Versatile

For deep holes from ∅ 0.9 to 40.00 mm
up to max. 3000 mm overall length

EB 800 EB 80 ZB 80 EB 100

GUHRING

GUN DRILLS

GUHRING

EB 100 single-fluted gun drills

Standard	Type	Tool illustration	Drilling depth	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page
Guhring std.	EB 100	NEW	25xD	Solid carbide	a	1,000 - 12,000	5646	123	669
Guhring std.	EB 100	NEW	50xD	Solid carbide	a	1,000 - 8,000	5647	123	670
Guhring std.	EB 100	NEW	75xD	Solid carbide	a	1,000 - 6,000	5648	123	671

bright | steam tempered | nitrided lands | nitrided | golden brown | A TiAlN | a TiAlN nanoA | A TiAlN SuperA

EB 100 single-fluted gun drills

Standard	Type	Tool illustration	Flute length (mm)	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page
Guhring std.	EB 100		45.00	Solid carbide	○	1,200 - 3,200	5024	123	672
Guhring std.	EB 100		45.00	Solid carbide	A	2,000 - 3,200	5632	123	672
Guhring std.	EB 100		80.00	Solid carbide	○	1,200 - 5,000	5020	123	673
Guhring std.	EB 100		80.00	Solid carbide	A	2,000 - 5,000	5633	123	673
Guhring std.	EB 100		120.00	Solid carbide	○	1,500 - 5,000	5026	123	674
Guhring std.	EB 100		120.00	Solid carbide	A	2,000 - 5,000	5637	123	674
Guhring std.	EB 100		160.00	Solid carbide	○	1,500 - 8,000	5021	123	675
Guhring std.	EB 100		160.00	Solid carbide	A	2,000 - 8,000	5638	123	675

C TiCN Cb Carbo D Cristall F FIRE/nanoFIRE P AlCrN S TiN S+ TiN+ M MolyGlide Y Signum

EB 80 single-fluted gun drills

Standard	Type	Tool illustration	Drilling depth	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page
Guhring std.	EB 80		20xD	Carbide	S	4,000 - 12,000	5018	123	676
Guhring std.	EB 80		20xD	Carbide	C	3,970 - 12,700	5639	123	676
Guhring std.	EB 80		30xD	Carbide	S	4,000 - 12,000	5460	123	677
Guhring std.	EB 80		30xD	Carbide	C	3,970 - 12,700	5640	123	677
Guhring std.	EB 80		40xD	Carbide	S	4,000 - 12,000	5022	123	678
Guhring std.	EB 80		40xD	Carbide	C	3,970 - 12,700	5641	123	678
Guhring std.	EB 80		80xD	Carbide	S	4,950 - 11,950	5023	123	679
Guhring std.	EB 80		80xD	Carbide	C	4,950 - 12,650	5642	123	679

bright | steam tempered | nitrided lands | nitrided | golden brown | TiAlN | TiAlN nanoA | TiAlN SuperA

Standard	Type	Tool illustration	Drilling depth	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page
EB 800 single-fluted gun drills with indexable inserts									
Guhring std.	EB 800		30xD	Carbide	S	16,000 - 24,000	5644	123	681
Inserts for single-fluted gun drills EB 800									
Guhring std.		NEW		Solid carbide	S	16,000 - 24,400	5029	123	682
Supporting strips for Single-fluted gun drills EB 800									
Guhring std.		NEW		Solid carbide	S	16,000 - 40,000	5030	123	690
Clamping screws									
Guhring std.						-	4071	140	698
Torx screwdriver									
Guhring std.						-	1612	140	699

C TiCN Cb Carbo D Cristall F FIRE/nanoFIRE P AlCrN S TiN S+ TiN+ M MolyGlide Y Signum

Standard	Type	Tool illustration	Drilling depth	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page

ZB 80 two-fluted gun drills

Guhring std.	ZB 80		30xD	Carbide	◯	8,000 - 12,000	5019	123	700
Guhring std.	ZB 80		30xD	Carbide	◯	8,000 - 12,000	5643	123	700

◯ bright ◯ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Standard	Tool illustration		Tool material	Surface	d1	Guhring no.	Discount group	Standard range page
Drill bushes								
Guhring std.		NEW	HSS		0,900 - 40,000	5747	123	701
Guhring std.		NEW	Solid carbide		0,900 - 40,000	5748	123	701
Adjustment screws without sealing element								
Guhring std.		NEW			M 6 X0,5 - M16 x1,5	5754	123	699
Adjustment screws with sealing element								
Guhring std.		NEW			M 6 X0,5 - M24 x1,5	5755	123	700
Sealing disks for single-fluted gun drills								
Guhring std.		NEW	Vulkollan		2,000 - 40,000	5752	123	702
Sealing disks for gun drills with 2 cutting lips								
Guhring std.		NEW	Vulkollan		5,400 - 27,000	5753	123	704
Steady rest bushings for single- and double-fluted gun drills								
Guhring std.		NEW	Vulkollan		2,000 - 36,699	5749	123	705
Moulded steady rest bushings for single-fluted gun drills								
Guhring std.		NEW	Vulkollan		2,000 - 38,699	5750	123	707

C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

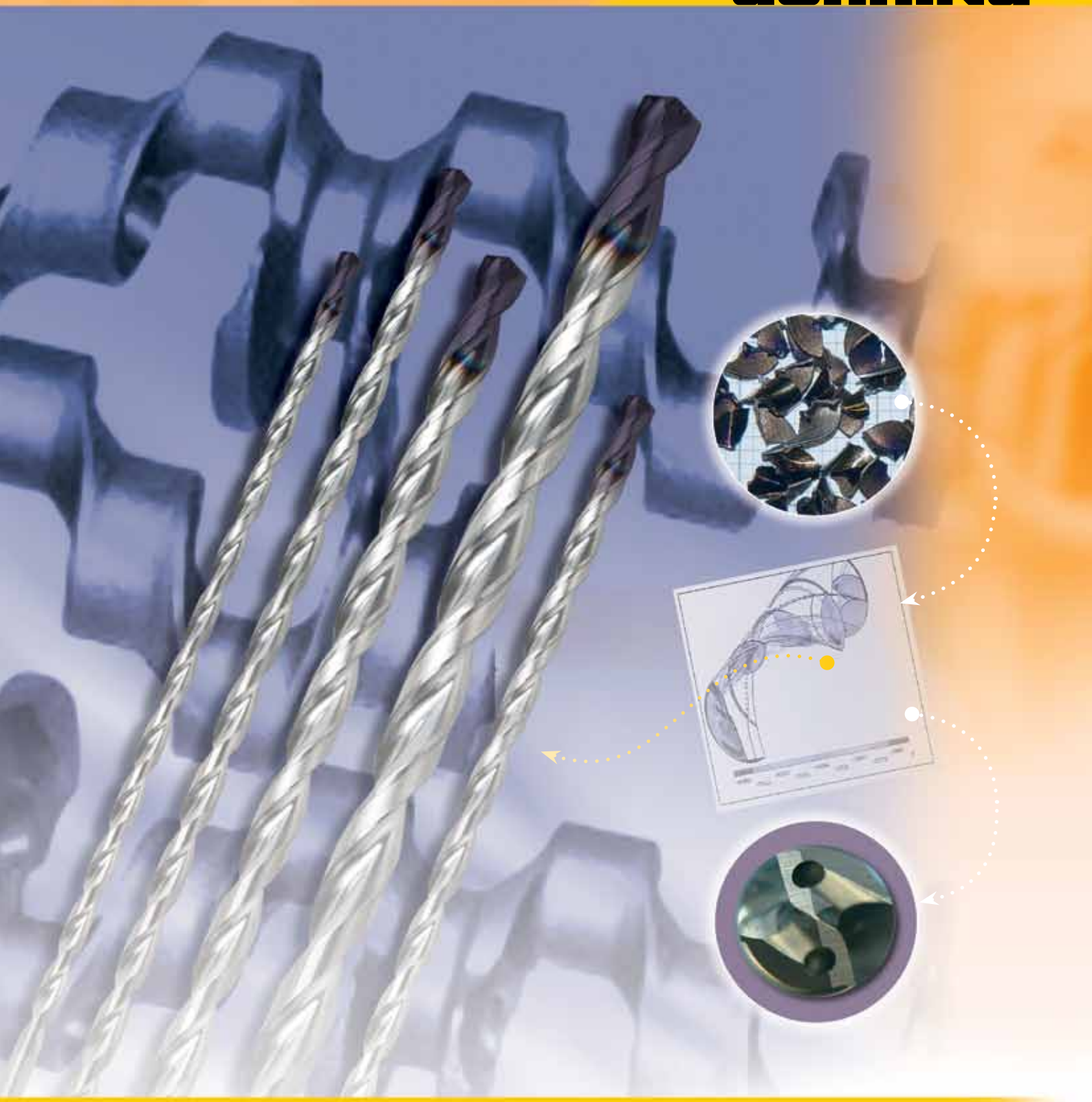
Standard	Tool illustration	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page

Moulded steady rest bushing for two-fluted gun drills

Guhring std.	NEW	**Vulkollan**		5,400 - 27,000	**5751**	123	709

bright | steam tempered | nitrided lands | nitrided | golden brown | TiAlN | TiAlN nanoA | TiAlN SuperA

GUHRING



CARBIDE DEEP HOLE DRILLS

The solid carbide deep hole drill was developed for the production of oil galleries in crankshafts and for many other applications such as pump housings, con-rods and injector bodies. The drill excels thanks to a 10-fold increase in feed rate in comparison with conventional gun drills and is designed for conventional cooling as well as MQL.

Drill Ø mm from	Feed column no. 11	12	13	14	15	16	17	18
	f (mm/rev.)							
1.50	0.002	0.004	0.006	0.008	0.012	0.020	0.032	0.045
2.00	0.003	0.005	0.007	0.010	0.016	0.028	0.046	0.055
2.50	0.004	0.006	0.008	0.012	0.018	0.030	0.054	0.070
4.00	0.005	0.007	0.010	0.016	0.025	0.043	0.065	0.085
6.00	0.007	0.009	0.013	0.024	0.035	0.061	0.085	0.120
8.00	0.010	0.014	0.022	0.032	0.045	0.068	0.100	0.150
10.00	0.012	0.016	0.028	0.040	0.055	0.075	0.120	0.160
14.00	0.020	0.025	0.035	0.050	0.065	0.085	0.130	0.180
18.00	0.025	0.030	0.040	0.055	0.070	0.095	0.145	0.200
20.00	0.026	0.035	0.045	0.060	0.080	0.110	0.180	0.250
24.00	0.027	0.036	0.047	0.065	0.085	0.130	0.185	0.300
28.00	0.028	0.038	0.049	0.068	0.090	0.140	0.195	0.350
30.00	0.030	0.040	0.050	0.070	0.100	0.150	0.200	0.400
35.00	0.035	0.045	0.055	0.075	0.120	0.180	0.250	0.450
40.00	0.040	0.050	0.060	0.080	0.150	0.200	0.300	0.500

*The feed rates always relate to tools with the recommended coating. In some cases the successful application of un-coated tools cannot be guaranteed.

The sequence of operations for deep hole drilling

- production of pilot hole (L = 1.5 x D, tolerance H8)
- enter at low revolutions, approx. 200 rev./min, feed rate approx. 500 mm/min. With tools for drilling depths in excess than 40 x D enter the pilot hole revolving in left hand direction.
- setting of coolant pressure and revolutions
- uninterrupted drilling to required drilling depth without wood pecking. When applying gun drills with increased length-diameter-ratio , we recommend machining with reduced cutting parameters (approx. 75% of the optimal cutting speed) up to a drilling depth of approx. 25 mm.
- switching off coolant supply after reaching the required hole depth
- withdrawal in top gear with stationary spindle

Material dependent coolants
○ air
● neat oil
◍ soluble oil

Please note the coolant values on page 726!

STOP

All deep hole drills must have support for the pilot hole.
Deep hole drills must never operate at full speed without support in the machine shop.

Application advice
- For drilling depths in excess than 40 x D we recommend the use of two or more gun drills, e. g. Ø 10 x 400 mm and Ø 9.95 x 800 mm.
- Gun drills for drilling depths of more than 40 x D should enter the pilot hole revolving in the left hand direction.
- When changing tools for drilling depths of more than 40 x D, the tool can be damped by switching on coolant supply for just one second.
- For machining of long-chipping materials we recommend the use of gun drills with polished flutes.
- Generally we recommend the use of soluble oil with a minimum oil content of 10 %.
- Single-fluted gun drills for long-chipping aluminium should be supplied with point grind 180° and coolant chamber.
- When spotting in aluminium with an Si-content of less than 1%, i.e. with recommended cutting rates v_c > 160 m/min we recommend to advance to the final speed in several steps. In addition, a deeper pilot hole of approximately 3 x D should be produced.

EB100

single-fluted gun drill

solid carbide

0.9 ... 12.0

Material group	Material examples Figures in bold = material no. to DIN EN 10 027	Tens.str. Hardness N/mm²	Cool-ant	recom. coating*	≤35xD v_c m/min	≤35xD Feed col. no.	>35xD v_c m/min	>35xD Feed col. no.
Common structural steels	**1.0035** S185, **1.0486** P275N, **1.0345** P235GH, **1.0425**	≤500	◍		100	15	95	14
	1.0050 E295), **1.0070** E360, **1.8937** P500NH	≤1000	◍		85	15	80	14
Free-cutting steels	**1.0718** 11SMnPb30, **1.0736** 11SMn37	≤850	◍		90	15	85	14
	1.0727 46S20, **1.0728** 60S20, **1.0757** 46SPb20	≤1000	◍		80	15	75	14
Unalloyed heat-treatable steels	**1.0402** C22, **1.1178** C30E	≤700	◍		90	14	85	13
	1.0503 C45, **1.1191** C45E	≤850	◍		80	14	75	13
	1.0601 C60, **1.1221** C60E	≤1000	◍		75	14	70	13
Alloyed heat-treatable steels	**1.5131** 50MnSi4, **1.7003** 38Cr2, **1.7030** 28Cr4	≤1000	◍		75	14	70	13
	1.5710 36NiCr6, **1.7035** 41Cr4, **1.7225** 42CrMo4	≤1400	◍	A	65	14	60	13
Unalloyed case hard. steels	**1.0301**, **1.1121** C10E	≤850	◍	A	80	15	75	14
Alloyed case hardened steels	**1.7276** 10CrMo11, **1.5125** 11MnSi6	≤1000	●		75	14	70	13
	1.5752 15NiCr13, **1.7131** 16MnCr5, **1.7264** 20CrMo5	≤1400	●		65	14	60	13
Nitriding steels	**1.8504** 34CrAl6	≤1000	◍		75	14	70	13
	1.8519 31CrMoV9, **1.8550** 34CrAlNi7	≤1400	●	A	65	14	60	13
Tool steels	**1.1750** C75W, **1.2067** 102Cr6, **1.2307** 29CrMoV9	≤850	◍		75	13	70	12
	1.2080 X210Cr12, **1.2083** X42Cr13, **1.2419**, **1.2767**	≤1400	●	A	65	13	60	12
High speed steels	**1.3243** S 6-5-2-5, **1.3343** S 6-5-2, **1.3344** S 6-5-3	≤1400	●	A	55	12	50	11
Spring steels	**1.5026** 55Si7, **1.7176** 55Cr3, **1.8159** 51CrV4	≤350 HB	●	A	65	13	60	12
Stainless steels, sulphured	**1.4005** X12CrS13, **1.4104** X14CrMoS17, **1.4105**	≤900	●		55	14	50	13
austenitic	**1.4301** X5CrNi18-10, **1.4541** X6CrNiTi18-10, **1.4571**	≤1100	●	A	45	14	40	13
martensitic	**1.4057** X20CrNi172, **1.4122** X39CrMo17-1, **1.4521**	≤1500	●		35	14	35	13
Hardened steels	–	≤48 HRC	●		30	13	25	12
		≤66 HRC	●		25	10	20	11
Special alloys	Nimonic, Inconel, Monel, Hastelloy	≤2000	●		35	12	30	11
Cast iron	**0.6010** EN-GJL-100, **0.6020** EN-GJL-200	≤240 HB	◍○		85	16	80	15
	0.6025 EN-GJL-250, **0.6035** EN-GJL-350	≤350 HB	◍○		80	16	75	15
Spheroidal graphite iron and	**0.7050** EN-GJS-500-7, **0.8035** EN-GJMW-350-4	≤240 HB	◍		80	15	75	14
malleable cast iron	**0.7070** EN-GJS-700-2, **0.8170** EN-GJMB-700-2	≤350 HB	◍		70	15	65	14
Chilled cast iron	–	≤350 HB	◍		55	14	50	13
Ti and Ti-alloys	**3.7024** Ti99,5, **3.7114** TiAl5Sn2,5, **3.7124** TiCu2	≤850	●		35	12	30	11
	3.7154 TiAl6Zr5, **3.7165** TiAl6V4, **3.7184**	≤1400	●	A	30	12	25	11
Aluminium and Al-alloys	**3.0255** Al99,5, **3.2315** AlMgSi1, **3.3515** AlMg1	≤400	◍		150	17	140	16
Al wrought alloys	**3.0615** AlMgSiPb, **3.1325** AlCuMg1, **3.3245**, **3.4365**	≤650	◍		120	17	115	16
Al cast alloys ≤ 10 % Si	**3.2131** G-AlSi5Cu1, **3.2153** G-AlSi7Cu3, **3.2573** G-AlSi9	≤600	◍		150	18	140	17
≤ 24 % Si	**3.2581** G-AlSi12, **3.2583** G-AlSi12Cu, - G-AlSi12CuNiMg	≤600	◍		130	18	120	17
Magnesium alloys	**3.5200** MgMn2, **3.5812.05** G-MgAl8Zn1, **3.5612.05**	≤400	○		110	17	100	16
Copper, low-alloyed	**2.0070** SE-Cu, **2.1020** CuSn6, **2.1096** G-CuSn5ZnPb	≤500	◍	A	75	15	70	14
Brass, short-chipping	**2.0380** CuZn39Pb2, **2.0401** CuZn39Pb3, **2.0410**	≤600	◍		120	18	115	17
long-chipping	**2.0250** CuZn20, **2.0280** CuZn33, **2.0332** CuZn37Pb0,5	≤600	◍		90	18	85	17
Bronze, short-chipping	**2.1090** CuSn7ZnPb, **2.1170** CuPb5Sn5, **2.1176**	≤600	◍●		95	17	90	16
	2.0790 CuNi18Zn19Pb	≤850	●		75	17	70	16
Bronze, long-chipping	**2.0916** CuAl5, **2.0960** CuAl9Mn, **2.1050** CuSn10	≤850	●		70	17	65	16
	2.0980 CuAl11Ni, **2.1247** CuBe2	≤1000	●		60	17	55	16
Duroplastics	Bakelit, Resopal, Pertinax, Moltopren	≤150	○		75	15	70	14
Thermoplastics	Plexiglas, Hostalen, Novodur, Makralon	≤100	◍○		70	15	65	14
New cast materials GGV	**EN-GJV250** (GGV25), **EN-GJV350** (GGV35)	≤220 HB	◍○					
	EN-GJV400 (GGV40), **EN-GJV500** (GGV50), SiMo 6	≤300 HB	◍○					
New cast materials ADI	**EN-GJS-800-8** (ADI800), **EN-GJS-1000-5** (ADI1000)	≤1000	◍○					
	EN-GJS-1200-2 (ADI1200), **EN-GJS-1400-1** (ADI1400)	≤1400	◍○					
Kevlar	Kevlar	≤1000	○		60	14	55	13
Glass, carbon concentr. plastics	GFK/CFK	≤1000	○		50	14	45	13

