

MODUL[®] turn

modular boring bar system
with internal cooling





PEOPLE

Cooperate in fair partnership



AMBITION

Question yesterday to provide new solutions for today and tomorrow



SYNERGY

Share our strength

Corporate philosophy

PEOPLE – AMBITION – SYNERGY

These 3 components are the foundation for the success of MAS GmbH.

Trust the experts with more than 40 years of experience in cutting technologies. The specialists with the most modern equipment for the development, design and manufacture of tools. The partners who discover synergies between man and technology and who are able to harness them for your success.

The utmost objective of every project is our customers' and partners' success. Our own success goes hand in hand.

This is and will remain our guide for the future!





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MODUL[©]turn



Benefits and Features

- Joints with various diameters Ø 20 / 25 / 32 / 40 / 60
- Cutter head available as right-hand/left-hand version
- Vibration-absorbing shank available
- Safety mounting system - non interchangeable, engaging components
- MEX[©]turn compatible with Ø 20
- Suitable for machining of soft and hard materials
- Special-purpose cutting head und special shank lengths available
- Standard version with internal cooling
- Modular boring bar system

System of order numbers

Examples

Cylindrical shank

MODUL©turn	1	2	3
MT	-Z	-D25	-90A

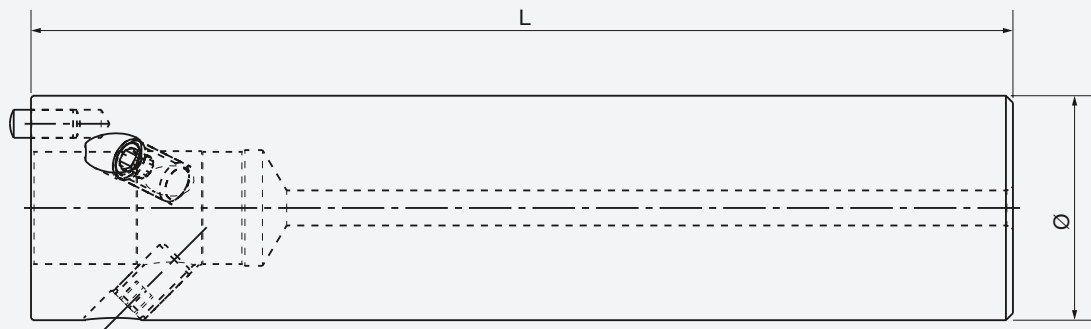
Cutter head

MODUL©turn	1	2	3
MT	-K	-D25	-SCLCR-11025-09

Designation system

1	<p>Z Cylindrical shank</p> <p>C... Shank with PSK joint and version (e.g. C5)</p> <p>H... Shank with HSK joint and version (e.g. HSKA63)</p> <p>V VDI shank (e.g. VDI25)</p> <p>K Cutter head</p> <p>A Positioning head</p> <p>E Extension</p>
2	D: Joint diameter Ø
3	<p>For shanks: Length and material A=steel / E= carbide metal / I= heavy metal</p> <p>For cutting heads: Insert type; clamping; mounting position; dimensions F and L; insert size</p>
X	Code for special product

