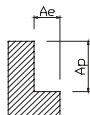


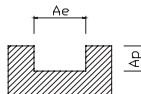
Carbide end mill

Material	Carbon copper (S45C, S55C)		Copper alloy Copper refining (HRC40 Substantially)		Aluminum (A5052 Substantially)		Stainless (SUS304 Substantially)		Net quenching (~HRC50)	
Circumferential velocity (m/min)	70		50		120		40		40	
Ri each transfer (mm/rev)	0,15		0,08		0,1		0,12		0,1	
Tool diameter (mm)	Revolution (rpm)	Send per minute (mm/min)	Revolution (rpm)	Send per minute (mm/min)	Revolution (rpm)	Send per minute (mm/min)	Revolution (rpm)	Send per minute (mm/min)	Revolution (rpm)	Send per minute (mm/min)
4	5570	830	3980	310	9550	950	3180	380	3180	310
6	3710	550	2650	210	6360	630	2120	250	2120	210
8	2780	410	1990	150	4770	470	1590	190	1590	150
10	2220	330	1590	120	3820	380	1270	150	1270	120
12	1850	270	1320	100	3180	310	1060	120	1060	100
14	1590	230	1130	90	2720	270	900	100	900	90
16	1390	200	990	70	2380	230	790	90	790	70
20	1110	160	790	60	1910	190	630	70	630	60
The biggest depth of the cut	Ae	Ap	Ae	Ap	Ae	Ap	Ae	Ap	Ae	Ap
Lateral cutting	0,15D	1D	0,15D	1D	0,2D	2D	0,15D	1D	0,05D	1D
Sulcular cutting	1D	0,5D	1D	0,5D	1D	1D	1D	0,5D		

Side cutting



Groove cutting

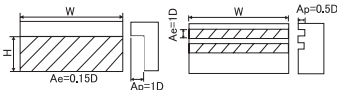


1. In order to make a stable cutting, use a high-precision machine and holder is rigid.
2. Please use water soluble cutting.
3. If chattering occurs, reduce the depth of cut. Or, lower the amount of infeed.

Carbide end mill

End mill specification						Use holder	
Diameter	Flute length	Total length	Teeth number	Shank diameter	Coating	Made in BIG DASHOWA SEIKI	
φ 10	20mm	63mm	3	φ 10	TiAlN	BBT40-MEGA13E	

Material	Side cutting			Groove cutting		
	The length of the cutting path 1 (W)	Maximum cutting width (H)	The length of the cutting	The length of the cutting path 1 (W)	Cutting the number of groove	The length of the cutting
S45C	120mm	58mm	4640mm	120mm	Three	360mm
SUS	195mm	53mm	6890mm	200mm	Seven	1400mm
HRC40	200mm	111mm	14800mm	210mm	Five	1050mm



Comparison of cutting (Side cutting)

Material	Hardness	Circumferential velocity	Send	Ae	Ap
SK3-Vacuum HQ	HRC50	40	0,1mm/rev	0,05D	1D

	Distance of one-pass	The number of paths	The length of the cutting	
Their products	150mm	28	4200mm	105%
Company's product M	150mm	27	4050mm	100%