	--	2.4647	--
--	NiCr 20 CoMoTi	NA 38	NCF 690	N07263	HR10	NCK 20 D	--	--	--	--	2.4650	Nimonic C263
--	EL-NiCr 26 Mo	--	--	--	--	--	--	--	--	--	2.4652	--
--	NiCr 19 Co 14 Mo 4 Ti	--	--	N07001	--	NC20K14Y	--	--	--	--	2.4654	Waspaloy
--	SG-NiCr 29 Mo	--	--	--	--	--	--	--	--	--	2.4656	--
--	NiCr 70 30	--	--	N06008	--	--	--	--	--	--	2.4658	--
--	SG-NiCr 30 Mo 5 W	--	--	--	--	--	--	--	--	--	2.4659	--
--	EL-NiCr 29 Mo 5 W	--	--	--	--	--	--	--	--	--	2.4661	--
--	NiFe 35 Cr 14 MoTi	--	--	N09901	--	Z8NCDT42	--	--	--	--	2.4662	INCOLOY® 901
--	NiCr 13 Mo 6 Ti 3	--	--	N09901	--	Z8NCDT42	--	--	--	--	2.4662	Nimonic 901
--	NiCr 23 Co 12 Mo	--	--	N06617	--	NC22K12D9A	--	--	--	--	2.4663	INCONEL® alloy 617
--	NiCr 22 FeMo	--	--	N06002	HR6, 204	NC22FeD	--	--	--	--	2.4665	Hastelloy X
--	NiCr 22 Fe 18 Mo	NA 40	--	N06002	--	NC22FeD	--	--	--	--	2.4665	INCONEL alloy HX
--	NiCr 18 CoMo	--	--	--	--	NKCD20ATU	--	--	--	--	2.4666	Nimonic PK25
--	SG-NiCr 19 NbMoTi	NA 51	--	--	--	--	--	--	--	--	2.4667	--
--	NiCr 19 FeNbMo	--	--	N07718	HR8	NC 19 Fe Nb	--	--	--	--	2.4668	INCONEL alloy 718
--	NiCr 15 Fe 7 TiAl	--	--	N07750	--	NC 15 Fe 7 TA	--	--	--	--	2.4669	INCONEL alloy X750
--	G-NiCr 12 Al 6 MoNb	--	--	--	--	--	--	--	--	--	2.4671	--
--	G-NiCr 20 Co 20 MoTi	--	--	--	--	--	--	--	--	--	2.4672	--
--	NiCo 15 Cr 10 MoAlTi	--	--	N13100	--	NK15CAT	--	--	--	--	2.4674	IN 100
--	NiCo 15 Cr 10 MoAlTi	--	--	--	--	NK15C10A5T	--	--	--	--	2.4674	René 100
--	G-NiCo 15 Cr 10 AlTiMo	--	--	--	--	--	--	--	--	--	2.4674	--
--	G-NiCo 10 W 10 CrAlNb	--	--	--	--	--	--	--	--	--	2.4676	--
--	G-NiCr 50	--	--	--	--	--	--	--	--	--	2.4678	--
--	G-NiCr 35	--	--	--	--	--	--	--	--	--	2.4679	--
--	--	--	--	N10665	--	--	--	--	--	N7M	2.4685	Hastelloy B-2
CW-12 MW	G-NiMo 17 CrW	--	--	--	--	--	--	--	--	--	2.4686	--
--	NiCr 25 Mo 7 Ti	--	--	--	--	--	--	--	--	--	2.4693	--
--	NiCr 16 Fe 7 TiAl	--	--	N 07751	--	--	--	--	--	--	2.4694	INCONEL alloy 751
--	G-NiCr 20 Mo 15	--	--	--	--	--	--	--	--	--	2.4697	--
--	NiCr 22 W 14 Mo	--	--	--	--	--	--	--	--	--	2.4733	--
--	NiCr 20 AlY	--	--	--	--	--	--	--	--	--	2.4764	--
--	NiCr 17 AlWY	--	--	--	--	--	--	--	--	--	2.4765	--
--	SG-NiCr 20 Nb	NA 35	--	--	--	--	--	--	--	--	2.4806	--
--	G-NiCr 50 Nb	--	--	--	--	--	--	--	--	--	2.4813	--
--	NiCr 15 Fe	NA 14	NCF 600	N06600	3072.76	NC 15 Fe	--	--	--	--	2.4816	INCONEL alloy 600
--	G-NiMo 30	--	--	N10276	--	NC 15 D 14 KFe	--	--	--	--	2.4819	Hastelloy C-276
ASME SB575	NiMo 16 Cr 15 W	--	--	N10276	--	NC 17 D	--	--	--	--	2.4819	Nimonic C276

(continued)

S3

Workpiece Materials Listing • High-Temp Alloys • S3 (continued)

