Series # 6513

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	260	0.003	0.005	0.008	0.012	0.012	0.016				
	>100-260 Bhn	260	0.003	0.005	0.008	0.012	0.012	0.016				
Free-cutting steels	≤24 Rc	360	0.004	0.006	0.010	0.015	0.016	0.020				
	>24-30 Rc	330	0.004	0.006	0.010	0.015	0.016	0.020				
Unalloyed heat-treatable steels	≤16 Rc	360	0.003	0.004	0.006	0.009	0.010	0.012				
	16-24 Rc	260	0.003	0.005	0.008	0.012	0.012	0.016				
	24-30 Rc	260	0.003	0.005	0.008	0.012	0.012	0.016				
Alloyed heat-treatable steels	24-30 Rc	260	0.003	0.005	0.008	0.012	0.012	0.016				
	>30-38 Rc	260	0.003	0.004	0.006	0.009	0.010	0.012				
Unalloyed case hardened steels	≤230 Bhn	260	0.003	0.005	0.008	0.012	0.012	0.016				
Alloyed case hardened steels	24-30 Rc	260	0.003	0.004	0.006	0.009	0.010	0.012				
	>30-38 Rc	260	0.003	0.004	0.006	0.009	0.010	0.012				
Nitriding steels	≥24-30 Rc	260	0.002	0.003	0.005	0.007	0.008	0.010				
	>30-38 Rc	195	0.002	0.003	0.005	0.007	0.008	0.010				
Tool steels	≤24 Rc	260	0.003	0.004	0.006	0.009	0.010	0.012				
	>24-30 Rc	230	0.002	0.002	0.004	0.006	0.006	0.008				
High speed steels	≥14-30 Rc	165	0.002	0.002	0.004	0.006	0.006	0.008				
Spring steels	≤330 Bhn	165	0.002	0.002	0.004	0.006	0.006	0.008				
Stainless steels, sulphured	≤24 Rc	260	0.002	0.003	0.005	0.007	0.008	0.010				
austenitic	≤24 Rc	230	0.001	0.002	0.003	0.005	0.005	0.006				
martensitic	≤24 Rc	260	0.002	0.003	0.005	0.007	0.008	0.010				
Hardened steels	≤40-48 Rc	165	0.002	0.002	0.004	0.006	0.006	0.008				
	>48-60 Rc	165	0.002	0.002	0.004	0.006	0.006	0.008				
Special alloys	≤38 Rc	100	0.001	0.002	0.002	0.004	0.004	0.005				
Cast iron	≤240 Bhn	395	0.004	0.006	0.010	0.015	0.016	0.020				
	<300 Bhn	260	0.004	0.006	0.010	0.015	0.016	0.020				
Spheroidal graphite iron and	≤240 Bhn	395	0.004	0.006	0.010	0.015	0.016	0.020				
malleable cast iron	<300 Bhn	260	0.004	0.006	0.010	0.015	0.016	0.020				
Chilled cast iron	≤350 Bhn	•	•	•	•	•	•	•				
Ti and Ti-alloys	≤24 Rc	•	•	•	•	•	•	•				
	>24-38 Rc	•	•	•	•	•	•	•				
Aluminium and Al-alloys	≤120 Bhn	•	•	•	•	•	•	•				
Al wrought alloys	≤150 Bhn	•	•	•	•	•	•	•				
Al cast alloys ≤ 10 % Si	≤200 Bhn	•	•	•	•	•	•	•				
> 10 % Si	≤200 Bhn	•	•	•	•	•	•	•				
Magnesium alloys	≤150 Bhn	•	•	•	•	•	•	•				
Copper, low-alloyed	≤120 Bhn	395	0.001	0.001	0.002	0.004	0.003	0.004				
Brass, short-chipping	≤200 Bhn	330	0.004	0.006	0.010	0.015	0.016	0.020				
long-chipping	≤200 Bhn											
Bronze, short-chipping	≤200 Bhn											
	>200-260 Bhn											
Bronze, long-chipping	≤24 Rc											
	>24-30 Rc											
Duroplastics	–											
Thermoplastics	–											
Reinforced plastics - Kevlar	–											
Reinforced plastics - GFK / CFK	–											

Note: Pilot holes (depth >1xD) are recommended when using RT100T drills. Use a series 5514 or similar drill to drill a minimum of 1xD deep. Then enter the pilot hole with the RT100T drill at approx 300 rev/min and 500 mm/min speed, start high coolant pressure and increase RPM. Drill to hole depth without pecking.