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PRODUCT
LINES

DRILLING 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.

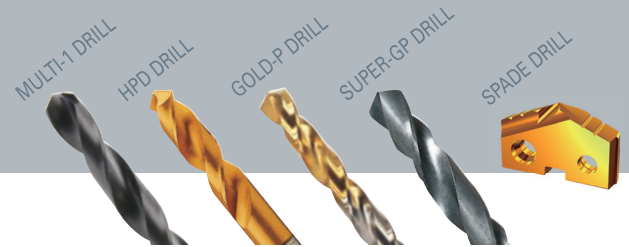
SOLID CARBIDE DRILLING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
DREAM DRILLS - GENERAL	CARBIDE	Metric: Ø1mm ~ Ø20mm Inch: Ø1/16 ~ Ø3/4	General Purpose (HRc30 to HRc50)	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	General Purpose (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, Aluminum	Just ONE drill 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 drilling. Variety of drilling can be used in a 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 tool has 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	Good chip treatment due to flute geometry & chip space. 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 point type improve hole quality for Composite Material. Minimizaing 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 Hardend Steels. Minimum of cutting load through special thinning.
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 DRILLING TOOLS

ITEM	TOOL MATERIAL	SIZE, TYPE	WORK MATERIAL	CHARACTERISTIC
i-ONE DRILLS	CARBIDE	Metric: Ø10mm ~ Ø33.73mm Inch: Ø.3937 ~ Ø1.3281	Most 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 - GENERAL i-DREAM DRILLS - INOX	CARBIDE	Metric: Ø12mm ~ Ø31.75mm Inch: Ø.4724 ~ Ø1.2500	Most Steels, Cast Iron	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 an accurate repeatability and concentricity.
YG DRILL	CARBIDE	14 types 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. (1 Grade, 2 Chipbreakers, 2 Series)

DRILLING TOOLS



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

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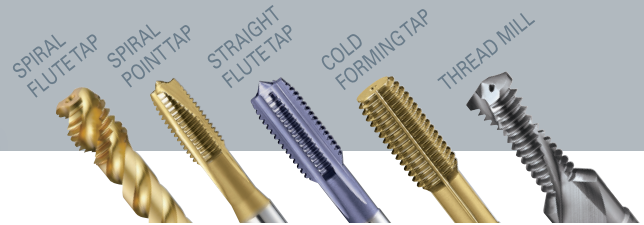
HSS DRILLING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
MULTI-1 DRILLS	HSS-PM	Metric: $\varnothing 1\text{mm} \sim \varnothing 20\text{mm}$ Inch: $\varnothing \#45(.0820) \sim \varnothing 3/4$	Multi Purpose (Structural 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	HSSCo HSS-EX	Metric: $\varnothing 2\text{mm} \sim \varnothing 32\text{mm}$ Inch: $\varnothing \#46(.0810) \sim \varnothing 21/32$	General Steels, Stainless Steels	High precise drilling.
GOLD-P DRILLS	HSS HSS-E HSSCo5 HSSCo8	Metric: $\varnothing 1\text{mm} \sim \varnothing 14\text{mm}$ Inch: $\varnothing \#60(.0400) \sim \varnothing 3/4$	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: $\varnothing 1\text{mm} \sim \varnothing 13\text{mm}$	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: $\varnothing 2\text{mm} \sim \varnothing 20\text{mm}$ Inch: $\varnothing 5/64 \sim \varnothing 1/2$	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: $\varnothing 13\text{mm} \sim \varnothing 30\text{mm}$		
STRAIGHT SHANK DRILLS	HSS HSS-E HSSCo8	Metric: $\varnothing 0.2\text{mm} \sim \varnothing 31\text{mm}$ Inch: $\varnothing 1/64 \sim \varnothing 1$	General Purpose (Soft & Tough Materials)	For a variety of working conditions, excellent performance.
TAPER SHANK DRILLS	HSS HSS-E HSSCo8	Metric: $\varnothing 5\text{mm} \sim \varnothing 76\text{mm}$ Inch: $\varnothing 13/64 \sim \varnothing 3-1/2$	General Purpose	Enables stable work with excellent gripping power for drilling large diameters.
NC-SPOTTING DRILLS	HSS HSSCo8	Metric: $\varnothing 2\text{mm} \sim \varnothing 20\text{mm}$ Inch: $\varnothing 1/8 \sim \varnothing 1$	General Purpose	90°, 120° and 142° point available. For centering and chamfering.
CENTER DRILLS	HSS HSS-EX	Metric: $\varnothing 0.5\text{mm} \sim \varnothing 10\text{mm}$ Inch: $\varnothing 3/64 \sim \varnothing 7/32$	General Purpose	For making internal centers of work materials, excellent performance under general working conditions.

