



Standard Programme – Main Catalogue

## CLAMPING TECHNOLOGY

## HIGH PRECISION „MADE IN GERMANY“ WITH COURAGE TO INNOVATE!

WTE Präzisionstechnik GmbH, an internationally active company, is a technology-oriented operations that develops and produces innovations for the field of clamping technology in their design and development department.

Core competences are in the precision chuck technology, in the hydraulic expansion field and in shrink technology. We have reached the top market position in Europe in the field of precision chucks. More products in high-precision clamping technology will follow.



We rely on highly qualified and engaged employees. Presently, there are approximately 150 employees in our company, who enjoy in-house continuous training in order to meet the high quality demands.

Not only continuing development and innovations for solving production-specific problems, but also the sustained expansion of the Germany location is extremely important to us.

With the construction of a third production hall we have laid the cornerstone for strengthening the Germany production location and thus are creating more employment opportunities in the region.



**We are your partner when it comes to clamping technologies - fast, safe, reliable!**

**Hydraulic Chucks**  
Modern Production  
**HPH-High Performance Holder**  
Innovation  
**Shrink Chucks**  
Repair-Service  
**CNC Precision Drill Chucks**  
Technical Advice  
**NC Standard Drill Chucks**  
Partnership  
**MICRO Universal Chucks**  
Availability  
**Technical Information**  
Qualified Employees

## THE ART OF COMBINING PERFECT PRODUCTS AND SERVICES FOR YOUR SUCCESS - ALL UNDER ONE ROOF!



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WTE Präzisionstechnik in Ehrenfriedersdorf is a member of the „tool-traders-partner“ association and takes the advantages of this strong community to the benefit of its customers and the quality of its products. For further information see the last pages of this catalogue or visit us on the internet at [www.tool-traders-partner.com](http://www.tool-traders-partner.com).

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# 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.

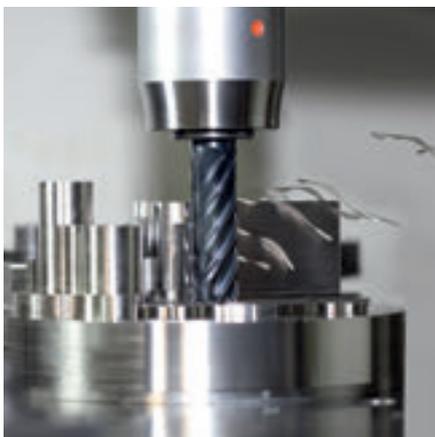
On fine machining parts, very good results can be achieved with the highest radial run-out accuracies. The effect is very significant even on drilling or milling, as lower radial variations have a positive effect on tool lives.

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.

# GENERAL INFORMATION

We deliver in accordance with our delivery/payment terms and conditions (see [www.wte-tools.de](http://www.wte-tools.de)). Through the publication of this catalogue all relevant previous versions lose their validity. We reserve the rights for technical and pricing modifications.

Reclamations are not entitled through misprints of technical information. Reprint or extracts are not allowed without prior agreement with WTE.

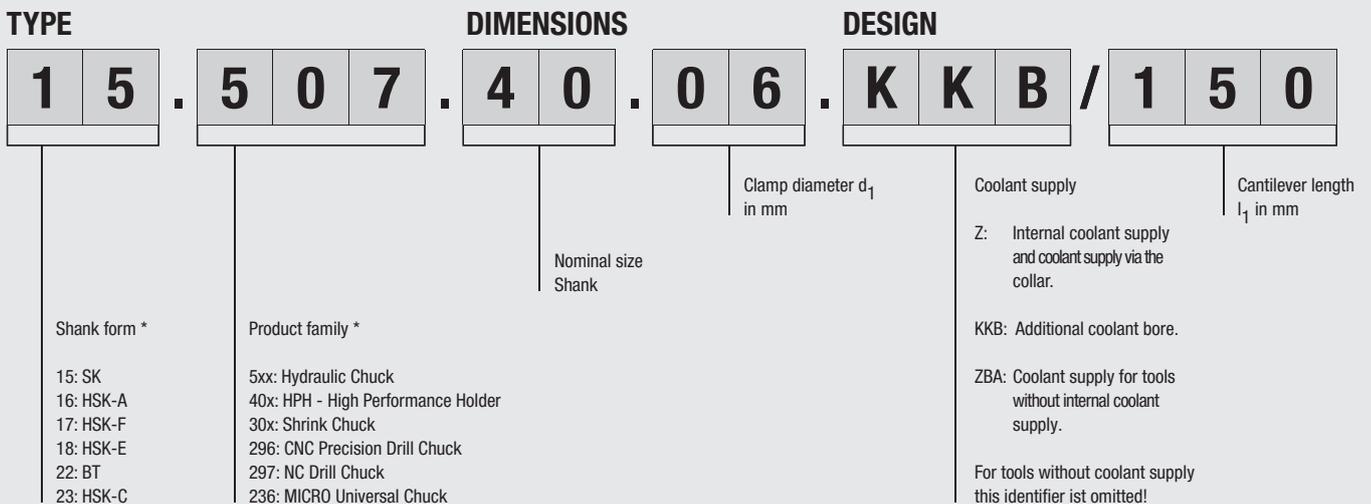
## Explanation of dimensions and abbreviations

d = Clamping diameter reducing sleeve  
 d<sub>1</sub> = Clamping diameter  
 d<sub>2</sub> = Tool restriction min.  
 d<sub>3</sub> = Tool restriction max.

l = Clamping depth (reducing sleeve)  
 = Length (stop screw)  
 = Length setting dimension  
 (length pre-adjuster)

l<sub>1</sub> = Cantilever length  
 L<sub>1</sub>max. = Projection length (Drill Chucks)  
 G = Thread  
 sw = Wrench size

## Order designation / Technical specification



\* The numbers shown for clamping chuck shanks and product families stand for the standard areas included in the programme. Special shanks and further designations within the product families can deviate in the numerical designation.

# GENERAL INFORMATION

## COST EXPLANATION FOR BALANCING

### Minimum orders

The minimum order value is € 20.-- (net).

For low order value we charge a minimum quantity surcharge of € 20.--.

Important information	Prices for factory balancing (plus the legal VAT)		
	Product group	Balance quality	Price/piece in €
	Hydraulic Chucks	G 2.5 > 25000 min <sup>-1</sup>	20.00
	HPH - High Performance Holder	G 2.5 > 25000 min <sup>-1</sup>	20.00
	Shrink Chucks	G 2.5 > 25000 min <sup>-1</sup>	8.00
	CNC Precision Drill Chucks	G 2.5 > 25000 min <sup>-1</sup>	20.00
		G 6.3 > 25000 min <sup>-1</sup>	14.00
	MICRO Universal Chucks	G 2.5 > 25000 min <sup>-1</sup>	20.00

### Symbol explanations

	Explanation of the corresponding standard		Hollow shank taper, Form F		Run-out variation with HSK-Module-shank
	Internal coolant supply taper shank		Internal coolant supply		Run-out variation with radial and angular orientation
	Internal coolant supply taper shank or coolant supply via collar		Without internal coolant supply		Run-out variation with cylindrical-shank
	Hollow shank taper, Form A		Run-out variation with HSK-shank		Shank tolerance
	Hollow shank taper, Form C for manual tool change		Run-out variation with SK-/ISO-shank		Balance quality
	Hollow shank taper, Form E		Run-out variation with SK-Module-shank		Bore for data carrier/chip acc. to DIN 69873-E10 (Balluf)

# 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

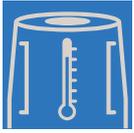
### HPH - High Performance Holders

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



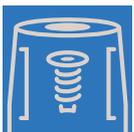
## Shrinking technology

### 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

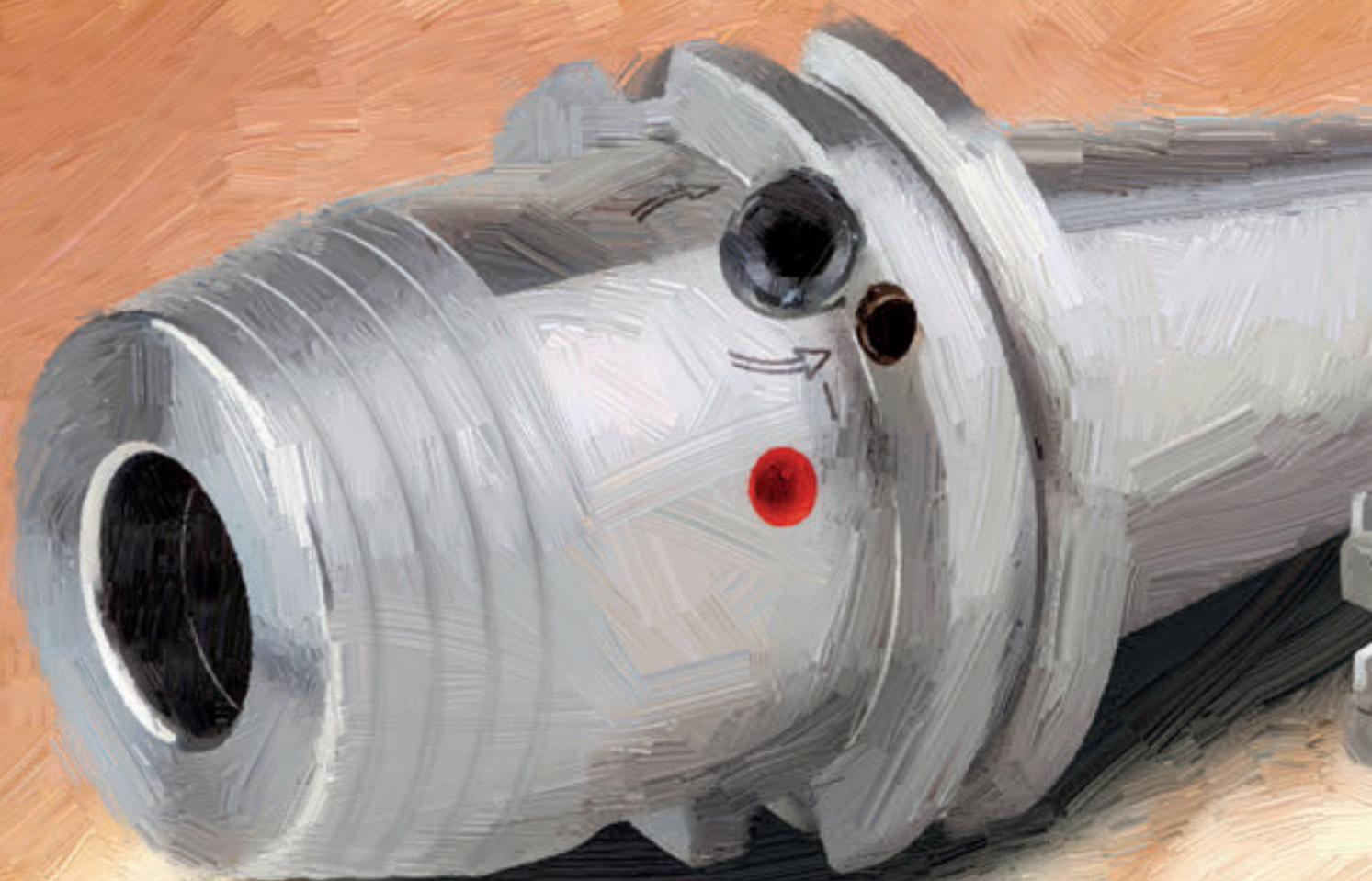
<sup>1)</sup> Short/heavy-duty design: Compact design for high rigidity.

<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 CHUCKS



## Shank form SK as per ISO 7388-1

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

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 as per ISO 7388-2

BT 30/40/50 .....	56-63
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## Chucks with INCH dimensions

CAT 40/50 .....	64-66
HSK-A 63 .....	67
HSK-A 100 .....	68
BT 40 .....	69

## Modules

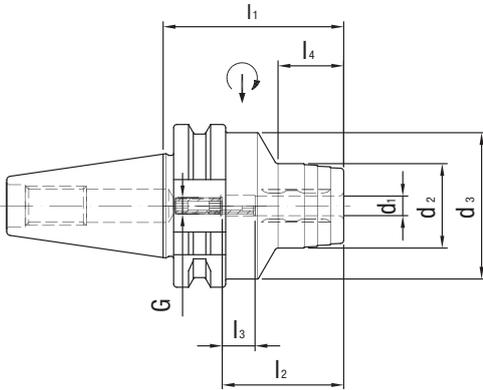
Hydraulic Chuck with radial and angular orientation .....	70
Modular Short Taper Adapter as per ISO 7388-1 .....	71
Modular Short Taper Adapter HSK-A as per DIN 69871 .....	72
Modular Short Taper Adapter BT as per ISO 7388-2 .....	73

## Spare parts & accessories

Spare parts & accessories .....	74-83
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# Hydraulic Chuck ISO 7388-1, Form AD

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



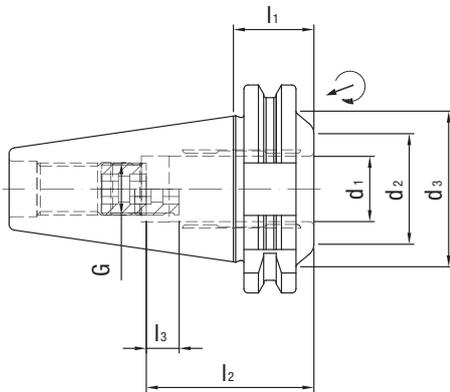
Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
30	6	26	45	55	37	10	20	M5	2.5	0.6	15.507.30.06.Z	30336701
30	8	28	45	55	37	10	20	M6	3	0.6	15.507.30.08.Z	30336702
30	10	30	45	55	41	10	21	M8x1	3	0.6	15.507.30.10.Z	30336703
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 ISO 7388-1, Form AD

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



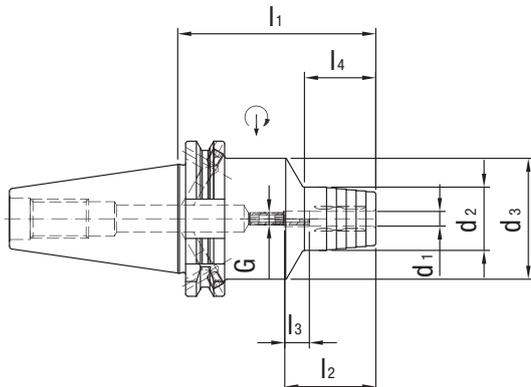
Nominal size SK/ISO	Dimensions						G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$					
40	20	34	48	24.5	51	10	M16x1	8	0.6	15.501.40.20.Z	30349264

Dimensions in mm.

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

# Hydraulic Chuck ISO 7388-1, 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

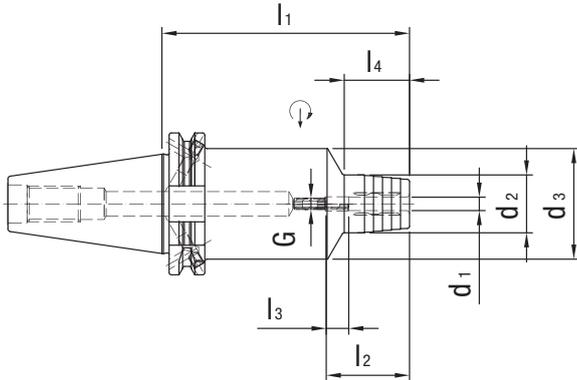
Dimensions in mm.

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 ISO 7388-1, 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

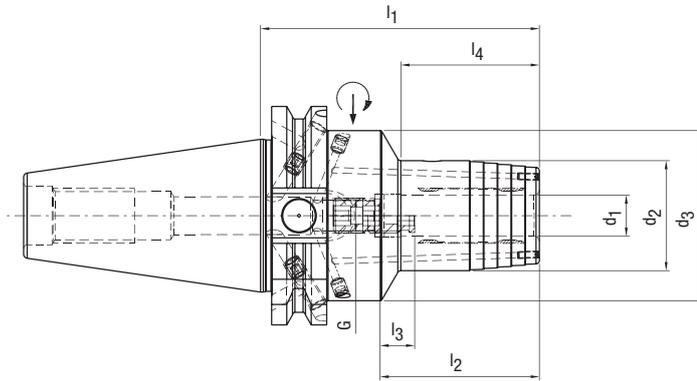
Dimensions in mm.

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 ISO 7388-1, 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

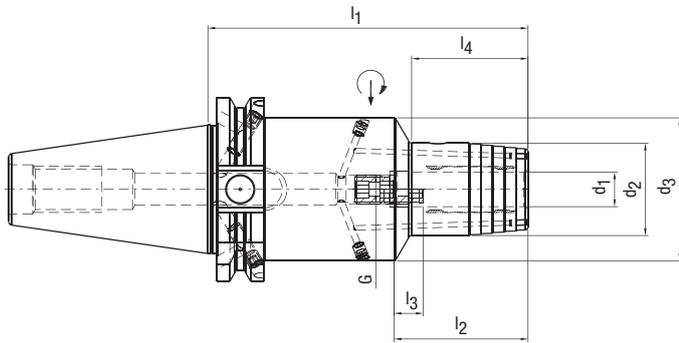
Dimensions in mm.

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 ISO 7388-1, 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

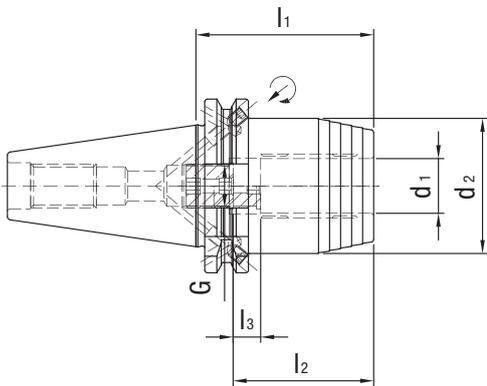
Dimensions in mm.

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.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	20	49.5	64.5	51	10	M16x1	8	1.3	15.508.40.20.Z	30337087

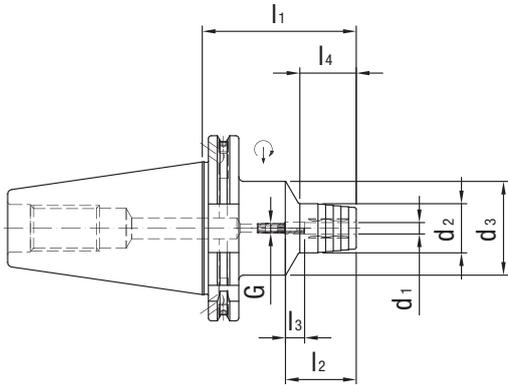
Dimensions in mm.

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 ISO 7388-1, 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

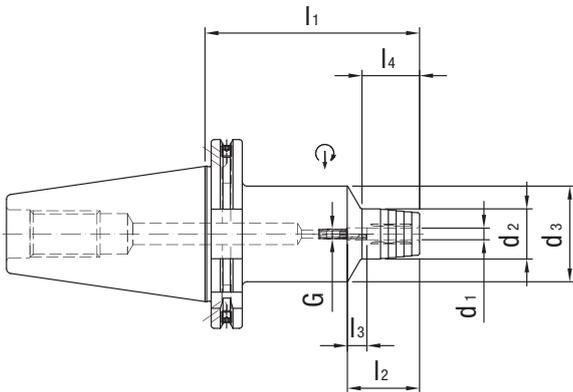
Dimensions in mm.

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 ISO 7388-1, 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 <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	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

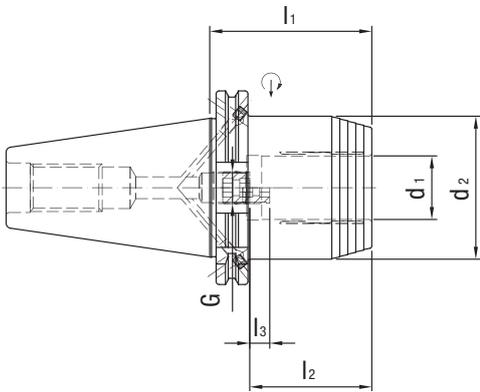
Dimensions in mm.

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 ISO 7388-1, Form AD/AF

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



Chip ISO 7388-1 Form AD/AF 3  $\mu$ m h6 G 2.5 25000 RPM

Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
50	32	72	81	61	10	M16x1	8	3.9	15.508.50.32.Z	30337089

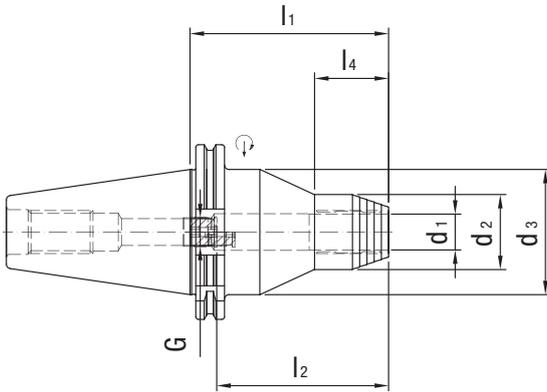
Dimensions in mm.

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 ISO 7388-1, Form AD

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



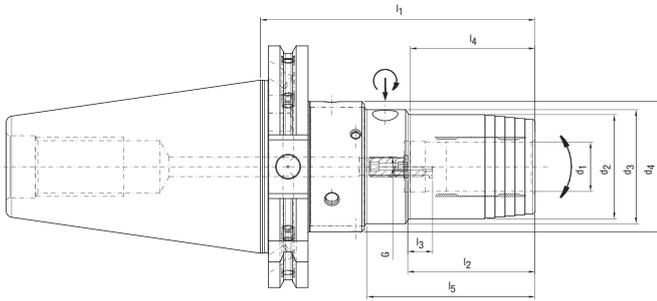
Nominal size SK/ISO	Dimensions						G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_4$					
50	6	32	60	110	43	45	M5	2.5	3.6	15.509.50.06	30336773
50	8	33.5	60	110	43	50	M6	3	3.6	15.509.50.08	30336774
50	10	35	60	110	43	50	M8x1	3	3.7	15.509.50.10	30336775
50	12	36.5	60	110	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 ISO 7388-1, 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.

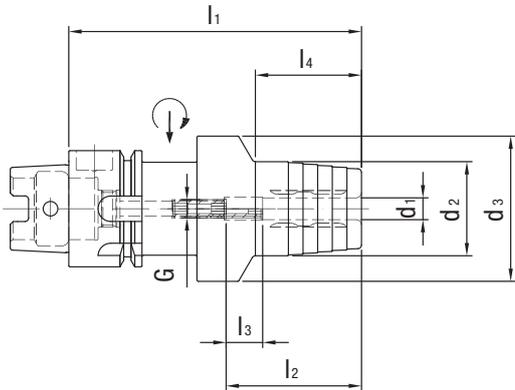
Basic form AD. Please indicate form AF (prev. B) in your order.

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-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

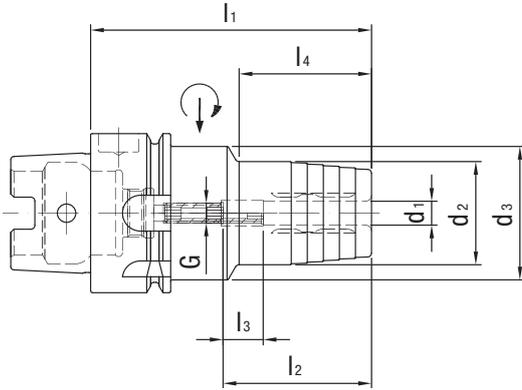
Dimensions in mm.

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-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.

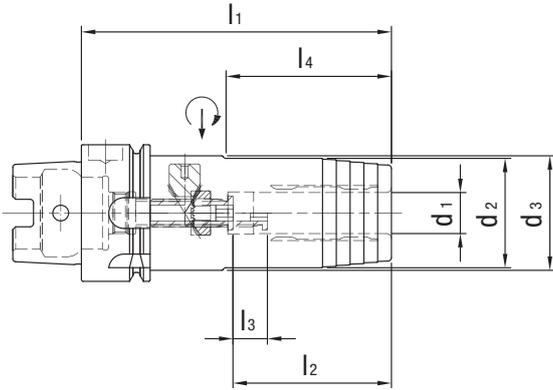
Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck DIN 69893-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

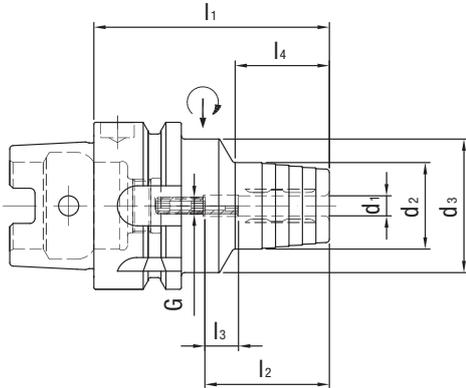
Dimensions in mm.

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-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.

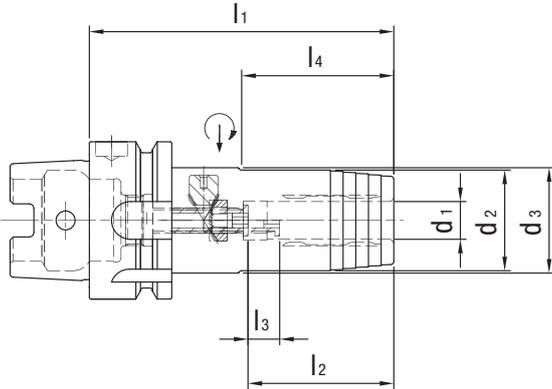
Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck DIN 69893-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

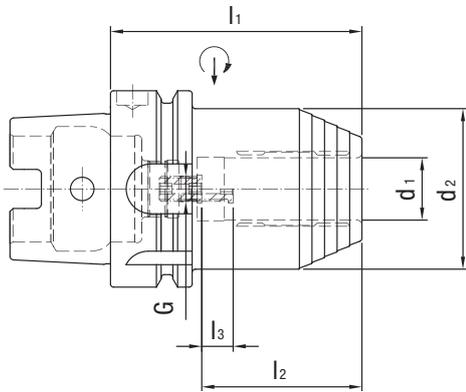
Dimensions in mm.

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-A

Short heavy duty design



Nominal size HSK-A	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
63	20	51.5	80	51	10	M8x1	3	1.5	16.508.63.20.Z	30337091

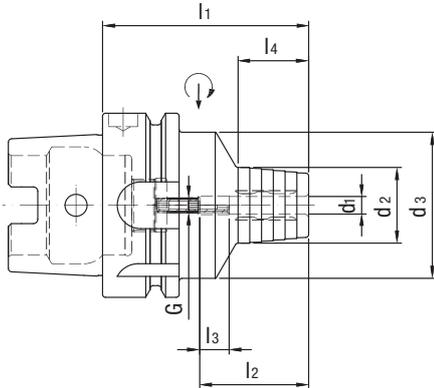
Dimensions in mm.

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-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

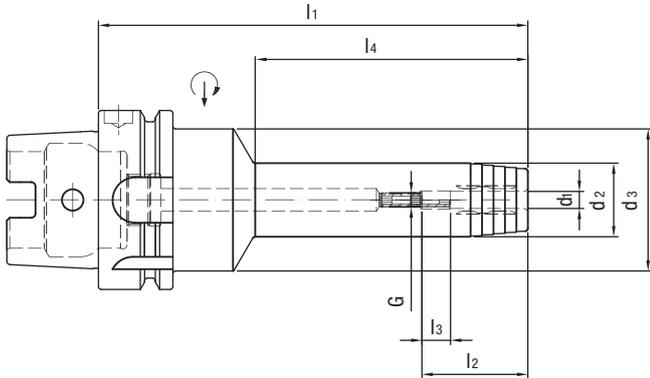
Dimensions in mm.

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-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

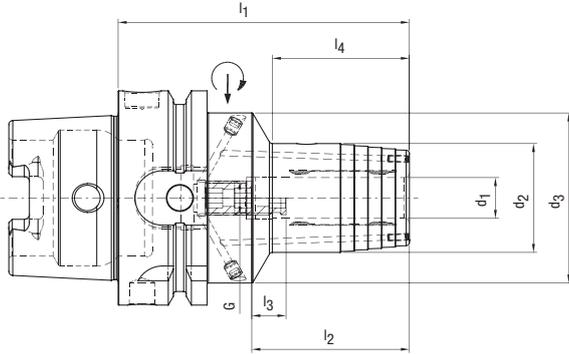
Dimensions in mm.

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-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

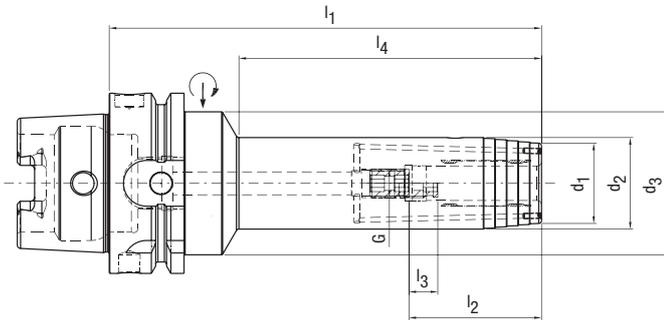
Dimensions in mm.

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-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.

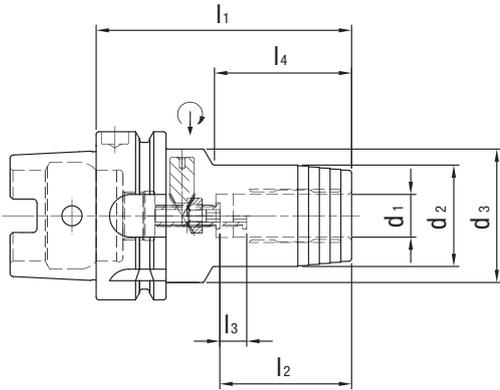
Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck DIN 69893-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.

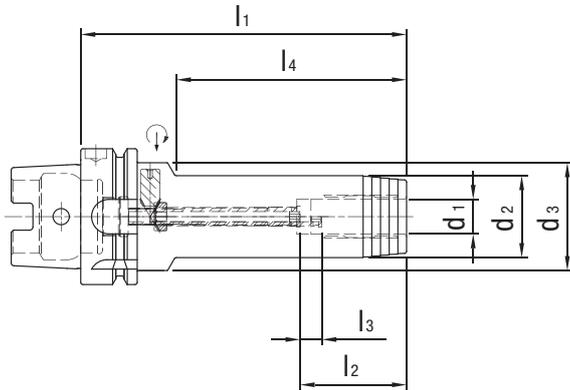
Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck DIN 69893-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

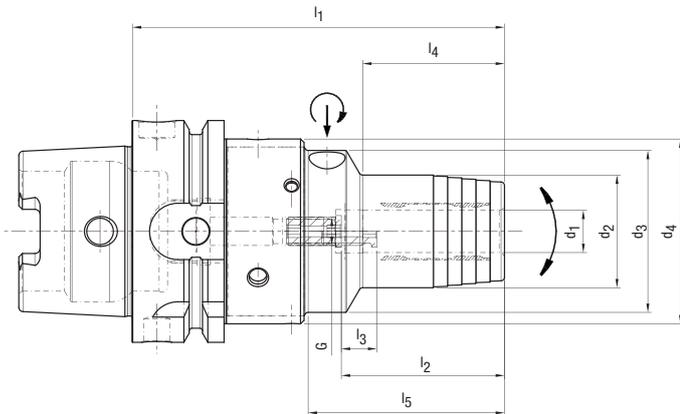
Dimensions in mm.

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-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.

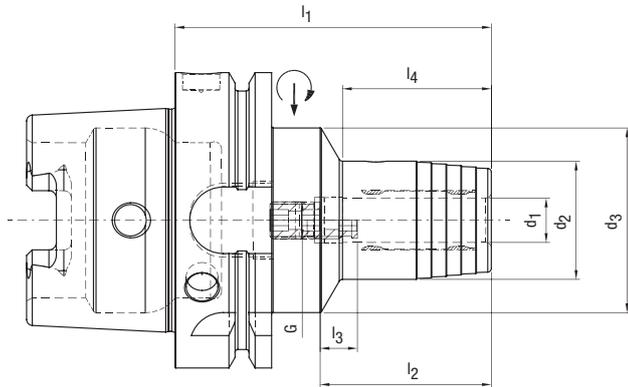
Spare parts and accessories at the end of this chapter.

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

Adjusting and handling instructions, see chapter - Technical Appendix.

# Hydraulic Chuck DIN 69893-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

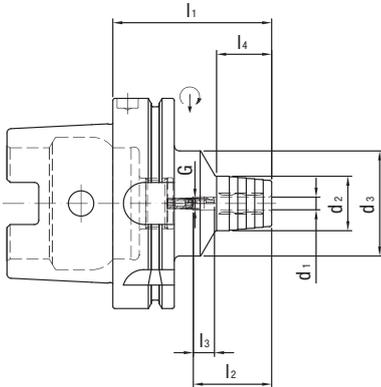
Dimensions in mm.

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-A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
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.

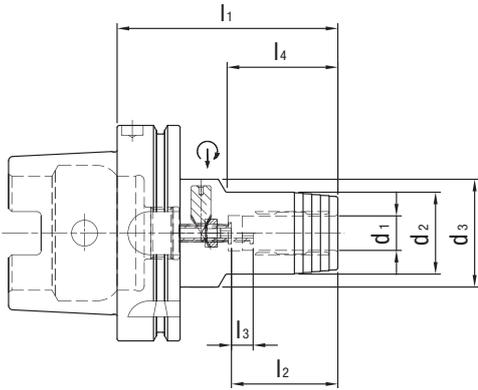
Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck DIN 69893-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

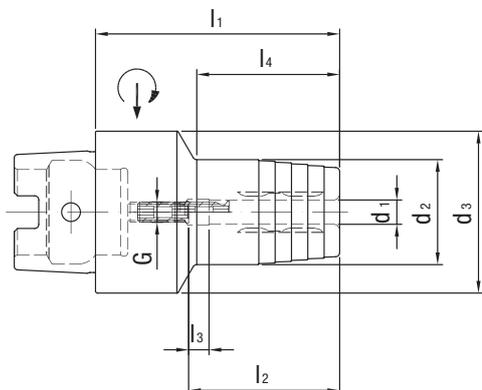
Dimensions in mm.

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-C

Short narrow design, for manual change



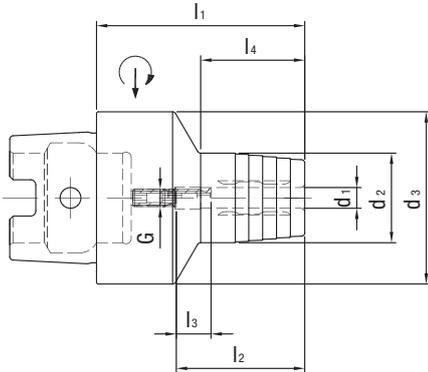
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	6	26	40	60	37	10	35	M5	2.5	0.5	23.507.40.06.Z	30337045
40	8	28	40	60	37	10	36	M6	3	0.5	23.507.40.08.Z	30337046
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-C

Short narrow design, for manual change



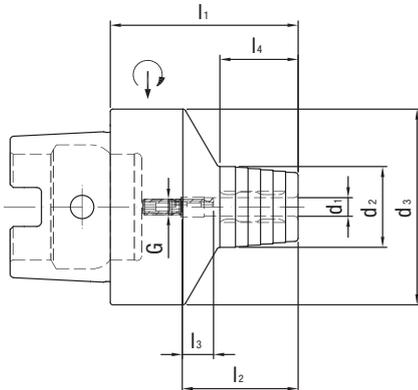
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	6	26	50	60	37	10	30	M5	2.5	0.7	23.507.50.06.Z	30337049
50	8	28	50	60	37	10	30	M6	3	0.7	23.507.50.08.Z	30337050
50	10	30	50	65	41	10	35	M8x1	3	1	23.507.50.10.Z	30337051
50	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-C

Short narrow design, for manual change



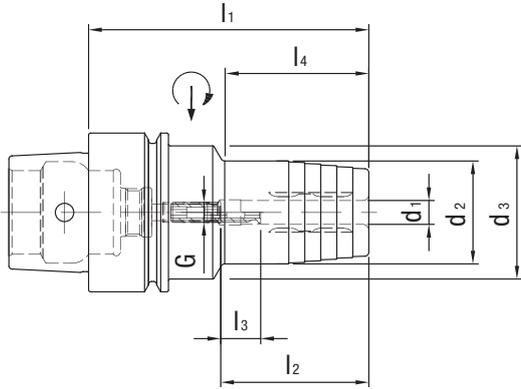
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	63	60	37	10	25	M5	2.5	1	23.507.63.06.Z	30337058
63	8	28	63	60	37	10	25	M6	3	1	23.507.63.08.Z	30337059
63	10	30	63	65	41	10	31	M8x1	3	1	23.507.63.10.Z	30337060
63	12	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-E

Short narrow design, for automatic change



DIN 69893
Form E

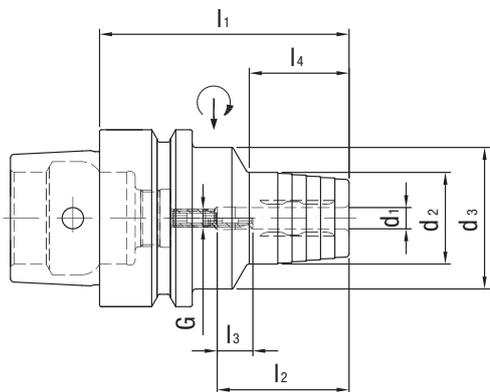
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	26	33.5	70	37	10	36	M5	2.5	0.5	18.507.40.06.Z	30336886
40	8	28	33.5	70	37	10	36	M6	3	0.5	18.507.40.08.Z	30336887
40	10	30	33.5	75	41	10	42	M6	3	0.6	18.507.40.10.Z	30336888
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-E

Short narrow design, for automatic change



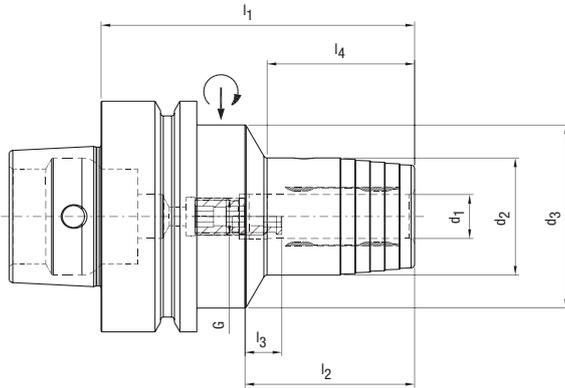
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	6	26	40	70	37	10	28	M5	2.5	0.9	18.507.50.06.Z	30336892
50	8	28	40	70	37	10	28	M6	3	0.9	18.507.50.08.Z	30336893
50	10	30	40	75	41	10	34	M8x1	3	1	18.507.50.10.Z	30336894
50	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-F

Short narrow design, for automatic change



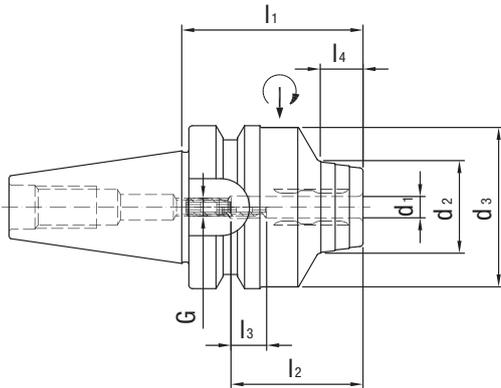
Nominal size HSK-F	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	26	50	70	37	10	24	M5	2.5	1	17.507.63.06	30336877
63	8	28	50	70	37	10	25	M6	3	1	17.507.63.08	30336878
63	10	30	50	80	41	10	35	M8x1	3	1.1	17.507.63.10	30336879
63	12	32	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 ISO 7388-2 (JIS B6339)

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

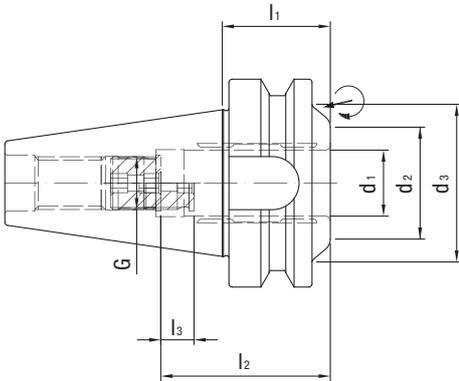
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck ISO 7388-2 (JIS B6339)

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

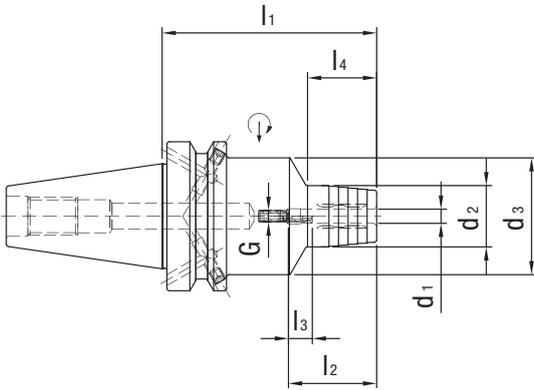
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

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

## Hydraulic Chuck ISO 7388-2 (JIS B6339)

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.

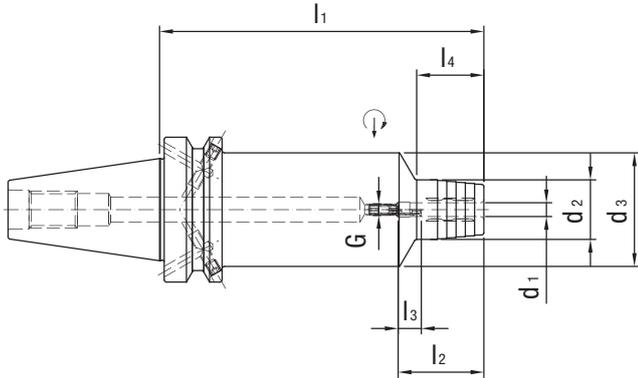
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck ISO 7388-2 (JIS B6339)

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.

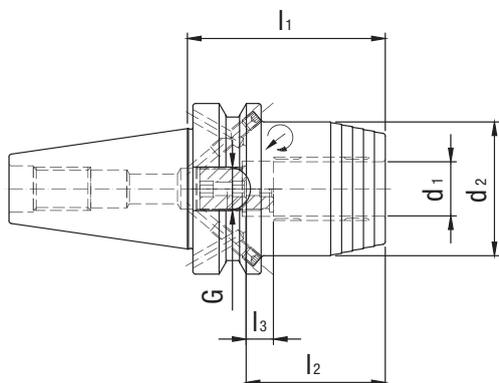
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

## Hydraulic Chuck ISO 7388-2 (JIS B6339)

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.

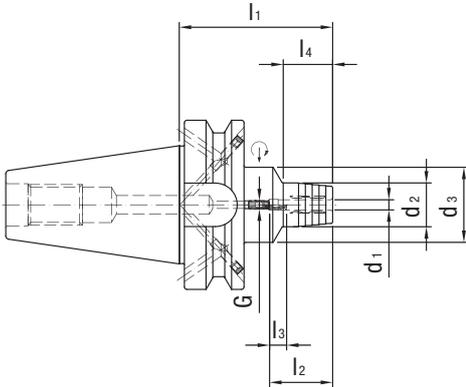
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck ISO 7388-2 (JIS B6339)

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.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
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.

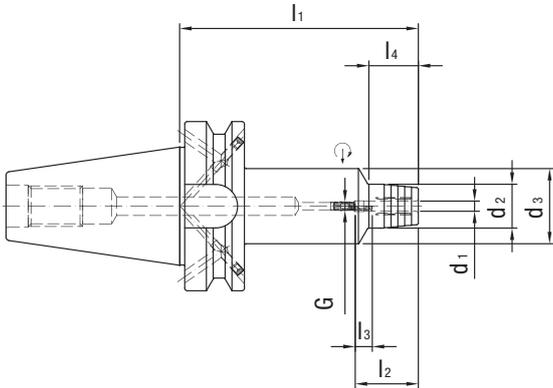
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

## Hydraulic Chuck ISO 7388-2 (JIS B6339)

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.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
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.

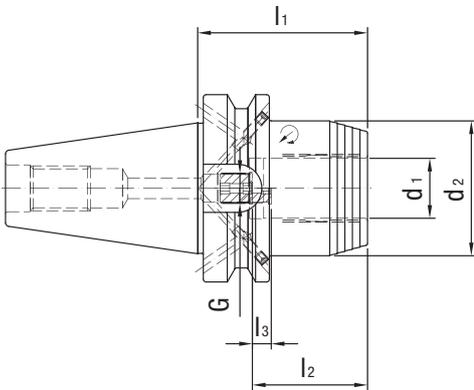
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck ISO 7388-2 (JIS B6339)

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.

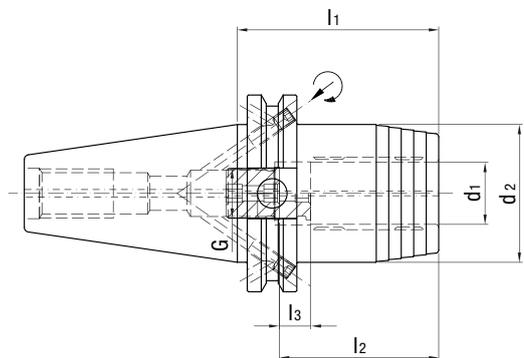
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

## Hydraulic Chuck ANSI CAT 40

Inch & metric serie, short heavy duty design, coolant supply as per ISO 7388-1, Form AD/AF



### Inch series

Nominal size CAT	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>					
	mm	inch	mm	mm	inch	mm	mm					
40	12.70	1/2	44.50	64	2.5197	46	10	M10X1	5	1.30	31.508.40.1/2".Z	30567887
40	15.88	5/8	44.50	64	2.5197	49	10	M12X1	5	1.30	31.508.40.5/8".Z	30567888
40	19.05	3/4	44.50	64	2.5197	51	10	M16X1	8	1.20	31.508.40.3/4".Z	30567889

### Metric series

Nominal size CAT	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>					
	mm	inch	mm	mm	inch	mm	mm					
40	20.00	0.7874	44.50	64	2.5197	51	10	M16X1	8	1.20	31.508.40.20.Z	30560811

Dimensions in mm.

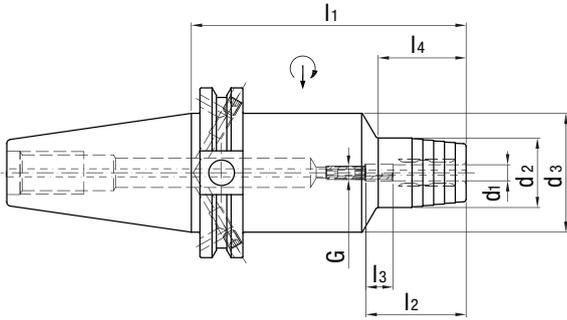
Basic form AD. Please indicate form AF (prev. B) in your order.

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 ANSI CAT 40

Inch & metric series, short narrow design, coolant supply as per ISO 7388-1, Form AD/AF



## Inch series

Nominal size CAT	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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	6.35	1/4	26	44.50	101.60	4	37	10	32.50	M5	2.5	1.50	31.507.40.1/4".Z	30527980
40	9.53	3/8	30	44.50	101.60	4	41	10	41.50	M8x1	3	1.40	31.507.40.3/8".Z	30528097
40	12.70	1/2	32	44.50	101.60	4	46	10	41.50	M10x1	5	1.50	31.507.40.1/2".Z	30528100
40	15.88	5/8	38	44.50	101.60	4	49	10	49.50	M12x1	5	1.50	31.507.40.5/8".Z	30528103
40	19.05	3/4	42	44.50	101.60	4	51	10	49.50	M16x1	8	1.60	31.507.40.3/4".Z	30528105
40	25.40	1	55	61.00	101.60	4	57	10	66.50	M16x1	8	2.10	31.507.40.1".Z	30528108
40	31.75	1 1/4	61	61.00	101.60	4	61	10	-	M16x1	8	2.20	31.507.40.1_1/4".Z	30528111

## Metric series

Nominal size CAT	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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	6.00	0.2362	26	44.50	101.60	4	37	10	32.50	M5	2.5	1.50	31.507.40.06.Z	30568102
40	8.00	0.3150	28	44.50	101.60	4	37	10	35.50	M6	3	1.50	31.507.40.08.Z	30568105
40	10.00	0.3937	30	44.50	101.60	4	41	10	41.50	M8X1	3	1.50	31.507.40.10.Z	30568106
40	12.00	0.4724	32	44.50	101.60	4	46	10	41.50	M10X1	5	1.50	31.507.40.12.Z	30568107
40	14.00	0.5512	34	44.50	101.60	4	46	10	49.50	M10X1	5	1.50	31.507.40.14.Z	30568110
40	16.00	0.6299	38	44.50	101.60	4	49	10	49.50	M12X1	5	1.60	31.507.40.16.Z	30568111
40	18.00	0.7087	40	44.50	101.60	4	49	10	49.50	M12X1	5	1.60	31.507.40.18.Z	30568112
40	20.00	0.7874	42	44.50	101.60	4	51	10	49.50	M16X1	8	1.60	31.507.40.20.Z	30568113
40	25.00	0.9843	55	65.00	101.60	4	57	10	66.00	M16X1	8	2.10	31.507.40.25.Z	30568114
40	32.00	1.2598	63	80.00	101.60	4	61	10	56.00	M16X1	8	2.20	31.507.40.32.Z	30568115

Dimensions in mm.

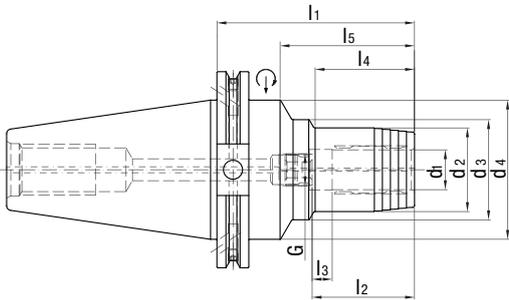
Basic form AD. Please indicate form AF (prev. B) in your order.

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 ANSI CAT 50

Inch & metric series, short narrow design, coolant supply as per ISO 7388-1, Form AD/AF



## Inch series



Nominal size CAT	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>
	mm	inch	mm	mm	mm	mm	inch	mm	mm	mm						mm
50	6.35	1/4	26	69.85	50.25	101.60	4	37	10	32.50	60.50	M5	2.5	3.70	31.507.50.1/4".Z	30528020
50	9.53	3/8	30	69.85	50.25	101.60	4	41	10	36.00	60.50	M8x1	3	3.70	31.507.50.3/8".Z	30528120
50	12.70	1/2	32	69.85	50.25	101.60	4	46	10	41.50	60.50	M10x1	5	3.70	31.507.50.1/2".Z	30528128
50	15.88	5/8	38	69.85	50.25	101.60	4	49	10	47.50	60.50	M12x1	5	3.70	31.507.50.5/8".Z	30528132
50	19.05	3/4	42	69.85	50.25	101.60	4	51	10	49.50	60.50	M16x1	8	3.70	31.507.50.3/4".Z	30528135
50	25.40	1	57	69.85	63.00	101.60	4	57	10	49.50	64.00	M16x1	8	4.20	31.507.50.1".Z	30528138
50	31.75	1 1/4	64	69.85	-	101.60	4	61	10	65.00	-	M16x1	8	4.30	31.507.50.1_1/4 ".Z	30528142

## Metric series

Nominal size CAT	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>
	mm	inch	mm	mm	mm	mm	inch	mm	mm	mm						mm
50	6.00	0.2362	26	69.85	50.30	101.60	4	37	10	32.50	60.50	M5	2.5	3.70	31.507.50.06.Z	30568274
50	8.00	0.3150	28	69.85	50.30	101.60	4	37	10	36.00	60.50	M6	3	3.70	31.507.50.08.Z	30568275
50	10.00	0.3937	30	69.85	50.30	101.60	4	41	10	36.00	60.50	M8X1	3	3.70	31.507.50.10.Z	30568277
50	12.00	0.4724	32	69.85	50.30	101.60	4	46	10	41.50	60.50	M10X1	5	3.70	31.507.50.12.Z	30568278
50	14.00	0.5512	34	69.85	50.30	101.60	4	46	10	41.50	60.50	M10X1	5	3.70	31.507.50.14.Z	30568281
50	16.00	0.6299	38	69.85	50.30	101.60	4	49	10	47.50	60.50	M12X1	5	3.70	31.507.50.16.Z	30568282
50	18.00	0.7087	40	69.85	50.30	101.60	4	49	10	47.50	60.50	M12X1	5	3.80	31.507.50.18.Z	30568284
50	20.00	0.7874	42	69.85	50.30	101.60	4	51	10	49.50	60.50	M16X1	8	3.80	31.507.50.20.Z	30568285
50	25.00	0.9843	57	69.85	63.00	101.60	4	57	10	49.50	64.00	M16X1	8	4.20	31.507.50.25.Z	30568286
50	32.00	1.2598	64	69.85	-	101.60	4	61	10	65.00	-	M16X1	8	4.30	31.507.50.32.Z	30568288

Dimensions in mm.

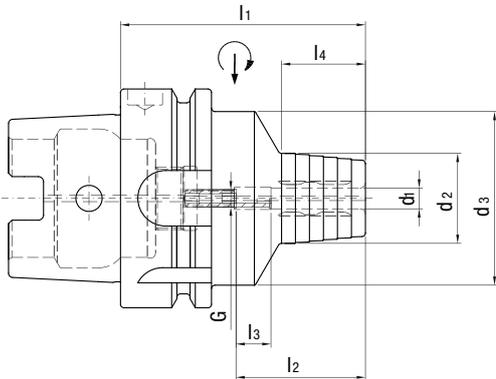
Basic form AD. Please indicate form AF (prev. B) in your order.

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-A

Inch & metric series, short narrow design



## Inch series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
63	6.35	1/4	26	50	70	2.7559	37	10	24	M5	2,5	1.00	16.507.63.1/4".Z	30567931
63	9.53	3/8	30	50	80	3.1496	41	10	35	M8X1	3	1.10	16.507.63.3/8".Z	30567930
63	12.70	1/2	32	50	85	3.3465	46	10	40	M10X1	5	1.10	16.507.63.1/2".Z	30567929
63	19.05	3/4	42	50	90	3.5433	51	10	48	M16X1	8	1.30	16.507.63.3/4".Z	30567928
63	25.40	1	57	63	120	4.7244	57	10	59	M16X1	8	2.10	16.507.63.1".Z	30567927
63	31.75	1 1/4	64	75	125	4.9213	61	10	65	M16X1	8	2.40	16.507.63.1_1/4 ".Z	30567925

## Metric series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
63	6.00	0.2362	26	50	70	2.7559	37	10	24	M5	2.5	0.90	16.507.63.06.Z	30336832
63	8.00	0.3150	28	50	70	2.7559	37	10	25	M6	3	0.90	16.507.63.08.Z	30336837
63	10.00	0.3937	30	50	80	3.1496	41	10	35	M8x1	3	1.00	16.507.63.10.Z	30336842
63	12.00	0.4724	32	50	85	3.3465	46	10	40	M10x1	5	1.00	16.507.63.12.Z	30336847
63	14.00	0.5512	34	50	85	3.3465	46	10	40	M10x1	5	1.10	16.507.63.14.Z	30336852
63	16.00	0.6299	38	50	90	3.5433	49	10	46	M12x1	5	1.20	16.507.63.16.Z	30336857
63	18.00	0.7087	40	50	90	3.5433	49	10	47	M12x1	5	1.20	16.507.63.18.Z	30336862
63	20.00	0.7874	42	50	90	3.5433	51	10	48	M16x1	5	1.20	16.507.63.20.Z	30336867
63	25.00	0.9843	57	53	120	4.7244	57	10	63	M16x1	5	2.10	16.507.63.25.Z	30336873
63	32.00	1.2598	63	59	125	4.9213	61	10	61	M16x1	5	2.30	16.507.63.32.Z	30336875

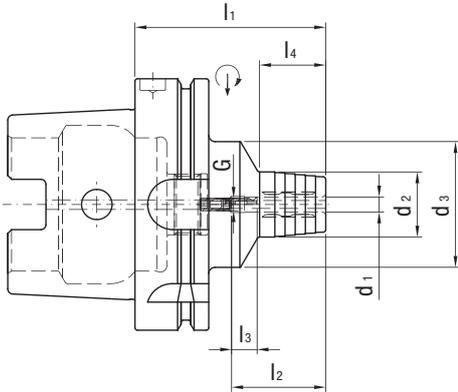
Dimensions in mm.

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-A

Inch & metric series, short narrow design



## Inch series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
100	31.75	1 1/4	64	75	110	4.3307	61	10	62	M16X1	8	3.7	16.507.100.1_1/4 ".Z	30567935

## Metric series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
100	6.00	0.2362	26	50	75	2.9528	37	10	26	M5	2.5	2.30	16.507.100.06.Z	30336784
100	8.00	0.3150	28	50	75	2.9528	37	10	26	M6	3	2.30	16.507.100.08.Z	30336788
100	10.00	0.3937	30	50	90	3.5433	41	10	42	M8x1	3	2.50	16.507.100.10.Z	30336792
100	12.00	0.4724	32	50	95	3.7402	46	10	47	M10x1	5	2.50	16.507.100.12.Z	30336796
100	14.00	0.5512	34	50	95	3.7402	46	10	47	M10x1	5	2.50	16.507.100.14.Z	30336800
100	16.00	0.6299	38	50	100	3.9370	49	10	53	M12x1	5	2.60	16.507.100.16.Z	30336802
100	18.00	0.7087	40	50	100	3.9370	49	10	53	M12x1	5	2.60	16.507.100.18.Z	30336806
100	20.00	0.7874	42	50	105	4.1339	51	10	59	M16x1	8	2.70	16.507.100.20.Z	30336808
100	25.00	0.9843	57	63	110	4.3307	57	10	62	M16x1	8	3.30	16.507.100.25.Z	30336812
100	32.00	1.2598	63	67	110	4.3307	61	10	60	M16x1	8	3.50	16.507.100.32.Z	30336814

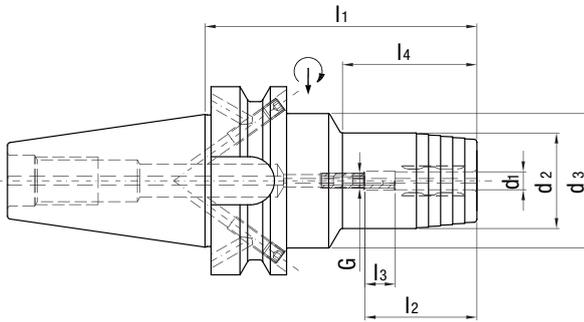
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck ISO 7388-2 (JIS B6339)

Inch & metric series, short narrow design, coolant supply as per ISO 7388-2, Form JD/JF



## Inch series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	6.35	1/4	26	45	90	3.5433	37	10	43.50	M5	2.5	1.40	22.507.40.1/4".Z	30568334
40	9.53	3/8	30	45	90	3.5433	41	10	44.50	M8X1	3	1.40	22.507.40.3/8".Z	30568338
40	12.70	1/2	32	45	90	3.5433	46	10	44.50	M10X1	5	1.50	22.507.40.1/2".Z	30568330
40	15.88	5/8	42	45	90	3.5433	49	10	47.50	M12X1	5	1.40	22.507.40.5/8".Z	30568340
40	19.05	3/4	42	45	90	3.5433	51	10	47.50	M16X1	8	1.60	22.507.40.3/4".Z	30568336

## Metric series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	6.00	0.2362	26	49.50	90	3.5433	37	10	29	M5	2.5	1.50	22.507.40.06.Z	30336927
40	8.00	0.3150	28	49.50	90	3.5433	37	10	30	M6	3	1.60	22.507.40.08.Z	30336933
40	10.00	0.3937	30	49.50	90	3.5433	41	10	35	M8x1	3	1.60	22.507.40.10.Z	30336939
40	12.00	0.4724	32	49.50	90	3.5433	46	10	40	M10x1	5	1.60	22.507.40.12.Z	30336946
40	14.00	0.5512	34	49.50	90	3.5433	46	10	40	M10x1	5	1.60	22.507.40.14.Z	30336953
40	16.00	0.6299	38	49.50	90	3.5433	49	10	45	M12x1	5	1.60	22.507.40.16.Z	30336958
40	18.00	0.7087	40	49.50	90	3.5433	49	10	46	M12x1	5	1.60	22.507.40.18.Z	30336964
40	20.00	0.7874	42	49.50	90	3.5433	51	10	47	M16x1	8	1.60	22.507.40.20.Z	30336969
40	25.00	0.9843	55	52.00	90	3.5433	57	10	50	M16x1	8	1.90	22.507.40.25.Z	30336975
40	32.00	1.2598	63	62.00	90	3.5433	61	10	48	M16x1	8	2.10	22.507.40.32.Z	30336982

Dimensions in mm.

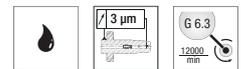
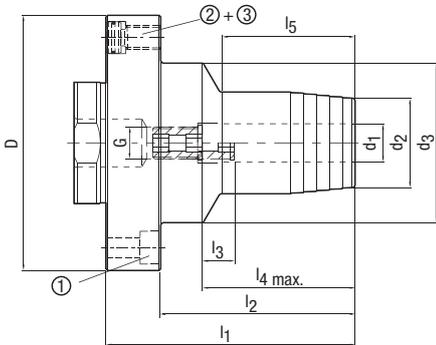
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# Hydraulic Chuck with radial and angular orientation

Module connection dimensions as per MN5000-14



Module diameter D	Dimensions								G	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> max.	l <sub>5</sub>				
60	6	26	42	65	52	10	37	34	M5	0.6	68.507.60.06.Z	30716685
60	8	28	42	65	52	10	37	35	M6	0.6	68.507.60.08.Z	30716687
60	10	30	42	70	57	10	41	40	M8x1	0.7	68.507.60.10.Z	30716688
60	12	32	42	75	62	10	46	46	M10x1	0.7	68.507.60.12.Z	30716691
80	12	32	50	77.5	60.5	10	47.5	41.5	M10x1	1.2	68.507.80.12.Z	30338153
80	16	38	50	82.5	65.5	10	52.5	47.5	M12x1	1.3	68.507.80.16.Z	30338154
80	20	42	50	82.5	65.5	10	52.5	49.5	M16x1	1.4	68.507.80.20.Z	30338155
100	25	57	63	100	79	10	61.5	61	M16x1	2.8	68.507.100.25.Z	30492397
117	32	64	75	103	82	10	65	60	M16x1	3.7	68.507.117.32.Z	30492399

## Spare parts for Hydraulic Chuck with radial and angular orientation

Module diameter D	Quantity required	① Cylinder head screw as per ISO 4762			② Thrust piece	
		Size	Order designation	Order No.	Order designation	Order No.
60	4	M5x16 – 12.9	89.122.144	10003601	89.122.113	10040108
80	4	M6x20 – 12.9	89.122.112	10003619	89.122.113	10040108
100	4	M8x25 – 12.9	89.122.154	10003637	89.122.153	10075116
117	4	M8x25 – 12.9	89.122.154	10003637	89.122.153	10075116

Module diameter D	Quantity required	③ Grub screw		
		Size	Order designation	Order No.
60	4	M8x1x8	89.122.146	10040109
80	4	M8x1x8	89.122.114	10075074
100	4	M8x1x11.5	89.122.152	10075100
117	4	M10x1x14	89.122.152	10075100

**Usage:** For clamping tools with smooth cylindrical shanks in accordance with DIN 6535 Form HA up to  $\varnothing$  32 mm as well as with recesses in accordance with DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and without intermediate sleeves in the clamping diameter. The clamping diameter is designed for a shank tolerance of h6.

