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# PRODUCT LINES

2024/25



# HOLEMAKING TOOLS



Cutting tools for making holes in Molds & Die, Machine Tool, Automobile and Electronic industries.

YG-1 produces solid carbide Dream Drills, HSS Drills(S.S. Drills & T.S. Drills), HSS-PM Multi-1 Drills, Indexable Drills, and Spade Drills, etc.

## SOLID CARBIDE DRILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
DREAM DRILLS - PRO	CARBIDE	Metric: Ø1mm - Ø20mm Inch : Ø1/16 - Ø3/4	<b>P M K H</b>	Drilling for Carbon Steels, Alloy Steels (HB225-325), Pre-hardened Steels(HRC30-50), Cast Iron. Wave shape cutting edge to improve chip formation for low cutting force. Helical thinning for low thrust, stable torque and good chip breakage. Extremely high hardness and heat resistance due to YG-1 special Z-Coating technology.
DREAM DRILL X	CARBIDE	Metric: Ø1mm - Ø20mm Inch : Ø1/16 - Ø3/4	<b>P M K H</b>	Multi-Purpose Solid Carbide Drilling up to HRC50 Proprietary coating upgrade boosting performance in Steel and Cast-Iron applications
DREAM DRILLS - GENERAL	CARBIDE	Metric: Ø1mm - Ø20mm Inch : Ø1/16 - Ø3/4	<b>P M K H</b>	Self-centering and chip breaking by R-thinning. Wave shape cutting edge will allow low thrust, stable torque and long tool life. Negative land on the cutting edge for reliable tool life. Optimized flute shape for strength of drill and smooth chip evacuation.
DREAM DRILLS - HIGH FEED	CARBIDE	Metric: Ø5mm - Ø20mm Inch : Ø13/64 - Ø3/4	<b>P K</b>	1.5-2 times faster in drilling compared to two flute carbide drills. Self-centering and chip breaking by R-thinning and coolant holes. Longer tool life than two flute drills due to more cutting edges.
DREAM DRILLS - FLAT BOTTOM	CARBIDE	Metric: Ø3mm - Ø20mm Inch : Ø1/8 - Ø3/4	<b>P M K N</b>	Real 180 degree point angle enables drilling on inclined surfaces using the 2xD Drill product line without spotting using an end mill. Excellent results at crossing holes or inclined hole exits using the double margin 5xD product line.
DREAM DRILLS - SOFT	CARBIDE	Metric: Ø0.3mm - Ø20mm	<b>P M K</b>	Excellent chip evacuation due to good surface treatment. Achieves excellent surface finish of work materials and long tool life.
DREAM DRILLS - INOX	CARBIDE	Metric: Ø1mm - Ø20mm Inch : Ø1/16 - Ø3/4	<b>P M N S</b>	The special flute shape and geometry for suitable machining of Stainless Steels. Excellent chip evacuation due to better surface treatment. Point R-thinning makes superior centering and chip curling. Applied TiAlN coating achieves the better surface finish of materials to be cut and the long tool life.
DREAM DRILLS - ALU	CARBIDE	Metric: Ø3mm - Ø20mm Inch : Ø1/8 - Ø3/4	<b>N</b>	Better finish & built-up edge preventive. Suitable for fast, efficient drilling in Aluminum and Aluminum Alloys. Optimized thinning for Aluminum & Aluminum Alloys to prevent any clogging caused by chip welding.
DREAM DRILLS - MQL TYPE	CARBIDE	Metric: Ø3mm - Ø14mm Inch : Ø1/8 - Ø1/2	<b>P K</b>	For deep hole drilling (10xD - 40xD). 4-Facet point for good centering capability. Optimized special flutes are ideal for removing chips and for productive drilling. Enhanced chip evacuation by polished flute upgraded TiAlN nano layer full coating. MQL system compatible (Minimum Quantity Lubrication).
DREAM DRILLS - HIGH HARDENED STEEL	CARBIDE	Metric: Ø1mm - Ø20mm Inch : Ø1/16 - Ø3/4	<b>P H</b>	Excellent chip evacuation and finish surface of work materials. Extremely shorten work time and production cost than EDM machines. Drilling for High Hardened Steels, Quenched Steels, and Tempered Steels (Under HRC70). Special geometry design for Hardened Steels. Minimum of cutting load through special thinning.
DREAM DRILLS - TITANIUM	CARBIDE	Special Item (Metric: Ø3mm - Ø20mm)	<b>S</b>	YG-1 tailored surface treatment after coating for reducing frictions and excellent chip flow. Special wave shape of cutting edges improve chip formations and low cutting forces. Special thinning for chip breaking, low thrust, stable torque and long tool life. Optimized wide flute shape for smooth chip evacuation.
DREAM DRILLS - SUPER ALLOY	CARBIDE		<b>S</b>	Convex cutting edge cam relief type for reducing cutting load. Radius gashing type for reducing heat generation. Edge preparation for increased and reliable tool life.
GENERAL CARBIDE DRILLS	CARBIDE	Metric: Ø1mm - Ø13mm Inch : Ø#60(.0400") - Ø1/2	<b>P M K N</b>	Long tool life, suitable for drilling soft, thin and general work materials.
NC-SPOTTING DRILLS	CARBIDE	Metric: Ø3mm - Ø20mm Inch : Ø1/8 - Ø3/4	<b>P M K N S</b>	90°, 120° and 142° point available. For centering and chamfering.
CENTER DRILLS	CARBIDE	Metric: Ø1mm - Ø6.3mm Inch : Ø3/64 - Ø5/16	<b>P M K</b>	For making internal centers of work material. Excellent performance under general working conditions.

