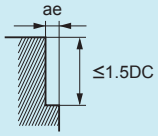
Recommended Cutting Conditions

Shoulder Milling

(inch)

Work Material	Carbon Steel,Alloy Steel (≤280HB) Mild Steel			Carbon Steel,Alloy Steel (>280HB) Alloy Tool Steel Pre-hardened Steel			Austenitic Stainless Steels Titanium Alloys			Hardened Steel (40-55HRC)		
DC	**n** (min^{-1})	**vf** (IPM)	**ae**	**n** (min^{-1})	**vf** (IPM)	**ae**	**n** (min^{-1})	**vf** (IPM)	**ae**	**n** (min^{-1})	**vf** (IPM)	**ae**
1/8	10000	47.2	.025	7500	8.9	.025	7000	8.3	.025	5000	5.9	.006
3/16	6700	42.2	.037	5000	7.9	.037	4700	7.4	.037	3300	5.2	.009
1/4	5000	35.4	.050	3800	6.7	.050	3500	6.2	.050	2500	4.4	.013
5/16	4000	31.5	.062	3000	5.9	.062	2800	5.5	.062	2000	3.9	.016
3/8	3300	31.2	.075	2500	5.9	.075	2300	5.4	.075	1700	4.0	.019
1/2	2500	23.6	.100	1900	4.5	.100	1800	4.3	.100	1300	3.1	.025
Depth of Cut	 DC : Dia											

(Note 1) When cutting austenitic stainless steels, the use of water-soluble cutting fluid is especially effective.
(Note 2) If the depth of cut is smaller than this table, feed rate can be increased.
(Note 3) If the rigidity of the machine or the workpiece installation is very low, or chattering and noise are generated, please reduce the revolution and the feed rate proportionately.