Shank versions



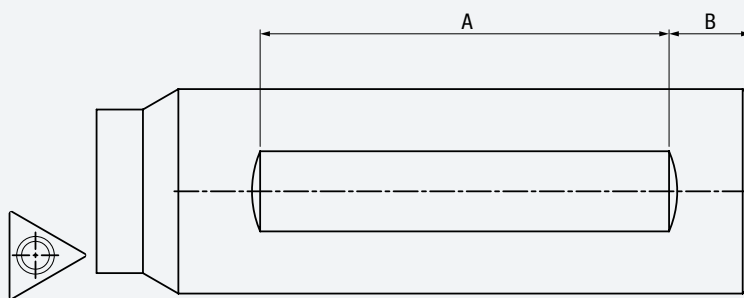
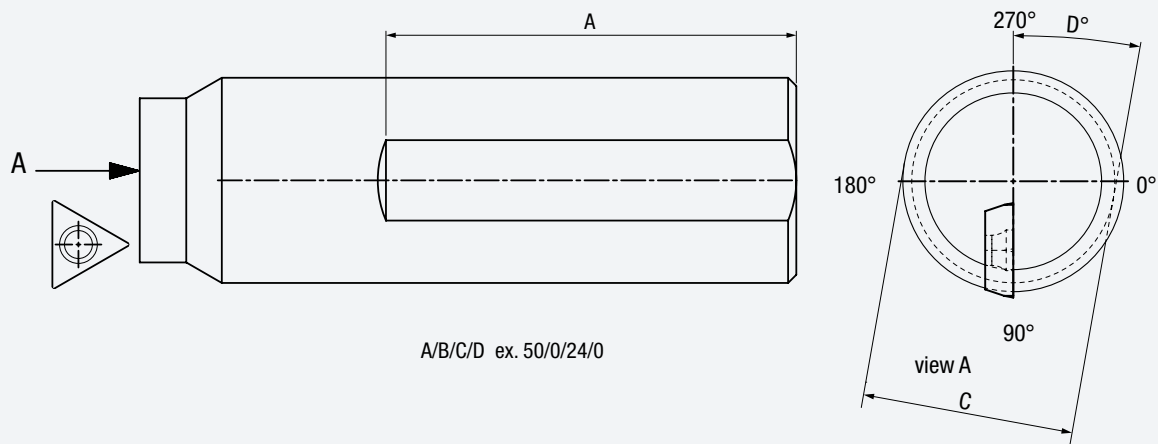
- Versions in steel / heavy metal / carbide metal
- Cylindrical shank series without clamping surface
- Special lengths available on request
- Polygonal taper shank (PSK) and HSK available on request
- Shortening of the standard shaft length*
- Clamping surface* can be mounted on request (see page 7) → but not recommended

*surcharge

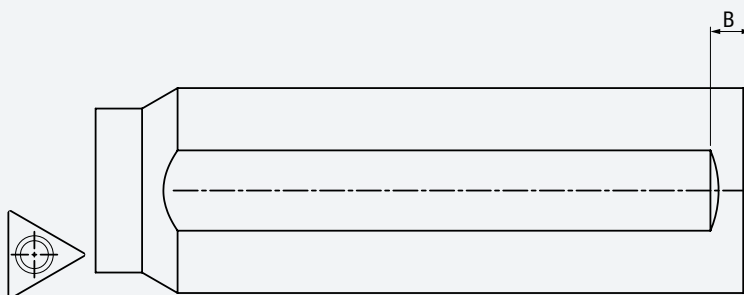
Ø	Order number steel	Order number Heavy metal	Order number Carbide metal	Setscrew	Cutting blade pin
20	MT-Z-D20-90A MT-Z-D20-140A MT-Z-D20-180A	MT-Z-D20-90I MT-Z-D20-140I MT-Z-D20-180I	MT-Z-D20-180E	M5 x 0.5 x 6 3.0 Nm	3M6 x 8
25	MT-Z-D25-90A MT-Z-D25-140A	MT-Z-D25-90I MT-Z-D25-140I	MT-Z-D25-220E	M5 x 0.5 x 8 3.0 Nm	3M6 x 8
32	MT-Z-D32-90A MT-Z-D32-140A MT-Z-D32-200A	MT-Z-D32-90I MT-Z-D32-140I MT-Z-D32-200I	MT-Z-D32-260E	M6 x 10 5.0 Nm	4M6 x 10

- Positioning head, see page 13

MAS clamping surface standard



A/B/C/D ex. 50/5/24/0



A/B/C/D ex. 0/5/24/0

Cutter head

SCLC series

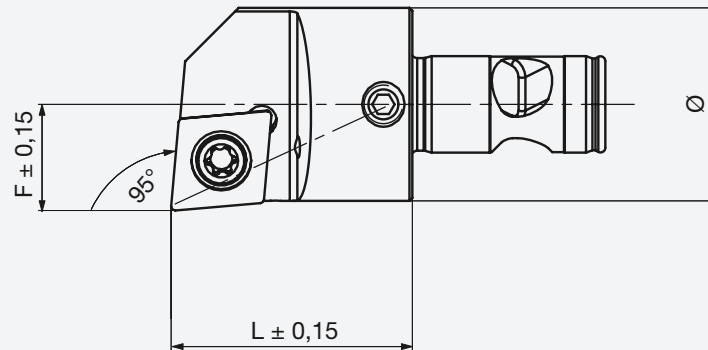


Illustration shows the right-hand version.