## CARBIDE INSERT & HOLDER

ITEM	TOOL MATERIAL	SIZE, TYPE	WORK MATERIAL	CHARACTERISTIC
i-ONE DRILLS	CARBIDE	Metric: Ø10mm - Ø33.73mm Inch : Ø.3937 - Ø1.3281	<b>P K</b>	Micro grain carbide inserts and premium tool steel holders. Secure and quick clamping system. High performance with cost efficiency. Good chip removal, high rigidity, excellent performance with high speed and feed for a higher level productivity and also precise drilling. Inserts: Multi-layered coating delivers outstanding productivity and reliability. Holders: Innovative surface treatment that improves wear resistance and reduces corrosion. High performance flute design allowing maximum chip evacuation and minimum interference. Secure and accurate seating resulting an accurate repeatability and concentricity.
i-DREAM DRILLS	CARBIDE	Metric: Ø12mm - Ø31.75mm Inch : Ø.4724 - Ø1.2500	<b>P M K N</b>	Inserts: Excellent chip removal, high rigidity and excellent performance with high speed and feed for higher productivity and very precise drilling. Holders: Innovative surface treatment that improves wear resistance and reduces corrosion. High performance flute design allowing maximum chip evacuation and minimum interference. Secure and accurate seating resulting in an accurate repeatability and concentricity.
YG X-DRILL SYMX	CARBIDE	Metric: Ø14mm - Ø28.5mm Inch : Ø.563 - Ø1.125	<b>P M K</b>	Economic square type 4 cutting edge insert. Able to use true 4 cutting edges. One kind of insert in outer and inner pocket. Twisted coolant channel and enlarged chip gullet for better chip evacuation. Highly durable drill body due to high hardness and optimized material. Polished flute enables to improve chip evacuation in deeper machining
YG DRILL	CARBIDE	2 Series, 37 Inserts for both Metric and Inch	<b>P M K N S</b>	Handles multi-purpose applications and extremely efficient in covering materials as Steels, Stainless Steels and Cast Iron. (3 Grades, 2 Chipbreakers, 2 Series)

# HOLEMAKING TOOLS



Cutting tools for making holes in Mold & Die, Machine Tool, Automobile and Electronic industries.

YG-1 produces solid carbide Dream Drills, HSS Drills(Straight Shank Drills & Taper Shank Drills), HSS-PM Multi-1 Drills, Indexable Drills, and Spade Drills, etc.

