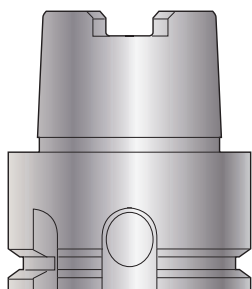




**NT**  
**NT TOOL**  
MADE BY INNOVATION

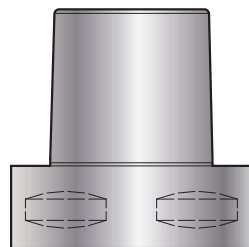
hochleistungs-werkzeugspannsysteme  
high performance tooling systems



## HSK

DIN 69893

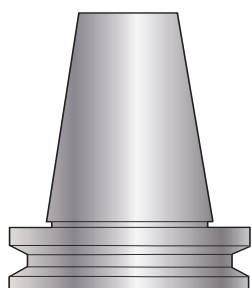
|       |               |
|-------|---------------|
| HSK-A | S. P. 42-89   |
| HSK-E | S. P. 90-105  |
| HSK-F | S. P. 105-106 |
| HSK-T | S. P. 200-207 |



## POLYGON

ISO 26623-1

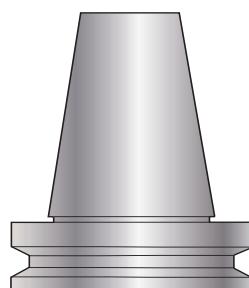
S.|P. 107-112



## SK

DIN 69871

|      |               |
|------|---------------|
| SK30 | S. P. 114-115 |
| SK40 | S. P. 116-133 |
| SK50 | S. P. 134-144 |



## BT

JIS B6339

|                            |               |
|----------------------------|---------------|
| BT30                       | S. P. 146-150 |
| BT40                       | S. P. 151-165 |
| BT50                       | S. P. 166-176 |
| AHO                        | S. P. 216     |
| Plananlage   2Face-Contact |               |



