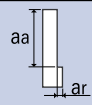


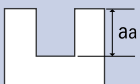
List 531: Single End - Regular Length - 3 Flute
List 532: Double End - Regular Length - 3 Flute
List 536: Single End - Long Length - 3 Flute

Side Milling

Hardness	<145 Brinell		<20 HRC		20-30 HRC		30-40 HRC		-	
Work Material	Mild Steels Hard Brass Bronze Cast Iron		Med. Carbon Steels Hard Brass and Bronze Mild Steel Forgings		High Carbon Steel Unalloyed Titanium Ferritic Low Alloys		High Alloys Titanium Alloys High Strength Stainless Steels		Aluminum Aluminum Alloys	
Cutting Speed	155 SFM		115 SFM		70 SFM		40 SFM		395 SFM	
Depth of Cut	$a_a = 1.5D$ $a_r = 0.2D$ 									
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
1/8	4,700	5.7	3,516	4.1	2,140	2.0	1,223	0.9	12,076	13.4
3/16	3,200	9.1	2,344	6.0	1,427	3.1	815	1.4	8,051	20.1
1/4	2,350	8.3	1,758	5.4	1,070	2.7	611	1.2	6,038	16.9
5/16	1,896	11.0	1,406	7.0	856	3.6	489	1.8	4,831	25.2
3/8	1,580	12.9	1,172	8.3	713	3.9	408	2.0	4,025	25.2
1/2	1,185	11.6	879	6.9	535	3.7	306	1.9	3,019	21.4
5/8	948	10.4	703	6.9	428	3.7	245	2.1	2,415	21.4
3/4	790	10.4	586	6.0	357	3.6	204	2.1	2,013	19.8
1	592	8.4	439	4.6	268	2.9	153	1.6	1,510	17.9
1-1/4	474	6.6	352	3.7	214	2.2	122	1.3	1,208	15.1
1-1/2	395	6.1	293	3.1	178	1.9	102	1.1	1,006	13.2

When using List Number 536, reduce speeds and feeds by 10%.

Slotting

Hardness	<145 Brinell		<20 HRC		20-30 HRC		30-40 HRC		-	
Work Material	Mild Steels Brass Bronze Cast Iron		Med. Carbon Steels Hard Brass and Bronze Mild Steel Forgings		High Carbon Steel Unalloyed Titanium Ferritic Low Alloys		High Alloys Titanium Alloys High Strength Stainless Steels		Aluminum Aluminum Alloys	
Cutting Speed	115-150 SFM		90-110 SFM		50-65 SFM		15-35 SFM		325-375 SFM	
Depth of Cut	$a_a = 1/3D$ 									
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
1/8	4,050	4.9	3,055	3.6	1,760	1.7	765	0.5	10,700	11.8
3/16	2,700	7.7	2,040	5.3	1,170	2.5	500	0.9	7,130	17.8
1/4	2,025	7.1	1,530	4.7	880	2.2	385	0.8	5,350	15.0
5/16	1,620	9.4	1,220	6.1	700	3.0	300	1.1	4,280	22.4
3/8	1,350	11.0	1,020	7.2	585	3.2	255	1.3	3,565	22.3
1/2	1,010	9.9	765	6.0	440	3.0	190	1.2	2,675	18.9
5/8	810	8.9	610	6.0	350	3.1	150	1.3	2,140	18.9
3/4	675	8.9	510	5.3	295	2.9	130	1.3	1,780	17.5
1	500	7.2	385	4.0	220	2.4	95	1.0	1,340	15.8
1-1/4	400	5.7	300	3.2	175	1.8	75	0.8	1,070	13.4
1-1/2	340	5.2	255	2.7	145	1.6	65	0.7	890	11.7

When using List Number 536, reduce speeds and feeds by 10%.