## HSS DRILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
MULTI-1 DRILLS	HSS-PM	Metric: Ø1mm - Ø13mm Inch : Ø#45(.0820") - Ø1/2	P M K N S	Point shape to maximize self-centering. Flute design for the best chip evacuation. Premium HSS-PM(Powder Metallurgy) with excellent toughness.
HPD DRILLS	HSSCo8 HSS-E	Metric: Ø2mm - Ø32mm Inch : Ø#46(.0810") - Ø21/32	P M K N	Two separate product lines for high precision drilling of steel in general as well as one for stainless steels in particular.
GOLD-P DRILLS	HSS HSS-E HSSCo8	Metric: Ø1mm - Ø14mm Inch : Ø#60(.0400") - Ø3/4	P M K N S	Competitive price but holds the same performance as Full TIN coated drills. Covers various standards of DIN, ANSI and JIS.
SUPER-GP DRILLS	SUPER-HSS	Metric: Ø1mm - Ø13mm	P M K N S	All applications regardless of machining conditions: good or poor
WORM PATTERN STRAIGHT SHANK DRILLS (PARABOLIC FLUTE)	HSS-E	Metric: Ø2mm - Ø20mm Inch : Ø5/64 - Ø1/2	P M K S	Designed for drilling deep holes, and particularly suitable for drilling deep holes without chip pecking cycle.
WORM PATTERN TAPER SHANK DRILLS (PARABOLIC FLUTE)		Metric: Ø13mm - Ø30mm		
STRAIGHT SHANK DRILLS	HSS HSS-E HSSCo8	Metric: Ø0.2mm - Ø31mm Inch : Ø1/64 - Ø1	P M K N S	For a variety of working conditions, excellent performance.
AIRCRAFT DRILLS	HSS HSS-E	Inch: Ø5/64 - Ø1/2	P M K N S	For drilling in difficult to reach area, great performance Manufactured to NAS specification.
SILVER & DEMING DRILLS	HSS	Inch: Ø1/2 - Ø1-1/2	P M K N S	118° Split Point, 3 Flats Black and Gold
TAPER SHANK DRILLS	HSS HSS-E HSSCo8	Metric: Ø5mm - Ø76mm Inch : Ø13/64 - Ø3-1/2	P M K N S	Enables stable work with excellent gripping power for drilling large diameters.
NC-SPOTTING DRILLS	HSS HSSCo8	Metric: Ø3mm - Ø20mm Inch : Ø1/8 - Ø1	P M K N S	90°, 120° and 142° point available. For centering and chamfering.
CENTER DRILLS	HSS HSS-E	Metric: Ø0.5mm - Ø10mm Inch : Ø3/64 - Ø7/32	P M K N	For making internal centers of work materials, excellent performance under general working conditions.

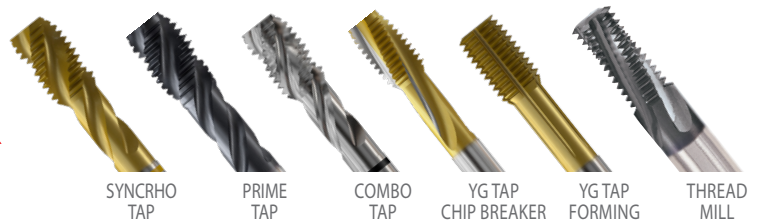
## SPADE DRILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
SPADE DRILLS	CARBIDE	Metric: Ø9.5mm - Ø47.63mm Inch : Ø.3740 - Ø1.8750	P M K N S H	Standard point and neutral rake angle for stable cutting self-centering. Chip breaking rigidity on center. Set up time can be reduced due to changing inserts easily on the machine.
	HSS-PM	Metric: Ø9.5mm - Ø114.3mm Inch : Ø.3740 - Ø4.5000		

## OTHER TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
REAMERS (STRAIGHT FLUTE, SPIRAL FLUTE)	HSS HSS-E	Metric: Ø2mm - Ø60mm Inch : Ø.0135 - Ø.7500	P M K N	For reaming holes after drilling. Reaming blind and through holes to achieve H7 tolerance. Large variety of diameters and shapes covering NC machine type reamers with round and Morse taper shank.
	CARBIDE	Metric: Ø2mm - Ø20mm up to Ø12: Solid Carbide over Ø12: Carbide Head Brazed Inch : Ø.0280 - Ø.6299		
COUNTERSINKS	HSS HSSCo8	Metric: Ø4.3mm - Ø50mm	P M K N	For deburring, chamfering and countersinking.
COUNTERBORES	HSS-E	Metric: Ø2.5mm - Ø14mm (Pilot Diameter)	P N	Counterbores with solid pilot are designed for machining screw head seats such as fillister screw caps, socket head screw caps or ejector caps in molds.

# THREADING TOOLS



Taps and Thread Mills for machining precision threads for all industries. Continuous expansion of high performance threading tools through rigorous development processes is at the heart of threading products such as Synchro Tap, Prime Tap, Combo Tap, YG Tap Forming, Thread Mills, and more.

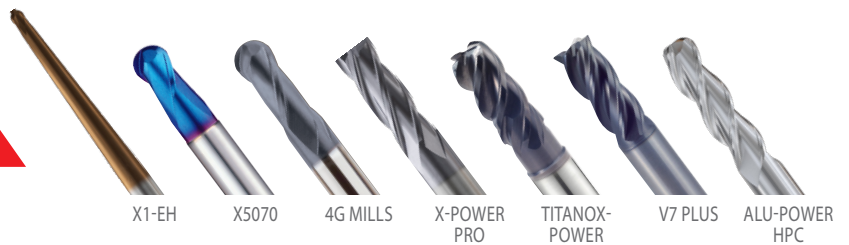
## SOLID CARBIDE THREAD MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
THREAD MILLS	CARBIDE	Metric: M1 - M24 Inch : #1 - 1-1/4 BSP(G): G1/16-G1 NPT/NPTF:1/16 - 2-1/2	P M K N S H	The ultimate in threading versatility capable of running in a wide range of materials, in through and blind holes, left and right hand threads. Produce full threads to the bottom of the hole in various hole sizes with lower cutting forces than tapping. All with the same tool.

