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PRODUCT LINES

YG-1 CO., LTD.

HOLEMAKING TOOLS

DREAM DRILL -PRO | DREAM DRILL – HIGH FEED | DREAM DRILL – FLAT BOTTOM | I-ONE DRILL | YG DRILL

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.

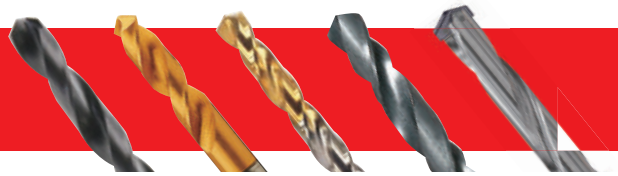
SOLID CARBIDE DRILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
DREAM DRILLS - PRO	CARBIDE	Metric: Ø1mm - Ø20mm Inch: Ø1/8 - Ø3/4	Steels and Stainless Steels (up to HRc50), Cast Iron	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 DRILLS - GENERAL	CARBIDE	Metric: Ø1mm - Ø20mm Inch: Ø1/16 - Ø3/4	Steels and Stainless Steels (up to HRc50), Cast Iron	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	Steels and Stainless Steels (up to HRc35), Cast Iron	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	Carbon Steels, Alloy Steels, Cast Iron,	180 degree point angle enables drilling of horizontal surface and sloped surface. Excellent chip evacuation by optimized flute shape. High strength cutting edge to improve tool life and versatility of drilling. Variety of drilling applications.
DREAM DRILLS - SOFT	CARBIDE	Metric: Ø0.3mm - Ø20mm	General Purpose (up to HRc30)	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	Stainless Steels, Nickel Alloys and Titanium Alloys up to HRc35	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 longer tool life.
DREAM DRILLS - ALU	CARBIDE	Metric: Ø3mm - Ø20mm Inch: Ø1/8 - Ø3/4	Aluminum, Aluminum Alloys	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 - CFRP	CARBIDE	Metric: Ø2.5mm - Ø12mm Inch: Ø#40(.0980") - Ø3/4	CFRP	Special hole type improves the hole quality. Minimizing burr and delamination at entry / exit hole. Outstanding performance. Long tool life and increased product by Diamond coating.
DREAM DRILLS - MQL TYPE	CARBIDE	Metric: Ø3mm - Ø14mm Inch: Ø1/8 - Ø1/2	Carbon Steels, Alloy Steels (up to HRc30)	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: Ø1/8 - Ø3/4	High Hardened Steels (HRc50 to HRc70)	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, 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)	Titanium	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		Inconel	Convex Cutting Edge Cam Relief Type for Reducing Cutting Load. Radius Gashing Type for Reduces Heat Generation. Edge Preparation for Increases Reliable Tool Life.
GENERAL CARBIDE DRILLS	CARBIDE	Metric: Ø1mm - Ø13.5mm Inch: Ø#56(.0465") - Ø1/2	General Purpose	Longer tool life, suitable for drilling soft, thin and general work materials.
NC-SPOTTING DRILLS	CARBIDE	Metric: Ø3mm - Ø20mm Inch: Ø1/8 - Ø1"	General Purpose	90°, 120° and 142° point available. For centering and chamfering.
CENTER DRILLS	CARBIDE	Metric: Ø1mm - Ø6.3mm	General Purpose	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"	Steels, Cast Iron	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"	Steels, Cast Iron, Stainless Steel Geometry	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 DRILL	CARBIDE	2 Series, 37 Inserts for both Metric and Inch	Steels, Stainless Steels, Cast Iron	Handles multi-purpose applications and extremely efficient in covering materials as Steels, Stainless Steels and Cast Iron. (3 Grade, 2 Chipbreakers, 2 Series)

