

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

для размещения заказа - guhring@guhring-tools.ru
 HOLE DEPTH in. x 60 = Cut Time mm = in. x 25.40
 IPM

m/min. = SFM ÷ 3.28
 mm/rev. = IPR x 25.40

Bar = PSI ÷ 14.50
 Liter = Gal. ÷ 3.79

Series # 317

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 >100-260 Bhn	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Free-cutting steels	≤24 Rc >24-30 Rc	• 75	• 0.0015	• 0.0040	• 0.0065	• 0.0080	• 0.0100	• 0.0100	• 0.0110	• •	• •	• •	• •	• •
Unalloyed heat-treatable steels	≤16 Rc 16-24 Rc 24-30 Rc	• 75 50	• 0.0015 0.0012	• 0.0040 0.0030	• 0.0065 0.0050	• 0.0080 0.0065	• 0.0100 0.0080	• 0.0100 0.0080	• 0.0110 0.0090	• •	• •	• •	• •	• •
Alloyed heat-treatable steels	24-30 Rc >30-38 Rc	50 35	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	•	•	•	•	•
Unalloyed case hardened steels	≤230 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Alloyed case hardened steels	24-30 Rc >30-38 Rc	45 30	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	•	•	•	•	•
Nitriding steels	≥24-30 Rc >30-38 Rc	35 25	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	•	•	•	•	•
Tool steels	≤24 Rc >24-30 Rc	50 25	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	•	•	•	•	•
High speed steels	≥14-30 Rc	25	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070	•	•	•	•	•
Spring steels	≤330 Bhn	15	0.0007	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	•	•	•	•	•
Stainless steels, sulphured austenitic martensitic	≤24 Rc ≤24 Rc ≤24 Rc	35 25 30	0.0012 0.0010 0.0010	0.0030 0.0025 0.0025	0.0050 0.0040 0.0040	0.0065 0.0050 0.0050	0.0080 0.0065 0.0065	0.0080 0.0065 0.0065	0.0090 0.0070 0.0070	•	•	•	•	•
Hardened steels	≤40-48 Rc >48-60 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Special alloys	≤38 Rc	15	0.0005	0.0015	0.0025	0.0030	0.0040	0.0040	0.0045	•	•	•	•	•
Cast iron	≤240 Bhn <300 Bhn	95 75	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125	0.0140 0.0140	•	•	•	•	•
Spheroidal graphite iron and malleable cast iron	≤240 Bhn <300 Bhn	75 65	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0140	0.0140 0.0140	•	•	•	•	•
Chilled cast iron	≤350 Bhn	15	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070	•	•	•	•	•
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 > 10 % Si	≤200 Bhn ≤200 Bhn	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Magnesium alloys	≤150 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Copper, low-alloyed	≤120 Bhn	95	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•	•	•
Brass, short-chipping long-chipping	≤200 Bhn ≤200 Bhn	• 120	• 0.0015	• 0.0040	• 0.0065	• 0.0080	• 0.0100	• 0.0100	• 0.0110	• •	• •	• •	• •	• •
Bronze, short-chipping	≤200 Bhn >200-260 Bhn	95 75	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	0.0080 0.0090	0.0090 0.0090	•	•	•	•	•
Bronze, long-chipping	≤24 Rc >24-30 Rc	75 65	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	0.0080 0.0080	0.0090 0.0090	•	•	•	•	•
Duroplastics	-	50	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	•	•	•	•	•
Thermoplastics	-	•	•	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - Kevlar	-	•	•	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - GFK / CFK	-	•	•	•	•	•	•	•	•	•	•	•	•	•

Series # 329

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 >100-260 Bhn	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Free-cutting steels	≤24 Rc >24-30 Rc	• 95	• 0.0015	• 0.0040	• 0.0065	• 0.0080	• 0.0100	• 0.0100	• 0.0110	• 0.0125	• •	• •	• •	• •
Unalloyed heat-treatable steels	≤16 Rc 16-24 Rc 24-30 Rc	• 95 70	• 0.0015 0.0012	• 0.0040 0.0030	• 0.0065 0.0050	• 0.0080 0.0065	• 0.0100 0.0080	• 0.0100 0.0080	• 0.0110 0.0090	• 0.0125 0.0100	• •	• •	• •	• •
Alloyed heat-treatable steels	24-30 Rc >30-38 Rc	65 50	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	0.0100 0.0080	•	•	•	•
Unalloyed case hardened steels	≤230 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Alloyed case hardened steels	24-30 Rc >30-38 Rc	55 45	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	0.0100 0.0080	•	•	•	•
Nitriding steels	≥24-30 Rc >30-38 Rc	50 35	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	0.0100 0.0080	•	•	•	•
Tool steels	≤24 Rc >24-30 Rc	65 35	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065	0.0080 0.0065	0.0090 0.0070	0.0100 0.0080	•	•	•	•
High speed steels	≥14-30 Rc	35	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070	0.0080	•	•	•	•
Spring steels	≤330 Bhn	30	0.0007	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055	0.0065	•	•	•	•
Stainless steels, sulphured austenitic martensitic	≤24 Rc ≤24 Rc ≤24 Rc	50 35 45	0.0012 0.0010 0.0010	0.0030 0.0025 0.0025	0.0050 0.0040 0.0040	0.0065 0.0050 0.0050	0.0080 0.0065 0.0065	0.0080 0.0065 0.0065	0.0090 0.0070 0.0070	0.0100 0.0080 0.0080	•	•	•	•
Hardened steels	≤40-48 Rc >48-60 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Special alloys	≤38 Rc	25	0.0005	0.0015	0.0025	0.0030	0.0040	0.0040	0.0045	0.0050	•	•	•	•
Cast iron	≤240 Bhn <300 Bhn	130 95	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125	0.0140 0.0140	0.0160 0.0160	•	•	•	•
Spheroidal graphite iron and malleable cast iron	≤240 Bhn <300 Bhn	115 90	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0140	0.0140 0.0160	0.0160 0.0160	•	•	•	•
Chilled cast iron	≤350 Bhn	30	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070	0.0080	•	•	•	•
Ti and Ti-alloys	≤24 Rc >24-38 Rc	35 25	0.0007 0.0007	0.0020 0.0020	0.0030 0.0030	0.0040 0.0040	0.0050 0.0050	0.0050 0.0050	0.0055 0.0055	0.0065 0.0065	•	•	•	•
Aluminium and Al-alloys	≤120 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Al wrought alloys	≤150 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Al cast alloys ≤ 10 % Si > 10 % Si	≤200 Bhn ≤200 Bhn	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Magnesium alloys	≤150 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Copper, low-alloyed	≤120 Bhn	•	•	•	•	•	•	•	•	•	•	•	•	•
Brass, short-chipping long-chipping	≤200 Bhn ≤200 Bhn	• 130	• 0.0012	• 0.0030	• 0.0050	• 0.0065	• 0.0080	• 0.0080	• 0.0090	• 0.0100	• 0.0125	• 0.0125	• •	• •
Bronze, short-chipping	≤200 Bhn >200-260 Bhn	115 115	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	0.0080 0.0090	0.0090 0.0100	0.0100 0.0100	0.0125 0.0125	•	•	•
Bronze, long-chipping	≤24 Rc >24-30 Rc	95 80	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	0.0080 0.0090	0.0090 0.0100	0.0100 0.0100	0.0125 0.0125	•	•	•
Duroplastics	-	65	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	0.0100	0.0125	•	•	•
Thermoplastics	-	•	•	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - Kevlar	-	•	•	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - GFK / CFK	-	•	•	•	•	•	•	•	•	•	•	•	•	•