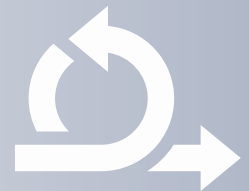


"micro" combi drill for Torx®

HB microtec[®]
ACTIONTOOLS & ENGINEERING



ACTIONDRILL[®]
by HB microtec
Intern Starlobe



Intern Starlobe 140°

Intern Starlobe 170° & 180°

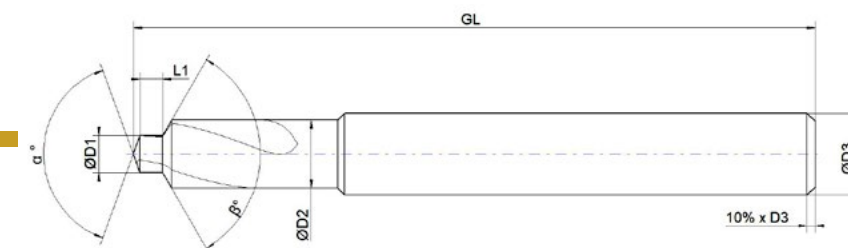
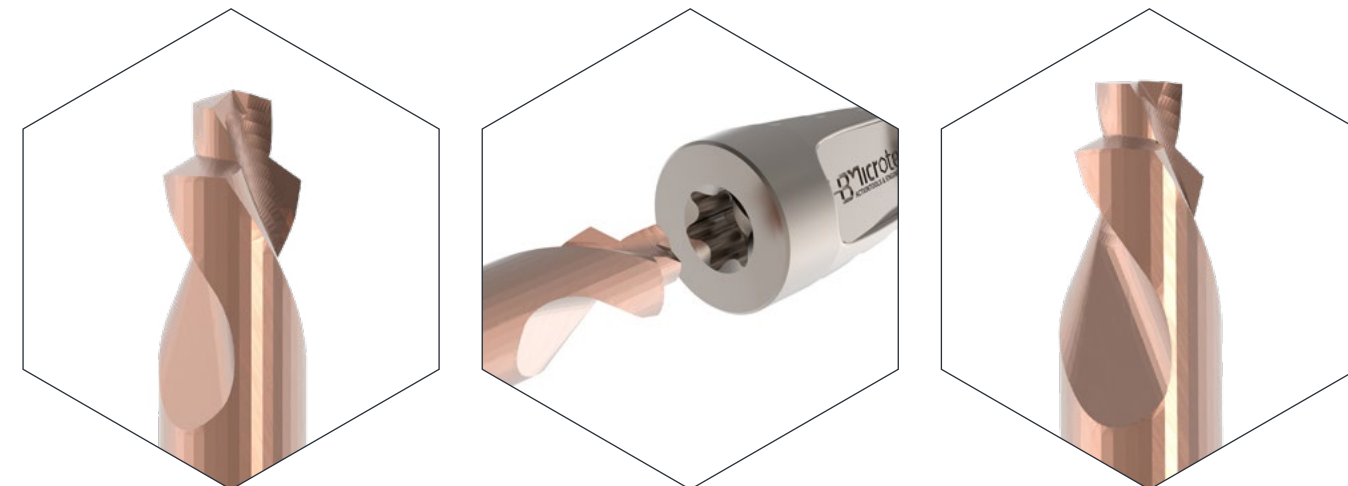
from Ø 0.9 mm
to Ø 3.8 mm

from Ø 0.9 mm
to Ø 3.8 mm

The high-performance α -INOX coating
guarantees a long tool life and
prevents the cutting edges from
sticking

The reinforced shank in h5 quality
combined with an optimized working
length makes the tool robust and
vibration-free.

High feed and cutting speeds are made
possible by the use of
ultra-fine-grained solid carbide with
high fracture toughness.



☐ Inquiry

Article number : _____

☐ Order

Order number: _____ Other: _____

Dimensions (XXX.YYY.AAA.BBB):

D₁ _____ GL _____ α : _____

D₂ _____ L₁ _____ β : _____

D₃ _____

Material to be machined _____

Coating (BE):

- ☐ (.00) blank
☐ (.01) α -INOX
☐ (.02) β -Titan
☐ (.03) γ -Steel

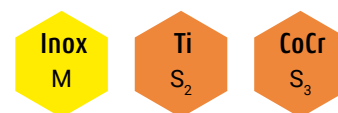
Contact person:

Date, signature & company stamp

Minimum order quantity from 5 pieces:

* Without further information, the most suitable coating will be used.