○ bright ◍ steam tempered ◒ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A AlTiN SuperA

Procedure
In order to achieve optimal machining results when producing deep holes with type RT 100 T especially spotting on radii or on an uneven surface structure, we recommend the following machining steps:

1. Initial milling of surface, i.e. with Guhring's centre cutting Ratio end mill RF 100 U. The surface must be machined at right angles to the entry angle of the drilling operation.
2. Production of a cylindrical pilot hole (tolerance F9) with a minimum drilling depth of 1 x D. For this operation we recommend our Ratio drills RT 100 U or RT 100 F respectively. Thanks to a 140° point angle and a m7 tolerance on diameter these Ratio drills are especially suitable for this machining task.
3. Entry of spiral-flute deep hole drill RT 100 T in the pilot hole at a speed of approx. 300 rev./min and with a feed rate of approx. 500 mm/min.
4. Setting of coolant pressure and speed.
5. Continuous drilling to complete hole depth without wood pecking.
6. For through holes with plain - i.e. 90° - exit, reduce feed rate v_f to 50 % approx. 1 mm prior to break-through.
7. For through holes with oblique exit, reduce the feed rate v_f to 40% approx. 1 mm prior to break-through.
8. After reaching hole depth stop machine spindle and coolant supply, withdrawal in top gear.

Ratio end mill type RF 100 U, Guhring no. 3736
Thanks to its unequal helix angle, Guhring's FIRE-coated Ratio end mill RF 100 U offers highest feed rates and tool life for finishing and roughing operations in steel and cast materials as well as Ti- and Ni-alloys. Further information about the range can be found in Guhring's current main catalogue.

Ratio drill RT 100 U, Guhring no. 2477
Ratio drill RT 100 F, Guhring no. 1660
Thanks to their special cutting edge geometry, Guhring's Ratio drills excel with very good self-centering characteristics and alignment accurate holes. Type U is especially suitable for the machining of steel and high-alloyed AlSi-alloys, type F for high-alloyed, stainless, acid- and heat-resistant steels, Al and Al-alloys, Mg and Mg-alloys as well as Ti and Ti-alloys.

EB80

single-fluted gun drill
solid carbide head
2.0 ... 40.0

recom. coating*	≤35xD v_c m/min	≤35xD Feed col. no.	>35xD v_c m/min	>35xD Feed col. no.
S	100	14	95	13
	85	14	80	13
S	90	14	85	13
	80	14	75	13
	90	13	85	12
S	80	13	75	12
	75	13	70	12
S	75	13	70	12
	65	13	60	12
S	80	14	75	13
S	75	13	70	12
	65	13	60	12
C	75	13	70	12
	65	13	60	12
C	75	12	70	11
	65	12	60	11
C	55	11	50	11
C	65	12	60	12
	55	13	50	12
C	45	13	40	12
	35	13	35	12
C	30	12	25	11
	25	11	20	11
C	35	11	30	11
	85	15	80	14
	80	15	75	14
	80	14	75	13
	70	14	65	13
	55	13	50	12
C	35	11	30	11
	30	11	25	11
	150	16	140	15
	120	15	115	14
	150	16	140	15
	130	16	120	15
	110	16	100	15
C	75	14	70	13
	120	17	115	16
	90	17	85	16
	95	16	90	15
	75	16	70	15
	70	16	65	15
	60	16	55	15
	75	14	70	13
	70	14	65	13
	60	13	55	12
	50	13	45	12

ZB80

two-fluted gun drill
solid carbide head
6.0 ... 27.0

recom. coating*	≤35xD v_c m/min	≤35xD Feed col. no.	>35xD v_c m/min	>35xD Feed col. no.
	85	18	80	17
	80	18	75	17
	75	17	70	16
	70	17	65	16
	65	16	60	15
	120	18	115	17
	110	18	105	17
	135	18	130	17
	120	17	115	16
	130	18	125	17
	120	18	115	17
	110	17	105	16
	110	17	105	16
	95	17	90	16
	95	17	90	16

EB800

single-fluted gun drill
with indexable inserts
12.0 ... 40.0

recom. coating*	≤35xD v_c m/min	≤35xD Feed col. no.	>35xD v_c m/min	>35xD Feed col. no.
S	90	15	85	15
	80	15	75	15
S	85	16	80	16
	75	16	70	16
	85	15	80	15
S	80	15	75	15
	75	15	70	15
S	75	15	70	15
	65	15	60	15
S	80	15	75	15
S	75	15	70	15
	70	15	65	15
S	70	15	65	15
	60	15	55	15
S	65	14	60	14
	60	14	55	14
S	55	14	50	14
S	65	15	60	15
	50	14	45	14
F	45	14	40	14
	40	14	35	14
S	30	13	25	13
	25	12	20	12
F	25	13	20	13
	85	16	80	16
	80	16	75	16
S	75	16	70	16
	70	16	65	16
	55	15	50	15
F	35	13	30	13
	30	12	25	12
	140	16	135	16
	125	16	120	16
	170	17	165	17
	140	17	135	17
	115	16	110	16
F	75	15	70	15
	120	17	115	17
	90	17	85	17
	95	17	90	17
	75	17	70	17
	70	17	65	17
	60	17	55	17
	75	16	70	16
	70	16	65	16
	60	15	55	15
	50	15	45	15

C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

EB 100 single-fluted gun drills

Single-fluted gun drill
drilling depth 25xD
with standard point geometry
Head form G
Solid carbide shank with tapered MQL shank
end fro d1 = 3 mm or d2 = 6 mm
for all materials

Guhring no.	**5646**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	a
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	669

EB 100 single-fluted gun drills

Single-fluted gun drill
drilling depth 50xD
with standard point geometry
Head form G
Solid carbide shank with tapered MQL shank
end fro d1 = 3 mm or d2 = 6 mm
for all materials

Guhring no.	**5647**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	a
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	670

EB 100 single-fluted gun drills

Single-fluted gun drill
drilling depth 75xD
with standard point geometry
Head form G
Solid carbide shank with tapered MQL shank
end fro d1 = 3 mm or d2 = 6 mm
for all materials

Guhring no.	**5648**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	a
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	671

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 45 mm
with standard point geometry
Head form G
for all materials

Guhring no.	**5024**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	○
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	672

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 45 mm
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	**5632**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	A
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	672

○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 80 mm
with standard point geometry
Head form G
for all materials

Guhring no.	**5020**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	◯
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	673

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 80 mm
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	**5633**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	A
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	673

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 120 mm
with standard point geometry
Head form G
for all materials

Guhring no.	**5026**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	◯
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	674

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 120 mm
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	**5637**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	A
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	674

EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 160 mm
with standard point geometry
Head form G
for all materials

Guhring no.	**5021**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	◯
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	675

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EB 100 single-fluted gun drills

Single-fluted gun drill
flute length 160 mm
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	**5638**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	A
Type	EB 100
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	675

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 20xD
with standard point geometry
with lateral chip breakers
with recessed coolant chamber
Head form G
for long-chipping materials

Guhring no.	**5018**
Standard	**Guhring std.**
Tool material	**Carbide**
Surface	S
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	676

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 20xD
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	**5639**
Standard	**Guhring std.**
Tool material	**Carbide**
Surface	C
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	676

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 30xD
with standard point geometry
with lateral chip breakers
with recessed coolant chamber
Head form G
for long-chipping materials

Guhring no.	**5460**
Standard	**Guhring std.**
Tool material	**Carbide**
Surface	S
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	677

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 30xD
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	**5640**
Standard	**Guhring std.**
Tool material	**Carbide**
Surface	C
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	677

bright | steam tempered | nitrided lands | nitrided | golden brown | A TiAlN | a TiAlN nanoA | A TiAlN SuperA

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 40xD
with standard point geometry
with lateral chip breakers
with recessed coolant chamber
Head form G
for long-chipping materials

Guhring no.	5022
Standard	Guhring std.
Tool material	Carbide
Surface	S
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	678

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 40xD
with standard point geometry
Head form G
for alloyed and high alloyed steels

Guhring no.	5641
Standard	Guhring std.
Tool material	Carbide
Surface	C
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	678

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 80xD
with standard point geometry
with lateral chip breakers
with recessed coolant chamber
Head form G
for long-chipping materials

* max. flute length per tool
40 x D, for larger drilling depths apply Guhring no. 5022 as first tool.

Guhring no.	5023
Standard	Guhring std.
Tool material	Carbide
Surface	S
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	679

EB 80 single-fluted gun drills

Single-fluted gun drill
drilling depth 80xD
with standard point geometry
Head form G
for alloyed and high alloyed steels

* max. flute length per tool
40 x D, for larger drilling depths apply Guhring no. 5641 as first tool.

Guhring no.	5642
Standard	Guhring std.
Tool material	Carbide
Surface	C
Type	EB 80
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	679

EB 800 single-fluted gun drills with indexable inserts

Single-fluted gun drill
drilling depth 30xD
with indexable inserts
with interchangeable supporting strips
for all materials

Guhring no.	5644
Standard	Guhring std.
Tool material	Carbide
Surface	S
Type	EB 800
Cutting direction	right-hand
Point geometry	
Point angle °	
Web thinned ≥Ø	
Standard range page	681

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ZB 80 two-fluted gun drills

Two-fluted gun drills
drilling depth 30xD
with special point geometry
4-facet gun drills
for aluminium
for highest cutting parameters

Guhring no.	**5019**
Standard	**Guhring std.**
Tool material	**Carbide**
Surface	◯
Type	ZB 80
Cutting direction	right-hand
Form	
Tolerance	h5
Discount group	123
Standard range page	700

ZB 80 two-fluted gun drills

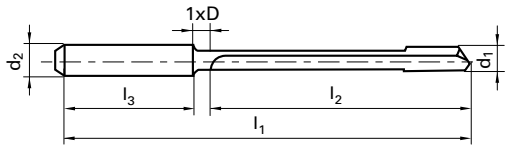
Two-fluted gun drills
drilling depth 30xD
with special point geometry
4-facet gun drills
for cast materials
for highest cutting parameters

Guhring no.	**5643**
Standard	**Guhring std.**
Tool material	**Carbide**
Surface	◯
Type	ZB 80
Cutting direction	right-hand
Form	
Tolerance	h5
Discount group	123
Standard range page	700

◯ bright ◯ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	5646
Standard	Guhring std.
Tool material	Solid carbide
Carbide grade	K30/K40
Surface	a
Type	EB 100
Drilling depth	25xD
Cutting direction	right-hand
Tolerance	h5
Discount group	123
Techn. data page	664

NEW



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability
1.000		3.000	60.00	30.00	28.00	●
1.500		4.000	80.00	50.00	28.00	●
1.590	1/16	4.000	80.00	50.00	28.00	●
1.980	5/64	4.000	100.00	70.00	28.00	●
2.000		4.000	100.00	70.00	28.00	●
2.380	3/32	4.000	100.00	70.00	28.00	●
2.500		4.000	115.00	85.00	28.00	●
2.780	7/64	4.000	115.00	85.00	28.00	●
3.000		6.000	145.00	105.00	36.00	●
3.170	1/8	6.000	145.00	105.00	36.00	●
3.500		6.000	145.00	105.00	36.00	●
3.970	5/32	6.000	160.00	120.00	36.00	●
4.000		6.000	160.00	120.00	36.00	●
5.000		6.000	220.00	180.00	36.00	●
5.560	7/32	6.000	220.00	180.00	36.00	●
6.000		6.000	220.00	180.00	36.00	●
6.350	1/4	8.000	260.00	210.00	36.00	●
7.000		8.000	260.00	210.00	36.00	●
7.140	9/32	8.000	285.00	240.00	36.00	●
8.000		8.000	285.00	240.00	36.00	●
9.000		10.000	350.00	300.00	40.00	●
10.000		10.000	350.00	300.00	40.00	●
11.000		12.000	420.00	360.00	45.00	●
12.000		12.000	420.00	360.00	45.00	●

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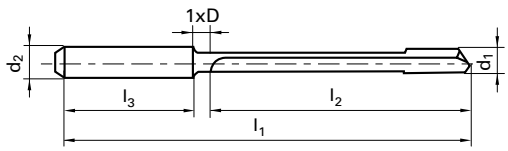
Guhring no.	5647
Standard	Guhring std.
Tool material	Solid carbide
Carbide grade	K30/K40
Surface	a
Type	EB 100
Drilling depth	50xD
Cutting direction	right-hand
Tolerance	h5
Discount group	123
Techn. data page	664

NEW

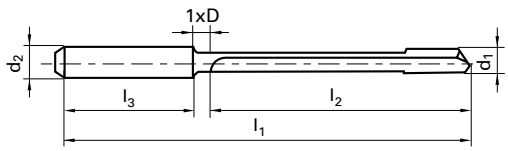


d1		d2	l1	l2	l3	Availability
mm	inch	mm	mm	mm	mm	
1.000		3.000	85.00	55.00	28.00	●
1.500		4.000	120.00	85.00	28.00	●
1.590	1/16	4.000	120.00	85.00	28.00	●
1.980	5/64	4.000	160.00	130.00	28.00	●
2.000		4.000	160.00	130.00	28.00	●
2.380	3/32	4.000	160.00	130.00	28.00	●
2.500		4.000	185.00	155.00	28.00	●
2.780	7/64	4.000	185.00	155.00	28.00	●
3.000		6.000	230.00	190.00	36.00	●
3.170	1/8	6.000	230.00	190.00	36.00	●
3.500		6.000	230.00	190.00	36.00	●
3.970	5/32	6.000	260.00	220.00	36.00	●
4.000		6.000	260.00	220.00	36.00	●
5.000		6.000	370.00	330.00	36.00	●
5.560	7/32	6.000	370.00	330.00	36.00	●
6.000		6.000	370.00	330.00	36.00	●
6.350	1/4	8.000	430.00	385.00	36.00	●
7.000		8.000	430.00	385.00	36.00	●
7.140	9/32	8.000	485.00	440.00	36.00	●
8.000		8.000	485.00	440.00	36.00	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5648**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Carbide grade	**K30/K40**
Surface	a
Type	**EB 100**
Drilling depth	**75xD**
Cutting direction	**right-hand**
Tolerance	**h5**
Discount group	**123**
Techn. data page	**664**

NEW



d1		d2	l1	l2	l3	Availability
mm	inch	mm	mm	mm	mm	
1.000		3.000	110.00	80.00	28.00	●
1.500		4.000	155.00	125.00	28.00	●
1.590	1/16	4.000	155.00	125.00	28.00	●
1.980	5/64	4.000	220.00	190.00	28.00	●
2.000		4.000	220.00	190.00	28.00	●
2.380	3/32	4.000	220.00	190.00	28.00	●
2.500		4.000	255.00	220.00	28.00	●
2.780	7/64	4.000	255.00	220.00	28.00	●
3.000		6.000	320.00	280.00	36.00	●
3.170	1/8	6.000	320.00	280.00	36.00	●
3.500		6.000	320.00	280.00	36.00	●
3.970	5/32	6.000	360.00	320.00	36.00	●
4.000		6.000	360.00	320.00	36.00	●
5.000		6.000	525.00	485.00	36.00	●
5.560	7/32	6.000	525.00	485.00	36.00	●
6.000		6.000	525.00	485.00	36.00	●

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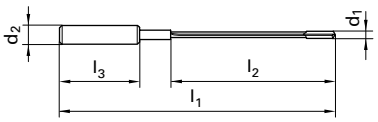
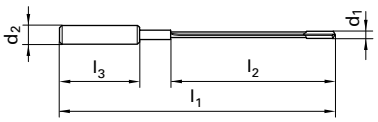
Guhring no.	5024	5632
Standard	Guhring std.	
Tool material	Solid carbide	
Carbide grade	K30/K40	
Surface	○	A
Type	EB 100	EB 100
Drilling depth	45.00	45.00
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	664	664



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability	
1.200		4.000	90.00	45.00	28.00	●	
1.500		4.000	90.00	45.00	28.00	●	
1.600		4.000	90.00	45.00	28.00	●	
2.000		4.000	90.00	45.00	28.00	●	●
2.500		10.000	100.00	45.00	40.00	●	●
2.700		10.000	100.00	45.00	40.00	●	●
3.000		10.000	100.00	45.00	40.00	●	●
3.200		10.000	100.00	45.00	40.00	●	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	5020	5633
Standard	Guhring std.	
Tool material	Solid carbide	
Carbide grade	K30/K40	
Surface	○	A
Type	EB 100	EB 100
Drilling depth	80.00	80.00
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	665	665



