KENNAMETAL®

Small Parts Machining Solutions



EXPLORE MORE



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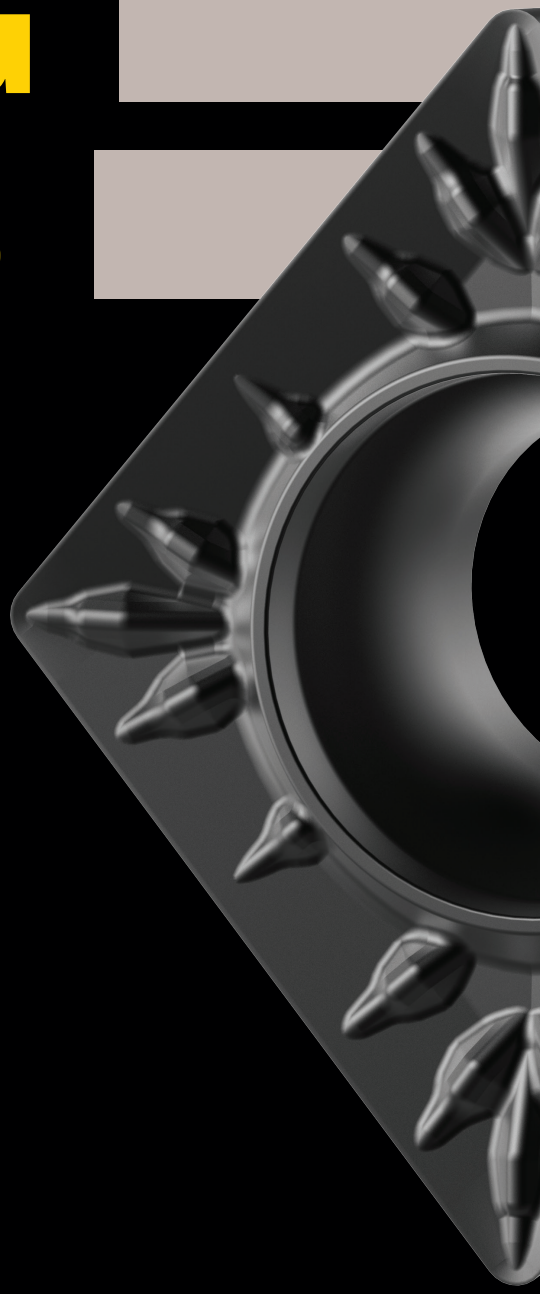
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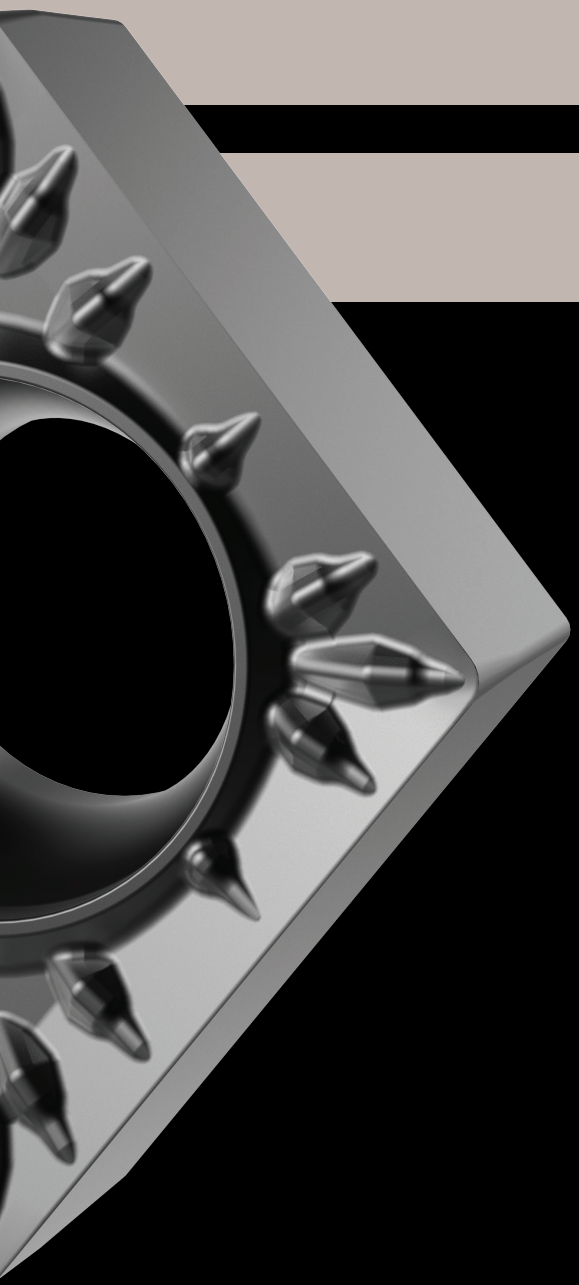
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SMALL PARTS & SWISS-TYPE MACHINING SOLUTIONS



Kennametal's deep materials science and diverse application expertise across materials and industries fuel its innovative lineup of solutions for producing small parts and components. With industries like aerospace, medical, automotive and oil and gas constantly adapting and demanding more precision-designed pieces, you need advanced CNC machinery to meet the intricate requirements and the highest safety standards needed in small parts and Swiss-type machining.



No matter how small or complex, Kennametal has the high-performance threading, drilling, milling and turning solutions and tooling systems necessary for creating the most precise and pristine components. We engineer tools that cut metal and costs while boosting your productivity and driving success in your shop's small parts projects.

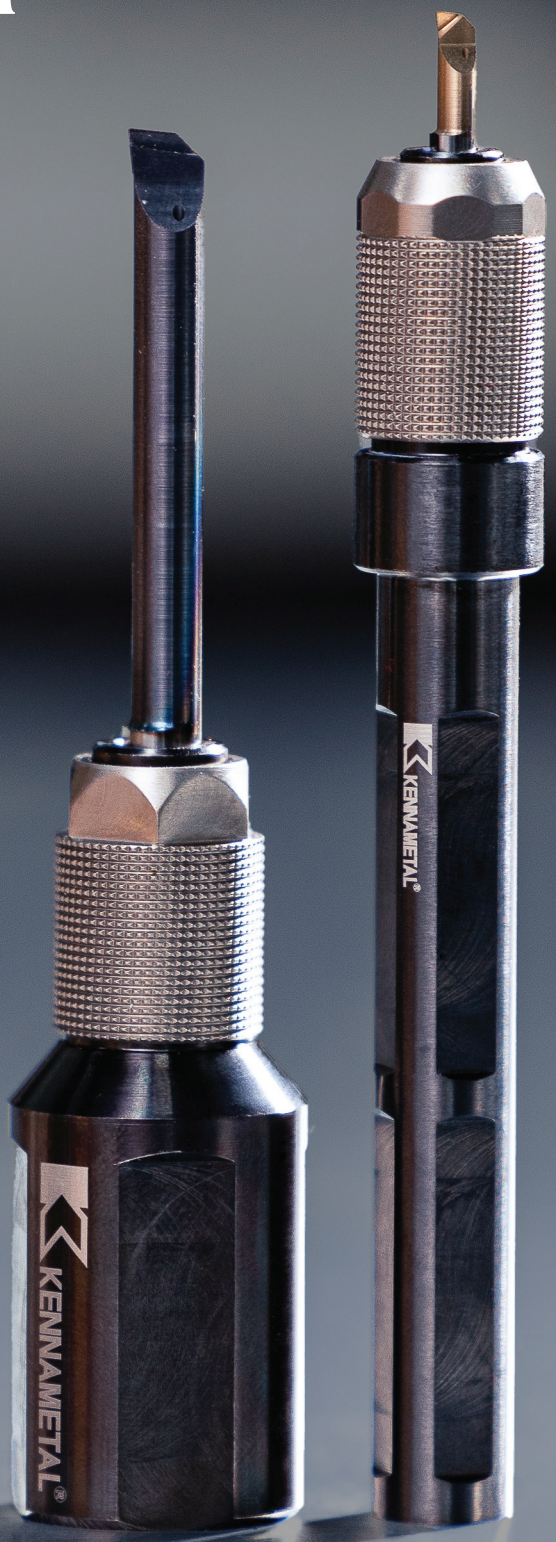
EXPLORE

HIGH-PERFORMANCE TURNING FOR COMPLEX SPACES

TopSwiss™ MBS MICRO BORING SOLID

Precision Internal Turning

- High performance internal boring, grooving and threading as small as Ø0.3mm (0.012")
- Exceptionally sharp cutting edges for best-in-class tool life and surface finishes
- Precision ground insert shanks for high accuracy and repeatability
- Over 180 tool holders across three levels of precision: standard, premium and high performance
- Tool holders available in round shank, square shank and quick-change designs for KM Micro and PSC
- Nearly 1,000 inserts available in a versatile universal coating (KCU25S), or one of 3 material specific coatings (KCPM25S, KCSM25S, KCHS25S) for your unique application



Materials

PRIMARY

P Steels | M Stainless Steels | K Cast Iron | S High-Temp Alloys | H Hardened Materials

SECONDARY

N Non-Ferrous Materials | C Composite Materials

Industries

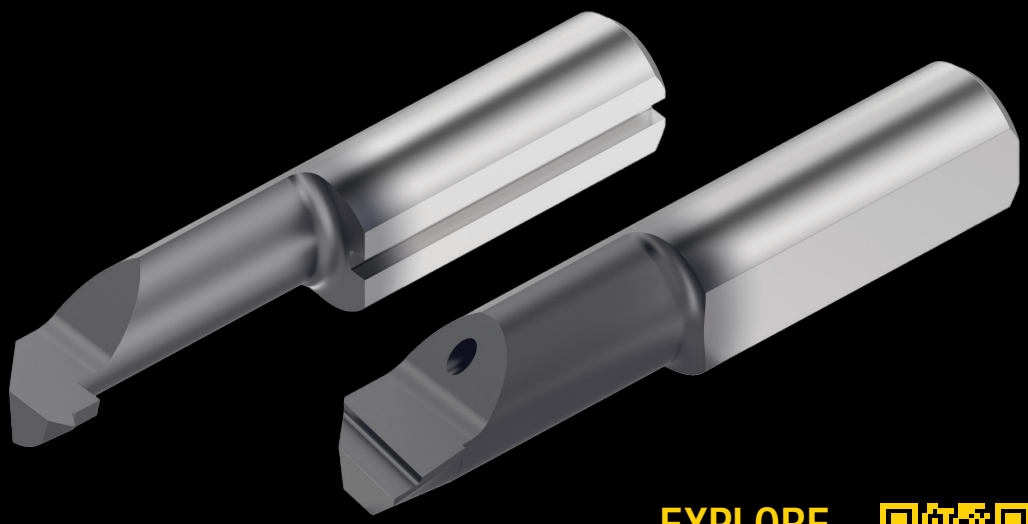
Medical | General Engineering | Automotive | Aerospace | Defense

Applications

PRIMARY

I.D. Turning | Back Boring | Face Grooving | I.D. Face Grooving | I.D. Facing

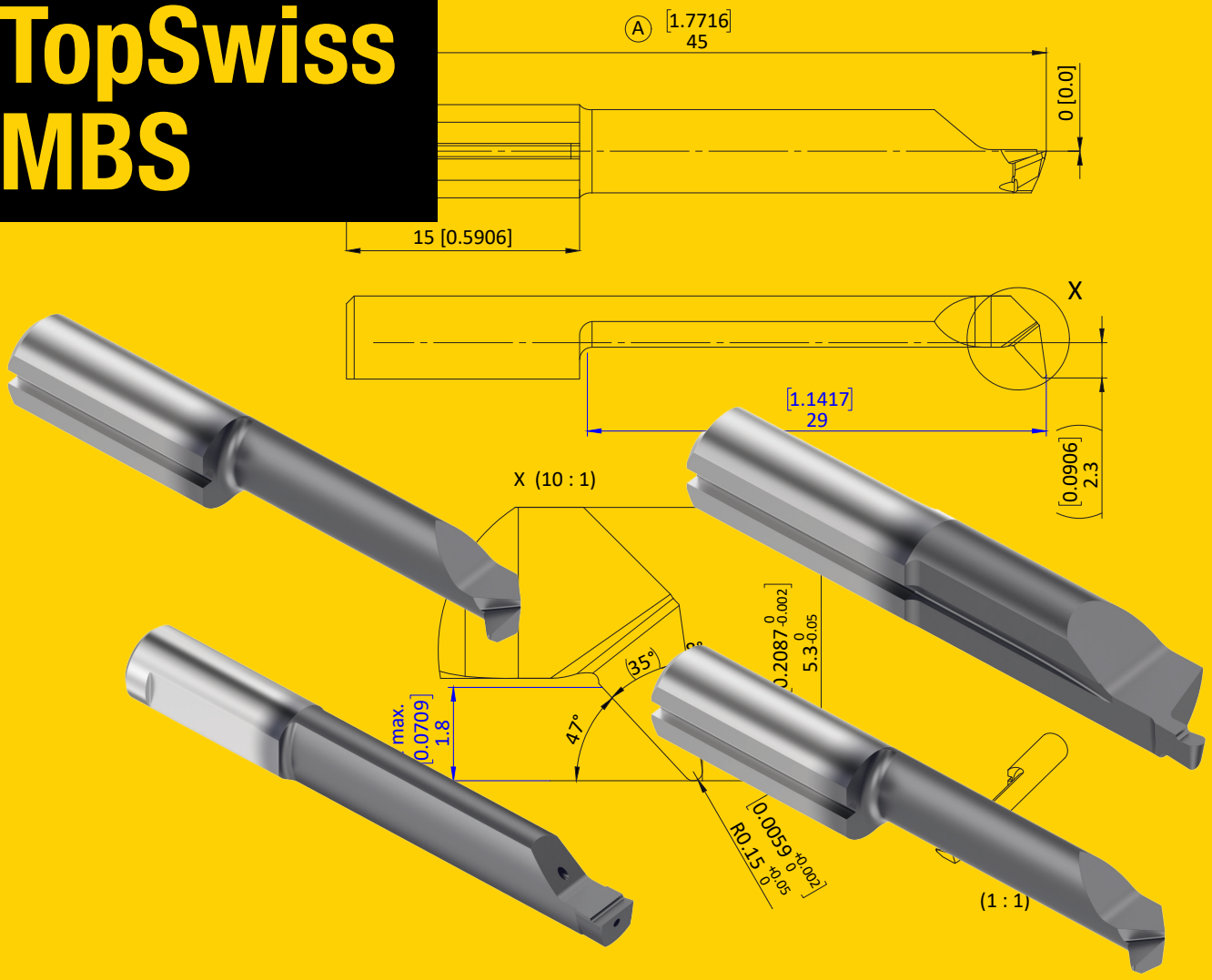
I.D. Chamfering | I.D. Grooving | I.D. Internal Threading | Multi-Direction



