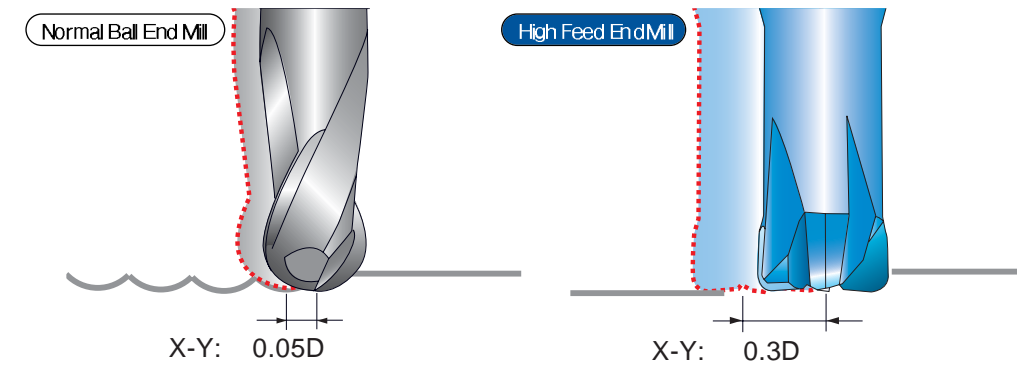


### High feed end mill capabilities :

- High speed roughing
- High speed finishing.. Mirror like surface

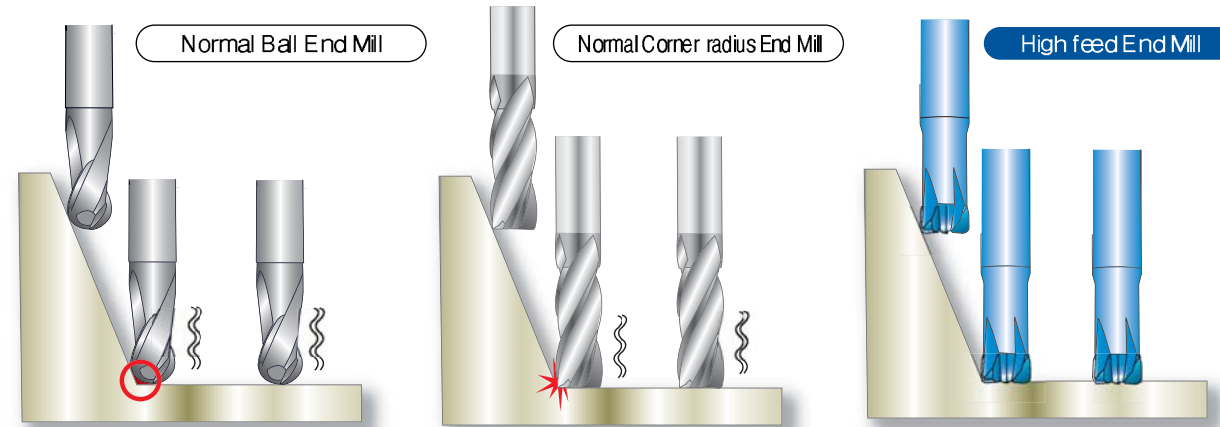


- More number of flutes than normal 2F ball E/M makes high-feed cutting. For X-Y wide cutting pitch, high effective cutting performs in short tool working time.

(Example of performance : for the material HRc 50~55)

Item	Size	RPM	FEED	Depth of cut	
				Z (mm)	X-Y (mm)
High Feed End Mill	4F $\varnothing 10 \times 2R$	5400	11.000	0.2	3.0
Normal Ball End Mill	2F R5	7500	2500	0.2	0.5

- For cutting on slope and corner, the remaining part to be cut is smaller than one which comes from the working with normal ball end mill. It saves the time and cost.



- By using straight flute, the rigidity of corner radius is improved. And it's also possible to get less damage to end teeth and radius than normal radius end mill

**DAS**  
Certification  
ISO9001:2000  
/ 14001:2004  
Approval



# High Feed End Mill

Carbide 4Flute Corner Radius End Mill for High Speed Cutting



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

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YG1YE081217001

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

New Design

# High Feed End Mill

Carbide 4Flute Corner Radius End Mill for High Speed Cutting



Reduced clearance angles and short flutes strengthens corner radius and reduces chattering  
Extra-short flute length for high rigidity

Heavy core with reduced diameter allows greater depths and maximum rigidity

### Dimension

- Series : G8B59
- Size :  $\varnothing 2 \sim \varnothing 12$
- Length :  $2D \sim 2.5D$
- R tolerance :  $\pm 0.005\text{mm}$

### Comparison of the endteeth shape



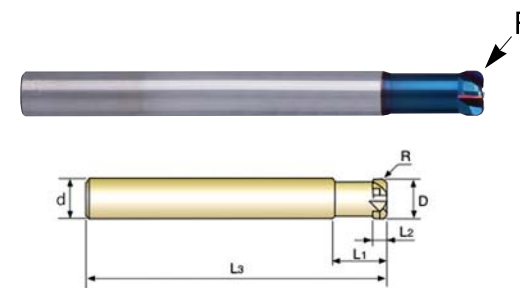
High Feed End Mill



Normal End Mill

## 4F. CORNER RADIUS END MILL

- ▶ Excellent wear resistance at heavy feed rates on high hardened material.
- ▶ Designed with reduced clearance angles and short flutes for strength.
- ▶ High hardness & heat resistance coating for long life in dry applications.