## HSS TAPS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
SYNCHROTAP	HSS-PM	Metric: M3 - M20 Inch : #4 - 3/4	P M K N	TiN, TiCN coated HSS-PM taps for high speed tapping in synchronous CNC machines. Increased thread relief allows up to 3X faster spindle speeds than conventional taps. Shorter thread lengths reduces chip evacuation issues with long chipping materials. Pair with Synchro Chuck for optimal performance yielding longer tool life and improved thread finish.
PRIME TAP	HSS-PM	Metric: M2 - M24 Inch : #4 - 1	P M K N	X-coated Prime tap for CNC machining on various materials. Special grinding process provides an unique geometry to help control chip evacuation, preventing nest formation & enough flute space.
COMBO TAP	HSS-E	Metric: M2 - M52 Inch : #2 - 1-1/2	P M K N	Effective on a very wide range of work materials. Optimized flank geometry to prevent over & underfeeding. Compensation of cutting force, which reduces tap wear and extends tool life. Enables smoother tapping with better chip evacuation.
YG TAP GENERAL	HSS HSS-E	<Machine Tap> Metric: M1.6 - M36 Inch : #0 - 1-1/8 BSW : W1/8 - W1-1/8 <Hand Tap> Metric: M1.6 - M36 Inch : #0 - 2 BSW : W3/32 - W2	P M K N	General purpose taps engineered for excellent chip evacuation. Includes spiral point, spiral flute, and straight flute Hand taps.
YG TAP STEEL	HSS-E HSS-PM	Metric: M2 - M30 Inch : #2 - 2-1/2	P M S	For carbon and alloy steels. Select from different tap finishes and base materials to address the hardness and tensile strength of the workpiece.
YG TAP CHIP BREAKER	HSS-E	Metric: M4 - M20	P	YG Tap Chip Breaker provides a solution to solve the productivity problem caused by long chips, avoiding bird nesting. Particularly suitable for machining non-alloy steel, low alloy steel, high alloy steel, and tool steel.
YG TAP HARDENED	CARBIDE HSS-E HSS-PM	Metric: M2 - M30 Inch : #2 - 3/4	P M N H	Wear resistant base materials with surface treatments and coatings to handle high cutting forces associated with difficult to machine materials. Excellent for Die & Mold, Transmissions Shafts, and Gear Box Housings.
YG TAP INOX	HSS-E HSS-PM	Metric: M2 - M30 Inch : #2 - 1-1/8	P M N S	Designed with a geometry to reduce cutting forces while minimizing the effects of irregular chip formation. Choose from a range of finishes from low cost solutions to high performance anti-galling PVD coatings.
YG TAP CAST IRON	CARBIDE HSS-E HSS-PM	Metric: M2 - M30 Inch : #4 - 1-1/8 BSW : W1/8 - W1	K N H	Wear resistant geometry for abrasive cast materials. Choose maximum performance and long tool life with carbide taps or effective HSS-E taps with PVD coating and surface treatment options to fit your price point.
YG TAP ALU	CARBIDE HSS-E	Metric: M2 - M30 Inch : #4 - 1-1/8 BSW : W1/8 - W1/2	P N	Large flute volume and smooth surface finish to avoid chip clogging associated with tapping wrought aluminum. Case hardened surface treatment for wear resistance needed for tapping cast aluminum.
YG TAP Ti Ni	HSS-PM	Metric: M2 - M30 Inch : #2 - 3/4	P S H	Engineered cutting edge rake angles and thread reliefs needed for the challenges of tapping nickel and titanium alloys.
YG TAP FORMING	HSS HSS-E HSS-PM	Metric: M2 - M20 Inch : #00 - 3/4	P M N	The strongest threads with greater pull strength, increased productivity, reduced breakage, longer tool life, and superior thread finish with roll form taps. Roll formed threads are created using a deformation process during the tapping cycle moving metal grains into position versus cutting.
NUT TAP	HSS-E	Metric: M4 - M20	P K N	Continuous forward tapping cycle for high volume production of threaded nuts.
SCREW THREAD INSERT TAP	HSS HSS-E	Metric: M2.5 - M24 Inch : #2 - 1	P N	Tapping STI Threads for soft materials.
PIPETAP	HSS HSS-E	G1/16 - G1-1/2 NPT 1/16 - NPT 1 NPTF 1/16 - NPTF 2 NPS 1/8 - NPS 1 NPSF 1/8 - NPSF 1 PT 1/16 - PT 2 PF 1/8 - PF 1 PS 1/8 - PS 2 Rc1/16-Rc1"	P M K N	Geometry options for tapping straight and taper pipe threads in a variety of materials.

