

Standard Programme – Hydraulic Clamping  
**HYDRAULIC CHUCKS**



**WTE**  
MAPAL GROUP

# CLAMPING TECHNOLOGY



## The optimal clamping tool for every application

On using tools, their connection to the machine spindle, and therefore the clamping technology, plays a central role that is often undervalued.

On fine machining parts, very good results can be achieved with the highest radial run-out accuracies. The effect is very significant even on drilling or milling, as lower radial variations have a positive effect on tool lives.

Manufactured with the latest technology, the clamping technology programme from WTE offers the perfect solution for every application and a connection that ensures the tool has the necessary performance, radial run-out and change-

over accuracy in use. From the CNC precision drill chuck, through clamping tools with flange module, hydraulic and shrinking technology to adapters, the WTE standard programme covers a wide variety of systems and technologies. WTE offers a comprehensive standard programme also for machining with minimum quantity lubrication MQL.



Drilling from the solid |  
Boring | Countersinking



Milling



Turning



Reaming | Fine boring

# PRODUCT OVERVIEW CLAMPING TECHNOLOGY

## Hydraulic Chucks



### Features

- High run-out accuracy
- Vibration damping effect
- High radial stiffness
- Clamping without additional devices
- Quick setup times
- Flexible clamping range using reducing sleeves
- With resealable coolant duct holes
- With adjusting technology

### Available shank forms

- SK
- HSK-A
- HSK-C
- HSK-E
- HSK-F
- BT
- Module
- Adapter

### Maximum speed

Up to 40000 min<sup>-1</sup>

### Spare parts & accessories

- Reducing Sleeves
- Shrink Extensions
- Hydraulic Expansion Extensions
- Stop Screws
- Pressure Screws
- Coolant Transfer Pipe
- Misc. keys for adjustments

## HPH - High Performance Holder



### Features

- Very high holding forces
- Vibration damping effect
- High thermal stability
- All commercially available shanks can be clamped
- Quick setup times
- Very high transmissible torques
- Narrow design 3°
- With resealable coolant duct holes

### Available shank forms

- SK
- HSK-A
- HSK-C
- HSK-E
- HSK-F
- BT

### Maximum speed

Up to 40000 min<sup>-1</sup>

### Spare parts & accessories

- Reducing Sleeves
- Shrink Extensions
- Hydraulic Expansion Extensions
- Stop Screws
- Pressure Screws
- Coolant Transfer Pipe
- Misc. keys for adjustments

## Shrink Chucks



### Features

- High run-out accuracies
- Vibration damping effect
- High transmissible torques
- High flexibility in contours
- Creep resistant workable steel
- Side coolant duct hole
- With resealable coolant duct holes
- Narrow design 3°

### Available shank forms

- SK
- HSK-A
- HSK-C
- HSK-E
- HSK-F
- BT
- Module
- Adapter

### Maximum speed

Up to 40000 min<sup>-1</sup>

### Spare parts & accessories

- Shrink Extensions
- Coolant Transfer Pipe
- Misc. keys for adjustments

## CNC Precision Drill Chucks

**Features**

- Various clamping ranges possible
- Reliable pinion-bevel gear drive
- Clockwise and counter-clockwise rotation possible
- Slim construction

**Available shank forms**

- SK
- HSK-A, HSK-C, HSK-E, HSK-F
- B12
- BT
- Wohlhaupter
- 1835B
- VDI
- MORI-SEIKI
- ABS
- KOMET
- MK
- MAZAK
- UTS Widia
- PSC
- DECKEL
- CHIRON

**Maximum speed**

Up to 35000 min<sup>-1</sup>

**Spare parts & accessories**

Chuck assembly available as individual part;  
Coolant Transfer Pipe; Misc. keys for adjustments

## NC Standard Drill Chucks

**Features**

- 2 different clamping ranges possible
- Reliable pinion-bevel gear drive
- Clockwise and counter-clockwise rotation possible
- Slim construction

**Available shank forms**

- SK
- BT

**Maximum speed**

Up to 7000 min<sup>-1</sup>

**Spare parts & accessories**

Chuck assembly available as individual part;  
Coolant Transfer Pipe; Misc. keys for adjustments

## MICRO Universal Chucks

**Features**

- Continuously expandable clamping range
- for tool shanks from 0.2 to 6.4 mm
- High holding forces
- Quick setup times
- Flexible clamping

**Available shank forms**

- SK
- HSK-A
- HSK-E
- BT
- Cylindrical shank

**Maximum speed**

Up to 60000 min<sup>-1</sup>

**Spare parts**

Spare parts are only available on request.  
Please contact our Customer Service Team  
or your authorised WTE dealer.

# PRODUCT RANGE



## 1 Shrink Chucks

In long, short and heavy-duty design, however also with 3 degrees or KKB

## 2 HPH - High Performance Holder

In long, ultra-short and short heavy-duty design, however also with 3 degrees in additive design

## 3 Hydraulic Chuck

In long, ultra-short and short heavy-duty design as well as with compensation technology

## 4 NC Standard Drill Chucks

## 5 CNC Precision Drill Chucks

In all common shank forms

## 6 MICRO Universal Chucks

Also with cylindrical shank extension



## INNOVATIONS | HIGHLIGHTS

### HPH 3° Multi High Performance Holder with narrow contour 3 degrees



WTE has achieved a revolution in clamping technology with the HPH 3° Multi with narrow contour. Thanks to additive manufacturing, it has become possible to utilise the benefits of a hydraulic chuck in an even wider field of applications for the first time. On the one hand, the new chuck exhibits the narrow contour with the 3° back taper known from the shrink chuck and the familiar high holding forces, but does without costly shrink units.

The wide operating temperature range up to 120 °C ensures additional process reliability. It is suitable for all machining operations, particularly in contour-critical areas from a clamping diameter of 3 mm.

#### AT A GLANCE

- Reliable clamping even at temperatures up to 120 °C
- Optimum radial run-out accuracy of 3 µm with a projection length of 2.5 x D
- Better surface finish with longer tool life of the tool
- Shorter set-up times and lower tool costs

### HPH - High Performance Holder short heavy-duty design with resealable cooling channel bores



The WTE HPH in the short heavy-duty design has excellent rigidity, high torque transmission and withstands high thermal loads up to 120 °C, as occur for example during HPC milling. The bending resistance is 1.4 times greater than a conventional shrink chuck. In addition, WTE offers the HPH as a short heavy-duty design with resealable cooling channel bores. In this way the range of applications is expanded. It is also possible to use tools without internal cooling. In

use these advantages guarantee a very high-quality surface finish on the part, significantly higher milling speeds and shorter machining times. In addition, due to the good damping properties, chipping on the tool's cutting edge is prevented and as a result longer tool lives achieved for the tool used.

#### AT A GLANCE

- Maximum torque transmission
- Compact design
- Thermal stability up to 120 °C
- Resealable cooling channel bores
- Ideal for heavy machining
- Optimal damping properties for long tool life



## Hydraulic chuck Comp-R



The hydraulic chuck Comp-R guarantees perfect radial run-out on the usage of multi-bladed reamers in a close tolerance range. The error on the total system due to the tolerances on the spindle, clamping tool and tool is compensated and perfect radial run-out guaranteed. The Comp-R is perfectly suited to light machining tasks with multi-bladed reamers. In addition to the proven WTE hydraulic clamping technology,

it is possible to set, at three adjusting elements, the radial run-out exactly in a setting range of up to 10  $\mu\text{m}$ . The radial run-out is corrected straightforwardly and quickly using a hex wrench depending on the direction of the error. The system is self-locking, unintentional movement during fine machining is impossible.

### AT A GLANCE

- Compensation of errors on the overall system
- Easy handling
- No jamming of the tool
- Better surface quality and tool life
- Dirt resistant and low maintenance

## Hydraulic chuck with module connection



WTE hydraulic chucks with flange module are optimal for machining operations that require the compensation of radial run-out and angular errors on the machine spindle. These are adjusted radially using adjusting elements and produce

accuracies in the  $\mu$  range. In combination with the advantages of hydraulic technology, such as vibration damping, increased of tool lives.

### AT A GLANCE

- Compensation of radial run-out and angular errors
- Easy handling
- Better surface quality and longer tool life

# CHUCK SYSTEMS



## Hydraulic clamping technology

### Hydraulic chucks

Due to their high radial run-out accuracy and the resulting even cutting action as well as the excellent vibration damping, WTE hydraulic chucks guarantee optimal workpiece finishes. In addition, microstructure cracking on the tool's cutting edge is prevented by the hydraulic system, the tool lives increased and costs reduced. The high clamping reliability is ensured even at high spindle speeds. The chucks can be adjusted to the  $\mu$  thanks to axial and radial length adjustment. Designs for minimum quantity lubrication as well as short heavy-duty and ultra-short designs with steep taper are available in the standard programme.

#### ADVANTAGES

- Radial or axial length adjustment to the  $\mu$
- No reduction in the clamping forces at high spindle speeds, as a result high process reliability.
- Increased tool life due to very high radial run-out accuracy and repetition accuracy
- Suitable for MQL



### HPH - High Performance Holders

The new High Performance Holders combine the damping properties of hydraulic clamping technology with the high holding forces of shrinking technology. Thanks to an innovative manufacturing process, the chucks impress due to high torque transmission, ideal damping properties, outstanding rigidity of the overall system and a radial run-out accuracy of  $< 3 \mu\text{m}$ . The bending resistance is 1.4 times greater than a conventional shrink chuck in accordance with DIN 69882-8. In use these advantages guarantee a high surface finish on the part, significantly higher machining speeds and therefore short machining times, preventing chipping on the tool's cutting edge and permit long tool lives. The standard programme of HPHs covers short versions with additional decentral resealable cooling channel bores, an additively manufactured slender 3-degree design with direct clamping from a diameter of 3 mm, as well as versions for minimum quantity lubrication MQL.

#### ADVANTAGES

- High torque transmission
- Process reliability up to 120 °C
- Suitable for MQL





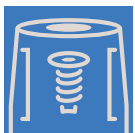
## Shrinking technology

### Shrink chucks

Using the shrink chucks the tools can be accurately clamped for almost all milling operations. High torque transmission and radial rigidity characterise this chuck. Long-term radial run-out accuracy and repetition accuracy of  $< 3 \mu\text{m}$  in the location bore guarantee high dimensional accuracy of the workpiece. The shrink chucks from WTE are finely balanced as standard so that high surface finishes and long tool lives are ensured. The standard programme of shrink chucks includes designs with slender external contour, heavy-duty designs as well as a broad MQL program. In addition, long designs up to 300 mm with HSK-A shank are available.

#### ADVANTAGES

- High torque transmission and radial rigidity.
- Long service life due to usage of heat-resistant tool steel
- Numerous possible combinations of shrink chucks and extensions.
- Suitable for MQL



## Mechanical tool clamping

### CNC precision drill chucks | NC standard drill chucks | MICRO universal chucks

Mechanical chucks impress due to their simple construction and the uncomplicated handling. The clamping is safeguarded regardless of the direction of rotation even at high spindle speeds. The standard programme for mechanical tool clamping covers precision drill chucks that are also available in a micro design with direct clamping from 0.2 mm. Due to the modular design, the drill chucks are available with all forms of machine-side connections.




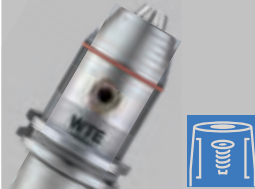
#### ADVANTAGES

- Simple construction and uncomplicated handling
- Safe clamping regardless of direction of rotation
- High spindle speed strength
- Modular design makes it possible to use drill chuck heads on all tool connections



# SELECTION OF A CHUCK

The optimal chuck for every application

Chuck	Design	Milling			Drilling	Reaming
		HPC	Roughing	Finishing		
	Standard	<input type="checkbox"/>	<input type="checkbox"/>	■	★	★
	Short heavy-duty design <sup>1)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	■	★	★
	Radial length adjustment	<input type="checkbox"/>	<input type="checkbox"/>	■	★	★
	Adjustable <sup>3)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	★
	With dec. cooling channel bores <sup>2)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	■	★	★
	Standard	■	■	■	■	■
	Short heavy-duty design <sup>1)</sup>	★	★	★	■	■
	Short heavy-duty design with cooling channel bores <sup>1)2)</sup>	★	★	★	■	■
	Narrow contour <sup>3)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★
	Standard	▣	■	■	■	■
	Short design <sup>4)</sup>	■	■	■	■	▣
	With dec. cooling channel bores <sup>2)</sup>	▣	■	■	■	■
	Narrow contour <sup>3)</sup>	<input type="checkbox"/>	<input type="checkbox"/>	▣	■	■
	CNC Precision Drill Chucks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	▣
	NC Standard Drill Chucks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>
	MICRO Universal Chucks	<input type="checkbox"/>	<input type="checkbox"/>	■	★	■

★ = 1st choice | ■ = highly suitable | ▣ = suitable in some situations |  = not suitable

<sup>1)</sup> Short/heavy-duty design: Compact design for high rigidity.

<sup>2)</sup> With cooling channel bores: Chuck with additional decentral coolant outlets that, optionally, are resealable.

<sup>3)</sup> With compensation technology: Alignment function on the chuck for radial alignment feature for the compensation of radial run-out errors on the overall system.

<sup>4)</sup> Heavy-duty design: Reinforced contour for heavy-duty machining tasks, optionally with additional cooling channel bores.



