

The background of the advertisement is a close-up, high-contrast photograph of a wooden workbench. On the workbench, various industrial tools are arranged. A large, silver-colored metal drill bit stands vertically in the center-left. To its left, a smaller drill bit is visible. In the foreground, there's a complex metal tool with yellow and black components. To the right of the central drill bit, there's a green plastic component with multiple horizontal slots. Below that, a clear plastic container holds several small, light-colored cylindrical objects. A green-handled tool is also visible near the bottom right. The lighting is dramatic, highlighting the textures of the wood and the metallic surfaces of the tools.

WIDIATM 100

**OVER
100 YEARS
OF TOOLING
THAT WORKS AS
HARD AS YOU**



Bild 182. Im Mahraum.



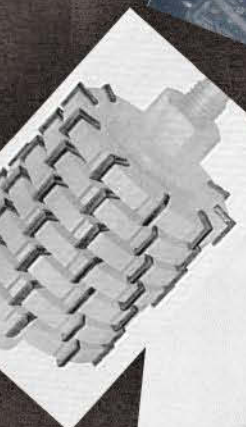
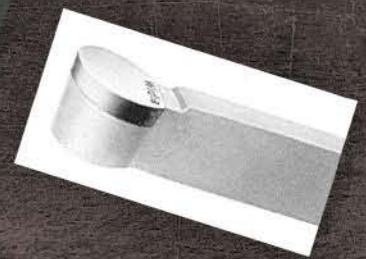
Bild 187. Schliff-Betrachtung.

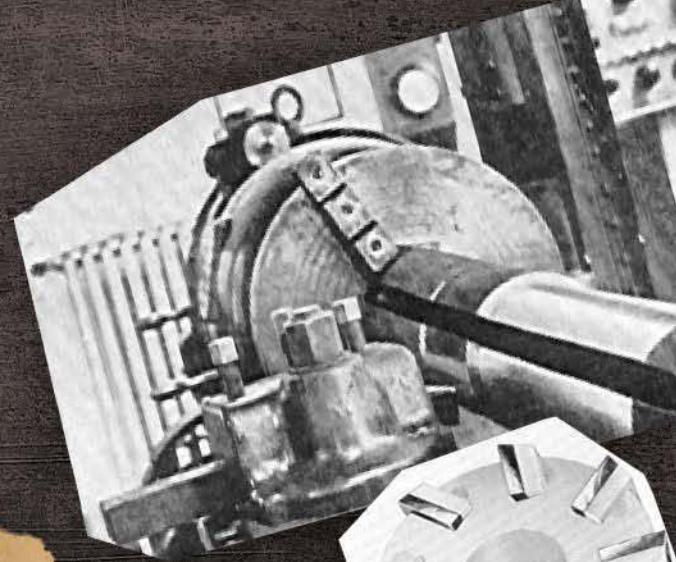


Bild 183. Im Mischraum.



Bild 186. In der Fertig-Revision.



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CELEBRATING

A CENTURY OF

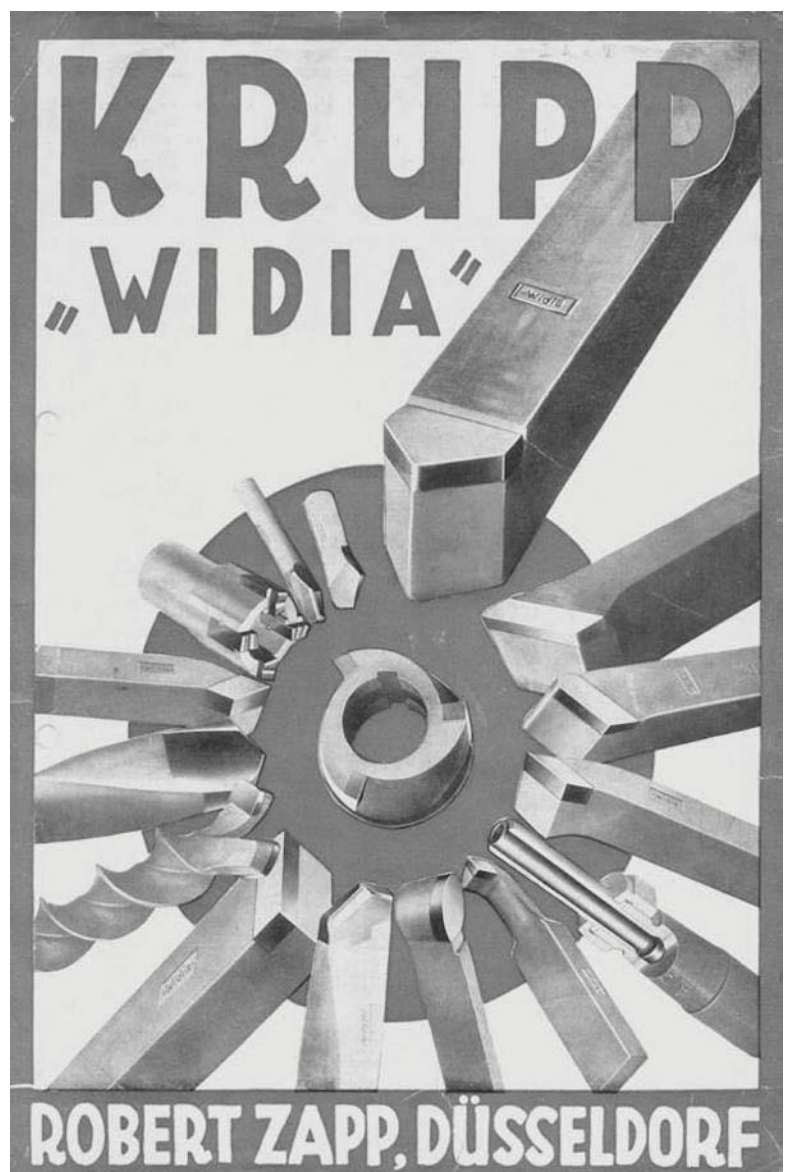
METAL CUTTING SOLUTIONS

DECADES OF DIAMOND-LIKE DURABILITY

Technology. Indexable milling. Carbide. Heavy duty machining. That's what immediately comes to mind when you talk to those familiar with the legacy of the Kennametal Inc. brand WIDIA, but that's just scratching the surface of what's been accomplished over its first 100 years.

WIDIA was an early pioneer of the first commercial applications of tungsten carbide cutting tools and contributed to global industrialization by bringing this new class of powerful and practical solutions across the world—solidifying a significant presence in India, Europe and Asia in its early days. No matter where it landed on the globe, the brand established a reputation for delivering tooling that worked as hard as the machinists that used it.

**AND 10 DECADES LATER, THE LEGACY
BRAND IS CELEBRATING ITS CENTENNIAL
ANNIVERSARY WITH A REFRESHED DIRECTION
FOR THE NEXT 100 YEARS, AND MORE.**



A NEW ERA OF WIDIA

Some things will never change... like maintaining the reputation for “like diamond” solutions—the inspiration for the name WIDIA, which is loosely translated from the German phrase “Wie Diamant.” WIDIA is lean and mean, with a lineup of durable, dependable tools that earn their space in everyday machining processes.

Or why WIDIA tools are often found in small- to mid-size shops, startup shops and general engineering spaces. The durability and range these machining operations demand leave no room for downtime, gimmicks and multiple stops and shops for the right tool. When you’re working on it all, you need tough, trustworthy, easy to choose and use solutions. Period.

But the next era is about telling the real stories of machinists who always have WIDIA in their toolboxes, in real ways. The future is a connected community of makers and creators that won’t accept anything less than high-performance engineering, real-world practicality and no nonsense in their operations.

LET’S GET TO WORK

WIDIA tools touch every corner of the world and it’s time to connect these creators and celebrate them. If you’re not afraid of a little grit, you dream in RPMs, you love making chips fly and you turn to WIDIA tooling to make it happen, maybe you’re a Maker... and it’s time to tell your story.



Explore WIDIA 100

The background of the entire advertisement is a high-contrast, black and white image of several interlocking gears. The gears are of different sizes and are positioned in a way that they appear to be meshing together. The lighting is dramatic, with some parts of the gears being brightly lit while others are in deep shadow, creating a sense of mechanical complexity and industrial strength.

We know how hard you work.

**So we make tools that
work just as hard.**

WIDIA has been found in the toolboxes of the world's toughest shops for over 100 years because of a powerful fusion of high-performance engineering and real-world practicality. No nonsense. No gimmicks. No downtime. Our global, expert team dreams to get their hands on the parts others are scared to create with a lean lineup of tough solutions including milling, turning, holmaking and tooling systems designed for real work in real shops—no matter the industry or application.

This is the tooling you need to keep your shop running at prices you want to pay and get the most aggressive, demanding jobs done.