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability 5020	Availability 5633
1.200		4.000	125.00	80.00	28.00	●	
1.500		4.000	125.00	80.00	28.00	●	
1.600		4.000	125.00	80.00	28.00	●	
2.000		4.000	125.00	80.00	28.00	●	●
2.500		10.000	135.00	80.00	40.00	●	●
2.700		10.000	135.00	80.00	40.00	●	●
3.000		10.000	135.00	80.00	40.00	●	●
3.200		10.000	135.00	80.00	40.00	●	●
3.500		10.000	135.00	80.00	40.00	●	●
4.000		10.000	135.00	80.00	40.00	●	●
4.200		10.000	135.00	80.00	40.00	●	●
4.500		10.000	135.00	80.00	40.00	●	●
5.000		10.000	135.00	80.00	40.00	●	●

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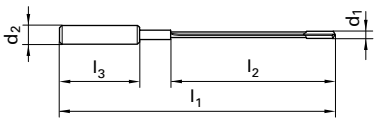
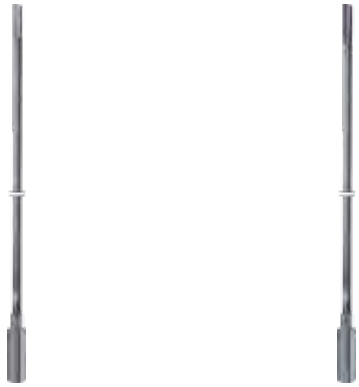
Guhring no.	5026	5637
Standard	Guhring std.	
Tool material	Solid carbide	
Carbide grade	K30/K40	
Surface	○	A
Type	EB 100	EB 100
Drilling depth	120.00	120.00
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	665	665

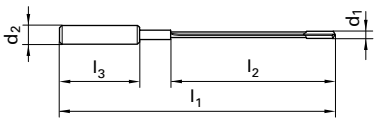




d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability	
1.500		4.000	165.00	120.00	28.00	●	
1.600		4.000	165.00	120.00	28.00	●	
2.000		4.000	165.00	120.00	28.00	●	●
2.500		10.000	175.00	120.00	40.00	●	●
2.700		10.000	175.00	120.00	40.00	◐	●
3.000		10.000	175.00	120.00	40.00	●	●
3.200		10.000	175.00	120.00	40.00	●	●
3.500		10.000	175.00	120.00	40.00	●	●
4.000		10.000	175.00	120.00	40.00	●	●
4.200		10.000	175.00	120.00	40.00	●	●
4.500		10.000	175.00	120.00	40.00	●	●
5.000		10.000	175.00	120.00	40.00	●	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	5021	5638
Standard	Guhring std.	
Tool material	Solid carbide	
Carbide grade	K30/K40	
Surface	○	A
Type	EB 100	EB 100
Drilling depth	160.00	160.00
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	665	666



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability 5021	Availability 5638
1.500		4.000	205.00	160.00	28.00	●	
1.600		4.000	205.00	160.00	28.00	●	
2.000		4.000	205.00	160.00	28.00	●	●
2.500		10.000	215.00	160.00	40.00	●	●
2.700		10.000	215.00	160.00	40.00	◐	●
3.000		10.000	215.00	160.00	40.00	●	●
3.200		10.000	215.00	160.00	40.00	●	●
3.500		10.000	215.00	160.00	40.00	●	●
4.000		10.000	215.00	160.00	40.00	●	●
4.200		10.000	215.00	160.00	40.00	●	●
4.500		10.000	215.00	160.00	40.00	●	●
5.000		10.000	215.00	160.00	40.00	●	●
6.000		16.000	225.00	160.00	48.00	●	●
8.000		16.000	225.00	160.00	48.00	●	●

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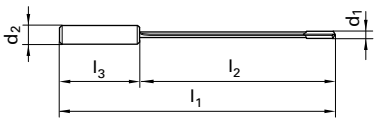
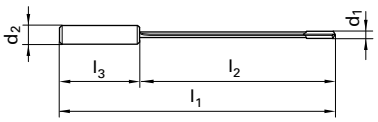
Guhring no.	5018	5639
Standard	Guhring std.	
Tool material	Carbide	
Carbide grade	K15	K30/K40
Surface	S	C
Type	EB 80	EB 80
Drilling depth	20xD	20xD
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	666	666



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability	
3.970	5/32	10.000	150.00	100.00	40.00		●
4.000		12.000	150.00	100.00	45.00	❍	●
4.200		12.000	160.00	110.00	45.00	❍	
4.500		12.000	170.00	120.00	45.00	●	
5.000		16.000	180.00	130.00	48.00	●	●
5.156		16.000	180.00	130.00	48.00		●
5.500		16.000	190.00	140.00	48.00	●	
6.000		16.000	210.00	160.00	48.00	●	●
6.350	1/4	16.000	220.00	170.00	48.00		●
6.500		16.000	220.00	170.00	48.00	●	
7.000		16.000	235.00	185.00	48.00	●	●
7.938	5/16	16.000	260.00	210.00	48.00		●
8.000		16.000	260.00	210.00	48.00	●	●
9.000		16.000	280.00	230.00	48.00	●	●
9.525	3/8	16.000	290.00	240.00	48.00		●
10.000		20.000	320.00	260.00	50.00	●	●
11.000		20.000	340.00	290.00	50.00		●
11.113	7/16	20.000	340.00	290.00	50.00		●
12.000		20.000	370.00	310.00	50.00	●	●
12.700	1/2	20.000	385.00	330.00	50.00		●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	5460	5640
Standard	Guhring std.	
Tool material	Carbide	
Carbide grade	K15	K30/K40
Surface	S	C
Type	EB 80	EB 80
Drilling depth	30xD	30xD
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	666	666



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability 5460	Availability 5640
3.970	5/32	10.000	200.00	155.00	40.00		●
4.000		12.000	200.00	155.00	45.00	●	●
4.200		12.000	210.00	165.00	45.00	❍	
4.500		12.000	220.00	175.00	45.00	●	
5.000		16.000	230.00	182.00	48.00	●	●
5.156		16.000	230.00	182.00	48.00		●
5.500		16.000	245.00	197.00	48.00	❍	
6.000		16.000	260.00	212.00	48.00	●	●
6.350	1/4	16.000	275.00	227.00	48.00		●
6.500		16.000	275.00	227.00	48.00	●	
7.000		16.000	290.00	242.00	48.00	●	●
7.938	5/16	16.000	320.00	272.00	48.00		●
8.000		16.000	320.00	272.00	48.00	●	●
9.000		16.000	350.00	302.00	48.00	●	●
9.525	3/8	16.000	380.00	330.00	48.00		●
10.000		20.000	400.00	350.00	50.00	●	●
11.000		20.000	430.00	380.00	50.00		●
11.113	7/16	20.000	430.00	380.00	50.00		●
12.000		20.000	450.00	400.00	50.00	●	●
12.700	1/2	20.000	500.00	450.00	50.00		●

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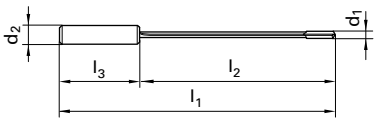
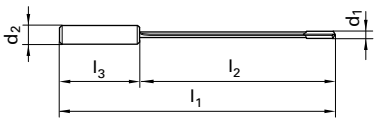
Guhring no.	5022	5641
Standard	Guhring std.	
Tool material	Carbide	
Carbide grade	K15	K30/K40
Surface	S	C
Type	EB 80	EB 80
Drilling depth	40xD	40xD
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	667	667



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability	
3.970	5/32	10.000	230.00	185.00	40.00		●
4.000		12.000	230.00	185.00	45.00	●	●
4.200		12.000	240.00	195.00	45.00	●	
4.500		12.000	250.00	205.00	45.00	●	
5.000		16.000	280.00	232.00	48.00	●	●
5.156		16.000	280.00	232.00	48.00		●
5.500		16.000	300.00	252.00	48.00	●	
6.000		16.000	320.00	272.00	48.00	●	●
6.350	1/4	16.000	340.00	292.00	48.00		●
6.500		16.000	340.00	292.00	48.00	●	
7.000		16.000	370.00	322.00	48.00	●	●
7.938	5/16	16.000	420.00	372.00	48.00		●
8.000		16.000	420.00	372.00	48.00	●	●
9.000		16.000	450.00	402.00	48.00	◐	●
9.525	3/8	16.000	480.00	432.00	48.00		●
10.000		20.000	510.00	460.00	50.00	●	●
11.000		20.000	550.00	500.00	50.00		●
11.113	7/16	20.000	550.00	500.00	50.00		●
12.000		20.000	600.00	550.00	50.00	●	●
12.700	1/2	20.000	635.00	585.00	50.00		●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	5023	5642
Standard	Guhring std.	
Tool material	Carbide	
Carbide grade	K15	K30/K40
Surface	S	C
Type	EB 80	EB 80
Drilling depth	80xD	80xD
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	667	667



d1		d2	l1	l2	l3	Availability	
mm	inch	mm	mm	mm	mm		
4.950		16.000	480.00	432.00	48.00	●	●
5.106		16.000	480.00	432.00	48.00		●
5.950	15/64	16.000	560.00	512.00	48.00	●	●
6.300		16.000	590.00	542.00	48.00		●
6.950		16.000	650.00	602.00	48.00		●
7.888		16.000	740.00	692.00	48.00		●
7.950		16.000	740.00	692.00	48.00	●	●
8.950		16.000	820.00	772.00	48.00		●
9.475		16.000	870.00	822.00	48.00		●
9.950		20.000	910.00	860.00	50.00	●	●
10.950		20.000	995.00	945.00	50.00		●
11.063		20.000	995.00	945.00	50.00		●
11.950		20.000	1080.00	1030.00	50.00	●	●
12.650		20.000	1140.00	1090.00	50.00		●

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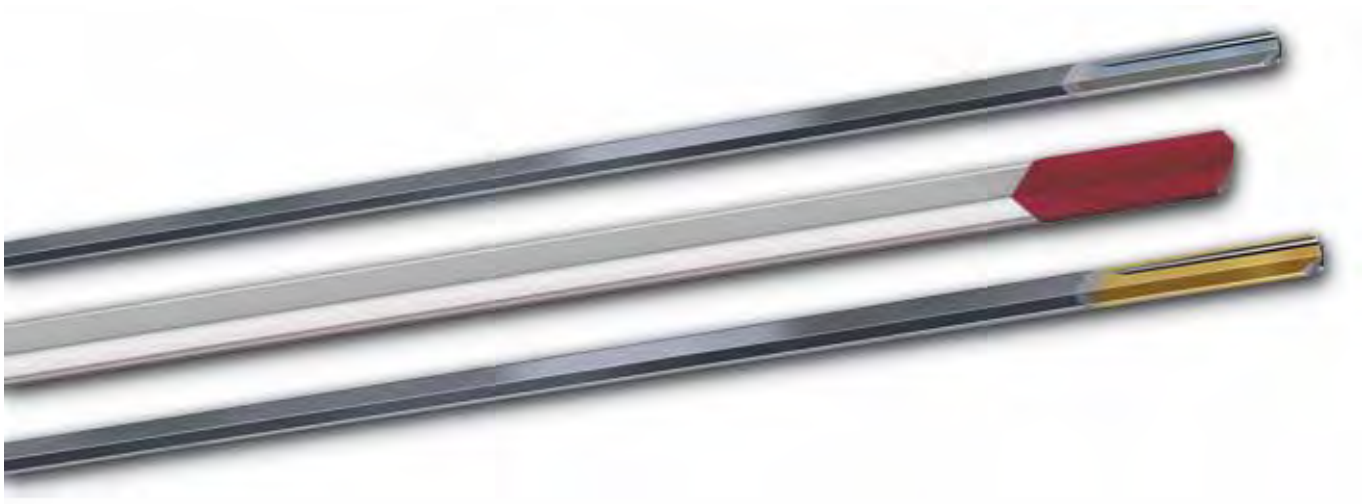
Your tailor-made single-fluted EB 80 gun drills with brazed solid carbide head! Guhring‘s super quick offer makes it possible: Special tools within 10 working days!



Design options:

- nominal diameter range 2.0 - 13.9 mm in increments of 0.1 mm
- nominal diameter range 14.0 - 22.0 mm in increments of 0.5 mm
- total length up to 1200 mm, flute length min. 20xD
- head form G
- standard drivers
- carbide grade K15
- bright finish with standard point grind for cast materials and aluminium
- TiN-coating with longitudinal chip breaker for long-chipping steels
- TiCN-coating with standard point grind for alloyed and high-alloyed steels (delivery time 15 working days)

New: Now available for inch sizes from $^{5}/_{32}$ to 1!

The dimensions for Guhring single-fluted gun drills EB 80

Ø nominal mm	in increments of mm	head form	total length	
2.00…13.90	0.1	G	≤ 7.5 mm Ø 650 max	Prices on inquiry
4.00…13.90	0.1	C	> 7.5 mm Ø 1200 max	
14.00…22.00	0.5	G	1200 max	
14.00…22.00	0.5	C		

Tool material:	Solid carbide/K15
Surface:	◯ / Ⓢ / Ⓒ

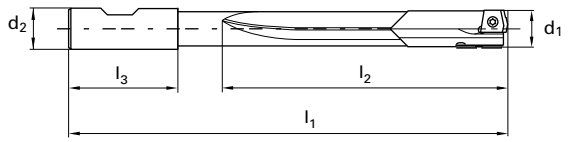
Standard head lengths (mm)

Ø-range	length	Ø-range	length
2.00…2.49	15	10.00…10.99	35
2.50…2.99	18	11.00…17.00	40
3.00…3.99	20	17.01…20.00	45
4.00…5.19	25	20.01…23.00	50
5.20…6.99	30	23.01…26.00	55
7.00…9.99	35	26.01…40.00	65

Flute length: min. 20 x D

◯ bright ◯ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ AlTiN SuperA

Guhring no.	**5644**
Standard	**Guhring std.**
Tool material	**Carbide**
Carbide grade	**K20/K40**
Surface	**S**
Type	**EB 800**
Drilling depth	**30xD**
Cutting direction	**right-hand**
Tolerance	**h8**
Discount group	**123**
Techn. data page	**667**



d1		d2	l1	l2	l3	Availability
mm	inch	mm	mm	mm	mm	
12.000		20.000	446.00	384.00	50.00	●
12.700	1/2	20.000	468.00	384.00	50.00	●
14.000		20.000	510.00	448.00	50.00	●
15.000		56.000	548.00	480.00	56.00	●
16.000		25.000	580.00	512.00	56.00	●
18.000		25.000	644.00	576.00	56.00	●
20.000		32.000	712.00	640.00	60.00	●
24.000		32.000	840.00	768.00	60.00	●

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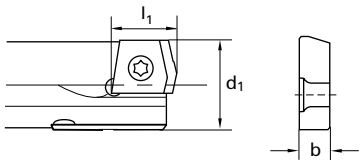
Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW

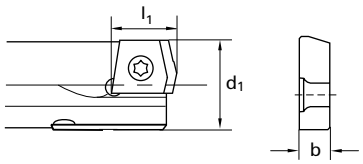


d1 mm	l1 mm	b mm	Availability
12.000	10.00	2.800	●
12.100	10.00	2.800	●
12.200	10.00	2.800	●
12.300	10.00	2.800	●
12.400	10.00	2.800	●
12.500	10.00	2.800	●
12.600	10.00	2.800	●
12.700	10.00	2.800	●
12.800	10.00	2.800	●
12.900	10.00	2.800	●
13.000	10.00	2.800	●
13.100	10.00	2.800	●
13.200	10.00	2.800	●
13.300	10.00	2.800	●
13.400	10.00	2.800	●
13.500	10.00	2.800	●
13.600	10.00	2.800	●
13.700	10.00	2.800	●
13.800	10.00	2.800	●
13.900	10.00	2.800	●
14.000	10.00	2.800	●
14.100	10.00	2.800	●
14.200	10.00	2.800	●
14.300	10.00	2.800	●
14.400	10.00	2.800	●
14.500	10.00	2.800	●
14.600	10.00	2.800	●
14.700	10.00	2.800	●
14.800	10.00	2.800	●
14.900	10.00	2.800	●
15.000	10.00	2.800	●
15.100	10.00	2.800	●
15.200	10.00	2.800	●
15.300	10.00	2.800	●
15.400	10.00	2.800	●
15.500	10.00	2.800	●
15.600	10.00	2.800	●
15.700	10.00	2.800	●
15.800	10.00	2.800	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW



d1 mm	l1 mm	b mm	Availability
15.900	10.00	2.800	●
16.000	12.00	3.000	●
16.100	12.00	3.000	●
16.200	12.00	3.000	●
16.300	12.00	3.000	●
16.400	12.00	3.000	●
16.500	12.00	3.000	●
16.600	12.00	3.000	●
16.700	12.00	3.000	●
16.800	12.00	3.000	●
16.900	12.00	3.000	●
17.000	12.00	3.000	●
17.100	12.00	3.000	●
17.200	12.00	3.000	●
17.300	12.00	3.000	●
17.400	12.00	3.000	●
17.500	12.00	3.000	●
17.600	12.00	3.000	●
17.700	12.00	3.000	●
17.800	12.00	3.000	●
17.900	12.00	3.000	●
18.000	12.00	3.000	●
18.100	12.00	3.000	●
18.200	12.00	3.000	●
18.300	12.00	3.000	●
18.400	12.00	3.000	●
18.500	12.00	3.000	●
18.600	12.00	3.000	●
18.700	12.00	3.000	●
18.800	12.00	3.000	●
18.900	12.00	3.000	●
19.000	12.00	3.000	●
19.100	12.00	3.000	●
19.200	12.00	3.000	●
19.300	12.00	3.000	●
19.400	12.00	3.000	●
19.500	12.00	3.000	●
19.600	12.00	3.000	●
19.700	12.00	3.000	●

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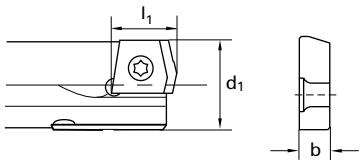
Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW

