Twister® Micro XD

Recommended Cutting Data Micro XD MXDSR - Inch

Workpiece Material Group	ISO	Hardness	vc - SFM	Drill Diameter (mm)					
				0.5	1.0	1.5	2.0	2.5	2.95
				f - IPR					
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	150	.0005	.0010	.0015	.0020	.0025	.0030
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	130	.0005	.0010	.0015	.0020	.0025	.0030
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, A128, D2, D3, D4, D5, D7		28 to 44 Rc	120	.0005	.0010	.0015	.0020	.0025	.0030
Hardened Steels A2 / 52100	H	55 Rc	50	.0002	.0004	.0007	.0009	.0011	.0014
Free Machining Stainless	M	up to 28 Rc	140	.0005	.0010	.0015	.0020	.0025	.0030
Stainless Steel - Austenitic 304 / 316	M	up to 28 Rc	125	.0005	.0010	.0015	.0020	.0025	.0030
Stainless Steel - Ferritic / Martensitic	M	up to 28 Rc	110	.0005	.0010	.0015	.0020	.0025	.0030
Stainless Steel - Moderately Difficult 301, 302, 303 High Tensile, 304, 304L, 305, 420, 15-5PH, 17-4PH, 17-7PH	M	over 28 Rc	60	.0005	.0010	.0015	.0020	.0025	.0030
Aluminum (<10% Si)	N		175	.0007	.0015	.0020	.0025	.0030	.0040
Plastics	N		175	.0007	.0015	.0020	.0025	.0030	.0040
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	150	.0005	.0010	.0015	.0020	.0025	.0030
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	150	.0005	.0010	.0015	.0020	.0025	.0030
Titanium 6Al-4V	S	up to 40 Rc	70	.0005	.0010	.0015	.0020	.0025	.0030
High Temp Alloys Inconel / Hastelloy / Waspeloy / Nickel Based Alloys-Monel	S	up to 40 Rc	60	.0002	.0004	.0007	.0009	.0011	.0014

Recommended Peck Depths by Diameter*

Diameter	Peck Depth
0.50 mm	.2 x Diameter
1.00 mm	.3 x Diameter
1.50 mm	.6 x Diameter
2.00 mm	.8 x Diameter
2.50 mm	1.0 x Diameter
2.95 mm	3.0 x Diameter

*Peck depths can vary by material type.

Twister® Micro XD

Recommended Cutting Data Micro XD MXDSR - Metric

Workpiece Material Group	ISO	Hardness	vc - m/min	Drill Diameter (mm)					
				0.5	1.0	1.5	2.0	2.5	2.95
				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	45	.010	.020	.030	.040	.060	.075
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	40	.010	.020	.030	.040	.060	.075
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, A128, D2, D3, D4, D5, D7		28 to 44 Rc	40	.010	.020	.030	.040	.060	.075
Hardened Steels A2 / 52100	H	55 Rc	15	.005	.010	.015	.020	.025	.035
Free Machining Stainless	M	up to 28 Rc	45	.010	.020	.030	.040	.060	.075
Stainless Steel - Austenitic 304 / 316	M	up to 28 Rc	40	.010	.020	.030	.040	.060	.075
Stainless Steel - Ferritic / Martensitic	M	up to 28 Rc	35	.010	.020	.030	.040	.060	.075
Stainless Steel - Moderately Difficult 301, 302, 303 High Tensile, 304, 304L, 305, 420, 15-5PH, 17-4PH, 17-7PH	M	Over 28 Rc	20	.010	.020	.030	.040	.060	.075
Aluminum (<10% Si)	N		55	.015	.025	.040	.050	.075	.100
Plastics	N			.015	.025	.040	.050	.075	.100
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	45	.010	.020	.030	.040	.060	.075
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	45	.010	.020	.030	.040	.060	.075
Titanium 6Al-4V	S	up to 40 Rc	20	.010	.020	.030	.040	.060	.075
High Temp Alloys Inconel / Hastelloy / Waspeloy / Nickel Based Alloys-Monel	S	up to 40 Rc	20	.005	.010	.015	.020	.025	.035

Recommended Peck Depths by Diameter*

Diameter	Peck Depth
0.50 mm	.2 x Diameter
1.00 mm	.3 x Diameter
1.50 mm	.6 x Diameter
2.00 mm	.8 x Diameter
2.50 mm	1.0 x Diameter
2.95 mm	3.0 x Diameter

*Peck depths can vary by material type.