



GOLDOMAX45FIN

HI-FEED FINISH FACE MILL

- Ø2.000" Ø8.000" cutter diameter range
- Inserts stepped both axially and radially
 - No wiper run-out
 - · Very efficient and stable chip formation
 - Capable of 4µ" Ra at high feed-rates
- · Balanced cutter bodies
- · Long crowned wiper minimizes mismatch
- High-shear insert geometries





COUGAROMILLES PROPERTY OF THE PROPERTY OF THE

60 DEGREE LEAD, WEDGE-HELD, FACE MILL FAMILY

- Ø4.000" Ø14.000" cutter diameter range
- Maximum .475" depth of cut
- Heavy-duty insert for massive chip-loads thru scale and interruptions
- Multi-purpose "high-shear" insert for smooth chip formation in hi-temps and stainless
- Ideally suited to deep depths of cut across all material types











HOPOST 09, 13, 17

OUR HIGHEST POSITIVE MILLING INSERT GEOMETRY POWERED BY BOMT INSERTS!

- 2X positive rake and 2X face clearance when compared to APKT: For higher efficiency, less heat and more aggressive ramping
- Ø.500" Ø8.000" cutter diameter range
- R.015" .250" insert corner offering
- Max DOC's: BOMT09 at .35": BOMT13 at .47": BOMT17 at .63"
- 32-63 Ra surface finishes when using integrated wiper

SS/Hi-Temp/Ti

· Cutters ported with coolant-thru











Hard Steel & Long L/D



Chip Splitter

Heavy Duty



Polished for Aluminum











PCD Tip













GOLD OTRIO 06, 10, 13

3-EDGED GOLD-TRIO INSERTS PRICED LIKE 2-EDGED HI-POS = ONE FREE EDGE!

- Superb general purpose 90° mills that blend performance & economy
- Ø.625" Ø6.000" cutter diameter range
- R.015" .125" insert corner offering
- Max DOC's: THLS06 at .27"; THLS10 at .41"; THLS13 at .57"
- 32-63 Ra surface finishes when using integrated wiper
- Cutters ported with coolant-thru







SS/Hi-Temp/Ti



Polished for Aluminum





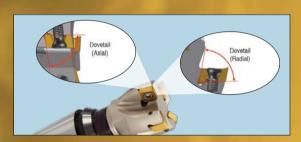




DIPOSOTETIRA 05

INDUSTRY'S EASIEST LOADING 5mm INSERT WITH NO STRESS ON THE SCREW!

- Ideal for live spindles on lathes, swiss machines and small machine centers
- Modular design with Solid-ER-Shank promotes blend of quick-change and rigidity
- Double-dovetail pocket promotes easy insert indexing Insert clamps in pocket while affixing the screw
- Double-dovetail pocket clamps the insert in place such that cutting forces do not stress the insert screw
- 32-63 Ra surface finishes when using integrated wiper
- Ø.500" Ø2.000" cutter diameter range
- R.008"-.031" insert corner options





PIPOSOTETIRA 06

SMALL DIAMETER INDEXABLE END MILLS WITH 4-EDGE ECONOMY...A GREAT SOLID CARBIDE ALTERNATIVE!

- 90° shoulder mills & backdraft finishing cutter design styles
- Unique insert & pocket design with wide seating surface for utmost cutting edge support and durability
- Concave face design accommodates aggressive ramp, corkscrew, and drill-mill functions
- Diverse adaption selection designed to accommodate any machine setup....including knee mills
- Ø.625" Ø2.000" cutter diameter range with .24" max. depth of cut
- R.015"-.062" insert corner options







RMOMASTER

CONTOURING DISC SLOTTER

- Excellent options for internal and external contour milling!
- Radial drive, axial drive and modular (M20 connection) cutter bodies
- · 8mm, 10mm, 12mm IC button inserts
- · Well-designed insert geometries & premium milling grades
- · Available with integral (M20) CAT40, CAT50 and cylindrical shanks
- Anti-rotating insert clamping (excluding 8mm insert)
- Ultra-reliable machining performance!





















