



Single-fluted gun drills EB 80, EB 80 XXL



Cutting data

Machining group	○	Ⓢ Ⓢ	f (mm/rev) with nom. Ø								
	v _c (m/min)		4	8	10	12	14	16	20	25	32
P1.1.1 Unalloyed steel, annealed, 0.15 % C, Rm 420 N/mm ² , 125 HB	80	85	0.020	0.040	0.045	0.050	0.060	0.065	0.080	0.095	0.110
P1.1.2 Unalloyed steel, heat-treated, 0.15 % C, Rm 420 N/mm ² , 125 HB	70	75	0.020	0.035	0.040	0.045	0.055	0.060	0.070	0.085	0.100
P1.1.3 Unalloyed steel, annealed, 0.45 % C, Rm 640 N/mm ² , 190 HB	70	75	0.020	0.035	0.040	0.045	0.055	0.060	0.070	0.085	0.100
P1.1.4 Unalloyed steel, heat-treated, 0.45 % C, Rm 640 N/mm ² , 190 HB	70	70	0.020	0.030	0.040	0.045	0.050	0.055	0.065	0.080	0.095
P1.1.5 Unalloyed steel, heat-treated, 0.45 % C, Rm 850 N/mm ² , 250 HB	70	70	0.020	0.030	0.040	0.045	0.050	0.055	0.065	0.080	0.095
P1.1.6 Unalloyed steel, annealed, 0.75 % C, Rm 915 N/mm ² , 270 HB	65	65	0.015	0.030	0.035	0.040	0.045	0.050	0.065	0.075	0.090
P1.1.7 Unalloyed steel, heat-treated, 0.75 % C, Rm 1020 N/mm ² , 300 HB	60	65	0.015	0.030	0.035	0.040	0.045	0.050	0.060	0.070	0.085
P2.1.1 Low-alloy steel, annealed, Rm 610 N/mm ² , 180 HB	70	75	0.020	0.035	0.040	0.045	0.050	0.060	0.070	0.085	0.100
P2.1.2 Low-alloy steel, heat-treated, Rm 930 N/mm ² , 275 HB	70	75	0.020	0.035	0.040	0.045	0.050	0.060	0.070	0.085	0.100
P2.1.3 Low-alloy steel, heat-treated, Rm 1020 N/mm ² , 300 HB	60	60	0.015	0.030	0.035	0.040	0.045	0.050	0.060	0.070	0.085
P2.1.4 Low-alloy steel, heat-treated, Rm 1190 N/mm ² , 350 HB	55	55	0.015	0.025	0.030	0.035	0.040	0.045	0.050	0.060	0.075
P3.1.1 High-alloy steel and tool steel, annealed, Rm 680 N/mm ² , 200 HB	60	65	0.020	0.035	0.040	0.045	0.050	0.060	0.070	0.085	0.100
P3.1.2 High-alloy steel and tool steel, hardened and tempered, Rm 1100 N/mm ² , 325 HB	50	55	0.015	0.030	0.035	0.040	0.045	0.050	0.060	0.070	0.085
M1.1.1 Stainless steel, ferritic/martensitic, with machining additives	50	55	0.015	0.025	0.030	0.035	0.040	0.045	0.050	0.060	0.075
M1.1.2 Stainless steel, ferritic/martensitic, annealed, Rm 680 N/mm ² , 200 HB	45	45	0.015	0.025	0.025	0.030	0.035	0.040	0.045	0.055	0.065
M1.1.3 Stainless steel, ferritic/martensitic, heat-treated, Rm 810 N/mm ² , 240 HB	45	45	0.012	0.020	0.025	0.030	0.035	0.035	0.045	0.055	0.060
M2.1.1 Stainless steel, austenitic, quenched, 180 HB	40	40	0.012	0.020	0.025	0.030	0.035	0.035	0.045	0.050	0.060
M2.2.1 Duplex steel, high-strength stainless steels	35	35	0.010	0.020	0.020	0.025	0.030	0.030	0.035	0.045	0.050
K1.1.1 Grey cast iron, pearlitic/ferritic, 180 HB	80	85	0.030	0.050	0.060	0.070	0.080	0.085	0.105	0.125	0.145
K1.1.2 Grey cast iron, pearlitic/martensitic, 260 HB	70	70	0.025	0.045	0.050	0.060	0.065	0.075	0.090	0.105	0.125
K1.2.1 Cast iron with spheroidal graphite, ferritic, 160 HB	70	70	0.025	0.045	0.050	0.060	0.065	0.075	0.090	0.105	0.125
K1.2.2 Cast iron with spheroidal graphite, pearlitic, 250 HB	65	65	0.025	0.040	0.050	0.055	0.065	0.070	0.085	0.100	0.115
K1.3.1 Malleable cast iron, ferritic, 130 HB	65	65	0.025	0.040	0.050	0.055	0.065	0.070	0.085	0.100	0.115
