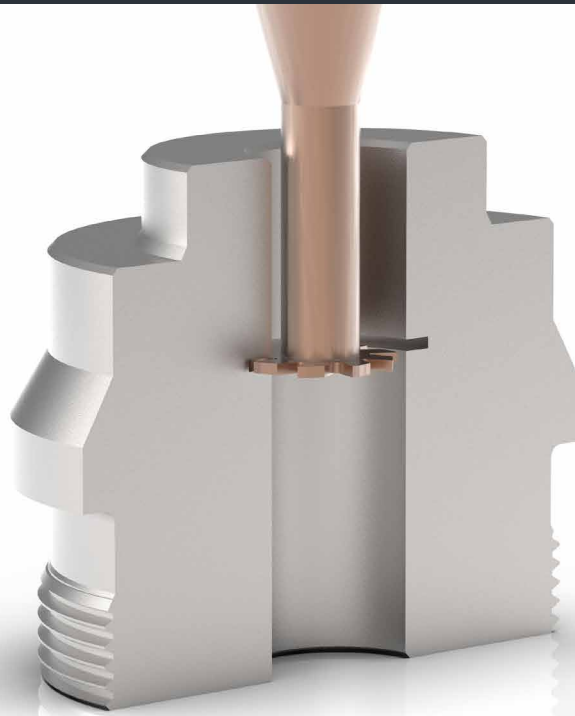
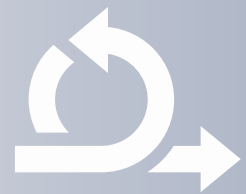


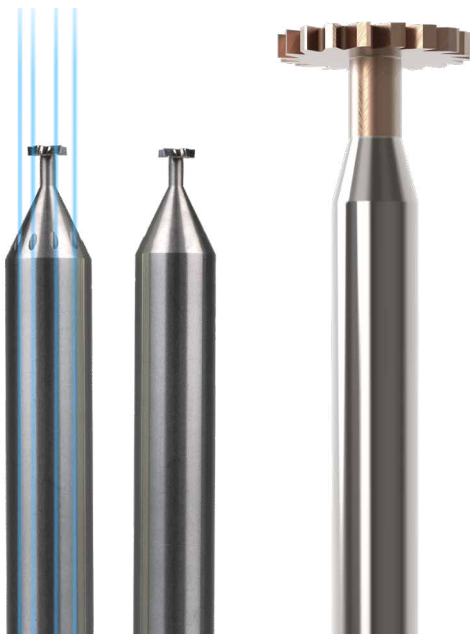
T-slot cutters

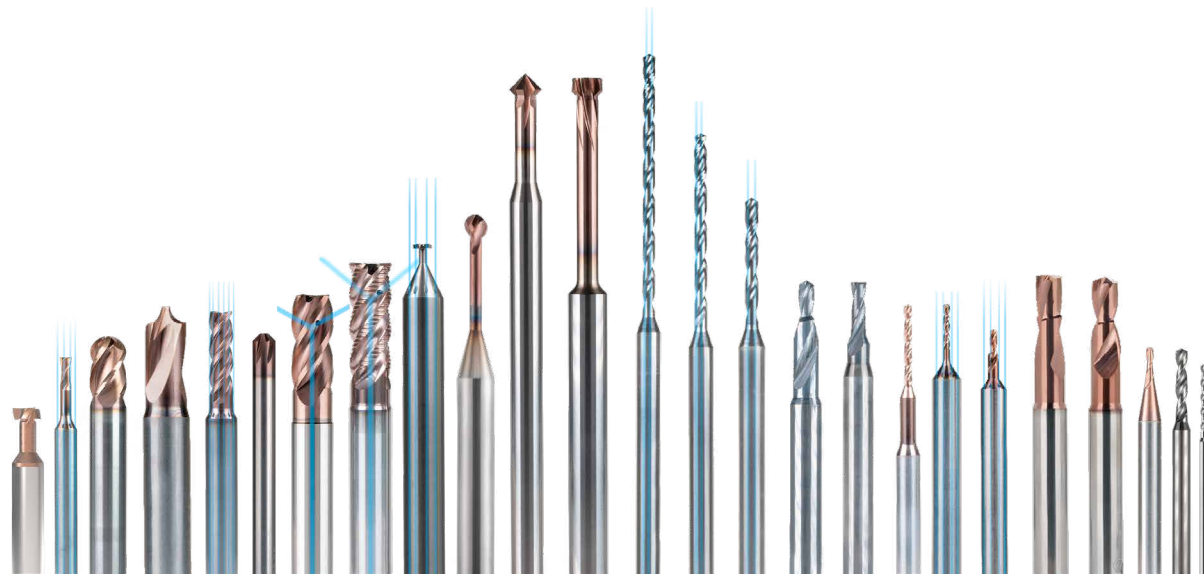


ACTIONMILL[®]
by HB microtec
T-SLOT cooled

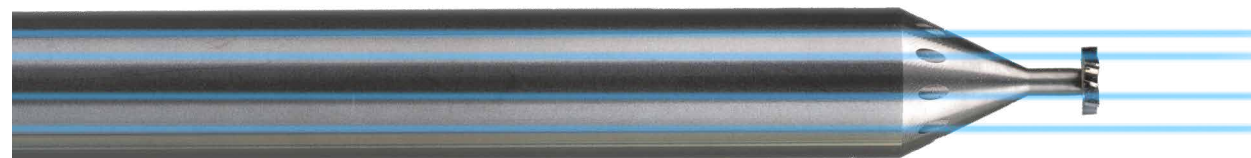


ACTIONMILL[®]
by HB microtec
T-SLOT





ACTIONMILL[®]
by HB microtec
T-SLOT cooled



ACTIONMILL[®]
by HB microtec
T-SLOT



HB microtec - Who we are

HB microtec GmbH & Co. KG is a technologically leading manufacturer of tools for producing small precision components from difficult-to-machine materials. Particularly in medical technology, aerospace, tool and mold making and hydraulics, components have to be made from hard, heat-resistant and abrasive materials such as cobalt-chrome, nickel and titanium alloys. With our new standard milling tools ACTIONMILL[®] and TARGETMILL[®], this is achieved far more economically and reliably than before.

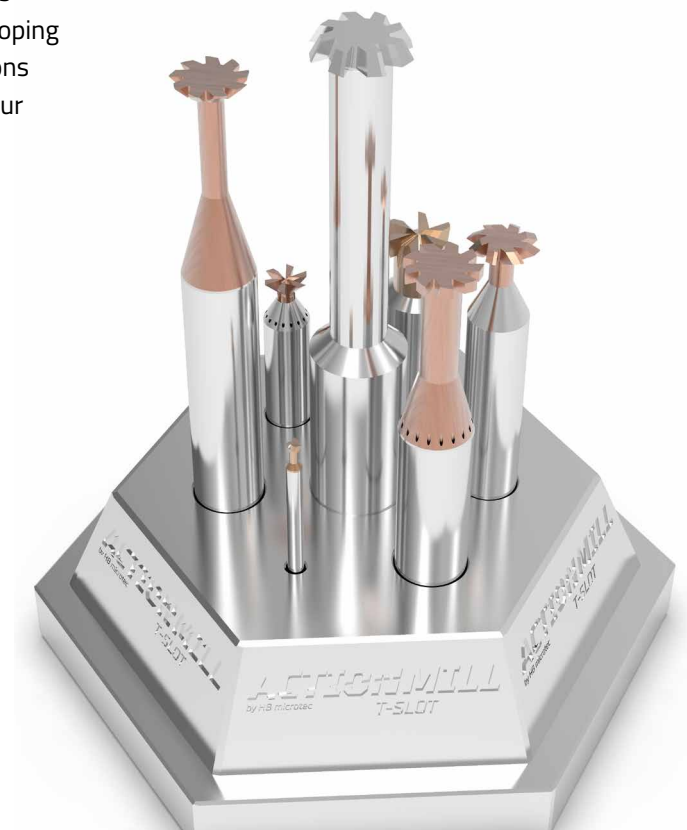
Standard Range

As specialists in machining, we consistently present pioneering manufacturing processes and tools for the automotive industry and medical technology. Customers can rely on our outstanding expertise.

Our highly trained and highly motivated specialists focus their know-how and qualifications on developing innovative and forward-looking machining solutions and putting them into practice for the benefit of our customers.

Together with our customers, we develop forward-looking tool technologies, carefully matching substrates, geometries and coatings to the respective requirements. We focus on rotationally symmetrical tools from 0.1 to 40 mm in diameter. Maximum machining accuracy and process reliability are our top priorities.

Our standard range includes tools for milling, deburring, centering, chamfering, drilling, reaming and countersinking. Our aim is to create measurable added value for our customers with our tools. The ACTIONMILL[®] and TARGETMILL[®] tool series are successful examples of our innovative strength. We continuously develop these tools further and expand the product lines with additional variants and new products.



Description

Thanks to its performance and versatility, the HB microtec® "T-slot cutter" ACTIONMILL® T-SLOT is the ideal all-purpose tool for producing T-slots. The ACTIONMILL® T-SLOT is characterized by excellent tool life and exceptionally high cutting values. The positive side effect for you: shorter cycle times and no more tedious tool changes.

A sophisticated, specially designed cutting edge geometry combined with a mirror-smooth surface to which a high-performance coating is applied guarantees the user maximum performance for every component.

The shank, made of an in-house developed ultra-fine-grain solid carbide with innovative cooling channels, is our basis for the T-SLOT and your benefit for the best possible machining.

Customization is what makes the ACTIONMILL® T-SLOT really strong. From Ø0.8 to Ø40, there is something for every application.

Our customers value the range of applications in the most diverse and demanding materials – whether titanium grade 5 (Ti6Al4V) or the classic stainless steel X20Cr13 (1.4021).

The ACTIONMILL® T-SLOT can do it all.

As a semi-standard tool, the ACTIONMILL® T-SLOT is quickly in use at your site and brings action.

When it comes to performance, the details often make the difference. Your individual ACTIONMILL® T-SLOT is tailored specifically to your application, your material and your component.

We round the cutting edges and literally give the tool the finishing touch – and thus a class of its own.

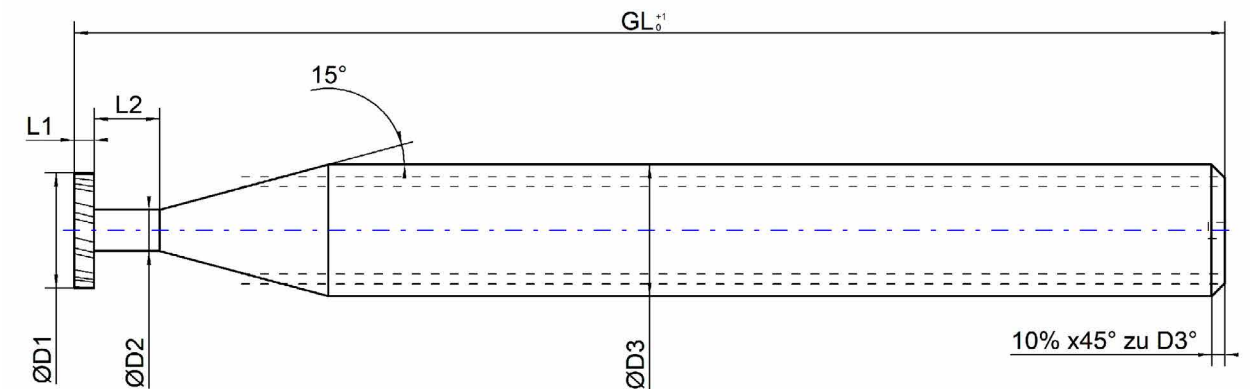
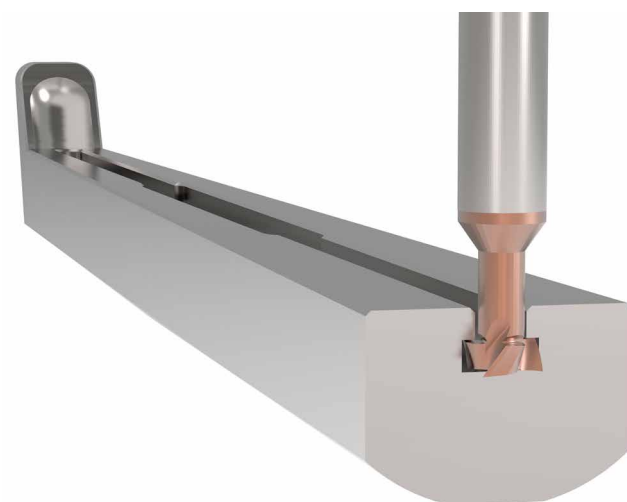
The ACTIONMILL® T-SLOT is available in two versions:

ACTIONMILL® T-SLOT cooled – with integrated cooling channels, which ensure better flushing out of the chips.

ACTIONMILL® T-SLOT – without cooling channels, as the classic version.

HB microtec® stands for action tools and engineering. Professional advice and all-round support are important parts of our philosophy.

Together with you, we develop your custom-ground T-slot cutter.



	Product	Page
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	T-SLOT cooled 6 ITK (T-slot cutter with shank Ø6 h6 and integrated cooling)	12
	T-SLOT cooled 8 ITK (T-slot cutter with shank Ø8 h6 and integrated cooling)	14
	T-SLOT cooled 10 ITK (T-slot cutter with shank Ø10 h6 and integrated cooling)	16
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	T-SLOT 40 (T-slot cutter with cutting edge Ø40, shank Ø12 h6 without cooling)	42

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T-Slot cooled

T-Slot

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

High-performance cutting edge geometries that can be individually designed.

Integrated cooling channels protect the tool from overheating when cutting titanium alloys and stainless steels.