**Supply includes:** Complete with length adjustment screw, clamping screw, cylinder head screws (for fastening the chuck) and alignment screws (thrust pad and threaded pin).

**Design:** Longest tool lives and highest manufacturing quality on usage of smooth cylindrical shanks in accordance with DIN 1835 Form A and DIN 6535 Form HA. With a projection length of 2.5 x D (max. 50 mm) radial run-out accuracy 0.003 mm. Due to threaded pins (for alignment) in the machine spindle and in the HSK or ISO adapter, exactly adjustable for radial run-out. Due to thrust pad and threaded pin in the hydraulic chuck, exactly adjustable for axial run-out. On usage of cylindrical shanks with angled clamping surface (Form E and Form HE) the accuracy may be affected.

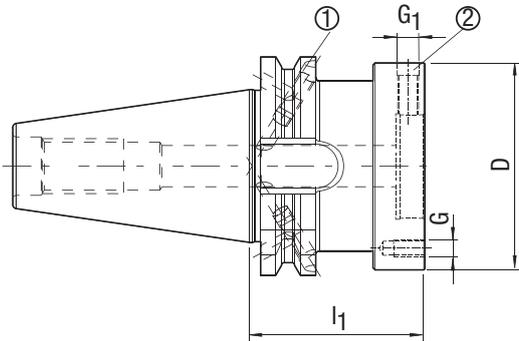
**Note:** Chuck with axial tool length adjustment. Coolant supply via central through-bore. Intermediate sleeves see section "Accessories, spare parts and measuring equipment". (The accuracy may be affected on the usage of the intermediate sleeve.)

Dimensions in mm.

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

# Modular Short Taper Adapter ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B)



Nominal size SK	Dimensions						Order designation	Order No.
	D	l <sub>1</sub>	G	G <sub>1</sub>	Form	Weight [kg]		
30*	60	50	M5	M8x1	AD	0.8	15.150.30.AD.60.Z	30584676
30*	70	50	M6	M8x1	AD	0.9	15.150.30.AD.70.Z	30584681
40	60	50	M5	M8x1	AD/AF	1.3	15.150.40.60.Z	30584684
40	70	50	M6	M8x1	AD/AF	1.4	15.150.40.70.Z	30584685
40	80	55	M6	M8x1	AD/AF	1.7	15.150.40.80.Z	30584686
40	100	60	M8	M10x1	AD/AF	2.2	15.150.40.100.Z	30584689
45	60	50	M5	M8x1	AD/AF	2.8	15.150.45.60.Z	30584690
45	70	50	M6	M8x1	AD/AF	2.9	15.150.45.70.Z	30584692
45	80	55	M6	M8x1	AD/AF	3.1	15.150.45.80.Z	30584694
45	100	60	M8	M10x1	AD/AF	3.3	15.150.45.100.Z	30584697
45	117	60	M8	M10x1	AD/AF	3.5	15.150.45.117.Z	30584698
50	60	50	M5	M8x1	AD/AF	3.2	15.150.50.60.Z	30584700
50	70	50	M6	M8x1	AD/AF	3.4	15.150.50.70.Z	30584701
50	80	50	M6	M8x1	AD/AF	3.6	15.150.50.80.Z	30584720
50	100	60	M8	M10x1	AD/AF	4.4	15.150.50.100.Z	30584721
50	117	60	M8	M10x1	AD/AF	4.5	15.150.50.117.Z	30584723
50	140	60	M10	M10x1	AD/AF	4.7	15.150.50.140.Z	30584724

\* Short taper size SK 30 is not available in the combination design AD/AF!

## Spare parts: Grub screws as per ISO 4026

Nominal size SK	Quantity required	① Cylinder head screw as per ISO 4026		
		Size	Order designation	Order No.
40/45/50	2	M5x5	89.122.688	10036757

## Spare parts: Grub screws

Module diameter D	Quantity required	② Grub screw	
		Order designation	Order No.
60-80	4	89.122.685	10075355
100-140	4	89.122.684	10075099

Usage: For use in the machine spindle for mounting KS flange adapters, shrink chucks, hydraulic chucks, chucks for cylindrical shanks or tools with a modular shank in accordance with WTE works standard.

Supply includes: Complete with threaded pins for aligning the radial run-out, does not include pull stud.

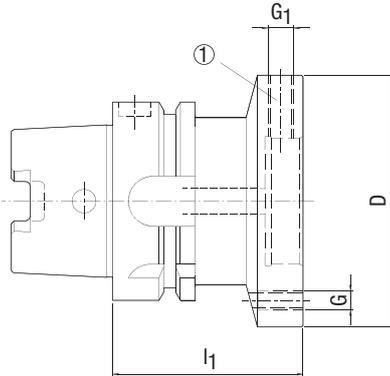
Design: Due to threaded pins the radial run-out of a connection or tool fitted can be adjusted exactly in relation to the steep taper.

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.

# Modular Short Taper Adapter HSK-A as per DIN 69893-A



Nominal size HSK-A	Dimensions					Order designation	Order No.
	D	$l_1$	G	$G_1$	Weight [kg]		
40	60	60	M5	M8x1	0.7	16.150.40.60.Z	30615827
50	60	60	M5	M8x1	0.9	16.150.50.60.Z	30584456
50	70	60	M6	M8x1	1	16.150.50.70.Z	30584465
50	80	60	M6	M8x1	1.1	16.150.50.80.Z	30584469
63	60	60	M5	M8x1	1.3	16.150.63.60.Z	30584473
63	70	60	M6	M8x1	1.4	16.150.63.70.Z	30584477
63	80	60	M6	M8x1	1.5	16.150.63.80.Z	30584478
63	100	65	M8	M10x1	2.1	16.150.63.100.Z	30584481
63	117	65	M8	M10x1	2.5	16.150.63.117.Z	30584482
80	60	50	M5	M8x1	1.6	16.150.80.60.Z	30584487
80	70	60	M6	M8x1	2	16.150.80.70.Z	30584489
80	80	60	M6	M8x1	2.1	16.150.80.80.Z	30584490
80	100	65	M8	M10x1	2.6	16.150.80.100.Z	30584491
80	117	65	M8	M10x1	3.1	16.150.80.117.Z	30584492
80	140	75	M10	M10x1	4.2	16.150.80.140.Z	30584493
100	60	55	M5	M8x1	2.8	16.150.100.60.Z	30584495
100	70	55	M6	M8x1	2.8	16.150.100.70.Z	30584497
100	80	55	M6	M8x1	3	16.150.100.80.Z	30584498
100	100	65	M8	M10x1	3.7	16.150.100.100.Z	30584499
100	117	65	M8	M10x1	4	16.150.100.117.Z	30584500
100	140	75	M10	M10x1	5.2	16.150.100.140.Z	30584502

## Spare parts: Grub Screw for HSK-A adapter as per DIN 69893-A

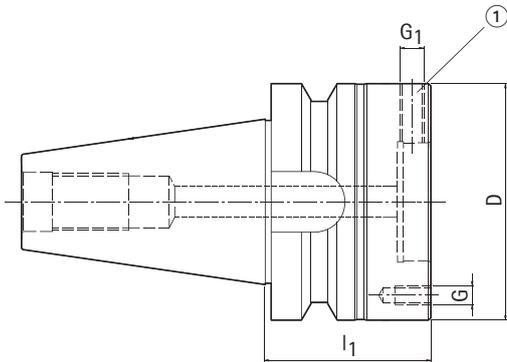
Module diameter D	Quantity required	① Grub Screw			
		Weight [kg]	Size	Order designation	Order No.
60-80	4	0.001	M8x1x16	89.122.685	10075355
100-140	4	0.001	M10x1x20	89.122.684	10075099

Supply includes: Complete with threaded pins for aligning the radial run-out, does not include coolant tube.

Dimensions in mm.

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

# Modular Short Taper Adapter BT as per ISO 7388-2 (JIS B6339), Form JD



Nominal size BT	Dimensions					Order designation	Order No.
	D	l <sub>1</sub>	G	G <sub>1</sub>	Weight [kg]		
30	60	40	M5	M8x1	0.7	22.150.30.60.Z	30584725
30	70	40	M6	M8x1	0.8	22.150.30.70.Z	30584726
40	60	55	M5	M8x1	1.5	22.150.40.60.Z	30584734
40	70	55	M6	M8x1	1.6	22.150.40.70.Z	30584736
40	80	65	M6	M8x1	2	22.150.40.80.Z	30584751
40	100	70	M8	M10x1	2.6	22.150.40.100.Z	30584752
45	60	65	M5	M8x1	3	22.150.45.60.Z	30584755
45	70	65	M6	M8x1	3.1	22.150.45.70.Z	30584756
45	80	65	M6	M8x1	3.3	22.150.45.80.Z	30584757
45	100	75	M8	M10x1	3.5	22.150.45.100.Z	30584760
45	117	75	M8	M10x1	4.4	22.150.45.117.Z	30584762
50	60	70	M5	M8x1	4.8	22.150.50.60.Z	30584764
50	70	70	M6	M8x1	4.9	22.150.50.70.Z	30584765
50	80	70	M6	M8x1	5.1	22.150.50.80.Z	30584767
50	100	70	M8	M10x1	5.3	22.150.50.100.Z	30584769
50	117	80	M8	M10x1	6.3	22.150.50.117.Z	30584770
50	140	80	M10	M10x1	6.6	22.150.50.140.Z	30584772

## Spare parts: Grub Screw for Modular Short Taper Adapter as per ISO 7388-2 (JIS B6339), Form JD

Module diameter D	Quantity required	① Grub Screw			
		Weight [kg]	Size	Order designation	Order No.
60-80	4	0.001	M8x1x16	89.122.685	10075355
100-140	4	0.001	M10x1x20	89.122.684	10075099

**Usage:** For use in the machine spindle for mounting KS flange adapters, shrink chucks, hydraulic chucks, chucks for cylindrical shanks or tools with a modular shank in accordance with WTE works standard.

**Supply includes:** Complete with threaded pins for aligning the radial run-out, does not include pull stud.

**Design:** Due to threaded pins the radial run-out of a connection or tool fitted can be adjusted exactly in relation to the steep taper.

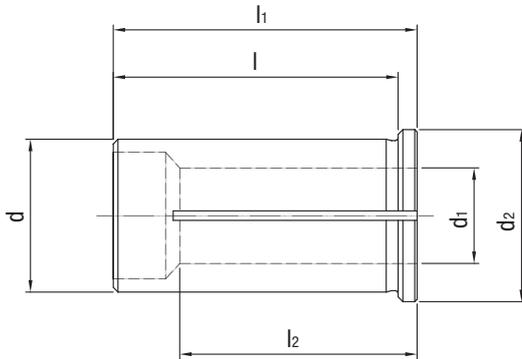
Dimensions in mm.

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

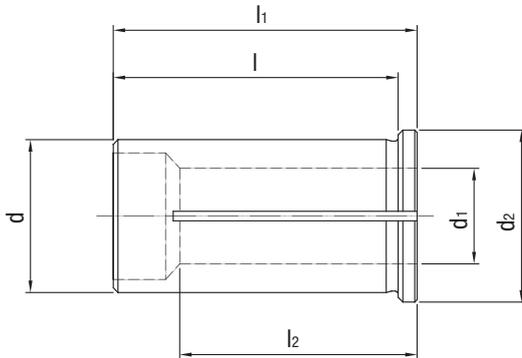


Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	1	16	40	44	20	0.04	40.456.12.01.Z	30503691
12	1.5	16	40	44	20	0.04	40.456.12.015.Z	30503718
12	2	16	40	44	20	0.04	40.456.12.02.Z	30503725
12	2.5	16	40	44	20	0.04	40.456.12.025.Z	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



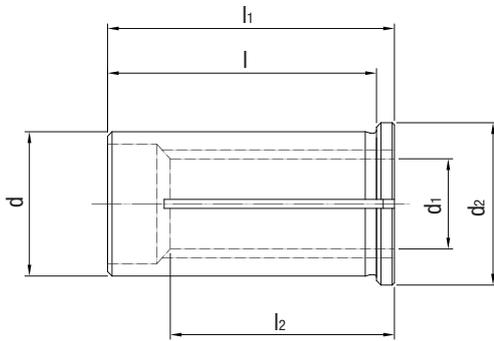
Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
25	3	30	56	60	29	0.18	40.456.25.03.Z	30251081
25	4	30	56	60	29	0.18	40.456.25.04.Z	30251082
25	5	30	56	60	29	0.18	40.456.25.05.Z	30251083
25	6	30	56	60	37	0.18	40.456.25.06.Z	30251084
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

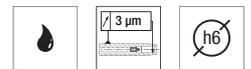
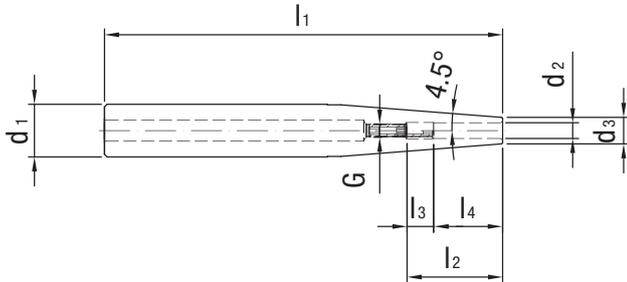


Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	3	16	40	44	29	0.03	40.456.12.03.KKB	30557343
12	4	16	40	44	29	0.03	40.456.12.04.KKB	30557344
12	5	16	40	44	29	0.03	40.456.12.05.KKB	30557345
12	6	16	40	44	36	0.03	40.456.12.06.KKB	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!



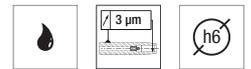
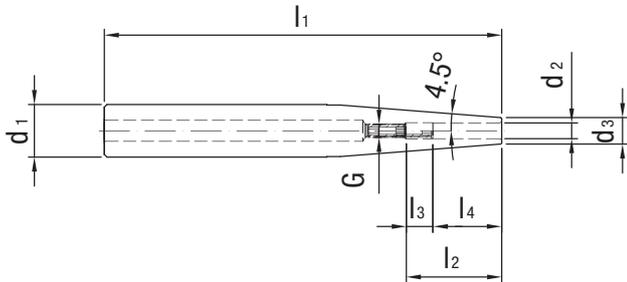
Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
12	3	8	150	-	-	12	-	0.1	-	40.357.12.03.Z	30344729
12	4	8	150	-	-	16	-	0.1	-	40.357.12.04.Z	30344730
12	5	10	150	-	-	20	-	0.1	-	40.357.12.05.Z	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



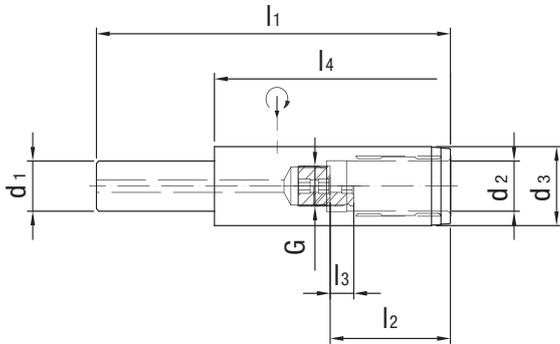
Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
25	3	10	150	-	-	12	-	0.5	-	40.357.25.03.Z	30344745
25	4	10	150	-	-	16	-	0.5	-	40.357.25.04.Z	30344746
25	5	15	150	-	-	20	-	0.5	-	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

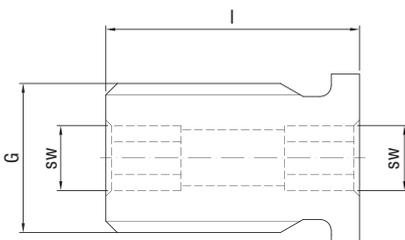
As flexible adaptation



Dimensions							G	sw	Weight [kg]	Order designation	Order No.
$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
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

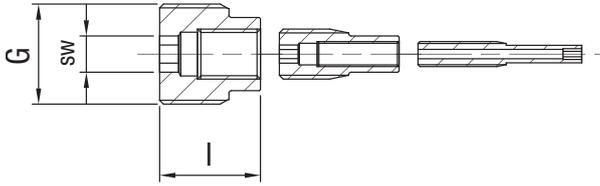


G	sw	l	Weight [kg]	Order designation	Order No.
M5	2.5	12.5	0.001	89.122.88	30252539
M6	3	12.5	0.002	89.122.89	30252540
M8x1	3	13.5	0.004	89.122.23	30252541
M10x1	5	13.5	0.006	89.122.90	30252542
M12x1	5	13.5	0.011	89.122.24	30252543
M16x1	5	13.5	0.017	89.122.19	30252544
M16x1	8	13.5	0.021	89.122.91	30252547

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

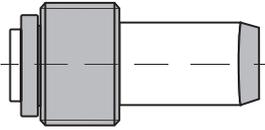
Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	20	0.002	89.122.104	30308904
M8x1	2.5	19	0.002	89.122.100	30308899
M4x0.5	1.5	26	0.001	89.122.101	30308901

### 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

## Coolant Transfer Pipe

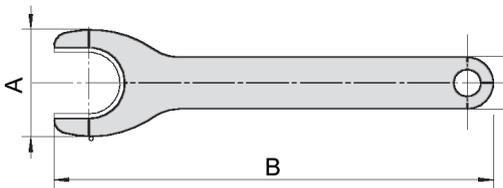
For DIN 69893-A/E



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

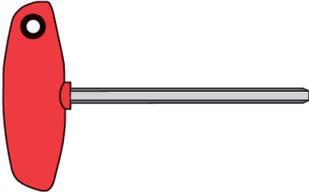
For easy extraction of the Reducing Sleeves from the WTE Hydraulic Chuck



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

## Hexagonal T-key

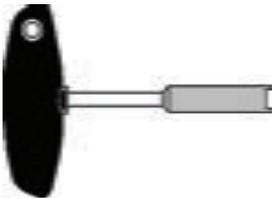
For axial length adjustment



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

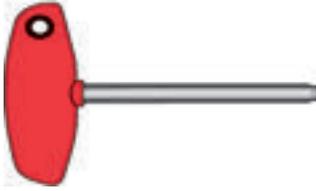
For coolant transfer pipe



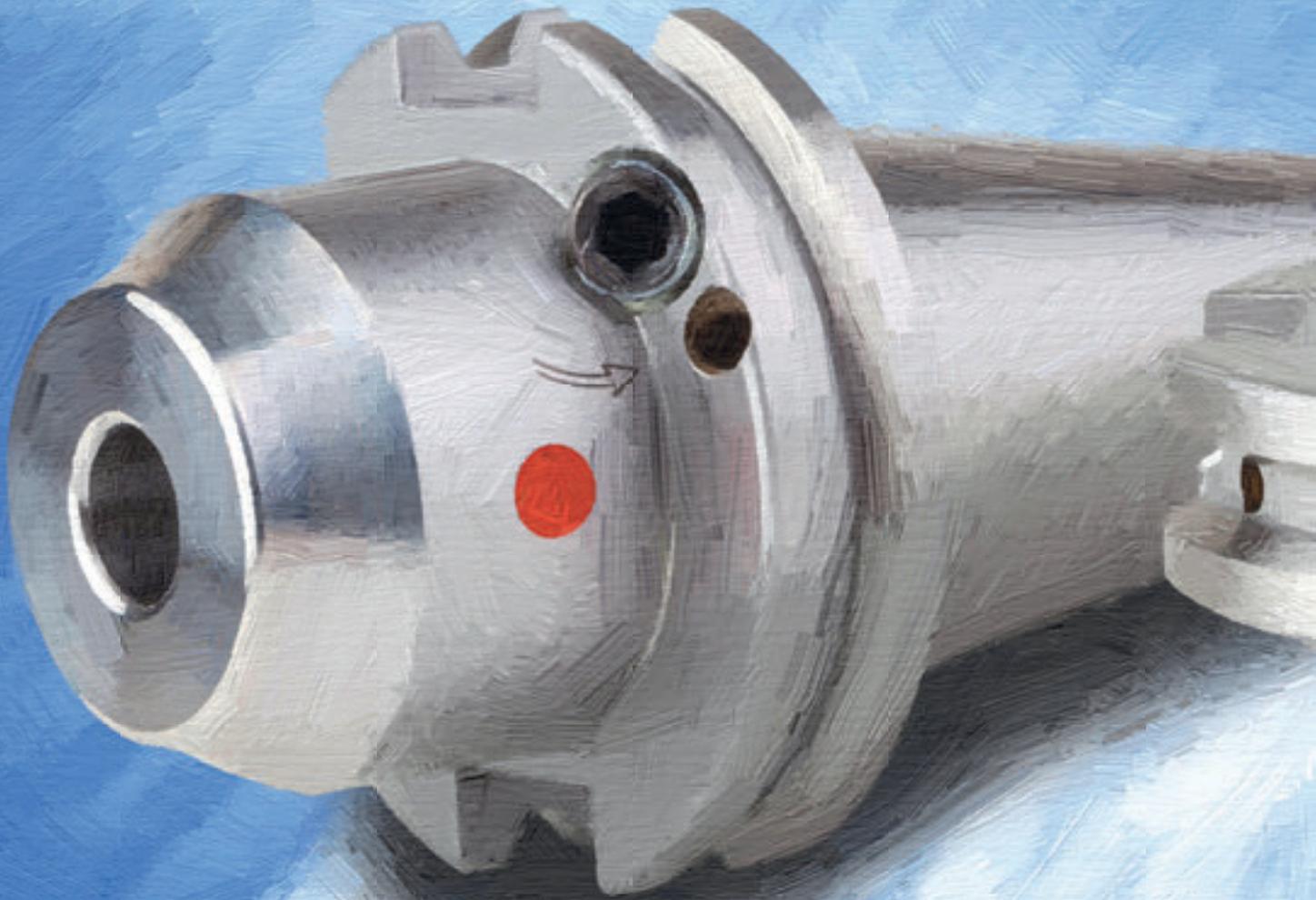
sw	Weight [kg]	Order designation	Order No.
32	0.01	89.206.20	10074750
40	0.01	89.206.21	10074751
50	0.01	89.206.22	10074752
63	0.01	89.206.23	10040110
80	0.02	89.206.24	10074774
100	0.02	89.206.25	10074775

## 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



# HPH - HIGH PERFORMANCE HOLDER



## Shank form SK as per ISO 7388-1

SK 40	86-89
SK 50	90

## Shank form HSK

HSK-A 63	91-94
HSK-A 100	95-96

## Shank form BT as per ISO 7388-2

BT 40	97-100
BT 50	101

## Chucks with INCH dimensions

CAT 40/50	102-103
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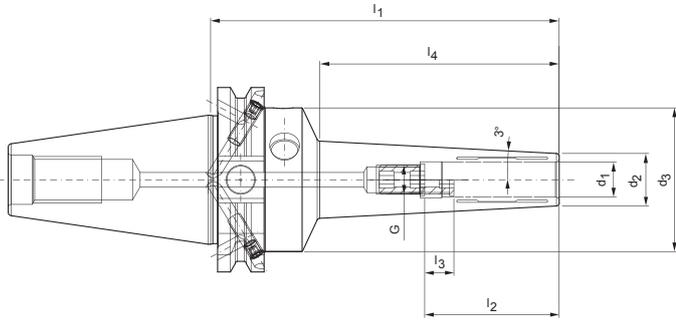
## Spare parts & accessories

Spare parts & accessories	104-115
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# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B), narrow design, 3°



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	12	49.5	120	37	10	79.9	M5	2.5	1.2	15.404.40.06.Z/120	30655468
40	8	14	49.5	120	37	10	79.9	M6	3	1.2	15.404.40.08.Z/120	30655469
40	10	16	49.5	120	41	10	80.9	M8x1	3	1.2	15.404.40.10.Z/120	30655470
40	12	18	49.5	120	46	10	81.9	M10x1	5	1.2	15.404.40.12.Z/120	30655471

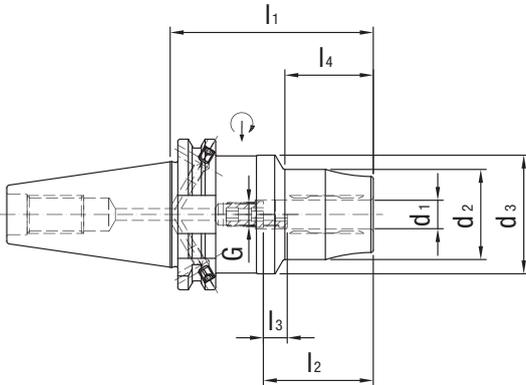
Dimensions in mm.

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

Spare parts and accessories at the end of this chapter.

# HPH - High Performance Holder ISO 7388-1, 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	32	50	75	37	10	26	M5x15	2.5	1.4	15.407.40.06.Z	30339747
40	8	34	50	75	37	10	27	M6x15	3	1.4	15.407.40.08.Z	30339749
40	10	36	50	80	41	10	32	M8x1x15.5	3	1.4	15.407.40.10.Z	30339750
40	12	38	50	85	46	10	37	M10x1x9.8	5	1.5	15.407.40.12.Z	30339751
40	14	40	50	85	46	10	37	M10x1x13	5	1.6	15.407.40.14.Z	30339752
40	16	42	50	90	49	10	42	M12x1x15	5	1.6	15.407.40.16.Z	30339753
40	18	44	50	90	49	10	42	M12x1x17	5	1.7	15.407.40.18.Z	30339754
40	20	48	50	95	51	10	45	M16x1x15.8	5	1.7	15.407.40.20.Z	30339755
40	25	57	50	110	57	10	60	M16x1x19.8	5	2.2	15.407.40.25.Z	30339756
40	32	63	50	120	61	10	65	M16x1x25.8	5	2.5	15.407.40.32.Z	30339758

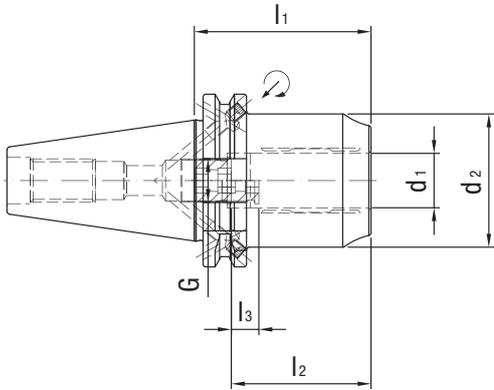
Dimensions in mm.

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.

# HPH - High Performance Holder 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.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	50	46	10	M8x1x13.5	3	1	15.408.40.12.Z	30494111
40	20	49	64.5	51	10	M16x1x13.5	8	1.4	15.408.40.20.Z	30372360

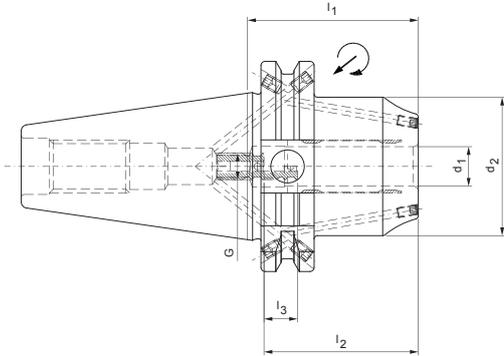
Dimensions in mm.

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.

# HPH - High Performance Holder ISO 7388-1, Form AD/AF

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



Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	50	46	10	M8X1	3	1	15.408.40.12.KKB	30565346
40	16	46	64.5	49	10	M12x1	5	1.3	15.408.40.16.KKB	30565347
40	20	49	64.5	51	10	M16x1	8	1.4	15.408.40.20.KKB	30565348

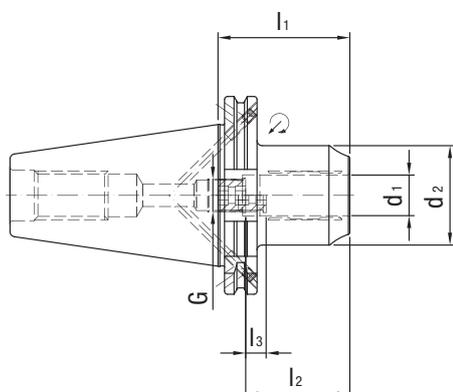
Dimensions in mm.

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.

# HPH - High Performance Holder 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.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
50	12	42	50	46	10	M8x1x13.5	3	2.8	15.408.50.12.Z	30515413
50	20	49	64.5	51	10	M16x1x13.5	8	3.1	15.408.50.20.Z	30435618
50	32	72	81	61	10	M16x1x13.5	8	4.1	15.408.50.32.Z	30471202

Dimensions in mm.

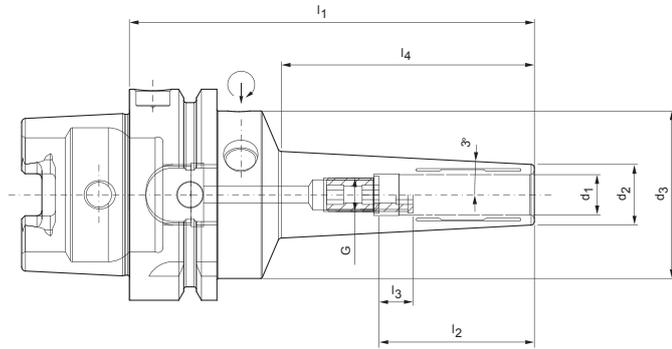
Basic form AD. Please indicate form AF (prev. B) in your order.

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

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-A

Narrow design, 3°



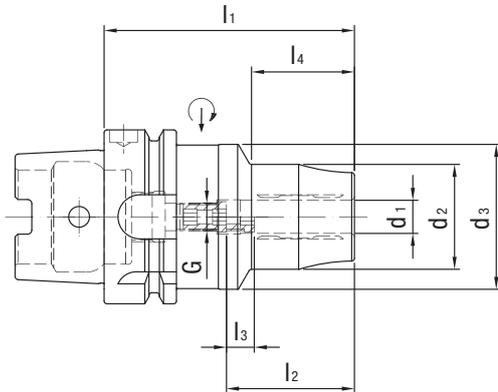
Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
63	6	12	50	120	37	10	73	M5	2.5	0.9	16.404.63.06.Z/120	30655463
63	8	14	50	120	37	10	74	M6	3	0.9	16.404.63.08.Z/120	30655465
63	10	16	50	120	41	10	74	M8x1	3	1	16.404.63.10.Z/120	30655466
63	12	18	50	120	46	10	75	M10x1	5	1	16.404.63.12.Z/120	30655467

Dimensions in mm.

Spare parts and accessories at the end of this chapter.

# HPH - High Performance Holder DIN 69893-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	32	50	80	37	10	26	M5x15	2.5	1.1	16.407.63.06.Z	30339759
63	8	34	50	80	37	10	27	M6x15	3	1.1	16.407.63.08.Z	30339760
63	10	36	50	85	41	10	32	M8x1x15.5	3	1.2	16.407.63.10.Z	30339761
63	12	38	52.5	90	46	10	37	M10x1x9.8	5	1.3	16.407.63.12.Z	30339762
63	14	40	52.5	90	46	10	37	M10x1x13	5	1.3	16.407.63.14.Z	30339763
63	16	42	52.5	95	49	10	42	M12x1x15	5	1.5	16.407.63.16.Z	30339764
63	18	44	52.5	95	49	10	42	M12x1x17	5	1.5	16.407.63.18.Z	30339765
63	20	48	52.5	100	51	10	45	M16x1x15.8	5	1.5	16.407.63.20.Z	30339766
63	25	57	53	120	57	10	62	M16x1x19.8	5	2.1	16.407.63.25.Z	30339767
63	32	63	53	125	61	10	62	M16x1x25.8	5	2.3	16.407.63.32.Z	30339768

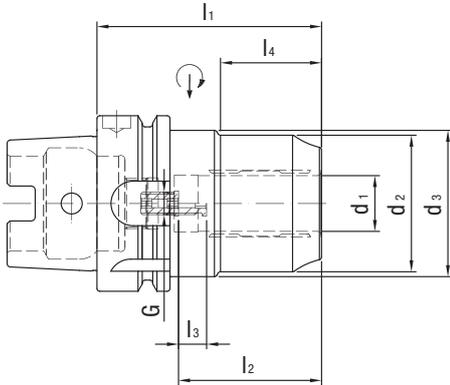
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder DIN 69893-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>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
63	12	42	52.5	80	46	10	34	M8x1	3	1.1	16.408.63.12.Z	30494132
63	20	49	52.5	80	51	10	36	M8x1	3	1.3	16.408.63.20.Z	30372363

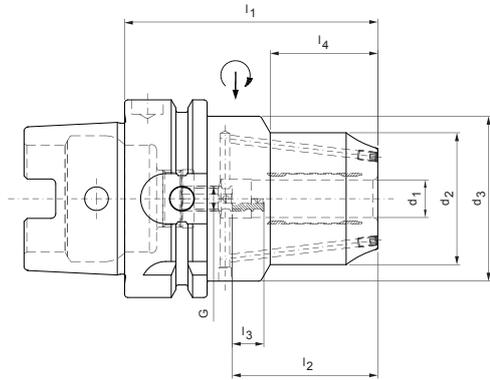
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder DIN 69893-A

Short heavy duty 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	12	42	52.5	80	46	10	34	M8x1	3	1.6	16.408.63.12.KKB	30565349
63	16	46	52.5	80	49	10	35	M8x1	3	1.4	16.408.63.16.KKB	30565353
63	20	49	52.5	80	51	10	36	M8x1	3	1.4	16.408.63.20.KKB	30565354

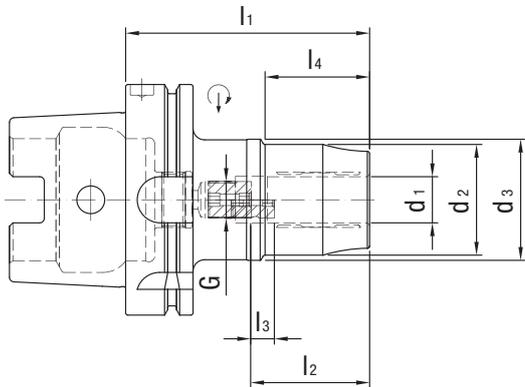
Dimensions in mm.

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.

# HPH - High Performance Holder DIN 69893-A

Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
100	6	32	50	85	37	10	26	M5x15	2.5	2.8	16.407.100.06.Z	30469210
100	8	34	50	85	37	10	27	M6x15	3	2.8	16.407.100.08.Z	30469216
100	10	36	50	90	41	10	32	M8x1x15.5	3	2.9	16.407.100.10.Z	30469218
100	12	38	52.5	95	46	10	37	M10x1x9.8	5	2.9	16.407.100.12.Z	30469220
100	14	40	52.5	95	46	10	37	M10x1x13	5	2.9	16.407.100.14.Z	30469221
100	16	42	52.5	100	49	10	42	M12x1x15	5	3	16.407.100.16.Z	30469222
100	18	44	52.5	100	49	10	42	M12x1x17	5	3	16.407.100.18.Z	30469229
100	20	48	52.5	105	51	10	45	M16x1x15.8	5	3	16.407.100.20.Z	30469233
100	25	57	63	115	57	10	60	M16x1x19.8	5	3.8	16.407.100.25.Z	30469234
100	32	63	75	120	61	10	60	M16x1x25.8	5	4	16.407.100.32.Z	30469236

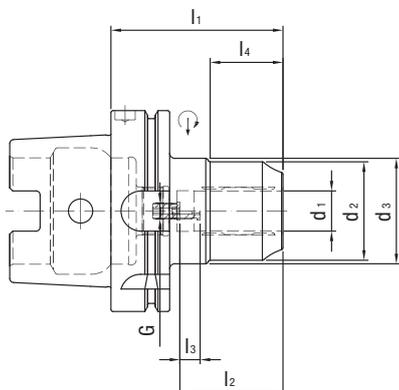
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder DIN 69893-A

Short heavy duty design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
100	12	42	52.5	85	46	10	34	M8x1	3	2.1	16.408.100.12.Z	30515435
100	20	49	52.5	85	51	10	36	M8x1	3	2.6	16.408.100.20.Z	30436113
100	32	68	72	100	61	10	42	M8x1	3	3.8	16.408.100.32.Z	30471219

Dimensions in mm.

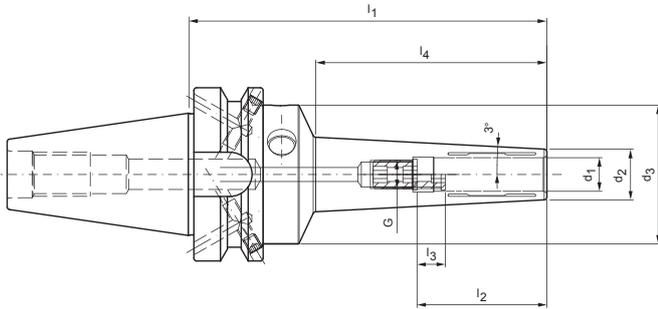
Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-2 (JIS B6339)

Ultra-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	12	49.5	120	37	10	71.9	M5	2.5	1.3	22.404.40.06.Z.120	30756850
40	8	14	49.5	120	37	10	72.4	M6	3	1.3	22.404.40.08.Z.120	30756851
40	10	16	49.5	120	41	10	72.9	M8x1	3	1.3	22.404.40.10.Z.120	30756852
40	12	18	49.5	120	46	10	73.4	M10x1	5	1.3	22.404.40.12.Z.120	30756853

Dimensions in mm.

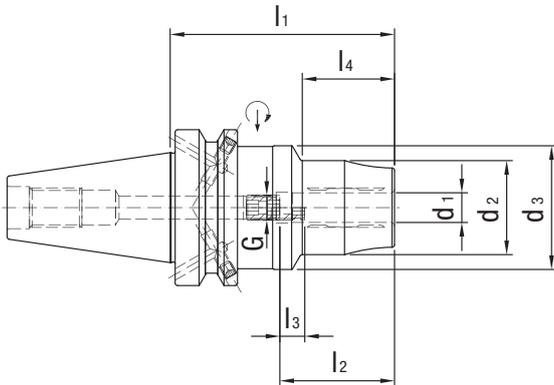
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

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>					
40	6	32	50	80	37	10	26	M5x12.5	2.5	1.6	22.407.40.06.Z	30466220
40	8	34	50	80	37	10	27	M6x12.5	3	1.6	22.407.40.08.Z	30466222
40	10	36	50	85	41	10	32	M8x1x13.5	3	1.6	22.407.40.10.Z	30466224
40	12	38	50	90	46	10	37	M10x1x13.5	5	1.7	22.407.40.12.Z	30466234
40	14	40	50	90	46	10	37	M10x1x13.5	5	1.8	22.407.40.14.Z	30466239
40	16	42	50	95	49	10	42	M12x1x13.5	5	1.8	22.407.40.16.Z	30466242
40	18	44	50	95	49	10	42	M12x1x13.5	5	1.9	22.407.40.18.Z	30466244
40	20	48	50	100	51	10	45	M16x1x13.5	8	1.9	22.407.40.20.Z	30466246
40	25	57	52	110	57	10	60	M16x1x13.5	8	2.4	22.407.40.25.Z	30466250
40	32	63	62	120	61	10	65	M16x1x13.5	8	2.7	22.407.40.32.Z	30466252

Dimensions in mm.

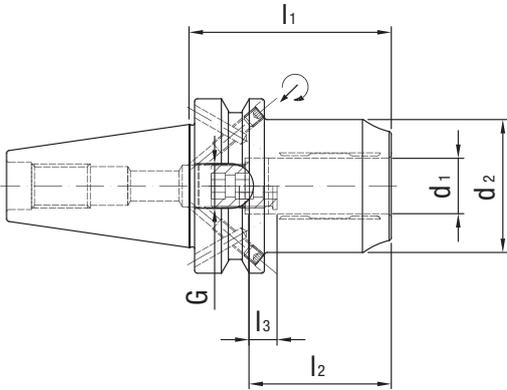
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

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

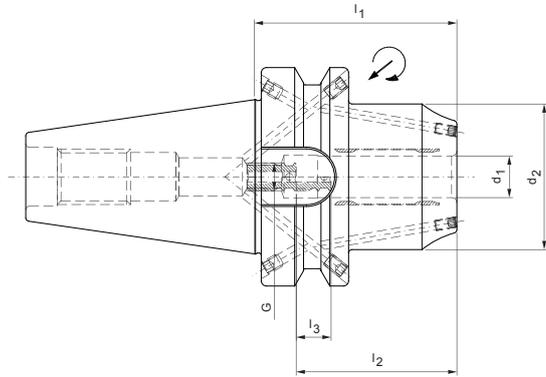


Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	58	46	10	M8x1x13.5	3	1.1	22.408.40.12.Z	30494128
40	20	49	72.5	51	10	M16x1x13.5	8	1.4	22.408.40.20.Z	30372364

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.

## HPH - High Performance Holder ISO 7388-2 (JIS B6339)

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



Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	58	46	10	M8x1	3	1.1	22.408.40.12.KKB	30565357
40	16	46	72.5	49	10	M12x1	5	1.3	22.408.40.16.KKB	30565359
40	20	49	72.5	51	10	M16x1	8	1.6	22.408.40.20.KKB	30565361

Dimensions in mm.

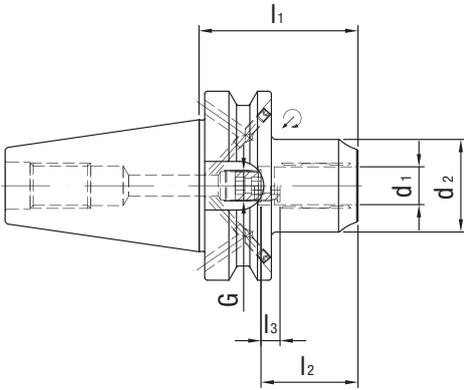
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

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	12	42	69	46	10	M8x1x13.5	3	3.4	22.408.50.12.Z	30515438
50	20	49	83.5	51	10	M16x1x13.5	8	4	22.408.50.20.Z	30435871
50	32	72	90	61	10	M16x1x13.5	8	4.6	22.408.50.32.Z	30471206

Dimensions in mm.

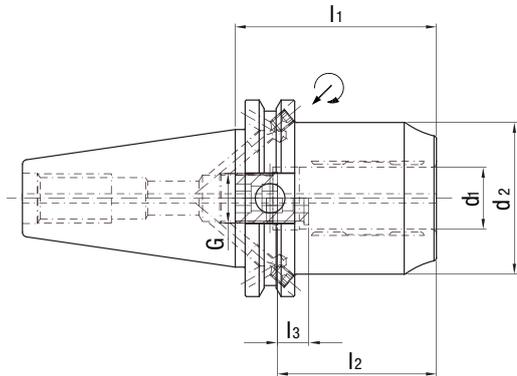
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

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

# HPH - High Performance Holder ANSI CAT 40

Inch & metric series, short heavy duty design, coolant supply as per ISO 7388-1, Form AD/AF



## Inch series

Nominal size CAT	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>					
	mm	inch	mm	mm	inch	mm	mm					
40	12.70	1/2	42.00	50.00	1.9685	46	10	M8x1	3	1.10	31.408.40.1/2".Z	30567770
40	15.88	5/8	44.50	50.00	1.9685	49	10	M12x1	5	1.10	31.408.40.5/8".Z	30567771
40	19.05	3/4	49.00	64.50	2.5394	51	10	M16x1	8	1.30	31.408.40.3/4".Z	30567773

## Metric Series

Nominal size CAT	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>					
	mm	inch	mm	mm	inch	mm	mm					
40	20.00	0.7874	49.00	64.50	2.5394	51	10	M16x1	8	1.30	31.408.40.20.Z	30560822

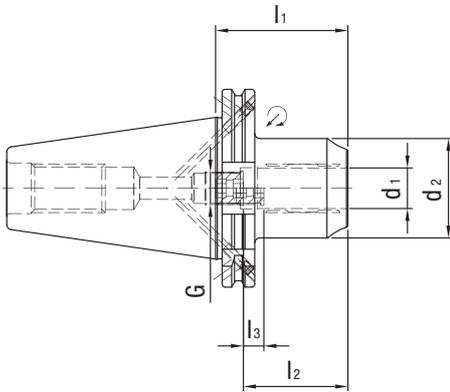
Dimensions in mm.

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.

# HPH - High Performance Holder ANSI CAT 50

Metric series, short heavy duty design, coolant supply as per ISO 7388-1, Form AD/AF



HPH - High Performance Holder

## Metric Series



Nominal size CAT	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>					
	mm	inch	mm	mm	inch	mm	mm					
50	20.00	0.7874	49.00	64.50	2.5394	51	10	M16x1	8	3.10	31.408.50.20.Z	30586001

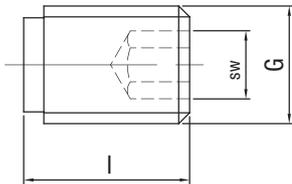
Dimensions in mm.

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.

## Pressure Screw HPH

For pressure input. High-strength pressure screws - for safe acceptance of high clamping forces  
Coated pressure screws DLC - for optimum wear protection and long service life



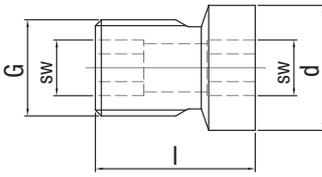
Order designation	Order No.	G	sw	l	Weight [kg]
89.122.288	10003470	M10	5	10	0.006
89.122.287	10070217	M10	5	14	0.009

### Allocation of Pressure Screw HPH

Order designation	Order No.	G	sw	l	For High Performance Holder
89.122.288	10003470	M10	5	10	16.408.63.20.Z; 16.408.100.20.Z; 16.408.63.12.Z; 16.408.100.12.Z
89.122.287	10070217	M10	5	14	Others

# Stop Screw HPH

For length adjustment



## Stop Screw HPH for HSK-A63; HSK-A100; SK40

Order designation	Order No.	G	sw	For clamping diameter	d	l	Weight [kg]
89.122.119	30340240	M5	2.5	6	5.5	15	0.001
89.122.120	30340241	M6	3	8	7	15	0.002
89.122.121	30340242	M8x1	3	10	9	15.5	0.005
89.122.122	30340243	M10x1	5	12	9.8	15.5	0.006
89.122.123	30340244	M10x1	5	14	13	16.5	0.008
89.122.124	30340245	M12x1	5	16	15	18	0.015
89.122.125	30340246	M12x1	5	18	17	20	0.02
89.122.126	30340247	M16x1	5	20	15.8	18.5	0.03
89.122.127	30340249	M16x1	5	25	19.8	22	0.05
89.122.128	30340250	M16x1	5	32	25.8	25	0.07

## Stop Screw HPH for BT40

Only "wet" design - thus short cantilever length

Order designation	Order No.	G	sw	For clamping diameter	d	l	Weight [kg]
89.122.88	30252539	M5	2.5	6	5.5	12.5	0.001
89.122.89	30252540	M6	3	8	7	12.5	0.002
89.122.23	30252541	M8x1	3	10	9	13.5	0.004
89.122.90	30252542	M10x1	5	12	9.8	13.5	0.006
89.122.90	30252542	M10x1	5	14	9.8	13.5	0.006
89.122.24	30252543	M12x1	5	16	13	13.5	0.011
89.122.24	30252543	M12x1	5	18	13	13.5	0.011
89.122.91	30252547	M16x1	8	20	15.8	13.5	0.021
89.122.91	30252547	M16x1	8	25	15.8	13.5	0.021
89.122.91	30252547	M16x1	8	32	15.8	13.5	0.021

## Stop Screw HPH for short heavy duty design

Only "wet" design - thus short cantilever length

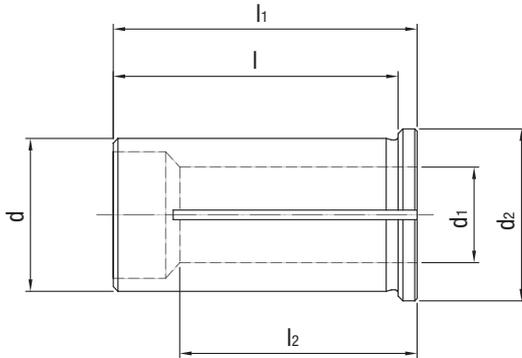
Order designation	Order No.	G	sw	For clamping diameter
89.122.23	30252541	M8x1	3	20 (HSK)
89.122.91	30252547	M16x1	8	20 (ISO/BT)

Dimensions in mm.

Custom designs available on request.

## Reducing Sleeve, coolant sealed

With slits, for flexible diameter application

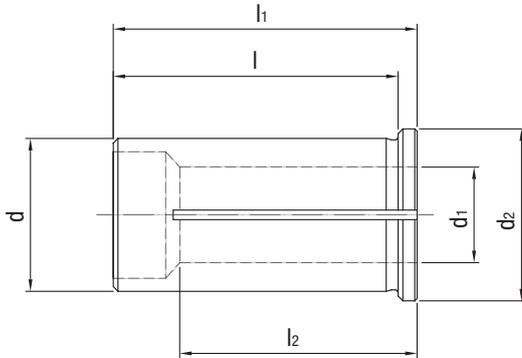


Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	1	16	40	44	20	0.04	40.456.12.01.Z	30503691
12	1.5	16	40	44	20	0.04	40.456.12.015.Z	30503718
12	2	16	40	44	20	0.04	40.456.12.02.Z	30503725
12	2.5	16	40	44	20	0.04	40.456.12.025.Z	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



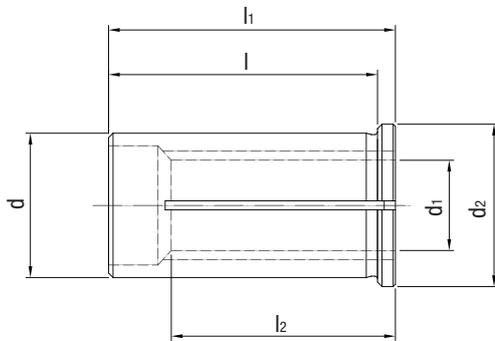
Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
25	3	30	56	60	29	0.18	40.456.25.03.Z	30251081
25	4	30	56	60	29	0.18	40.456.25.04.Z	30251082
25	5	30	56	60	29	0.18	40.456.25.05.Z	30251083
25	6	30	56	60	37	0.18	40.456.25.06.Z	30251084
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



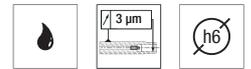
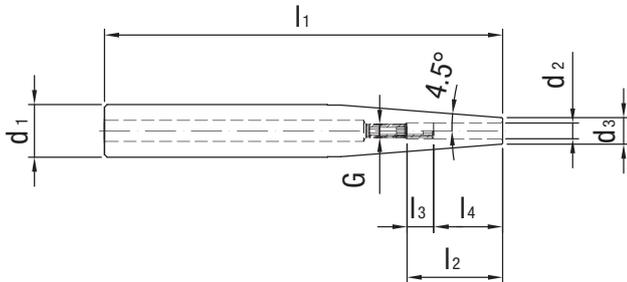
Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	3	16	40	44	29	0.03	40.456.12.03.KKB	30557343
12	4	16	40	44	29	0.03	40.456.12.04.KKB	30557344
12	5	16	40	44	29	0.03	40.456.12.05.KKB	30557345
12	6	16	40	44	36	0.03	40.456.12.06.KKB	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

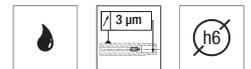
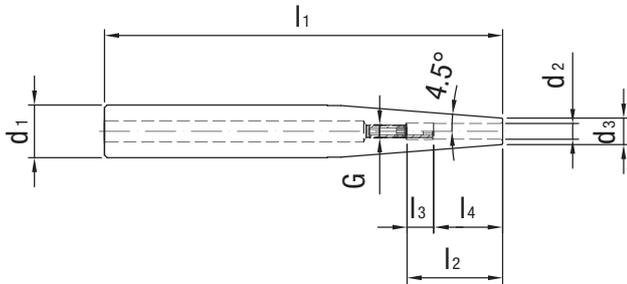


Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
12	3	8	150	-	-	12	-	0.1	-	40.357.12.03.Z	30344729
12	4	8	150	-	-	16	-	0.1	-	40.357.12.04.Z	30344730
12	5	10	150	-	-	20	-	0.1	-	40.357.12.05.Z	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

## Shrink Extension

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

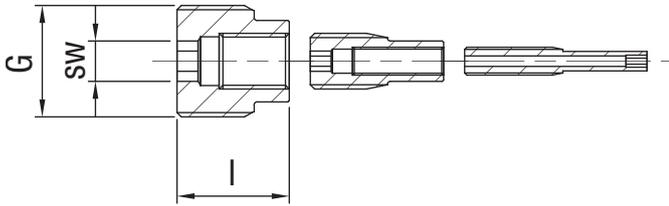
Tool length as per customer request possible



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

## AAS Stop Screw

With the use of WTE Reducing Sleeves for axial length adjustment



### Stop Screw 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

### Stop Screw 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

### Stop Screw 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

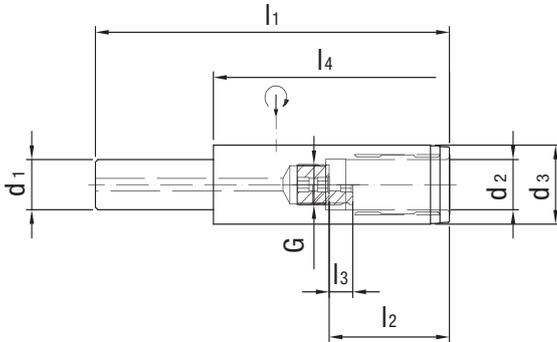
### Stop Screw AAS 32 for order designation 40.456.32.xx

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.

## Hydraulic Expansion Extension

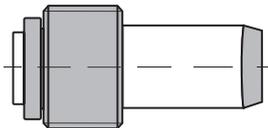
As flexible adaptation



Dimensions							G	sw	Weight [kg]	Order designation	Order No.
$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
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

## Coolant Transfer Pipe

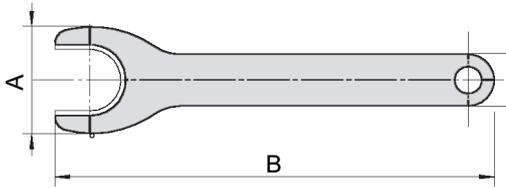
For DIN 69893-A/E



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

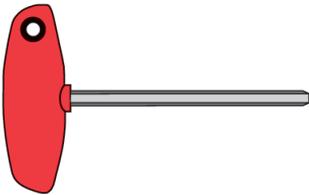
For easy extraction of the Reducing Sleeves from the WTE Hydraulic Chuck



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

## Hexagonal T-key

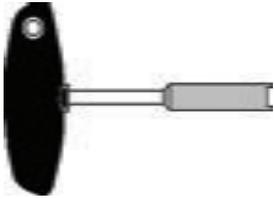
For axial length adjustment



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 Key

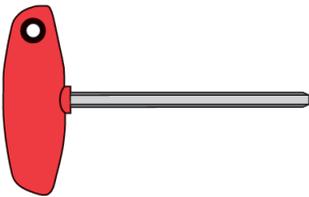
For Coolant Transfer Pipe



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

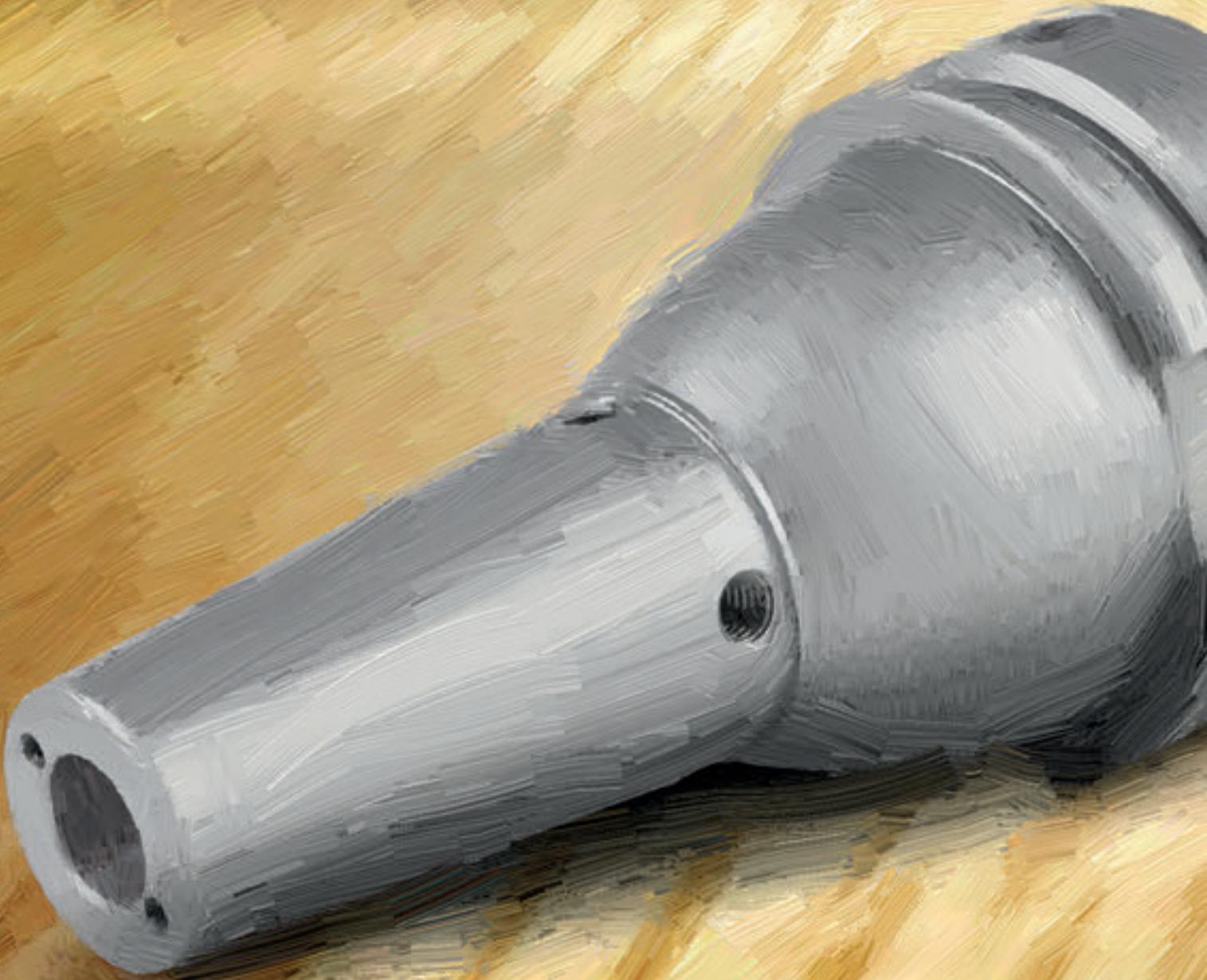
## Hexagonal T-key

For pressure input



sw	l	Weight [kg]	Order designation	Order No.
5	100	0.06	89.206.15	10006236





# SHRINK CHUCKS

## Shank form SK as per ISO 7388-1

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SK 30/40/50	118-129
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## Shank form HSK

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HSK-A 32/40/50	130-134
HSK-A 63	135-143
HSK-A 80	144-145
HSK-A 100	146-151
HSK-C 32/40/50/63	152-158
HSK-E 32/40/50/63	159-169
HSK-F 40/63	170-174

## Shank form BT as per ISO 7388-2

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BT 30/40/50	175-183
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## Chucks with INCH dimensions

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CAT 40/50	184-185
HSK-A 63	186
HSK-A 100	187
BT 40	188

## Modules

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Shrink Chuck with radial and angular orientation	189
Modular Short Taper Adapter as per ISO 7388-1	190
Modular Short Taper Adapter HSK-A as per DIN 69871	191
Modular Short Taper Adapter BT as per ISO 7388-2	192

## Spare parts & accessories

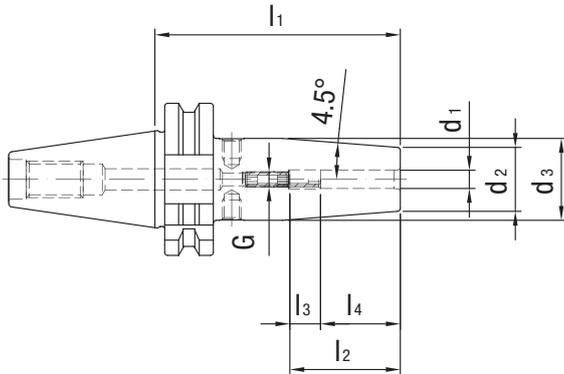
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Spare parts & accessories	193-197
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# Shrink Chuck ISO 7388-1, Form AD

(prev. DIN 69871-AD)



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	3	10	17	80	28	16	12	M6	2	0.5	15.306.30.03.Z	30337201
30	4	15	22	80	28	12	16	M6	2	0.5	15.306.30.04.Z	30337202
30	5	15	22	80	30	10	20	M6	2	0.5	15.306.30.05.Z	30337203
30	6	21	27	80	36	10	26	M5	2.5	0.6	15.306.30.06.Z	30337204
30	8	21	27	80	36	10	26	M6	3	0.6	15.306.30.08.Z	30337205
30	10	24	32	80	41	10	31	M8x1	3	0.6	15.306.30.10.Z	30337206
30	12	24	32	80	47	10	37	M10x1	5	0.7	15.306.30.12.Z	30337207
30	14	27	34	80	47	10	37	M10x1	5	0.7	15.306.30.14.Z	30337208
30	16	27	34	80	50	10	40	M12x1	5	0.7	15.306.30.16.Z	30337209
30	18	33	42	80	50	10	40	M12x1	5	0.8	15.306.30.18.Z	30337210
30	20	33	42	80	52	10	42	M16x1	5	0.8	15.306.30.20.Z	30337211

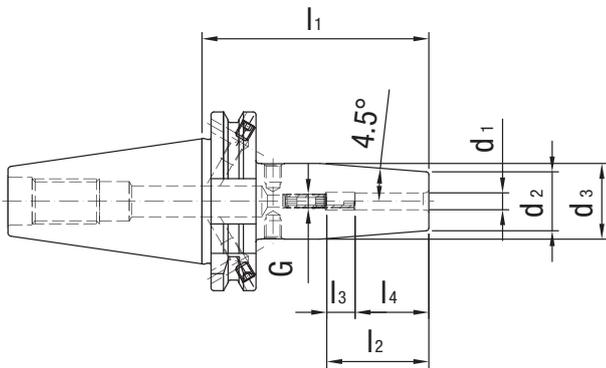
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B)



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>	l <sub>4</sub>					
40	3	10	17	80	28	16	12	M6	2	0.9	15.306.40.03.Z	30337097
40	4	15	22	80	28	12	16	M6	2	0.9	15.306.40.04.Z	30337098
40	5	15	22	80	30	10	20	M6	2	0.9	15.306.40.05.Z	30337099
40	6	21	27	80	36	10	26	M5	2.5	1	15.306.40.06.Z	30337100
40	7	21	27	80	36	10	26	M5	2.5	1	15.306.40.07.Z	30337101
40	8	21	27	80	36	10	26	M6	3	1	15.306.40.08.Z	30337102
40	9	21	27	80	36	10	26	M6	3	1	15.306.40.09.Z	30337103
40	10	24	32	80	41	10	31	M8x1	3	1	15.306.40.10.Z	30337104
40	11	24	32	80	41	10	31	M8x1	3	1	15.306.40.11.Z	30337105
40	12	24	32	80	47	10	37	M10x1	5	1	15.306.40.12.Z	30337106
40	13	24	32	80	47	10	37	M10x1	5	1.2	15.306.40.13.Z	30337107
40	14	27	34	80	47	10	37	M10x1	5	1	15.306.40.14.Z	30337108
40	15	27	34	80	47	10	37	M10x1	5	1.3	15.306.40.15.Z	30337109
40	16	27	34	80	50	10	40	M12x1	5	1	15.306.40.16.Z	30337110
40	18	33	42	80	50	10	40	M12x1	5	1.1	15.306.40.18.Z	30337111
40	20	33	42	80	52	10	42	M16x1	8	1.1	15.306.40.20.Z	30337112
40	25	44	53	100	58	10	48	M16x1	8	1.6	15.306.40.25.Z	30337113
40	32	44	53	100	62	10	52	M16x1	8	1.4	15.306.40.32.Z	30337114

Dimensions in mm.

