ROYAL GOLD TIP DRILL SPEED CHARTS

Jobber Length - ANSI

Work Material Hardness Strength	Carbon Steels		Carbon Steels 240 Bhn		Alloy Steels 240-320 Bhn		Stainless Steels 240 Bhn	
Diameter (inch)	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR
3/64 (.0469)	14000	0.0008	12500	0.0008	7700	0.0008	7000	0.0008
#47 (.0785)	7000	0.0023	6100	0.0024	3850	0.0024	3500	0.0024
#32 (.1160)	4650	0.0038	4100	0.0031	2550	0.0031	2350	0.0031
#22 (.1570)	3500	0.0044	3050	0.0043	1950	0.0039	1750	0.0039
#9 (.1960)	2800	0.0049	2450	0.0043	1550	0.0039	1400	0.0039
B (.2380)	2350	0.0056	2050	0.0051	1300	0.0047	1150	0.0047
J (.2770)	2000	0.0064	1750	0.0059	1100	0.0055	1000	0.0055
O (.3160)	1750	0.0072	1550	0.0071	960	0.0059	875	0.0059
T (.3580)	1550	0.0077	1350	0.0087	855	0.0071	780	0.0071
X (.3970)	1400	0.0084	1250	0.0087	770	0.0071	700	0.0071
7/16 (.4375)	1250	0.0087	1100	0.0087	700	0.0071	650	0.0071
15/32 (.4688)	1150	0.0090	1000	0.0087	650	0.0079	585	0.0079
1/2 (.5000)	1050	0.0090	950	0.0087	595	0.0079	540	0.0079

Work Material Hardness	Titanium Alloys		Aluminum Alloys, Zinc Alloys		Magnesium Alloys	
Diameter (inch)	RPM	IPR	RPM	IPR	RPM	IPR
3/64 (.0469)	8050	0.0008	30000	0.0008	11500	0.0012
#47 (.0785)	4050	0.0024	15000	0.0023	5800	0.0035
#32 (.1160)	2700	0.0031	9900	0.0038	3850	0.0051
#22 (.1570)	2000	0.0035	7450	0.0044	2900	0.0059
#9 (.1960)	1600	0.0039	5950	0.0049	2300	0.0067
B (.2380)	1350	0.0047	4950	0.0056	1950	0.0075
J (.2770)	1150	0.0055	4250	0.0064	1650	0.0087
O (.3160)	1000	0.0059	3700	0.0072	1450	0.0094
T (.3580)	895	0.0067	3300	0.0079	1280	0.0106
X (.3970)	805	0.0071	3000	0.0090	1150	0.0114
7/16 (.4375)	730	0.0071	2700	0.0090	1050	0.0118
15/32 (.4688)	670	0.0079	2480	0.0090	960	0.0122
1/2 (.5000)	620	0.0079	2300	0.0090	890	0.0122

ROYAL GOLD TIP DRILL SPEED CHARTS

Jobber Length - Parabolic Flute

Work Material Hardness	Carbon Steels Alloy Steels, 200-285 Bhn		Tool Steels Hardened Steels 225-375 Bhn		Soft Grey Cast Iron		Hard Grey Cast Iron	
Diameter (inch)	RPM	IPR	RPM	IPR	RPM	IPR	RPM	IPR
3/64 (.0469)	8750	0.0008	6300	0.0008	16000	0.0008	9800	0.0008
#47 (.0785)	4400	0.0022	3150	0.0022	7900	0.0027	4900	0.0027
#32 (.1160)	2900	0.0032	2100	0.0032	5250	0.0043	3250	0.0043
#22 (.1570)	2200	0.0036	1600	0.0036	3950	0.0054	2450	0.0054
#9 (.1960)	1750	0.0041	1250	0.0041	3150	0.0054	1950	0.0054
B (.2380)	1450	0.0047	1050	0.0047	2650	0.0069	1650	0.0069
J (.2770)	1250	0.0054	900	0.0054	2250	0.0078	1400	0.0078
O (.3160)	1100	0.0060	790	0.0060	1950	0.0087	1250	0.0087
T (.3580)	975	0.0066	700	0.0066	1750	0.0095	1100	0.0095
X (.3970)	875	0.0071	630	0.0071	1600	0.0108	980	0.0108
7/16 (.4375)	800	0.0077	575	0.0077	1450	0.0108	890	0.0108
15/32 (.4688)	730	0.0077	525	0.0077	1300	0.0108	815	0.0108
1/2 (.5000)	675	0.0077	485	0.0077	1200	0.0108	755	0.0108