EXPLORE
TopSwiss MBS
MICRO BORING SOLID

CUSTOM SOLUTIONS

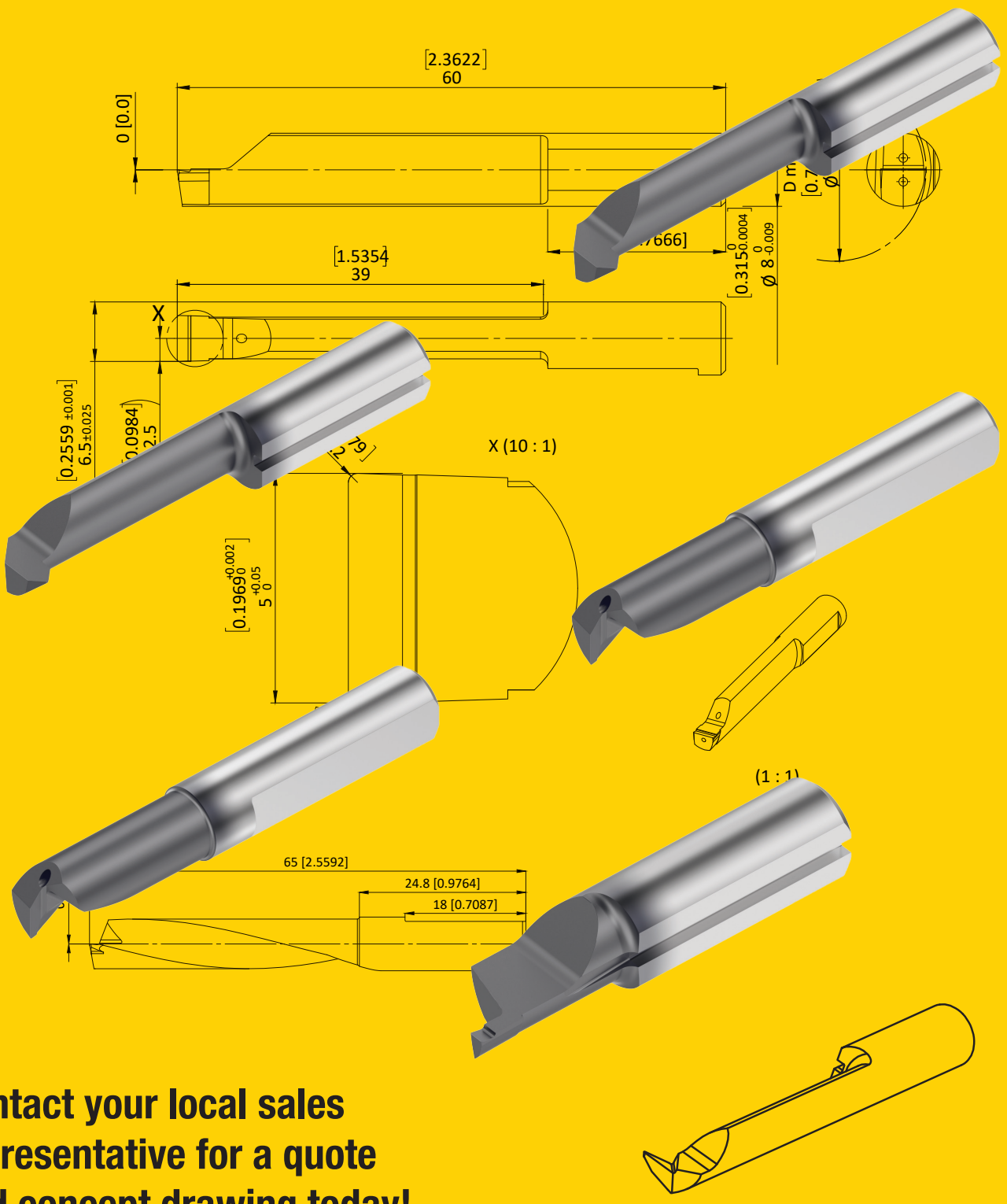
TopSwiss MBS



Custom Support for Your Precision Machining Operations

Kennametal's skilled team of engineers excel at tackling intricate projects to deliver solutions tailored to your specifications. Our expert advice and innovative approaches meet rigorous tolerances with both accuracy and functionality. By leveraging cutting edge technologies and advanced Kennametal tooling systems, you will be equipped with unparalleled performance and reliability. Experience world-class tooling designs and dedicated experts who can elevate your manufacturing capabilities to the next strategic level.

CUSTOM SOLUTIONS



Contact your local sales representative for a quote and concept drawing today!

TopSwiss ISO TURNING INSERTS

Next Level Turning for Small Parts & Swiss-Type Machining

- Designed for low-feed, high depth-of-cut, Swiss-type and small parts applications
- Polished finishing geometries for smooth chip flow and protection against built-up edge
- Wiper geometries for increased feed rates and superior surface quality
- 4 material specific carbide grades for steels, stainless steels, high-temp alloys and non-ferrous materials
- Cermet grade specific for Swiss-type turning in steels and stainless steels
- Featuring straight and curved cutting edges for increased edge strength



Materials

PRIMARY

P Steels

M Stainless Steels

N Non-Ferrous Materials

S High-Temp Alloys

SECONDARY

K Cast Iron

Industries

Medical

General Engineering

Aerospace

Automotive

Defense

Applications

Turning

Facing

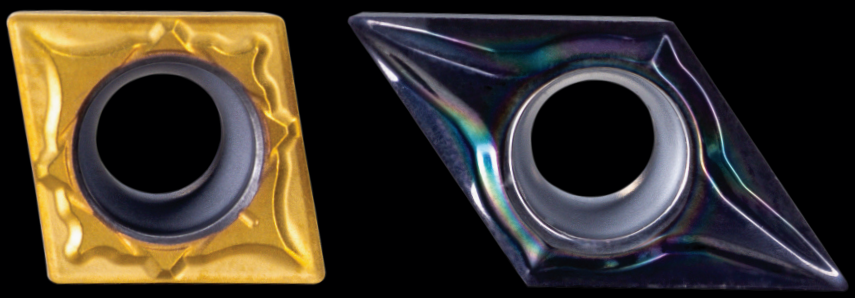
Profiling

Boring

Back Boring

Chamfering

I.D. Turning



EXPLORE
TopSwiss ISO
TURNING INSERTS

KENGold™ KCU10B & KCU25B

Universal Turning Grades with PVD Coating Technology

- TiSiN/AlTiSiN/AlTiN coatings for greater thermal deformation resistance and edge wear resistance across all material groups
- Reduces waste of unused edges by offering easy wear identification
- KCU10B is a harder and more wear resistant grade while KCU25B is tougher
- Available in insert styles for ISO turning, grooving and cut-off



Materials

PRIMARY

P Steels | M Stainless Steels | K Cast Iron | S High-Temp Alloys

SECONDARY

N Non-Ferrous Materials

Industries

General Engineering | Aerospace | Oil & Gas | Wind & Solar

Automotive | Medical | Defense

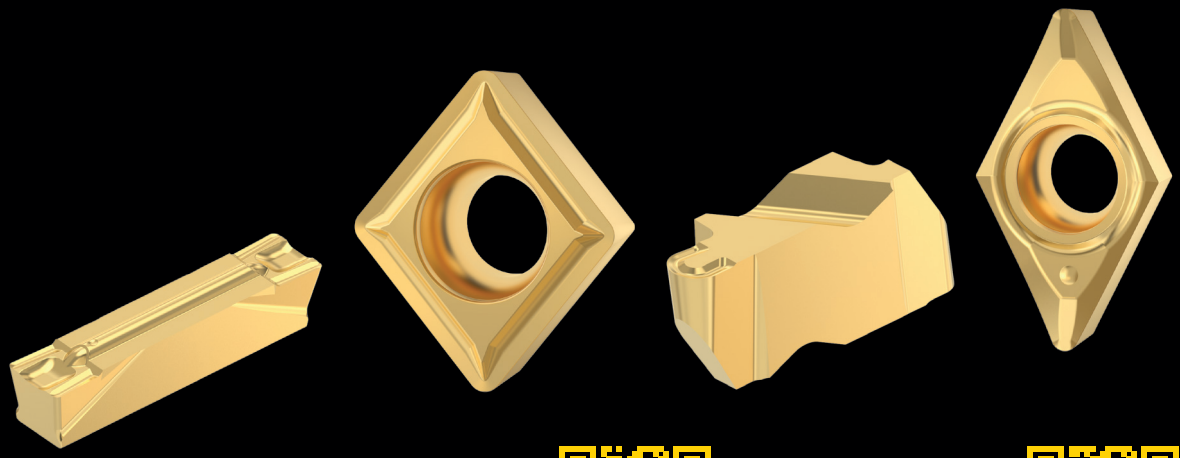
Applications

ROUGHING AND MEDIUM MACHINING

Turning | Grooving | I.D. Grooving | Face Grooving | I.D. Chamfering | O.D. Deep Grooving

Profiling | Cut-Off | I.D. Face Grooving | Chamfering | I.D. Facing | Facing

I.D. Turning | Threading



EXPLORE KCU10B

EXPLORE KCU25B

KCS10B

Enhanced Multilayer Coating for Improved Tool Performance, Durability and Efficiency

- High-PIMS coating technology
- Delivers longer tool life with high depth-of-cut notching resistance
- Optimum layer adhesion for increased process reliability and sharp cutting edges
- AlTiN PVD coating has very smooth coating surface and extremely hard, wear-resistant ultra fine-grain carbide substrate
- Coating ideal for difficult-to-machine materials like inconel, cobalt-based material, titanium and stainless steels



Materials

S High-Temp Alloys

M Stainless Steels

Industries

General Engineering

Aerospace

Oil & Gas

Wind & Solar

Automotive

Medical

Defense

Applications

ROUGHING AND MEDIUM MACHINING

Turning

Grooving

I.D. Grooving

Face Grooving

I.D. Chamfering

O.D. Deep Grooving

Profiling

Cut-Off

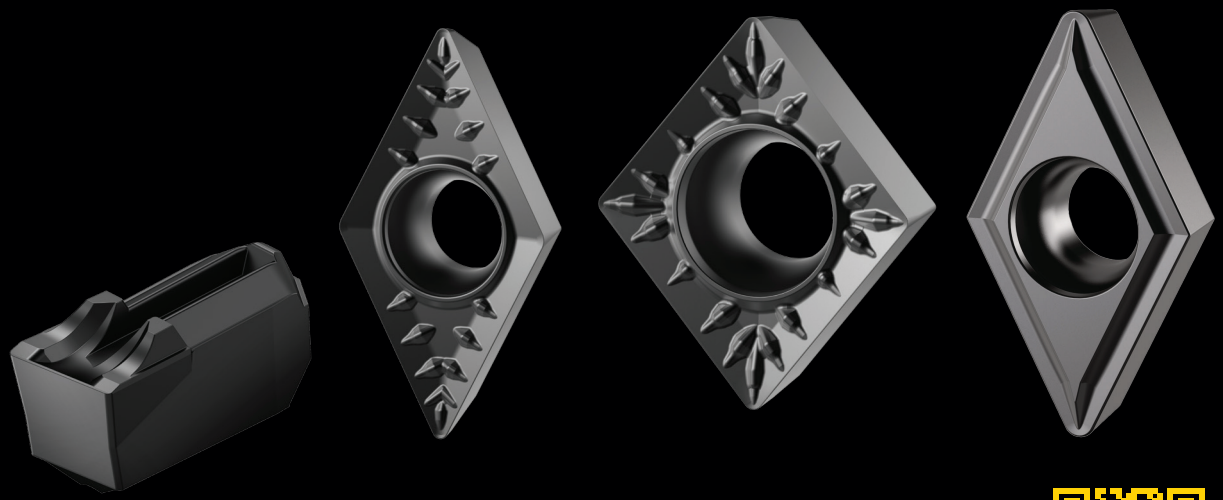
I.D. Face Grooving

Chamfering

I.D. Facing

Facing

I.D. Turning

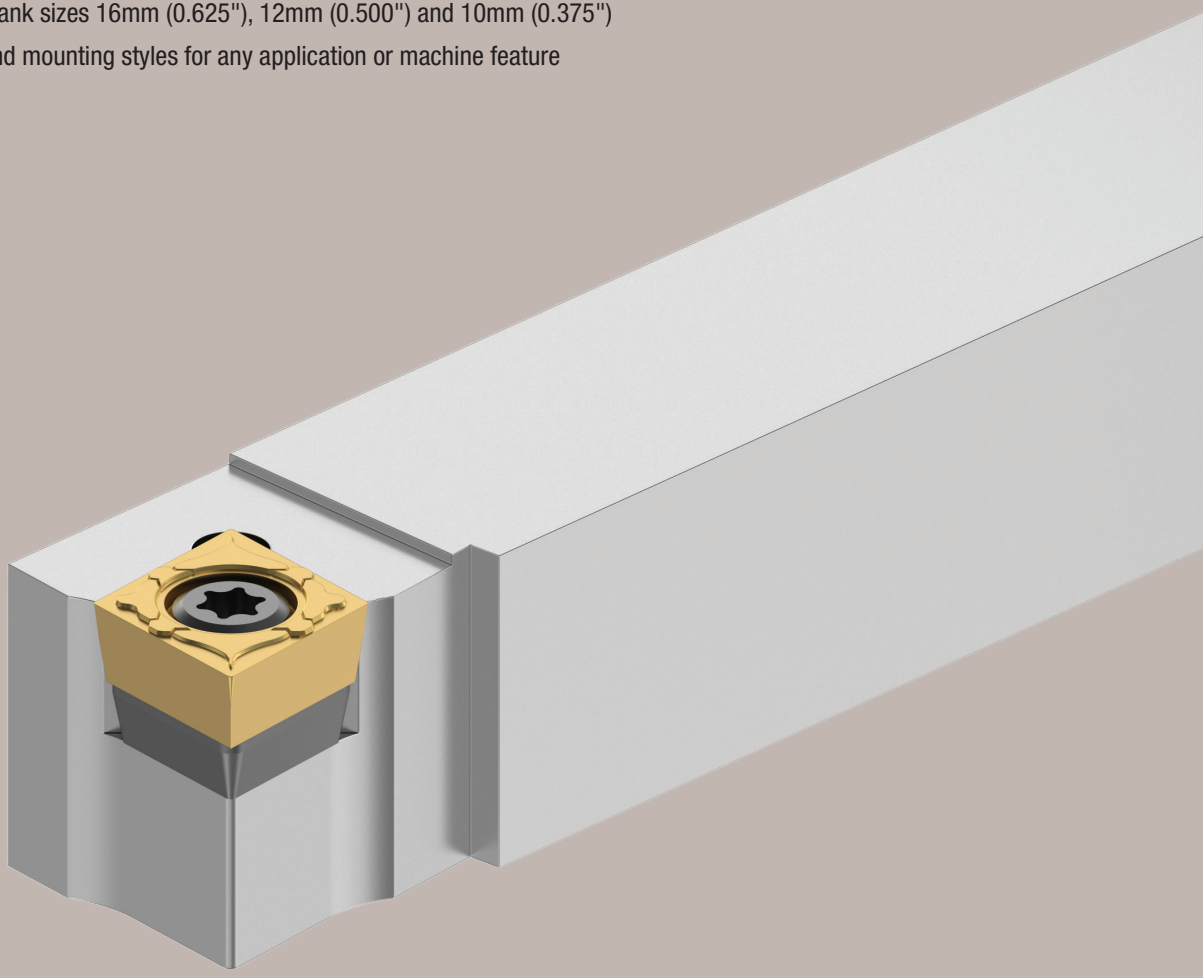


EXPLORE KCS10B

SQUARE SHANK TOOL HOLDERS FOR SWISS-TYPE MACHINING

Maintaining Close Tolerances with Stability

- Designed for Swiss-type gang plates
- Insert styles include CC.., CP.., DC.., DP.., VC.., VB.., TC.., TP.., SC.., SP.., WC.., WP..
- Available in square shank sizes 16mm (0.625"), 12mm (0.500") and 10mm (0.375")
- Various lead angles and mounting styles for any application or machine feature



Materials

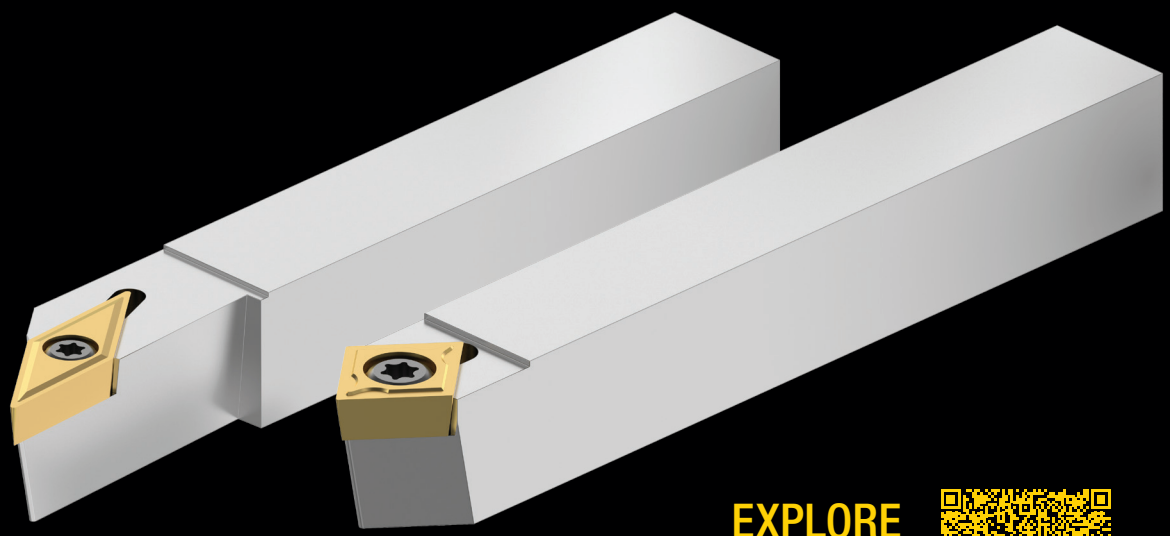
- P — Steels
- M — Stainless Steels
- K — Cast Iron
- N — Non-Ferrous Materials
- S — High-Temp Alloys
- H — Hardened Materials

