



List HP432

Slotting (Fractional)

Hardness	-	<20 HRC	20-30 HRC		30-38 HRC		38-45 HRC		45-55 HRC		55-60 HRC																							
Work Material	Cast Iron	Mild Steels Carbon Steels	Alloy Steels Tool Steels Ti Alloys (Annealed)		Hardened Steels Pre-hardened Steels Ti Alloys (Solution Treated and Aged)		Hardened Steels Pre-hardened Steels Stainless Steels Inconel Ni Based Alloys		Hardened Steels		Hardened Steels																							
Cutting Speed	360 SFM	330 SFM	260 SFM		220 SFM		180 SFM		120 SFM		80 SFM																							
Depth of Cut	<table border="1"> <tr><th>Dia</th><th>aa</th></tr> <tr><td>D<1/16</td><td>0.1D</td></tr> <tr><td>1/16≤D≤1/8</td><td>0.3D</td></tr> <tr><td>1/8≤D</td><td>0.5D</td></tr> </table>		Dia	aa	D<1/16	0.1D	1/16≤D≤1/8	0.3D	1/8≤D	0.5D							<table border="1"> <tr><th>Dia</th><th>aa</th></tr> <tr><td>D<1/16</td><td>0.02D</td></tr> <tr><td>1/16≤D</td><td>0.05D</td></tr> </table>		Dia	aa	D<1/16	0.02D	1/16≤D	0.05D	<table border="1"> <tr><th>Dia</th><th>aa</th></tr> <tr><td>D<1/16</td><td>0.01D</td></tr> <tr><td>1/16≤D≤1/8</td><td>0.02D</td></tr> <tr><td>1/8≤D</td><td>0.05D</td></tr> </table>		Dia	aa	D<1/16	0.01D	1/16≤D≤1/8	0.02D	1/8≤D	0.05D
	Dia	aa																																
D<1/16	0.1D																																	
1/16≤D≤1/8	0.3D																																	
1/8≤D	0.5D																																	
Dia	aa																																	
D<1/16	0.02D																																	
1/16≤D	0.05D																																	
Dia	aa																																	
D<1/16	0.01D																																	
1/16≤D≤1/8	0.02D																																	
1/8≤D	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	Speed RPM	Feed in/min																				
1/8	10,990	12.4	10,075	11.5	7,940	8.0	6,720	5.4	5,495	4.0	3,665	2.5	2,445	1.5																				
3/16	7,330	15.7	6,720	14.4	5,295	10.4	4,480	6.0	3,665	4.4	2,445	2.7	1,630	1.4																				
1/4	5,500	15.7	5,040	14.4	3,970	10.7	3,360	6.0	2,750	4.5	1,830	2.7	1,220	1.2																				
5/16	4,395	15.3	4,030	14.0	3,175	10.8	2,685	6.0	2,200	4.5	1,465	2.5	975	1.2																				
3/8	3,665	14.6	3,360	13.3	2,645	10.6	2,240	5.9	1,830	4.3	1,220	2.4	815	1.2																				
1/2	2,750	14.4	2,520	13.3	1,985	10.4	1,680	5.7	1,375	4.3	915	2.1	610	0.9																				
5/8	2,200	12.6	2,015	12.4	1,590	9.3	1,345	4.8	1,100	3.8	735	1.7	490	0.7																				
3/4	1,830	11.5	1,680	10.5	1,325	7.7	1,120	3.9	915	3.1	610	1.5	410	0.6																				
1	1,375	8.6	1,260	7.8	990	5.8	840	3.0	685	2.5	460	0.9	305	0.5																				

For side milling, increase feeds 20% to 50%.

Slotting (Metric)

Hardness	-	<20 HRC	20-30 HRC		30-38 HRC		38-45 HRC		45-55 HRC		55-60 HRC																							
Work Material	Cast Iron	Mild Steels Carbon Steels	Alloy Steels Tool Steels Ti Alloys (Annealed)		Hardened Steels Pre-hardened Steels Ti Alloys (Solution Treated and Aged)		Hardened Steels Pre-hardened Steels Stainless Steels Inconel Ni Based Alloys		Hardened Steels		Hardened Steels																							
Cutting Speed	360 SFM	330 SFM	260 SFM		220 SFM		180 SFM		120 SFM		80 SFM																							
Depth of Cut	<table border="1"> <tr><th>Dia</th><th>aa</th></tr> <tr><td>D<1</td><td>0.1D</td></tr> <tr><td>1≤D<3</td><td>0.3D</td></tr> <tr><td>3≤D</td><td>0.5D</td></tr> </table>		Dia	aa	D<1	0.1D	1≤D<3	0.3D	3≤D	0.5D							<table border="1"> <tr><th>Dia</th><th>aa</th></tr> <tr><td>D<1</td><td>0.02D</td></tr> <tr><td>1≤D</td><td>0.05D</td></tr> </table>		Dia	aa	D<1	0.02D	1≤D	0.05D	<table border="1"> <tr><th>Dia</th><th>aa</th></tr> <tr><td>D<1</td><td>0.01D</td></tr> <tr><td>1≤D<3</td><td>0.02D</td></tr> <tr><td>3≤D</td><td>0.05D</td></tr> </table>		Dia	aa	D<1	0.01D	1≤D<3	0.02D	3≤D	0.05D
	Dia	aa																																
D<1	0.1D																																	
1≤D<3	0.3D																																	
3≤D	0.5D																																	
Dia	aa																																	
D<1	0.02D																																	
1≤D	0.05D																																	
Dia	aa																																	
D<1	0.01D																																	
1≤D<3	0.02D																																	
3≤D	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	Speed RPM	Feed in/min																				
3	11,635	12.4	10,665	11.4	8,400	7.8	7,110	5.2	5,815	3.9	3,880	2.5	2,585	1.5																				
4	8,725	14.7	8,000	13.5	6,300	10.5	5,330	7.0	4,365	5.0	2,910	2.9	1,940	1.7																				
5	6,980	19.7	6,400	17.9	5,040	13.4	4,265	7.4	3,490	5.6	2,325	3.2	1,550	1.7																				
6	5,815	19.3	5,330	17.6	4,200	13.4	3,555	7.4	2,910	5.6	1,940	3.2	1,295	1.4																				
8	4,365	18.4	4,000	16.7	3,150	13.4	2,665	7.0	2,180	5.6	1,455	2.9	970	1.4																				
10	3,490	17.4	3,200	15.8	2,520	13.1	2,135	7.0	1,745	5.3	1,165	2.9	775	1.4																				
12	2,910	17.4	2,665	15.8	2,100	13.1	1,775	7.0	1,454	5.3	970	2.6	645	1.1																				

For side milling, increase feeds 20% to 50%.

ABOUT OSG

DRILLING

THREADING

MILLING

HOLDERS

INDEX

CONTINUED