# Hydraulic clamping technology

## Application of WTE hydraulic clamping technologies



Our Hydraulic Chucks or HPH - High Performance Holder with axial and radial activated length adjustment can be used on wood and metal processing machines with rotating tools. There are different designs depending on the type of use, for example

Chucks for automatic tool change as per:  
ISO 7388-1 (DIN 69871); DIN 69893-A, DIN 69893-F, DIN 69893-E and  
ISO 7388-2 (JIS B6339)

Chucks for manual tool change as per:  
DIN 69893-C

## Advantages of the WTE hydraulic clamping technology

- Extremely fast tool change
- High run-out accuracy
- Vibration damping tool clamping
- Increase of tool service life
- Reduction of micro-breakouts on the tool cutting edge
- Improvement of surface quality
- Can be used flexibly by using reducing sleeves
- Low maintenance costs due to closed clamping system
- Simple operation
- High torque transfer
- Design conforms to DIN 69882-7
- High positioning accuracy and repeatability
- Tool clamping with maximum run-out accuracy (maximum 3 µm)
- Continuous development
- Certified products as per DIN EN ISO 9001:2008 manufactured in Germany

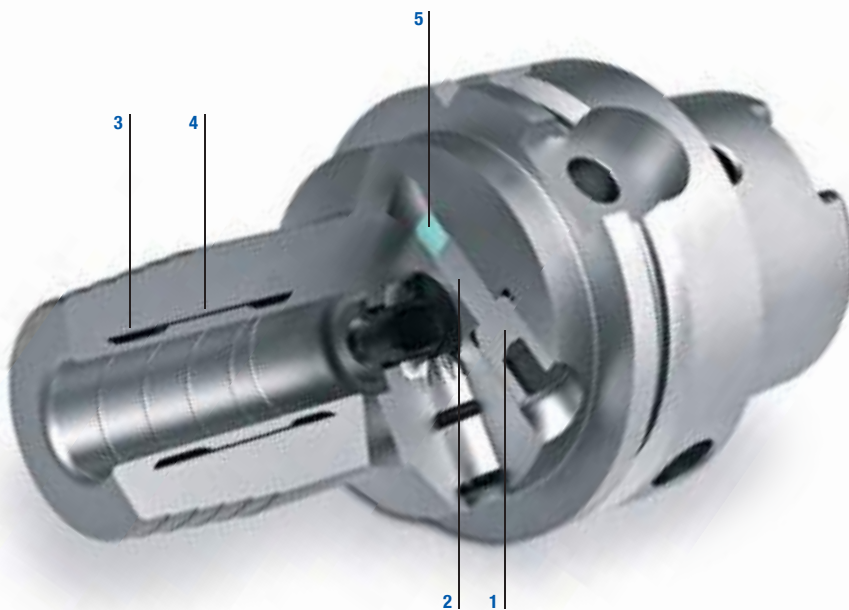
## Elements of the hydraulic clamping technology



- 1 Sealing element** Seepage losses in the clamping bore are prevented by the lip seal.
- 2 Piston** Presses the hydraulic medium into the chamber system.
- 3 Clamping screw** A torque wrench is not necessary to actuate the piston for clamping.
- 4 Expanding sleeve** Clamps the tool shank centrally with evenly applied pressure.
- 5 Chamber system** Is produced by the connection of the expanding sleeve and body. Due to the hydraulic medium has a damping action on the tool and therefore a wear-reducing effect.
- 6 Groove** Oil, grease or lubricant residue is displaced into the groove by the high clamping pressure. The clamping surfaces remain largely dry, the transmission of the torque is ensured.
- 7 Body material** WTE hydraulic chucks are available for all common machine-side connections (HSK-A, HSK-C, SK, BT and flange module).

## Functional principle

On clamping using hydraulic clamping technology, an even pressure is built up in a sealed chamber system using a clamping screw and a piston. This pressure is applied to the tool via the built-in expanding sleeve.



- 1** The clamping screw is screwed in to the stop using a hex wrench.
- 2** The piston presses the hydraulic medium into the
- 3** expansion chamber and causes the pressure to increase.
- 4** The thin-walled expanding sleeve bows evenly against the tool shank. Due this clamping process the tool shank is first centred and then powerfully clamped over a large area.
- 5** The sealing element ensures absolute freedom from leaks and a long service life.

## HPH 3° Multi - additively manufactured hydraulic clamping technology

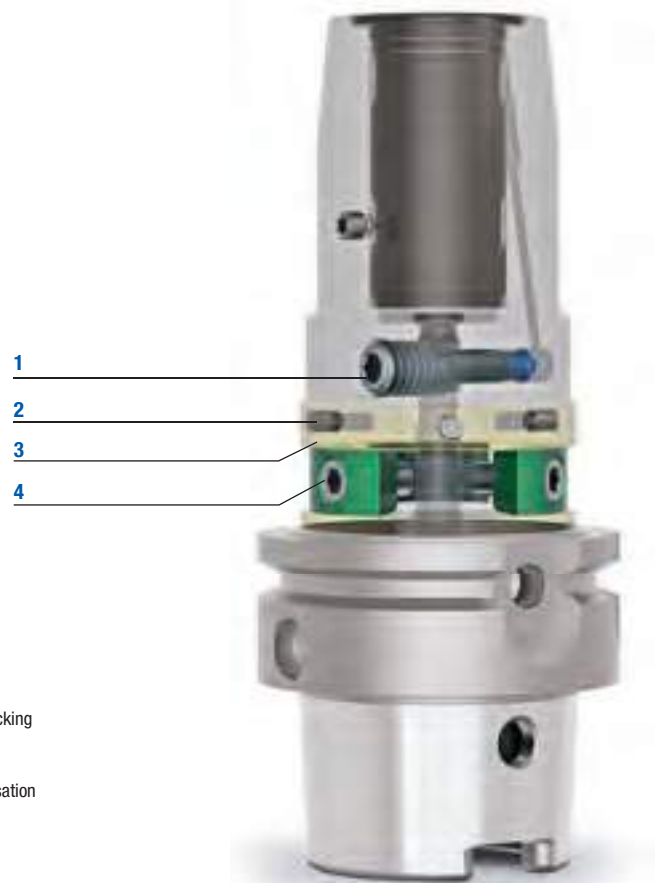
WTE achieves a revolution in clamping technology with the new HPH technology with slender contour. For the first time it has become possible to utilise the benefits of a hydraulic chuck in an even wider field of applications. On the one hand, the new chuck has a slender contour with the 3° back taper known from the shrink chuck. On the other hand it offers the advantages of the WTE HPH (High Performance Holder). The new chuck offers significant benefits not only for mould making, but also for applications in the automotive and aerospace sector. Why? The HPH technology with slender contour is also suitable for all machining tasks in contour-critical areas.



- 1 Optimum radial run-out as the clamping range is located close to the chuck tip
- 2 High torque transmission and thermal stability
- 3 A back taper of 3° in the outside contour allows machining in contour-critical areas
- 4 All-in-one – no brazed joint between sleeve and tool body
- 5 High flexural strength despite slender design
- 6 Quick and simple clamping thanks to hexagon head screw
- 7 Optionally with dynamically balanced HSK

## Hydraulic clamping technology with compensation technology

The "Comp-R" chuck is perfectly suited to light machining tasks with multi-bladed reamers. It builds on hydraulic clamping technology and the radial run-out can be set exactly using three adjustment elements. The radial run-out is corrected straightforwardly and quickly using a hex wrench depending on the direction of the error. The setting range is up to 10 µm. Wedges in the chuck align the tool, jamming of the tool is prevented. The system is self-locking, unintentional movement during fine machining is impossible. A fixed ring seals the alignment system. It is therefore low maintenance and not susceptible to dirt.



- 1 Clamping screw
- 2 Screw for locking ring with locking varnish (3 pieces)
- 3 Locking ring
- 4 Adjusting screws for compensation adjustment (3 pieces)



## Setting and handling notes for the run-out alignment of the Comp-R



### NOTE

The locking ring (3) is secured by a screw with locking varnish (2) and is not allowed to be removed.

1. Tighten the three adjusting screws (4) to a tightening torque of 1 Nm.
2. Measure the Comp-R using a run-out measuring device.
3. Tighten the adjusting screws (4) (to maximum 3 Nm) until the Comp-R has the stipulated radial run-out.
4. After the radial run-out alignment, set the required balancing value.

#### Result:

The radial run-out alignment of the Comp-R is complete.



- 1 Clamping screw
- 2 Screw for locking ring with locking varnish (3 pieces)
- 3 Locking ring
- 4 Adjusting screws for compensation adjustment (3 pieces)



## Safe clamping / care and maintenance

All hydraulic chucks and HPH - High Performance Holders - should, on correct operation in accordance with the operating manual, be checked for correct function and safety during each clamping process.

If deviations are found, the permitted transmittable torques may not be reached.

As a consequence it is recommended to have the hydraulic chuck checked by our repair service.

Prior to the usage of our hydraulic clamping technologies, the related location bores and taper surfaces are always to be cleaned. The clamping screw for the chuck must be regularly cleaned and lubricated to suit the conditions of usage and the ambient conditions.

The clamping device should only be stored in the unclamped state; attention is to be paid to corrosion protection.

# HYDRAULIC CHUCKS



## Shank form SK as per DIN69871

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SK 30/40/50 .....	22-33
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## Shank form HSK

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HSK-A 32/40/50 .....	34-38
HSK-A 63 .....	39-46
HSK-A 80 .....	47
HSK-A 100 .....	48-49
HSK-C 40/50/63 .....	50-52
HSK-E 40/50 .....	53-54
HSK-F 63 .....	55

## Shank form BT

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BT 30/40/50 .....	56-63
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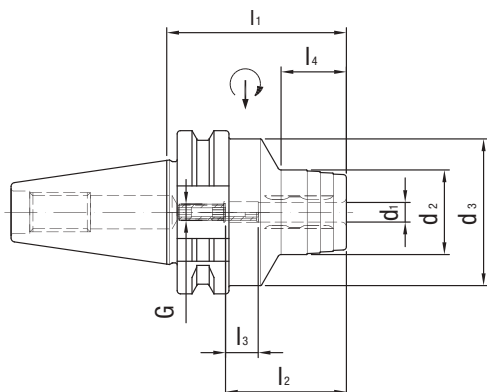
## Spare parts & accessories

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Spare parts & accessories .....	74-83
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# Hydraulic Chuck DIN69871, Form AD

(prev. DIN 69871-AD), short narrow design



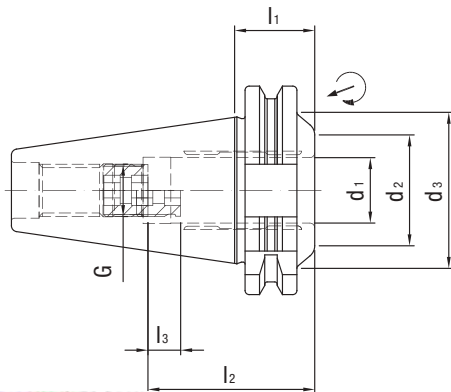
Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
30	6	26	45	55	37	10	20	M5	2.5	0.6	15.507.30.06.Z	30336701
30	8	28	45	55	37	10	20	M6	3	0.6	15.507.30.08.Z	30336702
30	10	30	45	55	41	10	21	M8x1	3	0.6	15.507.30.10.Z	30336703
30	12	32	45	55	46	10	22	M8x1	3	0.6	15.507.30.12.Z	30336704
30	14	34	45	90	46	10	42	M8x1	3	0.7	15.507.30.14.Z	30336705
30	16	38	45	90	49	10	50	M8x1	3	0.7	15.507.30.16.Z	30336706
30	18	40	45	90	49	10	50	M8x1	3	0.7	15.507.30.18.Z	30336707
30	20	42	45	90	51	10	50	M8x1	3	0.7	15.507.30.20.Z	30336708

Dimensions in mm.

Spare parts and accessories at the end of this chapter.

