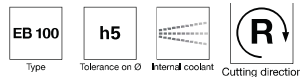


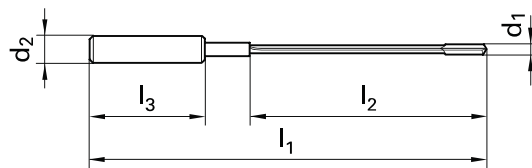
EB 100 carbide gun drill w/ steel shanks



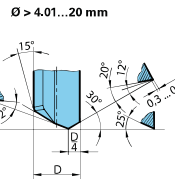
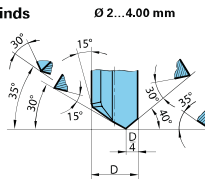
Tool material **Solid Carbide**

Surface

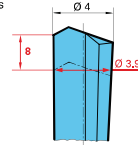
- P** Steel ○ flute lengths of 45, 80, 120 & 160 mm • head form G
 - M** Stainless steel ○
 - K** Cast iron ○
 - N** Aluminum ●
 - S** Titanium alloys ●
 - H** Hardened steel ○
- =Optimal
○=Limited



EB 100 Standard point grinds
(special point grinds on request)



EB 100 Back taper ratio
(dimensions in mm)



Speeds and feeds information on pg. 548

Series 5024 - 45mm flute length

Diameter (d1)			d2 mm	l1 mm	l2 mm	EDP #
inch	wire/ltr	mm				
0.0472		1.20	4.00	90.00	45.00	9050240012000
0.0591		1.50	4.00	90.00	45.00	9050240015000
0.0626	1/16	1.59	4.00	90.00	45.00	9050240015900
0.0630		1.60	4.00	90.00	45.00	9050240016000
0.0780	5/64	1.98	4.00	90.00	45.00	9050240019800
0.0787		2.00	4.00	90.00	45.00	9050240020000
0.0984		2.50	10.00	100.00	45.00	9050240025000
0.1063		2.70	10.00	100.00	45.00	9050240027000
0.1181		3.00	10.00	100.00	45.00	9050240030000
0.1260		3.20	10.00	100.00	45.00	9050240032000

Series 5026 - 120mm flute length

Diameter (d1)			d2 mm	l1 mm	l2 mm	EDP #
inch	wire/ltr	mm				
0.0591		1.50	4.00	165.00	120.00	9050260015000
0.0626	1/16	1.59	4.00	165.00	120.00	9050260015900
0.0630		1.60	4.00	165.00	120.00	9050260016000
0.0780	5/64	1.98	4.00	165.00	120.00	9050260019800
0.0787		2.00	4.00	165.00	120.00	9050260020000
0.0984		2.50	10.00	175.00	120.00	9050260025000
0.1063		2.70	10.00	175.00	120.00	9050260027000
0.1181		3.00	10.00	175.00	120.00	9050260030000
0.1260		3.20	10.00	175.00	120.00	9050260032000
0.1378		3.50	10.00	175.00	120.00	9050260035000
0.1575		4.00	10.00	175.00	120.00	9050260040000
0.1654		4.20	10.00	175.00	120.00	9050260042000
0.1772	#16	4.50	10.00	175.00	120.00	9050260045000
0.1969		5.00	10.00	175.00	120.00	9050260050000

Series 5020 - 80mm flute length

Diameter (d1)			d2 mm	l1 mm	l2 mm	EDP #
inch	wire/ltr	mm				
0.0472		1.20	4.00	125.00	80.00	9050200012000
0.0591		1.50	4.00	125.00	80.00	9050200015000
0.0626	1/16	1.59	4.00	125.00	80.00	9050200015900
0.0630		1.60	4.00	125.00	80.00	9050200016000
0.0780	5/64	1.98	4.00	125.00	80.00	9050200019800
0.0787		2.00	4.00	125.00	80.00	9050200020000
0.0984		2.50	10.00	135.00	80.00	9050200025000
0.1063		2.70	10.00	135.00	80.00	9050200027000
0.1181		3.00	10.00	135.00	80.00	9050200030000
0.1260		3.20	10.00	135.00	80.00	9050200032000
0.1378		3.50	10.00	135.00	80.00	9050200035000
0.1575		4.00	10.00	135.00	80.00	9050200040000
0.1654		4.20	10.00	135.00	80.00	9050200042000
0.1772	#16	4.50	10.00	135.00	80.00	9050200045000
0.1969		5.00	10.00	135.00	80.00	9050200050000