RMOMASTE

CERAMIC BUTTON CUTTERS

- · Ideal for high temperature alloy machining!
- .500" IC ceramic button, single & double sided inserts
- Interchangeable clamping system accommodates dimple or flat rake face style inserts
- Grades IN72N & New TC3030
- Face mill & end mill cutter bodies
- 1.25, 1.50, 2.00, 2.50 & 3.00 inch diameter cutters







M20 Modular Connection

- M20 connection offers excellent rigidity and strength
- Milling flexibility and increased performance for long reach application
- Standard CAT40, CAT50, HSK and straight shank holders
- · Special holders available upon request



POWEROFEED13⁴⁷

13mm IC INSERT FOR HI-FEED MILLING UP TO 2mm MAX. DEPTH OF CUT

- True radius style hi-feed performance, exceptionally strong!
- · Available in end mill, modular head and face mill type
- Double-sided insert technology, offering 6 cutting edges for great economy!
- · Unique insert seating design provides excellent stability in the cut
- Thicker insert and larger M5 insert screw offer increased strength
- High rake chip former for smooth, free cutting, shearing action during machining
- Three cutting edge styles for application flexibility
- Premium insert grades
- Through coolant cutter bodies







9mm IC INSERT FOR HI-FEED MILLING APPLICATIONS

- True radius style hi-feed performance, exceptionally strong!
- · Available in end mill, modular head and face mill type
- High-density cutters equals faster feed rates!
- .060" (1.5mm) DOC capability for increased productivity
- · 4 indexes for cost-effective machining
- Strong positive insert rake face angles for efficient milling.
- Through coolant cutter bodies
- Rigid clamping with unique pocket design & high tensile clamping screw, M3.5















MILL WITH COOLANT DELIVERED PRECISELY AT THE CUTTING EDGE

- Precision Chip-Surfer Thrust Cool shanks direct coolant parallel to the shaft for optimal chip evacuation
- "Thrust Cool" design promotes effective cooling of the carbide cutting edges
- "Thrust Cool" design promotes utmost core strength integrity
- Durable & economical; made of steel

CHIPOSURFER"

SOLID CARBIDE MODULAR HI-FEED TIPS WITH POSITIVE AND NEUTRAL GEOMETRY

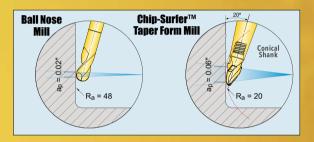
- · Hi-Feed geometry for roughing near net shapes
- · Well suited for roughing small pockets, contouring irregular forms and picking out corners
- Shallow depth of cut strategy accommodates very aggressive feed rates... 3x-6x that of a ball nose
- · Ideal for long reach applications
- Coolant through options



POSURFER

TAPER FORM TIPS FINISH 3X FASTER THAN A BALL NOSE. AND WITH IMPROVED SURFACE QUALITY!

- · Ideal for finish milling blisks, impellers & turbine rotors using multi-axis machines
- · Large crowned cutting edge (barrel geometry) offers 3X cutting length when compared to ball nose
- · Radius blends ensure minimum scallop height for utmost finish
- Precision cutting edge profile tolerance of +/-.0004"
- Tips repeat on and off the shank within +/-.0005"
- Sharp & polished tips for aluminum and non-ferrous materials
- Coated tips for Aerospace and Die-Mold materials





POSURFER

VARIABLE PITCH END MILL TIPS:

FIVE-FLUTE FRENZY FOR AERO-CENTRIC MATERIALS

- · Unique edge and coating ideally suited for stainless steels, hi-temp alloys & titanium
- 5 unequally-spaced flutes disrupt harmonics to promote a vibration-free roughing environment
- 25% higher feed rates compared to standard 4-flute end mills
- Creates smoothest possible blends when stepping down
- Ø.750" Ø1.000" diameter range



 $\alpha_1 \neq \alpha_2 \neq \alpha_3 \neq \alpha_4 \neq \alpha_5$





CHIPOSURFER*

DOVETAIL WITH POSITIVE-RAKE-ANGULAR ADVANTAGE AND SIX FLUTE PRODUCTIVITY PERFORMANCE

- Ideal for aerospace fixturing and pocket undercutting.
- 200% feed rate benefit when compared to indexable versions.
- At least 3x tool life increase when compared to indexable versions.