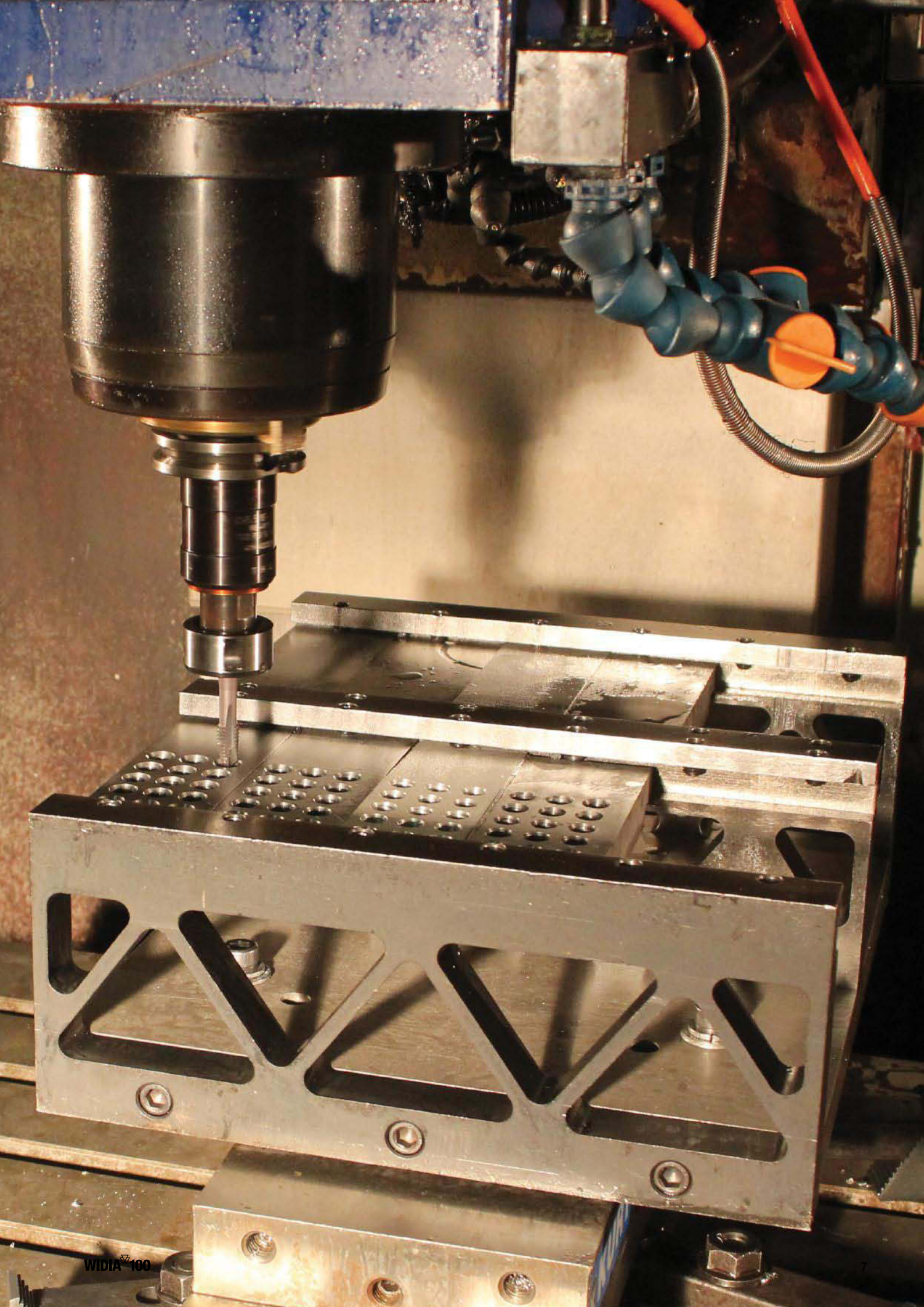
LET'S GET TO WORK.



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VARIDRILL™

SOLID CARBIDE DRILLING



Explore VariDrill

This solid carbide drill offers dependable tool life in all materials due to less chipping on the cutting edge. Its geometry enables chips to roll smoothly and evacuate easily, resulting in noticeably less friction, heat, jamming and scratching.

Features & Benefits:

- Straight cutting edge distributes cutting forces evenly for less chipping on the cutting edge
- Marginless design reduces friction and scratching
- Precision shank for low runout
- WU25PD grade enhances wear resistance
- Available in .39-.787" and 1-20mm in 3xD, 5xD and 8xD
- Available with and without coolant channels

Materials



Applications



DRILL WITH DIAMOND-LIKE



DURABILITY

TOP DRILL™ DEEP HOLE

SOLID CARBIDE DRILLING



This solid carbide deep hole drill is enhanced with a cone point geometry that outperforms gun drills and high speed steel deep hole drills in deep hole application up to 30xD.

Features & Benefits:

- 132° cone point geometry improves hole quality and productivity
- 4-margin design improves process stability, increases tool life and enables uninterrupted cuts
- 30° helix with optimized flute profile reduces risk of chip jamming and catastrophic failure
- Ultra-fine grain substrate for superior resistance against drill breakage
- Available in .1181-.5118" and 3-13mm

Materials

Primary



Secondary



Applications





THE DRILL THAT DOESN'T BLINK

TOP CUT 4™

INDEXABLE DRILLING



Explore Top Cut 4

Top Cut 4 indexable drills are equipped with two 4-edge carbide inserts, delivering outstanding flexibility and versatility in multiple materials.

With four chip breakers in four grades:

- -V34 for steels, cast iron and short chipping materials in severe cutting conditions
- -V36 for steels, cast iron, stainless steels and non-ferrous materials in low power consumption operations
- -V38 for steels, stainless steels and high-temp alloys, and ideal for long chipping materials
- -DU for steels, stainless steels and cast iron in low-powered applications



4 EDGES. 2 INSERTS.

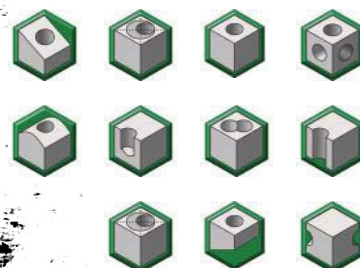
Features & Benefits:

- Large coolant holes improve coolant in cutting zone and facilitate easy chip evacuation
- Rigid cross section and sturdy body deliver longer tool life, even in tough conditions
- Dual, 4-edge front inserts support machining many materials and applications
- Large, optimized chip flutes enable chip flow and reduce vibrations

Materials



Applications



1 TOOL FOR VERSATILE DRILLING.

TOP DRILL™ MODULAR X

MODULAR DRILLING



Explore TDMX

TOP DRILL Modular X drills have material-specific inserts seated in an advanced pocket seat design that maximize insert clamping rigidity and enable higher productivity, even under unstable machining conditions.

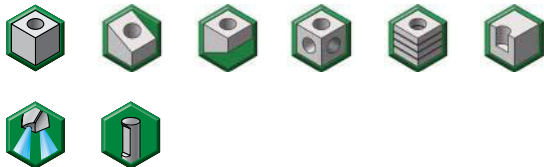
Features & Benefits:

- Coolant channels exit behind the cutting edge to ensure the best delivery
- 3 insert geometries for steels, stainless steels and flat-bottom applications
- Two standard screws clamp and unclamp inserts, without need to disassemble tool from holder
- Polished flutes improve chip evacuation
- Margin lands on the entire body length ensure straightness and increased hole quality
- Inserts can be reconditioned for more sustainable, longer tool life
- Available in .629-1.574" and 16-40mm

Materials



Applications



FOUND AT THE TOP OF THE TOUGHEST SHOPS' TOOLBOXES

TOP DRILL™ M1

MODULAR DRILLING



Explore Top Drill M1

This easy-to-use system can machine a variety of materials with one single point geometry and a tool body with a quick-change, front-clamping mechanism.

Features & Benefits:

- 140° cone point geometry for low thrust with excellent centering capabilities
- Front-locking system is easy to change and apply
- Differential flute design delivers stability and easy chip evacuation
- Sub-micron grain substrate for longer tool life and superior resistance against drill breakage

Materials

Primary



Secondary



Applications



EASY TO
CHOOSE.
EASY
TO USE.
TOUGH TO
TOP.



VARITAP™

TAPPING



Explore VariTap

VariTap taps have optimized geometries designed to work in a wide variety of ductile materials, including carbon and alloy steels, stainless steels, ductile iron and cast aluminum.

Features & Benefits:

- Advanced spiral-flute design reduces or eliminates bird nesting to ensure smooth chip evacuation
- Multiple tap dimension options available (ANSI, DIN, JIS and DIN/ANSI)
- High-vanadium HSS-E improves wear characteristics and tool life

Materials



Applications



TRUSTED TO NEVER TAP OUT



EBORE™

DIGITAL FINE BORING SYSTEM



Explore EBORE

This boring system provides state-of-the-art fine boring tooling solutions through a digital display that allows the tool to be readjusted on the spindle, reducing setup and idle time.