HOLEMAKING TOOLS



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

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
MULTI-1 DRILLS	HSS-PM	Metric: Ø1mm - Ø20mm Inch: Ø#45(.0820") - Ø3/4	Multi Purpose (Structual Steels, Carbon Steels, Alloy Steels, Pre-Hardened Steels, Mold Steels, Stainless Steels, Hardened Steels (HRc30-45), Cast Iron, Aluminum Alloys, Non-ferrous Alloys, Titanium)	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	General Steels, Stainless Steels	High precise drilling.
GOLD-P DRILLS	HSS HSS-E HSSCo8	Metric: Ø1mm - Ø14mm Inch: Ø#60(.0400") - Ø3/4	Steels, Cast Steels Alloyed and Non-Alloyed Steels, Grey Cast Iron	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	Steels, Alloy Steels, Cast Iron, Malleable Cast Iron	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	General Steels	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"	General Purpose (Soft &Tough Materials)	For a variety of working conditions, excellent performance.
TAPER SHANK DRILLS	HSS HSS-E HSSCo8	Metric: Ø5mm - Ø76mm Inch: Ø13/64 - Ø3*1/2	General Purpose	Enables stable work with excellent gripping power for drilling large diameters.
NC-SPOTTING DRILLS	HSS HSSCo8	Metric: Ø2mm - Ø20mm Inch: Ø1/8 - Ø1"	General Purpose	90°, 120° and 142° point available. For centering and chamfering.
CENTER DRILLS	HSS HSS-E	Metric: Ø0.5mm - Ø10mm Inch: Ø3/64 - Ø7/32	General Purpose	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 HSS-PM	Metric: Ø9.5mm - Ø114.3mm Inch: Ø.3740" - Ø4.5000"	General Purpose	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.

OTHER TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
REAMERS (STRAIGHT FLUTE, SPIRAL FLUTE)	HSS, HSS-E	Metric: Ø2mm - Ø60mm	General Purpose	For reaming holes after drilling.
	CARBIDE	Metric: Ø2mm - Ø20mm up to Ø12: Solid Carbide over Ø12: Carbide Head Brazed		
COUNTERSINKS	HSS, HSSCo8	Metric: Ø4.3mm - Ø50mm	General Purpose	For deburring, chamfering and countersinking.
COUNTERBORES	HSS-E	Metric: Ø2.5mm - Ø14mm (Pilot Diameter)	General Purpose (Carbon Steels & Alloy Steels)	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
CARBIDE THREAD MILLS	CARBIDE	Metric: M1 - M24 Inch: #1 - 1*1/4 BSP(G): G1/16-G1 NPT/NPTF:1/16 – 2*1/2	Low Carbon Steels, Medium Carbon Steels, High Carbon Steels, Alloy Steels, Stainless Steels, Heat-treated Steels, Cast Iron, Titanium Alloys, Chrome-Nickel Alloys, Non-ferrous Materials	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 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
SYNCHRO TAPS (SPIRAL FLUTE, SPIRAL POINT, STRAIGHT FLUTE, COLD FORMING)	HSS-PM	Metric: M3 - M20 Inch: #4 - 3/4	High Performance on Various Applications (Carbon Steels, Alloy Steels, Stainless Steels, Cast Iron, Titanium Unalloyed, Nickel Unalloyed, Copper, Brass, Bronze, Aluminum)	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 TAPS (SPIRAL FLUTE, SPIRAL POINT)	HSS-PM	Metric: M2 - M24 Inch: #4 - 1"	Multi Purpose (Carbon Steels, Alloy Steels, Stainless Steels, Cast Iron, Copper, Brass, Bronze, Aluminum)	New 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 TAPS (SPIRAL FLUTE, SPIRAL POINT)	HSS-E HSS-PM	Metric: M2 - M52 Inch: #4 - 1"	Multi Purpose (Carbon Steels, Alloy Steels, Stainless Steels, Cast Iron, Copper, Brass, Bronze, Aluminum), Stainless Steels (HSS-PM)	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-E HSS-PM	<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	General Steels (Plain Carbon Steels, Structure Steels), Low Alloy Steels, Nodular Cast Iron, Non-ferrous Materials	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"	Non-Alloy Steels, Low Alloy Steels	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 HARDENED	CARBIDE HSS-E HSS-PM	Metric: M2 - M30 Inch: #2 - 3/4	Carbide: Hardened Steel (Up to HRc60) HSS-E: Hardened Steel (Up to HRc45)	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	Stainless Steels, Non–Alloy Steels, Low Alloy Steels	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	Gray Cast Iron, Nodular Cast Iron, Malleable Cast Iron	Wear resistant geometry for abrasive cast materials. Choose maximum performance and long tool life with carbide taps or cost-effect 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	Aluminum-Wrought Alloy, Aluminum-Cast, Alloyed	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	Titanium, Titanium Alloys, Heat Resistant Super Alloys	Engineered cutting edge rake angles and thread reliefs needed for the challenges of tapping nickel and titanium alloys.
YG TAP FORMING	HSS-E HSS-PM	Metric: M2 - M20 Inch: #00 - 3/4	Non–Alloy Steels, Aluminum-Wrought Alloy, Aluminum-Cast, Alloyed, Copper and Copper Alloys (Bronze / Brass), Stainless Steels	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 TAPS	HSS-E	Metric: M4 - M20	General Purpose (Cu Alloy, Al(Si>10%), Steels up to 850 N/mm², Nodular Cast Iron	Continuous forward tapping cycle for high volume production of threaded nuts.
SCREW THREAD INSERT TAPS (SPIRAL FLUTE, SPIRAL POINT, STRAIGHT FLUTE)	HSS HSS-E	Metric: M2.5 - M24 Inch: #2 - 1"	Aluminum, Aluminum Alloys, Zinc Alloys	Tapping STI Threads for soft materials.
PIPE TAPS	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	Carbon and Alloy Steels, Cast Iron, Aluminum-Wrought Alloy, Aluminum-Cast Alloy, Copper and Copper Alloys	Geometry options for tapping G(BSP) straight Whitworth 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 X5070, Solid Carbide 4G MILLS, Solid Carbide X-POWER PRO,
Solid Carbide TitaNox-POWER and Only One Coated PM60 End Mills etc.

