

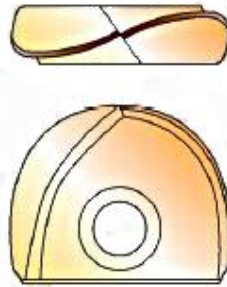
# i-Xmill

## BALL INSERTS

SIZE (D)	SIZE (D)
5/16	8
3/8	10
1/2	12
5/8	16
3/4	20
1	25
1*1/4	30
	32



### CARBIDE INSERT ADVANTAGES



- 1. Helical end gash ( "S" gash ) geometry.**
  - Low milling torque.
  - Prevents Chattering.
  - Improves Chip ejection.
  - Prolong tool life.
- 2. Polished cutting edges.**
  - Better wear resistance and tool life.
  - Improves repeatability in performance.
  - Improves surface roughness on work-piece.
  - Improves coating addition.
- 3. Special coating.**
  - Combine high hardness with high thermal stability against oxidation.
  - Superior wear resistance.
  - Faster feeds and speeds.

## BALL HOLDERS

MILL DIAMETER (D1)	MILL DIAMETER (D1)
5/16	8
3/8	10
1/2	12
5/8	16
3/4	20
1	25
1*1/4	30,32

**TAPER NECK TYPE**



## BALL HOLDERS

MILL DIAMETER (D1)	MILL DIAMETER (D1)
1/2	12
5/8	16
3/4	20
1	25
1*1/4	30, 32

**STRAIGHT NECK TYPE**



## BALL HOLDERS

MILL DIAMETER (D1)	MILL DIAMETER (D1)
5/16	8
3/8	10
1/2	12
5/8	16
3/4	20
1	25
1*1/4	30, 32

**CARBIDE TYPE**



### TOOL STEEL HOLDER ADVANTAGES

1. Premium alloy steel with excellent strength.
2. Precise shank, Tolerance (h6).
3. Black oxide treated, to prevent corrosion and improve lubricity.

### i-Xmill CARBIDE HOLDER ADVANTAGES

1. Rigid tool with solid carbide endmills making it more stable and high finish machining with minimum vibration.
2. The high finish machining for deeper part of the mold.
3. The tool holder life is longer than steel holder.
4. Shrink Fit Holding system can be applied.
5. Upon request, the broken holder can be fixed.

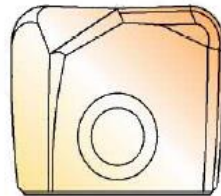
# i-Xmill

## CORNER RADIUS INSERTS



SIZE (D)	SIZE (D)	SIZE (D)
5/16	8	20
3/8	10	25
1/2	12	26
5/8	13	30
3/4	16	32
1	17	
1*1/4		

### i-Xmill CORNER RADIUS INSERT ADVANTAGES



1. The optimum geometry of the tool to achieve the better reliability and less vibration and cutting load.
2. Interchangeability with i-Xmill ball holder, but the precise cutting is possible with i-Xmill corner radius holder due to higher stability and strength of tool.
3. The various and wide cutting range makes it possible to machine over the roughing and finishing.
4. Special coating makes high hardness with high thermal stability against oxidation.

## CORNER RADIUS HOLDERS

MILL DIAMETER (D1)	MILL DIAMETER (D1)
5/16	8
3/8	10
1/2	12

TAPER NECK TYPE



MILL DIAMETER (D1)	MILL DIAMETER (D1)
1/2	12
5/8	16
3/4	20
1	25
1*1/4	30
	32

STRAIGHT NECK TYPE

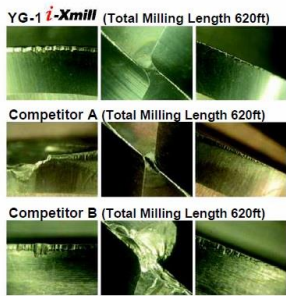
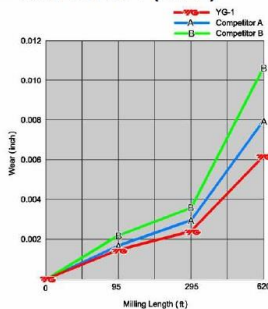


Switch to YG *i-Xmill* and get **FREE!** Steel Bodies with purchase of Inserts

### i-Xmill STEEL HOLDER ADVANTAGES

1. Premium alloy steel with excellent strength.
2. Precise shank tolerance (h6).
3. Black oxide treated, to prevent corrosion and improve lubricity.

#### ● CASE STUDY (BALL)



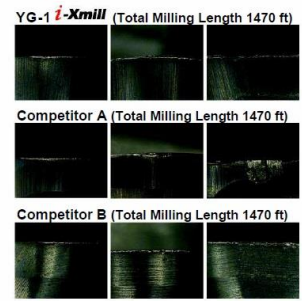
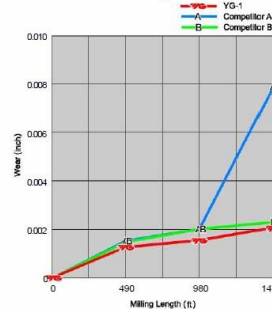
#### CUTTING CONDITION

Tools : i-Xmill Ball End Mill (XB1A040)  
Size : Ø2.5 (inch)  
Work Material : AISI : SKD61 (HRc50)  
AISI : H13 (HB480)

Cutting Speed : 263 SFM  
R.P.M. : 1600 rev./min.  
Feed : 15.4 inch/min.  
Feed per rev. : 0.01 IPR  
Milling Method : Side Cutting

Milling Depth : Axial : 0.03 inch  
Radial : 0.06 inch  
Coolant : Oil Mist  
Machine : Machining Center

#### ● CASE STUDY (CORNER RADIUS)



#### CUTTING CONDITION

Tools : i-Xmill Corner Radius (XRAA160 20)  
Size : Ø16 x R2.0 (Metric)  
Work Material : KS : KPM1 (Mold steel HRc35)  
DIN : 40CrMnNiMo8-6-4 (1.2738)  
AISI : P20+Ni

Cutting Speed : 920 SFM  
R.P.M. : 5570 rev./min.  
Feed : 97.9 inch/min.  
Feed per rev. : 0.018 IPR  
Milling Method : Side Cutting

Milling Depth : Axial : 0.118 inch  
Radial : 0.008 inch  
Coolant : Oil Mist  
Overhang : 2.8 inch  
Machine : Machining Center