Ø	F	L	D _{min}	Indexable insert	Order number	Screw
20	11	25	21	CC...09T3	MT-K-D20-SCLCR/L-11025-09	BFTX03588
25	17	25	30	CC...09T3	MT-K-D25-SCLCR/L-17025-09	BFTX03588
32	22	25	38	CC...09T3	MT-K-D32-SCLCR/L-22025-09	BFTX03588

- Positioning head, see page 13

SDUC series

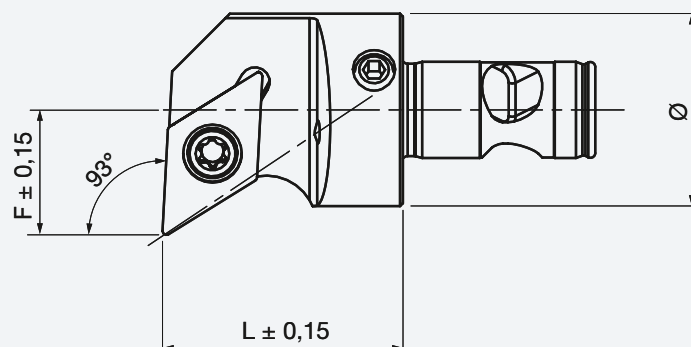


Illustration shows the right-hand version.

Ø	F	L	D _{min}	Indexable insert	Order number	Screw
20	13	25	23	DC...11T3	MT-K-D20-SDUCR/L-13025-11	BFTX03588
25	17	25	30	DC...11T3	MT-K-D25-SDUCR/L-17025-11	BFTX03588
32	22	25	38	DC...11T3	MT-K-D32-SDUCR/L-22025-11	BFTX03588

- Positioning head, see page 13

Cutter head

SDQC series

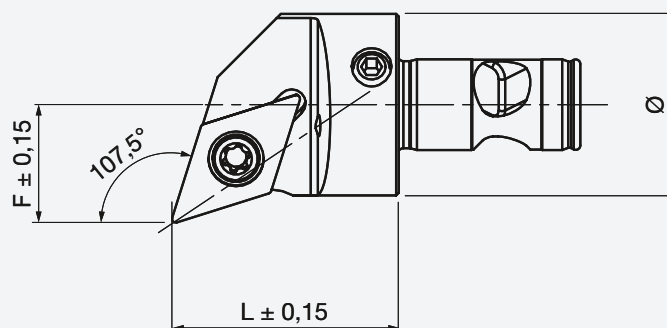


Illustration shows the right-hand version.

Ø	F	L	D _{min}	Indexable insert	Order number	Screw
20	13	25	23	DC...11T3	MT-K-D20-SDQCR/L-13025-11	BFTX03588
25	17	25	30	DC...11T3	MT-K-D25-SDQCR/L-17025-11	BFTX03588
32	22	25	38	DC...11T3	MT-K-D32-SDQCR/L-22025-11	BFTX03588

- Positioning head, see page 13

DCLN series

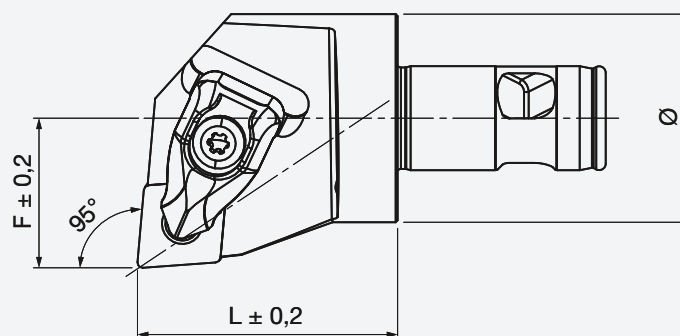


Illustration shows the right-hand version.

Ø	F	L	D _{min}	Indexable insert	Order number	Clamping set
25	17	40	30	CN...1204	MT-K-D25-DCLNR/L-17040-12	100-21
32	23	40	39	CN...1204	MT-K-D32-DCLNR/L-23040-12	100-21

- Positioning head, see page 13

Cutter head

SVPB series

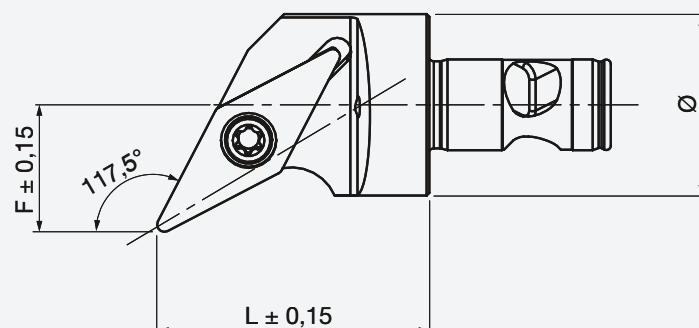


Illustration shows the right-hand version.