SPADE DRILLING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
SPADE DRILLS	CARBIDE HSS-PM	Metric: $\varnothing 9.5\text{mm} \sim \varnothing 114.3\text{mm}$ Inch: $\varnothing 3/740 \sim \varnothing 4.5000$	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.

THREADING TOOLS



Cutting tools for processing precise threads mainly for Automobile and Electronic industries. High end products are gradually expanded through continuous development such as Combo Taps, Synchro Taps, Thread Mills and Cold Forming Taps (Fluteless Taps) etc.

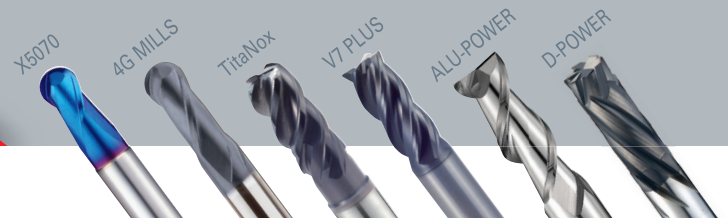
SOLID CARBIDE THREADING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
CARBIDE TAPS	CARBIDE	Metric: M3 ~ M20	Grey Cast Iron, Cu Alloy(Short) Alloy Steels, Hardened Steels	For tapping through or blind holes, with longer tool life and higher precision than HSS taps.
CARBIDE THREAD MILLS	CARBIDE	Metric: M1 ~ M24 Inch: #1 ~ 1-1/8	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	For tapping blind holes and also through holes with only one tool. Higher cutting speed and feed than taps. A Thread Mill can produce various thread diameters with the same pitch.

HSS THREADING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
PRIME TAPS (SPIRAL FLUTE, SPIRAL POINT)	HSS-PM	Metric: M2 ~ M30 Inch: #4 ~ 1	Multi Purpose (Carbon Steels, Alloy Steels, Stainless Steels, Cast Iron, Titanium Unalloyed, Nickel Unalloyed, Cooper, Brass, Bronze, Aluminum)	Excellent tapping performance on various work materials. Optimized flutes Geometry for excellent chip flow. Additional Chamfer, Combo Structure designed to reduce in torque, wear, and the risk of chipping or breakage compared to conventional taps. Thread with very good surface finish quality thanks to optimized edge preparation. All Prime Taps are made of HSS-PM (Powder Metallurgy).
SYNCHRO TAPS (SPIRAL FLUTE, SPIRAL POINT, STRAIGHT FLUTE, COLD FORMING)	HSS-PM	Metric: M3 ~ M20 Inch: #4 ~ 3/4	General Purpose (Carbon Steels, Alloy Steels, Stainless Steels, Cast Iron, Titanium Unalloyed, Nickel Unalloyed, Cooper, Brass, Bronze, Aluminum)	TiN, TiCN coated HSS-PM taps, for high speed tapping on rigid CNC machine. Shorter thread length will reduce chip trouble at higher speed tapping conditions. More thread relief allows high speed cutting. Up to 3 times faster compare to conventional taps on general steel. Recommend Synchro holder strongly for increasing tool life and thread quality.
COMBO TAPS (SPIRAL FLUTE, SPIRAL POINT)	HSS-E HSS-EX HSS-PM	Metric: M2 ~ M30 Inch: #4 ~ 1	Multi Purpose (Carbon Steels, Alloy Steels, Stainless Steels, Cast Iron, Titanium Unalloyed, Nickel Unalloyed, Cooper, 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.
SPIRAL POINT TAPS (GUN POINT TAPS)	HSS HSS-E HSS-EX HSS-PM	Metric: M2 ~ M30 Inch: #0 ~ 1-1/2	Carbon Steels, High Alloyed Steels, Stainless Steels, Cast Iron, Aluminum, Titanium, Nickel, Copper, brass, Bronze, Zinc, Magnesium	Suitable for tapping through holes. Best performance on tapping work materials.
SPIRAL FLUTE TAPS	HSS HSS-E HSS-EX HSS-PM	Metric: M2 ~ M30 Inch: #2 ~ 2	Carbon Steels, High Alloyed Steels, Stainless Steels, Aluminum, Titanium, Nickel, Copper, brass, Bronze, Zinc, Nodular Graphite, Cast Iron, Magnesium	Suitable for tapping blind holes. Best performance on tapping work materials that produce flow type chips.
STRAIGHT FLUTE TAPS	HSS HSS-E HSS-EX HSS-PM	Metric: M2 ~ M30 Inch: #4 ~ 1-1/8	Carbon Steels, Cast Iron, Mild Steels, Brass	Suitable for tapping through or blind holes.
FORMING TAPS (FLUTELESS TAPS, ROLL TAPS)	HSS-E HSS-EX HSS-PM	Metric: M1 ~ M20 Inch: #00 ~ 3/4	Alloy Steels, Stainless Steels, Cast Iron, Zinc, Aluminum, Brass, Copper	Stronger than cut taps. Applied on materials that have enough ductility to produce threads.
NUT TAPS	HSS-E	Metric: M4 ~ M20	General Purpose (Cu Alloy, Al(Si>10%), Steels up to 850 N/mm ² , Nodular Graphite, Cast Iron	Taps for the high production of nuts.
SCREW INSERT THREAD TAPS (SPIRAL FLUTE, SPIRAL POINT, STRAIGHT FLUTE TAP)	HSS HSS-E HSS-EX	Metric: M2.5 ~ M24 Inch: #2 ~ 1	Aluminum, Aluminum Alloys, Zinc Alloys	Tapping STI Threads for soft materials.
HAND TAPS	HSS HSS-E	Metric: M2 ~ M52 Inch: #2 ~ 2	General Purpose (Hardened Steels-HRC25~45, Cast Iron, Brass, Aluminum, Magnesium, Zinc)	Two or three-piece tap set. Two-piece tap set, consisting of taper(rough) and bottoming(finish) Tap. Three-piece tap set, consisting of taper(rough) , plug(intermediate) and bottoming(finish) Tap.
PIPE TAPS	HSS HSS-E HSS-EX	NPT: 1/8 ~ 1 NPTF: 1/16 ~ 2 NPS/NPSF: 1/8 ~ 1 PT1/16 ~ PT2 PS1/8 ~ PS2 PF1/8 ~ PF2 G1/16 ~ G1-1/2	Carbon Steels, Cast Iron, Cu & Al Alloys	For tapping taper or straight pipe threads.

