

# RECOMMENDED CUTTING CONDITIONS

## HSS/Cobalt Jobbers & Screw Machine Drills

### STANDARD HELIX 135° SPLIT POINT

Work Material		Low Carbon Steel		Carbon and Alloy Steel		Alloy Steels		Cast Iron		Stainless Steels	
Hardness				Less Than 23 Rc		23-34 Rc		Less Than 28 Rc		Less Than 28 Rc	
Diameter		RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate
Metric	Inch										
2	1/16	14000	0.0008	12500	0.0008	7700	0.0008	16000	0.0008	7000	0.0008
2.5	3/32	7000	0.0023	6100	0.0024	3850	0.0024	7900	0.0027	3500	0.0024
3	1/8	4650	0.0038	4100	0.0031	2550	0.031	5250	0.0043	2350	0.0031
4	5/32	3500	0.0044	3050	0.0043	1950	0.0039	3950	0.0054	1750	0.0039
5	3/16	3800	0.0049	2450	0.0043	1550	0.0039	3150	0.0054	1400	0.0039
6	1/4	2350	0.0056	2050	0.0051	1300	0.0047	2650	0.0069	1150	0.0047
8	5/16	1750	0.0072	1550	0.0071	960	0.0059	1950	0.0087	875	0.0059
10	3/8	1550	0.0077	1350	0.0087	855	0.0071	1750	0.0095	780	0.0071
11	7/16	1250	0.0087	1100	0.0087	700	0.0071	1450	0.0108	650	0.0071
12	15/32	1150	0.0090	1000	0.0087	650	0.0079	1300	0.0108	585	0.0079
13	1/2	1050	0.0090	950	0.0087	595	0.0079	1200	0.0108	540	0.0079

### PARABOLIC FLUTE 38° HELIX 130° SPLIT POINT

Work Material	Low Carbon Steel		Alloy Steels		Cast Iron		Stainless Steels		Aluminum Alloys	
Hardness	Less than 25 Rc		25 ~ 35 Rc		Less than 25 Rc		Less Than 28 Rc			
Diameter	RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate	RPM	Feed Rate
1/16	8750	0.0008	6300	0.0008	16000	0.0008	7000	0.0008	21000	0.002
3/32	4400	0.0022	3150	0.0022	7900	0.0027	3500	0.0024	15000	0.003
1/8	2900	0.0032	2100	0.0032	5250	0.0043	2350	0.0031	10500	0.004
5/32	2200	0.0036	1600	0.0036	3950	0.0054	1750	0.0039	8500	0.0045
3/16	1750	0.0041	1250	0.0041	3150	0.0054	1400	0.0039	7000	0.005
1/4	1450	0.0047	1050	0.0047	2650	0.0069	1150	0.0047	5300	0.006
5/16	1100	0.0060	790	0.0060	1950	0.0087	875	0.0059	4200	0.008
3/8	975	0.0066	700	0.0066	1750	0.0095	780	0.0071	3500	0.009
7/16	800	0.0077	575	0.0077	1450	0.0108	650	0.0071	3000	0.0095
15/32	730	0.0077	525	0.0077	1300	0.0108	585	0.0079	2850	0.010
1/2	675	0.0077	485	0.0077	1200	0.0108	540	0.0079	2600	0.011