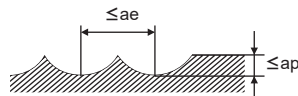


Recommended Cutting Conditions

(inch)

Workpiece Material				Hardened Steels (45—55HRC)				Hardened Steels (55—70HRC)			
				Revolution (min ⁻¹)	Feed Rate (IPM)	Depth of Cut ap	Width of Cut ae	Revolution (min ⁻¹)	Feed Rate (IPM)	Depth of Cut ap	Width of Cut ae
Corner Radius RE (mm)	Neck length LU (inch)	Neck length LU (mm)	Neck length LU (inch)								
0.1	.004	0.5	.020	40000	11.8	.00012	.0004	40000	11.8	.00008	.0004
0.1	.004	1	.039	40000	11.8	.00008	.0004	40000	11.8	.00008	.0004
0.15	.006	1	.039	40000	19.7	.00028	.0006	40000	19.7	.00020	.0006
0.15	.006	1.5	.059	40000	19.7	.00020	.0006	40000	19.7	.00012	.0006
0.15	.006	2	.079	40000	19.7	.00012	.0006	40000	19.7	.00008	.0006
0.2	.008	1	.039	40000	55.1	.00059	.0008	40000	55.1	.00039	.0008
0.2	.008	1.5	.059	40000	39.4	.00039	.0008	40000	39.4	.00024	.0008
0.2	.008	2	.079	40000	39.4	.00039	.0008	40000	39.4	.00024	.0008
0.2	.008	2.5	.098	40000	27.6	.00020	.0008	40000	27.6	.00012	.0008
0.2	.008	3	.118	40000	27.6	.00020	.0008	40000	27.6	.00012	.0008
0.2	.008	4	.157	40000	23.6	.00016	.0008	40000	19.7	.00012	.0008
0.25	.010	1.5	.059	40000	78.7	.00079	.0010	40000	78.7	.00059	.0010
0.25	.010	2	.079	40000	78.7	.00079	.0010	40000	78.7	.00059	.0010
0.25	.010	2.5	.098	40000	59.1	.00059	.0010	40000	59.1	.00039	.0010
0.25	.010	3	.118	40000	47.2	.00059	.0010	40000	47.2	.00039	.0010
0.25	.010	4	.157	36000	35.4	.00394	.0010	36000	35.4	.00028	.0010
0.3	.012	2	.079	40000	110.2	.0012	.0012	40000	110.2	.0008	.0012
0.3	.012	3	.118	40000	110.2	.0012	.0012	40000	110.2	.0008	.0012
0.3	.012	4	.157	35000	78.7	.0008	.0012	35000	78.7	.0006	.0012
0.3	.012	5	.197	30000	39.4	.0004	.0012	30000	39.4	.0003	.0012
0.3	.012	6	.236	30000	31.5	.0003	.0012	30000	31.5	.0002	.0012
0.4	.016	3	.118	40000	118.1	.0016	.0016	40000	118.1	.0012	.0016
0.4	.016	4	.157	40000	118.1	.0008	.0016	40000	118.1	.0006	.0016
0.4	.016	6	.236	30000	63.0	.0008	.0016	30000	63.0	.0004	.0016
0.4	.016	8	.315	25000	39.4	.0004	.0016	25000	39.4	.0003	.0016
0.5	.020	3	.118	40000	157.5	.0020	.0020	40000	157.5	.0016	.0020
0.5	.020	4	.157	40000	157.5	.0020	.0020	40000	157.5	.0016	.0020
0.5	.020	6	.236	35000	78.7	.0012	.0020	35000	78.7	.0008	.0020
0.5	.020	8	.315	30000	63.0	.0008	.0020	30000	63.0	.0004	.0020
0.5	.020	10	.394	20000	39.4	.0004	.0020	20000	39.4	.0004	.0020
0.5	.020	12	.472	20000	39.4	.0004	.0020	20000	31.5	.0003	.0020
0.75	.030	6	.236	40000	196.9	.0028	.0030	40000	157.5	.0024	.0030
0.75	.030	8	.315	40000	196.9	.0028	.0030	40000	137.8	.0024	.0030
0.75	.030	10	.394	40000	177.2	.0024	.0030	40000	94.5	.0024	.0030
0.75	.030	12	.472	32000	133.9	.0016	.0030	32000	78.7	.0016	.0030
0.75	.030	14	.551	16000	59.1	.0016	.0030	16000	47.2	.0012	.0030
0.75	.030	16	.630	13000	47.2	.0012	.0030	13000	47.2	.0008	.0030
1	.039	6	.236	40000	236.2	.0039	.0039	40000	133.9	.0039	.0039
1	.039	8	.315	40000	196.9	.0039	.0039	40000	118.1	.0039	.0039
1	.039	10	.394	40000	196.9	.0031	.0039	40000	118.1	.0028	.0039
1	.039	12	.472	40000	196.9	.0031	.0039	40000	102.4	.0020	.0039
1	.039	16	.630	32000	137.8	.0020	.0039	32000	66.9	.0012	.0039
1	.039	20	.787	10000	39.4	.0016	.0039	10000	39.4	.0012	.0039
1.25	.049	10	.394	36000	196.9	.0047	.0098	36000	102.4	.0043	.0098
1.25	.049	15	.591	36000	181.1	.0031	.0098	36000	78.7	.0030	.0098