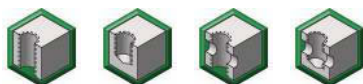
Features & Benefits:

- Featuring dial for manual adjustment
- Micron by micron, precision adjustment capable
- Upgrade from analog to digital
- Available in .236-40.157" and 6-1020mm

Materials



Applications



DIGITAL DEPENDABILITY THAT PUTS



YOU IN CONTROL

PROVEN SOLUTIONS FOR TURNING AND MILLING

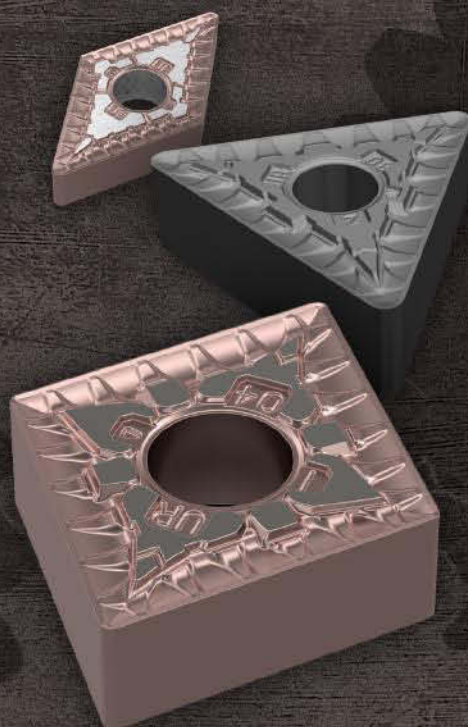
UR Geometry

Facing **unstable cutting conditions** due to the **complex wheel rim shape**, **tool life inconsistency** and **challenges with cost per component**, a global automotive manufacturer achieved an increase in tool life to **consistently machine 26 components versus 20 components** with a competitor tool.



VSM890™

When a **global automotive manufacturer** was **challenged with a bottle neck operation** on a cap and stem face milling project, the **VSM890 8-edge, double-sided shoulder mill** with grade **WP25CM** applied cut cycle times from **nearly 2 and a half minutes** down to **about 1 minute and 40 seconds** compared to competitors.





M1200

When a customer was seeking **increased productivity and management of edge flittering** on a hydraulic lift body, the **M1200** face mill series **improved productivity and tool life by almost 50%** compared to competitors, while successfully avoiding edge flittering.



WU10PT

When a **piston rod component project** for a global automotive manufacturer demanded **improved tool life consistency and finish with a competitive price**, the **WU10PT** grade **boosted production** of components per edge from 8 with competitor tooling to 13 with **WIDIA**.



“The brand’s proven toughness and resiliency built its reputation for no frills, just trusted tools that get the job done. WIDIA has always been a place for Makers. 100 years later, WIDIA is still at it.”

**UJJWAL BAID, DIRECTOR OF MARKETING
PORTFOLIO MANAGEMENT**



widia.com
RBT
Qty 1



HydroForce



Solid and strong in the end

SMALL BATCH MACHINING STAPLE

WCE4 SOLID END MILLING



Explore WCE4

Materials

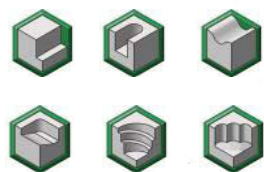
Primary



Secondary



Applications



This 4-flute end mill combines asymmetrical index and variable helix features at an affordable price, while delivering material and application versatility—even for demanding operations like full slots and heavy cuts.

Features & Benefits:

- Ideal for cost-effective, small-batch machining
- Variable helix reduces vibrations and increases stability
- Eccentric relief dampens vibrations and extends tool life
- Asymmetrical indexing reduces vibrations and enables smooth chip evacuation during the toughest cuts
- Sharp, chamfered, corner radii and ball nose edge styles available
- Available in 1/8"-1" and 3-25mm





WCE5

SOLID END MILLING



Explore WCE5

This 5-flute end mill combines unequal indexing with an elevated 38° helix at an affordable price for use primarily in steels and stainless steels.

Features & Benefits:

- Unequal flute indexing provides damping for chatter-free machining in a variety of applications
- 38° helix increases performance in a variety of applications
- Tapered core provides extra room for chip evacuation while also strengthening tool stability
- Eccentric relief dampens vibrations and extends tool life
- Available in sizes 1/8-1 & 1/4" and 4-25mm
- Sharp, chamfered and corner radii edge styles available

Materials

Primary



Secondary



Applications



SMALL BATCH MACHINING



STAPLE

HANITA VARIMILL™ I

SOLID END MILLING



Explore VariMill 1

This 4-flute solid end mill lineup is ideal for CNC machine shops seeking an all-around tool capable of machining multiple materials. A wide range of diameters and corner configurations like chamfer, radii and sharp edges, are available from stock.

Features & Benefits:

- Unequal flute spacing cuts harmonics and reduces vibration development
- 38° helix angle provides the best combination of roughing and finishing capabilities
- Unique core design offers maximum room for chip evacuation while maintaining stability
- Available in 1/8-1 1/4" and 4-25mm

Materials



Applications



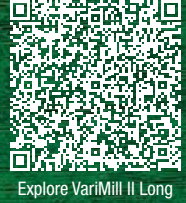
ESSENTIAL END MILLS FOR CNC



MACHINE SHOPS

HANITA VARIMILL™ II LONG

SOLID END MILLING



This 5-flute solid carbide end mill is a proven leader in achieving supreme surface finishes in multiple materials through long reach finishing applications.

Features & Benefits:

- Unequal flute spacing reduces harmonics and vibration development
- 38° helix angle provides the best combination of roughing and finishing capabilities
- Unique core design offers maximum room for chip evacuation while maintaining stability
- Available in sizes 6-25mm and 1/4-1"

Materials



Applications



WHEN A JOB DEMANDS



FLAWLESS FINISHING

HANITA VARIMILL™ III ER

SOLID END MILLING



Explore VariMill III ER

This 7-flute solid carbide end mill is engineered to deliver the highest metal removal rates in difficult-to-machine workpiece materials, providing extended tool life in semi-finishing, finishing and dynamic milling operations.

Features & Benefits:

- 7 unequally spaced flutes support roughing and finishing applications
- Center cutting for high quality floor finish and added flexibility
- Eccentric relief increases edge strength for higher feed rates
- Available with SAFE-LOCK™ shanks for high security protection against end mill pullout

Materials



Applications



YOUR TOUGHEST MATERIALS



**HAVE MET
THEIR MATCH**

HANITA VARIMILL™ CHIP SPLITTERS

SOLID END MILLING



Explore VariMill Chip Splitters

VariMill Chip Splitters shear chips to pieces to support diving into deep cavities while using dynamic milling strategies in stainless steels and superalloy applications.

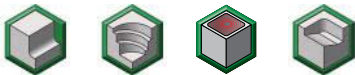
Features & Benefits:

- Small chip splitters along the flute break chips into small, manageable pieces for easier evacuation
- 5-flute geometry designed for steels, stainless steels and high-temp alloys
- 7-flute geometry designed for high-temp alloys, steels and stainless steels
- Real 3xD, 5xD Ap1 max supports use of the whole tool with high engagement—especially critical for dynamic milling operations
- Milling cutters feature small corner radius to protect the cutting edge

Materials



Applications



SPLIT CHIPS. CLEAR THEM OUT.



KEEP CUTTING.

HANITA ALUFLASH™

SOLID END MILLING



ALUFLASH 2- and 3-flute end mills accelerate aluminum machining with advanced milling capabilities, vibration control and the ability to push cutting speeds to machine capacity. The end mills are ideal for roughing and finishing operations when machining aluminum.

Features & Benefits

- 3-flute balanced by design to significantly limit vibrations at high RPMs
- “W” shaped flutes help evacuate chips and add core strength to increase process security
- Parabolic core increases tool stability to reduce deflection and risk of breakage
- Double rake end face gashing improves chip evacuation and supports high ramping capabilities and Z-axis machining
- Available in sizes 1/8-1” and 1-20mm

Materials

N

Applications



PUSH YOUR ALUMINUM MACHINING



TO THE LIMIT

HANITA VISION PLUS

SOLID END MILLING



Explore Vision Plus

Vision Plus end mills are ideal for achieving productivity in roughing or finishing operations for hardened steel up to 67 HRC. This series offers a variety of tooling options, including various end face geometries, for the most complex components.

Features & Benefits:

- Negative rakes make the cutting edge robust
- High helix angles reduce chip thickness and guarantee wall straightness in finishing operations
- Engineered with a grade ideal for long tool life in hardened materials
- Available in 1/8-1" - 0.3-25mm

Materials



Applications



COMPLICATED ROUGHING OR FINISHING PROJECT?



LOOK NO FURTHER.

