ROBUST 45° FACE MILL WITH 12-EDGE ECONOMY

- 1.50” - 10.00” cutter diameter range
- .11” maximum depth of cut with 6mm IC insert
- .20” maximum depth of cut with 10mm IC insert
- Reinforced cutting edge boasts high feed rate potential
- High radial pocket incline promotes utmost chip evacuation and fine pitch cutter design for maximized productivity
- Helical cutting edges promote smooth machining
- Unequally spaced insert placement aids to diffuse vibration
- Integrated wiper flats produce 32-63 Ra surface finishes
- Ideal for steels and iron!
HI-FEED & 65° END AND FACE MILLS WITH 10-EDGE ECONOMY!

- .750” - 4.00” cutter diameter range
- 5mm & 10mm insert IC’s offer diverse DOC options
- Same insert fits Hi-Feed & 65° mills
- Reinforced cutting edge boasts high feed rate potential
- Positive geometry promotes smooth machining
- Wide market range including Die/Mold and General Purpose!

DEAL A
PURCHASE 20 inserts & RECEIVE one end mill body at 50% OFF!
- PC 102A -

DEAL B
PURCHASE 40 inserts & RECEIVE one face mill body at 50% OFF!
- PC 102B -
TRUE 90° SHOULDER MILLS WITH 8-EDGE ECONOMY

• .625” - 6.00” cutter diameter range
• 7mm insert generates true 90° up to .19” depth of cut and is optimized to step down axially with minimal mismatch
• 12 mm insert generates true 90° up to .33” depth of cut
• High axial rake reduces cutting loads and promotes smooth machining
• Unequally spaced insert placement aids to diffuse vibration
• Integrated wiper flats produce 32-63 Ra surface finishes

DEAL A
PURCHASE 20 inserts & RECEIVE one end mill body at 50% OFF!
- PC 103A -

DEAL B
PURCHASE 40 inserts & RECEIVE one face mill body* at 50% OFF!
*up to 5” diameter
- PC 103B -
90°, BACKDRAFT, HI-FEED & HI-RAMP VERSATILITY WITH 4-EDGE ECONOMY!

- .50” - 4.00” cutter diameter range
- Offered with 5 insert sizes; accommodating a wide range of diameter, density & cut options
- True 90° shoulder milling capability
- Same cutter body utilizes 90°, Backdraft & Hi-Feed inserts
- Concave face design accommodates ramping, interpolation & drill-mill functions
- Pockets designed with wide mounting area for utmost support behind the cutting edge
- Cutters plumbed with coolant through the tool
- Integrated wiper flats produce 32-63 Ra surface finishes

DEAL A
PURCHASE 20 inserts & RECEIVE one end mill body at 50% OFF! - PC 104A -

DEAL B
PURCHASE 40 inserts & RECEIVE one face mill body* at 50% OFF! - PC 104B -
90° SHOULDER MILL WITH 3-EDGE-ECONOMY INSERTS, NOW WITH “NEW” 4MM INSERT SIZE

- New 4mm insert used in .312 – .625” diameter cutters
- High positive cutting geometry; ideal for small machines and gummy materials
- Ramping capability for cutting versatility
- Inserts with integrated wiper flats typically produce surface finishes between 32-63 Ra
- Cutters ported with coolant
MINI SIZED 90° SHOULDER AND HIGH-FEED MILLS WITH STRONG V-SHAPED INSERT

- .250 – .500” diameter cutter range
- V-Bottom pocket fosters easy insert indexing, increased core diameter and minimizes insert screw stress
- 90° and Hi-Feed inserts fit the same pockets
- Integrated wiper flats produce 32-63 Ra surface finishes
- All cutters are plumbed with coolant through the tool
- High cutter densities with small IC insert sizes
- Economical solid carbide alternative!

DEAL A
PURCHASE 20 inserts
& RECEIVE one end mill body at 50% OFF!
- PC 106A -

2021 TOOLING PROMO
Cutter body options include: End Mill, Top-On, Chip Surfer & Face Mill
Cutter diameter range, .312 up to 4.00 inch
Higher insert densities for super productivity!
Depth of cut (DOC) capability from .5mm (.020) to 2mm (.078)
Optimal insert cutting edge preparations & rake face geometries for all material groups.
APT ranges from .008 to .160 allow for extreme productivity!
Inserts offer 4 cutting edges for cost-effective machining and economy!
Lower cutting forces promote efficient high-feed milling
An expanded high-feed family under one new name, DIPOSFEED!
(formerly, HiFeed Mini & Midi)
DEAL B

PURCHASE 40 inserts & RECEIVE one corresponding face mill body at 50% OFF!