# Hydraulic Chuck DIN69871, Form AD

(prev. DIN 69871-AD), extra short design



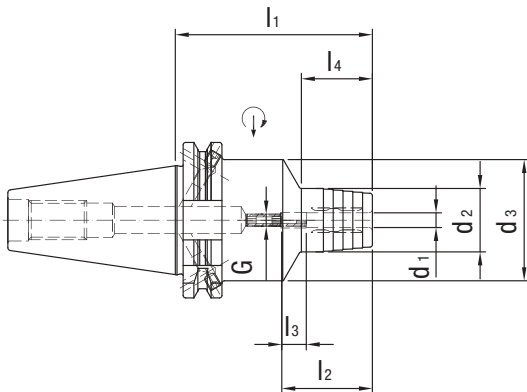
Nominal size SK/ISO	Dimensions						G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>					
40	20	34	48	24.5	51	10	M16x1	8	0.6	15.501.40.20.Z	30349264

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), short narrow design



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	49.5	80.5	37	10	29.5	M5	2.5	1.3	15.507.40.06.Z	30336709
40	8	28	49.5	80.5	37	10	30	M6	3	1.3	15.507.40.08.Z	30336712
40	10	30	49.5	80.5	41	10	35	M8x1	3	1.3	15.507.40.10.Z	30336715
40	12	32	49.5	80.5	46	10	40	M10x1	5	1.3	15.507.40.12.Z	30336719
40	14	34	49.5	80.5	46	10	40	M10x1	5	1.3	15.507.40.14.Z	30336723
40	16	38	49.5	80.5	49	10	45	M12x1	5	1.4	15.507.40.16.Z	30336726
40	18	40	49.5	80.5	49	10	46	M12x1	5	1.3	15.507.40.18.Z	30336729
40	20	42	49.5	80.5	51	10	47	M16x1	8	1.3	15.507.40.20.Z	30336732
40	25	55	63	80.5	57	10	28	M16x1	8	1.6	15.507.40.25.Z	30336736
40	32	63	70	80.5	61	10	25.5	M16x1	8	1.7	15.507.40.32.Z	30336739

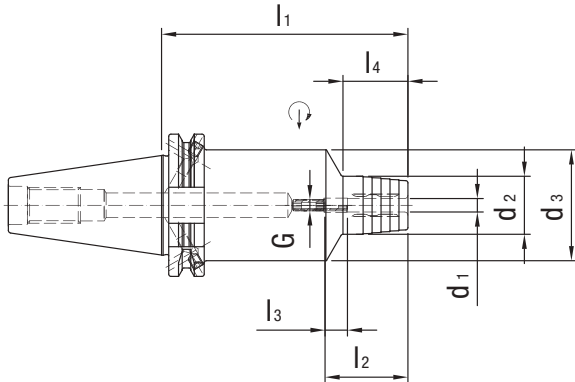
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), long narrow design



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	49.5	110	37	10	29	M5	2.5	1.7	15.507.40.06.Z/110	30336711
40	8	28	49.5	110	37	10	30	M6	3	1.8	15.507.40.08.Z/110	30336714
40	10	30	49.5	110	41	10	35	M8x1	3	1.8	15.507.40.10.Z/110	30336717
40	12	32	49.5	110	46	10	40	M10x1	5	1.8	15.507.40.12.Z/110	30336722
40	14	34	49.5	110	46	10	40	M10x1	5	1.8	15.507.40.14.Z/110	30336725
40	16	38	49.5	110	49	10	45	M12x1	5	1.8	15.507.40.16.Z/110	30336728
40	18	40	49.5	110	49	10	46	M12x1	5	1.9	15.507.40.18.Z/110	30336731
40	20	42	49.5	110	51	10	47	M16x1	8	1.9	15.507.40.20.Z/110	30336735
40	25	55	63	110	57	10	28	M16x1	8	2.3	15.507.40.25.Z/110	30336738
40	32	63	59	110	61	10	59	M16x1	8	2.4	15.507.40.32.Z/110	30336741

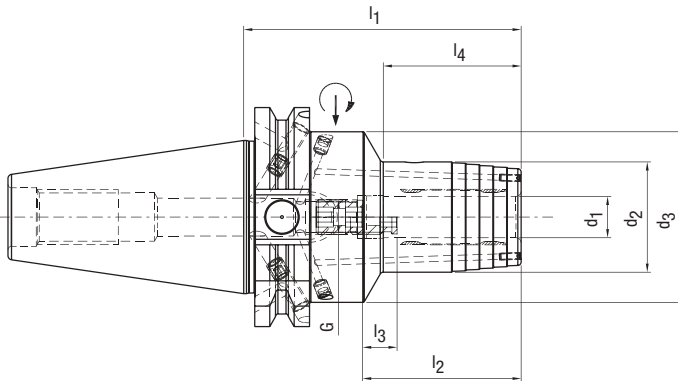
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), short narrow design, with resealable coolant duct holes



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	49.5	80.5	37	10	29.5	M5	2.5	1.3	15.507.40.06.KKB	30595958
40	8	28	49.5	80.5	37	10	30	M6	3	1.3	15.507.40.08.KKB	30595959
40	10	30	49.5	80.5	41	10	35	M8x1	3	1.3	15.507.40.10.KKB	30595961
40	12	32	49.5	80.5	46	10	40	M10x1	5	1.3	15.507.40.12.KKB	30532100
40	14	34	49.5	80.5	46	10	40	M10x1	5	1.3	15.507.40.14.KKB	30595962
40	16	38	49.5	80.5	49	10	45	M12x1	5	1.4	15.507.40.16.KKB	30595964
40	18	40	49.5	80.5	49	10	46	M12x1	5	1.3	15.507.40.18.KKB	30595966
40	20	42	49.5	80.5	51	10	47	M16x1	8	1.3	15.507.40.20.KKB	30595967
40	25	55	63	80.5	57	10	28	M16x1	8	1.6	15.507.40.25.KKB	30595969
40	32	63	70	80.5	61	10	25.5	M16x1	8	1.7	15.507.40.32.KKB	30595970

Dimensions in mm.

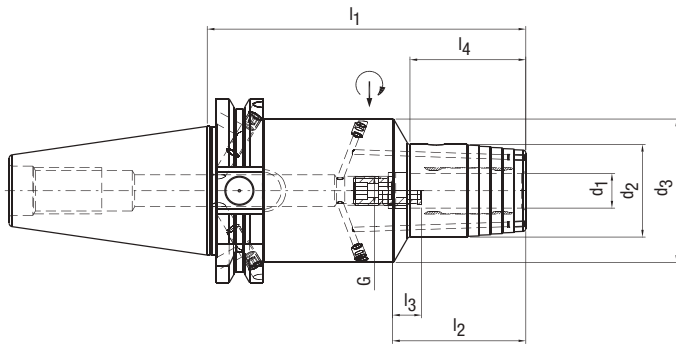
Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.



# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), long narrow design, with resealable coolant duct holes



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	49.5	110	37	10	29	M5	2.5	1.7	15.507.40.06.110.KKB	30596252
40	8	28	49.5	110	37	10	30	M6	3	1.7	15.507.40.08.110.KKB	30596254
40	10	30	49.5	110	41	10	35	M8x1	3	1.8	15.507.40.10.110.KKB	30596257
40	12	32	49.5	110	46	10	40	M10x1	5	1.8	15.507.40.12.110.KKB	30596286
40	14	34	49.5	110	46	10	40	M10x1	5	1.8	15.507.40.14.110.KKB	30596293
40	16	38	49.5	110	49	10	45	M12x1	5	1.8	15.507.40.16.110.KKB	30596295
40	18	40	49.5	110	49	10	46	M12x1	5	1.9	15.507.40.18.110.KKB	30596296
40	20	42	49.5	110	51	10	47	M16x1	8	1.9	15.507.40.20.110.KKB	30596297
40	25	55	63	110	57	10	28	M16x1	8	2.1	15.507.40.25.110.KKB	30596299
40	32	63	59	110	61	10	59	M16x1	8	2.2	15.507.40.32.110.KKB	30596301

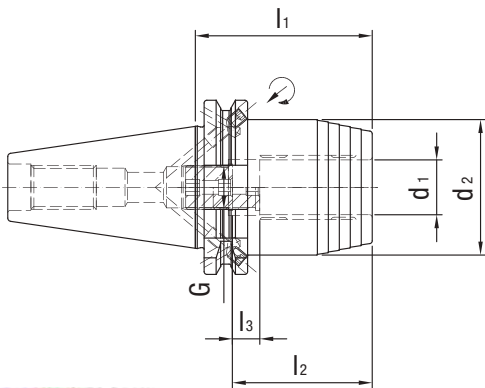
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B), short heavy duty design



Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>					
40	20	49.5	64.5	51	10	M16x1	8	1.3	15.508.40.20.Z	30337087

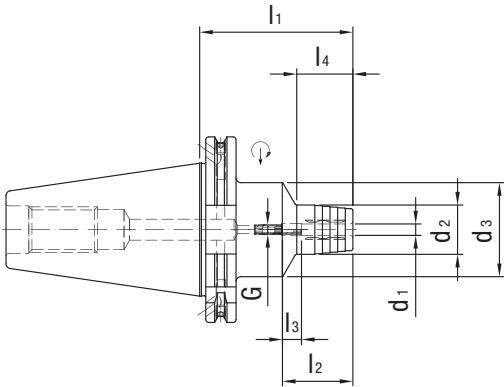
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), short narrow design



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	6	26	49.5	80.5	37	10	29.5	M5	2.5	3.2	15.507.50.06.Z	30336743
50	8	28	49.5	80.5	37	10	30	M6	3	3.3	15.507.50.08.Z	30336746
50	10	30	49.5	80.5	41	10	35	M8x1	3	3.3	15.507.50.10.Z	30336749
50	12	32	49.5	80.5	46	10	40	M10x1	5	3.3	15.507.50.12.Z	30336752
50	14	34	49.5	80.5	46	10	40	M10x1	5	3.3	15.507.50.14.Z	30336755
50	16	38	49.5	80.5	49	10	45	M12x1	5	3.3	15.507.50.16.Z	30336758
50	18	40	49.5	80.5	49	10	46	M12x1	5	3.3	15.507.50.18.Z	30336761
50	20	42	49.5	80.5	51	10	42	M16x1	8	3.3	15.507.50.20.Z	30336764
50	25	55	63	100	57	10	48	M16x1	8	3.8	15.507.50.25.Z	30336767
50	32	63	70	100	61	10	61	M16x1	8	4.2	15.507.50.32.Z	30336770

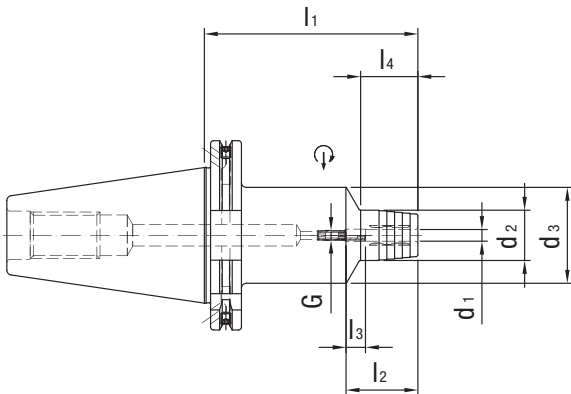
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), long narrow design



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	6	26	49.5	110	37	10	29	M5	2.5	4.1	15.507.50.06.Z/110	30336745
50	8	28	49.5	110	37	10	30	M6	3	4.1	15.507.50.08.Z/110	30336748
50	10	30	49.5	110	41	10	35	M8x1	3	4.1	15.507.50.10.Z/110	30336751
50	12	32	49.5	110	46	10	40	M10x1	5	4.3	15.507.50.12.Z/110	30336754
50	14	34	49.5	110	46	10	40	M10x1	5	4.3	15.507.50.14.Z/110	30336757
50	16	38	49.5	110	49	10	45	M12x1	5	4.3	15.507.50.16.Z/110	30336760
50	18	40	49.5	110	49	10	46	M12x1	5	4.5	15.507.50.18.Z/110	30336763
50	20	42	49.5	110	51	10	42	M16x1	8	4.5	15.507.50.20.Z/110	30336766
50	25	55	63	110	57	10	48	M16x1	8	4.7	15.507.50.25.Z/110	30336769
50	32	63	70	110	61	10	61	M16x1	8	4.8	15.507.50.32.Z/110	30336772

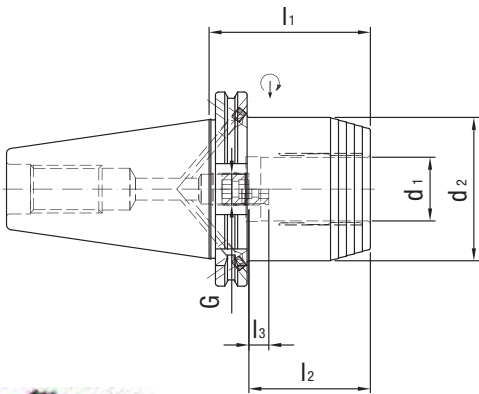
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), short heavy duty design



Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>					
50	32	72	81	61	10	M16x1	8	3.9	15.508.50.32.Z	30337089

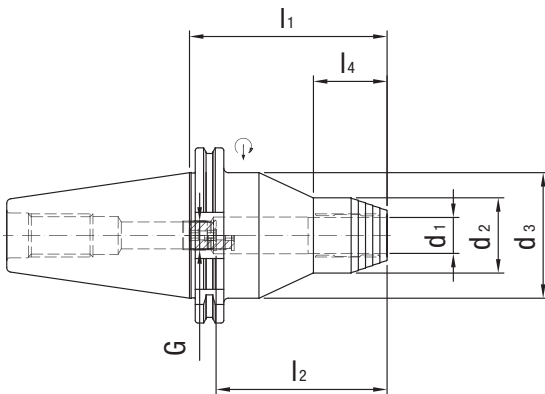
Dimensions in mm.

Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN69871, Form AD

(prev. DIN 69871-AD), for tool grinders and grinding machines



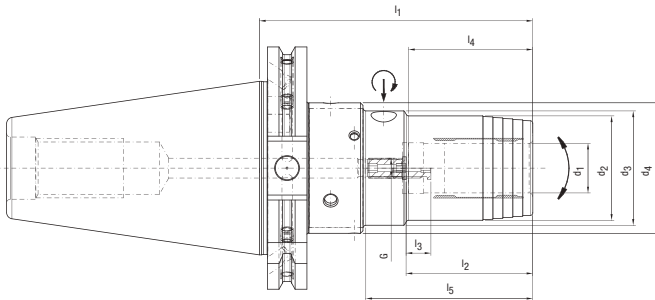
Nominal size SK/ISO	Dimensions						G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_4$					
50	6	32	60	110	43	45	M5	2.5	3.6	15.509.50.06	30336773
50	8	33.5	60	110	43	50	M6	3	3.6	15.509.50.08	30336774
50	10	35	60	110	43	50	M8x1	3	3.7	15.509.50.10	30336775
50	12	36.5	60	110	50	55	M10x1	5	3.7	15.509.50.12	30336776
50	14	38	60	110	50	60	M10x1	5	3.7	15.509.50.14	30336777
50	16	39.5	60	110	53	60	M12x1	5	3.8	15.509.50.16	30336778
50	18	41	60	110	53	60	M12x1	5	3.8	15.509.50.18	30336779
50	20	42	70	110	95	41	M16x1	8	3.9	15.509.50.20	30336780
50	22	44	70	110	95	43	M16x1	8	3.9	15.509.50.22	30336781
50	25	47	70	110	95	40	M16x1	8	3.9	15.509.50.25	30336782
50	32	54	70	110	95	56	M16x1	8	4	15.509.50.32	30336783

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck Comp-R DIN69871, Form AD/AF

(prev. DIN 69871-AD/B), with compensation technology



Nominal size SK/ISO	Dimensions									G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>					
50	20	42	46	52.5	110	51	10	50	67.2	M8x1	3	3.5	15.512.50.20.Z	30614768
50	25	55	64	70	115	57	10	50	64.8	M16x1	8	4.4	15.512.50.25.Z	30614769
50	32	63	64	70	125	61	10	61	74.8	M16x1	8	4.7	15.512.50.32.Z	30614770

Dimensions in mm.

