

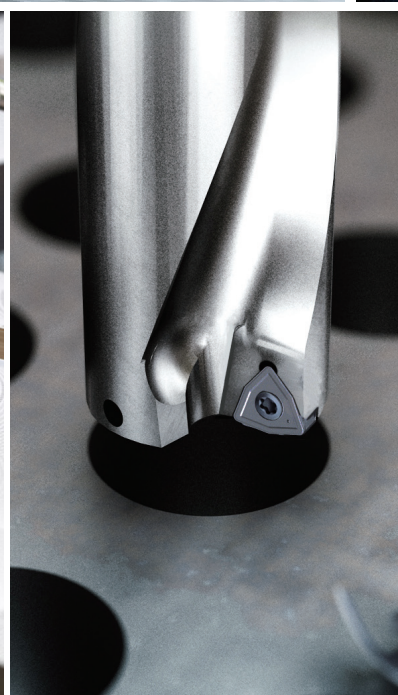
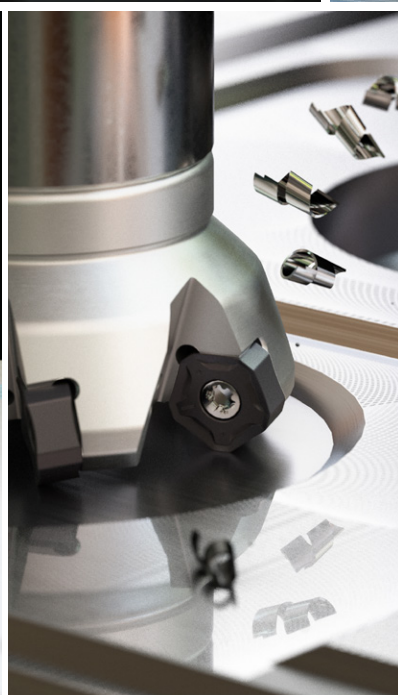
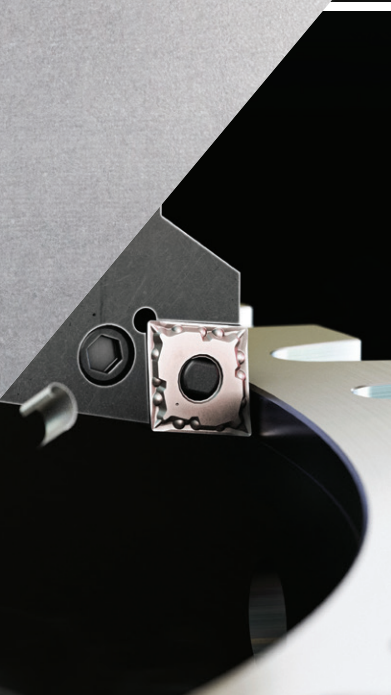
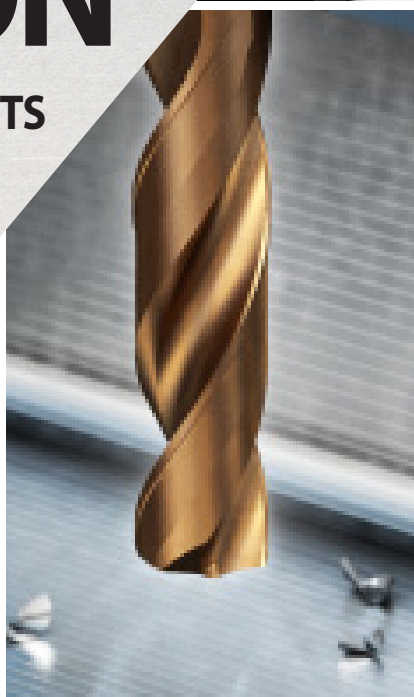


BEST OF SELECTION

HIGH PERFORMANCE PRODUCTS



QUICK-SEARCH
YG-1 PRODUCTS!!
www.yg1.kr



YG YG-1 CO., LTD.



Scan this QR code to see our V7 Plus Chip Splitters at work.

HEAVY CUTTING APPLICATIONS (-HRC40)

Y-Coated Solid Carbide End Mills for Heavy Cutting

FEATURES & BENEFITS

- High volume cutting with excellent surface finish (heavy cutting)
- Excellent on Stainless Steels, Mild Steels and Cast Iron
- Unique flute and corner design for chip formation and longer tool life
- Optimized coating for wear reduction and heat resistance
- Great performance with trochoidal machining

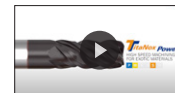
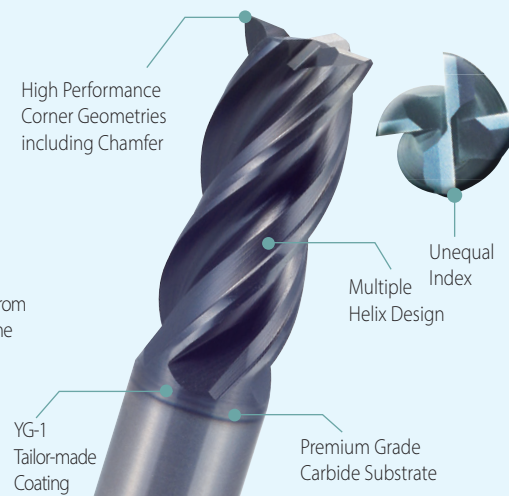
RANGE

- Square \varnothing 3mm - \varnothing 25mm (1/8 - 1")
- Corner Radius \varnothing 3mm - \varnothing 25mm (1/8 - 1")
- Ball Nose \varnothing 3mm - \varnothing 25mm (1/8 - 1")



Chip Splitters

Special Chip Splitter Design
Shorter Chip Length at high axial machining, improving chip removal from both the component and the machine



Scan this QR code to see our V7 Plus at work.