## Verlängerungen Extensions

S.|P. 184-187

Werkzeugspannsysteme für Brother  
Tooling System for Brother's **SPEEDIO**

# M140X2

S.|P. 178-182

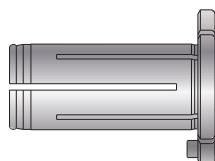
## Zubehör | Accessories

### Spannhülsen|Collets



**MC**

S.|P. 188-189



**PHS**

S.|P. 192

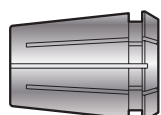
**PHS-H**

S.|P. 192

**HS**

S.|P. 193

### Spannzangen|Collets



**FDC**

S.|P. 195

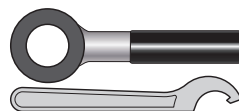
**FSC**

S.|P. 197

**ER-GB**

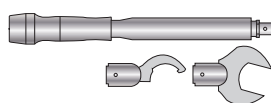
S.|P. 199

### Spannschlüssel|Spanner



**HS|RS**

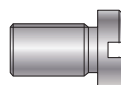
S.|P. 190



**CL**

S.|P. 194+196+198

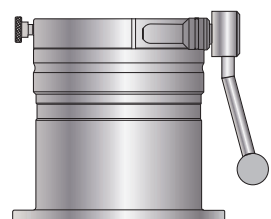
**Drehmomentschlüssel**  
Torque Wrench



**BL**

S.|P. 190

**Einstellschrauben**  
Back-up screws



**HCL**

S.|P. 191

**Kompaktspanner**  
Clamper

# HSK

## DIN 69893 | ISO 12164

| Spannsystem |                                     | Tooling System                     | HSK-A |    |       |    |     |     |
|-------------|-------------------------------------|------------------------------------|-------|----|-------|----|-----|-----|
|             |                                     |                                    | 40    | 50 | 63    | 80 | 100 | 125 |
| CT-SA       | Hochleistungs-Kraftspannfutter      | High Performance Milling Chuck     | 42    | 48 | 54    | 73 | 74  | -   |
| CT-SA-C     | Kraftspannfutter Coolant Jet        | Milling Chuck Coolant Jet          | -     | -  | 55    | -  | -   | -   |
| CTS-P       | Power-Kraftspannfutter              | Power Milling Chuck                | -     | -  | 56    | -  | 75  | 88  |
| CTZ-SA      | Kraftspannfutter Rundlauf "0"       | Milling Chuck R-Zero               | -     | -  | 57    | -  | 76  | -   |
| PHC-A       | Power-Dehnspannfutter               | Power Hydro Chuck                  | 43    | 49 | 58    | -  | 77  | -   |
| PHC-H       | Hochdruck-Dehnspannfutter           | High Pressure Hydro Chuck          | -     | -  | 59    | -  | 78  | -   |
| PHC-Z       | Dehnspannfutter Rundlauf "0"        | Hydro Chuck R-Zero                 | -     | -  | 60    | -  | 80  | -   |
| PHC-SA      | Dehnspannfutter superschlank        | Slim Hydro Chuck                   | -     | -  | 62-63 | -  | 79  | -   |
| PHC-SC      | Dehnspannfutter schlank Coolant Jet | Slim Hydro Chuck Coolant Jet       | -     | -  | 62-63 | -  | -   | -   |
| PHZ-SA      | Dehnspannfutter Rundlauf "0"        | Slim Hydro Chuck R-Zero            | -     | -  | 61    | -  | 81  | -   |
| PHZ-SC      | Dehnspannfutter R "0" Coolant Jet   | Slim Hydro Chuck R "0" Coolant Jet | -     | -  | 61    | -  | -   | -   |
| HDC-A       | Hochgenauigkeits-Spannzangenfutter  | High Precision Collet Chuck        | 44    | 50 | 64    | -  | 82  | -   |
| GDC-A       | Highspeed-Spannzangenfutter         | Highspeed Collet Chuck             | 45    | 51 | 65    | -  | 83  | -   |
| HDZ-A       | Spannzangenfutter Rundlauf "0"      | Collet Chuck R-Zero                | -     | -  | 70    | -  | 84  | -   |
| ERZ         | ER-Spannzangenfutter Rundlauf "0"   | ER-Collet Chuck R-Zero             | -     | -  | 66    | -  | -   | -   |
| ERC         | Mikro-Spannzangenfutter             | Micro Collet Chuck                 | 46    | 52 | 67    | -  | -   | -   |
| SRE         | Schrumpffutter                      | Shrink Fit Chuck                   | -     | -  | 68    | -  | -   | -   |
| SRS         | Schrumpffutter superschlank         | Slim Shrink Fit Chuck              | -     | -  | 69    | -  | -   | -   |
| SFH         | SynchroFit-Gewindescheidfutter      | SynchroFit Tapping Holder          | -     | -  | 71    | -  | 85  | -   |
| SFH-S       | SynchroFit-Gewindescheidfutter      | SynchroFit Tapping Holder          | 47    | 53 | 71    | -  | 85  | -   |
| FMC         | Aufsteck-Fräsdorn extra lang        | Face Mill Arbor extra long         | -     | -  | -     | -  | 86  | -   |
| FMH         | Aufsteck-Fräsdorn Coolant Jet       | Face Mill Arbor Coolant Jet        | -     | -  | 72    | -  | 87  | 89  |

| Spannsystem |                                | Tooling System                 | HSK-E |    |    |     |     |
|-------------|--------------------------------|--------------------------------|-------|----|----|-----|-----|
|             |                                |                                | 25    | 32 | 40 | 50  | 63  |
| CT-SA       | Hochleistungs-Kraftspannfutter | High Performance Milling Chuck | -     | -  | 94 | 100 | 105 |
| PHC-A       | Power Dehnspannfutter          | Power Hydro Chuck              | -     | -  | 95 | 101 | -   |
| PHC-SA      | Dehnspannfutter superschlank   | Slim Hydro Chuck               | -     | -  | 96 | -   | -   |
| GDC-A       | Highspeed-Spannzangenfutter    | High Speed Collet Chuck        | -     | -  | 97 | 102 | -   |
| ERC         | Mikro-Spannzangenfutter        | Micro Collet Chuck             | 90    | 92 | 98 | 103 | -   |
| SRE         | Mini-Schrumpffutter IQ         | Mini Shrink Fit Chuck IQ       | 91    | 93 | 99 | 104 | -   |

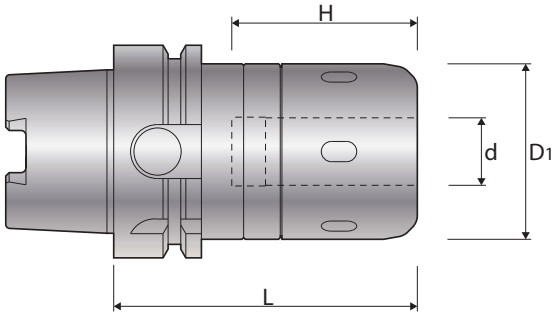
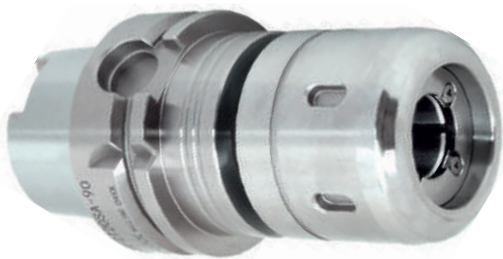
| Spannsystem |                                | Tooling System                 | HSK-F |
|-------------|--------------------------------|--------------------------------|-------|
|             |                                |                                | 63    |
| CT-SA       | Hochleistungs-Kraftspannfutter | High Performance Milling Chuck | 105   |
| GDC-A       | Highspeed-Spannzangenfutter    | High Speed Collet Chuck        | 106   |

