List 3723: 2 Flute, Long Length

Side Milling

Hardness	–		<32 HRC		33-41 HRC		42-50 HRC	
Work Material	Copper Copper Alloy		Mild Steels Carbon Steels		Hardened Steels, Pre-hardened Steels Stainless Steels			
Cutting Speed	66-116 SFM		46-76 SFM		39-76 SFM		57-67 SFM	
Depth of Cut	Dia / aa / ar D<1 / 4D / 0.05D 1≤D / 4D / 0.01D		Dia / aa / ar D<0.3 / 4D / 0.015D 0.3≤D<1 / 4D / 0.03D 1≤D<3 / 4D / 0.05D 3≤D / 4D / 0.1D					
Mill Dia.	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min
0.2	25,000	2.8	25,000	1.3	25,000	1.5	-	-
0.3	25,000	3.4	19,730	1.4	18,600	1.3	-	-
0.4	22,070	3.8	14,800	1.6	13,950	1.3	-	-
0.5	17,660	4.2	11,840	1.6	11,160	1.4	-	-
0.6	14,720	4.3	9,860	1.6	9,300	1.5	-	-
0.7	12,610	3.7	8,460	1.6	7,970	1.8	-	-
0.8	11,040	4.3	7,400	1.6	6,970	1.8	-	-
0.9	9,810	3.9	6,580	1.6	6,200	1.8	-	-
1.0	8,830	4.3	5,920	1.8	5,580	1.6	-	-
1.1	8,030	4.7	5,380	1.8	5,070	1.6	-	-
1.2	7,360	4.4	4,930	1.8	4,650	1.6	-	-
1.3	6,790	4.3	4,550	1.8	4,290	1.6	-	-
1.4	6,310	4.3	4,230	1.8	3,990	1.6	-	-
1.5	5,890	4.3	3,950	1.8	3,720	1.6	-	-
1.6	5,520	4.1	3,700	1.8	3,490	1.6	-	-
1.7	5,190	4.0	3,480	1.7	3,280	1.5	-	-
1.8	4,910	4.0	3,290	1.8	3,100	1.6	-	-
1.9	4,650	4.0	3,120	1.7	2,940	1.5	-	-
2.0	4,410	4.0	2,960	1.7	2,790	1.6	-	-
2.1	4,200	4.1	2,820	1.7	2,660	1.5	-	-
2.2	4,010	4.5	2,690	2.0	2,540	1.5	-	-
2.3	3,840	4.4	2,570	1.9	2,430	1.5	-	-
2.4	3,680	4.3	2,470	2.1	2,320	1.5	-	-
2.5	3,530	4.7	2,370	2.1	2,230	1.4	-	-
2.6	3,400	4.8	2,280	2.1	2,150	1.4	-	-
2.7	3,270	5.2	2,190	2.1	2,070	1.6	-	-
2.8	3,150	5.2	2,110	2.1	1,990	1.6	-	-
2.9	3,040	5.1	2,040	2.3	1,920	1.6	-	-
3.0	2,940	5.1	1,970	2.2	1,860	1.7	2,010	3.1
3.1	2,850	5.6	1,910	2.3	1,800	1.8	1,940	3.2
3.2	2,760	5.8	1,850	2.4	1,740	1.7	1,880	3.3
3.3	2,680	5.8	1,790	2.4	1,690	1.9	1,820	3.4
3.4	2,600	5.8	1,740	2.7	1,640	2.0	1,770	3.3
3.5	2,520	5.7	1,690	2.6	1,590	1.9	1,720	3.4
3.6	2,450	5.7	1,640	2.5	1,550	2.0	1,670	3.5
3.7	2,390	5.9	1,600	2.6	1,510	2.1	1,630	3.6
3.8	2,320	6.2	1,560	2.5	1,470	2.0	1,580	3.5
3.9	2,260	6.3	1,520	2.8	1,430	2.1	1,540	3.4
4.0	2,210	6.2	1,480	2.7	1,390	2.2	1,500	3.8
4.1	2,150	6.4	1,440	2.7	1,360	2.2	1,470	3.7
4.2	2,100	6.8	1,410	2.8	1,330	2.1	1,430	3.6
4.3	2,050	6.7	1,380	2.9	1,300	2.2	1,400	3.5
4.4	2,010	7.1	1,350	2.8	1,270	2.2	1,370	3.7
4.5	1,960	7.4	1,320	2.9	1,240	2.1	1,340	3.8
4.6	1,920	7.2	1,290	2.9	1,210	2.1	1,310	3.8
4.7	1,880	7.0	1,260	3.0	1,190	2.0	1,280	3.7
4.8	1,840	6.9	1,230	2.9	1,160	2.0	1,250	3.6
4.9	1,800	7.4	1,210	3.1	1,140	2.1	1,230	3.5
5.0	1,770	7.3	1,180	3.2	1,120	2.0	1,200	3.6
5.1	1,730	7.5	1,160	3.1	1,090	2.0	1,180	3.9
5.2	1,700	7.4	1,140	3.0	1,070	2.0	1,160	3.8
5.3	1,670	7.7	1,120	3.2	1,050	2.1	1,140	3.7
5.4	1,640	7.5	1,100	3.2	1,030	2.0	1,110	3.7
5.5	1,610	7.4	1,080	3.1	1,010	2.0	1,090	3.9

1. Use a rigid and precise machine and holder.
2. Use a suitable cutting fluid with high smoke retardant.
3. When the length of tool extension from the machine is long, reduce the speed and feed.

Side Milling

Hardness	–		<32 HRC		33-41 HRC		42-50 HRC	
Work Material	Copper Copper Alloy		Mild Steels Carbon Steels		Hardened Steels, Pre-hardened Steels Stainless Steels			
Cutting Speed	66-116 SFM		46-76 SFM		39-76 SFM		57-67 SFM	
Depth of Cut	Dia / aa / ar D<1 / 4D / 0.05D 1≤D / 4D / 0.01D		Dia / aa / ar D<0.3 / 4D / 0.015D 0.3≤D<1 / 4D / 0.03D 1≤D<3 / 4D / 0.05D 3≤D / 4D / 0.1D 					
Mill Dia.	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min	Speed RPM	Feed in/min
5.6	1,580	7.7	1,060	3.0	1,000	2.0	1,070	3.8
5.7	1,550	7.5	1,040	3.0	980	1.9	1,060	3.8
5.8	1,520	7.4	1,020	3.2	960	2.1	1,040	3.7
5.9	1,500	7.7	1,000	3.1	950	2.0	1,020	4.0
6.0	1,470	7.6	990	3.1	930	2.0	1,000	3.9
8.0	1,100	7.9	740	3.1	700	2.0	750	3.7
10.0	880	7.7	590	3.0	560	2.0	600	3.6
12.0	740	7.2	490	2.9	460	2.0	500	3.6

1. Use a rigid and precise machine and holder.
2. Use a suitable cutting fluid with high smoke retardant.
3. When the length of tool extension from the machine is long, reduce the speed and feed.