S3 Nickel-Based, Heat-Resistant Alloys

Tensile Strength RM (MPa)*: 600–1700

Hardness (HB): 160–450 (HRC): <48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
–	SG-NiCr 21 Mo 9 Nb	–	–	–	–	–	–	–	–	–	2.4831	–
–	NiCr 20 Mo 15	–	–	–	–	–	–	–	–	–	2.4836	–
–	SG-NiCr 20 Mo 15	–	–	–	–	–	–	–	–	–	2.4839	–
–	–	–	–	N06601	–	–	–	–	–	–	2.4851	Haynes® 601
–	NiCr 23 Fe	–	NCF 601	N06601	–	NC 23 Fe 14 A	–	–	–	–	2.4851	INCONEL alloy 601
–	NiFe 33 Cr 25 Co	–	–	–	–	–	–	–	–	–	2.4854	–
–	NiCr 19 Mo 9 Si	–	–	–	–	–	–	–	–	–	2.4855	–
ASME SB443	NiCr 22 Mo 9 Nb	–	–	N06625	–	NC 22 Fe DNb	–	–	–	–	2.4856	Haynes 625
ASME SB443.4	NiCr 22 Mo 9 Nb	NA 21	NCF 625	N06625	–	NC 22 Fe DNb	–	–	–	–	2.4856	INCONEL alloy 625
ASME SB163	NiCr 21 Mo	–	–	N08825	3072.76	NC21FeDU	–	–	–	–	2.4858	INCOLOY® 825
–	NiCr 60 15	–	–	–	–	–	–	–	–	–	2.4867	–
–	NiCr 80 20	–	–	–	–	–	–	–	–	–	2.4869	–
–	NiCr 20 AISI	–	–	–	–	–	–	–	–	–	2.4872	–
–	G-NiCr 28 W	–	–	–	–	–	–	–	–	–	2.4879	Centralloy® 4879
–	NiCr 17 Mo 17 FeW	–	–	N10002	–	NC17DWY	–	–	–	CW12MW	2.4883	Hastelloy C
–	G-NiMo 16 Cr	–	–	–	–	–	–	–	–	–	2.4883	–
–	SG-NiMo 16 cr 16 W	NA 48	–	–	–	–	–	–	–	–	2.4886	–
–	G-NiCr 13 MoAl	–	–	–	–	–	–	–	–	–	2.4888	–
–	NiCr 20 Ti	HR 5	–	N06621	–	NC 20 T	–	–	–	–	2.4951	–
–	NiCr 20 TiAl	NA 20	NCF 80 A	N07080	–	NC 20 TA	–	–	–	–	2.4952	–
–	NiFe 25 Cr 20 NbTi	–	–	–	NiFe 25 Cr 20 NbTi	–	–	–	–	–	2.4955	–
–	NiCr 20 Co 18 Ti	NA 19	–	N07090	–	–	–	–	–	–	2.4969	–
–	NiCr 22 W 12 Fe	–	–	–	–	–	–	–	–	–	2.4972	–
–	NiCr 19 Co 11 MoTi	–	–	N07041	–	NC19KDT	–	–	–	–	2.4973	René 41
–	NiFeCr 12 Mo	–	–	–	–	–	–	–	–	–	2.4975	–
–	NiCr 20 Mo	–	–	–	–	–	–	–	–	–	2.4976	–
–	NiCr 20 CoMo	–	–	–	–	–	–	–	–	–	2.4982	–
–	NiCr 18 Co	–	–	N07500	–	–	–	–	–	–	2.4983	Co500
AISI 684	NiCr 18 CoMoAlTi	–	–	N07500	–	NCK19DAT	–	–	–	–	2.4983	Udimet® 500
–	Ni 99.6	NA 46	–	–	–	–	–	–	–	–	2.4060	–
–	NiMn 2	–	–	–	–	–	–	–	–	–	2.4110	–
SZ-100	G-Ni 95	–	–	–	–	–	–	–	–	–	2.4170	–
–	G-Ni 93 Si	–	–	–	–	–	–	–	–	–	2.4180	–
–	NiCu 30 Fe	–	–	N04400	3072.76	NU30	–	–	–	–	2.4360	Monel® 400
–	NiCu 30 Ti	–	–	–	–	–	–	–	–	–	2.4370	Monel 60
–	NiFe 44	–	–	–	–	–	–	–	–	–	2.4420	Magnifer 53
–	NiFe 16 CuMo	–	–	–	–	–	–	–	–	–	2.4530	Perm 77
–	NiFeK 6040	–	–	–	–	–	–	–	–	–	2.4560	–
–	NiMo 16 Cr 16 Ti	NA 45	–	N26455	–	–	–	–	–	–	2.4610	Hastelloy C-4
–	NiCr 20 CuMo	–	–	N08020	–	20CB-3	–	–	–	ASTM B463	2.4660	INCOLOY 020
–	G-NiCr 13 Al 16 MoNb	–	–	–	HC203	NC13AD	–	–	–	–	2.4660	–
–	G-NiCr 50 Nb	–	–	–	–	–	–	–	–	–	2.4670	Nimocast 713
–	NiMo 23 Cr 8 Fe	–	–	–	–	–	–	–	–	–	2.4710	–
–	NiMo 30	–	–	–	–	ND27FeV	–	–	–	N-12 MV	2.4810	Hastelloy B
–	NiCr 45 23	–	–	–	–	–	–	–	–	–	2.4890	–
–	–	–	–	N13017	–	NK17C15D5AT	–	–	–	–	–	Astroloy
–	–	–	–	–	–	–	–	–	–	–	–	Centralloy® 60HTD
AISI 686	–	–	–	–	–	NC15Fe10D5AT	–	–	–	–	–	GMR 235
–	NiCr 16 MoAl	–	–	–	–	NC15D5FeAT	–	–	–	–	–	GMR 235-D
–	–	–	–	–	–	–	–	–	–	CW6M	–	Hastelloy C-22
–	–	–	–	N06007	–	NC22Fe19D6KTA	–	–	–	–	–	Hastelloy G
–	–	–	–	N10003	–	–	–	–	–	–	–	Hastelloy N
–	–	–	–	N06635	–	NC15D14KFe	–	–	–	–	–	Hastelloy S
–	–	–	–	N10004	–	–	–	–	–	–	–	Hastelloy W
–	–	–	–	N07263	–	NC20K20D6T	–	–	–	–	–	Haynes® 263
–	–	–	–	–	–	–	–	–	–	–	–	Haynes 282
–	NiCr 15 Fe	–	–	N06600	–	–	–	–	–	–	–	Haynes 600
–	–	–	–	–	–	–	–	–	–	–	–	Haynes 75
–	NiCo 32 Cr 26 Mo	–	–	–	–	–	–	–	–	–	–	HS27
–	–	–	–	N06102	–	–	–	–	–	–	–	IN 102
ASME SB409	X 10 NiCrAlTi 32-20	–	–	N08800	3082.76	Z10NC3221	–	–	–	–	–	INCOLOY 800
–	–	–	–	–	–	Z4NC3221	–	–	–	–	–	INCOLOY 802
–	–	–	–	–	–	NC29Fe25	–	–	–	–	–	INCOLOY 804
–	NiFe 42 K 15 Nb	–	–	N19903	–	Z3NK28	–	–	–	–	–	INCOLOY 903
–	–	–	–	N19907	–	–	–	–	–	–	–	INCOLOY 907
–	–	–	–	N09925	–	–	–	–	–	–	–	INCOLOY 925
–	–	–	–	N09945	–	–	–	–	–	–	–	INCOLOY 945
ASME SB575	–	–	–	–	–	NiMo16Cr15	–	–	–	–	–	INCONEL alloy 22
–	–	–	–	–	–	–	–	–	–	–	–	INCONEL alloy 230
–	–	–	–	–	–	–	–	–	–	–	–	INCONEL alloy 600SP
–	–	–	–	–	–	–	–	–	–	–	–	INCONEL alloy 62
–	–	–	–	N06626	–	–	–	–	–	–	–	INCONEL alloy 625LCF
–	–	–	–	–	–	NC15A	–	–	–	–	–	INCONEL alloy 702
–	–	–	–	N09706	–	NFe10C16NbT	–	–	–	–	–	INCONEL alloy 706
–	–	–	–	N07718	–	–	–	–	–	–	–	INCONEL alloy 718 OP
–	–	–	–	–	–	NC16Fe8TM	–	–	–	–	–	INCONEL alloy 721
–	NiCr 16 FeTi	–	–	–	–	NC16FeTi	–	–	–	–	–	INCONEL alloy 722
–	–	–	–	N07722	–	–	–	–	–	–	–	INCONEL alloy 783
–	–	–	–	R30783	–	–	–	–	–	–	–	INCONEL alloy 783
–	–	–	–	N09925	–	–	–	–	–	B983 N09925	–	INCONEL alloy 925
–	–	–	–	N10276	–	–	–	–	–	–	–	INCONEL alloy C-276
–	–	–	–	N07754	–	–	–	–	–	–	–	INCONEL alloy MA754
–	–	–	–	N07751	–	–	–	–	–	–	–	INCONEL alloy X751
–	–	–	–	K93600 K93603	–	–	–	–	–	ASTM F1684	–	INVAR® 36
–	NiCr 20 Co 18 Ti	–	–	–	–	–	–	–	–	–	–	Jessop G81
–	G-NiCr 19 Co	–	–	N07252	–	–	–	–	–	–	–	M 252
–	–	–	–	N04405	–	–	–	–	–	–	–	Monel® R405