| Spannsystem |                                    | Tooling System                 | C   |     |         |     |
|-------------|------------------------------------|--------------------------------|-----|-----|---------|-----|
|             |                                    |                                | 3   | 4   | 5       | 6   |
| CT-SA       | Hochleistungs-Kraftspannfutter     | High Performance Milling Chuck | -   | -   | 107     | 107 |
| PHC-A       | Power-Dehnspannfutter              | Power Hydro Chuck              | -   | -   | 108     | 109 |
| HDC-A       | Hochgenauigkeits-Spannzangenfutter | High Precision Collet Chuck    | 110 | 110 | 110-111 | 111 |



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



HSK40A

DIN 69893 | ISO 12164

3.0  
25.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>

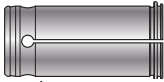


| Halter   Holder |         |                    | d  | D1 | L   | H  |  |  |
|-----------------|---------|--------------------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40A          | -CT16SA | -75 <sup>1,4</sup> | 16 | 45 | 75  | 50 | MC16-d                                                                              | HS-1-16                                                                             |
|                 |         | -90 <sup>1</sup>   | 16 | 45 | 90  | 60 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA | -90                | 20 | 52 | 90  | 60 | MC20-d                                                                              | HS-2-20                                                                             |
|                 |         | -105               | 20 | 52 | 105 | 60 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -105               | 25 | 61 | 105 | 60 | MC25-d                                                                              | HS-2.5-25                                                                           |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.  
<sup>4</sup> Nicht einsetzbar auf bestimmten BAZ.

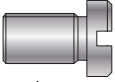
HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup> MC-A Collets cannot be used.  
<sup>4</sup> Not suitable for certain M/C.

**MC**  
Spannhülsen  
Collets



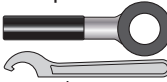
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



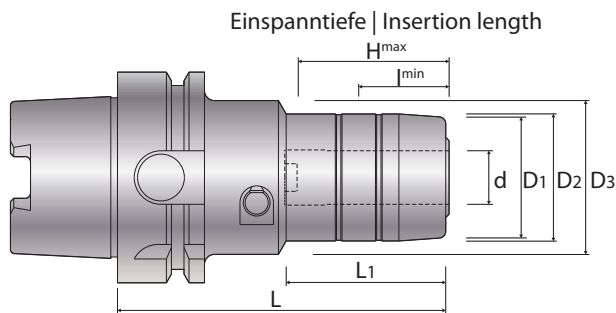
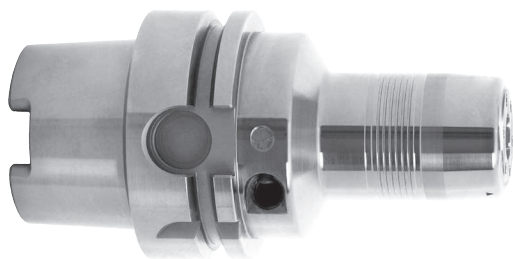
S.|P. 187



# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK40A

DIN 69893 | ISO 12164

3.0  
25.0

0.003  
50

max  
15.000  
min<sup>-1</sup>



Tol.  
h6

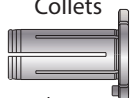


| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1   | I min | H max |  |  |
|-----------------|--------------|----|----|----|----|-----|------|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40A          | -PHC03A -75  | 3  | -  | 24 | 46 | 75  | 19.8 | 18    | 27    | -                                                                                   | L-4T                                                                                |
|                 | -PHC04A -80  | 4  | -  | 25 | 46 | 80  | 25.1 | 24    | 29    | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A -90  | 6  | 24 | 26 | 46 | 90  | 30   | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -90  | 8  | 26 | 28 | 46 | 90  | 30   | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -105 | 10 | 28 | 30 | 52 | 105 | 44   | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A -105 | 12 | 30 | 32 | 52 | 105 | 45   | 40    | 50    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC14A -105 | 14 | 34 | 36 | 52 | 105 | 46   | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A -105 | 16 | 36 | 38 | 52 | 105 | 46   | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20A -105 | 20 | 40 | 42 | 46 | 105 | 49   | 40    | 50    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -PHC25A -120 | 25 | 50 | 52 | 59 | 120 | 59   | 50    | 60    | -                                                                                   | L-6T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

