

DRILLING RECOMMENDATIONS - TWIST DRILLS
- STUB DRILLS
- STRAIGHT FLUTE DRILLS
- 3 FLUTE DRILLS



Workpiece Material Group	Hardness	Surface Feet Per Minute (SFM)	Inches Per Revolution (IPR)							
		SFM	(IPR) Cutting Tool Diameter							
			1/32	1/16	1/8	1/4	3/8	1/2	5/8	3/4
Steels Free Machining & Low Carbon, 10XX, 11XX, 12XX, 12LXX, ASTM A27, ASTM A36 Medium / High Carbon, Alloys, & Easy to Machine Tool Steels	≤ 28 Rc	175								
	28 - 38 Rc	165	0.0010	0.0020	0.0030	0.0060	0.0080	0.0100	0.0110	0.0120
Tool & Die Steels A2, D2, H13, L6, P20, S7	28 - 44 Rc	150								
Stainless Steels Moderately Difficult to Machine, Nitronic 50, Nitronic 60, 301, 303, 304, 304L, Incoloy 27-7M0, 316 316L, 321, 347 Difficult to Machine, 302B, 304B, 309, 310, 316, 3168, 316L, 316Ti, 317, 317L, 321, PH13-8Mo, Nitronics	≤ 28 Rc	140	0.0010	0.0020	0.0030	0.0060	0.0080	0.0100	0.0110	0.0120
	> 28 Rc	60	0.0003	0.0005	0.0020	0.0040	0.0050	0.0060	0.0080	0.0100
Super Alloys High Temp, Nimonic, Inconel, Monel, Hastelloy Titanium: Ti 3Al-2.5V, Ti 6Al-4V Ti 10V-2Fe-3Al	≤ 42 Rc	60								
	≤ 42 Rc	80	0.0003	0.0005	0.0020	0.0040	0.0050	0.0060	0.0080	0.0100
Hardened Materials	45 to 65 Rc	50	0.0003	0.0010	0.0010	0.0010	0.0020	0.0020	0.0020	0.0030
Cast Iron Gray, SAE J431, ASTM A48 Ductile & Malleable, ASTM A536, ASTM 897, ASTM A47, ASTM A220, ASTM A602	≤ 240 HB	175	0.0010	0.0020	0.0030	0.0060	0.0080	0.0100	0.0110	0.0120
	> 240 HB	175								
Non-Ferrous Aluminium, Brass, Bronze, Copper, Plastics Kevlar/Graphite		300	0.0003	0.0005	0.0020	0.0040	0.0050	0.0060	0.0080	0.0100
		375								