Industries

- General Engineering
- Aerospace
- Oil & Gas
- Defense
- Wind & Solar
- Automotive
- Medical

Applications

- Swiss-Type Turning
- Profiling
- Facing
- Chamfering
- Threading



EXPLORE SQUARE SHANK TOOL HOLDERS

BORING BARS

Secure Precision for Every Turn

- Steel and carbide shanked boring bars with through coolant for reducing heat on the cutting edge
- Minimizes vibration and deflection during cutting
- Secure clamping minimizes the risk of tool slippage or breakage
- Compatible with a wide range of boring bar sizes and materials
- Quick insert changes for improved workflow and versatility
- Over 110 boring bar options with shank sizes 4mm (0.157") – 8mm (0.315") to complement the TopSwiss MBS portfolio which contains over 900 options in this range
- Over 280 boring bar options with shank sizes 9mm (0.354") – 16mm (0.630")



Materials

PRIMARY

P Steels

M Stainless Steels

K Cast Iron

S High-Temp Alloys

SECONDARY

N Non-Ferrous Materials

Industries

General Engineering

Aerospace

Oil & Gas

Defense

Wind & Solar

Automotive

Medical

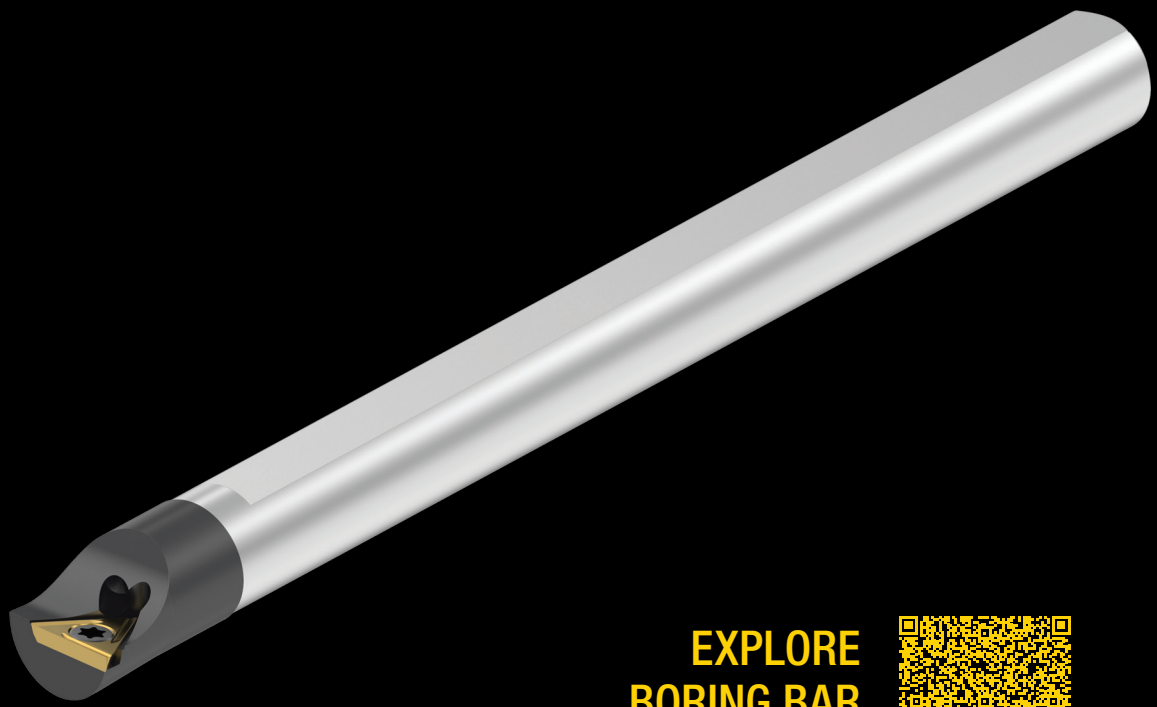
Applications

I.D. Turning

I.D. Chamfering

I.D. Facing

Threading



EXPLORE BORING BAR HOLDERS

PROVEN TURNING SOLUTIONS

Increasing Tool Life & Ensuring Precision

TopSwiss MBS

Proven Micro Boring Solutions

- An **aerospace component manufacturer** was seeking a better solution to internally turn a precision feature while demanding **better tool life** and an **8 Ra finish** holding a **dimensional tolerance of only ±0,00254mm (0.0001")** – while working on incredibly tough 62 HRC steel.

- Kennametal's TopSwiss MBS insert in grade KCHS25S with an advanced AlCrN coating successfully met the finish and tolerance requirements to machine **50 components at 62 HRC versus competitor tooling only lasting for the production of just one component.**

- A producer of precision components for the **defense, aerospace and medical** industries was seeking a better solution for precision internal turning for a small component while maintaining **high surface quality** and **effective chip control.**

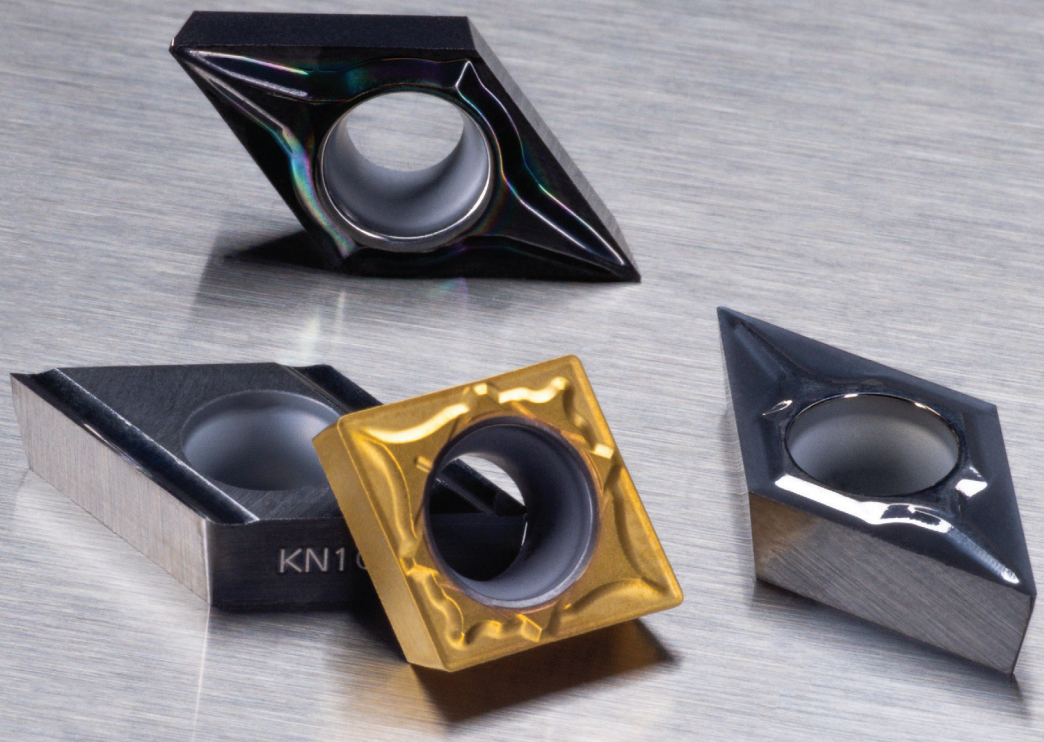
- Kennametal's micro but mighty TopSwiss MBS insert in grade KCSM25S with an advanced TiXCrN proprietary coating, along with a high-performance tool holder, was the perfect match to deliver an **increased depth of cut** and a game changing nearly **97% improvement in tool life.**



TopSwiss ISO

Proven Small Parts Solutions

- A **medical implant and instrument supplier** needed a better solution for precision external turning of a **small medical instrument** made from **17-4 PH stainless steel.**
- Kennametal recommended the TopSwiss ISO turning insert utilizing a cermet grade (KTP25S) and a Finishing Wiper Swiss (FWS) geometry, drastically **enhancing tool life by nearly 900%**—transforming the component machining process from **high maintenance to high production.**



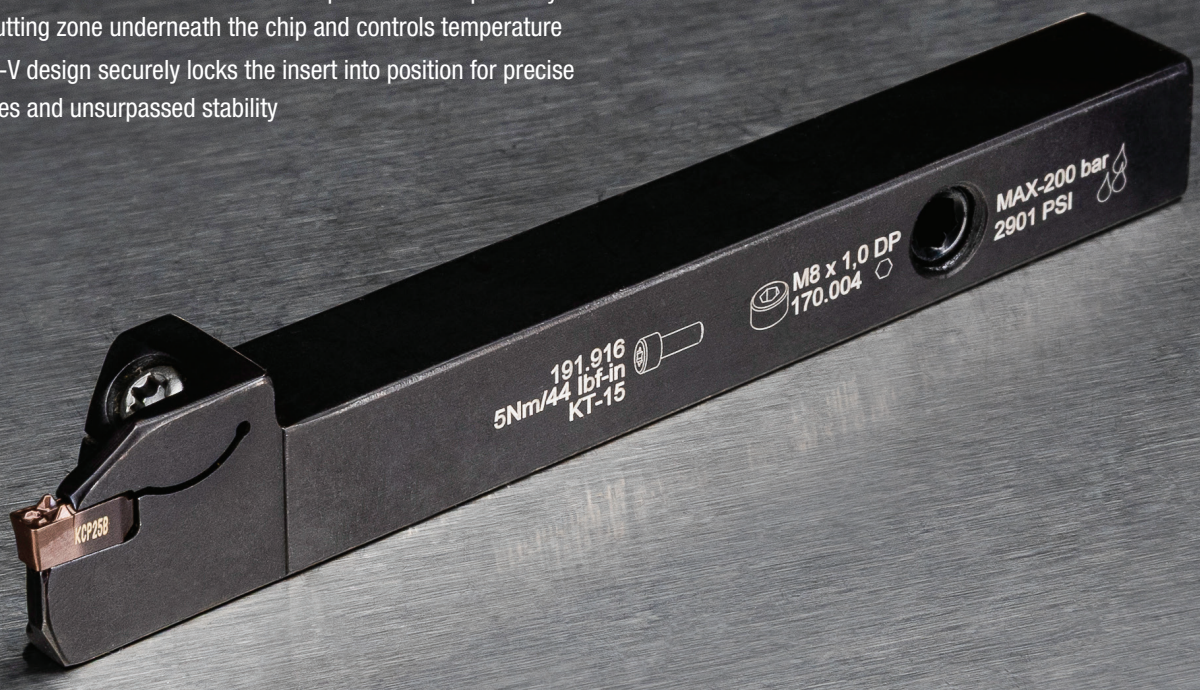
EXPLORE TopSwiss MBS

EXPLORE TopSwiss ISO

HIGH-PERFORMANCE TURNING, GROOVING AND CUT-OFF SOLUTIONS

Beyond Evolution™ FRONT CLAMP TOOL HOLDERS

- Reinforced front clamp design available in square shank sizes 10mm (0.375") - 20mm (0.750")
- High performance cut-off inserts starting at 1.4mm (0.055") wide
- Fan effect directs coolant across the top of the insert precisely to the cutting zone underneath the chip and controls temperature
- Triple-V design securely locks the insert into position for precise indexes and unsurpassed stability



Materials

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

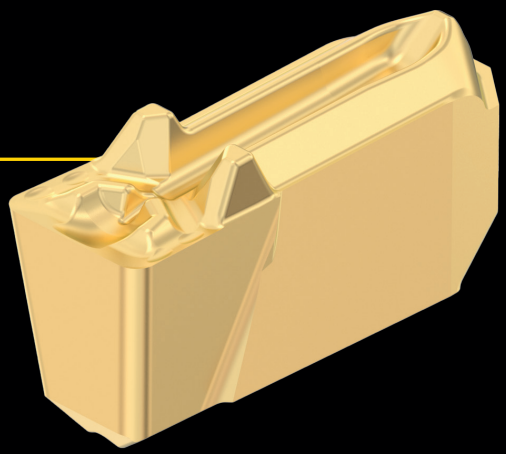
Industries

- General Engineering
- Aerospace
- Oil & Gas
- Defense
- Wind & Solar
- Automotive
- Medical

Applications

- Through Coolant Grooving
- Cut-Off
- Turning
- Profiling
- Facing
- Chamfering

Single-Sided Turning, Grooving and Cut-Off System



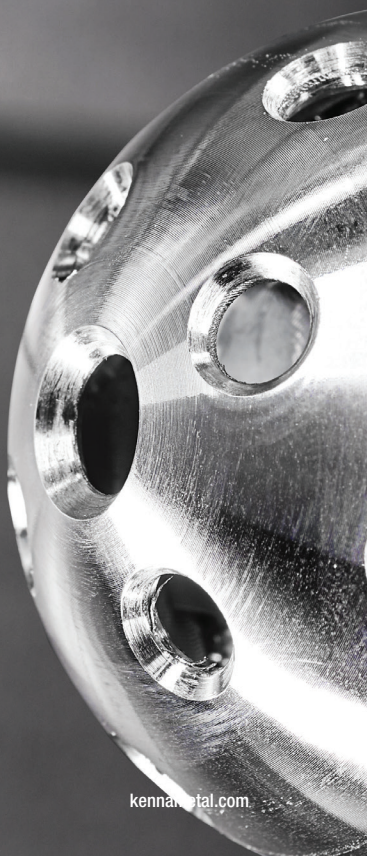
EXPLORE
Beyond Evolution

A4 CLUBHEAD TOOL HOLDERS

Reinforced for Stability in Grooving and Cut-Off Applications

- Reinforced club head design available in square shank sizes 12mm (0.500") - 20mm (0.750")
- High performance cut-off inserts starting at 1.49mm (0.059") wide
- Ground 120° bottom V-seating surface and top clamping systems provide insert stability and better surface finishes
- A4 system offers one tool for several applications, translating into exceptionally fast cycle times with no turret indexing
- Reinforced steel design supports the insert during machining, reducing deflection, creating high stiffness and maximum stability