NOTE: For legend, see page Y237.

(continued)

S3

Workpiece Materials Listing • High-Temp Alloys • S3 (continued)

S3 Nickel-Based, Heat-Resistant Alloys

Tensile Strength RM (MPa)*: 600–1700

Hardness (HB): 160–450 (HRC): <48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
-	NiFe 33 Cr 17 Mo	-	-	-	-	-	-	-	-	-	-	Nimocast PD16
-	-	-	-	-	HC202	NC20N13	-	-	-	-	-	Nimocast PE10
-	-	-	-	-	-	NC19K18Fe5TA	-	-	-	-	-	Nimonic® 95
ASME SB575	-	-	-	N06022	-	-	-	-	-	-	-	Nimonic C22
-	NiCr 22 Fe 18 Mo	-	-	-	HR6, 204	NC22FeD	-	-	-	-	-	Nimonic PE13
-	NiFe 33 Cr 17 Mo	-	-	-	HR207	NW11AC	-	-	-	-	-	Nimonic PE16
-	NiCr 20 Co 16 MoTi	-	-	-	-	NC19KDUN	-	-	-	-	-	Nimonic PK33
-	-	-	NCF 3015	-	-	-	-	-	-	-	-	NiReVa 3015
AISI 686	-	-	-	-	-	-	-	-	-	-	-	R-235
AISI 690	-	-	-	-	-	Z6NKCdT38	-	-	-	-	-	Refractaloy 26
-	-	-	-	-	-	NK10C8W7ATaTD	-	-	-	-	-	René 125
-	-	-	-	-	-	NK15C14D6AWT	-	-	-	-	-	René 65
-	-	-	-	-	-	NC15K15ADT	-	-	-	-	-	René 77
-	-	-	-	-	-	NC14K9T5DWA	-	-	-	-	-	René 80
-	-	-	-	-	-	NC14K8	-	-	-	-	-	René 95
-	NiTa 9 Co 8 W 6 CrAl	-	-	-	-	NTa9K7C6W5A5DT	-	-	-	-	-	TRW VIA
-	NiCr 19 NbMo	-	-	-	-	NC18Fe18Nb6DWT	-	-	-	-	-	Udimet® 630
-	-	-	-	-	-	NCK18TDA	-	-	-	-	-	Udimet 710
-	-	-	-	-	-	NC18K15TDA	-	-	-	-	-	Udimet 720