Depth of Cut



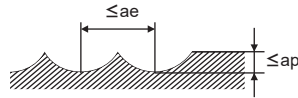
- Note 1) When the inclination angle of machined surface is large, or machining with large cutting load such as corner area, reduce the revolution and feed rate.
- Note 2) If the depth of cut is shallow, the revolution and feed rate can be increased.
- Note 3) Cutting conditions may differ considerably due to the tool overhang, depth of cut and machine tool condition. Please use the table above as a reference starting point.

Recommended Cutting Conditions

(inch)

Workpiece Material				Hardened Steels (45—55HRC)				Hardened Steels (55—70HRC)			
				Revolution (min ⁻¹)	Feed Rate (IPM)	Depth of Cut ap	Width of Cut ae	Revolution (min ⁻¹)	Feed Rate (IPM)	Depth of Cut ap	Width of Cut ae
Corner Radius RE (mm)	(inch)	Neck length LU (mm)	(inch)								
1.5	.059	10	.394	32000	200.8	.0059	.0118	32000	86.6	.0059	.0118
1.5	.059	12	.472	32000	200.8	.0051	.0118	32000	86.6	.0051	.0118
1.5	.059	16	.630	32000	177.2	.0039	.0118	32000	70.9	.0039	.0118
1.5	.059	20	.787	27000	149.6	.0039	.0118	27000	63.0	.0024	.0118
1.5	.059	25	.984	21000	106.3	.0031	.0118	21000	47.2	.0024	.0118
1.5	.059	30	1.181	9000	39.4	.0031	.0118	9000	27.6	.0020	.0118
2	.079	10	.394	24000	189.0	.0079	.0157	24000	86.6	.0079	.0157
2	.079	12	.472	24000	189.0	.0079	.0157	24000	86.6	.0079	.0157
2	.079	16	.630	24000	149.6	.0059	.0157	24000	59.1	.0059	.0157
2	.079	20	.787	24000	149.6	.0059	.0157	24000	59.1	.0059	.0157
2	.079	25	.984	24000	149.6	.0059	.0157	24000	43.3	.0039	.0157
2	.079	30	1.181	24000	118.1	.0039	.0157	24000	43.3	.0031	.0157
2.5	.098	20	.787	19000	133.9	.0079	.0197	19000	55.1	.0079	.0197
2.5	.098	25	.984	19000	133.9	.0079	.0197	19000	55.1	.0079	.0197
3	.118	18	.709	16000	137.8	.0098	.0236	16000	39.4	.0079	.0236
3	.118	30	1.181	16000	137.8	.0079	.0236	16000	39.4	.0079	.0236

Depth of Cut



Note 1) When the inclination angle of machined surface is large, or machining with large cutting load such as corner area, reduce the revolution and feed rate.

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

Note 3) Cutting conditions may differ considerably due to the tool overhang, depth of cut and machine tool condition. Please use the table above as a reference starting point.