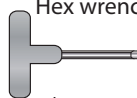
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

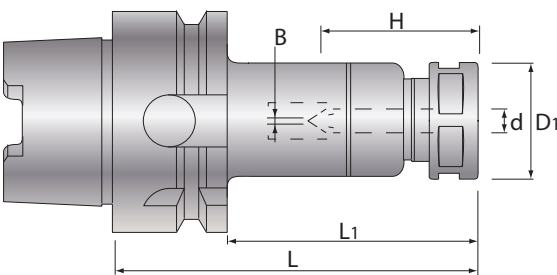
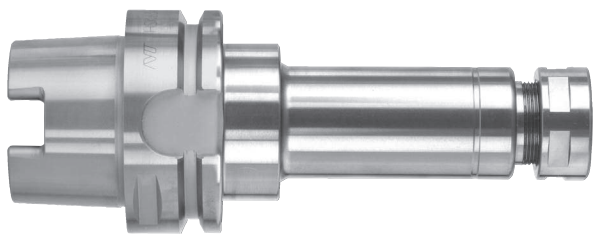
**L-T**  
6kant  
Hex wrench



S./P. 193

# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



**HSK40A**

DIN 69893 | ISO 12164

1.0  
16.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

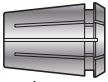


| Halter   Holder |         | d    | D1       | L  | L1  | H   | B     |  |  |      |
|-----------------|---------|------|----------|----|-----|-----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| HSK40A          | -HDC07A | -60  | 1.0-7.0  | 23 | 60  | 40  | 38    | -                                                                                   | FDC-07                                                                              | S-0  |
|                 |         | -75  | 1.0-7.0  | 23 | 75  | 55  | 22-35 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -90  | 1.0-7.0  | 23 | 90  | 70  | 22-46 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -120 | 1.0-7.0  | 23 | 120 | 100 | 22-46 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -150 | 1.0-7.0  | 23 | 150 | 130 | 22-46 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 | -HDC09A | -60  | 3.0-9.0  | 26 | 60  | 40  | 37    | -                                                                                   | FDC-09                                                                              | S-1L |
|                 |         | -75  | 3.0-9.0  | 26 | 75  | 55  | 27-32 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -90  | 3.0-9.0  | 26 | 90  | 70  | 27-43 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -120 | 3.0-9.0  | 26 | 120 | 100 | 27-58 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -150 | 3.0-9.0  | 26 | 150 | 130 | 27-58 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 | -HDC12A | -75  | 3.0-12.0 | 32 | 75  | 55  | 51    | -                                                                                   | FDC-12                                                                              | S-3L |
|                 |         | -90  | 3.0-12.0 | 32 | 90  | 70  | 38-48 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120 | 3.0-12.0 | 32 | 120 | 100 | 33-71 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -150 | 3.0-12.0 | 32 | 150 | 130 | 33-71 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -75  | 4.0-16.0 | 36 | 75  | 55  | 50    | -                                                                                   | FDC-16                                                                              | S-4L |
|                 |         | -90  | 4.0-16.0 | 36 | 90  | 70  | 38-51 | 0-6                                                                                 | FDC-16                                                                              | S-4L |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

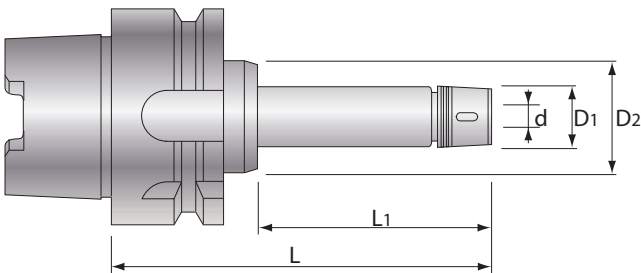
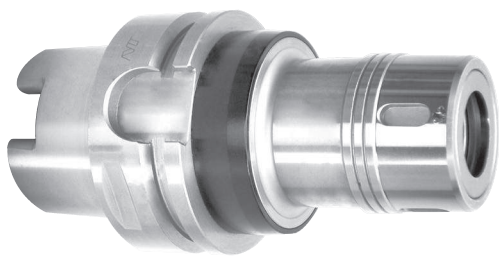
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK40A**

