Series # 4044

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1.590 mm	1/8 in. 3.170 mm	1/4 in. 6.350 mm	3/8 in. 9.520 mm	1/2 in. 12.700 mm	5/8 in. 15.870 mm	3/4 in. 19.050 mm	1 in. 25.400 mm	1 1/4 in. 31.750 mm	1 1/2 in. 38.100 mm
Common structural steels	≤100 Bhn	460	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
	>100-260 Bhn	395	•	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	0.0125	•	•
Free-cutting steels	≤24 Rc	550	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
	>24-30 Rc	480	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
Unalloyed heat-treatable steels	≤16 Rc	415	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
	16-24 Rc	400	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
	24-30 Rc	395	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
Alloyed heat-treatable steels	24-30 Rc	395	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
	>30-38 Rc	335	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
Unalloyed case hardened steels	≤230 Bhn	465	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
Alloyed case hardened steels	24-30 Rc	395	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
	>30-38 Rc	270	•	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	0.0100	•	•
Nitriding steels	≥24-30 Rc	340	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
	>30-38 Rc	325	•	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	0.0125	•	•
Tool steels	≤24 Rc	230	•	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	0.0125	•	•
	>24-30 Rc	175	•	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	0.0100	•	•
High speed steels	≥14-30 Rc	195	•	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070	0.0080	•	•
Spring steels	≤330 Bhn	195	•	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•
Stainless steels, sulphured	≤24 Rc	195	•	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	0.0100	•	•
austenitic	≤24 Rc	175	•	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	0.0100	•	•
martensitic	≤24 Rc	155	•	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	0.0100	•	•
Hardened steels	≤40-48 Rc	175	•	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•
	>48-60 Rc	110	•	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•
Special alloys	≤38 Rc	110	•	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070	0.0080	•	•
Cast iron	≤240 Bhn	640	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
	<300 Bhn	525	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
Spheroidal graphite iron and	≤240 Bhn	435	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
malleable cast iron	<300 Bhn	415	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
Chilled cast iron	≤350 Bhn	130	•	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•
Ti and Ti-alloys	≤24 Rc	140	•	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•
	>24-38 Rc	130	•	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•
Aluminium and Al-alloys	≤120 Bhn	1000	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
Al wrought alloys	≤150 Bhn	1000	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
Al cast alloys ≤ 10 % Si	≤200 Bhn	845	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
> 10 % Si	≤200 Bhn	710	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
Magnesium alloys	≤150 Bhn	900	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
Copper, low-alloyed	≤120 Bhn	400	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
Brass, short-chipping	≤200 Bhn	1050	•	0.0080	0.0125	0.0160	0.0200	0.0200	0.0220	0.0245	•	•
long-chipping	≤200 Bhn	710	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
Bronze, short-chipping	≤200 Bhn	410	•	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	0.0200	•	•
	>200-260 Bhn	345	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
Bronze, long-chipping	≤24 Rc	285	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
	>24-30 Rc	250	•	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	0.0160	•	•
Duroplastics	–	•	•	•	•	•	•	•	•	•	•	•
Thermoplastics	–	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - Kevlar	–	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - GFK / CFK	–	•	•	•	•	•	•	•	•	•	•	•