

## Recommended Cutting Data 305 Micro-Tuff® - Inch

Workpiece Material Group	ISO	Hardness	Tool Series	TYPE	vc - SFM	Drill Diameter				
						1/64	1/32	1/16	3/32	1/8
						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	305	●	110	.0004	.0008	.0015	.0023	.0030
			305AM		150					
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	305		90					
			305AM		130					
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	P	28 to 44 Rc	305		85					
			305AM		120					
Hardened Steels A2 / 52100	H	55 Rc	305	35						
			305AM	50						
Free Machining Stainless	M	up to 28 Rc	305	110						
			305AM	140						
Stainless Steel - Austenitic 304 / 316	M	up to 28 Rc	305	90						
			305AM	125						
Stainless Steel - Ferritic / Martensitic	M	up to 28 Rc	305	80						
			305AM	110						
Stainless Steel - Moderately Difficult 301, 302, 303 High Tensile, 304, 304L, 305, 420, 15-5PH, 17-4PH, 17-7PH	M	over 28 Rc	305	45						
			305AM	60						
Aluminum (<10% Si)	N		305	175						
			305AM							
Plastics	N		305	175						
			305AM							
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	305	110						
			305AM	150						
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	305	110						
			305AM	150						
Titanium 6Al-4V	S	up to 40 Rc	305	50						
			305AM	70						
High Temp Alloys Inconel / Hastelloy / Waspeloy / Nickel Based Alloys-Monel	S	up to 40 Rc	305	45						
			305AM	60						

### Recommended Peck Depths by Diameter\*

Diameter	Peck Depth
1/64	.2 x Diameter
1/32	.3 x Diameter
1/16	.6 x Diameter
5/64	.8 x Diameter
3/32	1.0 x Diameter
1/8	1.2 x Diameter

\*Peck depths can vary by material type.

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

## Recommended Cutting Data 305 Micro-Tuff® - Metric

Workpiece Material Group	ISO	Hardness	Tool Series	TYPE	vc - m/min	Drill Diameter (mm)										
						0.5	1	2	2.5	3						
						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	305	●	35	.010	.020	.040	.060	.075						
			305AM		45											
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	305		25											
			305AM		40											
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	P	28 to 44 Rc	305		25											
			305AM		40											
Hardened Steels A2 / 52100	H	55 Rc	305	10	●	.005	.010	.020	.025	.035						
			305AM	15												
Free Machining Stainless	M	up to 28 Rc	305	35	●	.010	.020	.040	.060	.075						
			305AM	45												
Stainless Steel - Austenitic 304 / 316	M	up to 28 Rc	305	25												
			305AM	40												
Stainless Steel - Ferritic / Martensitic	M	up to 28 Rc	305	25												
			305AM	35												
Stainless Steel - Moderately Difficult 301, 302, 303 High Tensile, 304, 304L, 305, 420, 15-5PH, 17-4PH, 17-7PH	M	over 28 Rc	305	15												
			305AM	20												
Aluminum (<10% Si)	N		305	55	●	.015	.025	.050	.075	.100						
			305AM	55												
Plastics	N		305	55												
			305AM	55												
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	305	35							●	.010	.020	.040	.060	.075
			305AM	45												
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	305	35												
			305AM	45												
Titanium 6Al-4V	S	up to 40 Rc	305	15	●	.010	.020	.040	.060	.075						
			305AM	20												
High Temp Alloys Inconel / Hastelloy / Waspeloy / Nickel Based Alloys-Monel	S		305	15												
			305AM	20												

### Recommended Peck Depths by Diameter\*

Diameter	Peck Depth
0.5 mm	.2 x Diameter
1.0 mm	.4 x Diameter
1.5 mm	.6 x Diameter
2.0 mm	.8 x Diameter
2.5 mm	1.0 x Diameter
3.0 mm	1.2 x Diameter

\*Peck depths can vary by material type.

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

For product information, call your local distributor.