HIGH-SPEED MACHINING FOR EXOTIC MATERIALS

Y-Coated Solid Carbide End Mills for Titanium and other Exotic Materials

Address all your slotting, shoulder milling and ramping applications with the necked 4 flute corner radii series. The extensive 5 fluter offering with corner chamfer and radii is optimized for side milling and trimming

FEATURES & BENEFITS

- For Titanium, Stainless Steels and also excellent for Steels
- For high-speed machining and heavy cutting
- Dual stepped-core on 4 flute, 5 flute with multiple helix

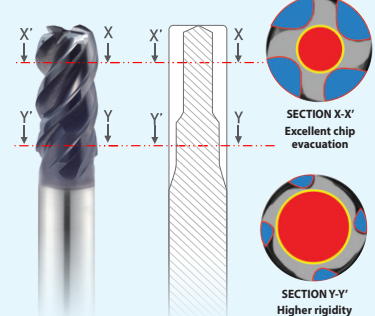
RANGE

- Square \varnothing 6mm - \varnothing 25mm (1/8 - 1")
- Corner Radius \varnothing 6mm - \varnothing 25mm (1/8 - 1")
- Roughing \varnothing 6mm - \varnothing 25mm (1/4 - 1")



4 Flute Double Core End Mills With Corner Radius

2 STEP CORE



Large Chip Pocket

- Excellent Chip Evacuation.
- Minimizes Chips from Clogging
- Good Performance for Slotting Applications

Thick Core

- Higher Rigidity
- Better Stability Preventing Tool bending
- Good Performance for Shouldering Applications

TitaNox-Power HPC

NEW 5 FLUTE DESIGN for HEAVY CUTTING



Scan this QR code to see our 4G Mills at work.

THE FIRST CHOICE FOR PRE-HARDENED STEELS (-HRC55)

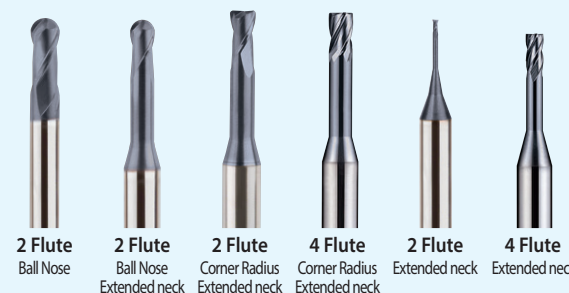
Y-Coated Solid Carbide End Mills for Die & Mold Industries

FEATURES & BENEFITS

- Large product line with various sizes & shapes
- Edge preparation preventing chipping, achieving excellent finish, and longer tool life in high-speed cutting
- Unequal index & multiple helix exclusively designed to reduce vibration and also to achieve excellent chip evacuation

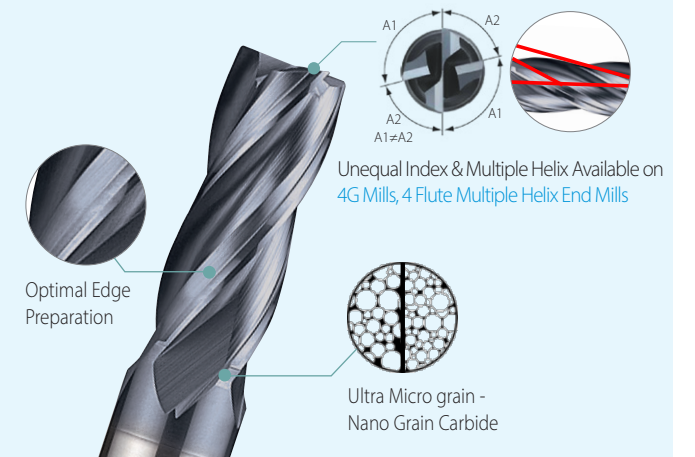
What's New!!

You can find new items with Shank Diameter 6mm and less in these types as below;



RANGE

- Square \varnothing 0.1mm - \varnothing 25mm (.004 - 1")
- Corner Radius \varnothing 0.2mm - \varnothing 20mm (.008 - 3/4")
- Ball Nose \varnothing 0.1mm - \varnothing 25mm (.004 - 3/4")



Scan this QR code to see our X5070 at work.

FOR HIGH-HARDENED STEELS (HRC50-70)

BLUE- Coated Solid Carbide End Mills for High-Hardened Steels

FEATURES & BENEFITS

- Made from premium grade carbide material for oil mist / high-speed machining
- YG-1's customized coating, along with negative rake angles
- Excellent finished surface

RANGE

- Square \varnothing 0.1mm - \varnothing 25mm (.004 - 1")
- Corner Radius \varnothing 0.5mm - \varnothing 20mm (1/16 - 1")
- Ball Nose \varnothing 0.1mm - \varnothing 25mm (1/32 - 1/4")



ALU-POWER HPC

HIGH PERFORMANCE END MILLS FOR ALUMINUM

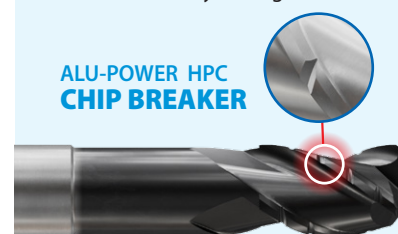
HIGH FEED, HIGH RPM and HIGH CHIP REMOVAL

