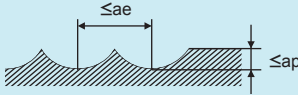
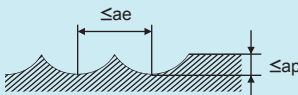


Recommended Cutting Conditions

(inch)

Work Material		Mild Steel, Carbon Steel (180-280HB) Alloy Steel, Pre-hardened Steel, Precipitation Hardening Stainless Steel (<450HB)						Austenitic Stainless Steels (≤200HB) Titanium Alloys					
DC	RE	$\alpha \leq 15^\circ$		$\alpha > 15^\circ$		ap	ae	$\alpha \leq 15^\circ$		$\alpha > 15^\circ$		ap	ae
		n (min ⁻¹)	vf (IPM)	n (min ⁻¹)	vf (IPM)			n (min ⁻¹)	vf (IPM)	n (min ⁻¹)	vf (IPM)		
1/32	0.397	40000	189.0	40000	189.0	.002	.003	40000	157.5	40000	74.8	.002	.003
1/16	0.794	40000	255.9	40000	255.9	.004	.006	40000	255.9	32000	126.0	.004	.006
1/8	1.588	40000	295.3	40000	295.3	.005	.012	32000	236.2	22000	133.9	.005	.012
3/16	2.381	25000	236.2	25000	236.2	.008	.020	20000	212.6	13000	90.6	.008	.020
1/4	3.175	21000	228.3	21000	228.3	.010	.024	17000	185.0	10000	78.7	.010	.024
5/16	3.969	16000	177.2	16000	177.2	.012	.032	13000	141.7	8000	59.1	.012	.032
3/8	4.763	13000	141.7	13000	141.7	.020	.039	10000	114.2	6400	47.2	.020	.039
1/2	6.35	9000	98.4	9000	98.4	.020	.047	8500	90.6	5300	43.3	.020	.047
Depth of Cut													

Work Material		Hardened Steel (40-55HRC)						Copper, Copper Alloys					
DC	RE	$\alpha \leq 15^\circ$		$\alpha > 15^\circ$		ap	ae	$\alpha \leq 15^\circ$		$\alpha > 15^\circ$		ap	ae
		n (min ⁻¹)	vf (IPM)	n (min ⁻¹)	vf (IPM)			n (min ⁻¹)	vf (IPM)	n (min ⁻¹)	vf (IPM)		
1/32	.397	40000	126.0	40000	59.8	.002	.003	40000	189.0	40000	189.0	.002	.003
1/16	.794	40000	204.7	32000	100.8	.004	.006	40000	255.9	40000	255.9	.004	.006
1/8	1.588	32000	189.0	22000	107.1	.005	.012	40000	295.3	40000	295.3	.005	.012
3/16	2.381	20000	170.1	13000	72.5	.008	.020	25000	236.2	25000	236.2	.008	.020
1/4	3.175	17000	148.0	10000	63.0	.010	.024	21000	228.3	21000	228.3	.010	.024
5/16	3.969	13000	113.4	8000	47.3	.012	.032	16000	177.2	16000	177.2	.012	.032
3/8	4.763	10000	91.4	6400	37.8	.020	.039	13000	141.7	13000	141.7	.020	.039
1/2	6.35	8500	72.5	5300	34.6	.020	.047	9000	98.4	9000	98.4	.020	.047
Depth of Cut													

(Note 1) α is the inclination angle of the machined surface.

(Note 2) If the depth of cut is smaller, the revolution and the feed rate can be increased.

(Note 3) If the rigidity of the work materials installation is very low, or chattering and noise are generated, reduce the revolution and the feed rate proportionately.