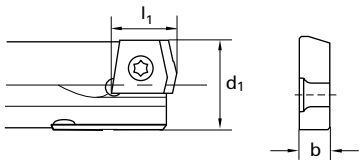


d1 mm	l1 mm	b mm	Availability
19.800	12.00	3.000	●
19.900	12.00	3.000	●
20.000	15.00	4.000	●
20.100	15.00	4.000	●
20.200	15.00	4.000	●
20.300	15.00	4.000	●
20.400	15.00	4.000	●
20.500	15.00	4.000	●
20.600	15.00	4.000	●
20.700	15.00	4.000	●
20.800	15.00	4.000	●
20.900	15.00	4.000	●
21.000	15.00	4.000	●
21.100	15.00	4.000	●
21.200	15.00	4.000	●
21.300	15.00	4.000	●
21.400	15.00	4.000	●
21.500	15.00	4.000	●
21.600	15.00	4.000	●
21.700	15.00	4.000	●
21.800	15.00	4.000	●
21.900	15.00	4.000	●
22.000	15.00	4.000	●
22.100	15.00	4.000	●
22.200	15.00	4.000	●
22.300	15.00	4.000	●
22.400	15.00	4.000	●
22.500	15.00	4.000	●
22.600	15.00	4.000	●
22.700	15.00	4.000	●
22.800	15.00	4.000	●
22.900	15.00	4.000	●
23.000	15.00	4.000	●
23.100	15.00	4.000	●
23.200	15.00	4.000	●
23.300	15.00	4.000	●
23.400	15.00	4.000	●
23.500	15.00	4.000	●
23.600	15.00	4.000	●

○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW



d1 mm	l1 mm	b mm	Availability
23.700	15.00	4.000	●
23.800	15.00	4.000	●
23.900	15.00	4.000	●
24.000	15.00	4.000	●
24.100	15.00	4.000	●
24.200	15.00	4.000	●
24.300	15.00	4.000	●
24.400	15.00	4.000	●
24.500	15.00	4.000	●
24.600	15.00	4.000	●
24.700	15.00	4.000	●
24.800	15.00	4.000	●
24.900	15.00	4.000	●
25.000	15.00	4.000	●
25.100	15.00	4.000	●
25.200	15.00	4.000	●
25.300	15.00	4.000	●
25.400	15.00	4.000	●
25.500	15.00	4.000	●
25.600	15.00	4.000	●
25.700	15.00	4.000	●
25.800	15.00	4.000	●
25.900	15.00	4.000	●
26.000	16.00	5.000	●
26.100	16.00	5.000	●
26.200	16.00	5.000	●
26.300	16.00	5.000	●
26.400	16.00	5.000	●
26.500	16.00	5.000	●
26.600	16.00	5.000	●
26.700	16.00	5.000	●
26.800	16.00	5.000	●
26.900	16.00	5.000	●
27.000	16.00	5.000	●
27.100	16.00	5.000	●
27.200	16.00	5.000	●
27.300	16.00	5.000	●
27.400	16.00	5.000	●
27.500	16.00	5.000	●

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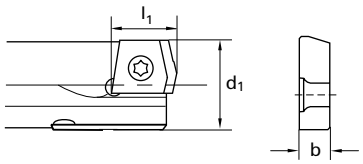
Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW

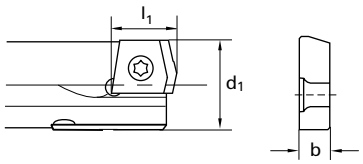


d1 mm	l1 mm	b mm	Availability
27.600	16.00	5.000	●
27.700	16.00	5.000	●
27.800	16.00	5.000	●
27.900	16.00	5.000	●
28.000	16.00	5.000	●
28.100	16.00	5.000	●
28.200	16.00	5.000	●
28.300	16.00	5.000	●
28.400	16.00	5.000	●
28.500	16.00	5.000	●
28.600	16.00	5.000	●
28.700	16.00	5.000	●
28.800	16.00	5.000	●
28.900	16.00	5.000	●
29.000	16.00	5.000	●
29.100	16.00	5.000	●
29.200	16.00	5.000	●
29.300	16.00	5.000	●
29.400	16.00	5.000	●
29.500	16.00	5.000	●
29.600	16.00	5.000	●
29.700	16.00	5.000	●
29.800	16.00	5.000	●
29.900	16.00	5.000	●
30.000	18.00	6.000	●
30.100	18.00	6.000	●
30.200	18.00	6.000	●
30.300	18.00	6.000	●
30.400	18.00	6.000	●
30.500	18.00	6.000	●
30.600	18.00	6.000	●
30.700	18.00	6.000	●
30.800	18.00	6.000	●
30.900	18.00	6.000	●
31.000	18.00	6.000	●
31.100	18.00	6.000	●
31.200	18.00	6.000	●
31.300	18.00	6.000	●
31.400	18.00	6.000	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW



d1 mm	l1 mm	b mm	Availability
31.500	18.00	6.000	●
31.600	18.00	6.000	●
31.700	18.00	6.000	●
31.800	18.00	6.000	●
31.900	18.00	6.000	●
32.000	18.00	6.000	●
32.100	18.00	6.000	●
32.200	18.00	6.000	●
32.300	18.00	6.000	●
32.400	18.00	6.000	●
32.500	18.00	6.000	●
32.600	18.00	6.000	●
32.700	18.00	6.000	●
32.800	18.00	6.000	●
32.900	18.00	6.000	●
33.000	18.00	6.000	●
33.100	18.00	6.000	●
33.200	18.00	6.000	●
33.300	18.00	6.000	●
33.400	18.00	6.000	●
33.500	18.00	6.000	●
33.600	18.00	6.000	●
33.700	18.00	6.000	●
33.800	18.00	6.000	●
33.900	18.00	6.000	●
34.000	19.00	6.500	●
34.100	19.00	6.500	●
34.200	19.00	6.500	●
34.300	19.00	6.500	●
34.400	19.00	6.500	●
34.500	19.00	6.500	●
34.600	19.00	6.500	●
34.700	19.00	6.500	●
34.800	19.00	6.500	●
34.900	19.00	6.500	●
35.000	19.00	6.500	●
35.100	19.00	6.500	●
35.200	19.00	6.500	●
35.300	19.00	6.500	●

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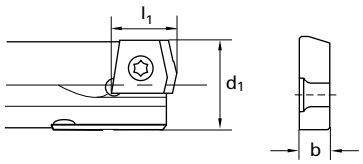
Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW

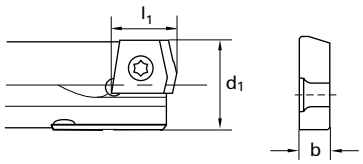


d1 mm	l1 mm	b mm	Availability
35.400	19.00	6.500	●
35.500	19.00	6.500	●
35.600	19.00	6.500	●
35.700	19.00	6.500	●
35.800	19.00	6.500	●
35.900	19.00	6.500	●
36.000	19.00	6.500	●
36.100	19.00	6.500	●
36.200	19.00	6.500	●
36.300	19.00	6.500	●
36.400	19.00	6.500	●
36.500	19.00	6.500	●
36.600	19.00	6.500	●
36.700	19.00	6.500	●
36.800	19.00	6.500	●
36.900	19.00	6.500	●
37.000	19.00	6.500	●
37.100	19.00	6.500	●
37.200	19.00	6.500	●
37.300	19.00	6.500	●
37.400	19.00	6.500	●
37.500	19.00	6.500	●
37.600	19.00	6.500	●
37.700	19.00	6.500	●
37.800	19.00	6.500	●
37.900	19.00	6.500	●
38.000	20.00	7.000	●
38.100	20.00	7.000	●
38.200	20.00	7.000	●
38.300	20.00	7.000	●
38.400	20.00	7.000	●
38.500	20.00	7.000	●
38.600	20.00	7.000	●
38.700	20.00	7.000	●
38.800	20.00	7.000	●
38.900	20.00	7.000	●
39.000	20.00	7.000	●
39.100	20.00	7.000	●
39.200	20.00	7.000	●

○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5029**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	**right-hand**
Discount group	**123**
Techn. data page	

NEW



d1	l1	b	Availability
mm	mm	mm	
39.300	20.00	7.000	●
39.400	20.00	7.000	●
39.500	20.00	7.000	●
39.600	20.00	7.000	●
39.700	20.00	7.000	●
39.800	20.00	7.000	●
39.900	20.00	7.000	●
40.000	20.00	7.000	●

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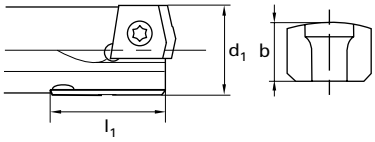
Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW

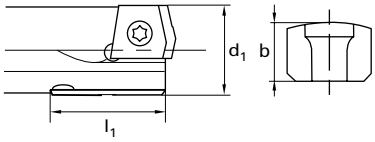


d1 mm	l1 mm	b mm	Availability
12.000	19.95	2.150	●
12.100	19.95	2.200	●
12.200	19.95	2.250	●
12.300	19.95	2.300	●
12.400	19.95	2.350	●
12.500	19.95	2.150	●
12.600	19.95	2.200	●
12.700	19.95	2.250	●
12.800	19.95	2.300	●
12.900	19.95	2.350	●
13.000	19.95	2.150	●
13.100	19.95	2.200	●
13.200	19.95	2.250	●
13.300	19.95	2.300	●
13.400	19.95	2.350	●
13.500	19.95	2.150	●
13.600	19.95	2.200	●
13.700	19.95	2.250	●
13.800	19.95	2.300	●
13.900	19.95	2.350	●
14.000	19.95	2.150	●
14.100	19.95	2.200	●
14.200	19.95	2.250	●
14.300	19.95	2.300	●
14.400	19.95	2.350	●
14.500	19.95	2.150	●
14.600	19.95	2.200	●
14.700	19.95	2.250	●
14.800	19.95	2.300	●
14.900	19.95	2.350	●
15.000	19.95	2.150	●
15.100	19.95	2.200	●
15.200	19.95	2.250	●
15.300	19.95	2.300	●
15.400	19.95	2.350	●
15.500	19.95	2.150	●
15.600	19.95	2.200	●
15.700	19.95	2.250	●
15.800	19.95	2.300	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW



d1 mm	l1 mm	b mm	Availability
15.900	19.95	2.350	●
16.000	20.00	2.850	●
16.100	20.00	2.900	●
16.200	20.00	2.950	●
16.300	20.00	3.000	●
16.400	20.00	3.050	●
16.500	20.00	2.850	●
16.600	20.00	2.900	●
16.700	20.00	2.950	●
16.800	20.00	3.000	●
16.900	20.00	3.050	●
17.000	20.00	2.850	●
17.100	20.00	2.900	●
17.200	20.00	2.950	●
17.300	20.00	3.000	●
17.400	20.00	3.050	●
17.500	20.00	2.850	●
17.600	20.00	2.900	●
17.700	20.00	2.950	●
17.800	20.00	3.000	●
17.900	20.00	3.050	●
18.000	20.00	2.850	●
18.100	20.00	2.900	●
18.200	20.00	2.950	●
18.300	20.00	3.000	●
18.400	20.00	3.050	●
18.500	20.00	2.850	●
18.600	20.00	2.900	●
18.700	20.00	2.950	●
18.800	20.00	3.000	●
18.900	20.00	3.050	●
19.000	20.00	2.850	●
19.100	20.00	2.900	●
19.200	20.00	2.950	●
19.300	20.00	3.000	●
19.400	20.00	3.050	●
19.500	20.00	2.850	●
19.600	20.00	2.900	●
19.700	20.00	2.950	●

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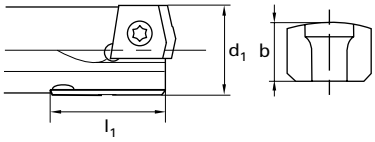
Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW

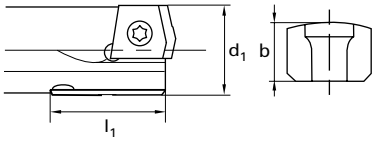


d1 mm	l1 mm	b mm	Availability
19.800	20.00	3.000	●
19.900	20.00	3.050	●
20.000	25.00	3.350	●
20.100	25.00	3.400	●
20.200	25.00	3.450	●
20.300	25.00	3.500	●
20.400	25.00	3.550	●
20.500	25.00	3.350	●
20.600	25.00	3.400	●
20.700	25.00	3.450	●
20.800	25.00	3.500	●
20.900	25.00	3.550	●
21.000	25.00	3.350	●
21.100	25.00	3.400	●
21.200	25.00	3.450	●
21.300	25.00	3.500	●
21.400	25.00	3.550	●
21.500	25.00	3.350	●
21.600	25.00	3.400	●
21.700	25.00	3.450	●
21.800	25.00	3.500	●
21.900	25.00	3.550	●
22.000	25.00	3.350	●
22.100	25.00	3.400	●
22.200	25.00	3.450	●
22.300	25.00	3.500	●
22.400	25.00	3.550	●
22.500	25.00	3.350	●
22.600	25.00	3.400	●
22.700	25.00	3.450	●
22.800	25.00	3.500	●
22.900	25.00	3.550	●
23.000	25.00	3.350	●
23.100	25.00	3.400	●
23.200	25.00	3.450	●
23.300	25.00	3.500	●
23.400	25.00	3.550	●
23.500	25.00	3.350	●
23.600	25.00	3.400	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW



d1 mm	l1 mm	b mm	Availability
23.700	25.00	3.450	●
23.800	25.00	3.500	●
23.900	25.00	3.550	●
24.000	25.00	3.350	●
24.100	25.00	3.400	●
24.200	25.00	3.450	●
24.300	25.00	3.500	●
24.400	25.00	3.550	●
24.500	25.00	3.350	●
24.600	25.00	3.400	●
24.700	25.00	3.450	●
24.800	25.00	3.500	●
24.900	25.00	3.550	●
25.000	25.00	3.350	●
25.100	25.00	3.400	●
25.200	25.00	3.450	●
25.300	25.00	3.500	●
25.400	25.00	3.550	●
25.500	25.00	3.350	●
25.600	25.00	3.400	●
25.700	25.00	3.450	●
25.800	25.00	3.500	●
25.900	25.00	3.550	●
26.000	25.00	3.850	●
26.100	25.00	3.900	●
26.200	25.00	3.950	●
26.300	25.00	4.000	●
26.400	25.00	4.050	●
26.500	25.00	3.850	●
26.600	25.00	3.900	●
26.700	25.00	3.950	●
26.800	25.00	4.000	●
26.900	25.00	4.050	●
27.000	25.00	3.850	●
27.100	25.00	3.900	●
27.200	25.00	3.950	●
27.300	25.00	4.000	●
27.400	25.00	4.050	●
27.500	25.00	3.850	●

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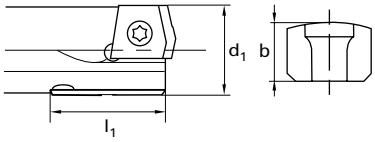
Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW

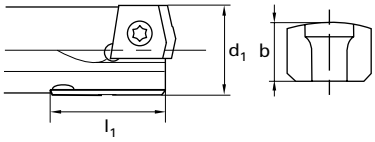


d1 mm	l1 mm	b mm	Availability
27.600	25.00	3.900	●
27.700	25.00	3.950	●
27.800	25.00	4.000	●
27.900	25.00	4.050	●
28.000	25.00	3.850	●
28.100	25.00	3.900	●
28.200	25.00	3.950	●
28.300	25.00	4.000	●
28.400	25.00	4.050	●
28.500	25.00	3.850	●
28.600	25.00	3.900	●
28.700	25.00	3.950	●
28.800	25.00	4.000	●
28.900	25.00	4.050	●
29.000	25.00	3.850	●
29.100	25.00	3.900	●
29.200	25.00	3.950	●
29.300	25.00	4.000	●
29.400	25.00	4.050	●
29.500	25.00	3.850	●
29.600	25.00	3.900	●
29.700	25.00	3.950	●
29.800	25.00	4.000	●
29.900	25.00	4.050	●
30.000	30.00	4.350	●
30.100	30.00	4.400	●
30.200	30.00	4.450	●
30.300	30.00	4.500	●
30.400	30.00	4.550	●
30.500	30.00	4.350	●
30.600	30.00	4.400	●
30.700	30.00	4.450	●
30.800	30.00	4.500	●
30.900	30.00	4.550	●
31.000	30.00	4.350	●
31.100	30.00	4.400	●
31.200	30.00	4.450	●
31.300	30.00	4.500	●
31.400	30.00	4.550	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW



d1 mm	l1 mm	b mm	Availability
31.500	30.00	4.350	●
31.600	30.00	4.400	●
31.700	30.00	4.450	●
31.800	30.00	4.500	●
31.900	30.00	4.550	●
32.000	30.00	4.350	●
32.100	30.00	4.400	●
32.200	30.00	4.450	●
32.300	30.00	4.500	●
32.400	30.00	4.550	●
32.500	30.00	4.350	●
32.600	30.00	4.400	●
32.700	30.00	4.450	●
32.800	30.00	4.500	●
32.900	30.00	4.550	●
33.000	30.00	4.350	●
33.100	30.00	4.400	●
33.200	30.00	4.450	●
33.300	30.00	4.500	●
33.400	30.00	4.550	●
33.500	30.00	4.350	●
33.600	30.00	4.400	●
33.700	30.00	4.450	●
33.800	30.00	4.500	●
33.900	30.00	4.550	●
34.000	30.00	4.850	●
34.100	30.00	4.900	●
34.200	30.00	4.950	●
34.300	30.00	5.000	●
34.400	30.00	5.050	●
34.500	30.00	4.850	●
34.600	30.00	4.900	●
34.700	30.00	4.950	●
34.800	30.00	5.000	●
34.900	30.00	5.050	●
35.000	30.00	4.850	●
35.100	30.00	4.900	●
35.200	30.00	4.950	●
35.300	30.00	5.000	●

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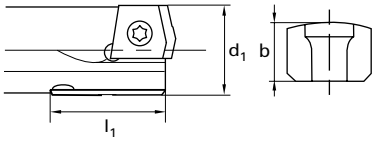
Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