DLC-Coated & Non - Coated Solid Carbide End Mills for Aluminum Alloy, Non-Ferrous & Non-Metallic Materials

FEATURES & BENEFITS

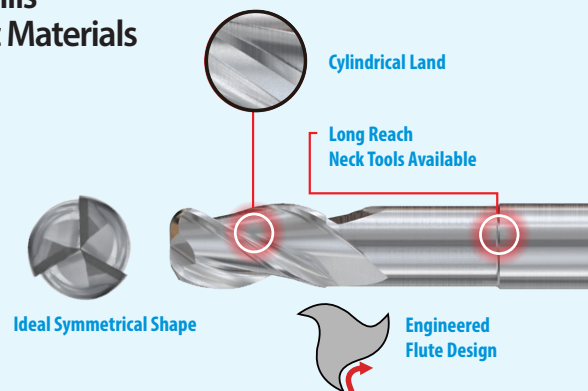
- Designed for Aluminum Alloys used in Aerospace industries
- Special geometries applied to control weight balance for quality performance on higher RPM making an excellent surface finish through stable machining
- High corner protection made from special shape and rake angle inside the radius
- Excellent performance with high feed, high RPM, high chip removal (heavy cutting)

ALU-POWER HPC CHIP BREAKER



Optimized Chip Breaker Profile Design

Chip Breaker Profile Improved on Weak-Point of the Cutting Edge



RANGE

※ Available in Non-coated & DLC coated items

TYPE(SERIES)	SIZE RANGE	
	METRIC	INCH
3 Flute Square	Ø 3~25mm	Ø 1/8~1
3 Flute Square with Neck	Ø 6~20mm	Ø 1/4~1
3 Flute Corner Radius	Ø 6~20mm (R0.3~4mm)	Ø 1/8~1 (R.010~.250)
3 Flute Corner Radius with Neck	Ø 6~20mm (R0.3~4mm)	Ø 1/4~1 (R.010~.250)

i-Xmill

HIGH PRECISION CUTTING WITH COST EFFICIENCY

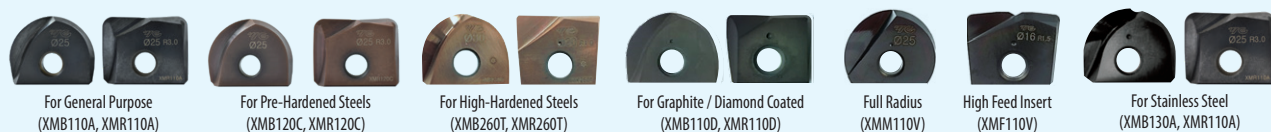
Coated Exchangeable Carbide Inserts with both Carbide & Steel Holders for Various Materials

FEATURES & BENEFITS

- Re-generation(holder) service
- For General Purpose, Pre-Hardened Steels, High-Hardened Steels, Stainless Steels and Graphite
- Ball Nose, Corner Radius, Full Radius and also high feed types available
- Holders available in both Carbide & Steel
- Long tool life with high wear resistance
- Increased precision by tightening the tolerance and grinding the internal Screw hole of holders and Inserts

RANGE

- Ball Ø 8mm - Ø 33mm (5/16 - 1-1/4")
- Corner Radius Ø 8mm - Ø 33mm (5/16 - 1-1/4")



i-SMART

EXCELLENT FLEXIBILITY BY USING COPY MILLING COUPLING

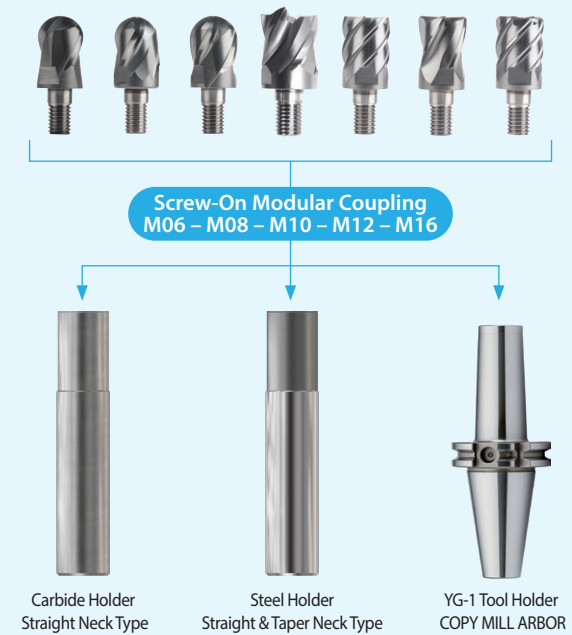
Modular Type, Y-Coated Exchangeable Carbide Milling Heads for machining Pre-Hardened Steels

FEATURES & BENEFITS

- Avoids expensive investments by using existing Copy Milling adaptor technology
- Proven performance transferred to cost effective modular system
- Optimal solution for large size or long reach Die&Mold applications

RANGE

- Square Ø 10mm - Ø 32mm (3/8 - 1-1/4")
- Corner Radius Ø 10mm - Ø 32mm (3/8 - 1-1/4")
- Ball Nose Ø 10mm - Ø 32mm (3/8 - 1-1/4")



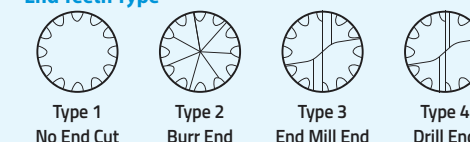
COMPOSITE MATERIALS

TOOL SOLUTIONS FOR INDUSTRIES

Diamond Coated Chip Breaker Routers

- The unique flute structure provides good surface finish, longer tool life and requires less cutting force
- Reduce delamination and uncut fibers
- Roughing and finishing processes
- Multiple flute
- Diamond coating with excellent abrasion resistance
- Fine nick type