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

SOLID CARBIDE MILLING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
X5070 END MILLS	CARBIDE	Metric: $\varnothing 0.1\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/32 \sim \varnothing 1$	High Hardened Steels (HRc50 to HRc70)	Suitable for dry cutting and high speed cutting. Nano grain carbide.
4G MILLS	CARBIDE	Metric: $\varnothing 0.1\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 0.004 \sim \varnothing 1$	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 END MILLS	CARBIDE	Metric: $\varnothing 0.4\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/32 \sim \varnothing 1$	Medium Steels to High Hardened Steels	High performance in high speed cutting or dry cutting. (For cutting materials up to HRc65)
TitaNox-POWER END MILLS	CARBIDE	Metric: $\varnothing 6\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/8 \sim \varnothing 1$	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 YPM	Metric: $\varnothing 1\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/8 \sim \varnothing 1-1/2$	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: $\varnothing 3\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/8 \sim \varnothing 1$	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: $\varnothing 3\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/8 \sim \varnothing 1$	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 YPM	Metric: $\varnothing 2\text{mm} \sim \varnothing 32\text{mm}$ Inch: $\varnothing 1/16 \sim \varnothing 2$	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: $\varnothing 3\text{mm} \sim \varnothing 25\text{mm}$ Inch: $\varnothing 1/8 \sim \varnothing 1$	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: $\varnothing 0.5\text{mm} \sim \varnothing 12\text{mm}$	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: $\varnothing 0.2\text{mm} \sim \varnothing 12\text{mm}$ Inch: $\varnothing 1/64 \sim \varnothing 1/2$	Graphite, Non-ferrous Materials	Higher hardness and superior wear-resistance extremely increasing the tool life.
D-POWER CFRP END MILLS (DIAMOND COATED)	CARBIDE	Metric: $\varnothing 6.0\text{mm} \sim \varnothing 12.0\text{mm}$ Inch: $\varnothing 1/4 \sim \varnothing 1/2$	CFRP, GFRP	Diamond coated for excellent abrasion resistance when machining composite materials, CFRP and GFRP. Reduces delamination and burrs.
ROUTERS (DIAMOND COATED)	CARBIDE	Metric: $\varnothing 3\text{mm} \sim \varnothing 12\text{mm}$ Inch: $\varnothing 1/4 \sim \varnothing 1/2$	CFRP, GFRP	Diamond coated for excellent abrasion resistance when machining composite materials, CFRP and GFRP. Reduces delamination and burrs.
K-1 END MILLS	CARBIDE	Metric: $\varnothing 0.4\text{mm} \sim \varnothing 20\text{mm}$	Carbon Steels, Alloy Steels, Pre-Hardened Steels up to HRc55	Improved wear resistance due to YG-1 tailored coating. Excellent surface finish on work material. High stable corner edge and exceptional performance at a competitive price.
K-2 END MILLS	CARBIDE	Metric: $\varnothing 0.4\text{mm} \sim \varnothing 25\text{mm}$	General Purpose	For general milling operations such as slotting, side cutting and machining die cavity. Suitable for most materials.
GENERAL CARBIDE END MILLS	CARBIDE	Metric: $\varnothing 0.5\text{mm} \sim \varnothing 20\text{mm}$ Inch: $\varnothing 1/32 \sim \varnothing 1$	General Purpose	Slotting, side Cutting and profiling. Non-coating, and any other coatings available too.