DIN 69893 | ISO 12164

**1.0**  
**12.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

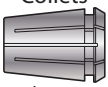


| Halter   Holder |             | d        | D1 | D2 | L   | L1 |  |  |
|-----------------|-------------|----------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>HSK40A</b>   | -75         | 1.0-7.0  | 23 | 34 | 75  | 40 | FDC-07                                                                              | S-0                                                                                 |
|                 | -GDC07A -90 | 1.0-7.0  | 23 | 34 | 90  | 55 | FDC-07                                                                              | S-0                                                                                 |
|                 | -120        | 1.0-7.0  | 23 | 34 | 120 | 85 | FDC-07                                                                              | S-0                                                                                 |
|                 | -75         | 3.0-9.0  | 29 | 34 | 75  | 40 | FDC-09                                                                              | S-0                                                                                 |
|                 | -GDC09A -90 | 3.0-9.0  | 29 | 34 | 90  | 55 | FDC-09                                                                              | S-0                                                                                 |
|                 | -120        | 3.0-9.0  | 29 | 34 | 120 | 85 | FDC-09                                                                              | S-0                                                                                 |
|                 | -GDC12A -90 | 3.0-12.0 | 34 | 39 | 90  | -  | FDC-12                                                                              | FK-0034                                                                             |

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.

Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners

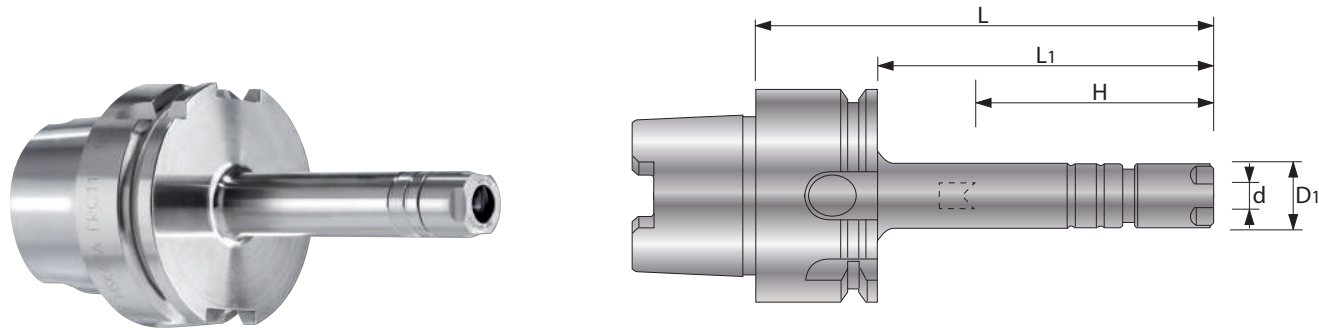


S.|P. 194



# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



HSK40A

DIN 69893 | ISO 12164

1.0  
7.0

0.005  
3x D

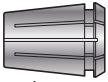
max  
30.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

| Halter   Holder |     | d       | D1 | L  | L1 | H     |  |  |
|-----------------|-----|---------|----|----|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40A          | -60 | 1.0-7.0 | 16 | 60 | 40 | 22-34 | ER11                                                                                | S-11E                                                                               |
|                 | -75 | 1.0-7.0 | 16 | 75 | 55 | 22-38 | ER11                                                                                | S-11E                                                                               |
|                 | -90 | 1.0-7.0 | 16 | 90 | 70 | 22-45 | ER11                                                                                | S-11E                                                                               |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
 HSK without holes for manual clamping.

**ER**  
Spannzangen  
Collets  
  
S.|P. 196

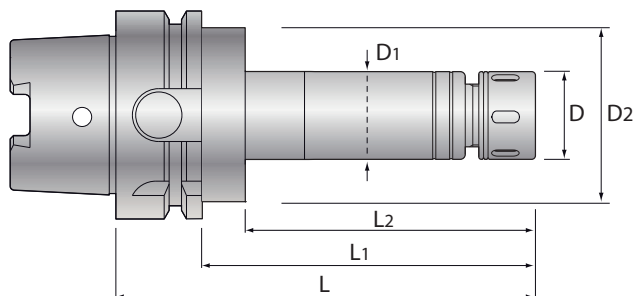
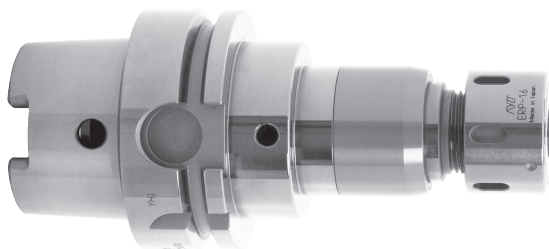
**ES**  
Einstellschraube  
Preset screw  
  