- PC107B -

9mm insert

11mm insert

2021 TOOLING PROMO
THE EXPANSION OF OUR MOST POPULAR HIGH-FEED MILLING LINE TO INCLUDE TWO "NEW" PRODUCT FAMILIES

- 3 distinct insert geometries provide an optimal solution across all material classes and application types
- Ingeniously designed insert mounting for reliable and fast feed-rates
- All inserts include radial wipers for smooth profiling, shouldering and hole interpolation which can eliminate secondary operations
- End mills and face mills incorporating 5 distinct insert sizes and cutter diameters ranging from .375" - 7.000"
- GoldSFeed is the most complete and extensive High-Feed milling line in metalworking

DEAL A
PURCHASE 20 inserts & RECEIVE one end mill body at 50% OFF!
- PC 108A -

DEAL B
PURCHASE 40 inserts & RECEIVE one face mill body at 50% OFF!
- PC 108B -
END MILLS & SHELL MILLS WITH INTERLOCKING INSERTS FOR SMOOTH AND RELIABLE OPERATION

- Overlapping “V-Notch” inserts that allow for smooth chip formation at high feed-rates
- The patented end-station fully supports the insert for reliable operation and unobstructed chip evacuation
- Tangentially mounted inserts with dovetailed seating for greater cutter reliability and insert stability
- End-station inserts with corner radii from .031” to .250” that fit the same cutter body, no cutter modifications needed
- High axial shear for smooth chip formation in both keen and landed insert geometries

NOTE: Promotion excludes integral shank end mills
HI-FEED FACE MILL FAMILY WITH STRONG TANGENTIAL INSERTS & RELIABLE DOVETAILED INSERT SEATING

- Unique diamond shaped inserts provide the highest ramping feed-rates at the steepest ramping angles
- Thick tangential inserts give maximum reinforcement to the cutting edge and cutter longevity
- Large insert seating areas are dovetailed to stabilize and support the insert under the most aggressive conditions
- Inserts offered in both pressed and ground profiles for economical performance across all material types

DEAL A
PURCHASE 40 inserts & RECEIVE one corresponding cutter body at 50% OFF!
- PC 120A -
INNOVATIVE COMBINATIONS – UNPRECEDENTED VERSATILITY!

Three comprehensive series of tangential endmills and face mills feature versatility, productivity and economy!

- Insert sizes of 5, 11 and 13mm
- Starting in diameters as small as .500”!
- Dovetailed insert mounting for increased edge-life and improved cutter reliability
- High performance, ground-profile inserts are shaped to minimize lap-lines when shouldering, available in both heavy and light geometries
- MaxSFeed is capable of ramping and spiral interpolation!
ECONOMICALLY PRICED, SQUARE AND BALL NOSE SOLID CARBIDE END MILLS

- .125” – 1.000” diameters with variety of corner radii, including sharp
- 4, 5, 6 & 7 flutes all with 38° helix
- Variable pitch for chatter free machining
- 4-flute end mills ideal for heavy conditions or slotting
- 5, 6 & 7 flute end mills ideal for High Efficiency Machining
- More than 1200 unique items!

DEAL A
PURCHASE 3 end mills & RECEIVE one end mill FREE*
Can mix & match, but lower priced tool is free
- PC 121A -

* Promotion expires October 1st, 2021
PREMIUM HOLE MACHINING WITH “NEW” TPC SELF-CENTERING TIPS

- Unique geometry eliminates need for a pilot hole
- Excellent surface finish, hole cylindricity and straightness
- Fully compatible with existing GoldTwist drill bodies
- Diameter range: .236” - 1.020” (6.0-25.9mm)
- For steel and cast iron applications

DEAL A
PURCHASE 4 tips & RECEIVE one corresponding drill body at 50% OFF (up to 3 x D) - PC 111A -

DEAL B
PURCHASE 6 tips & RECEIVE one corresponding drill body at 50% OFF (up to 5 x D) - PC 111B -

DEAL C
PURCHASE 8 tips & RECEIVE one corresponding drill body at 50% OFF (up to 8 x D) - PC 111C -

2021 TOOLING PROMO
3-FLUTE QUICK CHANGE DRILLS FOR INCREASED PRODUCTIVITY!

- 3-Flute geometry allows for increased productivity by more than 50%
- Diameter range: .5905”-.8228” (D15.0-D20.9mm)
- Can accommodate 3xD and 5xD applications
- Self-Centering geometry
  - Eliminates the need for piloting pre hole
  - Excellent hole precision and finish
  - Reduced spindle loads
- Multiple diameters accommodated with one, single body
- Coolant through for excellent chip evacuation
- New IN2205 grade for excellent tool life in steel and cast iron applications
- Simplified tip replacement provides reduced downtime
"NEW" 3-FLUTE SOLID CARBIDE DRILL FOR 50% HIGHER FEED RATES!

- 3-flute geometry increases productivity by at least 50%
- Self-centering geometry provides precise and accurate holes
- Very high stability in the cut due to its specially designed edge geometry
- 3 coolant outlet holes to maximum flow & evacuate chips
- New PVD-coated grade IN2205, blue in color for easy identification
- 3xD and 5xD lengths
- 4mm - 12mm metric diameters; 5/32” - 15/32” diameters
- Suitable for steel and cast iron drilling

DEAL A
PURCHASE 4 drills & RECEIVE the 5th drill FREE!