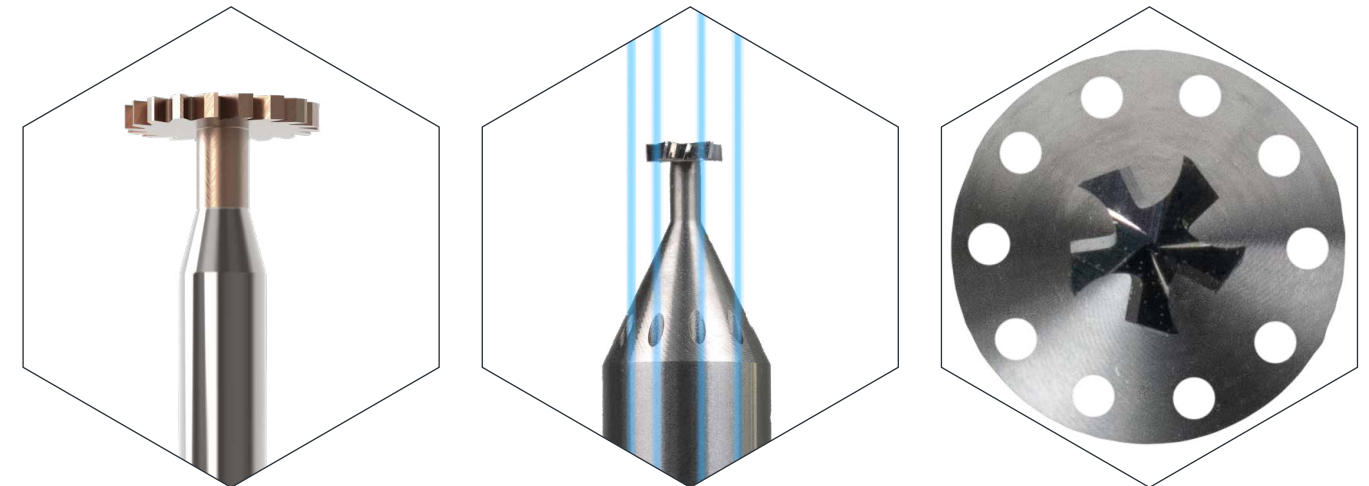
from Ø 0.8
to Ø 10.0



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.

from Ø 0.8
to Ø 40.0



Semi-standardized T-slot cutters

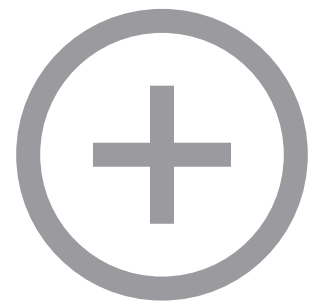
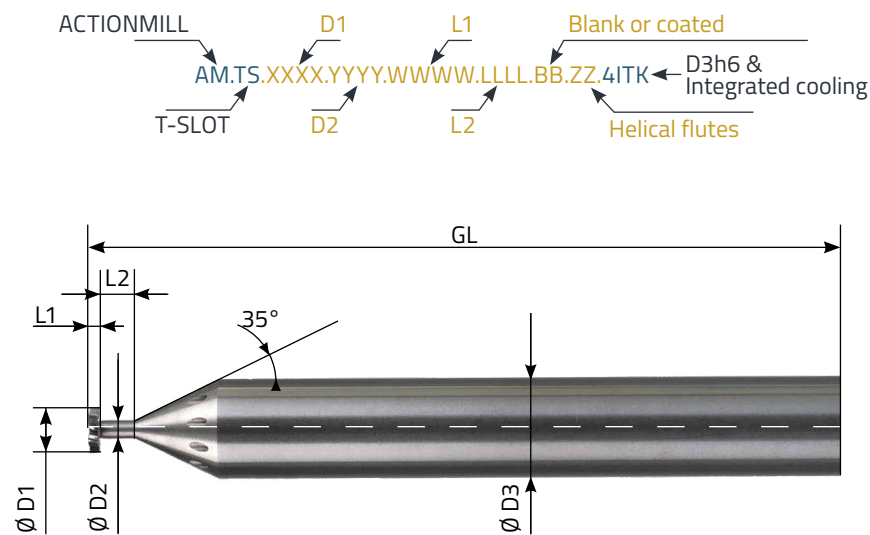
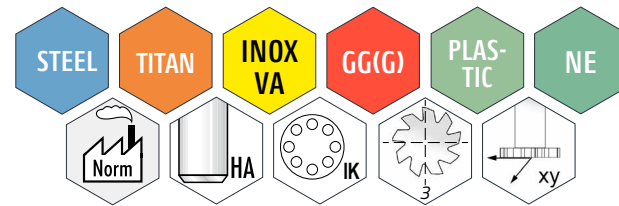
Product features

- From Ø0.8 to Ø10 with integrated cooling
- From Ø0.8 to Ø40 without cooling
- 3 to 18 flutes depending on diameter
- Straight flutes from Ø4 or helical flutes selectable
- Rounding of sharp corners between 0.004 and 0.01 mm (edge preparation)
- Further customization possible on request

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)

T-SLOT cooled 4 ITK



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Ideal for specific applications in medical technology
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.4ITK	Ø0.8-Ø2.0	Ø0.4-Ø1.2	Ø4	0.4-2.5 mm	3.0-8.0 mm	50

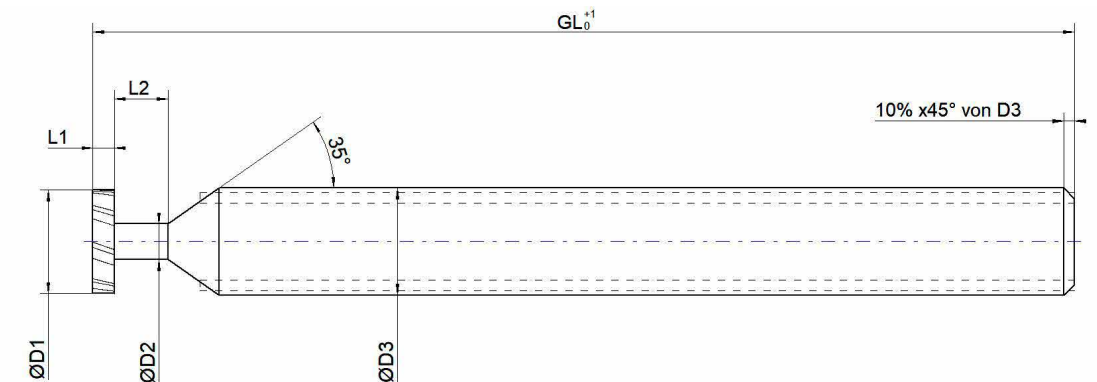
Example: T-slot cutter Ø2.0x1.5 mm; neck Ø1.0x4.0 mm; helical and α-INOX coated

AM.TS.0200.0100.0150.0400.01.ZD.4ITK	2.0	1.0	4h6	1.5	4.0	50
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Minimum order quantity: 5 pieces

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

$D_1 = 0.8\text{mm} - 2.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.4ITK): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø0.8-Ø2.0 0.4-2.5 mm

D₂ (YYY) _____ L₂ (LLL) _____
Ø0.4-Ø1.2 3.0-8.0 mm

Material to be machined _____

Coating (BB):

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

Product attributes:

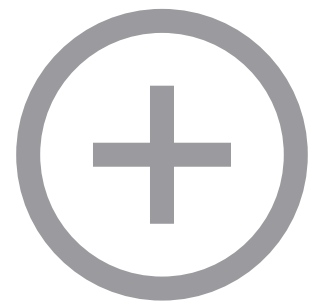
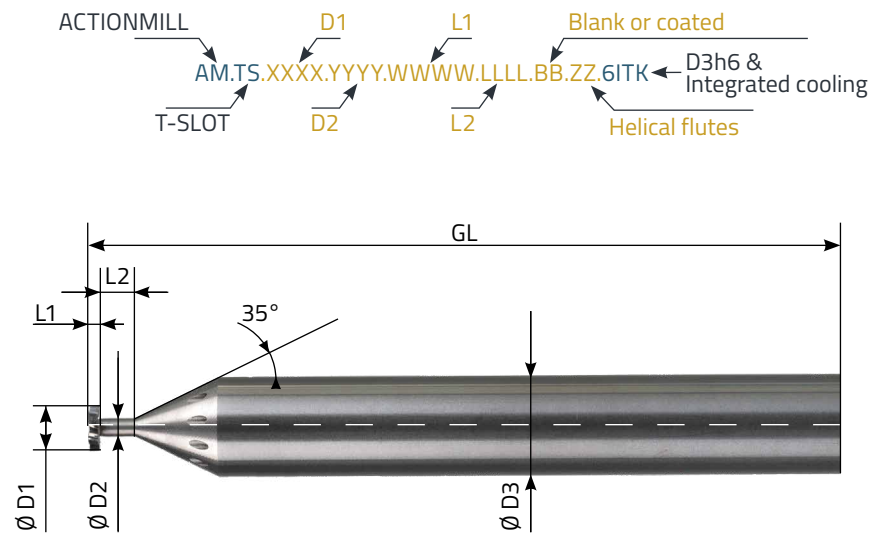
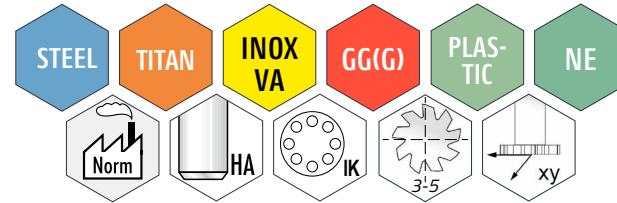
- Shank shape: HA
- Shank diameter D3h6: Ø4
- Integrated cooling
- Raw material: R_HB.040.500.ITK
- Overall length: 50
- Amount of flutes: Z3

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Helix ZZ
Z3	.00	.01	.02	.03	.ZD
Z3		.01			.ZD

T-SLOT cooled 6 ITK



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.6ITK	Ø2.0-Ø4.0	Ø0.8-Ø2.0	Ø6	0.5-4.5 mm	3.0-12 mm	60

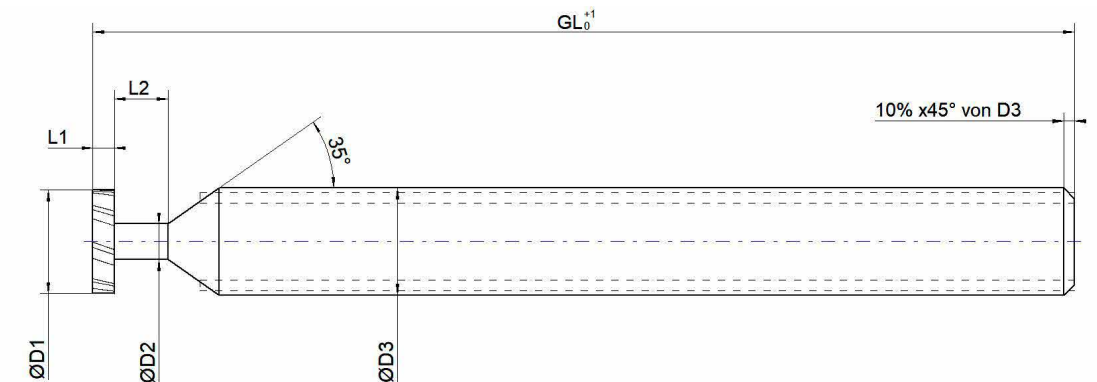
Example: T-slot cutter Ø3.0x2.0 mm; neck Ø1.0x8.0 mm; helical and β-Titan coated

AM.TS.0300.0100.0200.0800.02.ZD.6ITK	3.0	1.0	6h6	2.0	8.0	60
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Minimum order quantity: 5 pieces

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

$D_1 = 2.0\text{mm} - 4.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.6ITK): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø2.0-Ø4.0 0.5-4.5 mm

D₂ (YYY) _____ L₂ (LLL) _____
Ø0.8-Ø2.0 3.0-12 mm

Material to be machined _____

Coating (BB):

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

Product attributes:

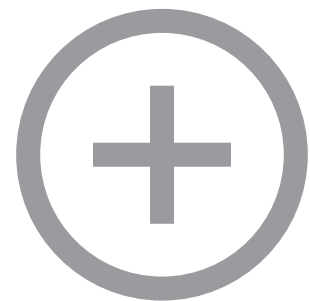
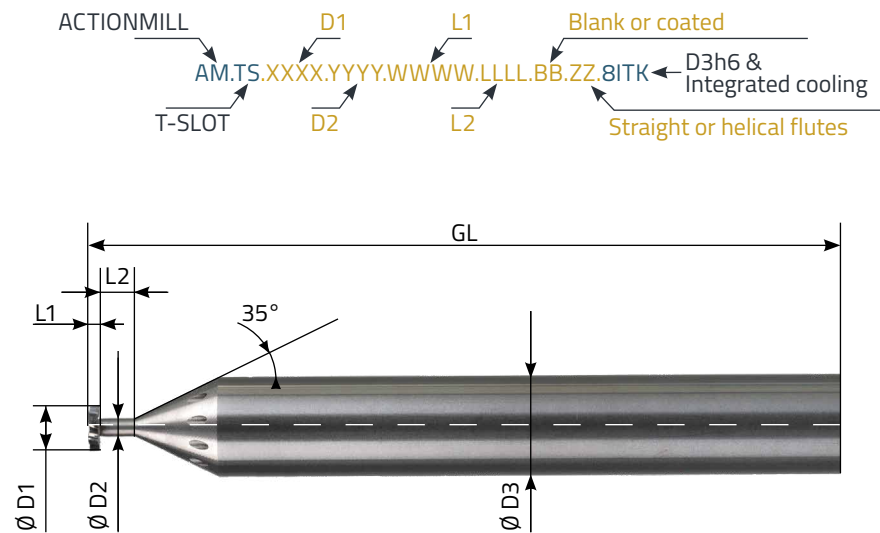
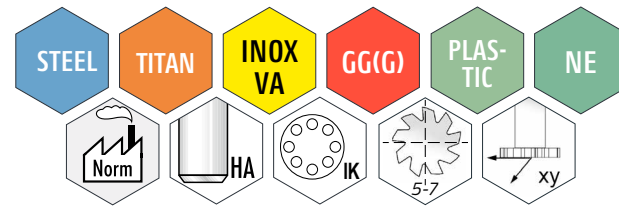
- Shank shape: HA
- Shank diameter D3h6: Ø6
- Integrated cooling
- Raw material: R_HB.060.600.ITK
- Overall length: 60
- Amount of flutes: Z3 / Z5 from Ø3

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Helix ZZ
Z3 / Z5 from Ø3	.00	.01	.02	.03	.ZD
Z5			.02		.ZD

T-SLOT cooled 8 ITK



5 PRO's of the ACTIONMILL:

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- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.8ITK	Ø4.0-Ø6.0	Ø1.0-Ø3.0	Ø8	0.5-6.5 mm	3.0-16 mm	68

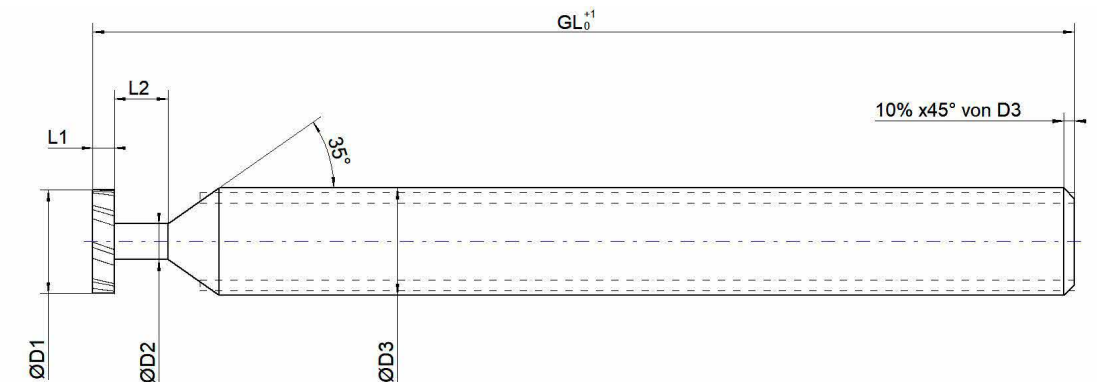
Example: T-slot cutter Ø4.0x0.8 mm; neck Ø2.0x6.0 mm; straight and blank

AM.TS.0400.0200.0080.0600.00.ZG.8ITK	4.0	2.0	8h6	0.8	6.0	68
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Minimum order quantity: 5 pieces

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

D₁ = 4.0mm - 6.0mm



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.8ITK): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø4.0-Ø6.0 0.5-6.5 mm

D₂ (YYY) _____ L₂ (LLL) _____
Ø1.0-Ø3.0 3.0-16 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

