





List 3771: 4 Flute, Corner Radius, Regular Length

Side Milling

Hardness	<20 HRC		20-30 HRC		30-38 HRC		38-45 HRC		45-55 HRC		55-60 HRC	
Work Material	Mild Steel Carbon Steels Cast Iron		Alloy Steels Tool Steels		Hardened Steels Pre-hardened Steels		Hardened Steels Pre-hardened Steels		Hardened Steels		Hardened Steels	
Cutting Speed	396 SFM		294 SFM		258 SFM		192 SFM		156 SFM		96 SFM	
Depth of Cut	$\bar{a}_a=1.2D$ $\bar{a}_r=0.2D$ 						$\bar{a}_a=1D$ $\bar{a}_r=0.1D$		$\bar{a}_a=1D$ $\bar{a}_r=0.05D$			
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
3	12,810	40.6	9,510	28.4	8,340	24.9	6,210	18.5	5,050	13.0	3,100	5.5
4	9,680	46.5	7,190	31.6	6,310	27.8	4,690	20.7	3,810	15.3	2,350	7.5
5	7,680	49.2	5,710	34.2	5,010	30.0	3,730	20.9	3,030	17.0	1,860	8.9
6	6,400	54.8	4,750	37.8	4,170	30.7	3,100	22.9	2,520	16.1	1,550	8.6
8	4,800	57.6	3,570	38.5	3,130	32.5	2,330	23.3	1,890	16.7	1,160	9.3
10	3,840	53.8	2,850	36.5	2,500	29.0	1,860	20.9	1,510	15.1	930	8.6
12	3,200	54.2	2,380	36.1	2,090	28.8	1,550	19.9	1,260	14.6	780	8.1

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.

High Speed Light Milling

Hardness	<20 HRC		20-30 HRC		30-38 HRC		38-45 HRC		45-55 HRC																			
Work Material	Carbon Steels 1045, 1055		Alloy Steels 4140, 4340		Hardened Steels Pre-hardened Steels D2, H13, 17-4PH		Tool Steels, Hardened Steels Pre-hardened Steels, D2, H13		Hardened Steels Heat Resistant Steels																			
Cutting Speed	1,560 SFM		1,380 SFM		960 SFM		600 SFM		130 SFM																			
Depth of Cut	<table border="1"> <thead> <tr> <th>Dia</th> <th>\bar{a}_a</th> <th>\bar{a}_r</th> </tr> </thead> <tbody> <tr> <td>D<3</td> <td>1.5D</td> <td>0.01D</td> </tr> <tr> <td>3≤D</td> <td>1.5D</td> <td>0.02D</td> </tr> </tbody> </table> 						Dia	\bar{a}_a	\bar{a}_r	D<3	1.5D	0.01D	3≤D	1.5D	0.02D	<table border="1"> <thead> <tr> <th>Dia</th> <th>\bar{a}_a</th> <th>\bar{a}_r</th> </tr> </thead> <tbody> <tr> <td>D<8</td> <td>1.0D</td> <td>0.01D</td> </tr> <tr> <td>8≤D</td> <td>1.0D</td> <td>0.02D</td> </tr> </tbody> </table>				Dia	\bar{a}_a	\bar{a}_r	D<8	1.0D	0.01D	8≤D	1.0D	0.02D
Dia	\bar{a}_a	\bar{a}_r																										
D<3	1.5D	0.01D																										
3≤D	1.5D	0.02D																										
Dia	\bar{a}_a	\bar{a}_r																										
D<8	1.0D	0.01D																										
8≤D	1.0D	0.02D																										
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																		
3	25,000.0	230.0	25,000	220.0	25,000	200.0	19,410	155.2	4,200	28.6																		
4	25,000.0	260.0	25,000	240.0	23,470	215.9	14,670	129.1	3,180	25.4																		
5	25,000.0	300.0	25,000	270.0	18,630	193.7	11,640	116.4	2,520	22.2																		
6	25,000.0	322.6	22,320	261.5	15,520	169.9	9,700	102.3	2,100	19.6																		
8	18,920.0	264.9	16,740	214.2	11,640	135.1	7,280	81.5	1,580	15.8																		
10	15,140.0	242.2	13,390	198.2	9,310	126.7	5,820	74.5	1,260	14.6																		
12	12,610.0	213.8	11,160	169.3	7,760	107.0	4,850	62.1	1,050	12.2																		

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.