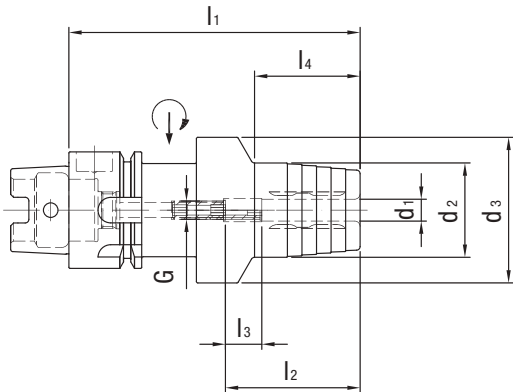
Basic form AD. Please indicate form AF (prev. B) in your order.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

Adjusting and handling instructions, see chapter - Technical Appendix.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
32	6	26	40	80	37	10	29	M5	2.5	0.5	16.507.32.06.Z	30336816
32	8	28	40	80	37	10	29	M6	3	0.5	16.507.32.08.Z	30336817
32	10	30	40	85	41	10	35	M6	3	0.5	16.507.32.10.Z	30336818
32	12	32	40	90	46	10	40	M6	3	0.5	16.507.32.12.Z	30336819

Dimensions in mm.

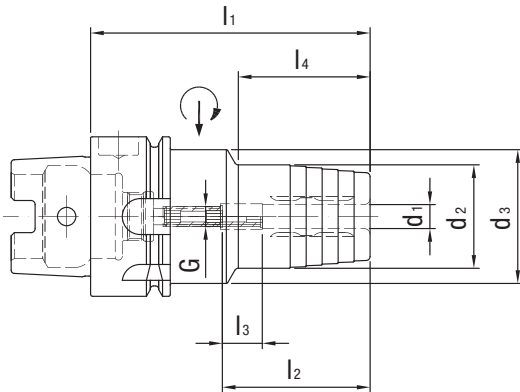
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.



# Hydraulic Chuck DIN 69893-HSK A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	33.5	70	37	10	36	M5	2.5	0.4	16.507.40.06.Z	30336820
40	8	28	33.5	70	37	10	36	M6	3	0.5	16.507.40.08.Z	30336821
40	10	30	33.5	75	41	10	42	M6	3	0.5	16.507.40.10.Z	30336822
40	12	32	33.5	80	46	10	48	M6	3	0.6	16.507.40.12.Z	30336823

Dimensions in mm.

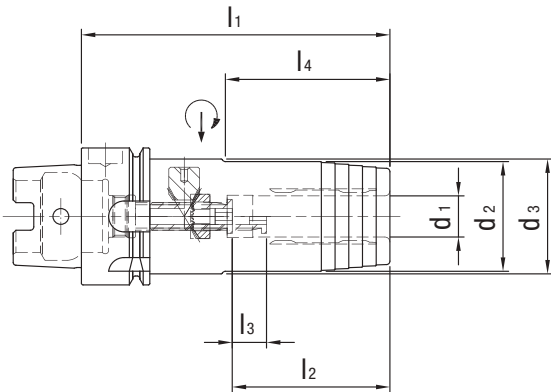
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design, with radial length adjustment

**Radial**



Nominal size HSK-A	Dimensions							Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$			
40	6	26	34	80	37	10	36	0.5	16.510.40.06.Z	30349328
40	8	28	34	80	37	10	36	0.5	16.510.40.08.Z	30349329
40	10	30	34	85	41	10	43	0.6	16.510.40.10.Z	30349330
40	12	32	34	90	46	10	48	0.6	16.510.40.12.Z	30349331

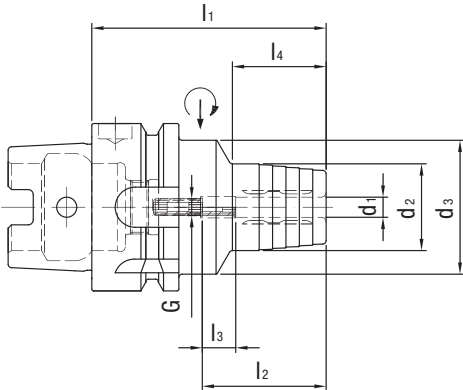
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	6	26	40	70	37	10	28	M5	2.5	0.9	16.507.50.06.Z	30336824
50	8	28	40	70	37	10	28	M6	3	0.9	16.507.50.08.Z	30336825
50	10	30	40	75	41	10	34	M8x1	3	0.9	16.507.50.10.Z	30336826
50	12	32	40	85	46	10	44	M10x1	5	1	16.507.50.12.Z	30336827
50	14	34	40	85	46	10	44	M10x1	5	1	16.507.50.14.Z	30336828
50	16	38	53	90	49	10	30	M12x1	5	1.2	16.507.50.16.Z	30336829
50	18	40	53	90	49	10	30	M12x1	5	1.2	16.507.50.18.Z	30336830
50	20	42	57	90	51	10	29	M16x1	5	1.2	16.507.50.20.Z	30336831

Dimensions in mm.

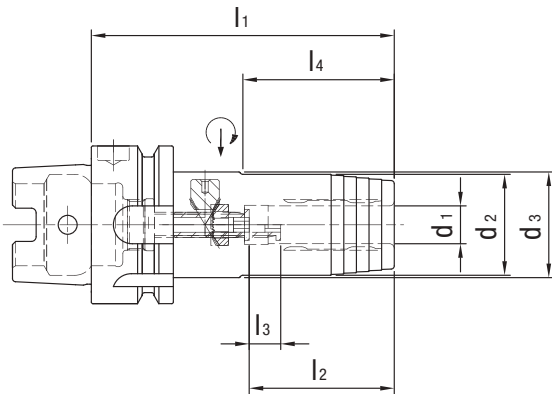
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design, with radial length adjustment

**Radial**



Nominal size HSK-A	Dimensions							Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$			
50	6	26	40	80	37	10	35	0.7	16.510.50.06.Z	30349332
50	8	28	40	80	37	10	36	0.7	16.510.50.08.Z	30349333
50	10	30	40	85	41	10	38	0.8	16.510.50.10.Z	30349334
50	12	32	40	90	46	10	40	0.8	16.510.50.12.Z	30349335
50	14	34	40	90	46	10	46	0.8	16.510.50.14.Z	30349336
50	16	38	53	95	49	10	36	1	16.510.50.16.Z	30349337
50	18	40	53	95	49	10	36	1.1	16.510.50.18.Z	30349338
50	20	42	57	100	51	10	37	1.2	16.510.50.20.Z	30349339

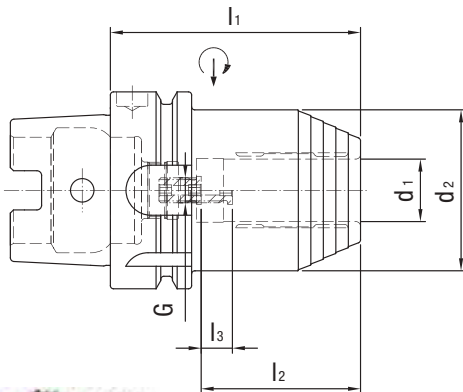
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short heavy duty design



Nominal size HSK-A	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>					
63	20	51.5	80	51	10	M8x1	3	1.5	16.508.63.20.Z	30337091

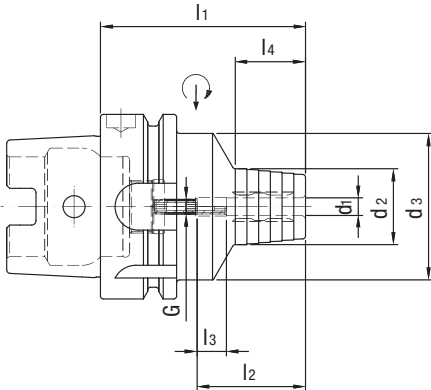
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	50	70	37	10	24	M5	2.5	0.9	16.507.63.06.Z	30336832
63	8	28	50	70	37	10	25	M6	3	0.9	16.507.63.08.Z	30336837
63	10	30	50	80	41	10	35	M8x1	3	1	16.507.63.10.Z	30336842
63	12	32	50	85	46	10	40	M10x1	5	1	16.507.63.12.Z	30336847
63	14	34	50	85	46	10	40	M10x1	5	1.1	16.507.63.14.Z	30336852
63	16	38	50	90	49	10	46	M12x1	5	1.2	16.507.63.16.Z	30336857
63	18	40	50	90	49	10	47	M12x1	5	1.2	16.507.63.18.Z	30336862
63	20	42	50	90	51	10	48	M16x1	5	1.2	16.507.63.20.Z	30336867
63	25	57	53	120	57	10	63	M16x1	5	2.1	16.507.63.25.Z	30336873
63	32	63	59	125	61	10	61	M16x1	5	2.3	16.507.63.32.Z	30336875

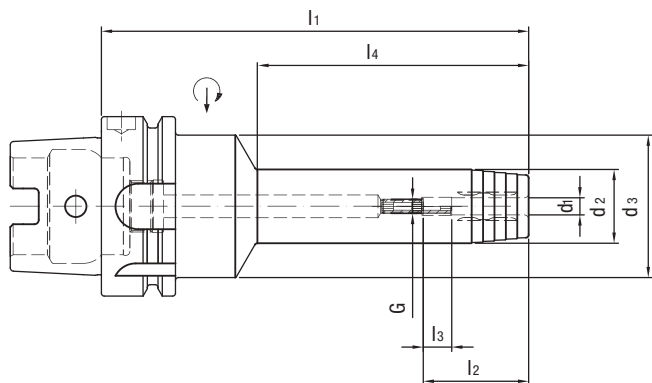
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Long narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	50	120	37	10	73	M5	2.5	1.2	16.507.63.06.Z/120	30336834
63	6	26	50	150	37	10	103	M5	2.5	1.7	16.507.63.06.Z/150	30336835
63	6	26	50	200	37	10	153	M5	2.5	1.9	16.507.63.06.Z/200	30336836
63	8	28	50	120	37	10	74	M6	3	1.2	16.507.63.08.Z/120	30336839
63	8	28	50	150	37	10	104	M6	3	1.7	16.507.63.08.Z/150	30336840
63	8	28	50	200	37	10	154	M6	3	1.9	16.507.63.08.Z/200	30336841
63	10	30	50	120	41	10	74	M8x1	3	1.2	16.507.63.10.Z/120	30336844
63	10	30	50	150	41	10	104	M8x1	3	1.7	16.507.63.10.Z/150	30336845
63	10	30	50	200	41	10	154	M8x1	3	1.9	16.507.63.10.Z/200	30336846
63	12	32	50	120	46	10	75	M10x1	5	1.3	16.507.63.12.Z/120	30336849
63	12	32	50	150	46	10	105	M10x1	5	1.7	16.507.63.12.Z/150	30336850
63	12	32	50	200	46	10	155	M10x1	5	1.9	16.507.63.12.Z/200	30336851
63	14	34	50	120	46	10	75	M10x1	5	1.3	16.507.63.14.Z/120	30336854
63	14	34	50	150	46	10	105	M10x1	5	1.9	16.507.63.14.Z/150	30336855
63	14	34	50	200	46	10	155	M10x1	5	2.1	16.507.63.14.Z/200	30336856
63	16	38	50	120	49	10	76	M12x1	5	1.4	16.507.63.16.Z/120	30336859
63	16	38	50	150	49	10	106	M12x1	5	2	16.507.63.16.Z/150	30336860
63	16	38	50	200	49	10	156	M12x1	5	2.3	16.507.63.16.Z/200	30336861
63	18	40	50	120	49	10	77	M12x1	5	1.5	16.507.63.18.Z/120	30336864
63	18	40	50	150	49	10	107	M12x1	5	2.1	16.507.63.18.Z/150	30336865
63	18	40	50	200	49	10	157	M12x1	5	2.4	16.507.63.18.Z/200	30336866
63	20	42	50	120	51	10	78	M16x1	5	1.5	16.507.63.20.Z/120	30336870
63	20	42	50	150	51	10	108	M16x1	5	2.1	16.507.63.20.Z/150	30336871
63	20	42	50	200	51	10	158	M16x1	5	2.4	16.507.63.20.Z/200	30336872

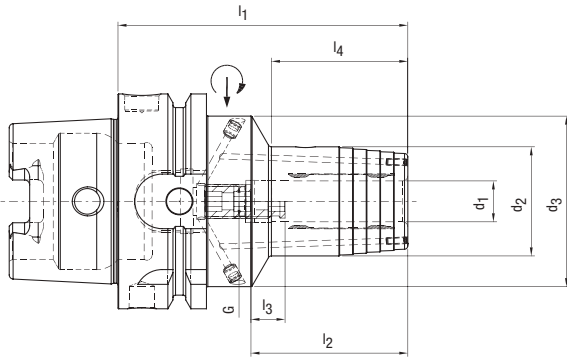
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design, with resealable coolant duct holes



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	50	70	37	10	24	M5_KKB	2.5	0.9	16.507.63.06.KKB	30596222
63	8	28	50	70	37	10	25	M6_KKB	3	0.9	16.507.63.08.KKB	30596227
63	10	30	50	80	41	10	35	M8x1	3	1	16.507.63.10.KKB	30532104
63	12	32	50	85	46	10	40	M10x1	5	1	16.507.63.12.KKB	30596229
63	14	34	50	85	46	10	40	M10x1	5	1.1	16.507.63.14.KKB	30596235
63	16	38	50	90	49	10	46	M12x1	5	1.2	16.507.63.16.KKB	30596237
63	18	40	50	90	49	10	47	M12x1	5	1.2	16.507.63.18.KKB	30596239
63	20	42	50	90	51	10	48	M16x1	5	1.2	16.507.63.20.KKB	30596242
63	25	57	53	120	57	10	63	M16x1	5	2.2	16.507.63.25.KKB	30596243
63	32	63	59	125	61	10	61	M16x1	5	2.4	16.507.63.32.KKB	30596245

Dimensions in mm.