End Teeth Type



Diamond Coated Compression Routers

- The unique flute structure provides good surface finish, longer tool life and requires less cutting force
- Reduce delamination and fibers pullout
- Roughing and finishing processes
- Diamond coating with excellent abrasion resistance



Solid Carbide Drills

A combination of perfect carbide choice with innovative design and adapted CVD coating make YG-1 CFRP drills a good choice for Composite drilling

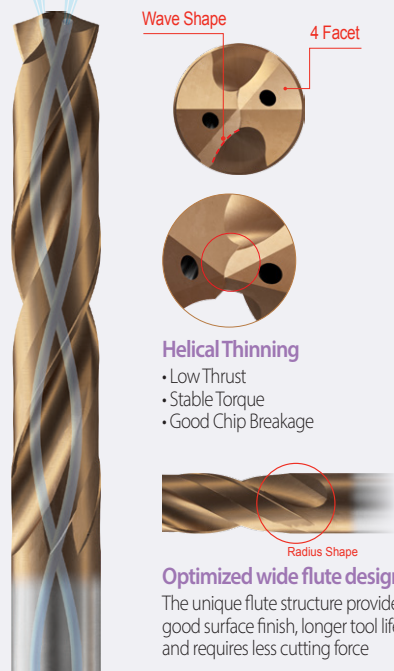


Scan QR Code to See More Tools for COMPOSITE MATERIALS

DREAM DRILLS -PRO

FASTER CUTTING SPEED (HRC30 to HRC50)

Extremely high hardness and heat resistance due to YG-1 special Z-Coating technology

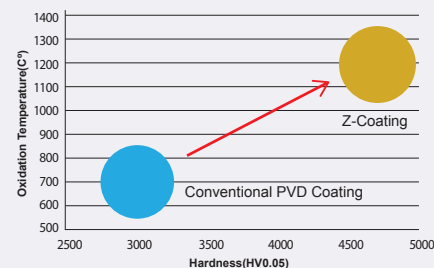


FEATURES & BENEFITS

- 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

RANGE

- Ø 1mm - Ø 20mm (.0393"-.7874")
- Drill Depth: 3XD, 5XD



Scan this QR code to see our Dream Drills Pro at work.

DREAM DRILLS -FLAT BOTTOM

FAST AND STABLE DRILLING FOR A WIDE VARIETY OF APPLICATIONS

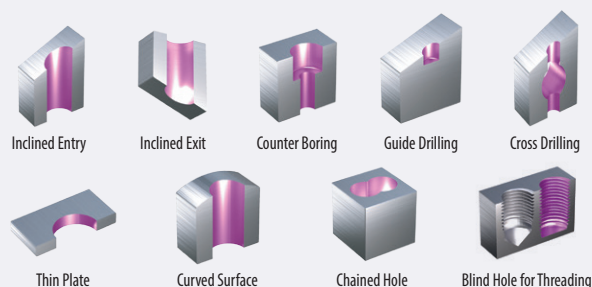
X-Coated(2XD), TiAlN Coated(5XD), Micro Grain Flat Bottom Solid Carbide Drills (180° point angle) for Drilling a Variety of Contoured and Sloped Surfaces

FEATURES & BENEFITS

- 180 degree point angle enables drilling of horizontal and sloped surfaces.
- Excellent chip evacuation by optimized flute shape.
- High strength cutting edge to improve tool life.
- Can be used in a variety of drilling applications.

RANGE

- Ø 3mm - Ø 20mm (.1181"-.7874")
- Drill Depth: 2XD, 5XD



Scan this QR code to see our Dream Drills Flat Bottom at work.

DREAM DRILLS -HIGH FEED

INCREASE YOUR PRODUCTIVITY UP TO 2 TIMES HIGHER

H- Coated 3 Flute Solid Carbide Drills with Coolant Holes for Faster Drilling on Steels and Cast Iron

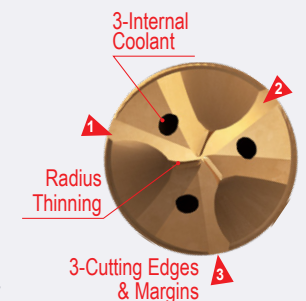
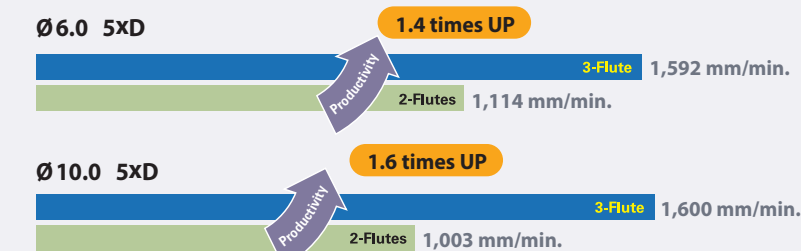
FEATURES & BENEFITS

- For Carbon Steels, Alloy Steels (-HRC35), Cast Iron
- Increases productivity due to 1.5 to 2 times faster feeding speed than 2 flute drills
- Multi-layered coating delivers outstanding productivity and reliability

RANGE

- Ø 5mm - Ø 20mm (.1969"-.7874")
- Drill Depth: 3XD, 5XD

Productivity (Carbon Steel)