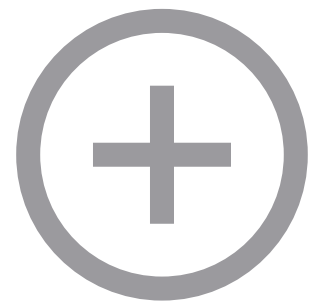
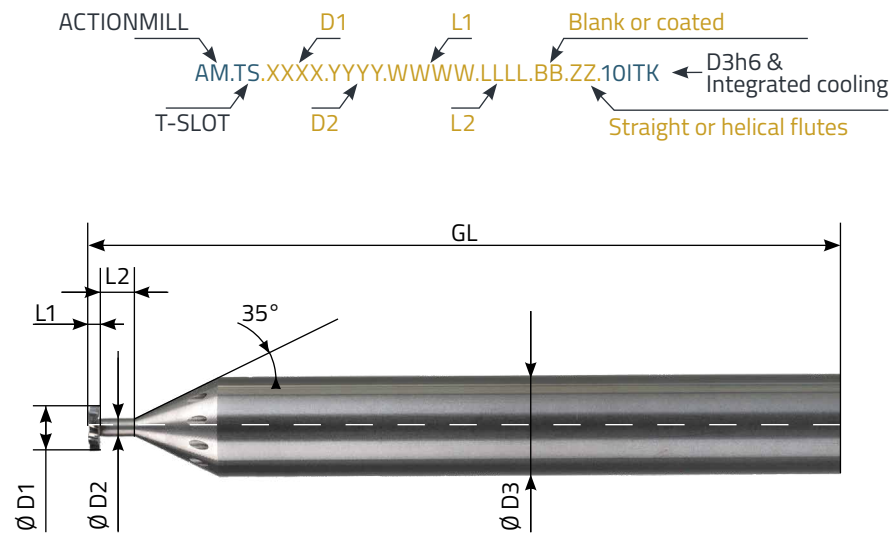
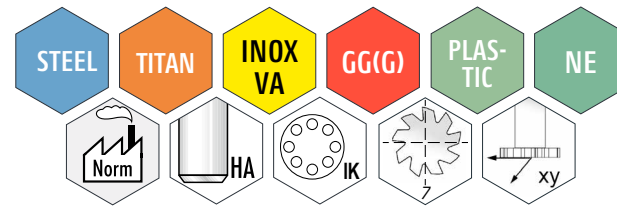
- Shank shape: HA
- Shank diameter D3h6: Ø8
- Integrated cooling
- Raw material: R_HB.080.681.ITK
- Overall length: 68
- Amount of flutes: Z5 / Z7 from Ø5

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z5 / Z7 from Ø5	.00	.01	.02	.03	.ZG	.ZD
Z5	.00				.ZG	

T-SLOT cooled 10 ITK



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWWV	L2 (mm) LLLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.10ITK	Ø6.0-Ø8.0	Ø2.5-Ø4.0	Ø10	0.5-8.5 mm	3.0-20 mm	84

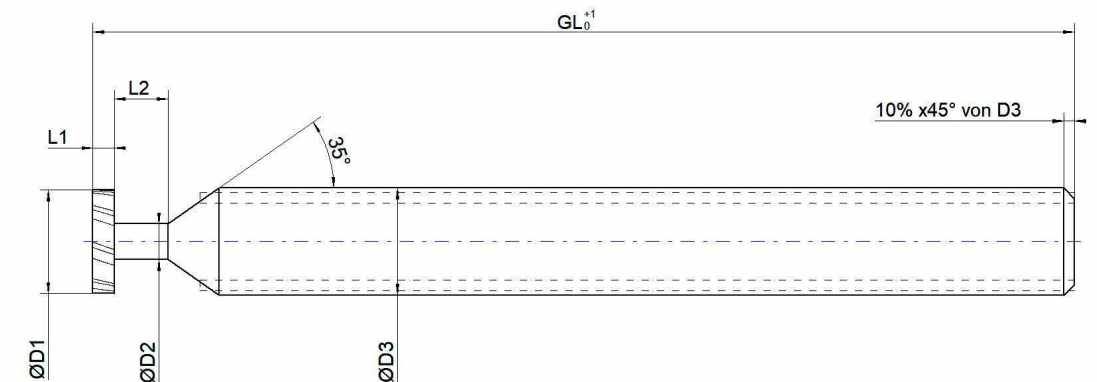
Example: T-slot cutter Ø7.0x3.0 mm; neck Ø3.0x12.0 mm; straight and γ-Steel coated

AM.TS.0700.0300.0300.1200.03.ZG.10ITK	7.0	3.0	10h6	3.0	12.0	84
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Minimum order quantity: 5 pieces

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

D₁ = 6.0mm - 8.0mm



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.10ITK): _____

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) _____ L₁ (WWWV) _____
Ø6.0-Ø8.0 0.5-8.5 mm

D₂ (YYYY) _____ L₂ (LLLL) _____
Ø2.5-Ø4.0 3.0-20 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
- ☐ (.ZD) Helical

Product attributes:

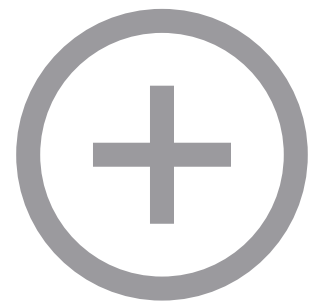
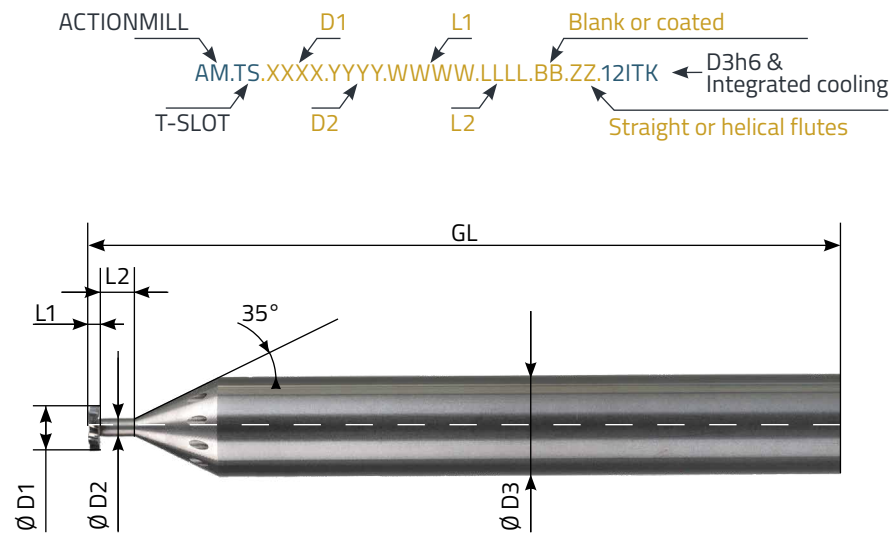
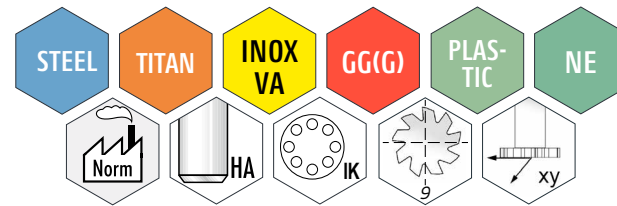
- Shank shape: HA
- Shank diameter D3h6: Ø10
- Integrated cooling
- Raw material: R_HB.100.840.ITK
- Overall length: 84
- Amount of flutes: Z7

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z7	.00	.01	.02	.03	.ZG	.ZD
Z7				.03	.ZG	

T-SLOT cooled 12 ITK



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.12ITK	Ø8.0-Ø10.0	Ø3.5-Ø5.0	Ø12	0.5-10.5 mm	3.0-24 mm	101

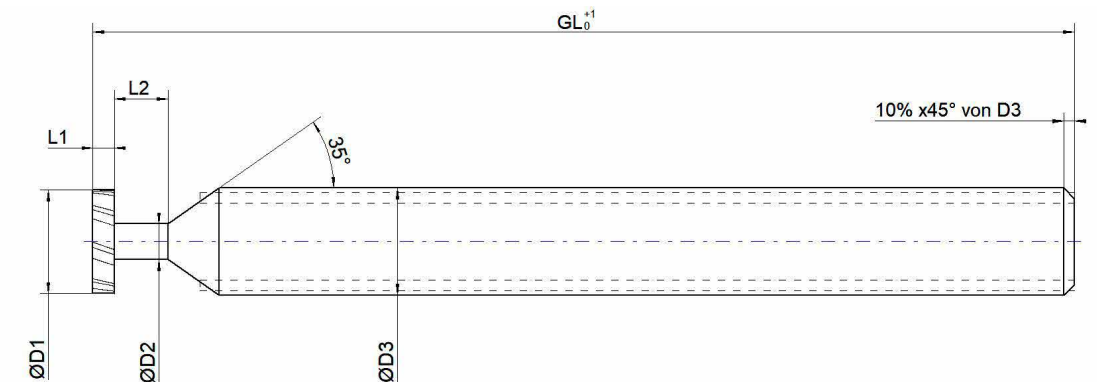
Example: T-Slot Ø9.0x5.0 mm; Neck Ø4.5x14.0 mm; Helical flutes and β-Titan coated

AM.TS.0900.0450.0500.1400.02.ZD.12ITK	9.0	4.5	12h6	5.0	14.0	101
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Minimum order quantity: 5 pieces

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

D₁ = 8.0mm - 10.0mm



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.12ITK): _____

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø8.0-Ø10.0 0.5-10.5

D₂ (YYY) _____ L₂ (LLL) _____
Ø3.5-Ø5.0 3.0-24 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

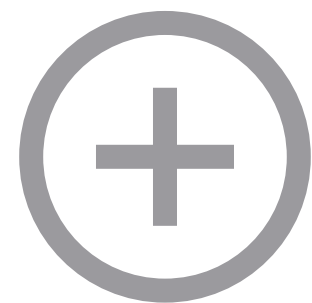
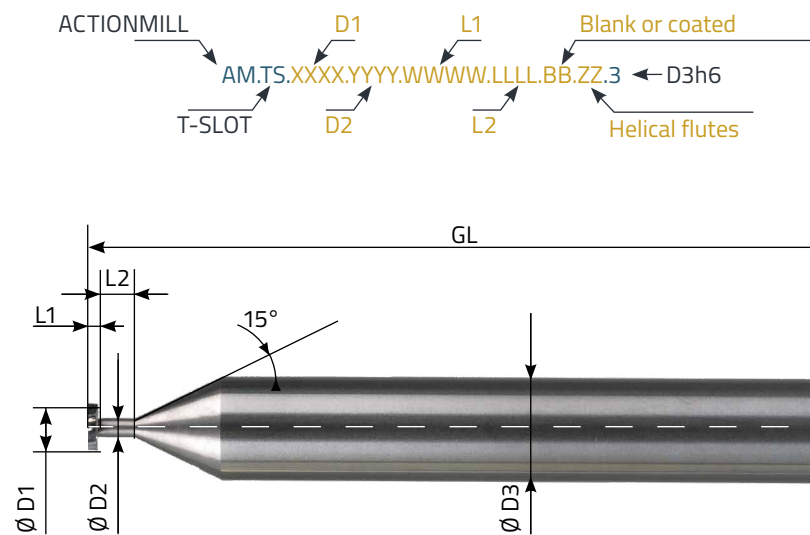
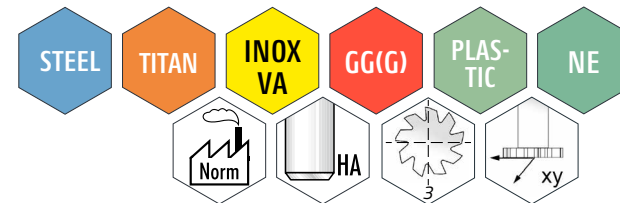
- Shank shape: HA
- Shank diameter D3h6: Ø12
- Integrated cooling
- Raw material: R_HB.120.1010.ITK
- Overall length: 101
- Amount of flutes: Z9

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z9	.00	.01	.02	.03	.ZG	.ZD
Z9			.02			.ZD

T-SLOT 3



5 PRO's of the ACTIONMILL:

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- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Ideal for specific applications in medical technology
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.3	Ø0.8-Ø3.0	Ø0.4-Ø1.2	Ø3	0.4-2.5 mm	3.0-8.0 mm	50

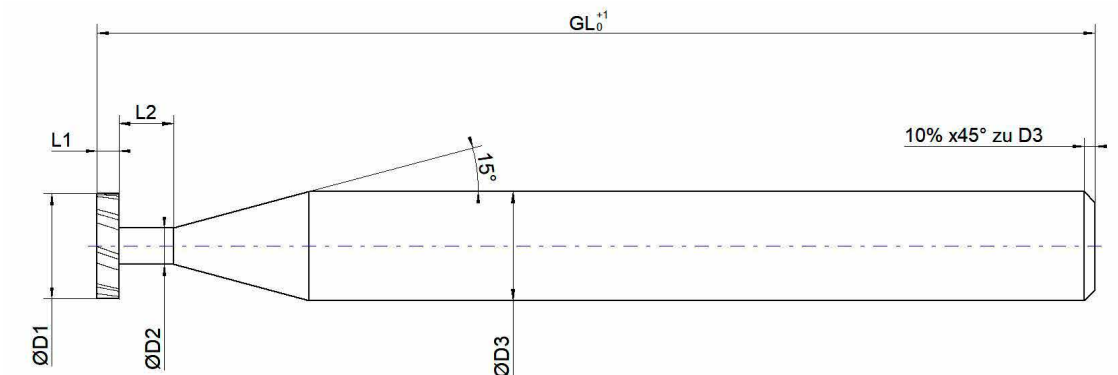
Example: T-slot cutter Ø2.0x1.5 mm; neck Ø1.0x4.0 mm; helical and α-INOX coated

AM.TS.0200.0100.0150.1200.01.ZD.3	2.0	1.0	3h6	1.5	4.0	50
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Minimum order quantity: 5 pieces

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

$D_1 = 0.8\text{mm} - 3.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.3): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D ₁ (XXXX) Ø0.8-Ø3.0	L ₁ (WWW) 0.4-2.5 mm
D ₂ (YYY) Ø0.4-Ø1.2	L ₂ (LLL) 3.0-8.0 mm

Material to be machined: _____

Coating (BB):

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

Product attributes:

