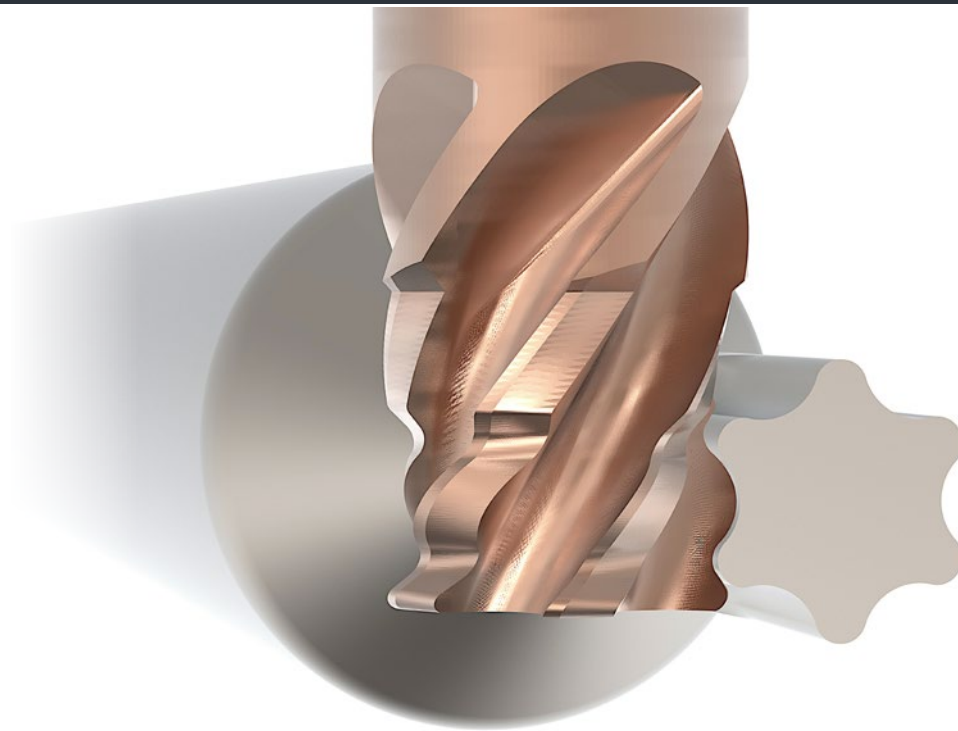
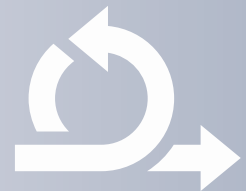