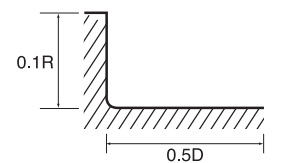
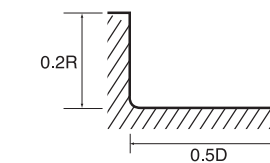
EDP. No		Diameter D	Corner Radius R	Effective Length L <sub>1</sub>	Length of Cut L <sub>2</sub>	Overall Length L <sub>3</sub>	Shank Dia d
New	G8B59 020 05	2.0	R0.5	6	1.0	50	6
New	G8B59 030 05	3.0	R0.5	8	1.2	50	6
New	G8B59 040 05	4.0	R0.5	10	1.5	50	6
New	G8B59 060 05	6.0	R0.5	12	2.5	60	6
New	G8B59 060 10	6.0	R1.0	12	2.5	60	6
New	G8B59 080 10	8.0	R1.0	16	3.5	60	8
New	G8B59 080 20	8.0	R2.0	16	3.5	60	8
New	G8B59 100 10	10.0	R1.0	20	4.0	70	10
New	G8B59 100 20	10.0	R2.0	20	4.0	70	10
New	G8B59 120 20	12.0	R2.0	25	5.0	80	12
New	G8B59 120 30	12.0	R3.0	25	5.0	80	12

MILL DIA TOLERANCE	CORNER RADIUS TOLERANCE	SHANK DIA TOLERANCE
0 -- -0.02	$\pm 0.005\text{mm}$	h6

## Cutting Condition

### NORMAL SPEED

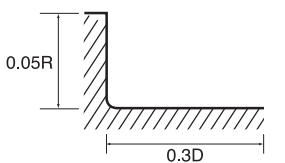
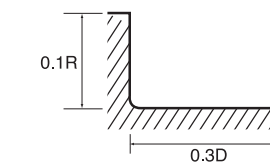
MATERIAL Hardness OD	HARDENED STEELS									
	~HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65	
	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2xR0.5	13500	6500	9550	3800	5500	2200	3200	1000	2200	550
3xR0.5	9550	6500	6900	4150	4550	2750	2850	1150	1900	610
4xR0.5	7950	7000	5750	4600	4000	3200	2550	1350	1750	700
6xR0.5	5800	7650	4100	4900	2900	3500	1850	1850	1350	795
6xR1.0	5800	7650	4100	4900	2900	3500	1850	1850	1350	795
8xR1.0	4350	7650	3050	4900	2200	3500	1400	1850	995	795
8xR2.0	4350	7650	3050	4900	2200	3500	1400	1850	995	795
10xR1.0	3500	7650	2450	4900	1750	3500	1100	1850	795	795
10xR2.0	3500	7650	2450	4900	1750	3500	1100	1850	795	795
12xR2.0	2900	7650	2050	4900	1450	3500	925	1850	665	795
12xR3.0	2900	7650	2050	4900	1450	3500	925	1850	665	795



RPM = rev./min.  
Feed = mm/min.

### HIGH SPEED

MATERIAL Hardness OD	HARDENED STEELS									
	~HRc 40		HRc 40 ~ HRc 50		HRc 50 ~ HRc 55		HRc 55 ~ HRc 60		HRc 60 ~ HRc 65	
	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2xR0.5	29000	15000	22000	9800	15000	7850	11000	4450	8700	2450
3xR0.5	22000	16000	17000	10000	12500	8000	9500	4600	6900	2500
4xR0.5	17000	17500	13000	12000	11000	9200	8000	5500	5600	2900
6xR0.5	13500	18500	10500	13800	9000	11000	6400	6400	4500	3600
6xR1.0	13500	18500	10500	13800	9000	11000	6400	6400	4500	3600
8xR1.0	10000	18500	8000	14000	6800	11000	4800	6700	3400	4100
8xR2.0	10000	18500	8000	14000	6800	11000	4800	6700	3400	4100
10xR1.0	8000	18500	6400	14000	5400	11000	3800	6800	2700	3800
10xR2.0	8000	18500	6400	14000	5400	11000	3800	6800	2700	3800
12xR2.0	6600	18500	5300	14000	4500	11000	3200	7000	2250	3600
12xR3.0	6600	18500	5300	14000	4500	11000	3200	7000	2250	3600



RPM = rev./min.  
Feed = mm/min.