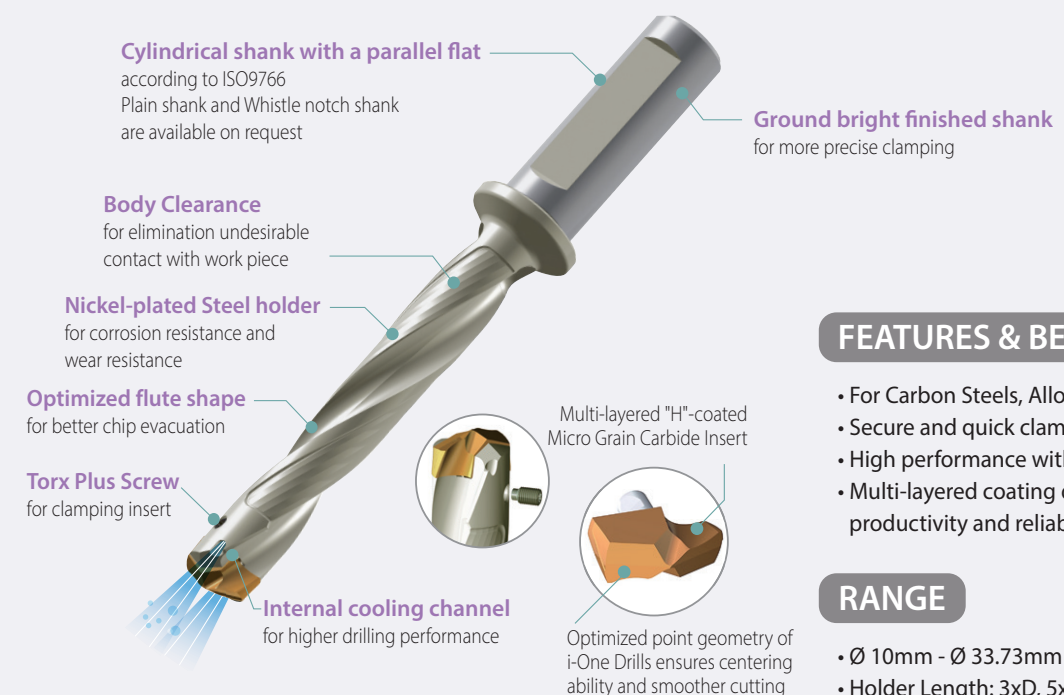


Scan this QR code to see our Dream Drills High Feed at work.

i-ONE DRILL

COST EFFICIENT HIGH PERFORMANCE EXCHANGEABLE DRILLING TOOLS

H- Coated Carbide Inserts and Premium Steel Holders



FEATURES & BENEFITS

- For Carbon Steels, Alloy Steels and Cast Iron
- Secure and quick clamping system
- High performance with cost efficiency
- Multi-layered coating delivers outstanding productivity and reliability

RANGE

- Ø 10mm - Ø 33.73mm (.3937"-1.3281")
- Holder Length: 3xD, 5xD, 8xD



Scan this QR code to see our i-One Drills at work.

PRIME TAP

HSS-PM, PREMIUM SPIRAL FLUTE & SPIRAL POINT TAPS

New Prime X-Coated Tap for CNC Machining on Various Ductile Materials

Special grinding process provides an unique geometry on spiral flute and spiral point taps to help control chip evacuation, preventing nest formation and enhance flute space.

FEATURES & BENEFITS

YG-1 Special Thread Structure

- Reduction in torque, wear, and the risk of over feeding as compared to conventional taps

Extra Short Threaded Body and Recess

- Minimize bird nesting, reduced chipping, improved thread finish



Spiral Flute



Spiral Point

Optimized Edge Preparation

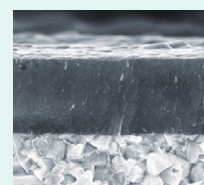
- Consistent performance and process stability to Prevent chipping

Optimized Flutes Geometry for Excellent Chip Flow

- Increased tool life as a result of an optimum combination of material, geometry, and coating which gives Unrestricted chip flow

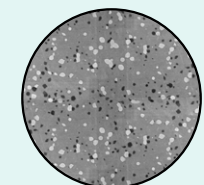
RANGE

Spiral Flute	M	M2 - M24
	MF	M4 - M24
	UNC	#4 - 1"
	UNF	#4 - 1"
Spiral Point	M	M2 - M24
	MF	M4 - M24
	UNC	#4 - 1"
	UNF	#4 - 1"



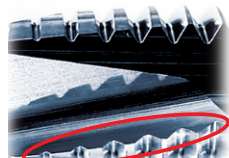
YG-1's X-Coating

YG-1's High Performance Coating for high heat and wear resistance



HSS-PM(Powder Metallurgy) Premium Taps

Powdered Metal Technology for tough-chipping resistance cutting for long tool life and reliable thread finish



Premium Cutting Edge Strength

- More controlled structure with high wear resistance
- Consistent performance and process stability with chipping resistance
- High bend strength for the tool life

Synchro TAP

3 TIMES FASTER THAN NORMAL TAPS

TiAlN, TiN-Coated HSS-PM Taps for High-Speed Tapping on Rigid CNC Machines

FEATURES & BENEFITS

- High productivity by high-speed machining
- Shorten thread length and higher thread reliefs
- Close tolerance concentricity eliminating oversized threads

RANGE

Spiral Flute	M	M3 - M20
Spiral Point	M	M3 - M20
Straight Flute	M	M3 - M20
Cold Forming	M	M3 - M12

PRODUCTIVITY

Up to 3 times faster in tapping compared to conventional taps (General Steel)

Synchro Tap	30~45 m/min.
General Tap	10~20 m/min. 3 Times Faster

Prevents chip packing by applying short thread length and high spiral angle



Reduces chattering by tight shank tolerance compared to normal taps

Combo TAP

GENERAL USE FOR VARIOUS MATERIALS

Bright, Steam Tempered, TiAlN, TiN-Coated HSS-E Taps for Multi-Purpose

Combo Tap's geometry provides enough flute space resulting in smooth chip evacuation and therefore a continuous production process. Guarantee a high level of process reliability even under unfavorable conditions.