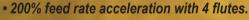


CHIPOSURFER"

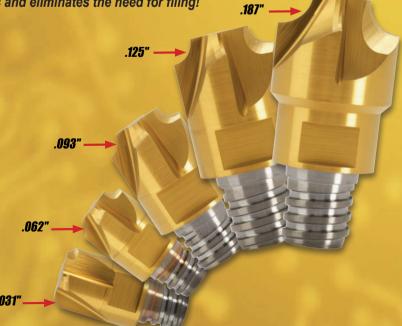
CORNER ROUND TIPS: BRILLIANT CORNERING PRODUCES BEAUTIFUL CURVES

• 4-degree flares off the radius form promote smooth blends with no mismatch lines

• Ideal for finish work of aerospace materials and eliminates the need for filing!



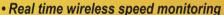






HIGH SPEED COOLANT-DRIVEN SPINDLES - 35K-55K RPM!

- Plug & Play! No wires, machine modifications or pre-installation required.
- Maximize productivity, prolong tool life, reduce cycle time & improve surface quality
- · Compatible with milling centers, turn/mills and lathes,
- Wide range of tool diameter capability, from 0.5-5.0mm (.020"-.197")
- GreenJet spindles suitable for machines with 290 580 psi
- HPC spindles suitable for machines with 580 1000 psi
- New 3 bearing system reduces radial force overload & spindle wear
- · CAT, ER32, BT, HSK, C-Adapter (ISO 26623-1) & straight shank connections







SMALL DIAMETER SOLID CARBIDE MILLING SOLUTIONS IDEAL FOR TYPHOON APPLICATIONS

PROGROUNDS

- 2-Flute and 4-Flute ball nose
- Ø 3-5mm with 6mm shank
- Ø .125" .187" with .250" shank



POWEROROUNDS

- 4-Flute square end
- Ø 3-5mm with 6mm shank
- · Ø .125" .187" with .250" shank



CHIPOSURFER"

- Modular ER11 Shanks and Carbide Tips
- · Solid ER11 shanks more rigid than spring ER collets
- Tip options include square end, ball nose, engravers and drills
- Ø .062" .250"





RAPIDOTHREA

INDEXABLE STRAIGHT THREAD MILLS

- New design for all inserts and toolholders
- · Additional thread forms now available
- Nickel-plated holders provide resistance to corrosion/abrasion
- Easy-to-decipher nomenclature





A FAMILY OF 3-EDGED INDEXABLE DEEP HOLE DRILLS

- Expanded diameter range .551" (14 mm) to 1.102" (28 mm) for MC and GD styles
- TPHT series of inserts with 3 full cutting edges, chip-splitter and positive geometry for all 3 families

DEEPOTIRIO ME

- · Conventional style drill for lathes or mills
- · Standard and cross-hole style
- Lengths 10xD, 15xD and 25xD
- Ø.551 Ø1.102" diameter range

DEEPOTIRIO CO

- Gundrill style drill
- · Standard and cross-hole style
- · Lengths up to 94.488" OAL
- Ø.551 Ø1.102" diameter range
- 60", 72" and 90" lengths in stock

DEEPOTIRIO BIA

- BTA drilling head available for STS & DTS
- Ø.630" Ø1.102" diameter range





TRE DIGITAL FINE BORING HEADS

- New TRE32 and TRE40 for diameters as small as 1.337"
- .0001"/.002mm adjustability
- Digital display...direct measuring of slide movement
- Coolant-thru
- · Minimal backlash compensation
- IP67 rated for dust and coolant protection







PSC LINE (ISO 26623-1/-2)

- Integral fine boring heads (TRM & TRE) now with PSC (ISO 26623-1/-2) connection
- Compatible with existing competitive boring systems
- Connection range of C4 C8
- · Kits also available









BURS

COOLANT THROUGH HOLDERS FOR ISO TURNING INSERTS

- · Very stable, multidirectional clamping system
 - User-friendly, single-screw clamping motion
 - · Rigid design allows higher feed rates and cutting depths compared to most coolant through holders
- Two coolant exit holes
 - Coolant through the clamp provides pinpoint coolant directly to the cutting tip/edge
 - Coolant under the clamp provides excellent chip evacuation
- Standard holders for CNMG43x and WNMG43x inserts
- .750", 1.000" & 1.250", right and left hand holders
- Flexible high pressure steel hoses and fittings also available





BLACKORUSH

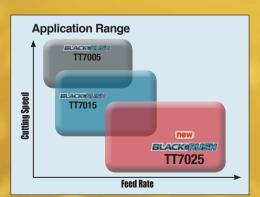
TT7025 GRADE ADDITION FOR CAST IRON TURNING