Materials

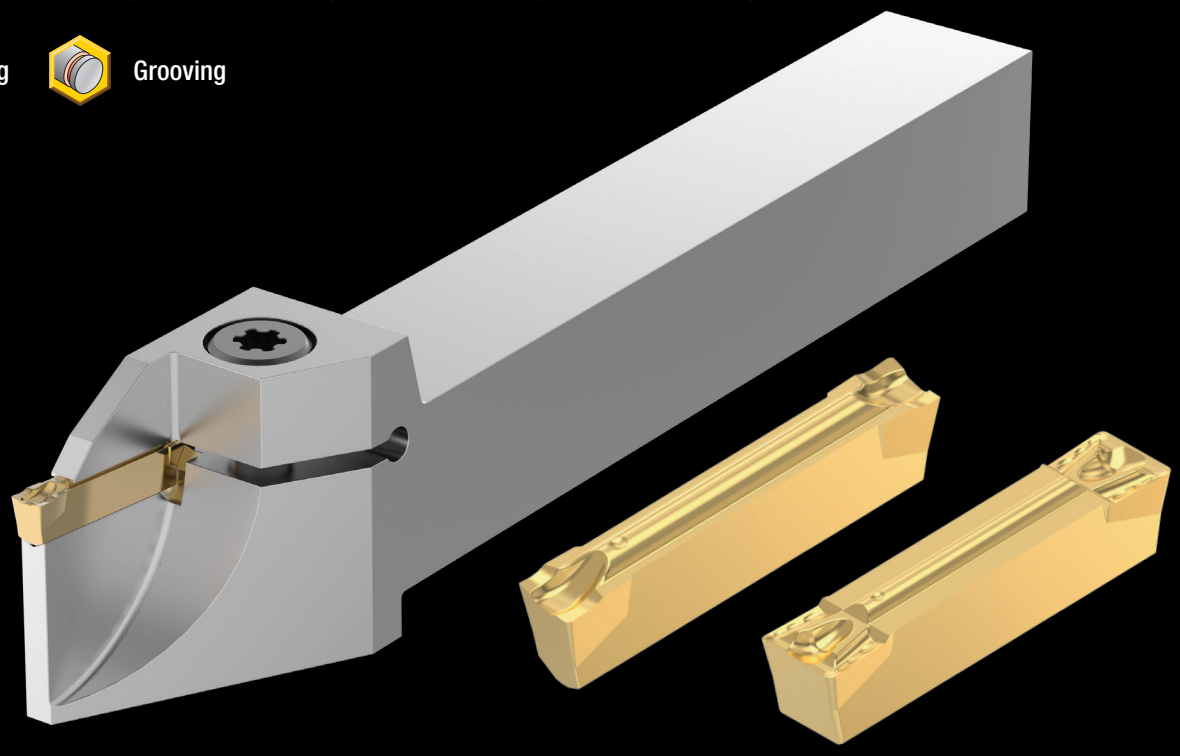
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Industries

- General Engineering
- Aerospace
- Oil & Gas
- Defense
- Wind & Solar
- Automotive
- Medical

Applications

- Through Coolant Grooving
- Cut-Off
- Turning
- Profiling
- Facing
- Chamfering
- Grooving



EXPLORE
A4 CLUBHEAD
TOOL HOLDERS

Top Notch™ GROOVING, THREADING & BACK TURNING

Maximize Precision at Shallow Depths

- Square shank tool holders available in sizes 10mm (0.375") - 16mm (0.625")
- Steel and carbide shanked boring bars with through coolant for reducing heat on the cutting edge
- Ideal for internal and external machining operations due to excellent stability and precision
- Design ensures insert security for accuracy and efficiency



Materials

PRIMARY

P Steels

M Stainless Steels

K Cast Iron

S High-Temp Alloys

SECONDARY

N Non-Ferrous Materials

Industries

General Engineering

Aerospace

Oil & Gas

Defense

Wind & Solar

Automotive

Medical

Applications

Grooving

Cut-Off

Threading

Turning

Profiling

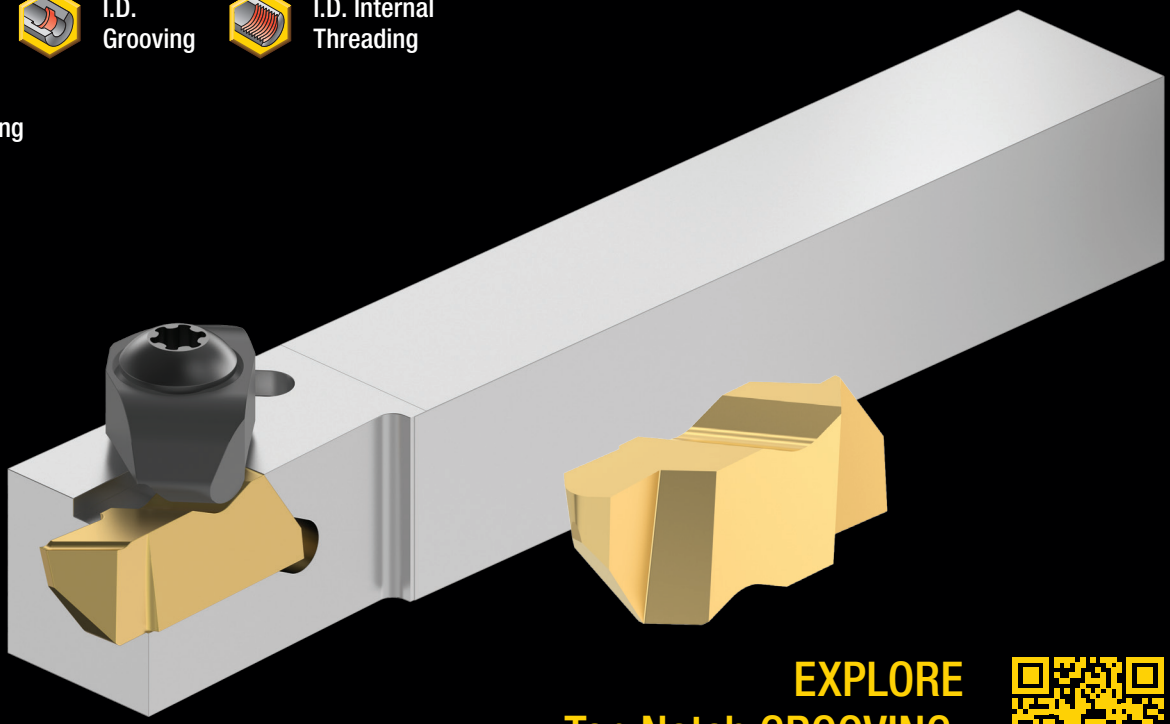
Face Grooving

I.D. Profiling

I.D. Grooving

I.D. Internal Threading

Back Turning



EXPLORE
Top Notch GROOVING,
THREADING & BACK TURNING

Small Parts Machining Solutions

kennametal.com/**SmallPartsMachining**




KENNAMETAL
A22GMBSPPD45M
MBSS005, 1.2 Nm

HIGH-PERFORMANCE SOLID END MILLING SOLUTIONS

KenCut™ MEMM

Burr-Free Micro Machining for Medical Components

- Ideal for machining bone screws and other medical-grade components made of stainless steels and titanium
- Advanced 3- and 4-flute designs for higher metal removal rates
- Gash design with corner protection for extended tool life, preventing chipping
- Extended neck geometry for better reach and stability in smaller spaces
- Optimized carbide grade for increased fracture resistance, stability and reduced deflection
- KCSM10 coating for smooth chip evacuation and tight tolerances
- Standard offering from 0.2mm - 1.0mm (0.008"- 0.040"), with custom sizes available by request
- Designed for clean cutting with no burrs



Materials

PRIMARY

M Stainless Steels

S High-Temp Alloys

SECONDARY

K Cast Iron

H Hardened Materials

Industries

Medical

Aerospace

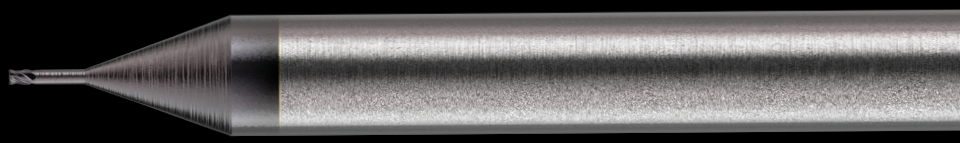
Applications

Side Milling/ Shoulder Milling

Helical Milling

Pocket Milling

Slotting



EXPLORE KenCut MEMM

PROVEN SOLUTIONS

KenCut MEMM

Proven Small Parts Solutions

A **medical implant and instrument manufacturer** using a competitor's 4-flute solid carbide end mill for **milling titanium bone screws** was **struggling to reduce the project's cycle time.**

Kennametal recommended KenCut MEMM, a trusted medical and aerospace industry micro end mill designed for precise, clean and burr-free cutting, that not only **reduced cycle time from 1 minute to 0.375 minutes,** but also **drastically extended tool lifetime from 1,500 screws to 6,000 screws—** a **300% improvement.**

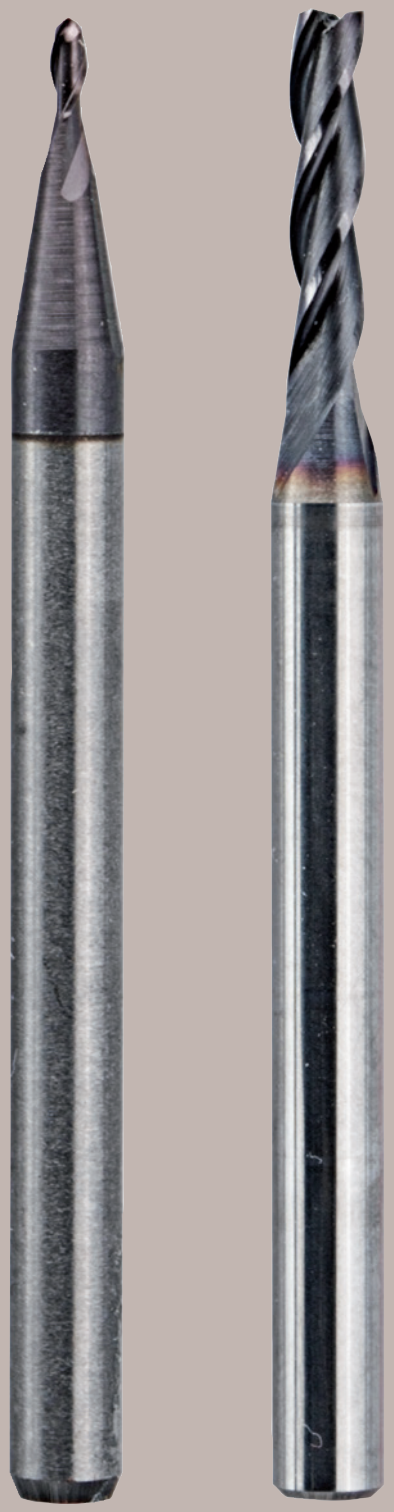


EXPLORE
KenCut Micro MEMM

KenCut MM

Engineered for Micro-Machining and Small Parts Machining

- Center cutting for plunging and ramping operations
- Available in 2- and 3-flute designs
- Available in ball and square end styles
- Long necks allow for a variety of surface milling applications and processing at different depths
- Exceptionally sharp and tough-toothed, specially designed for efficient precision finishing
- Rigid shank provides extra toughness and strength
- Tight tolerances for precise machining
- Large core design improves tool stability and rigidity for increased tool life
- Short length of cut provides highest stability and less deflection
- Negative cutting geometry increases the edge strength and tool stability
- Ultrafine carbide grain substrate increases toughness, wear resistance and cutting edge sharpness
- Available in diameter range 0.3 - 6mm (metric only)



Materials

P Steels

M Stainless Steels

K Cast Iron

H Hardened Materials

Industries

Medical

General Engineering

Die & Mold

Automotive

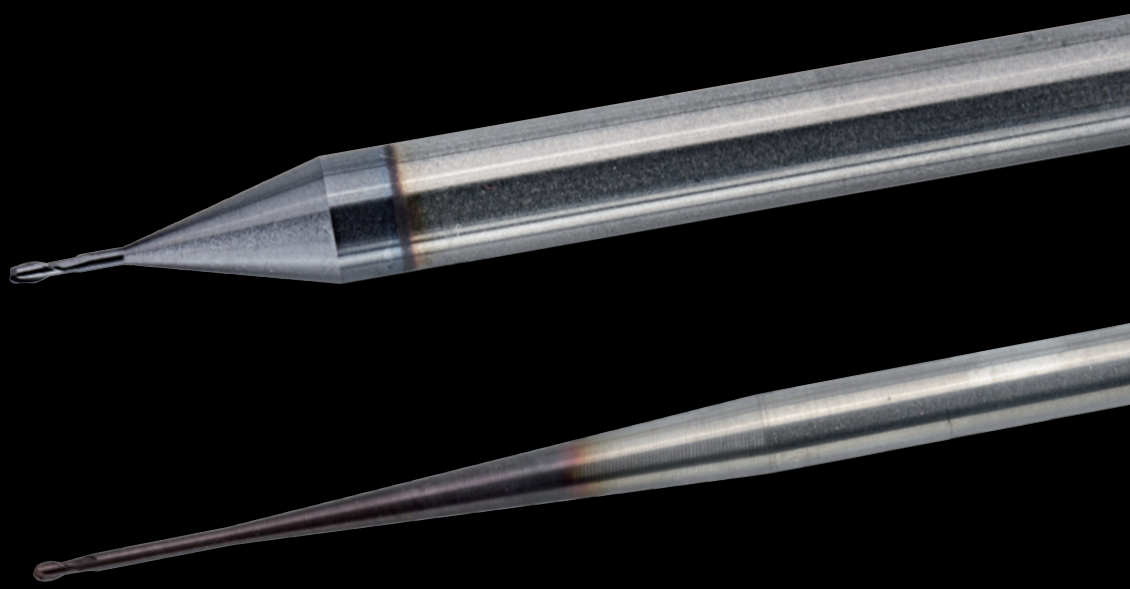
Applications

Side Milling/ Shoulder Milling

Ramping

Slotting

3D Profiling



EXPLORE KenCut MM

HARVI™ I TE

High-Performance Roughing and Finishing with Maximum Versatility

- 4-flute end mill for roughing and finishing covering the broadest range of applications and materials
- Proprietary end face design with twisted cutting edge increases corner stability, enabling soft cutting action event at high ramping angles
- Asymmetric divided flutes and variable helix enables vibration dampening for unmatched feed rates
- Proprietary, precision faceted eccentric relief reduces vibrations and friction for excellent cutting conditions in multiple materials
- Proprietary flute design features innovative chip gashes within the flutes to reduce cutting forces and support chip evacuation
- KCPM15 & KCSM15 grades resist wear, minimize edge build up and extend tool life
- Sizes available in 2mm - 32mm (1/16"-1 1/4")



Materials

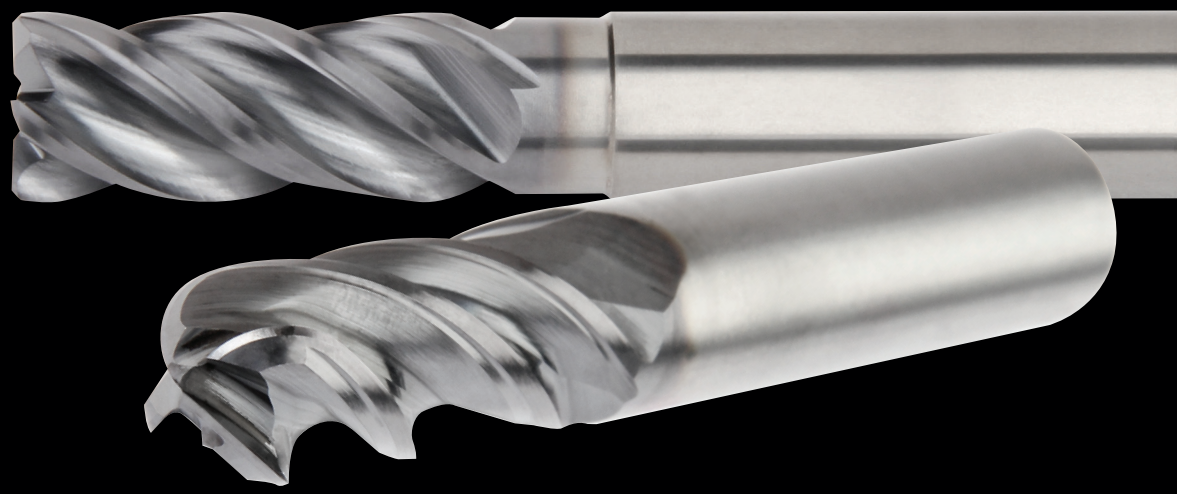
- P Steels
- M Stainless Steels
- K Cast Iron
- S High-Temp Alloys
- H Hardened Materials

Industries

- Automotive
- Aerospace
- General Engineering
- Medical
- Wind & Solar
- Oil & Gas

Applications

- Slotting up to 2xD
- Side Milling/ Shoulder Milling
- Ramping up to 45°
- Helical Interpolation
- Plunge Milling up to 2xD
- Trochoidal Milling
- 3D Profiling
- Slotting up to 2xD: Ball Nose