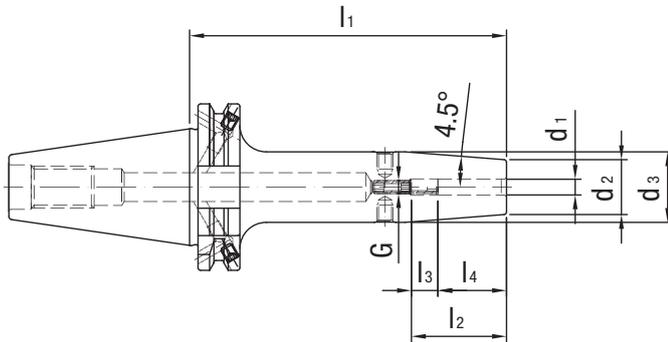
Basic form AD. Please indicate form AF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B), long 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>	l <sub>4</sub>					
40	3	10	20	120	-	-	12	-	-	0.9	15.306.40.03.Z/120	30337212
40	3	10	20	160	-	-	12	-	-	1	15.306.40.03.Z/160	30337213
40	3	10	20	200	-	-	12	-	-	1.1	15.306.40.03.Z/200	30562522
40	4	15	22	120	-	-	16	-	-	1	15.306.40.04.Z/120	30337214
40	4	15	22	160	-	-	16	-	-	1.1	15.306.40.04.Z/160	30337215
40	4	15	22	200	-	-	16	-	-	1.2	15.306.40.04.Z/200	30562523
40	5	15	22	120	-	-	20	-	-	1	15.306.40.05.Z/120	30337216
40	5	15	22	160	-	-	20	-	-	1.1	15.306.40.05.Z/160	30337217
40	5	15	22	200	-	-	20	-	-	1.2	15.306.40.05.Z/200	30562524
40	6	21	27	120	36	10	26	M5	2.5	1.1	15.306.40.06.Z/120	30337218
40	6	21	27	160	36	10	26	M5	2.5	1.3	15.306.40.06.Z/160	30337219
40	6	21	27	200	36	10	26	M5	2.5	1.4	15.306.40.06.Z/200	30562525
40	8	21	27	120	36	10	26	M6	3	1.1	15.306.40.08.Z/120	30337220
40	8	21	27	160	36	10	26	M6	3	1.3	15.306.40.08.Z/160	30337221
40	8	21	27	200	36	10	26	M6	3	1.4	15.306.40.08.Z/200	30562526
40	10	24	32	120	41	10	31	M8x1	3	1.2	15.306.40.10.Z/120	30337222
40	10	24	32	160	41	10	31	M8x1	3	1.5	15.306.40.10.Z/160	30337223
40	10	24	32	200	41	10	31	M8x1	3	1.7	15.306.40.10.Z/200	30562527
40	12	24	32	120	47	10	37	M10x1	5	1.2	15.306.40.12.Z/120	30337224
40	12	24	32	160	47	10	37	M10x1	5	1.5	15.306.40.12.Z/160	30337225
40	12	24	32	200	47	10	37	M10x1	5	1.7	15.306.40.12.Z/200	30337226
40	14	27	34	120	47	10	37	M10x1	5	1.3	15.306.40.14.Z/120	30337227
40	14	27	34	160	47	10	37	M10x1	5	1.6	15.306.40.14.Z/160	30337228
40	14	27	34	200	47	10	37	M10x1	5	1.8	15.306.40.14.Z/200	30562530
40	16	27	34	120	50	10	40	M12x1	5	1.3	15.306.40.16.Z/120	30337229
40	16	27	34	160	50	10	40	M12x1	5	1.6	15.306.40.16.Z/160	30337230
40	16	27	34	200	50	10	40	M12x1	5	1.8	15.306.40.16.Z/200	30562531
40	18	33	42	120	50	10	40	M12x1	5	1.5	15.306.40.18.Z/120	30337231
40	18	33	42	160	50	10	40	M12x1	5	1.7	15.306.40.18.Z/160	30337232
40	18	33	42	200	50	10	40	M12x1	5	1.9	15.306.40.18.Z/200	30562534

Continued on next page

Dimensions in mm.

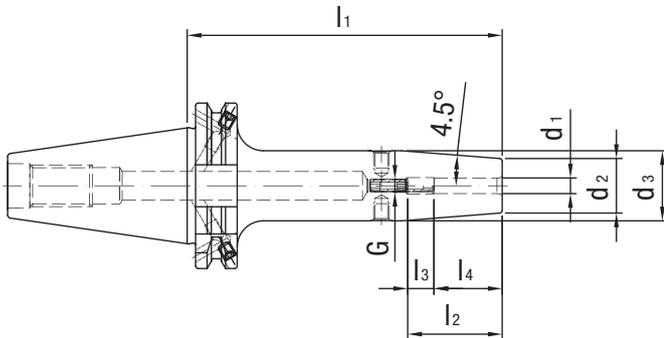
Basic form AD. Please indicate form AF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B), long 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>	l <sub>4</sub>					
40	20	33	42	120	52	10	42	M16x1	8	1.5	15.306.40.20.Z/120	30337233
40	20	33	42	160	52	10	42	M16x1	8	1.8	15.306.40.20.Z/160	30337234
40	20	33	42	200	52	10	42	M16x1	8	2	15.306.40.20.Z/200	30562535
40	25	44	53	120	58	10	48	M16x1	8	1.8	15.306.40.25.Z/120	30337235
40	25	44	53	160	58	10	48	M16x1	8	2.5	15.306.40.25.Z/160	30337236
40	25	44	53	200	58	10	48	M16x1	8	2.8	15.306.40.25.Z/200	30562536
40	32	44	53	120	62	10	52	M16x1	8	1.7	15.306.40.32.Z/120	30337237
40	32	44	53	160	62	10	52	M16x1	8	2.4	15.306.40.32.Z/160	30337238
40	32	44	53	200	62	10	52	M16x1	8	3.2	15.306.40.32.Z/200	30562537

Dimensions in mm.

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

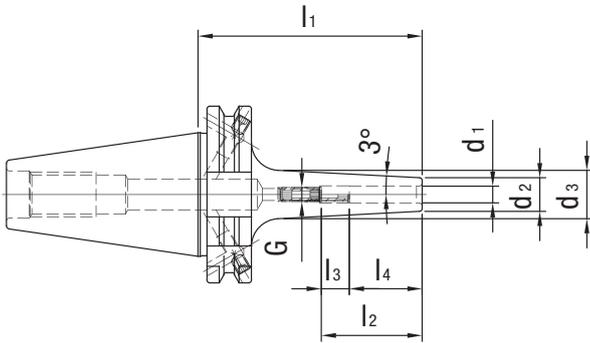
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B), narrow design, 3°

3° programme



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>	l <sub>4</sub>					
40	3	9	14	80	28	16	12	M6	2	0.9	15.304.40.03.Z	30385321
40	4	10	15	80	28	12	16	M6	2	0.9	15.304.40.04.Z	30385324
40	5	11	16	80	30	10	20	M6	2	0.9	15.304.40.05.Z	30385327
40	6	12	17	80	36	10	26	M5	2.5	0.9	15.304.40.06.Z	30385330
40	8	14	19	80	36	10	26	M6	3	0.9	15.304.40.08.Z	30385333
40	10	16	21	80	41	10	31	M8x1	3	0.9	15.304.40.10.Z	30385336
40	12	18	23	80	47	10	37	M10x1	5	0.9	15.304.40.12.Z	30385339
40	14	20	26	80	47	10	37	M10x1	5	0.9	15.304.40.14.Z	30385342
40	16	22	28	80	50	10	40	M12x1	5	1	15.304.40.16.Z	30385345
40	18	24	30	80	50	10	40	M12x1	5	1	15.304.40.18.Z	30385348
40	20	26	32	80	52	10	42	M16x1	8	1	15.304.40.20.Z	30385351

Dimensions in mm.

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

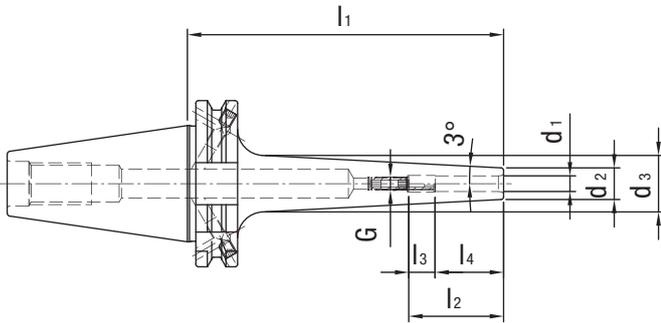
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B), long narrow design, 3°

3° programme



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>	l <sub>4</sub>					
40	3	9	16	120	-	-	12	-	-	0.9	15.304.40.03.Z/120	30385322
40	3	9	19	160	-	-	12	-	-	1.1	15.304.40.03.Z/160	30385323
40	3	9	19	200	-	-	12	-	-	1.2	15.304.40.03.Z/200	30596516
40	4	10	17	120	-	-	16	-	-	0.9	15.304.40.04.Z/120	30385325
40	4	10	20	160	-	-	16	-	-	1.1	15.304.40.04.Z/160	30385326
40	4	10	20	200	-	-	16	-	-	1.2	15.304.40.04.Z/200	30596517
40	5	11	18	120	-	-	20	-	-	1	15.304.40.05.Z/120	30385328
40	5	11	21	160	-	-	20	-	-	1.1	15.304.40.05.Z/160	30385329
40	5	11	21	200	-	-	20	-	-	1.2	15.304.40.05.Z/200	30596518
40	6	12	22	120	36	10	26	M5	2.5	1	15.304.40.06.Z/120	30385331
40	6	12	24	160	36	10	26	M5	2.5	1.1	15.304.40.06.Z/160	30385332
40	6	12	24	200	36	10	26	M5	2.5	1.4	15.304.40.06.Z/200	30596519
40	8	14	24	120	36	10	26	M6	3	1	15.304.40.08.Z/120	30385334
40	8	14	26	160	36	10	26	M6	3	1.2	15.304.40.08.Z/160	30385335
40	8	14	26	200	36	10	26	M6	3	1.4	15.304.40.08.Z/200	30596520
40	10	16	26	120	41	10	31	M8x1	3	1.1	15.304.40.10.Z/120	30385337
40	10	16	28	160	41	10	31	M8x1	3	1.2	15.304.40.10.Z/160	30385338
40	10	16	28	200	41	10	31	M8x1	3	1.6	15.304.40.10.Z/200	30596521
40	12	18	28	120	47	10	37	M10x1	5	1.1	15.304.40.12.Z/120	30385340
40	12	18	30	160	47	10	37	M10x1	5	1.3	15.304.40.12.Z/160	30385341
40	12	18	30	200	47	10	37	M10x1	5	1.5	15.304.40.12.Z/200	30596522
40	14	20	30	120	47	10	37	M10x1	5	1.1	15.304.40.14.Z/120	30385343
40	14	20	32	160	47	10	37	M10x1	5	1.3	15.304.40.14.Z/160	30385344
40	14	20	32	200	47	10	37	M10x1	5	1.6	15.304.40.14.Z/200	30596523
40	16	22	32	120	50	10	40	M12x1	5	1.2	15.304.40.16.Z/120	30385346
40	16	22	34	160	50	10	40	M12x1	5	1.4	15.304.40.16.Z/160	30385347
40	16	22	34	200	50	10	40	M12x1	5	2.6	15.304.40.15.Z/200	30596525
40	18	24	34	120	50	10	40	M12x1	5	1.2	15.304.40.18.Z/120	30385349
40	18	24	36	160	50	10	40	M12x1	5	1.5	15.304.40.18.Z/160	30385350
40	18	24	36	200	50	10	40	M12x1	5	2.8	15.304.40.18.Z/200	30596526
40	20	26	36	120	52	10	42	M16x1	8	1.2	15.304.40.20.Z/120	30385352
40	20	26	38	160	52	10	42	M16x1	8	1.6	15.304.40.20.Z/160	30385353
40	20	26	38	200	52	10	42	M16x1	8	2.9	15.304.40.20.Z/200	30596528

Dimensions in mm.

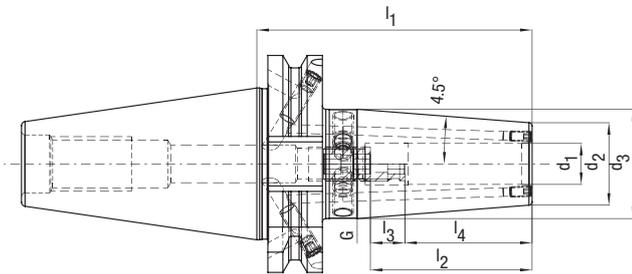
Basic form AD. Please indicate form AF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

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



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>	l <sub>4</sub>					
40	3	10	17	80	28	16	12	M6	2	0.9	15.306.40.03.KKB	30590786
40	4	15	22	80	28	12	16	M6	2	0.9	15.306.40.04.KKB	30590787
40	5	15	22	80	30	10	20	M6	2	0.9	15.306.40.05.KKB	30590789
40	6	21	27	80	36	10	26	M5	2.5	1	15.306.40.06.KKB	30589845
40	8	21	27	80	36	10	26	M6	3	1	15.306.40.08.KKB	30589849
40	10	24	32	80	41	10	31	M8x1	3	1	15.306.40.10.KKB	30589850
40	12	24	32	80	47	10	37	M10x1	5	1	15.306.40.12.KKB	30589852
40	14	27	34	80	47	10	37	M10x1	5	1	15.306.40.14.KKB	30589853
40	16	27	34	80	50	10	40	M12x1	5	1	15.306.40.16.KKB	30589855
40	18	33	42	80	50	10	40	M12x1_KKB	5	1.1	15.306.40.18.KKB	30589857
40	20	33	42	80	52	10	42	M16x1_KKB	5	1.1	15.306.40.20.KKB	30589858
40	25	44	53	100	58	10	48	M16x1	8	1.6	15.306.40.25.KKB	30589870
40	32	44	53	100	62	10	52	M16x1_KKB	5	1.4	15.306.40.32.KKB	30589872

Dimensions in mm.

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

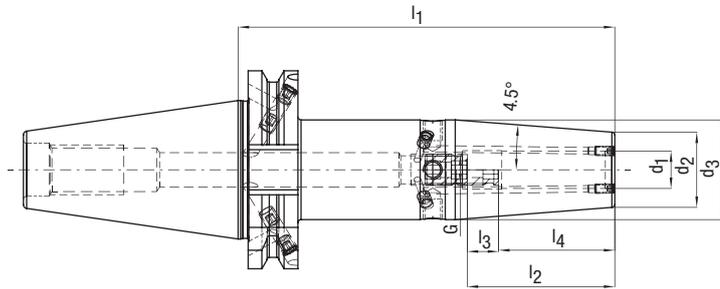
Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

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



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>	l <sub>4</sub>					
40	3	9	16	120	-	-	12	-	-	0.9	15.306.40.03.120.KKB	30590790
40	4	10	17	120	-	-	16	-	-	1	15.306.40.04.120.KKB	30590793
40	5	11	18	120	-	-	20	-	-	1	15.306.40.05.120.KKB	30590794
40	6	12	22	120	36	10	26	M5	2.5	1.1	15.306.40.06.120.KKB	30589873
40	8	14	24	120	36	10	26	M6	3	1.1	15.306.40.08.120.KKB	30589874
40	10	16	26	120	41	10	31	M8x1	3	1.2	15.306.40.10.120.KKB	30589875
40	12	18	28	120	47	10	37	M10x1	5	1.2	15.306.40.12.120.KKB	30589876
40	14	20	30	120	47	10	37	M10x1	5	1.3	15.306.40.14.120.KKB	30589877
40	16	22	32	120	50	10	40	M12x1_KKB	5	1.3	15.306.40.16.120.KKB	30589879
40	18	24	34	120	50	10	40	M12x1_KKB	5	1.5	15.306.40.18.120.KKB	30589880
40	20	26	36	120	52	10	42	M16x1_KKB	5	1.5	15.306.40.20.120.KKB	30589881
40	25	44	53	120	58	10	48	M16x1	8	1.8	15.306.40.25.120.KKB	30589882
40	32	44	53	120	62	10	52	M16x1_KKB	5	1.7	15.306.40.32.120.KKB	30589883

Dimensions in mm.

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

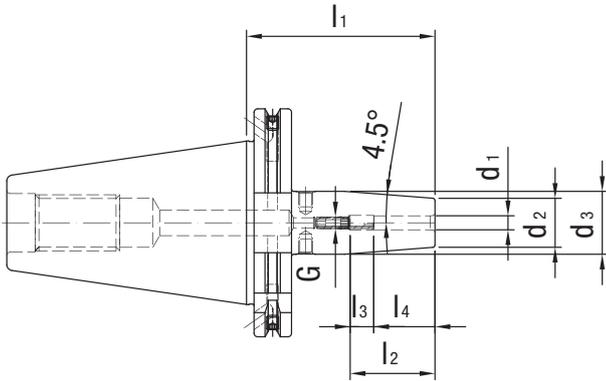
Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B)



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	3	10	17	80	-	-	12	-	-	2.7	15.306.50.03.Z	30337239
50	4	15	22	80	-	-	16	-	-	2.7	15.306.50.04.Z	30337242
50	5	15	22	80	-	-	20	-	-	2.7	15.306.50.05.Z	30337245
50	6	21	27	80	36	10	26	M5	2.5	2.8	15.306.50.06.Z	30337248
50	8	21	27	80	36	10	26	M6	3	2.8	15.306.50.08.Z	30337251
50	10	24	32	80	41	10	31	M8x1	3	2.8	15.306.50.10.Z	30337254
50	12	24	32	80	47	10	37	M10x1	5	2.8	15.306.50.12.Z	30337257
50	14	27	34	80	47	10	37	M10x1	5	2.9	15.306.50.14.Z	30337260
50	16	27	34	80	50	10	40	M12x1	5	2.9	15.306.50.16.Z	30337263
50	18	33	42	80	50	10	40	M12x1	5	3	15.306.50.18.Z	30337266
50	20	33	42	80	52	10	42	M16x1	8	3	15.306.50.20.Z	30337269
50	25	44	53	100	58	10	48	M16x1	8	3.5	15.306.50.25.Z	30337272
50	32	44	53	100	62	10	52	M16x1	8	3.3	15.306.50.32.Z	30337275

Dimensions in mm.

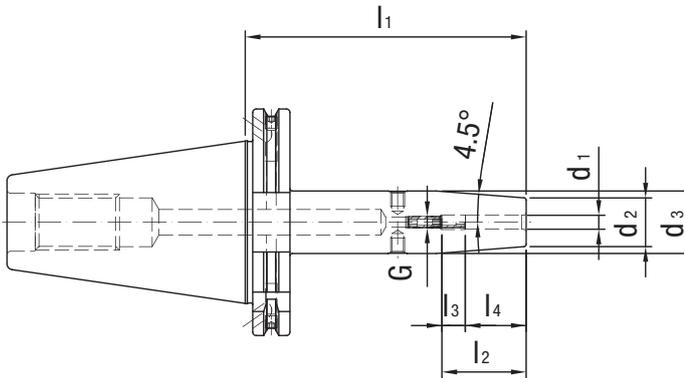
Basic form AD. Please indicate form AF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

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

(prev. DIN 69871-AD/B), long 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>	l <sub>4</sub>					
50	3	10	20	120	-	-	12	-	-	2.8	15.306.50.03.Z/120	30337240
50	3	10	20	160	-	-	12	-	-	3	15.306.50.03.Z/160	30337241
50	4	15	22	120	-	-	16	-	-	2.8	15.306.50.04.Z/120	30337243
50	4	15	22	160	-	-	16	-	-	3	15.306.50.04.Z/160	30337244
50	5	15	22	120	-	-	20	-	-	2.8	15.306.50.05.Z/120	30337246
50	5	15	22	160	-	-	20	-	-	3	15.306.50.05.Z/160	30337247
50	6	21	27	120	36	10	26	M5	2.5	2.9	15.306.50.06.Z/120	30337249
50	6	21	27	160	36	10	26	M5	2.5	3.1	15.306.50.06.Z/160	30337250
50	8	21	27	120	36	10	26	M6	3	3	15.306.50.08.Z/120	30337252
50	8	21	27	160	36	10	26	M6	3	3.1	15.306.50.08.Z/160	30337253
50	10	24	32	120	41	10	31	M8x1	3	3	15.306.50.10.Z/120	30337255
50	10	24	32	160	41	10	31	M8x1	3	3.3	15.306.50.10.Z/160	30337256
50	12	24	32	120	47	10	37	M10x1	5	3	15.306.50.12.Z/120	30337258
50	12	24	32	160	47	10	37	M10x1	5	3.3	15.306.50.12.Z/160	30337259
50	14	27	34	120	47	10	37	M10x1	5	3.1	15.306.50.14.Z/120	30337261
50	14	27	34	160	47	10	37	M10x1	5	3.4	15.306.50.14.Z/160	30337262
50	16	27	34	120	50	10	40	M12x1	5	3.1	15.306.50.16.Z/120	30337264
50	16	27	34	160	50	10	40	M12x1	5	3.5	15.306.50.16.Z/160	30337265
50	18	33	42	120	50	10	40	M12x1	5	3.3	15.306.50.18.Z/120	30337267
50	18	33	42	160	50	10	40	M12x1	5	3.7	15.306.50.18.Z/160	30337268
50	20	33	42	120	52	10	42	M16x1	8	3.3	15.306.50.20.Z/120	30337270
50	20	33	42	160	52	10	42	M16x1	8	3.7	15.306.50.20.Z/160	30337271
50	25	44	53	120	58	10	48	M16x1	8	3.8	15.306.50.25.Z/120	30337273
50	25	44	53	160	58	10	48	M16x1	8	4	15.306.50.25.Z/160	30337274
50	32	44	53	120	62	10	52	M16x1	8	3.8	15.306.50.32.Z/120	30337276
50	32	44	53	160	62	10	52	M16x1	8	4	15.306.50.32.Z/160	30337277

Dimensions in mm.

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

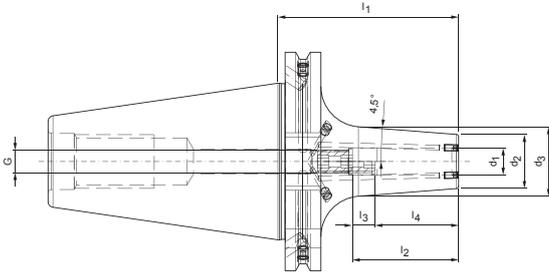
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck

## Volume Shrink, ISO 7388-1, Form AD/AF

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



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>	l <sub>4</sub>					
50	6	21	27.7	80	36	10	26	M5	2.5	2.9	15.307.50.06.KKB	30655193
50	8	21	27.7	80	36	10	26	M6	3	2.9	15.307.50.08.KKB	30655194
50	10	24	31	80	41	10	31	M8x1	3	3	15.307.50.10.KKB	30655195
50	12	24	31	80	47	10	37	M10x1	5	3	15.307.50.12.KKB	30655196
50	16	27	34.3	80	50	10	40	M12x1_KKB	5	3	15.307.50.16.KKB	30655197
50	20	33	40.6	80	52	10	52	M16x1_KKB	5	3.1	15.307.50.20.KKB	30655198
50	25	44	55.9	100	58	10	48	M16x1_KKB	5	3.7	15.307.50.25.KKB	30655199
50	32	44	55.9	100	62	10	52	M16x1_KKB	5	3.5	15.307.50.32.KKB	30655200

Dimensions in mm.

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

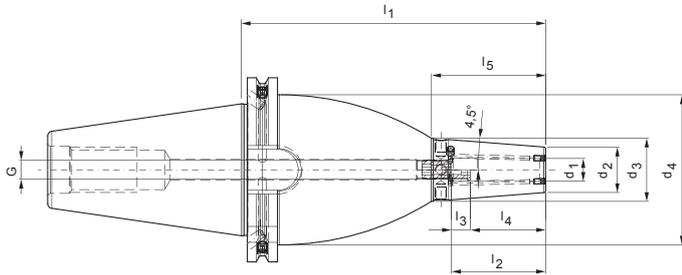
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck

## Volume Shrink, ISO 7388-1, Form AD/AF

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



Nominal size SK/ISO	Dimensions										G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$d_4$	$l_1$	$l_2$	$l_3$	$l_4$	$l_5$						
50	6	21	29	79.5	160	36	10	26	51	M5_KKB	2.5	5	15.307.50.06.160.KKB	30655201	
50	8	21	29	79.5	160	36	10	26	51	M6_KKB	3	5	15.307.50.08.160.KKB	30655202	
50	10	24	32.7	79.5	160	41	10	31	55	M8x1_KKB	3	5.1	15.307.50.10.160.KKB	30655203	
50	12	24	33.4	79.5	160	47	10	37	60	M10x1_KKB	5	5	15.307.50.12.160.KKB	30655204	
50	16	27	37.2	79.5	160	50	10	40	65	M12x1_KKB	5	5	15.307.50.16.160.KKB	30655205	
50	20	33	44	79.5	160	52	10	52	70	M16x1_KKB	5	5.1	15.307.50.20.160.KKB	30655206	
50	25	44	55.8	79.5	160	58	10	48	75	M16x1_KKB	5	5.6	15.307.50.25.160.KKB	30655207	
50	32	44	56.6	79.5	160	62	10	52	80	M16x1_KKB	5	5.4	15.307.50.32.160.KKB	30655208	

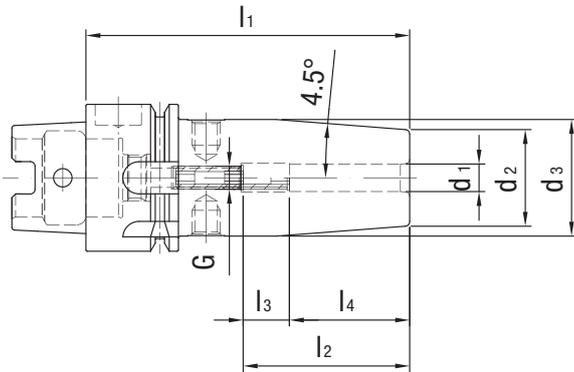
Dimensions in mm.

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

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A



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	3	10	15	60	28	16	12	M5	2	0.2	16.306.32.03.Z	30337360
32	4	10	15	60	28	12	16	M5	2	0.2	16.306.32.04.Z	30337361
32	5	10	15	60	30	10	20	M6	2	0.2	16.306.32.05.Z	30337362
32	6	21	25	70	36	10	26	M5	2.5	0.3	16.306.32.06.Z	30337363
32	8	21	25	70	36	10	26	M6	3	0.3	16.306.32.08.Z	30337364
32	10	24	29	75	41	10	31	M8x1	3	0.4	16.306.32.10.Z	30337365
32	12	24	29	80	47	10	37	M10x1	5	0.4	16.306.32.12.Z	30337366

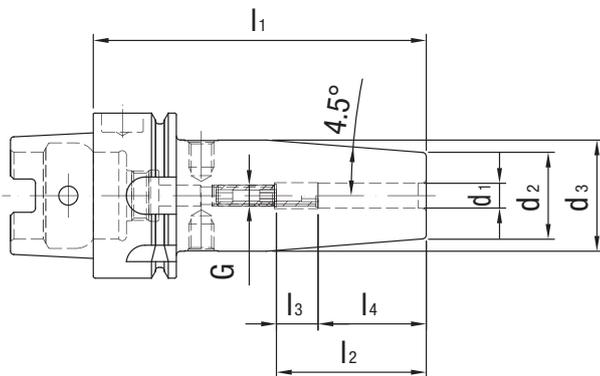
Dimensions in mm.

MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A



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>					
40	3	10	15	60	28	16	12	M6	2	0.3	16.306.40.03.Z	30337367
40	4	10	15	60	28	12	16	M6	2	0.3	16.306.40.04.Z	30337370
40	5	10	15	60	30	10	20	M6	2	0.3	16.306.40.05.Z	30337373
40	6	21	27	80	36	10	26	M5	2.5	0.4	16.306.40.06.Z	30337376
40	8	21	27	80	36	10	26	M6	3	0.4	16.306.40.08.Z	30337379
40	10	24	32	80	41	10	31	M8x1	3	0.5	16.306.40.10.Z	30337382
40	12	24	32	90	47	10	37	M10x1	5	0.5	16.306.40.12.Z	30337385
40	14	27	33.5	90	47	10	37	M10x1	5	0.6	16.306.40.14.Z	30337388
40	16	27	33.5	90	50	10	40	M12x1	5	0.5	16.306.40.16.Z	30337391

Dimensions in mm.

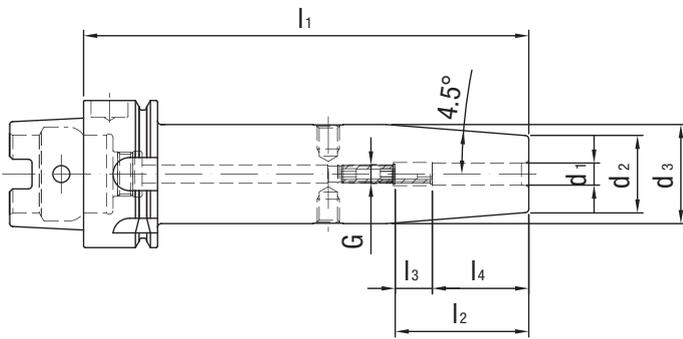
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long 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>					
40	3	10	20	120	-	-	12	-	-	0.4	16.306.40.03.Z/120	30337368
40	3	10	20	160	-	-	12	-	-	0.5	16.306.40.03.Z/160	30337369
40	4	15	22	120	-	-	16	-	-	0.4	16.306.40.04.Z/120	30337371
40	4	15	22	160	-	-	16	-	-	0.5	16.306.40.04.Z/160	30337372
40	5	15	22	120	-	-	20	-	-	0.4	16.306.40.05.Z/120	30337374
40	5	15	22	160	-	-	20	-	-	0.5	16.306.40.05.Z/160	30337375
40	6	21	27	120	36	10	26	M5	2.5	0.6	16.306.40.06.Z/120	30337377
40	6	21	27	160	36	10	26	M5	2.5	0.7	16.306.40.06.Z/160	30337378
40	8	21	27	120	36	10	26	M6	3	0.6	16.306.40.08.Z/120	30337380
40	8	21	27	160	36	10	26	M6	3	0.7	16.306.40.08.Z/160	30337381
40	10	24	32	120	41	10	31	M8x1	3	0.7	16.306.40.10.Z/120	30337383
40	10	24	32	160	41	10	31	M8x1	3	0.8	16.306.40.10.Z/160	30337384
40	12	24	32	120	47	10	37	M10x1	5	0.7	16.306.40.12.Z/120	30337386
40	12	24	32	160	47	10	37	M10x1	5	0.8	16.306.40.12.Z/160	30337387
40	14	27	33.5	120	47	10	37	M10x1	5	0.8	16.306.40.14.Z/120	30337389
40	14	27	33.5	160	47	10	37	M10x1	5	0.9	16.306.40.14.Z/160	30337390
40	16	27	33.5	120	50	10	40	M12x1	5	0.7	16.306.40.16.Z/120	30337392
40	16	27	33.5	160	50	10	40	M12x1	5	0.8	16.306.40.16.Z/160	30337393

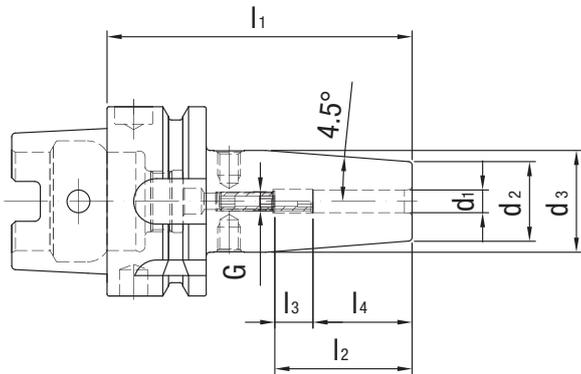
Dimensions in mm.

MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A



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>					
50	3	10	15	80	28	16	12	M6	2	0.4	16.306.50.03.Z	30337394
50	4	15	22	80	28	12	16	M6	2	0.5	16.306.50.04.Z	30337397
50	5	15	22	80	30	10	20	M6	2	0.5	16.306.50.05.Z	30337400
50	6	21	27	80	36	10	26	M5	2.5	0.7	16.306.50.06.Z	30337403
50	8	21	27	80	36	10	26	M6	3	0.6	16.306.50.08.Z	30337407
50	10	24	32	85	41	10	31	M8x1	3	0.7	16.306.50.10.Z	30337410
50	12	24	32	90	47	10	37	M10x1	5	0.7	16.306.50.12.Z	30337413
50	14	27	34	90	47	10	37	M10x1	5	0.7	16.306.50.14.Z	30337416
50	16	27	34	95	50	10	40	M12x1	5	0.7	16.306.50.16.Z	30337419
50	18	33	42	95	50	10	40	M12x1	5	0.9	16.306.50.18.Z	30337422
50	20	33	42	100	52	10	42	M16x1	5	0.9	16.306.50.20.Z	30337425

Dimensions in mm.

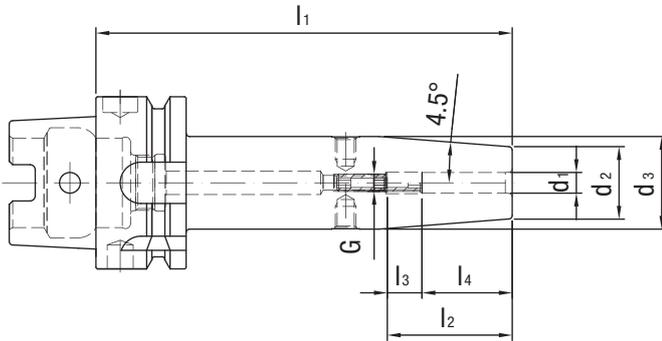
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long 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>					
50	3	10	20	120	-	-	12	-	-	0.5	16.306.50.03.Z/120	30337395
50	3	10	20	160	-	-	12	-	-	0.6	16.306.50.03.Z/160	30337396
50	4	15	22	120	-	-	16	-	-	0.6	16.306.50.04.Z/120	30337398
50	4	15	22	160	-	-	16	-	-	0.7	16.306.50.04.Z/160	30337399
50	5	15	22	120	-	-	20	-	-	0.6	16.306.50.05.Z/120	30337401
50	5	15	22	160	-	-	20	-	-	0.7	16.306.50.05.Z/160	30337402
50	6	21	27	120	36	10	26	M5	2.5	0.8	16.306.50.06.Z/120	30337404
50	6	21	27	160	36	10	26	M5	2.5	0.9	16.306.50.06.Z/160	30337405
50	8	21	27	120	36	10	26	M6	3	0.8	16.306.50.08.Z/120	30337408
50	8	21	27	160	36	10	26	M6	3	0.9	16.306.50.08.Z/160	30337409
50	10	24	32	120	41	10	31	M8x1	3	0.8	16.306.50.10.Z/120	30337411
50	10	24	32	160	41	10	31	M8x1	3	0.9	16.306.50.10.Z/160	30337412
50	12	24	32	120	47	10	37	M10x1	5	0.8	16.306.50.12.Z/120	30337414
50	12	24	32	160	47	10	37	M10x1	5	0.9	16.306.50.12.Z/160	30337415
50	14	27	34	120	47	10	37	M10x1	5	0.8	16.306.50.14.Z/120	30337417
50	14	27	34	160	47	10	37	M10x1	5	0.9	16.306.50.14.Z/160	30337418
50	16	27	34	120	50	10	40	M12x1	5	0.8	16.306.50.16.Z/120	30337420
50	16	27	34	160	50	10	40	M12x1	5	0.9	16.306.50.16.Z/160	30337421
50	18	33	42	120	50	10	40	M12x1	5	1	16.306.50.18.Z/120	30337423
50	18	33	42	160	50	10	40	M12x1	5	1.1	16.306.50.18.Z/160	30337424
50	20	33	42	120	52	10	42	M16x1	5	1	16.306.50.20.Z/120	30337426
50	20	33	42	160	52	10	42	M16x1	5	1.1	16.306.50.20.Z/160	30337427

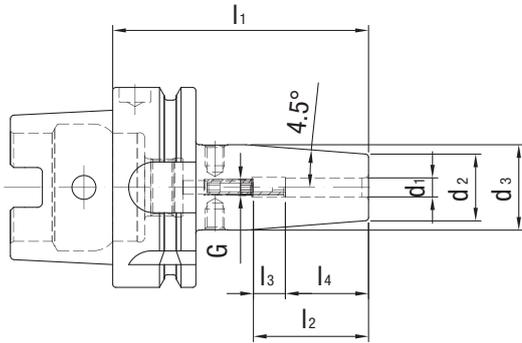
Dimensions in mm.

MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A



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>					
63	3	10	15	80	28	16	12	M6	2	0.7	16.306.63.03.Z	30337115
63	4	15	22	80	28	12	16	M6	2	0.7	16.306.63.04.Z	30337116
63	5	15	22	80	30	10	20	M6	2	0.7	16.306.63.05.Z	30337117
63	6	21	27	80	36	10	26	M5	2.5	0.8	16.306.63.06.Z	30337118
63	7	21	27	80	36	10	26	M5	2.5	0.8	16.306.63.07.Z	30337119
63	8	21	27	80	36	10	26	M6	3	0.8	16.306.63.08.Z	30337120
63	9	21	27	80	36	10	26	M6	3	0.9	16.306.63.09.Z	30337121
63	10	24	32	85	41	10	31	M8x1	3	0.9	16.306.63.10.Z	30337122
63	11	24	32	85	41	10	31	M8x1	3	0.9	16.306.63.11.Z	30337123
63	12	24	32	90	47	10	37	M10x1	5	0.9	16.306.63.12.Z	30337124
63	13	24	32	90	47	10	37	M10x1	5	0.9	16.306.63.13.Z	30337125
63	14	27	34	90	47	10	37	M10x1	5	0.9	16.306.63.14.Z	30337126
63	15	27	34	90	47	10	37	M10x1	5	1	16.306.63.15.Z	30337127
63	16	27	34	95	50	10	40	M12x1	5	1	16.306.63.16.Z	30337128
63	18	33	42	95	50	10	40	M12x1	5	1.1	16.306.63.18.Z	30337129
63	20	33	42	100	52	10	42	M16x1	5	1.1	16.306.63.20.Z	30337130
63	25	44	53	115	58	10	48	M16x1	5	1.6	16.306.63.25.Z	30337131
63	32	44	53	120	62	10	52	M16x1	5	1.6	16.306.63.32.Z	30337132

Dimensions in mm.

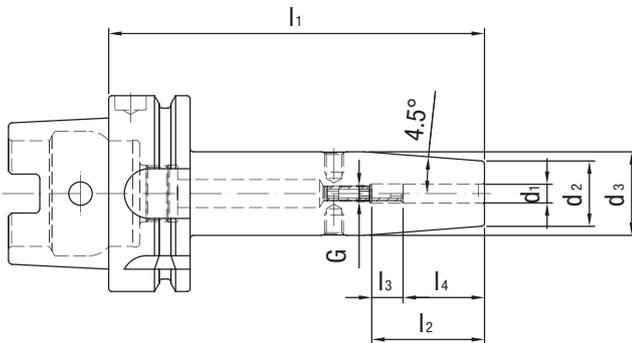
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long 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>					
63	3	10	20	120	-	-	12	-	-	0.8	16.306.63.03.Z/120	30337428
63	3	10	20	160	-	-	12	-	-	0.8	16.306.63.03.Z/160	30337429
63	3	10	20	200	-	-	12	-	-	1	16.306.63.03.Z/200	30562498
63	4	15	22	120	-	-	16	-	-	0.8	16.306.63.04.Z/120	30337430
63	4	15	22	160	-	-	16	-	-	0.9	16.306.63.04.Z/160	30337431
63	4	15	22	200	-	-	16	-	-	1	16.306.63.04.Z/200	30562500
63	5	15	22	120	-	-	20	-	-	0.8	16.306.63.05.Z/120	30337432
63	5	15	22	160	-	-	20	-	-	0.9	16.306.63.05.Z/160	30337433
63	5	15	22	200	-	-	20	-	-	1.1	16.306.63.05.Z/200	30562502
63	6	21	27	120	36	10	26	M5	2.5	1	16.306.63.06.Z/120	30337434
63	6	21	27	160	36	10	26	M5	2.5	1.1	16.306.63.06.Z/160	30337435
63	6	21	27	200	36	10	26	M5	2.5	1.4	16.306.63.06.Z/200	30526480
63	8	21	27	120	36	10	26	M6	3	1	16.306.63.08.Z/120	30337436
63	8	21	27	160	36	10	26	M6	3	1.1	16.306.63.08.Z/160	30337437
63	8	21	27	200	36	10	26	M6	3	1.4	16.306.63.08.Z/200	30337438
63	10	24	32	120	41	10	31	M8x1	3	1	16.306.63.10.Z/120	30337439
63	10	24	32	160	41	10	31	M8x1	3	1.3	16.306.63.10.Z/160	30337440
63	10	24	32	200	41	10	31	M8x1	3	1.6	16.306.63.10.Z/200	30419210
63	12	24	32	120	47	10	37	M10x1	5	1	16.306.63.12.Z/120	30337441
63	12	24	32	160	47	10	37	M10x1	5	1.2	16.306.63.12.Z/160	30337442
63	12	24	32	200	47	10	37	M10x1	5	1.6	16.306.63.12.Z/200	30425006
63	14	27	34	120	47	10	37	M10x1	5	1.1	16.306.63.14.Z/120	30337443
63	14	27	34	160	47	10	37	M10x1	5	1.3	16.306.63.14.Z/160	30337444
63	14	27	34	200	47	10	37	M10x1	5	1.7	16.306.63.14.Z/200	30526482

Dimensions in mm.

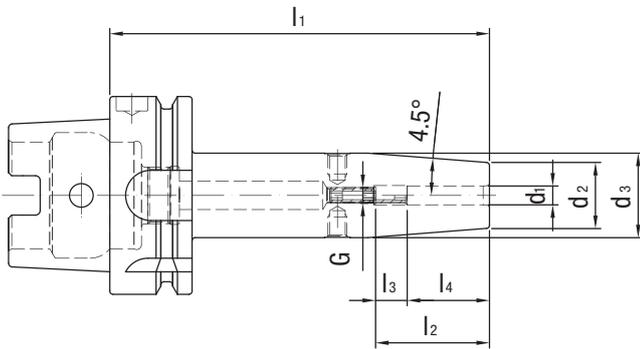
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long 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>					
63	16	27	34	120	50	10	40	M12x1	5	1.1	16.306.63.16.Z/120	30337445
63	16	27	34	160	50	10	40	M12x1	5	1.4	16.306.63.16.Z/160	30337446
63	16	27	34	200	50	10	40	M12x1	5	1.7	16.306.63.16.Z/200	30526485
63	18	33	42	120	50	10	40	M12x1	5	1.3	16.306.63.18.Z/120	30337447
63	18	33	42	160	50	10	40	M12x1	5	1.6	16.306.63.18.Z/160	30337448
63	18	33	42	200	50	10	40	M12x1	5	2.3	16.306.63.18.Z/200	30526487
63	20	33	42	120	52	10	42	M16x1	5	1.3	16.306.63.20.Z/120	30337449
63	20	33	42	160	52	10	42	M16x1	5	1.6	16.306.63.20.Z/160	30337450
63	20	33	42	200	52	10	42	M16x1	5	2.3	16.306.63.20.Z/200	30526488
63	25	44	53	120	58	10	48	M16x1	5	1.7	16.306.63.25.Z/120	30337451
63	25	44	53	160	62	10	48	M16x1	5	2	16.306.63.25.Z/160	30337452
63	25	44	53	200	62	10	48	M16x1	5	3.2	16.306.63.25.Z/200	30526489
63	32	44	53	160	62	10	52	M16x1	5	1.9	16.306.63.32.Z/160	30337453
63	32	44	53	200	62	10	52	M16x1	5	3	16.306.63.32.Z/200	30526491

Dimensions in mm.

MQL-capable design possible on request.

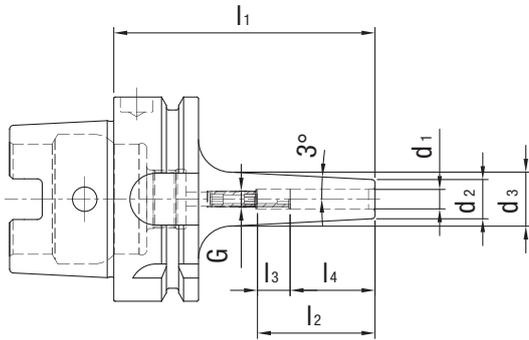
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Narrow design, 3°

3° programme



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>					
63	3	9	14	80	28	16	12	M6	2	0.7	16.304.63.03.Z	30385288
63	4	10	15	80	28	12	16	M6	2	0.7	16.304.63.04.Z	30385291
63	5	11	16	80	30	10	20	M6	2	0.7	16.304.63.05.Z	30385294
63	6	12	17	80	36	10	26	M5	2.5	0.7	16.304.63.06.Z	30385297
63	8	14	19	80	36	10	26	M6	3	0.7	16.304.63.08.Z	30385300
63	10	16	21	85	41	10	31	M8x1	3	0.8	16.304.63.10.Z	30385303
63	12	18	24	90	47	10	37	M10x1	5	0.8	16.304.63.12.Z	30385306
63	14	20	26	90	47	10	37	M10x1	5	0.8	16.304.63.14.Z	30385309
63	16	22	28	95	50	10	40	M12x1	5	0.8	16.304.63.16.Z	30385312
63	18	24	30	95	50	10	40	M12x1	5	0.9	16.304.63.18.Z	30385315
63	20	26	33	100	52	10	42	M16x1	5	0.9	16.304.63.20.Z	30385318

Dimensions in mm.

MQL-capable design possible on request.

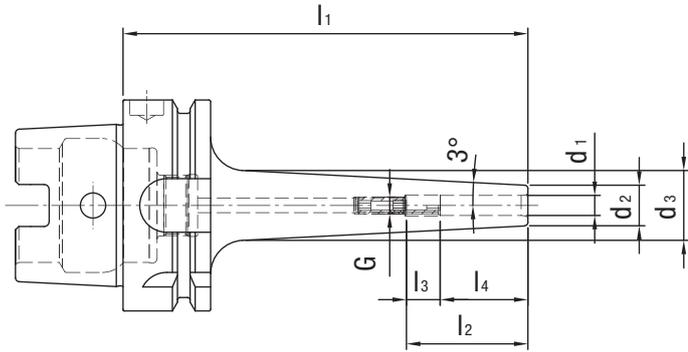
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long narrow design, 3°

**3° programme**



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>					
63	3	9	16	120	-	-	12	-	-	0.8	16.304.63.03.Z/120	30385289
63	3	9	19	160	-	-	12	-	-	0.8	16.304.63.03.Z/160	30385290
63	3	9	19	200	-	-	12	-	-	0.9	16.304.63.03.Z/200	30596929
63	4	10	17	120	-	-	16	-	-	0.8	16.304.63.04.Z/120	30385292
63	4	10	20	160	-	-	16	-	-	0.9	16.304.63.04.Z/160	30385293
63	4	10	20	200	-	-	16	-	-	1.0	16.304.63.04.Z/200	30596934
63	5	11	18	120	-	-	20	-	-	0.8	16.304.63.05.Z/120	30385295
63	5	11	21	160	-	-	20	-	-	0.9	16.304.63.05.Z/160	30385296
63	5	11	21	200	-	-	20	-	-	1.0	16.304.63.05.Z/200	30596935
63	6	12	21	120	36	10	26	M5	2.5	0.8	16.304.63.06.Z/120	30385298
63	6	12	24	160	36	10	26	M5	2.5	0.9	16.304.63.06.Z/160	30385299
63	6	12	24	200	36	10	26	M5	2.5	1.0	16.304.63.06.Z/200	30596937
63	8	14	23	120	36	10	26	M6	3	0.8	16.304.63.08.Z/120	30385301
63	8	14	26	160	36	10	26	M6	3	1	16.304.63.08.Z/160	30385302
63	8	14	26	200	36	10	26	M6	3	1.1	16.304.63.08.Z/200	30596938
63	10	16	25	120	41	10	31	M8x1	3	0.9	16.304.63.10.Z/120	30385304
63	10	16	28	160	41	10	31	M8x1	3	1	16.304.63.10.Z/160	30385305
63	10	16	28	200	41	10	31	M8x1	3	1.2	16.304.63.10.Z/200	30596939
63	12	18	27	120	47	10	37	M10x1	5	0.9	16.304.63.12.Z/120	30385307
63	12	18	30	160	47	10	37	M10x1	5	1.1	16.304.63.12.Z/160	30385308
63	12	18	30	200	47	10	37	M10x1	5	1.3	16.304.63.12.Z/200	30596941
63	14	20	29	120	47	10	37	M10x1	5	1	16.304.63.14.Z/120	30385310
63	14	20	32	160	47	10	37	M10x1	5	1.2	16.304.63.14.Z/160	30385311
63	14	20	32	200	47	10	37	M10x1	5	1.4	16.304.63.14.Z/200	30596943
63	16	22	31	120	50	10	40	M12x1	5	1	16.304.63.16.Z/120	30385313
63	16	22	34	160	50	10	40	M12x1	5	1.2	16.304.63.16.Z/160	30385314
63	16	22	34	200	50	10	40	M12x1	5	1.5	16.304.63.16.Z/200	30596946
63	18	24	33	120	50	10	40	M12x1	5	1	16.304.63.18.Z/120	30385316
63	18	24	36	160	50	10	40	M12x1	5	1.3	16.304.63.18.Z/160	30385317
63	18	24	36	200	50	10	40	M12x1	5	1.6	16.304.63.18.Z/200	30596947
63	20	26	35	120	52	10	42	M16x1	5	1.1	16.304.63.20.Z/120	30385319
63	20	26	38	160	52	10	42	M16x1	5	1.4	16.304.63.20.Z/160	30385320
63	20	26	38	200	52	10	42	M16x1	8	1.7	16.304.63.20.Z/200	30596949

Dimensions in mm.

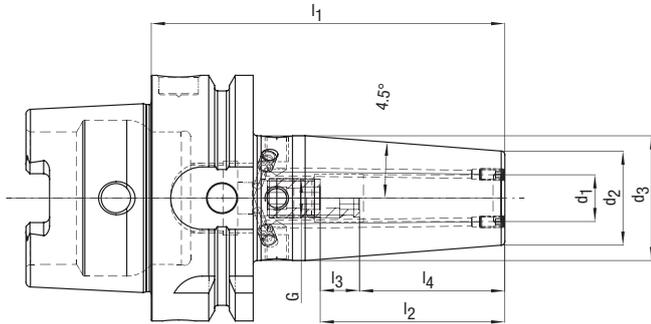
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

With resealable coolant duct holes



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>					
63	3	10	15	80	28	16	12	M6	2	0.7	16.306.63.03.KKB	30590796
63	4	15	22	80	28	12	16	M6	2	0.7	16.306.63.04.KKB	30590797
63	5	15	22	80	30	10	20	M6	2	0.7	16.306.63.05.KKB	30590798
63	6	21	27	80	36	10	26	M5	2.5	0.8	16.306.63.06.KKB	30589885
63	8	21	27	80	36	10	26	M6	3	0.8	16.306.63.08.KKB	30589886
63	10	24	32	85	41	10	31	M8x1	3	0.9	16.306.63.10.KKB	30589887
63	12	24	32	90	47	10	37	M10x1	5	0.9	16.306.63.12.KKB	30589888
63	14	27	34	90	47	10	37	M10x1	5	0.9	16.306.63.14.KKB	30589889
63	16	27	34	95	50	10	40	M12x1_KKB	5	1	16.306.63.16.KKB	30589890
63	18	33	42	95	50	10	40	M12x1_KKB	5	1.1	16.306.63.18.KKB	30589891
63	20	33	42	100	52	10	42	M16x1_KKB	5	1.1	16.306.63.20.KKB	30589892
63	25	44	53	115	58	10	48	M16x1_KKB	5	1.6	16.306.63.25.KKB	30589894
63	32	44	53	120	62	10	52	M16x1_KKB	5	1.6	16.306.63.32.KKB	30589895

Dimensions in mm.

MQL-capable design possible on request.

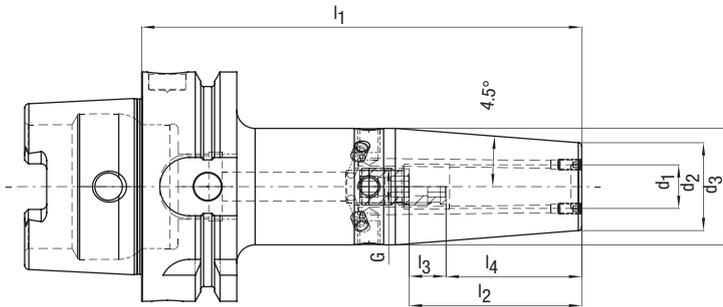
Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long design, with resealable coolant duct holes



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>					
63	3	10	20	120	-	-	12	-	-	0.8	16.306.63.03.120.KKB	30590800
63	4	15	22	120	-	-	16	-	-	0.8	16.306.63.04.120.KKB	30590801
63	5	15	22	120	-	-	20	-	-	0.8	16.306.63.05.120.KKB	30590802
63	6	21	27	120	36	10	26	M5	2.5	1	16.306.63.06.120.KKB	30589896
63	8	21	27	120	36	10	26	M6	3	1	16.306.63.08.120.KKB	30589899
63	10	24	32	120	41	10	31	M8x1	3	1	16.306.63.10.120.KKB	30589900
63	12	24	32	120	47	10	37	M10x1	5	1	16.306.63.12.120.KKB	30589901
63	14	27	34	120	47	10	37	M10x1	5	1.1	16.306.63.14.120.KKB	30589902
63	16	27	34	120	50	10	40	M12x1_KKB	5	1.1	16.306.63.16.120.KKB	30589907
63	18	33	42	120	50	10	40	M12x1_KKB	5	1.3	16.306.63.18.120.KKB	30589908
63	20	33	42	120	52	10	42	M16x1_KKB	5	1.3	16.306.63.20.120.KKB	30589909
63	25	44	53	120	58	10	48	M16x1_KKB	5	1.7	16.306.63.25.120.KKB	30589910

Dimensions in mm.

MQL-capable design possible on request.

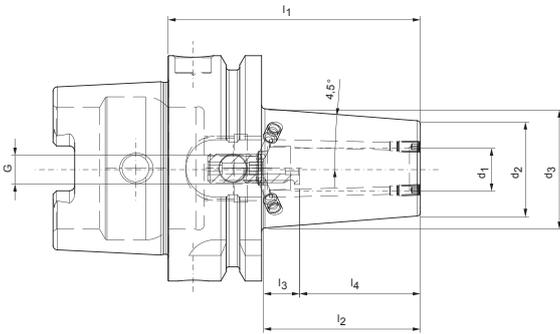
Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck Volume Shrink, DIN 69893-A

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	22	28.8	70	36	10	26	M5_KKB	2.5	0.8	16.307.63.06.KKB	30655242
63	8	22	28.8	70	36	10	26	M6_KKB	3	0.8	16.307.63.08.KKB	30655243
63	10	26.5	33.3	70	36	5	31	M8x1_KKB	3	0.9	16.307.63.10.KKB	30655244
63	12	26.5	33.3	70	40	3	37	M8x1_KKB	3	0.9	16.307.63.12.KKB	30655245
63	16	29.5	37.1	75	45	5	40	M8x1_KKB	3	0.9	16.307.63.16.KKB	30655246
63	20	35.5	43.1	75	45	3	52	M8x1_KKB	3	1	16.307.63.20.KKB	30655247
63	25	45	52.5	85	53	5	48	M8x1_KKB	3	1.3	16.307.63.25.KKB	30655248
63	32	45	52.5	85	55	3	52	M8x1_KKB	3	1.2	16.307.63.32.KKB	30655249

Dimensions in mm.

MQL-capable design possible on request.

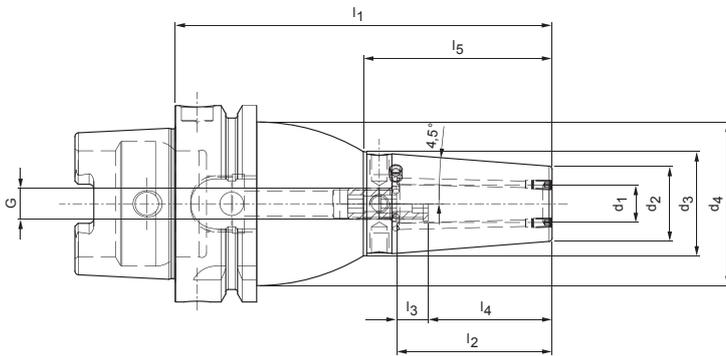
Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck Volume Shrink, DIN 69893-A

Long design, with resealable coolant duct holes



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>	d <sub>4</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>						
63	6	21	28.8	52.5	120	36	10	26	51	M5_KKB	2.5	1.3	16.307.63.06.120.KKB	30655250	
63	8	21	28.8	52.5	120	36	10	26	51	M6_KKB	3	1.3	16.307.63.08.120.KKB	30655251	
63	10	24	33.3	52.5	120	41	10	31	55	M8x1_KKB	3	1.4	16.307.63.10.120.KKB	30655252	
63	12	24	33.3	52.5	120	47	10	37	60	M10x1_KKB	3	1.4	16.307.63.12.120.KKB	30655253	
63	16	27	37.1	52.5	120	50	10	40	63	M12x1_KKB	5	1.4	16.307.63.16.120.KKB	30655254	
63	20	33	43.1	52.5	120	52	10	42	65	M16x1_KKB	5	1.5	16.307.63.20.120.KKB	30655255	
63	25	44	52.5	52.5	120	58	10	48	54	M16x1_KKB	5	1.7	16.307.63.25.120.KKB	30655256	
63	32	44	52.5	52.5	120	62	10	52	54	M16x1_KKB	5	1.7	16.307.63.32.120.KKB	30655257	

Dimensions in mm.

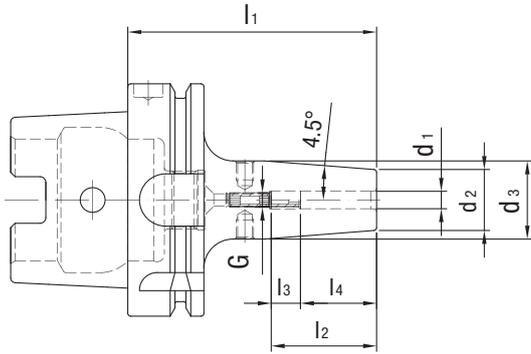
MQL-capable design possible on request.

Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A



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	21	27	85	36	10	26	M5	2.5	1.2	16.306.80.06.Z	30337454
80	8	21	27	85	36	10	26	M6	3	1.2	16.306.80.08.Z	30337457
80	10	24	32	90	41	10	31	M8x1	3	1.3	16.306.80.10.Z	30337460
80	12	24	32	95	47	10	37	M10x1	5	1.3	16.306.80.12.Z	30337463
80	14	27	34	95	47	10	37	M10x1	5	1.4	16.306.80.14.Z	30337466
80	16	27	34	100	50	10	40	M12x1	5	1.5	16.306.80.16.Z	30337469
80	18	33	42	100	50	10	40	M12x1	5	1.5	16.306.80.18.Z	30337472
80	20	33	42	105	52	10	42	M16x1	8	1.7	16.306.80.20.Z	30337475
80	25	44	53	115	58	10	48	M16x1	8	2.5	16.306.80.25.Z	30337478
80	32	44	53	120	62	10	52	M16x1	8	2.9	16.306.80.32.Z	30337481

Dimensions in mm.