NEW

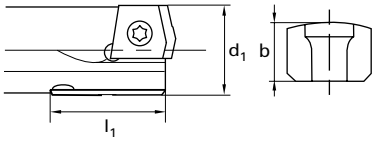


d1 mm	l1 mm	b mm	Availability
35.400	30.00	5.050	●
35.500	30.00	4.850	●
35.600	30.00	4.900	●
35.700	30.00	4.950	●
35.800	30.00	5.000	●
35.900	30.00	5.050	●
36.000	30.00	4.850	●
36.100	30.00	4.900	●
36.200	30.00	4.950	●
36.300	30.00	5.000	●
36.400	30.00	5.050	●
36.500	30.00	4.850	●
36.600	30.00	4.900	●
36.700	30.00	4.950	●
36.800	30.00	5.000	●
36.900	30.00	5.050	●
37.000	30.00	4.850	●
37.100	30.00	4.900	●
37.200	30.00	4.950	●
37.300	30.00	5.000	●
37.400	30.00	5.050	●
37.500	30.00	4.850	●
37.600	30.00	4.900	●
37.700	30.00	4.950	●
37.800	30.00	5.000	●
37.900	30.00	5.050	●
38.000	30.00	5.350	●
38.100	30.00	5.400	●
38.200	30.00	5.450	●
38.300	30.00	5.500	●
38.400	30.00	5.550	●
38.500	30.00	5.350	●
38.600	30.00	5.400	●
38.700	30.00	5.450	●
38.800	30.00	5.500	●
38.900	30.00	5.550	●
39.000	30.00	5.350	●
39.100	30.00	5.400	●
39.200	30.00	5.450	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**5030**
Standard	**Guhring std.**
Tool material	**Solid carbide**
Surface	S
Cutting direction	
Discount group	**123**
Techn. data page	

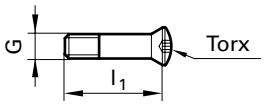
NEW



d1	l1	b	Availability
mm	mm	mm	
39.300	30.00	5.500	●
39.400	30.00	5.550	●
39.500	30.00	5.350	●
39.600	30.00	5.400	●
39.700	30.00	5.450	●
39.800	30.00	5.500	●
39.900	30.00	5.550	●
40.000	30.00	5.600	●

C TiCN Cb Carbo D Cristall F FIRE/nanoFIRE P AlCrN S TiN S+ TiN+ M MolyGlide Y Signum

Guhring no.	**4071**
Standard	**Guhring std.**
Discount group	**140**
Techn. data page	



G	l1	Torx	Code no.	Availability
	mm			
M 1,6	4.00	T5	1.600	●
M 3	6.40	T9	3.002	●
M 4	7.70	T15	4.001	●

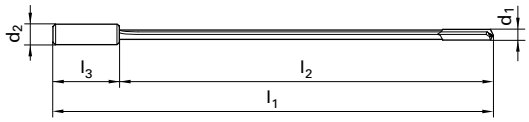
○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**1612**
Standard	**Guhring std.**
Discount group	**140**
Techn. data page	

Torx	Code no.	Availability
T5	5.001	●
T7	7.001	●
T8	8.001	●

C TiCN Cb Carbo D Cristall F FIRE/nanoFIRE P AlCrN S TiN S+ TiN+ M MolyGlide Y Signum

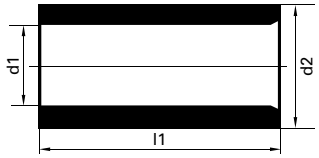
Guhring no.	5019	5643
Standard	Guhring std.	
Tool material	Carbide	
Carbide grade	K15	
Surface	○	○
Type	ZB 80	ZB 80
Drilling depth	30xD	30xD
Cutting direction	right-hand	right-hand
Tolerance	h5	h5
Discount group	123	123
Techn. data page	668	668



d1 mm	d1 inch	d2 mm	l1 mm	l2 mm	l3 mm	Availability	
8.000		16.000	330.00	280.00	48.00	●	●
10.000		20.000	390.00	340.00	50.00	●	●
12.000		20.000	450.00	400.00	50.00	●	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

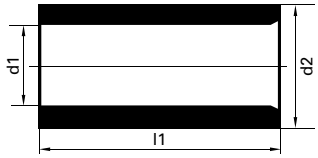
Guhring no.	5747	5748
Standard	Guhring std.	
Tool material	HSS	Solid carbide
Discount group	123	123
Techn. data page		
	NEW	NEW



d1 mm	d2 mm	l1 mm	Availability	
0.900	3.000	9.00	●	●
1.600	4.000	9.00	●	●
2.000	5.000	9.00	●	●
3.000	6.000	12.00	●	●
3.100	6.000	12.00	●	
3.300	6.000	12.00	●	
3.400	7.000	12.00	●	
3.500	7.000	12.00	●	
3.700	7.000	12.00	●	
3.750	7.000	12.00		●
3.800	7.000	12.00	●	
4.000	7.000	12.00	●	●
4.100	8.000	12.00	●	
4.300	8.000	12.00	●	
4.600	8.000	12.00	●	
4.800	8.000	12.00	●	
5.000	8.000	12.00	●	●
5.020	8.000	12.00	●	
5.100	10.000	16.00	●	
5.300	10.000	16.00	●	
5.600	10.000	16.00	●	
5.800	10.000	16.00	●	
6.000	10.000	16.00	●	●
6.100	12.000	16.00	●	
6.300	12.000	16.00	●	
6.600	12.000	16.00	●	
6.800	12.000	16.00	●	
7.100	12.000	16.00	●	
7.400	12.000	16.00	●	
7.600	12.000	16.00	●	
7.800	12.000	16.00	●	
7.830	12.000	16.00	●	
8.000	12.000	16.00	●	●
8.020	12.000	16.00	●	
8.100	15.000	20.00	●	
8.500	15.000	20.00	●	
8.800	15.000	20.00	●	
9.100	15.000	20.00	●	
9.500	15.000	20.00	●	

C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

Guhring no.	5747	5748
Standard	Guhring std.	
Tool material	HSS	Solid carbide
Discount group	123	123
Techn. data page		
	NEW	NEW

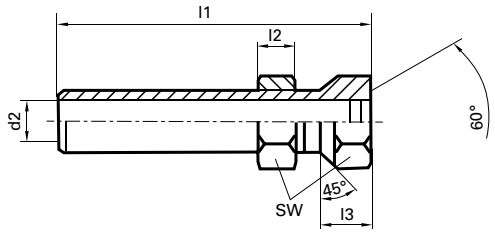


d1 mm	d2 mm	l1 mm	Availability	
9.800	15.000	20.00	●	
10.000	15.000	20.00	●	●
10.100	18.000	20.00	●	
10.600	18.000	20.00	●	
11.100	18.000	20.00	●	
11.600	18.000	20.00	●	
12.000	18.000	20.00	●	●
12.020	18.000	20.00	●	
12.100	22.000	28.00	●	
12.600	22.000	28.00	●	
12.700	22.000	28.00	●	
12.800	22.000	28.00	●	
14.000	22.000	28.00	●	●
16.000	26.000	28.00	●	●
19.000	30.000	36.00	●	
20.000	30.000	36.00		●
24.000	35.000	36.00	●	●
30.000	42.000	45.00	●	●
34.000	48.000	45.00	●	●
40.000	55.000	55.00	●	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**5754**
Standard	**Guhring std.**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

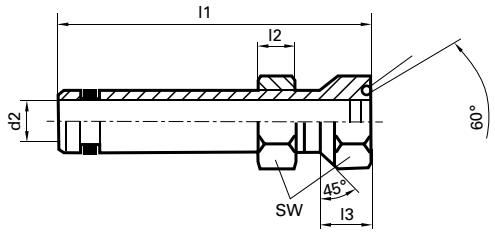


for threads	d2	l1	SW	Code no.	Availability
	mm	mm			
M 6 X0,5	3.500	26.00	9.00	6.000	●
M10 X1	6.000	38.00	13.00	10.000	●
M16 X1,5	10.000	57.00	22.00	16.000	●

C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

Guhring no.	**5755**
Standard	**Guhring std.**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW



for threads	d2	l1	SW	Code no.	Availability
	mm	mm			
M 6 X0,5	3.500	45.00	9.00	6.000	●
M10 X1	6.000	50.00	13.00	10.000	●
M16 X1,5	10.000	65.00	22.00	16.000	●
M24 X1,5	16.000	90.00	30.00	24.000	●

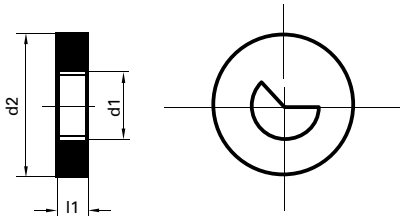
○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Code no.	for gun drill with diameter nominal d1	
	from mm	to mm
1,900	2.000	2.099
2,000	2.100	2.199
2,100	2.200	2.299
2,200	2.300	2.399
2,300	2.400	2.499
2,400	2.500	2.599
2,500	2.600	2.699
2,600	2.700	2.799
2,700	2.800	2.899
2,800	2.900	3.099
3,000	3.100	3.359
3,200	3.360	3.459
3,300	3.460	3.559
3,400	3.560	3.799
3,600	3.800	3.959
3,700	3.960	4.259
4,000	4.260	4.499
4,200	4.500	4.749
4,500	4.750	4.999
4,700	5.000	5.249
5,000	5.250	5.499
5,200	5.500	5.749
5,500	5.750	5.999
5,700	6.000	6.249
6,000	6.250	6.449
6,200	6.450	6.749
6,500	6.750	6.999
6,700	7.000	7.299
7,000	7.300	7.599
7,300	7.600	7.799
7,500	7.800	7.999
7,700	8.000	8.299
8,000	8.300	8.699
8,400	8.700	8.999
8,700	9.000	9.299
9,000	9.300	9.699

Code no.	for gun drill with diameter nominal d1	
	from mm	to mm
9,400	9.700	9.999
9,700	10.000	10.299
10,000	10.300	10.799
10,500	10.800	11.299
11,000	11.300	11.799
11,500	11.800	12.399
12,000	12.400	12.899
12,500	12.900	13.399
13,000	13.400	13.899
13,500	13.900	14.399
14,000	14.400	14.899
14,500	14.900	15.399
15,000	15.400	15.899
15,500	15.900	16.399
16,000	16.400	16.899
16,500	16.900	17.399
17,000	17.400	17.899
17,500	17.900	18.399
18,000	18.400	19.509
19,000	19.510	20.509
20,000	20.510	21.509
21,000	21.510	22.609
22,000	22.610	23.609
23,000	23.610	24.609
24,000	24.610	25.609
25,000	25.610	26.609
26,000	26.610	27.609
27,000	27.610	28.609
28,000	28.610	29.609
29,000	29.610	30.609
30,000	30.610	32.609
32,000	32.610	34.699
34,000	34.700	36.699
36,000	36.700	38.699
38,000	38.700	40.000

Guhring no.	**5752**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

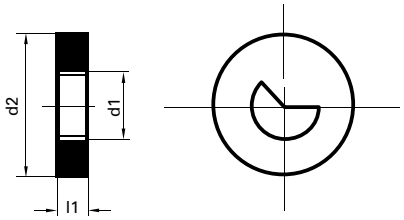


d1 mm	d2 mm	l1 mm	Code no.	Availability
3,100-3,359	20.000	4.00	3.000	●
3,460-3,559	20.000	4.00	3.300	●
3,560-3,799	20.000	4.00	3.400	●
3,800-3,959	20.000	4.00	3.600	●
3,960-4,259	20.000	4.00	3.700	●
4,260-4,499	20.000	4.00	4.000	●
4,500-4,749	20.000	4.00	4.200	●
4,750-4,999	20.000	4.00	4.500	●
5,000-5,249	20.000	4.00	4.700	●
5,250-5,499	32.000	4.00	5.000	●
5,500-5,749	32.000	4.00	5.200	●
5,750-5,999	32.000	4.00	5.500	●
6,000-6,249	32.000	4.00	5.700	●
6,250-6,449	32.000	4.00	6.000	●
6,450-6,749	32.000	4.00	6.200	●
6,750-6,999	32.000	4.00	6.500	●
7,000-7,299	32.000	4.00	6.700	●
7,300-7,599	32.000	4.00	7.000	●
7,600-7,799	32.000	4.00	7.300	●
7,800-7,999	32.000	4.00	7.500	●
8,000-8,299	32.000	4.00	7.700	●
8,300-8,699	32.000	4.00	8.000	●
8,700-8,999	32.000	4.00	8.400	●
9,000-9,299	32.000	4.00	8.700	●
9,300-9,699	32.000	4.00	9.000	●
9,700-9,999	32.000	4.00	9.400	●
10,000-10,299	32.000	4.00	9.700	●
10,300-10,799	32.000	4.00	10.000	●
10,800-11,299	32.000	4.00	10.500	●
11,300-11,799	32.000	4.00	11.000	●
11,800-12,399	32.000	4.00	11.500	●
12,400-12,899	32.000	4.00	12.000	●
13,900-14,399	32.000	4.00	13.500	●
15,900-16,399	40.000	4.00	15.500	●
19,510-20,509	40.000	4.00	19.000	●
23,610-24,609	40.000	4.00	23.000	●
25,610-26,609	40.000	4.00	25.000	●
29,610-30,609	90.000	4.00	29.000	●
32,610-34,699	90.000	4.00	32.000	●

○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**5752**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

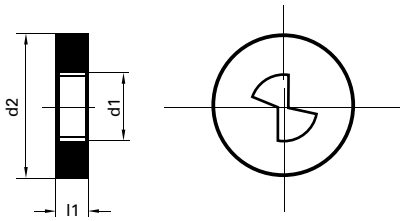


d1	d2	l1	Code no.	Availability
mm	mm	mm		
38,700-40,000	90.000	4.00	38.000	●

C TiCN | Cb Carbo | D Cristall | F FIRE/nanoFIRE | P AlCrN | S TiN | S+ TiN+ | M MolyGlide | Y Signum

Guhring no.	**5753**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

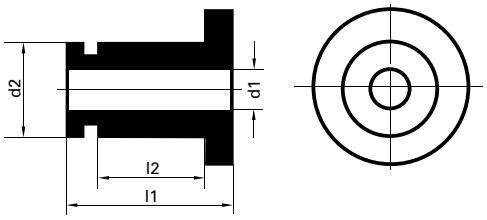


d1 mm	d2 mm	l1 mm	Code no.	Availability
6,000-6,249	32.000	4.00	5.700	●
8,000-8,299	32.000	4.00	7.700	●
10,000-10,299	32.000	4.00	9.700	●
11,800-12,399	32.000	4.00	11.500	●
13,900-14,399	32.000	4.00	13.500	●
15,900-16,399	40.000	4.00	15.500	●
19,510-20,509	40.000	4.00	19.000	●
23,610-24,609	40.000	4.00	23.000	●
25,610-26,609	40.000	4.00	25.000	●

○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5749**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

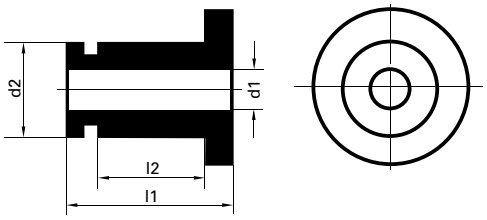


d1 mm	d2 mm	l1 mm	l2 mm	Code no.	Availability
3,960-4,259	20.000	22.00	12.00	203.700	●
6,000-6,249	20.000	22.00	12.00	205.700	●
10,000-10,299	20.000	22.00	12.00	209.700	●
3,100-3,359	30.000	26.00	13.00	303.000	●
3,460-3,559	30.000	26.00	13.00	303.300	●
3,560-3,799	30.000	26.00	13.00	303.400	●
3,800-3,959	30.000	26.00	13.00	303.600	●
3,960-4,259	30.000	26.00	13.00	303.700	●
4,260-4,499	30.000	26.00	13.00	304.000	●
4,500-4,749	30.000	26.00	13.00	304.200	●
4,750- 4,999	30.000	26.00	13.00	304.500	●
5,000- 5,249	30.000	26.00	13.00	304.700	●
5,250-5,499	30.000	26.00	13.00	305.000	●
5,500-5,749	30.000	26.00	13.00	305.200	●
5,750- 5,999	30.000	26.00	13.00	305.500	●
6,000-6,249	30.000	26.00	13.00	305.700	●
8,000-8,299	30.000	26.00	13.00	307.700	●
10,000-10,299	30.000	26.00	13.00	309.700	●
11,800-12,399	30.000	26.00	13.00	311.500	●
13,900-14,399	30.000	26.00	13.00	313.500	●
15,400-15,899	30.000	26.00	13.00	315.000	●
15,900-16,399	30.000	26.00	13.00	315.500	●
17,900-18,399	30.000	26.00	13.00	316.600	●
17,900-18,399	30.000	26.00	13.00	317.500	●
19,510-20,509	30.000	26.00	13.00	319.000	●
23,610-24,609	30.000	26.00	13.00	323.000	●
5,000-5,249	45.000	26.00	16.00	404.700	●
7,800-7,999	45.000	26.00	16.00	407.500	●
8,000-8,299	45.000	26.00	16.00	407.700	●
9,700-9,999	45.000	26.00	16.00	409.400	●
10,000-10,299	45.000	26.00	16.00	409.700	●
11,800-12,399	45.000	26.00	16.00	411.500	●
17,900-18,399	45.000	26.00	16.00	417.500	●
18,400-19,509	45.000	26.00	16.00	418.000	●
19,510-20,509	45.000	26.00	16.00	419.000	●
24,610-25,609	45.000	26.00	16.00	424.000	●
25,610-26,609	45.000	26.00	16.00	425.000	●
26,610-27,609	45.000	26.00	16.00	426.000	●
27,610-28,609	45.000	26.00	16.00	427.000	●

C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

Guhring no.	**5749**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

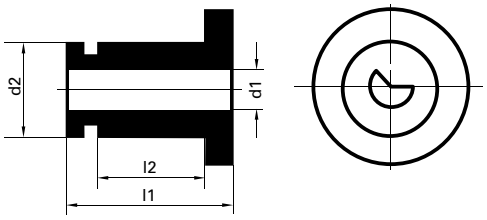


d1	d2	l1	l2	Code no.	Availability
mm	mm	mm	mm		
29,610-30,609	45.000	26.00	16.00	429.000	●
32,610-34,699	45.000	26.00	16.00	432.000	●

○ bright ◐ steam tempered ◓ nitrided lands ● nitrided ● golden brown A TiAlN a TiAlN nanoA A TiAlN SuperA