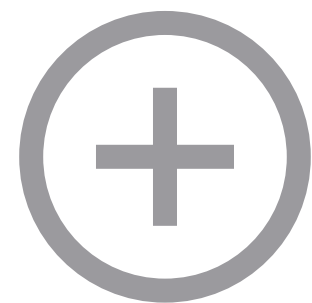
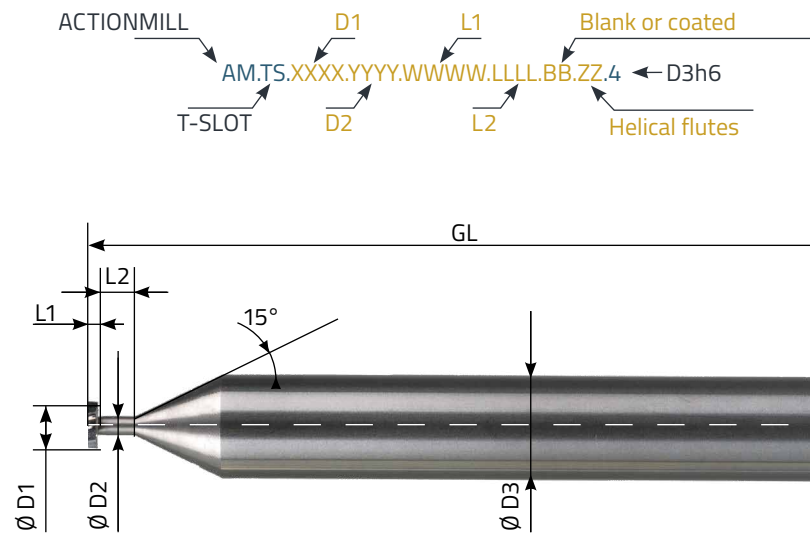
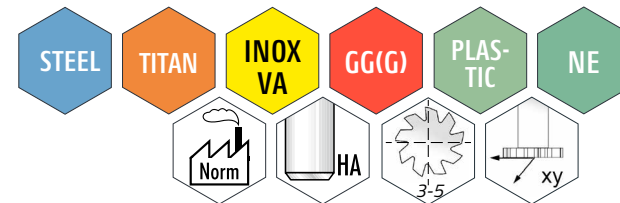
- Shank shape: HA
- Shank diameter D3h6: Ø3
- Raw material: R_HB.030.500.h6
- Overall length: 50
- Amount of flutes: Z3

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Helix ZZ
Z3	.00	.01	.02	.03	.ZD
Z3		.01			.ZD

T-SLOT 4



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.4	Ø2.0-Ø4.0	Ø0.8-Ø2.0	Ø4	0.5-4.5 mm	3.0-12 mm	60

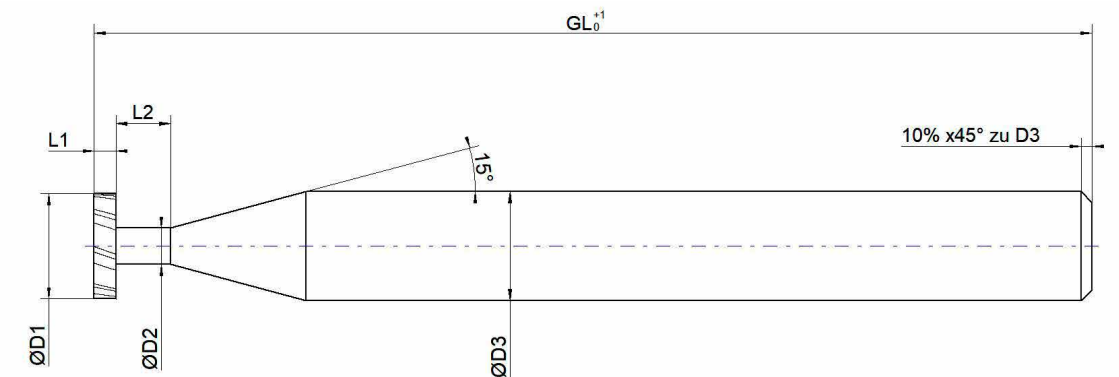
Example: T-slot cutter Ø3.0x0.7 mm; neck Ø1.0x5.0 mm; helical and blank

AM.TS.0300.0100.0070.0500.00.ZD.4	3.0	1.0	4h6	0.7	5.0	60
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Minimum order quantity: 5 pieces

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

$D_1 = 2.0\text{mm} - 4.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.4): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D ₁ (XXXX) Ø2.0-Ø4.0	L ₁ (WWW) 0.5-4.5 mm
D ₂ (YYY) Ø0.8-Ø2.0	L ₂ (LLL) 3.0-12 mm

Material to be machined _____

Coating (BB):

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

Product attributes:

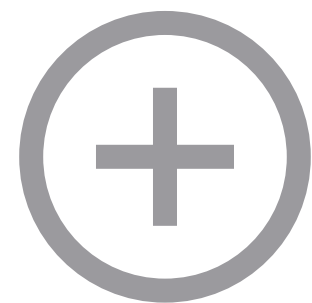
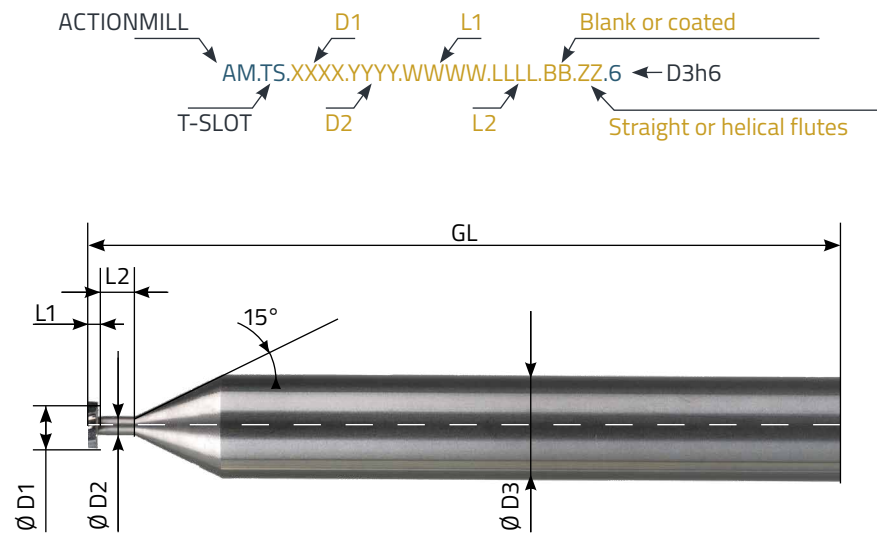
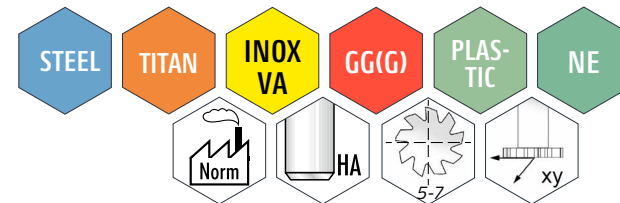
- Shank shape: HA
- Shank diameter D3h6: Ø4
- Raw material: R_HB.040.600.h6
- Overall length: 60
- Amount of flutes: Z3 / Z5 from Ø3

Minimum order quantity from 5 pieces:

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

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Helix ZZ
Z3 / Z5 from Ø3	.00	.01	.02	.03	.ZD
Z5	.00				.ZD

T-SLOT 6



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.6	Ø4.0-Ø6.0	Ø1.0-Ø3.0	Ø6	0.5-6.5 mm	3.0-16 mm	76

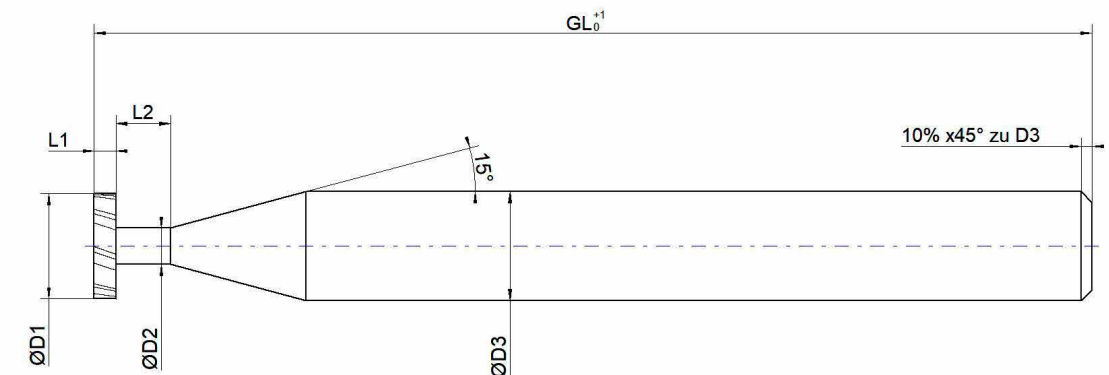
Example: T-slot cutter Ø5.0x2.1 mm; neck Ø2.0x12.0 mm; straight and β-Titan coated

AM.TS.0500.0200.0210.1200.02.ZG.6	5.0	2.0	6h6	2.1	12.0	76
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Minimum order quantity: 5 pieces

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

D₁ = 4.0mm - 6.0mm



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.6): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø4.0-Ø6.0 0.5-6.5 mm

D₂ (YYY) _____ L₂ (LLL) _____
Ø1.0-Ø3.0 3.0-16 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
- ☐ (.ZD) Helical

Product attributes:

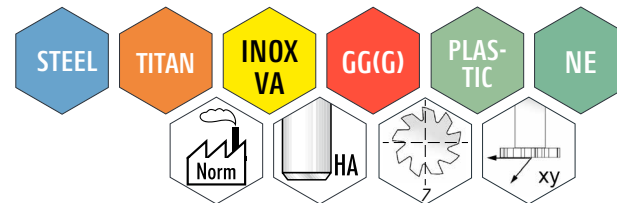
- Shank shape: HA
- Shank diameter D3h6: Ø6
- Raw material: R_HB.060.760.h6
- Overall length: 76
- Amount of flutes: Z5 / Z7 from Ø5

Minimum order quantity from 5 pieces:

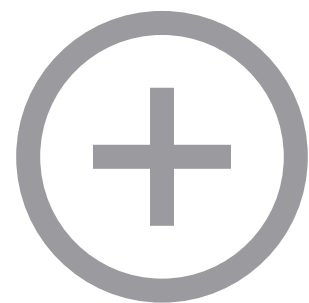
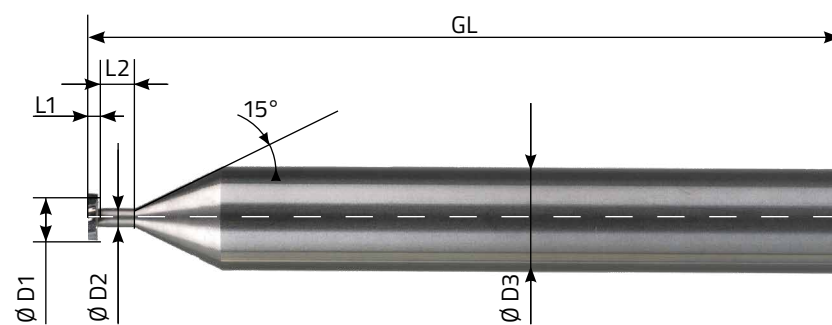
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z5 / Z7 from Ø5	.00	.01	.02	.03	.ZG	.ZD
Z5			.02		.ZG	

T-SLOT 8



ACTIONMILL
T-SLOT
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.8
D1 D2 L1 L2 Blank or coated
D3h6 Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.8	Ø6.0-Ø8.0	Ø2.5-Ø4.0	Ø8	0.5-8.5 mm	3.0-20 mm	80

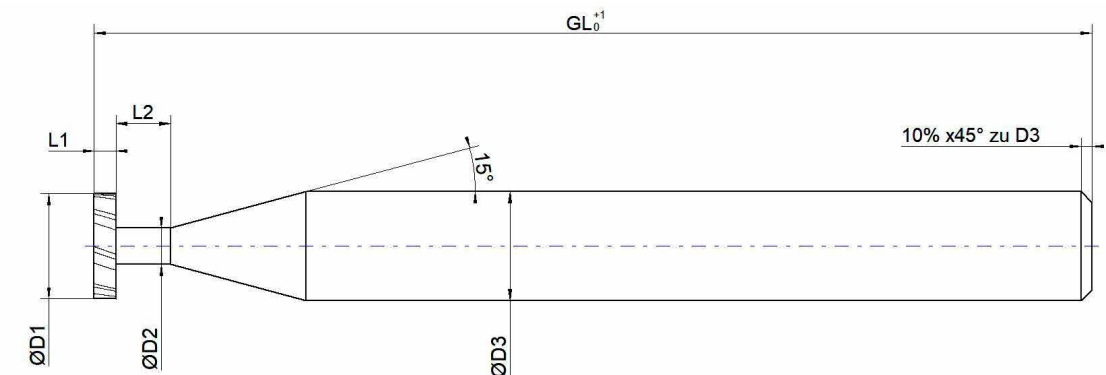
Example: T-slot cutter Ø7.0x3.2 mm; neck Ø3.0x12.0 mm; straight and γ-Steel coated

AM.TS.0700.0300.0320.1200.03.ZG.8	7.0	3.0	8h6	3.2	12.0	80
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Minimum order quantity: 5 pieces

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

D₁ = 6.0mm - 8.0mm



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.8): _____

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) Ø6.0-Ø8.0 L₁ (WWW) 0.5-8.5 mm
D₂ (YYY) Ø2.5-Ø4.0 L₂ (LLL) 3.0-20 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

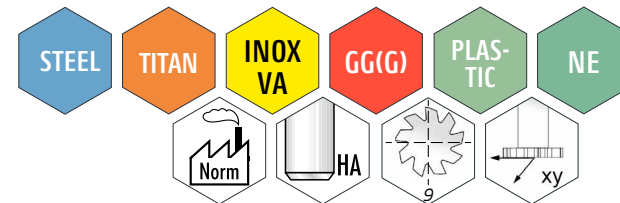
- Shank shape: HA
- Shank diameter D3h6: Ø8
- Raw material: R_HB.080.800.h6
- Overall length: 80
- Amount of flutes: Z7

Minimum order quantity from 5 pieces:

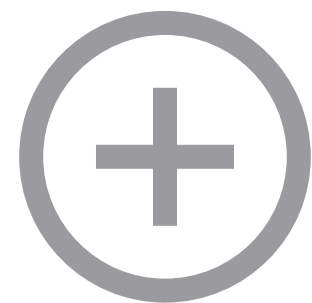
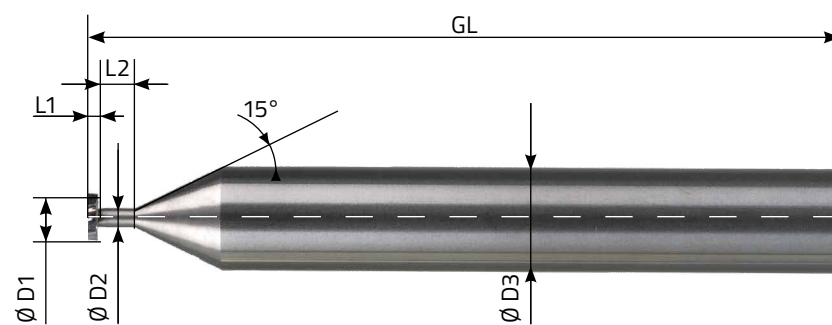
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z7	.00	.01	.02	.03	.ZG	.ZD
Z7				.03	.ZG	

T-SLOT 10



ACTIONMILL
T-SLOT
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.10
D1 D2 L1 L2 Blank or coated
D3h6 Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.10	Ø8.0-Ø10.0	Ø3.0-Ø6.0	Ø10	0.5-10.5 mm	3.0-24 mm	90