TORX® MILLING

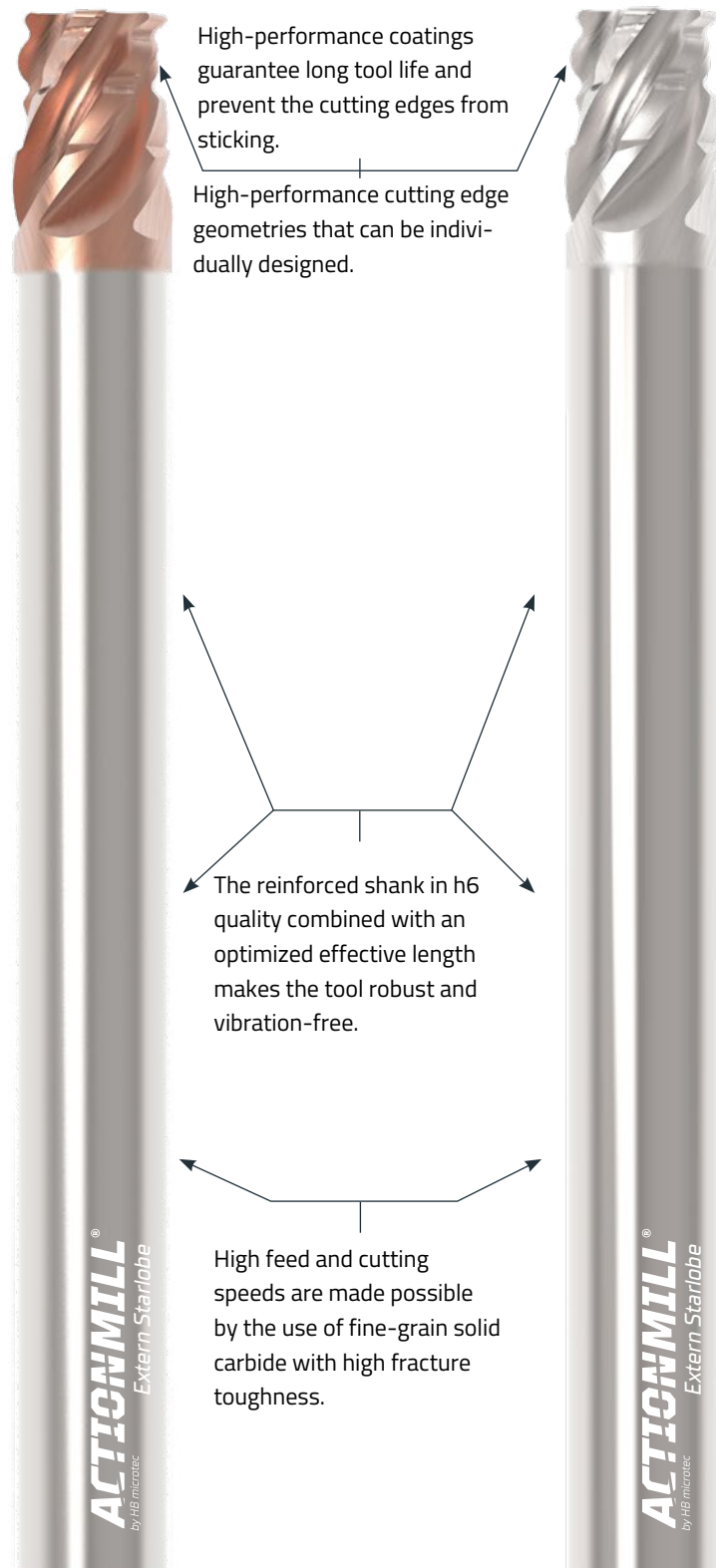
HBmicrotec®
ACTIONTOOLS & ENGINEERING



ACTIONMILL®
by HB microtec
Extern Starlobe



Extern Starlobe



Torx® T4
to T30

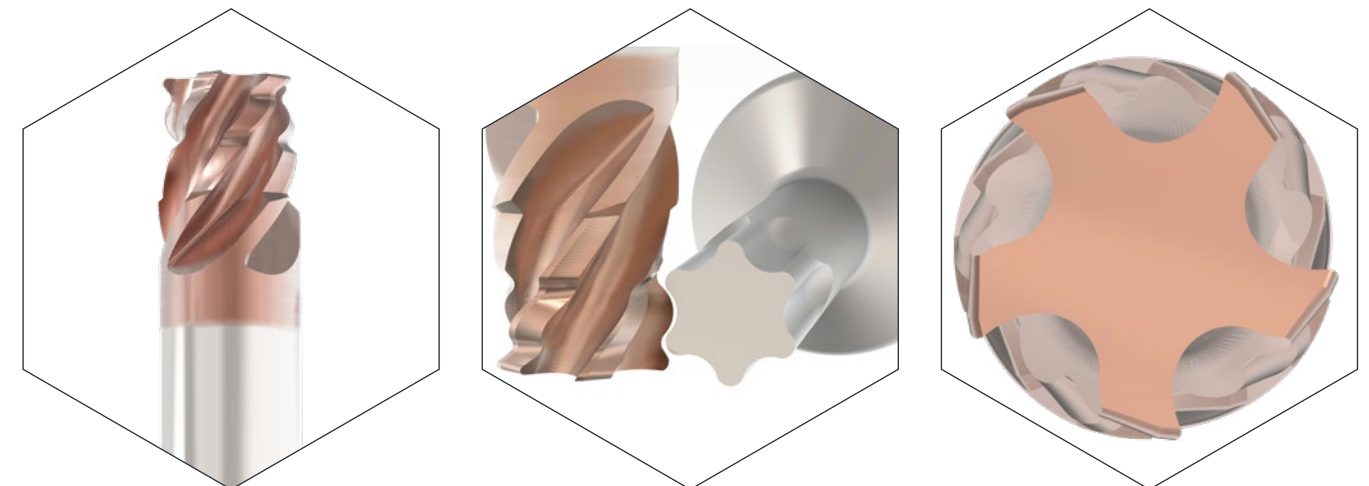
from Ø 5.5
to Ø 10.0

High-performance coatings
guarantee long tool life and
prevent the cutting edges from
sticking.

High-performance cutting edge
geometries that can be indivi-
dually designed.