SOLID CARBIDE END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
X5070 END MILLS	CARBIDE	Metric: Ø0.1mm - Ø25mm Inch: Ø1/32 - Ø1"	High Hardened Steels (HRc50 to HRc70)	Suitable for oil mist cutting and high speed cutting. Nano grain carbide.
4G MILLS	CARBIDE	Metric: Ø0.1mm - Ø25mm Inch: Ø.004" - Ø1"	Pre-Hardened Steels, General Steels up to HRc55, Cast Iron	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 (HSC), 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"	Medium Steels to High Hardened Steels	High performance in high speed cutting or dry cutting. (For cutting materials up to HRc55)
YG5X END MILLS	CARBIDE	Special Item	Ferrous Materials	Designed for 5-asix CNC machines. Optimized to gain a larger cutting surface to machine an extensive width compared to conventional ball nose End mills.
TitaNox-POWER END MILLS	CARBIDE	Metric: Ø6mm - Ø25mm Inch: Ø1/8 - Ø1"	Titanium, Stainless Steels	Excellent tools for Aerospace Industries, Energy & Power generations. Roughing and Semi finishing for universal use, also for finishing difficult-to-machine materials.
JET-POWER END MILLS	CARBIDE HSS-PM	Metric: Ø1mm - Ø25mm Inch: Ø1/8 - Ø1*1/2	Stainless Steels, Titanium, Steels up to HRc45	High performance on cutting difficult-to-cut materials, and also good surface finish on working surface.
V7 PLUS (A) END MILLS	CARBIDE	Metric: Ø3mm - Ø25mm Inch: Ø1/8 - Ø1"	Hardened Steels up to HRc40, Cast Iron, Stainless Steels	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.
V7 INOX END MILLS	CARBIDE	Metric: Ø3mm - Ø25mm Inch: Ø1/8 - Ø1"	Stainless Steels, Low Hardness Materials	Special geometry reducing vibration and noise with smooth finish at high speed and deep cut. Excellent performance when cutting Stainless Steels and difficult-to-cut materials using V7 Inox end mills.
ALU-POWER END MILLS	CARBIDE HSS-PM	Metric: Ø2mm - Ø32mm Inch: Ø1/16 - Ø2"	Aluminum, Non-ferrous Materials	Excellent surface finish and superior chip removal with mirror face. Specially designed geometry with high rigidity cutting edge.
ALU-POWER HPC END MILLS	CARBIDE	Metric: Ø3mm - Ø25mm Inch: Ø1/8 - Ø1"	Aluminum, Non-ferrous Materials	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.
CRX S END MILLS (DLC COATED)	CARBIDE	Metric: Ø0.5mm - Ø12mm	Copper Alloys	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 END MILLS (DIAMOND COATED)	CARBIDE	Metric: Ø0.2mm - Ø12mm Inch: Ø1/64 - Ø1/2	Graphite, Non-ferrous Materials	Higher hardness and superior wear-resistance extremely increasing the tool life.
D-POWER CFRP END MILLS (DIAMOND COATED)	CARBIDE	Metric: Ø6mm - Ø12mm Inch: Ø1/4 - Ø1/2	CFRP, GFRP	Diamond coated for excellent abrasion resistance when machining composite materials, CFRP and GFRP. Reduces delamination and burrs.
ROUTERS (DIAMOND COATED)	CARBIDE	Metric: Ø3mm - Ø12mm Inch: Ø1/4 - Ø1/2	CFRP, GFRP	Diamond coated for excellent abrasion resistance when machining composite materials, CFRP and GFRP. Reduces delamination and burrs.
K-2 END MILLS	CARBIDE	Metric: Ø0.4mm - Ø25mm	General Purpose	For general milling operations such as slotting, side cutting and machining die cavity. Suitable for most materials.