FEATURES & BENEFITS

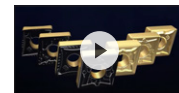
- For Steels, Stainless steels, Cast iron and Non-ferrous materials
- Prevent over & under feeding by its optimized flank geometry
- Constant threading quality preventing oversized threading

RANGE

Spiral Flute	M	M2 - M52
	MF	M4 - M52
	UNC	#4 - 1"
	UNF	#4 - 1"
Spiral Point	M	M2 - M52
	MF	M4 - M52
	UNC	#4 - 1"
	UNF	#4 - 1"



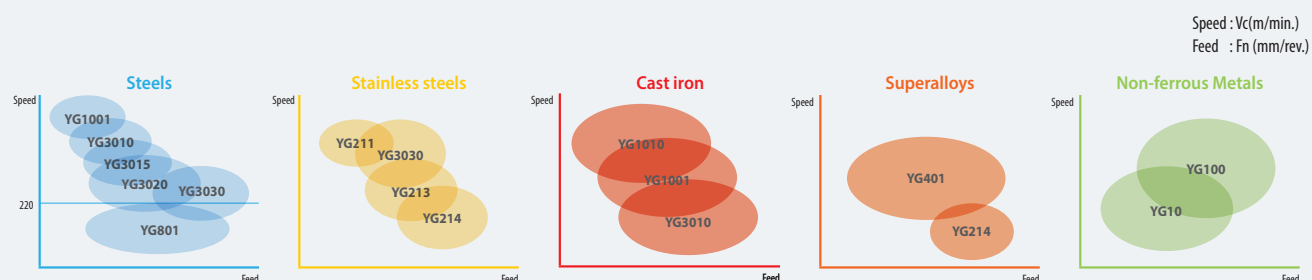
YGTURN



Scan this QR code to see our Turning Grades at work.

Optimized ISO Turning Grades to Boost Up Your Productivity from Interrupted Cut to Continuous Cut

P Steel	Hard ↓ Tough		YG1001	First Choice for Stable Machining of Steel
			YG3010	First choice for Finishing Steel
			YG3015	Balanced Productivity for Continuous cut
			YG3020	First Choice Grade for General Steel Application
			YG3030	Interrupted Cutting of Steel
M Stainless Steel	Hard ↓ Tough		YG211	High wear resistance Grade for Stainless steel
			YG3030	CVD Grade for Interrupted Cutting of Stainless steel
			YG213	First Choice Grade on Low Cutting Speed of Stainless steel
			YG214	Heavy Interrupted cut for Stainless steel
S Super Alloy			NEW YG401	PVD Turning Grade for Heat-resistant Super alloy
K Cast Iron			NEW YG1010	First Choice for Cast Iron
			YG3010	First choice for Ductile Cast Iron
N Non-ferrous Metals	DLC		YG100	First Choice Grade for Aluminum with DLC Coating
	Uncoated		YG10	Uncoated Grade for General Aluminum



YGTURN

Optimized ISO Turning Chipbreakers to Boost Up Your Productivity from Roughing to Finishing



Chipbreakers for Steel

Finishing ↓ Roughing		-UF	For Finishing
		-UL	Semi-Finishing and Sticky Materials
		-UM	Medium (for Unstable Condition)
		-UG	Medium (for Stable Condition)
		-UC	Medium Roughing
		-UR	Roughing and Heavy Interrupted Cut

Chipbreakers for Cast iron

Stable ↓ Unstable		-UC	Medium Roughing
		-UR	Roughing and Heavy Interrupted Cut
		..MA	Cast Iron Heavy Roughing (Flat type)
		-KR	Cast Iron heavy Roughing (Big K-land)

Chipbreakers for Stainless steel

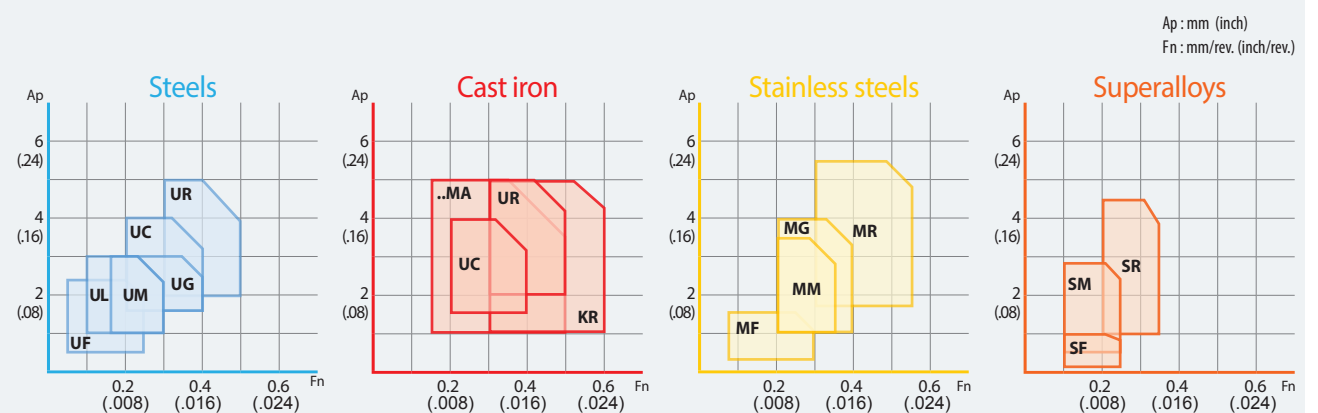
Finishing ↓ Roughing		-MF	Finishing
		-MM	Medium
		-MG	Choice for Medium NEW
		-MR	Roughing