Guhring no.	**5750**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

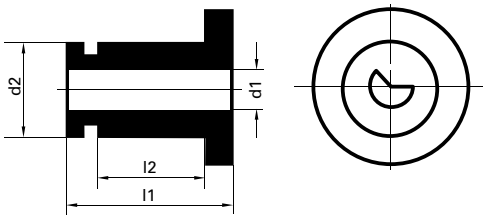


d1 mm	d2 mm	l1 mm	l2 mm	Code no.	Availability
3,960-4,259	20.000	20.00	12.00	203.700	●
5,000-5,249	20.000	20.00	12.00	204.700	●
8,300-8,699	20.000	20.00	12.00	208.000	●
11,800-12,399	20.000	20.00	12.00	211.500	●
3,100-3,359	30.000	26.00	13.00	303.000	●
3,460-3,559	30.000	26.00	13.00	303.300	●
3,560-3,799	30.000	26.00	13.00	303.400	●
3,800-3,959	30.000	26.00	13.00	303.600	●
3,960-4,259	30.000	26.00	13.00	303.700	●
4,260-4,499	30.000	26.00	13.00	304.000	●
4,500-4,749	30.000	26.00	13.00	304.200	●
4,750-4,999	30.000	26.00	13.00	304.500	●
5,000-5,249	30.000	26.00	13.00	304.700	●
5,250-5,499	30.000	26.00	13.00	305.000	●
5,500-5,749	30.000	26.00	13.00	305.200	●
5,750-5,999	30.000	26.00	13.00	305.500	●
6,000-6,249	30.000	26.00	13.00	305.700	●
6,250-6,449	30.000	26.00	13.00	306.000	●
6,450-6,749	30.000	26.00	13.00	306.200	●
6,750-6,999	30.000	26.00	13.00	306.500	●
7,000-7,299	30.000	26.00	13.00	306.700	●
7,300-7,599	30.000	26.00	13.00	307.000	●
7,600-7,799	30.000	26.00	13.00	307.300	●
7,800-7,999	30.000	26.00	13.00	307.500	●
8,000-8,299	30.000	26.00	13.00	307.700	●
8,300-8,699	30.000	26.00	13.00	308.000	●
8,700-8,999	30.000	26.00	13.00	308.400	●
9,000-9,299	30.000	26.00	13.00	308.700	●
9,300-9,699	30.000	26.00	13.00	309.000	●
9,700-9,999	30.000	26.00	13.00	309.400	●
10,000-10,299	30.000	26.00	13.00	309.700	●
10,300-10,799	30.000	26.00	13.00	310.000	●
10,800-11,299	30.000	26.00	13.00	310.500	●
11,300-11,799	30.000	26.00	13.00	311.000	●
11,800-12,399	30.000	26.00	13.00	311.500	●
12,400-12,899	30.000	26.00	13.00	312.000	●
13,900-14,399	30.000	26.00	13.00	313.500	●
15,400-15,899	30.000	26.00	13.00	315.000	●
15,900-16,399	30.000	26.00	13.00	315.500	●

C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

Guhring no.	**5750**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW

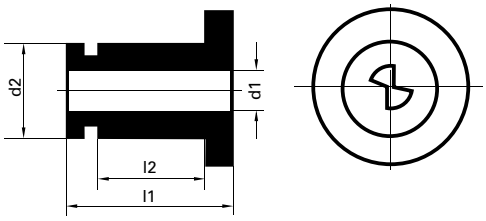


d1 mm	d2 mm	l1 mm	l2 mm	Code no.	Availability
19,510-20,509	30.000	26.00	13.00	319.000	●
23,610-24,609	45.000	26.00	16.00	423.000	●
25,610-26,609	45.000	26.00	16.00	425.000	●
29,610-30,609	45.000	26.00	16.00	429.000	●
32,610-34,699	45.000	26.00	16.00	432.000	●

○ bright ◐ steam tempered ◒ nitrided lands ● nitrided ● golden brown Ⓐ TiAlN ⓐ TiAlN nanoA Ⓐ TiAlN SuperA

Guhring no.	**5751**
Standard	**Guhring std.**
Tool material	**Vulkollan**
Discount group	**123**
	Minimum order quantity 5 pieces

NEW



d1 mm	d2 mm	l1 mm	l2 mm	Code no.	Availability
6,000-6,249	20.000	20.00	12.00	205.700	●
10,000-10,299	20.000	20.00	12.00	209.700	●
8,000-8,299	30.000	26.00	13.00	307.700	●
9,700-9,999	30.000	26.00	13.00	309.400	●
11,800-12,399	30.000	26.00	13.00	311.500	●
15,400-15,899	30.000	26.00	13.00	315.000	●
15,900-16,399	30.000	26.00	13.00	315.500	●
17,900-18,399	30.000	26.00	13.00	316.600	●
17,900-18,399	30.000	26.00	13.00	317.500	●
13,900-14,399	45.000	26.00	16.00	413.500	●
19,510-20,509	45.000	26.00	16.00	419.000	●
23,610-24,609	45.000	26.00	16.00	423.000	●
24,610-25,609	45.000	26.00	16.00	424.000	●
25,610-26,609	45.000	26.00	16.00	425.000	●
26,610-27,609	45.000	26.00	16.00	426.000	●
27,610-28,609	45.000	26.00	16.00	427.000	●

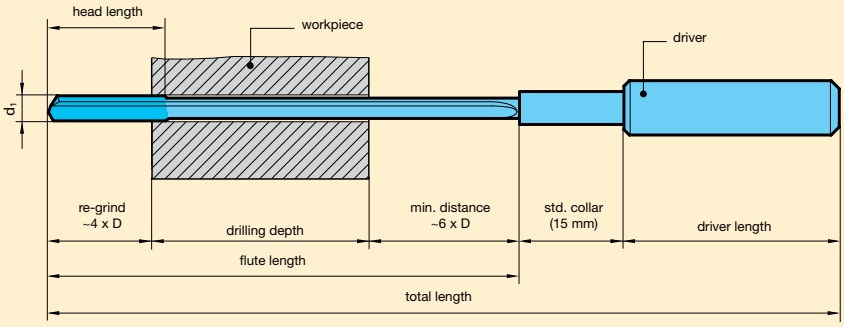
C TiCN · Cb Carbo · D Cristall · F FIRE/nanoFIRE · P AlCrN · S TiN · S+ TiN+ · M MolyGlide · Y Signum

suitable for almost every material,
Stock program from Ø 1,0 to 12,0 mm
Special solutions from Ø 0,9 to 12,0 mm, flute length max. 500 mm

For certain materials a coating is required, as the successful application of gun drills with a bright surface finish cannot be guaranteed.
For coating definitions see GuhringNavigator.

S TiN-coat F FIRE M MolyGlide A TiAlN SuperA a TiAlN nanoA

The dimensions required to calculate the length for conventional machine tools



EB 100
Head forms

(Position of supporting strips.
Special head forms
on request.)

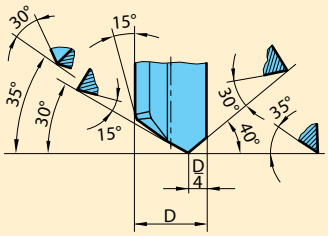
suitable for all materials,
but for smaller hole tolerances

suitable for difficult-to-machine
materials, i. e. high-alloyed steel

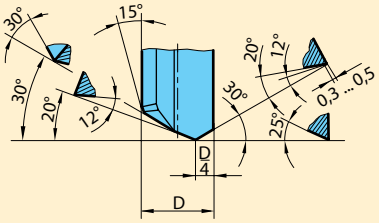
EB 100
Standard point grinds

(special point grinds
on request)

Ø 2…4.00 mm



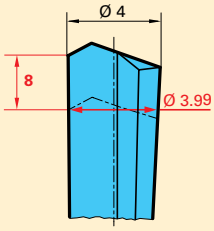
Ø > 4.01…20 mm



EB 100
Back taper ratio

1:800 (standard)

(dimensions
in mm)



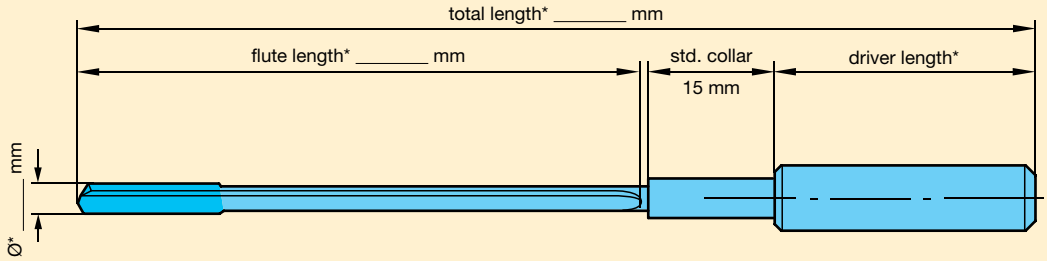
Fax Inquiry / Order
simply photo-copy, complete and fax…

❑ **Inquiry** ❑ **Order** ❑ **Repeat order, no. of initial order**

Deep hole gun drill: ❑ **EB 100**

Required no. of pieces: Tool _____ pieces

* Ø 0,9 - 12,0 mm
Flute length max. 500 mm
Total length and driver length are dependent on the driver selected



Drawing of lay-out

required in special cases only

Driver: ❑ **no** ❑ **Code no. _____** ❑ **to enclosed drawing**

Coating: ❑ **TiN** Ⓢ ❑ **Fire** Ⓕ ❑ **MolyGlide** Ⓜ ❑ **TiAlN nanoA** Ⓐ ❑ **TiAlN SuperA** Ⓐ ❑ _____

Workpiece: **Drilling depth:** ____ **Hole tolerance:** _____ **Material/designation:** _____ _____

Machine type: ❑ **Deep hole drilling machine** ❑ **Conventional machine tool**
❑ **Pilot hole** ❑ **Drilling bush**

Coolant: ❑ **Deep hole drilling oil** ❑ **Soluble oil**
Pressure _____ **bar** **Quantity** _____ **l/min**

Company: _____ **Company stamp:**

Telephone/fax: _____

Contact: _____ **Signature:** _____

suitable for almost every material,

Stock program from Ø 3,97 to 12,7 mm

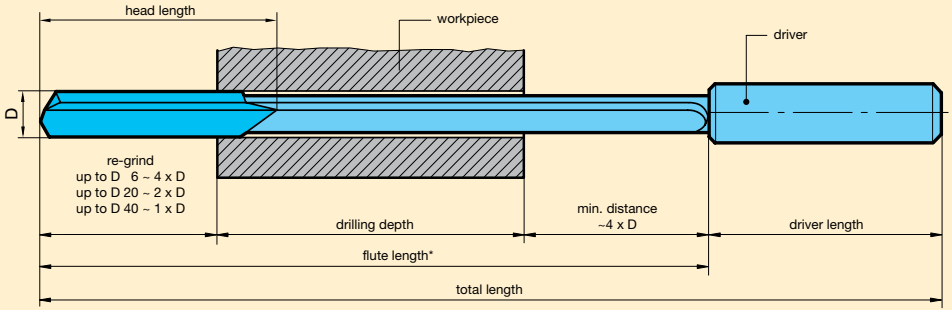
Special solutions from Ø 2,0 to 40,0 mm, total length max. 3000 mm

For certain materials a coating is required, as the successful application of gun drills with a bright surface finish cannot be guaranteed.
For coating definitions see GuhringNavigator.
On request we can apply PCD or PCB cutting edges from Ø 6.0 – 20.00 mm. This improves the tool life in AlSi alloys many times over.

S TiN F FIRE M MolyGlide C TiCN

The dimensions required to calculate the length for conventional machine tools

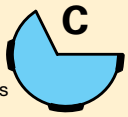
* max. flute length per tool
40 x D, for larger drilling depths apply two tools.
(i.e. Ø 10 x 450 and Ø 9.95 x 850 mm)



EB 80 Head forms (position of supporting strips)

Standard designs

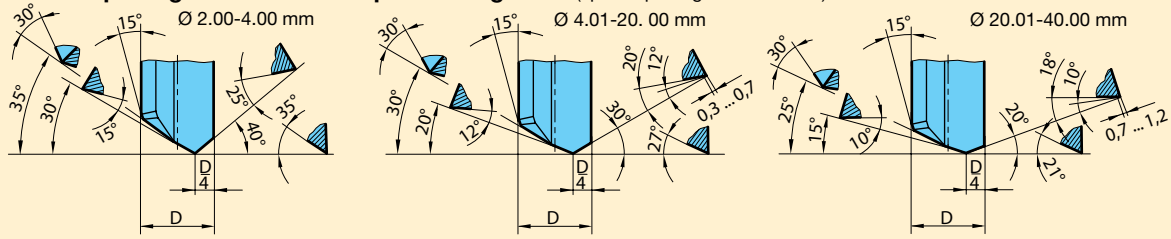
Suitable for all materials, but for smaller hole tolerances



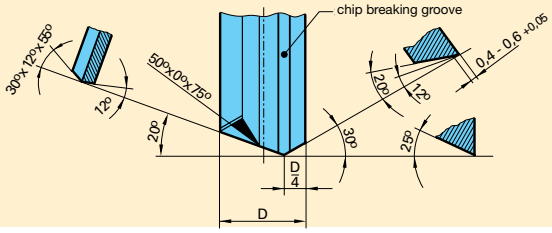
Primarily suitable for aluminium. Nominal tool diameter measurable.

Special designs e.g.

EB 80 standard point grinds without chip breaker groove (special point grinds available)



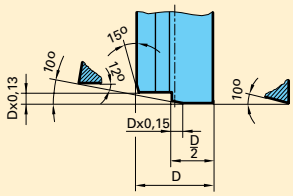
EB 80 special point grind with chip breaker groove (standard Guhring no. 5018, 5460, 5022 and 5023)



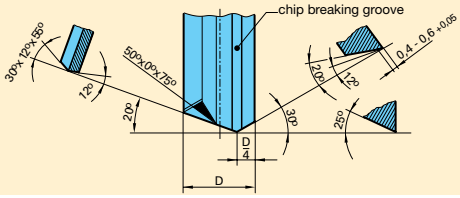
Standard head lengths (mm)			
Ø-range	length	Ø-range	length
2.00…2.49	15	10.00…10.99	35
2.50…2.99	18	11.00…17.00	40
3.00…3.99	20	17.01…20.00	45
4.00…5.19	25	20.01…23.00	50
5.20…6.99	30	23.01…26.00	55
7.00…9.99	35	26.01…40.00	65

Special point grind examples for single-fluted EB 80 (additional point grinds on request)

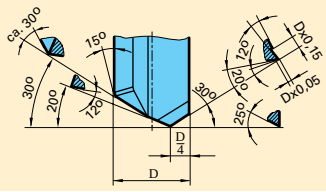
with integral coolant chamber



with chip breaking groove



chip breaking groove with chip guiding step



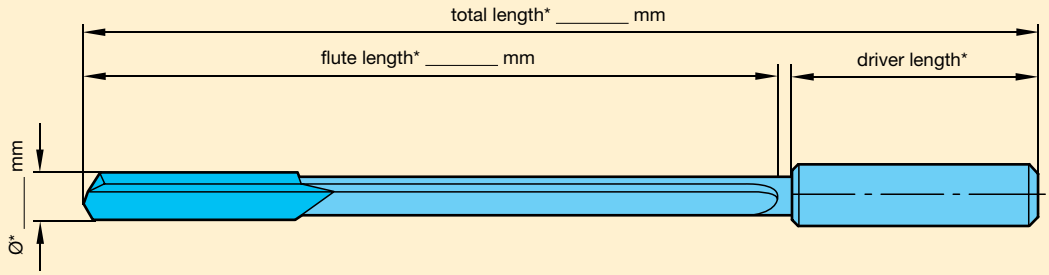
Fax Inquiry / Order
simply photo-copy, complete and fax…

❑ **Inquiry** ❑ **Order** ❑ **Repeat order, no. of initial order**

Deep hole gun drill: ❑ **EB 80**

Required no. of pieces: Tool_____ pieces

* Ø 2,0 - 40,0 mm
Total length max. 3000 mm
Total length, flute length and driver length
are dependent on the driver selected



Drawing of lay-out

required in special cases only

Driver: ❑ **no** ❑ **Code no. _____** ❑ **to enclosed drawing**

Coating: ❑ **TiN** (S) ❑ **Fire** (F) ❑ **TiCN** (C) ❑ **MolyGlide** (M) ❑ _____

Workpiece: **Drilling depth: ___ Hole tolerance: _____ Material/designation: _____**

Machine type: ❑ **Deep hole drilling machine** ❑ **Conventional machine tool**
❑ **Pilot hole** ❑ **Drilling bush**

Coolant: ❑ **Deep hole drilling oil** ❑ **Soluble oil**
Pressure _____ bar **Quantity _____ l/min**

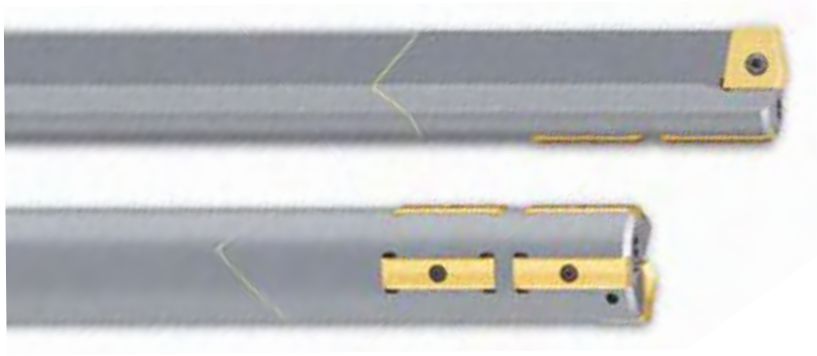
Company: _____ **Company stamp:**

Telephone/fax: _____

Contact: _____ **Signature:** _____

suitable for almost every material,

Stock program from Ø 16.0 to 24.0 mm TiN-coated version,
Special solutions from Ø 12.0 to 40.0 mm, total length max. 3000 mm



Guhring single-fluted gun drills with interchangeable inserts and supporting strips are also produced as special tools according to customer requirements. They are suitable for nearly every material and available from diameter 16.0 to 40.0 mm up to a maximum total length of 3000 mm.