MILLING TOOLS

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Solid Carbide TitaNox-POWER and Only One Coated PM60 End Mills etc.

CBN END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
CBN END MILLS (CUBIC BORON NITRIDE)	CBN	Metric: Ø0.4mm - Ø3mm	High Hardened Steels up to HRc70	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	Non-ferrous Materials (Aluminum), Non-Metallic Materials (CFRP)	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	Steels, Pre-Hardened Steels, High Hardened Steels, Stainless Steels, Graphite	Various application type 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.
i-SMART Modular Type	CARBIDE	Metric: Ø10mm - Ø32mm Inch: Ø3/8 - Ø1*1/4	Pre-Hardened Steels, Steels up to HRc55, Cast Iron	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	Steels, Stainless Steels, Cast Iron, Super Alloys, Titanium, Non-ferrous Metals, Hard Materials	Inserts: Multi-purpose application and extremely efficient in covering materials including Steels, Stainless Steels and Cast Iron. (8 Grades, 5 Chipbreakers, 25 Series) Cutters: Innovative surface treatment that improves wear resistance and reduces corrosion. Secure and accurate seating result in an accurate repeatability and concentricity.
YG Mill - ENMX (High Feed)	CARBIDE	Metric: Ø16mm - Ø125mm Inch: Ø0.625" - Ø3"	Steels, Stainless Steels, Cast Iron	High Feed application with Small cutter diameter Double-sided (4 Corners) Thick and Reinforced Design Wide flank for Strong clamping
YG Mill - PNMU (Face Milling)	CARBIDE	Metric: Ø50mm - Ø125mm Inch: Ø2" - Ø4"	Steels, Stainless Steels, Cast Iron	36° Entry angle face milling insert with 10 corners Double-sided (10 Corners) Curved cutting edge improving cutting force Wiper for excellent surface roughness

HSS END MILLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
ONLY ONE COATED PM60	PM60	Metric: Ø1mm - Ø25mm Inch: Ø5/16 - Ø1*1/4	Stainless Steels, Alloy Steels, Cast Iron	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	Stainless Steels, Alloy Steels, Cast Iron	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.
GENERAL HSS END MILLS	HSS-E HSSCo8 HSS-PM	Metric: Ø1mm - Ø50mm Inch: Ø1/32 - Ø2"	General Purpose	Slotting, side cutting and profiling etc. Non-coated or any other coatings available.
MILLING CUTTERS	HSS-E HSSCo8	Metric: Ø8mm - Ø200mm	General Purpose	Various tools available for milling applications.

TURNING & OTHERS

Cutting tools for various metal working. YG-1 offers special products such as Carbide Rotary Burrs, Counter Bores and 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 & GROOVE TURN	Insert : Carbide Holder : Steel	3 Grades 3 Chipbreakers with Parting & Grooving Holders	Grooving Groove Turn Parting Off	Inserts: Optimized grade & geometry with extremely efficient in covering materials including Steels, Stainless Steels and Cast Iron (3 Grades, 3 Chipbreakers, 1 Series)

ROTARY BURRS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
ROTARY BURRS	CARBIDE	Metric: Ø1.5mm - Ø25mm	General Steels and Non-ferrous Metals	For removing sharp corners, burrs and fins etc. Form A, B, C, D, E, F, G, H, J, K, L, M, N with YG-1 unique design technology, excellent performance.