Chipbreakers for Superalloys

Finishing ↓ Roughing		-SF	Finishing NEW
		-SM	Medium NEW
		-SR	Roughing NEW

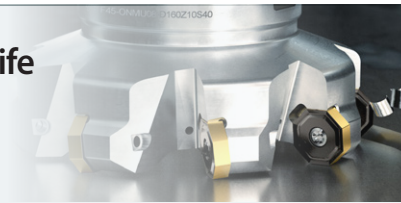
Chipbreakers for Non-ferrous Metals

	-AL	from Roughing to Finishing
--	------------	----------------------------



YG MILL

Optimized chipbreaker with grade will give you better tool life and higher productivity



Milling Grades		P Steel					M Stainless steel				K Cast iron				N Non-ferrous				S Superalloys			
		P05	P15	P25	P35	P45	M05	M15	M25	M35	K05	K15	K25	K35	N05	N15	N25	N35	S05	S15	S25	S35
PVD	YG602			602				602				602								602		
	YG622			622								622										
	YG712		712																			
	YG713		713																			
	YG613				613			613														
	YG501											501										
CVD	YG5020											5020										
Uncoated	YG50														50							



YG602 P20 - P35 M20 - M40
K20 - K40 S15 - S25
Universal grade for General Milling Application



NEW **YG613** P30 - P50 M30 - M40
Milling Grade for Stainless Steel Application



NEW **YG622** P20 - P40 K20 - K40
Optimized Grade for High Alloyed or Prehardened Steel



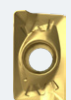
NEW **YG501** K05 - K25 H05 - H25
Hard Milling grade for Cast Iron



NEW **YG712** P10 - P30
Milling Grade for Medium of Steel Application



NEW **YG5020** K01-K30
CVD grade for Cast Iron



NEW **YG713** P15 - P25
Milling Grade for General Steel Application



NEW **YG50** N05 - N20
Uncoated Milling Grade for Aluminium

-AL



• For Aluminum
• Very Sharp Geometry

-ST



• For Stainless Steel, Super Alloy
• Sharp Geometry

General Inserts
(GN)



• First Choice for General Application

-TR



• For Hardened Steels
• Reinforced Geometry

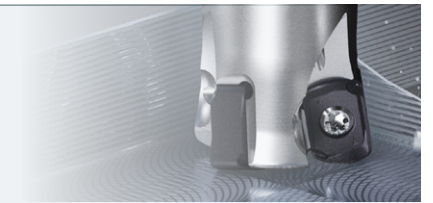
...W / ...N



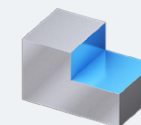
• For Hardened Material and Cast Irons

YG MILL

Various shape of inserts will give you better tool life and higher productivity



SHOULDERING



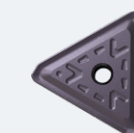
2 Corner

Positive
APKT
APMT
ADKT
AOMT



4 Corner

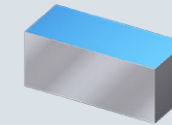
Negative
NEW LNHU



3 Corner

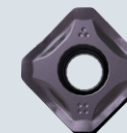
ISO TPKN

FACING



Octagonal

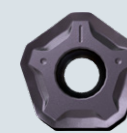
Negative
ONMU
ODMT
Positive
OFER
OFMT



Square

Negative SNMX

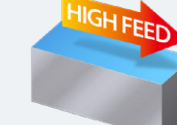
Positive
SEKT
SEMT
ISO
SDKN
SEKN/R
SPKN/R



10 Corner

Negative **NEW** PNMU

HIGH FEED



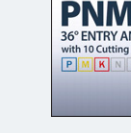
4 Corner

Negative **NEW** ENMX



4 Corner

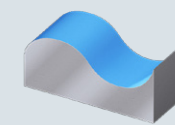
Positive SDMT



3 Corner

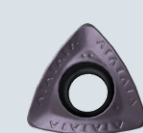
Positive RBEX

PROFILING



Round

Positive
RDKT
RDMT
RPMT



3 Corner

Positive RBEX

ETC



ISO

Square SPUN

Triangle TPUN

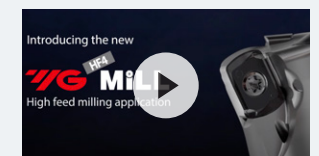


4 Corner

Positive SPMT



Scan this QR code to see our YG FM10 Mill at work.




Scan this QR code to see our YG HF4 Mill at work.