# MILLING TOOLS



Cutting tools for machining Mold & Die, typically in high precision used for Automobile, Electronic, Aerospace and Medical industries. Representative products are Solid Carbide X1-EH End Mills, X5070, 4G MILLS, X-POWER PRO, TitaNox-Power, Only One Coated PM60 End Mills, etc.

## SOLID CARBIDE END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
X1-EH END MILLS	CARBIDE	Metric: Ø0.1mm - Ø20mm	<b>P H</b>	X1-EH is a high precision end mill for High Hardened Steels. Extremely wide range of Shapes and Sizes. New Coating technology for highest tool life. Exceptional high accurate Micro Tooling plus h4 Shank. Improved Wear Resistance Carbide.
X5070 END MILLS	CARBIDE	Metric: Ø0.1mm - Ø25mm Inch : Ø1/32 - Ø1	<b>P H</b>	Machining high hardened steels from HRC45 to HRC70. Extremely hard blue-coated nano-grain carbide substrate for outstanding performance. Best suited for machining dry/air or with MQL. Large Variety with different Shapes & Sizes.
4G MILLS	CARBIDE	Metric: Ø0.1mm - Ø25mm Inch : Ø1/250 - Ø1	<b>P M K H</b>	Suitable for a wide range of work materials, specifically for increasing tool life on machining the Pre-Hardened Materials, Low Hardness Materials and Cast Iron etc. High Speed Cutting for Pre-Hardened Steels up to HRC55, dry and wet cut are both recommended. Ultra micro grain & nano grain carbide.
X-POWER PRO END MILLS	CARBIDE	Metric: Ø0.4mm - Ø25mm Inch : Ø1/32 - Ø1	<b>P M K H</b>	High performance in high speed cutting or dry cutting. (For cutting materials up to HRC55)
YG5X END MILLS	CARBIDE	Special Item	<b>P M K S</b>	Designed for 5-axis CNC machines. Optimized to gain a larger cutting surface to machine an extensive width compared to conventional ball nose End mills.
TitaNox-Power, & TitaNox-Power, HPC END MILLS	CARBIDE	Metric: Ø6mm - Ø25mm Inch : Ø1/8 - Ø1-1/4  *TitaNox-POWER HPC Metric: Ø6 - Ø25 Inch : Ø1/8 - Ø1	<b>P M K S</b>	Excellent tools for Aerospace Industries, Energy & Power generations. Roughing and Semi finishing for universal use, also for finishing difficult-to-machine materials.  *TitaNox-Power, HPC : New design enhances chip space in heavy cuts, while still maintaining rigidity in peel milling. Full eccentric relief for edge strength. YG-1 advanced coating for better wear resistance. Unequal index design for Chatter-Free cutting.
JET-POWER END MILLS	CARBIDE	Metric: Ø1mm - Ø25mm Inch : Ø1/8 - Ø1-1/2	<b>P M S</b>	High performance on cutting difficult-to-cut materials, and also good surface finish on working surface.
V7 PLUS (A) & V7 PLUS Chip Splitter END MILLS	CARBIDE	Metric: Ø3mm - Ø25mm Inch : Ø1/8 - Ø1  *V7 PLUS Chip Splitter Metric: Ø6 - Ø25 Inch Ø3/8 - Ø1	<b>P M K S</b>	Special geometry reducing vibration and noise. Smooth finish at high speed and deep cut, also reduced chatter and harmonics for improved stability and better finishing.  * Chip Splitter Type : Special chip splitter design shorter chip length at high axial machining, Improving chip removal from both the component and the machine.
ALU-POWER END MILLS	CARBIDE HSS-PM	Metric: Ø2mm - Ø25mm Inch : Ø1/16 - Ø2	<b>N</b>	Excellent surface finish and superior chip removal with mirror face. Specially designed geometry with high rigidity cutting edge.
ALU-POWER HPC & ALU-POWER HPC CHIP BREAKER END MILLS	CARBIDE	Metric: Ø3mm - Ø25mm Inch : Ø1/8 - Ø1  *ALU-POWER HPC CHIP BREAKER Metric: Ø6 - Ø20 Inch : Ø1/8 - Ø1	<b>N</b>	Effective chip evacuation at high feed rates with lower cutting forces than competitive products. Unique flute design and superior corner protection for tool life and risk mitigation in high feed applications.  *Chip Breaker Type : Provides long tool life and high productivity on aluminum by Chip breaker releasing stresses on the tool and prevents acceleration rate of wear on the cutting edge.
CRX S END MILLS (DLC COATED)	CARBIDE	Metric: Ø0.5mm - Ø12mm	<b>N</b>	For machining Copper & Copper Alloys. Extremely hard material coated on carbide tools. Needs high cutting velocity (about 2-3 times more than uncoated carbide's velocity) for optimum tool life and the best finish.
D-POWER GRAPHITE END MILLS (DIAMOND COATED)	CARBIDE	Metric: Ø0.2mm - Ø12mm Inch : Ø1/64 - Ø1/2	<b>N</b>	Higher hardness and superior wear-resistance extremely increasing the tool life.
K-2 & K-2 Multiple Helix END MILLS	CARBIDE	Metric: Ø0.4mm - Ø25mm	<b>P M K N S H</b>	For general milling operations such as slotting, side cutting and machining die cavity. Suitable for most materials.

