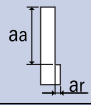


List 690: Regular Length - Multiple Flute - Center Hole

Side Milling

Hardness	<20 HRC		20-30 HRC		30-40 HRC		40-45 HRC		<50 HRC										
Work Material	Mild Steels (up to 70x103 lb/in.2)		Medium Tensile Steels (70x103 to 115x103 lb/in.2) Mild Steel Forgings Cast Iron		High Tensile Steels (115x103 to 142x103 lb/in.2) Heat Resistant Ferritic Low Alloys		High Tensile Steels (142x103 to 200x103 lb/in.2) Tool Steels Medium Strength Stainless Steel		High Strength Stainless Steels										
Cutting Speed	130-148 SFM		115-131 SFM		79-83 SFM		55-66 SFM		45-47 SFM										
Depth of Cut	<table border="1"> <thead> <tr> <th>Dia</th> <th>aa</th> <th>ar</th> </tr> </thead> <tbody> <tr> <td>1/2 ≤ D < 1-1/8</td> <td>1.5D</td> <td>0.5D</td> </tr> <tr> <td>1-1/4 ≤ D ≤ 2</td> <td>1D</td> <td>0.5D</td> </tr> </tbody> </table> 										Dia	aa	ar	1/2 ≤ D < 1-1/8	1.5D	0.5D	1-1/4 ≤ D ≤ 2	1D	0.5D
Dia	aa	ar																	
1/2 ≤ D < 1-1/8	1.5D	0.5D																	
1-1/4 ≤ D ≤ 2	1D	0.5D																	
Mill Dia.	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min									
1/4	2,230	6.0	1,770	4.5	1,250	3.0	940	2.3	700	1.5									
5/16	1,700	7.9	1,600	6.3	1,000	3.5	800	2.8	560	1.5									
3/8	1,470	10.3	1,180	7.0	835	4.0	660	3.3	470	1.9									
1/2	1,100	9.3	900	6.4	630	4.1	425	3.1	355	1.9									
5/8	850	12.5	715	8.4	500	6.3	400	4.0	280	2.4									
3/4	725	14.8	590	8.4	420	6.0	325	4.3	235	2.4									
7/8	630	14.0	500	8.4	350	6.0	280	4.5	200	2.4									
1	560	14.0	450	7.9	310	6.0	250	4.5	175	2.3									
1-1/8	490	12.1	400	7.0	270	6.0	220	4.3	160	2.4									
1-1/4	450	11.8	355	7.0	250	5.5	200	4.0	140	2.3									
1-1/2	370	10.1	300	6.6	210	4.5	165	3.3	115	1.9									
1-3/4	315	8.8	250	6.0	180	4.0	140	2.8	100	1.5									
2	275	7.8	220	5.0	155	3.5	120	2.3	90	1.4									

ABOUT OSG

DRILLING

THREADING

MILLING

HOLDERS

INDEX