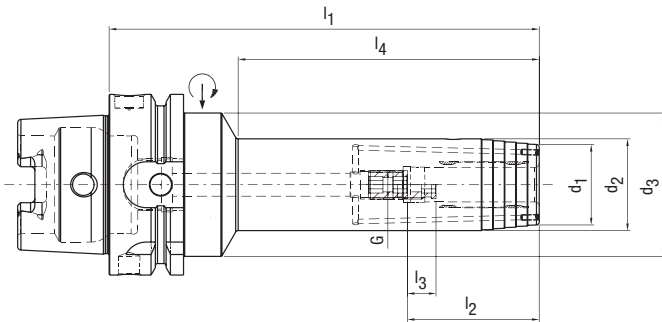
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.



# Hydraulic Chuck DIN 69893-HSK A

Long narrow design, with resealable coolant duct holes



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	50	150	37	10	103	M5	2.5	1.3	16.507.63.06.150.KKB	30596356
63	8	28	50	150	37	10	104	M6	3	1.3	16.507.63.08.150.KKB	30596357
63	10	30	50	150	41	10	104	M8x1	3	1.4	16.507.63.10.150.KKB	30596358
63	12	32	50	150	46	10	105	M10x1	5	1.6	16.507.63.12.150.KKB	30596361
63	14	34	50	150	46	10	105	M10x1	5	1.7	16.507.63.14.150.KKB	30596363
63	16	38	50	150	49	10	106	M12x1	5	1.8	16.507.63.16.150.KKB	30596366
63	18	40	50	150	49	10	107	M12x1	5	1.9	16.507.63.18.150.KKB	30596368
63	20	42	50	150	51	10	108	M16x1	5	1.9	16.507.63.20.150.KKB	30596369

Dimensions in mm.

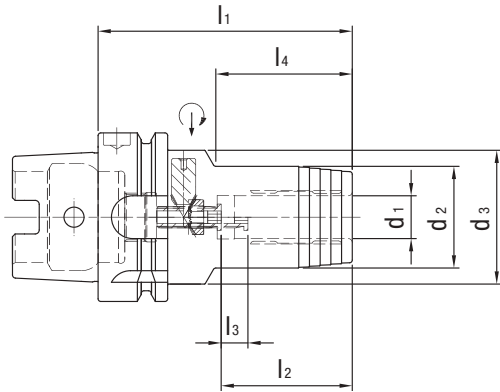
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design, with radial length adjustment

**Radial**



Nominal size HSK-A	Dimensions							Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$			
63	6	26	50	80	37	10	33	1	16.510.63.06.Z	30349340
63	8	28	50	80	37	10	33	1.1	16.510.63.08.Z	30349342
63	10	30	50	85	41	10	38	1.1	16.510.63.10.Z	30349343
63	12	32	50	90	46	10	40	1.2	16.510.63.12.Z	30349344
63	14	34	50	90	46	10	46	1.2	16.510.63.14.Z	30349345
63	16	38	50	95	49	10	51	1.3	16.510.63.16.Z	30349346
63	18	40	50	95	49	10	52	1.3	16.510.63.18.Z	30349347
63	20	42	50	100	51	10	51	1.4	16.510.63.20.Z	30349348
63	25	57	53	120	57	10	55	2.1	16.510.63.25.Z	30349349
63	32	63	53	125	61	10	61	2.4	16.510.63.32.Z	30349350

Dimensions in mm.

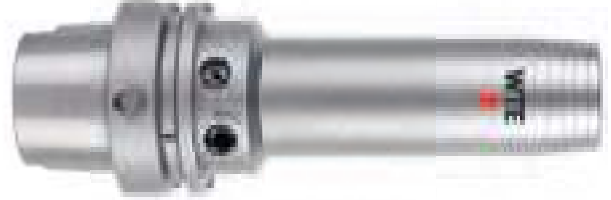
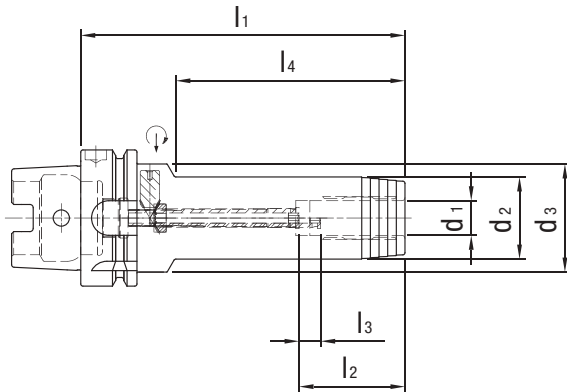
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Long narrow design, with radial length adjustment

**Radial**



Nominal size HSK-A	Dimensions							Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$			
63	6	26	50	150	37	10	102	1.3	16.510.63.06.Z/150	30460203
63	6	32	50	200	37	10	150	1.9	16.510.63.06.Z/200	30460211
63	8	28	50	150	37	10	102	1.4	16.510.63.08.Z/150	30386771
63	8	34	50	200	37	10	150	2	16.510.63.08.Z/200	30460212
63	10	30	50	150	41	10	104	1.5	16.510.63.10.Z/150	30384694
63	10	34	50	200	41	10	155	1.9	16.510.63.10.Z/200	30460213
63	12	32	50	150	46	10	105	1.5	16.510.63.12.Z/150	30384697
63	12	34	50	200	46	10	155	1.9	16.510.63.12.Z/200	30460214
63	14	34	50	150	46	10	105	1.6	16.510.63.14.Z/150	30386770
63	14	34	50	200	46	10	155	1.9	16.510.63.14.Z/200	30460215
63	16	38	50	150	49	10	105	1.7	16.510.63.16.Z/150	30460204
63	16	38	50	200	49	10	157	2.2	16.510.63.16.Z/200	30460216
63	18	40	50	150	49	10	107	1.8	16.510.63.18.Z/150	30384699
63	18	40	50	200	49	10	157	2.3	16.510.63.18.Z/200	30460217
63	20	42	50	150	51	10	107	1.9	16.510.63.20.Z/150	30412673
63	20	42	50	200	51	10	155	2.4	16.510.63.20.Z/200	30460218
63	25	57	53	150	57	10	63	2.6	16.510.63.25.Z/150	30460206
63	25	57	53	200	57	10	63	3.5	16.510.63.25.Z/200	30460220
63	32	63	53	150	61	10	63	2.7	16.510.63.32.Z/150	30460208
63	32	63	53	200	61	10	63	3.6	16.510.63.32.Z/200	30460221

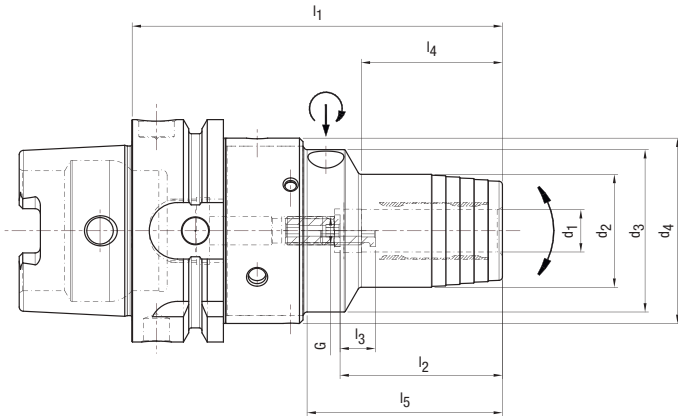
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck Comp-R DIN 69893-HSK A

With compensation technology



Nominal size HSK-A	Dimensions									G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$d_4$	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$					
63	12	32	46	52.5	105	46	10	40	55.3	M8x1	3	1.3	16.512.63.12.Z	30614752
63	16	38	46	52.5	110	49	10	45	60.3	M8x1	3	1.4	16.512.63.16.Z	30614764
63	20	42	46	52.5	115	51	10	50	65.3	M8x1	3	1.5	16.512.63.20.Z	30614765
63	25	57	64	70	145	57	10	55	69.5	M16x1	8	2.9	16.512.63.25.Z	30614766
63	32	63	64	70	150	61	10	60	74.5	M16x1	8	3.1	16.512.63.32.Z	30614767

Dimensions in mm.

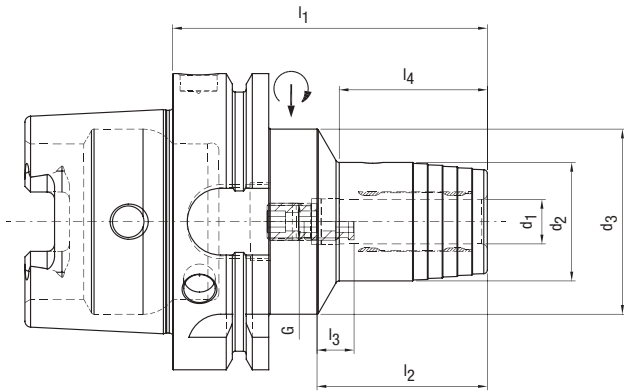
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

Adjusting and handling instructions, see chapter - Technical Appendix.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
80	6	26	50	70	37	10	24	M5	2.5	1.4	16.507.80.06.Z	30432279
80	8	28	50	70	37	10	24	M6	3	1.4	16.507.80.08.Z	30432282
80	10	30	50	80	41	10	35	M8x1	3	1.5	16.507.80.10.Z	30432285
80	12	32	50	85	46	10	40	M10x1	5	1.6	16.507.80.12.Z	30432287
80	14	34	50	85	46	10	40	M10x1	5	1.6	16.507.80.14.Z	30432288
80	16	38	50	95	49	10	51	M12x1	5	1.6	16.507.80.16.Z	30409104
80	18	40	50	95	49	10	51	M12x1	5	1.7	16.507.80.18.Z	30432290
80	20	42	50	95	51	10	51	M16x1	8	1.7	16.507.80.20.Z	30432292
80	25	57	63	110	57	10	65	M16x1	8	2.6	16.507.80.25.Z	30432295
80	32	63	63	125	61	10	63	M16x1	8	3.1	16.507.80.32.Z	30432301

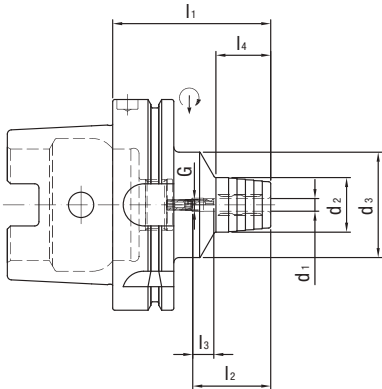
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
100	6	26	50	75	37	10	26	M5	2.5	2.3	16.507.100.06.Z	30336784
100	8	28	50	75	37	10	26	M6	3	2.3	16.507.100.08.Z	30336788
100	10	30	50	90	41	10	42	M8x1	3	2.5	16.507.100.10.Z	30336792
100	12	32	50	95	46	10	47	M10x1	5	2.5	16.507.100.12.Z	30336796
100	14	34	50	95	46	10	47	M10x1	5	2.5	16.507.100.14.Z	30336800
100	16	38	50	100	49	10	53	M12x1	5	2.6	16.507.100.16.Z	30336802
100	18	40	50	100	49	10	53	M12x1	5	2.6	16.507.100.18.Z	30336806
100	20	42	50	105	51	10	59	M16x1	8	2.7	16.507.100.20.Z	30336808
100	25	57	63	110	57	10	62	M16x1	8	3.3	16.507.100.25.Z	30336812
100	32	63	67	110	61	10	60	M16x1	8	3.5	16.507.100.32.Z	30336814

Dimensions in mm.