### ※ ISO WORK MATERIAL GUIDE

P	M	K	N	S	H
STEELS	STAINLESS STEELS	CAST IRON	NON-FERROUS	TITANIUM HEAT RESISTANT SUPER ALLOYS	HIGH HARDENED STEEL

# MILLING TOOLS



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## CBN END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
CBN END MILLS (CUBIC BORON NITRIDE)	CBN	Metric: Ø0.4mm - Ø3mm	<b>H</b>	Mirror Finish, Tight radius tolerance(±0.005mm), High accuracy and Long tool life.

## PCD END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
PCD END MILLS (POLY CRYSTALLINE DIAMOND)	PCD	Metric: Ø0.98mm - Ø40mm	<b>N</b> CFRP, GFRP	High productivity due to excellent wear resistance.

## CARBIDE INSERT & HOLDER

ITEM	TOOL MATERIAL	SIZE, TYPE	WORK MATERIAL	CHARACTERISTIC
i-Xmill	CARBIDE	Metric: Ø8mm - Ø33mm Inch : Ø5/16 - Ø1-1/4	<b>P M K N H</b>	Various application types of inserts are available : for Steels, Pre-Hardened Steels, High Hardened Steels up to HRC65, Stainless Steels and Graphite. Special geometry and coating for excellent performance. Modular type of i-Xmill tooling for highest flexibility using market common coupling.
i-SMART Modular Type	CARBIDE	Metric: Ø10mm - Ø32mm Inch : Ø3/8 - Ø1-1/4	<b>P M K</b>	Combining High Performance 4G Mill Geometries with well proven market standard. Copy Milling screw-in coupling avoiding additional investments. Carbide and Steel holders available.
YG MILL	CARBIDE	25 Series, 188 Inserts for both Metric and Inch	<b>P M K N S H</b>	Inserts: Multi-purpose application and extremely efficient in covering materials. (8 Grades, 5 Chipbreakers, 25 Series) Cutters: Innovative surface treatment that improves wear resistance and reduces corrosion.
YG HF4 Mill ENMX (High Feed)	CARBIDE	Metric: Ø16mm - Ø125mm Inch : Ø0.625 - Ø6	<b>P M K S H</b>	High Feed application with Small cutter diameter Double-sided (4 Corners) Thick and Reinforced Design
YG TM4 Mill LNKU (Tangential)	CARBIDE	Metric: Ø40mm - Ø160mm Inch : Ø2 - Ø10	<b>P M K S H</b>	4 cutting edges High Productivity Tangential Insert Double-sided (4 Corners)
YG FM10 Mill PNMU (Face Milling)	CARBIDE	Metric: Ø50mm - Ø125mm Inch : Ø2 - Ø6	<b>P K H</b>	36° Entry angle face milling insert with 10 corners Double-sided (10 Corners) Wiper for excellent surface roughness
YG SM3 Mill TPKT (Shoulder Milling)	CARBIDE	Metric: Ø12mm - Ø200mm Inch : Ø1 - Ø6	<b>P M K N S H</b>	High helix cutting edge for smooth cutting and low cutting force High positive rake angle chip breaker for optimized chip curl and minimized burr Wide wiper edge for excellent surface finish Curved cutting edge for minimized mismatch
YG SM6 Mill WNEX (Shoulder Milling)	CARBIDE	Metric: Ø32mm - Ø200mm Inch : Ø1.25 - Ø5	<b>P M K S H</b>	6 cutting edges for Shouldering - High Cost-Efficiency Double-sided (6 Corners) Ground Insert - High Precision Tolerance and Excellent Surface finish