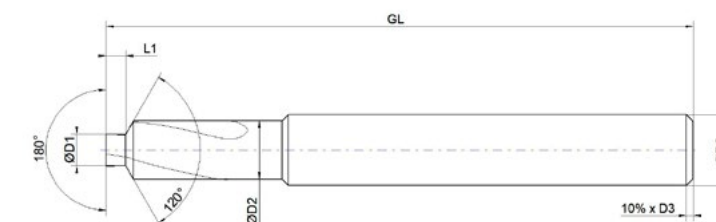
Torx® pilot drill dimensions according to ISO 10664



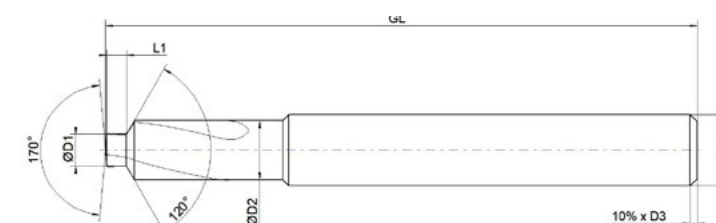
Internal Torx® pilot drill 180° or 170° or 140°							Point angle please tick		
Article number	Torx® Type	D1 0/- 0.008 [mm]	D2 (mm)	D3 h6 [mm]	L1 (mm)	GL (mm)	140°	170°	180°
AD.IT.4.090.056.XXX	T4	Ø 0.90	Ø 1.70	Ø 3.00	0.56	40.00	☐	☐	☐
AD.IT.5.100.072.XXX	T5	Ø 1.00	Ø 2.00	Ø 3.00	0.72	40.00	☐	☐	☐
AD.IT.5.100.059.XXX	T5	Ø 1.00	Ø 2.00	Ø 3.00	0.59	40.00	☐	☐	☐
AD.IT.6.120.088.XXX	T6	Ø 1.20	Ø 2.20	Ø 3.00	0.88	40.00	☐	☐	☐
AD.IT.6.120.067.XXX	T6	Ø 1.20	Ø 2.20	Ø 3.00	0.67	40.00	☐	☐	☐
AD.IT.7.140.083.XXX	T7	Ø 1.40	Ø 3.00	Ø 3.00	0.83	40.00	☐	☐	☐
AD.IT.7.140.079.XXX	T7	Ø 1.40	Ø 3.00	Ø 3.00	0.79	40.00	☐	☐	☐
AD.IT.8.160.115.XXX	T8	Ø 1.60	Ø 3.00	Ø 3.00	1.15	40.00	☐	☐	☐
AD.IT.8.160.081.XXX	T8	Ø 1.60	Ø 3.00	Ø 3.00	0.81	40.00	☐	☐	☐
AD.IT.10.190.113.XXX	T10	Ø 1.90	Ø 4.00	Ø 4.00	1.13	50.00	☐	☐	☐
AD.IT.15.230.142.XXX	T15	Ø 2.30	Ø 4.00	Ø 4.00	1.42	50.00	☐	☐	☐
AD.IT.20.270.170.XXX	T20	Ø 2.70	Ø 5.00	Ø 6.00	1.7	50.00	☐	☐	☐
AD.IT.25.310.236.XXX	T25	Ø 3.10	Ø 6.00	Ø 6.00	2.36	50.00	☐	☐	☐
AD.IT.30.380.293.XXX	T30	Ø 3.80	Ø 6.00	Ø 6.00	2.93	50.00	☐	☐	☐
AD.IT.30.380.245.XXX	T30	Ø 3.80	Ø 6.00	Ø 6.00	2.45	50.00	☐	☐	☐

Available in 2-4 weeks.

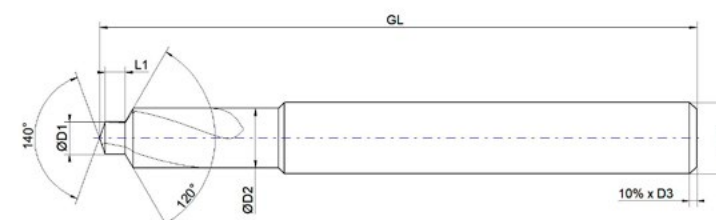
01 α-INOX coated for stainless steels ferritic, martensitic, austenitic & heat-resistant
steels, titanium alloys, CrCo (M&S)



