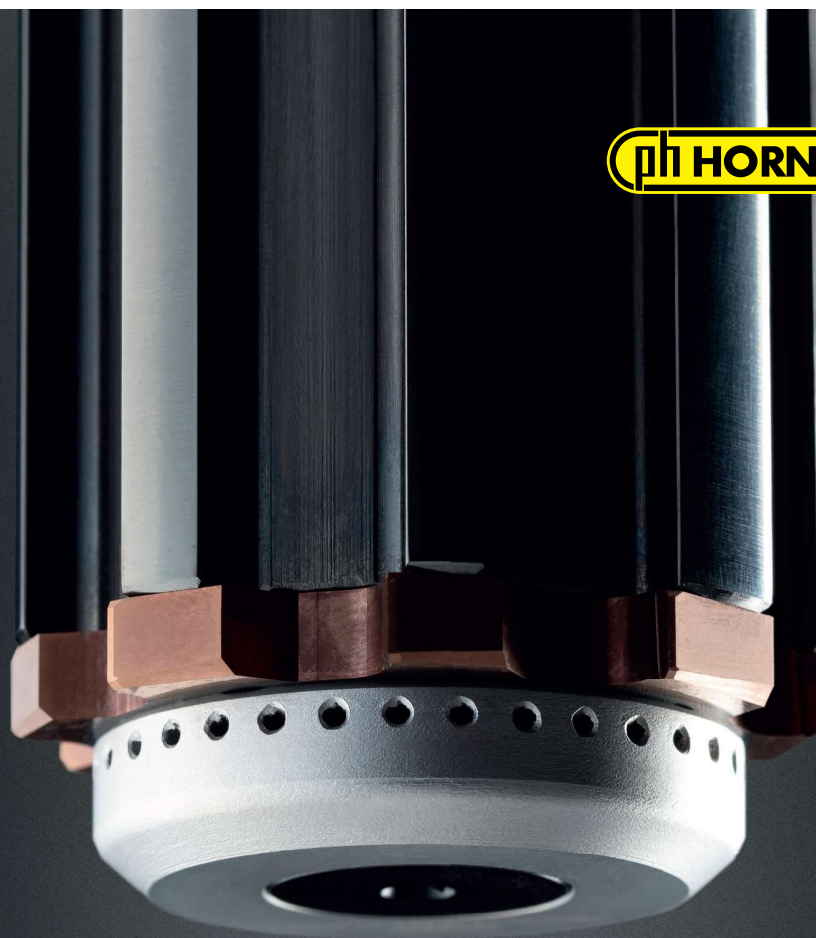




**BOHREN UND REIBEN**  
DRILLING AND REAMING

**2020/2021**



**DAS WERKZEUG  
HORN TOOLS**



System

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**System-Aufnahmen URMA**

**F2**

System Adaptors URMA

**Hydrodehnspannfutter HD**

**F10**

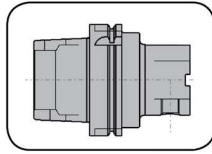
Expansion Toolholder HD

**Pendelhalter PZ**

**F30**

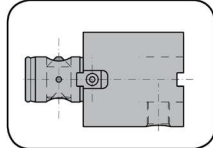
Floating Holder PZ

System-Aufnahme  
URMA  
System Holder URMA  
BH/BD/BT



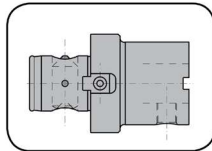
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Verlängerung  
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Reduzierung  
Reducer  
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# URMA



F

## **System-Aufnahme URMA**

Modulare Komponenten

Beta-Modul

## **System Adaptors URMA**

Modular Components

Beta-Module

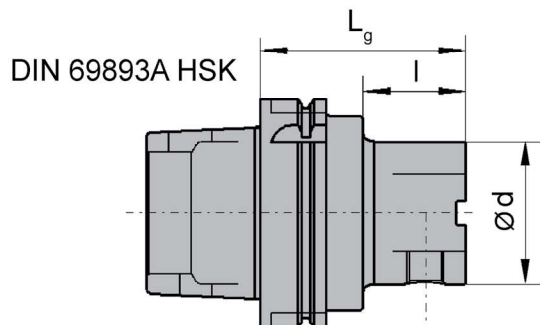
### System-Aufnahme URMA

#### System Adaptors URMA

**BH**



Beta-Modul 25/32/40/50/63/80/100  
Beta-Module 25/32/40/50/63/80/100



**F**

| Bestellnummer<br>Part number | L <sub>g</sub> | l  | d   | Beta-Modul<br>Beta-Module | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----|-----|---------------------------|-----------------------------|------------------|
| <b>BH10 63A 25 055</b>       | 55             | 29 | 25  | 25                        | 0,9                         | HSK-A 63         |
| <b>BH10 63A 32 060</b>       | 60             | 34 | 32  | 32                        | 1,0                         | HSK-A 63         |
| <b>BH10 63A 40 065</b>       | 65             | 23 | 42  | 40                        | 1,1                         | HSK-A 63         |
| <b>BH10 63A 50 070</b>       | 70             | 28 | 50  | 50                        | 1,5                         | HSK-A 63         |
| <b>BH10 63A 63 080</b>       | 80             | -  | 63  | 63                        | 1,5                         | HSK-A 63         |
| <b>BH10 100A 32 060</b>      | 60             | 31 | 32  | 32                        | 2,3                         | HSK-A 100        |
| <b>BH10 100A 40 080</b>      | 80             | 35 | 42  | 40                        | 3,1                         | HSK-A 100        |
| <b>BH10 100A 50 080</b>      | 80             | 35 | 50  | 50                        | 3,2                         | HSK-A 100        |
| <b>BH10 100A 63 080</b>      | 80             | 35 | 63  | 63                        | 3,3                         | HSK-A 100        |
| <b>BH10 100A 80 090</b>      | 90             | 45 | 80  | 80                        | 4,0                         | HSK-A 100        |
| <b>BH10 100A 100 100</b>     | 100            | -  | 100 | 100                       | 5,0                         | HSK-A 100        |

Abmessungen in mm  
Dimensions in mm

#### Bestellhinweis:

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen! Kapitel Zubehör

#### Ordering note:

Coolant tube is not included - separate order required! Chapter Additional Equipment

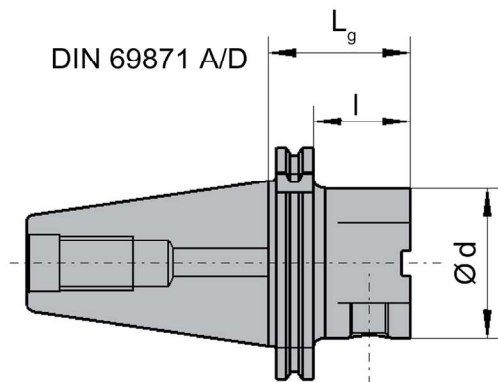
### System-Aufnahme URMA

#### System Adaptors URMA

**BD**



Beta-Modul 25/32/40/50/63/80/100  
Beta-Module 25/32/40/50/63/80/100



**F**

| Bestellnummer<br>Part number | Lg  | l  | d  | Beta-Modul<br>Beta-Module | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|-----|----|----|---------------------------|-----------------------------|------------------|
| <b>BD10 40A 25 050</b>       | 50  | 31 | 25 | 25                        | 0,8                         | SK 40            |
| <b>BD10 40A 32 050</b>       | 50  | 31 | 35 | 32                        | 0,9                         | SK 40            |
| <b>BD10 40A 40 035</b>       | 35  | 16 | 42 | 40                        | 0,9                         | SK 40            |
| <b>BD10 40A 40 050</b>       | 50  | 31 | 42 | 40                        | 1,1                         | SK 40            |
| <b>BD10 40A 50 050</b>       | 50  | 31 | 50 | 50                        | 1,2                         | SK 40            |
| <b>BD10 40A 63 065</b>       | 65  | 46 | 63 | 63                        | 1,5                         | SK 40            |
| <b>BD10 40A 63 090</b>       | 90  | 70 | 63 | 63                        | 2,0                         | SK 40            |
| <b>BD10 50A 25 060</b>       | 60  | 41 | 25 | 25                        | 2,8                         | SK 50            |
| <b>BD10 50A 32 060</b>       | 60  | 41 | 32 | 32                        | 2,9                         | SK 50            |
| <b>BD10 50A 40 060</b>       | 60  | 41 | 42 | 40                        | 3,0                         | SK 50            |
| <b>BD10 50A 50 060</b>       | 60  | 41 | 50 | 50                        | 3,2                         | SK 50            |
| <b>BD10 50A 63 060</b>       | 60  | 41 | 63 | 63                        | 3,3                         | SK 50            |
| <b>BD10 50A 80 070</b>       | 70  | 51 | 50 | 80                        | 4,0                         | SK 50            |
| <b>BD10 50A 100 115</b>      | 115 | 96 | 50 | 100                       | 6,9                         | SK 50            |