K1.3.2 Malleable cast iron, pearlitic, 230 HB	55	60	0.020	0.035	0.040	0.050	0.055	0.060	0.075	0.085	0.105
K2.1.1 Vermicular graphite cast iron (GJV)	65	70	0.025	0.040	0.050	0.060	0.065	0.075	0.085	0.105	0.120
K2.2.1 Austenitic-ferritic spheroidal graphite cast iron (ADI)	50	50	0.020	0.030	0.040	0.045	0.050	0.055	0.065	0.080	0.090
N1.1.1 Wrought aluminium alloys, non-hardened, 60 HB	80	85	0.035	0.060	0.070	0.080	0.090	0.100	0.120	0.145	0.170
N1.1.2 Wrought aluminium alloys, hardened, 100 HB	80	85	0.035	0.060	0.070	0.080	0.090	0.100	0.120	0.145	0.170
N2.1.1 Aluminium casting alloys, non-hardened, ≤ 12 % Si, 75 HB	120	125	0.095	0.165	0.200	0.230	0.260	0.290	0.350	0.415	0.490
N2.1.2 Aluminium casting alloys, hardened, ≤ 12 % Si, 90 HB	120	125	0.095	0.165	0.200	0.230	0.260	0.290	0.350	0.415	0.490
N2.1.3 Aluminium casting alloys, non-hardened, > 12 % Si, 130 HB	100	105	0.080	0.140	0.170	0.195	0.225	0.250	0.295	0.355	0.415
N3.1.1 Copper and copper alloys: Free-machining alloy, Pb > 1 %	70	75	0.040	0.065	0.080	0.095	0.105	0.115	0.140	0.165	0.195
N3.1.2 Copper and copper alloys: CuZn, CuSnZn	60	60	0.035	0.055	0.070	0.080	0.090	0.100	0.120	0.140	0.165
N3.1.3 Copper and copper alloys: CuSn, lead-free copper and copper electrolyte	55	60	0.030	0.055	0.065	0.075	0.085	0.095	0.110	0.135	0.155
N4.1.1 Non-metallic materials: Duroplastics, fibre-reinforced plastics	60	65	0.025	0.040	0.050	0.060	0.065	0.075	0.085	0.105	0.120
N4.1.2 Non-metallic materials: Hard rubber, wood, etc.	60	65	0.025	0.040	0.050	0.060	0.065	0.075	0.085	0.105	0.120
N4.1.3 Non-metallic materials: Graphite	60	65	0.025	0.040	0.050	0.060	0.065	0.075	0.085	0.105	0.120
S1.1.1 Heat-resistant alloys, Fe-based, annealed, 200 HB	40	40	0.010	0.015	0.020	0.025	0.025	0.030	0.035	0.040	0.050
S1.1.2 Heat-resistant alloys, Fe-based, hardened, 280 HB	30	35	0.008	0.015	0.015	0.020	0.020	0.025	0.030	0.035	0.040
S1.1.3 Heat-resistant alloys, Ni- or Co-based, annealed, 250 HB	25	25	0.007	0.015	0.015	0.015	0.020	0.020	0.025	0.030	0.035
S1.1.4 Heat-resistant alloys, Ni- or Co-based, hardened, 350 HB	20	25	0.007	0.012	0.015	0.015	0.020	0.020	0.025	0.030	0.035
S1.1.5 Heat-resistant alloys, Ni- or Co-based, cast, 320 HB	20	20	0.006	0.011	0.015	0.015	0.015	0.020	0.025	0.025	0.030
S2.1.1 Titanium alloys, pure titanium, Rm 400 N/mm ²	30	30	0.007	0.015	0.015	0.015	0.020	0.020	0.025	0.030	0.035
S2.1.2 Titanium alloys, Alpha and Beta alloys, hardened, Rm 1050 N/mm ²	25	30	0.006	0.011	0.015	0.015	0.020	0.020	0.025	0.030	0.035
H1.1.1 Hardened steel, hardened and tempered, < 55 HRC	30	30	0.007	0.015	0.015	0.015	0.020	0.020	0.025	0.030	0.035
H1.1.2 Hardened steel, hardened and tempered, < 60 HRC	20	20	0.006	0.010	0.012	0.015	0.015	0.015	0.020	0.025	0.030
H1.1.3 Hardened steel, hardened and tempered, > 60 HRC	20	20	0.005	0.009	0.011	0.015	0.015	0.015	0.020	0.025	0.030
H2.1.1 Chilled cast iron, 400 HB	20	20	0.007	0.015	0.015	0.015	0.020	0.020	0.025	0.030	0.035
H2.1.2 Chilled cast iron, hardened and tempered, < 55 HRC	15	15	0.005	0.009	0.011	0.012	0.015	0.015	0.020	0.020	0.025