S.|P. 196

**Mini ERP**  
Spannmutter  
Cap nut  
  
S.|P. 196

**S-E**  
Spannschlüssel  
Spanners  
  
S.|P. 196

# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



### HSK40A

DIN 69893 | ISO 12164

M1  
M12

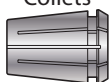


| Halter   Holder |         |      | Schneidbereich<br>Tapping range | D  | D1 | D2 | L   | L1 | L2 |  |  |
|-----------------|---------|------|---------------------------------|----|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40A          | -SFH8S  | -110 | M1-M8                           | 16 | 32 | 44 | 110 | 90 | 65 | ER11-GB                                                                             | S-11E                                                                               |
|                 | -SFH12S | -110 | M2-M12                          | 32 | 34 | 44 | 110 | 90 | 64 | ER16-GB                                                                             | FK-0034                                                                             |

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.

ER-GB  
Spannzangen  
Collets



S.|P. 199

ERP  
Spannmutter  
Cap nut



S.|P. 198

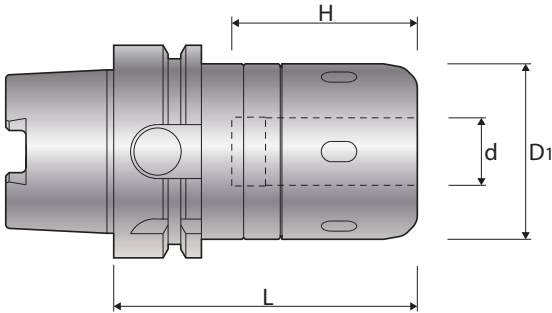
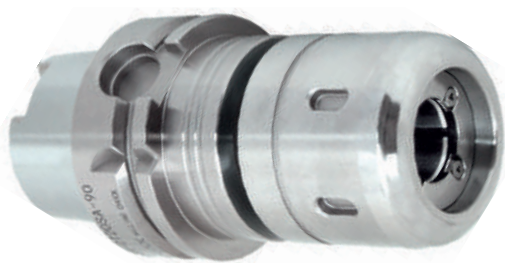
S-E|FK|HS  
Spannschlüssel  
Spanners



S.|P. 198

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



**HSK50A**

DIN 69893 | ISO 12164

**3.0**  
**25.0**

**0.005**  
**3x D**

**max**  
**20.000**  
**min<sup>-1</sup>**



**MMS**  
**MQL**

| Halter   Holder |         |      | d  | D1 | L   | H  |  |  |
|-----------------|---------|------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>HSK50A</b>   | -CT16SA | -90  | 16 | 45 | 90  | 60 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA | -90  | 20 | 52 | 90  | 60 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT20SA | -105 | 20 | 52 | 105 | 60 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -105 | 25 | 61 | 105 | 75 | MC25-d                                                                              | HS-2.5-25                                                                           |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
MC-A Spannhülsen nicht einsetzbar.

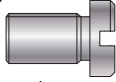
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



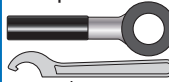
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



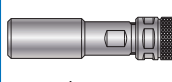
S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

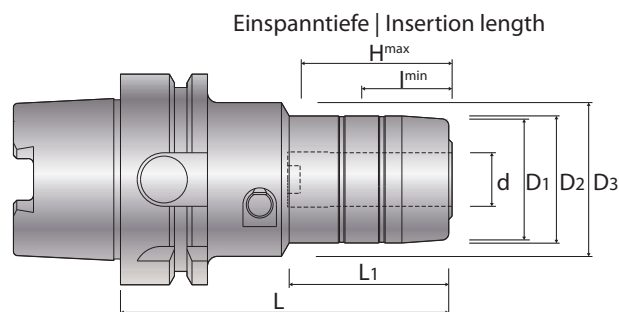
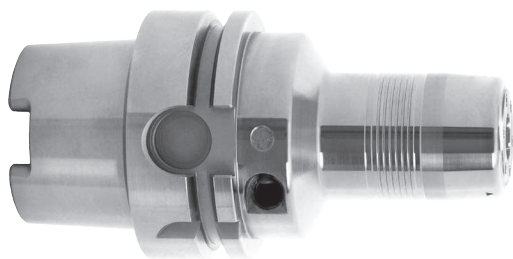