## HSS-PM, HSS Co8, and HSS END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
ONLY ONE COATED PM60	PM60	Metric: Ø1mm - Ø25mm Inch : Ø5/16 - Ø1-1/4	<b>P M K N H</b>	The ONLY ONE performs better without causing chipping than normal coated carbide end mills under the same carbide cutting conditions.
TANK-POWER END MILLS	HSS-PM	Metric: Ø1mm - Ø25mm Inch : Ø1/8 - Ø1-1/4	<b>P M K N</b>	YG-1 Powered material HSS end mills hold a long tool life and better performance due to increased tool toughness and red hardness compared to normal HSS tools.
SINE-POWER END MILLS	HSS Co8	Inch : 3/4 - 2	<b>S</b>	High Performane HSS Rongher for Titanium and Titanium Alloys
GENERAL HSS END MILLS	HSS-E HSSCo8 HSS-PM	Metric: Ø1mm - Ø50mm Inch : Ø1/32 - Ø2	<b>P N</b>	Slotting, side cutting and profiling etc. Non-coated or any other coatings available.
MILLING CUTTERS	HSS-E HSSCo8	Metric: Ø8mm - Ø200mm	<b>P N</b>	Various tools available for milling applications.

# TURNING & OTHERS



Cutting tools for various metal working. YG-1 offers special products such as Counter Bores, Reamers, etc. Customers can easily find unique products to meet full satisfaction.

## CARBIDE TURNING INSERT & HOLDER

ITEM	TOOL MATERIAL	PRODUCT RANGE	APPLICATION	CHARACTERISTIC
YG TURN	Insert : Carbide Holder : Steel / Carbide	13 Grades 18 Chipbreakers with Turning Holders	General ISO Turn	Inserts: Optimized grade & geometry with extremely efficient in covering materials including Steels, Stainless Steels, Cast Iron and Super Alloy (13 Grades, 18 Chipbreakers, 30 Series)

## CARBIDE INSERT PARTING & GROOVING TOOLS

ITEM	TOOL MATERIAL	PRODUCT RANGE	APPLICATION	CHARACTERISTIC
YG PARTING & TURN GROOVE	Insert : Carbide Holder : Steel	3 Grades 2 Chipbreakers for Parting & Grooving 3 Chipbreakers for Turn Groove	Grooving Parting Off Turn Groove	Inserts: Optimized grade & geometry with extremely efficient in covering materials including Steels, Stainless Steels and Cast Iron (3 Grades, 3 Chipbreakers, 2 Series)

## SPECIAL TOOLS

STEP DRILLS (HSS & CARBIDE, MULTI-DIAMETER DRILLS)