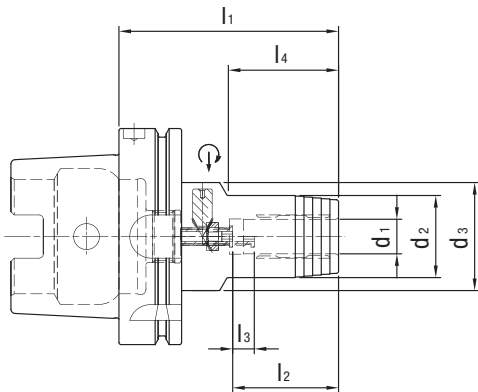
Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK A

Short narrow design, with radial length adjustment

**Radial**



Nominal size HSK-A	Dimensions							Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$			
100	6	26	63	85	37	10	33	2.5	16.510.100.06.Z	30349351
100	8	28	63	85	37	10	33	2.6	16.510.100.08.Z	30349352
100	10	30	63	90	41	10	36	2.7	16.510.100.10.Z	30349353
100	12	32	63	95	46	10	40	2.7	16.510.100.12.Z	30349354
100	14	34	63	95	46	10	41	2.7	16.510.100.14.Z	30349355
100	16	38	63	100	49	10	46	2.8	16.510.100.16.Z	30349356
100	18	40	63	100	49	10	46	2.9	16.510.100.18.Z	30349357
100	20	42	75	105	51	10	51	3.1	16.510.100.20.Z	30349358
100	25	57	75	115	57	10	55	3.8	16.510.100.25.Z	30349359
100	32	63	75	120	61	10	63	4	16.510.100.32.Z	30349360

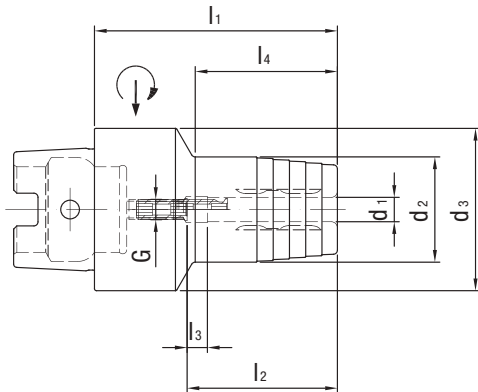
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

MQL-capable design possible on request. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK C

Short narrow design, for manual change



Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	40	60	37	10	35	M5	2.5	0.5	23.507.40.06.Z	30337045
40	8	28	40	60	37	10	36	M6	3	0.5	23.507.40.08.Z	30337046
40	10	30	40	65	41	10	41	M6	3	0.6	23.507.40.10.Z	30337047
40	12	32	40	70	46	10	47	M6	3	0.6	23.507.40.12.Z	30337048

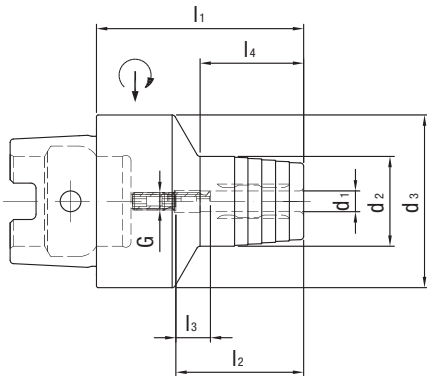
Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.



# Hydraulic Chuck DIN 69893-HSK C

Short narrow design, for manual change



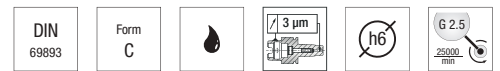
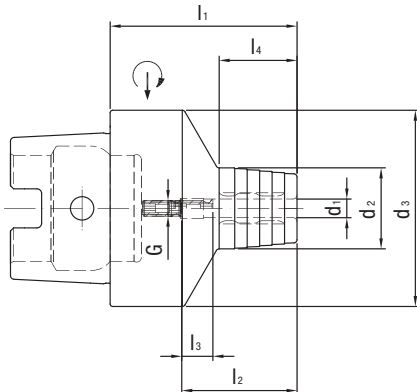
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
50	6	26	50	60	37	10	30	M5	2.5	0.7	23.507.50.06.Z	30337049
50	8	28	50	60	37	10	30	M6	3	0.7	23.507.50.08.Z	30337050
50	10	30	50	65	41	10	35	M8x1	3	1	23.507.50.10.Z	30337051
50	12	32	50	75	46	10	40	M10x1	5	0.9	23.507.50.12.Z	30337052
50	14	34	50	75	46	10	40	M10x1	5	0.8	23.507.50.14.Z	30337053
50	16	38	50	80	49	10	50	M12x1	5	1.1	23.507.50.16.Z	30337054
50	18	40	50	80	49	10	50	M12x1	5	1.4	23.507.50.18.Z	30337055
50	20	42	50	80	51	10	50	M16x1	5	1.2	23.507.50.20.Z	30337056
50	25	49.5	50	90	57	10	59	M16x1	5	1.1	23.507.50.25.Z	30337057

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK C

Short narrow design, for manual change



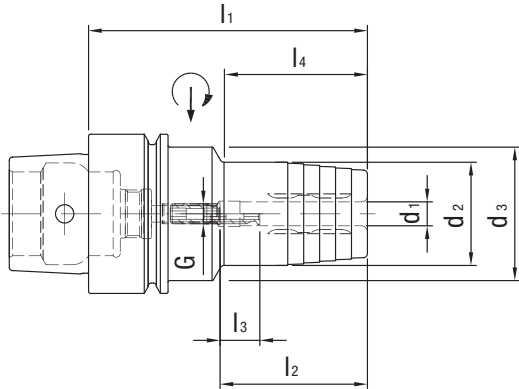
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	63	60	37	10	25	M5	2.5	1	23.507.63.06.Z	30337058
63	8	28	63	60	37	10	25	M6	3	1	23.507.63.08.Z	30337059
63	10	30	63	65	41	10	31	M8x1	3	1	23.507.63.10.Z	30337060
63	12	32	63	75	46	10	41	M10x1	5	1.1	23.507.63.12.Z	30337061
63	14	34	63	75	46	10	42	M10x1	5	1.1	23.507.63.14.Z	30337062
63	16	38	63	80	49	10	48	M12x1	5	1.1	23.507.63.16.Z	30337063
63	18	40	63	80	49	10	48	M12x1	5	1.2	23.507.63.18.Z	30337064
63	20	42	63	80	51	10	49	M16x1	5	1.2	23.507.63.20.Z	30337065
63	25	58	63	95	57	10	63	M16x1	5	2	23.507.63.25.Z	30337066
63	32	62	63	100	61	10	60	M16x1	5	2.1	23.507.63.32.Z	30337067

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK E

Short narrow design, for automatic change



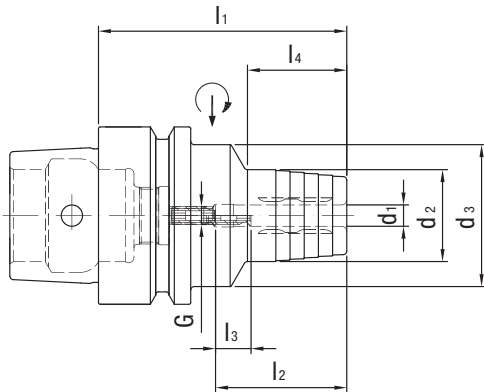
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	6	26	33.5	70	37	10	36	M5	2.5	0.5	18.507.40.06.Z	30336886
40	8	28	33.5	70	37	10	36	M6	3	0.5	18.507.40.08.Z	30336887
40	10	30	33.5	75	41	10	42	M6	3	0.6	18.507.40.10.Z	30336888
40	12	32	33.5	80	46	10	48	M6	3	0.6	18.507.40.12.Z	30336889

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK E

Short narrow design, for automatic change



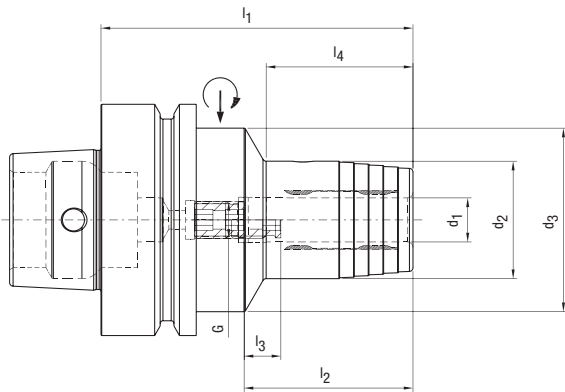
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	6	26	40	70	37	10	28	M5	2.5	0.9	18.507.50.06.Z	30336892
50	8	28	40	70	37	10	28	M6	3	0.9	18.507.50.08.Z	30336893
50	10	30	40	75	41	10	34	M8x1	3	1	18.507.50.10.Z	30336894
50	12	32	40	85	46	10	44	M10x1	5	1	18.507.50.12.Z	30336895
50	14	34	40	85	46	10	44	M10x1	5	1	18.507.50.14.Z	30336896
50	16	38	42	90	49	10	30	M12x1	5	1	18.507.50.16.Z	30336897
50	18	40	42	90	49	10	29	M12x1	5	1.2	18.507.50.18.Z	30336898
50	20	42	42	90	51	10	29	M16x1	5	1.2	18.507.50.20.Z	30336899

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck DIN 69893-HSK F

Short narrow design, for automatic change



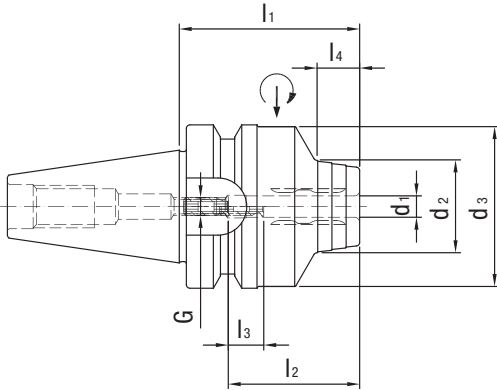
Nominal size HSK-F	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	50	70	37	10	24	M5	2.5	1	17.507.63.06	30336877
63	8	28	50	70	37	10	25	M6	3	1	17.507.63.08	30336878
63	10	30	50	80	41	10	35	M8x1	3	1.1	17.507.63.10	30336879
63	12	32	50	85	46	10	40	M10x1	5	1.1	17.507.63.12	30336880
63	14	34	50	85	46	10	40	M10x1	5	1.2	17.507.63.14	30336881
63	16	38	50	90	49	10	46	M12x1	5	1.2	17.507.63.16	30336882
63	18	40	50	90	49	10	47	M12x1	5	1.4	17.507.63.18	30336883
63	20	42	50	90	51	10	48	M16x1	5	1.4	17.507.63.20	30336884
63	25	57	53	120	57	10	63	M16x1	5	2.1	17.507.63.25	30336885

Dimensions in mm.

Spare parts and accessories at the end of this chapter. Custom designs available on request.

# Hydraulic Chuck BT MAS

Short narrow design, coolant supply as per ISO 7388-2, Form JD



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
30	6	26	45	50.8	37	10	12	M5	2.5	0.7	22.507.30.06.Z	30336900
30	8	28	45	50.8	37	10	12.5	M6	3	0.7	22.507.30.08.Z	30336905
30	10	30	45	50.8	41	10	13	M8x1	3	0.7	22.507.30.10.Z	30336910
30	12	32	45	50.8	46	10	14	M8x1	3	0.7	22.507.30.12.Z	30336915
30	14	34	45	90	46	10	45	M8x1	3	1	22.507.30.14.Z	30336920
30	16	38	45	90	49	10	50	M8x1	3	1	22.507.30.16.Z	30336921
30	18	40	45	90	49	10	50	M8x1	3	1	22.507.30.18.Z	30336924
30	20	42	45	90	51	10	50	M8x1	3	1	22.507.30.20.Z	30336925

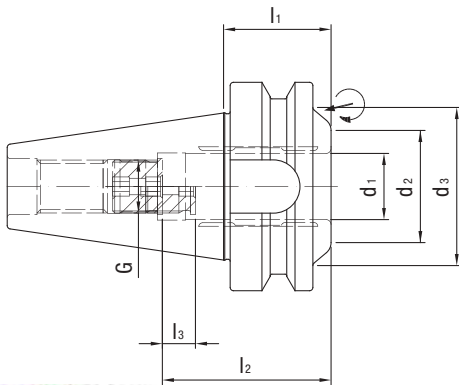
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

# Hydraulic Chuck BT MAS

Ultrakurze Ausführung, coolant supply as per ISO 7388-2, Form JD



Nominal size BT	Dimensions						G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$					
40	20	34	48	32.5	51	10	M16x1	8	0.7	22.501.40.20.Z	30411484

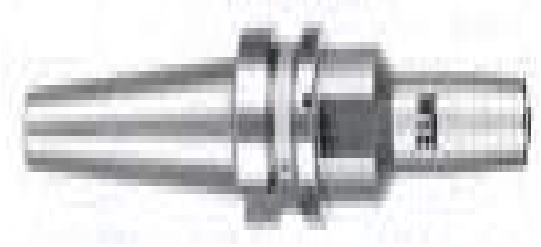
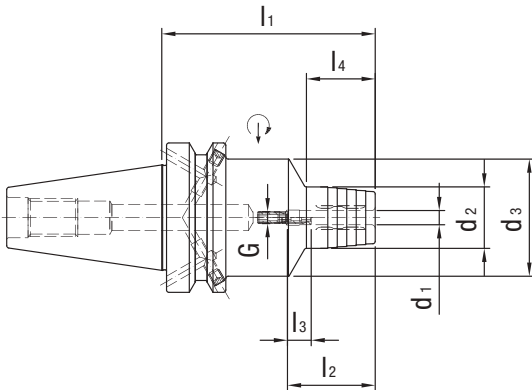
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

# Hydraulic Chuck BT MAS

Short narrow design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	49.5	90	37	10	29	M5	2.5	1.5	22.507.40.06.Z	30336927
40	8	28	49.5	90	37	10	30	M6	3	1.6	22.507.40.08.Z	30336933
40	10	30	49.5	90	41	10	35	M8x1	3	1.6	22.507.40.10.Z	30336939
40	12	32	49.5	90	46	10	40	M10x1	5	1.6	22.507.40.12.Z	30336946
40	14	34	49.5	90	46	10	40	M10x1	5	1.6	22.507.40.14.Z	30336953
40	16	38	49.5	90	49	10	45	M12x1	5	1.6	22.507.40.16.Z	30336958
40	18	40	49.5	90	49	10	46	M12x1	5	1.6	22.507.40.18.Z	30336964
40	20	42	49.5	90	51	10	47	M16x1	8	1.6	22.507.40.20.Z	30336969
40	25	55	52	90	57	10	50	M16x1	8	1.9	22.507.40.25.Z	30336975
40	32	63	62	90	61	10	48	M16x1	8	2.1	22.507.40.32.Z	30336982

Dimensions in mm.