PROVEN SOLUTIONS FOR SOLID END MILLING



ALUFLASH™

In smooth cut end milling applications on non-ferrous materials versus competitors, ALUFLASH end mills:

- Increased production with up to 80 pieces per edge
- Increased tool life up to 150% per edge

In pocket milling applications versus competitors, ALUFLASH end mills:

- Increased MRR by over 600%
- Decreased machining time by up to 90%

VariMill™ Chip Splitters

In a dynamic milling application to create an aerospace bracket component with stainless steels, versus competitors, VariMill Chip Splitters:

- Delivered a dramatic improvement in chip control
- Increased radial cut from 3.5% to 5% resulting in ~25% cycle time reduction





WCE4

For a tool manufacturer's steel milling operation, versus competitors, WCE4 end mills:

- Increased tool life by over 30%

For a mid-size machine shop's stainless steels slot milling operation, versus competitors, WCE4 end mills:

- Increased tool life by over 65%
- Reduced cycle time by up to 20% (with new machining strategy)

For a mid-size machine shop's steel trochoidal milling operation, versus competitors, WCE4 end mills:

- Increased tool life from 400 holes to 1,500 holes

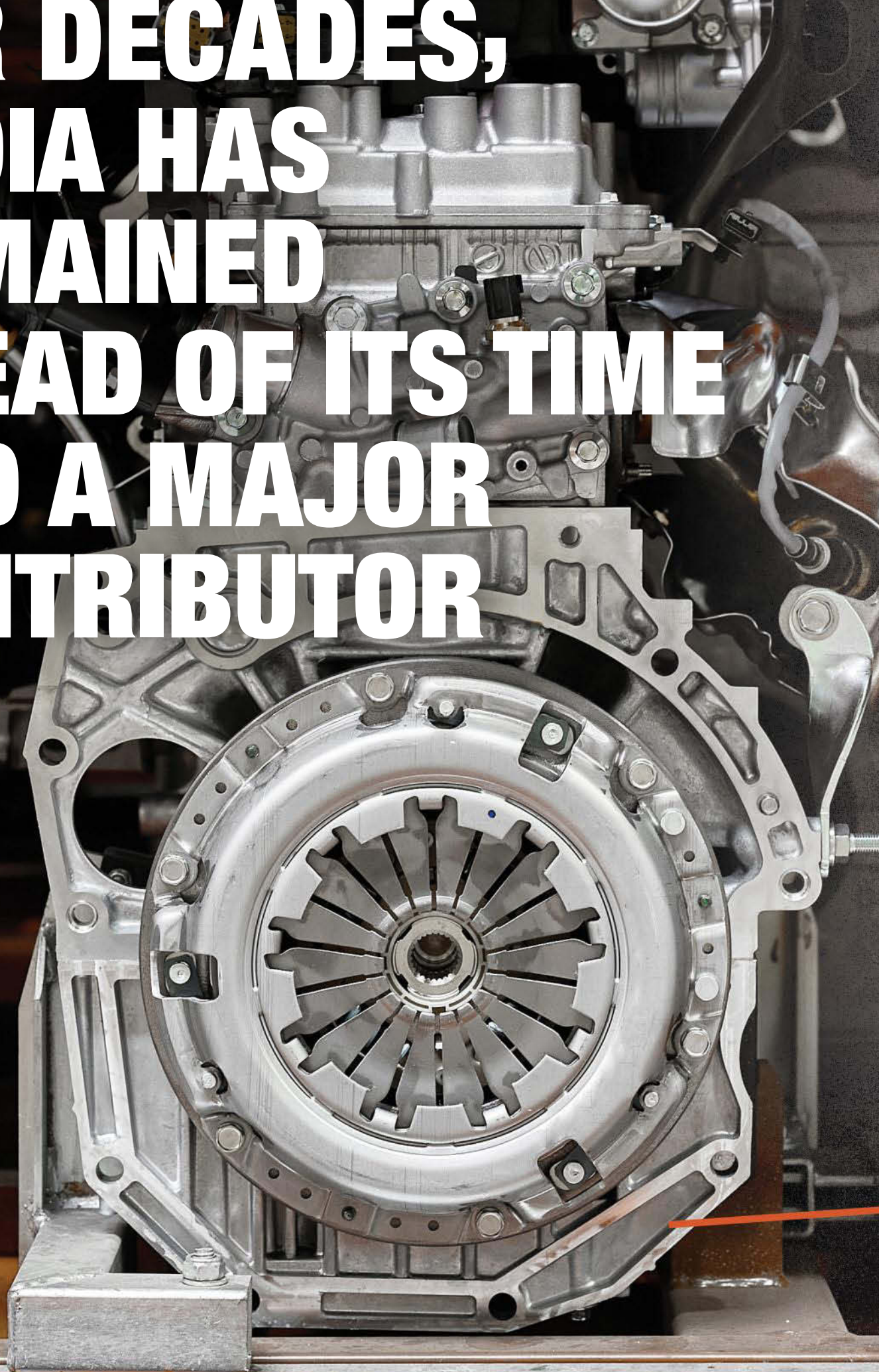


WCE5

For a mid-size machine shop's stainless steel dynamic milling operation, versus competitors, WCE5 end mills:

- Increased tool life from 200 to 2,250 pieces

**FOR DECADES,
WIDIA HAS
REMAINED
AHEAD OF ITS TIME
AND A MAJOR
CONTRIBUTOR**

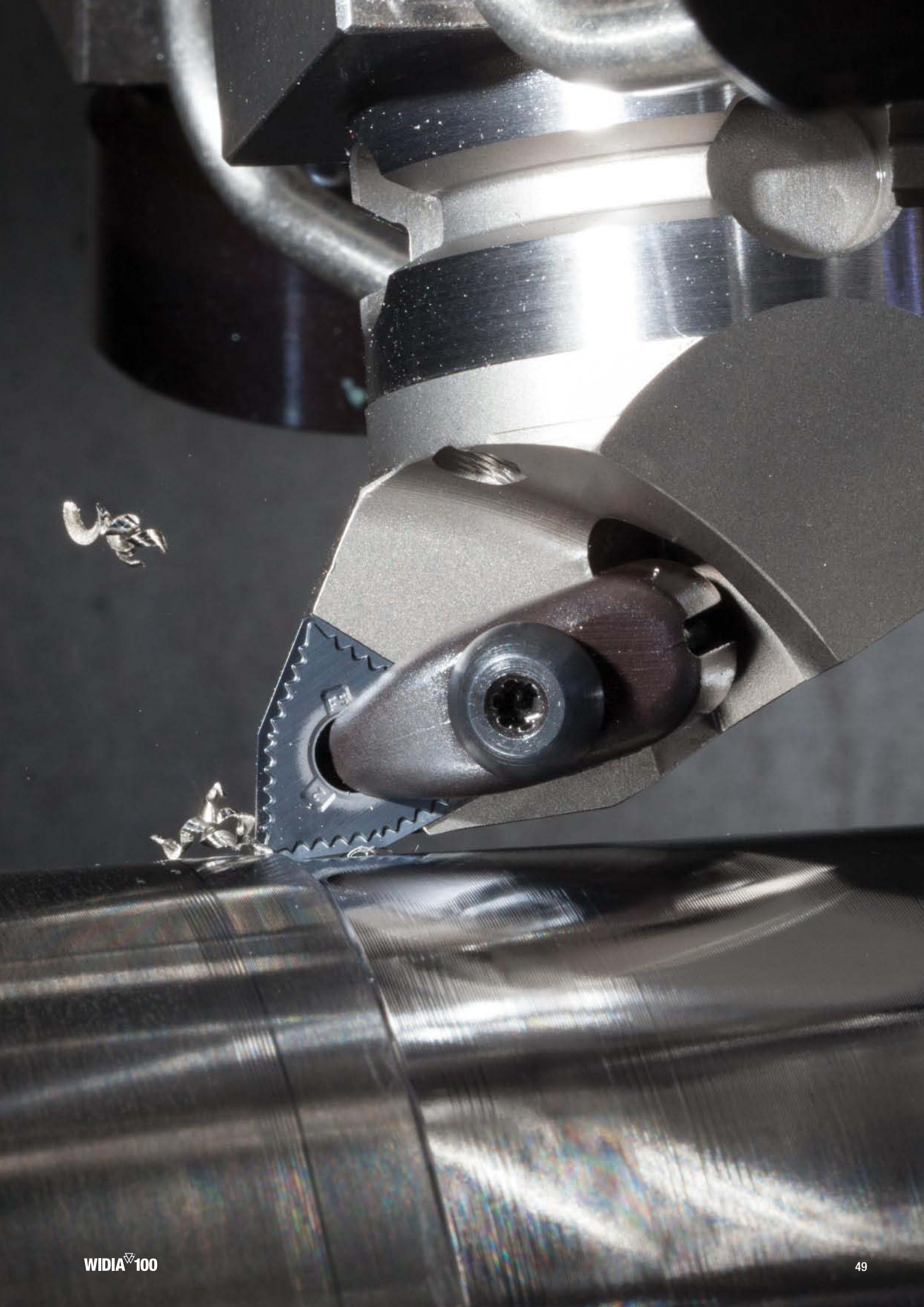


TO GLOBAL INDUSTRIALIZATION AND AUTOMOTIVE MANUFACTURING.

“Today, the brand remains synonymous with the toughest carbide tools and committed to delivering that certainty and confidence to machine shops around the world for the next 100 years.”

**CHRIS MERLIN, SENIOR GLOBAL
PRODUCT MANAGER**

turning



VICTORY™ TURNING GRADES

TURNING



Explore Victory Turning Grades

This comprehensive turning insert portfolio features advanced substrates and coating technologies that deliver high productivity, long tool life and reliable machining in rough to finishing turning applications.