EXPLORE HARVI I TE

HARVI II TE

5-Flute End Mills with Extreme Application Range

- Open 5-flute design combined with a stronger core for increased metal removal rates, tool life and chip evacuation capabilities
- Novel centerless end face designed for aggressive ramping, plunging and deep slotting
- Chip gashes for better chip evacuation and improved tool cooling with increased coolant flow from the flute to cutting zone
- Proprietary W-flute shape for better chip evacuation and stronger core
- Eccentric relief increases the edge strength for longer tool life and wide material application range
- Proprietary KCSM15A grade combines a high hardness top layer with a stress optimized base layer for high wear resistance and best-in-class tool life
- Available in sizes 4mm - 25mm (1/8" - 1 1/4")



Materials

PRIMARY

P Steels

M Stainless Steels

K Cast Iron

S High-Temp Alloys

SECONDARY

H Hardened Materials

Industries

Automotive

Aerospace

General Engineering

Medical

Wind & Solar

Oil & Gas

Applications

PRIMARY

Side Milling/ Shoulder Milling

Ramping Up to 45°

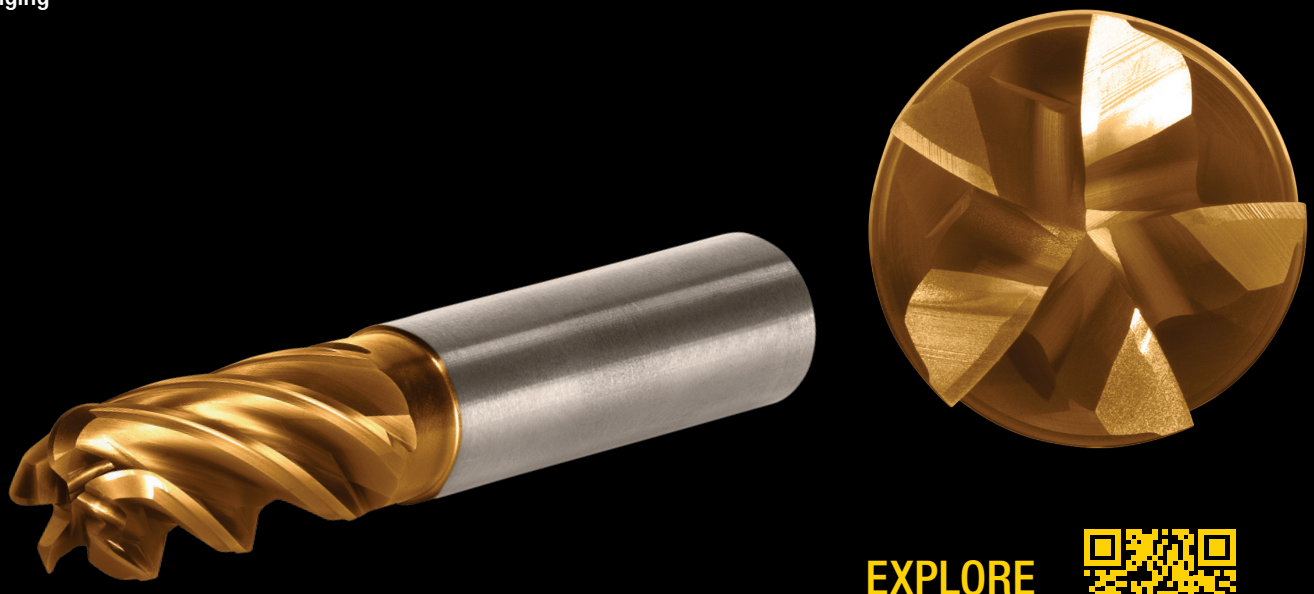
Slotting Up to 1.5xD-2xD

Trochoidal Milling

Helical Interpolation

SECONDARY

Plunging



EXPLORE HARVI II TE

HARVI III Series

6-Flute End Mill for High-Speed Roughing and Finishing

- HARVI III and HARVI III Ball Nose design allows for low cutting forces that deliver the highest productivity, smooth cutting action and best surface finishing
- Center cutting design enables radial and axial finishing pass after roughing operation
- HARVI III Aero design offers a tailored rake angle for dynamic milling in titanium components with highest metal removal rates
- HARVI III Taper Ball Nose has high metal removal rates and taper angles of 4° and 6° for a broad application range
- Sizes available starting at: 4mm and 1/8"



Materials

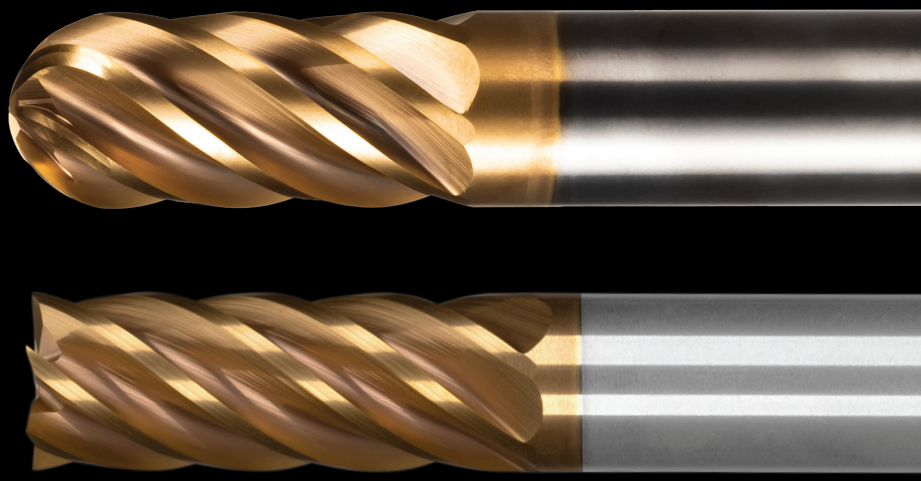
- P Steels
- M Stainless Steels
- K Cast Iron
- S High-Temp Alloys

Industries

- Aerospace
- Automotive
- General Engineering
- Medical
- Oil & Gas
- Wind & Solar

Applications

- Ramping
- Slotting: Square End
- Trochoidal Milling
- Shoulder Milling
- 3D Profiling
- Helical Interpolation



EXPLORE
HARVI III Series

DUO-λOCK™

Modular End Milling

- The only modular system with the performance of a solid carbide end mill
- Virtually unbreakable interface
- All of our most popular end mill geometries available with a modular connection
- Standard-length extensions with SAFE-LOCK, cylindrical and conical shanks
- Cut-to-size and heavy metal extensions also available
- Steel sealed ER collet adapters offer industry standard grip and runout while being compatible with standard adapters
- Integral adapters with HSK, PSC, CV and BT backends
- Sizes in 10 - 32 mm (3/8 - 1 1/4")



Materials

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

Industries

- Automotive
- Aerospace
- General Engineering
- Medical
- Wind & Solar
- Oil & Gas

Applications

- Plunge Milling
- Ramping
- Slotting
- Side Milling/ Shoulder Milling
- 3D Milling/ Profiling
- Chamfer Milling
- Side Milling/Shoulder Milling: Radius
- Trochoidal Milling
- Helical Interpolation

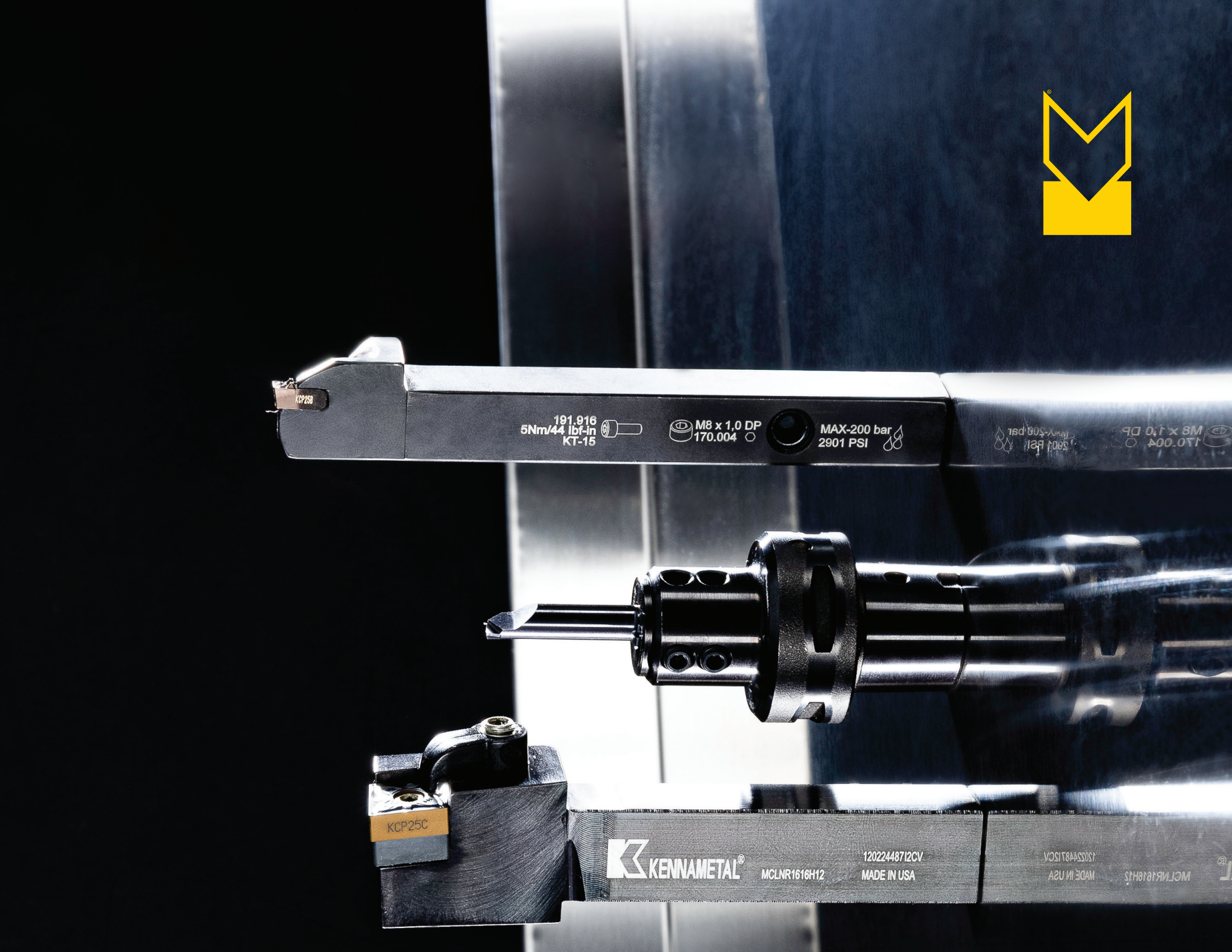


EXPLORE DUO-LOCK

Small Parts Machining Solutions

kennametal.com/**SmallPartsMachining**




KCP25B
191.916
5Nm/44 lbf-in
KT-15
M8 x 1,0 DP
170.004
MAX-200 bar
2901 PSI
KCP25C
KENNAMETAL®
MCLNR1616H12
1202244871 2CV
MADE IN USA

HIGH PERFORMANCE INDEXABLE MILLING SOLUTIONS

7792VX

High-Feed Milling with Superior Surface Generation

- Cutter bodies starting at Ø16mm (0.625")
- Available in two insert sizes for small parts and multi-axis machining, 6mm (IC06) and 9mm (IC09)
- Geometry (-D411) with positive rake for light machining
- Inserts with integrated wiper facet generate excellent surface finishes up to 16Ra (1,6 µm)
- Coarse and fine pitch cutters available with internal coolant



Materials

P Steels

M Stainless Steels

H Hardened Materials

Industries

Aerospace

General Engineering

Medical

Defense

Applications

Face Milling

Pocket Milling

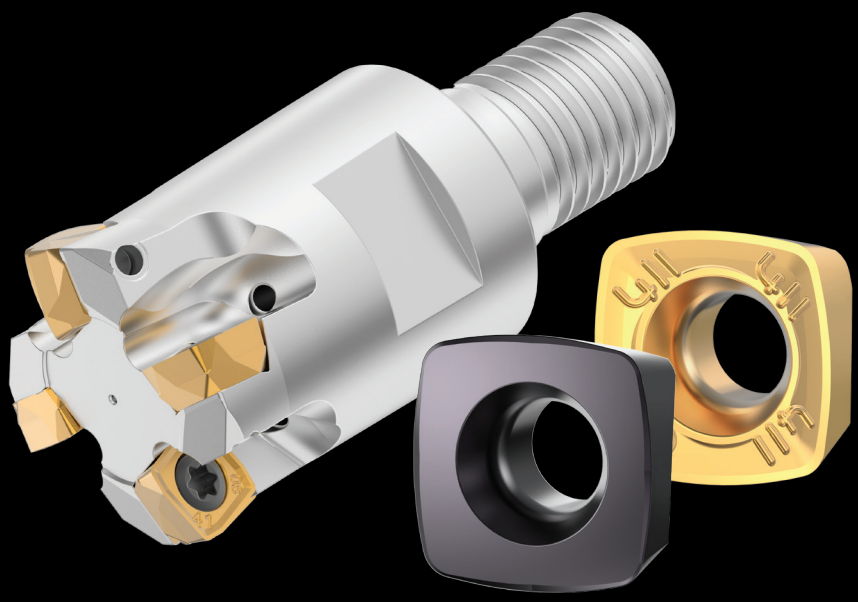
Helical Milling

Plunge Milling

Pocketing

Ramping

Counterboring

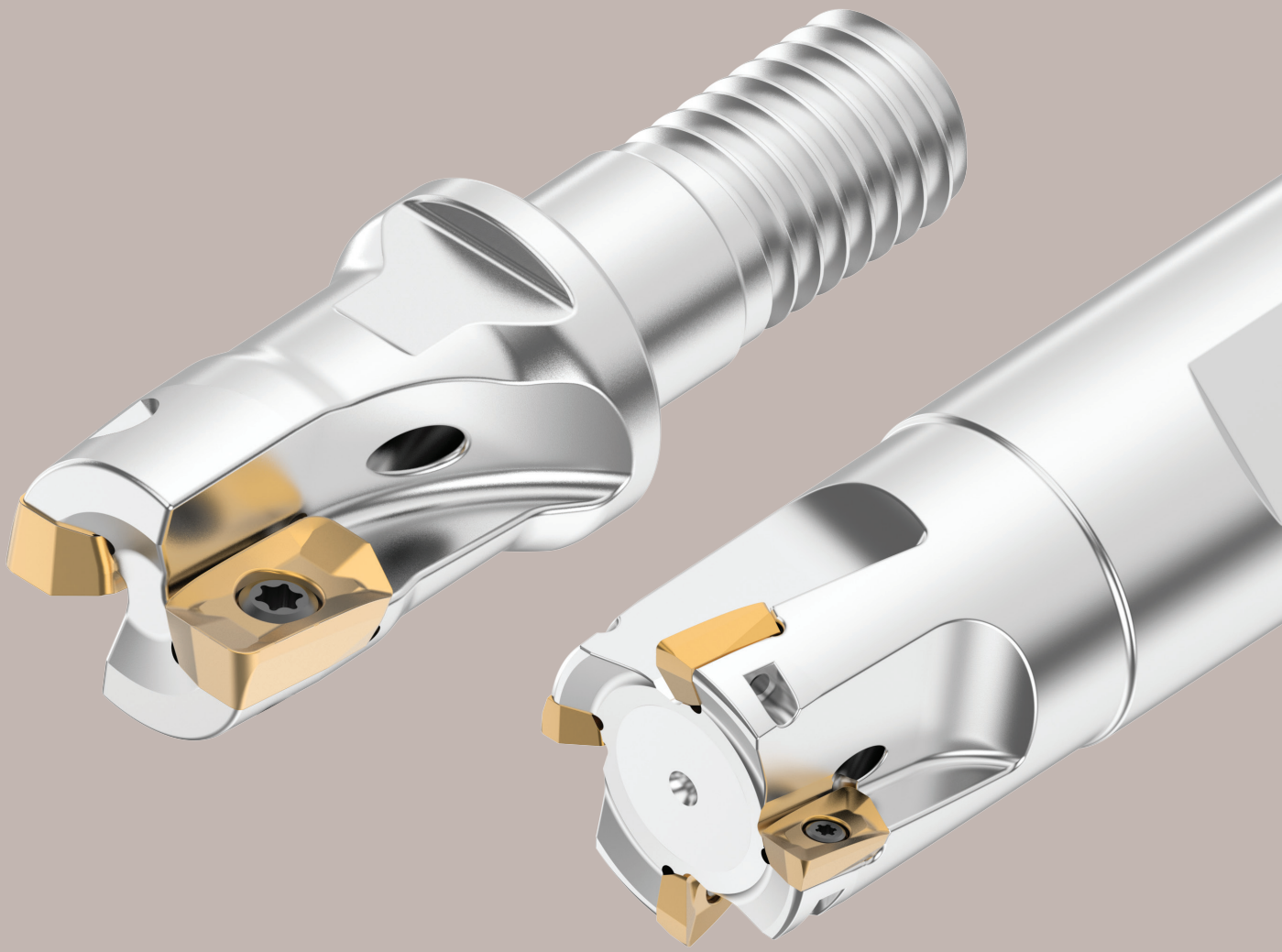


EXPLORE 7792VX

MILL 1™-7 & MILL 1-10 INDEXABLE SHOULDER MILLS

Small Component Machining

- Cutter bodies available starting at Ø12mm (0.472")
- Super positive cutting rake leads to low cutting forces and enables higher feed rates
- Inserts feature innovative margin along the main cutting edge for perfect edge stability
- Positive rake provides soft action and low cutting forces for smooth entry and exit
- Designed with elliptical cutting edges and optimized with a straight 90° wall



