





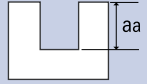
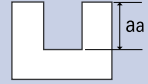
List 4445: 4 Flute, Corner Radius, High Helix, Regular Length

Side Milling

Hardness	<25 HRC		25-35 HRC		38-45 HRC		40-50 HRC		45-55 HRC		20-45 HRC	
Work Material	Mild Steels Carbon Steels Cast Iron		Alloy Steels Tool Steels		Hardened Steels 304 Stainless		Hardened Steels Pre-hardened Steels		Titanium Alloy Ti-6Al-4V		Heat Resistant Alloys Inconel	
Cutting Speed	220-328 SFM		130-220 SFM		115-210 SFM		98-150 SFM		65-195 SFM		65-130 SFM	
Depth of Cut	$a_a=1.5D$ $a_r=0.1D$ 						$a_a=1.5D$ $a_r=0.05D$ 					
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	Speed RPM	Feed in/min
1/8	8,375	26.3	5,350	14.5	4,950	11.0	3,800	12.1	3,970	11.1	2,965	5.3
3/16	5,580	37.9	3,565	18.0	3,300	12.1	2,525	13.5	2,650	12.5	1,975	5.8
1/4	4,200	31.0	2,675	16.3	2,475	11.7	1,900	11.2	1,990	11.7	1,480	5.8
5/16	3,350	36.6	2,140	22.9	2,000	15.7	1,500	11.8	1,600	12.6	1,185	7.7
3/8	2,800	39.4	1,750	23.6	1,650	22.3	1,260	16.2	1,320	12.9	990	8.1
1/2	2,100	29.3	1,335	18.7	1,240	16.9	950	12.0	1,000	12.5	740	5.8

1. Use a rigid and precise machine and holder.
2. When chattering occurs, reduce the speed and feed simultaneously.
3. Use a suitable cutting fluid with high smoke retardant.

Slotting

Hardness	<25 HRC		25-35 HRC		38-45 HRC		40-50 HRC		45-55 HRC		20-45 HRC	
Work Material	Mild Steels Carbon Steels Cast Iron		Alloy Steels Tool Steels		Hardened Steels 304 Stainless		Hardened Steels Pre-hardened Steels		Titanium Alloy Ti-6Al-4V		Heat Resistant Alloys Inconel	
Cutting Speed	130-260 SFM		65-165 SFM		65-165 SFM		50-115 SFM		65-115 SFM		50-80 SFM	
Depth of Cut	$a_a=0.5D$ 						$a_a=0.2D$ 					
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	Speed RPM	Feed in/min
1/8	5,960	11.7	3,970	7.8	3,970	6.7	2,500	4.1	2,750	4.3	2,000	2.9
3/16	3,970	12.3	2,650	8.8	2,650	7.1	1,650	4.7	1,800	4.7	1,300	3.1
1/4	2,980	10.9	1,990	7.8	1,990	6.1	1,250	4.9	1,375	5.0	1,000	2.6
5/16	2,400	13.8	1,600	9.8	1,600	6.7	1,000	5.9	1,100	6.7	800	3.1
3/8	2,000	14.5	1,320	10.3	1,320	7.0	835	6.5	900	6.8	640	3.1
1/2	1,500	11.8	1,000	6.7	1,000	7.0	625	5.9	690	5.6	500	2.8

1. Use a rigid and precise machine and holder.
2. When chattering occurs, reduce the speed and feed simultaneously.
3. Use a suitable cutting fluid with high smoke retardant.