Materials



Features & Benefits:

- Lineup includes negative, positive, ceramic, PcBN and PCD insert options
- 5 (WP) grades for roughing to finishing for steel
- 4 (WM) grades in suitable chip breakers for roughing to finishing for stainless steels
- 3 (WK) grades for all cast iron turning operations
- 4 (WU) grades for turning operations in multiple materials
- 2 (WS) grades for roughing to finishing in high-temp alloys

DECLARE VICTORY IN



ROUGH TO FINISHING APPLICATIONS

Materials

P M K

-MU GEOMETRY NEW

Features & Benefits:

- Precision pressed to size
- Periphery ground
- Ideal for universal material machining



Explore MU Geometry

Materials

P M

UR GEOMETRY

Features & Benefits:

- Roughing geometry with smooth chip forming and improved coolant flow
- Positive geometry reduces cutting forces and improves depth-of-cut notching resistance
- Ideal for stainless steels applications and smooth machining steels



Explore UR Geometry

Materials

P M K

-RU GEOMETRY

Features & Benefits:

- Positive geometry for smooth cutting
- Positive T-land with rake angle to lower cutting forces and improve depth-of-cut notching resistance
- Post-coat grinding of seating surface for secure seating
- Edge strength is ideal for interrupted cuts, forging skin and casting surfaces



Explore RU Geometry

Materials

N

-AL GEOMETRY

Features & Benefits:

- Polished rake surface for smooth flow of chips
- High positive rake on the nose and cutting edge
- Positive, sharp cutting edge for low cutting forces and reduced edge buildup
- Microfine, uncoated carbide for long tool life
- Also available in advanced ALTiN PVD coating

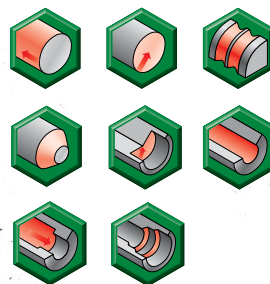


Explore -AL Geometry

GEOMETRIES THAT WORK AS HARD AS YOU DO

DAY IN AND DAY OUT.

Applications



WGC SINGLE-ENDED GROOVING AND CUT-OFF TURNING



This super versatile tool ensures stability, productivity and simplicity in grooving, profiling and cut-off operations.

Features & Benefits:

Grooving

- Trusted for external grooving applications in most workpiece materials
- Through coolant capability and efficient coolant delivery enhances productivity
- Available in integral and modular style toolholders
- Available with groove width 0.0787-0.394" and 2-10mm

Cut-Off

- Specially engineered chip breakers for effective parting/cut-off and deep grooving
- Positive geometry for lower forces
- Secure seating offers greatest stability
- Available with groove width 0.055-0.315" and 1.4-8mm

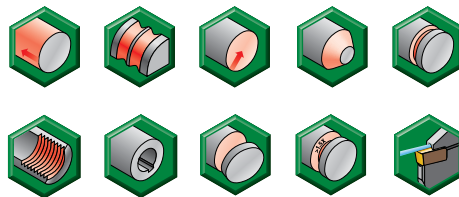
Profiling

- Full radius chip breakers for multidirectional turning and generating complex profiles
- Rigid design ensures smooth surface finish
- Available with groove width 0.118-0.315" and 3-8mm

Materials



Applications



TURNING TOOLS TRUSTED



FOR EVERY
CORNER OF
YOUR SHOP

WMT INSERTS

TURNING



Explore WMT Inserts

WMT is an economical and reliable solution for grooving, cut-off, turning and profiling applications, featuring 5 chip breaker styles for the most demanding operations.

Features & Benefits:

- Designed for increased speeds and feeds
- Versatile geometry suited for the most demanding deep-grooving applications
- Enables heavy stock removal in turning applications
- Delivers finer surface finishes and long, reliable tool life
- Extra-long clamping area for unsurpassed grooving and turning stability
- Interchangeable grooving and cut-off inserts designed for excellent chip control

Materials



Applications



WHERE PRACTICALITY MEETS PERFORMANCE



**FOR DEMANDING
PROJECTS**

TOPGROOVE™

TURNING



Explore TopGroove

The TopGroove clamping system is perfect for shallow grooving operations and features an extensive carbide grade selection to meet the most demanding application requirements. With maximum clamping rigidity and superior versatility, TopGroove inserts employ a unique top rake chip control geometry that efficiently evacuates chips and produces better quality parts.

Features & Benefits:

- Clamping design includes rugged bridge clamp to provide superior resistance to side and radial cutting forces
- Inserts available for shallow grooving, deep grooving, light turning, profiling, shallow and deep face grooving, back turning, undercutting and Poly-Vee grooving
- Proprietary chip control design works in multidirectional turning as well as radial feed applications for excellent chip evacuation in deep grooving applications

Materials



Applications



DESIGNED FOR DEMANDING APPLICATIONS.



**SECURED FOR
SUPERIOR
RESISTANCE.**

TOPTHREAD™

TURNING



Explore TopThread

This threading system is a go-to when navigating the tremendous demands that come from the combination of high heat, high feed rates and high edge-line loads concentrated to a small nose radius. TopThread insert technology brings superior chip control to high-demand applications like machining Acme, Buttress and API threads.

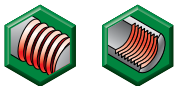
Features & Benefits:

- Inserts are precision ground to provide accurate edge location
- Locking forces in 3 directions offer superior resistance to tangential force
- Ideal for special thread forms and toolholder designs
- Inserts available in TN6010 and TN6025 grades to withstand the demands placed on the cutting edge of the threading insert

Materials



Applications



TAKE YOUR HIGH-DEMAND THREADING



TO THE
TOP

LAYDOWN THREADING TURNING



Explore Laydown Threading

This extensive offering includes inserts and toolholders ideal for all threading requirements. The laydown insert technology guarantees increased tool life, minimized edge buildup and precise cuts for most common materials.

Features & Benefits:

- 4 insert sizes available to cover a wide range of thread-making operations
- Ideal for high-helix/multi-start threads and single point threading in small-diameter bores
- TN6025 premium PVD TiAlN-coated grade outperforms conventional PVD grades
- Partial- and full-profile insert options available for all common thread forms



TOOLING TECHNOLOGY FOR

Materials

P M K N S

Applications



EVERY THREADING
REQUIREMENT



“WIDIA’s century-long legacy
in carbide and indexable
milling solutions continues to
shape the future of metal cutting.”



"Its deep technology expertise and unwavering commitment to precision have advanced critical manufacturing applications—including highly specialized areas like crankshaft tooling—and remain a driving force behind improved productivity and performance for customers around the world."

**SCOTT ETLING, VICE PRESIDENT OF GLOBAL
PRODUCT MANAGEMENT**



indexable millings



M1200 FACE MILLS

INDEXABLE MILLING



Explore M1200

This series includes four 12-edge face mills:

- M1200 Mini is ideal for low depth of cut face milling and can improve productivity on taper 40 spindle milling machines.
- M1200 is all inclusive and can improve productivity on taper 50 spindle milling machines and driven tools using 15°, 45° and 60° lead angles.
- M1200 MAX Screw Clamping is for running at higher depths of cut in steels, stainless steels, gray cast iron and nodular iron. It's ideal for bigger stock removal.
- M1200 MAX Wedge Clamping is for medium roughing to semi-finishing while running at higher depths of cut in gray cast iron and nodular iron. It's ideal for cast iron components.

Features & Benefits:

- One insert style fits into all different cutter body versions
- M1200 Mini available in 12-125mm
- M1200 available in 40-315mm
- M1200 MAX available in 63-250mm

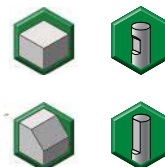
CUT TO THE CHASE

FOR EVERY FACE MILLING NEED

Materials



Applications



M1600 FACE MILLS

INDEXABLE MILLING



Explore M1600

This series is designed for roughing and semi-finishing applications across various workpiece materials. With 16 cutting edges, this solution performs exceptionally well in all machining conditions—even low-powered machines, unstable setups and long overhangs.

Features & Benefits:

- Versatile –MM geometry in Victory grades WU20PM, WP35CM, WK15CM
- Precision ground insert capable of up to 4mm DOC
- Chip breaker design allows for low power consumption and smooth cutting
- Integral wiper facet provides a good surface finish
- 43° lead angle redistributes cutting forces in the spindle Z-axis direction

Materials



Applications



MADE FOR THE MAKERS WHO PUT

THEIR MACHINES THROUGH THE WRINGER



M8065HD FACE MILLS

INDEXABLE MILLING



Explore M8065HD

The M8065HD face mill is ideal for heavy-duty milling jobs in steel and cast iron materials and for deep depths of cut, while consistently delivering high metal removal rates.

Features & Benefits:

- Thick insert with 8 cutting edges suited for large stock removal
- Positive rake geometry
- Uniform T-land of 0.2mm throughout cutting edge creates superior strength
- 2.37mm wiper facet provides a reliably good surface finish

Materials



Applications



DESIGNED TO FACE YOUR HEAVY-DUTY



MILLING PROJECTS

M8090 FACE MILLS

INDEXABLE MILLING



Explore M8090

The M8090 face mill is ideal for rough, semi-finish and finish milling of a variety of cast and nodular irons at high feed rates.