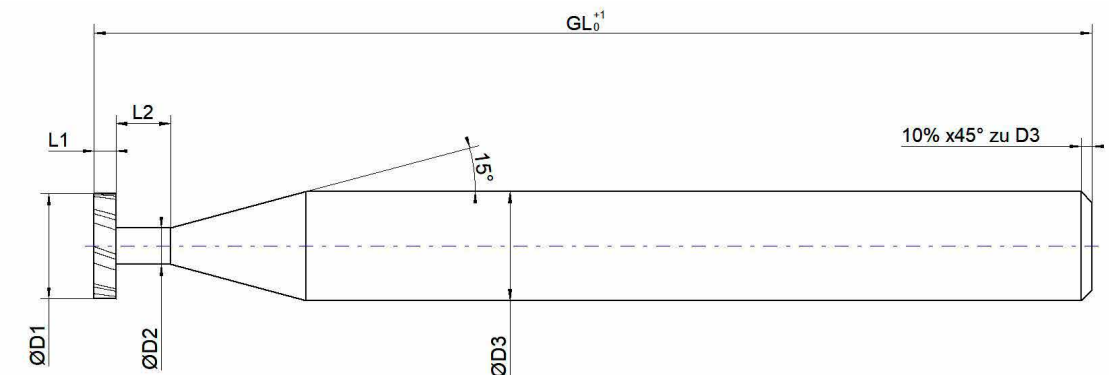
Example: T-slot cutter Ø9.0x4.5 mm; neck Ø5.0x14.0 mm; helical and α-INOX coated

AM.TS.0900.0500.0450.1400.01.ZD.10	9.0	5.0	10h6	4.5	14.0	90
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Minimum order quantity: 5 pieces

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

D₁ = 8.0mm - 10.0mm



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.10): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) Ø8.0-Ø10.0 L₁ (WWW) 0.5-10.5 mm
D₂ (YYY) Ø3.0-Ø6.0 L₂ (LLL) 3.0-24 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

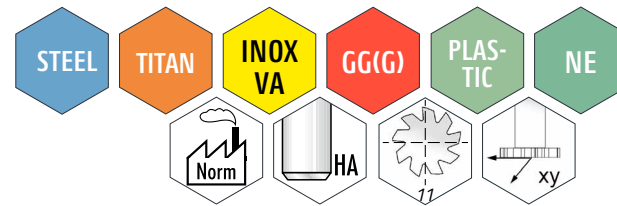
- Shank shape: HA
- Shank diameter D3h6: Ø10
- Raw material: R_HB.100.900.h6
- Overall length: 90
- Amount of flutes: Z9

Minimum order quantity from 5 pieces:

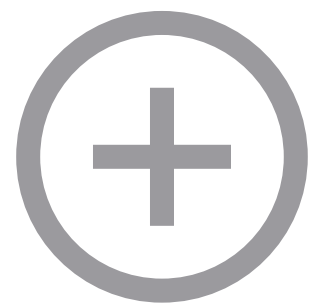
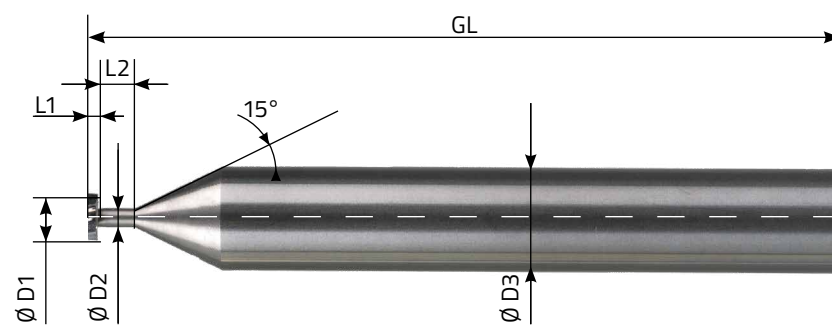
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z9	.00	.01	.02	.03	.ZG	.ZD
Z9		.01				.ZD

T-SLOT 12



ACTIONMILL
T-SLOT
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.12
D1 D2 L1 L2 Blank or coated D3h6 Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.12	Ø10.0-Ø12.0	Ø4.0-Ø8.0	Ø12	0.5-12.5 mm	3.0-26 mm	101

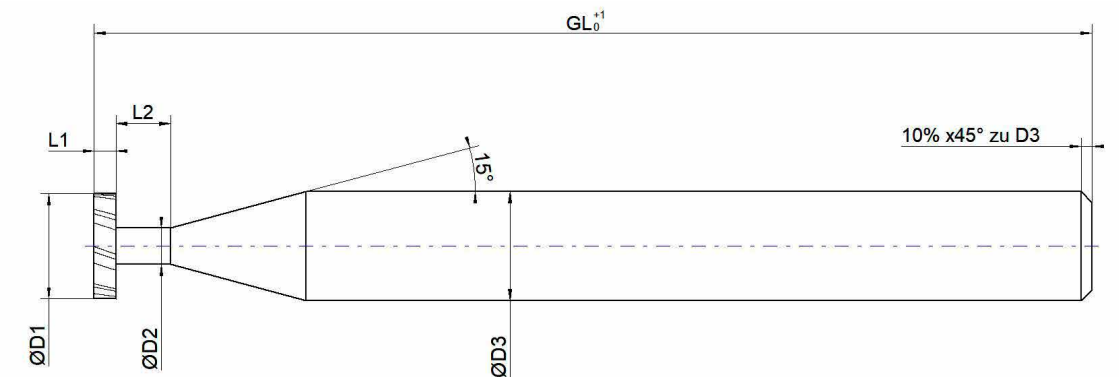
Example: T-slot cutter Ø11.0x3.8 mm; neck Ø7.5x18.0 mm; straight and blank

AM.TS.1100.0750.0380.1800.00.ZG.12	11.0	7.5	12h6	3.8	18.0	101
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Minimum order quantity: 5 pieces

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

$D_1 = 10.0\text{mm} - 12.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.12): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX) Ø10.0-Ø12.0 L₁ (WWW) 0.5-12.5mm
D₂ (YYY) Ø4.0-Ø8.0 L₂ (LLL) 3.0-26 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

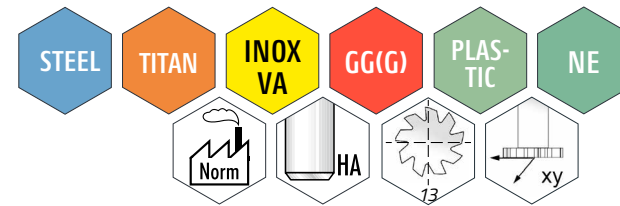
- Shank shape: HA
- Shank diameter D3h6: Ø12
- Raw material: R_HB.120.1010.h6
- Overall length: 101
- Amount of flutes: Z11

Minimum order quantity from 5 pieces:

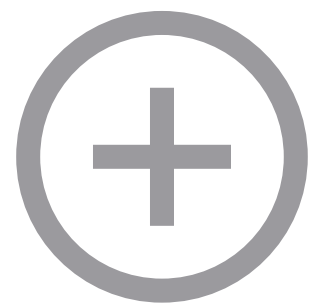
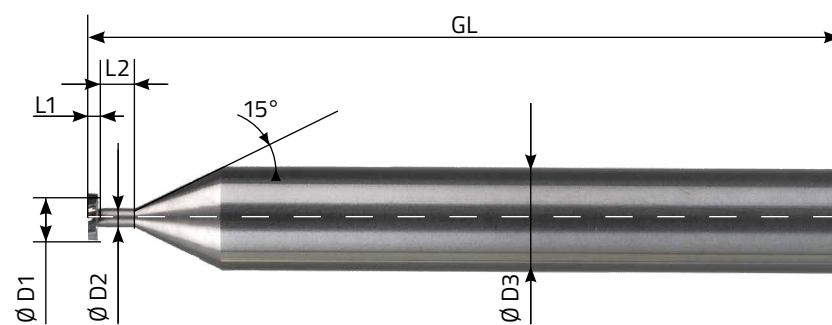
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z11	.00	.01	.02	.03	.ZG	.ZD
Z11	.00				.ZG	

T-SLOT 14



ACTIONMILL
T-SLOT
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.14
D1
D2
L1
L2
Blank or coated
D3h6
Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
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- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.14	Ø12.0-Ø14.0	Ø5.0-Ø10.0	Ø14	0.5-14.5 mm	3.0-28 mm	101

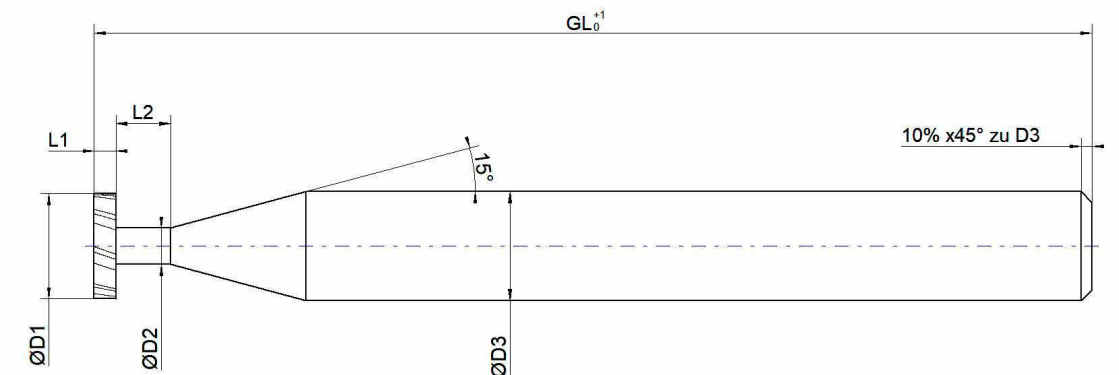
Example: T-Slot Ø12.0x6.0 mm; Neck Ø6.0x20.0 mm; Straight and α-INOX coated

AM.TS.1200.0600.0600.2000.01.ZG.14	12.0	6.0	14h6	6.0	20.0	101
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Minimum order quantity: 5 pieces

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

$D_1 = 12.0\text{mm} - 14.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.14): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX)
Ø12.0-Ø14.0
L₁ (WWW)
0.5-14.5 mm
D₂ (YYY)
Ø5.0-Ø10.0
L₂ (LLL)
3.0-28 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

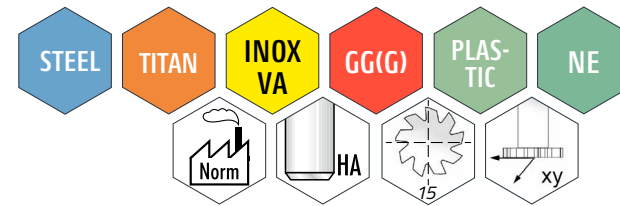
- Shank shape: HA
- Shank diameter D3h6: Ø14
- Raw material: R_HB.140.1010.h6
- Overall length: 101
- Amount of flutes: Z13

Minimum order quantity from 5 pieces:

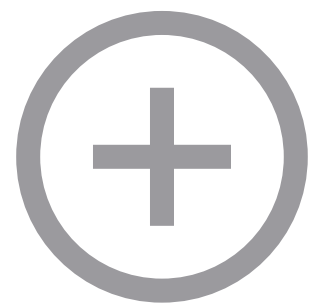
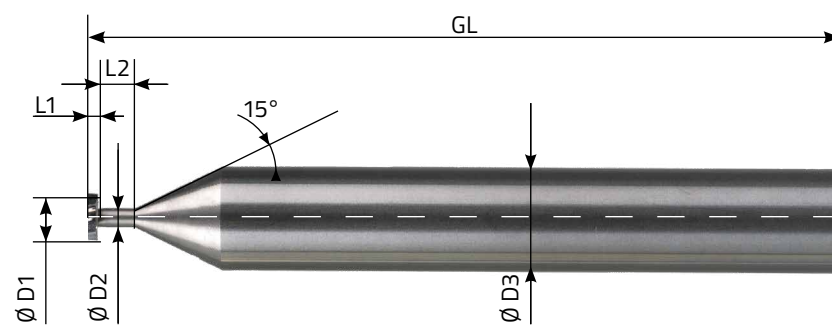
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z13	.00	.01	.02	.03	.ZG	.ZD
Z13		.01			.ZG	

T-SLOT 16



ACTIONMILL
T-SLOT
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.16
D1
D2
L1
L2
Blank or coated
D3h6
Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
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- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.YYYY.WWWW.LLLL	D1 (mm) XXXX	D2 (mm) YYYY	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm) LLL	GL (mm)
AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.16	Ø14.0-Ø16.0	Ø7.0-Ø12.0	Ø16	0.5-16.5 mm	3.0-28 mm	101

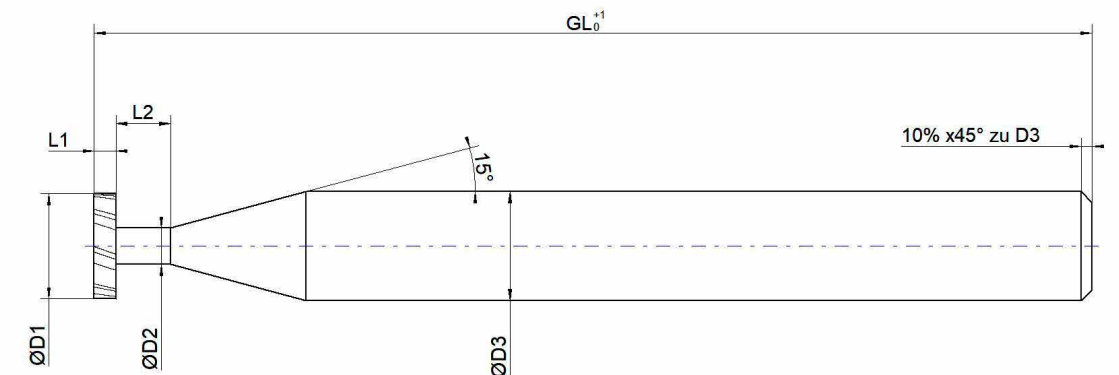
Example: T-Slot Ø12.0x6.0 mm; Neck Ø6.0x20.0 mm; Straight and α-INOX coated

AM.TS.1450.1000.0800.1400.02.ZD.16	14.5	10.0	16h6	8.0	14.0	101
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Minimum order quantity: 5 pieces

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

$D_1 = 14.0\text{mm} - 16.0\text{mm}$



Article number

(AM.TS.XXXX.YYYY.WWWW.LLLL.BB.ZZ.16): _____

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D₁ (XXXX)
Ø14.0-Ø16.0
L₁ (WWW)
0.5-16.5 mm
D₂ (YYY)
Ø7.0-Ø12.0
L₂ (LLL)
3.0-28 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

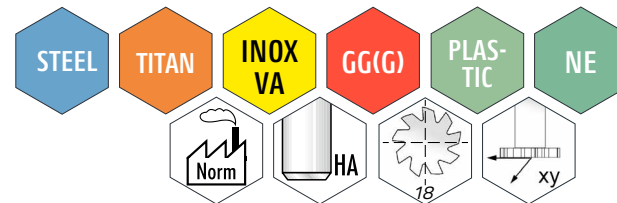
- Shank shape: HA
- Shank diameter D3h6: Ø16
- Raw material: R_HB.160.1010.h6
- Overall length: 101
- Amount of flutes: Z15

