

# Technical Information for Reamers

## Carbide Reamer Feeds and Speeds

Material	Brinell	SFM	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
Carbon Steels 1018, 1020, 1040, 1080 1140, 1212, 12L15 1525, 1536	≤ 200	150	0.002	0.004	0.005	0.007	0.009	0.011	0.014
	>200	75	0.002	0.003	0.005	0.006	0.008	0.009	0.012
	≤ 300								
	>300	55	0.001	0.002	0.003	0.004	0.005	0.006	0.007
	≤ 420								
Alloy Steels 4140, 4150, 4320, 4340 5120, 5150, 8630, 86L20 50100, 52100	≤ 270	115	0.002	0.003	0.005	0.006	0.008	0.009	0.012
	>270	70	0.002	0.003	0.005	0.006	0.008	0.009	0.012
	≤ 370								
	>370	45	0.001	0.002	0.003	0.004	0.005	0.006	0.007
	≤ 450								
Tool Steels A2, D2, H13, L2, M2 P20, S7, T15, W2	≤ 250	40	0.001	0.002	0.003	0.004	0.005	0.006	0.008
	>250	25	0.001	0.001	0.002	0.003	0.003	0.004	0.005
	≤ 330								
	>330	20	0.000	0.001	0.001	0.002	0.002	0.002	0.003
	≤ 450								
Free Machining Stainless 303, 400 Series	≤ 250	75	0.001	0.002	0.003	0.004	0.005	0.006	0.008
	>250	55	0.001	0.002	0.002	0.003	0.004	0.005	0.006
	≤ 330								
Difficult Stainless 304, 316, 321, 15-5 PH, 17-4 PH Nitronic® 32	≤ 270	35	0.001	0.002	0.003	0.004	0.005	0.006	0.008
	>270	25	0.001	0.001	0.002	0.003	0.003	0.004	0.005
	≤ 370								
Cast Iron Gray, Malleable, Ductile	≤ 200	125	0.002	0.004	0.006	0.008	0.010	0.012	0.016
	>200	95	0.002	0.004	0.006	0.008	0.010	0.012	0.016
	≤ 330								
Titanium Ti-6Al4V, Ti-7Al4Mo Ti-5Al-5VMo-3Cr Ti-8Al1Mo1V	≤ 280	45	0.002	0.003	0.005	0.006	0.008	0.009	0.012
	>280	35	0.001	0.002	0.003	0.004	0.005	0.006	0.008
	≤ 350								
	>350	25	0.001	0.001	0.002	0.003	0.003	0.004	0.005
	≤ 440								
High Temp (Nickel) Alloys A-286, Hastelloy®, Incoloy®, Inconel®, Rene®, Waspaloy®	≤ 220	20	0.001	0.002	0.002	0.003	0.004	0.005	0.006
	>220	15	0.001	0.001	0.002	0.003	0.003	0.004	0.005
	≤ 330								
	>330	10	0.000	0.001	0.001	0.002	0.002	0.002	0.003
	≤ 420								
Copper Alloys Aluminum Bronze, C110 Aluminum 6061, 7075, 2017, 2024, 356	≤ 140	115	0.001	0.003	0.004	0.005	0.006	0.008	0.010
	≥ 140	95	0.001	0.003	0.004	0.005	0.006	0.008	0.010
	≤ 80	270	0.003	0.005	0.008	0.010	0.013	0.015	0.020
	≥ 80	230	0.003	0.005	0.008	0.010	0.013	0.015	0.020