Ø	F	L	D _{min}	Indexable insert	Order number	Screw
20	14	30	24	VB...1604	MT-K-D20-SVPBR/L-14030-16	BFTX03588
25	17	30	30	VB...1604	MT-K-D25-SVPBR/L-17030-16	BFTX03588
32	22	30	38	VB...1604	MT-K-D32-SVPBR/L-22030-16	BFTX03588

- Positioning head, see page 13

CRXB series

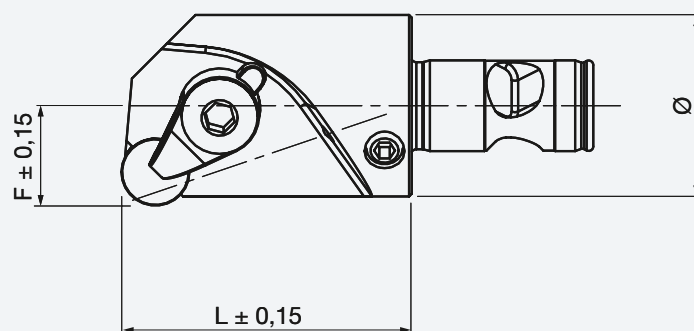


Illustration shows the right-hand version.

Ø	F	L	D _{min}	Indexable insert	Order number	Screw
20	11	32	21	RBGN075	MT-K-D20-CRXBR/L-11032-075	BFTX03588
25	17	32	30	RBGN075	MT-K-D25-CRXBR/L-17032-075	BFTX03588
32	22	32	38	RBGN075	MT-K-D32-CRXBR/L-22032-075	BFTX03588

- Positioning head, see page 13

Cutter head

Version SCXC 95°

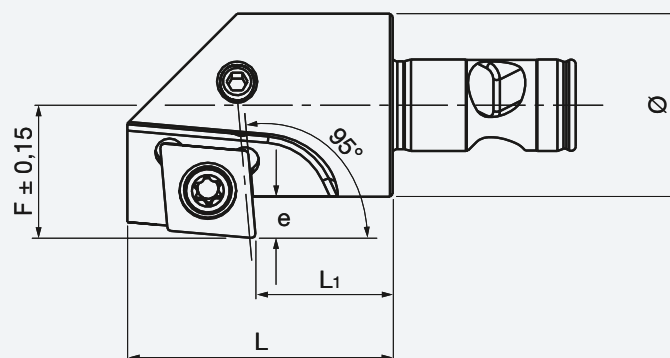


Illustration shows the right-hand version.

Ø	F	L	L ₁	D _{min}	e	Indexable insert	Order number	Screw
25	18	29	15	31	5.5	CC...09T3	MT-K-D25-SCXCR/L-18029-09	BFTX03588
32	23	29	15	39	7	CC...09T3	MT-K-D32-SCXCR/L-23029-09	BFTX03588

- Positioning head, see page 13

Version SDXC 95°

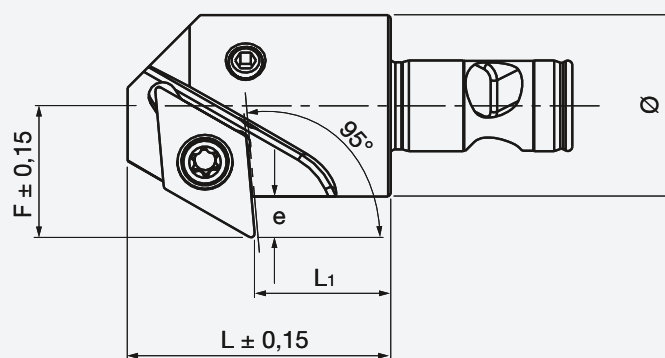


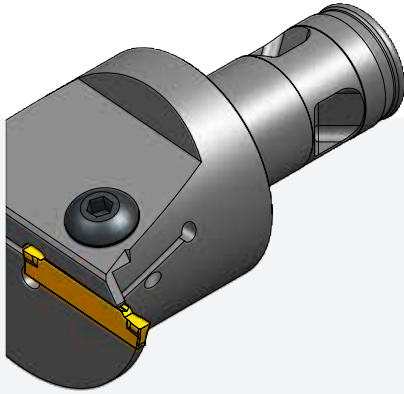
Illustration shows the right-hand version.