Your special advantages are:

- The interchangeable component technology for inserts and supporting strips makes any combination of carbide grade and coating possible.
- The precision interchangeable inserts and supporting strips eliminate complicated adjustments.
- The precision supporting strips are produced in a special carbide for your individual deep drilling task. They can be reverse-fitted, providing double tool life. In addition, they can be provided with any of the Guhring coatings.
- Thanks to the precision insert seatings and the interchangeable inserts there is only a small number of interchangeable components. The tool is therefore extremely rigid.
- Expensive stoppages are eliminated because the worn components can be replaced without removing the tool from the machine.
- The expensive re-grinding process is eliminated thanks to the interchangeable insert technology.
- The application orientated selection of the most suitable interchangeable insert always ensures optimal chip breaking – even in problematic materials.
- Specifically optimised to your individual deep drilling task, the precision inter-changeable inserts are also produced in a special carbide. In addition, all Gühring coatings are available.
- Within the diameter range it is possible to modify the nominal diameter at any time by simply interchanging the individual components.
- The driver is produced in heat-treatable steel acc. to:
  - DIN 6535 HA
  - DIN 6535 HE
  - DIN 6535 HB
  - DIN 1835 E

  Also, all the forms generally required for deep drilling machines are possible to be manufactured.

Every single-fluted gun drill EB 800 with interchangeable parts – from the ex-stock range as well as special tools – can be modified in the diameter range below.

Size	Diameter range (mm)	Size	Diameter range (mm)	Size	Diameter range (mm)
0.00	12.00 - 12.49	2.05	22.50 - 22.99	4.06	33.00 - 33.49
0.01	12.50 - 12.99	2.06	23.00 - 23.49	4.07	33.50 - 33.99
0.02	13.00 - 13.49	2.07	23.50 - 23.99	5.00	34.00 - 34.49
0.03	13.50 - 13.99	2.08	24.00 - 24.49	5.01	34.50 - 34.99
0.04	14.00 - 14.49	2.09	24.50 - 24.99	5.02	35.00 - 35.49
0.05	14.50 - 14.99	2.10	25.00 - 25.49	5.03	35.50 - 35.99
0.06	15.00 - 15.49	2.11	25.50 - 25.99	5.04	36.00 - 36.49
0.07	15.50 - 15.99	3.00	26.00 - 26.49	5.05	36.50 - 36.99
1.00	16.00 - 16.49	3.01	26.50 - 26.99	5.06	37.00 - 37.49
1.01	16.50 - 16.99	3.02	27.00 - 27.49	5.07	37.50 - 37.99
1.02	17.00 - 17.49	3.03	27.50 - 27.99	6.00	38.00 - 38.49
1.03	17.50 - 17.99	3.04	28.00 - 28.49	6.01	38.50 - 38.99
1.04	18.00 - 18.49	3.05	28.50 - 28.99	6.02	39.00 - 39.49
1.05	18.50 - 18.99	3.06	29.00 - 29.49	6.03	39.50 - 40.00
1.06	19.00 - 19.49	3.07	29.50 - 29.99		
1.07	19.50 - 19.99	4.00	30.00 - 30.49		
2.00	20.00 - 20.49	4.01	30.50 - 30.99		
2.01	20.50 - 20.99	4.02	31.00 - 31.49		
2.02	21.00 - 21.49	4.03	31.50 - 31.99		
2.03	21.50 - 21.99	4.04	32.00 - 32.49		
2.04	22.00 - 22.49	4.05	32.50 - 32.99		

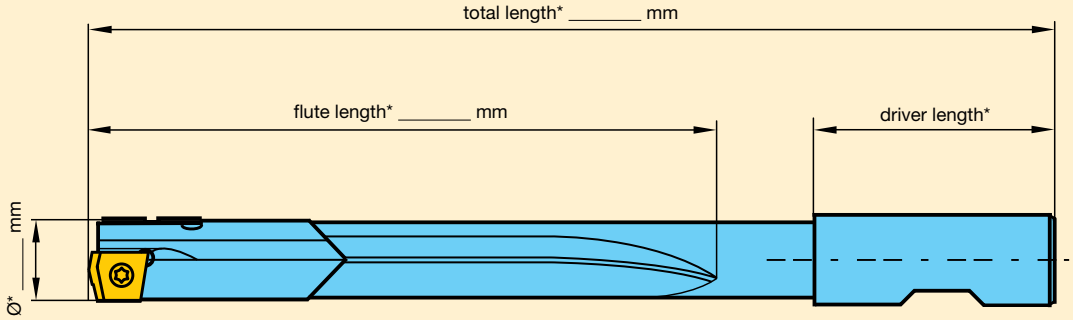
Fax Inquiry / Order
simply photo-copy, complete and fax…

❑ **Inquiry** ❑ **Order** ❑ **Repeat order, no. of initial order**

Deep hole gun drill: ❑ **EB 800**

Required no. of pieces: **Tool** _____ **pieces**
Interchangeable inserts _____ **pieces**
Guiding bar _____ **pieces**

* Ø 12,0 - 40,0 mm
Flute length min. 15 x D
Total length max. 3000 mm
Total length and driver length are dependent on the driver selected



Drawing of lay-out

required in special cases only

Driver: ❑ **no** ❑ **Code no.** _____ ❑ **to enclosed drawing**

Coating: ❑ **TiN** (S) ❑ **Fire** (F) ❑ **MolyGlide** (M) ❑ **TiCN** (C) ❑ **TiAlN** (A) ❑ **TiAlN SuperA** (A) ❑ **TiAlN nanoA** (a)

Workpiece: **Drilling depth:** _____ **Hole tolerance:** _____ **Material/designation:** _____

Surface finish: _____ **Projecting edges :** ❑ **no** ❑ **yes** _____

Machine type: ❑ **Deep hole drilling machine** ❑ **Conventional machine tool**
❑ **Pilot hole** ❑ **Drilling bush**

Coolant: ❑ **Deep hole drilling oil** ❑ **Soluble oil**
Pressure _____ **bar** **Quantity** _____ **l/min**

Company: _____ **Company stamp:**

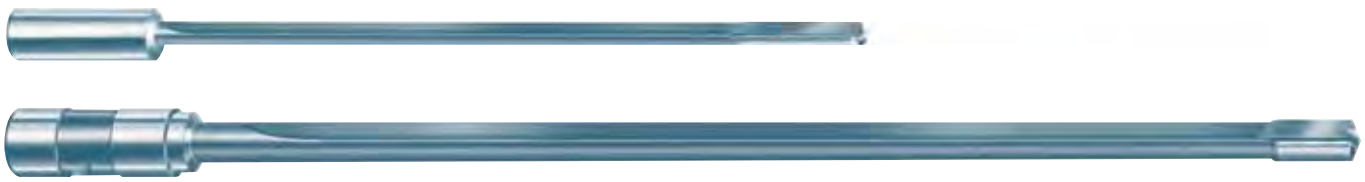
Telephone/fax: _____

Contact: _____ **Signature:** _____

suitable for cast iron, aluminium and short-chipping non-ferrous metals

Stock program from Ø 8,0 to 12 mm for drilling depth to 30 x D

Special solutions from Ø 6,0 to 27,0 mm, total length max. 1000 mm

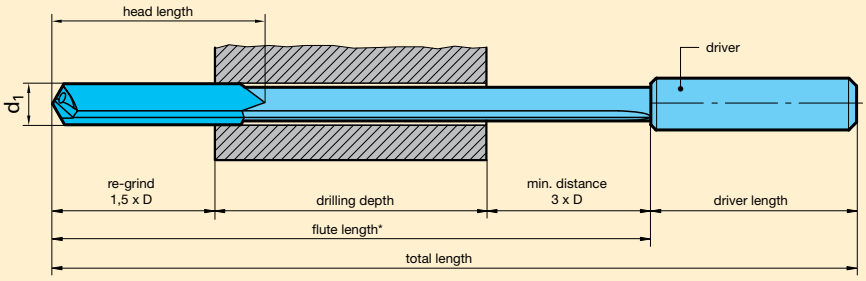


MolyGlide

For certain materials a coating is required, as the successful application of gun drills with a bright surface finish cannot be guaranteed. For chilled cast iron and Al cast alloys with a Si-content above 10% we recommend our MolyGlide-coating. However, two-fluted gun drills type ZB80 can only be coated with MolyGlide up to an overall length of maximum 500 mm due to the technical production process. See also the GuhringNavigator.

The dimensions required to calculate the length for conventional machine tools

* max. flute length per tool 40 x D, for larger drilling depths apply two tools. (i.e. Ø 10 x 450 and Ø 9.95 x 850 mm)

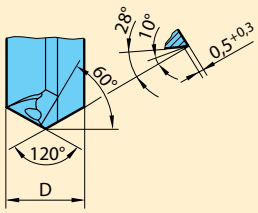


ZB 80

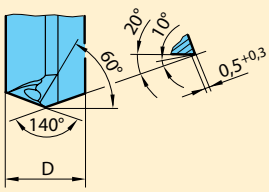
Standard point grinds

(special point grinds available)

Point grind G for machining cast iron



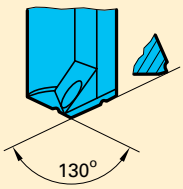
Point grind A for machining aluminium



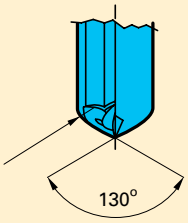
ZB 80

Special point grinds, e.g.:

Aluminium



Cast iron



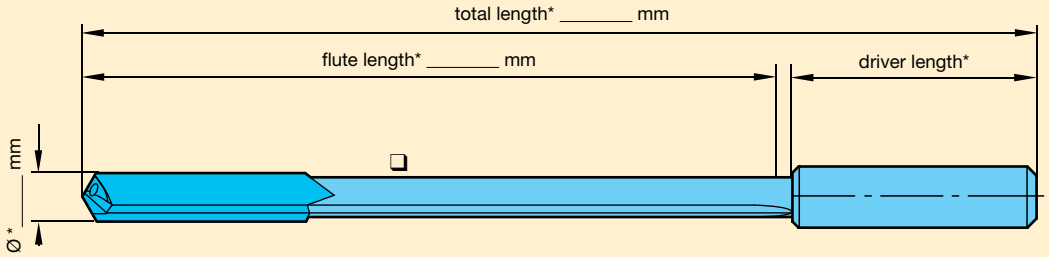
Fax Inquiry / Order
simply photo-copy, complete and fax…

❑ **Inquiry** ❑ **Order** ❑ **Repeat order, no. of initial order**

Deep hole gun drill: ❑ **ZB 80**

Required no. of pieces: Tool _____ pieces

* Ø 6,0 - 27,0 mm
Total length max. 1000 mm
Total length, flute length and driver length
are dependent on the driver selected.



Drawing of lay-out

required in special cases only

Driver: ❑ **no** ❑ **Code no._____** ❑ **to enclosed drawing**

Coating: ❑ **MolyGlide** Ⓜ ❑ **TiN** Ⓢ ❑ **TiCN** Ⓒ ❑ **bright** ◯ ❑ _____

Workpiece: **Drilling depth:** _____ **Hole tolerance:** _____ **Material/designation:** _____

Machine type: ❑ **Deep hole drilling machine** ❑ **Conventional machine tool**
❑ **Pilot hole** ❑ **Drilling bush**

Coolant: ❑ **Deep hole drilling oil** ❑ **Soluble oil**
Pressure _____ **bar** **Quantity** _____ **l/min**

Company: _____ **Company stamp:**

Telephone/fax: _____

Contact: _____ **Signature:** _____

Grinding machine TBM 116 for single-fluted gun drills

TBM 116 is a manually operated, universal grinding machine. Its compact design combined with Guhring's single-fluted gun drill grinding system and Guhring's double grinding wheel makes this a perfect unit to re-grind single-fluted gun drills. It is especially suitable for the re-grinding of a small to medium number of items of varying diameters and lengths. Furthermore, it also allows the fairly simple addition of transverse chip breakers to single-fluted gun drills as well as other modifications.

Supplied items:
Grinding machine with two high-powered light units as well as two 220 V sockets (grinding system and grinding wheel not included).

Machine data:
Input power requirements 380 V/50 Hz, Grinding wheel 2850 rev./min, Max. diameter of grinding wheel 150 mm.
Article no.: 600 127 170

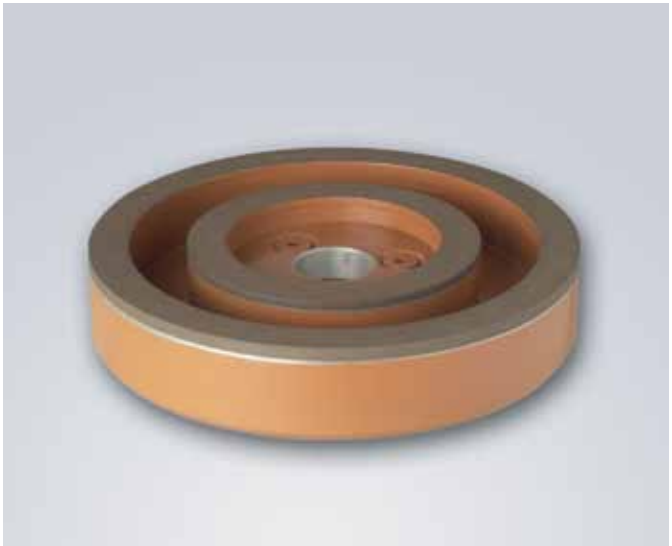
Grinding machine TBV 116 for single-fluted gun drills for Ø 3 till 30 mm

The fixture is designed for the re-grinding of single-fluted gun drills in the diameter range from 3 mm to 30 mm. It is ideally suitable for standard and special point grinds. A minimum flute length is of no importance thanks to a short center sleeve. In addition, the fixture is supplied with a supporting bar for long tools. TBV 116 is therefore truely universal and can be applied on any commercial, manual tool grinding machine.
With TBV 116 we recommend our double grinding wheel DSS 125.

Attention:
Single-fluted gun drills have a flute spacing angle of 120° and can therefore not be clamped in a collet in a separate unit. You could possibly destroy the tool.
Article no.: 600 127 171

Double grinding wheel DSS 125

The DSS double grinding wheel is a firmly clamped and balanced grinding wheel set. It consists of a rough outer diamond disc, with which the main proprtion of wear is removed and a fine diamond disc that then gives a good finish to the cutting edges. It is advisable to use a cleaning stone from time to time remove any grinding dust, otherwise too much heat is created and the carbide cutting edge destroyed.



The DSS 125 consists of:
- an outer disc Ø 125 mm, coating width 10 mm, coating thickness 3 mm, hole Ø 20 mm, grade D 126,
- an inner disc Ø 75 mm, coating width 10 mm, coating thickness 2 mm, hole Ø 20 mm, grade D 46

Article no.: 400 110 098

Grinding machine TBV 216 for single-fluted gun drills for Ø 1 to 6 mm

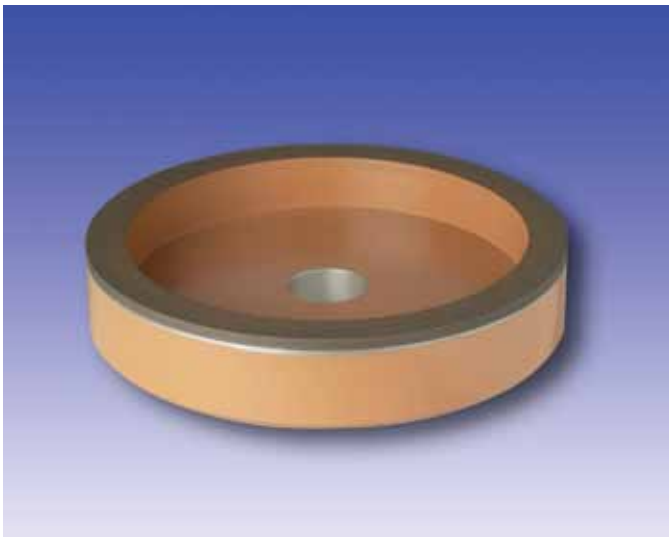
The new TBV 216 universal grinding fixture for small diameter single-fluted gun drills from 1.0 to 6.0 mm and a maximum length of 350 mm is simple to handle and enables the re-grinding or modifying of single-fluted gun drills in only four operations. Grinding is achieved with a 3-axis swivel mechansim, enabling the grinding of various point angles. It is possible to adjust and if necessary correct any angle individually.
We recommend the application of our single grinding wheel ESS 125.

Supplied items:
- A set of guide bushes with the diameters 1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 3.5 mm
- Various adaptors
- Centering microscope
- Spotlight and magnifier

Article no: 600 132 346

Single grinding wheel ESS 125

The ESS 125 grinding wheel is a fine diamond wheel that gives the cutting edges a good finish. It is advisable to remove the grinding dust from the wheel with a cleaning stone from time to time, otherwise too much heat is created destroying the carbide cutting edge.



The ESS 125 consists of:
- a disc Ø 125 mm, coating width 10 mm, coating thickness 3 mm, hole Ø 20 mm, grade D 25

Article no.: 400 119 203

A brief introduction to the subject of deep hole gun drilling

In the machining world, drilling depths of 10 x D and deeper are regarded as deep hole drilling operations, whereby smaller drilling depths can naturally also be produced with gun drills. Advantage is taken of the positive side effects, as for example good surface quality, low deviation from concentricity and optimised alignment accuracy.

High pressure cooling - has become a matter of course.

In recent years, internal cooling has established itself for all drilling tools. Coolants are now living up to their name and being supplied via coolant ducts to where they are urgently required. Considerable improvements in tool life and less breakages have been achieved by this measure for twist drills, taps etc.

Every conventional machine tool currently on the market can be supplied with high pressure internal cooling and is therefore also suitable for deep hole drilling.

The share of gun drills on machining centres, lathes etc. is forever gaining more importance. The process is therefore increasing in popularity in the machining world.

All gun drills must have support for the pilot hole.

Gun drills must never operate at full speed without support in the machine shop.

Deep hole drilling is not a closed book, but can be mastered by anybody as long as certain conditions are adhered to.

Recommended cutting rates for the application of Guhring gun drills can be found on the pages for the individual types!