S4

Workpiece Materials Listing • High-Temp Alloys • S4

S4 Titanium and Titanium Alloys

Tensile Strength RM (MPa)*: 900–1600

Hardness (HB): 300–400 (HRC): 33–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
R 50250	Ti-99.8	2 TA 1	-	UNS R50250	TA6, TA7, TA8, TA9	AIR:9182T35	-	-	-	ASTM B381F1	3.7025	ATI 30 CP Grade 1
R 50400	Ti-99.7	2 TA 2-5	-	UNS R50400	TA2.5	AIR:9182T40	-	-	-	ASTM B381F2	3.7035	ATI 40 CP Grade 2
-	SG-Ti 2	-	-	-	-	-	-	-	-	-	3.7036	-
R 50550	Ti-99.6	TA 3	-	UNS R50550	TA2, TA3, TA4, TA5	AIR:9182T50	-	-	-	ASTM B381F3	3.7055	ATI 55 CP Grade 3
R 50700	Ti-99.5	2 TA 6-9	-	UNS R50700	-	AIR:9182T60	-	-	-	ASTM B381F4	3.7065	ATI 70 CP Grade 4
-	TiNi 0.8 Mo 0.3	-	-	UNS R53400	-	-	-	-	Ti-3Al-1.5Mn	ASTM Grade 12	3.7105	-
Ti 5Al-2.5Sn	TiAl 5 Sn 2.5	-	-	UNS R54520	TA 14,17	T-A5E	-	-	Ti-5Al-2.5Sn	-	3.7115	ATI Grade 6
-	TiCu 2	2 TA 21-24	-	-	-	-	-	-	Ti-2Cu	-	3.7124	-
R 54620	TiAl 6 Sn 2 Zr 4 Mo 2 Si	-	-	UNS R54620	-	-	-	-	Ti-6Al-2Sn-2Zr-4Mo-2Si	-	3.7145	-
-	TiAl 6 ZrMo 0.5	TA 43	-	-	-	-	-	-	Ti-6-5-0.5	-	3.7155	-
R 56400	TiAl 6 V 4	TA 10-13	TC4	UNS R56400	TA10 TA11 TA12 TA13 TA28 TA56	TA6V	-	-	Ti-6Al-4V	-	3.7164	ATI 6-4™
-	TiAl 6 V4	-	TC4	UNS R56400	TA10 TA11 TA12 TA13 TA28 TA56	TA6V; AIR:9183	-	-	Ti-6Al-4V (Beta)	-	3.7164	-
R 56620	TiAl 6 V 6 Sn2	-	-	UNS R56620	-	-	-	-	Ti-6Al-6V-2Sn	-	3.7175	ATI 6-6-2™
-	TiAl 4 Mo 4 Sn 2	TA 45-51	-	-	-	-	-	-	Ti-4Al-4Mo-2Sn	-	3.7185	-
-	TiAl 3 V2.5	-	-	UNS R56320	-	-	-	-	Ti-3Al-2.5V	ASTM Grade 9	3.7195	ATI 3-2.5-MIL™
R 52250	Ti 1 Pd	TP 1	-	UNS R 52250	-	-	-	-	-	ASTM Grade 11	3.7225	-
R 52400	Ti 2 Pd	-	-	UNS R 52400	-	-	-	-	-	ASTM Grade 7	3.7235	-
-	Ti 3 Pd	-	-	-	-	-	-	-	-	-	3.7255	-
-	TiAl 5 Fe 2.5	-	-	-	-	-	-	-	Ti-5Al-2.5Fe	-	3.7110	-
-	TiV13Cr11Al3	-	-	-	-	-	-	-	Ti-13V-11Cr-3Al	-	-	11/13/03
-	Ti-10V-2Fe-3Al	-	-	-	-	-	-	-	Ti-10.2.3	-	-	ATI 10-2-3™
-	-	-	-	UNS R58153	-	-	-	-	Ti-15-333	-	-	ATI 15-333™
-	-	-	-	-	-	-	-	-	Ti-15Mo (Alpha + Beta)	-	-	ATI 15Mo™ (Alpha + Beta)
-	-	-	-	-	-	-	-	-	Ti-15Mo (Beta)	-	-	ATI 15Mo™ (Beta)
-	Ti5Al2Sn2Zr4Cr4Mo	-	-	UNS R58650	-	-	-	-	-	-	-	ATI 17™
-	TiAl 3 V 8 Cr 6 Mo 4 Z 4	-	-	UNS R54250	-	-	-	-	Ti-3Al-8V-6Cr-4Mo-4Zr	ASTM Grade 19	-	ATI 38-644™
-	-	-	-	-	-	-	-	-	Ti-425	ASTM B265	-	ATI 425®
-	-	-	-	-	-	-	-	-	Ti-425 MIL	-	-	ATI 425®-MIL
