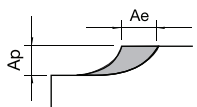
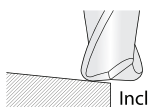


4&6HCR						Cutting Condition							
Material		Alloy Steels/Prehardened Steels NAK80/KP4M				Hardened Steels STAVAX/SKD11				Heat-treated Steels / Hardened Steels SKD11 / SKD61			
Hardness		40 ~ 45HRC				45 ~ 55HRC				55 ~ 62HRC			
Outside Dia.	Corner Radius	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
Ø 1	R 0.2	42,000	7605	0.020	0.400	35,000	6375	0.015	0.300	25,000	5689	0.015	0.300
Ø 1.5	R 0.5	40,000	7800	0.020	0.600	30,000	6376	0.025	0.500	21,000	5691	0.023	0.500
Ø 2	R 0.5	27,000	8190	0.030	0.800	24,000	6377	0.030	0.600	16,000	5693	0.030	0.600
Ø 3	R 0.5	18,000	8775	0.030	1.200	16,000	6378	0.045	0.900	11,000	5695	0.045	0.900
Ø 4	R 0.5	16,000	9750	0.050	1.600	13,000	6379	0.060	1.200	9,000	5697	0.060	1.200
"	R 1	14,000	9263	0.060	1.600	12,000	6380	0.060	1.200	8,000	5699	0.060	1.200
Ø 5	R 0.5	12,000	11700	0.080	2.000	11,000	6381	0.075	1.500	7,300	5702	0.075	1.500
"	R 1	11,000	10725	0.080	2.000	9,600	6382	0.075	1.500	6,400	5704	0.075	1.500
Ø 6	R 0.3	10,900	12870	0.090	2.400	10,000	6383	0.090	1.800	6,500	5706	0.090	1.800
"	R 0.5	10,600	12675	0.090	2.400	9,500	6383	0.090	1.800	6,300	5708	0.090	1.800
"	R 1	12,654	12285	0.090	2.400	9,000	6384	0.090	1.800	5,800	5710	0.090	1.800
"	R 1.5	9,000	10725	0.090	2.400	8,000	6385	0.090	1.800	5,300	5713	0.090	1.800
Ø 8	R 0.3	8,400	13163	0.120	3.200	7,300	6386	0.120	2.400	4,700	5715	0.120	2.400
"	R 0.5	8,200	12675	0.120	3.200	7,100	6387	0.120	2.400	4,600	5717	0.120	2.400
"	R 1	8,000	11700	0.120	3.200	6,700	6388	0.120	2.400	4,520	5719	0.120	2.400
"	R 2	7,000	10725	0.120	3.200	6,000	6389	0.120	2.400	4,000	5721	0.120	2.400
Ø 10	R 0.3	6,490	12656	0.150	4.000	5,664	6390	0.150	3.000	3,776	5724	0.150	3.000
"	R 0.5	6,325	12334	0.150	4.000	5,520	6391	0.150	3.000	3,680	5726	0.150	3.000
"	R 1	6,160	12012	0.150	4.000	5,376	6392	0.150	3.000	3,584	5728	0.150	3.000
"	R 2	5,500	10725	0.150	4.000	4,800	6393	0.150	3.000	3,200	5730	0.150	3.000
Ø 12	R 0.5	5,428	11505	0.180	4.800	4,838	6394	0.180	3.600	3,186	5732	0.180	3.600
"	R 1	5,290	11213	0.180	4.800	4,715	6395	0.180	3.600	3,105	5734	0.180	3.600
"	R 2	5,152	10920	0.180	4.800	4,592	6396	0.180	3.600	3,024	5737	0.180	3.600
"	R 3	4,600	9750	0.180	4.800	4,100	6397	0.180	3.600	2,700	5739	0.180	3.600
Ø 16	R 1	4,012	10124	0.240	6.400	3,540	6398	0.240	4.800	2,360	5741	0.240	4.800
"	R 2	3,400	8580	0.240	6.400	3,000	6398	0.240	4.800	2,000	5743	0.240	4.800
Depth of Cut		 											

● Coefficient respective of tool overhang

Type	Overhang	Revolution	Feed rate	Depth of cut cut Ap
Straight	L/D≤5	100%	100%	100%
	L/D=6	90%	80%	80%
	L/D=7	80%	70%	70%
Taper neck	L/D=6	100%	100%	100%
	L/D=8	90%	80%	80%
	L/D≥10	80%	70%	70%

- For curved milling, raise up the feed up to 30% in stable condition.
- The parameters on the table are based on 4 Flutes.
- With 6 flutes milling, raise up the feed up to 50% in stable condition.
- Use the table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- If you CNC machine cannot run enough RPM and Feed, reduce the RPM and feed in same proportion.
- In case of long effective length, reduce the RPM and feed by 30% or less.
- If you use small value of Ap, raise up the RPM and feed.
- Air blow or oil mist is recommended for smooth chip emission.