Abmessungen in mm  
Dimensions in mm

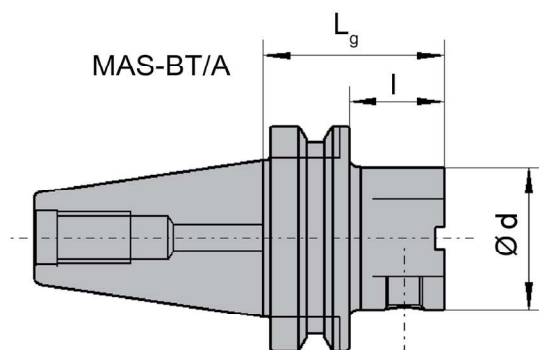
### System-Aufnahme URMA

#### System Adaptors URMA

BT



Beta-Modul 25/32/40/50/63/80/100  
Beta-Module 25/32/40/50/63/80/100



F

| Bestellnummer<br>Part number | L <sub>g</sub> | l  | d   | Beta-Modul<br>Beta-Module | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----|-----|---------------------------|-----------------------------|------------------|
| BT10 40A 25 060              | 60             | 33 | 25  | 25                        | 0,8                         | JIS-BT 40        |
| BT10 40A 32 060              | 60             | 33 | 32  | 32                        | 0,9                         | JIS-BT 40        |
| BT10 40A 40 028              | 28             | 1  | 42  | 40                        | 0,9                         | JIS-BT 40        |
| BT10 40A 40 060              | 60             | 33 | 42  | 40                        | 1,2                         | JIS-BT 40        |
| BT10 40A 50 060              | 60             | 33 | 50  | 50                        | 1,3                         | JIS-BT 40        |
| BT10 40A 63 055              | 55             | 28 | 63  | 63                        | 1,4                         | JIS-BT 40        |
| BT10 40A 63 070              | 70             | 43 | 63  | 63                        | 1,7                         | JIS-BT 40        |
| BT10 50A 32 070              | 70             | 32 | 32  | 32                        | 3,7                         | JIS-BT 50        |
| BT10 50A 40 070              | 70             | 32 | 42  | 40                        | 3,9                         | JIS-BT 50        |
| BT10 50A 50 070              | 70             | 32 | 50  | 50                        | 4,1                         | JIS-BT 50        |
| BT10 50A 63 080              | 80             | 42 | 63  | 63                        | 4,3                         | JIS-BT 50        |
| BT10 50A 80 100              | 100            | 62 | 80  | 80                        | 5,5                         | JIS-BT 50        |
| BT10 50A 100 100             | 110            | 72 | 100 | 100                       | 7,0                         | JIS-BT 50        |

Abmessungen in mm  
Dimensions in mm

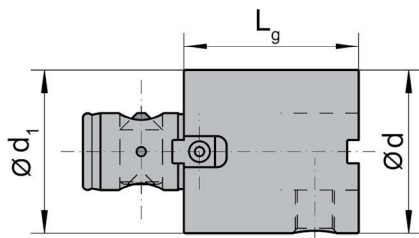
### Verlängerung

Extension

## B13



für Beta-Modul 25/32/40/50/63  
for Beta-Module 25/32/40/50/63



F

| Bestellnummer<br>Part number | Lg  | d  | d <sub>1</sub> | Schnittstelle maschinenseitig<br>Interface machine end | Schnittstelle schneidenseitig<br>Interface cutting edge end | Gewicht [kg]<br>Weight [kg] |
|------------------------------|-----|----|----------------|--------------------------------------------------------|-------------------------------------------------------------|-----------------------------|
| <b>B13 25 25 045</b>         | 45  | 25 | 25             | 25                                                     | 25                                                          | 0,2                         |
| <b>B13 25 25 070</b>         | 70  | 25 | 25             | 25                                                     | 25                                                          | 0,3                         |
| <b>B13 32 32 035</b>         | 35  | 32 | 32             | 32                                                     | 32                                                          | 0,2                         |
| <b>B13 32 32 070</b>         | 70  | 32 | 32             | 32                                                     | 32                                                          | 0,4                         |
| <b>B13 40 40 045</b>         | 45  | 42 | 42             | 40                                                     | 40                                                          | 0,4                         |
| <b>B13 40 40 070</b>         | 70  | 42 | 42             | 40                                                     | 40                                                          | 0,7                         |
| <b>B13 50 50 065</b>         | 65  | 50 | 50             | 50                                                     | 50                                                          | 1,0                         |
| <b>B13 50 50 100</b>         | 100 | 50 | 50             | 50                                                     | 50                                                          | 1,5                         |
| <b>B13 63 63 060</b>         | 60  | 63 | 63             | 63                                                     | 63                                                          | 1,3                         |
| <b>B13 63 63 125</b>         | 125 | 63 | 63             | 63                                                     | 63                                                          | 2,9                         |

Abmessungen in mm  
Dimensions in mm

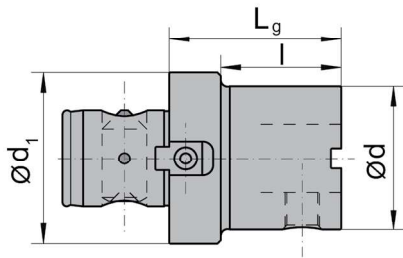
### Reduzierung

Reducer

## B12



für Beta-Modul  
for Beta-Module



F

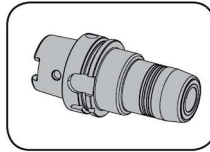
| Bestellnummer<br>Part number | Lg | l  | d  | d <sub>1</sub> | Schnittstelle maschinenseitig<br>Interface machine end | Schnittstelle schneidenseitig<br>Interface cutting edge end | Gewicht [kg]<br>Weight [kg] |
|------------------------------|----|----|----|----------------|--------------------------------------------------------|-------------------------------------------------------------|-----------------------------|
| <b>B12 32 25 040</b>         | 40 | 25 | 25 | 32             | 32                                                     | 25                                                          | 0,2                         |
| <b>B12 40 25 040</b>         | 40 | 25 | 25 | 42             | 40                                                     | 25                                                          | 0,3                         |
| <b>B12 40 32 045</b>         | 45 | 30 | 32 | 42             | 40                                                     | 32                                                          | 0,3                         |
| <b>B12 50 40 050</b>         | 50 | 35 | 42 | 50             | 50                                                     | 40                                                          | 0,5                         |
| <b>B12 63 25 045</b>         | 45 | 25 | 25 | 63             | 63                                                     | 25                                                          | 0,7                         |
| <b>B12 63 32 050</b>         | 50 | 30 | 32 | 63             | 63                                                     | 32                                                          | 0,9                         |
| <b>B12 63 40 055</b>         | 55 | 35 | 42 | 63             | 63                                                     | 40                                                          | 1,1                         |

Abmessungen in mm  
Dimensions in mm

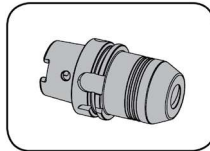


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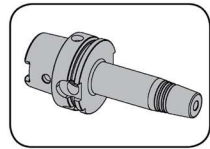
System-Aufnahme  
System Holder  
HDC/HDR/HDE/  
HDS4X/HDRK



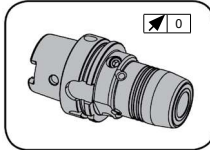
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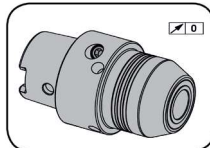
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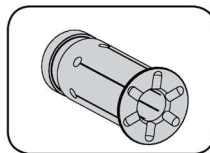


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Zwischenbüchse  
Intermediate Sleeve  
HDZB



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F

**HD**



**F**

## **Hydrodehnspannfutter**

Ausführung:

- Classic
- Kompakt
- Warmschrumpfkontur, schlank
- Rundlauf einstellbar
- Rundlauf einstellbar, kurz

## **Hydraulic Expansion Toolholder**

Version:

- Classic
- Compact
- Heat shrink contour, slim
- Runout adjustable
- Runout adjustable, short



### HDC

**"Das Original" in schlanker Ausführung nach DIN. Vielseitig einsetzbar, ob beim Fräsen, Bohren, Senken, Gewindefräsen oder in der HSC- Bearbeitung**

- Mit umfangreicherer Produktreihe
- Rundlauf- und Wiederholgenauigkeit < 0,003 mm
- Hervorragende Schwingungsdämpfung
- Flexibler Spannbereich durch Zwischenbüchsen
- Axiale Längenvoreinstellung
- Serienmäßig feingewuchtet

**"The original" in slim design according DIN.**

**Versatile use - wether milling, reaming, boring, chamfering, thread milling, or high-speed machining.**

- Offering exceptional versatility for a wide range of applications
- Runout and repeat accuracy < 0.003 mm
- Excellent vibration damping
- Versatile clamping range due to intermediate sleeves
- Axial length pre-adjustment
- Standard fine-balanced

F



### HDE

**Robuste, kurze Ausführung für Volumenzerspanung, Bohren, Reiben und zum Gewindefräsen.**

- Höchste Drehmomente, jetzt bis 900 Nm bei Ø 20 unter trockener Spann-Bedingung, 520 Nm bei öligem Werkzeugschaft
- Exzellentes Preis-Leistungs-Verhältnis
- Rundlauf- und Wiederholgenauigkeit < 0,003 mm
- Axiale Längenvoreinstellung