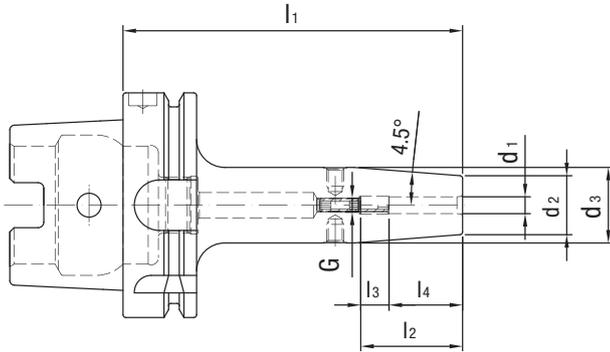
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long 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>					
80	6	21	27	120	36	10	26	M5	2.5	1.5	16.306.80.06.Z/120	30337455
80	6	21	27	160	36	10	26	M5	2.5	1.8	16.306.80.06.Z/160	30337456
80	6	21	27	200	36	10	26	M5	2.5	1.8	16.306.80.06.Z/200	30595858
80	8	21	27	120	36	10	26	M6	3	1.5	16.306.80.08.Z/120	30337458
80	8	21	27	160	36	10	26	M6	3	1.8	16.306.80.08.Z/160	30337459
80	8	21	27	200	36	10	26	M6	3	1.8	16.306.80.08.Z/200	30595861
80	10	24	32	120	41	10	31	M8x1	3	1.6	16.306.80.10.Z/120	30337461
80	10	24	32	160	41	10	31	M8x1	3	2	16.306.80.10.Z/160	30337462
80	10	24	32	200	41	10	31	M8x1	3	2	16.306.80.10.Z/200	30595864
80	12	24	32	120	47	10	36	M10x1	5	1.6	16.306.80.12.Z/120	30337464
80	12	24	32	160	47	10	36	M10x1	5	2	16.306.80.12.Z/160	30337465
80	12	24	32	200	47	10	36	M10x1	5	2	16.306.80.12.Z/200	30595871
80	14	27	34	120	47	10	36	M10x1	5	1.7	16.306.80.14.Z/120	30337467
80	14	27	34	160	47	10	36	M10x1	5	2.1	16.306.80.14.Z/160	30337468
80	14	27	34	200	47	10	36	M10x1	5	2.1	16.306.80.14.Z/200	30595873
80	16	27	34	120	50	10	39	M12x1	5	1.8	16.306.80.16.Z/120	30337470
80	16	27	34	160	50	10	39	M12x1	5	2.1	16.306.80.16.Z/160	30337471
80	16	27	34	200	50	10	39	M12x1	5	2.1	16.306.80.16.Z/200	30595874
80	18	33	42	120	50	10	39	M12x1	5	1.9	16.306.80.18.Z/120	30337473
80	18	33	42	160	50	10	39	M12x1	5	2.2	16.306.80.18.Z/160	30337474
80	18	33	42	200	50	10	39	M12x1	5	2.6	16.306.80.18.Z/200	30595876
80	20	33	42	120	52	10	41	M16x1	8	2	16.306.80.20.Z/120	30337476
80	20	33	42	160	52	10	41	M16x1	8	2.3	16.306.80.20.Z/160	30337477
80	20	33	42	200	52	10	41	M16x1	8	2.7	16.306.80.20.Z/200	30595877
80	25	44	53	120	58	10	47	M16x1	8	2.6	16.306.80.25.Z/120	30337479
80	25	44	53	160	58	10	47	M16x1	8	2.9	16.306.80.25.Z/160	30337480
80	25	44	53	200	58	10	47	M16x1	8	3.6	16.306.80.25.Z/200	30595880
80	32	44	53	160	62	10	51	M16x1	8	3.2	16.306.80.32.Z/160	30337482
80	32	44	53	200	62	10	51	M16x1	8	3.5	16.306.80.32.Z/200	30595882

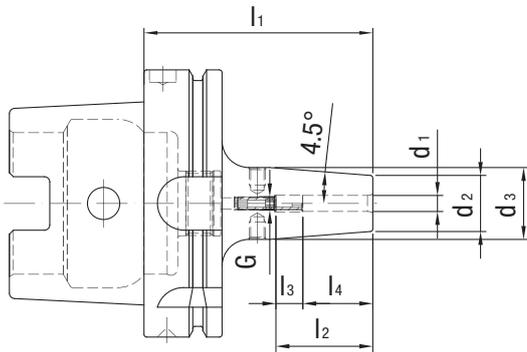
Dimensions in mm.

MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
100	6	21	27	85	36	10	26	M5	2.5	2.2	16.306.100.06.Z	30337331
100	8	21	27	85	36	10	26	M6	3	2.2	16.306.100.08.Z	30337334
100	10	24	32	90	41	10	31	M8x1	3	2.3	16.306.100.10.Z	30337337
100	12	24	32	95	47	10	37	M10x1	5	2.2	16.306.100.12.Z	30337340
100	14	27	34	95	47	10	37	M10x1	5	2.3	16.306.100.14.Z	30337343
100	16	27	34	100	50	10	40	M12x1	5	2.3	16.306.100.16.Z	30337346
100	18	33	42	100	50	10	40	M12x1	5	2.5	16.306.100.18.Z	30337349
100	20	33	42	105	52	10	42	M16x1	8	2.5	16.306.100.20.Z	30337352
100	25	44	53	115	58	10	48	M16x1	8	3.1	16.306.100.25.Z	30337355
100	32	44	53	120	62	10	52	M16x1	8	3	16.306.100.32.Z	30337358

Dimensions in mm.

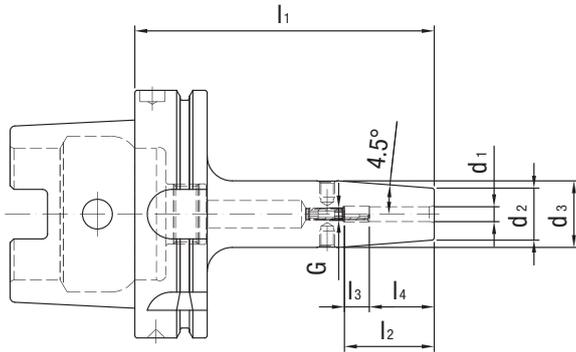
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long 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	21	27	120	36	10	26	M5	2.5	2.4	16.306.100.06.Z/120	30337332
100	6	21	27	160	36	10	26	M5	2.5	2.6	16.306.100.06.Z/160	30337333
100	6	21	27	200	36	10	26	M5	2.5	2.7	16.306.100.06.Z/200	30530904
100	8	21	27	120	36	10	26	M6	3	2.4	16.306.100.08.Z/120	30337335
100	8	21	27	160	36	10	26	M6	3	2.6	16.306.100.08.Z/160	30337336
100	8	21	27	200	36	10	26	M6	3	2.7	16.306.100.08.Z/200	30530906
100	10	24	32	120	41	10	31	M8x1	3	2.5	16.306.100.10.Z/120	30337338
100	10	24	32	160	41	10	31	M8x1	3	2.7	16.306.100.10.Z/160	30337339
100	10	24	32	200	41	10	31	M8x1	3	2.9	16.306.100.10.Z/200	30408832
100	12	24	32	120	47	10	37	M10x1	5	2.5	16.306.100.12.Z/120	30337341
100	12	24	32	160	47	10	37	M10x1	5	2.7	16.306.100.12.Z/160	30337342
100	12	24	32	200	47	10	37	M10x1	5	2.7	16.306.100.12.Z/200	30530907
100	14	27	34	120	47	10	37	M10x1	5	2.5	16.306.100.14.Z/120	30337344
100	14	27	34	160	47	10	37	M10x1	5	2.7	16.306.100.14.Z/160	30337345
100	14	27	34	200	47	10	37	M10x1	5	3	16.306.100.14.Z/200	30530909
100	16	27	34	120	50	10	40	M12x1	5	2.6	16.306.100.16.Z/120	30337347
100	16	27	34	160	50	10	40	M12x1	5	2.9	16.306.100.16.Z/160	30337348
100	16	27	34	200	50	10	40	M12x1	5	3	16.306.100.16.Z/200	30530910
100	18	33	42	120	50	10	40	M12x1	5	2.7	16.306.100.18.Z/120	30337350
100	18	33	42	160	50	10	40	M12x1	5	3	16.306.100.18.Z/160	30337351
100	18	33	42	200	50	10	40	M12x1	5	3.6	16.306.100.18.Z/200	30530911
100	20	33	42	120	52	10	42	M16x1	8	3	16.306.100.20.Z/120	30337353
100	20	33	42	160	52	10	42	M16x1	8	3.4	16.306.100.20.Z/160	30337354
100	20	33	42	200	52	10	42	M16x1	8	3.6	16.306.100.20.Z/200	30530912
100	25	44	53	120	58	10	48	M16x1	8	3.2	16.306.100.25.Z/120	30337356
100	25	44	53	160	58	10	48	M16x1	8	3.6	16.306.100.25.Z/160	30337357
100	25	44	53	200	58	10	48	M16x1	8	4.5	16.306.100.25.Z/200	30530913
100	32	44	53	160	62	10	52	M16x1	8	3.3	16.306.100.32.Z/160	30337359
100	32	44	53	200	62	10	52	M16x1	8	4.4	16.306.100.32.Z/200	30530916

Dimensions in mm.

MQL-capable design possible on request.

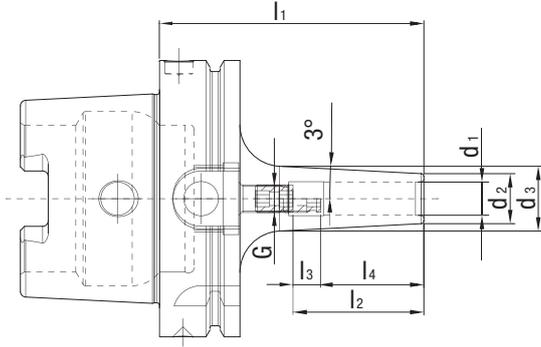
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Narrow design, 3°

3° programme



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	12	17	85	36	10	26	M5	2.5	2.1	16.304.100.06.Z	30597883
100	8	14	19	85	36	10	26	M6	3	2.1	16.304.100.08.Z	30597886
100	10	16	21	90	41	10	31	M8x1	3	2.1	16.304.100.10.Z	30597889
100	12	18	24	95	47	10	36	M10x1	5	2.1	16.304.100.12.Z	30597890
100	14	20	26	95	47	10	36	M10x1	5	2.2	16.304.100.14.Z	30597891
100	16	22	28	100	50	10	39	M12x1	5	2.2	16.304.100.16.Z	30597892
100	18	24	30	100	50	10	39	M12x1	5	2.3	16.304.100.18.Z	30597894
100	20	27	34	105	52	10	41	M16x1	8	2.3	16.304.100.20.Z	30597896

Dimensions in mm.

MQL-capable design possible on request.

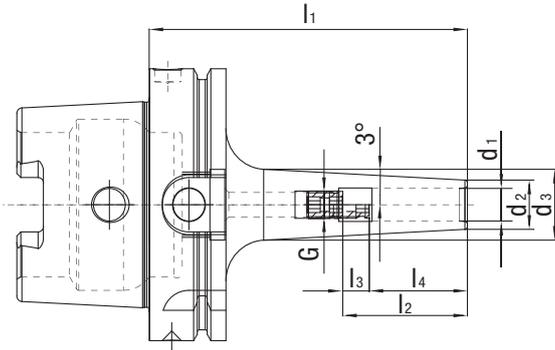
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Long narrow design, 3°

3° programme



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	12	20	120	36	10	26	M5	2.5	2.2	16.304.100.06.Z/120	30597904
100	6	12	23	160	36	10	26	M5	2.5	2.3	16.304.100.06.Z/160	30597918
100	6	12	27	200	36	10	26	M5	2.5	2.5	16.304.100.06.Z/200	30597934
100	8	14	22	120	36	10	26	M6	3	2.2	16.304.100.08.Z/120	30597906
100	8	14	25	160	36	10	26	M6	3	2.3	16.304.100.08.Z/160	30597921
100	8	14	27	200	36	10	26	M6	3	2.5	16.304.100.08.Z/200	30597935
100	10	16	24	120	41	10	31	M8x1	3	2.2	16.304.100.10.Z/120	30597909
100	10	16	27	160	41	10	31	M8x1	3	2.4	16.304.100.10.Z/160	30597923
100	10	16	31	200	41	10	31	M8x1	3	2.5	16.304.100.10.Z/200	30597937
100	12	18	26	120	47	10	36	M10x1	5	2.3	16.304.100.12.Z/120	30597911
100	12	18	29	160	47	10	36	M10x1	5	2.5	16.304.100.12.Z/160	30597924
100	12	18	32	200	47	10	37	M10x1	5	2.6	16.304.100.12.Z/200	30597939
100	14	20	28	120	47	10	36	M10x1	5	2.3	16.304.100.14.Z/120	30597912
100	14	20	30	160	47	10	36	M10x1	5	2.5	16.304.100.14.Z/160	30597926
100	14	20	34	200	47	10	37	M10x1	5	2.7	16.304.100.14.Z/200	30597941
100	16	22	30	120	50	10	39	M12x1	5	2.3	16.304.100.16.Z/120	30597913
100	16	22	32	160	50	10	39	M12x1	5	2.6	16.304.100.16.Z/160	30597927
100	16	22	34	200	50	10	40	M12x1	5	2.8	16.304.100.16.Z/200	30597943
100	18	24	32	120	50	10	39	M12x1	5	2.4	16.304.100.18.Z/120	30597915
100	18	24	36	160	50	10	39	M12x1	5	2.7	16.304.100.18.Z/160	30597929
100	18	24	40	200	50	10	40	M12x1	5	3.0	16.304.100.18.Z/200	30597944
100	20	27	35	120	52	10	41	M16x1	8	2.4	16.304.100.20.Z/120	30597917
100	20	27	42	160	52	10	41	M16x1	8	2.8	16.304.100.20.Z/160	30597931
100	20	27	42	200	52	10	42	M16x1	8	3.2	16.304.100.20.Z/200	30597945

Dimensions in mm.

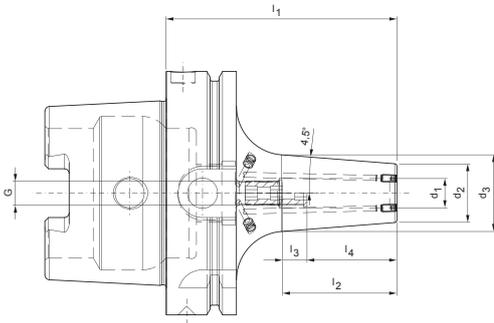
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck Volume Shrink DIN 69893-A

With resealable coolant duct holes



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	21	28.8	85	36	10	26	M5	2.5	2.2	16.307.100.06.KKB	30655258
100	8	21	28.8	85	36	10	26	M6	3	2.3	16.307.100.08.KKB	30655259
100	10	24	33.3	90	41	10	31	M8x1	3	2.3	16.307.100.10.KKB	30655260
100	12	24	33.3	95	47	10	37	M10x1	3	2.4	16.307.100.12.KKB	30655261
100	16	27	37.1	100	50	10	40	M12x1_KKB	5	2.4	16.307.100.16.KKB	30655262
100	20	33	43.1	105	52	10	42	M16x1_KKB	5	2.6	16.307.100.20.KKB	30655263
100	25	44	52.5	115	58	10	48	M16x1_KKB	5	3.1	16.307.100.25.KKB	30655264
100	32	44	52.5	120	62	10	52	M16x1_KKB	5	3	16.307.100.32.KKB	30655265

Dimensions in mm.

MQL-capable design possible on request.

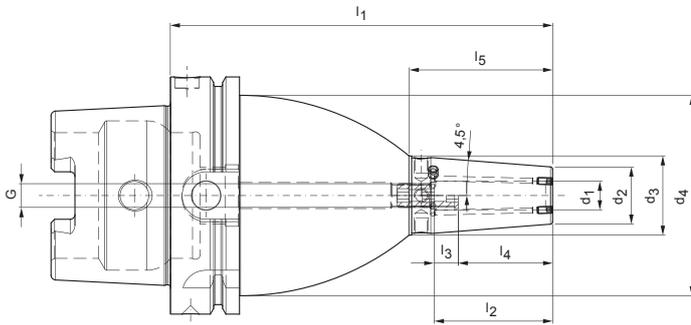
Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck Volume Shrink DIN 69893-A

Long design, with resealable coolant duct holes



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>	d <sub>4</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>						
100	6	21	29	84.5	160	36	10	26	51	M5_KKB	2.5	4.4	16.307.100.06.160.KKB	30655266	
100	8	21	29	84.5	160	36	10	26	51	M6_KKB	3	4.4	16.307.100.08.160.KKB	30655267	
100	10	24	32.7	84.5	160	41	10	31	55	M8x1_KKB	3	4.4	16.307.100.10.160.KKB	30655268	
100	12	24	33.4	84.5	160	47	10	37	60	M10x1_KKB	5	4.4	16.307.100.12.160.KKB	30655269	
100	16	27	37.2	84.5	160	50	10	40	65	M12x1_KKB	5	4.4	16.307.100.16.160.KKB	30655270	
100	20	33	44	84.5	160	52	10	52	70	M16x1_KKB	5	4.4	16.307.100.20.160.KKB	30655271	
100	25	44	55.8	84.5	160	58	10	48	75	M16x1_KKB	5	4.8	16.307.100.25.160.KKB	30655272	
100	32	44	56.6	84.5	160	62	10	52	80	M16x1_KKB	5	4.6	16.307.100.32.160.KKB	30655273	

Dimensions in mm.

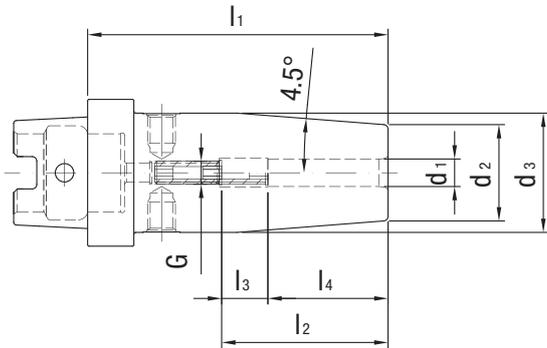
MQL-capable design possible on request.

Standard design with two coolant duct holes.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C



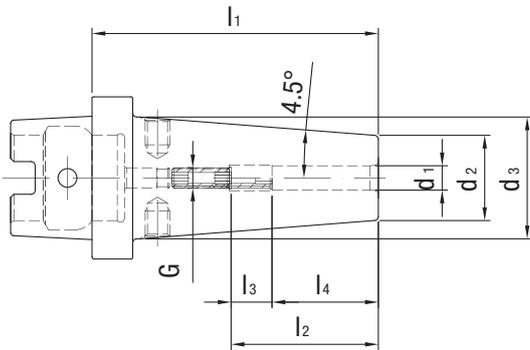
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
32	3	10	15	60	22	10	12	M5	2	0.2	23.306.32.03.Z	30337760
32	4	10	15	60	26	10	16	M5	2	0.2	23.306.32.04.Z	30337761
32	5	10	15	60	30	10	20	M6	2	0.2	23.306.32.05.Z	30337762
32	6	21	26	65	36	10	26	M5	2.5	0.3	23.306.32.06.Z	30337763
32	8	21	26	65	36	10	26	M6	3	0.3	23.306.32.08.Z	30337764
32	10	24	30	65	41	10	31	M8x1	3	0.4	23.306.32.10.Z	30337765
32	12	24	32	75	47	10	37	M10x1	5	0.4	23.306.32.12.Z	30337766

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C



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>					
40	3	10	15	60	28	16	12	M6	2	0.3	23.306.40.03.Z	30385045
40	4	10	15	60	28	12	16	M6	2	0.3	23.306.40.04.Z	30385046
40	5	10	15	60	30	10	20	M6	2	0.3	23.306.40.05.Z	30385047
40	6	21	30	70	36	10	26	M5	2.5	0.4	23.306.40.06.Z	30337767
40	8	21	30	70	36	10	26	M6	3	0.4	23.306.40.08.Z	30337768
40	10	24	33.5	70	41	10	31	M8x1	3	0.5	23.306.40.10.Z	30337769
40	12	24	35	80	47	10	37	M10x1	5	0.5	23.306.40.12.Z	30337770
40	14	27	38	80	47	10	37	M10x1	5	0.5	23.306.40.14.Z	30337771
40	16	27	38	80	50	10	40	M12x1	5	0.6	23.306.40.16.Z	30337772

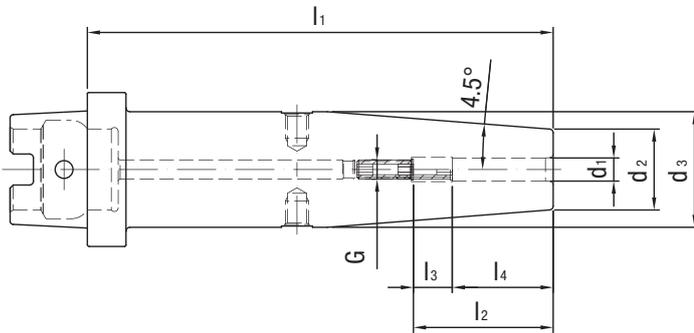
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C

Long design



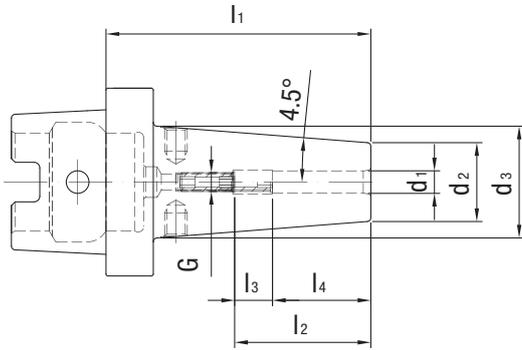
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	10	20	120	-	-	12	-	-	0.4	23.306.40.03.Z/120	30385049
40	3	10	20	160	-	-	12	-	-	0.5	23.306.40.03.Z/160	30385064
40	4	15	22	120	-	-	16	-	-	0.4	23.306.40.04.Z/120	30385051
40	4	15	22	160	-	-	16	-	-	0.5	23.306.40.04.Z/160	30385072
40	5	15	22	120	-	-	20	-	-	0.4	23.306.40.05.Z/120	30385053
40	5	15	22	160	-	-	20	-	-	0.5	23.306.40.05.Z/160	30385077
40	6	21	30	120	36	10	26	M5	2.5	0.5	23.306.40.06.Z/120	30385055
40	6	21	30	160	36	10	26	M5	2.5	0.6	23.306.40.06.Z/160	30385078
40	8	21	30	120	36	10	26	M6	3	0.5	23.306.40.08.Z/120	30385056
40	8	21	30	160	36	10	26	M6	3	0.6	23.306.40.08.Z/160	30385081
40	10	24	33.5	120	41	10	31	M8x1	3	0.6	23.306.40.10.Z/120	30385057
40	10	24	33.5	160	41	10	31	M8x1	3	0.7	23.306.40.10.Z/160	30385086
40	12	24	35	120	47	10	37	M10x1	5	0.6	23.306.40.12.Z/120	30385058
40	12	24	35	160	47	10	37	M10x1	5	0.7	23.306.40.12.Z/160	30385088
40	14	27	38	120	47	10	37	M10x1	5	0.6	23.306.40.14.Z/120	30385059
40	14	27	38	160	47	10	37	M10x1	5	0.7	23.306.40.14.Z/160	30385089
40	16	27	38	120	50	10	40	M12x1	5	0.7	23.306.40.16.Z/120	30385061
40	16	27	38	160	50	10	40	M12x1	5	0.8	23.306.40.16.Z/160	30385090

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C



Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	3	10	15	70	28	16	12	M6	2	0.4	23.306.50.03.Z	30385096
50	4	15	22	70	28	12	16	M6	2	0.4	23.306.50.04.Z	30385098
50	5	15	22	70	30	10	20	M6	2	0.4	23.306.50.05.Z	30385101
50	6	21	30	70	36	10	26	M5	2.5	0.6	23.306.50.06.Z	30337773
50	8	21	30	70	36	10	26	M6	3	0.6	23.306.50.08.Z	30337776
50	10	24	33	75	41	10	31	M8x1	3	0.6	23.306.50.10.Z	30337777
50	12	24	34	80	47	10	37	M10x1	5	0.7	23.306.50.12.Z	30337778
50	14	27	37	80	47	10	37	M10x1	5	0.7	23.306.50.14.Z	30337779
50	16	27	38.5	85	50	10	40	M12x1	5	0.7	23.306.50.16.Z	30337780
50	18	33	44.5	85	50	10	40	M12x1	5	0.8	23.306.50.18.Z	30337781
50	20	33	45	90	52	10	42	M16x1	5	0.8	23.306.50.20.Z	30337782

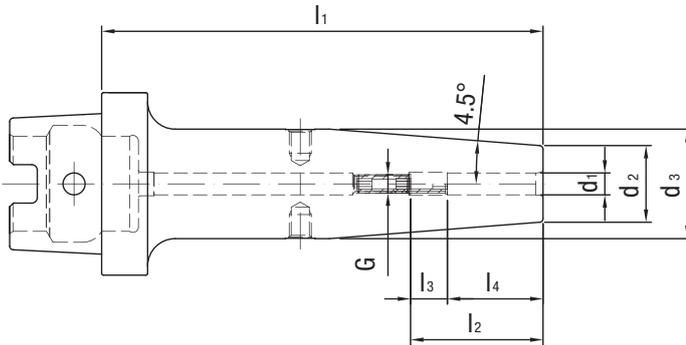
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C

Long design



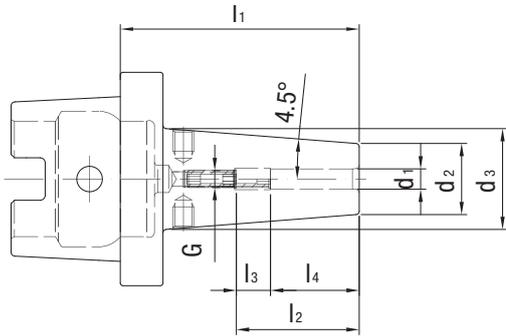
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
50	3	10	20	120	-	-	12	-	-	0.5	23.306.50.03.Z/120	30385103
50	3	10	20	160	-	-	12	-	-	0.5	23.306.50.03.Z/160	30385130
50	4	15	22	120	-	-	16	-	-	0.5	23.306.50.04.Z/120	30385105
50	4	15	22	160	-	-	16	-	-	0.5	23.306.50.04.Z/160	30385132
50	5	15	22	120	-	-	20	-	-	0.5	23.306.50.05.Z/120	30385106
50	5	15	22	160	-	-	20	-	-	0.5	23.306.50.05.Z/160	30385138
50	6	21	30	120	36	10	26	M5	2.5	0.7	23.306.50.06.Z/120	30337774
50	6	21	30	160	36	10	26	M5	2.5	0.8	23.306.50.06.Z/160	30337775
50	8	21	30	120	36	10	26	M6	3	0.7	23.306.50.08.Z/120	30385108
50	8	21	30	160	36	10	26	M6	3	0.8	23.306.50.08.Z/160	30385140
50	10	24	33	120	41	10	31	M8x1	3	0.7	23.306.50.10.Z/120	30385110
50	10	24	33	160	41	10	31	M8x1	3	0.8	23.306.50.10.Z/160	30385141
50	12	24	34	120	47	10	37	M10x1	5	0.8	23.306.50.12.Z/120	30385112
50	12	24	34	160	47	10	37	M10x1	5	0.9	23.306.50.12.Z/160	30385142
50	14	27	37	120	47	10	37	M10x1	5	0.8	23.306.50.14.Z/120	30385113
50	14	27	37	160	47	10	37	M10x1	5	0.9	23.306.50.14.Z/160	30385254
50	16	27	38.5	120	50	10	40	M12x1	5	0.8	23.306.50.16.Z/120	30385120
50	16	27	38.5	160	50	10	40	M12x1	5	0.9	23.306.50.16.Z/160	30385255
50	18	33	44.5	120	50	10	40	M12x1	5	0.9	23.306.50.18.Z/120	30385124
50	18	33	44.5	160	50	10	40	M12x1	5	1	23.306.50.18.Z/100	30385257
50	20	33	45	120	52	10	42	M16x1	5	0.9	23.306.50.20.Z/120	30385126
50	20	33	45	160	52	10	42	M16x1	5	1	23.306.50.20.Z/160	30385258

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C



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	3	10	15	70	28	16	12	M6	2	0.6	23.306.63.03.Z	30385259
63	4	15	22	70	28	12	16	M6	2	0.6	23.306.63.04.Z	30337783
63	5	15	22	70	30	10	20	M6	2	0.6	23.306.63.05.Z	30385260
63	6	21	30	70	36	10	26	M5	2.5	0.7	23.306.63.06.Z	30337784
63	8	21	30	70	36	10	26	M6	3	0.7	23.306.63.08.Z	30337786
63	10	24	34	75	41	10	31	M8x1	3	0.8	23.306.63.10.Z	30337788
63	12	24	34	80	47	10	37	M10x1	5	0.8	23.306.63.12.Z	30337791
63	14	27	36	80	47	10	37	M10x1	5	0.8	23.306.63.14.Z	30337792
63	16	27	36	85	50	10	40	M12x1	5	0.8	23.306.63.16.Z	30337793
63	18	33	44	85	50	10	40	M12x1	5	1	23.306.63.18.Z	30337795
63	20	33	45	90	52	10	42	M16x1	5	1	23.306.63.20.Z	30337797
63	25	44	53	100	58	10	48	M16x1	5	1.4	23.306.63.25.Z	30337798
63	32	44	53	110	62	10	52	M16x1	5	1.5	23.306.63.32.Z	30337799

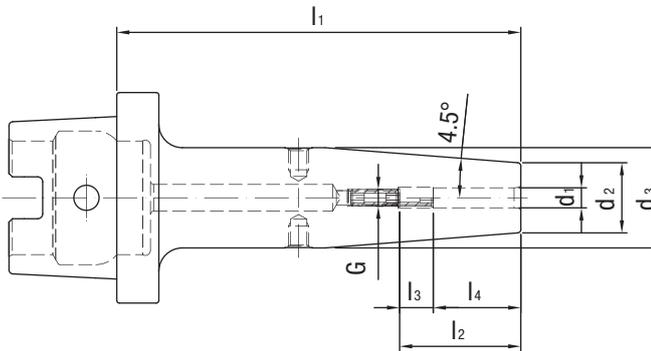
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-C

Long design



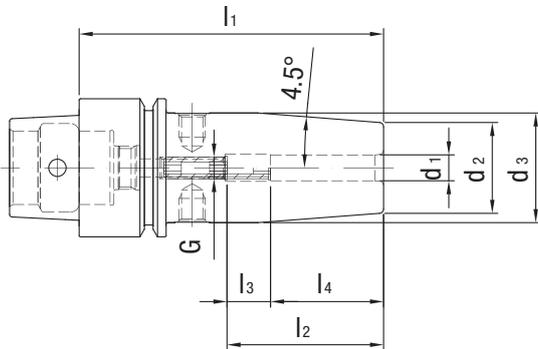
Nominal size HSK-C	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
63	3	10	20	120	-	-	12	-	-	0.7	23.306.63.03.Z/120	30385261
63	3	10	20	160	-	-	12	-	-	0.8	23.306.63.03.Z/160	30386160
63	4	15	22	120	-	-	16	-	-	0.7	23.306.63.04.Z/120	30385262
63	4	15	22	160	-	-	16	-	-	0.8	23.306.63.04.Z/160	30386161
63	5	15	22	120	-	-	20	-	-	0.7	23.306.63.05.Z/120	30385263
63	5	15	22	160	-	-	20	-	-	0.8	23.306.63.05.Z/160	30386164
63	6	21	30	120	36	10	26	M5	2.5	0.8	23.306.63.06.Z/120	30337785
63	6	21	30	160	36	10	26	M5	2.5	0.9	23.306.63.06.Z/160	30386167
63	8	21	30	120	36	10	26	M6	3	0.8	23.306.63.08.Z/120	30337787
63	8	21	27	160	36	10	26	M6	3	0.9	23.306.63.08.Z/160	30386168
63	10	24	34	120	41	10	31	M8x1	3	0.9	23.306.63.10.Z/120	30337789
63	10	24	34	160	41	10	31	M8x1	3	1	23.306.63.10.Z/160	30337790
63	12	24	34	120	47	10	37	M10x1	5	0.9	23.306.63.12.Z/120	30385264
63	12	24	34	160	47	10	37	M10x1	5	1	23.306.63.12.Z/160	30386169
63	14	27	36	120	47	10	37	M10x1	5	0.9	23.306.63.14.Z/120	30385265
63	14	27	36	160	47	10	37	M10x1	5	1	23.306.63.14.Z/160	30386172
63	16	27	36	120	50	10	40	M12x1	5	0.9	23.306.63.16.Z/120	30337794
63	16	27	36	160	50	10	40	M12x1	5	1	23.306.63.16.Z/160	30386173
63	18	33	44	120	50	10	40	M12x1	5	1.1	23.306.63.18.Z/120	30337796
63	18	33	44	160	50	10	40	M12x1	5	1.2	23.306.63.18.Z.160	30386176
63	20	33	45	120	52	10	42	M16x1	5	1.1	23.306.63.20.Z/120	30385266
63	20	33	45	160	52	10	42	M16x1	5	1.2	23.306.63.20.Z/160	30386178
63	25	44	53	120	58	10	48	M16x1	5	1.5	23.306.63.25.Z/120	30385267
63	25	44	53	160	58	10	48	M16x1	5	1.7	23.306.63.25.Z/160	30386180
63	32	44	53	160	62	10	52	M16x1	5	1.7	23.306.63.32.Z/160	30386183

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E



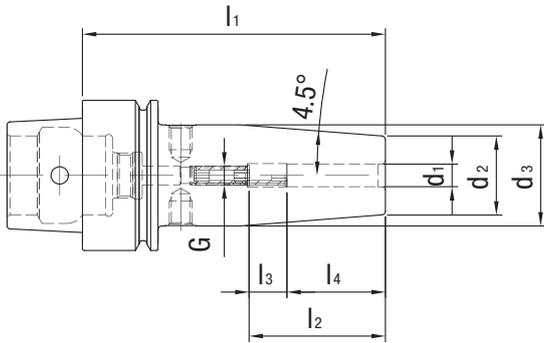
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
32	3	10	15	60	28	16	12	M5	2	0.2	18.306.32.03.Z	30337540
32	4	10	15	60	28	12	16	M5	2	0.2	18.306.32.04.Z	30337541
32	5	10	15	60	30	10	20	M6	2	0.2	18.306.32.05.Z	30337542
32	6	21	25	70	36	10	26	M5	2.5	0.3	18.306.32.06.Z	30337543
32	8	21	25	70	36	10	26	M6	3	0.3	18.306.32.08.Z	30337544
32	10	24	29	75	41	10	31	M8x1	3	0.4	18.306.32.10.Z	30337545
32	12	24	29	80	47	10	37	M10x1	5	0.4	18.306.32.12.Z	30337546

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E



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	3	10	15	60	28	16	12	M6	2	0.3	18.306.40.03.Z	30337547
40	4	10	15	60	28	12	16	M6	2	0.3	18.306.40.04.Z	30337550
40	5	10	15	60	30	10	20	M6	2	0.3	18.306.40.05.Z	30337553
40	6	21	27	80	36	10	26	M5	2.5	0.4	18.306.40.06.Z	30337556
40	8	21	27	80	36	10	26	M6	3	0.4	18.306.40.08.Z	30337559
40	10	24	32	80	41	10	31	M8x1	3	0.5	18.306.40.10.Z	30337562
40	12	24	32	90	47	10	37	M10x1	5	0.5	18.306.40.12.Z	30337565
40	14	27	33.5	90	47	10	37	M10x1	5	0.6	18.306.40.14.Z	30337568
40	16	27	33.5	90	50	10	40	M12x1	5	0.5	18.306.40.16.Z	30337571

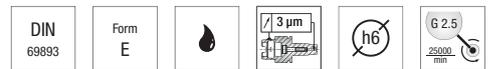
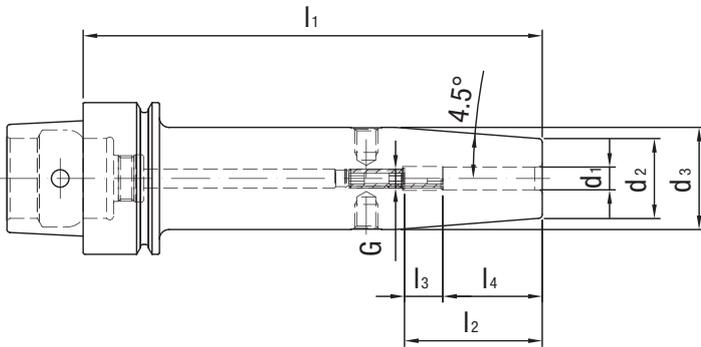
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Long design



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	3	10	20	120	-	-	12	-	-	0.4	18.306.40.03.Z/120	30337548
40	3	10	20	160	-	-	12	-	-	0.5	18.306.40.03.Z/160	30337549
40	4	15	22	120	-	-	16	-	-	0.4	18.306.40.04.Z/120	30337551
40	4	15	22	160	-	-	16	-	-	0.5	18.306.40.04.Z/160	30337552
40	5	15	22	120	-	-	20	-	-	0.4	18.306.40.05.Z/120	30337554
40	5	15	22	160	-	-	20	-	-	0.5	18.306.40.05.Z/160	30337555
40	6	21	27	120	36	10	26	M5	2.5	0.6	18.306.40.06.Z/120	30337557
40	6	21	27	160	36	10	26	M5	2.5	0.7	18.306.40.06.Z/160	30337558
40	8	21	27	120	36	10	26	M6	3	0.6	18.306.40.08.Z/120	30337560
40	8	21	27	160	36	10	26	M6	3	0.7	18.306.40.08.Z/160	30337561
40	10	24	32	120	41	10	31	M8x1	3	0.7	18.306.40.10.Z/120	30337563
40	10	24	32	160	41	10	31	M8x1	3	0.8	18.306.40.10.Z/160	30337564
40	12	24	32	120	47	10	37	M10x1	5	0.7	18.306.40.12.Z/120	30337566
40	12	24	32	160	47	10	37	M10x1	5	0.8	18.306.40.12.Z/160	30337567
40	14	27	33.5	120	47	10	37	M10x1	5	0.8	18.306.40.14.Z/120	30337569
40	14	27	33.5	160	47	10	37	M10x1	5	0.9	18.306.40.14.Z/160	30337570
40	16	27	33.5	120	50	10	40	M12x1	5	0.7	18.306.40.16.Z/120	30337572
40	16	27	33.5	160	50	10	40	M12x1	5	0.8	18.306.40.16.Z/160	30337573

Dimensions in mm.

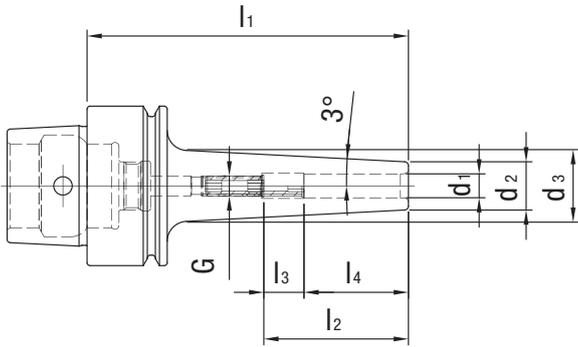
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Narrow design, 3°

3° programme



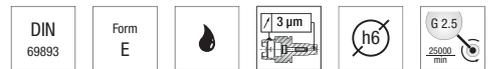
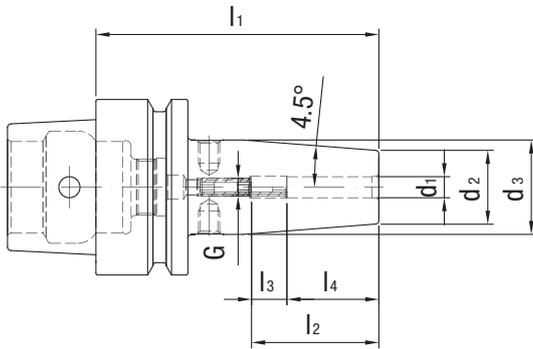
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	9	13	60	28	16	12	M6	2	0.3	18.304.40.03.Z/60	30407142
40	3	9	14	70	28	16	12	M6	2	0.3	18.304.40.03.Z/70	30456361
40	3	9	15	80	28	16	12	M6	2	0.3	18.304.40.03.Z/80	30456373
40	4	10	14	60	28	12	16	M6	2	0.3	18.304.40.04.Z/60	30407144
40	4	10	15	70	28	12	16	M6	2	0.3	18.304.40.04.Z/70	30456362
40	4	10	16	80	28	12	16	M6	2	0.3	18.304.40.04.Z/80	30456374
40	5	11	15	60	30	10	20	M6	2	0.3	18.304.40.05.Z/60	30407146
40	5	11	16	70	30	10	20	M6	2	0.3	18.304.40.05.Z/70	30456364
40	5	11	17	80	30	10	20	M6	2	0.3	18.304.40.05.Z/80	30456376
40	6	12	16	60	36	10	26	M5	2.5	0.3	18.304.40.06.Z/60	30456341
40	6	12	17	70	36	10	26	M5	2.5	0.3	18.304.40.06.Z/70	30456365
40	6	12	18	80	36	10	26	M5	2.5	0.3	18.304.40.06.Z/80	30407149
40	8	14	18	60	36	10	26	M5	2.5	0.3	18.304.40.08.Z/60	30456343
40	8	14	19	70	36	10	26	M5	2.5	0.3	18.304.40.08.Z/70	30456366
40	8	14	20	80	36	10	26	M5	3	0.3	18.304.40.08.Z/80	30407150
40	10	16	20	60	38	7	31	M5	2.5	0.3	18.304.40.10.Z/60	30456344
40	10	16	21	70	41	10	31	M5	2.5	0.3	18.304.40.10.Z/70	30456368
40	10	16	22	80	41	10	31	M5	3	0.3	18.304.40.10.Z/80	30407152
40	12	18	22	60	40	3	37	M5	2.5	0.3	18.304.40.12.Z/60	30456347
40	12	18	23	70	47	10	37	M5	2.5	0.3	18.304.40.12.Z/70	30456370
40	12	18	24	80	47	10	37	M5	2.5	0.4	18.304.40.12.Z/80	30456377

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E



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	3	10	15	80	28	16	12	M6	2	0.4	18.306.50.03.Z	30337574
50	4	15	22	80	28	12	16	M6	2	0.5	18.306.50.04.Z	30337577
50	5	15	22	80	30	10	20	M6	2	0.5	18.306.50.05.Z	30337580
50	6	21	27	80	36	10	26	M5	2.5	0.7	18.306.50.06.Z	30337583
50	8	21	27	80	36	10	26	M6	3	0.6	18.306.50.08.Z	30337586
50	10	24	32	85	41	10	31	M8x1	3	0.7	18.306.50.10.Z	30337589
50	12	24	32	90	47	10	37	M10x1	5	0.7	18.306.50.12.Z	30337592
50	14	27	34	90	47	10	37	M10x1	5	0.7	18.306.50.14.Z	30337595
50	16	27	34	95	50	10	40	M12x1	5	0.7	18.306.50.16.Z	30337598
50	18	33	42	95	50	10	40	M12x1	5	0.9	18.306.50.18.Z	30337601
50	20	33	42	100	52	10	42	M16x1	5	0.9	18.306.50.20.Z	30337604

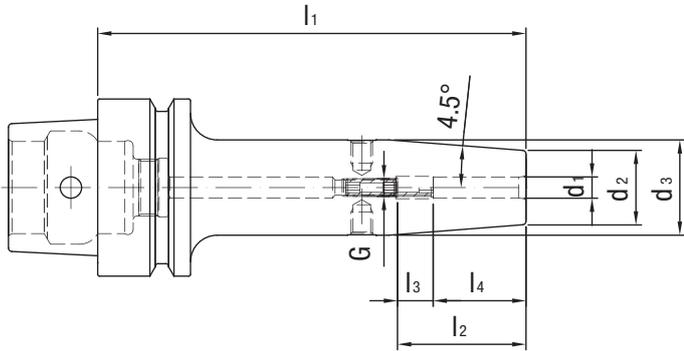
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Long design



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>					
50	3	10	20	120	-	-	12	-	-	0.5	18.306.50.03.Z/120	30337575
50	3	10	20	160	-	-	12	-	-	0.6	18.306.50.03.Z/160	30337576
50	4	15	22	120	-	-	16	-	-	0.6	18.306.50.04.Z/120	30337578
50	4	15	22	160	-	-	16	-	-	0.7	18.306.50.04.Z/160	30337579
50	5	15	22	120	-	-	20	-	-	0.6	18.306.50.05.Z/120	30337581
50	5	15	22	160	-	-	20	-	-	0.7	18.306.50.05.Z/160	30337582
50	6	21	27	120	36	10	26	M5	2.5	0.8	18.306.50.06.Z/120	30337584
50	6	21	27	160	36	10	26	M5	2.5	0.9	18.306.50.06.Z/160	30337585
50	8	21	27	120	36	10	26	M6	3	0.8	18.306.50.08.Z/120	30337587
50	8	21	27	160	36	10	26	M6	3	0.9	18.306.50.08.Z/160	30337588
50	10	24	32	120	41	10	31	M8x1	3	0.8	18.306.50.10.Z/120	30337590
50	10	24	32	160	41	10	31	M8x1	3	0.9	18.306.50.10.Z/160	30337591
50	12	24	32	120	47	10	37	M10x1	5	0.8	18.306.50.12.Z/120	30337593
50	12	24	32	160	47	10	37	M10x1	5	0.9	18.306.50.12.Z/160	30337594
50	14	27	34	120	47	10	37	M10x1	5	0.8	18.306.50.14.Z/120	30337596
50	14	27	34	160	47	10	37	M10x1	5	0.9	18.306.50.14.Z/160	30337597
50	16	27	34	120	50	10	40	M12x1	5	0.8	18.306.50.16.Z/120	30337599
50	16	27	34	160	50	10	40	M12x1	5	0.9	18.306.50.16.Z/160	30337600
50	18	33	42	120	50	10	40	M12x1	5	1	18.306.50.18.Z/120	30337602
50	18	33	42	160	50	10	40	M12x1	5	1.1	18.306.50.18.Z.160	30337603
50	20	33	42	120	52	10	42	M16x1	5	1	18.306.50.20.Z/120	30337605
50	20	33	42	160	52	10	42	M16x1	5	1.1	18.306.50.20.Z/160	30337606

Dimensions in mm.

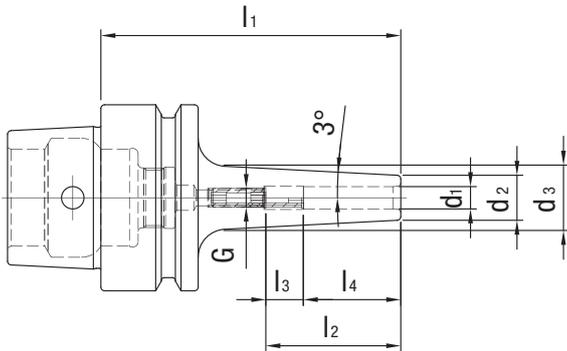
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Narrow design, 3°

**3° programme**

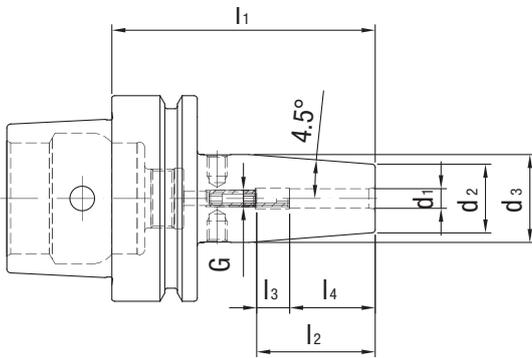


DIN 69893
Form E
Oil resistant
3 µm surface finish
h6 fit
G 2.5 accuracy

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>					
50	3	9	14	70	28	16	12	M6	2	0.5	18.304.50.03.Z/70	30456842
50	3	9	15	80	28	16	12	M6	2	0.5	18.304.50.03.Z/80	30456961
50	3	9	17	100	28	16	12	M6	2	0.5	18.304.50.03.Z/100	30456972
50	4	10	15	70	28	12	16	M6	2	0.5	18.304.50.04.Z/70	30456846
50	4	10	16	80	28	12	16	M6	2	0.5	18.304.50.04.Z/80	30456964
50	4	10	18	100	28	12	16	M6	2	0.5	18.304.50.04.Z/100	30456973
50	5	11	16	70	30	10	20	M6	2	0.5	18.304.50.05.Z/70	30456850
50	5	11	17	80	30	10	20	M6	2	0.5	18.304.50.05.Z/80	30456965
50	5	11	19	100	30	10	20	M6	2	0.5	18.304.50.05.Z/100	30456975
50	6	12	17	70	36	10	26	M5	2.5	0.5	18.304.50.06.Z/70	30456852
50	6	12	18	80	36	10	26	M5	2.5	0.5	18.304.50.06.Z/80	30456966
50	6	12	20	100	36	10	26	M5	2.5	0.5	18.304.50.06.Z/100	30456977
50	8	14	19	70	36	10	26	M5	2.5	0.5	18.304.50.08.Z/70	30456855
50	8	14	20	80	36	10	26	M6	3	0.5	18.304.50.08.Z/80	30456968
50	8	14	22	100	36	10	26	M6	3	0.6	18.304.50.08.Z/100	30456979
50	10	16	21	70	41	10	31	M5	2.5	0.5	18.304.50.10.Z/70	30456857
50	10	16	22	80	41	10	31	M5	2.5	0.5	18.304.50.10.Z/80	30456969
50	10	16	24	100	41	10	31	M8x1	3	0.6	18.304.50.10.Z/100	30456980
50	12	18	23	70	44	7	37	M5	2.5	0.5	18.304.50.12.Z/70	30456858
50	12	18	24	80	47	10	37	M5	2.5	0.5	18.304.50.12.Z/80	30456970
50	12	18	26	100	47	10	37	M10x1	5	0.6	18.304.50.12.Z/100	30456981

Dimensions in mm.  
 Shrink extensions, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# Shrink Chuck DIN 69893-E



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>					
63	3	10	15	80	28	16	12	M6	2	0.7	18.306.63.03.Z	30337607
63	4	15	22	80	28	12	16	M6	2	0.7	18.306.63.04.Z	30337610
63	5	15	22	80	30	10	20	M6	2	0.7	18.306.63.05.Z	30337613
63	6	21	27	80	36	10	26	M5	2.5	0.8	18.306.63.06.Z	30337616
63	8	21	27	80	36	10	26	M6	3	0.8	18.306.63.08.Z	30337619
63	10	24	32	85	41	10	31	M8x1	3	0.9	18.306.63.10.Z	30337622
63	12	24	32	90	47	10	37	M10x1	5	0.9	18.306.63.12.Z	30337625
63	14	27	34	90	47	10	37	M10x1	5	1	18.306.63.14.Z	30337628
63	16	27	34	95	50	10	40	M12x1	5	1	18.306.63.16.Z	30337631
63	18	33	42	95	50	10	40	M12x1	5	1.1	18.306.63.18.Z	30337634
63	20	33	42	100	52	10	42	M16x1	5	1.1	18.306.63.20.Z	30337637
63	25	44	53	115	58	10	48	M16x1	5	1.6	18.306.63.25.Z	30337640
63	32	44	53	120	62	10	52	M16x1	5	1.6	18.306.63.32.Z	30337643

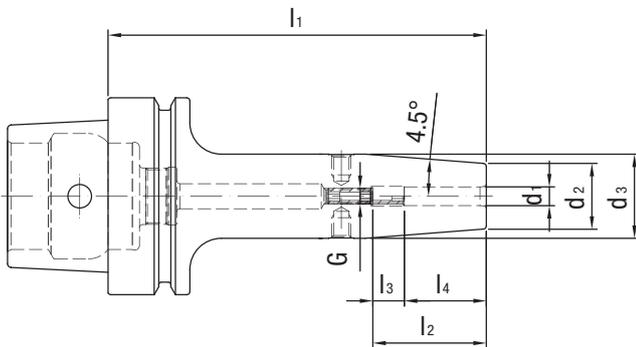
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Long design



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>					
63	3	10	20	120	-	-	12	-	-	0.8	18.306.63.03.Z/120	30337608
63	3	10	20	160	-	-	12	-	-	0.9	18.306.63.03.Z/160	30337609
63	4	15	22	120	-	-	16	-	-	0.8	18.306.63.04.Z/120	30337611
63	4	15	22	160	-	-	16	-	-	0.9	18.306.63.04.Z/160	30337612
63	5	15	22	120	-	-	20	-	-	0.8	18.306.63.05.Z/120	30337614
63	5	15	22	160	-	-	20	-	-	0.9	18.306.63.05.Z/160	30337615
63	6	21	27	120	36	10	26	M5	2.5	0.9	18.306.63.06.Z/120	30337617
63	6	21	27	160	36	10	26	M5	2.5	1	18.306.63.06.Z/160	30337618
63	8	21	27	120	36	10	26	M6	3	0.9	18.306.63.08.Z/120	30337620
63	8	21	27	160	36	10	26	M6	3	1	18.306.63.08.Z/160	30337621
63	10	24	32	120	41	10	31	M8x1	3	1	18.306.63.10.Z/120	30337623
63	10	24	32	160	41	10	31	M8x1	3	1.1	18.306.63.10.Z/160	30337624
63	12	24	32	120	47	10	37	M10x1	5	1	18.306.63.12.Z/120	30337626
63	12	24	32	160	47	10	37	M10x1	5	1.1	18.306.63.12.Z/160	30337627
63	14	27	34	120	47	10	37	M10x1	5	1.1	18.306.63.14.Z/120	30337629
63	14	27	34	160	47	10	37	M10x1	5	1.2	18.306.63.14.Z/160	30337630
63	16	27	34	120	50	10	40	M12x1	5	1.2	18.306.63.16.Z/120	30337632
63	16	27	34	160	50	10	40	M12x1	5	1.4	18.306.63.16.Z/160	30337633
63	18	33	42	120	50	10	40	M12x1	5	1.3	18.306.63.18.Z/120	30337635
63	18	33	42	160	50	10	40	M12x1	5	1.5	18.306.63.18.Z/160	30337636
63	20	33	42	120	52	10	42	M16x1	5	1.3	18.306.63.20.Z/120	30337638
63	20	33	42	160	52	10	42	M16x1	5	1.5	18.306.63.20.Z/160	30337639
63	25	44	53	120	58	10	48	M16x1	5	1.6	18.306.63.25.Z/120	30337641
63	25	44	53	160	58	10	48	M16x1	5	1.8	18.306.63.25.Z/160	30337642
63	32	44	53	160	62	10	52	M16x1	5	1.7	18.306.63.32.Z/160	30337644

Dimensions in mm.

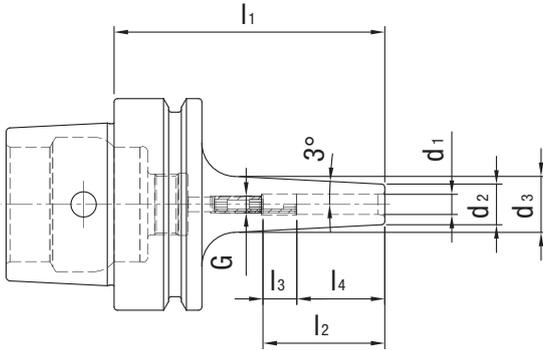
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Narrow design, 3°

3° programme



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>					
63	6	12	18	80	36	10	26	M5	2.5	0.8	18.304.63.06.Z/80	30456806
63	8	14	20	80	36	10	26	M6	3	0.8	18.304.63.08.Z/80	30456812
63	10	16	22	80	41	10	31	M5	2.5	0.8	18.304.63.10.Z/80	30456817
63	12	18	24	80	47	10	37	M5	2.5	0.8	18.304.63.12.Z/80	30456821

Dimensions in mm.

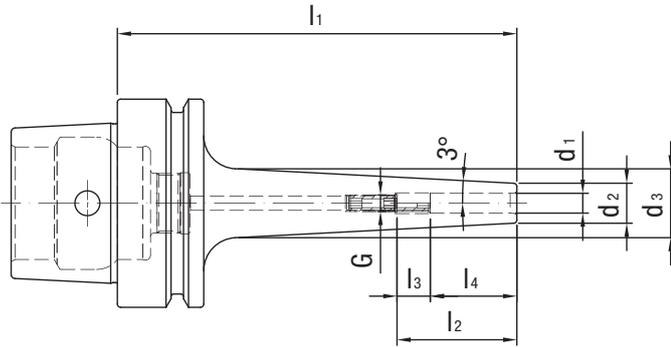
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-E

Long narrow design, 3°

**3° programme**



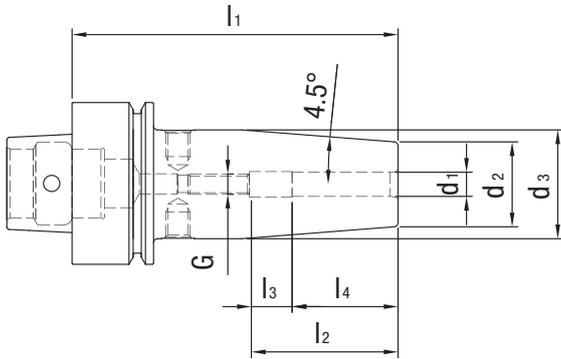
Nominal size HSK-E	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
63	6	12	22	120	36	10	26	M5	2.5	0.9	18.304.63.06.Z/120	30456828
63	8	14	24	120	36	10	26	M6	3	0.9	18.304.63.08.Z/120	30456832
63	10	16	26	120	41	10	31	M8x1	3	0.9	18.304.63.10.Z/120	30456835
63	12	18	28	120	47	10	37	M10x1	5	1	18.304.63.12.Z/120	30456839

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-F



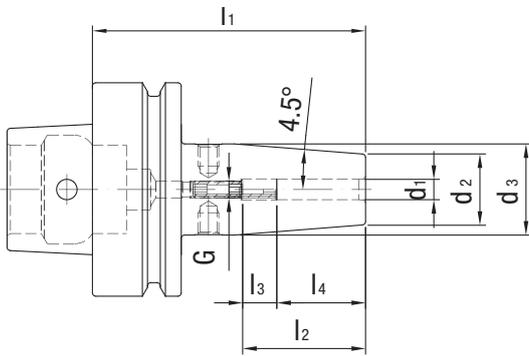
Nominal size HSK-F	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	10	15	60	28	16	12	M6	2	0.6	17.306.40.03	30337483
40	4	10	15	60	28	12	16	M6	2	0.7	17.306.40.04	30337484
40	5	10	15	60	30	10	20	M6	2	0.7	17.306.40.05	30337485
40	6	21	27	80	36	10	26	M5	2.5	0.8	17.306.40.06	30337486
40	8	21	27	80	36	10	26	M6	3	0.8	17.306.40.08	30337487
40	10	24	32	80	41	10	31	M8x1	3	0.9	17.306.40.10	30337488
40	12	24	32	90	47	10	37	M10x1	5	0.9	17.306.40.12	30337489

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-F



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	3	10	15	80	28	16	12	M6	2	0.6	17.306.63.03	30337490
63	4	15	22	80	28	12	16	M6	2	0.7	17.306.63.04	30337493
63	5	15	22	80	30	10	20	M6	2	0.7	17.306.63.05	30337496
63	6	21	27	80	36	10	26	M5	2.5	0.8	17.306.63.06	30337499
63	8	21	27	80	36	10	26	M6	3	0.8	17.306.63.08	30337502
63	10	24	32	85	41	10	31	M8x1	3	0.9	17.306.63.10	30337505
63	12	24	32	90	47	10	37	M10x1	5	0.9	17.306.63.12	30337508
63	14	27	34	90	47	10	37	M10x1	5	0.9	17.306.63.14	30337511
63	16	27	34	95	50	10	40	M12x1	5	1	17.306.63.16	30337514
63	18	33	42	95	50	10	40	M12x1	5	1.1	17.306.63.18	30337517
63	20	33	42	100	52	10	42	M16x1	5	1.1	17.306.63.20	30337520
63	25	44	53	115	58	10	48	M16x1	5	1.6	17.306.63.25	30337523
63	32	44	53	120	62	10	52	M16x1	5	1.6	17.306.63.32	30337526

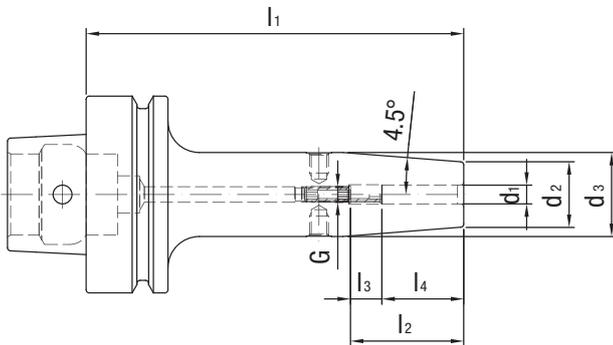
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-F

Long design



Nominal size HSK-F	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>					
63	3	10	20	120	-	-	12	-	-	0.7	17.306.63.03/120	30337491
63	3	10	20	160	-	-	12	-	-	0.8	17.306.63.03/160	30337492
63	4	15	22	120	-	-	16	-	-	0.8	17.306.63.04/120	30337494
63	4	15	22	160	-	-	16	-	-	0.8	17.306.63.04/160	30337495
63	5	15	22	120	-	-	20	-	-	0.8	17.306.63.05/120	30337497
63	5	15	22	160	-	-	20	-	-	0.8	17.306.63.05/160	30337498
63	6	21	27	120	36	10	26	M5	2.5	1	17.306.63.06/120	30337500
63	6	21	27	160	36	10	26	M5	2.5	1.1	17.306.63.06/160	30337501
63	8	21	27	120	36	10	26	M6	3	1	17.306.63.08/120	30337503
63	8	21	27	160	36	10	26	M6	3	1.1	17.306.63.08/160	30337504
63	10	24	32	120	41	10	31	M8x1	3	1.1	17.306.63.10/120	30337506
63	10	24	32	160	41	10	31	M8x1	3	1.3	17.306.63.10/160	30337507
63	12	24	32	120	47	10	37	M10x1	5	1.1	17.306.63.12/120	30337509
63	12	24	32	160	47	10	37	M10x1	5	1.3	17.306.63.12/160	30337510
63	14	27	34	120	47	10	37	M10x1	5	1.1	17.306.63.14/120	30337512
63	14	27	34	160	47	10	37	M10x1	5	1.3	17.306.63.14/160	30337513
63	16	27	34	120	50	10	40	M12x1	5	1.1	17.306.63.16/120	30337515
63	16	27	34	160	50	10	40	M12x1	5	1.4	17.306.63.16/160	30337516
63	18	33	42	120	50	10	40	M12x1	5	1.3	17.306.63.18/120	30337518
63	18	33	42	160	50	10	40	M12x1	5	1.6	17.306.63.18/160	30337519
63	20	33	42	120	52	10	42	M16x1	5	1.3	17.306.63.20/120	30337521
63	20	33	42	160	52	10	42	M16x1	5	1.6	17.306.63.20/160	30337522
63	25	44	53	120	58	10	48	M16x1	5	1.7	17.306.63.25/120	30337524
63	25	44	53	160	58	10	48	M16x1	5	2	17.306.63.25/160	30337525

Dimensions in mm.

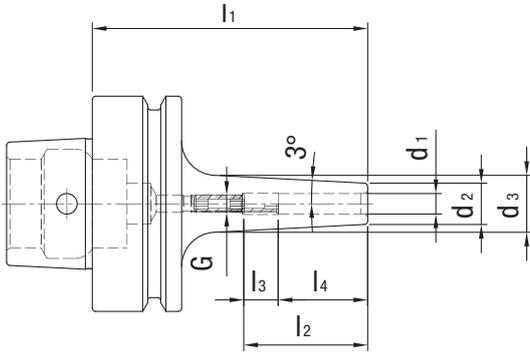
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-F

Narrow design, 3°

3° programme



Nominal size HSK-F	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>					
63	3	9	14	80	28	16	12	M6	2	0.7	17.304.63.03	30407202
63	4	10	15	80	28	12	16	M6	2	0.7	17.304.63.04	30407205
63	5	11	16	80	30	10	20	M6	2	0.8	17.304.63.05	30407209
63	6	12	17	80	36	10	26	M5	2.5	0.8	17.304.63.06	30407237
63	8	14	19	80	36	10	26	M6	3	0.8	17.304.63.08	30407239
63	10	16	22	85	41	10	31	M8x1	3	0.8	17.304.63.10	30407241
63	12	18	24	90	47	10	37	M10x1	5	0.8	17.304.63.12	30407243
63	14	20	26	90	47	10	37	M10x1	5	0.8	17.304.63.14	30407245
63	16	22	29	95	50	10	40	M12x1	5	0.9	17.304.63.16	30407247
63	18	24	31	95	50	10	40	M12x1	5	0.9	17.304.63.18	30407248
63	20	27	34	100	52	10	42	M16x1	5	1	17.304.63.20	30407249

Dimensions in mm.