Materials

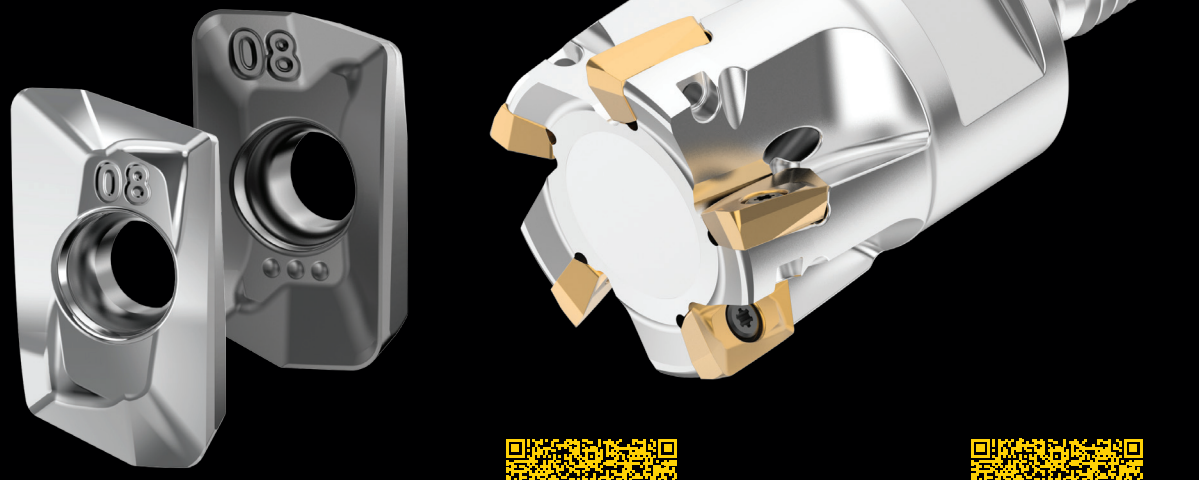
P Steels | M Stainless Steels | K Cast Iron | S High-Temp Alloys

Industries

Wind & Solar | Oil & Gas | Aerospace | General Engineering | Medical

Applications

Shoulder Milling | Face Milling | Ramping | Slotting | Plunging



EXPLORE MILL 1-7

EXPLORE MILL 1-10

HIGH-PERFORMANCE HOLEMAKING SOLUTIONS

KenDrill™ Micro

Adaptability. Accuracy. Reliability.

- Comprehensive portfolio for short- and deep-hole applications
- Versatile design supports machining multiple materials and delivers productivity boosts
- Powerful coolant supply improves chip evacuation and avoids tool breakage
- Available in 0.5mm - 2.9mm and lengths 1xD - 50xD



Materials

P Steels

M Stainless Steels

S High-Temp Alloys

Industries

General Engineering

Medical

Aerospace

Automotive

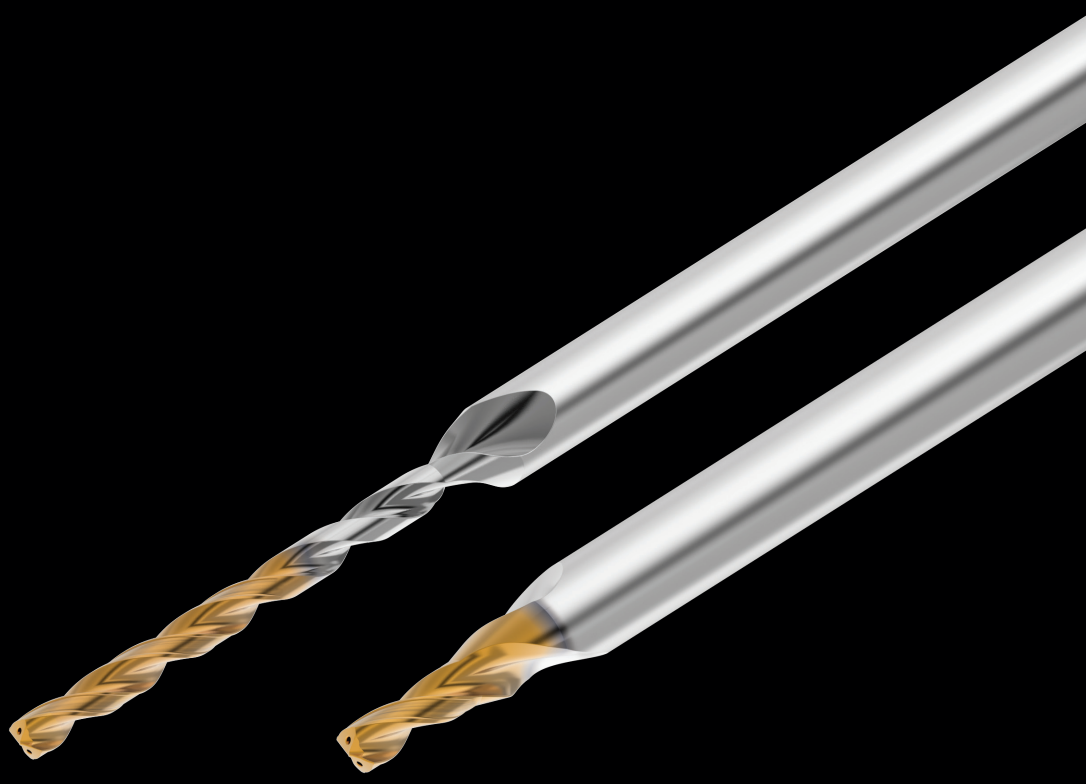
Applications

Drilling

Inclined Exit

4 Margin Lands

Through Coolant



EXPLORE
KenDrill Micro

PROVEN SOLUTIONS

KenDrill Micro

Proven Small Parts Solutions

Boosting tool life when **drilling titanium bone plates** was a huge priority for a **manufacturer of medical components for trauma and bone fixation.**

Our experts suggested the KenDrill Micro solid carbide drill—Kennametal's first ever micro drill for short and deep hole applications—for its advanced process reliability. This solution took production from **28 components per edge** to 35 components per edge for around a **25% improvement in tool longevity.**


EXPLORE
KenDrill Micro

KenDrill
FLAT BOTTOM DRILLS

Versatile Drilling Made for a Single Pass

- Designed to eliminate the need for an 180° end mill
- Creates true flat-bottom holes from outside diameter to center
- Unique FB drill-point design features two effective cutting edges over center, enabling high feed rates
- 4-margin land design improves hole straightness and roundness and provides good alignment
- Through coolant capabilities ensure optimal chip evacuation
- Available in sizes 3mm - 24mm



Materials

- P — Steels
- M — Stainless Steels
- K — Cast Iron
- N — Non-Ferrous Materials
- S — High-Temp Alloys

Industries

- Automotive
- General Engineering

Applications

- Drilling
- 4 Margin Lands
- Internal Coolant Supply
- Drilling Inclined Entry
- Drilling Inclined Exit
- Drilling Convex
- Drilling Flat Bottom

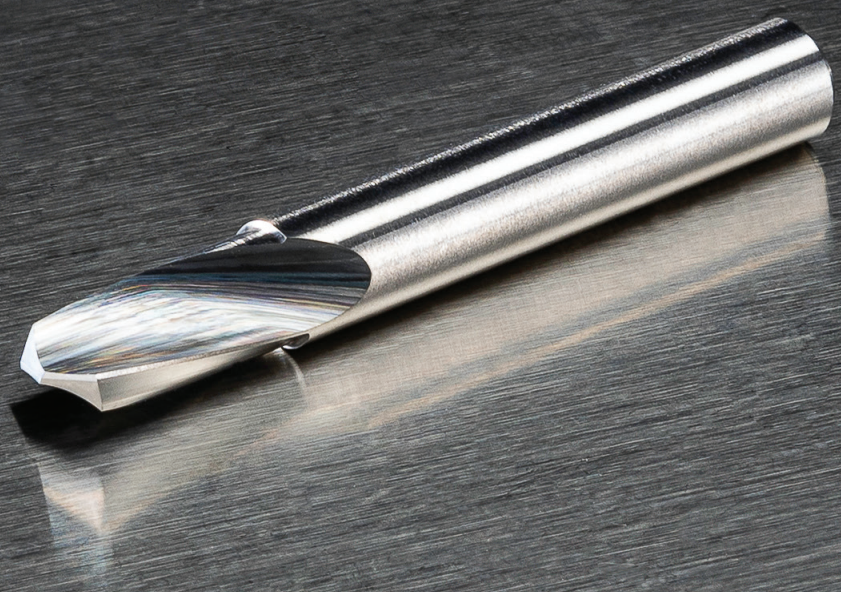


EXPLORE
KenDrill FLAT
BOTTOM DRILLS

KenDrill NC SPOT DRILLS

High-Precision Drilling for Accurate Holes

- For pre-centering operations, leading to improved hole positioning
- Eliminates the need for center punching or manual spotting
- Short flute length design specifically for spot drilling
- 90° spot angle drills are suited for chamfering drill point angle of 118° or smaller
- 120° spot angle drills are suited for drilling with point angles greater than 120° and for any tapping operation
- 145° spot drill point angles are engineered to shield 140° carbide drills like HPX, HPR and SGL for maximum edge protection
- Available in sizes: 4mm - 20mm



Materials

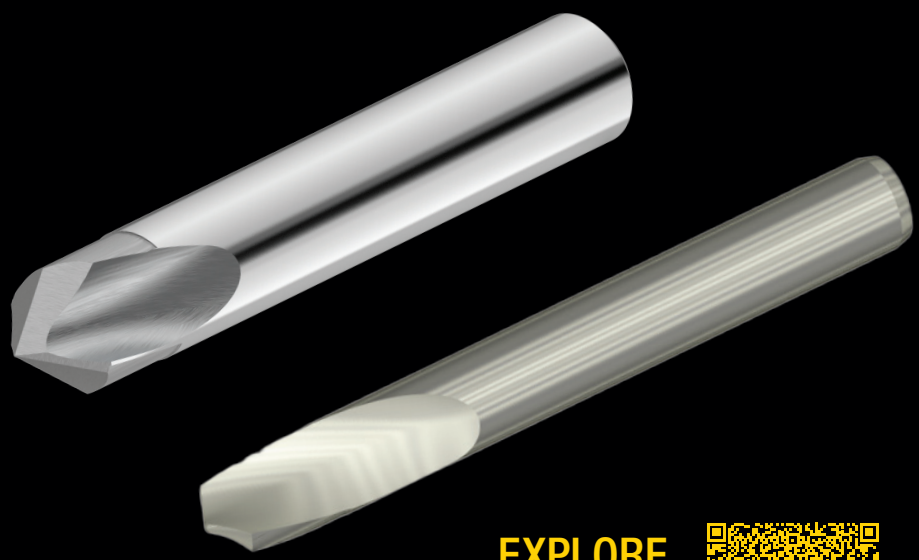
- P — Steels
- M — Stainless Steels
- K — Cast Iron
- N — Non-Ferrous Materials
- S — High-Temp Alloys

Industries

- Aerospace
- General Engineering
- Automotive
- Medical

Applications

- Drilling
- Countersinking
- Drilling No Coolant
- Drilling Flood Coolant



EXPLORE
KenDrill NC
Spot Drills

GOdrill™

Cost-Effective Drilling Across a Wide Range of Applications

- General purpose solid carbide drill for use across a wide range of materials
- Diameter range: 1 - 20mm (0.0394" to 0.7874")
- Marginless design reduces friction and heat for longer tool life
- Gashing design ensures a free flow of chips in the center of the drill
- Uninterrupted straight cutting lip does not allow a starting point for wear
- Enables an even distribution of cutting forces and reduces chipping on the cutting edge
- KC7325 grade contains a double coating for broad applications and a TiN top layer for easier monitoring of wear on small drills

Materials

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

Industries

- General Engineering
- Automotive
- Medical

Applications

- Drilling
- Drilling Internal Coolant
- Drilling Flood Coolant



EXPLORE GOdrill

KenTIP™ FS

Modular Drilling with Solid Carbide Performance

- Inserts cover entire front of drill
- Coupling is completely protected from chip flow and workpiece contact
- Multi-coolant delivery system flows coolant to the drill point and to the rake face
- Large, ultra-high polished chip flutes guarantee hassle-free chip evacuation, enhancing tool life and performance
- Insert changes are easy and save idle time
- Every drill body comes with a KenTIP smart wrench
- Available in diameters: 6mm - 26mm up to 12xD



Materials

- P — Steels
- M — Stainless Steels
- K — Cast Iron
- N — Non-Ferrous Materials
- S — High-Temp Alloys
- C — Composite Materials

Industries

- General Engineering
- Automotive
- Aerospace
- Medical

Applications

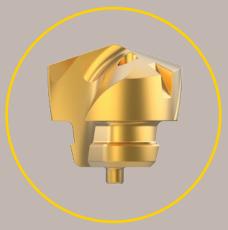
- Internal Coolant
- Drilling
- Drilling: Inclined Entry
- Drilling: Flat Bottom
- Drilling: Inclined Exit



EXPLORE KenTIP FS

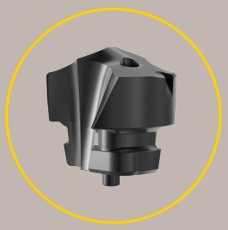
HIGH-PERFORMANCE INSERTS

KenTIP FS INSERTS



GTP Inserts

- KenTIP FS GTP insert with the GOdrill design with 140° point angle
- For universal applications
- For steels, stainless steels and cast iron
- Excellent centering capabilities and low axial forces
- Available from 6mm - 26mm
- With KC7325 grade's versatile, multilayer TiAlN coating and golden TiN top layer that serves for easier wear monitoring
- In conjunction with the other KenTIP FS inserts (HPG, HPC, HPL), the GTP insert can be utilized as pilot drill point for deep-hole applications



HPL Inserts

- For stainless steels
- Forms 2 chips per cutting edge for an uninterrupted and smooth chip flow
- KCMS15 grade features a AlTiN PVD monolayer coating
- Prevents edge build up to deliver superior hole quality



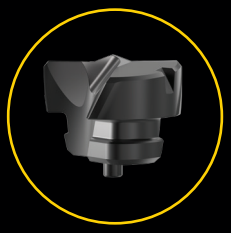
HPG Inserts

- For steels
- Great positioning and centering capabilities for drilling without pre-centering, even in deeper holes
- KCP15A grade features a AlTiN PVD monolayer coating
- Enhances thermal stability



DAV Inserts

- For non-ferrous materials and high-temp alloys
- Double angle geometry with 128º and 155º point angle to minimize exit burrs
- Uncoated for cost-efficient drilling
- Diamond coating for extended tool life (optional)