The reinforced shank in h6
quality combined with an
optimized effective length
makes the tool robust and
vibration-free.

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



Semi-standardized external Torx® mills

Product features

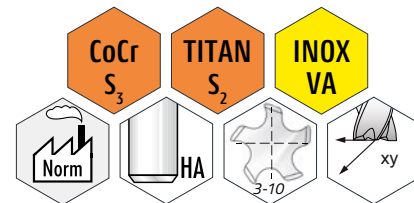
For Torx® types 4 to 30

- Torx® shapes according to ISO 10664 or customized
- 3-10 flutes depending on diameter
- Straight or helical flutes selectable
- Unequal or equal flute spacing
- Technical advice and implementation according to your requirements

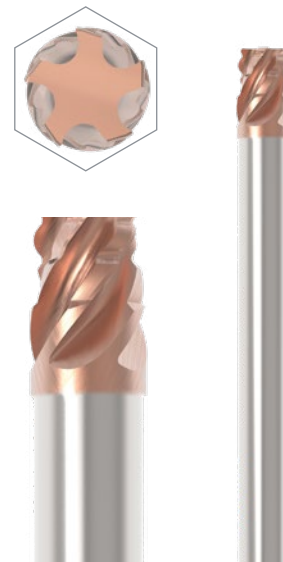
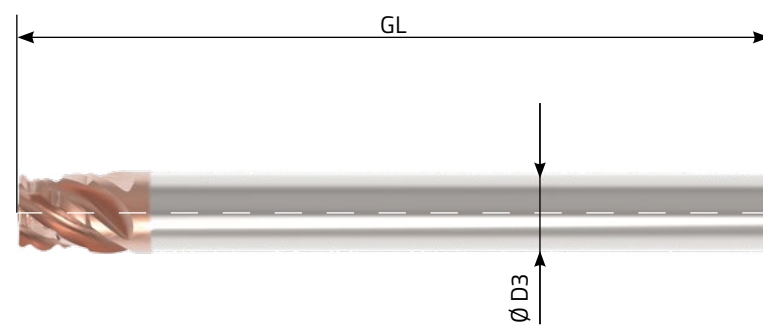
Short delivery times

- 2 weeks blank
- 3 – 4 weeks coated
- Always select the right high-performance coating:
 - .00 = blank for plastics and non-ferrous metals
 - .01 = α-INOX for stainless steels ferritic, martensitic, austenitic & heat-resistant steels, titanium alloys, CrCo (M&S)
 - .02 = β-Titan for non-ferrous metals and titanium (N & S1)
 - .03 = γ-Steel for steels up to RM < 1200N/mm² & cast iron (P & K)

Torx® T4 - T30



ACTIONMILL Torx® type $\emptyset$ -DA Amount of flutes Blank or coated
AM.EX.T4.XXX.YYY.AAA.BBB.Z.BE.ZF.ZT ← Flute pitch
Extern Starlobe Rx Ry $\emptyset$ -DB Flute form



5 PRO's of the ACTIONMILL:

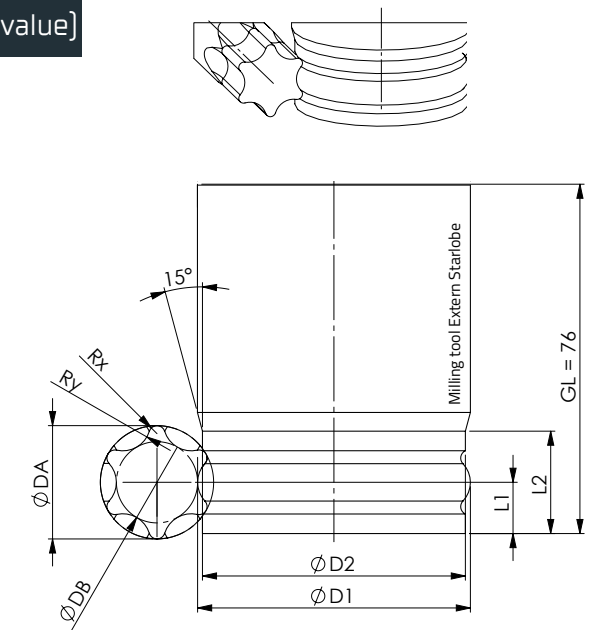
- Quickly available, semi-standardized external Torx® mill
- For milling Torx® types T4 to T30 according to ISO10664 or customized
- High profile accuracy & minimal burr formation
- Shorter process times and high process reliability
- Chrome-free coating prevents cross-contamination with medical parts