Ø	F	L	L ₁	D _{min}	e	Indexable insert	Order number	Screw
25	18	29	15	31	5.5	DC...11T3	MT-K-D25-SDXCR/L-18029-11	BFTX03588
32	23	29	15	39	7	DC...11T3	MT-K-D32-SDXCR/L-23029-11	BFTX03588

- Positioning head, see page 13

Special solutions

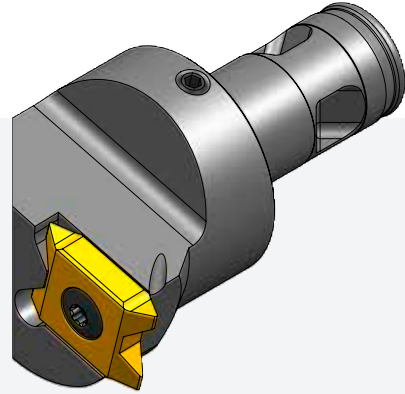
Examples



- Internal grooving

E1003

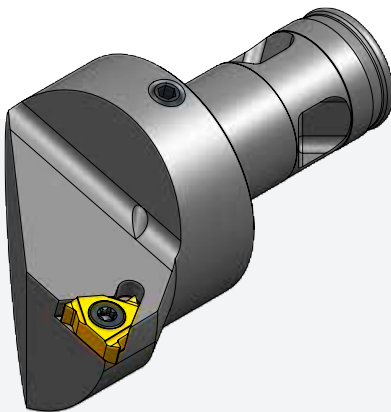
MT-K-D32-GNDR-22030-T206



- Inside thread also with CBN

E1046

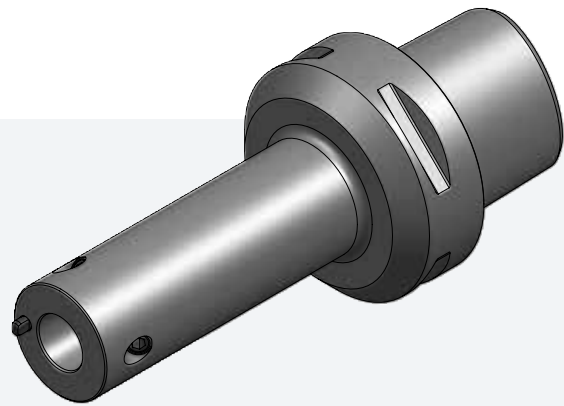
MT-K-D32-QNR-22030-20



- Inside thread soft

E1232

MT-K-D32-SGWER-22030-21



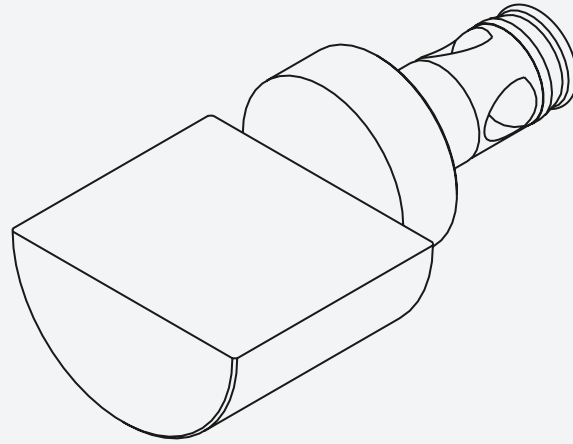
- Shank with PSC holder

E3394

MT-C5-D25-90A

Accessories

Positioning head



Ø	Order number - positioning head
20	MT-A-D20
25	MT-A-D25
32	MT-A-D32

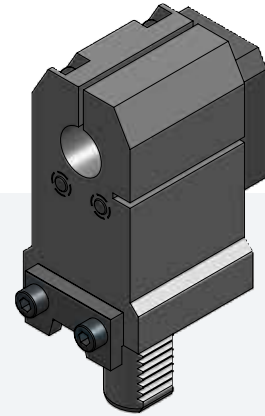
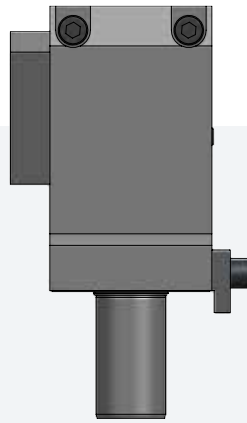
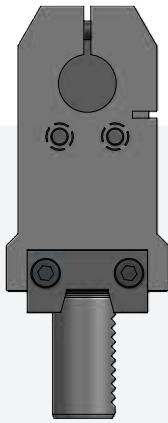
Tool holding holder for cylindrical shanks



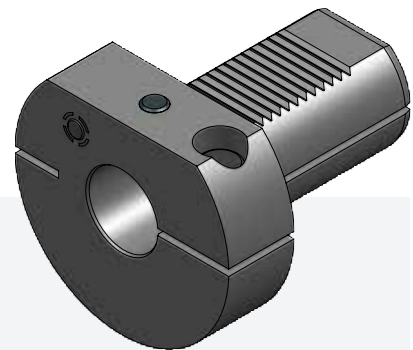
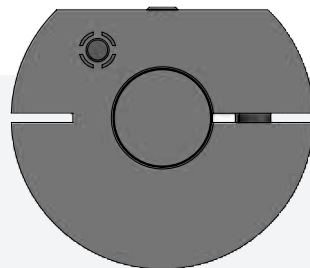
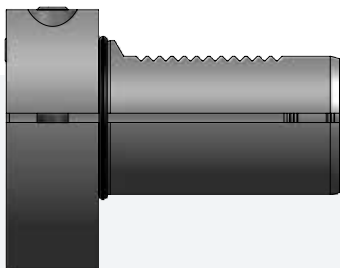
- Hydraulic expansion sleeves on request → additional vibration dampening
- Slotted and solid turret tool holder version available on request (see page 14)
- For detailed information, see ETP HYDRO-GRIP® catalog

Recommended tool holders

Examples



• VDI30 boring bar holder $\varnothing 25$



• VDI50 boring bar holder $\varnothing 32$

FOCUS ON TOOLS

Increased Cost Efficiency with Modular Boring Rods

Shanks and cutting heads can be combined with flexibility

Our MODUL©turn boring rod system provides high flexibility and minimal expense thanks to its modular design, because it enables shanks of steel, carbide or heavy metal to be combined with standardized cutting heads made of steel. Because shock absorption and stability are largely dictated by the material from which the shank is made, production facilities can professionally machine a full range of soft and hard materials simply with the right choice of the appropriate shanks. This