Minimum order quantity from 5 pieces:

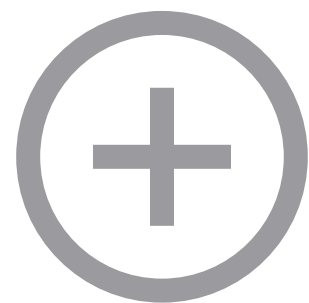
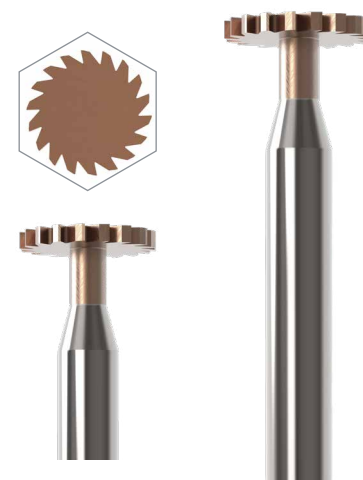
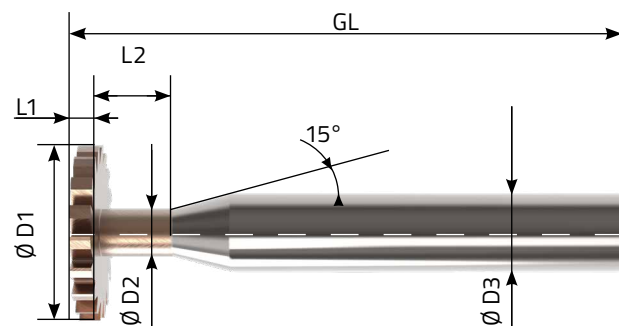
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z15	.00	.01	.02	.03	.ZG	.ZD
Z15			.02			.ZD

T-SLOT 20



ACTIONMILL
T-SLOT
D1 L1 Blank or coated
AM.TS.XXXX.WWWW.BB.ZZ.20 ← D1 max
Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.WWWW	D1 (mm) XXXX	D2 (mm)	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm)	GL (mm)
AM.TS.XXXX.WWWW.BB.ZZ.20	Ø16.1-Ø20.2	Ø6	Ø10 h6	2.0-3.0 mm	min. 9	70

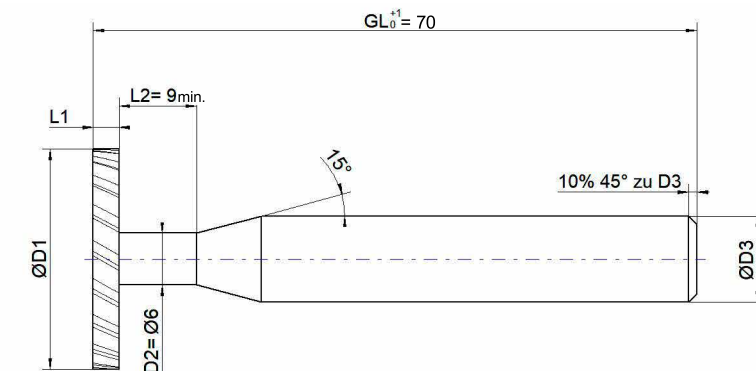
Example: T-slot cutter Ø17.5 x 2.0 mm, neck Ø6.0 x 9.0mm, helical and α-Inox coated

AM.TS.1750.0200.01.ZD.20	17.5	6	10h6	2.0	9	70
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Minimum order quantity: 3 pieces

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

D₁ = 16.1mm - 20.2mm



Article number

(AM.TS.XXXX.WWWW.BB.ZZ.20): _____

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXXX.WWWW):

D₁ (XXXX) L₁ (WWW)
Ø16.1-Ø20.2 2.0-3.0 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

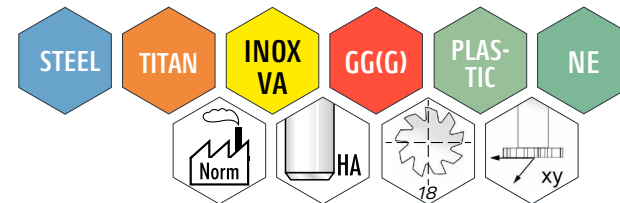
- Shank shape: HA
- Shank diameter D3h6: Ø10
- Raw material: 2017440-2
- Overall length: 70
- Amount of flutes: Z18

Minimum order quantity from 3 pieces:

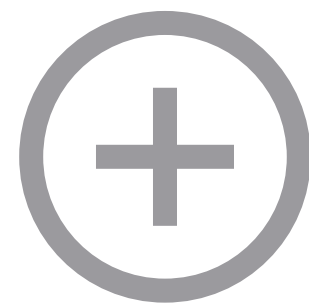
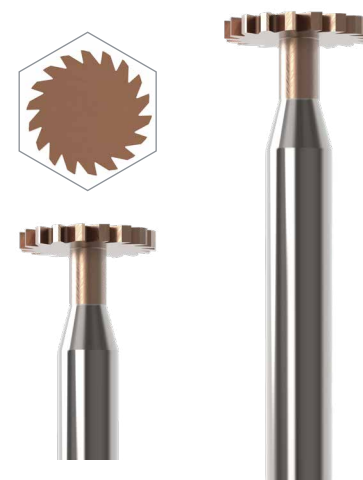
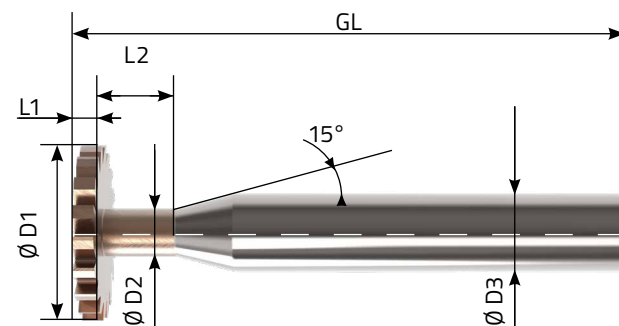
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z18	.00	.01	.02	.03	.ZG	.ZD
Z18		.01				.ZD

T-SLOT 25



ACTIONMILL
T-SLOT
D1 L1 Blank or coated
AM.TS.XXXX.WWWW.BB.ZZ.25 ← D1 max
Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.WWWW	D1 (mm) XXXX	D2 (mm)	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm)	GL (mm)
AM.TS.XXXX.WWWW.BB.ZZ.25	Ø20.2-Ø25.2	Ø6	Ø10 h6	2.0-3.0 mm	min. 9	70

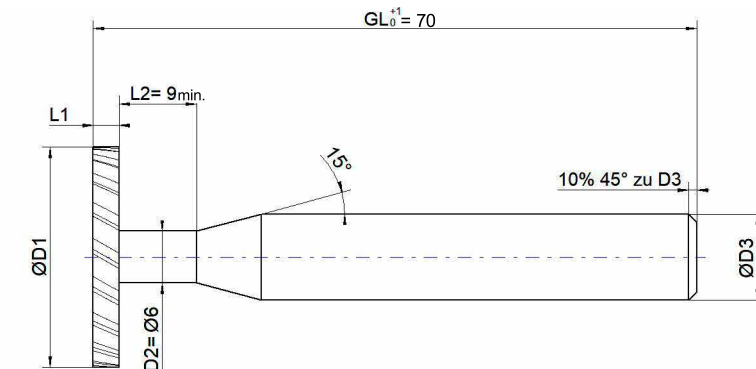
Example: T-Slot Ø23.5 x 2.5 mm, Neck Ø6.0 x 9.0mm, Helical flutes and blank (uncoated)

AM.TS.2350.0250.00.ZD.25	23.5	6	10h6	2.5	9	70
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Minimum order quantity: 3 pieces

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

D₁ = 20.2mm - 25.2mm



Article number

(AM.TS.XXXX.WWWW.BB.ZZ.25): _____

☐ Inquiry

☐ Order

Order number: _____

Other: _____

Dimensions (XXXX.WWWW):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø20.2-Ø25.2 2.0-3.0 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

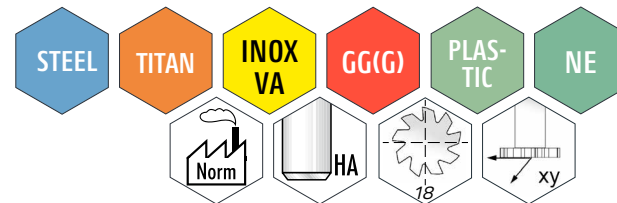
- Shank shape: HA
- Shank diameter D3h6: Ø10
- Raw material: 201744 1-2
- Overall length: 70
- Amount of flutes: Z18

Minimum order quantity from 3 pieces:

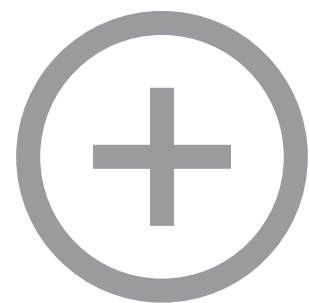
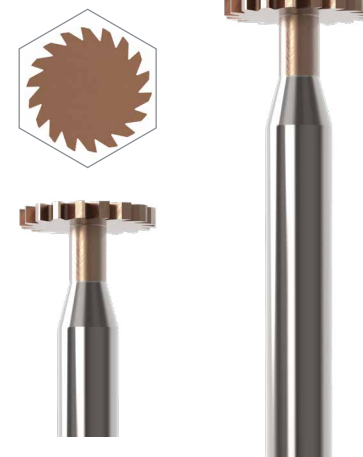
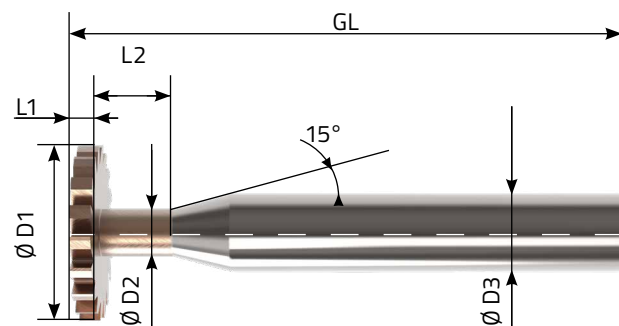
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z18	.00	.01	.02	.03	.ZG	.ZD
Z18	.00					.ZD

T-SLOT 30



ACTIONMILL
AM.TS.XXXX.WWWW.BB.ZZ.30
T-SLOT
D1 L1 Blank or coated
D1 max
Straight or helical flutes



5 PRO's of the ACTIONMILL:

- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.WWWW	D1 (mm) XXXX	D2 (mm)	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm)	GL (mm)
AM.TS.XXXX.WWWW.BB.ZZ.30	Ø25.2-Ø30.2	Ø6	Ø10 h6	2.5-4.0 mm	min. 9	80

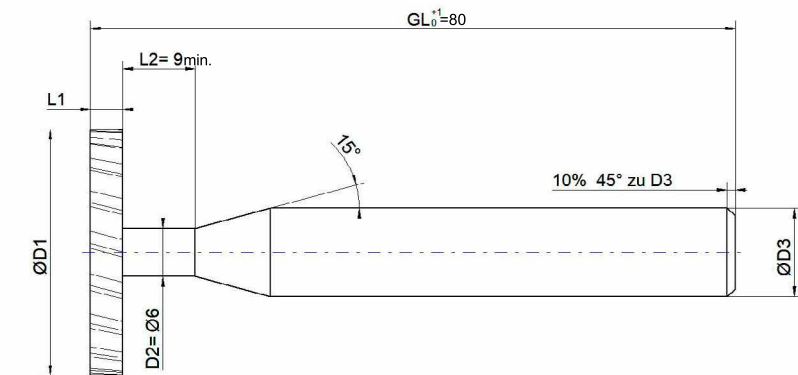
Example: T-Slot Ø28.25 x 3.8 mm, Neck Ø6.0 x 9.0mm, Straight flutes and β-Titan coated

AM.TS.2825.0380.02.ZG.30	28.25	6	10h6	3.8	9	80
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Minimum order quantity: 3 pieces

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

$D_1 = 25.2\text{mm} - 30.2\text{mm}$



Article number

(AM.TS.XXXX.WWWW.BB.ZZ.30): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.YYYY.WWWW.LLLL):

D1 (XXXX) _____ L1 (WWW) _____
Ø25.2-Ø30.2 2.5-4.0 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

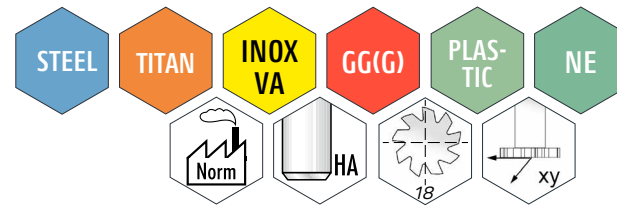
- Shank shape: HA
- Shank diameter D3h6: Ø10
- Raw material: 2018639-2
- Overall length: 80
- Amount of flutes: Z18

Minimum order quantity from 3 pieces:

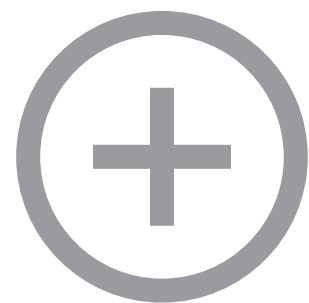
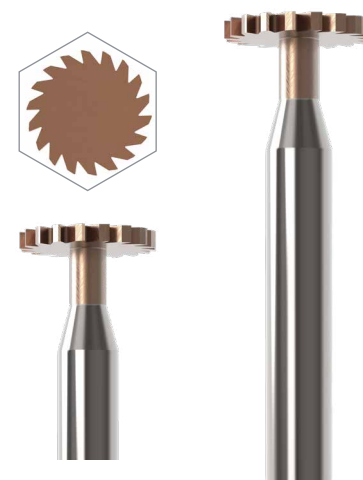
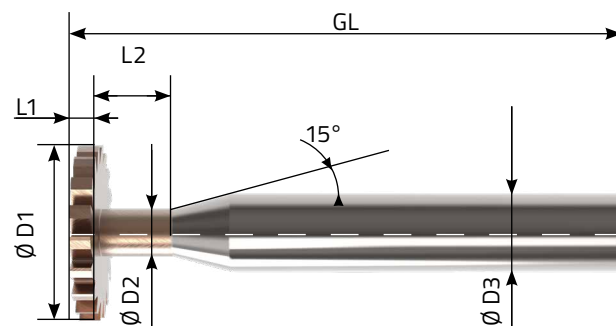
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z18	.00	.01	.02	.03	.ZG	.ZD
Z18			.02		.ZG	

T-SLOT 40



ACTIONMILL
T-SLOT
D1 L1 Blank or coated
AM.TS.XXXX.WWWW.BB.ZZ.40 ← D1 max
Straight or helical flutes



