

## Recommended Cutting Data 224 / 226 - Metric

Workpiece Material Group	I S O	Hardness	Tool Series	T Y P E	D E P T H	vc - m/min	Drill Diameter (mm)							
							1	1.5	3	6	10	12	16	20
							f - mm/Rev							
Free Machining & Low Carbon Steels 1006, 1008, 1015, 1018, 1020, 1022, 1025, 1117, 1140, 1141, 11L08, 11L14, 1213, 12L13, 12L14, 1215, 1330	P	up to 28 Rc	226	●	3	55	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									
Medium Carbon & High Carbon Steels, Alloy Steels & Easy to Machine Tool Steels 1030, 1035, 1040, 1045, 1050, 1052, 1055, 1060, 1085, 1095, 1541, 1551, 9255, 2515, 3135, 3415, 4130, 4137, 4140, 4150, 4320, 4340, 4520, 5015, 5115, 5120, 5132, 5140, 5155, 6150, 8620, 9262, 9840, 52100, O1, O2, O6, S2, W1 to W310	P	28 to 38 Rc	226	●	3	50	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									
Tool Steels & Die Steels O7, M1, M2, M3, M4, M7, T1, T2, T4, T5, T8, T15, A2, A3, A6, A7, H10, H11, H12, H13, H19, H21, L3, L6, L7, P2, P20, S1, S5, S7, 52100, A 128, D2, D3, D4, D5, D7	P	28 to 44 Rc	226	●	3	45	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									
Stainless Steel - Easy to Machine 430F, 301, 303, 410, 416 Annealed, 420F, 430, 430F	M	up to 28 Rc	226	●	3	60	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									
Stainless Steel - Moderately Difficult 301, 302, 303 High Tensile, 304, 304L, 305, 420, 15-5PH, 17-4PH, 17-7PH	M	up to 28 Rc	226	●	3	40	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									
Plastics	N		226	●	3	120	.006	.013	.050	.076	.101	.152	.203	.225
			224		5									
Kevlar/Graphite	N		226	●	3	120	.006	.013	.050	.076	.101	.152	.203	.225
			224		5									
Cast Iron - Gray CG, ASTM A48, CLASS 20, 25, 30, 35, SAE J431C, GRADES G1800, G3000, G3500, GG 10, 15, 20, 25, 30, 35, 40	K	up to 240 HB	226	●	3	85	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									
Cast Iron - Ductile & Malleable CGI 60-40-18, 65-45-12, D4018, D4512, D5506, 32510, 35108, M3210, M4504, M5503, 250, 300, 350, 400, 450	K	over 240 HB	226	●	3	55	.025	.050	.076	.152	.203	.254	.275	.305
			224		5									