FEG Inserts

- 180° point geometry for holes that require a flat bottom, performing two operations in one
- Corner chamfer to reduce burr formation
- Four margin lands for hole straightness and stability on inclined exits
- In conjunction with the other KenTIP FS inserts (HPG, HPC, HPL), the FEG insert can be utilized as pilot drill point for deep-hole applications



KenTIP FS Tool Holders

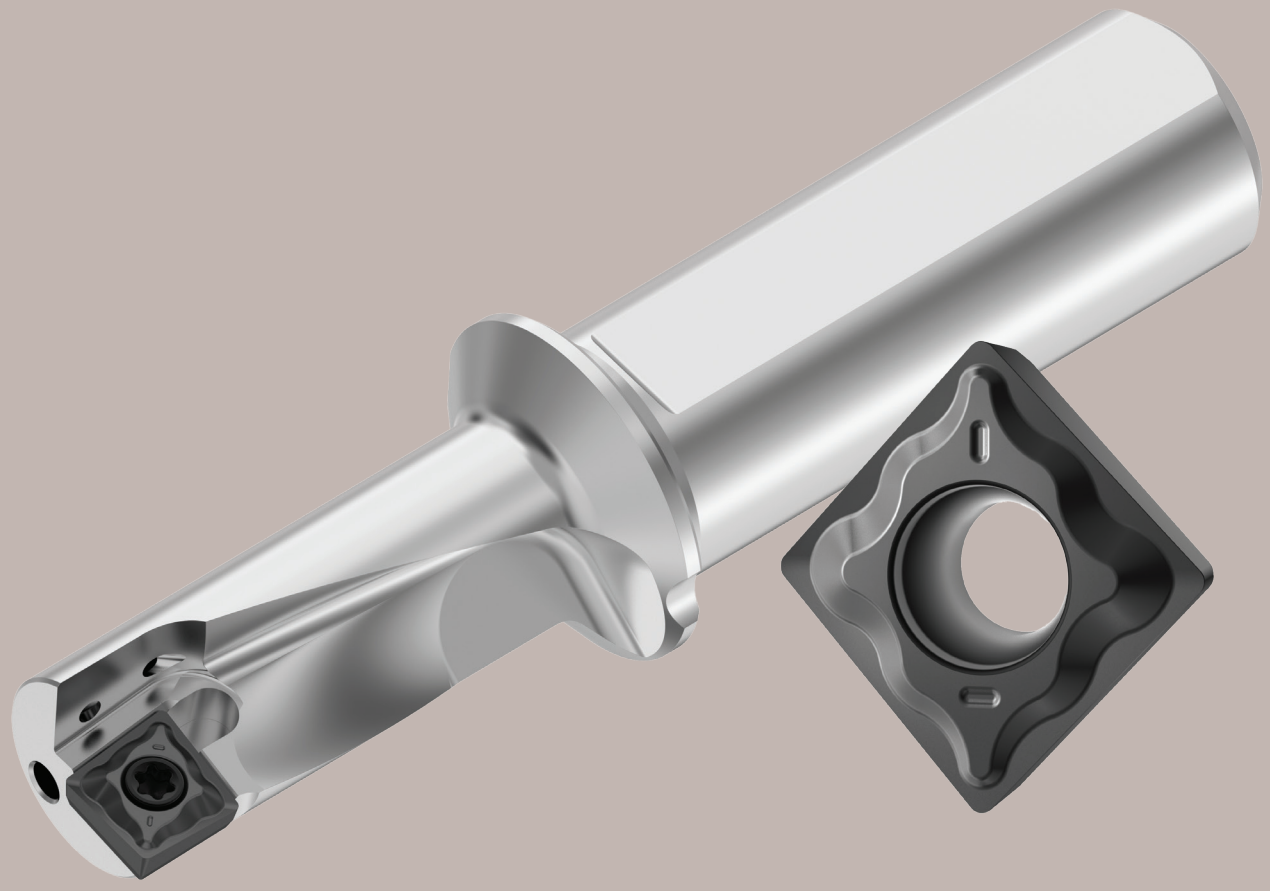
- Standard range from 1.5xD - 12xD
- Guaranteed coolant delivery to the drill point and rake face
- Every drill body comes with a KenTIP FS smart wrench
- Insert exchange in the machine becomes easy and saves idle time and money
- Tool holders with straight chip flutes guarantee hassle-free chip evacuation for static drilling applications on lathes
- Tool holders with spiral chip flutes enable maximum metal removal rates for regular drilling applications up to 12xD

EXPLORE
KenTIP FS Inserts

Drill Fix MULTI™

Cut Through Complexity

- Reduces cycle time and the number of tool changes
- Can be used in small parts production with small lathes and Swiss-type machines
- For drilling, internal turning, external turning, facing and chamfering
- Insert grade KCU30 is the first choice generally and where drilling is the focus
- Insert grade KCPK25 is the first choice where turning is the focus, delivering higher productivity
- Ideal for general engineering and transportation industry machining
- 9 metric cutting diameters ranging from 8mm to 32mm



Materials

- P — Steels
- M — Stainless Steels
- S — High-Temp Alloys

Industries

- General Engineering
- Automotive
- EV
- Oil & Gas
- Wind & Solar
- Aerospace

Applications

- Drilling
- I.D. Turning
- O.D. Turning
- Facing
- Chamfering



EXPLORE
Drill Fix MULTI

HIGH-PERFORMANCE TOOLING SYSTEMS

KM Micro™ HPCR Modular Quick-Change System

- The ultimate cooling system for consistent performance at every turn
- New HPCR shanks are compatible with all existing KM Micro cutting heads
- Optional dual coolant delivery system for reduced heat and enhanced chip control at cutting edge
- KM Micro three-point contact (1 face and 2 tapers) provides a stronger clamping connection
- Flexible quick-change capabilities with new A4 and Beyond Evolution heads for cut-off and grooving
- Primarily for Swiss-type lathes, but compatible with a wide range of machines
- Shanks available in 12mm, 16mm, 1/2" and 5/8" sizes



Materials

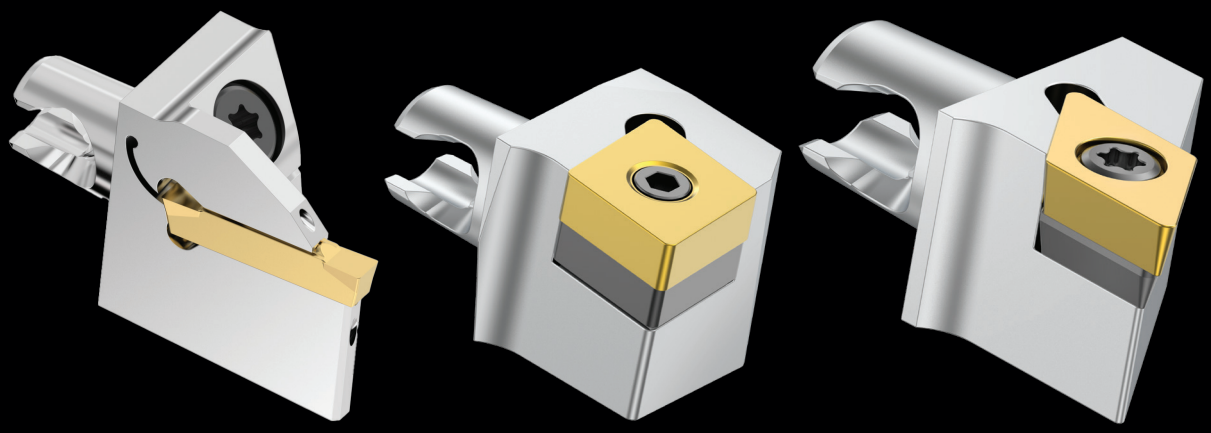
- P — Steels
- M — Stainless Steels
- K — Cast Iron
- N — Non-Ferrous Materials
- S — High-Temp Alloys
- H — Hardened Materials

Industries

- General Engineering
- Medical
- Automotive
- Aerospace

Applications

- Swiss-Type Turning
- Grooving
- Cut-Off
- Profiling
- Facing
- Chamfering
- Threading

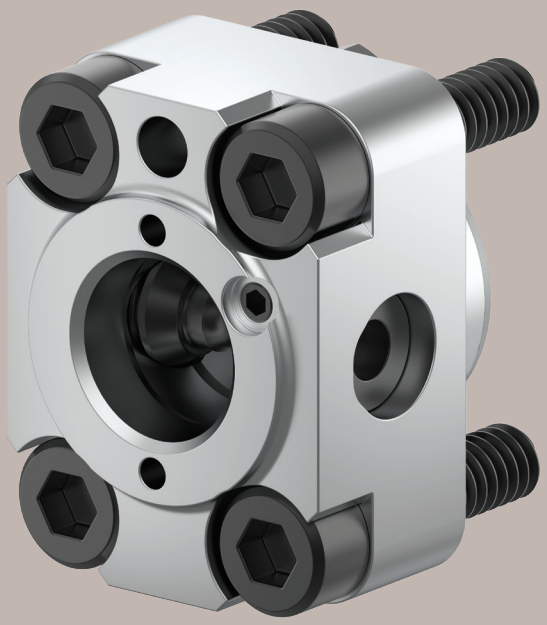


EXPLORE
KM Micro HPCR

KM MICRO & KM MINI QUICK-CHANGE TOOLING

A Revolution in Small Parts & Swiss-Type Machining

- Used for the conventional replacement of stick tools on Swiss-type lathes or standard lathe turrets up to 30 horsepower (22kW)
- Inserts can be changed outside of machine
- Reduces the time required for an insert exchange and reduces machine set-up time
- Due to the repeatability and accuracy, test cuts are minimized or no longer required and premeasured tools can be installed in the machine
- Side activation permits insert changes while leaving the tool holder in the machine
- Square shank clamping units can be installed quickly and easily in existing gang plates or turrets
- Flange mount clamping units provide customers the freedom to adapt to any machine configuration





Materials

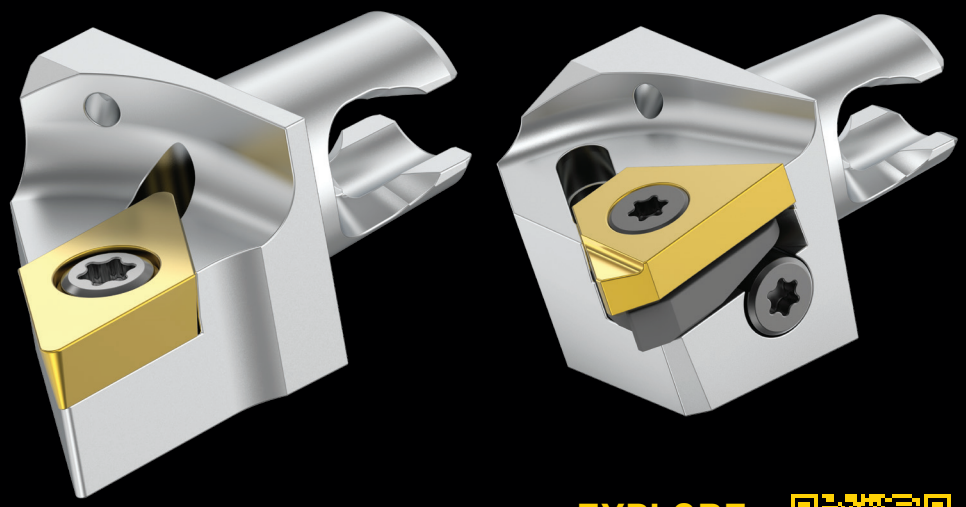
- P — Steels
- M — Stainless Steels
- K — Cast Iron
- N — Non-Ferrous Materials
- S — High-Temp Alloys
- H — Hardened Materials

Industries

- General Engineering
- Medical
- Automotive
- Aerospace

Applications

- Swiss-Type Turning
- Grooving
- Cut-Off
- Profiling
- Facing
- Chamfering
- Threading

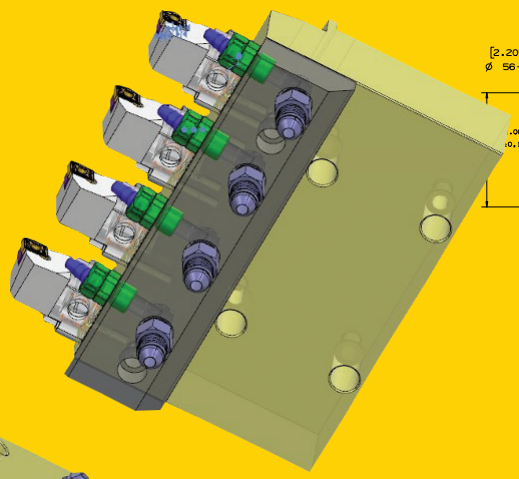


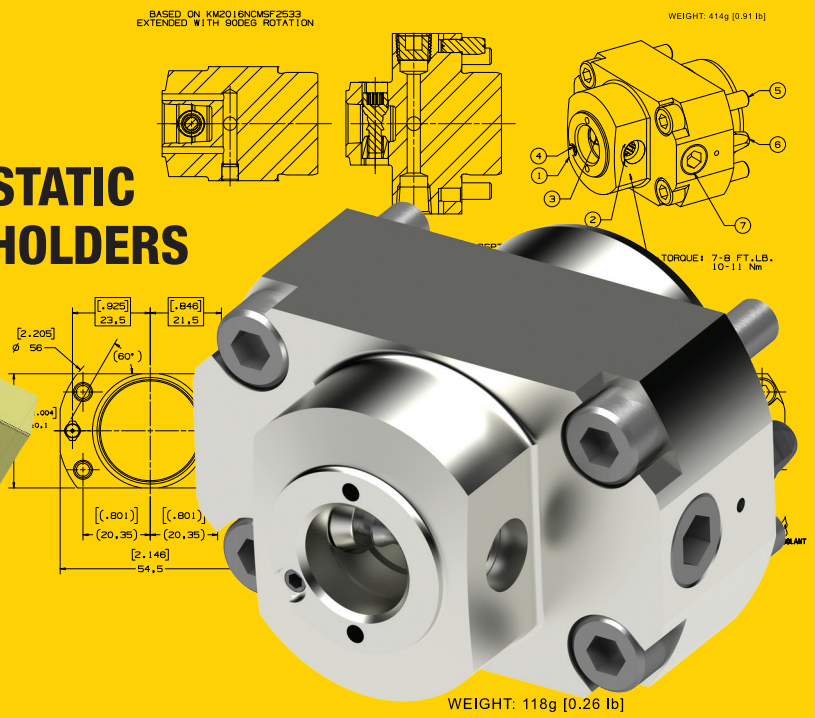
EXPLORE
KM Micro & KM Mini
Quick-Change Tooling