Drill point angle 180°

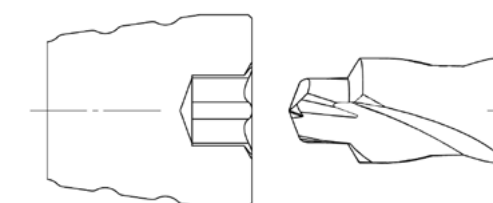


Drill point angle 170°

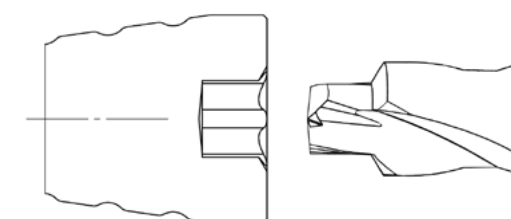


Drill bit point angle 140°

Pre-drilling the Torx® with 120° chamfer angle



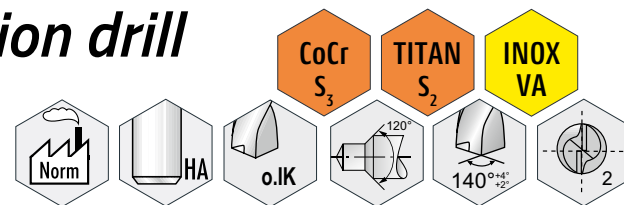
Point angle 140°



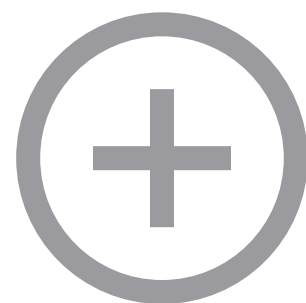
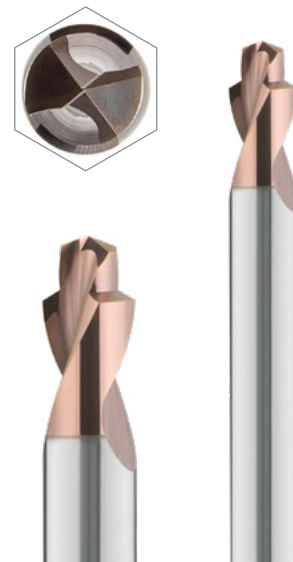
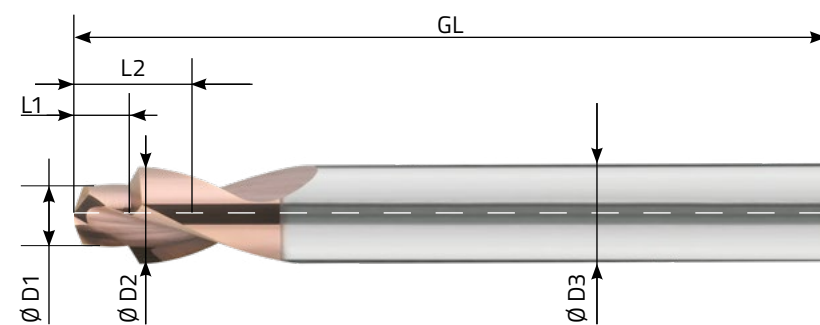
Point angle 180° or 170°

With a 170° point angle, drilling can be up to 4x faster than with 180°, if the
geometry allows it!

Micro 140° combination drill for Torx®



ACTIONDRILL
AD.IT.120.090.140
Intern Starlobe
D1: Ø 0.90 mm
140° Point angle
120° Step angle

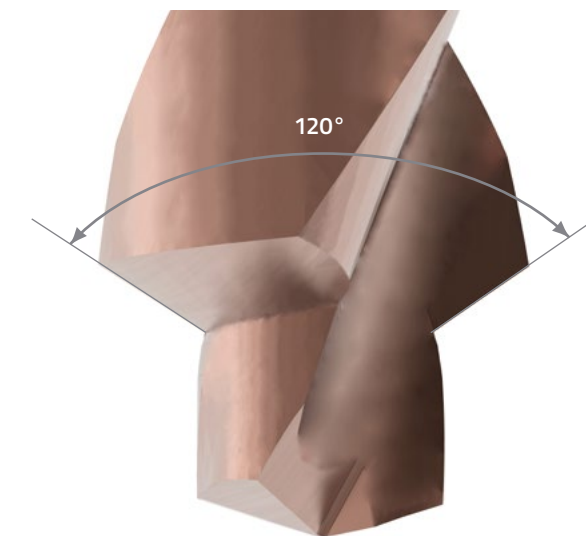


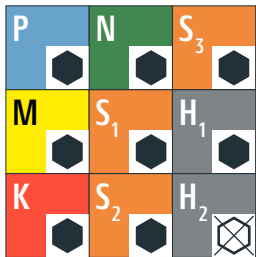
5 PRO's of the ACTIONMILL:

- Combination tool: centering + drilling + 120° chamfering
- For pre-drilling Torx® types from T4 to T30
- Minimal burr formation
- Shorter process times and high process reliability
- Chrome-free coating prevents cross-contamination with medical parts