-	TiAl 4 Mo 4 Sn 2 Si 0.5	-	-	-	5103	T-A4DE	-	-	Ti-4Al-4Mo-2Sn-0.5Si	-	-	ATI 4-4-2™
-	-	-	-	-	-	-	-	-	Ti-45Nb	-	-	ATI 45Nb™
-	-	-	-	-	-	-	-	-	Ti-5Al-5V-5Mo-3Cr	-	-	ATI 5-5-5-3 PM™
-	-	-	-	UNS R54620	-	-	-	-	Ti-6Al-2Sn-2Zr-2Mn-2Cr-0.2Si	-	-	ATI 6-2222™
-	TiAl6Zr4Mo2Sn2	-	-	UNS R54620 modified	-	-	-	-	Ti-6Al-4Zr-2Mo-2Sn	-	-	ATI 6-2-4-2 PM™
-	-	-	-	UNS R56260	-	-	-	-	Ti-6-2-4-6	-	-	ATI 6-2-4-6™
-	-	-	-	UNS R56401	-	-	-	-	Ti-6Al-4V ELI	-	-	ATI 6-4 ELI™
-	TiAl 6 V4	-	-	UNS R56400	TA10 TA11 TA12 TA13 TA28 TA56	TA6V; AIR:9183	-	-	Ti-6Al-4V MIL	-	-	ATI 6-4-MIL™
-	TiAl 6 V4	-	-	UNS R56400	TA10 TA11 TA12 TA13 TA28 TA56	TA6V; AIR:9183	-	-	Ti-6Al-4V MIL (HT)	-	-	ATI 6-4-MIL™
-	-	-	-	UNS R56700	-	-	-	-	Ti-6-7	ASTM F 1295	-	ATI 6-7™
-	TiAl8Mo1V1	-	-	UNS R54810	-	-	-	-	Ti-8Al-1Mo-1V	-	-	ATI 8-1-1™
-	-	-	-	-	-	-	-	-	Ti-15Mo-3Nb-3Al-0.2Si	ASTM Grade 21	-	Beta 21-S
-	-	-	-	-	-	-	-	-	Ti-12Mo-6Zr-2Fe	-	-	TMZF
-	TiAl7Nb	-	-	-	-	-	-	-	Ti-6Al-7Nb	-	-	-
-	TiAl7Mo4	-	-	-	-	-	-	-	-	ASTM B381	-	-
-	TiAl 4 Mo 4 Sn 4 Si 0.5	-	-	-	5203	-	-	-	Ti-4Al-4Mo-4Sn-0.5Si	-	-	-
-	TiAl6Zr5Mo0.5Si0.25	-	-	-	-	T.AGZ.50	-	-	Ti-6Al-5Zr-0.5Mo-0.25Si	-	-	-
-	TiAl6Zr5Mo4CuSi0.2	-	-	-	M201	-	-	-	Ti-6Al-5Zr-4Mo-Cu-0.2Si	-	-	-
-	-	-	-	UNS %58210	-	-	-	-	Ti-5Al-5Mo-5V-1Cr-1Fe	-	-	-
-	-	-	-	-	-	-	-	-	Ti Beta 21 S	ASTM Grade 21	-	-
Ti 98.8	Ti 98.8	-	-	-	-	-	-	-	-	-	-	-
Ti 99.9	Ti 99.9	-	-	-	-	-	-	-	-	-	-	-
-	TiAl 6 Sn 2 Zr 4 Mo 2	-	-	-	-	-	-	-	-	-	-	-

NOTE: For legend, see page Y237.

H1 Workpiece Materials Listing • Hardened Steels and Irons • H1

H1 Hardened Materials Hardness (HRC): 44–48

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
H 11	X 38 CrMoV 5 H1	BH 11	SKD 6	T20811	X 38 CrMoV 5 H1	Z 38 CDV 5	X 37 CrMoV 5 1 KU	–	–	–	1.2343	–
H11	X 38 CrMoV 5 H1	BH 11	SKD 6	T20811	X 38 CrMoV 5 H1	Z 38 CDV 5	X 37 CrMoV 5 1 KU	–	–	–	1.2343	–
H 13	X 40 CrMoV 5 1	BH 13	SKD 61	T20813	X 40 CrMoV 5 1	Z 40 CDV 5	X 40 CrMoV 5 1 1 KU	2242	–	–	1.2344	–
H 10	X 32 CrMoV 3 3	BH 10	SKD 7	T 20810	X 32 CrMoV 12H-28	32 DCV 28	30 CrMoV 12 27 KU	–	–	–	1.2365	–
H19	X 45 CrCoW 5 5 5	–	–	–	–	–	–	–	–	–	1.2678	–
A 532 I B NiCr-LC L6	GX 260 NiCr 42	Grade 2 A	0512-00	F45001	GJH-X260NiCr 4-2	–	–	0512-00	–	–	0.9620	–
	–	–	–	–	–	55 NCDV 07 (HT)	–	–	–	–	–	–