Features & Benefits:

- Fine pitch
- Designed with 89° approach angle for rough and semi-finish milling
- Inserts with 8 cutting edges
- Clamping wedge with double thread screw
- Rigid monoblock cutter body design

Materials

K

Applications



ACTIVATE BEAST MODE IN



CAST IRON MACHINING

M8090-F

INDEXABLE MILLING



Explore M8090-F

The M8090-F finish mill is designed to achieve a surface finish <1.6 microns Ra in cast iron finish milling applications at high feeds.

Features & Benefits:

- Fine pitch cutter with fixed pocket for semi-finisher inserts and adjustable pockets for wiper inserts
- Inserts with 8 cutting edges
- Wiper inserts with 4 cutting edges
- Precision ground inserts and wiper

Materials



Applications



ACTIVATE BEAST MODE IN



CAST IRON MACHINING

M1600 MINI-F

INDEXABLE MILLING



Explore M1600 Mini-F

This versatile solution features 16-edge face mills for roughing, semi-finishing and finishing of steels, cast iron and nodular iron materials that will run in low-power machines, unstable and non-rigid setups and long overhang conditions. This series has an Ap max of 2.1mm to achieve surface finish below Ra 1.6.

Features & Benefits:

- 43° lead angle redistributes cutting forces in the spindle Z-axis direction
- Ideal for all machine conditions
- 3 grades available for semi-finish inserts
- 2 grades available for wiper inserts
- Available in 80-160mm

Materials



Applications



MADE FOR THE MAKERS WHO PUT



THEIR MACHINES THROUGH THE WRINGER

VSM890 SHOULDER MILLS

INDEXABLE MILLING



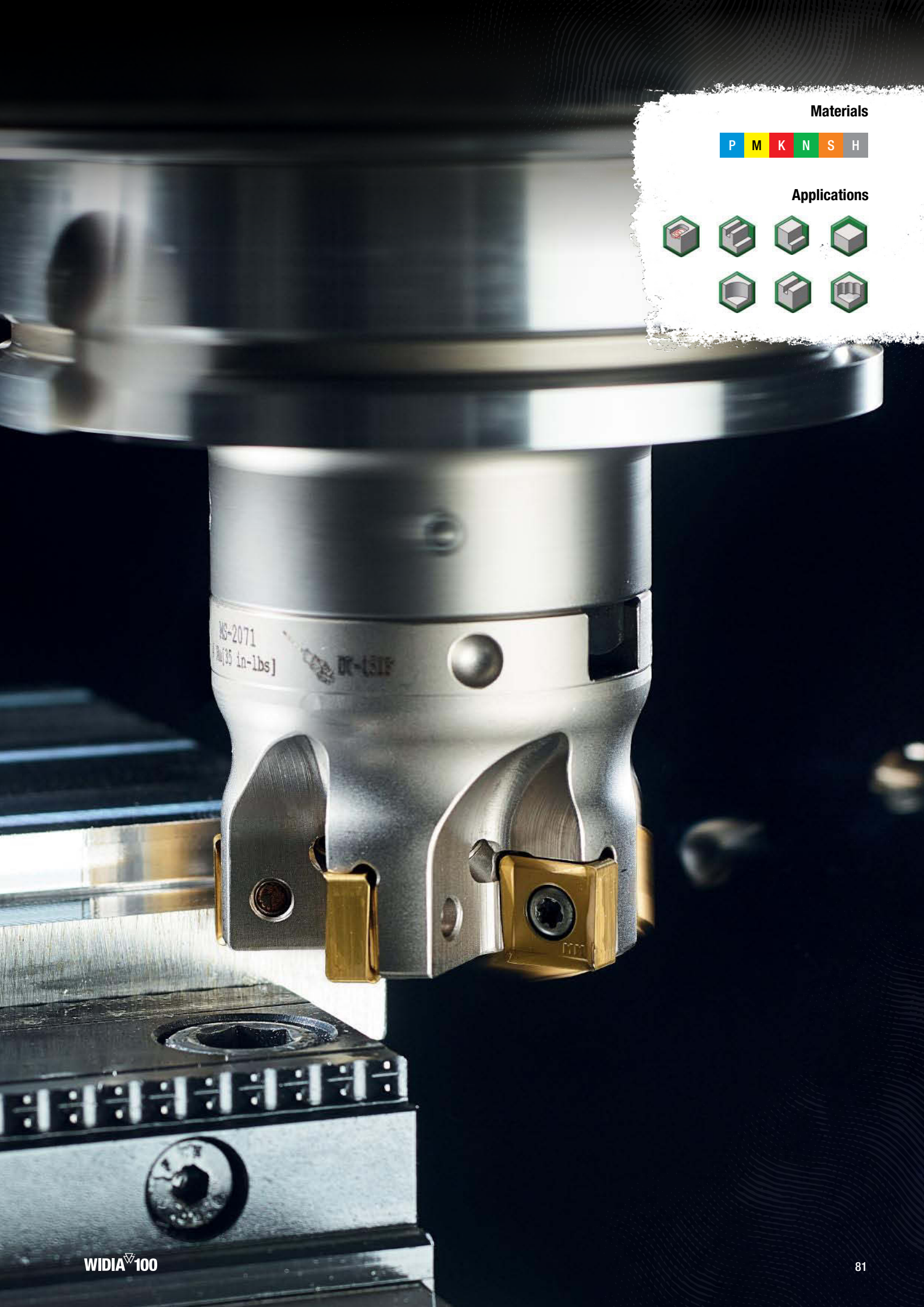
Explore VSM890

These shoulder mills feature an internal coolant supply and enhanced, user-friendly design with a pocket numbering system. VSM890 is ideal for performing true 90° wall and axial step down in light machining to heavy roughing jobs while maintaining a smooth surface finish in all material groups.

Features & Benefits:

- Course, medium and fine-pitched cutter densities
- Pocket seat designed for tight insert seating, enabling stability in roughing applications
- Integrated wiper facet
- Super-positive rake design for low machine power consumption
- -ALP insert for non-ferrous materials
- -ML insert for steels, stainless steels, high-temp alloys
- -MM insert for steels, stainless steels, cast iron, high-temp alloys and hardened materials

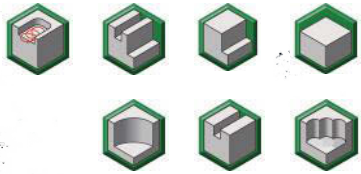
PROVEN
GAMECHANGER
FOR ROUGHING
AND FINISHING
IN MANY SHOP
SETUPS



Materials

P M K N S H

Applications



MS-2071
700 (35 in-lbs)
DT-151F

VSM490 SHOULDER MILLS

INDEXABLE MILLING



Explore VSM490 Shoulder Mills

This 4-edge, double-sided roughing shoulder mill has finishing capabilities known for producing a smooth wall finish in axial step-down jobs. VSM490-10 is suited for taper 40 spindle machines and VSM490-15 is suited for taper 50 spindle machines.

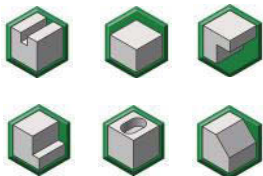
Features & Benefits:

- 4 insert geometries for all material groups
- -ALP for non-ferrous materials
- -ML for stainless steels, light machining and finishing jobs
- -MM for general purpose in all material groups
- -MH for HPC roughing cast iron, with the strongest edge protection with additional margins