**Robust and short design for universal use in volume machining, milling, boring, reaming, and thread-milling**

- Highest torques, now up to 900 Nm on Ø 20 mm under dry clamping conditions, 520 Nm on oily tool shanks
- Excellent price/performance ratio
- Constant runout and repeat accuracy < 0.003 mm
- Axial length pre-adjustment



### HDS4X

**Schlanke Ausführung, besonders geeignet für axiale Bearbeitung. Äußere Abmessungen sind entsprechend zu Warmschrumpffuttern nach DIN 69882-8.**

- Nicht in Schrumpfgeräten verwenden
- Schlanke Bauweise
- Kurze und lange Ausführung
- Hervorragende Schwingungsdämpfung
- Axiale Längenvoreinstellung

**Slim design, recommended for axial machining. Outer dimensions are corresponding to heat shrink chucks according to DIN 69882-8.**

- Do not use in shrink machines
- Slim design
- Short and long version
- Excellent vibration damping
- Axial length pre-adjustment



**µ-genau! Im Handumdrehen auf 0,000 mm**  
**Das im Rundlauf einstellbare Hydrodehnspannfutter Typ HDR**  
**ist der Profi für enge Toleranzen beim Bohren, Reiben und**  
**überall dort, wo ein perfekter Rundlauf gefordert ist.**

- Dauerhafter Rundlauf auf 0 µm einstellbar
- Einfache Handhabung
- Perfekte Schwingungsdämpfung

## HDR

**Micron precise! The runout adjustable hydraulic expansion tool holder Type HDR is the professional tool holder for tight tolerances for boring, reaming or wherever perfect runout accuracy is a must. This enables even minimal concentricity errors with tools, spindle mounts, and the spindles to be individually compensated.**

- Constant runout accuracy can be adjusted to 0 µm
- Easy handling
- Perfect vibration damping



**Extrakurz mit Rundrichtfunktion vom Typ HDR. Kürzere Bauweise durch weglassen der Längenverstellung. Ausführung HSK-C63 trägt ebenfalls zur Längenreduzierung bei. Insbesondere bei engen Platzverhältnissen und ungünstigen Schwingungen eine Alternative.**

- Dauerhafter Rundlauf auf 0 µm einstellbar
- Einfache Handhabung
- Perfekte Schwingungsdämpfung
- Ohne Längenverstellung

## HDRK

**Extra short with circular directional function of type HDR. Shorter design by omitting the length adjustment. Type HSK-C63 also contributes to the length reduction. An alternative, especially for tight spaces and unfavourable vibrations**

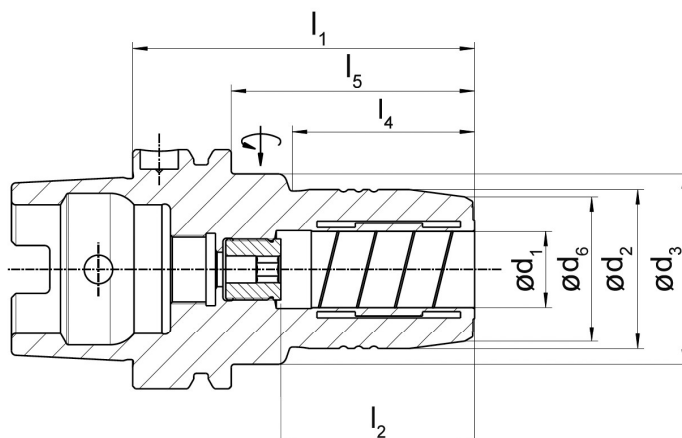
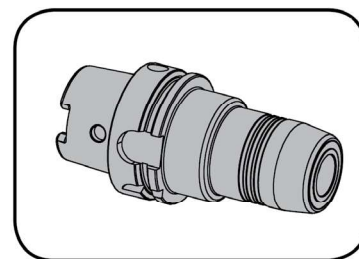
- Constant runout accuracy can be adjusted to 0 µm
- Easy handling
- Perfect vibration damping
- Without length adjustment

### System-Aufnahme

#### System Holder

## HDC

Klassische Ausführung mit axialer Längenverstellung  
Classic design with axial length adjustment



HSK-A DIN69882-7

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| HDC.HSKA050.06.070           | 6              | 26             | 40             | 22             | 70             | 37             | 28,0           | 44             | 0,7                         | 16                    | HSK-A 50         |
| HDC.HSKA050.08.070           | 8              | 28             | 40             | 24             | 70             | 37             | 28,0           | 44             | 0,7                         | 23                    | HSK-A 50         |
| HDC.HSKA050.10.075           | 10             | 30             | 40             | 26             | 75             | 41             | 34,0           | 49             | 0,7                         | 45                    | HSK-A 50         |
| HDC.HSKA050.12.085           | 12             | 32             | 40             | 28             | 85             | 46             | 44,0           | 59             | 0,8                         | 90                    | HSK-A 50         |
| HDC.HSKA050.16.090           | 16             | 38             | 53             | 34             | 90             | 49             | 30,0           | 64             | 1,1                         | 185                   | HSK-A 50         |
| HDC.HSKA050.20.090           | 20             | 42             | 60             | 38             | 90             | 51             | 29,0           | 64             | 1,1                         | 330                   | HSK-A 50         |
| HDC.HSKA063.06.070           | 6              | 26             | 50             | 22             | 70             | 37             | 24,0           | 44             | 1,0                         | 16                    | HSK-A 63         |
| HDC.HSKA063.08.070           | 8              | 28             | 50             | 24             | 70             | 37             | 25,0           | 44             | 1,0                         | 23                    | HSK-A 63         |
| HDC.HSKA063.10.080           | 10             | 30             | 50             | 26             | 80             | 41             | 35,0           | 54             | 1,1                         | 45                    | HSK-A 63         |
| HDC.HSKA063.12.085           | 12             | 32             | 50             | 28             | 85             | 46             | 40,0           | 59             | 1,1                         | 90                    | HSK-A 63         |
| HDC.HSKA063.16.090           | 16             | 38             | 50             | 34             | 90             | 49             | 46,0           | 64             | 1,2                         | 185                   | HSK-A 63         |
| HDC.HSKA063.20.090           | 20             | 42             | 50             | 38             | 90             | 51             | 48,0           | 64             | 1,3                         | 330                   | HSK-A 63         |
| HDC.HSKA063.25.120           | 25             | 57             | 63             | 51             | 120            | 57             | -              | 94             | 2,2                         | 400                   | HSK-A 63         |
| HDC.HSKA100.06.075           | 6              | 26             | 50             | 22             | 75             | 37             | 26,0           | 46             | 2,5                         | 16                    | HSK-A 100        |
| HDC.HSKA100.08.075           | 8              | 28             | 50             | 24             | 75             | 37             | 26,0           | 46             | 2,5                         | 23                    | HSK-A 100        |
| HDC.HSKA100.10.090           | 10             | 30             | 50             | 26             | 90             | 41             | 42,0           | 61             | 2,5                         | 45                    | HSK-A 100        |
| HDC.HSKA100.12.095           | 12             | 32             | 50             | 28             | 95             | 46             | 47,0           | 66             | 2,6                         | 90                    | HSK-A 100        |
| HDC.HSKA100.16.100           | 16             | 38             | 50             | 34             | 100            | 49             | 53,0           | 71             | 2,7                         | 185                   | HSK-A 100        |
| HDC.HSKA100.20.105           | 20             | 42             | 50             | 38             | 105            | 51             | 59,0           | 76             | 2,8                         | 330                   | HSK-A 100        |
| HDC.HSKA100.25.110           | 25             | 57             | 63             | 51             | 110            | 57             | 62,5           | 81             | 3,7                         | 400                   | HSK-A 100        |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

#### Bestellhinweis:

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen! Kapitel Zubehör

#### Ordering note:

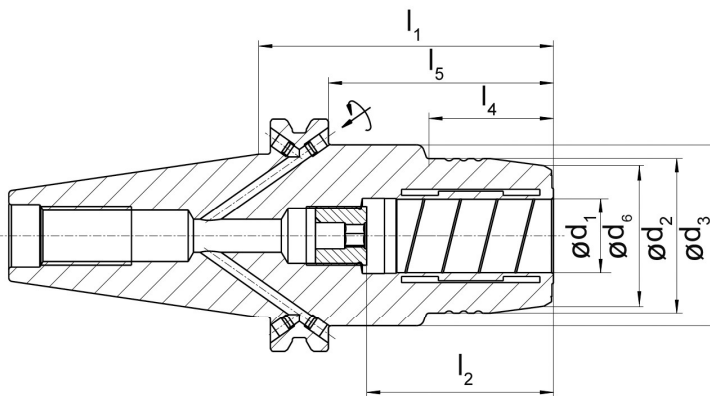
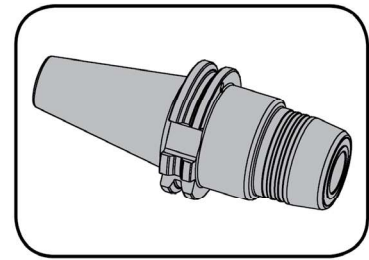
Coolant tube is not included - separate order required! Chapter Additional Equipment

### System-Aufnahme

System Holder

### HDC

Klassische Ausführung mit axialer Längenverstellung  
Classic design with axial length adjustment