H2 Workpiece Materials Listing • Hardened Steels and Irons • H2

H2 Hardened Materials Hardness (HRC): 48–55

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
A 532 I A NiCr-HC	G-X 330 NiCr 42	Grade 2 B	0513-00	F45000	GJH-X330NiCr 4-2	FB Ni 4 Cr2 HC	–	0513-00	–	–	0.9625	–
H 21	X 30 WCrV 93	BH 21	SKD 5	T 20821	X 30 WCrV 9 3	Z 30 WCV 9	X 30 WCrV 9 3 KU	–	–	–	1.2581	–
H 12	X 37 CrMoV 5 1	BH 12	SKD 62	T20812	–	Z 35 CWDV 5	X 35 CrMoV 05 KU	–	–	–	1.2606	–
–	G-X 300 NiMo 3 Mg	–	–	–	GJH-X300NiMo 3 Mg	–	–	–	–	–	0.9610	–
A 532 I B NiCr-LC	GX 260 NiCr 42	Grade 2 A	0512-00	F45001	GJH-X260NiCr 4-2	–	–	0512-00	–	–	0.9620	–
A 532 III A 25% Cr	GX 260 Cr 27	Grade 3 D	0466-00	–	GJH-X260Cr 27	–	–	–	–	–	0.9650	–
–	X 2 NiCoMoTi 180905	–	–	–	–	Z 2 NKD 180905	–	–	–	–	–	Durimphy
K12	–	–	–	–	–	–	–	–	–	–	–	ATI K12 MIL

H3 Workpiece Materials Listing • Hardened Steels and Irons • H3

H3 Hardened Materials Hardness (HRC): 56–60

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
A 532 IIC15% CrMo-HC	G-X 300CrMo 15 3	Grade 3 A	–	–	GJH-X300CrMo 15-3	–	–	–	–	–	0.9635	–
–	G-X 300 CrMoNi 15 2 1	Grade 3 B	–	F45005	GJH-X300CrMoNi15-2-1	–	–	–	–	–	0.9640	–
A 532 IID20% CrMo-LC	GX 260 CrMoNi 20 2 1	Grade 3 C	–	F45007	GJH-X260CrMoNi20-2-1	–	–	–	–	–	0.9645	–
A 532 III A 25% Cr	G-X 300 CrMo 27 1	Grade 3 E	–	–	GJH-X300CrMo 27-1	–	–	–	–	–	0.9655	–
A 2	X 100 CrMoV 5 1	SKD 12	–	–	BA 2	Z 100 CDV 5 (HT)	X 100 CrMoV 51 KU	2260	–	–	1.2363	–
D7 (HT)	–	–	–	T30407	–	Z 230 CVA 12 04	–	–	–	–	1.2378	–
Q 2	90 MnCrV 8	B0 2	–	T31502	90 MnV 8	90 MnV 8	90 MnVCr 8 KU	–	–	–	1.2842	–
A 532 I D Ni-HiCr	G-X 300 CrNiSi 95 2	Grade 2 C	0457-00	F45003	GJH-X300CrNiSi 9-5-2	–	–	–	–	–	0.9630	Nihard type 4
S 1	60 WCrV 7	BS 1	–	–	6020 WCrV 8	55 WC 20	55 WCrV 8 KU	–	–	–	1.2550	–
S 1	60 WCrV 7	BS 1	–	–	60 WCrV 8	55 WC 20	55 WCrV 8 UK	–	–	–	1.2550	–
S 7	50 CrMoV 13 14	–	–	–	–	–	–	–	–	–	–	Cryodur 2357
K 12 (HT)	–	–	–	–	–	–	–	–	–	–	–	ATI K12-MIL

H4 Workpiece Materials Listing • Hardened Steels and Irons • H4

H4 Hardened Materials Hardness (HRC): >60

AISI**	DIN	BTS	JIS	UNS	EN	AFNOR	UNI	SIS	SAE	ASTM	Material Number	Manufacturer Reference
W 108	C 80 W 1	–	–	T72301	C 80 U	Y1 90	C 80 KU	1880	–	–	1.1525	–
D 2	X 155 CrVMo 12 1	BD 2	SKD §§	T 30402	X 153 CrMoV 12	Z 160 CDV 12	X 155 CrVMo 12 1 KU	2310	–	–	1.2379	–
–	100 WV4	–	SKS 21	–	–	–	–	–	–	–	1.2515	–
D 3	X 210 Cr 12	BD 3	SKD 1	T30403	X 210 Cr 1 2	Z 200 C 12	X 205 Cr 12 KU	–	–	–	1.2080	–
0 7	110 WCrV 5	–	–	–	–	–	–	–	–	–	–	–
–	Mh97 + Pb	–	–	–	–	–	–	–	–	–	–	LAW 100 Pb

Workpiece Materials Listing Legend

* 1 Mpa = 145 psi.