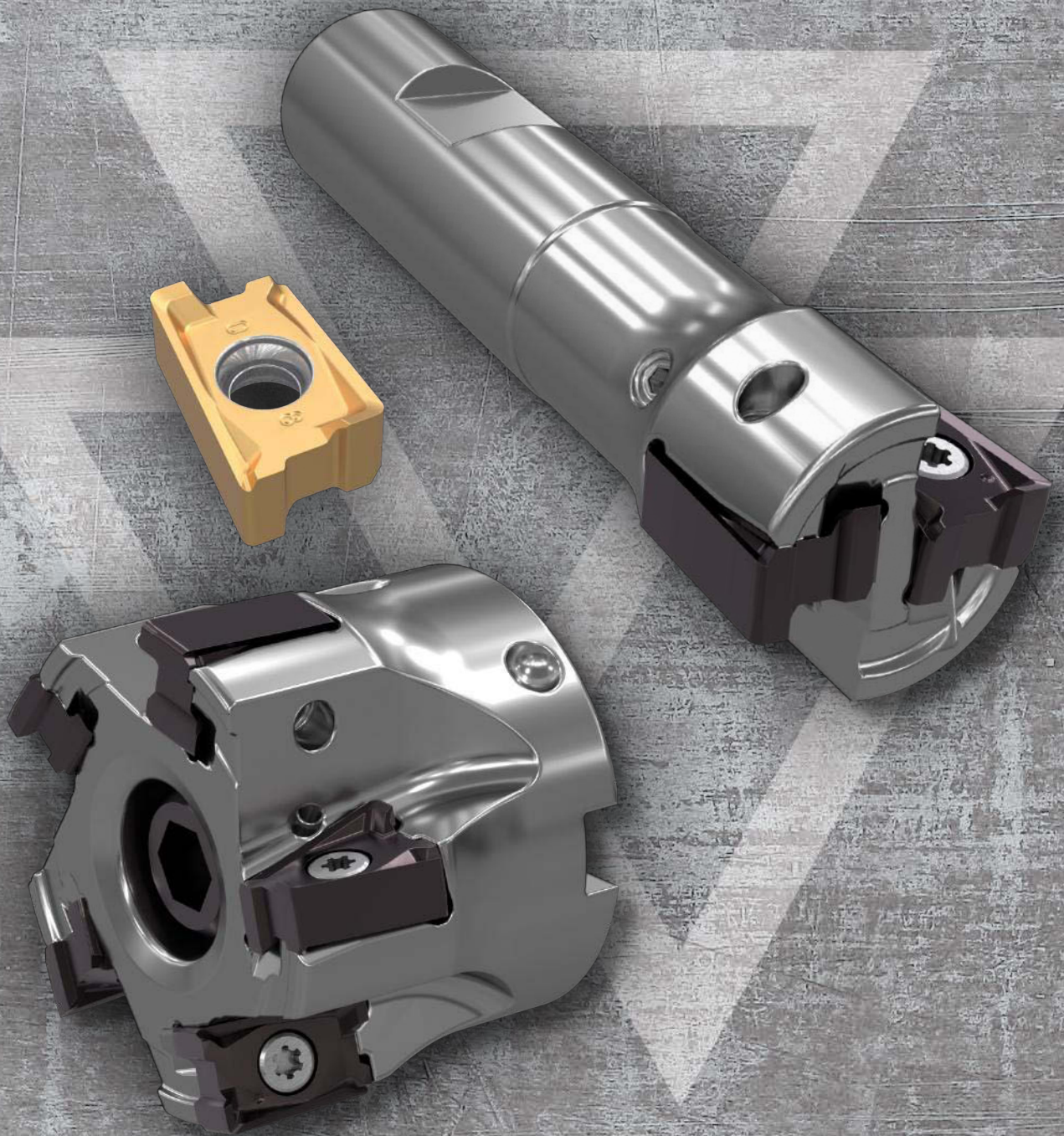
Materials



Applications



FINISH STRONG



IN ALL
MATERIALS

VSM11

INDEXABLE MILLING



Explore VSM11

This shoulder mill is built for high depth of cut scenarios and thrives in precise machining to medium roughing applications. Its two-edge, single-sided inserts deliver low horsepower consumption and soft cutting action on a variety of workpieces.

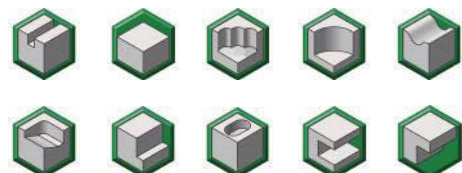
Features & Benefits:

- Internal coolant supply
- Optimized chip gash for improved cutter stability and chip flow
- Inserts feature embedded wiper facet for great surface floor finish
- Super-positive rake design for soft cutting action and low machine power consumption

Materials



Applications



VERSATILITY THAT WINS ON



EVERY PASS.

VSM17

INDEXABLE MILLING



Explore VSM17

This shoulder mill is built for high depth of cut scenarios and thrives in precise machining to medium roughing applications. Its two-edge, single-sided inserts deliver low horsepower consumption and soft cutting action on a variety of workpieces.

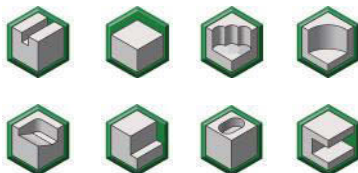
Features & Benefits:

- Internal coolant supply
- Optimized chip gash for improved cutter stability and chip flow
- Inserts feature embedded wiper facet for great surface floor finish
- Super-positive rake design for soft cutting action and low machine power consumption

Materials



Applications



VERSATILITY THAT WINS ON



EVERY PASS.

VSM22

INDEXABLE MILLING



Explore VSM22

This shoulder mill is built for heavy-duty machining and equipped with precision ground inserts that feature 20mm long cutting edges that can take on big components with high depths of cut. Two insert geometries are available in three grades for heavy roughing or general-purpose applications.

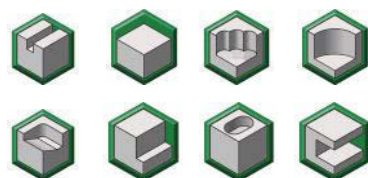
Features & Benefits:

- Precision ground inserts have a positive rake and helical cutting edge for smooth cutting action, even in unstable conditions
- Through coolant cutter body
- Chip gash in cutters frees chip flow and cleans workpiece

Materials



Applications



MACHINE WITH RELIABILITY



**WHERE IT
MATTERS MOST**

VXF

INDEXABLE MILLING



Explore VXF

This high-feed series features a nickel-plated body and 4 durable cutting edges to run at high feeds in deep cavities on primarily steels, stainless steels, titanium and high-temp alloys.

Features & Benefits:

- VXF-07 available in 16-50mm
- VXF-09 available in 25-63mm
- VXF-12 available in 32-100mm
- VXF-16 available in 50-125mm
- 16.5° lead angle redistributes cutting forces in the spindle Z-axis direction
- All-in-one insert style combines square end and round designs

DIVE IN
TO THE
DEEPEST
CAVITIES

Materials

P M K S H

Applications



Max RPM-35000

M370

INDEXABLE MILLING



Explore M370

This 6-edge copy mill series is designed for high feed rate productivity in steels and cast iron materials and features a double-sided concept that provides security and optimal metal removal rates.

Features & Benefits:

- IC08 and iC12 inserts available in 3 geometries
- Thick insert for continued reliability
- Easy-to-handle insert screw
- Available in 25-125mm

Materials



Applications



PREPARE FOR MAJOR



METAL REMOVAL RATES

VHSC

INDEXABLE MILLING



The VHSC Victory high-speed cutter is designed to perform true high-speed profiling and pocket milling operations on thin-walled aluminum alloy components using heavy feeds and high ramping angles.

Features & Benefits:

- Flute engineered for maximum chip evacuation
- Cylindrical shank designed and balanced to G6.3 at 30,000 RPM
- Internal coolant to enable chip evacuation
- Pocket design allows multiple insert radii for one body definition, saving time for CNC programmers and operators

Materials

N

Applications



DISRUPTING DOWNTIME ON



THE SHOP FLOOR

SUPERFEED

INDEXABLE MILLING



Explore SuperFeed

This PCD face mill is ideal for finish milling of non-ferrous materials, with a cutter body design featuring anodized aluminum for light weight and wear resistance.

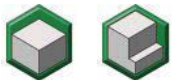
Features & Benefits:

- DovLok inserts with a PCD tip fused to a wedge-shaped carbide insert
- Easy axial adjustment range (0.3-0.8mm)
- Available in 25-200mm
- Shank styles: shell mills and cylindrical end mills

Materials

N

Applications

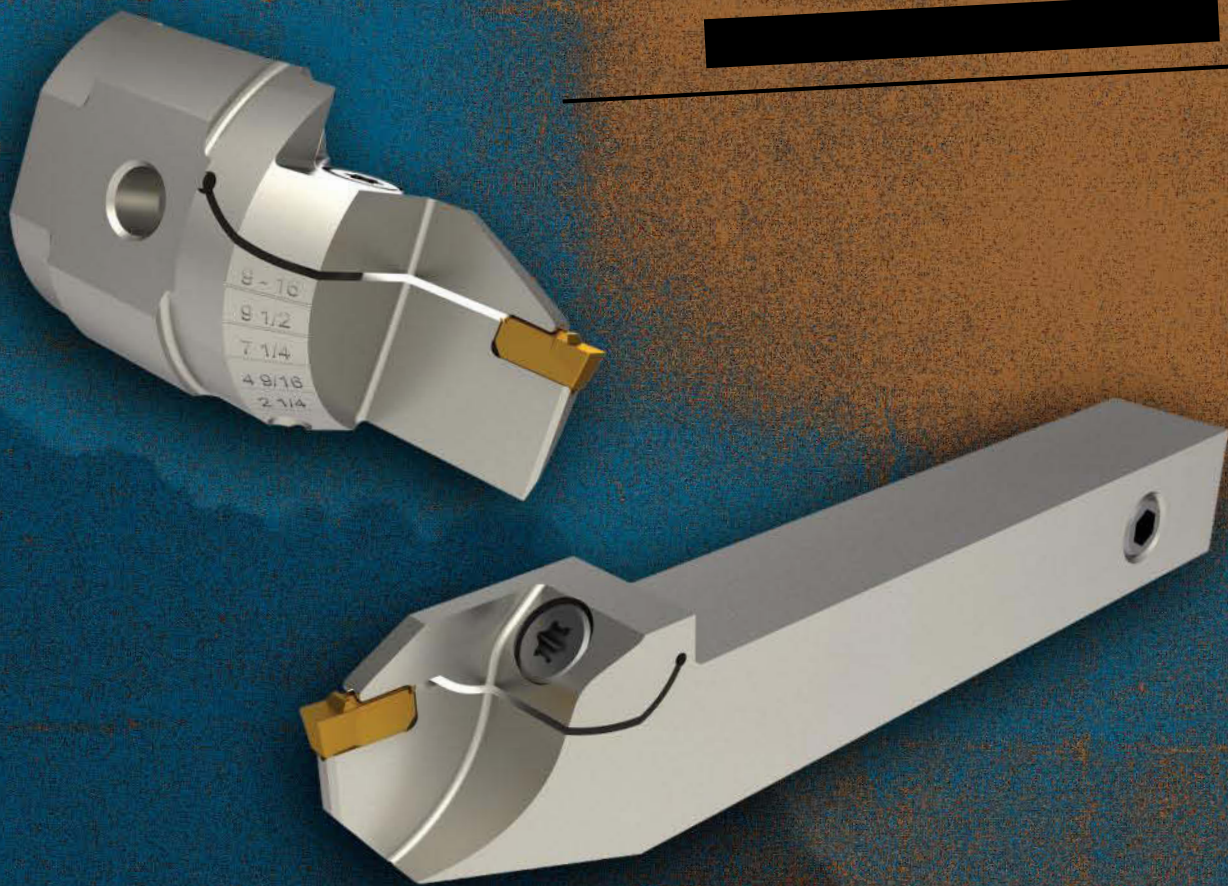


SIMPLE SYSTEM. SUPERIOR RESULTS.



