

Guide for tool selection

Application and selection of type distinctions

Type	Number of Flutes	Applications	Shape	Description	Outside Dia. ϕD_c (mm)	Page	
Radius	4	Deep Slotting and Finishing of Hard Materials		4PGRM	$\phi 3\sim\phi 20$	L27	
	6	Semi-Finishing of Hard Materials		6PDRS	$\phi 6\sim\phi 12$	L32	
	3 / 4	Rough Copying of Hard Material (Radius / Short)		3RFRS 4RFRS	$\phi 4\sim\phi 12$	L34	
	4	Semi-Finishing of Difficult-to-Cut Materials		4YERM	$\phi 4\sim\phi 25$	L35	
	5	Semi-Finishing and high feed machining of Difficult-to-Cut Material		5DERM	$\phi 4\sim\phi 25$	L37	
Ball	2	Copying (Ball-nose End Mill with 2 Flutes)		2UEBS	$\phi 1\sim\phi 20$	L21	
	3	Copying (Ball-nose End Mill with 3 Flutes)		3UEBS	$\phi 3\sim\phi 12$	L22	
	4	Semi-Finishing for Difficult-to-Cut Material (Ball-nose end mill with 4 flutes)		4YEBS	$\phi 5\sim\phi 20$	L38	

Solid End Mill Series

Solid End Mill Identification System

2 F E S M 020 - 060 - 04 XXXXXXXXX

① Number of Flutes	② Name	③ Helix Angle	④ Application	⑤ Length of edge	⑥ Outside Dia.	⑦ Length of edge	⑧ Shank Dia.	⑨ Others
2	F : Finishing	D : 20-29°	S : Square	S : Short	020	060	04	Corner R,
3	U : Semi-Finishing	E : 30-39°	B : Ball	M : Medium	↓	↓	↓	Corner
4	Y : Difficult-to-Cut Material	F : 40-49°	R : Radius	L : Long	2.0mm	6.0mm	4.0mm	Chamfering
5	D : Difficult-to-Cut Material	G : 50-59°	K : Tough corner edge (Corner land)	W : Automatic lathe				width, etc.
6	H : Finishing of Hardened Material							
7	P : Hardened Material		C : with Corner Chamfering					
8	R : Roughing							
	A : Roughing for Aluminum							
	N : Aluminum							

How to read icon

Coated Carbide



MEGACOAT Hard



MEGACOAT



TiAlN Coated Carbide



AlTiN Coated Carbide



Non-coating

Shank Diameter Tolerance



Shank Diameter Tolerance is h5.

Corner Radius Tolerance



Corner Radius Tolerance is 0 to -0.02mm.

Corner Form



Radius



Corner Sharp Edge



With Corner land



With Corner Chamfering

Ball-nose Radius Tolerance



The R tolerance of ball end mill is 0 to -0.02mm.

Helix Angle



Helix Angle 30°