Article number	"Torx®" Starlobe	D1 ±0.01	D2 ±0.01	D3 h5	L1 ±0.01	GL 0/+2 (mm)
AD.IT.120.090.140	T4	Ø 0.90	Ø 2.20	Ø 3.00	0.54	39.00
AD.IT.120.100.140	T5	Ø 1.00	Ø 2.20	Ø 3.00	0.70	39.00
AD.IT.120.120.140	T6	Ø 1.20	Ø 2.30	Ø 3.00	0.84	39.00
AD.IT.120.140.140	T7	Ø 1.40	Ø 3.00	Ø 3.00	0.80	39.00
AD.IT.120.160.140	T8	Ø 1.60	Ø 3.00	Ø 3.00	1.12	39.00
AD.IT.120.190.140	T10	Ø 1.90	Ø 4.00	Ø 4.00	1.07	50.00
AD.IT.120.230.140	T15	Ø 2.30	Ø 4.00	Ø 4.00	1.38	50.00
AD.IT.120.270.140	T20	Ø 2.70	Ø 5.00	Ø 6.00	1.66	50.00
AD.IT.120.310.140	T25	Ø 3.10	Ø 6.00	Ø 6.00	2.28	50.00
AD.IT.120.380.140	T30	Ø 3.80	Ø 6.00	Ø 6.00	2.83	50.00

Available from stock





140°

Material group	Material group	Mat. no.	DIN	AISI/ASTM/UNS
M	Stainless steels: ferritic, martensitic, austenitic	1.4034	X46Cr13	AISI 420C
		1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH
		1.4301	X5CrNi 18- 10	AISI 304
		1.4435	X2CrNiMo 18- 14-3	AISI 316L
S (S1, S2, S3)	Heat-resistant steels, titanium, CrCo	2.4617	NiMo28	Hastelloy B-2
		2.4665	NiCr22Fe18Mo	Hastelloy X
		3.7165	TiAl6V4	ASTM B348 / F136
		9.9367	TiAl6Nb7	ASTM F1295
		2.4964	CoCr20W15Ni	Haynes 25
			CrCoMo28	ASTM F1537

170°

Material group	Material group	Mat. no.	DIN	AISI/ASTM/UNS
M	Stainless steels: ferritic, martensitic, austenitic	1.4034	X46Cr13	AISI 420C
		1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH
		1.4301	X5CrNi 18- 10	AISI 304
		1.4435	X2CrNiMo 18- 14-3	AISI 316L
S (S1, S2, S3)	Heat-resistant steels, titanium, CrCo	2.4617	NiMo28	Hastelloy B-2
		2.4665	NiCr22Fe18Mo	Hastelloy X
		3.7165	TiAl6V4	ASTM B348 / F136
		9.9367	TiAl6Nb7	ASTM F1295
		2.4964	CoCr20W15Ni	Haynes 25
			CrCoMo28	ASTM F1537

180°

Material group	Material group	Mat. no.	DIN	AISI/ASTM/UNS
M	Stainless steels: ferritic, martensitic, austenitic	1.4034	X46Cr13	AISI 420C
		1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH
		1.4301	X5CrNi 18- 10	AISI 304
		1.4435	X2CrNiMo 18- 14-3	AISI 316L
S (S1, S2, S3)	Heat-resistant steels, titanium, CrCo	2.4617	NiMo28	Hastelloy B-2
		2.4665	NiCr22Fe18Mo	Hastelloy X
		3.7165	TiAl6V4	ASTM B348 / F136
		9.9367	TiAl6Nb7	ASTM F1295
		2.4964	CoCr20W15Ni	Haynes 25
			CrCoMo28	ASTM F1537

Recommended use Highly suitable Partially suitable Not recommended

T4-T8		T10-T15		T20-T30	
vc [m/min]	fz [mm]	vc [m/min]	fz [mm]	vc [m/min]	fz [mm]
20-30	0.020-0.035	20-30	0.040-0.060	20-30	0.060-0.080
20-30	0.010-0.020	20-30	0.020-0.030	20-30	0.030-0.060

T4-T8		T10-T15		T20-T30	
vc [m/min]	fz [mm]	vc [m/min]	fz [mm]	vc [m/min]	fz [mm]
20-30	0.015-0.025	20-30	0.020-0.040	20-30	0.025-0.050
20-30	0.006-0.010	20-30	0.010-0.020	20-30	0.014-0.035

T4-T8		T10-T15		T20-T30	
vc [m/min]	fz [mm]	vc [m/min]	fz [mm]	vc [m/min]	fz [mm]
20-30	0.013-0.020	20-30	0.015-0.025	20-30	0.020-0.040
20-30	0.004-0.010	20-30	0.008-0.012	20-30	0.012-0.018

ACTIONDRILL®
by HB microtec Intern Starlobe



HB microtec®
ACTIONTOOLS & ENGINEERING

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