SK DIN ISO 7388-1 AD/AF

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| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| HDC.SK40.06.080              | 6              | 26             | 49,5           | 22             | 80,5           | 37             | 29,5           | 61,5           | 1,4                         | 16                    | SK 40            |
| HDC.SK40.08.080              | 8              | 28             | 49,5           | 24             | 80,5           | 37             | 30,0           | 61,5           | 1,4                         | 23                    | SK 40            |
| HDC.SK40.10.080              | 10             | 30             | 49,5           | 26             | 80,5           | 41             | 31,0           | 61,5           | 1,4                         | 45                    | SK 40            |
| HDC.SK40.12.080              | 12             | 32             | 49,5           | 28             | 80,5           | 46             | 31,5           | 61,5           | 1,4                         | 90                    | SK 40            |
| HDC.SK40.16.080              | 16             | 38             | 49,5           | 34             | 80,5           | 49             | 33,0           | 61,5           | 1,4                         | 185                   | SK 40            |
| HDC.SK40.20.080              | 20             | 42             | 49,5           | 38             | 80,5           | 51             | 34,0           | 61,5           | 1,4                         | 330                   | SK 40            |
| HDC.SK40.25.080              | 25             | 55             | 66,0           | 53             | 80,5           | 57             | 22,0           | 61,5           | 1,8                         | 330                   | SK 40            |
| HDC.SK50.20.080              | 20             | 42             | 49,5           | 38             | 80,5           | 51             | 34,0           | 61,5           | 3,3                         | 330                   | SK 50            |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

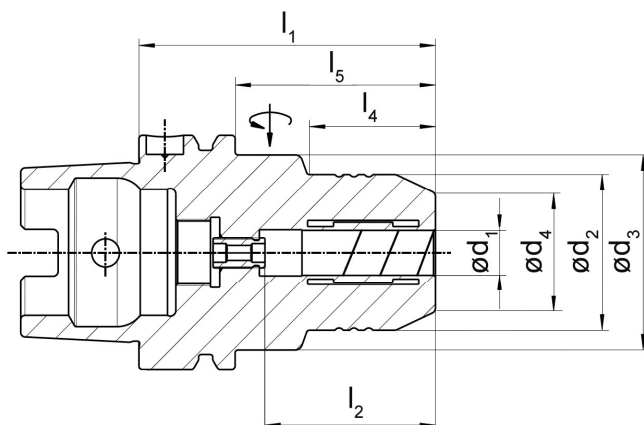
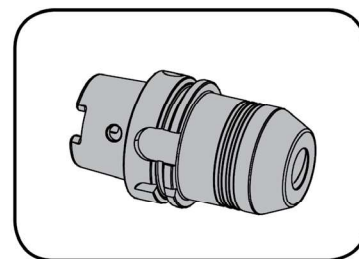
Abmessungen in mm  
Dimensions in mm

### System-Aufnahme

System Holder

### HDE

Robuste, kurze Ausführung mit axialer Längenverstellung  
Robust, short design with axial length adjustment



HSK-A DIN ISO 12164-1

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| HDE.HSKA063.12.080           | 12             | 42,0           | 52,5           | 32,0           | 80             | 46             | 34             | 54,00          | 1,25                        | 110                   | HSK-A 63         |
| HDE.HSKA063.16.080           | 16             | 53,0           | -              | 38,0           | 80             | 51             | -              | 54,00          | 1,30                        | 350                   | HSK-A 63         |
| HDE.HSKA063.20.080           | 20             | 52,5           | -              | 38,0           | 80             | 51             | -              | 54,00          | 1,32                        | 520                   | HSK-A 63         |
| HDE.HSKA100.20.090           | 20             | 52,5           | -              | 38,0           | 90             | 51             | -              | 54,00          | 2,80                        | 520                   | HSK-A 100        |
| HDE.HSKA100.32.100           | 32             | 72,0           | -              | 58,5           | 100            | 61             | -              | 71,05          | 3,80                        | 900                   | HSK-A 100        |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

#### Bestellhinweis:

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen!

#### Ordering note:

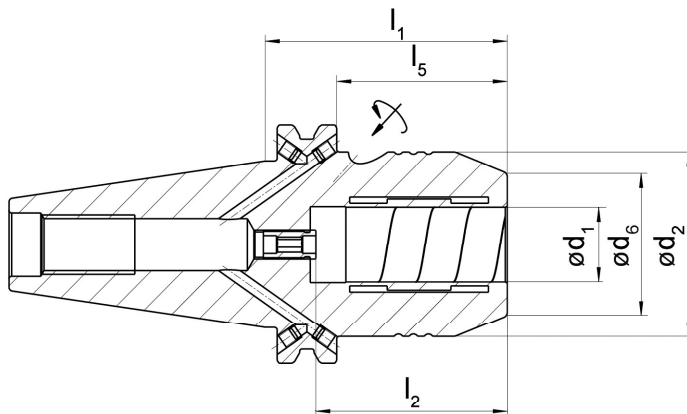
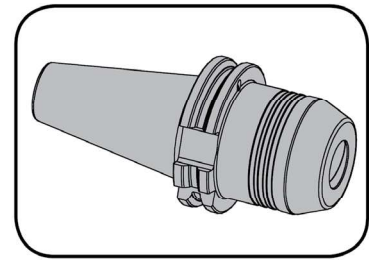
Coolant tube is not included - separate order required!

### System-Aufnahme

System Holder

### HDE

Robuste, kurze Ausführung mit axialer Längenverstellung  
Robust, short design with axial length adjustment



SK DIN ISO 7388-1 AD/AF

F

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| HDE.SK40.12.050              | 12             | 42,00          | 32,0           | 50,0           | 46             | 31,00          | 1,1                         | 110                   | SK 40            |
| HDE.SK40.16.064              | 16             | 49,25          | 38,0           | 64,5           | 51             | 45,45          | 1,2                         | 350                   | SK 40            |
| HDE.SK40.20.064              | 20             | 49,25          | 38,0           | 64,5           | 51             | 45,50          | 1,3                         | 520                   | SK 40            |
| HDE.SK50.12.050              | 12             | 42,00          | 32,0           | 50,0           | 46             | 31,00          | 2,8                         | 110                   | SK 50            |
| HDE.SK50.20.064              | 20             | 49,25          | 38,0           | 64,5           | 51             | 45,50          | 3,1                         | 520                   | SK 50            |
| HDE.SK50.32.081              | 32             | 72,00          | 58,5           | 81,0           | 61             | 62,00          | 4,1                         | 900                   | SK 50            |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

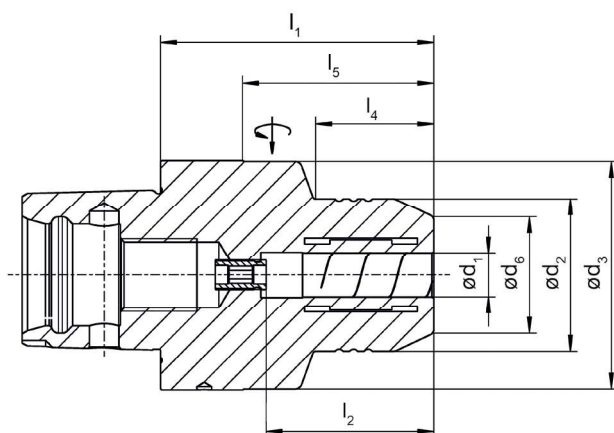
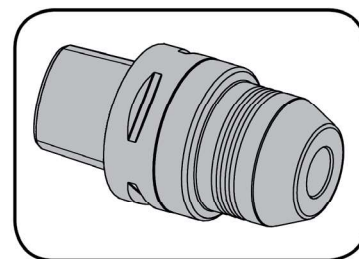
Abmessungen in mm  
Dimensions in mm

### System-Aufnahme

System Holder

## HDE

Robuste, kurze Ausführung mit axialer Längenverstellung  
Robust, short design with axial length adjustment



HORN-Polygonschaft  
nach ISO 26623  
HORN Polygon shank  
according to ISO 26623

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| <b>HDE.C4.12.065</b>         | 12             | 39,5           | 39,5           | 32,0           | 65             | 46             | -              | 44,0           | 0,65                        | 110                   | C4               |
| <b>HDE.C4.20.083</b>         | 20             | 45,5           | 45,5           | 38,0           | 83             | 51             | -              | 62,4           | 0,85                        | 440                   | C4               |
| <b>HDE.C5.12.070</b>         | 12             | 42,0           | 49,5           | 32,0           | 70             | 46             | 33             | 50,0           | 0,90                        | 110                   | C5               |
| <b>HDE.C5.20.075</b>         | 20             | 49,5           | 49,5           | 38,0           | 75             | 51             | -              | 54,0           | 1,00                        | 440                   | C5               |
| <b>HDE.C6.12.075</b>         | 12             | 42,0           | 62,5           | 32,0           | 75             | 46             | 33             | 53,0           | 1,50                        | 110                   | C6               |
| <b>HDE.C6.20.080</b>         | 20             | 52,5           | 62,5           | 38,0           | 80             | 51             | 41             | 57,4           | 1,60                        | 440                   | C6               |
| <b>HDE.C6.32.090</b>         | 32             | 62,5           | 62,5           | 58,5           | 90             | 61             | -              | 67,0           | 1,95                        | 800                   | C6               |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