reduces tool costs significantly. A cleverly designed connector enables the all-purpose cutting heads to be reliably replaced and clamped. Form-fit connection ensures that the cutting head and shank are fitted quickly, easily and in the right direction, providing you with additional reliability.



Whenever you need to machine a very wide range of workpiece geometries, whether made-to-order or in serial production, the MODUL©turn boring rod system always offers the best tool for the job with 20, 25, 32, 40 and 60 mm shank diameters. The all-purpose cutting heads also contribute to the high flexibility for a diverse range of different potential machining applications. Several designs support inserts designed specifically designed for the machining application in question or standardized indexable inserts, including round inserts. Insert seats milled to high precision and optional threaded or plug clamps ensure that the inserts remain stable. Aligned holes in the shank and cutting head enable an internal supply of coolant directly to the cutting edge for highly productive, reliable machining.

An all-purpose solution enabled by a broad range of tool holders and clamping shanks: the MODUL©turn boring rod system

To enable the modular boring rod system to be utilized with any commonly used turning or milling center, there are not only round shanks for clamping in hydraulic chuck sleeves but also designs with the commonly used VDI, tapered polygon (Capto) and HSK tool holders. At diameters of 20, 25 and 32 mm, shanks of 90 and 140 mm length are available, at a diameter of 32 mm, a 200 mm length is also available, at a diameter of 40 mm, 180 and 250 mm lengths are available, and at a diameter of 60 mm, 250 and 350 mm lengths are available as standard. For individual machining conditions and custom workpiece geometries, our specialists will design further lengths and shank diameters for the modular system.



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