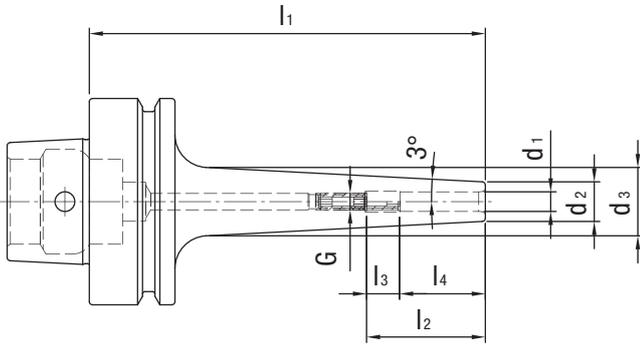
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-F

Long narrow design, 3°

3° programme



Nominal size HSK-F	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>					
63	3	9	16	120	-	-	12	-	-	0.8	17.304.63.03/120	30407251
63	3	9	19	160	-	-	12	-	-	0.9	17.304.63.03/160	30407265
63	4	10	17	120	-	-	16	-	-	0.8	17.304.63.04/120	30407253
63	4	10	20	160	-	-	16	-	-	0.9	17.304.63.04/160	30407268
63	5	11	18	120	-	-	20	-	-	0.8	17.304.63.05/120	30407254
63	5	11	21	160	-	-	20	-	-	0.9	17.304.63.05/160	30407269
63	6	12	21	120	36	10	26	M5	2.5	0.9	17.304.63.06/120	30407255
63	6	12	24	160	36	10	26	M5	2.5	1	17.304.63.06/160	30407270
63	8	14	23	120	36	10	26	M6	3	0.9	17.304.63.08/120	30407256
63	8	14	24	160	36	10	26	M6	3	1	17.304.63.08/160	30407271
63	10	16	25	120	41	10	31	M8x1	3	0.9	17.304.63.10/120	30407257
63	10	16	28	160	41	10	31	M8x1	3	1	17.304.63.10/160	30407272
63	12	18	27	120	47	10	37	M10x1	5	1	17.304.63.12/120	30407258
63	12	18	30	160	47	10	37	M10x1	5	1.2	17.304.63.12/160	30407273
63	14	20	29	120	47	10	37	M10x1	5	1	17.304.63.14/120	30407259
63	14	20	32	160	47	10	37	M10x1	5	1.2	17.304.63.14/160	30407274
63	16	22	31	120	50	10	40	M12x1	5	1	17.304.63.16/120	30407260
63	16	22	34	160	50	10	40	M12x1	5	1.3	17.304.63.16/160	30407275
63	18	24	33	120	50	10	40	M12x1	5	1	17.304.63.18/120	30407263
63	18	24	36	160	50	10	40	M12x1	5	1.4	17.304.63.18/160	30407276
63	20	27	36	120	52	10	42	M16x1	5	1	17.304.63.20/120	30407264
63	20	27	38	160	52	10	42	M16x1	5	1.5	17.304.63.20/160	30407277

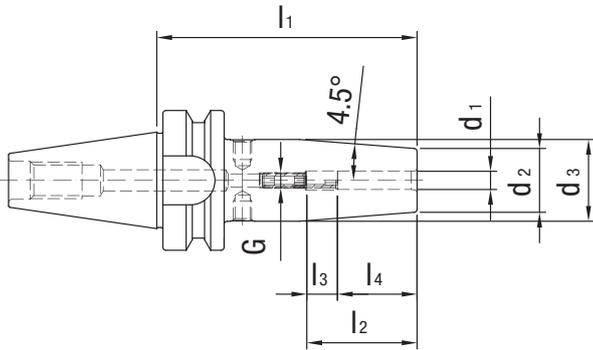
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

Coolant supply as per ISO 7388-2, Form JD



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>					
30	3	10	17	85	28	16	12	M6	2	0.7	22.306.30.03.Z	30337666
30	4	15	22	85	28	12	16	M6	2	0.7	22.306.30.04.Z	30337667
30	5	15	22	85	30	10	20	M6	2	0.7	22.306.30.05.Z	30337668
30	6	21	27	85	36	10	26	M5	2.5	0.8	22.306.30.06.Z	30337669
30	8	21	27	85	36	10	26	M6	3	0.8	22.306.30.08.Z	30337670
30	10	24	32	85	41	10	31	M8x1	3	0.8	22.306.30.10.Z	30337671
30	12	24	32	85	47	10	37	M10x1	5	0.9	22.306.30.12.Z	30337672
30	14	27	34	85	47	10	37	M10x1	5	0.9	22.306.30.14.Z	30337673
30	16	27	34	85	50	10	40	M12x1	5	0.9	22.306.30.16.Z	30337674
30	18	33	42	85	50	10	40	M12x1	5	1	22.306.30.18.Z	30337675
30	20	33	42	85	52	10	42	M16x1	5	1	22.306.30.20.Z	30337676

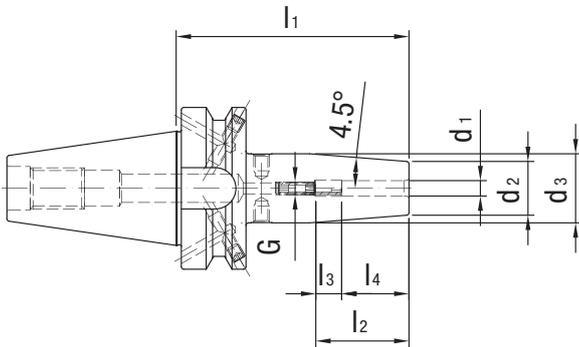
Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

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	3	10	17	90	28	16	12	M6	2	1	22.306.40.03.Z	30337677
40	4	15	22	90	28	12	16	M6	2	1.1	22.306.40.04.Z	30337680
40	5	15	22	90	30	10	20	M6	2	1.1	22.306.40.05.Z	30337683
40	6	21	27	90	36	10	26	M5	2.5	1.1	22.306.40.06.Z	30337686
40	7	21	27	90	36	10	26	M5	2.5	1.1	22.306.40.07.Z	30337689
40	8	21	27	90	36	10	26	M6	3	1.1	22.306.40.08.Z	30337690
40	9	21	27	90	36	10	26	M6	3	1.1	22.306.40.09.Z	30337693
40	10	24	32	90	41	10	31	M8x1	3	1.2	22.306.40.10.Z	30337694
40	11	24	32	90	41	10	31	M8x1	3	1.2	22.306.40.11.Z	30337698
40	12	24	32	90	47	10	37	M10x1	5	1.2	22.306.40.12.Z	30337699
40	13	24	32	90	47	10	37	M10x1	5	1.2	22.306.40.13.Z	30337702
40	14	27	34	90	47	10	37	M10x1	5	1.2	22.306.40.14.Z	30337703
40	15	27	34	90	47	10	37	M10x1	5	1.2	22.306.40.15.Z	30337705
40	16	27	34	90	50	10	40	M12x1	5	1.2	22.306.40.16.Z	30337706
40	18	33	42	90	50	10	40	M12x1	5	1.3	22.306.40.18.Z	30337709
40	20	33	42	90	52	10	42	M16x1	8	1.3	22.306.40.20.Z	30337712
40	25	44	53	100	58	10	48	M16x1	8	1.7	22.306.40.25.Z	30337715
40	32	44	53	100	62	10	52	M16x1	8	1.5	22.306.40.32.Z	30337718

Dimensions in mm.

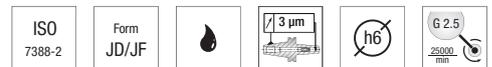
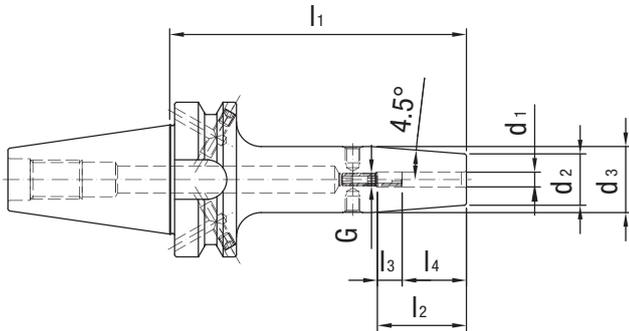
Basic form JD. Please indicate form JF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

Long 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>					
40	3	10	20	120	-	-	12	-	-	1.2	22.306.40.03.Z/120	30337678
40	3	10	20	160	-	-	12	-	-	1.4	22.306.40.03.Z/160	30337679
40	4	15	22	120	-	-	16	-	-	1.3	22.306.40.04.Z/120	30337681
40	4	15	22	160	-	-	16	-	-	1.5	22.306.40.04.Z/160	30337682
40	5	15	22	120	-	-	20	-	-	1.3	22.306.40.05.Z/120	30337684
40	5	15	22	160	-	-	20	-	-	1.5	22.306.40.05.Z/160	30337685
40	6	21	27	120	36	10	26	M5	2.5	1.3	22.306.40.06.Z/120	30337687
40	6	21	27	160	36	10	26	M5	2.5	1.5	22.306.40.06.Z/160	30337688
40	8	21	27	120	36	10	26	M6	3	1.3	22.306.40.08.Z/120	30337691
40	8	21	27	160	36	10	26	M6	3	1.5	22.306.40.08.Z/160	30337692
40	10	24	32	120	41	10	31	M8x1	3	1.4	22.306.40.10.Z/120	30337695
40	10	24	32	160	41	10	31	M8x1	3	1.6	22.306.40.10.Z/160	30337696
40	12	24	32	120	47	10	37	M10x1	5	1.4	22.306.40.12.Z/120	30337700
40	12	24	32	160	47	10	37	M10x1	5	1.6	22.306.40.12.Z/160	30337701
40	14	27	34	120	47	10	37	M10x1	5	1.4	22.306.40.14.Z/120	30337704
40	14	27	34	160	47	10	37	M10x1	5	1.6	22.306.40.14.Z/160	30342696
40	16	27	34	120	50	10	40	M12x1	5	1.4	22.306.40.16.Z/120	30337707
40	16	27	34	160	50	10	40	M12x1	5	1.6	22.306.40.16.Z/160	30337708
40	18	33	42	120	50	10	40	M12x1	5	1.6	22.306.40.18.Z/120	30337710
40	18	33	42	160	50	10	40	M12x1	5	1.9	22.306.40.18.Z.160	30337711
40	20	33	42	120	52	10	42	M16x1	8	1.6	22.306.40.20.Z/120	30337713
40	20	33	42	160	52	10	42	M16x1	8	1.9	22.306.40.20.Z/160	30337714
40	25	44	53	120	58	10	48	M16x1	8	2	22.306.40.25.Z/120	30337716
40	25	44	53	160	58	10	48	M16x1	8	2.3	22.306.40.25.Z/160	30337717
40	32	44	53	120	62	10	52	M16x1	8	1.8	22.306.40.32.Z/120	30337719
40	32	44	53	160	62	10	52	M16x1	8	2	22.306.40.32.Z/160	30337720

Dimensions in mm.

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

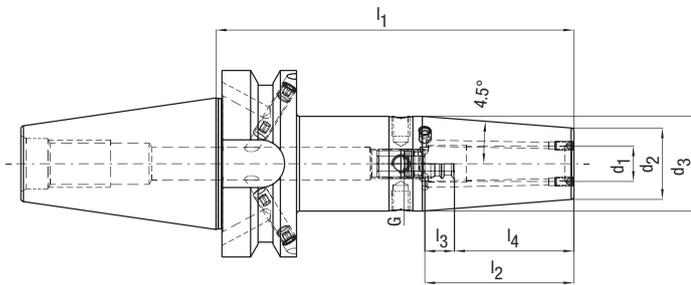
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.



# Shrink Chuck ISO 7388-2 (JIS B6339)

Long design, coolant supply as per ISO 7388-2, Form JD/JF, with resealable coolant duct holes



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	3	10	20	120	-	-	12	-	-	1.2	22.306.40.03.120.KKB	30591241
40	4	15	22	120	-	-	16	-	-	1.3	22.306.40.04.120.KKB	30591242
40	5	15	22	120	-	-	20	-	-	1.3	22.306.40.05.120.KKB	30591243
40	6	21	27	120	36	10	26	M5	2.5	1.3	22.306.40.06.120.KKB	30591244
40	8	21	27	120	36	10	26	M6	3	1.3	22.306.40.08.120.KKB	30591245
40	10	24	32	120	41	10	31	M8x1	3	1.4	22.306.40.10.120.KKB	30591247
40	12	24	32	120	47	10	37	M10x1_KKB	5	1.4	22.306.40.12.120.KKB	30591249
40	14	27	34	120	47	10	37	M10x1_KKB	5	1.4	22.306.40.14.120.KKB	30591250
40	16	27	34	120	50	10	40	M12x1_KKB	5	1.4	22.306.40.16.120.KKB	30591252
40	18	33	42	120	50	10	40	M12x1_KKB	5	1.6	22.306.40.18.120.KKB	30591253
40	20	33	42	120	52	10	42	M16x1_KKB	5	1.6	22.306.40.20.120.KKB	30591254
40	25	44	53	120	58	10	48	M16x1_KKB	5	2	22.306.40.25.120.KKB	30591255
40	32	44	53	120	62	10	52	M16x1_KKB	5	1.8	22.306.40.32.120.KKB	30591258

Dimensions in mm.

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

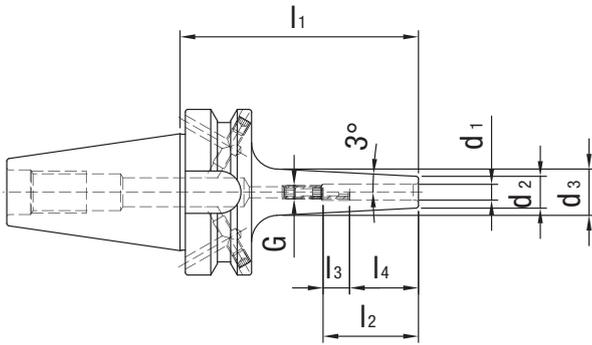
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

Narrow design, 3°, coolant supply as per ISO 7388-2, Form JD/JF

**3° programme**



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>					
40	3	9	15	90	28	16	12	M6	2	1	22.304.40.03.Z	30385354
40	4	10	16	90	28	12	16	M6	2	1	22.304.40.04.Z	30385357
40	5	11	17	90	30	10	20	M6	2	1.1	22.304.40.05.Z	30385360
40	6	12	18	90	36	10	26	M5	2.5	1.1	22.304.40.06.Z	30385363
40	8	14	20	90	36	10	26	M6	3	1.1	22.304.40.08.Z	30385366
40	10	16	22	90	41	10	31	M8x1	3	1.1	22.304.40.10.Z	30385369
40	12	18	24	90	47	10	37	M10x1	5	1.1	22.304.40.12.Z	30385372
40	14	20	26	90	47	10	37	M10x1	5	1.1	22.304.40.14.Z	30385375
40	16	22	28	90	50	10	40	M12x1	5	1.2	22.304.40.16.Z	30385378
40	18	24	30	90	50	10	40	M12x1	5	1.2	22.304.40.18.Z	30385381
40	20	26	32	90	52	10	42	M16x1	8	1.2	22.304.40.20.Z	30385384

Dimensions in mm.

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

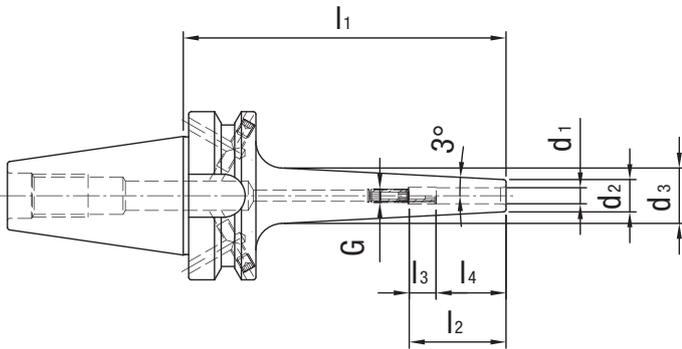
Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

Long narrow design, 3°, coolant supply as per ISO 7388-2, Form JD/JF

**3° programme**



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>					
40	3	9	16	120	-	-	12	-	-	1.1	22.304.40.03.Z/120	30385355
40	3	9	19	160	-	-	12	-	-	1.2	22.304.40.03.Z/160	30385356
40	3	9	19	200	-	-	12	-	-	1.2	22.304.40.03.Z/200	30596952
40	4	10	17	120	-	-	16	-	-	1.1	22.304.40.04.Z/120	30385358
40	4	10	20	160	-	-	16	-	-	1.2	22.304.40.04.Z/160	30385359
40	4	10	20	200	-	-	16	-	-	1.3	22.304.40.04.Z/200	30597094
40	5	11	18	120	-	-	20	-	-	1.1	22.304.40.05.Z/120	30385361
40	5	11	21	160	-	-	20	-	-	1.2	22.304.40.05.Z/160	30385362
40	5	11	21	200	-	-	20	-	-	1.3	22.304.40.05.Z/200	30597095
40	6	12	21	120	36	10	26	M5	2.5	1.1	22.304.40.06.Z/120	30385364
40	6	12	24	160	36	10	26	M5	2.5	1.2	22.304.40.06.Z/160	30385365
40	6	12	24	200	36	10	26	M5	2.5	1.3	22.304.40.06.Z/200	30597096
40	8	14	23	120	36	10	26	M6	3	1.2	22.304.40.08.Z/120	30385367
40	8	14	26	160	36	10	26	M6	3	1.3	22.304.40.08.Z/160	30385368
40	8	14	26	200	36	10	26	M6	3	1.4	22.304.40.08.Z/200	30597098
40	10	16	25	120	41	10	31	M8x1	3	1.2	22.304.40.10.Z/120	30385370
40	10	16	28	160	41	10	31	M8x1	3	1.3	22.304.40.10.Z/160	30385371
40	10	16	28	200	41	10	31	M8x1	3	1.5	22.304.40.10.Z/200	30597099
40	12	18	27	120	47	10	37	M10x1	5	1.2	22.304.40.12.Z/120	30385373
40	12	18	30	160	47	10	37	M10x1	5	1.4	22.304.40.12.Z/160	30385374
40	12	18	30	200	47	10	37	M10x1	5	1.6	22.304.40.12.Z/200	30597100
40	14	20	29	120	47	10	37	M10x1	5	1.3	22.304.40.14.Z/120	30385376
40	14	20	32	160	47	10	37	M10x1	5	1.5	22.304.40.14.Z/160	30385377
40	14	20	32	200	47	10	37	M10x1	5	1.7	22.304.40.14.Z/200	30597101
40	16	22	31	120	50	10	40	M12x1	5	1.3	22.304.40.16.Z/120	30385379
40	16	22	34	160	50	10	40	M12x1	5	1.5	22.304.40.16.Z/160	30385380
40	16	22	34	200	50	10	40	M12x1	5	1.8	22.304.40.16.Z/200	30597102
40	18	24	33	120	50	10	40	M12x1	5	1.3	22.304.40.18.Z/120	30385382
40	18	24	36	160	50	10	40	M12x1	5	1.6	22.304.40.18.Z.160	30385383
40	18	24	36	200	50	10	40	M12x1	5	1.9	22.304.40.18.Z/200	30597104
40	20	26	35	120	52	10	42	M16x1	8	1.3	22.304.40.20.Z/120	30385385
40	20	26	38	160	52	10	42	M16x1	8	1.7	22.304.40.20.Z/160	30385386
40	20	26	38	200	52	10	42	M16x1	8	2.0	22.304.40.20.Z/200	30597107

Dimensions in mm.

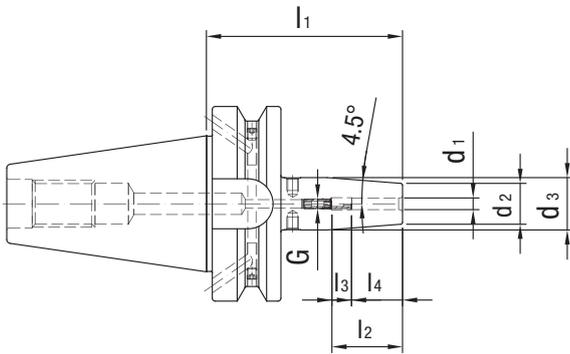
Basic form JD. Please indicate form JF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

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



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	3	10	17	100	-	-	12			3.6	22.306.50.03.Z	30337721
50	4	15	22	100	-	-	16			3.7	22.306.50.04.Z	30337724
50	5	15	22	100	-	-	20			3.7	22.306.50.05.Z	30337727
50	6	21	27	100	36	10	26	M5	2.5	3.7	22.306.50.06.Z	30337730
50	8	21	27	100	36	10	26	M6	3	3.7	22.306.50.08.Z	30337733
50	10	24	32	100	41	10	31	M8x1	3	3.8	22.306.50.10.Z	30337736
50	12	24	32	100	47	10	37	M10x1	5	3.8	22.306.50.12.Z	30337739
50	14	27	34	100	47	10	37	M10x1	5	3.8	22.306.50.14.Z	30337742
50	16	27	34	100	50	10	40	M12x1	5	3.8	22.306.50.16.Z	30337745
50	18	33	42	100	50	10	40	M12x1	5	3.9	22.306.50.18.Z	30337748
50	20	33	42	100	52	10	42	M16x1	8	3.8	22.306.50.20.Z	30337751
50	25	44	53	110	58	10	48	M16x1	8	4.2	22.306.50.25.Z	30337754
50	32	44	53	110	62	10	52	M16x1	8	4.1	22.306.50.32.Z	30337757

Dimensions in mm.

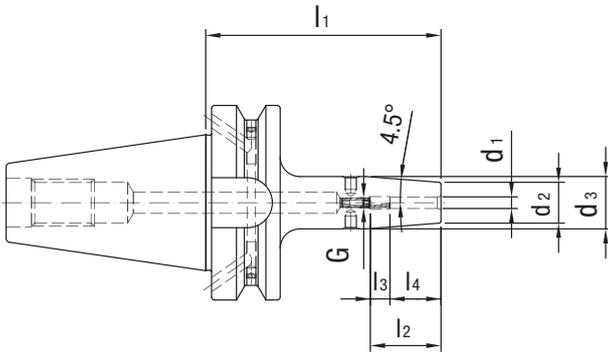
Basic form JD. Please indicate form JF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

Long 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	3	10	20	120	-	-	12	-	-	3.7	22.306.50.03.Z/120	30337722
50	3	10	20	160	-	-	12	-	-	3.9	22.306.50.03.Z/160	30337723
50	4	15	22	120	-	-	16	-	-	3.8	22.306.50.04.Z/120	30337725
50	4	15	22	160	-	-	16	-	-	4	22.306.50.04.Z/160	30337726
50	5	15	22	120	-	-	20	-	-	3.8	22.306.50.05.Z/120	30337728
50	5	15	22	160	-	-	20	-	-	4	22.306.50.05.Z/160	30337729
50	6	21	27	120	36	10	26	M5	2.5	3.8	22.306.50.06.Z/120	30337731
50	6	21	27	160	36	10	26	M5	2.5	4	22.306.50.06.Z/160	30337732
50	8	21	27	120	36	10	26	M6	3	3.8	22.306.50.08.Z/120	30337734
50	8	21	27	160	36	10	26	M6	3	4	22.306.50.08.Z/160	30337735
50	10	24	32	120	41	10	31	M8x1	3	4	22.306.50.10.Z/120	30337737
50	10	24	32	160	41	10	31	M8x1	3	4.2	22.306.50.10.Z/160	30337738
50	12	24	32	120	47	10	37	M10x1	5	4	22.306.50.12.Z/120	30337740
50	12	24	32	160	47	10	37	M10x1	5	4.2	22.306.50.12.Z/160	30337741
50	14	27	34	120	47	10	37	M10x1	5	4	22.306.50.14.Z/120	30337743
50	14	27	34	160	47	10	37	M10x1	5	4.2	22.306.50.14.Z/160	30337744
50	16	27	34	120	50	10	40	M12x1	5	4	22.306.50.16.Z/120	30337746
50	16	27	34	160	50	10	40	M12x1	5	4.2	22.306.50.16.Z/160	30337747
50	18	33	42	120	50	10	40	M12x1	5	4.2	22.306.50.18.Z/120	30337749
50	18	33	42	160	50	10	40	M12x1	5	4.6	22.306.50.18.Z/160	30337750
50	20	33	42	120	52	10	42	M16x1	8	4.2	22.306.50.20.Z/120	30337752
50	20	33	42	160	52	10	42	M16x1	8	4.6	22.306.50.20.Z/160	30337753
50	25	44	53	120	58	10	48	M16x1	8	4.5	22.306.50.25.Z/120	30337755
50	25	44	53	160	58	10	48	M16x1	8	4.8	22.306.50.25.Z/160	30337756
50	32	44	53	120	62	10	52	M16x1	8	4.4	22.306.50.32.Z/120	30337758
50	32	44	53	160	62	10	52	M16x1	8	4.6	22.306.50.32.Z/160	30337759

Dimensions in mm.

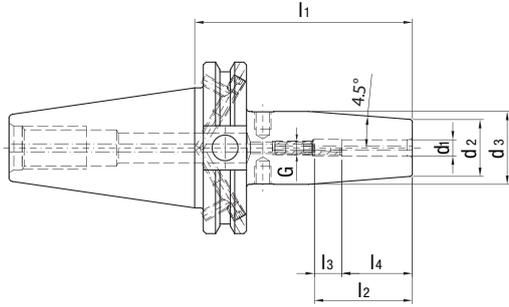
Basic form JD. Please indicate form JF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

# Shrink Chuck ANSI CAT 40

Inch & metric series, standard design, coolant supply as per ISO 7388-1 Form AD/AF



### Inch series



Nominal size CAT	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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	3.18	1/8	10	17	80	3.1496	28	16	12	M6	2	0.90	31.306.40.1/8".Z	30541921
40	4.76	3/16	10	17	80	3.1496	30	10	20	M6	2	0.90	31.306.40.3/16".Z	30541956
40	6.35	1/4	21	27	80	3.1496	36	10	26	M5	2,5	1.10	31.306.40.1/4".Z	30541960
40	7.94	5/16	21	27	80	3.1496	36	10	26	M6	3	1.10	31.306.40.5/16".Z	30541962
40	9.53	3/8	24	32	80	3.1496	41	10	31	M8x1	3	1.10	31.306.40.3/8".Z	30541965
40	11.11	7/16	24	32	80	3.1496	41	10	31	M10x1	5	1.10	31.306.40.7/16".Z	30541967
40	12.70	1/2	24	32	80	3.1496	47	10	37	M10x1	5	1.10	31.306.40.1/2".Z	30541972
40	15.88	5/8	27	34	80	3.1496	50	10	40	M12x1	5	1.10	31.306.40.5/8".Z	30541974
40	19.05	3/4	33	42	80	3.1496	52	10	42	M16x1	8	1.30	31.306.40.3/4".Z	30541976
40	22.23	7/8	33	42	80	3.1496	52	10	42	M16x1	8	1.20	31.306.40.7/8".Z	30541977
40	25.40	1	44	53	100	3.9370	58	10	48	M16x1	8	1.80	31.306.40.1".Z	30541978
40	31.75	1 1/4	44	53	100	3.9370	62	10	52	M16x1	8	1.70	31.306.40.1_1/4".Z	30541979

### Metric series

Nominal size CAT	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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	3.00	0.1181	10	17	80	3.1496	28	16	12	M6	2	0.90	31.306.40.03.Z	30568592
40	4.00	0.1575	15	22	80	3.1496	28	12	16	M6	2	1.00	31.306.40.04.Z	30568594
40	5.00	0.1969	15	22	80	3.1496	30	10	20	M6	2	1.00	31.306.40.05.Z	30568598
40	6.00	0.2362	21	27	80	3.1496	36	10	26	M5	2,5	1.10	31.306.40.06.Z	30568600
40	8.00	0.3150	21	27	80	3.1496	36	10	26	M6	3	1.10	31.306.40.08.Z	30568602
40	10.00	0.3937	24	32	80	3.1496	41	10	31	M8x1	3	1.10	31.306.40.10.Z	30568603
40	12.00	0.4724	24	32	80	3.1496	47	10	37	M10x1	5	1.10	31.306.40.12.Z	30568604
40	14.00	0.5512	27	34	80	3.1496	47	10	37	M10x1	5	1.20	31.306.40.14.Z	30568607
40	16.00	0.6299	27	34	80	3.1496	50	10	40	M12x1	5	1.10	31.306.40.16.Z	30568608
40	18.00	0.7087	33	42	80	3.1496	50	10	40	M12x1	5	1.30	31.306.40.18.Z	30568609
40	20.00	0.7874	33	42	80	3.1496	52	10	42	M16x1	8	1.20	31.306.40.20.Z	30568611
40	25.00	0.9843	44	53	100	3.9370	58	10	48	M16x1	8	1.80	31.306.40.25.Z	30568612
40	32.00	1.2598	44	53	100	3.9370	62	10	52	M16x1	8	1.70	31.306.40.32.Z	30568614

Dimensions in mm.

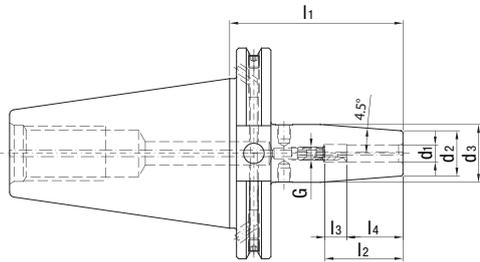
Basic form AD. Please indicate form AF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck ANSI CAT 50

Inch & metric series, standard design, coolant supply as per ISO 7388-1 Form AD/AF



## Inch series



Nominal size CAT	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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
50	6.35	1/4	21	27	80	3.1496	36	10	26	M5	2,5	2.90	31.306.50.1/4".Z	30541998
50	7.94	5/16	21	27	80	3.1496	36	10	26	M6	3	2.90	31.306.50.5/16".Z	30541999
50	9.53	3/8	24	32	80	3.1496	41	10	31	M8x1	3	3.00	31.306.50.3/8".Z	30542001
50	11.11	7/16	24	32	80	3.1496	41	10	31	M10x1	5	2.90	31.306.50.7/16".Z	30542002
50	12.70	1/2	24	32	80	3.1496	47	10	37	M10x1	5	2.90	31.306.50.1/2".Z	30542004
50	15.88	5/8	27	34	80	3.1496	50	10	40	M12x1	5	3.00	31.306.50.5/8".Z	30542005
50	19.05	3/4	33	42	80	3.1496	52	10	42	M16x1	8	3.10	31.306.50.3/4".Z	30542006
50	22.23	7/8	33	42	80	3.1496	52	10	42	M16x1	8	3.00	31.306.50.7/8".Z	30542008
50	25.50	1	44	53	100	3.9370	58	10	48	M16x1	8	3.60	31.306.50.1".Z	30542010
50	31.75	1 1/4	44	53	100	3.9370	62	10	52	M16x1	8	3.50	31.306.50.1_1/4".Z	30542011

## Metric series

Nominal size CAT	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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
50	3.00	0.1181	10	17	80	3.1496	-	-	12	-	-	2.80	31.306.50.03.Z	30345025
50	4.00	0.1575	15	22	80	3.1496	-	-	16	-	-	2.80	31.306.50.04.Z	30345028
50	5.00	0.1969	15	22	80	3.1496	-	-	20	-	-	2.80	31.306.50.05.Z	30345029
50	6.00	0.2362	21	27	80	3.1496	36	10	26	M5	2,5	2.90	31.306.50.06.Z	30568522
50	8.00	0.3150	21	27	80	3.1496	36	10	26	M6	3	2.90	31.306.50.08.Z	30568525
50	10.00	0.3937	24	32	80	3.1496	41	10	31	M8x1	3	2.90	31.306.50.10.Z	30568526
50	12.00	0.4724	24	32	80	3.1496	47	10	37	M10x1	5	2.90	31.306.50.12.Z	30568527
50	14.00	0.5512	27	34	80	3.1496	47	10	37	M10x1	5	3.00	31.306.50.14.Z	30568528
50	16.00	0.6299	27	34	80	3.1496	50	10	40	M12x1	5	3.00	31.306.50.16.Z	30568529
50	18.00	0.7087	33	42	80	3.1496	50	10	40	M12x1	5	3.10	31.306.50.18.Z	30568531
50	20.00	0.7874	33	42	80	3.1496	52	10	42	M16x1	8	3.10	31.306.50.20.Z	30568533
50	25.00	0.9843	44	53	100	3.9370	58	10	48	M16x1	8	3.70	31.306.50.25.Z	30568537
50	32.00	1.2598	44	53	100	3.9370	62	10	52	M16x1	8	3.50	31.306.50.32.Z	30568538

Dimensions in mm.

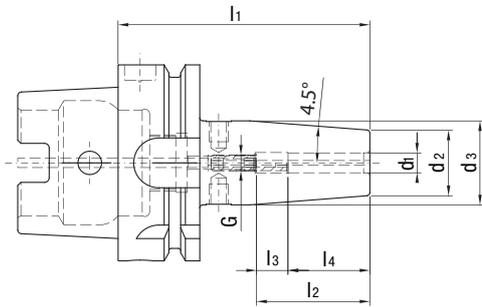
Basic form AD. Please indicate form AF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Inch & metric series, standard design



## Inch series



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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
63	3.18	1/8	10	20	80	3.1496	28	16	12	M6	2	0.70	16.306.63.1/8".Z	30568425
63	4.76	3/16	10	20	80	3.1496	30	10	20	M6	2	0.70	16.306.63.3/16".Z	30568423
63	6.35	1/4	21	27	80	3.1496	36	10	26	M6	2	0.90	16.306.63.1/4".Z	30568422
63	7.94	5/16	21	27	80	3.1496	36	10	26	M6	3	0.90	16.306.63.5/16".Z	30568420
63	9.53	3/8	24	32	85	3.3465	41	10	31	M8x1	3	0.90	16.306.63.3/8".Z	30568418
63	11.11	7/16	24	32	85	3.3465	41	10	31	M8x1	3	0.90	16.306.63.7/16".Z	30568415
63	12.70	1/2	24	32	90	3.5433	47	10	37	M10x1	5	1.00	16.306.63.1/2".Z	30568409
63	15.88	5/8	27	34	95	3.7402	50	10	40	M12x1	5	1.00	16.306.63.5/8".Z	30568408
63	19.05	3/4	33	42	100	3.9370	52	10	42	M16x1	5	1.20	16.306.63.3/4".Z	30568404
63	25.40	1	44	52.5	115	4.5276	58	10	48	M16x1	5	1.80	16.306.63.1".Z	30568392
63	31.75	1 1/4	44	52.5	120	4.7244	62	10	52	M16x1	5	1.70	16.306.63.1_1/4".Z	30568390

## Metric series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
63	3.00	0.1181	10	15	80	3.1496	28	16	12	M6	2	0.70	16.306.63.03.Z	30337115
63	4.00	0.1575	15	22	80	3.1496	28	12	16	M6	2	0.70	16.306.63.04.Z	30337116
63	5.00	0.1969	15	22	80	3.1496	30	10	20	M6	2	0.70	16.306.63.05.Z	30337117
63	6.00	0.2362	21	27	80	3.1496	36	10	26	M5	2.5	0.80	16.306.63.06.Z	30337118
63	8.00	0.3150	21	27	80	3.1496	36	10	26	M6	3	0.80	16.306.63.08.Z	30337120
63	10.00	0.3937	24	32	85	3.3465	41	10	31	M8x1	3	0.90	16.306.63.10.Z	30337122
63	12.00	0.4724	24	32	90	3.5433	47	10	37	M10x1	5	0.90	16.306.63.12.Z	30337124
63	14.00	0.5512	27	34	90	3.5433	47	10	37	M10x1	5	0.90	16.306.63.14.Z	30337126
63	16.00	0.6299	27	34	95	3.7402	50	10	40	M12x1	5	1.00	16.306.63.16.Z	30337128
63	18.00	0.7087	33	42	95	3.7402	50	10	40	M12x1	5	1.10	16.306.63.18.Z	30337129
63	20.00	0.7874	33	42	100	3.9370	52	10	42	M16x1	5	1.10	16.306.63.20.Z	30337130
63	25.00	0.9843	44	53	115	4.5276	58	10	48	M16x1	5	1.60	16.306.63.25.Z	30337131
63	32.00	1.2598	44	53	120	4.7244	62	10	52	M16x1	5	1.60	16.306.63.32.Z	30337132

Dimensions in mm.

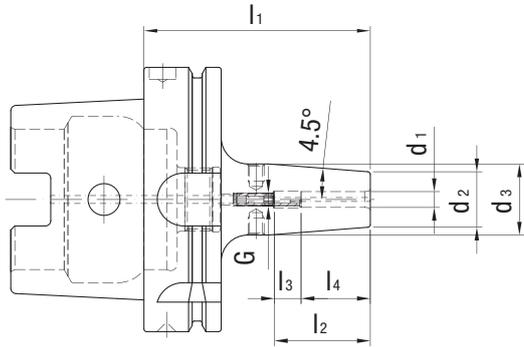
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck DIN 69893-A

Inch & metric series, standard design



## Inch series



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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
100	6.35	1/4	21	27	85	3.3465	36	10	26	M5	2,5	2.20	16.306.100.1/4".Z	30568441
100	7.94	5/16	21	27	85	3.3465	36	10	26	M6	3	2.20	16.306.100.5/16".Z	30568440
100	9.53	3/8	24	32	90	3.5433	41	10	31	M8x1	3	2.30	16.306.100.3/8".Z	30568438
100	11.11	7/16	24	32	90	3.5433	41	10	31	M8x1	3	2.30	16.306.100.7/16".Z	30568437
100	12.70	1/2	24	32	95	3.7402	47	10	37	M10x1	5	2.30	16.306.100.1/2".Z	30568436
100	15.88	5/8	27	34	100	3.9370	50	10	40	M12x1	5	2.40	16.306.100.5/8".Z	30568434
100	19.05	3/4	33	42	105	4.1339	52	10	42	M16x1	8	2.60	16.306.100.3/4".Z	30568433
100	25.40	1	44	53	115	4.5276	58	10	48	M16x1	8	3.10	16.306.100.1".Z	30568430
100	31.75	1 1/4	44	53	120	4.7244	62	10	52	M16x1	8	3.10	16.306.100.1_1/4".Z	30568427

## Metrische series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
100	6.00	0.2362	21	27	85	3.3465	36	10	26	M5	2.5	2.20	16.306.100.06.Z	30337331
100	8.00	0.3150	21	27	85	3.3465	36	10	26	M6	3	2.20	16.306.100.08.Z	30337334
100	10.00	0.3937	24	32	90	3.5433	41	10	31	M8x1	3	2.30	16.306.100.10.Z	30337337
100	12.00	0.4724	24	32	95	3.7402	47	10	37	M10x1	5	2.20	16.306.100.12.Z	30337340
100	14.00	0.5512	27	34	95	3.7402	47	10	37	M10x1	5	2.30	16.306.100.14.Z	30337343
100	16.00	0.6299	27	34	100	3.9370	50	10	40	M12x1	5	2.30	16.306.100.16.Z	30337346
100	18.00	0.7087	33	42	100	3.9370	50	10	40	M12x1	5	2.50	16.306.100.18.Z	30337349
100	20.00	0.7874	33	42	105	4.1339	52	10	42	M16x1	8	2.50	16.306.100.20.Z	30337352
100	25.00	0.9843	44	53	115	4.5276	58	10	48	M16x1	8	3.10	16.306.100.25.Z	30337355

Dimensions in mm.

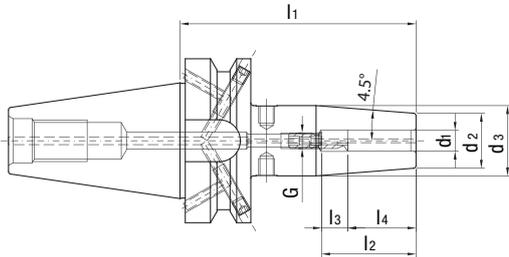
MQL-capable design possible on request.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck ISO 7388-2 (JIS B6339)

Inch & metric series, standard design, coolant supply as per ISO 7388-2, Form JD/JF



## Inch series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	3.18	1/8	10	17	90	3.5433	28	16	12	M6	2	1.10	22.306.40.1/8".Z	30342334
40	4.76	3/16	10	17	90	3.5433	30	10	20	M6	2	1.10	22.306.40.3/16".Z	30342335
40	6.35	1/4	21	27	90	3.5433	36	10	26	M5	2,5	1.30	22.306.40.1/4".Z	30342336
40	7.94	5/16	21	27	90	3.5433	36	10	26	M6	3	1.20	22.306.40.5/16".Z	30568649
40	9.53	3/8	24	32	90	3.5433	41	10	31	M8x1	3	1.30	22.306.40.3/8".Z	30342337
40	11.11	7/16	24	32	90	3.5433	41	10	31	M10x1	5	1.30	22.306.40.7/16".Z	30568646
40	12.70	1/2	24	32	90	3.5433	47	10	37	M10x1	5	1.30	22.306.40.1/2".Z	30342338
40	15.88	5/8	27	34	90	3.5433	50	10	40	M12x1	5	1.30	22.306.40.5/8".Z	30568643
40	19.05	3/4	33	42	90	3.5433	52	10	42	M16x1	8	1.40	22.306.40.3/4".Z	30568642
40	22.23	7/8	33	42	90	3.5433	52	10	42	M16x1	8	1.40	22.306.40.7/8".Z	30568641
40	25.40	1	44	53	100	3.9370	58	10	48	M16x1	8	1.80	22.306.40.1".Z	30568640
40	31.75	1 1/4	44	53	100	3.9370	62	10	52	M16x1	8	1.70	22.306.40.1_1/4".Z	30568637

## Metric series

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>					
	mm	inch	mm	mm	mm	inch	mm	mm	mm					
40	3.00	0.1181	10	17	90	3.5433	28	16	12	M6	2	1.00	22.306.40.03.Z	30337677
40	4.00	0.1575	15	22	90	3.5433	28	12	16	M6	2	1.10	22.306.40.04.Z	30337680
40	5.00	0.1969	15	22	90	3.5433	30	10	20	M6	2	1.10	22.306.40.05.Z	30337683
40	6.00	0.2362	21	27	90	3.5433	36	10	26	M5	2,5	1.10	22.306.40.06.Z	30337686
40	8.00	0.3150	21	27	90	3.5433	36	10	26	M6	3	1.10	22.306.40.08.Z	30337690
40	10.00	0.3937	24	32	90	3.5433	41	10	31	M8x1	3	1.20	22.306.40.10.Z	30337694
40	12.00	0.4724	24	32	90	3.5433	47	10	37	M10x1	5	1.20	22.306.40.12.Z	30337699
40	14.00	0.5512	27	34	90	3.5433	47	10	37	M10x1	5	1.20	22.306.40.14.Z	30337703
40	16.00	0.6299	27	34	90	3.5433	50	10	40	M12x1	5	1.20	22.306.40.16.Z	30337706
40	18.00	0.7087	33	42	90	3.5433	50	10	40	M12x1	5	1.30	22.306.40.18.Z	30337709
40	20.00	0.7874	33	42	90	3.5433	52	10	42	M16x1	8	1.30	22.306.40.20.Z	30337712
40	25.00	0.9843	44	53	100	3.9370	58	10	48	M16x1	8	1.70	22.306.40.25.Z	30337715
40	32.00	1.2598	44	53	100	3.9370	62	10	52	M16x1	8	1.50	22.306.40.32.Z	30337718

Dimensions in mm.

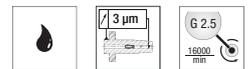
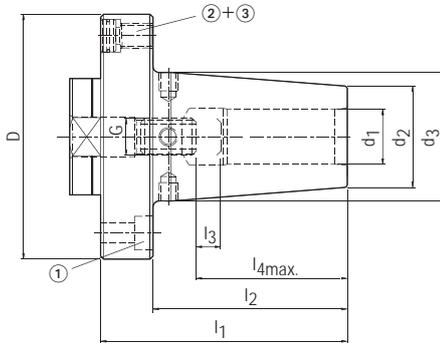
Basic form JD. Please indicate form JF (prev. B) in your order.

Shrink extensions, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# Shrink Chuck with radial and angular orientation

Module connection dimensions as per MN5000-14



Module diameter D	Dimensions							G	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> max.				
60	6	21	27	70	57	10	36	M5	0.7	68.306.60.06.Z	30559449
60	8	21	27	70	57	10	36	M6	0.7	68.306.60.08.Z	30559531
60	10	24	32	70	57	10	41	M8x1	0.7	68.306.60.10.Z	30559536
60	12	24	32	70	57	10	46	M10x1	0.7	68.306.60.12.Z	30559537
70	14	27	34	75	60	10	46	M10x1	1	68.306.70.14.Z	30559543
70	16	27	34	75	60	10	49	M12x1	1	68.306.70.16.Z	30559544
80	18	33	42	80	63	10	49	M12x1	1.4	68.306.80.18.Z	30559545
80	20	33	42	80	63	10	51	M16x1	1.3	68.306.80.20.Z	30559547
100	25	44	53	80	59	10	57	M16x1	2.3	68.306.100.25.Z	30559548
100	32	44	53	80	59	10	61	M16x1	2.2	68.306.100.32.Z	30559551

## Spare parts for Shrink Chucks with radial and angular orientation

Module diameter D	Quantity required	① Cylinder Head Screw as per ISO 4762			② Thrust Piece		③ Grub Screw	
		Size	Order designation	Order No.	Order designation	Order No.	Order designation	Order No.
60	4	M5x16 – 12.9	89.122.144	10003601	89.122.113	10040108	89.122.146	10040109
70	4	M6x20 – 12.9	89.122.112	10003619	89.122.113	10040108	89.122.146	10040109
80	4	M6x20 – 12.9	89.122.112	10003619	89.122.113	10040108	89.122.114	10075074
100	4	M8x25 – 12.9	89.122.154	10003637	89.122.153	10075116	89.122.152	10075100

Supply includes: Built-in length adjustment screw with through hole.

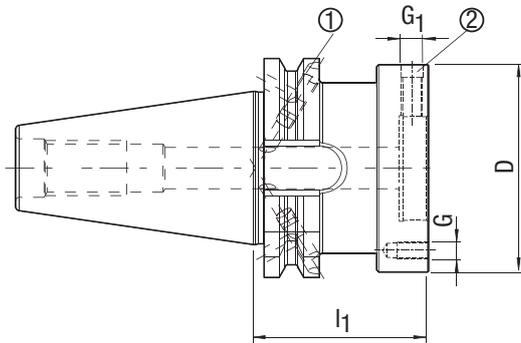
Design: Due to threaded pins (for alignment) in the machine spindle and in the HSK or ISO adapter, exactly adjustable for radial run-out. Due to thrust pad and threaded pin in the shrink chuck, exactly adjustable for axial run-out. The clamping diameter is designed for a shank tolerance of h6.

Dimensions in mm.

Shrink extensions, spare parts and accessories at the end of this chapter.  
Custom designs available on request.

# Modular Short Taper Adapter ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B)



Nominal size SK	Dimensions						Order designation	Order No.
	D	l <sub>1</sub>	G	G <sub>1</sub>	Form	Weight [kg]		
30*	60	50	M5	M8x1	AD	0.8	15.150.30.AD.60.Z	30584676
30*	70	50	M6	M8x1	AD	0.9	15.150.30.AD.70.Z	30584681
40	60	50	M5	M8x1	AD/AF	1.3	15.150.40.60.Z	30584684
40	70	50	M6	M8x1	AD/AF	1.4	15.150.40.70.Z	30584685
40	80	55	M6	M8x1	AD/AF	1.7	15.150.40.80.Z	30584686
40	100	60	M8	M10x1	AD/AF	2.2	15.150.40.100.Z	30584689
45	60	50	M5	M8x1	AD/AF	2.8	15.150.45.60.Z	30584690
45	70	50	M6	M8x1	AD/AF	2.9	15.150.45.70.Z	30584692
45	80	55	M6	M8x1	AD/AF	3.1	15.150.45.80.Z	30584694
45	100	60	M8	M10x1	AD/AF	3.3	15.150.45.100.Z	30584697
45	117	60	M8	M10x1	AD/AF	3.5	15.150.45.117.Z	30584698
50	60	50	M5	M8x1	AD/AF	3.2	15.150.50.60.Z	30584700
50	70	50	M6	M8x1	AD/AF	3.4	15.150.50.70.Z	30584701
50	80	50	M6	M8x1	AD/AF	3.6	15.150.50.80.Z	30584720
50	100	60	M8	M10x1	AD/AF	4.4	15.150.50.100.Z	30584721
50	117	60	M8	M10x1	AD/AF	4.5	15.150.50.117.Z	30584723
50	140	60	M10	M10x1	AD/AF	4.7	15.150.50.140.Z	30584724

\* Short taper size SK 30 is not available in the combination design AD/AF!

## Spare parts: Grub screws as per ISO 4026

Nominal size SK	Quantity required	① Grub Screw as per ISO 4026		
		Size	Order designation	Order No.
40. 45. 50	2	M5x5	89.122.688	10036757

## Spare parts: Grub screws

Module diameter D	Quantity required	② Grub Screw	
		Order designation	Order No.
60-80	4	89.122.685	10075355
100-140	4	89.122.684	10075099

Usage: For use in the machine spindle for mounting KS flange adapters, shrink chucks, hydraulic chucks, chucks for cylindrical shanks or tools with a modular shank in accordance with WTE works standard.

Supply includes: Complete with threaded pins for aligning the radial run-out, does not include pull stud.

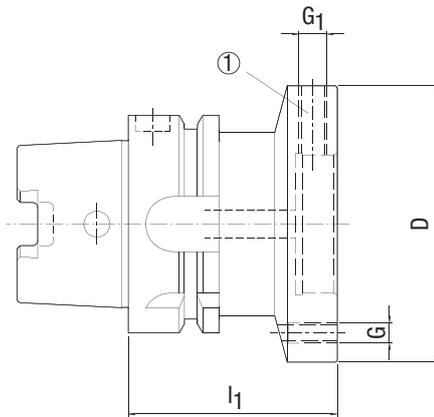
Design: Due to threaded pins the radial run-out of a connection or tool fitted can be adjusted exactly in relation to the steep taper.

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.

# Modular Short Taper Adapter HSK-A as per DIN 69871



Nominal size HSK-A	Dimensions					Order designation	Order No.
	D	l <sub>1</sub>	G	G <sub>1</sub>	Weight [kg]		
40	60	60	M5	M8x1	0.7	16.150.40.60.Z	30615827
50	60	60	M5	M8x1	0.9	16.150.50.60.Z	30584456
50	70	60	M6	M8x1	1	16.150.50.70.Z	30584465
50	80	60	M6	M8x1	1.1	16.150.50.80.Z	30584469
63	60	60	M5	M8x1	1.3	16.150.63.60.Z	30584473
63	70	60	M6	M8x1	1.4	16.150.63.70.Z	30584477
63	80	60	M6	M8x1	1.5	16.150.63.80.Z	30584478
63	100	65	M8	M10x1	2.1	16.150.63.100.Z	30584481
63	117	65	M8	M10x1	2.5	16.150.63.117.Z	30584482
80	60	50	M5	M8x1	1.6	16.150.80.60.Z	30584487
80	70	60	M6	M8x1	2	16.150.80.70.Z	30584489
80	80	60	M6	M8x1	2.1	16.150.80.80.Z	30584490
80	100	65	M8	M10x1	2.6	16.150.80.100.Z	30584491
80	117	65	M8	M10x1	3.1	16.150.80.117.Z	30584492
80	140	75	M10	M10x1	4.2	16.150.80.140.Z	30584493
100	60	55	M5	M8x1	2.8	16.150.100.60.Z	30584495
100	70	55	M6	M8x1	2.8	16.150.100.70.Z	30584497
100	80	55	M6	M8x1	3	16.150.100.80.Z	30584498
100	100	65	M8	M10x1	3.7	16.150.100.100.Z	30584499
100	117	65	M8	M10x1	4	16.150.100.117.Z	30584500
100	140	75	M10	M10x1	5.2	16.150.100.140.Z	30584502

## Spare parts: Grub Screw for HSK-A adapter as per DIN 69871

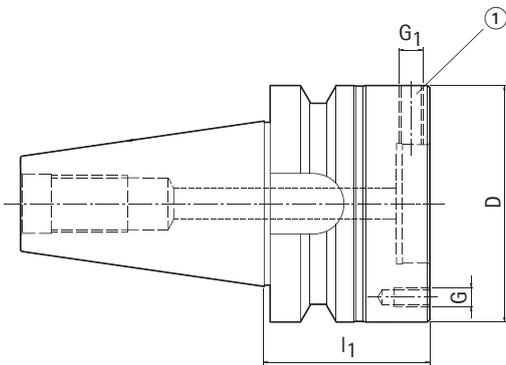
Module diameter D	Quantity required	① Grub Screw			
		Weight [kg]	Size	Order designation	Order No.
60-80	4	0.001	M8x1x16	89.122.685	10075355
100-140	4	0.001	M10x1x20	89.122.684	10075099

Supply includes: Complete with threaded pins for aligning the radial run-out, does not include coolant tube.

Dimensions in mm.

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

## Modular Short Taper Adapter BT as per ISO 7388-2 (JIS B6339), Form JD



Nominal size BT	Dimensions					Order designation	Order No.
	D	l <sub>1</sub>	G	G <sub>1</sub>	Weight [kg]		
30	60	40	M5	M8x1	0.7	22.150.30.60.Z	30584725
30	70	40	M6	M8x1	0.8	22.150.30.70.Z	30584726
40	60	55	M5	M8x1	1.5	22.150.40.60.Z	30584734
40	70	55	M6	M8x1	1.6	22.150.40.70.Z	30584736
40	80	65	M6	M8x1	2	22.150.40.80.Z	30584751
40	100	70	M8	M10x1	2.6	22.150.40.100.Z	30584752
45	60	65	M5	M8x1	3	22.150.45.60.Z	30584755
45	70	65	M6	M8x1	3.1	22.150.45.70.Z	30584756
45	80	65	M6	M8x1	3.3	22.150.45.80.Z	30584757
45	100	75	M8	M10x1	3.5	22.150.45.100.Z	30584760
45	117	75	M8	M10x1	4.4	22.150.45.117.Z	30584762
50	60	70	M5	M8x1	4.8	22.150.50.60.Z	30584764
50	70	70	M6	M8x1	4.9	22.150.50.70.Z	30584765
50	80	70	M6	M8x1	5.1	22.150.50.80.Z	30584767
50	100	70	M8	M10x1	5.3	22.150.50.100.Z	30584769
50	117	80	M8	M10x1	6.3	22.150.50.117.Z	30584770
50	140	80	M10	M10x1	6.6	22.150.50.140.Z	30584772

### Spare parts: Grub Screw for Modular Short Taper Adapter as per ISO 7388-2 (JIS B6339), Form JD

Module diameter D	Quantity required	① Grub Screw			
		Weight [kg]	Size	Order designation	Order No.
60-80	4	0.001	M8x1x16	89.122.685	10075355
100-140	4	0.001	M10x1x20	89.122.684	10075099

Usage: For use in the machine spindle for mounting KS flange adapters, shrink chucks, hydraulic chucks, chucks for cylindrical shanks or tools with a modular shank in accordance with WTE works standard.

Supply includes: Complete with threaded pins for aligning the radial run-out, does not include pull stud.

Design: Due to threaded pins the radial run-out of a connection or tool fitted can be adjusted exactly in relation to the steep taper.

Dimensions in mm.

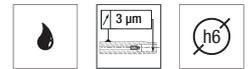
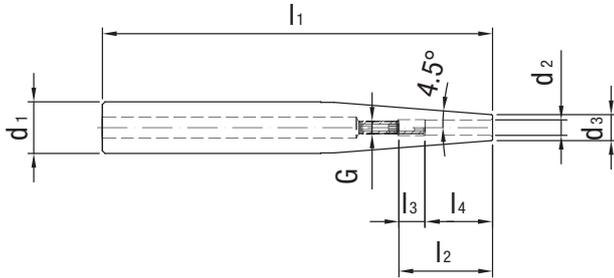
Spare parts and accessories at the end of this chapter.

Custom designs and version with face connection on request.

## Shrink Extension

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

Tool length as per customer request possible

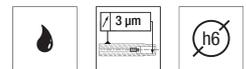
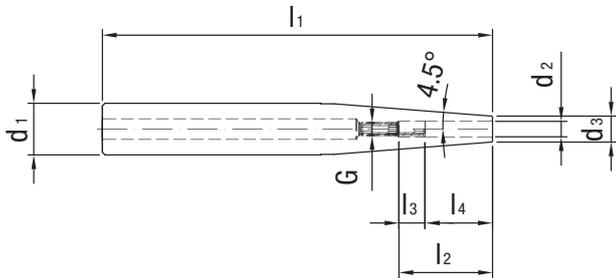


Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
12	3	8	150	-	-	12	-	0.1	-	40.357.12.03.Z	30344729
12	4	8	150	-	-	16	-	0.1	-	40.357.12.04.Z	30344730
12	5	10	150	-	-	20	-	0.1	-	40.357.12.05.Z	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

## Shrink Extension

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

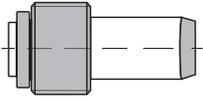
Tool length as per customer request possible



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

## Coolant Transfer Pipe

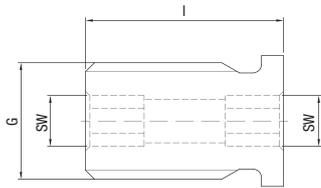
For DIN 69893-A/E



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

## Stop Screw direct clamping

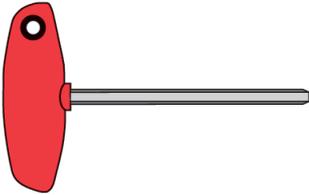
For axial length adjustment



G	sw	l	Weight [kg]	Order designation	Order No.
M5	2	14	0.001	89.122.102	30336661
M5	2.5	12.5	0.001	89.122.88	30252539
M6	2	14	0.001	89.122.98	30252537
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

## Hexagonal T-key

For axial length adjustment



sw	l	Weight [kg]	Order designation	Order No.
2	200	0.02	89.206.09	10034235
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

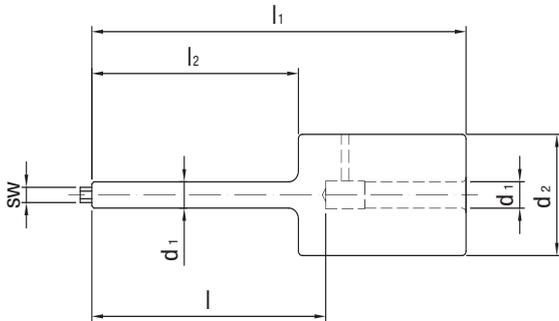
## ISO Protective Gloves



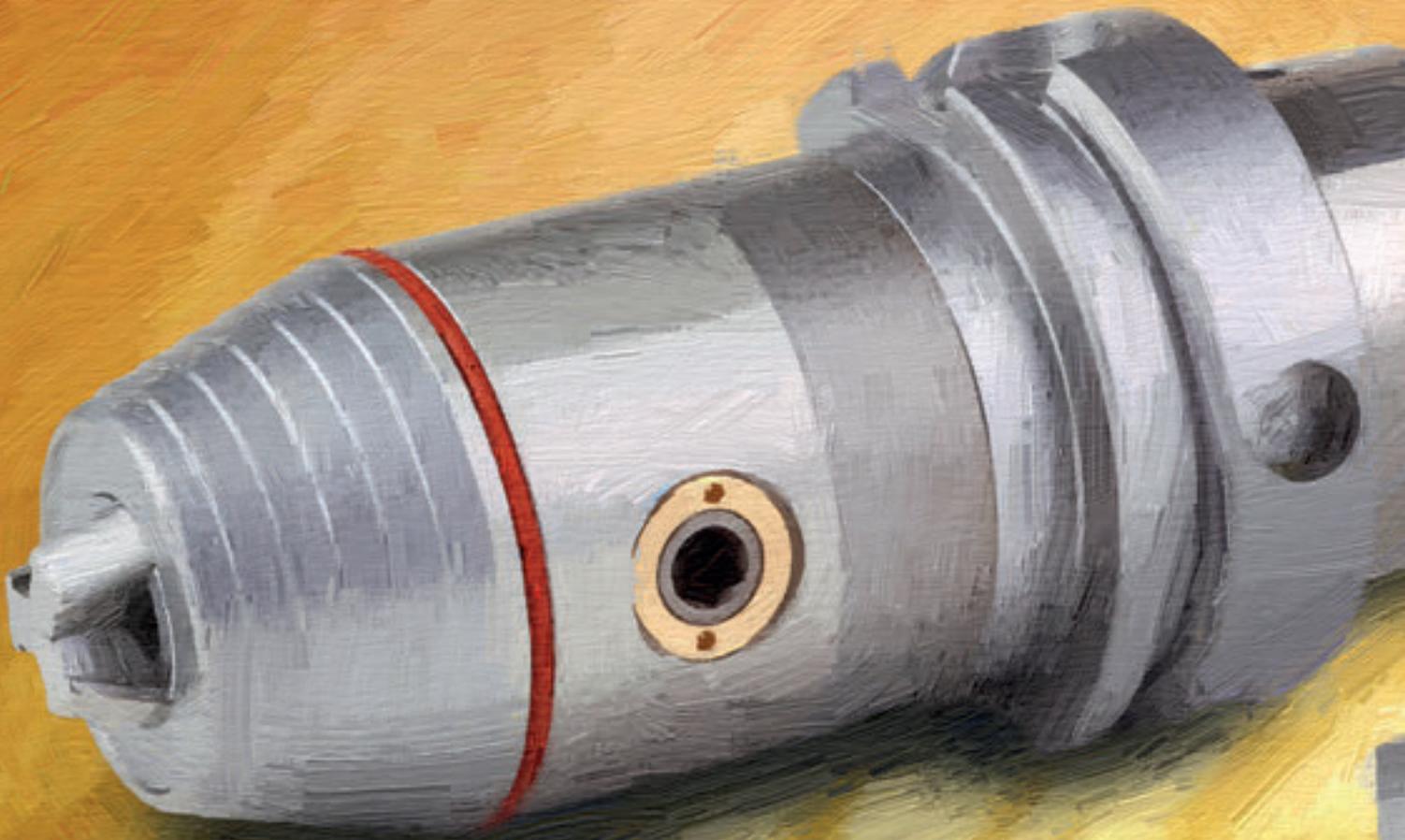
Weight [kg]	Order designation	Order No.
0.2	98.100.040	30336681

## Length Presetter for Shrink Chucks

The WTE Length Presetter is used for easy length presetting of the tools before the shrink process. The stop screw must have a hexagon socket on two sides for length presetting with the appropriate careful and precise work method even with shrinkage accuracies of  $\pm 0.02$  mm are achieved.



