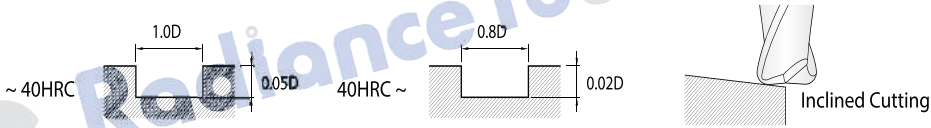
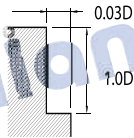
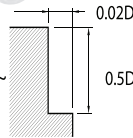


2ECR/4ECR						Cutting Conditions							
Slotting													
Material	Tool Steels/Mould Steels SCM/HPM				Alloy Steels / Prehardened Steels NAK80/KP4M				Hardened Steels STAVAX/SKD11				
Hardness	30~ 40HRC				40~ 45HRC				45 ~ 55HRC				
Outside Dia	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	
Ø 0.5	42,500	643	0.025	0.50	38,250	306	0.010	0.40	34,000	122	0.010	0.40	
Ø 0.6	42,500	723	0.030	0.60	38,250	344	0.012	0.48	34,000	138	0.012	0.48	
Ø 0.8	42,500	803	0.040	0.80	38,250	383	0.016	0.64	25,500	153	0.016	0.64	
Ø 1	40,800	1992	0.050	1.00	32,300	949	0.020	0.80	21,675	379	0.020	0.80	
Ø 2	28,305	2378	0.100	2.00	22,100	1132	0.040	1.60	14,875	453	0.040	1.60	
Ø 3	18,530	2410	0.150	3.00	14,705	1148	0.060	2.40	9,775	648	0.060	2.40	
Ø 4	14,195	2474	0.200	4.00	11,220	1178	0.080	3.20	7,480	689	0.080	3.20	
Ø 5	13,345	2635	0.250	5.00	10,625	1255	0.100	4.00	7,055	716	0.100	4.00	
Ø 6	11,135	2570	0.300	6.00	8,798	1224	0.120	4.80	5,865	743	0.120	4.80	
Ø 8	8,398	2345	0.400	8.00	6,630	1117	0.160	6.40	4,420	695	0.160	6.40	
Ø 10	6,630	2185	0.500	10.00	5,228	1040	0.200	8.00	3,485	662	0.200	8.00	
Ø 12	5,653	2185	0.600	12.00	4,463	1040	0.240	9.60	2,975	655	0.240	9.60	
Depth of cut													

2ECR/4ECR					Cutting Conditions							
Side Cutting												
Material	Tool Steels/Mould Steels SCM/HPM				Alloy Steels / Prehardened Steels NAK80/KP4M				Hardened Steels STAVAX/SKD11			
Hardness	30~ 40HRC				40~ 45HRC				45 ~ 55HRC			
Outside Dia	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 0.5	42,500	261	0.500	0.015	38,250	235	0.250	0.010	34,000	141	0.250	0.010
Ø 0.6	42,500	263	0.600	0.018	38,250	236	0.300	0.012	34,000	142	0.300	0.012
Ø 0.8	42,500	427	0.800	0.024	34,000	384	0.400	0.016	25,500	231	0.400	0.016
Ø 1	40,800	833	1.000	0.030	32,300	750	0.500	0.020	21,675	450	0.500	0.020
Ø 2	28,305	1224	2.000	0.060	22,100	1102	1.000	0.040	14,875	661	1.000	0.040
Ø 3	18,530	1250	3.000	0.090	14,705	1125	1.500	0.060	9,775	675	1.500	0.060
Ø 4	14,195	1275	4.000	0.120	11,220	1148	2.000	0.080	7,480	689	2.000	0.080
Ø 5	13,345	1479	5.000	0.150	10,625	1331	2.500	0.100	7,055	799	2.500	0.100
Ø 6	11,135	1377	6.000	0.180	8,798	1239	3.000	0.120	5,865	744	3.000	0.120
Ø 8	8,398	1346	8.000	0.240	6,630	1212	4.000	0.160	4,420	727	4.000	0.160
Ø 10	6,630	1224	10.000	0.300	5,228	1102	5.000	0.200	3,485	661	5.000	0.200
Ø 12	5,653	1200	12.000	0.360	4,463	1100	6.000	0.240	2,975	635	6.000	0.240
Depth of cut												
												

- Use a rigid precise machine and holder.
- Ap(mm): Axial Depth of cut
- Ae(mm): Radial Depth of cut
- If the length of cut is long, reduce the RPM and feed maximum 30%
- If the effective length or overall length of your tool are not show above the table, adjust your parameter with upper or lower diameter of parameter.
- When milling workpiece HRC over 50 hardened steel , reduce 20% of the RPM and feed compared to the same diameter.
- For groove milling, set up the Ae value by considering of corner radius value.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- Use the adequate coolant for work material and machining geometry and note for heat and ignition.
- If the table over the maximum RPM and feed of your machine, adjust RPM and feed in the same proportion.
- The parameter on the table based on 2 flutes. for using 4 flutes , use the same RPM and rised up the feed up to 30% in the stable milling condition.
- Air blow or oil mist is recommended for smooth chip emission and wet coolant milling is recommended for copper material.
- The Above condition are only reference. In actual machining conditions adjust these parameters according to the milling shape, machine ability and the operation environment.