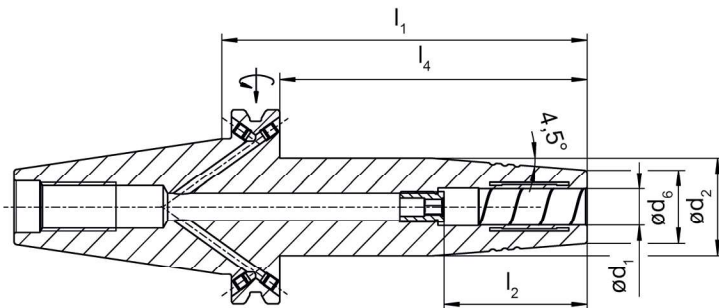
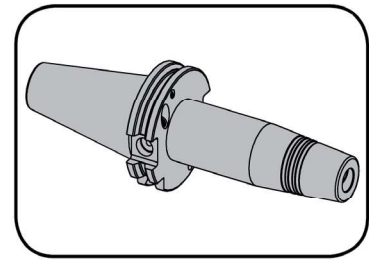
Abmessungen in mm  
Dimensions in mm

### System-Aufnahme

System Holder

## HDS4X

Schlanke Ausführung mit axialer Längenverstellung  
Small design with axial length adjustment



SK DIN ISO 7388-1 AD/AF

F

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| HDS4X.SK40.06.080            | 6              | 27             | 27             | 21             | 80             | 36             | 61             | 1,0                         | 16                    | SK 40            |
| HDS4X.SK40.06.120            | 6              | 27             | 27             | 21             | 120            | 36             | 101            | 1,2                         | 16                    | SK 40            |
| HDS4X.SK40.08.080            | 8              | 27             | 27             | 21             | 80             | 36             | 61             | 1,0                         | 23                    | SK 40            |
| HDS4X.SK40.08.120            | 8              | 27             | 27             | 21             | 120            | 36             | 101            | 1,2                         | 23                    | SK 40            |
| HDS4X.SK40.12.080            | 12             | 32             | 32             | 24             | 80             | 47             | 61             | 1,0                         | 90                    | SK 40            |
| HDS4X.SK40.12.120            | 12             | 32             | 32             | 24             | 120            | 47             | 101            | 1,3                         | 90                    | SK 40            |
| HDS4X.SK40.20.080            | 20             | 42             | 42             | 33             | 80             | 52             | 61             | 1,2                         | 330                   | SK 40            |
| HDS4X.SK40.20.120            | 20             | 42             | 42             | 33             | 120            | 52             | 101            | 1,3                         | 330                   | SK 40            |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

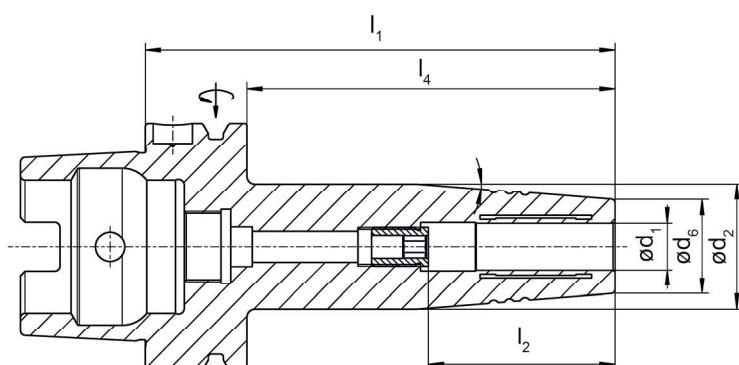
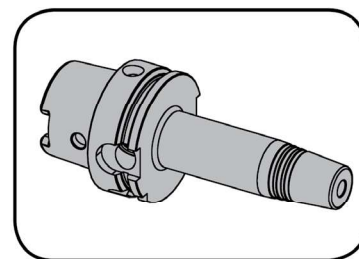
Abmessungen in mm  
Dimensions in mm

### System-Aufnahme

#### System Holder

## HDS4X

Schlanke Ausführung mit axialer Längenverstellung  
Small design with axial length adjustment



HSK-A DIN ISO 12164-1

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| HDS4X.HSKA063.06.080         | 6              | 27             | 27             | 21             | 80             | 38,2           | 54             | 0,9                         | 16                    | HSK-A 63         |
| HDS4X.HSKA063.06.120         | 6              | 27             | 27             | 21             | 120            | 38,2           | 94             | 1,0                         | 16                    | HSK-A 63         |
| HDS4X.HSKA063.08.080         | 8              | 27             | 27             | 21             | 80             | 38,2           | 54             | 0,9                         | 23                    | HSK-A 63         |
| HDS4X.HSKA063.08.120         | 8              | 27             | 27             | 21             | 120            | 38,2           | 94             | 1,0                         | 23                    | HSK-A 63         |
| HDS4X.HSKA063.10.085         | 10             | 32             | 32             | 24             | 85             | 42,7           | 59             | 0,9                         | 45                    | HSK-A 63         |
| HDS4X.HSKA063.10.120         | 10             | 32             | 32             | 24             | 120            | 43,2           | 94             | 1,1                         | 45                    | HSK-A 63         |
| HDS4X.HSKA063.12.090         | 12             | 32             | 32             | 24             | 90             | 47,7           | 64             | 0,9                         | 90                    | HSK-A 63         |
| HDS4X.HSKA063.12.120         | 12             | 32             | 32             | 24             | 120            | 47,7           | 94             | 1,1                         | 90                    | HSK-A 63         |
| HDS4X.HSKA063.14.090         | 14             | 34             | 34             | 27             | 90             | 48,7           | 64             | 1,0                         | 110                   | HSK-A 63         |
| HDS4X.HSKA063.14.120         | 14             | 34             | 34             | 27             | 120            | 48,7           | 94             | 1,2                         | 110                   | HSK-A 63         |
| HDS4X.HSKA063.16.095         | 16             | 34             | 34             | 27             | 95             | 53,2           | 69             | 1,0                         | 185                   | HSK-A 63         |
| HDS4X.HSKA063.16.120         | 16             | 34             | 34             | 27             | 120            | 53,2           | 94             | 1,2                         | 185                   | HSK-A 63         |
| HDS4X.HSKA063.20.100         | 20             | 42             | 42             | 33             | 100            | 55,7           | 74             | 1,2                         | 330                   | HSK-A 63         |
| HDS4X.HSKA063.20.120         | 20             | 42             | 42             | 33             | 120            | 55,7           | 94             | 1,4                         | 330                   | HSK-A 63         |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen! Kapitel Zubehör  
Coolant tube is not included - separate order required! Chapter Additional Equipment

# Hydrodehnspannfutter

## Hydraulic Expansion Toolholder

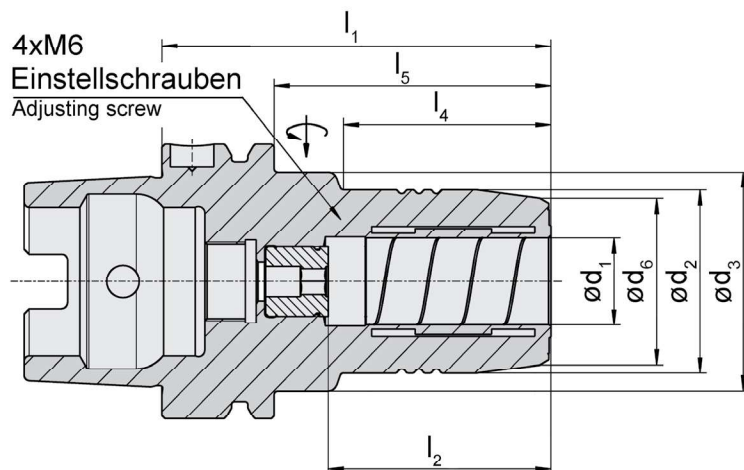
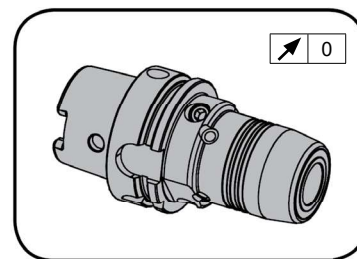


### System-Aufnahme

#### System Holder

## HDR

Rundlauf einstellbar, mit axialer Längenverstellung  
Adjustable runout, with axial length adjustment