Dimensions					sw	For	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>					
3	15	40	65	30	2	WTE Shrink Chucks	0.2	98.602.017	30345078
4	15	40	65	30	2	WTE Shrink Chucks	0.2	98.602.018	30387351
5	15	40	65	30	2	WTE Shrink Chucks	0.2	98.602.019	30387352
6	25	60	96	53	2.5	WTE Shrink Chucks	0.2	98.602.001	30345062
8	25	60	96	53	3	WTE Shrink Chucks	0.2	98.602.002	30345063
10	25	60	101	53	3	WTE Shrink Chucks	0.2	98.602.003	30345064
12	25	60	107	53	5	WTE Shrink Chucks	0.2	98.602.007	30345068
14	25	60	107	53	5	WTE Shrink Chucks	0.2	98.602.008	30345069
16	25	60	110	53	5	WTE Shrink Chucks	0.3	98.602.009	30345070
18	25	60	110	53	5	WTE Shrink Chucks	0.3	98.602.010	30345071
20	28	60	112	53	5	HSK 50;63	0.3	98.602.011	30345072
20	28	60	112	53	8	HSK 80;100/SK/BT	0.3	98.602.013	30345074
25	32	70	128	63	5	WTE Shrink Chucks HSK 63	0.3	98.602.020	30393208
25	32	70	128	63	8	HSK 80;100/SK/BT	0.3	98.602.021	30393210
32	40	70	132	63	5	HSK 63	0.3	98.602.022	30411108
32	40	70	132	63	8	HSK 80;100/SK/BT	0.3	98.602.023	30411109



# CNC PRECISION DRILL CHUCKS

## Shank form SK as per ISO 7388-1

SK 30/40/45/50 .....	200-204
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## Shank form HSK

HSK-A 32/40/50/63/80/100 .....	205-207
HSK-E 40/50/63 .....	208-209
HSK-F 40/50/63 .....	210

## Shank form BT as per ISO 7388-2

BT 30/35/40/50 .....	211-213
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## Chucks with INCH dimensions

CAT 40/50 .....	214-215
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## Machine specific shank forms

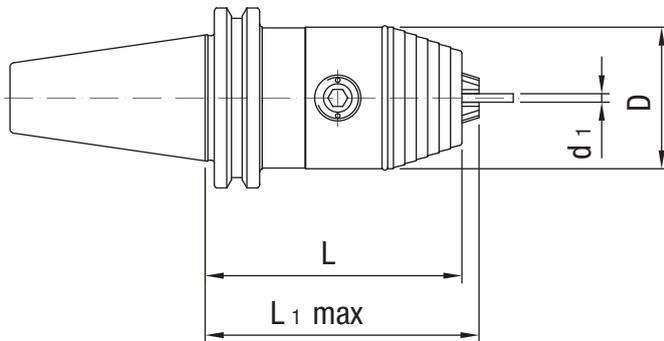
B 12/16/18 .....	216
CHIRON .....	217-218
MK .....	219-220
DIN 1835 B .....	221-222
DIN ISO 10889-1 .....	223-224
Wohlhaupter .....	225-226
Deckel S20x2 .....	227
ABS Komet .....	228
UTS Widia .....	229-230
MAZAK .....	231
PSC .....	232-233
CHIRON FZ 08 .....	234
MORI-SEIKI .....	235
VDI DIN 69871 .....	236

## Spare parts & accessories

Spare parts & accessories .....	237-251
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# CNC Precision Drill Chuck ISO 7388-1

(prev. DIN 69871), for wood processing



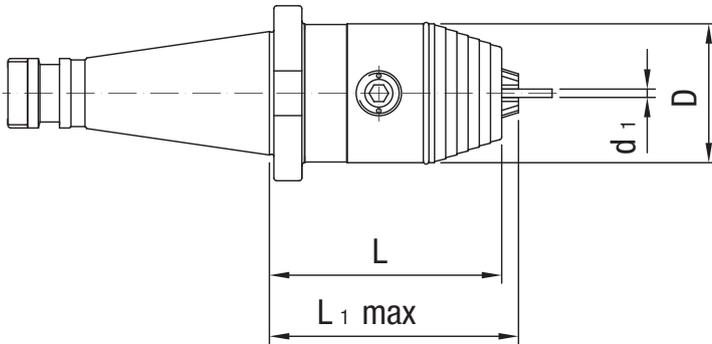
Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
30	WTE 13	0.5 - 13	50	90	96	1.2	14.296.30.13/90	30335966
30	WTE 13	0.5 - 13	50	111	117	1.5	14.296.30.13	30335965
30	WTE 16	2.5 - 16	57	95	101	1.4	14.296.30.16/90	30335968
30	WTE 16	2.5 - 16	57	116	122	1.4	14.296.30.16	30335967
40	WTE 13	0.5 - 13	50	90	96	1.6	14.296.40.13	30335969
40	WTE 16	2.5 - 16	57	95	101	1.8	14.296.40.16	30335970

Dimensions in mm.

CNC Precision Drill Chuck without key block slot for the woodworking industry.

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

# CNC Precision Drill Chuck DIN 2080, Form A



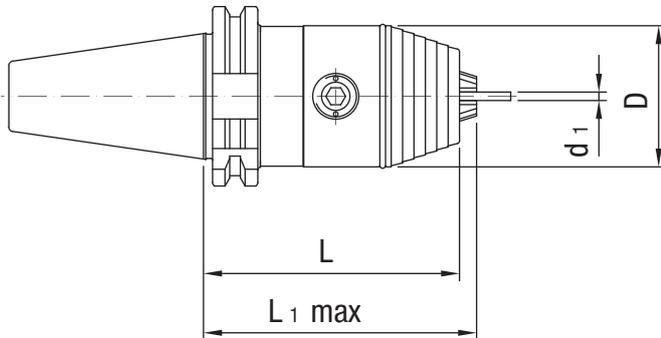
Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
30	WTE 08	0.3 - 8	36	60	63	0.6	10.296.30.08	30335939
40	WTE 08	0.3 - 8	36	62	65	1.3	10.296.40.08	30335942
30	WTE 13	0.5 - 13	50	98	104	1.3	10.296.30.13	30335940
40	WTE 13	0.5 - 13	50	83	89	1.6	10.296.40.13	30335944
50	WTE 13	0.5 - 13	50	100	106	3.9	10.296.50.13	30335947
40	WTE 16	2.5 - 16	57	88	94	1.8	10.296.40.16	30335945
50	WTE 16	2.5 - 16	57	105	111	4.1	10.296.50.16	30335948

Dimensions in mm.

SK 30 as per DIN 2080, Form A. SK 40 and SK 50 in accordance with DIN 2080 with ring.  
Spare parts and accessories at the end of this chapter. Custom designs available on request.

# CNC Precision Drill Chuck ISO 7388-1, Form A

(prev. DIN 69871)



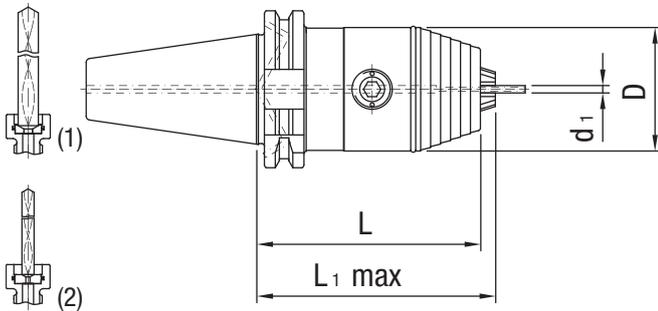
Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
30	WTE 08	0.3 - 8	36	70	73	0.7	11.296.30.08	30335949
40	WTE 08	0.3 - 8	36	70	73	1.3	11.296.40.08	30335952
30	WTE 13	0.5 - 13	50	111	117	1.5	11.296.30.13	30335950
40	WTE 13	0.5 - 13	50	90	96	1.6	11.296.40.13	30335953
45	WTE 13	0.5 - 13	50	90	96	2.4	11.296.45.13	30335955
50	WTE 13	0.5 - 13	50	106	112	4.1	11.296.50.13	30335959
40	WTE 16	2.5 - 16	57	95	101	1.8	11.296.40.16	30335954
45	WTE 16	2.5 - 16	57	95	101	2.6	11.296.45.16	30335957
50	WTE 16	2.5 - 16	57	111	117	4.3	11.296.50.16	30335962

Dimensions in mm.

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

# CNC Precision Drill Chuck ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B)



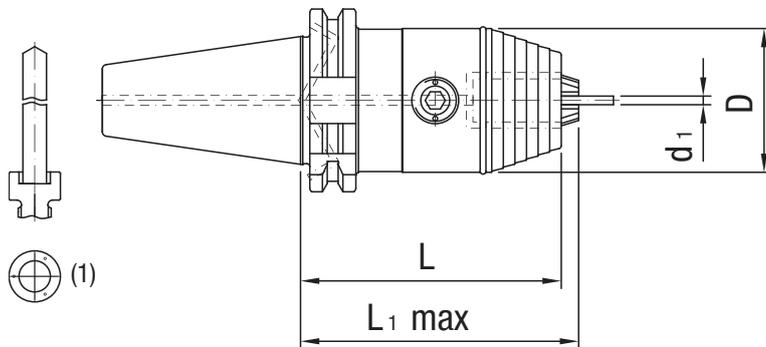
Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
40	WTE 08 IK	0.3 - 8	36	73	76	1.3	15.296.40.08	30335971
40	WTE 13 IK	0.5 - 13	50	90	96	1.7	15.296.40.13	30335973
45	WTE 13 IK	0.5 - 13	50	96	102	2.5	15.296.45.13	30335979
50	WTE 13 IK	0.5 - 13	50	106	112	3.9	15.296.50.13	30335984
40	WTE 16 IK	2.5 - 16	57	95	101	1.9	15.296.40.16	30335976
45	WTE 16 IK	2.5 - 16	57	101	107	2.7	15.296.45.16	30335981
50	WTE 16 IK	2.5 - 16	57	111	117	4.1	15.296.50.16	30335986

- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.  
 Basic setting Form AD. If Form AF (prev. B) is desired, please indicate when ordering.  
 Installation tool for sealing disk, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# CNC Precision Drill Chuck ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B)



Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 08 IK	0.3 - 8	36	73	76	1.3	15.296.40.08.ZBA	30335972
40	WTE 13 IK	0.5 - 13	50	90	96	1.7	15.296.40.13.ZBA	30335974
45	WTE 13 IK	0.5 - 13	50	96	102	2.5	15.296.45.13.ZBA	30335980
50	WTE 13 IK	0.5 - 13	50	106	112	3.9	15.296.50.13.ZBA	30335985
40	WTE 16 IK	2.5 - 16	57	95	101	1.9	15.296.40.16.ZBA	30335977
45	WTE 16 IK	2.5 - 16	57	101	107	2.7	15.296.45.16.ZBA	30335982
50	WTE 16 IK	2.5 - 16	57	111	117	4.1	15.296.50.16.ZBA	30335987

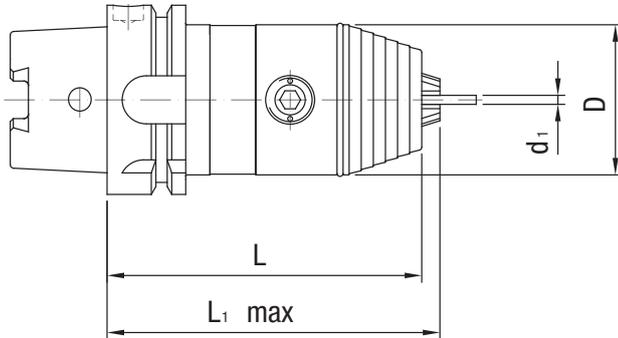
(1) Coolant supply for tools without coolant ducts.

Dimensions in mm.

Basic setting Form AD. If Form AF (prev. B) is desired, please indicate when ordering.

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

# CNC Precision Drill Chuck DIN 69893-A

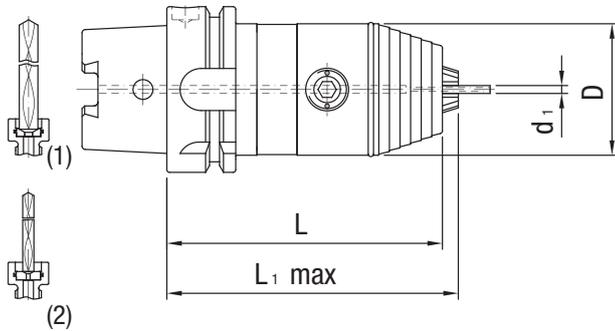


Nominal size HSK-A	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
32	WTE 08	0.3 - 8	36	90	93	0.5	16.296.32.08	30335995
40	WTE 08	0.3 - 8	36	91	94	0.5	16.296.40.08	30335998
50	WTE 08	0.3 - 8	36	95	98	0.7	16.296.50.08	30336001
63	WTE 08	0.3 - 8	36	96	99	1.1	16.296.63.08	30336010
50	WTE 13	0.5 - 13	50	116	122	1.4	16.296.50.13	30336004
63	WTE 13	0.5 - 13	50	104	110	1.7	16.296.63.13	30336013
80	WTE 13	0.5 - 13	50	109	115	2.1	16.296.80.13	30336021
100	WTE 13	0.5 - 13	50	111	117	3.1	16.296.100.13	30335988
50	WTE 16	2.5 - 16	57	121	127	1.7	16.296.50.16	30336007
63	WTE 16	2.5 - 16	57	109	115	1.9	16.296.63.16	30336017
80	WTE 16	2.5 - 16	57	114	120	2.3	16.296.80.16	30336024
100	WTE 16	2.5 - 16	57	116	122	3.3	16.296.100.16	30335992

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN 69893-A



Nominal size HSK-A	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
32	WTE 08 IK	0.3 - 8	36	90	93	0.5	16.296.32.08.Z	30335996
40	WTE 08 IK	0.3 - 8	36	91	94	0.5	16.296.40.08.Z	30335999
50	WTE 08 IK	0.3 - 8	36	95	98	0.7	16.296.50.08.Z	30336002
63	WTE 08 IK	0.3 - 8	36	96	99	1.1	16.296.63.08.Z	30336011
50	WTE 13 IKT	0.5 - 13	50	116	122	1.4	16.296.50.13.Z	30336005
63	WTE 13 IKT	0.5 - 13	50	104	110	1.7	16.296.63.13.Z	30336014
80	WTE 13 IK	0.5 - 13	50	109	115	2.1	16.296.80.13.Z	30336022
100	WTE 13 IK	0.5 - 13	50	111	117	3.1	16.296.100.13.Z	30335989
50	WTE 16 IKT	2.5 - 16	57	121	127	1.7	16.296.50.16.Z	30336008
63	WTE 16 IKT	2.5 - 16	57	109	115	1.9	16.296.63.16.Z	30336018
80	WTE 16 IK	2.5 - 16	57	114	120	2.3	16.296.80.16.Z	30336025
100	WTE 16 IK	2.5 - 16	57	116	122	3.3	16.296.100.16.Z	30335993

(1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.

(1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

(1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.

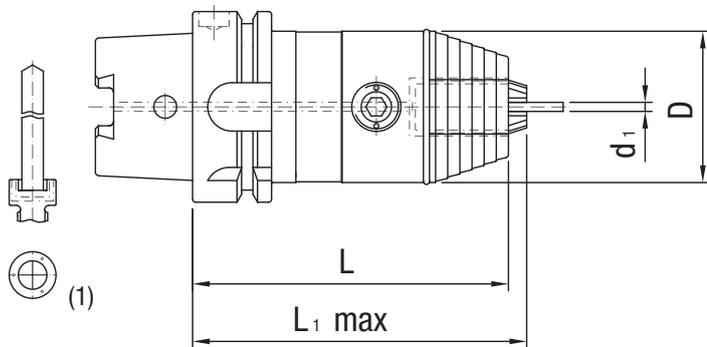
(2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

Coolant pipe not included in scope of supply.

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

# CNC Precision Drill Chuck DIN 69893-A

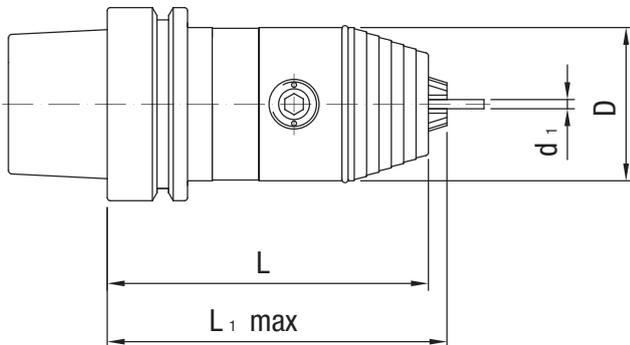


Nominal size HSK-A	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
32	WTE 08	0.3 - 8	36	90	93	0.5	16.296.32.08.ZBA	30335997
40	WTE 08	0.3 - 8	36	91	94	0.5	16.296.40.08.ZBA	30336000
50	WTE 08	0.3 - 8	36	95	98	0.7	16.296.50.08.ZBA	30336003
63	WTE 08	0.3 - 8	36	96	99	1.1	16.296.63.08.ZBA	30336012
50	WTE 13	0.5 - 13	50	116	122	1.4	16.296.50.13.ZBA	30336006
63	WTE 13	0.5 - 13	50	104	110	1.7	16.296.63.13.ZBA	30336016
80	WTE 13	0.5 - 13	50	109	115	2.1	16.296.80.13.ZBA	30336023
100	WTE 13	0.5 - 13	50	111	117	3.1	16.296.100.13.ZBA	30335990
50	WTE 16	2.5 - 16	57	121	127	1.7	16.296.50.16.ZBA	30336009
63	WTE 16	2.5 - 16	57	109	115	1.9	16.296.63.16.ZBA	30336020
80	WTE 16	2.5 - 16	57	114	120	2.3	16.296.80.16.ZBA	30336026
100	WTE 16	2.5 - 16	57	116	122	3.3	16.296.100.16.ZBA	30335994

(1) Coolant supply for tools without coolant ducts.

Dimensions in mm.  
Coolant pipe not included in scope of supply.  
Spare parts and accessories at the end of this chapter. Custom designs available on request.

# CNC Precision Drill Chuck DIN 69893-E

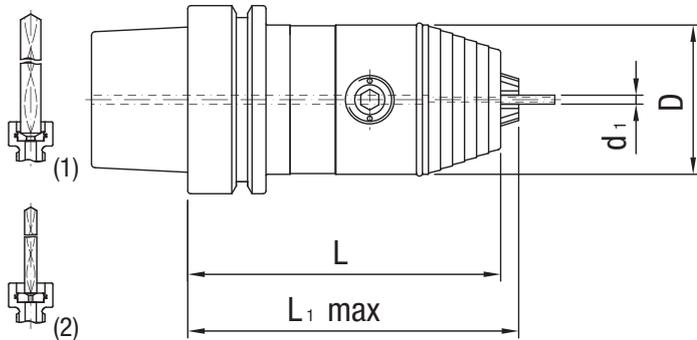


Nominal size HSK-E	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 08	0.3 - 8	36	91	94	0.7	18.296.40.08	30336033
50	WTE 08	0.3 - 8	36	95	98	1	18.296.50.08	30336035
63	WTE 08	0.3 - 8	36	96	99	1.2	18.296.63.08	30336043
50	WTE 13	0.5 - 13	50	116	122	1.5	18.296.50.13	30336038
63	WTE 13	0.5 - 13	50	104	110	1.7	18.296.63.13	30336045
50	WTE 16	2.5 - 16	57	121	127	1.6	18.296.50.16	30336041
63	WTE 16	2.5 - 16	57	109	115	1.8	18.296.63.16	30336047

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN 69893-E

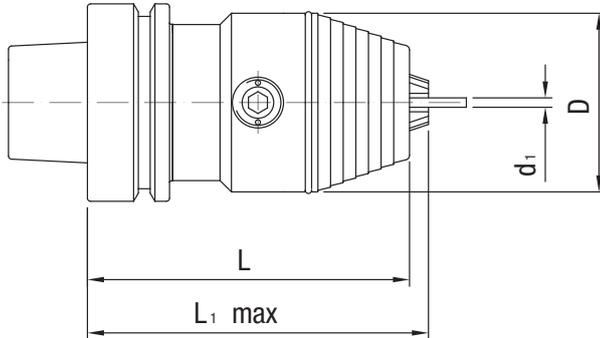


Nominal size HSK-E	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
40	WTE 08 IK	0.3 - 8	36	91	94	0.7	18.296.40.08.Z	30336034
50	WTE 08 IK	0.3 - 8	36	95	98	1	18.296.50.08.Z	30336036
63	WTE 08 IK	0.3 - 8	36	96	99	1.2	18.296.63.08.Z	30336044
50	WTE 13 IKT	0.5 - 13	50	116	122	1.5	18.296.50.13.Z	30336039
63	WTE 13 IKT	0.5 - 13	50	104	110	1.7	18.296.63.13.Z	30336046
50	WTE 16 IKT	2.5 - 16	57	121	127	1.6	18.296.50.16.Z	30336042
63	WTE 16 IKT	2.5 - 16	57	109	115	1.8	18.296.63.16.Z	30336048

- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.  
 Coolant pipe not included in scope of supply.  
 Installation tool for sealing disk, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# CNC Precision Drill Chuck DIN 69893-F

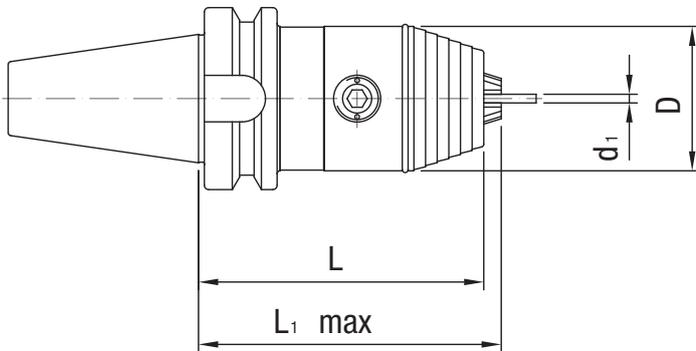


Nominal size HSK-F	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 08	0.3 - 8	36	87	90	0.6	17.296.40.08	30336027
50	WTE 13	0.5 - 13	50	116	122	1.5	17.296.50.13	30336028
63	WTE 13	0.5 - 13	50	97	103	1.7	17.296.63.13	30336031
50	WTE 16	2.5 - 16	57	121	127	1.6	17.296.50.16	30336029
63	WTE 16	2.5 - 16	57	102	108	1.8	17.296.63.16	30336032

Dimensions in mm.

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

## CNC Precision Drill Chuck ISO 7388-2 (JIS B6339), Form J



Nominal size BT	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
30	WTE 08	0.3 - 8	36	74	77	0.7	20.296.30.08	30336049
35	WTE 08	0.3 - 8	36	75	78	1	20.296.35.08	30336052
40	WTE 08	0.3 - 8	36	78	81	1.4	20.296.40.08	30336055
30	WTE 13	0.5 - 13	50	96	102	1.3	20.296.30.13	30336050
35	WTE 13	0.5 - 13	50	95	101	1.4	20.296.35.13	30336053
40	WTE 13	0.5 - 13	50	98	104	1.8	20.296.40.13	30336056
50	WTE 13	0.5 - 13	50	110	116	4.4	20.296.50.13	30336060
40	WTE 16	2.5 - 16	57	103	109	2	20.296.40.16	30336057
50	WTE 16	2.5 - 16	57	115	121	4.7	20.296.50.16	30336061

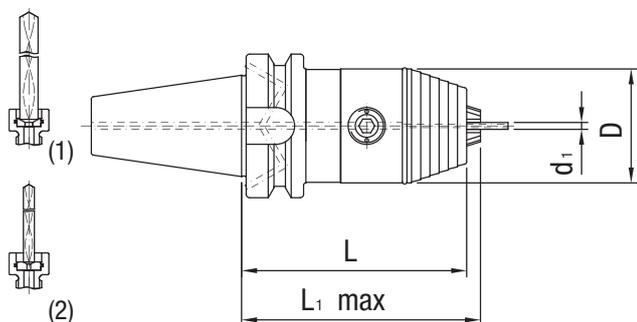
Dimensions in mm.

Spare parts and accessories at the end of this chapter.

Version with face connection and custom designs available on request.

# CNC Precision Drill Chuck ISO 7388-2 (JIS B6339)

Coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 08 IK	0.3 - 8	36	81	84	1.3	22.296.40.08	30336062
40	WTE 13 IK	0.5 - 13	50	98	104	1.8	22.296.40.13	30336064
50	WTE 13 IK	0.5 - 13	50	110	116	4.4	22.296.50.13	30336070
40	WTE 16 IK	2.5 - 16	57	103	109	2	22.296.40.16	30336067
50	WTE 16 IK	2.5 - 16	57	115	121	4.7	22.296.50.16	30336072

- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

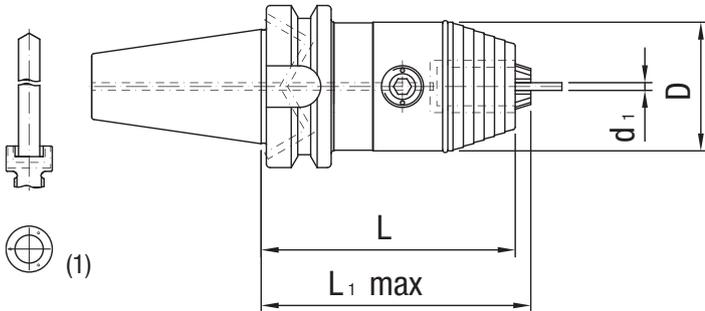
Basic form JD. Please indicate form JF (prev. B) in your order.

Spare parts and accessories at the end of this chapter.

Version with face connection and custom designs available on request.

# CNC Precision Drill Chuck ISO 7388-2 (JIS B6339)

Coolant supply as per ISO 7388-2, Form JD/JF



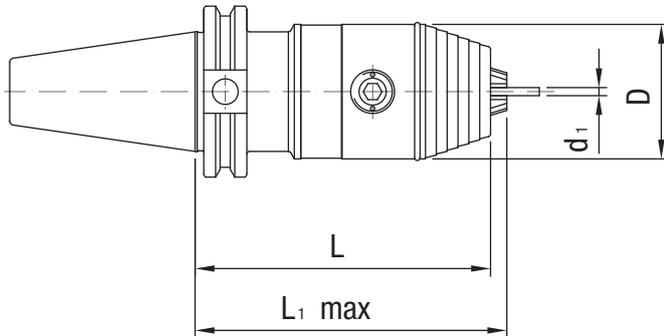
Nominal size BT	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
40	WTE 08 IK	0.3 - 8	36	81	84	1.3	22.296.40.08.ZBA	30336063
40	WTE 13 IK	0.5 - 13	50	98	104	1.8	22.296.40.13.ZBA	30336065
50	WTE 13 IK	0.5 - 13	50	110	116	4.4	22.296.50.13.ZBA	30336071
40	WTE 16 IK	2.5 - 16	57	103	109	2	22.296.40.16.ZBA	30336068
50	WTE 16 IK	2.5 - 16	57	115	121	4.7	22.296.50.16.ZBA	30336073

(1) Coolant supply for tools without coolant ducts.

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 and custom designs available on request.

# CNC Precision Drill Chuck ANSI-CAT

According to ASME B5.50-1994



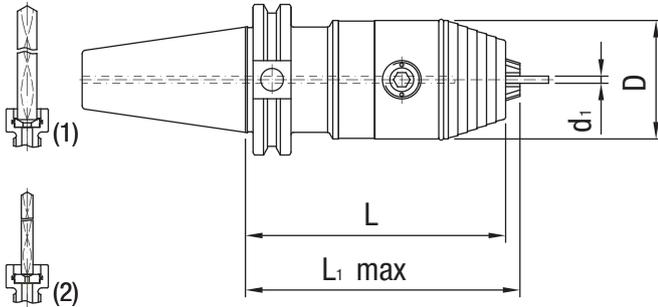
Nominal size CAT	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 13	0.5 - 13	50	109	115	1.8	30.296.40.13	30336091
50	WTE 13	0.5 - 13	50	106	112	4.1	30.296.50.13	30336093
40	WTE 16	2.5 - 16	57	114	120	2	30.296.40.16	30336092
50	WTE 16	2.5 - 16	57	111	117	4.3	30.296.50.16	30336094

Dimensions in mm.

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

# CNC Precision Drill Chuck ANSI-CAT

According to ASME B5.50-1994



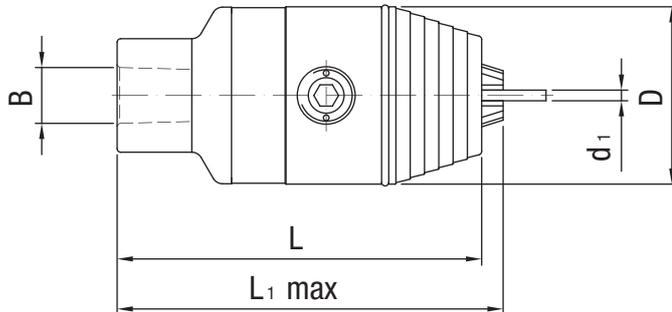
Nominal size CAT	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
40	WTE 13 IK	0.5 - 13	50	109	115	2	31.296.40.13.Z	30336097
50	WTE 13 IK	0.5 - 13	50	106	112	3.9	31.296.50.13.Z	30336099
40	WTE 16 IK	2.5 - 16	57	114	120	2.2	31.296.40.16.Z	30336098
50	WTE 16 IK	2.5 - 16	57	111	117	4.1	31.296.50.16.Z	30336100

- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.  
 Installation tool for sealing disk, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# CNC Precision Drill Chuck WTE Plus

As per DIN 238

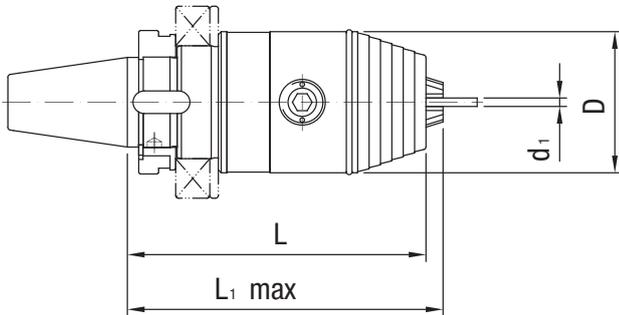


Nominal size B	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
B 12	WTE 08	0.3 - 8	36	76	79	0.4	12.296.B12.08	30344488
B 12	WTE 13	0.5 - 13	50	98	104	1.1	12.296.B12.13	30344489
B 16	WTE 08	0.3 - 8	36	82	85	0.5	12.296.B16.08	30344490
B 16	WTE 13	0.5 - 13	50	102	108	1.1	12.296.B16.13	30344491
B 16	WTE 16	2.5 - 16	57	107	113	1.3	12.296.B16.16	30344492
B 18	WTE 13	0.5 - 13	50	110	116	1.2	12.296.B18.13	30344493
B 18	WTE 16	2.5 - 16	57	115	121	1.4	12.296.B18.16	30344494

Dimensions in mm.

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

# CNC Precision Drill Chuck CHIRON



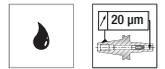
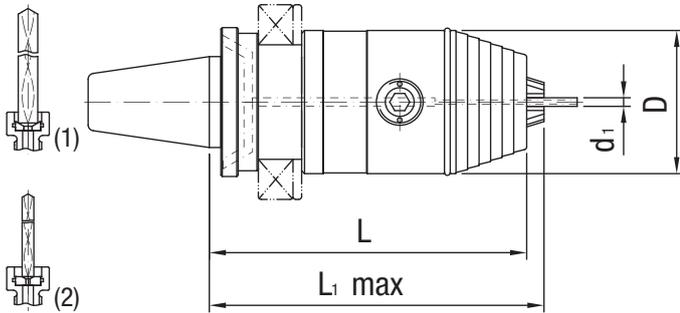
Nominal size CHIRON	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
30	WTE 08	0.3 - 8	36	85	88	0.8	25.296.30.08	30336083
30	WTE 13	0.5 - 13	50	105	111	1.4	25.296.30.13	30336085
30	WTE 16	2.5 - 16	57	110	116	1.6	25.296.30.16	30336087

Dimensions in mm.

Ball bearing (CHIRON) not included in scope of supply.

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

# CNC Precision Drill Chuck CHIRON



Nominal size CHIRON	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
30	WTE 08 IK	0.3 - 8	36	89	92	0.9	25.296.30.08.Z	30336084
30	WTE 13 IKT	0.5 - 13	50	110	116	1.5	25.296.30.13.Z	30336086
30	WTE 16 IKT	2.5 - 16	57	115	121	1.6	25.296.30.16.Z	30336088

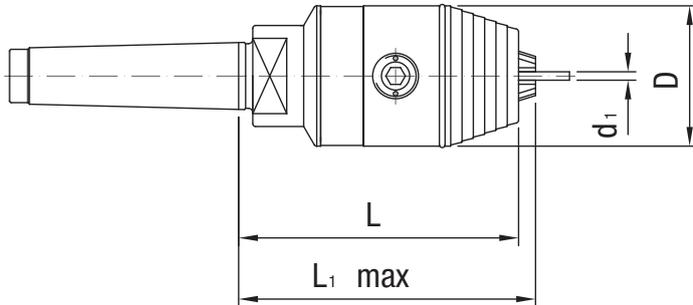
- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

Installation tool for sealing disk, Spare parts and accessories at the end of this chapter.

Ball bearing (CHIRON) not included in scope of supply. Custom designs available on request.

# CNC Precision Drill Chuck DIN 228-A

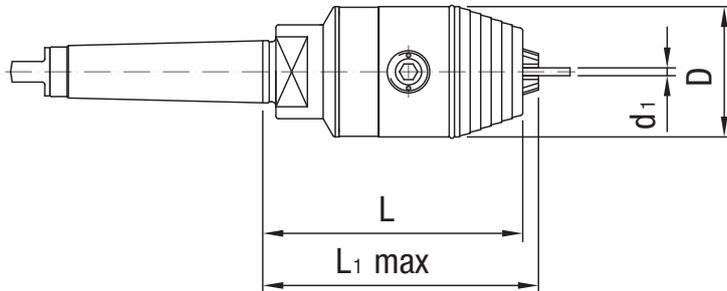


Nominal size MK	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
MK2	WTE 08	0.3 - 8	36	73	76	0.7	36.296.02.08	30336113
MK3	WTE 08	0.3 - 8	36	73	76	0.8	36.296.03.08	30336115
MK2	WTE 13	0.5 - 13	50	99	105	1.1	36.296.02.13	30336114
MK3	WTE 13	0.5 - 13	50	99	105	1.2	36.296.03.13	30336116
MK4	WTE 13	0.5 - 13	50	104	110	1.6	36.296.04.13	30336118
MK5	WTE 13	0.5 - 13	50	106	112	2.6	36.296.05.13	30336120
MK3	WTE 16	2.5 - 16	57	104	110	1.4	36.296.03.16	30336117
MK4	WTE 16	2.5 - 16	57	109	115	1.9	36.296.04.16	30336119
MK5	WTE 16	2.5 - 16	57	111	117	2.8	36.296.05.16	30336121

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN 228-B

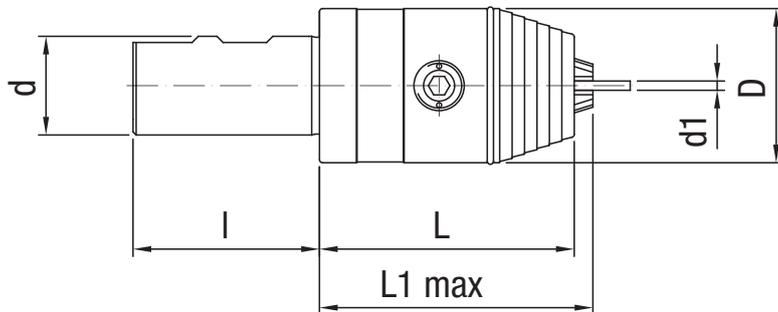


Nominal size MK	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
MK2	WTE 08	0.3 - 8	36	73	76	0.7	37.296.02.08	30336122
MK3	WTE 08	0.3 - 8	36	73	76	0.8	37.296.03.08	30336125
MK2	WTE 13	0.5 - 13	50	99	105	1.1	37.296.02.13	30336123
MK3	WTE 13	0.5 - 13	50	99	105	1.2	37.296.03.13	30336126
MK4	WTE 13	0.5 - 13	50	104	110	1.6	37.296.04.13	30336128
MK5	WTE 13	0.5 - 13	50	106	112	2.6	37.296.05.13	30336130
MK3	WTE 16	2.5 - 16	57	104	110	1.4	37.296.03.16	30336127
MK4	WTE 16	2.5 - 16	57	109	115	1.9	37.296.04.16	30336129
MK5	WTE 16	2.5 - 16	57	111	117	2.8	37.296.05.16	30336131

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN 1835-B

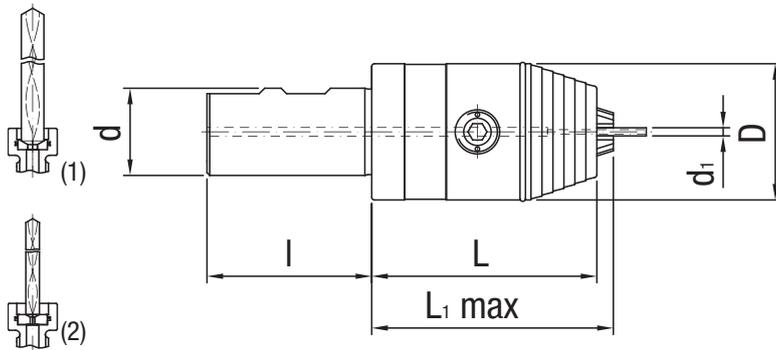


Nominal size DIN 1835-B	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
20x50	WTE 08	0.3 - 8	36	59	62	0.8	40.296.20.08	30336132
25x56	WTE 08	0.3 - 8	36	52	55	0.9	40.296.25.08	30336135
32x60	WTE 08	0.3 - 8	36	52	55	1	40.296.32.08	30336138
20x50	WTE 13	0.5 - 13	50	82	88	1.1	40.296.20.13	30336133
25x56	WTE 13	0.5 - 13	50	82	88	1.2	40.296.25.13	30336136
32x60	WTE 13	0.5 - 13	50	82	88	1.3	40.296.32.13	30336139
40x70	WTE 13	0.5 - 13	50	80	86	1.6	40.296.40.13	30336141
50x80	WTE 13	0.5 - 13	50	80	86	2.2	40.296.50.13	30336143
25x56	WTE 16	2.5 - 16	57	87	93	1.4	40.296.25.16	30336137
32x60	WTE 16	2.5 - 16	57	87	93	1.5	40.296.32.16	30336140
40x70	WTE 16	2.5 - 16	57	85	91	1.8	40.296.40.16	30336142
50x80	WTE 16	2.5 - 16	57	85	91	2.4	40.296.50.16	30336144

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN 1835-B



Nominal size DIN 1835-B	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
20x50	WTE 08 IK	0.3 - 8	36	59	62	0.8	41.296.20.08.Z	30336145
25x56	WTE 08 IK	0.3 - 8	36	52	55	0.9	41.296.25.08.Z	30336148
32x60	WTE 08 IK	0.3 - 8	36	52	55	1	41.296.32.08.Z	30336154
20x50	WTE 13 IK	0.5 - 13	50	82	88	1.1	41.296.20.13.Z	30336146
25x56	WTE 13 IK	0.5 - 13	50	82	88	1.2	41.296.25.13.Z	30336150
32x60	WTE 13 IK	0.5 - 13	50	82	88	1.3	41.296.32.13.Z	30336155
40x70	WTE 13 IK	0.5 - 13	50	80	86	1.6	41.296.40.13.Z	30336158
50x80	WTE 13 IK	0.5 - 13	50	80	86	2.2	41.296.50.13.Z	30336162
25x56	WTE 16 IK	2.5 - 16	57	87	93	1.4	41.296.25.16.Z	30336152
32x60	WTE 16 IK	2.5 - 16	57	87	93	1.5	41.296.32.16.Z	30336157
40x70	WTE 16 IK	2.5 - 16	57	85	91	1.8	41.296.40.16.Z	30336160
50x80	WTE 16 IK	2.5 - 16	57	85	91	2.4	41.296.50.16.Z	30336163

(1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.

(1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

(1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.

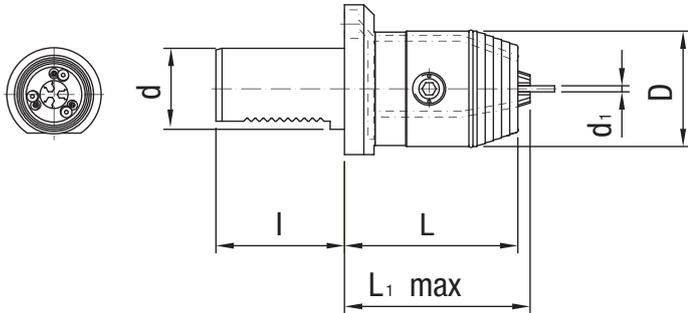
(2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN ISO 10889-1

(prev. DIN 69880), coolant feet using ball nozzles



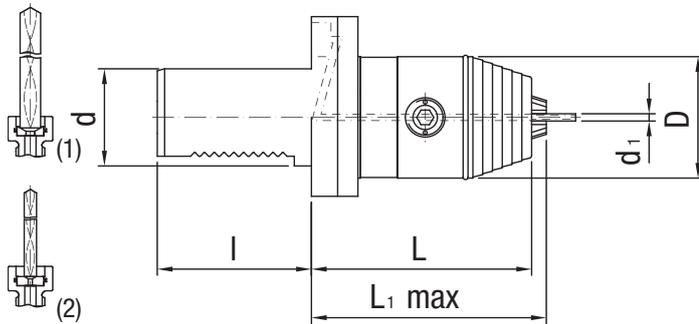
Nominal size DIN ISO 10889-1	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
16x32	WTE 08 VDI	0.3 - 8	40	60	63	0.6	47.296.16.08	30336165
20x40	WTE 08 VDI	0.3 - 8	40	60	63	0.7	47.296.20.08	30336166
25x48	WTE 08 VDI	0.3 - 8	40	60	63	0.8	47.296.25.08	30336168
30x55	WTE 08 VDI	0.3 - 8	40	60	63	1	47.296.30.08	30336171
40x63	WTE 08 VDI	0.3 - 8	40	65	68	1.7	47.296.40.08	30336174
20x40	WTE 13 VDI	0.5 - 13	57	82	88	1.7	47.296.20.13	30336167
25x48	WTE 13 VDI	0.5 - 13	57	82	88	1.7	47.296.25.13	30336169
30x55	WTE 13 VDI	0.5 - 13	57	82	88	2.1	47.296.30.13	30336172
40x63	WTE 13 VDI	0.5 - 13	57	85	91	2.6	47.296.40.13	30336175
50x78	WTE 13 VDI	0.5 - 13	57	85	91	3.4	47.296.50.13	30336177
30x55	WTE 16 VDI	2.5 - 16	57	82	93	2.1	47.296.30.16	30336173
40x63	WTE 16 VDI	2.5 - 16	57	85	96	2.6	47.296.40.16	30336176
50x78	WTE 16 VDI	2.5 - 16	57	85	96	3.4	47.296.50.16	30336178
60x94	WTE 16 VDI	2.5 - 16	57	93	104	4.9	47.296.60.16	30336179

Dimensions in mm.

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

# CNC Precision Drill Chuck DIN ISO 10889-1

(prev. DIN 69880), central coolant supply



Nominal size DIN ISO 10889-1	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
16x32	WTE 08 IK	0.3 - 8	36	68	71	0.6	48.296.16.08	30336180
20x40	WTE 08 IK	0.3 - 8	36	68	71	0.7	48.296.20.08	30336181
25x48	WTE 08 IK	0.3 - 8	36	68	71	0.8	48.296.25.08	30336185
30x55	WTE 08 IK	0.3 - 8	36	68	71	1.1	48.296.30.08	30336187
40x63	WTE 08 IK	0.3 - 8	36	68	71	1.5	48.296.40.08	30336194
20x40	WTE 13 IK	0.5 - 13	50	90	96	1.7	48.296.20.13	30336183
25x48	WTE 13 IK	0.5 - 13	50	90	96	1.7	48.296.25.13	30336186
30x55	WTE 13 IK	0.5 - 13	50	90	96	1.8	48.296.30.13	30336189
40x63	WTE 13 IK	0.5 - 13	50	90	96	2.3	48.296.40.13	30336195
50x78	WTE 13 IK	0.5 - 13	50	90	96	3	48.296.50.13	30336201
30x55	WTE 16 IK	2.5 - 16	57	95	101	2	48.296.30.16	30336192
40x63	WTE 16 IK	2.5 - 16	57	95	101	2.5	48.296.40.16	30336198
50x78	WTE 16 IK	2.5 - 16	57	95	101	3.3	48.296.50.16	30336202
60x94	WTE 16 IK	2.5 - 16	57	95	101	4.9	48.296.60.16	30336203

(1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.

(1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

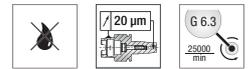
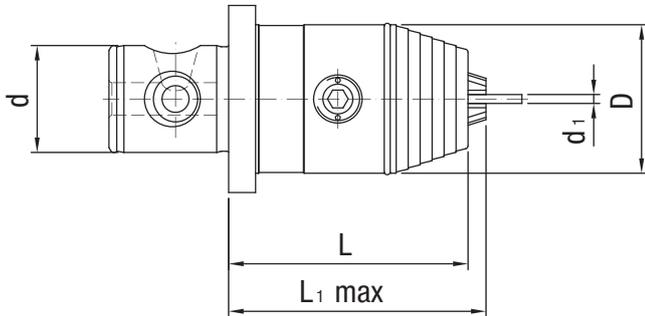
(1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.

(2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

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

# CNC Precision Drill Chuck Wohlhaupter

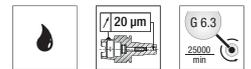
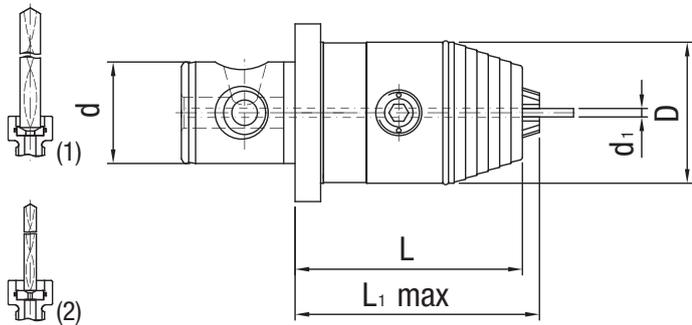


Nominal size Wohlhaupter	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
28	WTE 13	0.5 - 13	50	80	86	1.1	61.296.28.13	30336205
36	WTE 13	0.5 - 13	50	80	86	1.3	61.296.36.13	30336210
28	WTE 16	2.5 - 16	57	85	91	1.3	61.296.28.16	30336207
36	WTE 16	2.5 - 16	57	85	91	1.5	61.296.36.16	30336212

Dimensions in mm.

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

# CNC Precision Drill Chuck Wohlhaupter



Nominal size Wohlhaupter	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	$D$	$L$			
28	WTE 13 IKT	0.5 - 13	50	80	86	1.2	61.296.28.13.Z	30336206
36	WTE 13 IKT	0.5 - 13	50	80	86	1.4	61.296.36.13.Z	30336211
28	WTE 16 IKT	2.5 - 16	57	85	91	1.4	61.296.28.16.Z	30336208
36	WTE 16 IKT	2.5 - 16	57	85	91	1.6	61.296.36.16.Z	30336213

- (1) WTE 13 sealing disk ( $\varnothing 4.2 \text{ mm}$ ) integrated into the drill chuck head, for inner coolant drills  $\varnothing 6\text{-}13 \text{ mm}$  with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk ( $\varnothing 2.05 \text{ mm}$ ) included in scope of supply, for inner coolant drills  $\varnothing 3\text{-}6 \text{ mm}$  with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 16 sealing disk ( $\varnothing 4.2 \text{ mm}$ ) integrated into the drill chuck head, for inner coolant drills  $\varnothing 6\text{-}16 \text{ mm}$  with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk ( $\varnothing 2.05 \text{ mm}$ ) included in scope of supply, for inner coolant drills  $\varnothing 3\text{-}6 \text{ mm}$  with smooth shank acc. to DIN 6535, Form HA.

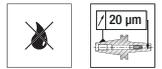
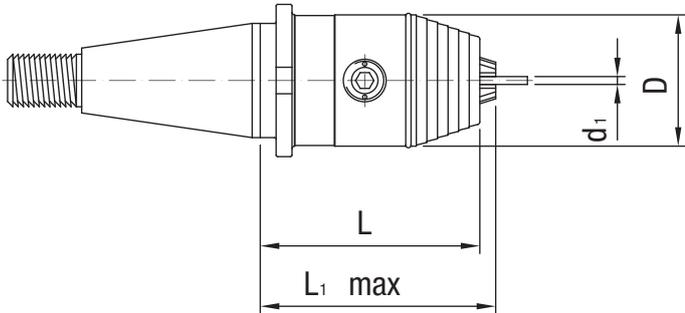
Dimensions in mm.

Installation tool for sealing disk, spare parts and accessories at the end of this chapter.

Custom designs available on request.

## CNC Precision Drill Chuck S20x2 (Deckel)

For Deckel machines with exterior buttress threads



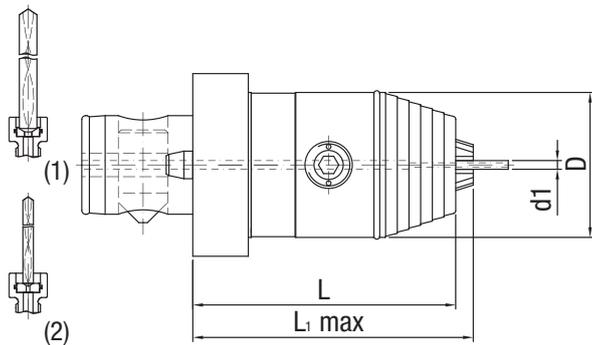
Nominal size S20x2 (Deckel)	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 08	0.3 - 8	36	62	65	1.2	62.296.40.08	30336214
40	WTE 13	0.5 - 13	50	83	89	1.6	62.296.40.13	30336215
40	WTE 16	2.5 - 16	57	88	94	1.8	62.296.40.16	30336216

Dimensions in mm.

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

# CNC Precision Drill Chuck ABS

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Nominal size ABS	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
50	WTE 13 IKT	0.5 - 13	50	85	91	1.2	63.296.50.13.Z	30336217
63	WTE 13 IKT	0.5 - 13	50	90	96	1.5	63.296.63.13.Z	30336219
50	WTE 16 IKT	2.5 - 16	57	90	96	1.4	63.296.50.16.Z	30336218
63	WTE 16 IKT	2.5 - 16	57	95	101	1.5	63.296.63.16.Z	30336220

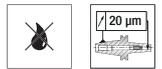
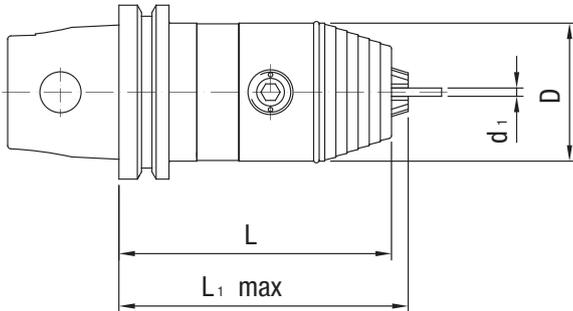
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

Installation tool for sealing disk, Spare parts and accessories at the end of this chapter.  
Custom designs available on request.

# CNC Precision Drill Chuck UTS

License Widia



Nominal size UTS	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
63	WTE 08	0.3 - 8	36	78	81	1	65.296.63.08	30336221
63	WTE 13	0.5 - 13	50	98	104	1.7	65.296.63.13	30336223
63	WTE 16	2.5 - 16	57	103	109	1.9	65.296.63.16	30336225

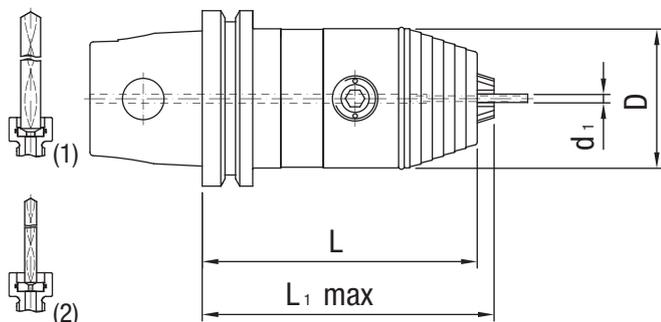
Dimensions in mm.

Please make a special request for MAZAK and MORI-SEIKI machines.

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

# CNC Precision Drill Chuck UTS

License Widia, with internal coolant supply



Nominal size UTS	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
63	WTE 08 IK	0.3 - 8	36	78	81	1	65.296.63.08.Z	30336222
63	WTE 13 IKT	0.5 - 13	50	98	104	1.7	65.296.63.13.Z	30336224
63	WTE 16 IKT	2.5 - 16	57	103	109	1.9	65.296.63.16.Z	30336226

- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.  
 (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.

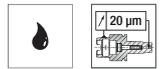
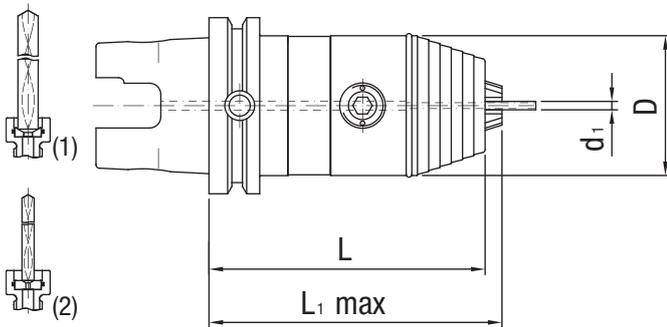
Please make a special request for MAZAK and MORI-SEIKI machines.

Installation tool for sealing disk, spare parts and accessories at the end of this chapter.

Custom designs available on request.

# CNC Precision Drill Chuck INTEGREGEX

With MAZAK shank, 100, 200, 300, 400 (Y/SY)



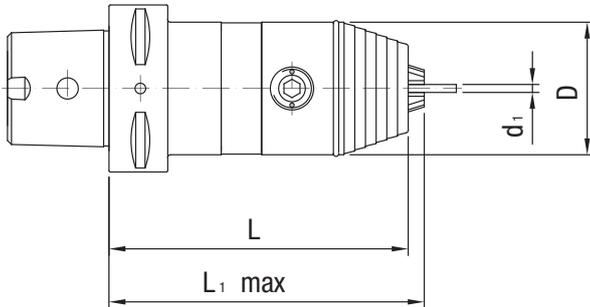
Nominal size MAZAK	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
63	WTE 08 IK	0.3 - 8	36	78	81	1	66.296.63.08.Z	30336227
63	WTE 13 IKT	0.5 - 13	50	98	104	1.7	66.296.63.13.Z	30336228
63	WTE 16 IKT	2.5 - 16	57	103	109	1.9	66.296.63.16.Z	30336229

- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.  
 Corresponding to the specification „KM63 XMZ“.  
 Installation tool for sealing disk, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# CNC Precision Drill Chuck with Polygonshank (PSC)

As per ISO 26623-1



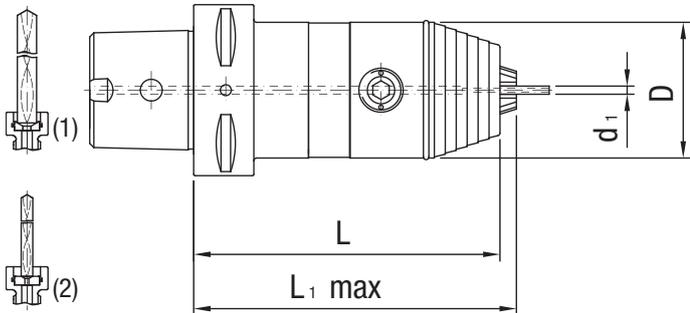
Nominal size PSC	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
32	WTE 08	0.3 - 8	36	73	76	0.5	67.296.32.08	30591623
32	WTE 13	0.5 - 13	50	96	103	1.1	67.296.32.13	30591627
40	WTE 08	0.3 - 8	36	74	77	0.6	67.296.40.08	30591631
40	WTE 13	0.5 - 13	50	98	105	1.2	67.296.40.13	30591633
50	WTE 08	0.3 - 8	36	76	79	0.8	67.296.50.08	30591635
50	WTE 13	0.5 - 13	50	97	105	1.4	67.296.50.13	30591636
63	WTE 08	0.3 - 8	36	91	94	1.1	67.296.63.08	30336230
63	WTE 13	0.5 - 13	50	112	118	1.9	67.296.63.13	30336232
63	WTE 16	2.5 - 16	57	117	123	2.1	67.296.63.16	30336234
80	WTE 13	0.5 - 13	50	106	112	2.7	67.296.80.13	30591638
80	WTE 16	2.5 - 16	57	111	115	2.9	67.296.80.16	30591639

Dimensions in mm.

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

# CNC Precision Drill Chuck with Polygonshank (PSC)

As per ISO 26623-1, with internal coolant supply



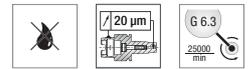
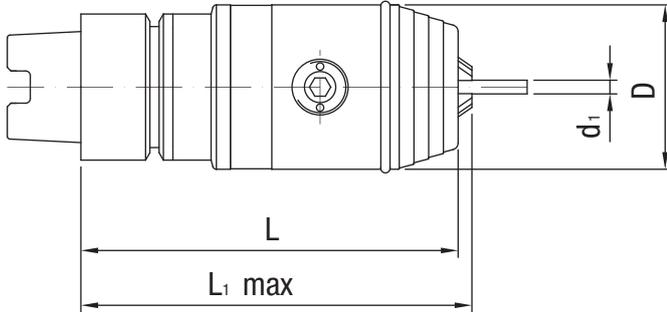
Nominal size PSC	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
32	WTE 08 IK	0.3 - 8	36	73	76	0.5	67.296.32.08.Z	30591641
32	WTE 13 IK	0.5 - 13	50	96	103	1.1	67.296.32.13.Z	30591645
40	WTE 08 IK	0.3 - 8	36	74	77	0.6	67.296.40.08.Z	30591647
40	WTE 13 IK	0.5 - 13	50	98	105	1.2	67.296.40.13.Z	30591650
50	WTE 08 IK	0.3 - 8	36	76	79	0.8	67.296.50.08.Z	30591669
50	WTE 13 IK	0.5 - 13	50	97	105	1.4	67.296.50.13.Z	30591670
63	WTE 08 IK	0.3 - 8	36	91	94	1.1	67.296.63.08.Z	30336231
63	WTE 13 IK	0.5 - 13	50	112	118	1.9	67.296.63.13.Z	30336233
63	WTE 16 IK	2.5 - 16	57	117	123	2.1	67.296.63.16.Z	30336235
80	WTE 13 IK	0.5 - 13	50	106	112	2.7	67.296.80.13.Z	30591673
80	WTE 16 IK	2.5 - 16	57	111	115	2.9	67.296.80.16.Z	30591674

- (1) WTE 08 sealing disk (ø 3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.  
 Installation tool for sealing disk, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# CNC Precision Drill Chuck Chiron FZ 08

For basket changer with 12 tool places

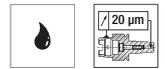
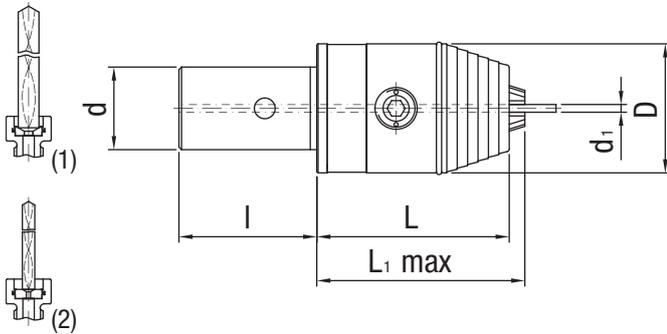


Nominal size Chiron FZ 08	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
32	WTE 08	0.3 - 8	36	82	85	0.6	93.296.0012.08	30336239

Dimensions in mm.

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

# CNC Precision Drill Chuck MORI-SEIKI



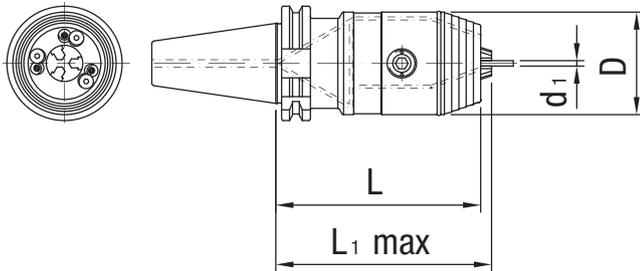
Nominal size MORI-SEIKI	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
32x53	WTE 08 IK	0.3 - 8	36	54	57	0.7	93.296.0014.08	30336241
32x53	WTE 13 IK	0.5 - 13	50	74	80	1.1	93.296.0015.13	30336242
32x53	WTE 16 IK	2.5 - 16	57	79	85	1.3	93.296.0015.16	30336243
40x53	WTE 13 IK	0.5 - 13	50	74	80	1.3	93.296.0018.13	30336244
40x53	WTE 16 IK	2.5 - 16	57	79	85	1.5	93.296.0018.16	30336245

- (1) WTE 08 sealing disk (ø3.2 mm) integrated into the drill chuck head, for inner coolant drills ø 4-8 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 08 sealing disk (ø 1.8mm) included in scope of supply, for inner coolant drills ø 2-4 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 13 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-13 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 13 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.
  
- (1) WTE 16 sealing disk (ø 4.2 mm) integrated into the drill chuck head, for inner coolant drills ø 6-16 mm with smooth shank acc. to DIN 6535, Form HA.
- (2) WTE 16 sealing disk (ø 2.05 mm) included in scope of supply, for inner coolant drills ø 3-6 mm with smooth shank acc. to DIN 6535, Form HA.

Dimensions in mm.  
 Installation tool for sealing disk, spare parts and accessories at the end of this chapter.  
 Custom designs available on request.