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
- AIRCRAFT DRILLS
- BROACHES
- BRAZING TOOLS
- GRINDING WHEEL

CFRP TOOLS

Scan QR code to see YG-1 CFRP Tools

TOOL HOLDERS

ITEM	SHANK STANDARD	SIZE	APPLICATION	CHARACTERISTIC
HYDRAULIC CHUCKS	DIN 69871 (SK) DIN 69893 (HSK) DIN 2080 (ISO) DIN 228 (MT) JIS 6339B (BT) ASME B5.50 (CAT) BT/CAT Dual Contact	Metric: Ø6mm - Ø32mm Inch: Ø1/4 - Ø1*1/4	Fine finishing for Electronic, Mold, Automobile & Aerospace products	Suitable for higher precision machining. Easy to clamp tool. Vibration damping.
SHRINK FIT HOLDERS		Metric: Ø3mm - Ø25mm Inch: Ø1/8 - Ø1*1/4		Strong clamping power. To use carbide tool. Need heating & cooling equipment.
ER COLLET CHUCKS		Metric: Ø0.5mm - Ø30mm Inch: Ø1/16 - Ø1"	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 HOLDERS & SIDE LOCK ARBORS		Metric: Ø6mm - Ø50mm Inch: Ø1/8 - Ø2"	Heavy cutting and rough finishing for Machinery, Mold & Automobile products	Suitable rough finishing. Need to select proper tool by tool shank type.
SHELL MILL ARBORS & COMBI SHELL MILL ARBORS		Metric: Ø16mm - Ø50mm Inch: Ø1/2 - Ø2" (cutter inner Dia.)	Heavy cutting and rough finishing for Mold and side cutting	To use with milling cutter.
MILLING CHUCKS		Metric: Ø20mm - Ø42mm Inch: Ø3/4 - Ø1*1/4	Heavy cutting and rough finishing for Machinery, Mold & Automobile products	To cover wide range of machining. To use various size of tool by use of collet.
MORSE TAPER ARBORS		MT 1/2/3/4	Hole making for Machinery, Mold and Automobile products	Two kinds of type, MTA and MTB.
SK SLIM CHUCKS		Metric: Ø2mm - Ø25mm Inch: Ø.036" - Ø1"	Rough/Fine finishing for Machinery, Electronic & Automobile products	High precision collet chuck.
SYNCHRO TAPPING CHUCKS		Metric: Ø3mm - Ø25mm Inch: Ø1/8 - Ø1"	Tapping for Electronic, Machinery, Automobile & Aerospace products	High precision tapping by minimizing synchronous error by axial compensation.
TAPPING ER CHUCKS		Metric: Ø3mm - Ø19mm Inch: Ø1/8 - Ø1"		To use same collet for ER collet chuck and have tension and compression function.
TAPPING CHUCKS		Metric: Ø4mm - Ø25mm Inch: #0-80UNF - 1-3/8		Only for tapping with tension and compressing function.
FACE MILL ARBORS		Metric: Ø25.4mm - Ø50.8mm Inch: Ø1"- Ø2"	Rough finishing for machinery products	To use with face milling cutter.
NC DRILL CHUCKS		Metric: Ø0.3mm - Ø13mm Inch: NPU8 Ø1/64 - Ø5/16 NPU13 Ø.04" - Ø1/2	Drilling for Machinery and Electronic products	Key-less NPU drill chuck.
BORING SYSTEM		-	Boring for Automobile, Aerospace and Ship-building products	Modular construction. To use ISO standard insert.
POWER E-HYDRO		Metric: Ø12mm - Ø32mm Inch: Ø3/4 - Ø1*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
SHRINK FIT HOLDER (REINFORCED)		Metric: Ø6mm - Ø20mm Inch: Ø3/8 - Ø1*1/4	Fine finishing for Electronic, Mold, Automobile & Aerospace products	Reinforced rigid body design
ONE STEP TAPPING CHUCK		M3 - M36	For the chucking of inserts for threading taps	Short Gauge Line Compression plus tap removal at one step Better accuracy than conventional
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		SL20 - SL40	For carbon steels, alloy steels and cast iron	To use with YG-1 i-ONE DRILLS Secure and quick clamping High performance with cost efficiency

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