** Includes ASTM and SAE material specifications.

AISI — American Iron and Steel Institute

AFNOR — French National Organization for Standardization

AMS — Aerospace Material Specifications

ASTM — American Society of Mechanical Engineers

BS — British Standards

DIN — German Institute for Standardization

EN — European Standards

JIS — Japanese Industrial Standards

SAE — Society of Automotive Engineers

SIS — Swedish Standards Institute

UNI — Italian Organization for Standardization

UNS — Unified Numbering System









Service and Support


Customer Application Support (CAS)

Get Fast and Reliable Answers to Your Toughest Metalcutting Problems

Our Customer Application Support (CAS) Team is the metalworking industry's leading help desk resource for tooling application solutions and problem resolution.

Easy Access to Proven Metalworking Expertise!

Kennametal Customer Application Engineers assist customers and engineering groups throughout the world with expert tool selection and application recommendations for the entire range of Kennametal tooling.

SERVICE LEVEL EXCELLENCE	Fast telephone response. Quick technical solutions. Efficient case management.	
SERVICES	Operating parameters. Process optimization. Hardware support. Tooling selection. Troubleshooting.	
BEST-IN-CLASS SUPPORT TOOLS AND TECHNOLOGY	Materials database. Application calculators. Tooling performance experts.	

Originating Country	Language	Phone	E-mail
Australia	English	1800 666 667	ap-kmt.techsupport@kennametal.com
Austria	German	0800 202873	eu.techsupport@kennametal.com
Belgium	English/French	0800 80850	eu.techsupport@kennametal.com
China	Chinese	400 889 2238	k-cn.techsupport@kennametal.com
Denmark	English	808 89298	na.techsupport@kennametal.com
Finland	English	0800 919412	na.techsupport@kennametal.com
France	French	080 5540 367	eu.techsupport@kennametal.com
Germany	German	0800 0006651	eu.techsupport@kennametal.com
India	English	1 800 103 5227	in.techsupport@kennametal.com
Israel	English	1809 449889	na.techsupport@kennametal.com
Italy	Italian	800 916561	eu.techsupport@kennametal.com
Japan	English	03 3820 2855	ap-kmt.techsupport@kennametal.com
Korea (South)	English	+82 2 2100 6100	ap-kmt.techsupport@kennametal.com
Malaysia	English	1800 812 990	ap-kmt.techsupport@kennametal.com
Mexico	Spanish	1800 253 0758	na.techsupport@kennametal.com
Netherlands	English	0800 0201 130	eu.techsupport@kennametal.com
New Zealand	English	0800 450 941	ap-kmt.techsupport@kennametal.com
Norway	English	800 10080	na.techsupport@kennametal.com
Poland	Polish	0080 0441 1887	eu.techsupport@kennametal.com
Russia (landline)	Russian	8800 5556394	eu.techsupport@kennametal.com
Russia (cell phone)	Russian	+7 8005556394	eu.techsupport@kennametal.com
Singapore	English	1800 6221031	ap-kmt.techsupport@kennametal.com
South Africa	English	0800 981643	na.techsupport@kennametal.com
Sweden	English	020799246	na.techsupport@kennametal.com
Taiwan	English	0800 666 197	ap-kmt.techsupport@kennametal.com
Thailand	English	1800 4417820	ap-kmt.techsupport@kennametal.com
UK	English	0800 032 8339	na.techsupport@kennametal.com
Ukraine	Russian	0800502664	eu.techsupport@kennametal.com
USA	English	800 835 3668	na.techsupport@kennametal.com

Numbers shown only serve the originating country listed.

METALCUTTING SAFETY

IMPORTANT SAFETY INSTRUCTIONS

Read before using the tools in this catalog!

Projectile and Fragmentation Hazards:

Modern metalcutting operations involve high spindle and cutter speeds and high temperatures and cutting forces. Hot metal chips may fly off the workpiece during metalcutting. Although cutting tools are designed and manufactured to withstand high cutting forces and temperatures, they can sometimes fragment, particularly if they are subjected to over-stress, severe impact, or other abuse.

To avoid injury:

- Always wear appropriate personal protective equipment, including safety goggles, when operating metalcutting machines or working nearby.
- Always make sure all machine guards are in place.

Breathing and Skin Contact Hazards:

Grinding carbide or other advanced cutting tool materials produces dust or mist containing metallic particles. Breathing this dust or mist — especially over an extended period — can cause temporary or permanent lung disease or make existing medical conditions worse. Contact with this dust or mist can irritate eyes, skin, and mucous membranes and may make existing skin conditions worse.

To avoid injury:

- Always wear breathing protection and safety goggles when grinding.
- Provide ventilation control and collect and properly dispose of dust, mist, or sludge from grinding.
- Avoid skin contact with dust or mist.

For more information, read the applicable Material Safety Data Sheet provided by Kennametal and consult General Industry Safety and Health Regulations, Part 1910, Title 29 of the Code of Federal Regulations.