- · Optimal solution for low speed, interrupted cuts in cast iron
- · Ideal substrate/coating combination for ductile iron
- Multi-colored appearance for easy identification of insert wear
- · Post-coat Gold-Rush treatment for edge stability and reduced build up
- Complements Ingersoll's existing line of Black-Rush grades











TOABSORBER

ANTI-VIBRATION BORING BARS WITH EXCHANGEABLE HEADS

- · Features a built-in dampening system that absorbs vibrations
- Up to 10xD boring depth capability.
- Exchangeable heads for CCMT, DCMT, VBMT, & Rhino Turn DNMG inserts
- Coolant through the tool directed to the cutting edge
- Shank diameters from 16mm 60mm
- Exponential improvement in surface finish and tool life





RHINOOTURN

HOLDERS FOR SWISS APPLICATIONS

- Double-sided inserts!
- Now available for CNMG, DNMG, VNMX & YNMG inserts
- H-Type holders provide convenient, fast insert changes
- Hook Lever design provides very stable, multi-directional clamping
- Thicker inserts provide heat dissipation through a wider cross section for longer tool life





RHINOOTURN

VNGX INSERT WITH ML CHIPBREAKER

- · Complete, economical solution for machining gummy-like materials
- 35 degree included angle, high-positive, chipbreaker
- Double-sided, "G" tolerance inserts for high accuracy
- Corner radius as small as .004" (0.1mm)
- Peripheral ground to provide a sharper cutting edge that reduces cutting force and minimizes built-up-edge
- Produces longer, more consistent tool life and excellent surface finish

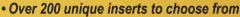






FM CHIPBREAKER FOR POSITIVE ISO TURNING INSERTS

- Medium and semi-finish machining for steel and stainless steel
- Low cutting force chipbreaker geometry with wide chip breaking range
- · Pressed to size inserts provide high durability and excellent economy
- Five different insert shapes, and multiple insert sizes



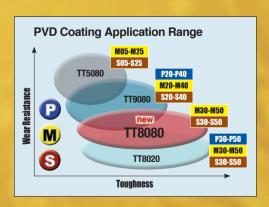




ISO TURNING GRADE TT8080 PRODUCT EXPANSION

- Excellent machining performance under low cutting speed and interrupted cutting conditions
- Eliminates coating layer delamination due to a strong coating adhesion
- Superior resistance to chipping
- The latest PVD coating technology with enhanced wear resistance

Now available in positive inserts for difficult boring or chamfering applications







TOTURN

TC3020 - SIAION-BASED CERAMIC

- Ideal for high-temperature alloy machining; Runs at parameters similar to whisker reinforced ceramic grades.
- Superior wear resistance due to high chemical stability
- Better flank and notch wear resistance compared to the competition
- Excellent high temperature strength and fracture toughness
- · Can be applied in turning, profiling and grooving applications

TC3030 - SIAION-BASED CERAMIC

- · Ideal for high temperature alloy machining
- The grade's extreme toughness enables higher feed and heavier depth of cut machining
- Tougher substrate compared to whisker reinforced ceramic grades
- · Suitable for parts with scale and/or roughing applications
- Excellent thermal shock resistance and thermal conductivity
- · Can be applied in turning, profiling, grooving and milling applications







RHINOOGROOVE

OPTIMIZED PARTING AND GROOVING LINE

- 30% lower price compared to longer parting & grooving inserts!
- · Ideal for small component and shallow depth of cut parting & grooving
- Vibration minimized due to the insert's shorter length and improved center of gravity
- Optimized holder pocket design for better clamping
- C-type chipbreaker features a frontal land for strength in general purpose applications
- J-type chipbreaker has a positive cutting edge making it ideal for soft & gummy materials
- Grade options TT9080, TT7220 & TT8020 provide a solution for a wide variety of materials and applications







Double-End





- · All new user interface
- · Graphical mega menu
- Powerful full-text AKITA search
 - · By description,
 - · By product line
 - · By item number
 - · By item name
- Precise product categories
- Comprehensive filtering
- Detailed product view
- Tabular organization
- · Smart menu layout
- Exhaustive support resources
- Service & support contact forms
- ISO 13399 compliant drawings and tables
- · Works on all platforms, including mobile devices









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