Series 5021 - 160mm flute length

Diameter (d1)			d2 mm	l1 mm	l2 mm	EDP #
inch	wire/ltr	mm				
0.0591		1.50	4.00	205.00	160.00	9050210015000
0.0626	1/16	1.59	4.00	205.00	160.00	9050210015900
0.0630		1.60	4.00	205.00	160.00	9050210016000
0.0780	5/64	1.98	4.00	205.00	160.00	9050210019800
0.0787		2.00	4.00	205.00	160.00	9050210020000
0.0984		2.50	10.00	215.00	160.00	9050210025000
0.1063		2.70	10.00	215.00	160.00	9050210027000
0.1181		3.00	10.00	215.00	160.00	9050210030000
0.1260		3.20	10.00	215.00	160.00	9050210032000
0.1378		3.50	10.00	215.00	160.00	9050210035000
0.1575		4.00	10.00	215.00	160.00	9050210040000
0.1654		4.20	10.00	215.00	160.00	9050210042000
0.1772	#16	4.50	10.00	215.00	160.00	9050210045000
0.1969		5.00	10.00	215.00	160.00	9050210050000
0.2362		6.00	16.00	225.00	160.00	9050210060000
0.3150		8.00	16.00	225.00	160.00	9050210080000

Tech Tip:

Gun drills hold location to precise tolerances in extremely deep hole applications. Conventional gun drills consist of a steel body and driver with a brazed carbide head for extended tool life and performance. When applying standard gun drills some basic steps should be observed:

- If you're not drilling on a gun drilling machine supported by a bushing, you must drill a pilot hole using a drill with an m7 tolerance. Our series 5510 drill is suitable. The procedure is similar to the RT100T drills. Enter the pilot hole at low RPM and feed rate (example: 200 RPM at 20 in/min)
- Gun drills for drilling depths over 40xD should enter pilot hole in a counterclockwise direction.
- Continuous drilling without pecking is required.
- Switch off coolant supply after reaching maximum drilling depth.
- Use a rapid withdrawal with a stationary spindle.

Series # 5020, 5021, 5024, 5026 - EB100 Less than 35xD

Material group	Hardness		SFM	Feed Rate - IPR									
	HRc	Bhn		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	-	150	330	0.0003	0.0006	0.0009	0.0015						
Free-cutting steels	25	255	295	0.0003	0.0006	0.0009	0.0015						
Unalloyed heat-treatable steels	20	220	295	0.0002	0.0004	0.0005	0.0010						
Alloyed heat-treatable steels	32	301	245	0.0002	0.0004	0.0005	0.0010						
Unalloyed case hardened steels	25	255	260	0.0003	0.0006	0.0009	0.0015						
Alloyed case hardened steels	32	301	245	0.0002	0.0004	0.0005	0.0010						
Nitriding steels	32	301	245	0.0002	0.0004	0.0005	0.0010						
Tool steels	25	255	245	0.0002	0.0003	0.0004	0.0006						
High speed steels	43	402	180	0.0001	0.0002	0.0003	0.0004						
Spring steels	38	354	215	0.0002	0.0003	0.0004	0.0006						
Hardened steels	48	460	100	0.0002	0.0003	0.0004	0.0006						
Stainless steels, sulphured austenitic	28	273	180	0.0002	0.0004	0.0005	0.0010						
Stainless steels, martensitic	36	337	150	0.0002	0.0004	0.0005	0.0010						
Cast iron	23	242	280	0.0005	0.0009	0.0014	0.0020						
Spheroidal graphite iron and malleable cast iron	23	242	260	0.0003	0.0006	0.0009	0.0015						
Chilled cast iron	38	354	230	0.0003	0.0006	0.0009	0.0015						
New cast materials GGV	20	220	180	0.0002	0.0004	0.0005	0.0010						
New cast materials ADI	32	301											
Special alloys	54	549	115	0.0001	0.0002	0.0003	0.0004						
Ti and Ti-alloys	25	255	115	0.0001	0.0002	0.0003	0.0004						
Aluminium and Al-alloys	43	402	100	0.0001	0.0002	0.0003	0.0004						
Al wrought alloys	-	120	490	0.0008	0.0016	0.0024	0.0028						
Al cast alloys ≤ 10 % Si	-	200	395	0.0008	0.0016	0.0024	0.0028						
Al cast alloys ≤ 24 % Si	-	180	490	0.0013	0.0024	0.0033	0.0047						
Magnesium alloys	-	180	425	0.0013	0.0024	0.0033	0.0047						
Copper, low-alloyed	-	120	360	0.0008	0.0016	0.0024	0.0028						
Brass, short-chipping	-	150	245	0.0003	0.0006	0.0009	0.0015						
Brass, long-chipping	-	180	395	0.0013	0.0024	0.0033	0.0047						
Bronze, short-chipping	-	180	295	0.0013	0.0024	0.0033	0.0047						
Duroplastics	25	255	310	0.0008	0.0016	0.0024	0.0028						
Thermoplastics	25	255	310	0.0008	0.0016	0.0024	0.0028						
Reinforced plastics - Kevlar	32	301	230	0.0008	0.0016	0.0024	0.0028						
Reinforced plastics - GFK / CFK	32	301	230	0.0008	0.0016	0.0024	0.0028						