HSK-A DIN69882-7

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| Bestellnummer<br>Part number | 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>4</sub> | X  | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----|----------------|-----------------------------|------------------|
| HDR.HSKA040.12.080           | 12             | 32             | 33,5           | 28             | 80             | 46             | 48             | 34 | 60             | 0,5                         | HSK-A 40         |
| HDR.HSKA040.20.100           | 20             | 42             | 53,0           | 38             | 100            | 51             | 47             | 49 | -              | 1,0                         | HSK-A 40         |
| HDR.HSKA050.12.085           | 12             | 32             | 40,0           | 28             | 85             | 46             | 44             | 39 | 59             | 0,8                         | HSK-A 50         |
| HDR.HSKA063.12.085           | 12             | 32             | 50,0           | 28             | 85             | 46             | 40             | 39 | 59             | 1,1                         | HSK-A 63         |
| HDR.HSKA063.20.090           | 20             | 42             | 50,0           | 38             | 90             | 51             | 48             | 39 | 64             | 1,3                         | HSK-A 63         |
| HDR.HSKA063.32.125           | 32             | 64             | 75,0           | 60             | 125            | 61             | 63             | 64 | 99             | 2,7                         | HSK-A 63         |
| HDR.HSKA100.12.095           | 12             | 32             | 50,0           | 28             | 95             | 46             | 47             | 49 | 66             | 2,6                         | HSK-A 100        |
| HDR.HSKA100.20.105           | 20             | 42             | 50,0           | 38             | 105            | 51             | 59             | 54 | 76             | 2,8                         | HSK-A 100        |
| HDR.HSKA100.32.110           | 32             | 64             | 75,0           | 60             | 110            | 61             | 62             | 49 | 81             | 3,8                         | HSK-A 100        |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

#### Bestellhinweis:

Das Kühlmittelrohr ist nicht im Lieferumfang enthalten - bitte separat bestellen! Kapitel Zubehör

#### Ordering note:

Coolant tube is not included - separate order required! Chapter Additional Equipment

### Ersatzteile

#### Spare Parts

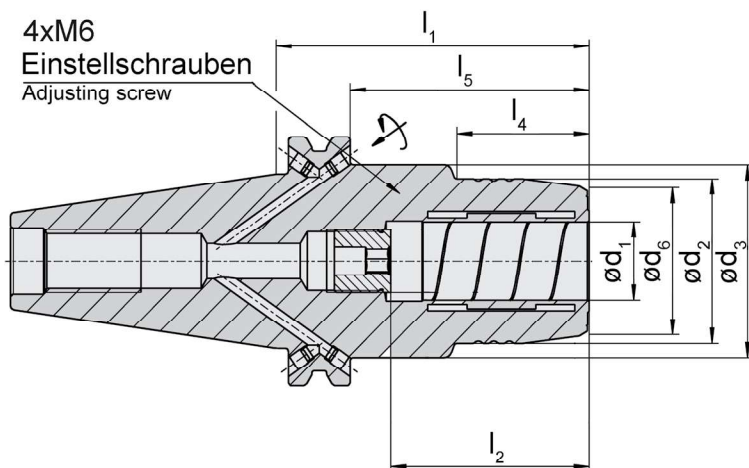
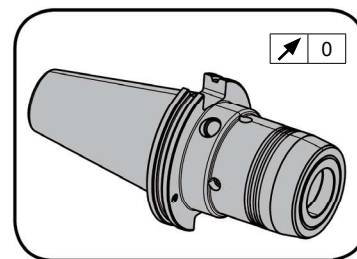
| System-Aufnahme<br>System Holder | Spannschraube<br>Clamping Screw | TORX PLUS®-Schlüssel<br>TORX PLUS® Wrench |
|----------------------------------|---------------------------------|-------------------------------------------|
| HDR.HSKA...                      | 6.075T15P                       | T15PQ                                     |

### System-Aufnahme

System Holder

### HDR

Rundlauf einstellbar, mit axialer Längenverstellung  
Adjustable runout, with axial length adjustment



SK DIN 69871 AD/B

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|------------------|
| HDR.SK40.12.081              | 12             | 32             | 49,5           | 28,0           | 80,5           | 46             | 31,5           | 61,5           | 1,4                         | SK 40            |
| HDR.SK40.20.081              | 20             | 42             | 49,5           | 38,0           | 80,5           | 51             | 34,0           | 61,5           | 1,4                         | SK 40            |
| HDR.SK40.32.081              | 32             | 63             | 80,0           | 60,0           | 80,5           | 61             | 25,5           | 61,5           | 2,0                         | SK 40            |
| HDR.SK50.12.081              | 12             | 32             | 49,5           | 27,5           | 80,5           | 46             | 40,0           | 61,5           | 3,3                         | SK 50            |
| HDR.SK50.20.081              | 20             | 42             | 49,5           | 38,0           | 80,5           | 51             | 34,0           | 61,5           | 3,3                         | SK 50            |
| HDR.SK50.32.103              | 32             | 64             | 70,0           | 60,0           | 103,2          | -              | 61,0           | 81,0           | 4,4                         | SK 50            |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

### Ersatzteile

Spare Parts

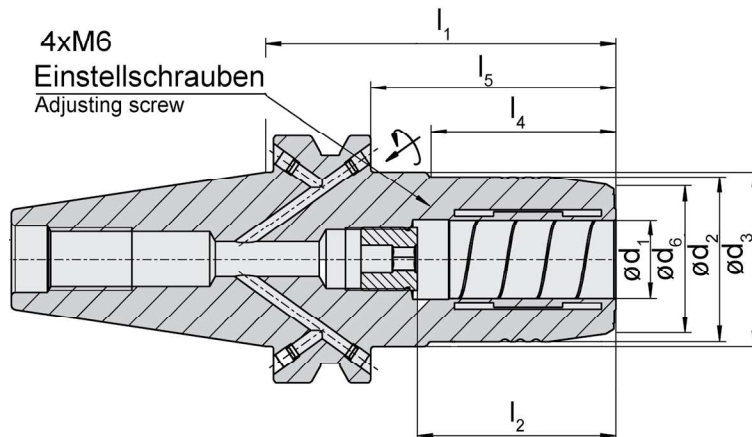
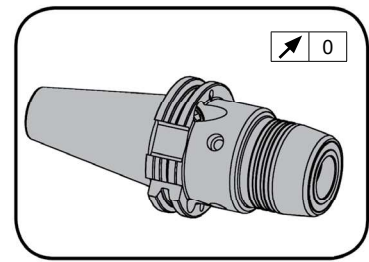
| System-Aufnahme<br>System Holder | Spannschraube<br>Clamping Screw | TORX PLUS®-Schlüssel<br>TORX PLUS® Wrench |
|----------------------------------|---------------------------------|-------------------------------------------|
| HDR.SK...                        | 6.075T15P                       | T15PQ                                     |

### System-Aufnahme

System Holder

### HDR

Rundlauf einstellbar, mit axialer Längenverstellung  
Adjustable runout, with axial length adjustment



JIS-BT JIS B 6339

F

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|------------------|
| HDR.BT30.20.090              | 20             | 42             | 44,5           | 37,5           | 90             | 51             | 47,5           | 67             | 1,5                         | JIS-BT 30        |
| HDR.BT40.12.090              | 12             | 32             | 44,5           | 28,0           | 90             | 46             | 44,5           | 63             | 1,4                         | JIS-BT 40        |
| HDR.BT40.20.090              | 20             | 42             | 44,5           | 38,0           | 90             | 51             | 47,5           | 63             | 1,5                         | JIS-BT 40        |
| HDR.BT50.12.090              | 12             | 32             | 44,5           | 28,0           | 90             | 46             | 34,0           | 52             | 4,0                         | JIS-BT 50        |
| HDR.BT50.20.090              | 20             | 42             | 44,5           | 38,0           | 90             | 51             | 34,0           | 52             | 4,0                         | JIS-BT 50        |
| HDR.BT50.32.120              | 32             | 64             | 70,5           | 60,0           | 120            | 61             | 62,5           | 82             | 5,3                         | JIS-BT 50        |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

### Ersatzteile

Spare Parts

| System-Aufnahme<br>System Holder | Spannschraube<br>Clamping Screw | TORX PLUS®-Schlüssel<br>TORX PLUS® Wrench |
|----------------------------------|---------------------------------|-------------------------------------------|
| HDR.BT...                        | 6.075T15P                       | T15PQ                                     |

# Hydrodehnspannfutter

## Hydraulic Expansion Toolholder

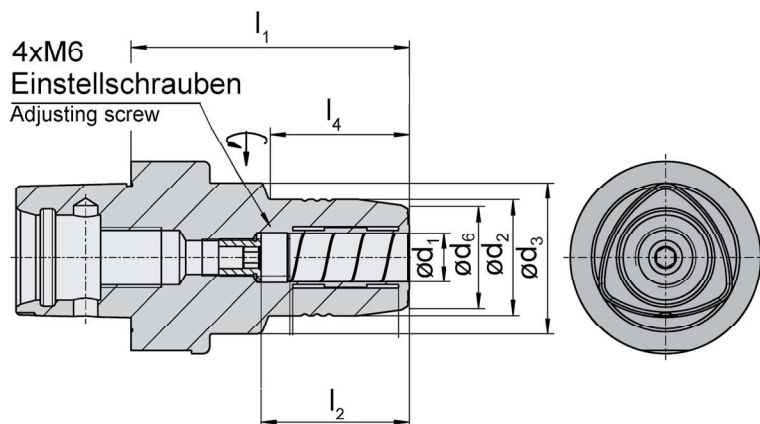
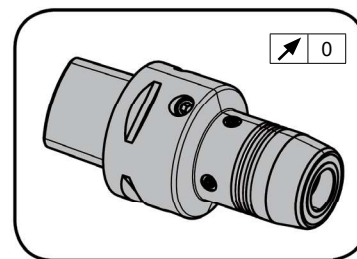


### System-Aufnahme

#### System Holder

## HDR

Rundlauf einstellbar, mit axialer Längenverstellung  
Adjustable runout, with axial length adjustment