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK50A

DIN 69893 | ISO 12164

3.0  
25.0

0.003  
50

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

Tol.  
h6

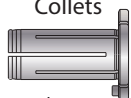


| Halter   Holder |              | d  | D1   | D2 | D3 | L   | L1   | I min | H max |  |  |
|-----------------|--------------|----|------|----|----|-----|------|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50A          | -PHC03A -80  | 3  | 19.8 | 24 | 46 | 80  | 19.8 | 18    | 27    | -                                                                                   | L-4T                                                                                |
|                 | -PHC04A -85  | 4  | 25.1 | 25 | 46 | 85  | 25.1 | 24    | 29    | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A -90  | 6  | 24   | 26 | 46 | 90  | 30   | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -90  | 8  | 26   | 28 | 46 | 90  | 30   | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -105 | 10 | 28   | 30 | 52 | 105 | 44   | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A -105 | 12 | 30   | 32 | 52 | 105 | 45   | 40    | 50    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC14A -105 | 14 | 34   | 36 | 52 | 105 | 46   | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A -105 | 16 | 36   | 38 | 52 | 105 | 46   | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20A -105 | 20 | 40   | 42 | 46 | 105 | 49   | 40    | 50    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -PHC25A -135 | 25 | 50   | 52 | 59 | 135 | 59   | 50    | 60    | -                                                                                   | L-6T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

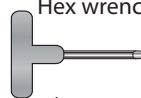
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench

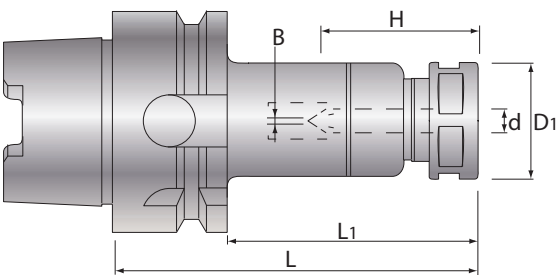
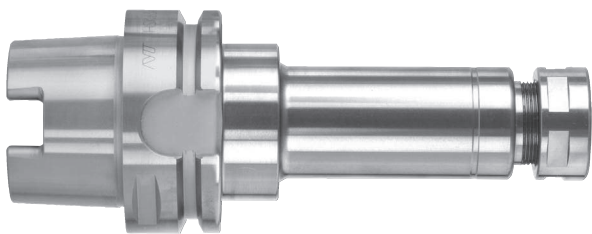


S./P. 193



# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



**HSK50A**

DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

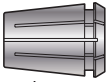


| Halter   Holder |             | d        | D1 | L   | L1  | H     | B   |  |  |
|-----------------|-------------|----------|----|-----|-----|-------|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50A          | -75         | 1.0-7.0  | 23 | 75  | 49  | 22-29 | 0-4 | FDC-07                                                                              | S-0                                                                                 |
|                 | -90         | 1.0-7.0  | 23 | 90  | 64  | 22-42 | 0-4 | FDC-07                                                                              | S-0                                                                                 |
|                 | -120        | 1.0-7.0  | 23 | 120 | 94  | 22-42 | 0-4 | FDC-07                                                                              | S-0                                                                                 |
|                 | -75         | 3.0-9.0  | 26 | 75  | 49  | 27-28 | 0-4 | FDC-09                                                                              | S-1L                                                                                |
|                 | -90         | 3.0-9.0  | 26 | 90  | 64  | 27-44 | 0-4 | FDC-09                                                                              | S-1L                                                                                |
|                 | -120        | 3.0-9.0  | 26 | 120 | 94  | 27-58 | 0-4 | FDC-09                                                                              | S-1L                                                                                |
|                 | -90         | 3.0-12.0 | 32 | 90  | 64  | 33-39 | 0-5 | FDC-12                                                                              | S-3L                                                                                |
|                 | -120        | 3.0-12.0 | 32 | 120 | 94  | 33-68 | 0-5 | FDC-12                                                                              | S-3L                                                                                |
|                 | -150        | 3.0-12.0 | 32 | 150 | 124 | 33-71 | 0-5 | FDC-12                                                                              | S-3L                                                                                |
|                 | -90         | 4.0-16.0 | 36 | 90  | 64  | 38-47 | 0-6 | FDC-16                                                                              | S-4L                                                                                |
|                 | -120        | 4.0-16.0 | 36 | 120 | 94  | 38-62 | 0-6 | FDC-16                                                                              | S-4L                                                                                |
|                 | -150        | 4.0-16.0 | 36 | 150 | 124 | 38-83 | 0-6 | FDC-16                                                                              | S-4L                                                                                |
|                 | -HDC22A -90 | 4.0-22.0 | 46 | 90  | 64  | 57    | -   | FDC-22                                                                              | S-5L                                                                                |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