YGTURN Parting & Groove

Optimized Parting & Groove Turn Insert Grade for Various Application

Parting & Grooving Inserts


	TD. Series	TDN TDP TDY	2, 3, 4
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Chipbreakers


-P TDP		13°	• Parting & Grooving (Positive)
-N TDN		12°	• Parting & Grooving (General)
-Y TDY		6°	• Turning, Parting & Grooving

YG GROOVE
Double Sided 6° Angled Parting Insert

NEW
TDN type
Strong Geometry
Medium Feed
0.07~0.22 mm/rev



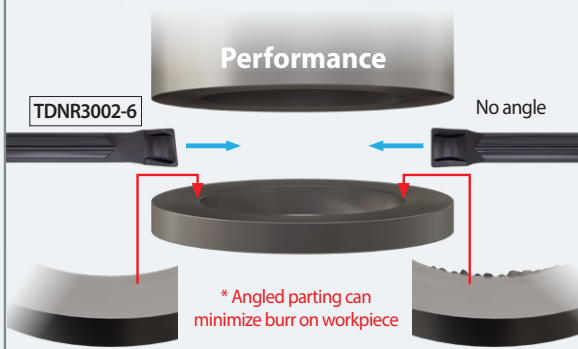
NEW
TDP type
Strong Geometry
Low Feed
0.05~0.16 mm/rev



Performance

TDNR3002-6 No angle

* Angled parting can minimize burr on workpiece



YGDRILL

Optimized Drilling Insert Grade for Various Kinds of Material

WCMX Series

Popular 3 corner drill insert
WCMX 03/04/05/06/08
Diameter Ø 16mm ~ Ø 60mm



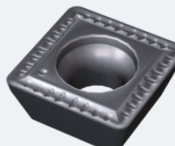
YG602 P20 - P35 M20 - M40
K20 - K40 S15 - S25
Multi-Purpose Grade

PVD - TiAlN



SPMX Series

Economic 4 corner drill insert
SPMX 05/06/07/09/11/14
Diameter Ø 13mm ~ Ø 50mm



NEW
YG713 P15 - P25
Drilling Grade for General Steel Application

PVD - TiAlN



NEW
YG613 P30 - P50 M30 - M50
Drilling Grade for Stainless Steel Application

PVD - TiAlN



YG TOOLING SYSTEM



HYDRAULIC CHUCK - Power E Hydro



- Superb T.I.R. Accuracy & Repeatability
≤ 0.003mm (Direct Clamping)
- High Clamping Force
 - ID 12mm : 110 ~ 260 Nm
 - ID 20mm : 520 ~ 680 Nm
 - ID 32mm : 900 ~ 1200 Nm
- Basic G2.5 25,000 RPM Balanced
- Various Size of Reduction Sleeve
Ø 3mm - Ø 25mm
- Advantage
 - Covering up to milling(roughing & finishing)
 - No slippage or pull out of tool
 - Rigid body design to withstand side thrust
 - Avoid tool bending during machining.

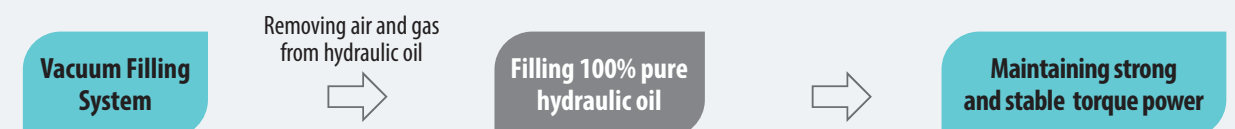
Strong Torque Power

Hydraulic Chuck I.D(mm)	Tool Shank O.D(mm)	Applicable RPM	Minimum Clamping Depth (mm)		Min. Torque Power (Nm)	
			Slim	Power E Hydro	Slim	Power E Hydro
6	6	40,000	27		16	
8	8	40,000	27		23	
10	10	40,000	32		45	
12	12	40,000	27	41	90	110
14	14	40,000	37		110	
16	16	40,000	42		185	
18	18	40,000	42		240	
20	20	40,000	42	48	330	520
25	25	25,000	48		400	
32	32	25,000	55	57	650	900

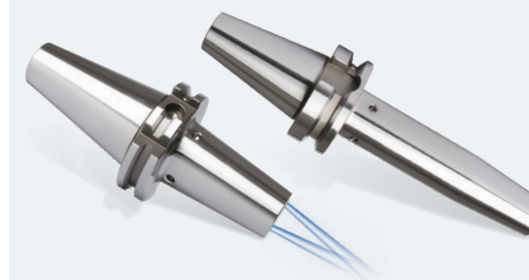
• Tool holder I.D tolerance : H6

• Operating temperature : 20~25°C

• Maximum pressure of coolant oil : 80bar



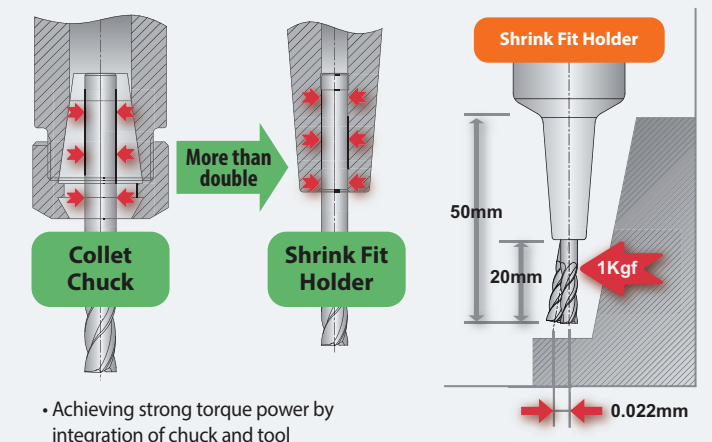
SHRINK FIT HOLDER



Strong and Consistent Torque Power

Deep hole Machining

- Superb T.I.R. Accuracy
≤ 0.003mm
- Strong Torque Power
Min. 18Nm ~ 550Nm
- Basic Balancing Grade
Min. G2.5/25,000rpm
- Standard and Slim Design
 - Standard 4.5°
 - Slim 4.0°
 - Extra Slim 3.0°





HEAD OFFICE

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Notice YG-1 Global head office is relocating from December 2020 to a new address as above;

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<https://www.yg1.kr> E-mail: yg1@yg1.kr

Note

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