Series # 3899

Material group	Hardness HRC	Hardness BHN	SFM	Feed Rate - IPR .0039 in. .10 mm	.0063 in. .16 mm	.0098 in .25 mm	.0118 in. .30 mm	.0197 in. .50 mm	.0248 in. .63 mm	.0315 in. .8 mm	.0394 in. 1.0 mm	.0591 in. 1.5 mm	.0787 in. 2.0 mm	.1181 in 3.0 mm
Common structural steels	-	≤ 150	330	0.0003	0.0005	0.0008	0.0009	0.0016	0.0024	0.0031	0.0047	0.0063	0.0079	0.0094
	≤ 32	≤ 301	330	0.0003	0.0005	0.0008	0.0009	0.0016	0.0024	0.0031	0.0047	0.0063	0.0079	0.0094
Free-cutting steels	≤ 25	≤ 255	330	0.0003	0.0005	0.0008	0.0009	0.0016	0.0024	0.0031	0.0047	0.0063	0.0079	0.0094
	≤ 32	≤ 301	295	0.0003	0.0004	0.0007	0.0008	0.0014	0.0020	0.0028	0.0039	0.0055	0.0067	0.0083
Unalloyed heat-treatable steels	≤ 20	≤ 220	295	0.0003	0.0005	0.0008	0.0009	0.0016	0.0024	0.0031	0.0047	0.0063	0.0079	0.0094
	≤ 25	≤ 255	295	0.0003	0.0005	0.0008	0.0009	0.0016	0.0024	0.0031	0.0047	0.0063	0.0079	0.0094
	≤ 32	≤ 301	295	0.0003	0.0004	0.0007	0.0008	0.0014	0.0020	0.0028	0.0039	0.0055	0.0067	0.0083
Alloyed heat-treatable steels	≤ 32	≤ 301	295	0.0003	0.0004	0.0007	0.0008	0.0014	0.0020	0.0028	0.0039	0.0055	0.0067	0.0083
	≤ 43	≤ 402	230	0.0002	0.0004	0.0006	0.0007	0.0012	0.0016	0.0016	0.0035	0.0047	0.0059	0.0071
Unalloyed case hardened steels	≤ 25	≤ 255	330	0.0003	0.0004	0.0007	0.0008	0.0014	0.0020	0.0028	0.0039	0.0055	0.0067	0.0083
Alloyed case hardened steels	≤ 32	≤ 301	280	0.0003	0.0004	0.0007	0.0008	0.0014	0.0020	0.0028	0.0039	0.0055	0.0067	0.0083
	≤ 43	≤ 402	230	0.0002	0.0004	0.0006	0.0007	0.0012	0.0016	0.0016	0.0035	0.0047	0.0059	0.0071
Nitriding steels	≤ 32	≤ 301	230	0.0002	0.0004	0.0006	0.0007	0.0012	0.0016	0.0016	0.0035	0.0047	0.0059	0.0071
	≤ 43	≤ 402	195	0.0002	0.0004	0.0006	0.0007	0.0012	0.0016	0.0016	0.0035	0.0047	0.0059	0.0071
Tool steels	≤ 25	≤ 255	165	0.0002	0.0004	0.0006	0.0007	0.0012	0.0016	0.0016	0.0035	0.0047	0.0059	0.0071
	≤ 43	≤ 402	195	0.0002	0.0004	0.0006	0.0007	0.0012	0.0016	0.0016	0.0035	0.0047	0.0059	0.0071
High speed steels	≤ 43	≤ 402												
Spring steels	≤ 38	≤ 354												
Hardened steels	≤ 48	≤ 460												
	< 66	-												
Stainless steels, sulphured	≤ 28	≤ 273												
austenitic	≤ 36	≤ 337												
martensitic	< 46	< 435												
Cast iron	≤ 23	≤ 242	425	0.0004	0.0007	0.0011	0.0013	0.0022	0.0031	0.0043	0.0063	0.0087	0.0106	0.0130
	≤ 38	≤ 354	425	0.0004	0.0007	0.0011	0.0013	0.0022	0.0031	0.0043	0.0063	0.0087	0.0106	0.0130
Spheroidal graphite iron and	≤ 23	≤ 242	425	0.0004	0.0007	0.0011	0.0013	0.0022	0.0031	0.0043	0.0063	0.0087	0.0106	0.0130
malleable cast iron	≤ 38	≤ 354	395	0.0004	0.0006	0.0010	0.0020	0.0020	0.0031	0.0039	0.0059	0.0083	0.0102	0.0122
Chilled cast iron	≤ 38	≤ 354												
New cast materials GGV	≤ 20	≤ 220												
	≤ 32	≤ 301												
New cast materials ADI	≤ 32	≤ 301												
	≤ 43	≤ 402												
Special alloys	≤ 54	≤ 549												
Ti and Ti-alloys	≤ 25	≤ 255												
	≤ 43	≤ 402												
Aluminium and Al-alloys	-	≤ 120												
Al wrought alloys	-	≤ 200												
Al cast alloys ≤ 10 % Si	-	≤ 180												
≤ 24 % Si	-	≤ 180												
Magnesium alloys	-	≤ 120												
Copper, low-alloyed	-	≤ 150												
Brass, short-chipping	-	≤ 180												
long-chipping	-	≤ 180												
Bronze, short-chipping	-	≤ 180												
	≤ 25	≤ 255												
Bronze, long-chipping	≤ 25	≤ 255												
	≤ 32	≤ 301												
Duroplastics														
Thermoplastics														
Reinforced plastics - Kevlar														
Reinforced plastics - GFK / CFK														