NO CATCH.

“Turning 100 isn’t just about looking back. It’s about celebrating a legacy built on reliability and trust, and looking ahead to the future.”





Our customers—machinists, engineers and small to medium-sized shop owners—should expect WIDIA to keep advancing new, tougher tooling that works as hard as they do, for now and for the next generation.”

**KIM WILSON, GLOBAL MARKETING
COMMUNICATIONS DIRECTOR**



to lines systems



UNSHAKEABLE SYSTEMS THAT DON'T LET UP



HYDROFORCE™ & HP HYDRAULIC CHUCKS WITH REDUCER SLEEVES



ERICKSON Hydraulic Chucks securely grip round tools and damp vibrations to help prevent premature cutting-edge wear, serving as a hassle-free clamping solution for drills and mills, offering greater flexibility with a full range of reducer sleeves.

Features and Benefits:

- High clamping accuracy ($\leq 3 \mu\text{m}$ / .0001") to maximize cutting-edge performance
- Inherent vibration-damping design extends tool life and improves surface finish
- Pre-balanced to high specifications for stable, high-speed machining
- Versatile, collet-like functionality through the use of precision reducer sleeves

UNTIL THE JOB IS DONE

ER COLLETS

TOOLING SYSTEMS



Explore ER Collets

Steel Sealed ER Collets provide coolant-through capability without additional sealing components, fitting seamlessly into standard ER adapters. This expansion of the ER platform enhances chip evacuation, extends tool life and offers maximum flexibility across metric and inch sizes.

Features & Benefits:

- ISO 15488-compliant ER collets fit standard ER adapters, enabling coolant-through machining without additional tooling inventory
- High-pressure sealed design delivers reliable coolant flow without sealing discs or rubber fillers, reducing failure risk
- High clamping accuracy ensures stable toolholding, improving tool life and consistent part quality
- Broad ER size coverage provides flexible support for round tools with coolant-through capability across a single ER platform

GET A GRIP
ON YOUR
VERSATILE
APPLICATIONS



FACE COOLANT SHRINK FIT ADAPTERS



Explore Shrink Fit Adapters

The high-performance Face Coolant Shrink Fit adapters are engineered for demanding milling applications. Optimized coolant distribution across a broad speed range enhances tool life, process stability and component quality—delivering precision and reliability beyond conventional shrink-fit holders.

Features and Benefits:

- Front-face coolant outlets deliver coolant directly to the cutting edge enhancing cutting performance, extending tool life and increasing process reliability
- Inclined coolant outlet geometry precisely directs flow toward tool edge, optimizing high-RPM machining, improving component quality and reducing tool breakage
- Proven 100-bar coolant capability ensures consistent high-pressure delivery for effective cooling and chip evacuation, supporting advanced machining applications
- Pre-balanced to G2.5 at 25,000 RPM for exceptional rotational accuracy and stability, enabling safe, precise high-speed operations
- Compact design with standard shrink-fit dimensions allows direct replacement of conventional holders, enabling easy installation without programming or setup changes

TOOLING FITTED FOR YOUR

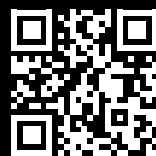


TOUGHEST MACHINING



KEEP IT COOL

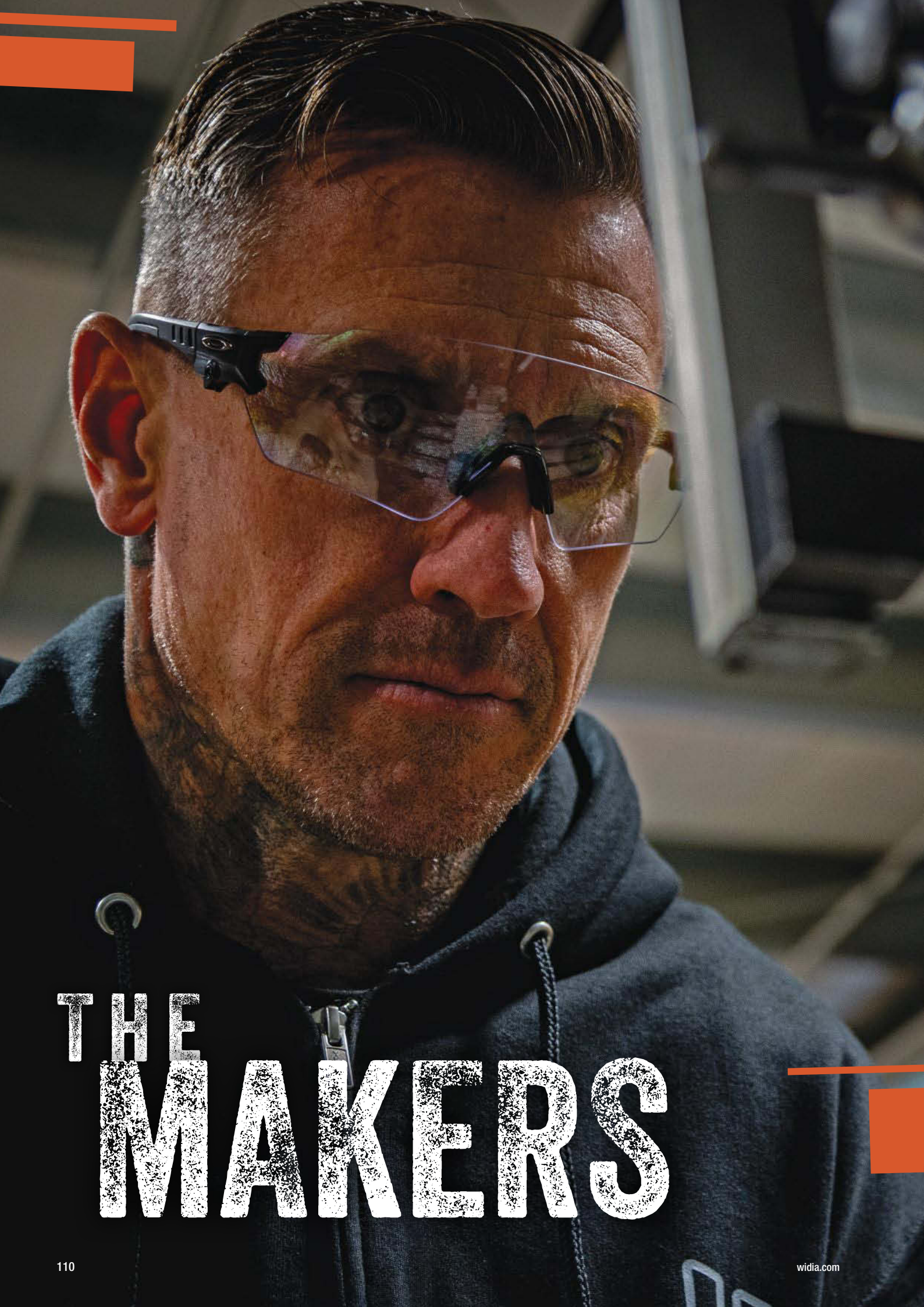
FACE COOLANT END MILL ADAPTERS



Explore Face Cool End
Mill Adapters

Maximize cooling efficiency with the face coolant end mill adapters for Weldon™ shanks. Designed to deliver two coolant solutions directly to the cutting edges, these adapters prevent chip overcutting and jamming by efficiently clearing the cutting zone, reducing fan-out and enhancing process stability and component quality in milling applications.

WHILE YOUR CUTTING HEATS UP



THE MAKERS

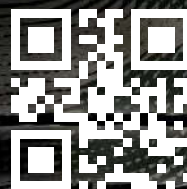
DO YOU THINK YOU'RE A MAKER?

No Nonsense. No Gimmicks. No Downtime. All WIDIA.

Machinists across industries are counted on as doers and creators—the Makers of the world around us... and we've spent over a century mastering their needs.

Because let's be honest—no one gets a rush over chips flying or arguing over coolant viscosity for fun like a Maker does. **Sound like you? To join this creative class of machinists and tell your shop's story, tell us what you're making with WIDIA.**

WHAT ARE YOU
WORKING ON WITH
WIDIA?



512
HRC





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