5 PRO's of the ACTIONMILL:

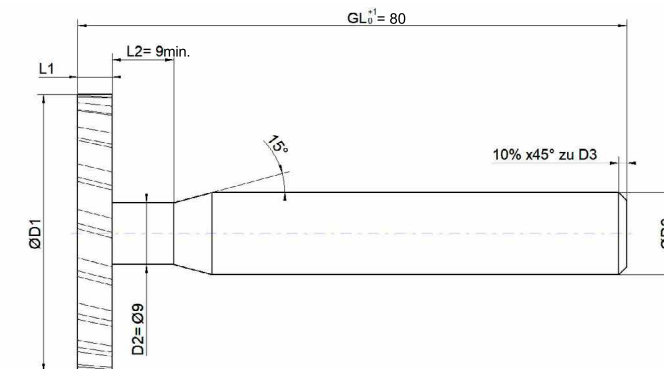
- Quickly available, semi-standardized T-slot mill
- Micro and macro geometry at the highest level
- High performance at a very good price-performance ratio
- Perfect for individualized applications
- Specialized also for difficult-to-cut materials

Article number XXXX.WWWW	D1 (mm) XXXX	D2 (mm)	D3 h6 (mm)	L1 ±0.005 (mm) WWW	L2 (mm)	GL (mm)
AM.TS.XXXX.WWWW.BB.ZZ.40	Ø30.2-Ø40.2	Ø9	Ø12	3.0-5.0 mm	min. 9 mm	80

Example: T-Slot Ø39.0 x 4.7 mm, Neck Ø9.0 x 9.0mm, Straight and γ-Steel coated

AM.TS.3900.0470.03.ZG.40	39.0	9	12	4.7	9	80
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D₁ = 30.2mm - 40.2mm



Article number

(AM.TS.XXXX.WWWW.BB.ZZ.40): _____

☐ Inquiry

☐ Order

Order number: _____ Other: _____

Dimensions (XXXX.WWWW):

D₁ (XXXX) _____ L₁ (WWW) _____
Ø30.2-Ø40.2 3.0-5.0 mm

Material to be machined _____

Coating (BB):

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

Flute form (ZZ):

- ☐ (.ZG) Straight
☐ (.ZD) Helical

Product attributes:

- Shank shape: HA
- Shank diameter D3h6: Ø12
- Raw material: 2017442-2
- Overall length: 80
- Amount of flutes: Z18

Minimum order quantity from 3 pieces:

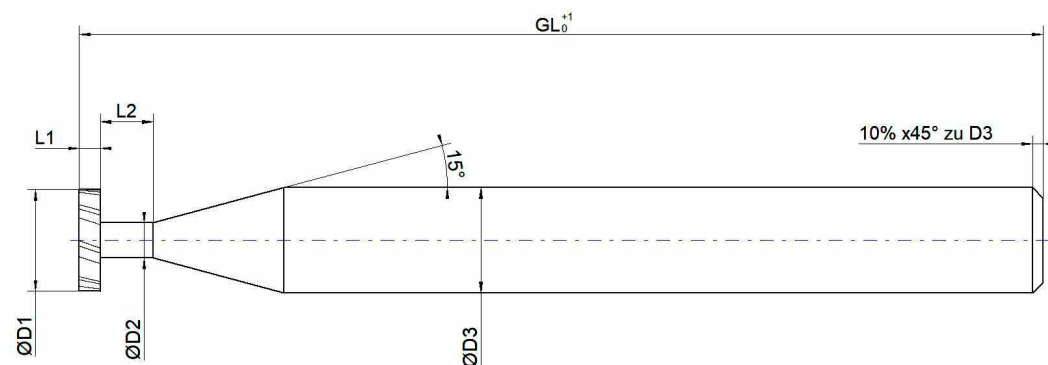
* Without further information, the most suitable coating will be used.

Z	blank BB	α-INOX BB	β-Titan BB	γ-Steel BB	Z-Straight ZZ	Z-Helix ZZ
Z18	.00	.01	.02	.03	.ZG	.ZD
Z18				.03	.ZG	

Minimum order quantity: 3 pieces

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

Classic



Corner alignment "sharp" = 0.004 mm - 0.01 mm rounded
(cutting edge protection)

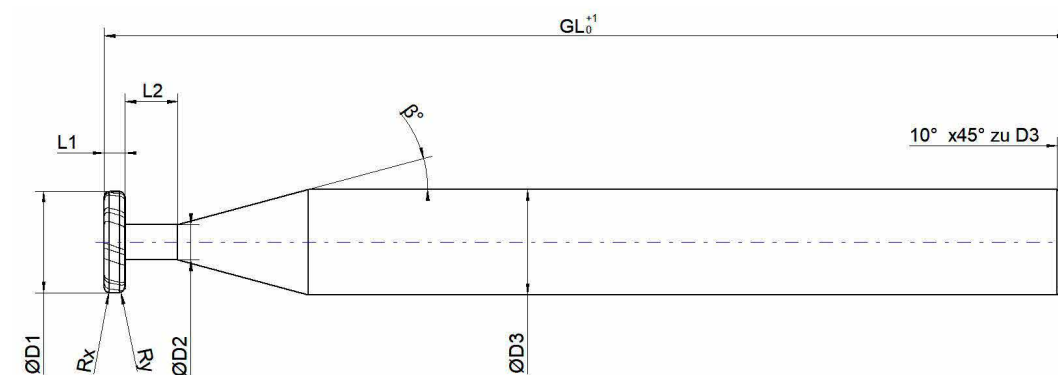
☐ Inquiry

☐ Order Order number: _____ Other: _____

Dimensions: D ₁ : _____ GL: _____ D ₂ : _____ L ₁ : _____ D ₃ : _____ L ₂ : _____ Z: _____ β: _____	Flute form (ZZ): ☐ Straight ☐ Helical	Coating: ☐ Coated*: _____ ☐ Uncoated	With cooling channels? ☐ Yes ☐ No Cutting direction: ☐ Left ☐ Right
Material to be machined: _____		Shank shape: _____	Quantity: _____
Date, signature & company stamp: _____			Contact person: _____

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

Corner radius



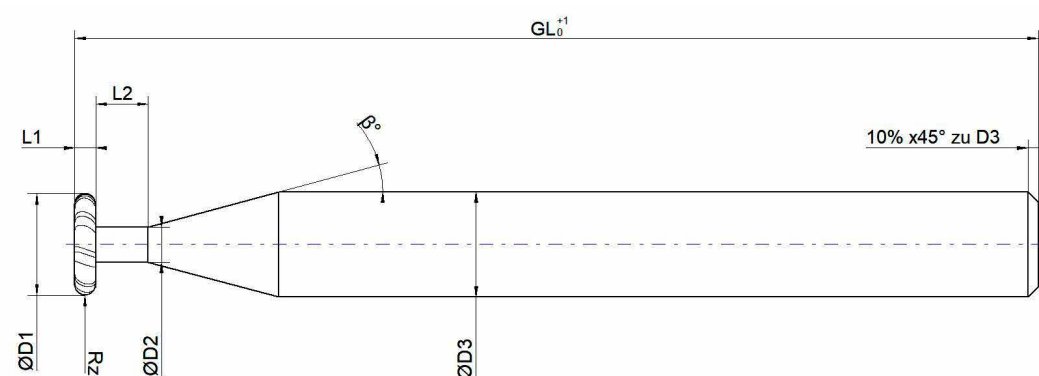
☐ Inquiry

☐ Order Order number: _____ Other: _____

Dimensions: D ₁ : _____ GL: _____ β: _____ D ₂ : _____ L ₁ : _____ R _x : _____ D ₃ : _____ L ₂ : _____ R _y : _____ Z: _____	Coating: ☐ Coated*: _____ ☐ Uncoated	With cooling channels? ☐ Yes ☐ No Cutting direction: ☐ Left ☐ Right
Material to be machined: _____	Shank shape: _____	Quantity: _____
Date, signature & company stamp: _____		Contact person: _____

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

Full radius



☐ Inquiry

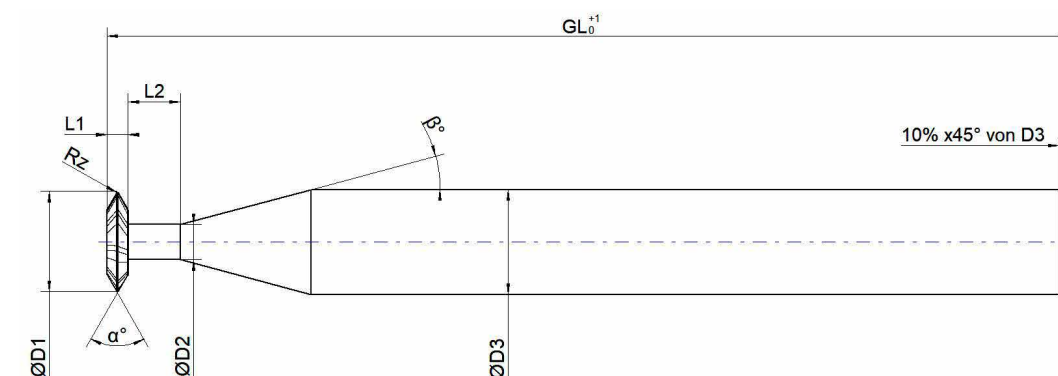
☐ Order

Order number: _____ Other: _____

Dimensions: D ₁ : _____ GL: _____ β: _____ D ₂ : _____ L ₁ : _____ R _Z : _____ D ₃ : _____ L ₂ : _____ Z: _____	Coating: ☐ Coated*: _____ ☐ Uncoated	With cooling channels? ☐ Yes ☐ No Cutting direction: ☐ Left ☐ Right
Material to be machined: _____	Shank shape: _____	Quantity: _____
Date, signature & company stamp: _____		Contact person: _____

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

Prism



Corner alignment "sharp" = 0.004 mm - 0.01 mm rounded
(cutting edge protection)

☐ Inquiry

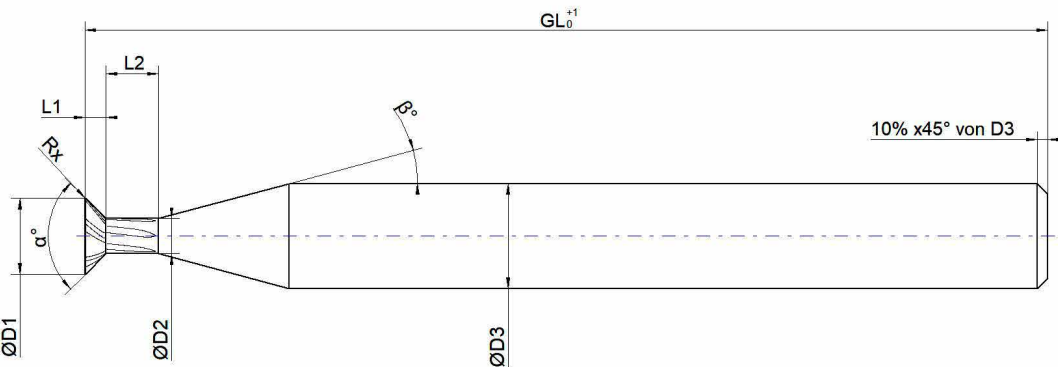
☐ Order

Order number: _____ Other: _____

Dimensions: D ₁ : _____ GL: _____ α: _____ D ₂ : _____ L ₁ : _____ β: _____ D ₃ : _____ L ₂ : _____ R _Z : _____ Z: _____	Coating: ☐ Coated*: _____ ☐ Uncoated	With cooling channels? ☐ Yes ☐ No Cutting direction: ☐ Left ☐ Right
Material to be machined: _____	Shank shape: _____	Quantity: _____
Date, signature & company stamp: _____		Contact person: _____

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

Dovetail



Corner alignment "sharp" = 0.004 mm - 0.01 mm rounded
(cutting edge protection)

☐ Inquiry

☐ Order

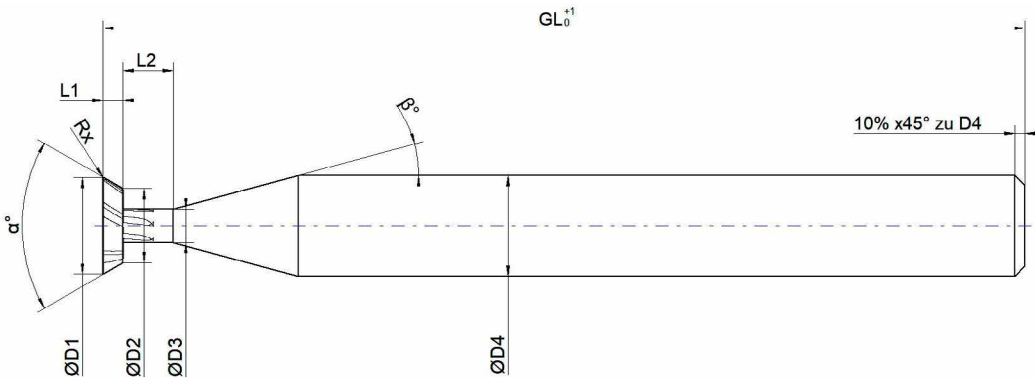
Order number: _____

Other: _____

Dimensions: D ₁ : _____ GL: _____ α: _____ D ₂ : _____ L ₁ : _____ β: _____ D ₃ : _____ L ₂ : _____ R _x : _____ Z: _____	Coating: ☐ Coated*: _____ ☐ Uncoated	With cooling channels? ☐ Yes ☐ No Cutting direction: ☐ Left ☐ Right
Material to be machined: 	Shank shape: 	Quantity:
Date, signature & company stamp: 		Contact person:

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

Conical



Corner alignment "sharp" = 0.004 mm - 0.01 mm rounded
(cutting edge protection)

☐ Inquiry

☐ Order

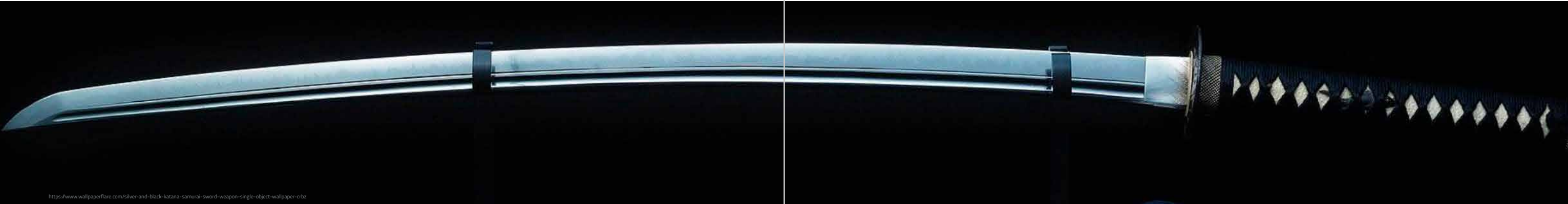
Order number: _____

Other: _____

Dimensions: D ₁ : _____ GL: _____ α: _____ D ₂ : _____ L ₁ : _____ β: _____ D ₃ : _____ L ₂ : _____ R _x : _____ D ₄ : _____ Z: _____	Coating: ☐ Coated*: _____ ☐ Uncoated	With cooling channels? ☐ Yes ☐ No Cutting direction: ☐ Left ☐ Right
Material to be machined: 	Shank shape: 	Quantity:
Date, signature & company stamp: 		Contact person:

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

Your used precision tool is in the best hands with us.