MILLING TOOLS



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CBN MILLING TOOLS

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 MILLING TOOLS

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 MILLING TOOLS

ITEM	TOOL MATERIAL	SIZE, TYPE	WORK MATERIAL	CHARACTERISTIC
i-Xmill	CARBIDE	Metric: Ø8mm ~ Ø33mm Inch: Ø5/16 ~ Ø1-1/4	General Purpose, Pre-Hardened Steels, High Hardened Steels, Stainless Steels, Graphite	Various application type of inserts are available. : for General 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, General Steels up to HRc55, Cast Iron	The most cost reducing solution with various compatibility. Efficient when changing tools, compared to solid carbide end mills. Longer tool life based on YG-1's advanced coating technology.
YG MILL	CARBIDE	76 types 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. (2 Grades, 5 Chipbreakers, 19 Series) Cutters: Innovative surface treatment that improves wear resistance and reduces corrosion. Secure and accurate seating result in an accurate repeatability and concentricity.

HSS MILLING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
ONLY ONE COATED PM60	PM60	Metric: Ø1mm ~ Ø25mm Inch: Ø5/16 ~ Ø1-1/4	Stainless Steels, Nickel Alloys, Alloy Steels	The ONLY ONE performs better without causing chipping than Normal coated carbide end mills under the same carbide cutting conditions.
TANK-POWER END MILLS	YPM	Metric: Ø1mm ~ Ø25mm Inch: Ø1/8 ~ Ø1-1/4	Stainless Steels, Nickel Alloys, Alloy Steels	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 YPM	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 INSERT TURNING TOOLS

ITEM	TOOL MATERIAL	SIZE	WORK MATERIAL	CHARACTERISTIC
YGTURN	CARBIDE	407 Products for both Metric and Inch	Steels, Stainless Steels, Cast Iron, Super Alloys, Titanium, Non-ferrous Metals, Hard Materials	Inserts: Multi-purpose applications with extremely efficient in covering materials including Steels, Stainless Steels and Cast Iron. (7 Grades, 10 Chipbreakers, 25 Series)
PARTING & GROOVE TURN INSERTS	CARBIDE	8 Products for both Metric and Inch	Steels, Stainless Steels, Cast Iron, Super Alloys, Titanium, Non-ferrous Metals, Hard Materials	Inserts: Multi-purpose applications with extremely efficient in covering materials including Steels, Stainless Steels and Cast Iron. (1 Grade, 3 Chipbreakers, 1 Series)

TOOL HOLDERS

ITEM	SHANK STANDARD	SIZE	APPLICATION	CHARACTERISTIC
HYDRAULIC CHUCKS	DIN 6987 (SK) DIN 69893 (HSK) DIN 2080 (ISO) DIN 228 (MT) JISB6339 (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.

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.
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

CARBIDE BURNISHING DRILLS

HSS DRILL TAPS

ACMETHREAD TAPS & TRAPEZOIDAL THREAD TAPS

CARBIDE STEP REAMERS

AIRCRAFT DRILLS

BROACHES

BRAZING TOOLS

GRINDING WHEEL

HIGH QUALITY PRODUCTS and ON TIME DELIVERY for WORLD-WIDE CUSTOMERS

Since 1982, YG-1 has been committed to quality, innovation and the unique customer experience.

Our performance and experience have granted YG-1 the global impression of one of the leading manufacturers of high quality cutting tool solutions. This global footprint expands over 75 countries, with international logistic centers, pledging to our customers to give the best service available today - and tomorrow.

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 **YG-1 CO., LTD.**

* For the more information on sales network, please contact the head office as below;

YG-1 HEAD OFFICE

211, Sewolcheon-ro, Bupyeong-gu, Incheon, South Korea

Phone : +82-32-526-0909

E-mail : yg1@yg1.kr

www.yg1.kr