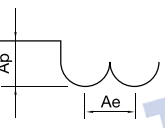


2WRB										Cutting Conditions							
Material		Copper Alloys C1100				Alloy Steels / Pre-hardened Steels NAK80/KP4M				Hardened Steels STAVAX/SKD11				Heat treated Steels/Hardened Steels SKD11/SKD61			
Hardness						40~ 45HRC				45 ~ 55HRC				45 ~ 55HRC			
Radius	Effective Length	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
R0.25	1	63,600	1,560	0.026	0.047	45,600	960	0.020	0.033	33,600	636	0.014	0.032	33,600	312	0.007	0.020
"	5	52,800	1,032	0.012	0.014	34,800	552	0.008	0.008	31,200	444	0.007	0.010	31,200	216	0.006	0.009
"	10	38,400	528	0.008	0.016	28,800	456	0.007	0.010	28,800	372	0.005	0.010	27,600	216	0.005	0.009
R0.3	1	63,600	1,956	0.030	0.140	39,600	960	0.022	0.091	27,600	600	0.019	0.091	26,400	516	0.014	0.091
"	5	50,400	1,104	0.014	0.068	28,800	504	0.012	0.043	26,400	396	0.008	0.042	26,400	336	0.007	0.040
"	10	31,200	540	0.006	0.032	24,000	360	0.005	0.020	22,800	312	0.004	0.020	22,800	240	0.003	0.018
R0.4	2	61,200	2,280	0.054	0.160	34,800	816	0.045	0.100	27,600	552	0.038	0.100	26,400	456	0.030	0.100
"	6	51,600	1,452	0.035	0.100	28,800	636	0.028	0.068	21,600	420	0.020	0.068	21,600	348	0.015	0.065
"	10	31,000	630	0.022	0.080	23,400	468	0.020	0.050	17,300	408	0.015	0.050	16,800	336	0.010	0.050
R0.5	2	50,400	2,160	0.068	0.320	33,600	900	0.052	0.220	21,600	540	0.040	0.220	18,000	540	0.008	0.140
"	5	50,400	2,160	0.068	0.320	33,600	900	0.052	0.220	21,600	540	0.040	0.220	18,000	540	0.008	0.140
"	10	30,000	1,164	0.024	0.086	16,320	600	0.020	0.056	15,000	456	0.014	0.056	13,680	312	0.008	0.050
"	16	17,640	720	0.018	0.086	13,680	480	0.016	0.056	12,360	384	0.012	0.056	11,520	252	0.005	0.050
R0.75	3	31,200	2,400	0.167	0.320	21,600	1,152	0.120	0.210	12,960	672	0.100	0.210	12,000	600	0.090	0.210
"	10	26,400	1,680	0.100	0.220	14,760	780	0.080	0.170	9,720	480	0.062	0.170	9,720	456	0.050	0.160
"	18	12,120	624	0.030	0.160	12,120	504	0.022	0.110	9,600	432	0.020	0.110	9,600	408	0.012	0.110
"	30	9,840	516	0.014	0.080	9,840	456	0.012	0.050	9,480	420	0.010	0.050	9,480	396	0.010	0.050
R1	4	26,400	2,448	0.220	0.520	21,000	1,392	0.180	0.350	14,640	1,080	0.140	0.350	14,640	900	0.120	0.350
"	10	26,400	2,256	0.180	0.350	21,000	1,224	0.140	0.230	14,640	972	0.110	0.230	14,640	792	0.090	0.230
"	20	15,960	1,164	0.090	0.165	15,960	600	0.060	0.110	12,720	600	0.055	0.110	12,720	492	0.035	0.110
"	30	10,200	636	0.025	0.070	10,200	480	0.020	0.050	10,200	480	0.015	0.050	10,200	384	0.015	0.045
R1.5	6	16,800	3,240	0.250	0.500	14,400	1,824	0.200	0.340	9,840	1,320	0.160	0.320	6,480	732	0.160	0.320
"	10	16,800	3,240	0.250	0.500	14,400	1,824	0.200	0.340	9,840	1,320	0.160	0.320	6,480	732	0.160	0.300
"	20	14,040	2,244	0.200	0.450	12,360	1,476	0.145	0.320	8,520	1,128	0.120	0.310	5,760	660	0.080	0.300
"	30	10,920	1,620	0.120	0.220	9,360	816	0.100	0.150	8,520	816	0.080	0.150	5,760	384	0.070	0.300
R2	8	12,600	3,012	0.350	0.850	10,440	1,752	0.290	0.550	7,200	1,332	0.220	0.500	7,200	1,056	0.150	0.500
"	20	12,600	3,012	0.350	0.850	10,440	1,752	0.290	0.550	7,200	1,332	0.220	0.500	7,200	1,056	0.150	0.500
"	30	11,160	2,040	0.250	0.500	8,880	1,380	0.200	0.320	6,600	1,056	0.150	0.300	6,600	816	0.130	0.300
"	40	8,160	1,464	0.150	0.500	7,200	1,056	0.132	0.320	6,600	1,056	0.100	0.300	6,600	816	0.090	0.300
R2.5	15	10,800	2,880	0.380	0.800	8,400	1,500	0.300	0.700	6,000	1,140	0.220	0.700	6,000	900	0.200	0.650
"	25	10,800	2,400	0.380	0.800	8,400	1,380	0.300	0.550	6,000	1,080	0.220	0.550	6,000	816	0.200	0.500
"	40	9,360	1,320	0.250	0.800	6,720	840	0.200	0.550	4,920	660	0.150	0.550	4,920	504	0.130	0.500
R3	15	8,400	2,676	0.500	1.000	8,160	1,764	0.420	0.800	5,760	1,320	0.300	0.800	4,440	864	0.300	0.800
"	30	8,400	1,812	0.380	0.900	7,200	1,680	0.300	0.650	5,040	1,176	0.220	0.650	4,440	792	0.220	0.600
R4	25	8,160	1,764	0.410	1.000	7,200	1,176	0.350	0.750	4,920	912	0.180	0.600	4,560	732	0.200	0.630
"	30	7,680	1,680	0.380	1.000	6,960	1,128	0.300	0.750	4,800	864	0.160	0.600	4,320	720	0.200	0.600
R5	30	6,240	1,344	0.560	1.200	5,880	1,128	0.370	0.900	4,800	852	0.200	0.670	4,200	708	0.200	0.650
"	35	6,000	1,296	0.500	1.000	5,400	1,080	0.350	0.850	4,560	816	0.150	0.600	3,840	648	0.200	0.600
R6	30	5,160	1,104	0.650	1.400	4,800	984	0.420	0.900	4,320	828	0.250	0.600	3,600	600	0.250	0.600
"	40	4,920	1,080	0.600	1.200	4,560	960	0.400	0.850	4,080	780	0.200	0.600	3,600	600	0.200	0.600
Depth of cut		• Ap : Axial Depth • Ae : Radial Depth • D : Outside Diameter • n : Speed • Vf : Feed 															

- If the effective length is long, reduce the RPM and feed in the same proportion.
- Use this 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, adjust RPM and feed in the same proportion.
- Use a machine with low vibration and good rigidity (Ø1 or less, the vibration tolerance management should be within 5µm).
- Air blow or oil mist is recommended for smooth chip emission and wet coolant milling is recommended for copper material.