HORN-Polygonschaft  
nach ISO 26623  
HORN Polygon shank  
according to ISO 26623

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|------------------|
| <b>HDR.C4.12.081</b>         | 12             | 32,0           | 32,0           | 28             | 81             | 46,0           | 47,0           | 0,70                        | C4               |
| <b>HDR.C4.20.095</b>         | 20             | 40,0           | -              | 35             | 95             | 51,5           | -              | 0,70                        | C4               |
| <b>HDR.C5.12.085</b>         | 12             | 32,0           | 32,0           | 28             | 85             | 46,0           | 44,0           | 0,90                        | C5               |
| <b>HDR.C5.20.090</b>         | 20             | 42,0           | 42,0           | 38             | 90             | 51,0           | 52,0           | 1,05                        | C5               |
| <b>HDR.C5.32.110</b>         | 32             | 62,5           | 63,0           | 59             | 110            | 61,0           | 62,5           | 2,10                        | C5               |
| <b>HDR.C6.12.087</b>         | 12             | 32,0           | 50,0           | 28             | 87             | 46,0           | 39,0           | 1,30                        | C6               |
| <b>HDR.C6.20.097</b>         | 20             | 42,0           | 42,0           | 38             | 97             | 51,0           | 55,0           | 1,60                        | C6               |
| <b>HDR.C6.32.110</b>         | 32             | 62,5           | 62,5           | 59             | 110            | 61,0           | 62,0           | 2,80                        | C6               |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

### Ersatzteile

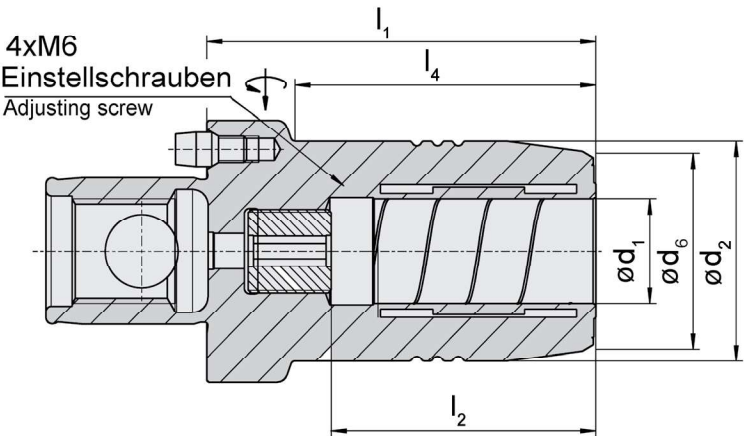
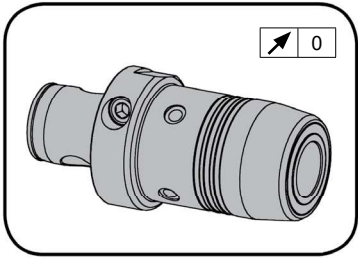
#### Spare Parts

| System-Aufnahme<br>System Holder | Spannschraube<br>Clamping Screw | TORX PLUS®-Schlüssel<br>TORX PLUS® Wrench |
|----------------------------------|---------------------------------|-------------------------------------------|
| HDR...                           | <b>6.075T15P</b>                | <b>T15PQ</b>                              |

System-Aufnahme  
System Holder

HDR

Rundlauf einstellbar, mit axialer Längenverstellung  
Adjustable runout, with axial length adjustment



**ABS H**  
Beta-Modul kompatibel  
**ABS H**  
Beta-Module compatible

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>4</sub> | Gewicht [kg]<br>Weight [kg] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|------------------|
| <b>HDR.ABS50.12.065</b>      | 12             | 32             | 28             | 65             | 46             | 45,5           | 0,7                         | ABS-H 50         |
| <b>HDR.ABS50.20.075</b>      | 20             | 42             | 38             | 75             | 51             | 58,0           | 0,9                         | ABS-H 50         |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

Ersatzteile  
Spare Parts

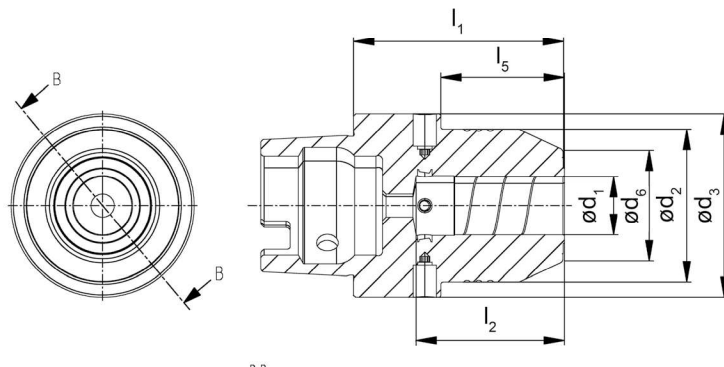
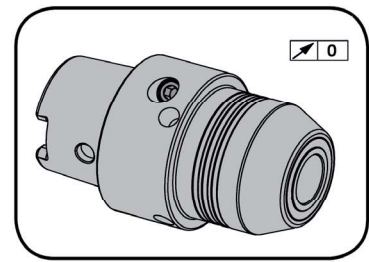
| System-Aufnahme<br>System Holder | Spannschraube<br>Clamping Screw | TORX PLUS®-Schlüssel<br>TORX PLUS® Wrench |
|----------------------------------|---------------------------------|-------------------------------------------|
| HDR...                           | <b>6.075T15P</b>                | <b>T15PQ</b>                              |

### System-Aufnahme

#### System Holder

## HDRK

Rundlauf einstellbar, ohne axialer Längenverstellung  
Adjustable runout, without axial length adjustment



HSK-C DIN ISO 12164-1

| Bestellnummer<br>Part number | d <sub>1</sub> | d <sub>2</sub> | d <sub>3</sub> | d <sub>6</sub> | l <sub>1</sub> | l <sub>2</sub> | l <sub>5</sub> | Gewicht [kg]<br>Weight [kg] | M <sub>min</sub> [Nm] | System<br>System |
|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------|------------------|
| <b>HDRK.HSKC063.20.073</b>   | 20             | 52,5           | 52,5           | 38             | 72,5           | 51             | 42,5           | 1,25                        | 82                    | HSK-C 63         |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

### Ersatzteile

#### Spare Parts

| System-Aufnahme<br>System Holder | Spannschraube<br>Clamping Screw | TORX PLUS®-Schlüssel<br>TORX PLUS® Wrench |
|----------------------------------|---------------------------------|-------------------------------------------|
| HDRK.HSKC...                     | <b>6.075T15P</b>                | <b>T15PQ</b>                              |

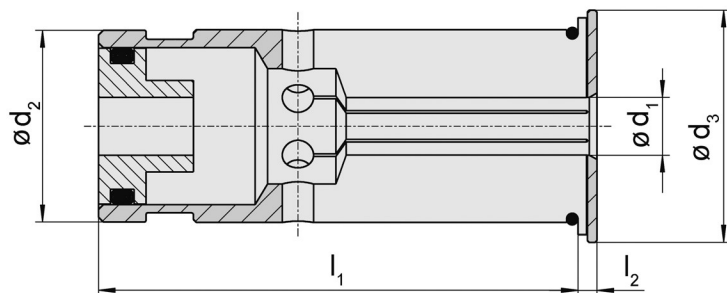
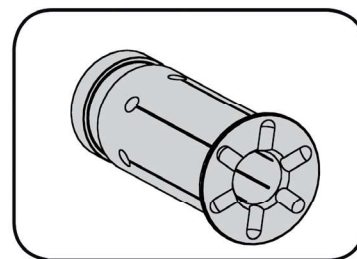
### Zwischenbüchse

#### Intermediate Sleeve

### HDZB

kühlmitteldicht  
coolant tight

für innere Kühlmittelzufuhr  
for internal coolant supply



| Bestellnummer<br>Part number | $d_1$ | $d_2$ | $l_1$ | $l_2$ | $d_3$ | Gewicht [kg]<br>Weight [kg] |
|------------------------------|-------|-------|-------|-------|-------|-----------------------------|
| HDZB.1203.KD                 | 3     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1204.KD                 | 4     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1205.KD                 | 5     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1206.KD                 | 6     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1208.KD                 | 8     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.2003.KD                 | 3     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2004.KD                 | 4     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2005.KD                 | 5     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2006.KD                 | 6     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2007.KD                 | 7     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2008.KD                 | 8     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2009.KD                 | 9     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2010.KD                 | 10    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2011.KD                 | 11    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2012.KD                 | 12    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2013.KD                 | 13    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2014.KD                 | 14    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2015.KD                 | 15    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2016.KD                 | 16    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.3206.KD                 | 6     | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3208.KD                 | 8     | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3210.KD                 | 10    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3212.KD                 | 12    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3214.KD                 | 14    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3216.KD                 | 16    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3218.KD                 | 18    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3220.KD                 | 20    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3225.KD                 | 25    | 32    | 60,5  | 3     | 35,5  | 0,3                         |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

#### Bestellhinweis:

Standard-Zwischenbüchse  $d_2 \leq 12$  mm nicht zum Rundrichten verwenden

#### Ordering note:

Standard intermediate sleeve  $d_2 \leq 12$  mm do not use for round-straightening