Basic form JD. Please indicate form JF (prev. B) in your order.

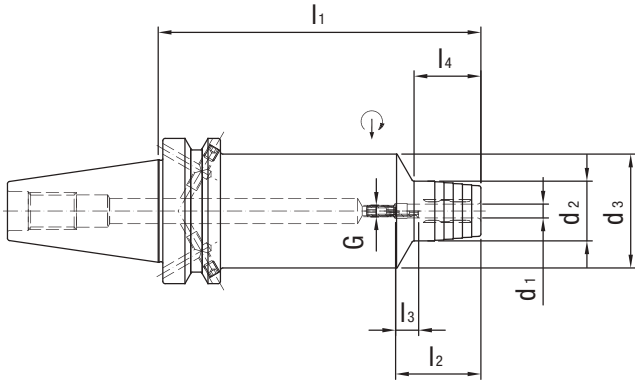
Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.



# Hydraulic Chuck BT MAS

Long narrow design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	49.5	140	37	10	29	M5	2.5	2.1	22.507.40.06.Z/140	30336930
40	8	28	49.5	140	37	10	30	M6	3	2.1	22.507.40.08.Z/140	30336936
40	10	30	49.5	140	41	10	35	M8x1	3	2.1	22.507.40.10.Z/140	30336943
40	12	32	49.5	140	46	10	40	M10x1	5	2.1	22.507.40.12.Z/140	30336950
40	14	34	49.5	140	46	10	40	M10x1	5	2.1	22.507.40.14.Z/140	30336956
40	16	38	49.5	140	49	10	45	M12x1	5	2.1	22.507.40.16.Z/140	30336961
40	18	40	49.5	140	49	10	46	M12x1	5	2.1	22.507.40.18.Z/140	30336967
40	20	42	49.5	140	51	10	47	M16x1	8	2.1	22.507.40.20.Z/140	30336973
40	25	55	52	140	57	10	75	M16x1	8	2.8	22.507.40.25.Z/140	30336979
40	32	63	59	140	61	10	61	M16x1	8	2.9	22.507.40.32.Z/140	30336987

Dimensions in mm.

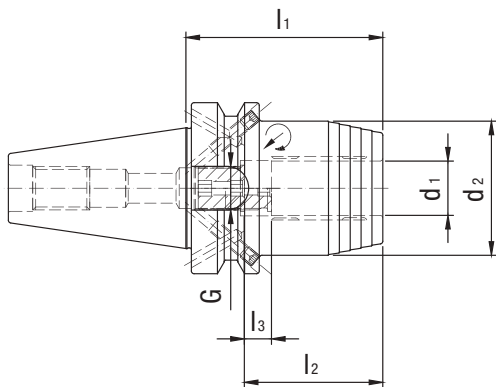
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

# Hydraulic Chuck BT MAS

Short heavy duty design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	20	49.5	72.5	51	10	M16x1	8	1.5	22.508.40.20.Z	30337093

Dimensions in mm.

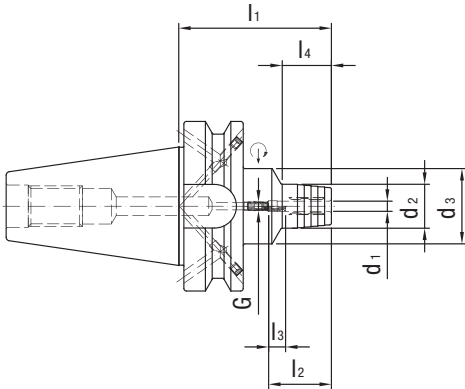
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

# Hydraulic Chuck BT MAS

Short narrow design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
50	6	26	49.5	90	37	10	29	M5	2.5	4.2	22.507.50.06.Z	30336989
50	8	28	49.5	90	37	10	30	M6	3	4.2	22.507.50.08.Z	30336995
50	10	30	49.5	90	41	10	34	M8x1	3	4.2	22.507.50.10.Z	30337001
50	12	32	49.5	90	46	10	34	M10x1	5	4.2	22.507.50.12.Z	30337007
50	14	34	49.5	90	46	10	34	M10x1	5	4.2	22.507.50.14.Z	30337013
50	16	38	49.5	90	49	10	35	M12x1	5	4.2	22.507.50.16.Z	30337017
50	18	40	49.5	90	49	10	35	M12x1	5	4.2	22.507.50.18.Z	30337023
50	20	42	49.5	90	51	10	35	M16x1	8	4.2	22.507.50.20.Z	30337027
50	25	55	63	110	57	10	48	M16x1	8	4.6	22.507.50.25.Z	30337033
50	32	63	70	110	61	10	50	M16x1	8	5	22.507.50.32.Z	30337039

Dimensions in mm.

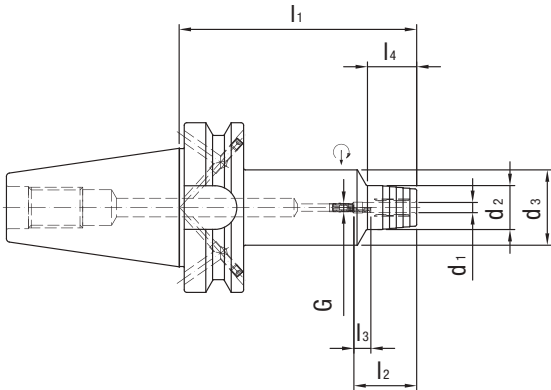
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

# Hydraulic Chuck BT MAS

Long narrow design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
50	6	26	49.5	140	37	10	29	M5	2.5	5	22.507.50.06.Z/140	30336993
50	8	28	49.5	140	37	10	30	M6	3	5	22.507.50.08.Z/140	30336999
50	10	30	49.5	140	41	10	35	M8x1	3	5	22.507.50.10.Z/140	30337005
50	12	32	49.5	140	46	10	40	M10x1	5	5	22.507.50.12.Z/140	30337011
50	14	34	49.5	140	46	10	40	M10x1	5	5	22.507.50.14.Z/140	30337016
50	16	38	49.5	140	49	10	45	M12x1	5	5	22.507.50.16.Z/140	30337021
50	18	40	49.5	140	49	10	46	M12x1	5	5.1	22.507.50.18.Z/140	30337026
50	20	42	49.5	140	51	10	42	M16x1	8	5.1	22.507.50.20.Z/140	30337031
50	25	55	63	140	57	10	48	M16x1	8	5.5	22.507.50.25.Z/140	30337036
50	32	63	70	140	61	10	50	M16x1	8	5.7	22.507.50.32.Z/140	30337042

Dimensions in mm.

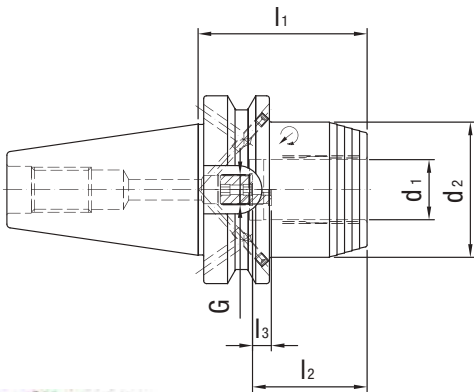
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

# Hydraulic Chuck BT MAS

Short heavy duty design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
50	32	72	90	61	10	M16x1	8	4.7	22.508.50.32.Z	30337095

Dimensions in mm.

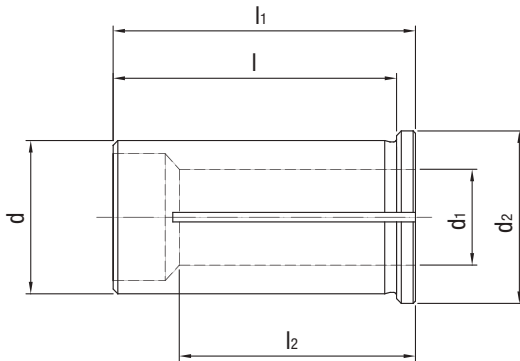
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

Version with face connection on request. Custom designs available on request.

## Reducing Sleeve, coolant sealed

With slits, for flexible diameter application

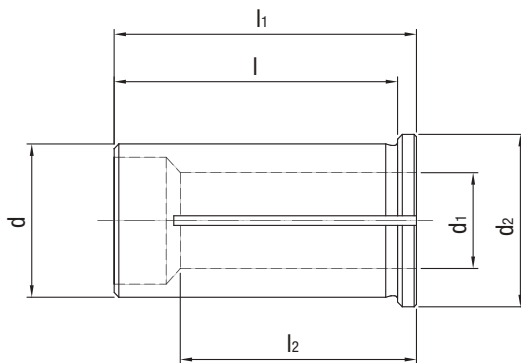


Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	1	16	40	44	20	0.04	40.456.12.01.Z	30503691
12	1.5	16	40	44	20	0.04	40.456.12.015.Z	30503718
12	2	16	40	44	20	0.04	40.456.12.02.Z	30503725
12	2.5	16	40	44	20	0.04	40.456.12.025.Z	30503728
12	3	16	40	44	29	0.03	40.456.12.03.Z	30251059
12	4	16	40	44	29	0.03	40.456.12.04.Z	30251060
12	5	16	40	44	29	0.03	40.456.12.05.Z	30251061
12	6	16	40	44	36	0.03	40.456.12.06.Z	30251062
12	7	16	40	44	37	0.03	40.456.12.07.Z	30251063
12	8	16	40	44	37	0.02	40.456.12.08.Z	30251064
12	9	16	40	44	37	0.02	40.456.12.09.Z	30251065
12	10	16	40	44	40	0.01	40.456.12.10.Z	30251066
20	3	25	50	54	28	0.1	40.456.20.03.Z	30251067
20	4	25	50	54	28	0.1	40.456.20.04.Z	30251068
20	5	25	50	54	28	0.1	40.456.20.05.Z	30251069
20	6	25	50	54	36	0.1	40.456.20.06.Z	30251070
20	7	25	50	54	38	0.1	40.456.20.07.Z	30251071
20	8	25	50	54	37	0.09	40.456.20.08.Z	30251072
20	9	25	50	54	38	0.09	40.456.20.09.Z	30251073
20	10	25	50	54	40	0.09	40.456.20.10.Z	30251074
20	11	25	50	54	40	0.08	40.456.20.11.Z	30251075
20	12	25	50	54	45	0.08	40.456.20.12.Z	30251076
20	13	25	50	54	45	0.07	40.456.20.13.Z	30251077
20	14	25	50	54	45	0.07	40.456.20.14.Z	30251078
20	15	25	50	54	45	0.06	40.456.20.15.Z	30251079
20	16	25	50	54	48	0.05	40.456.20.16.Z	30251080

Caution: Never clamp without tool - the reducing sleeve will be damaged!

## Reducing Sleeve, coolant sealed

With slits, for flexible diameter application



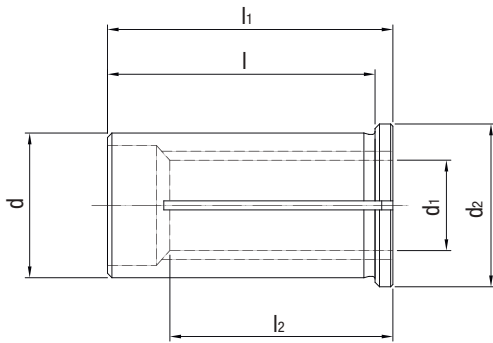
Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
25	3	30	56	60	29	0.18	40.456.25.03.Z	30251081
25	4	30	56	60	29	0.18	40.456.25.04.Z	30251082
25	5	30	56	60	29	0.18	40.456.25.05.Z	30251083
25	6	30	56	60	37	0.18	40.456.25.06.Z	30251084
25	7	30	56	60	37	0.18	40.456.25.07.Z	30251085
25	8	30	56	60	37	0.17	40.456.25.08.Z	30251086
25	9	30	56	60	38	0.17	40.456.25.09.Z	30251087
25	10	30	56	60	40	0.16	40.456.25.10.Z	30251088
25	12	30	56	60	46	0.15	40.456.25.12.Z	30251089
25	14	30	56	60	47	0.14	40.456.25.14.Z	30251090
25	16	30	56	60	48	0.13	40.456.25.16.Z	30251091
25	18	30	56	60	48	0.11	40.456.25.18.Z	30251092
25	20	30	56	60	50	0.09	40.456.25.20.Z	30251093
32	6	36	60	64	36	0.31	40.456.32.06.Z	30251094
32	7	36	60	64	37	0.31	40.456.32.07.Z	30251095
32	8	36	60	64	36	0.3	40.456.32.08.Z	30251096
32	9	36	60	64	37	0.3	40.456.32.09.Z	30251097
32	10	36	60	64	40	0.29	40.456.32.10.Z	30251098
32	11	36	60	64	40	0.28	40.456.32.11.Z	30251099
32	12	36	60	64	45	0.28	40.456.32.12.Z	30251100
32	13	36	60	64	45	0.28	40.456.32.13.Z	30251101
32	14	36	60	64	46	0.27	40.456.32.14.Z	30251102
32	15	36	60	64	46	0.26	40.456.32.15.Z	30251103
32	16	36	60	64	48	0.26	40.456.32.16.Z	30251104
32	17	36	60	64	48	0.25	40.456.32.17.Z	30251105
32	18	36	60	64	49	0.24	40.456.32.18.Z	30251106
32	19	36	60	64	49	0.23	40.456.32.19.Z	30251107
32	20	36	60	64	50	0.22	40.456.32.20.Z	30251108
32	22	36	60	64	50	0.19	40.456.32.22.Z	30251109
32	25	36	60	64	56	0.15	40.456.32.25.Z	30251110

Caution: Never clamp without tool - the reducing sleeve will be damaged!