HSS SUB-LAND (STEP) DRILLS

NAS DRILLS

CARBIDE BURNISHING DRILLS

HSS DRILL TAPS

ACME THREAD TAPS & TRAPEZOIDAL THREAD TAPS

CARBIDE STEP REAMERS

BROACHES

BRAZING TOOLS

GRINDING WHEEL

## CFRP TOOLS



Scan QR code to see YG-1 CFRP Tools



# TOOL HOLDERS



## TOOL HOLDERS

ITEM		SHANK STANDARD	CLAMPING RANGE	APPLICATION	CHARACTERISTIC
HYDRAULIC CHUCKS	POWER E-HYDRO		Metric: Ø12, Ø20, Ø32mm Inch : 1/2, 3/4, 1-1/4	Milling (High volume, Finishing) / Drilling / Reaming / Tapping for Electronic, Mold Automobile & Aerospace products	Rigid body design Simple & Fast tool change Torque up to 900 Nm with dia. 32mm Flexible clamping range with reduction sleeves
	SLIM (STANDARD, LONG), MOLD & DIE, TOOL LENGTH PRE-SETTING TYPE		Metric: Ø6 - Ø32mm Inch : Ø1/4 - Ø1-1/4	Fine Finishing for Electronics, Mold Automobile & Aerospace products	Suitable for higher precision machining. Easy to clamp tool. Vibration damping.
	ULTRA SHORT		Metric: Ø20, Ø32mm Inch : Ø3/4, Ø1-1/4		
	GRINDING		Metric: Ø6 - Ø32mm	For grinding machine	
SHRINK FIT HOLDER	STANDARD		Metric: Ø3 - Ø25mm Inch : Ø1/8 - Ø1-1/4	Fine Finishing for Electronics, Mold Automobile & Aerospace products	Strong clamping power. To use carbide tool. Need heating & cooling equipment.
	REINFORCED		Metric: Ø6 - Ø20mm Inch : Ø1/4 - Ø3/4		Rigid body design
	CURVED		Metric: Ø4 - Ø12mm Inch : Ø1/8 - Ø1/2		Steep & deep area machining Rigidity in neck of flange
	EXTRA SLIM		Metric: Ø3 - Ø12mm		Steep & deep area machining
ER COLLET CHUCK	STANDARD		Metric: Ø0.5 - Ø34mm Inch : Ø0.019 - Ø1.180	Heavy cutting and rough/fine finishing for Machinery, Electronic & Automobile products	To cover wide range of machining. To use various size of tool by use of collet.
END MILL HOLDER & SIDE LOCK ARBORS	STANDARD	DIN 69871 (SK)	Metric: Ø6 - Ø50mm Inch : Ø1/8 - Ø2	Roughing finishing for Machinery, Mold & Automobile products	Suitable rough finishing. Need to select proper tool by tool shank type.
	SHORT TYPE	DIN 69893 (HSK)	Metric: Ø16, 20, 25, 32mm Inch : Ø1/2, 5/8, 3/4, 1.0, 1.25		
SHELL MILL ARBOR & COMBI SHELL MILL ARBOR		DIN 2080 (ISO)	Metric: Ø16, 22, 27, 32, 40 mm Inch : Ø1/2, 3/4, 1.0, 1.25, 1.5, 2.0	Heavy cutting and rough finishing for Mold and side cutting	To use with milling cutter.
MILLING CHUCK	POWER MILLING, HIGH SPEED MILLING	DIN228 (MT)	Metric: Ø20, 25, 32, 42 mm Inch : Ø3/4, 1.0, 1.25	Heavy cutting and rough finishing for Machinery, Mold & Automobile products	To cover wide range of machining. To use various size of tool with the collet.
MORSE TAPER ARBOR		JIS B6339 (BT)	MT 1/2/3/4	Holemaking for Machinery, Mold and Automobile products	Two kinds of type, MTA and MTB.
SK SLIM CHUCK		ASME B5.50 (CAT)	Metric: Ø2mm - Ø25mm Inch : Ø0.036 - Ø1	Rough/Fine finishing for Machinery, Electronic & Automobile products	High precision collet chuck.
SYNCHRO TAPPING CHUCK	ER COLLET TYPE	BT/CAT Dual Contact	M3 - M33	Tapping for Electronic, Machinery, Automobile & Aerospace products	High precision tapping by minimizing synchronous error with axial compensation. ER collet type
	QUICK CHANGE TYPE		Metric: Ø3mm - Ø25mm Inch : Ø1/8 - Ø1		High precision tapping by minimizing synchronous error with axial compensation. Tap adaptor type
	ONE STEP TAPPING		M3 - M36	Tapping for Electronic, Machinery, Automobile & Aerospace products For the chucking of inserts for threading taps	Shorter Gauge Line Compression plus tap removal at one step Better accuracy than conventional chuck
TAPPING CHUCK	ER COLLET TYPE		Metric: M3 - M27 Inch : Ø1/8 - Ø1	Tapping for Electronic, Machinery, Automobile & Aerospace products	To use same collet for ER collet chuck and have tension and compression function.
	QUICK CHANGE TYPE		Metric: M3 - M38mm Inch : #0-80UNF - 1-3/8		To use same tap adaptor and have tension and compression function.
FACE MILL ARBOR			Metric: Ø25.4mm - Ø50.8mm Inch : Ø1 - Ø2	Rough finishing for machinery products	To use with face milling cutter.
NC DRILL CHUCK	HEX KEY TYPE		Metric: Ø0.3mm - Ø13mm Inch : Ø0.012 - Ø0.512	Drilling for Machinery and Electronic products	Hex. Key drill chuck. Clamping/unclamping by hex. Wrench
	KEY LESS TYPE		Metric: Ø0.3mm - Ø13mm Inch : Ø0.012 - Ø0.512		Key-less NPU drill chuck. Clamping/unclamping by spanner
BORING SYSTEM			-	Boring for Automobile, Aerospace and Ship-building products	Modular construction. To use ISO standard insert
COPY MILL ARBOR			M5 - M16	Assemble screw-in milling cutters with thread. Roughing, Finishing	Simple & Fast tool change High performance with cost efficiency
INDEXABLE DRILL HOLDER			Metric: Ø20, 25, 32, 40mm	For carbon steels, alloy steels and cast iron	Able to use with YG-1 ONE DRILLS Secure and quick clamping High performance with cost efficiency

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