CUSTOM SOLUTIONS

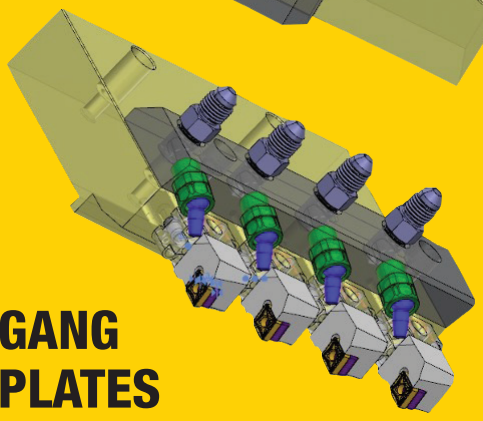
KM Micro & KM Mini

STATIC HOLDERS

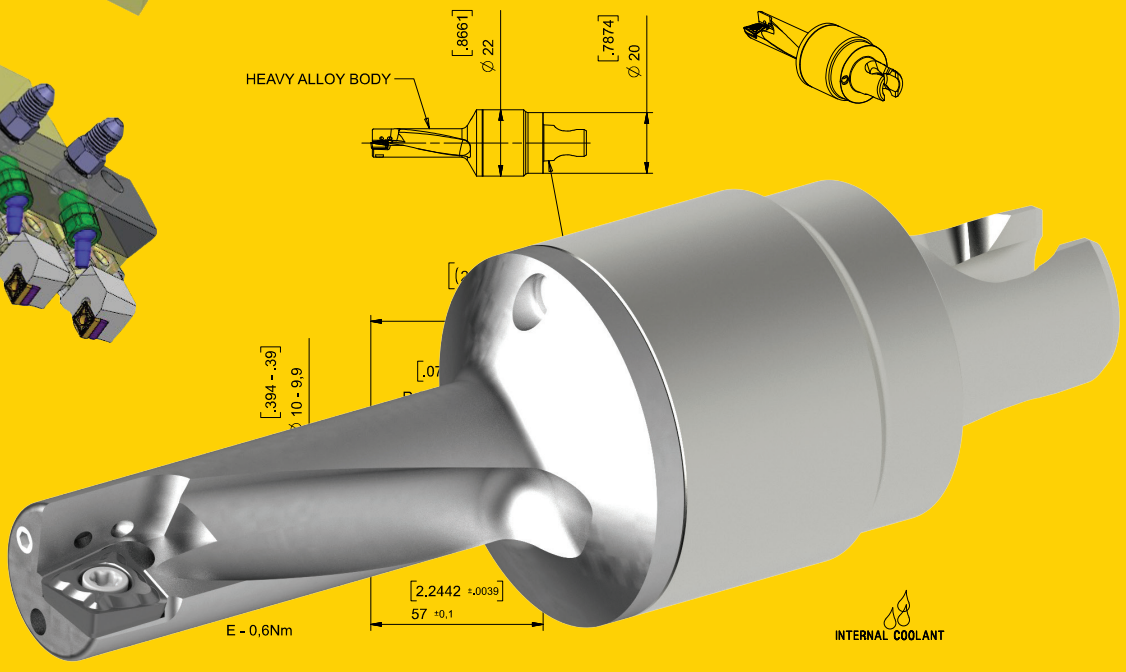




GANG PLATES

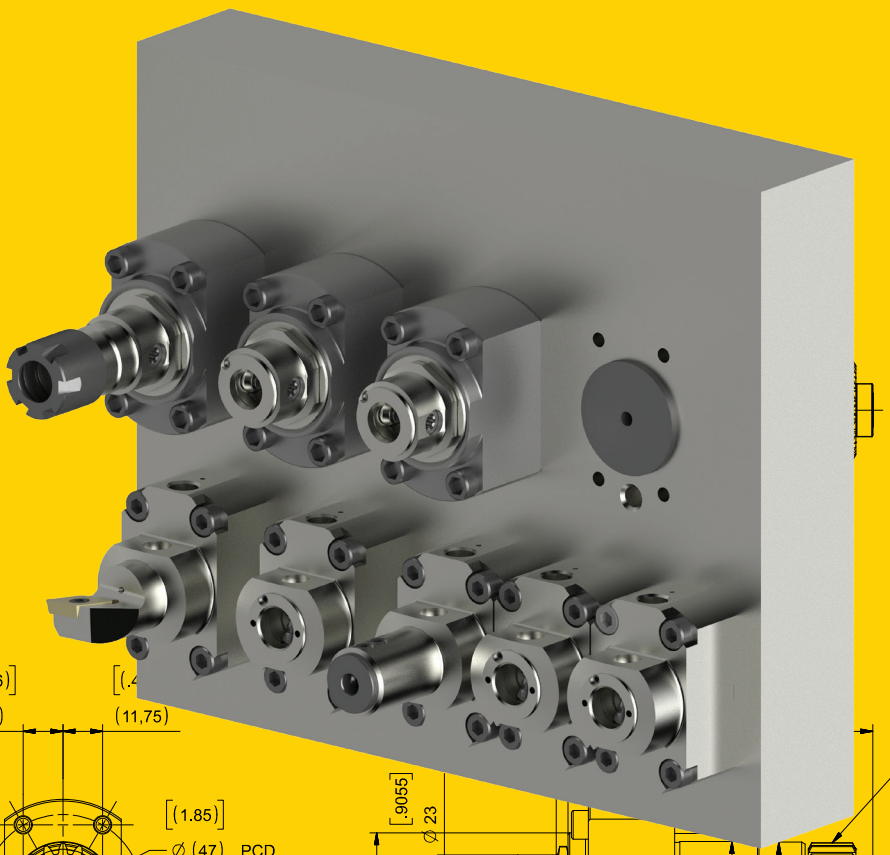


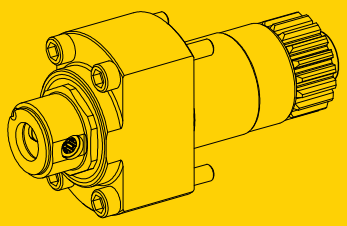
CUTTING TOOLS

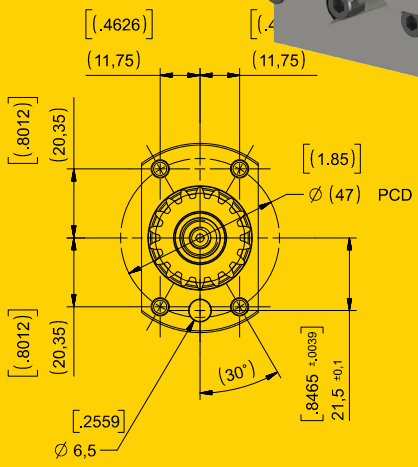


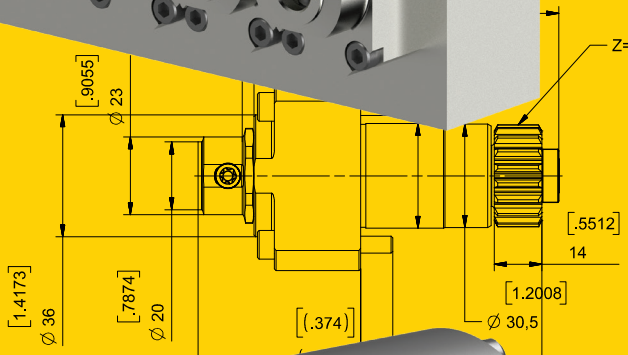
CUSTOM SOLUTIONS

TOOL BLOCKS

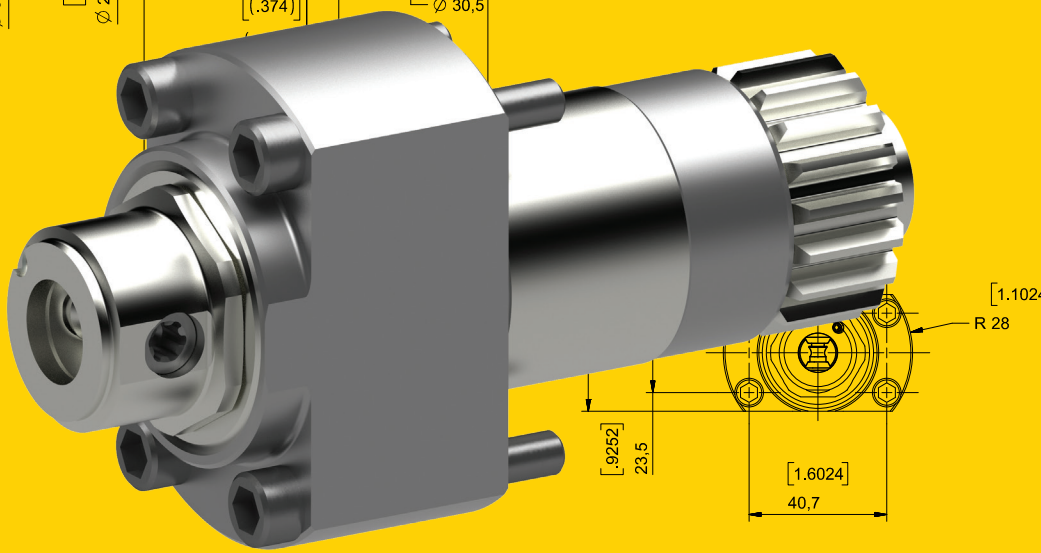








ROTATING HOLDERS



STANDARD ER COLLETS

Clamp Down on Cylindrical Shank Tooling

- ER8 and ER11 0.5mm (.020") range of collapse
- ER16, ER20, ER25, ER32 and ER40 1mm (.040") range of collapse
- Available in both metric and inch sizes
- Manufactured to DIN 6499 Class 2 accuracy



Materials

P Steels

M Stainless Steels

K Cast Iron

N Non-Ferrous Materials

S High-Temp Alloys

H Hardened Materials

Industries

General Engineering

Medical

Automotive

Aerospace

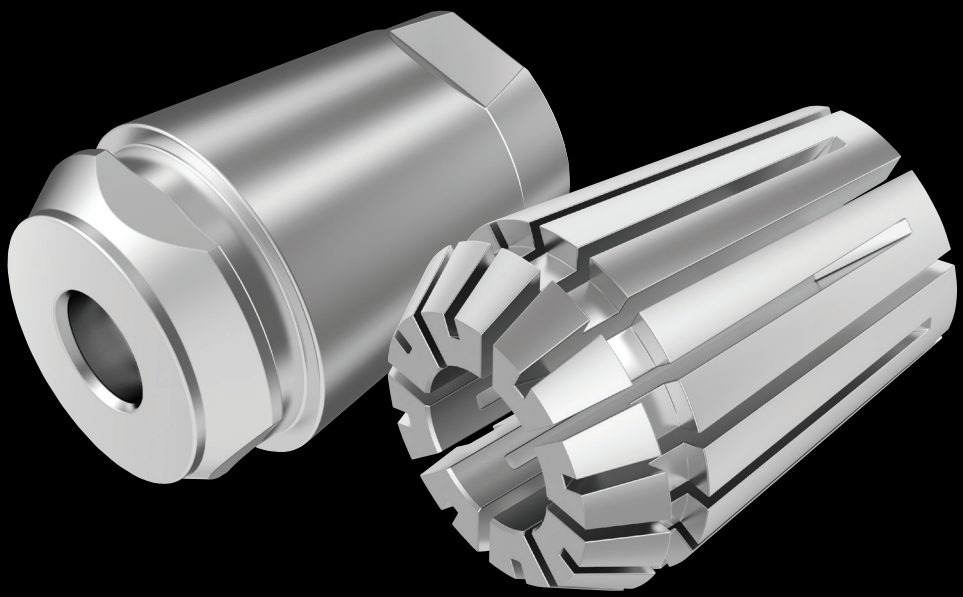
Applications

Drilling

Milling

Tapping

Threading



EXPLORE STANDARD ER8, ER11 & ER16 COLLETS

SEALED ER COLLETS

Experience Flexibility Without Complexity

- Through coolant for better tool life and part quality
- Available in ER11, ER16, ER20, ER25, ER32 and ER40
- Compatible with standard adapters, requiring less optional tooling inventory
- Accuracy ≤ .0004" (10 micron) ensures extremely tight tolerances
- Sealed to 2000PSI (138 bar) to withstand high-pressure coolant systems
- H6 tolerance required for precise and consistent fit between components
- Available in both metric and inch sizes



Materials

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

Industries

- General Engineering
- Medical
- Automotive
- Aerospace

Applications

- Drilling
- Milling
- Tapping
- Threading



EXPLORE
SEALED ER COLLETS

ER TAP COLLETS STANDARD & TENSION ONLY

Synchronizing Tapping Applications for Precision Threads

- Cost-effective solution for machines requiring axial compensation for tapping
- Tension feature for applications that need synchronized tapping
- Adjustable screws in back of the collet act as a drive for the tap square
- Through coolant capabilities for improved chip evacuation and reduction of heat
- Can be used in all standard ER collet chucks



Materials

P Steels

M Stainless Steels

K Cast Iron

N Non-Ferrous Materials

S High-Temp Alloys

H Hardened Materials

Industries

General Engineering

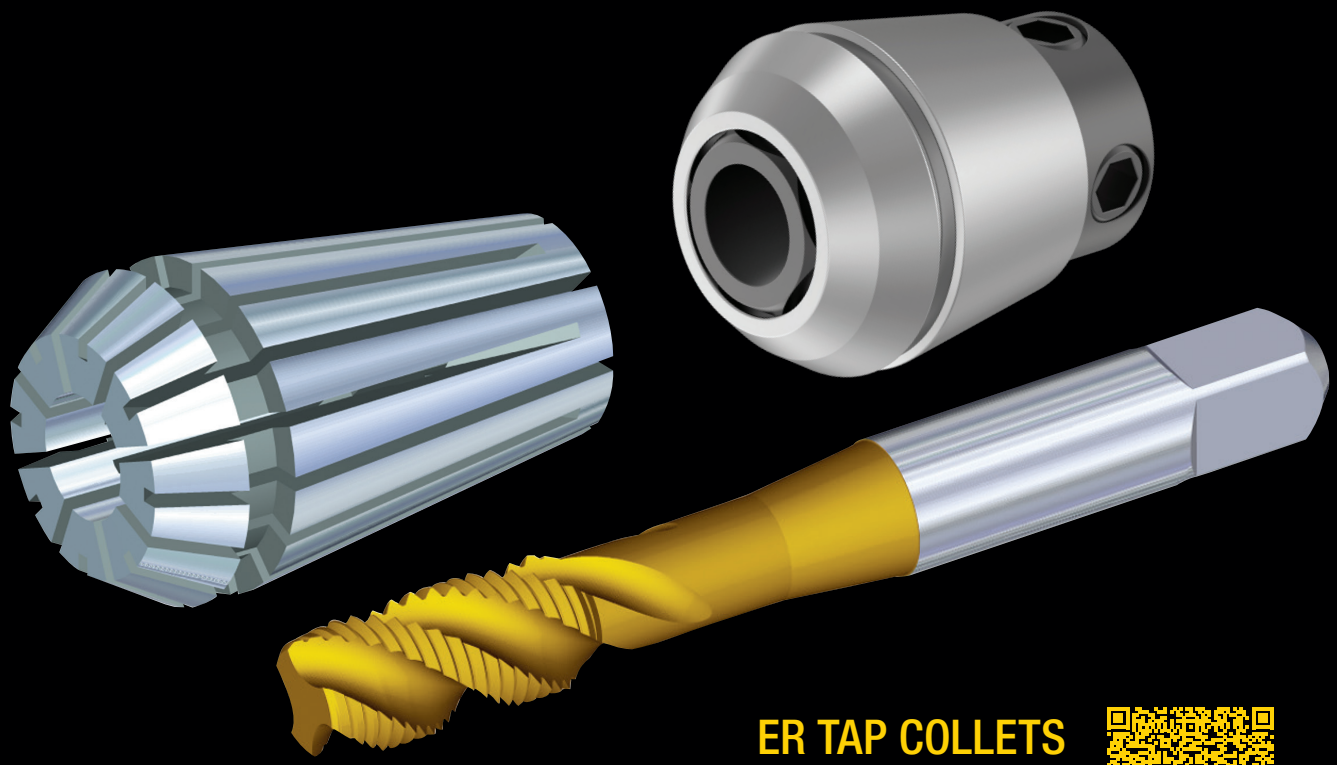
Medical

Automotive

Aerospace

Applications

Tapping



ER TAP COLLETS
STANDARD &
TENSION ONLY

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Create.
Collaborate.
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WE'VE BEEN CUTTING METAL **SINCE 1938.**






Our Story Is One of Continuous Innovation

It starts in 1938 with our founder, metallurgist Philip M. McKenna, who after years of research created revolutionary tungsten-titanium carbide alloy cutting tools specifically for working with steel. That single development not only led to a new class of machining tools that cut faster, lasted longer and drove productivity in everything from the automobile to the airplane, but also led to the opening of McKenna Metals Company in Latrobe, Pennsylvania, United States. Today, that company is Kennametal Inc.—a recognized leader in metalworking serving customers across continents and industries including transportation, construction, aerospace and defense, machining and cutting, energy and general engineering. We have a reputation for building innovative solutions for our customers' most challenging applications. The name Kennametal is synonymous for high-quality, high-performance tools that can withstand the most strenuous conditions and bring ease to a wide range of machining operations. We help our customers' operations run longer, faster and with greater precision.

WE DON'T CUT CORNERS. WE CUT METAL. **YOUR TOUGHEST MATERIALS DON'T STAND A CHANCE.**

Small Parts Machining Solutions



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