

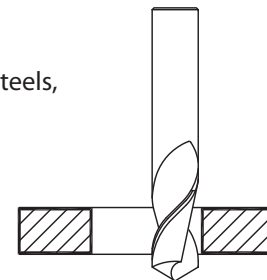
* Through Hole *

Type	Rc Hardness	SFM (Vc)		CHIPLOAD PER FLUTE (Fz)			
		152M, 152MA 154M, 154MA	152D, 152DA	3.0 - 6.0	6.0 - 10.0	10.0 - 14.0	14.0 - 20.0
TITANIUM ALLOYS							
Commercially Pure, 6Al-4V, Astm 1/2/3, 6Al-25N-4Zr-2Mo-Si		-	35 - 75	.015 - .035	.025 - .065	.035 - .100	.075 - .125
STAINLESS STEELS							
13/8, 15/5, 17-4, pH Types	< 35	-	30 - 45	.010 - .025	.020 - .050	.025 - .075	.050 - .100
	> 35	-	25 - 45	.005 - .015	.010 - .035	.025 - .050	.025 - .075
HIGH STRENGTH TOOL STEELS							
4140, 4340, 6150, 5210, A2, D2, P20, H11, H13, S2, O1	< 30	-	35 - 50	.010 - .025	.020 - .050	.025 - .075	.050 - .100
	30 - 38	-	25 - 35	.005 - .015	.010 - .035	.025 - .050	.025 - .075
MEDIUM ALLOY TOOL STEELS							
200, 250, 300, 8620	< 35	-	45 - 60	.015 - .035	.025 - .065	.035 - .100	.075 - .125
	> 35	-	30 - 45	.010 - .025	.020 - .050	.025 - .075	.050 - .100
CARBON STEELS							
A36, 12L14, 1000's, 1100's, 1300's	< 35	55 - 75	45 - 60	.015 - .035	.025 - .065	.035 - .100	.075 - .125
	> 35	-	30 - 45	.010 - .025	.020 - .050	.025 - .075	.050 - .100
CAST MATERIAL							
Steel		-	50 - 75	.025 - .050	.035 - .075	.050 - .100	.075 - .150
Ductile Iron		-	60 - 90	.025 - .050	.035 - .075	.050 - .100	.075 - .150
Gray Iron		-	50 - 75	.025 - .050	.035 - .075	.050 - .100	.075 - .150
Aluminum		75 - 105	75 - 105	.025 - .050	.035 - .075	.050 - .100	.075 - .150
ALUMINUM							
Aircraft Grade (6061, 7075)		90 - 150	90 - 150	.025 - .050	.035 - .075	.050 - .100	.075 - .150
MAGNESIUM							
		90 - 135	75 - 105	.020 - .040	.025 - .065	.040 - .090	.050 - .125
COPPER							
Copper Alloys		75 - 115	60 - 90	.020 - .040	.025 - .065	.040 - .090	.050 - .125
BRASS, BRONZE							
Brass, Aluminum/Bronze, Low Silicon Bronze		75 - 115	60 - 90	.020 - .040	.025 - .065	.040 - .090	.050 - .125
COMPOSITE MATERIAL							
Glass Epoxy, Fiberglass, Plastics		60 - 120	60 - 120	.025 - .050	.035 - .075	.050 - .100	.075 - .150
Graphite, G10, Carbon Fiber		90 - 150	75 - 135	.025 - .050	.035 - .075	.050 - .100	.075 - .150

DRILL MILL USES:

Through Hole - mostly for composites, plastics, softer steels, copper, aluminum and similar metals.

Drilling through, then side milling



NOTE - ABOVE ARE STARTING PARAMETERS ONLY. HIGHER RESULTS MAY BE ACHIEVED WITH OPTIMUM CONDITIONS.