

Series 6499

Material group	Hardness		SFM	Feed Rate - IPR					
	HRC	BHN		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
Common structural steels	-	≤ 150	590	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	< 32	< 301	590	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
Free-cutting steels	≤ 25	≤ 255	590	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	< 32	< 301	590	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
Unalloyed heat-treatable steels	≤ 20	≤ 220	525	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	≤ 25	≤ 255	460	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	< 32	< 301	395	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
Alloyed heat-treatable steels	≤ 32	≤ 301	360	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	< 43	< 402	360	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
Unalloyed case hardened steels	< 25	< 255	525	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
Alloyed case hardened steels	≤ 32	≤ 301	360	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	< 43	< 402	330	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
Nitriding steels	≤ 32	≤ 301	330	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
	< 43	< 402	295	0.0030	0.0050	0.0080	0.0080	0.0100	0.0125
Tool steels	≤ 25	≤ 255	260	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
	< 43	< 402	195	0.0040	0.0065	0.0100	0.0100	0.0125	0.0155
High speed steels	< 43	< 402	180	0.0030	0.0050	0.0080	0.0080	0.0100	0.0125
Spring steels	< 38	< 354	180	0.0030	0.0050	0.0080	0.0080	0.0100	0.0125
Hardened steels	≤ 48	≤ 460	150	0.0020	0.0030	0.0050	0.0050	0.0065	0.0080
	< 66	-							
Stainless steels, sulphured austenitic martensitic	≤ 28	≤ 273	230	0.0030	0.0050	0.0080	0.0080	0.0100	0.0125
	≤ 36	≤ 337							
	< 46	< 435	165	0.0030	0.0050	0.0080	0.0080	0.0100	0.0125
Cast iron	≤ 23	≤ 242	540	0.0065	0.0125	0.0155	0.0195	0.0250	0.0250
	< 38	< 354	475	0.0065	0.0125	0.0155	0.0195	0.0250	0.0250
Spheroidal graphite iron and malleable cast iron	≤ 23	≤ 242	425	0.0065	0.0125	0.0155	0.0195	0.0250	0.0250
	< 38	< 354	425	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
Chilled cast iron	≤ 38	≤ 354							
New cast materials GGV	≤ 20	≤ 220	425	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
	< 32	< 301	425	0.0065	0.0100	0.0155	0.0155	0.0195	0.0250
New cast materials ADI	≤ 32	≤ 301	230	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
	< 43	< 402	230	0.0050	0.0080	0.0125	0.0125	0.0155	0.0195
Special alloys	< 54	< 549	80	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Ti and Ti-alloys	≤ 25	≤ 255	115	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
	< 43	< 402	100	0.0020	0.0030	0.0050	0.0050	0.0065	0.0080
Aluminium and Al-alloys	-	< 120							
Al wrought alloys	-	< 200							
Al cast alloys ≤ 10 % Si ≤ 24 % Si	-	≤ 180							
	-	< 180							
Magnesium alloys	-	< 120							
Copper, low-alloyed	-	< 150							
Brass, short-chipping long-chipping	-	≤ 180							
	-	< 180							
Bronze, short-chipping	-	≤ 180							
	< 25	< 255							
Bronze, long-chipping	≤ 25	≤ 255							
	< 32	< 301							
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK									