

$$\text{RPM} = \frac{\text{SFM}}{\text{DIAM. in.}} \times 3.82$$

$$\text{IPM} = \text{IPR} \times \text{RPM}$$

$$\frac{\text{HOLE DEPTH in.}}{\text{IPM}} \times 60 = \text{Cut Time}$$

$$\text{mm} = \text{in.} \times 25.40$$

$$\begin{aligned} \text{m/min} &= \text{SFM} \div 3.28 \\ \text{mm/rev.} &= \text{IPR} \times 25.40 \end{aligned}$$

$$\begin{aligned} \text{Bar} &= \text{PSI} \div 14.50 \\ \text{Liter} &= \text{Gal.} \div 3.79 \end{aligned}$$

Series # 5523 - Jobber Length (5xD) GU 500 DZ

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	130	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	>100-260 Bhn	100	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	•	•	•	•
Free-cutting steels	≤24 Rc	155	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	>24-30 Rc	125	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
Unalloyed heat-treatable steels	≤16 Rc	130	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	16-24 Rc	100	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	24-30 Rc	65	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	•	•	•	•
Alloyed heat-treatable steels	24-30 Rc	55	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	>30-38 Rc	35	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	•	•	•	•
Unalloyed case hardened steels	≤230 Bhn	100	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
Alloyed case hardened steels	24-30 Rc	50	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	>30-38 Rc	35	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	•	•	•	•
Nitriding steels	≥24-30 Rc	45	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	>30-38 Rc	35	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	•	•	•	•
Tool steels	≤24 Rc	55	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	>24-30 Rc	30	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	•	•	•	•
High speed steels	≥14-30 Rc	30	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	•	•	•	•
Spring steels	≤330 Bhn	•	•	•	•	•	•	•	•	•	•	•
Stainless steels, sulphured	≤24 Rc	50	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	•	35	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	•	45	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
Hardened steels	≤40-48 Rc	•	•	•	•	•	•	•	•	•	•	•
	>48-60 Rc	•	•	•	•	•	•	•	•	•	•	•
Special alloys	≤38 Rc	•	•	•	•	•	•	•	•	•	•	•
Cast iron	≤240 Bhn	115	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	<300 Bhn	90	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
Spheroidal graphite iron and malleable cast iron	≤240 Bhn	100	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	<300 Bhn	80	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
Chilled cast iron	≤350 Bhn	•	•	•	•	•	•	•	•	•	•	•
Ti and Ti-alloys	≤24 Rc	•	•	•	•	•	•	•	•	•	•	•
	>24-38 Rc	•	•	•	•	•	•	•	•	•	•	•
Aluminium and Al-alloys	≤120 Bhn	180	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	•	•	•	•
	•	180	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	•	•	•	•
Al wrought alloys	≤150 Bhn	180	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	•	•	•	•
Al cast alloys ≤ 10 % Si	•	230	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	•	•	•	•
	> 10 % Si	185	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
Magnesium alloys	≤150 Bhn	205	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	•	•	•	•
	•	180	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	•	•	•	•
Copper, low-alloyed	≤120 Bhn	80	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	•	•	•	•
Brass, short-chipping	•	165	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	•	•	•	•
	•	100	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	•	•	•	•
Bronze, short-chipping	•	130	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	>200-260 Bhn	75	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
Bronze, long-chipping	•	100	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
	>24-30 Rc	75	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
Duroplastics	•	65	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
Thermoplastics	•	65	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	•	•	•	•
Reinforced plastics - Kevlar	•	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - GFK / CFK	•	•	•	•	•	•	•	•	•	•	•	•

Series # 5537 - Taper Length (10xD) GU 500 DZ

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	150	0.0007	0.003	0.005	0.007	0.008	0.008	0.01	•	•	•	•
	>260 Bhn	115	0.0006	0.002	0.004	0.006	0.006	0.008	•	•	•	•	
Free-cutting steels	≤24 Rc	165	0.0007	0.003	0.005	0.007	0.008	0.01	•	•	•	•	
	>24-30 Rc	130	0.0007	0.003	0.005	0.007	0.008	0.01	•	•	•	•	
Unalloyed heat-treatable steels	≤16 Rc	140	0.0007	0.003	0.005	0.007	0.008	0.01	•	•	•	•	
	16-24 Rc	115	0.0007	0.003	0.005	0.007	0.008	0.01	•	•	•	•	
	24-30 Rc	70	0.0006	0.002	0.004	0.006	0.006	0.008	•	•	•	•	
Alloyed heat-treatable steels	24-30 Rc	60	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
	>30-38 Rc	50	0.0004	0.001	0.002	0.004	0.004	0.005	•	•	•	•	
Unalloyed case hardened steels	≤230 Bhn	130	0.0007	0.003	0.005	0.007	0.008	0.01	•	•	•	•	
Alloyed case hardened steels	24-30 Rc	65	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
	>30-38 Rc	50	0.0004	0.001	0.002	0.004	0.004	0.005	•	•	•	•	
Nitriding steels	≥24-30 Rc	60	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
	>30-38 Rc	40	0.0004	0.001	0.002	0.004	0.004	0.005	•	•	•	•	
Tool steels	≤24 Rc	60	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
	>24-30 Rc	45	0.0004	0.001	0.002	0.004	0.004	0.005	•	•	•	•	
High speed steels	≥14-30 Rc	45	0.0004	0.001	0.002	0.004	0.004	0.005	•	•	•	•	
Spring steels	≤330 Bhn	•	•	•	•	•	•	•	•	•	•	•	
Stainless steels, sulphured	≤24 Rc	60	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
	•	40	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
	•	50	0.0005	0.0015	0.002	0.0045	0.005	0.006	•	•	•	•	
Hardened steels	≤40-48 Rc	•	•	•	•	•	•	•	•	•	•	•	
	>48-60 Rc	•	•	•	•	•	•	•	•	•	•	•	
Special alloys	≤38 Rc	•	•	•	•	•	•	•	•	•	•	•	
Cast iron	≤240 Bhn	150	0.001	0.004	0.006	0.01	0.01	0.012	•	•	•	•	
	<300 Bhn	120	0.001	0.004	0.006	0.01	0.01	0.012	•	•	•	•	
Spheroidal graphite iron and malleable cast iron	≤240 Bhn	130	0.001	0.004	0.006	0.01	0.01	0.012	•	•	•	•	
	<300 Bhn	90	0.001	0.004	0.006	0.01	0.01	0.012	•	•	•	•	
Chilled cast iron	≤350 Bhn	•	•	•	•	•	•	•	•	•	•	•	
Ti and Ti-alloys	≤24 Rc	•	•	•	•	•	•	•	•	•	•	•	
	>24-38 Rc	•	•	•	•	•	•	•	•	•	•	•	
Aluminium and Al-alloys	≤120 Bhn	230	0.001	0.005	0.008	0.012	0.012	0.016	•	•	•	•	
	•	230	0.001	0.005	0.008	0.012	0.012	0.016	•	•	•	•	
Al wrought alloys	≤150 Bhn	230	0.001	0.005	0.008	0.012	0.012	0.016	•	•	•	•	
Al cast alloys ≤ 10 % Si	•	280	0.001	0.005	0.008	0.012	0.012	0.016	•	•	•	•	
	> 10 % Si	230	0.001	0.004	0.006	0.01	0.01	0.012	•	•	•	•	
Magnesium alloys	≤150 Bhn	230	0.001	0.004	0.006	0.01	0.01	0.012	•	•	•	•	
	•	105	0.001	0.003	0.005	0.008	0.008	0.01	•	•	•	•	
Copper, low-alloyed	≤120 Bhn	105	0.001	0.003	0.005	0.008	0.008	0.01	•	•	•	•	