These safety instructions are general guidelines. Many variables affect machining operations. It is impossible to cover every specific situation. The technical information included in this catalog and recommendations on machining practices may not apply to your particular operation. For more information, consult the Kennametal Metalcutting Safety booklet, available free from Kennametal at 724 539 5747 or fax 724 539 5439. For specific product safety and environmental questions, contact our Corporate Environmental Health and Safety Office at 724 539 5066 or fax 724 539 5372.

Kennametal, the stylized K, A2, A4, AluMill, Beyond, Beyond Blast, Beyond Drive, Beyond Evolution, Blue Box, CTR, DFC, DFR, DFS, DFSP, DFT, Dodeka, Dodeka MAX, Drill Fix, ERICKSON, Fix-Perfect, GOdrill, GOMill, GOTap, Green Box, HARVI, HexaCut, HTS, HydroForce, K10, K715, KB1345, KB5630, KBK45, KC5010, KC5025, KC522M, KC625M, KC633M, KC635M, KC637M, KC639M, KC643M, KC7135, KC7210, KC7225, KC725M, KC7315, KC7320, KC7325, KC7410, KC9105, KCK10, KCM15, KCMS, KCMS35, KCN05, KCP15, KCPK10, KCPK15, KCPK20, KCPK30, KCPM15, KCPM40, KCPM45, KCSM15, KCU10, KCU25, KCU40, KCU45, KD1400, KD1405, KD1415, KD1420, KD1425, KDF400, KDMB, KDMT, KenClamp, Kendex, KenFeed, Kenlever, Kenloc, Kenna Perfect, Kenna Universal, KenTIP, KF1, KGEM, KIPR, K-Lock, KM, KM25, KM40, KM40TS, KM4X, KM4X100, KM-TS, KN25, KNS, KP6505, KP6525, KSCM, KSEM, KSEM PLUS, KSOM, KSRM, KSSM, KSSM8+, KSSR, KSSS, KTMS, KTP10, KU25T, KVN5, KY1310, KY3500, KYK10, KYK25, KYS40, Load Optimised Insert Spacing, MaxiMet, MEGA, Mill 1-7, Mill 1-10, Mill 1-14, Mill 1-18, Mill 1-25, Mill 4, Mill 4-11, Mill 4-15, Mill 16, ModBORE, NOVO, RIQ, RHR, Rodeka, Romicon, RMS, SIF, SEFAS, Stellite, Stellram, Top Notch, Wedgelock, X-Grade, and Y-TECH are trademarks of Kennametal, Inc. and are used as such herein. The absence of a product, service name, or logo from this list does not constitute a waiver of the Kennametal trademark or other intellectual property rights concerning that name or logo.

Android™ is a trademark of Google Inc.

ATI 416™, ATI 410™, ATI 430™, ATI 420™, ATI 403™, ATI 904L™, ATI 348™, etc. are trademarks of Allegheny Technologies, Inc.

Discaloy™ is a trademark of Westinghouse Electric Corporation.

DUO-LOCK® is a registered trademark and Duo-Lock™ is a trademark of Haimer GmbH.

Google Play™ is a trademark of Google Inc.

Hardox® is a registered trademark of SSAB Technology AB Corporation.

Hastelloy® and Haynes® are registered trademarks of Haynes International, Inc. Corporation.

Hostalen™ is a trademark of Hoechst GmbH Corporation.

INCONEL®, Monel®, NIMONIC®, and Udimet® are registered trademarks of Special Metals Corporation.

iPhone® and iTunes® are registered trademarks of Apple Inc., registered in the U.S. and other countries.

Lexan® is a registered trademark of Sabic Innovative Plastics IP B.V. Company.

Makrolon® is a registered trademark of Bayer Aktiengesellschaft.

Mazak® and INTEGREX® are registered trademarks of Yamatomo Kosan Kabushiki Kaisha Corporation.

Roto-Glyd® is a registered trademark and Roto-Glyd™ Ring is a trademark of Trelleborg Sealing Solutions.

SAFE-LOCK® is a registered trademark and Safe-Lock™ is a trademark of Haimer GmbH.

Teflon™ is a trademark of The Chemours Company FC, LLC.

Weldon® is a registered trademark of Weldon Tool Company.

MASTER CATALOG

WORLD HEADQUARTERS

Kennametal Inc.

600 Grant Street | Suite 5100
Pittsburgh, PA 15219 USA
Tel: 1 800 446 7738
ftmill.service@kennametal.com

EUROPEAN HEADQUARTERS

Kennametal Europe GmbH

Rheingoldstrasse 50
CH 8212 Neuhausen am Rheinfall
Switzerland
Tel: +41 52 6750 100
neuhausen.info@kennametal.com

ASIA-PACIFIC HEADQUARTERS

Kennametal Singapore Pte. Ltd.

3A International Business Park
Unit #01-02/03/05, ICON@IBP
Singapore 609935
Tel: +65 6265 9222
k-sg.sales@kennametal.com

INDIA HEADQUARTERS

Kennametal India Limited

CIN: L27109KA1964PLC001546
8/9th Mile, Tumkur Road
Bangalore - 560 073
Tel: +91 080 22198444 or +91 080 43281444
bangalore.information@kennametal.com



kennametal.com