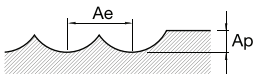
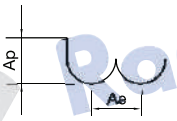
RPM : rev./min FEED : mm/min

4HSPB/4HSHB							Cutting Condition					
Material	Tool Steels/Alloy Steels **SCM/HPM**		Alloy Steels / Prehardened Steels **NAK80/KP4M**		Stainless Steels **SUS304/SUS316**		Hardened Steels **STAVAX/SKD11**		Heat–treated Steels / Hardened Steels **SKD11/ SKD61/ YXR7/ R7 / SKH51**		Heat–treated Steels / Hardened Steels **SKD11/ SKD61/ YXR7/ R7 / SKH51**	
Hardness	30 ~ 40HRC		40 ~ 45HRC		-		45 ~ 55HRC		55 ~ 60HRC		60 ~ 70HRC	
Radius	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
R 0.5	25,600	806	25600	806	25,600	806	25600	806	25,600	723	25600	723
R 0.75	22,000	1007	22000	1007	22,000	1007	22000	1007	22,000	889	22000	889
R 1	19,200	1280	19200	1280	19,200	1280	19200	1280	19,200	1138	17600	1138
R 2	12,400	1706	11200	1469	10,800	1375	10000	1280	10,000	1090	8800	1090
R 3	8,400	1754	7600	1612	7,200	1517	6800	1422	6,800	1232	5900	1232
R 4	6,400	1327	5700	1185	5,500	1138	5100	1043	5,100	936	4400	936
R 5	5,100	1043	4600	948	4,400	929	4000	853	4,000	758	3600	758
R 6	4,800	995	3800	794	3,640	758	3400	711	3,400	640	3000	640
Depth of Cut							Ap 0.05D, Ae 0.05D ~ 55HRC				Ap 0.02D, Ae 0.05D ~ 70HRC	

• The values of ap and ae on the table are for roughing or semi-roughing. If you need a great surface roughness,apply 50% of the value.
• Use the table for your reference.Adjust the parameters depending on your machining geometry,machining purpose and CNC.
• If the table over the maximum RPM and feed of your machine or found red heat on the material,adjust RPM and feed in the same proportion.

2HSB/2HPB/3HPB/4HSB/4HPB									Cutting Condition			
Material	Hardened Steels **STAVX / SKD11**				Heat–treated Steels / Hardened Steels **SKD11 / SKD61**				Heat–treated Steels / Hardened Steels **YXR7 / SKH51**			
Hardness	45 ~ 55HRC				55 ~ 62HRC				62 ~ 70HRC			
Radius	RPM	FEED	**Ap** Axial Depth	**Ae** Radial Depth	RPM	FEED	**Ap** Axial Depth	**Ae** Radial Depth	RPM	FEED	**Ap** Axial Depth	**Ae** Radial Depth
R 0.25	33,000	530	0.010	0.020	30,000	300	0.007	0.010	22,500	150	0.007	0.010
R 0.3	30,000	1200	0.020	0.100	26,500	800	0.010	0.075	20,000	400	0.010	0.075
R 0.4	27,000	1600	0.040	0.170	23,500	1000	0.020	0.120	17,500	500	0.020	0.120
R 0.5	24,000	2000	0.100	0.300	21,000	1750	0.050	0.200	16,000	875	0.050	0.200
R 0.6	21,000	2000	0.100	0.300	18,000	1750	0.050	0.200	14,500	875	0.050	0.200
R 0.75	17,000	2000	0.120	0.400	15,000	1750	0.060	0.290	11,250	875	0.060	0.290
R 1	14,000	2100	0.150	0.500	12,250	1800	0.080	0.350	9,200	900	0.080	0.350
R 1.25	12,250	2150	0.170	0.600	10,700	1850	0.100	0.450	8,050	925	0.100	0.450
R 1.5	10,500	2200	0.200	0.700	9,200	1900	0.120	0.550	6,900	950	0.120	0.550
R 2	9,000	2300	0.250	0.950	7,900	2000	0.150	0.750	5,900	1000	0.150	0.750
R 2.5	7,800	2500	0.250	1.050	6,800	2100	0.150	0.850	5,100	1050	0.150	0.850
R 3	6,500	2500	0.300	1.300	5,700	2200	0.200	1.000	4,300	1100	0.200	1.000
R 4	5,200	2200	0.400	1.700	4,500	1900	0.250	1.350	3,400	950	0.250	1.350
R 5	4,300	2000	0.500	2.100	3,750	1750	0.300	1.700	2,800	875	0.300	1.700
R 6	3,600	1750	0.600	2.600	3,150	1500	0.350	2.000	2,350	750	0.350	2.000
Depth of Cut	 Ap : Axial Depth (mm) Ae : Radial Depth (mm) D : Outside Diameter(mm) n : Speed (min^{-1}) Vf : Feed (mm/min)											

• When milling workpiece HRC below 55(Alloy steel,tool steel),raise up 20% RPM and feed compared to the same diameter.
• Changing flutes from 3 to 4,use the same RPM and raise up the feed up to 50% in stable condition (3HPB,4HSB,4HPB).
• Use the table for your reference.Adjust the parameters depending on your machining geometry,machining purpose and CNC.
• If the table over the maximum RPM and feed of your machine or found red heat on the material,adjust RPM and feed in the same proportion.
• Use a machine with low vibration and good rigidity (Ø1 or less, the vibration tolerance management will be within 5μm).
• Note for chip emission,heat or Ignition.