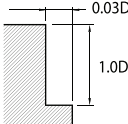
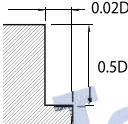


2HRR/2HTR						Cutting Condition							
Slotting													
Material		Hardened Steels STAVX / SKD11				Heat-treated Steels / Hardened Steels SKD11 / SKD61				Heat-treated Steels / Hardened Steels YXR7 / SKH51			
Hardness		45 ~ 55HRC				55 ~ 62HRC				62 ~ 70HRC			
Dia	Corner Radius	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
Ø 0.5	R 0.1	33,000	110	0.015	0.020	25,000	65	0.007	0.010	20,000	40	0.007	0.010
Ø 0.8	R 0.2	30,000	125	0.020	0.100	25,000	85	0.010	0.075	20,000	50	0.010	0.075
Ø 1	R 0.3	25,000	228	0.040	0.150	19,000	131	0.020	0.120	16,000	74	0.020	0.120
Ø 1.5	R 0.5	20,500	268	0.100	0.300	16,000	157	0.050	0.200	12,500	95	0.050	0.200
Ø 2	R 0.5	14,500	324	0.150	0.500	11,000	186	0.100	0.250	9,500	124	0.100	0.300
Ø 2.5	R 0.5	9,500	324	0.200	0.500	7,500	186	0.120	0.350	6,400	124	0.120	0.400
Ø 3	R 0.5	9,500	324	0.200	0.500	7,500	186	0.120	0.350	6,400	124	0.120	0.400
Ø 4	R 0.3	7,200	337	0.250	0.300	5,600	197	0.150	0.200	4,750	127	0.150	0.300
Ø 5	R 0.5	6,400	356	0.250	0.500	5,100	209	0.150	0.500	4,450	142	0.150	0.400
"	R 1	6,400	356	0.400	1.050	5,100	209	0.350	0.800	4,450	142	0.300	0.700
Ø 6	R 0.5	5,300	349	0.200	0.700	4,200	209	0.200	0.600	3,700	140	0.200	0.500
"	R 1	5,300	349	0.300	1.000	4,200	209	0.300	0.800	3,700	140	0.200	0.650
"	R 1.5	5,300	349	0.500	1.300	4,200	209	0.400	1.000	3,700	140	0.300	0.800
Ø 8	R 0.5	4,000	318	0.300	0.700	3,200	191	0.200	0.600	2,800	130	0.200	0.500
"	R 1	4,000	318	0.400	1.000	3,200	191	0.250	0.900	2,800	130	0.250	0.700
"	R 1.5	4,000	318	0.400	1.300	3,200	191	0.250	1.200	2,800	130	0.250	0.800
Ø 10	R 0.5	3,200	300	0.400	0.800	2,550	180	0.200	0.600	2,200	122	0.200	0.500
"	R 1	3,200	300	0.500	1.000	2,550	180	0.300	0.800	2,200	122	0.300	0.800
"	R 2	3,200	300	0.500	1.700	2,550	180	0.300	1.500	2,200	122	0.300	1.300
Ø 12	R 0.5	2,650	300	0.500	1.000	2,100	180	0.350	0.800	1,860	122	0.200	0.600
"	R 1	2,650	300	0.600	1.300	2,100	180	0.350	1.200	1,860	122	0.300	1.000
"	R 2	2,650	300	0.600	1.800	2,100	180	0.350	1.700	1,860	122	0.300	1.400
"	R 3	2,650	300	0.600	2.500	2,100	180	0.400	2.000	1,860	122	0.300	1.800

2HRR/2HTR					Cutting Condition							
Side Cutting												
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			
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 0.4	33,000	105	0.400	0.012	25,000	60	0.200	0.008	25,000	60	0.200	0.008
Ø 0.5	33,000	110	0.500	0.015	25,000	65	0.250	0.010	20,000	40	0.250	0.010
Ø 0.8	30,000	125	0.800	0.024	25,000	85	0.400	0.016	20,000	50	0.400	0.016
Ø 1	25,000	145	1.000	0.030	19,000	128	0.500	0.020	16,000	74	0.500	0.020
Ø 2	14,500	208	2.000	0.060	11,000	129	1.000	0.040	9,500	76	1.000	0.040
Ø 3	9,500	208	3.000	0.090	7,500	131	1.500	0.060	6,400	77	1.500	0.060
Ø 4	7,200	216	4.000	0.120	5,600	132	2.000	0.080	4,750	78	2.000	0.080
Ø 6	5,300	224	6.000	0.180	4,200	133	3.000	0.120	3,700	80	3.000	0.120
Ø 8	4,000	204	8.000	0.240	3,200	135	4.000	0.160	2,800	81	4.000	0.160
Ø 10	3,200	192	10.000	0.300	2,550	136	5.000	0.200	2,200	82	5.000	0.200
Ø 12	2,650	192	12.000	0.360	2,100	138	6.000	0.240	1,860	84	6.000	0.240
Depth of Cut	 ~ 60HRC  60HRC ~  Inclined Cutting											

- When milling workpiece HRC below 55 (Alloy steel, tool steel), raise up 20% RPM and feed compared to the same diameter.
- In case of long effective length, reduce the RPM and feed by 30% or less.
- For side milling, refer to the corner radius.
- For curved milling, set up the lower value of the pitch than the corner radius value of tool diameter.
- For curved milling, raise up the feed by 30% in stable condition.
- Use the table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- Air blow or mist coolants are recommended and note for chip emission, heat or ignition.