- PC 112A -

2021 TOOLING PROMO
ECONOMICAL TURNING INSERTS NOW WITH THRU-COOLANT HOLDERS

• Pinpoint coolant delivery from top clamp (for cooling) & bottom of holder (for chip breaking)
• Industry-leading 1,000+ “economy” inserts to choose from!
• T-Type holding system with multi-directional clamping force provides 40% more stability over conventional lever lock holders, plus simple & fast indexing. No additional components required.
• Up to 50% increase in tool life under the same machining conditions
• 20% increase in cutting speed capability in difficult-to-cut materials
• Excellent chip control

DEAL A

PURCHASE 1 internal or external holder and 10 inserts & RECEIVE 10 additional inserts FREE!

(free inserts must fit same holder)

- PC 113A -
A “NEW” DOUBLE-SIDED MINI-SIZE INSERT AND HOLDER LINE, AN ECONOMICAL ALTERNATIVE TO STANDARD POSITIVE TURNING AND BORING INSERTS

- Double-sided miniature inserts (7mm IC)
- Optimized turning for low depths of cut (up to 2mm)
- Inserts feature the same cutting edge angle as standard positive inserts (zero degrees)
- Low cutting forces promotes very good surface finish
- Excellent chip control at lower depths of cut
- Stable screw clamping
- Suitable for general purpose machining of small parts, especially on Swiss type automatic lathes
4-EDGE INSERTS AND HOLDERS FOR ALL-DIRECTIONAL TURNING INCLUDING HIGH-FEED BACKWARD TURNING

- Multi-directional turning capabilities that include forward longitudinal turning, high feed backward turning, face turning, profiling and undercutting all with the same tool
- Much higher productivity due to reduced downtime, fewer tool changes and optimized tool paths
- Double-sided ZNMV inserts provide 4 cutting edges
- Insert/holder system uses the same axial & radial rake angle as comparable positive inserts, resulting in low cutting forces
- Serrated cutting edge provides excellent chip control at a variety of cutting depths
- 1.00” and 1.25” holders feature rigid T-Type clamping & optional COOLBURST internal coolant supply
GROOVING FAMILY EXPANDS WITH “NEW” 20MM INSERT AND HOLDERS FOR SWISS-TYPE AUTOMATIC LATHES

- 4-edge miniature insert for grooving, parting, turning, profiling and threading on Swiss-type lathes
- Inserts are handed so they can part or groove next to a square shoulder
- Grooving width range of .020” ~ .118” (0.5 to 3.0 mm)
- Grooving depth range of .087” ~ .197” (2.2 to 5.0 mm)
- Superior insert position repeatability and strong clamping force results in long tool life
- Holders available with or without COOLBURST high pressure internal coolant supply
- Inserts feature new PVD-coated grade TT4430 & a sharp cutting edge
- Deals apply only to 20mm insert/holders

DEAL A
PURCHASE 10 inserts & RECEIVE holder at 50% OFF!
PC 116A

DEAL B
PURCHASE 20 inserts & RECEIVE holder FREE!
PC 116B

DEAL C
PURCHASE 20 inserts & RECEIVE COOLBURST HP holder 50% OFF!
PC 116C
SINGLE-ENDED RIGID INSERTS & HOLDERS FOR PARTING AND DEEP GROOVING WITH UNIQUE ADAPTERS!

- Rigid clamping of the specialized 3-point contact area for excellent accuracy, repeatability and durability
- Insert’s increased height enhances strength and prolongs tool life
- System is capable of parting off up to 120mm (4.72”) work piece diameter
- High rigidity triangular blades and dedicated holders
  - Stable tool life and impressive cutting performance
  - Improved productivity due to high feed machining capability
- 1.6mm, 2mm & 3mm insert widths
- Available with internal coolant supply for longer tool life and improved chip evacuation

DEAL A
PURCHASE a holder and 10 inserts & RECEIVE blade FREE!
triangle style only
- PC 117A -

DEAL B
PURCHASE 20 inserts & RECEIVE tool at 50% OFF!
*Any blade or square shank holder, excluding COOLBURST
- PC 117B -
**Typhoon Coolant Driven Spindle**

**HIGH SPEED JET SPINDLES THAT WILL REDUCE CYCLE TIMES BY AS MUCH AS 70%**

- High-speed spindles for increased rotational velocity powered by your existing machine’s high pressure coolant
- Up to 1.5Kw of power and rotational velocity output of 25,000 to 45,000 RPM
- Cycle time reduction of up to 70%
- Compact Plug and Play design – fits on any ATC or tool magazine
- Ideal for a wide range of finishing and semi-finishing applications using small diameter cutting tools
- Equipped with a real-time, wireless speed display system, cutting tool rotational speed monitor, programmable spindle parameters, and warning/alarm alerts during spindle operation
- Available in: CAT V-Flange, ER32 DIN 6499, HSK-A, C-Adapter, Cylindrical Straight Shank & BT MAS-403

**DEAL A**

**RECEIVE**

30% OFF!

any TJS HPC spindle unit
- PC 118A -