Dimensions in mm.

## Reducing Sleeve, KKB

With coolant bores, for flexible diameter application



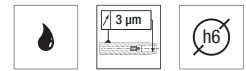
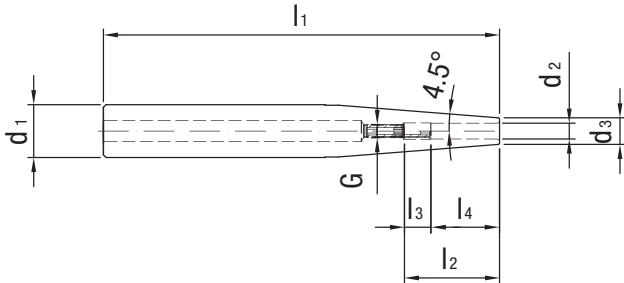
Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	3	16	40	44	29	0.03	40.456.12.03.KKB	30557343
12	4	16	40	44	29	0.03	40.456.12.04.KKB	30557344
12	5	16	40	44	29	0.03	40.456.12.05.KKB	30557345
12	6	16	40	44	36	0.03	40.456.12.06.KKB	30557346
12	8	16	40	44	37	0.02	40.456.12.08.KKB	30557347
20	3	25	50	54	28	0.1	40.456.20.03.KKB	30557348
20	4	25	50	54	28	0.1	40.456.20.04.KKB	30557350
20	5	25	50	54	28	0.1	40.456.20.05.KKB	30557351
20	6	25	50	54	36	0.1	40.456.20.06.KKB	30557352
20	8	25	50	54	37	0.09	40.456.20.08.KKB	30557353
20	10	25	50	54	40	0.09	40.456.20.10.KKB	30557354
20	12	25	50	54	45	0.08	40.456.20.12.KKB	30557355
20	14	25	50	54	45	0.07	40.456.20.14.KKB	30557356
20	16	25	50	54	48	0.05	40.456.20.16.KKB	30557358
32	6	36	60	64	36	0.31	40.456.32.06.KKB	30557359
32	8	36	60	64	36	0.3	40.456.32.08.KKB	30557360
32	10	36	60	64	40	0.29	40.456.32.10.KKB	30557361
32	12	36	60	64	45	0.28	40.456.32.12.KKB	30557362
32	14	36	60	64	46	0.27	40.456.32.14.KKB	30557364
32	16	36	60	64	48	0.26	40.456.32.16.KKB	30557365
32	18	36	60	64	49	0.24	40.456.32.18.KKB	30557366
32	20	36	60	64	50	0.22	40.456.32.20.KKB	30557367
32	25	36	60	64	56	0.15	40.456.32.25.KKB	30557369

Caution: Never clamp without tool - the reducing sleeve will be damaged!



## Shrink Extension

As flexible adaptation, length adjustment screw (from  $\varnothing$  6mm)  
Tool length as per customer request possible!



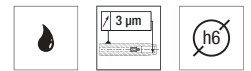
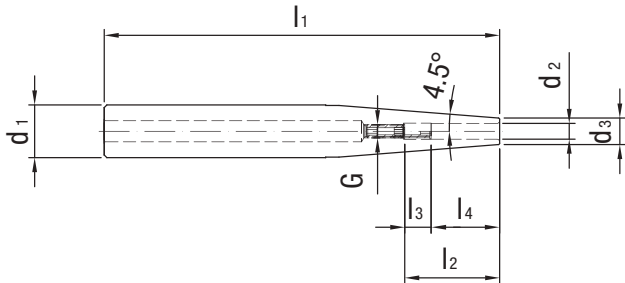
Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
12	3	8	150	-	-	12	-	0.1	-	40.357.12.03.Z	30344729
12	4	8	150	-	-	16	-	0.1	-	40.357.12.04.Z	30344730
12	5	10	150	-	-	20	-	0.1	-	40.357.12.05.Z	30344731
12	6	10	150	36	10	26	M5	2.5	0.1	40.357.12.06.Z	30344732
16	3	10	150	-	-	12	-	0.2	-	40.357.16.03.Z	30344733
16	4	10	150	-	-	16	-	0.2	-	40.357.16.04.Z	30344734
16	5	10	150	-	-	20	-	0.2	-	40.357.16.05.Z	30344735
16	6	10	150	36	10	26	M5	2.5	0.2	40.357.16.06.Z	30344736
16	8	12	150	36	10	26	M6	3	0.2	40.357.16.08.Z	30344737
20	3	10	150	-	-	12	-	0.3	-	40.357.20.03.Z	30344738
20	4	10	150	-	-	16	-	0.3	-	40.357.20.04.Z	30344739
20	5	10	150	-	-	20	-	0.3	-	40.357.20.05.Z	30344740
20	6	10	150	36	10	26	M5	2.5	0.3	40.357.20.06.Z	30344741
20	8	12	150	36	10	26	M6	3	0.3	40.357.20.08.Z	30344742
20	10	14	150	42	10	32	M8x1	3	0.3	40.357.20.10.Z	30344743
20	12	16	150	47	10	37	M10x1	5	0.3	40.357.20.12.Z	30344744

Dimensions in mm.  
Custom designs available on request.

## Shrink Extension

As flexible adaptation, length adjustment screw (from  $\varnothing$  6mm)

Tool length as per customer request possible



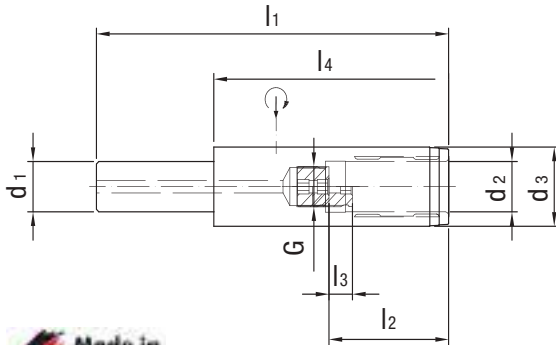
Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
25	3	10	150	-	-	12	-	0.5	-	40.357.25.03.Z	30344745
25	4	10	150	-	-	16	-	0.5	-	40.357.25.04.Z	30344746
25	5	15	150	-	-	20	-	0.5	-	40.357.25.05.Z	30344747
25	6	20	150	36	10	26	M5	2.5	0.5	40.357.25.06.Z	30344748
25	8	20	150	36	10	26	M6	3	0.5	40.357.25.08.Z	30344749
25	10	20	150	42	10	32	M8x1	3	0.5	40.357.25.10.Z	30344750
25	12	20	150	47	10	37	M10x1	5	0.5	40.357.25.12.Z	30344751
25	14	20	150	47	10	37	M10x1	5	0.4	40.357.25.14.Z	30344752
25	16	22	150	50	10	40	M10x1	5	0.4	40.357.25.16.Z	30344753
32	6	20	150	36	10	26	M5	2.5	0.8	40.357.32.06.Z	30344754
32	8	20	150	36	10	26	M6	3	0.8	40.357.32.08.Z	30344755
32	10	24	150	42	10	32	M8x1	3	0.8	40.357.32.10.Z	30344756
32	12	24	150	47	10	37	M10x1	5	0.8	40.357.32.12.Z	30344757
32	14	27	150	47	10	37	M10x1	5	0.8	40.357.32.14.Z	30344758
32	16	27	150	50	10	40	M10x1	5	0.8	40.357.32.16.Z	30344759
32	18	27	150	50	10	40	M10x1	5	0.7	40.357.32.18.Z	30337832
32	20	27	150	52	10	42	M10x1	5	0.7	40.357.32.20.Z	30337833

Dimensions in mm.

Custom designs available on request.

## Hydraulic Expansion Extension

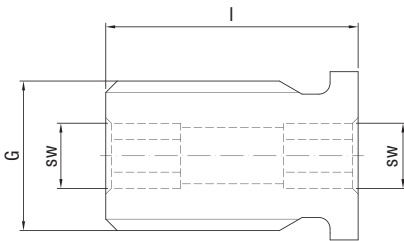
As flexible adaptation



Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
20	12	25	150	46	10	100	M10x1	5	0.5	40.557.20.12.Z	30479021
20	20	31.5	150	51	10	100	M16x1	5	0.6	40.557.20.20.Z	30479022
32	20	31.5	150	51	10	90	M16x1	5	0.7	40.557.32.20.Z	30479024
32	20	31.5	200	51	10	90	M16x1	5	0.8	40.557.32.20.Z/200	30479025

## Stop Screw direct clamping

For axial length adjustment

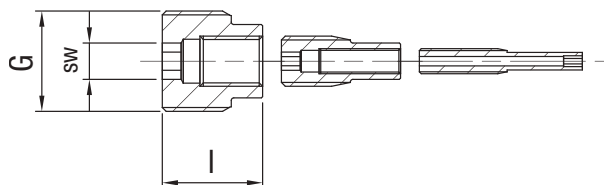


G	sw	l	Weight [kg]	Order designation	Order No.
M5	2.5	12.5	0.001	89.122.88	30252539
M6	3	12.5	0.002	89.122.89	30252540
M8x1	3	13.5	0.004	89.122.23	30252541
M10x1	5	13.5	0.006	89.122.90	30252542
M12x1	5	13.5	0.011	89.122.24	30252543
M16x1	5	13.5	0.017	89.122.19	30252544
M16x1	8	13.5	0.021	89.122.91	30252547

Dimensions in mm.

## AAS Stop Screw

With the use of WTE Reducing Sleeves for axial length adjustment



### AAS 12 for order designation 40.456.12.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M10x1	2.5	16	0.002	89.122.103	30308896
M4x0.5	1.5	26	0.001	89.122.101	30308901

### AAS 20 for order designation 40.456.20.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	16	0.002	89.122.99	30308897
M8x1	2.5	19	0.002	89.122.100	30308899
M4x0.5	1.5	26	0.001	89.122.101	30308901

### AAS 25 for order designation 40.456.25.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	20	0.002	89.122.104	30308904
M8x1	2.5	19	0.002	89.122.100	30308899
M4x0.5	1.5	26	0.001	89.122.101	30308901

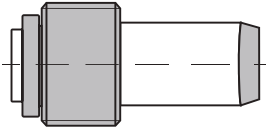
### AAS 32 for order designation 40.456.32.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	20	0.002	89.122.104	30308904
M8x1	2.5	19	0.002	89.122.100	30308899

Dimensions in mm.

## Coolant Transfer Pipe

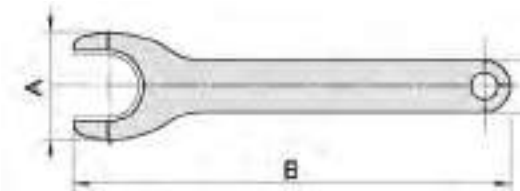
For DIN 69893-A/E



HSK	Weight [kg]	Order designation	Order No.
32	0.01	89.220.72	30326003
40	0.01	89.220.73	30326004
50	0.02	89.220.74	30326005
63	0.02	89.220.75	30326006
80	0.02	89.220.76	30326007
100	0.03	89.220.77	30326008

## Extraction Key

For easy extraction of the Reducing Sleeves from the WTE Hydraulic Chuck

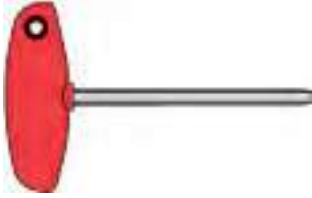


For	A	B	Order designation	Order No.
HS 12	24.6	100	89.206.26	30251198
HS 20	38	160	89.206.27	30251199
HS 25	51	180	89.206.28	30251200
HS 32	63	200	89.206.29	30251201

Dimensions in mm.

## Hexagonal T-key

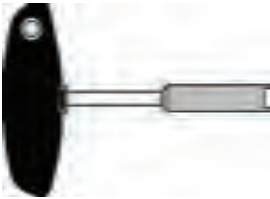
For axial length adjustment



sw	l	Weight [kg]	Order designation	Order No.
2.5	150	0.02	89.206.01	10034540
3	150	0.02	89.206.02	10013347
5	150	0.06	89.206.03	10041807
8	150	0.1	89.206.04	10041808

## Assembly

For coolant transfer pipe



sw	Weight [kg]	Order designation	Order No.
32	0.01	89.206.20	10074750
40	0.01	89.206.21	10074751
50	0.01	89.206.22	10074752
63	0.01	89.206.23	10040110
80	0.02	89.206.24	10074774
100	0.02	89.206.25	10074775

Dimensions in mm.

## Hexagonal T-key

For pressure input



sw	l	Weight [kg]	Order designation	Order No.
4	100	0.03	89.206.07	10006235
5	100	0.06	89.206.15	10006236

Dimensions in mm.