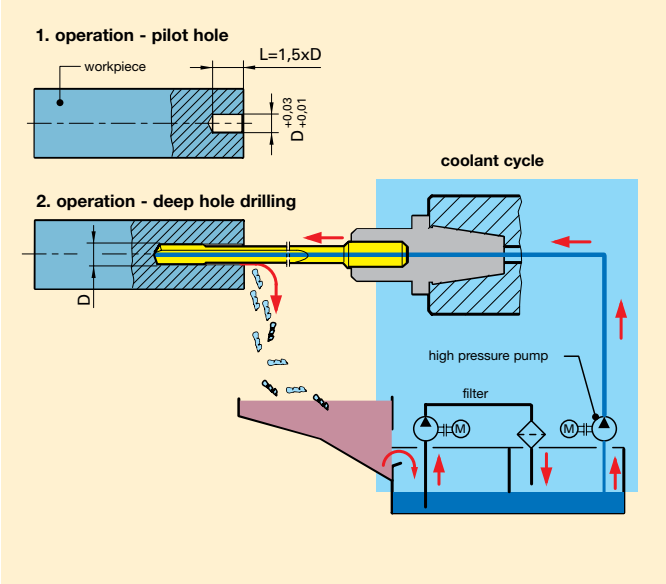
Typical procedure with all gun drills on conventional machine tools:

- production of pilot hole (L = 1.5 x D, tolerance H8)
- enter at low revolutions, approx. 200 rev./min, feed rate approx. 500 mm/min. With tools for drilling depths in excess than 40 x D enter the pilot hole revolving in left hand direction.
- setting of coolant pressure and revolutions
- uninterrupted drilling to required drilling depth without wood pecking. When applying gun drills with increased length-diameter-ratio, we recommend machining with reduced cutting parameters (approx. 75% of the optimal cutting speed) up to a drilling depth of approx. 25 mm.
- switching off coolant supply after reaching the required hole depth
- withdrawal in top gear with stationary spindle

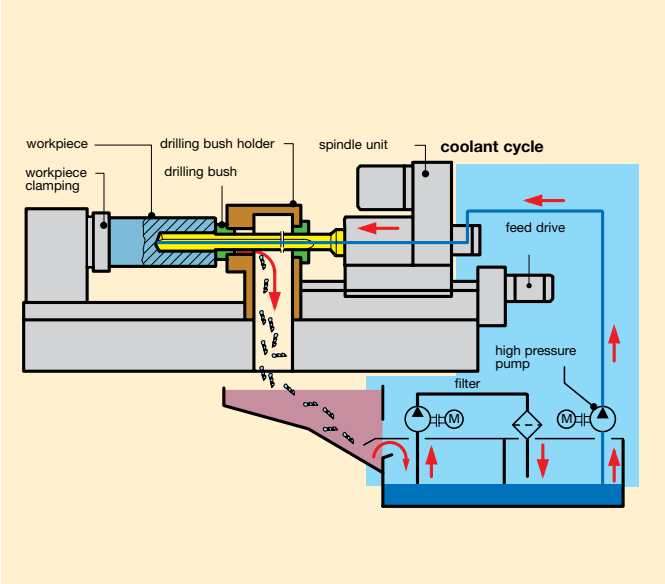
Application advice

- For drilling depths in excess than 40 x D we recommend the use of two or more gun drills, e. g. Ø 10 x 400 mm and Ø 9.95 x 800 mm.
- Gun drills for drilling depths of more than 40 x D should enter the pilot hole revolving in the left hand direction.
- When changing tools for drilling depths of more than 40 x D, the tool can be damped by switching on coolant supply for just one second.
- For machining of long-chipping materials we recommend the use of gun drills with polished flutes.
- Generally we recommend the use of soluble oil with a minimum oil content of 10 %.
- Single-fluted gun drills for long-chipping aluminium should be supplied with point grind 180° and coolant chamber.
- When spotting in aluminium with an Si-content of less than 1%, i.e. with recommended cutting rates v_c > 160 m/min we recommend to advance to the final speed in several steps. In addition, a deeper pilot hole of approximately 3 x D should be produced.

Deep hole drilling on conventional machine tools

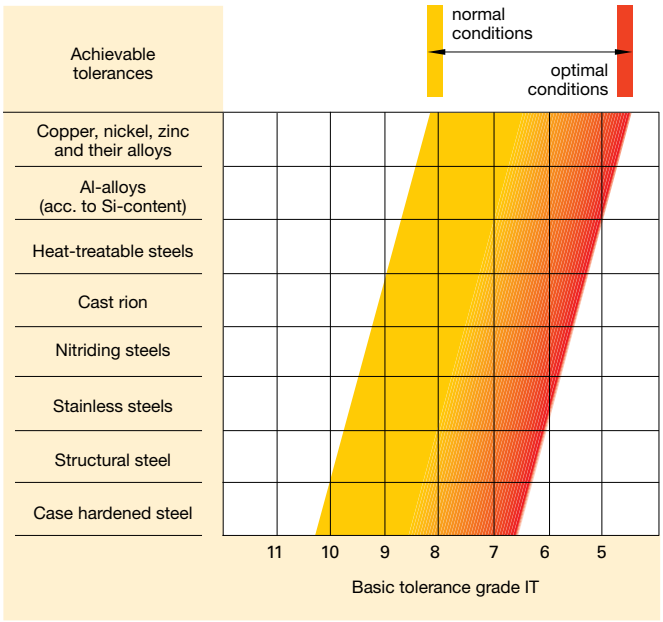


Deep hole drilling machines



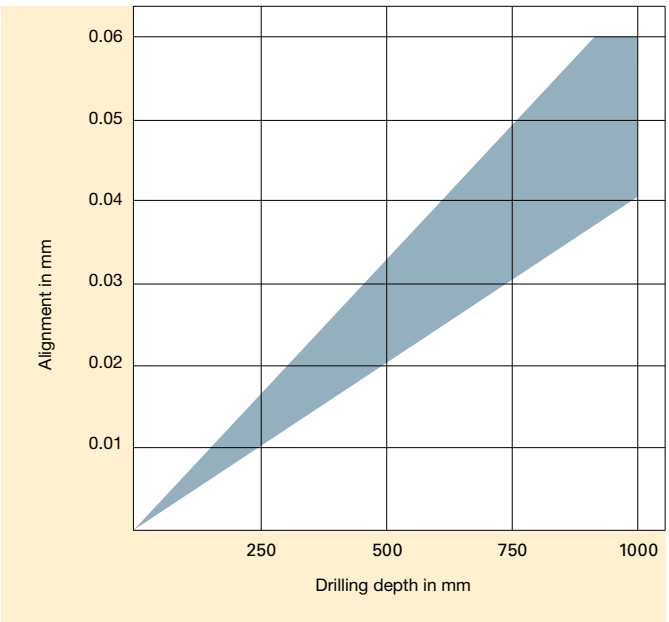
Basic tolerances*

The application of single-fluted gun drills can achieve a lower basic tolerance, as the cutting forces at the cutting edge are absorbed by the supporting strips, unlike twist drills where the slightest deviation of the two cutting edges causes a larger hole.



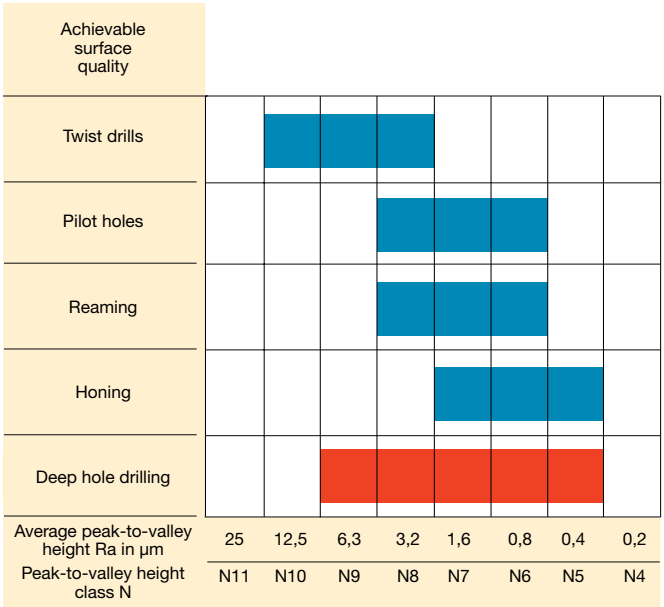
Alignment accuracy*

Because brazed single-fluted gun drills always have the precision carbide head brazed on to a flexible tube, the tool achieves very accurate aligned holes remaining unaffected by possible concentricity errors.
However, extreme material fluctuations and other influencing factors can impair the alignment accuracy.



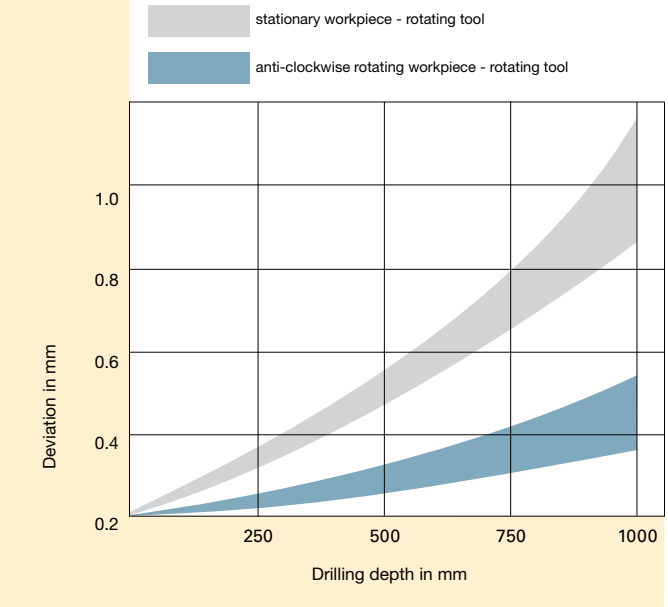
Surface quality*

The forces at the cutting edge are absorbed by the support bushes, which in return burnishes the surface.
Lubrication between the supporting strips and hole surface is therefore very important.
The better the lubricant, the better the surface quality.



Deviation from concentricity*

When a hole is produced with, for example, a commercial twist drill, the quality of the point grind affects the concentricity of the hole. An imbalance of forces is created at the cutting edges. With gun drills, these cutting forces are absorbed by the supporting strips, resulting in excellent concentricity.



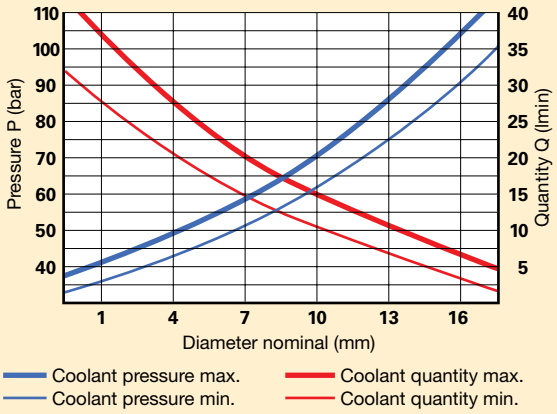
* gun drills with two cutting edges – straight-fluted as well as spiral-fluted – achieve approx. 50% of the values stated

Please note:

- All gun drills must be applied with internal cooling, either air, water or oil. Without internal cooling the chips cannot be evacuated.
- All gun drills can be applied with oil as the medium for internal cooling. However, in this case a 30% higher pressure is required in order to achieve the same coolant volume.
- When MQL is applied with gun drills an increase in pressure may be necessary for smaller nominal diameters de pendent on the pressure of the MQL system.
- If the cooling lubricant data is insufficient the cutting parameters may be reduced. Pressure boosting systems are also possible.

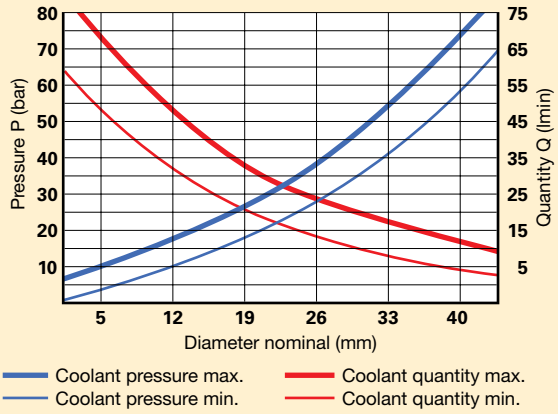
Coolant values EB 100

(Recommended values for soluble oil)



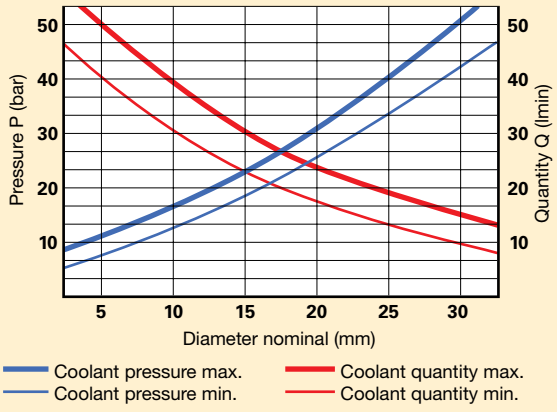
Coolant values EB 80

(Recommended values for soluble oil)



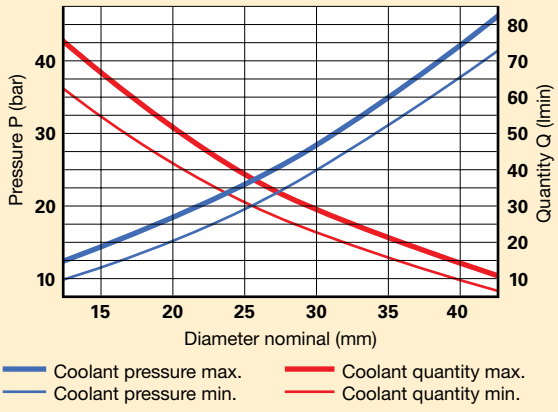
Coolant values ZB 80

(Recommended values for soluble oil)



Coolant values EB 800

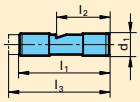
(Recommended values for soluble oil)



The range of drivers introduced below is available ex stock. However, it only represents a small selection of drivers from our complete range. We naturally also produce individual drivers of the highest precision to customer drawings. Attention! EB 100 requires drivers with positioning lugs. Further information on request.

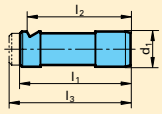
Drivers for deep drilling machines

1



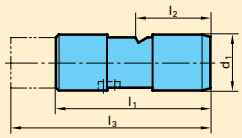
code no.	d_1	l_1	l_2	l_3
1.1	10	40	24	-
1.2	10	40	24	45
1.3	10	40	24	55
1.4	16	45	31,2	-
1.5	25	70	34	-
1.6	25	70	34	78

2



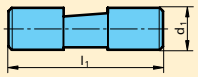
code no.	d_1	l_1	l_2	l_3
2.1	16	50	47	-
2.2	16	50	47	55
2.3	16	50	47	70

3



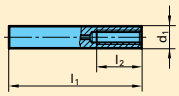
code no.	d_1	l_1	l_2	l_3
3.1	25	70	34	100

4



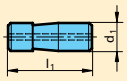
code no.	d_1	l_1
4.1	19,05	70

5



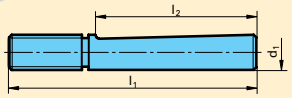
code no.	d_1	l_1	l_2
5.1	10	60	20
5.2	16	80	28
5.3	25	100	50

6



code no.	d_1 (inch)	l_1
6.1	1/2	38
6.2	3/4	70

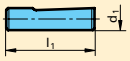
7



code no.	d_1	l_1	l_2
7.1	16	112	73
7.2	20	126	82

Drivers to DIN 1835

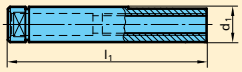
9 form E



code no.	d_1	l_1
9.1	8	36
9.2	10	40
9.3	12	45
9.4	16	48
9.5	20	50
9.6	25	56
9.7	32	60
9.8	40	70

Drivers to VDI draft

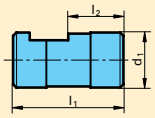
12



code no.	d_1	l_1
12.1	10	68
12.2	16	90
12.3	25	112

Drivers to Speed-Bit-System

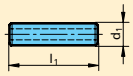
13



code no.	d_1	l_1	l_2
13.1	16	40	16
13.2	25	50	25

Drivers to DIN 6535

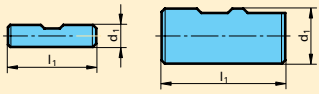
10 form HA



code no.	d_1	l_1
10.1	8	36
10.2	10	40
10.3	12	45
10.4	16	48
10.5	20	50
10.6	25	56
10.7	32	60
10.8	40	70

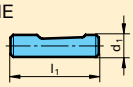
8 form HB

with code no. 8.6, 8.7, 8.8



code no.	d_1	l_1
8.1	8	36
8.2	10	40
8.3	12	45
8.4	16	48
8.5	20	50
8.6	25	56
8.7	32	60
8.8	40	70

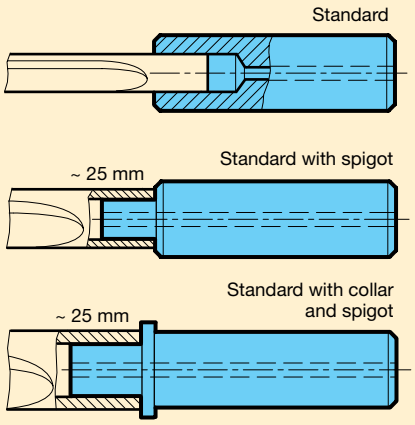
11 form HE



code no.	d_1	l_1
11.1	8	36
11.2	10	40
11.3	12	45
11.4	16	48
11.5	20	50
11.6	25	56
11.7	32	60
11.8	40	70

Driver variations to suit gun drill tubes

Solution for nom.-Ø < driver-Ø (difference must be appr. 6 mm):
tube shank installed in driver

Solution for nom.-Ø ≠ driver-Ø (close to parallel):
tube shank installed over spigot

Solution for nom.-Ø > driver-Ø:
tube shank installed over spigot, inside-Ø of tube shank >driver-Ø,
tube shank fits against collar shoulder.