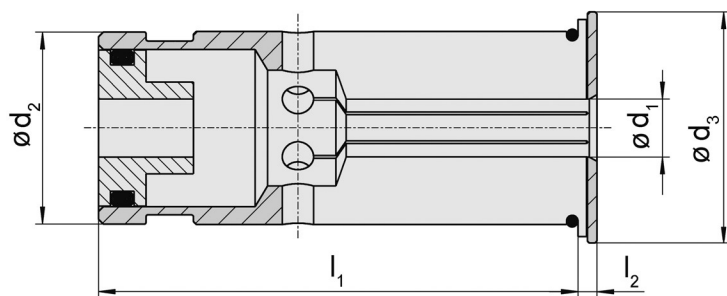
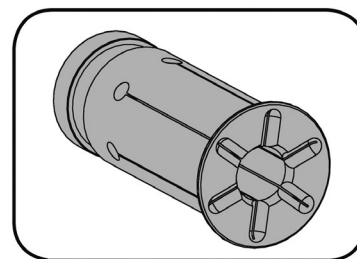
### Zwischenbüchse

#### Intermediate Sleeve

### HDZB

geschlitzter Bund  
collar slotted

für Peripheriekühlung - Bund geschlitzt  
with peripheral cooling - collar slotted



F

| Bestellnummer<br>Part number | $d_1$ | $d_2$ | $l_1$ | $l_2$ | $d_3$ | Gewicht [kg]<br>Weight [kg] |
|------------------------------|-------|-------|-------|-------|-------|-----------------------------|
| HDZB.1203.PK                 | 3     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1204.PK                 | 4     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1205.PK                 | 5     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1206.PK                 | 6     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.1208.PK                 | 8     | 12    | 45,0  | 2     | 16,5  | 0,1                         |
| HDZB.2003.PK                 | 3     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2004.PK                 | 4     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2005.PK                 | 5     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2006.PK                 | 6     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2007.PK                 | 7     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2008.PK                 | 8     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2009.PK                 | 9     | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2010.PK                 | 10    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2011.PK                 | 11    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2012.PK                 | 12    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2013.PK                 | 13    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2014.PK                 | 14    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2015.PK                 | 15    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.2016.PK                 | 16    | 20    | 50,5  | 2     | 24,0  | 0,1                         |
| HDZB.3206.PK                 | 6     | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3208.PK                 | 8     | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3210.PK                 | 10    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3212.PK                 | 12    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3214.PK                 | 14    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3216.PK                 | 16    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3218.PK                 | 18    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3220.PK                 | 20    | 32    | 60,5  | 3     | 35,5  | 0,3                         |
| HDZB.3225.PK                 | 25    | 32    | 60,5  | 3     | 35,5  | 0,3                         |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

#### Bestellhinweis:

Standard-Zwischenbüchse  $d_2 \leq 12$  mm nicht zum Rundrichten verwenden

#### Ordering note:

Standard intermediate sleeve  $d_2 \leq 12$  mm do not use for round-straightening

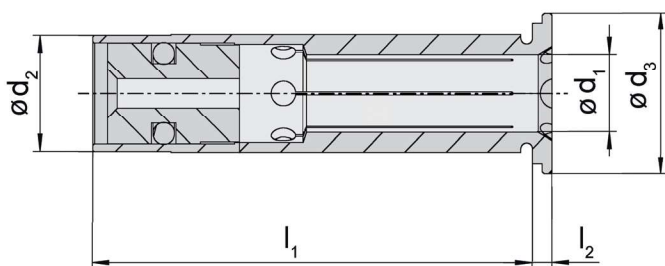
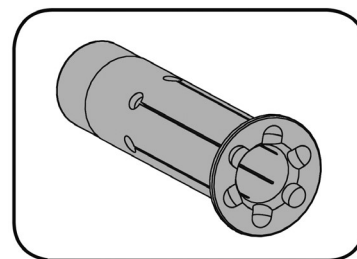
### Zwischenbüchse

#### Intermediate Sleeve

### HDZB.V

verstärkter Bund  
reinforced collar

Ausführung HDZB...PKV mit innerer Kühlmittelzufuhr  
Ausführung HDZB...KDV mit Peripheriekühlung  
Version HDZB...PKV with through coolant supply  
Version HDZB...KDV with peripheral cooling



| Bestellnummer<br>Part number | $d_1$ | $d_2$ | $l_1$ | $l_2$ | $d_3$ | Gewicht [kg]<br>Weight [kg] |
|------------------------------|-------|-------|-------|-------|-------|-----------------------------|
| HDZB.1206.KDV                | 6     | 12    | 45    | 2     | 16,5  | 0,1                         |
| HDZB.1206.PKV                | 6     | 12    | 45    | 2     | 16,5  | 0,1                         |
| HDZB.1208.KDV                | 8     | 12    | 45    | 2     | 16,5  | 0,1                         |
| HDZB.1208.PKV                | 8     | 12    | 45    | 2     | 16,5  | 0,1                         |

Weitere Abmessungen und Ausführungen auf Anfrage  
Further sizes and versions upon request

Abmessungen in mm  
Dimensions in mm

#### Hinweis:

Durch die eingepasste Dichtscheibe kann die Längeneinstellung der Hydrodehnspannfutter nicht verwendet werden.  
Durch verstärkten Bund auch bei  $d_2 \leq 12$  mm in Rundlauf einstellbaren Hydrodehnspannfutter Typ HDR einsetzbar.

#### Note:

Due to the fitted collet, the length adjustment of the hydraulic expansion toolholder cannot be used.  
Due to reinforced collar also applicable at  $d_2 \leq 12$  mm for adjustable runout hydraulic expansion toolholder type HDR.

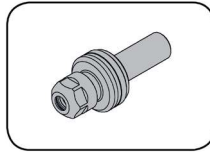
# Pendelhalter

## Floating holder

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Aufnahme  
Adaptor  
PZ



Seite/Page  
F32

Spannzange  
Collet  
Dichtscheibe  
Seal

Seite/Page  
F33

**F**

**PZ**



**Pendelhalter mit  
ER-Spannzangen**

**Floating Holder with  
Collet Chuck ER**

# Pendelhalter

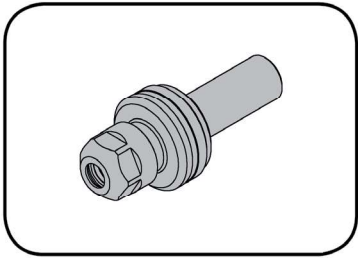
## Floating holder



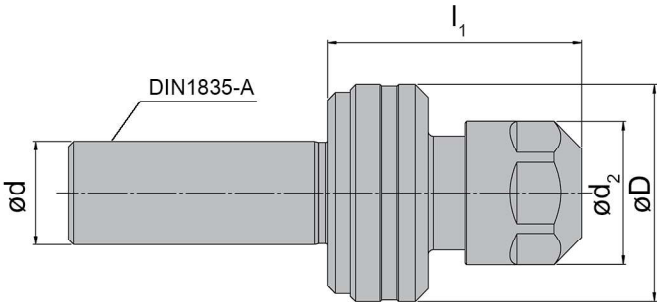
### Aufnahme

#### Adaptor

PZ



Spannzangendurchmesser 1,0 - 10,0 mm  
Collet diameter 1-10 mm

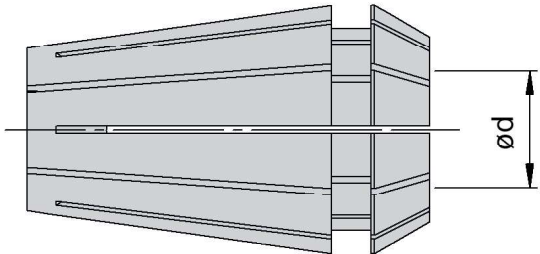


Oszillation ±1  
Oscillation ±1

| Bestellnummer<br>Part number | l <sub>1</sub> | d  | D  | d <sub>2</sub> | Größe<br>Size |
|------------------------------|----------------|----|----|----------------|---------------|
| PZ60.16.16.044               | 44             | 16 | 42 | 28             | 16            |
| PZ60.16.20.044               | 44             | 20 | 42 | 28             | 16            |

Abmessungen in mm  
Dimensions in mm

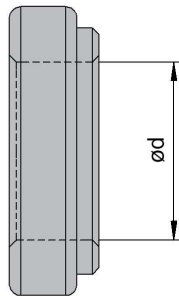
**Spannzange**  
Collet chuck



| Bestellnummer<br>Part number | d  | Größe<br>Size |
|------------------------------|----|---------------|
| 62 16 06                     | 6  | 16            |
| 62 16 08                     | 8  | 16            |
| 62 16 10                     | 10 | 16            |

Abmessungen in mm  
Dimensions in mm

**Dichtscheibe**  
Sealing disc



| Bestellnummer<br>Part number | d  | Größe<br>Size |
|------------------------------|----|---------------|
| 20 10721 060                 | 6  | 16            |
| 20 10721 080                 | 8  | 16            |
| 20 10721 100                 | 10 | 16            |

Abmessungen in mm  
Dimensions in mm

**F**