High-quality tools such as T-slot cutters, drills, countersinks, centering drills and reamers only perform perfectly if the cutting edges are always optimally sharpened. Where regrinding is possible, the price drops significantly for the second and third use of the cutting tools. No new raw material is required; only the cutting edges are resharpened and refined. With the HB microtec regrinding service, we ensure that cost efficiency is achieved through high-quality reconditioning of worn tool cutting edges.

We carry out precise regrinding on state-of-the-art CNC grinding machines. We increase the service life of our tools with a specially developed cutting edge preparation. All our standardized and special tools are reconditioned using the same machines, the same processes and the same coatings. We can offer this service for all our own and related (e.g. our partner manufacturers') cutting tools.

Our customers receive a transport-safe plastic box for shipping the tools to be reground, in which you can collect your worn tools. Then simply send us your tools for resharpening, or we will collect them from you by arrangement.

HB microtec expertise at a glance:

- Tool reconditioning to perfection
- Competent customer care and advice
- Everything from a single source: grinding, edge treatment and coating
- Original regrinding with the original geometry and coating of our own products
- Highest quality: 99% of the original HB microtec or partner tool
- Inspection report service for special tools
- Check for regrindability
- Short delivery time
- Best price guarantee - transparent pricing
- Pick-up and delivery service

Advantages that will convince you!

Would you like to learn more about our regrinding service for your tools?

Our experts will be happy to advise you.
Call +49 7461 1657280 or
Write to us at kontakt@hb-microtec.de



NEW SHARPNESS IN JUST 4 STEPS



CONTACT

Contact us if you have tools for regrinding.



RECEIVE BOX

You will receive your personal regrinding box for shuttle shipping.



PACK TOOLS

Pack the tools properly and send them to us.



TRANSPORT

We regrind your tools and send them back to you

ACTIONMILL regrinding
99% like new!
Possible from D1= Ø4.00 mm!



Consulting and Service

We provide practical advice to our customers on the entire manufacturing process. In addition to selecting suitable drilling, turning, milling and deburring tools, this also covers machining strategies and programming.

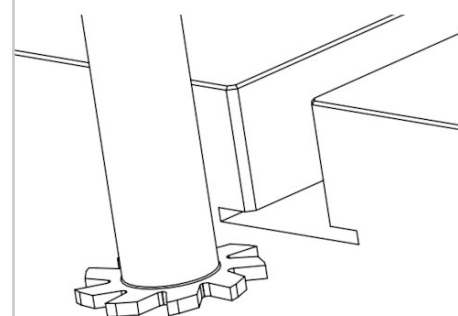
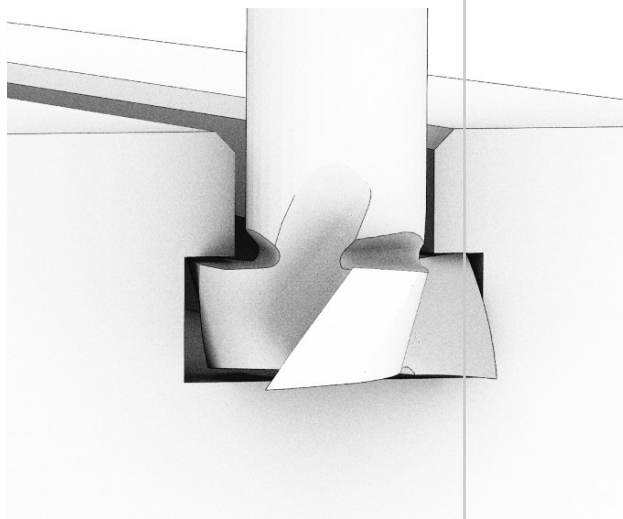
With our process-oriented and holistic solutions and our complete machining service, we are your ideal partner.

Our comprehensive services also make us a convincing OEM partner for machine tools.

Core competencies

- Comprehensive engineering
- Design of machining processes and cutting tools
- Concepts, project planning, design and manufacture of special tools
- Optimization of processes and machining strategies with the aim of process reliability, shorter run times and accuracy
- CNC and CAM programming (Solid CAM)
- Specialist seminars in turning, milling, drilling
- Fundamental technological tests for drilling, milling or turning
- Practical feasibility studies and tests
- Contract grinding and prototype manufacturing of medical technology tools

We support you with sound technical advice and assistance. Make use of our extensive know-how. We master every challenge with passion and find the right solution for every machining task!



Technical advice included in the price!

With our ACTIONTOOLS® and TARGETTOOLS®, you get more than just a "micro" tool catalog from us. Expert advice is in demand – and this is precisely where the tool specialists at HB microtec shine.

We have very broad machining knowledge and sound training in the use of your "ACTION" & "TARGET" tools on a wide variety of machine tool types. Whether CNC machining centers, single- or multi-spindle automatic lathes, short- and long-turning machines or transfer machines – we work with you to define the necessary requirements in order to create the best conditions for an optimal result.

For us, customer satisfaction means that the customer has not only received a good tool, but that everything is right in the end.

This includes not only a good price-performance ratio, but also competent technical advice when buying tools and on-site support when setting up and programming the machine.

Our advice starts with questions such as:

- Which material do you machine?
- Which coolant do you use?
- What is the maximum speed of your machine?
- Which machine tool types do you use?
- What are the kinematic conditions in the overall process? (Vibrations, strategy)
- Which programming system do you use? (Control? CAM?)
- Which clamping devices are used? (For the tool and the workpiece)
- Which tolerance range must the hole be in?
- Which batch size is to be machined?

Description	Formula	Legend
Speed	$n = \frac{V_c \cdot 1000}{D \cdot \pi}$ [1/min]	D = Mill diameter
Cutting speed	$V_c = \frac{D \cdot \pi \cdot n}{1000}$ [m/min]	Dc = Cutting diameter
Feed per flute	$f_z = \frac{f}{z} = \frac{V_f}{z \cdot n}$ [mm/U]	ae = Radial cutting width
Feed per revolution	$V_f = f_z \cdot z \cdot n$ [mm/U]	ap = Axial cutting depth
Feed rate	$f = f_z \cdot n$ [mm/min]	fz = Feed per flute
Chip removal rate	$Q = \frac{a_p \cdot a_e \cdot V_f}{1000} \left[\frac{cm^3}{min} \right]$	z = Number of flutes
Mean chip thickness (face & shoulder milling) wenn 1)	$h_m = f_z \sqrt{\frac{a_e}{D_c}} = mm$	n = Revolutions per min.
Drive power	$Pa = \frac{a_p \cdot a_e \cdot V_f \cdot k_c}{60 \cdot 10^6 \cdot \eta_{mt}} = KW$	De = Effective cutting diameter
Mean chip thickness (wenn .1)	$h_m = \frac{\sin k_r \cdot 180 \cdot a_e \cdot f_z}{\pi \cdot D_c \cdot \arcsin(\frac{a_e}{D_c})} = mm$	Vc = Cutting speed
Machining time	$T_c = \frac{l}{V_f} = min$	Q = Metal removal rate
Conversions between systems	1 [mm]= .0394 [inch] 1 [m/min]= 3.28 [SFM] 1 [bar]= 14.5[psi]	I = Working length

Rm [N/mm²]	HV 10	HB	HRC	Rm [N/mm²]	HV 10	HB	HRC
240	75	71	-	920	287	273	28
255	80	76	-	940	293	278	29
270	85	81	-	970	302	287	30
285	90	86	-	995	310	295	31
305	95	90	-	1020	317	301	32
320	100	95	-	1050	327	311	33
335	105	100	-	1080	336	319	34
350	110	105	-	1110	345	328	35
370	115	109	-	1140	355	337	36
385	120	114	-	1170	364	346	37
400	125	119	-	1200	373	354	38
415	130	124	-	1230	382	363	39
430	135	128	-	1260	392	372	40
450	140	133	-	1300	403	383	41
465	145	138	-	1330	413	393	42
480	150	143	-	1360	423	402	43
495	155	147	-	1400	434	413	44
510	160	152	-	1440	446	424	45
530	165	157	-	1480	458	435	46
545	170	162	-	1530	473	449	47
560	175	166	-	1570	484	460	48
575	180	171	-	1620	497	472	49
595	185	176	-	1680	514	488	50
610	190	181	-	1730	527	501	51
625	195	185	-	1790	544	517	52
640	200	190	-	1845	560	532	53
660	205	195	-	1910	578	549	54
675	210	199	-	1980	596	567	55
690	215	204	-	2050	615	584	56
705	220	209	-	2140	639	607	57
720	225	214	-	-	655	622	58
740	230	219	-	-	675	-	59
755	235	223	-	-	698	-	60
770	240	228	-	-	720	-	61
785	245	233	-	-	745	-	62
800	250	238	22	-	773	-	63
820	255	242	23	-	800	-	64
835	260	247	24	-	829	-	65
860	268	255	25	-	864	-	66
870	272	258	26	-	900	-	67
900	280	266	27	-	940	-	68

"Install and ACTION!"

Because this is exactly what the worry-free cutting tools of the ACTIONMILL® range make possible! Or tools from the TARGETMILL® range that hit the target precisely!

High performance down to the last µm!

This way, the cost-benefit factor is perfectly tailored to you. Demanding and innovative high-performance mills of the highest quality require continuity – not only in production, but from the entire HB microtec team!

Repeatable!

This covers the entire process chain, from geometry development and design to the pre-treatment of the cutting edges, coating and finishing of the surfaces, right through to quality assurance of our ACTIONMILL® and TARGETMILL® tools.

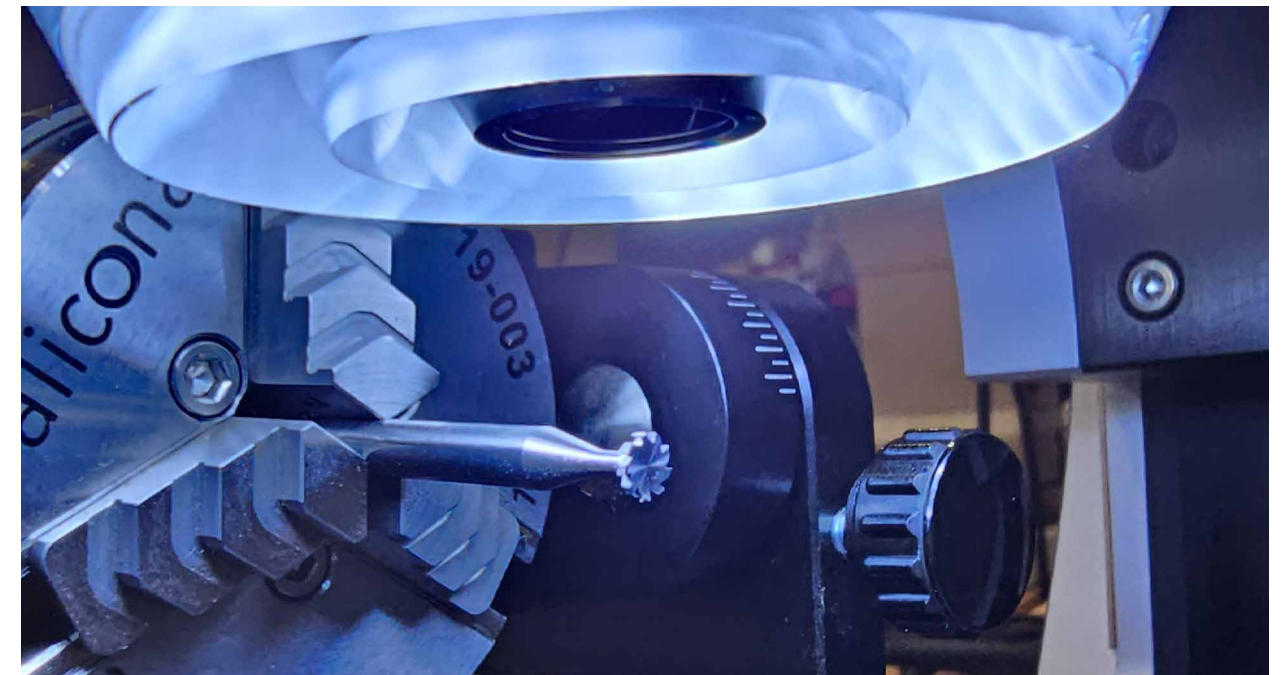


What to expect from the entire HB microtec team:

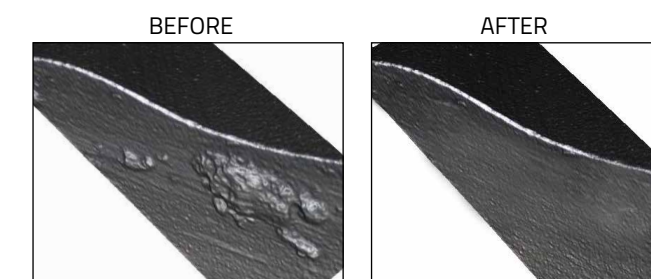
- Innovative specialists in "micro" machining
- State-of-the-art manufacturing equipment and measuring instruments, enabling production in the micron range
- Motivation and passion for challenges
- Repeated precision in the µm range
- Practical service:
the HB microtec team accompanies and supports you in all phases and throughout the entire life cycle of your product
- High tool performance and high service competence
- E.g. ideas for customer-specific solutions, combination tools that often replace a number of individual tools and shorten machining time
- The highest possible standards of product quality
- Guaranteed series tool reliability and traceability (ISO 9001 certified)



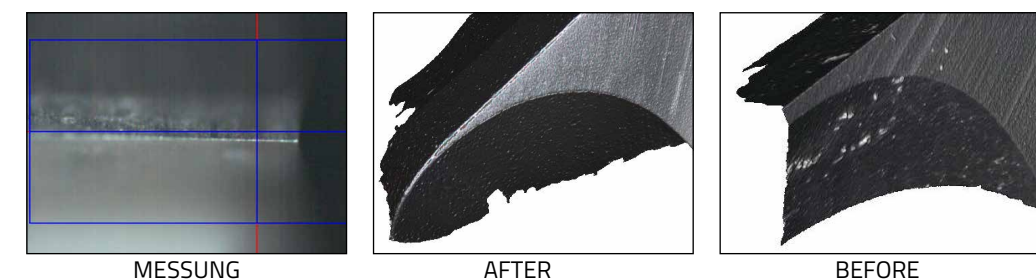
Cutting edge quality



Surface and edge preparation



Cutting edge and surface in detail



Number	Icon	Description
1		Material: Steel
2		Material: Titanium
3		Material: INOX
4		Material: Cast iron
5		Material: Plastic
6		Non-ferrous metal
7		Works standard HB microtec
8		Shank design HA
9		Integrated cooling With integrated cooling
10		Cutting edges
11		Cutting direction xy

We love challenges!

Put us to the test and send us your requirements today! At HB microtec, we love challenges – and the more special they are, the clearer it becomes that we can deliver the unique features you are looking for.

Call +49 7461 1657280 or write to us at kontakt@hb-microtec.de



ACTIONMILL®
by HB microtec
T-SLOT cooled

ACTIONMILL®
by HB microtec
T-SLOT



HB microtec®
ACTIONTOOLS & ENGINEERING

HB microtec GmbH & Co. KG

Bischof-Sproll-Straße 6

78532 Tuttlingen

Germany

Tel. +49 7461 1657280

Fax +49 7461 1657281

Email kontakt@hb-microtec.de

Web www.HB-microtec.de