# CNC Precision Drill Chuck DIN 69871 VDI

Coolant feed using ball nozzles



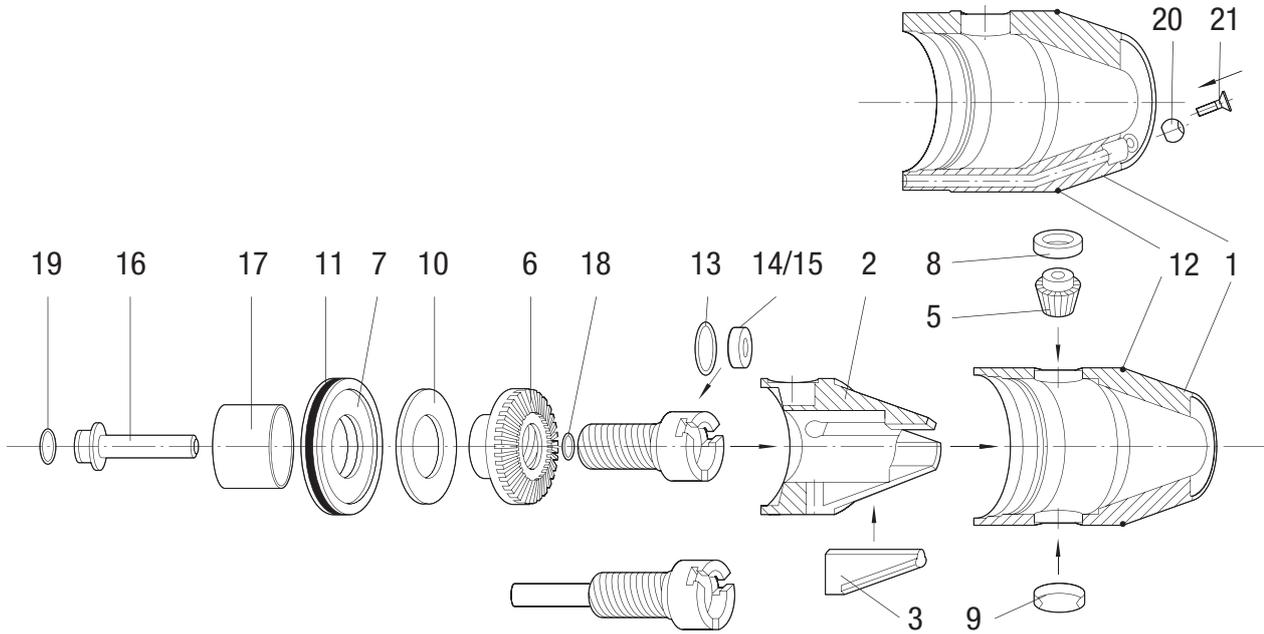
Nominal size VDI	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 13 VDI	0.5 - 13	57	113	119	1.7	93.296.0022.13	30336248
40	WTE 16 VDI	2.5 - 16	57	113	124	1.9	93.296.0022.16	30336249

Dimensions in mm.

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

# Spare parts for CNC Precision Drill Chuck

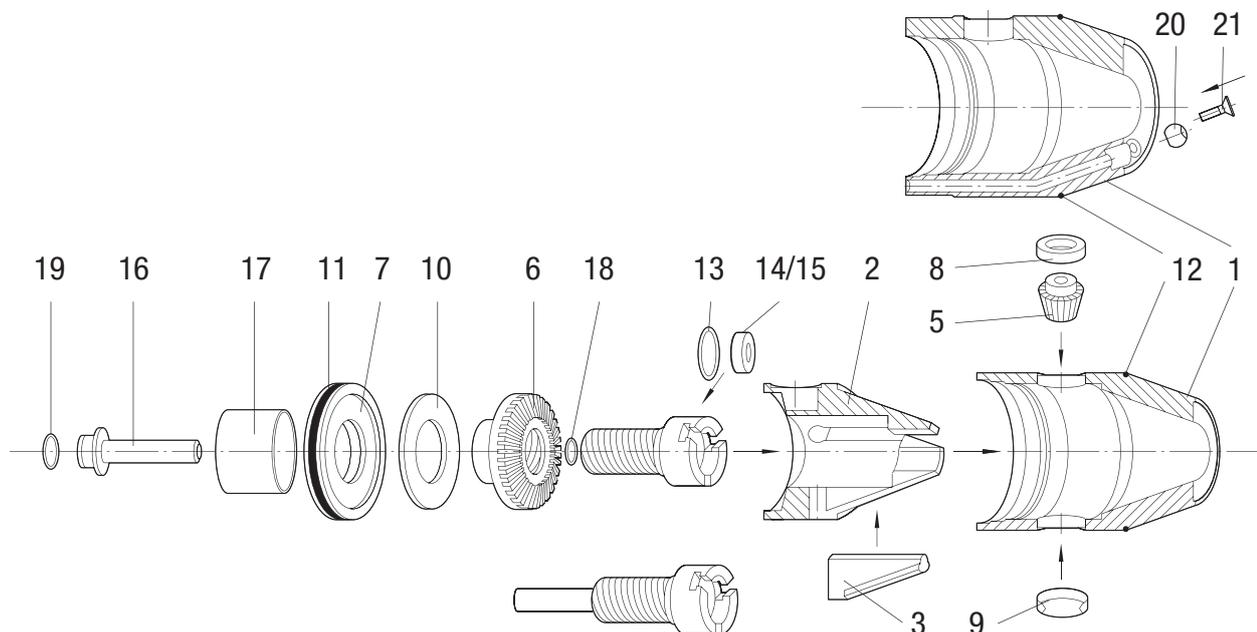
For design WTE 08



Nr.	Description	Order designation	Order No.
1	Sleeve	89.208.01	30266093
2	Expansion cone	89.208.02	30266130
3	Clamping jaws (1 set = 3 pieces)	89.208.03	30266138
4	Spindle	89.208.04	30266107
5	Pinion	89.208.05	30266141
6	Bevel gear	89.208.06	30266194
7	Thrust Piece	89.208.07	30266164
8	Pinion screw	89.208.08	30266192
9	Cover	89.208.09	30266152
10	Stop disc	89.208.10	30266156
11	O-ring 24 x 1	89.208.11	10072512
12	O-ring, red	89.208.39	30263594

# Spare parts for CNC Precision Drill Chuck

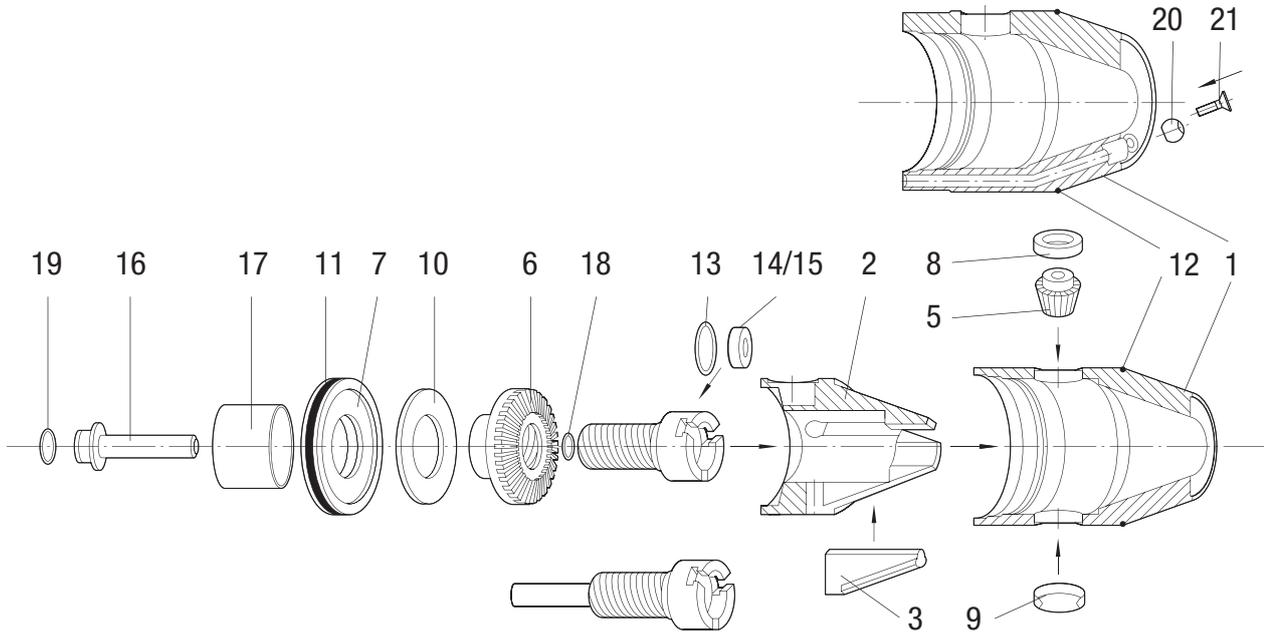
For design WTE 08 IK



Nr.	Description	Order designation	Order No.
1	Sleeve	89.208.01	30266093
2	Expansion cone	89.208.02	30266130
3	Clamping jaws (1 set = 3 pieces)	89.208.03	30266138
4	Spindle	89.208.13	30266108
5	Pinion	89.208.05	30266141
6	Bevel gear	89.208.06	30266194
7	Thrust Piece	89.208.07	30266164
8	Pinion screw	89.208.08	30266192
9	Cover	89.208.09	30266152
10	Stop disc	89.208.10	30266156
11	O-ring 24 x 1	89.208.11	10072512
12	O-ring, red	89.208.39	30263594
13	O-ring 8 x 1	89.208.14	10015675
14	Gasket $\varnothing$ 1.8 - 4	89.208.15	30266123
15	Gasket $\varnothing$ 3.2 - 8	89.208.16	30266125
19	O-ring 8 x 1.5	89.213.20	10015676

# Spare parts for CNC Precision Drill Chuck

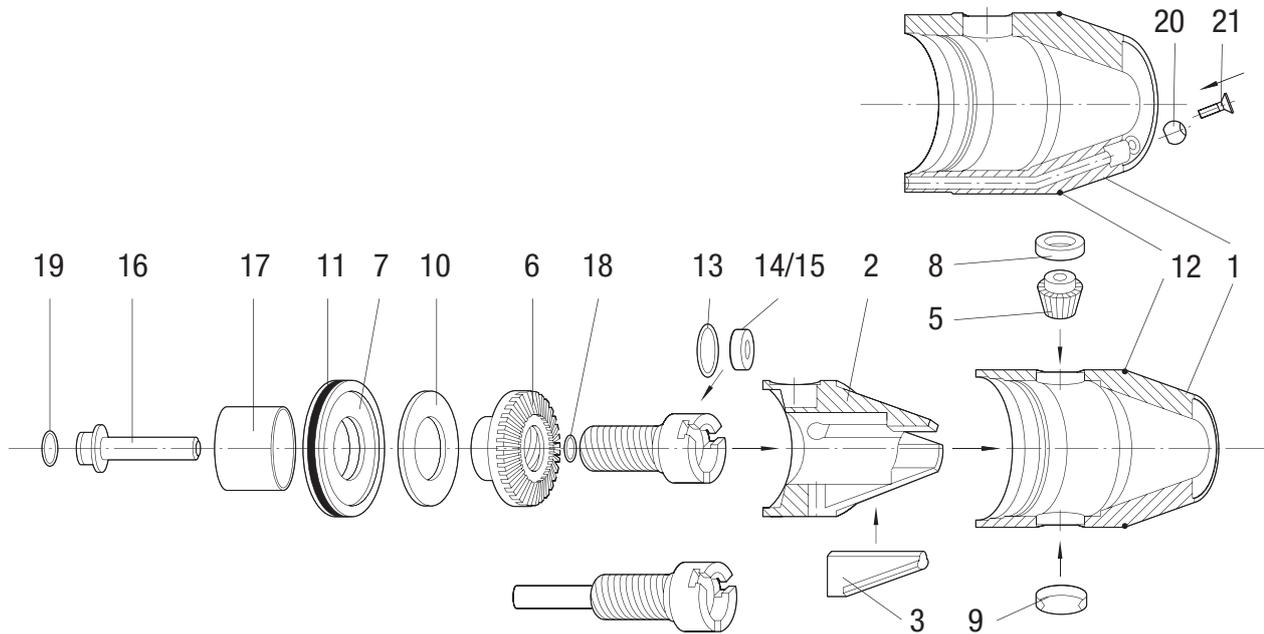
For design WTE 08 VDI



Nr.	Description	Order designation	Order No.
1	Sleeve	89.208.17	30266094
2	Expansion cone	89.208.02	30266130
3	Clamping jaws (1 set = 3 pieces)	89.208.03	30266138
4	Spindle	89.208.04	30266107
5	Pinion	89.208.05	30266141
6	Bevel gear	89.208.06	30266194
7	Thrust Piece	89.208.07	30266164
8	Pinion screw	89.208.08	30266192
10	Stop disc	89.208.10	30266156
11	O-ring 24 x 1	89.208.11	10072512
12	O-ring, red	89.208.39	30263594
20	Ball $\varnothing$ 5.5	89.208.18	30266161
21	Countersunk screw	89.208.19	10003770

# Spare parts for CNC Precision Drill Chuck

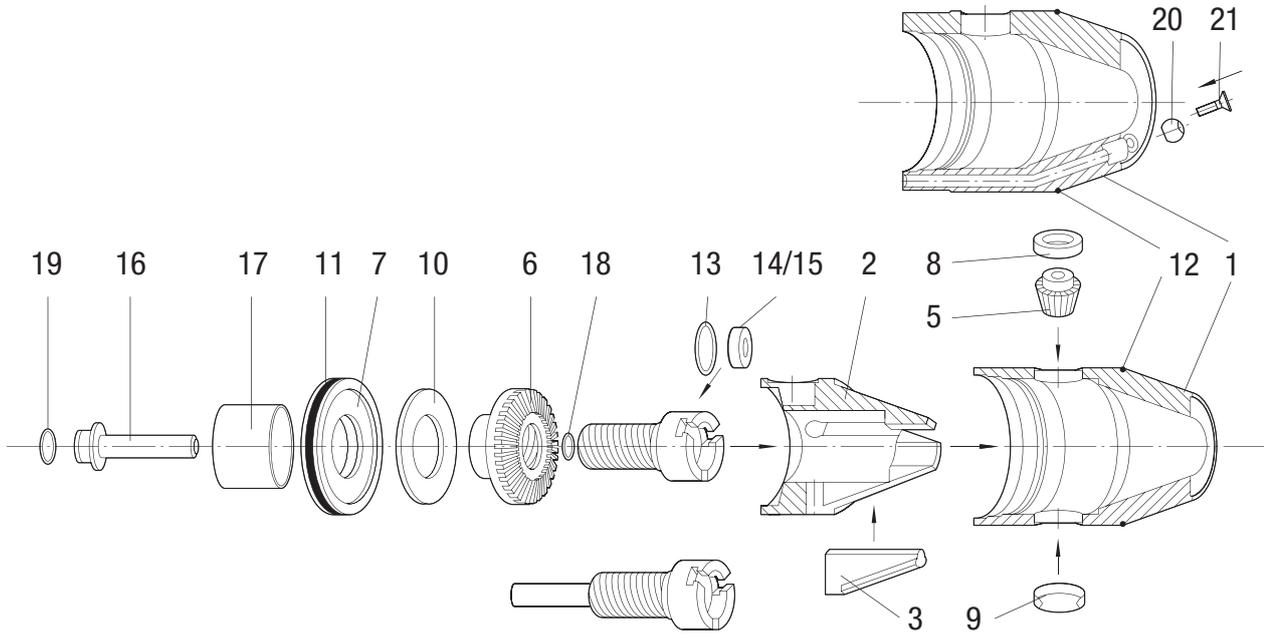
For design WTE 13



Nr.	Description	Order designation	Order No.
1	Sleeve	89.213.01	30266096
2	Expansion cone	89.213.02	30266133
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.213.04	30266111
5	Pinion	89.213.05	30266142
6	Bevel gear	89.213.06	30266195
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
9	Cover	89.213.09	30266153
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.213.39	30346068

# Spare parts for CNC Precision Drill Chuck

For design WTE 13 IK

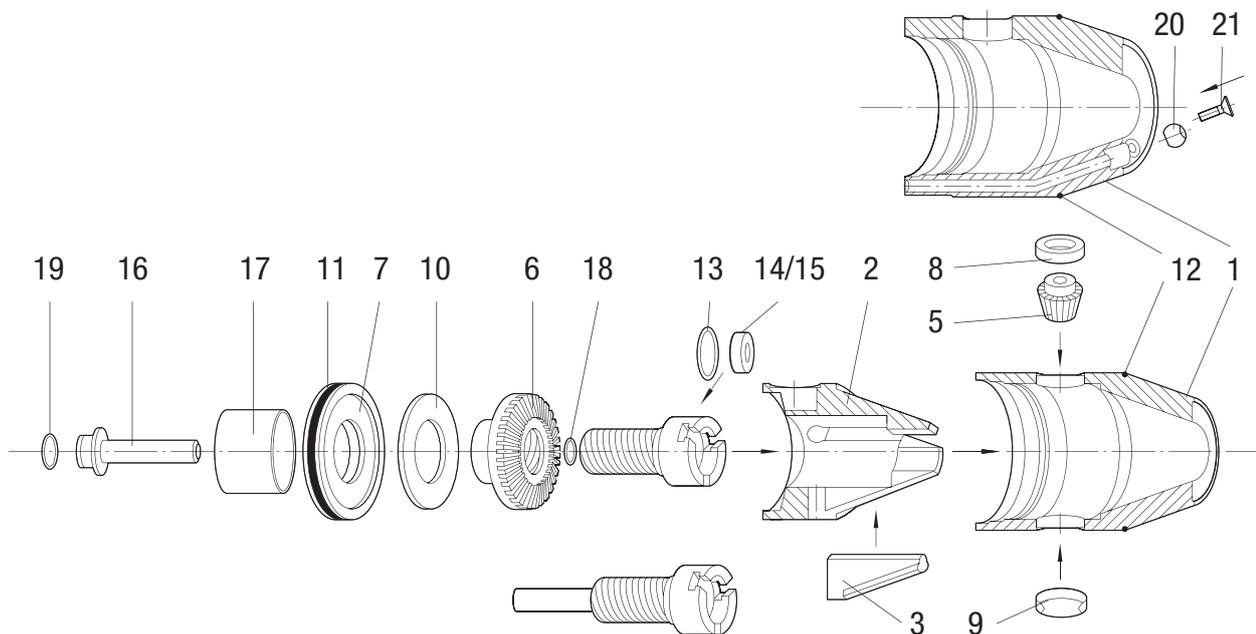


Nr.	Description	Order designation	Order No.
1	Sleeve	89.213.01	30266096
2	Expansion cone	89.213.02	30266133
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.213.13	30266112
5	Pinion	89.213.05	30266142
6	Bevel gear	89.213.06	30266195
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
9	Cover	89.213.09	30266153
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.213.39	30346068
13	O-ring 13x1.5	89.213.14	10002538
14	Gasket $\varnothing$ 3-6	89.213.15	30266126
15	Gasket $\varnothing$ 6-13	89.213.16	30266127
19	O-ring 8 x 1.5	89.213.20	10015676

Dimensions in mm.

# Spare parts for CNC Precision Drill Chuck

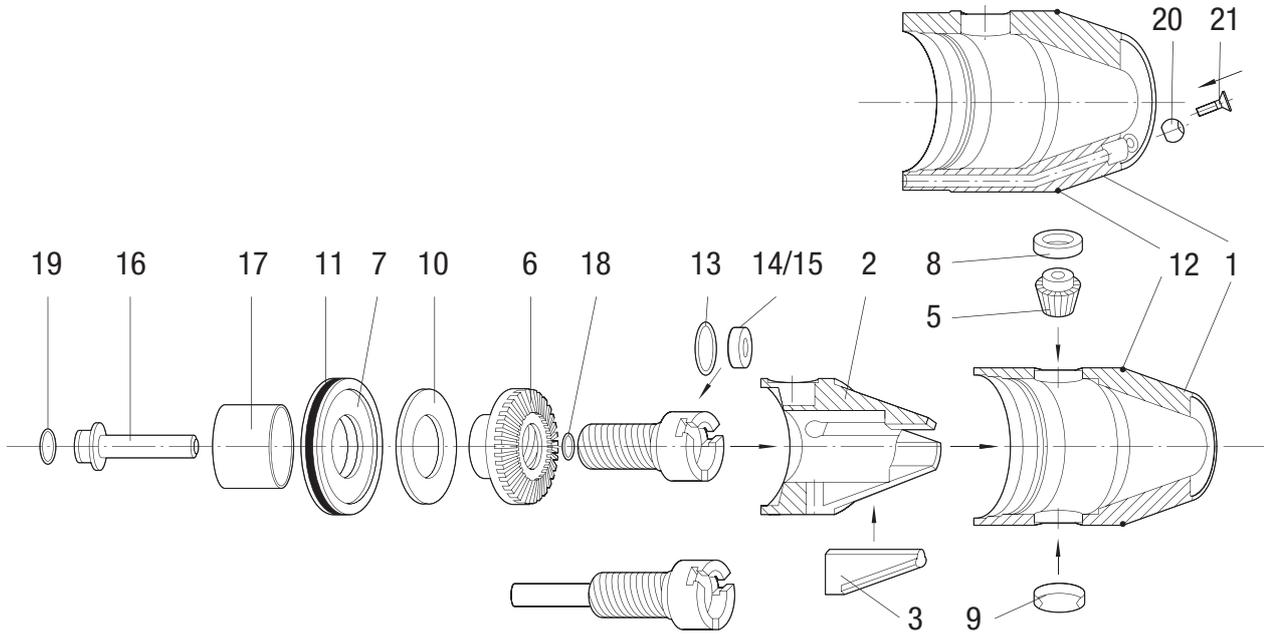
For design WTE 13 IKT



Nr.	Description	Order designation	Order No.
1	Sleeve	89.213.01	30266096
2	Expansion cone	89.213.02	30266133
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.213.28	30266114
5	Pinion	89.213.05	30266142
6	Bevel gear	89.213.06	30266195
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
9	Cover	89.213.09	30266153
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.213.39	30346068
13	O-ring 13x1.5	89.213.14	10002538
14	Gasket $\varnothing$ 3-6	89.213.15	30266126
15	Gasket $\varnothing$ 6-13	89.213.16	30266127
16	Coolant pipe	89.213.29	30266167
17	Spacer	89.213.30	30266168
18	O-ring 6 x 1.5	89.213.36	10002608
19	O-ring 8 x 1.5	89.213.20	10015676

# Spare parts for CNC Precision Drill Chuck

For design WTE 13 VDI

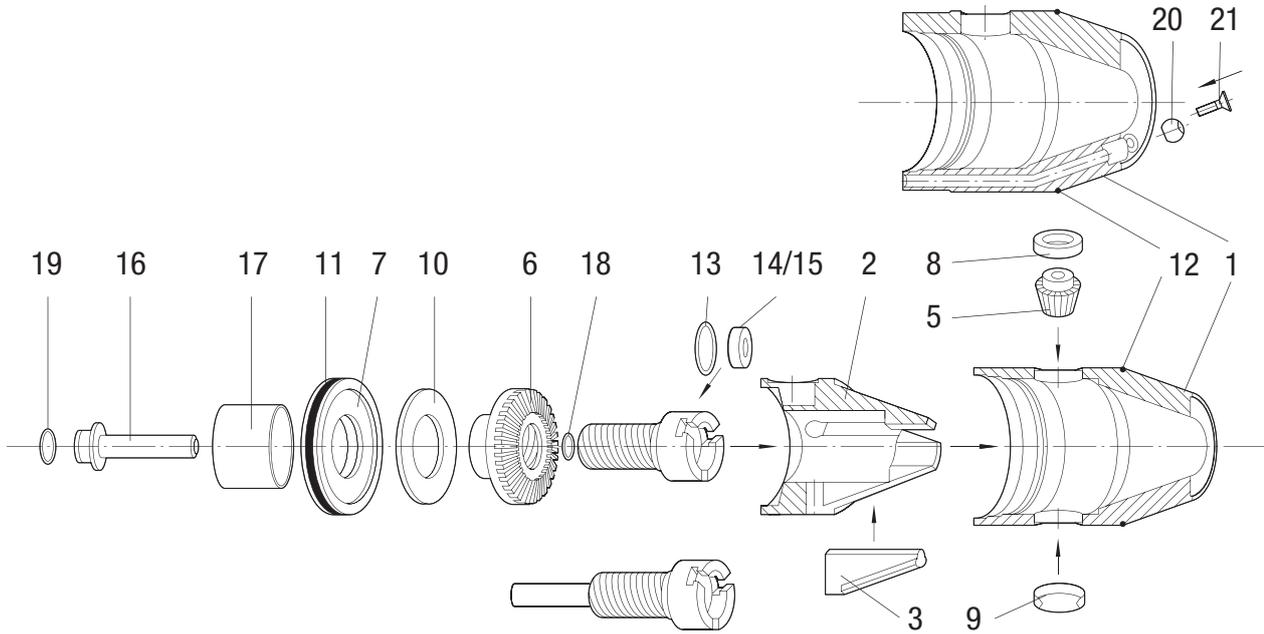


Nr.	Description	Order designation	Order No.
1	Sleeve	89.213.17	30266097
2	Expansion cone	89.213.02	30266133
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.213.04	30266111
5	Pinion	89.213.05	30266142
6	Bevel gear	89.216.06	30266196
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.216.12	30269069
20	Ball $\varnothing$ 7	89.213.18	30266163
21	Countersunk screw	89.213.19	30336466



# Spare parts for CNC Precision Drill Chuck

For design WTE 16 IK

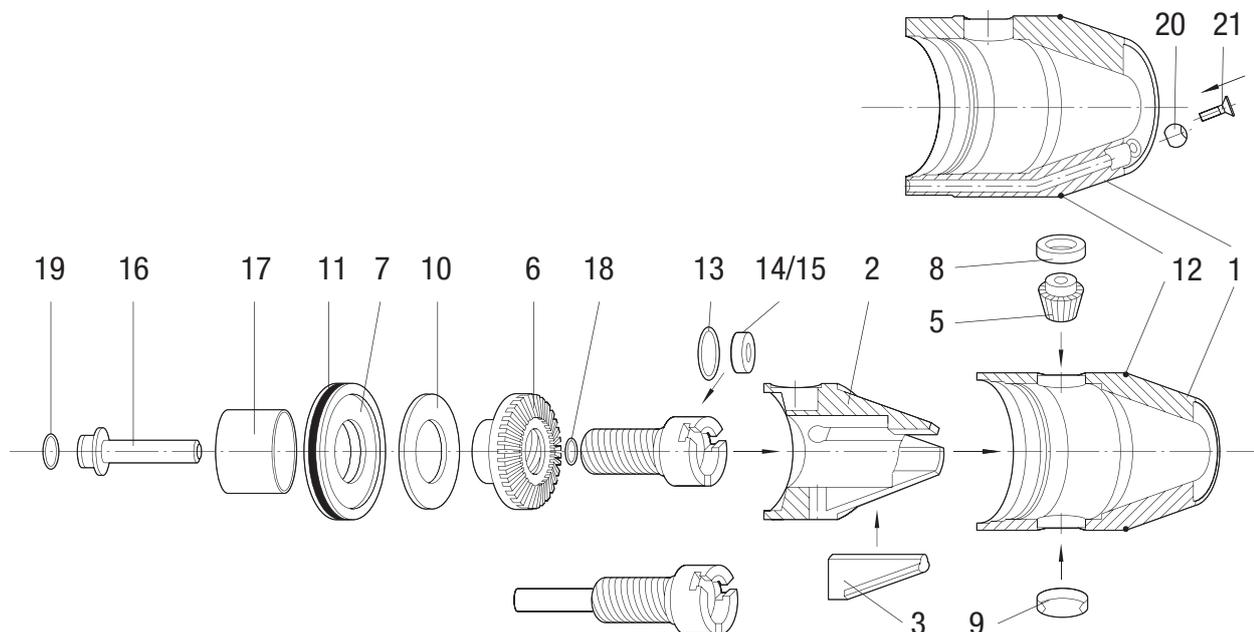


Nr.	Description	Order designation	Order No.
1	Sleeve	89.216.72	30266099
2	Expansion cone	89.216.71	30266134
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.216.13	30266147
5	Pinion	89.216.05	30266143
6	Bevel gear	89.216.06	30266196
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
9	Cover	89.213.09	30266153
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.216.39	30263595
13	O-ring 16 x 1.5	89.216.14	10002547
14	Gasket ø 3-6	89.216.15	30266128
15	Gasket ø 6-16	89.216.16	30266129
19	O-ring 8 x 1.5	89.213.20	10015676

Dimensions in mm.

# Spare parts for CNC Precision Drill Chuck

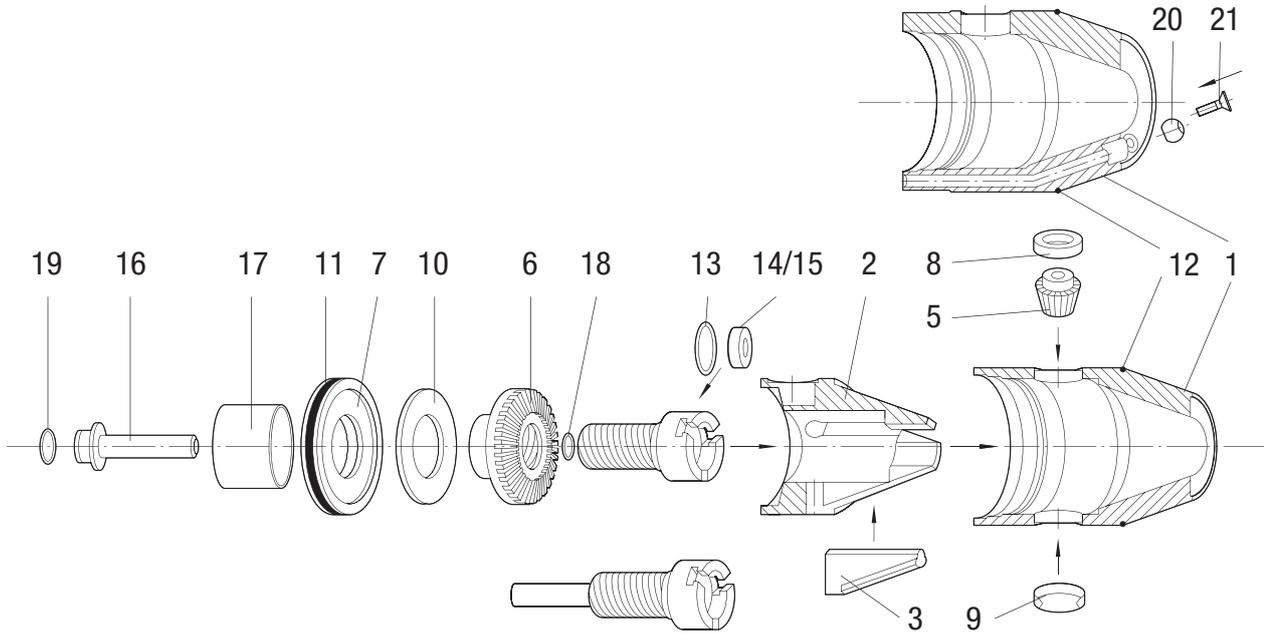
For design WTE 16 IKT



Nr.	Description	Order designation	Order No.
1	Sleeve	89.216.72	30266099
2	Expansion cone	89.216.71	30266134
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.216.13	30266147
5	Pinion	89.216.05	30266143
6	Bevel gear	89.216.06	30266196
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
9	Cover	89.213.09	30266153
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.216.39	30263595
13	O-ring 16 x 1.5	89.216.14	10002547
14	Gasket $\varnothing$ 3-6	89.216.15	30266128
15	Gasket $\varnothing$ 6-16	89.216.16	30266129
16	Coolant pipe	89.213.29	30266167
17	Spacer	89.213.30	30266168
18	O-ring 6 x 1.5	89.213.36	10002608
19	O-ring 8 x 1.5	89.213.20	10015676

# Spare parts for CNC Precision Drill Chuck

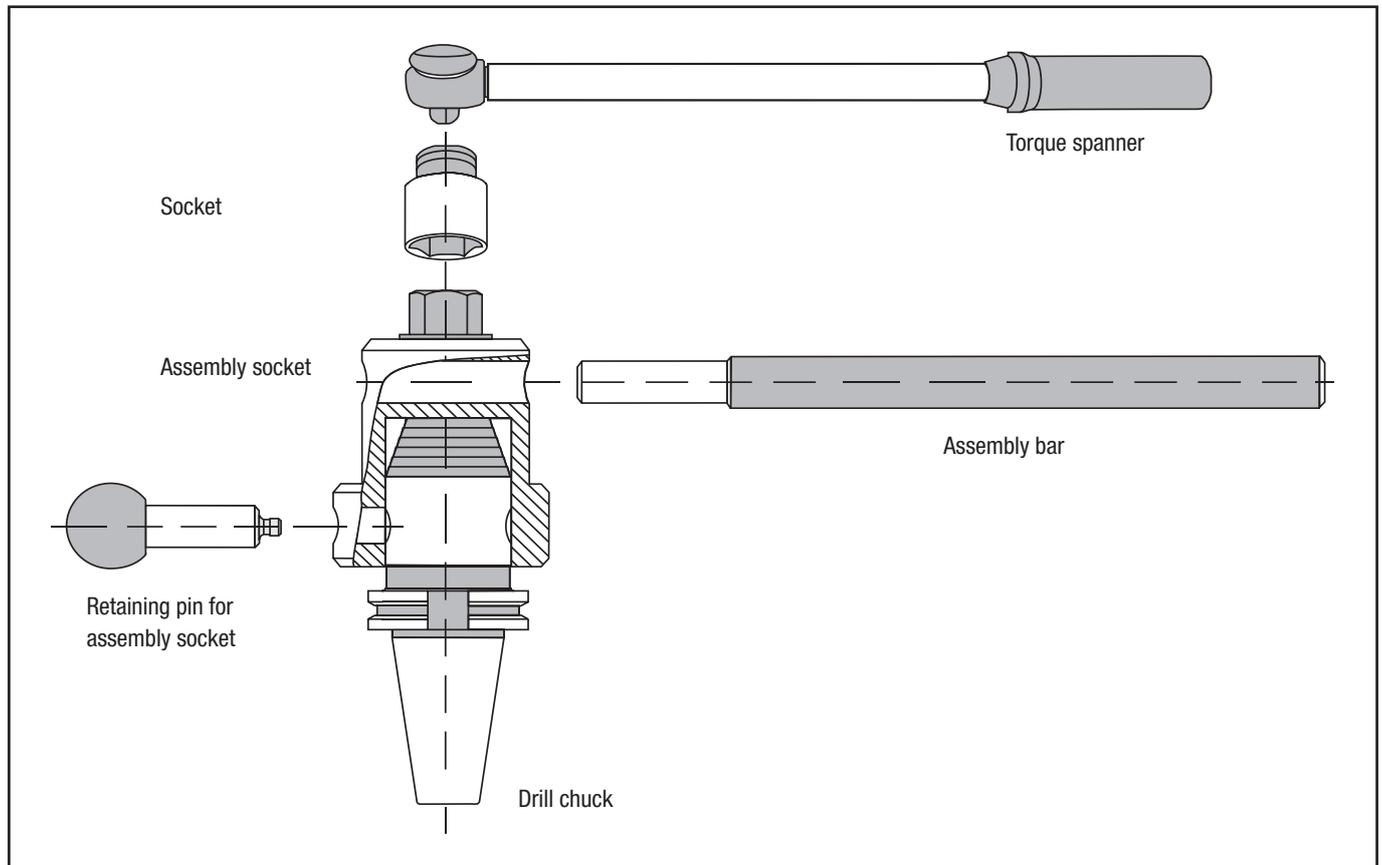
For design WTE 16 VDI



Nr.	Description	Order designation	Order No.
1	Sleeve	89.216.17	30266100
2	Expansion cone	89.216.10	30336482
3	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
4	Spindle	89.216.04	30266146
5	Pinion	89.216.05	30266143
6	Bevel gear	89.216.06	30266196
7	Thrust Piece	89.213.07	30266165
8	Pinion screw	89.213.08	30266193
10	Stop disc	89.213.10	30266155
11	O-ring 38x1.5	89.213.11	10019664
12	O-ring, red	89.216.12	30269069
20	Ball ø 7	89.213.18	30266163
21	Countersunk screw	89.213.19	30336466

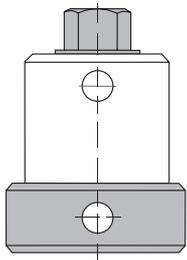
Dimensions in mm.

## Overview of the installation tools for CNC Precision Drill Chucks



## Assembly Socket

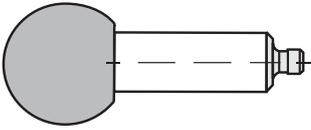
Including retaining pins



No.	Suitable for	Weight [kg]	Order designation	Order No.
1	WTE 08/08 IK	0.3	89.208.22	30266169
2	WTE 08 VDI	0.3	89.208.23	30266170
3	WTE 13/13 IK/13 IKT	0.4	89.213.23	30266171
4	WTE 13 VDI/16/16 IK/16 IKT/16 VDI	0.5	89.216.25	30336487

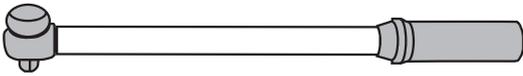
## Retaining Pins

For Assembly Socket



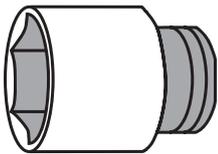
Fits	Weight [kg]	Order designation	Order No.
No. 1 / No. 2	0.3	89.208.26	30336449
No. 3 / No. 4	0.3	89.213.26	30266176

## Torque Spanner



Tightening value	Square drive	Order designation	Order No.
20 - 120 Nm	1/2 "	89.208.35	30266178

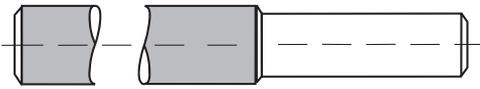
## Socket



Hexagon	Square drive	Order designation	Order No.
sw 19	1/2 "	89.208.34	30266180

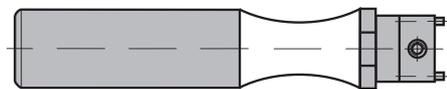
## Assembly Bar

Fits Assembly Sockets



Weight [kg]	Order designation	Order No.
1.0	89.208.30	30266181

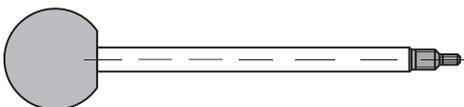
## Pinion Screwdriver



WTE Norm	Weight [kg]	Order designation	Order No.
WTE 08	0.04	89.208.24	30266182
WTE 13 / 16	0.04	89.213.21	30266183

## Assembly Tool

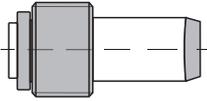
For sealing discs



WTE Norm	Weight [kg]	Order designation	Order No.
WTE 08	0.03	89.208.44	30266184
WTE 13 / 16	0.03	89.213.44	30336476

## Coolant Transfer Pipe

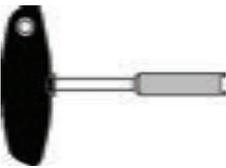
For DIN 69893-A/E



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

## Assembly Key

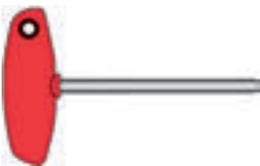
For Coolant Transfer Pipe



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

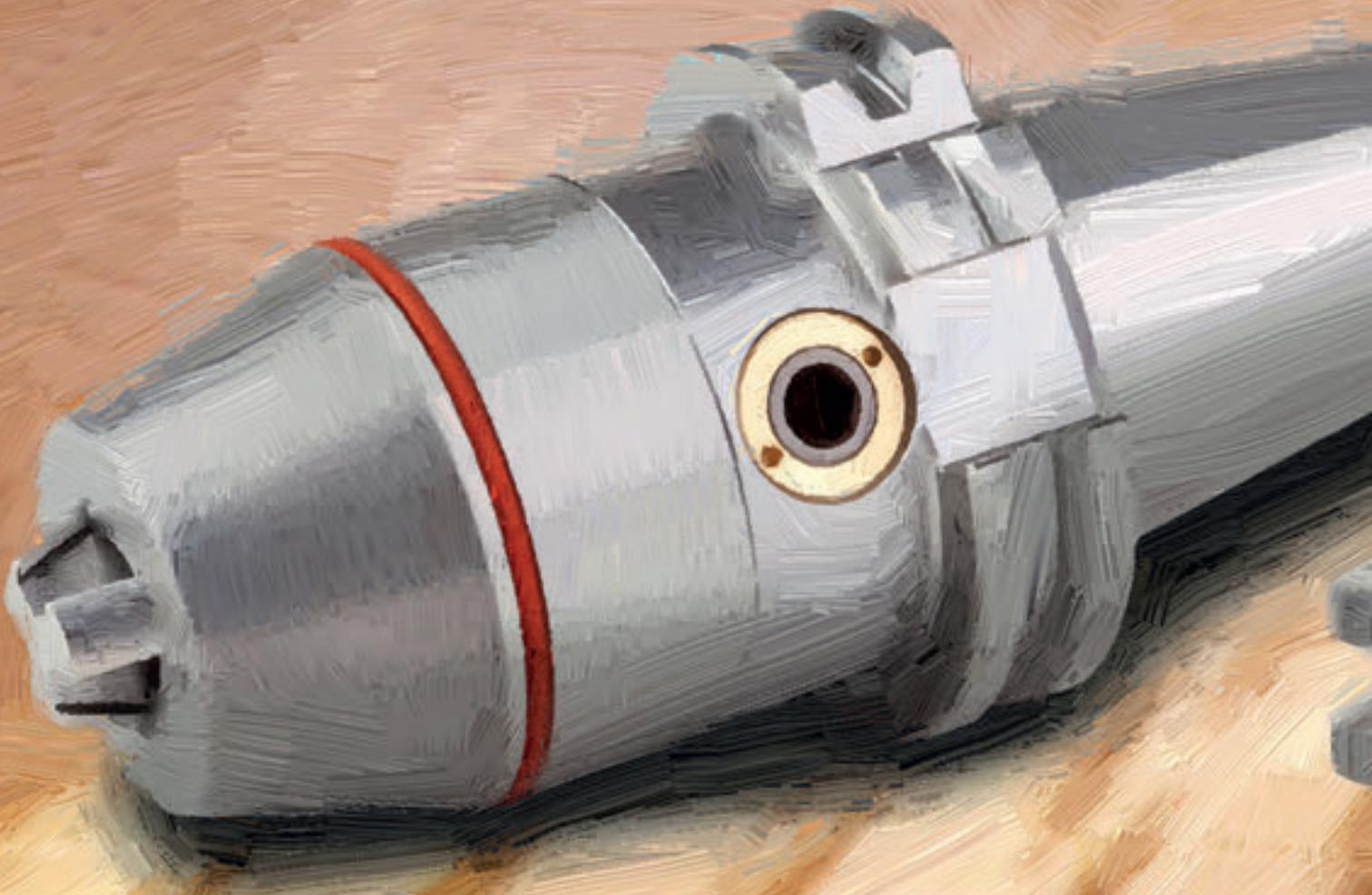
## Hexagonal T-key

For pinion activation



sw	l	Weight [kg]	WTE Norm	Order designation	Order No.
4	100	0.03	WTE 08	89.206.07	10006235
6	100	0.03	WTE 13 / 16	89.206.06	10006237

Dimensions in mm.



# NC STANDARD DRILL CHUCKS



## Shank form SK as per ISO 7388-1

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SK 40 \_\_\_\_\_ 254-255

## Shank form BT as per ISO 7388-2

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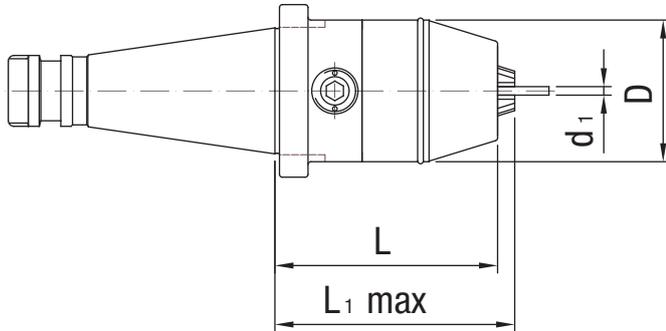
BT 40 \_\_\_\_\_ 256

## Spare parts & accessories

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Spare parts & accessories \_\_\_\_\_ 257-259

## NC Standard Drill Chuck DIN 2080, Form A



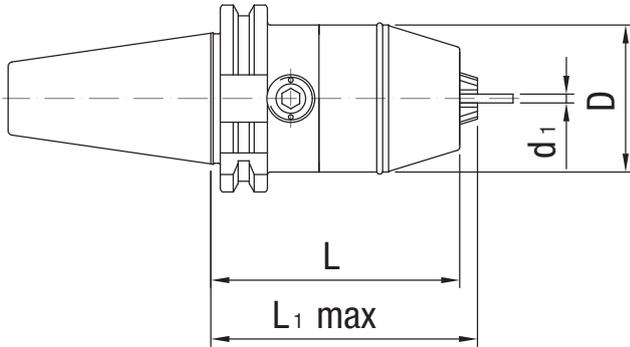
Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
40	WTE 13	0.5 - 13	50	78	84	1.5	10.297.40.13	30342426
40	WTE 16	2.5 - 16	57	78	86	1.7	10.297.40.16	30342427

Dimensions in mm.

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

# NC Standard Drill Chuck ISO 7388-1, Form A

(prev. DIN 69871-A)

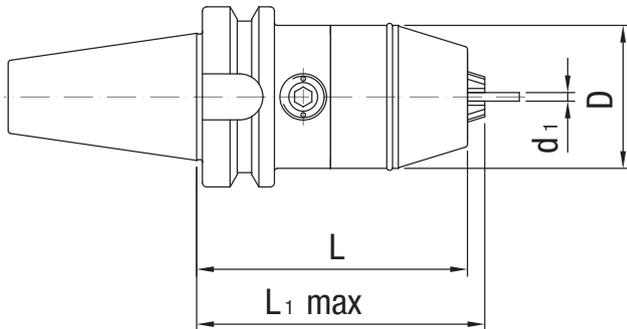


Nominal size SK/ISO	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
40	WTE 13	0.5 - 13	50	84	90	1.5	11.297.40.13	30342428
40	WTE 16	2.5 - 16	57	84	92	1.7	11.297.40.16	30342429

Dimensions in mm.

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

## NC Standard Drill Chuck ISO 7388-2 (JIS 6339)

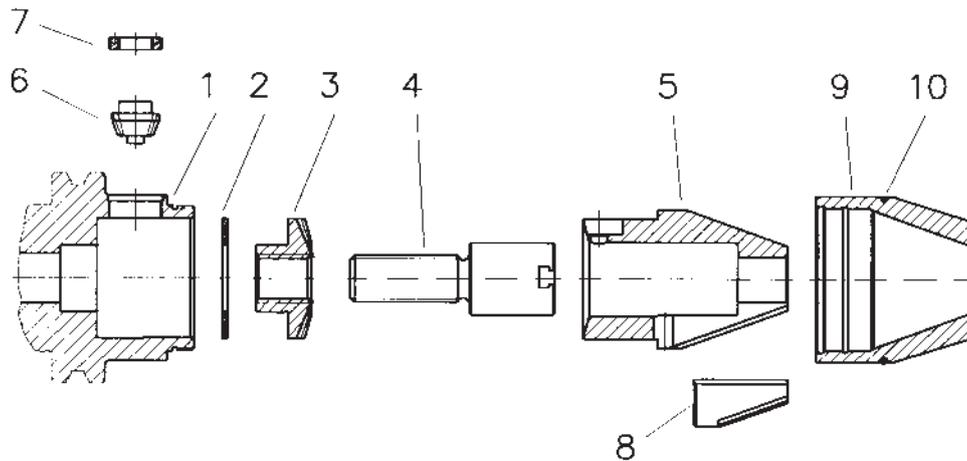


Nominal size BT	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	$D$	$L$			
40	WTE 13	0.5 - 13	50	94	100	1.8	20.297.40.13	30342430
40	WTE 16	2.5 - 16	57	94	102	2	20.297.40.16	30342431

Dimensions in mm.

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

## Spare parts for NC Standard Drill Chuck



For design WTE 13

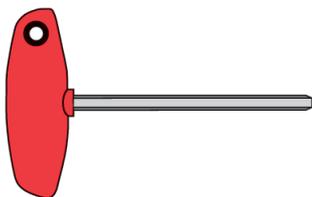
No.	Description	Order designation	Order No.
2	Stop disc	89.213.10	30266155
3	Bevel gear	89.213.06	30266195
4	Spindle	89.213.103	30336465
5	Expansion cone	89.213.101	30336463
6	Pinion	89.213.102	30336464
7	Pinion screw	89.213.08	30266193
8	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
9	Sleeve	89.213.100	30336462
10	O-ring, red	89.213.39	30346068

For design WTE 16

No.	Description	Order designation	Order No.
2	Stop disc	89.213.10	30266155
3	Bevel gear	89.213.06	30266195
4	Spindle	89.216.103	30336485
5	Expansion cone	89.216.101	30336484
6	Pinion	89.213.102	30336464
7	Pinion screw	89.213.08	30266193
8	Clamping jaws (1 set = 3 pieces)	89.213.03	30266139
9	Sleeve	89.216.100	30336483
10	O-ring, red	89.216.39	30263595

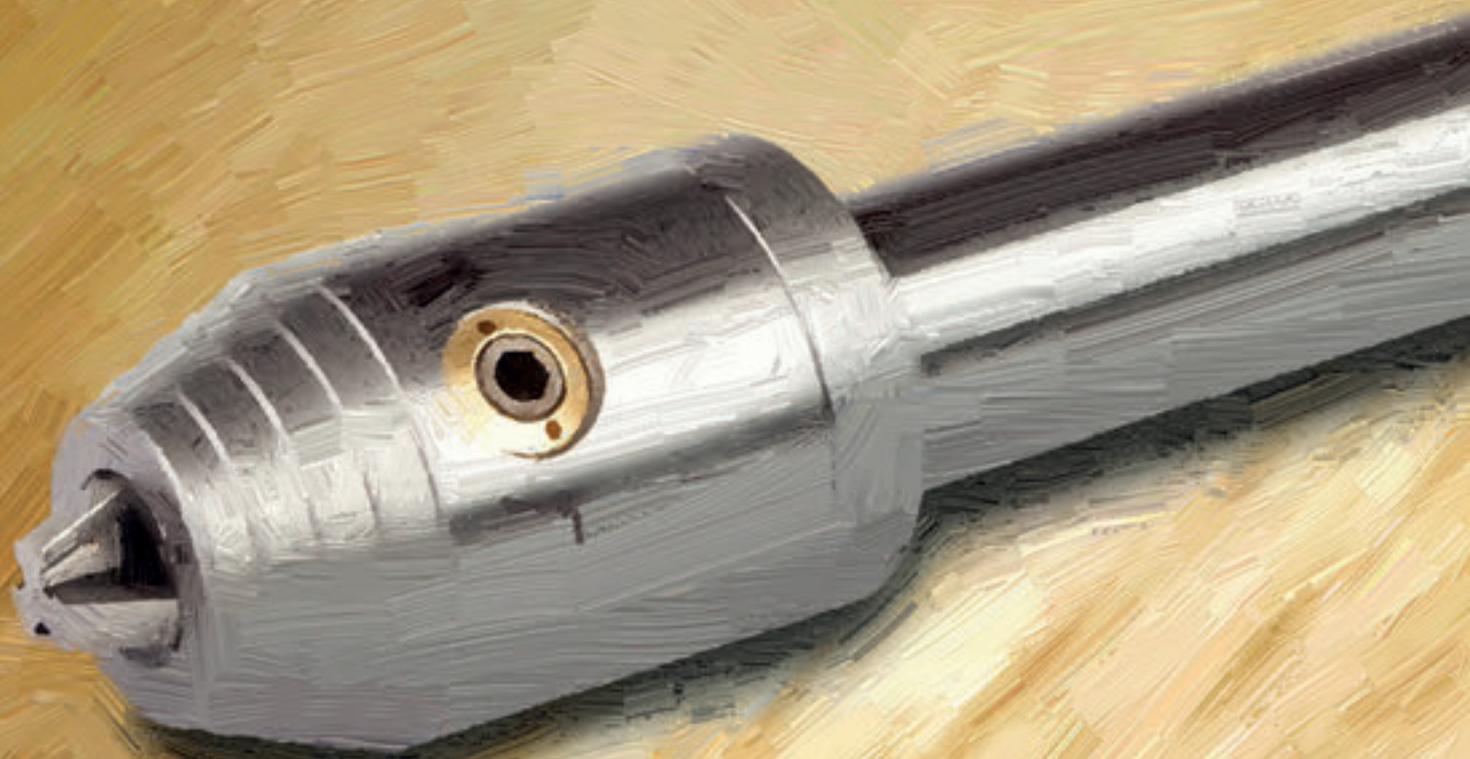
## Hexagonal T-key

For pinion activation



sw	l	Weight [kg]	Order designation	Order No.
6	100	0.03	89.206.06	10006237





# MICRO UNIVERSAL CHUCKS

## Version 340

### Shank form SK as per ISO 7388-1

SK 30 _____	262
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### Shank form BT as per ISO 7388-2

BT 30 _____	262
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### Shank form HSK

HSK-A 32/40/50/63 _____	263
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HSK-E 25/32/40/50 _____	264
-------------------------	-----

### Cylindrical shank

Cylindrical shank _____	265
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### Accessories

Accessories _____	269
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## Version 640

### Shank form SK as per ISO 7388-1

SK 30 _____	266
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### Shank form BT as per ISO 7388-2

BT 30 _____	266
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### Shank form HSK

HSK-A 32/40/50 _____	267
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HSK-E 25/32/40 _____	268
----------------------	-----

### Cylindrical shank

Cylindrical shank _____	269
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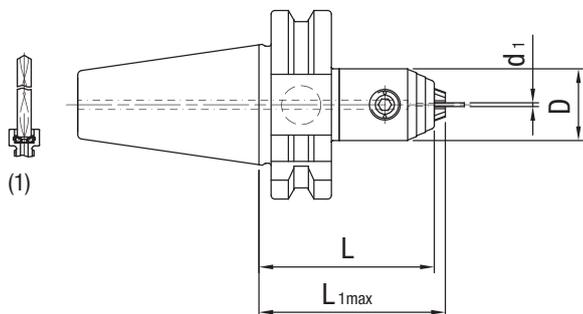
### Accessories

Accessories _____	269
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# MICRO Universal Chuck 340

ISO 7388-1, Form AD (prev. DIN 69871-AD)

ISO 7388-2 (JIS B6339) coolant supply as per ISO 7388-2, Form JD

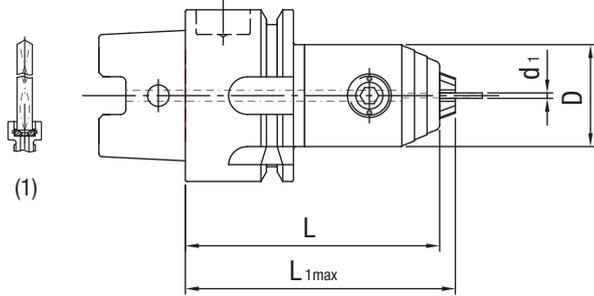


Nominal size Shank	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
SK 30	WTE 03	0.2-3.4	19	45	48	0.41	15.236.30.03.Z	30439744
BT 30	WTE 03	0.2-3.4	19	48	51	0.47	22.236.30.03.Z	30439751

(1) WTE 03 sealing disk ( $\varnothing$  0.5 mm) included in scope of supply, for inner coolant drills  $\varnothing$  0.7-3.4 mm with smooth shank acc. to DIN 6535 Form HA.

# MICRO Universal Chuck 340

DIN 69893-A



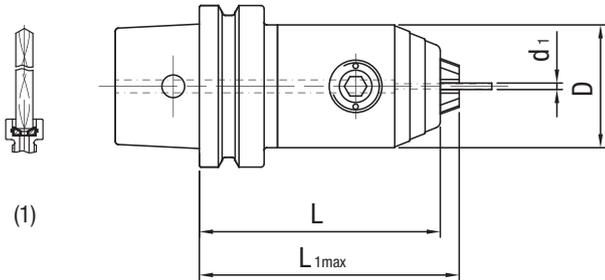
Nominal size HSK-A	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
32	WTE 03	0.2-3.4	19	46	49	0.16	16.236.32.03.Z	30439728
40	WTE 03	0.2-3.4	19	46	49	0.24	16.236.40.03.Z	30439736
50	WTE 03	0.2-3.4	19	52	55	0.43	16.236.50.03.Z	30439739
63	WTE 03	0.2-3.4	19	52	55	0.7	16.236.63.03.Z	30633696

(1) WTE 03 sealing disk (ø 0.5 mm) included in scope of supply, for inner coolant drills ø 0.7-3.4 mm with smooth shank acc. to DIN 6535 Form HA.

Dimensions in mm.  
Custom designs available on request.

# MICRO Universal Chuck 340

DIN 69893-E

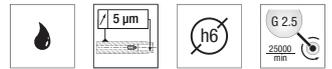
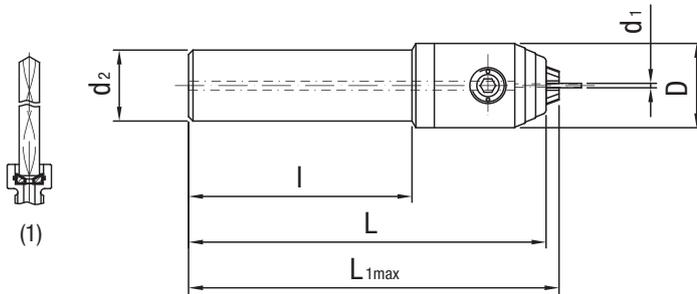


Nominal size HSK-E	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
25	WTE 03	0.2-3.4	19	37	40	0.1	18.236.25.03.Z	30439663
32	WTE 03	0.2-3.4	19	46	49	0.17	18.236.32.03.Z	30439686
40	WTE 03	0.2-3.4	19	46	49	0.25	18.236.40.03.Z	30439722
50	WTE 03	0.2-3.4	19	52	55	0.44	18.236.50.03.Z	30564786

(1) WTE 03 sealing disk (ø 0.5 mm) included in scope of supply, for inner coolant drills ø 0.7-3.4 mm with smooth shank acc. to DIN 6535 Form HA.

# MICRO Universal Chuck 340

With cylindrical shank, diameter 10 / 16 / 20 mm, for WTE Norm 03



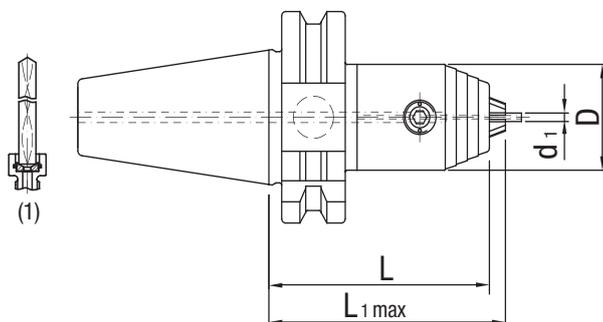
Nominal size Shank	WTE Norm	Clamp. range	Dimensions					Weight [kg]	Order designation	Order No.
			$d_1$	D	$d_2$	L	$L_1$ max.			
10	WTE 03	0.2-3.4	19	10	70	73	40	0.08	40.257.10.03.Z	30500299
10	WTE 03	0.2-3.4	19	10	100	103	70	0.09	40.257.10.03.Z/100	30500301
10	WTE 03	0.2-3.4	19	10	160	163	130	0.13	40.257.10.03.Z/160	30500302
16	WTE 03	0.2-3.4	19	16	80	83	50	0.13	40.257.16.03.Z	30439821
16	WTE 03	0.2-3.4	19	16	100	103	70	0.16	40.257.16.03.Z/100	30439832
16	WTE 03	0.2-3.4	19	16	160	163	130	0.26	40.257.16.03.Z/160	30439837
20	WTE 03	0.2-3.4	19	20	80	83	52	0.17	40.257.20.03.Z	30439755
20	WTE 03	0.2-3.4	19	20	100	103	72	0.21	40.257.20.03.Z/100	30439758
20	WTE 03	0.2-3.4	19	20	160	163	132	0.36	40.257.20.03.Z/160	30439763

(1) WTE 03 sealing disk ( $\varnothing$  0.5 mm) included in scope of supply, for inner coolant drills  $\varnothing$  0.7-3.4 mm with smooth shank acc. to DIN 6535 Form HA.

# MICRO Universal Chuck 640

ISO 7388-1, Form AD (prev. DIN 69871-AD)

ISO 7388-2 (JIS 6339) coolant supply as per ISO 7388-2, Form JD

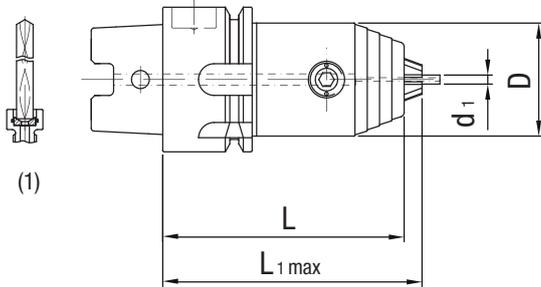


Nominal size Shank	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
SK 30	WTE 06	0.2-6.4	25	55	59	0.8	15.266.30.06.Z	30564796
BT 30	WTE 06	0.2-6.4	25	58	62	0.9	22.266.30.06.Z	30564869

(1) WTE 06 sealing disk ( $\varnothing$  0.5 mm) included in scope of supply, for inner coolant drills  $\varnothing$  0.7-6.4 mm with smooth shank acc. to DIN 6535 Form HA.

# MICRO Universal Chuck 640

DIN 69893-A

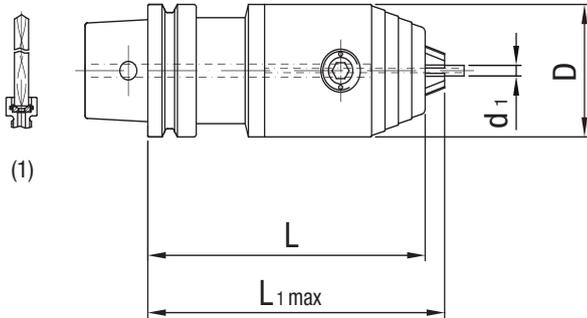


Nominal size HSK-A	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			d <sub>1</sub>	D	L			
32	WTE 06	0.2-6.4	25	54	58	0.3	16.266.32.06.Z	30564811
40	WTE 06	0.2-6.4	25	54	58	0.4	16.266.40.06.Z	30564819
50	WTE 06	0.2-6.4	25	61	65	0.4	16.266.50.06.Z	30564823

(1) WTE 06 sealing disk (ø 0.5 mm) included in scope of supply, for inner coolant drills ø 0.7-6.4 mm with smooth shank acc. to DIN 6535 Form HA.