Series # 5020, 5021, 5024, 5026 - EB100 Greater than 35xD

Material group	Hardness		SFM	Feed Rate - IPR									
	HRc	Bhn		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	-	150	310	0.0002	0.0004	0.0005	0.0010						
Free-cutting steels	25	255	260	0.0002	0.0004	0.0005	0.0010						
Unalloyed heat-treatable steels	20	220	280	0.0002	0.0003	0.0004	0.0006						
Alloyed heat-treatable steels	32	301	245	0.0002	0.0004	0.0005	0.0010						
Unalloyed case hardened steels	25	255	245	0.0002	0.0003	0.0004	0.0006						
Alloyed case hardened steels	32	301	230	0.0002	0.0003	0.0004	0.0006						
Nitriding steels	32	301	230	0.0002	0.0003	0.0004	0.0006						
Tool steels	25	255	230	0.0001	0.0002	0.0003	0.0004						
High speed steels	43	402	195	0.0001	0.0002	0.0003	0.0004						
Spring steels	38	354	195	0.0002	0.0003	0.0004	0.0006						
Hardened steels	48	460	80	0.0001	0.0002	0.0003	0.0004						
Stainless steels, sulphured austenitic	28	273	165	0.0002	0.0003	0.0004	0.0006						
Stainless steels, martensitic	36	337	130	0.0002	0.0003	0.0004	0.0006						
Cast iron	23	242	260	0.0003	0.0006	0.0009	0.0015						
Spheroidal graphite iron and malleable cast iron	23	242	245	0.0003	0.0006	0.0009	0.0015						
Chilled cast iron	38	354	245	0.0003	0.0006	0.0009	0.0015						
New cast materials GGV	20	220	165	0.0002	0.0003	0.0004	0.0006						
New cast materials ADI	32	301											
Special alloys	54	549	100	0.0001	0.0002	0.0003	0.0004						
Ti and Ti-alloys	25	255	100	0.0001	0.0002	0.0003	0.0004						
Aluminium and Al-alloys	43	402	80	0.0001	0.0002	0.0003	0.0004						
Al wrought alloys	-	120	460	0.0003	0.0006	0.0009	0.0015						
Al cast alloys ≤ 10 % Si	-	200	375	0.0003	0.0006	0.0009	0.0015						
Al cast alloys ≤ 24 % Si	-	180	460	0.0008	0.0016	0.0024	0.0028						
Magnesium alloys	-	180	395	0.0008	0.0016	0.0024	0.0028						
Copper, low-alloyed	-	120	0	0.0005	0.0009	0.0014	0.0020						
Brass, short-chipping	-	150	230	0.0002	0.0004	0.0005	0.0010						
Brass, long-chipping	-	180	375	0.0008	0.0016	0.0024	0.0028						
Bronze, short-chipping	-	180	280	0.0008	0.0016	0.0024	0.0028						
Duroplastics	25	255	295	0.0005	0.0009	0.0014	0.0020						
Thermoplastics	25	255	295	0.0005	0.0009	0.0014	0.0020						
Reinforced plastics - Kevlar	32	301	215	0.0005	0.0009	0.0014	0.0020						
Reinforced plastics - GFK / CFK	32	301	215	0.0005	0.0009	0.0014	0.0020						