Example: Torx® mill; type 4, 6 cutting edges; straight with equal flute spacing and α -INOX coated

Article number XXX.YYY.AAA.BBB	"Torx®" type	D1 (mm)	D2 (mm)	D3 h6 (mm)	L1 (mm)	L2 (mm)	GL (mm)
AM.EX.T4.XXX.YYY.AAA.BBB.Z.BE.ZF.ZT	T4	$\emptyset$ 5.5 - 6.0	$\emptyset$ 5.0 - 5.4	$\emptyset$ 6 h6	1.0 - 1.5	3.0 - 5.0	76
AM.EX.T4.009.031.130.092.6.01.ZG.G	T4	6	5.4	$\emptyset$ 6 h6	1.5	4.0	76

Torx®- Standard dimensions according to ISO 10664 [mean value]

Torx®	$\emptyset$ DA	$\emptyset$ DB	Rx	Ry
4	1.30	0.92	0.09	0.31
5	1.42	1.02	0.11	0.33
6	1.70	1.22	0.13	0.38
7	2.02	1.44	0.16	0.45
8	2.34	1.68	0.19	0.51
10	2.77	1.99	0.23	0.60
15	3.30	2.36	0.27	0.71
20	3.88	2.77	0.31	0.86
25	4.46	3.18	0.38	0.92
30	5.55	3.96	0.45	1.19



Article number

(AM.EX.Torx-type.XXX.YYY.AAA.BBB.Z.BE.ZF.ZT):

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXX,YYY,AAA,BBB):

D₁ _____ D₂ _____ R_x (xxx) _____
D_A (AAA) _____ L₁ _____ R_y (yyy) _____
D_B (BBB) _____ L₂ _____ Z _____

Material to be machined _____

Coating:

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

Flute form

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product features

	Material short code	Material number	Shank- $\emptyset$ [mm]	Overall length [mm]	Amount of flutes [n]
☐	Torx® T4-T7	R_HB.060.760.h6	6	76	Z3 - Z6
☐	Torx® T8-T20	R_HB.080.800.h6	8	80	Z5 - Z8
☐	Torx® T25-T30	R_HB.100.900.h6	10	90	Z7 - Z10

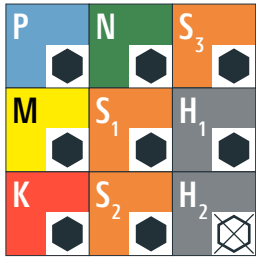
Minimum order quantity from 5 pieces:

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

$\emptyset$ DA AAA	$\emptyset$ DB BBB	Rx XXX	Ry YYY	No. of flutes (Z)	Coating (BE)				Flute form (ZF)		Flute spacing (ZT)	
				Z3 - Z6	blank	α -INOX	β -Titan	γ -Steel	.ZG	.ZD	.G	.U
					.00	.01	.02	.03				
1.30	0.92	0.09	0.31	6	.01 (α -INOX)				.ZG (Z-Straight)		.G (even)	

Minimum order quantity: 5 pieces

Delivery time: Blank 2 weeks; Coated 3-4 weeks



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

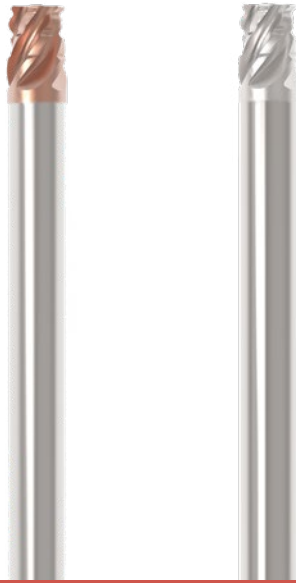
Recommended use Highly suitable Partially suitable Not recommended

T4-T7		T8-T10		T15-T20		T20-T30	
vc [m/min]	fz [mm]	vc [m/min]	fz [mm]	vc [m/min]	fz [mm]	vc [m/min]	fz [mm]
50-80	0.008-0.018	50-100	0.008-0.022	60-120	0.010-0.025	60-140	0.010-0.03
20-50	0.006-0.013	30-70	0.006-0.020	30-80	0.008-0.022	30-80	0.008-0.025

ACTIONMILL®

by HB microtec

Extern Starlobe



HB microtec®
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