# MICRO Universal Chuck 640

DIN 69893-E

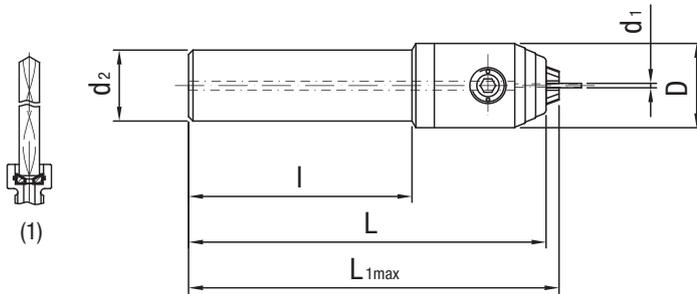


Nominal size HSK-E	WTE Norm	Clamping range	Dimensions			Weight [kg]	Order designation	Order No.
			$d_1$	D	L			
25	WTE 06	0.2-6.4	25	60	64	0.3	18.266.25.06.Z	30564833
32	WTE 06	0.2-6.4	25	54	58	0.3	18.266.32.06.Z	30564839
40	WTE 06	0.2-6.4	25	54	58	0.4	18.266.40.06.Z	30564844

(1) WTE 06 sealing disk (ø 0.5 mm) included in scope of supply, for inner coolant drills ø 0.7-6.4 mm with smooth shank acc. to DIN 6535 Form HA.

# MICRO Universal Chuck 640

With cylindrical shank, diameter 16 / 20 mm, für WTE Norm 06

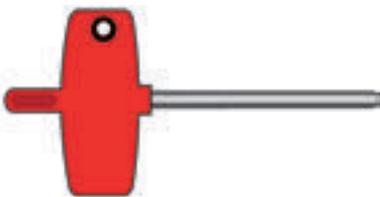


Nominal size Shank	WTE Norm	Clamp. range	Dimensions					Weight [kg]	Order designation	Order No.
			$d_1$	D	$d_2$	L	$L_1 \text{ max.}$			
16	WTE 06	0.2-6.4	25	16	100	104	60	0.3	40.257.16.06.Z	30564901
16	WTE 06	0.2-6.4	25	16	150	154	110	0.5	40.257.16.06.Z/150	30564903
16	WTE 06	0.2-6.4	25	16	200	204	160	0.7	40.257.16.06.Z/200	30564905
20	WTE 06	0.2-6.4	25	20	100	104	60	0.4	40.257.20.06.Z	30564907
20	WTE 06	0.2-6.4	25	20	150	154	110	0.6	40.257.20.06.Z/150	30565004
20	WTE 06	0.2-6.4	25	20	200	204	160	0.8	40.257.20.06.Z/200	30565008

(1) WTE 06 sealing disk ( $\varnothing$  0.5 mm) included in scope of supply, for inner coolant drills  $\varnothing$  0.7-6.4 mm with smooth shank acc. to DIN 6535 Form HA.

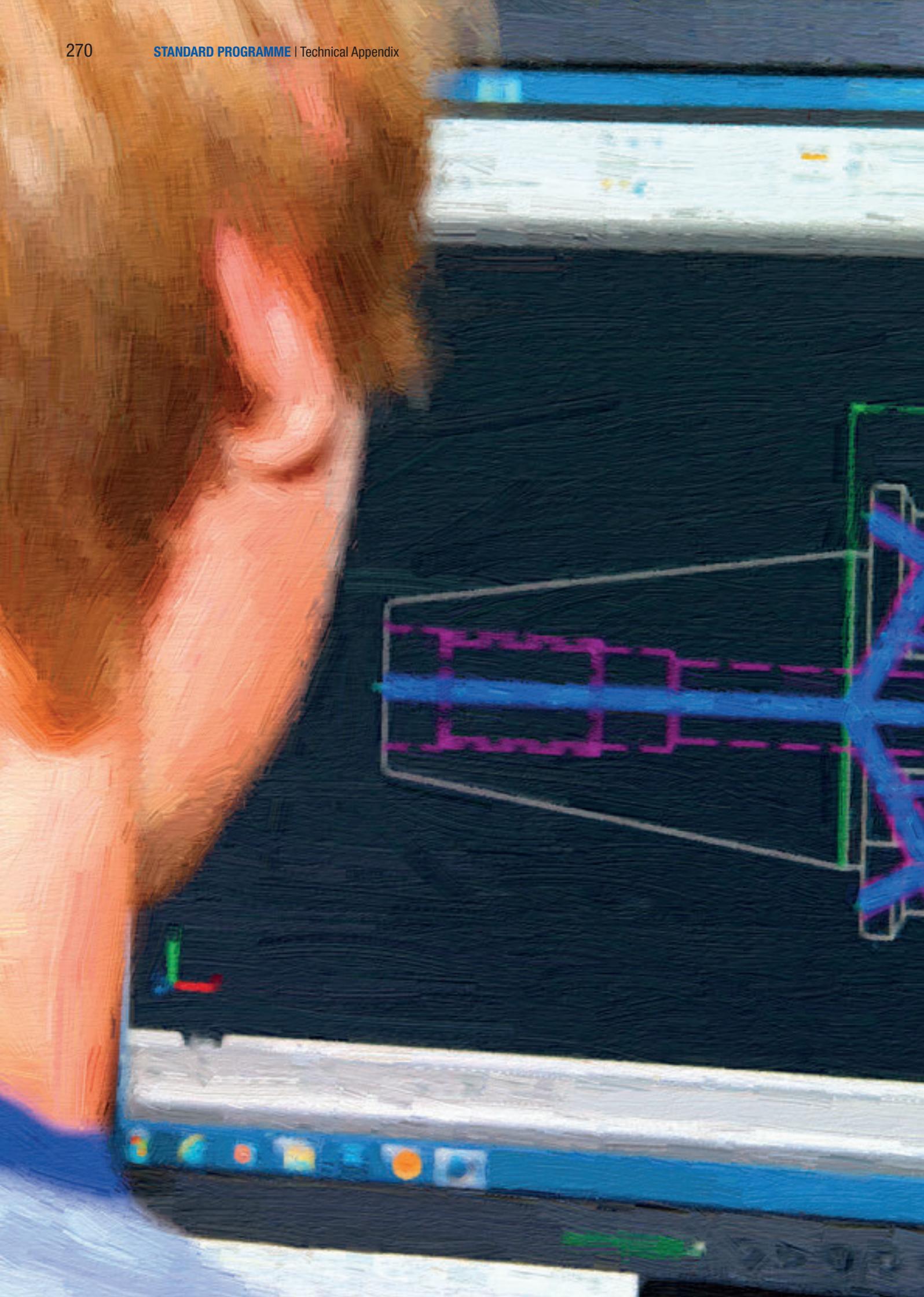
## Hexagonal T-key

For pinion activation



sw	l	Weight [kg]	WTE Norm	Order designation	Order No.
2	60	0.01	WTE 03	89.206.08	30435838
2.5	60	0.01	WTE 06	89.206.10	10098110

Dimensions in mm.  
Custom designs available on request.



# TECHNICAL APPENDIX

In the following chapter, you will find technical information and handling instructions for our chucks. In addition to the fundamental technical information regarding different chuck types, you will get important information on maintenance and service topics. You will also find information on handling, areas of applications and functional principles.

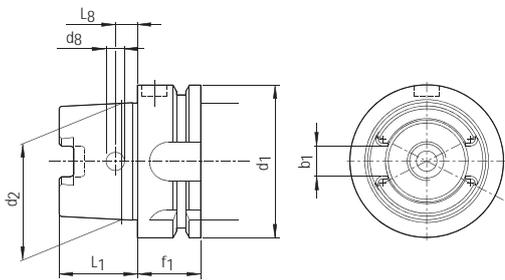
## Technical Appendix

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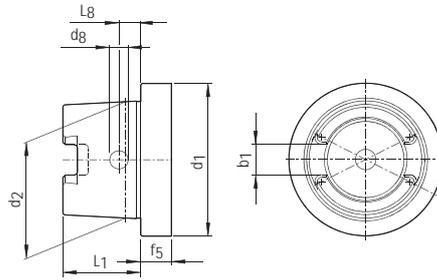
Standards	272-275
Hydraulic clamping technologies	276-284
Shrink technologies	285-288
Drill chuck technologies	289-291
Micro technologies	292-293
General	294-299

# HSK standard

For hollow shanks DIN 69893-1 HSK-A, HSK-C



HSK-A for automatic and manual tool change

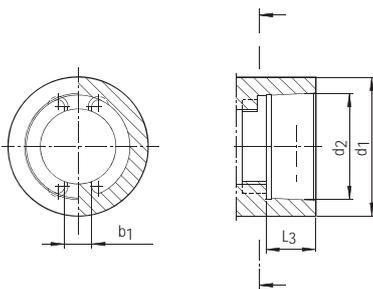


HSK-C for manual tool change

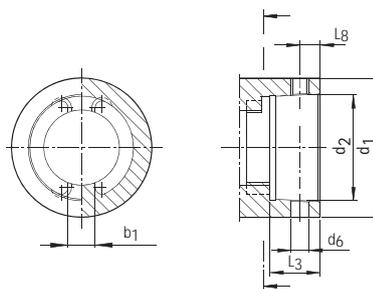
		HSK size					
Nominal size	$d_1$ h10	32	40	50	63	80	100
Taper diameter	$d_2$	24.007	30.007	38.009	48.01	60.012	75.013
Shank length	$L_1$ 0/-0.2	16	20	25	32	40	50
Slot width	$b_1$ +/-0.04	7.05	8.05	10.54	12.54	16.04	20.02
Bore diameter	$d_3$	4	4,6	6	7,5	8,5	12
Bore spacing	$L_8$ +/-0.1	5	6	7,5	9	12	15
Flange width HSK-A	$f_1$ 0/-0.1	20	20	26	26	26	29
Flange width HSK-C	$f_5$	10	10	12.5	12.5	16	16

# HSK standard

For connections DIN 69093-1 HSK-A, HSK-C



HSK-A for automatic tool change



HSK-C for manual tool change

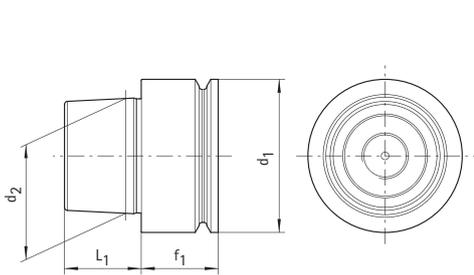
		HSK size					
Nominal size	$d_1$	32	40	50	63	80	100
Taper diameter	$d_2$	23.998	29.998	37.998	47.998	59.997	74.997
Depth	$L_3$ +0.2	11.4	14.4	17.9	22.4	28.4	35.4
Driving element width	$b_1$ +/-0.05	6.8	7.8	10.3	12.3	15.8	19.78

Additional for HSK-C

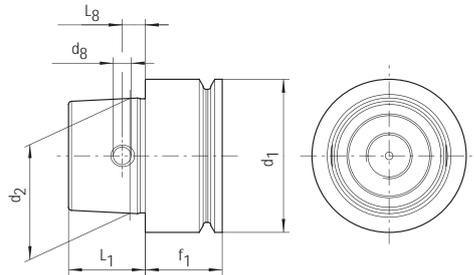
Bore diameter	$d_6$	4	5	6	8	9	11
Bore spacing	$L_8$ +/-0.1	5	6	7.5	9	12	15

# HSK standard

For hollow shanks DIN 69893-5, HSK-E and DIN 69893-6, HSK-F

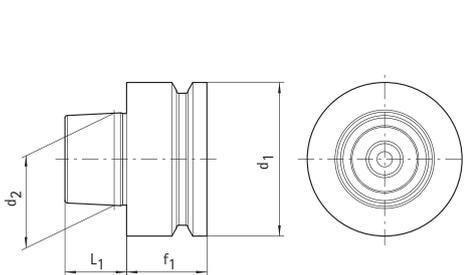


HSK-E  
for automatic tool change

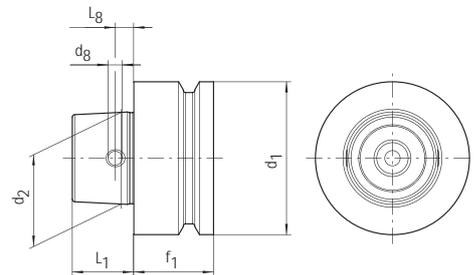


HSK-E for  
automatic and manual tool change

		HSK size				
Nominal size	$d_1$ h10	25	32	40	50	63
Taper diameter	$d_2$	19,006	24,007	30,007	38,009	48,01
Shank length	$L_1$ 0/-0,2	13	16	20	25	32
Bore diameter	$d_8$	3,7	4	4,6	6	7,5
Bore spacing	$L_8$ +/-0,1	4	5	6	7,5	9
Flange width HSK-E	$f_1$ 0/-0,1	10	20	20	26	26



HSK-F for automatic tool change



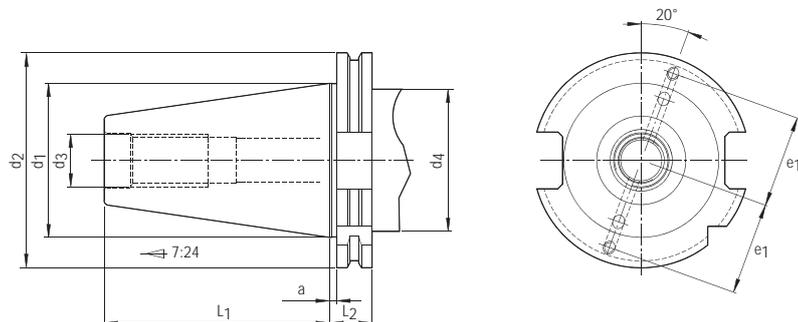
HSK-F for automatic and manual tool change

		HSK size				
Nominal size	$d_1$ h10	50	63	80		
Taper diameter	$d_2$	30.007	38.009	48.01		
Shank length	$L_1$ 0/-0.2	20	25	32		
Bore diameter	$d_8$	4.6	6	7.5		
Bore spacing	$L_8$ +/-0.1	6	7.5	9		
Flange width HSK-F	$f_1$ 0/-0.1	26	26	26		

Dimensions in mm.

## SK standard

For tool shanks SK in accordance with ISO 7388-1

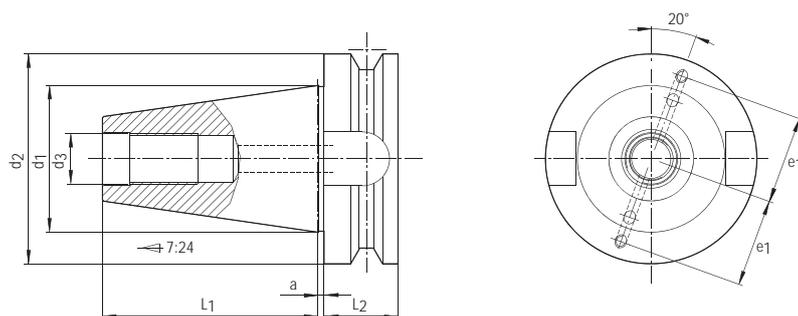


For automatic tool change Form A, Form AD, Form AF and design with data carrier

	SK size			
	30	40	45	50
a +/-0.1	3.2	3.2	3.2	3.2
d <sub>1</sub>	31.75	44.45	57.15	69.85
d <sub>2</sub> 0/-0.1	50	63.55	82.55	97.5
d <sub>3</sub>	M 12	M 16	M 20	M 24
d <sub>4</sub> max.	45	50	63	80
e <sub>1</sub> +/-0.1	21	27	35	42
L <sub>1</sub> 0/-0.3	47.8	68.4	82.7	101.75
L <sub>2</sub> 0/-0.1	19.1	19.1	19.1	19.1

## BT standard

For tool shanks BT in accordance with ISO 7388-2



For automatic tool change Form J, Form JF, Form JD and design with data carrier

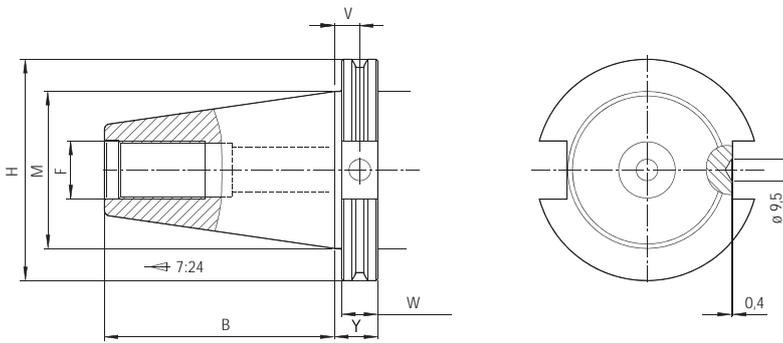
	SK size		
	30	40	50
a +/-0.4*	2	2	3
d <sub>1</sub>	31.75	44.45	69.85
d <sub>2</sub> h8	46	63	100
d <sub>3</sub>	M 12	M 16	M 24
e <sub>1</sub> +/-0.1	20	27	42
L <sub>1</sub> +/-0.2	48.4	65.4	101.8
L <sub>2</sub> min.	22	27	38

\* + 0.1 for Form JF

Dimensions in mm.

# SK standard

For steep taper shanks with V-flange module in accordance with ASME B5.50-1994 (MN633)



		SK size			
		30	40	45	50
B	+/-0.1	47.65	68.25	82.55	101.6
F	UNC-2B	1/2"-13	5/8"-11	3/4"-10	1"-8
H	+/-0.5	46.02	63.5	82.55	98.43
M	+/-0.13	31.75	44.45	57.15	69.85
V	+/-0.25	11.2	11.2	11.2	11.2
W	+/-0.05	15.88	15.88	15.88	15.88
Y	+/-0.05	19.05	19.05	19.05	19.05

# 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

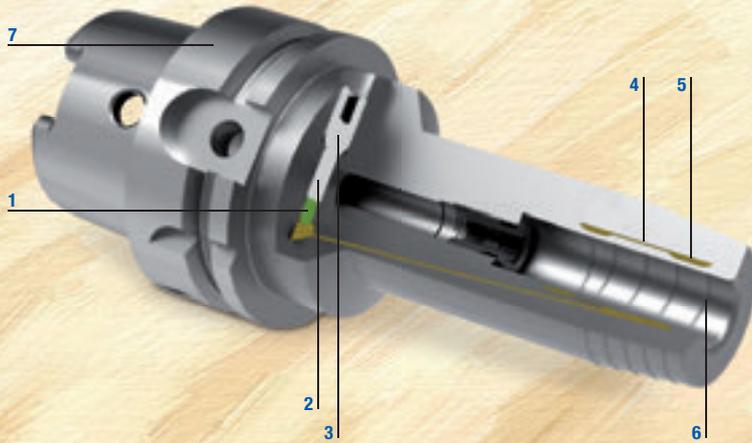
Chucks for automatic tool change as per:  
ISO 7388-1 (DIN 69871); DIN 69893-A, DIN 69893-F, DIN 69893-E and  
ISO 7388-2 (JIS B6339)

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

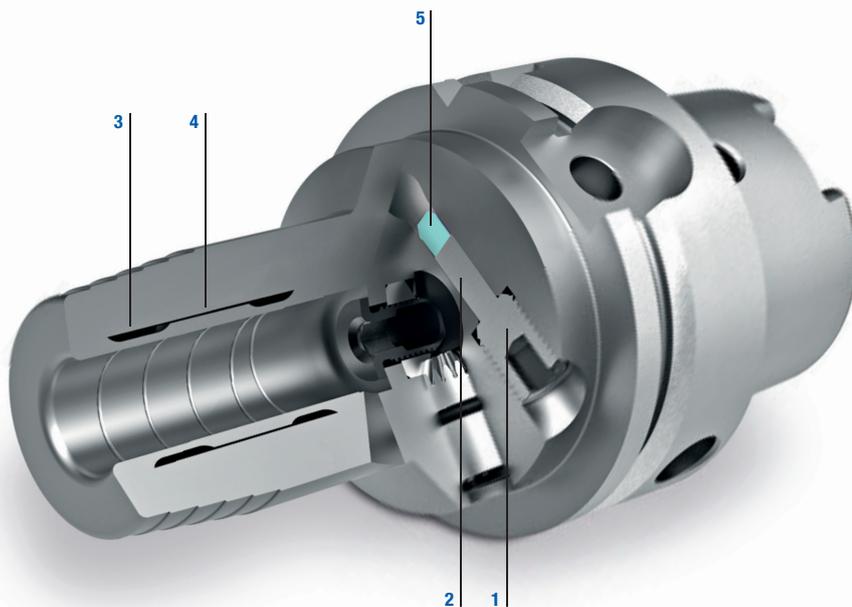
## Elements of the hydraulic clamping technology



- 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

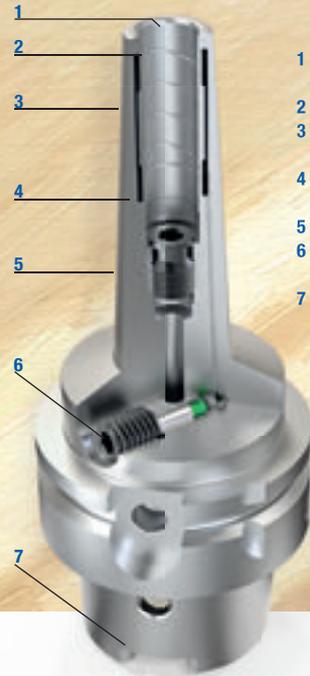
On clamping using hydraulic clamping technology, an even pressure is built up in a sealed chamber system using a clamping screw and a piston. This pressure is applied to the tool via the built-in expanding sleeve.



- 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

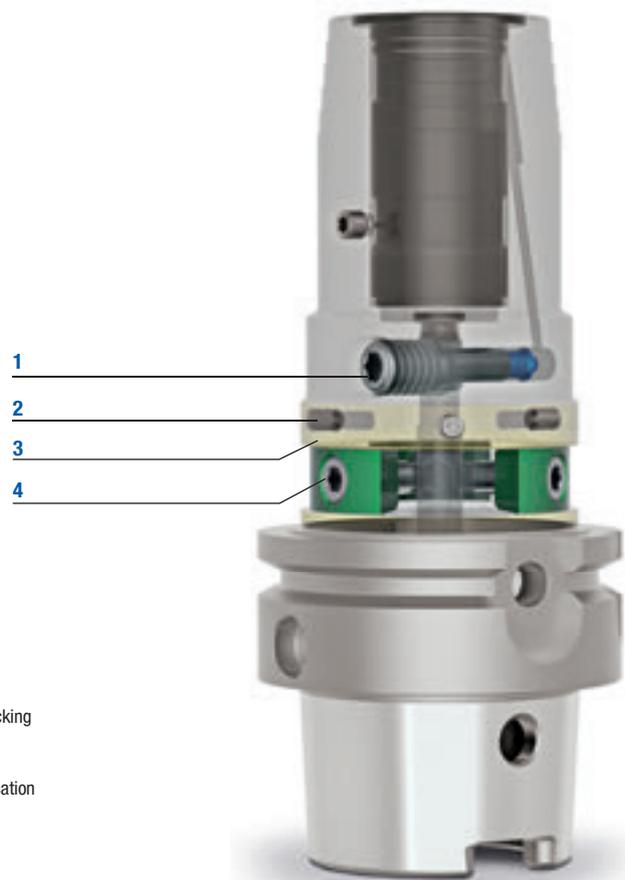
WTE achieves a revolution in clamping technology with the new HPH technology with slender contour. For the first time it has become possible to utilise the benefits of a hydraulic chuck in an even wider field of applications. On the one hand, the new chuck has a slender contour with the 3° back taper 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.

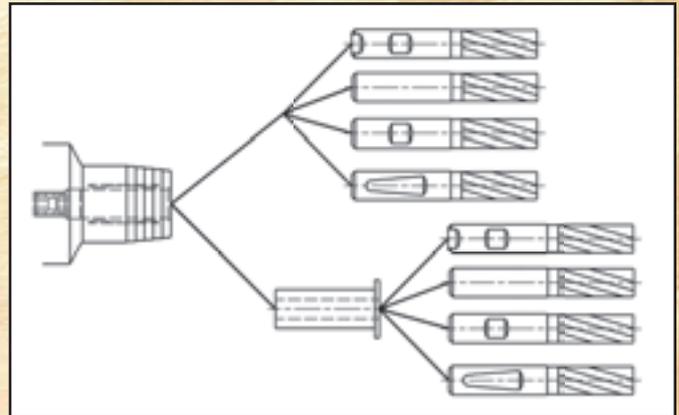
As a consequence it is recommended to have the hydraulic chuck checked by our repair service.

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.

## Technical data, WTE hydraulic chucks

- Material 1600-1800 N/mm<sup>2</sup> tensile strength
- Hardness 52 + 2HRc
- Tool holder balanced
- Laser marked
- Max. spindle speed 40000 min<sup>-1</sup> (note spindle speed limit for connection, fine balancing recommended!)
- Operating temperature 20-50 °C; higher temperatures on request, do not use above 80 °C
- Coolant pressure maximum 80 bar
- Adjustment travel 10 mm
- Shanks suitable for clamping (tolerance h6) with and without reducing sleeves:
  - DIN 1835 Form A, B, C, D
  - DIN 6535 Form H, HB, HE



## Permissible transferable torques, WTE hydraulic chucks

### Transferable torques with direct clamping (torque figures in Nm)

Clamping diameter in mm	6	8	10	12	14	16	18	20	25	32
Minimum clamping depth in mm	27	27	31	36	36	39	39	41	47	51
Minimum shank value h6	20	30	47	80	100	160	200	330	400	650
Maximum shank value h6	30	45	85	140	160	230	270	400	470	730

### Transferable torques for WTE hydraulic chucks, clamping diameter 32 mm with reducing sleeve (torque figures in Nm)

Clamping diameter in mm	6	8	10	12	14	16	18	20	25
Minimum shank value h6	30	45	60	120	120	180	220	250	360
Maximum shank value h6	45	65	110	170	170	230	300	320	440

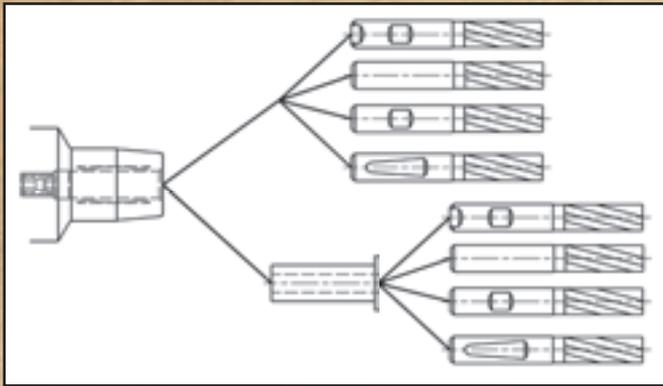
### Transferable torques for WTE hydraulic chucks, clamping diameter 20 mm with reducing sleeve (torque figures in Nm)

Clamping diameter in mm	3	4	5	6	8	10	12	14	16
Minimum shank value h6	6	9	16	30	55	90	120	135	190
Maximum shank value h6	10	12	22	40	75	120	150	170	260

### Transferable torques for WTE hydraulic chucks, clamping diameter 12 mm with reducing sleeve (torque figures in Nm)

Clamping diameter in mm	3	4	5	6	8
Minimum shank value h6	3	4	7	12	18
Maximum shank value h6	4	8	12	20	26

## Technical data, WTE HPH - High Performance Holder



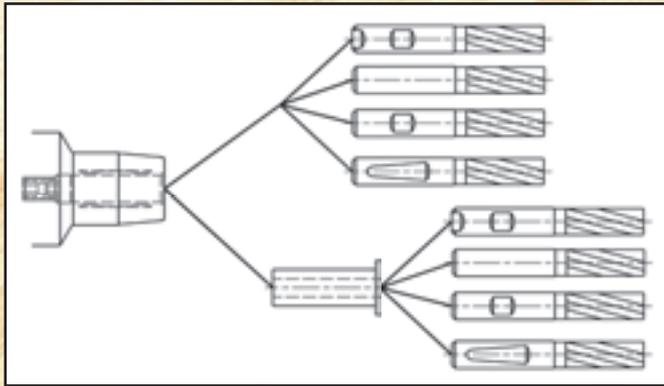
- Material 1600-1800 N/mm<sup>2</sup> tensile strength
- Hardness 52 + 2HRC
- Tool holder balanced
- Laser labelling
- Max. spindle speed 40000 min<sup>-1</sup> (note spindle speed limit for connection, fine balancing recommended!)
- Operating temperature 20-120 °C;
- Coolant pressure maximum 80 bar
- Adjustment travel 10 mm
- Shanks suitable for clamping (tolerance h6) with and without reducing sleeves:
  - DIN 1835 Form A, B, C, D
  - DIN 6535 Form H, HB, HE

## Permissible transferable torques, HPH - High Performance Holder

### Transferable torques with direct clamping (torque figures in Nm)

Clamping diameter in mm	6	8	10	12	14	16	18	20	25	32
Minimum clamping depth in mm	27	27	31	36	36	39	39	41	47	51
Minimum shank value h6	30	50	100	150	210	280	360	550	650	800
Maximum shank value h6	40	65	135	190	280	380	450	650	750	890

## Technical data, WTE HPH 3° Multi



- Workpiece material tensile strength 1600 N/mm<sup>2</sup>
- Hardness of location bore 46+2HRc / machine connection 52+2HRc
- Tool holders balanced as standard
- Laser labelling
- Maximum spindle speed 40000 min<sup>-1</sup> (note spindle speed limit for connection, fine balancing recommended)
- Operating temperature 20-120 °C
- Coolant pressure maximum 80 bar
- Adjustment travel 10 mm
- Shanks suitable for clamping (tolerance h6) with and without reducing sleeves:
  - DIN 1835 Form A, B, E
  - DIN 6535 Form H, HB, HE

## Permissible transferable torques, HPH 3° Multi

### Transferable torques with direct clamping (torque figures in Nm)

Clamping diameter in mm	6	8	10	12
Minimum clamping depth in mm	27	27	31	36
Transferable torque in Nm (minimum value h6)	20	35	65	110
Transferable torque in Nm (maximum value h6)	35	55	90	150

## Shrinking technology

Shrinking technology makes use of thermally-related expansion for tool clamping. An induction coil heats the shrink chuck. The chuck expands, the cold tool shank can be inserted. The shrink chuck is cooled down again, contracts and forms a connection with force closure due to the oversize on the tool shank.



### Advantages of WTE shrink chucks

- Simple construction of the tool holder
- High radial run-out accuracy of the tool clamping
- Safe force transmission
- Slim design
- Cost-effectiveness
- High torque transmission
- Long service life and thermal stability due to the use of high-strength hot work steel
- Free of distortion due to optimum heat treatment
- Optimum balancing value
- From clamping diameter 6 mm as standard with weight thread boring
- Design conforms to DIN 69882-8
- High positioning and repetition precision
- Guaranteed maximum radial run-out accuracy – maximum 3 µm
- Laser marking for reliable product traceability
- Continuous further development and repair service
- Products certified to DIN EN ISO 9001:2008 - manufactured in Germany
- Flexible shrink system due to the usage of WTE tool extensions for thermal expanding chucks
- Stop screw can be adjusted from both sides

## Applications & features of WTE shrink technology

WTE shrink chucks are used on wood and metalworking machines with rotating tools. Shrink chucks make use of thermally-related expansion for tool clamping. The applications for these clamping tools range from a very wide range of milling tasks, through heavy machining, to woodworking or drilling applications.

WTE shrink chucks are in principle manufactured with internal coolant supply.

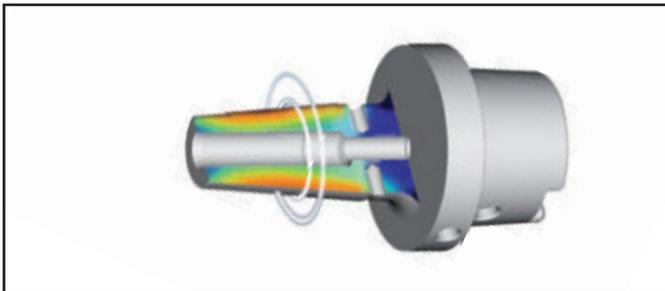
Selected product groups are also available with collar cooling. Custom designs in relation to the usage of side cooling channel bores are possible at any time on request.

For automatic tool change, WTE shrink chucks are available in the designs ISO 7388-1 (DIN 69871), DIN 69893-A, DIN 69893-E, DIN 69893-F and ISO 7388-2 (JIS B6339).

For manual tool changing in the design DIN 69893-C.



## Functional principle

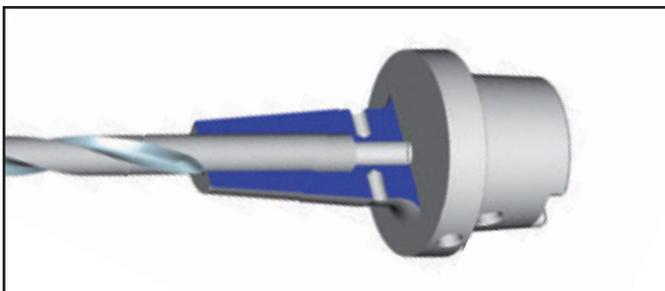


### 1. Heating the chuck

The chuck is heated specifically at the clamping point using the latest induction technology. For this purpose an induction coil generates quickly changing eddy currents that act directly on the shrink chuck and heats exactly in the place where the tool shank sits. The diameter of the bore expands.

### 2. Fitting the tool shank

The cold tool shank is inserted in the heated shrink chuck.



### 3. Cooling

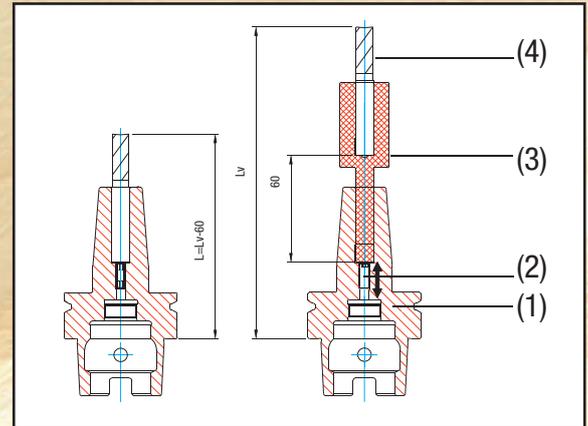
The shrink chuck is cooled, the clamping diameter returns to its original size and clamps the tool shank. A powerful device with water-cooled cooling elements makes it possible to cool the chuck within 30 seconds. As a consequence there is no heating of the taper or the data chip. It is possible to cool extensions and non-standardised shrink chucks using adapters that can be fitted to the cooling element.

### The result:

Tool changes can be realised in seconds due to the inductive heating. Shrink chuck and tool shank form a joint with force closure. It is possible to clamp carbide as well as HSS tools. The tool sits highly accurately with maximum clamping force in the tool adapter.

## Description of length adjustment

1. Prior to the shrinking process, assemble tool (4), WTE length pre-adjuster (3) and WTE shrink chuck (1) with WTE stop screw (2).
2. Set length to the final dimension for the tool by turning the length pre-adjuster (this adjuster sets the stop screw to the required dimension). The required length (L) after shrinking is given by the pre-adjusted length (L<sub>v</sub>) from  $L = L_v - 60$  mm.
3. Remove length pre-adjuster and shrink tool. The tool must sit on the stop screw.



## Additional information

### Balancing value

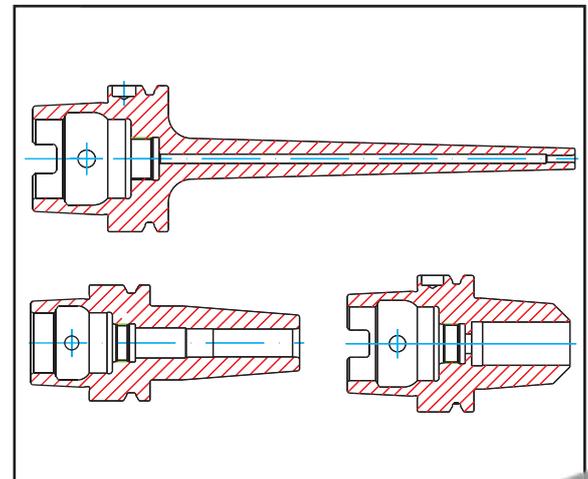
All WTE shrink chucks are balanced as standard. For the balancing value, please refer to the individual article descriptions. Should you require other balancing values, the WTE shrink chucks can be balanced to meet your requirements.

### Shrink chucks

Thanks to our many years of experience in the field of development, engineering and production of shrink chucks, we can develop shrink chucks according to your requirements and to manufacture them in a minimum of time. We look forward to receiving your enquiries.

### Shrink chucks - heavy-duty design

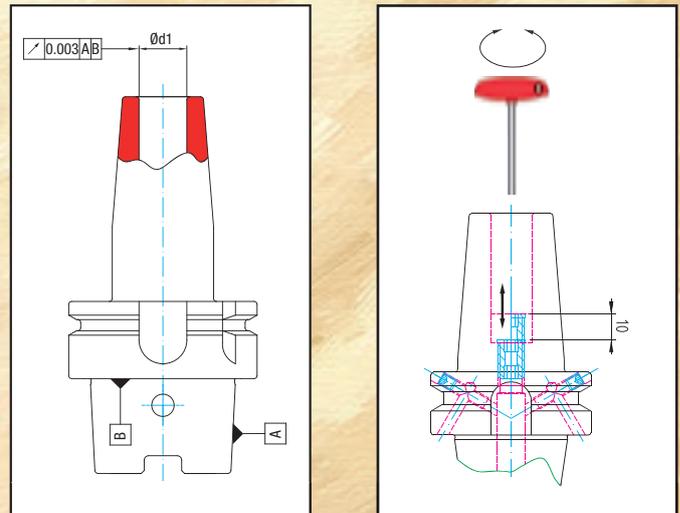
For induction shrink units with 20 KVA on request.



## Safe clamping & length adjustment

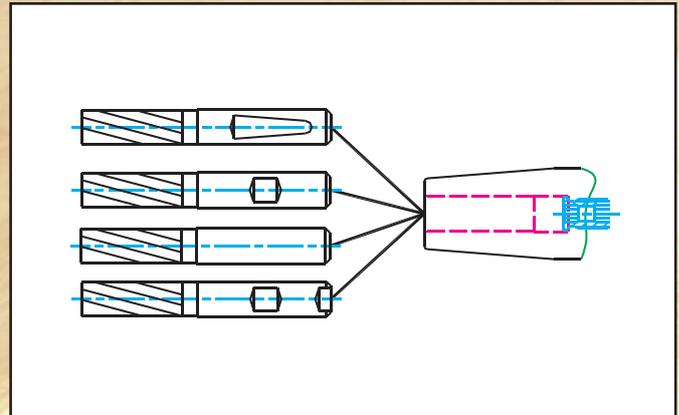
WTE shrink chucks are designed for the transmission of high transferable torques (holding forces). This characteristic is achieved by location bores and shrink fitting lengths optimally adapted to the material and the shrink units.

The length adjustment in the WTE shrink chuck is changed using an adjustment screw with an internal hexagon on both ends. There is a hole drilled through the middle of the screw for the internal coolant supply. The length adjustment can be made from both sides.



## Technical data, WTE shrink chucks

- Workpiece material 1600-1800 N/mm<sup>2</sup>
- Hardness 52 + 2HRC
- Tool holders balanced as standard
- Laser labelling
- Maximum spindle speed 40000 min<sup>-1</sup> (note spindle speed limit for connection, fine balancing recommended)
- Shrink temperature 100-420 °C
- Maximum shrink temperature 500 °C
- Coolant pressure maximum 80 bar
- Adjustment path 10 mm, from both sides
- Suitable for clamping: Cylindrical shanks, OD tolerance h6
- Shrinking and unshrinking carbide and HSS tools when using the corresponding shrink units



## Permissible transferable torques, WTE shrink chucks

### Transferable torques with direct clamping (torque figures in Nm)

Clamping diameter in mm	3	4	5	6	8	10	12	14	16	18	20	25	32
Minimum clamping depth in mm	12	16	20	26	26	31	37	37	40	40	42	48	52
Torque	4	11	17	24	45	82	145	190	200	290	450	530	700

# Precision drilling technology

## Applications for precision drilling technology

WTE NC standard drill chucks and CNC precision drill chucks are used in almost all areas of the metalworking and machining industry.

They stand out due to their precise manufacture, the individual components made of high-quality, hardened material and due to their varied possible applications. Spindle speed ranges up to 35000 revolutions per minute are possible depending on the design.

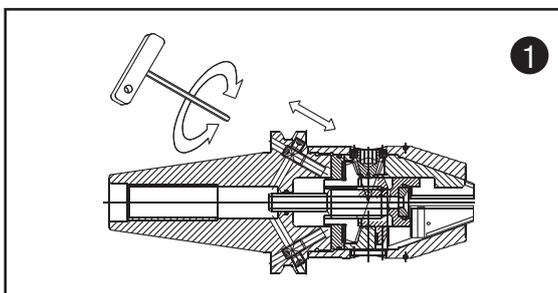
High clamping forces, improved radial run-out accuracies are also outstanding features of our drill chucks.

Depending on the model and type of application, WTE drill chucks are suitable for dry machining without coolant supply or for wet machining with central, or collar coolant supply.

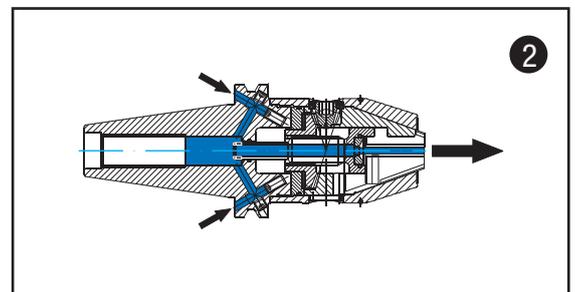


## Advantages of WTE drill chucks

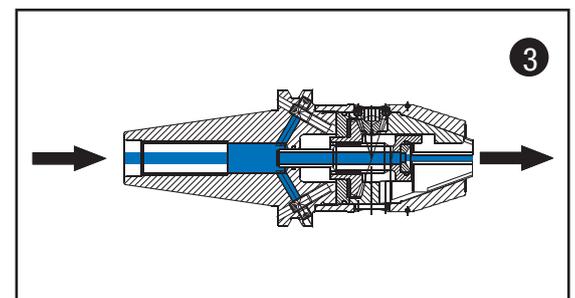
- Reliable mechanical function
- Simple handling
- Safe clamping independent of direction of rotation
- Short times for clamping and re-tooling
- Short design
- Delivery of all possible forms of machine-side tool body due to special modular WTE connection
- High torque transmission



To adjust the drill chuck from the normal setting to Form AF, screw the threaded pins into the bore provided all the way to the rear using a size 2.5 hex wrench.

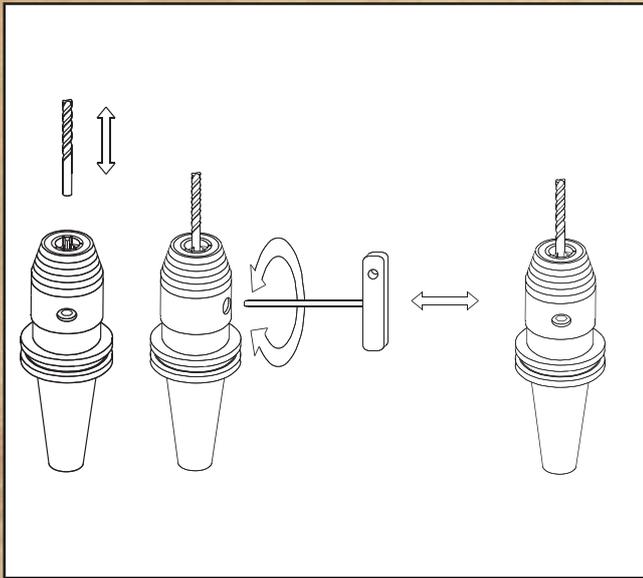


In this way the threaded pins open the coolant supply. On the machine side the coolant is sealed off by the pull stud without coolant bore.



To adjust the drill chuck back to Form AD, back off the threaded pins. The threaded pins then block off the bore. On the machine side the coolant is supplied through the pull stud with coolant bore.

## Parts and functional principle, WTE drill chucks



1. Open the clamping jaws counter clockwise to insert the related cutting tool.
2. The cutting tool must be inserted into the stop so that the tool shank is always in contact with the clamping jaws over the whole length. (Caution: Do not clamp conical shanks, as there is a risk of injury!)
3. Turn the key clockwise to the specified tightening torque (see table) to clamp the tool correctly. Extensions or tightening aids are not allowed to be used, as the bevel wheel drive may be irreparably damaged by a higher tightening torque. The pinion is the design fracture point here to prevent worse damage to the drill chuck.
4. After successful checking for correct clamping and the central alignment of the cutting tool, the drill chuck is ready for use.

## Safe clamping / care and maintenance

All WTE drill chucks are clamped at the side via a bevel wheel drive using a hexagonal T-key. During this process the key is rotated clockwise to clamp the drill chuck. The drill chuck is opened by turning counter clockwise (see marking at the pinion bore). You will find step-by-step instructions in the related operating manuals. WTE drill chucks are maintenance-free. After use, the drill chucks should be cleaned with a clean cloth. The drill chucks should be coated with oil prior to storage for corrosion protection.

### Caution:

**Do not use compressed air to clean the drill chuck as fine chips may be blown into the clamping mechanism. The drill chucks are not allowed to be cleaned using solvent or cleaning agents containing solvent, as these may cause corrosion.**



## Technical data, drill chucks

WTE Norm	WTE 08	WTE 13	WTE 16
Clamping range	0.3 - 8.0 mm	0.5 - 13.0 mm	2.5 - 16 mm
Run-out deviation, maximum	< 0.02 mm (*)	< 0.02 mm (*)	< 0.02 mm (*)
Tightening torque in relation to run-out deviation	8 Nm	15 Nm	15 Nm
Transferable torque	18 Nm (**)	40 Nm (**)	45 Nm (**)
Maximum permissible tightening torque	10 Nm	20 Nm	20 Nm
Transferable torque at maximum permissible tightening torque	30 Nm (**)	80 Nm (**)	90 Nm (**)
Maximum permissible spindle speed	35000 min <sup>-1</sup> (***)	35000 min <sup>-1</sup> (***)	35000 min <sup>-1</sup> (***)

(\*) Check on the run-out deviation as per "Precision" inspection report

(\*\*) All CNC drill chucks are clamped at the side via a bevel gear using a hexagonal T-key (see operating manual). A tightening torque of 8 Nm or 15 Nm on the hexagonal T-key is adequate for the usage of the drill chuck. The higher holding torques that can be achieved with the CNC drill chucks are to be considered additional safety and therefore not necessary for normal operation.

(\*\*\*) The CNC drill chucks are suitable for use up to 7000 min<sup>-1</sup> "unbalanced". For use at spindle speeds over 7000 min<sup>-1</sup> (up to max. 35000 min<sup>-1</sup>), e.g. for machining aluminium or wood, the drill chucks must be additionally balanced as per the balancing classes – taking into account the spindle speed and balancing value.

## WTE MICRO universal chucks

MICRO universal chucks were specially developed for clamping small shank diameters. Clamping with shrink chucks is only possible safely from a diameter of 3 mm, collet chucks have a larger tool restriction due to the union nut and the coolant supply is significantly more difficult.

MICRO universal chucks make it possible to clamp safely shanks from  $\varnothing$  0.2 mm or even micro-tools with internal cooling with a tool restriction very similar to that for shrink chucks.

These chucks are used in the watch industry, for medical technology and other areas of micro-machining due to their high radial run-out accuracy and their quick, straightforward usage and spindle speeds up to 60000 min<sup>-1</sup>.



### Advantages of WTE MICRO universal chucks

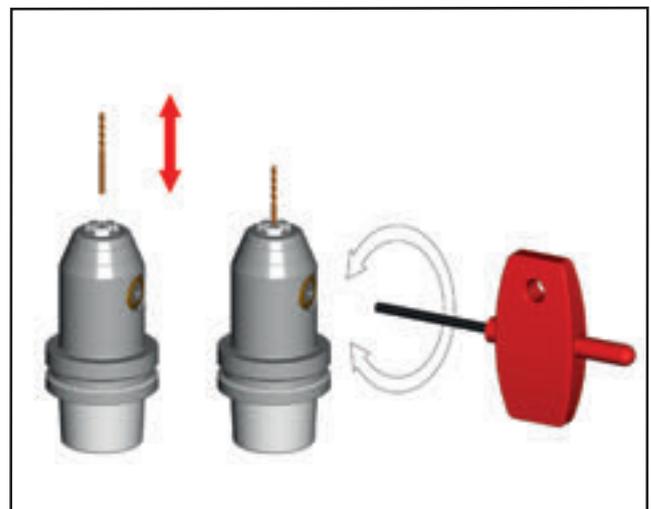
- Large clamping range from  $\varnothing$  0.2 to 6.4 mm
- Small tool restriction
- Safe, quick clamping
- Simple handling
- Available in the shank forms HSK-A, HSK-E, SK and with cylindrical shank
- For spindle speeds up to 60000 min<sup>-1</sup>

### Functional principle WTE MICRO universal chucks

1. Open the clamping jaws counter clockwise to insert the related cutting tool.
2. The cutting tool must be inserted into the stop so that the tool shank is always in contact with the clamping jaws over the whole length.

**Caution: Do not clamp conical shanks, as there is a risk of injury!**

3. Turn the key clockwise to the specified tightening torque (see table) to clamp the tool correctly. Extensions or tightening aids are not allowed to be used, as the bevel wheel drive may be irreparably damaged by a higher tightening torque.
4. After successful checking for correct clamping and the central alignment of the cutting tool, the drill chuck is ready for use.



## Safe clamping / care and maintenance

MICRO universal chucks are clamped via a bevel wheel drive using a hexagonal T-key. During this process the key is rotated clockwise to clamp the tool. The chuck is opened by turning counter clockwise (see marking at the pinion bore). WTE MICRO universal chucks are maintenance-free.

After use, the chucks should be cleaned with a clean cloth. The chucks should be coated with oil prior to storage for corrosion protection.

### Caution:

**Do not use compressed air to clean the chucks as fine chips may be blown into the clamping mechanism. Do not clean the chucks using solvent or cleaning agents containing solvent, as these may cause corrosion.**



## Technical data, MICRO universal chucks

WTE Norm	WTE 03	WTE 06
Clamping range	0.2–3.4 mm	0.2–6.4 mm
Run-out deviation, maximum	< 0,005 mm (*)	< 0,005 mm (*)
Tightening torque in relation to run-out deviation	1.5 Nm	3 Nm
Transferable torque	4.5 Nm (**)	9 Nm (**)
Maximum permissible tightening torque	2 Nm	4 Nm
Transferable torque at maximum permissible tightening torque	7 Nm (**)	12 Nm (**)
Maximum permissible spindle speed	60000 min <sup>-1</sup> (***)	60000 min <sup>-1</sup> (***)

(\*) Check on the run-out deviation as per "MICRO universal chuck" inspection report.

(\*\*) All MICRO universal chucks are clamped at the side via a bevel gear using a hexagonal T-key. A tightening torque of 1.5 Nm (WTE 03) or 3 Nm (WTE 06) at the hexagonal T-key is adequate for the usage of the MICRO universal chuck. The higher holding torques that can be achieved with the MICRO universal chucks are to be considered an additional safety margin and are not necessary for normal usage.

(\*\*\*) The MICRO universal chucks are suitable for usage up to 18000 min<sup>-1</sup> "unbalanced". For usage at spindle speeds from 18000 min<sup>-1</sup> up to 60000 min<sup>-1</sup> (e.g. for machining aluminium or wood) the MICRO universal chucks must also be balanced as per the balancing classes – taking into account the application and balancing value.

# WTE Präzisionstechnik GmbH - Delivery and Payment Conditions

For tools, special tools, machines in accordance with the directives and conditions of the VDMA and of the precision tools specialist community

## I. OFFER

1. Any and all information pertaining to weights, dimensions, performance and other technical data contained in Supplier's illustrations and drawings shall be deemed to be only approximate unless stipulated as being definitive. The Supplier reserves all rights of title, ownership and copyright to any and all illustrations, sketches, drawings, gauges, samples etc. included with his quotations and deliveries; said items shall not be made available third parties without Supplier's express consent.
2. Purchaser shall be solely responsible for the documentation, plans, samples etc. to be provided by Purchaser. Purchaser shall be responsible for ensuring that design drawings submitted by Purchaser do not infringe upon the industrial property rights of third parties. Supplier shall be under no obligation to Purchaser to review whether any industrial property rights of third parties may be infringed upon through the submittal of quotations. Should liability nevertheless arise, Purchaser shall save and hold Supplier harmless thereof. This will not be valid with in-tention or culpable negligence of the owner or responsible employee.
3. Samples shall be supplied only against invoice.

## II. DELIVERY SCOPE

1. The written order confirmation of the supplier is authoritative for the delivery scope, in case he has submitted an offer containing a binding time and an acceptance in due time, if no written order confirmation is sent in due time. Alterations and oral agreements have to be confirmed by the supplier in written form.
2. If ordering special tooling the order quantity may be reduced or exceeded by 10% but at least 2 units. The delivered quantity will be charged.

## III. PRICING AND PAYMENT

1. If not specially agreed, the pricing is ex factory, excluding packing, freight and/or postage and transport insurance and value added tax.
2. The prices are charged in Euro.
3. Invoices are payable cash, without any deduction, free WTE, within 14 days from date of invoice with 2% discount, but at least with 30 days net. This is also valid for partial deliveries. Repairs and pay work are payable immediately after receipt of invoice.
4. Packing and despatch will be done to best estimation but without any obligation from our part.
5. The minimum purchase order value is € 20,- net. In case of lower order value we charge a lower quantity surcharge of € 20,-.
6. Price changes are reserved according to alterations of production costs.
7. The right to retain payments or to balance them with counterclaims is entitled to the customer only in this respect that his counterclaims are determined to be undisputed or legally valid.
8. A bill of exchange or cheque will be accepted just for payment, but fees for debit and banking will be charged to Purchaser.
9. For a return caused by the customer (e.g. wrong or double order) we have to charge you with freight costs and dan administration expense of 10% of goods value, but at least € 10,-.

## IV. DELIVERY TIMES

1. The delivery time shall commence upon dispatch of order confirmation, however not prior to provision of all documentaton, permits, approvals etc. which are to be obtained by Purchaser, and not prior to receipt of any down payment which may have been agreed to.
2. The delivery time shall be deemed to have been maintained, if the item(s) to be delivered has left the plant, or of notification has been made that said item is ready for shipment.
3. Supplier shall not be responsible for delays or defaults in deliveries, if occasioned by decisions of public authorities, or by other causes beyond the reasonable control of Supplier or his suppliers, such as Acts of God, war, insurrection, strikes, lockouts, shortage of coal or raw materials, break downs, transportation difficulties or theft, and Supplier will be released from his liability arising from his failure to deliver within the stipulated period. Supplier will notify Purchaser immediately of such events.
4. In case the dispatch will be delayed upon request of the Purchaser, the Supplier is allowed, after having fixed an appropriate delay and the fruitless ending of the same, to dispose of the matter being delivered and supply the Purchaser with another reasonable delay.
5. Compliance with the delivery term shall presume satisfaction of Purchaser's obligations under the contract.
6. The Purchaser has no claim on compensation for delayed delivery.

## V. PASSING OF RISK AND ACCEPTANCE

1. The risk shall pass to Purchaser not later than upon shipment of the item(s) to be delivered, even in cases of partial delivery if of Supplier shall have assumed such additional performances as, for example, shipping costs or haulage and erection.
2. Should shipment be delayed as a result of circumstances for which Purchaser is responsible, the risk shall pass to Purchaser on the day on which notification is made that the consignment is ready for shipment; however Supplier shall be obligated, at Purchaser's request and expense, to provide such insurance coverage as may be desired by Purchaser.
3. Notwithstanding the rights set forth in section X hereof, delivered items shall be accepted by Purchaser, even in the event that they shall contain insignificant defects.
4. Partial deliveries are allowed.
5. Purchaser shall inform Supplier immediately after acceptance of goods in written form about discrepancies on delivery note or invoice.

## VI. RETENTION OF TITLE AND OWNERSHIP

1. Supplier reserves the right to retain title to and ownership of the item(s) to be delivered until such time as any and all of Supplier's account receivable from Purchaser arising from the business relationship, including future accounts receivable, even those arising from contracts entered into at the same time or subsequently, have been satisfied. Supplier's retention of title and ownership shall also apply in the event that any of all of his accounts receivable have been included in a current account and the balance has been drawn upon and acknowledged.
2. Purchaser shall be entitled to resell the goods subject of Supplier's retention of title and ownership only in the course of his usual and customary business operations. Purchaser now hereby assigns to Supplier Purchaser's accounts receivable for the purchase price of for compensation for work arising from the resale of the goods subject to Supplier's retention of title and ownership in the amount of the value of Supplier's invoices therefor, until such time as Supplier's accounts receivable from Purchaser have been settled. The authorization of the Supplier to draw the claims by himself remains untouched from this, however the Supplier is committed not to draw the claims, as long as the Purchaser does not fail to fulfil his obligations of payment.

The Supplier has the right of:

- being informed by the Purchaser about the ceded claims and their debtors,
- getting all details which are necessary to draw the claims receiving all documents related to the claims.

The Purchaser has to inform the debtors about the cede. If the item(s) being delivered is sold together with other goods that are not belonging to the Supplier, the claim amount of the purchase against the buyer and corresponding to the agreed delivery price between Supplier and Purchaser is ceded.

3. Supplier hereby agrees to release the collateral to which he is entitled insofar as the value thereof shall exceed the value of the accounts receivable which are to be secured by more than 25% (twentyfive percent).
4. Supplier shall be entitled to insure the consignment on Purchaser's expense against theft, breakage, transport, fire and water damage, or against other insurable hazards, inasmuch as the Purchaser is not in the position to proof that he already has insured the goods by himself
5. The Purchaser has neither the right to put the item(s) being delivered in pawn, nor to transfer it to a third party as collateral. The Purchaser has to inform the Supplier immediately in written form about any distraint or other intervention by a third party.
6. In case the Purchaser presents a bill of exchange for payment regarding the outstanding purchasing price, the reservation of title, including the agreed special forms and other collaterals for payment of the Supplier do not become void, unless the bill of exchange has been cashed by the Purchaser.
7. The request for opening the insolvency procedure entitles the supplier to withdraw from contract and to claim the immediate return of the delivery item.

## VII. LIABILITY FOR DEFECTS OF THE DELIVERY

Notwithstanding the provisions set forth in section IX hereof, Supplier shall be liable as follows for defects, which shall be deemed to include the lack of warranted characteristics, of which we have been notified within the prescribed time:

1. Any and all components which shall prove to be more than insignificantly impaired within 6 (six) months (within 3 (three) months in the case of multipleshift operation) as a result of a circumstance – in particular as a result of a defective design, poor materials or faulty workmanship – which existed prior to the passing of risk shall be repaired or replaced, as the Supplier may reasonably deem fit, free of charge. The Purchaser shall without delay notify the Supplier of any defect which appears. Any and all replaced components shall become the property of the Supplier. The Supplier shall only be liable for defects in materials supplied by Purchaser, if the defect could be discerned under proper employment. Should shipment be delayed without the fault of Supplier, the liability becomes void latest 12 months from date of passing of risk. In the case of significant thirdparty products, the liability of the Supplier shall be limited to assignment of those liability claims which the Supplier enjoys against the vendor of the thirdparty product. In the case of goods manufactured to Purchaser's drawings, the Supplier shall liable only for proper workman ship in compliance with said drawings.
2. The Purchaser's right for warranty claims is limited in any case 6 months from date of notice within the prescribed time, however at the earliest at expiration of period of warranty.
3. No warranty shall be assumed for damages, resulting from the following causes: Unsuitable or improper employment, improper erection, installation and/or commissioning by Purchaser or by third parties, natural war and tear, improper or negligent handling, unsuitable fuels, lubricants etc., chemical, electrochemical or electrical influences, insofar as they shall not have been caused through the Supplier's fault.
4. Purchaser shall, after agreement has been reached with Supplier, provide the necessary time and opportunity to perform any and all repair and replacement work which the Supplier may reasonably deem to be necessary; otherwise the Supplier shall be released from his liability to rectify defects. Only in urgent cases or risks to the safety and dependability of operations or to prevent unreasonably great damage, of which the Supplier shall be notified immediately, of if the Supplier falls behind with the rectification of the defect, shall Purchaser be entitled to rectify the defect himself or to have the defect rectified by a third party and to demand indemnification by the Supplier for the costs arising therefrom.
5. The direct costs for repair or replacement, including fees of transport shall be borne by the Supplier - insofar the claim is justified - all other costs will be borne by the Purchaser.
6. The duration of warranty for repair or replacement is 3 (three) months, however at least until the expiry of the initial period of warranty for the part(s) being delivered.
7. The Supplier shall be released from his warranty obligation, if repairs, damages or modifications which relate to the defect as-serted shall be made by Purchaser or third parties without the Supplier's consent.
8. Further claims of the Purchaser, insofar claims for indemnification for damage other than damage to the part(s) being delivered, are excluded. This exclusion of liability is not valid in cases of gross negligence or willful intent on the part of the owner or his executive. Furthermore, the exclusion shall not be valid in cases the law of product liability for defects part(s) being delivered comes into force for injury to persons or damage to property on privately used objects. The exclusion of liability is also no valid if liability for lack of warranted characteristics is mandatory, insofar the aim of assurance was to protect the Purchaser against damage other than damage to the part(s) being delivered.

## VIII. SPECIAL CONDITIONS FOR LABOUR CONTRACTS (COMPLETION, REFURBISH, MODIFICATION OR THE REPROCESSING OF TOOLS)

Additionally or unlike to the above Conditions of Sale and Delivery the following will be applied for that kind of Labour Contract:

1. Invoices are to be paid immediately, net without any deduction.
2. The processing company shall not be liable for the behaviour of the materials supplied. This pertains in no way the right of compensation. The processing company shall not be compensated as well as the Purchaser will not be entitled to claim if the material becomes of no use due to the fault of the processing company. This exclusion of liability is not valid in cases of gross negligence or willful intent on the part of the owner or his executive.

## IX. OTHER LIABILITY

Insofar as the Supplier shall be liable, regardless of the legal grounds therefor, said liability shall be limited to not more than 5% (five percent) of the value of the respective part(s) or service(s) provided. This limitation of liability is not valid in cases of gross negligence or willful intent on the part of the owner or his executive. Furthermore, the limitation shall not be valid in cases the law of product liability for defects part(s) being delivered comes into force for injury to persons or damage to property on privately used objects.

## X. PLACE AND PERFORMANCE OF VENUE

1. Place of performance and payment as well as settlements of legal disputes is Annaberg-Bucholz.
2. Any and all disputes arising from the contractual relationship, incl. disputes of bill of exchange, shall be brought before the court having jurisdiction for the Supplier.

## XI. CONTRACTUAL BINDINGS

1. Should any provision of Purchaser's Terms and Conditions of Sale and Supply being contradictory to these conditions, the Supplier shall consider them as without obligation, even without having particularly expressed a contradiction.
2. Should any provision of these General Terms and Conditions of Sale and Supply become void or voidable by a different provision given in offer or order confirmation, the validity of the remaining provisions thereof shall remain unaffected thereby. The laws of the Federal Republic of Germany (FRG) shall be applied.



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