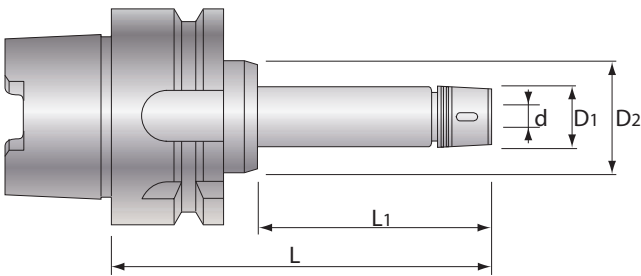
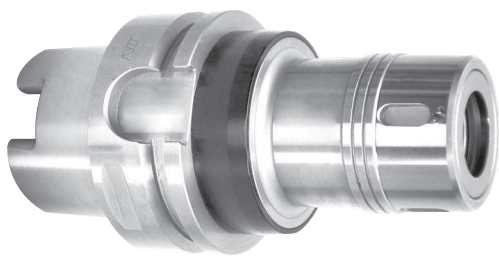
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK50A**

DIN 69893 | ISO 12164

**1.0**  
**22.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

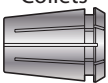


| Halter   Holder |              | d        | D1 | D2 | L   | L1  |  |  |
|-----------------|--------------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50A          | -75          | 1.0-7.0  | 23 | 42 | 75  | 34  | FDC-07                                                                              | S-0                                                                                 |
|                 | -GDC07A -90  | 1.0-7.0  | 23 | 42 | 90  | 49  | FDC-07                                                                              | S-0                                                                                 |
|                 | -120         | 1.0-7.0  | 23 | 42 | 120 | 79  | FDC-07                                                                              | S-0                                                                                 |
|                 | -75          | 3.0-9.0  | 29 | 42 | 75  | 34  | FDC-09                                                                              | S-0                                                                                 |
|                 | -GDC09A -90  | 3.0-9.0  | 29 | 42 | 90  | 49  | FDC-09                                                                              | S-0                                                                                 |
|                 | -120         | 3.0-9.0  | 29 | 42 | 120 | 79  | FDC-09                                                                              | S-0                                                                                 |
|                 | -90          | 3.0-12.0 | 34 | 42 | 90  | 49  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC12A -120 | 3.0-12.0 | 34 | 42 | 120 | 79  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -150         | 3.0-12.0 | 34 | 42 | 150 | 109 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC16A -90  | 4.0-16.0 | 38 | 42 | 90  | 49  | FDC-16                                                                              | FK-0034                                                                             |

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.

Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

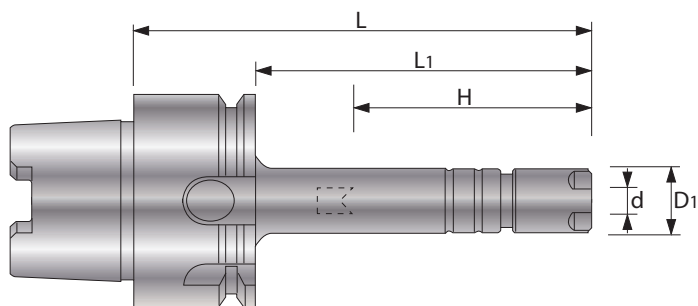
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



**1.0  
-  
7.0**

max  
30.000  
min<sup>-1</sup>

DIN 69893 | ISO 12164

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

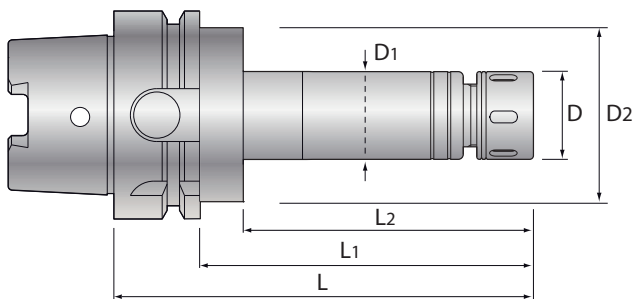
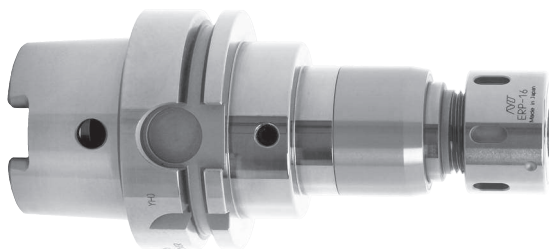
Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.



S./P. 196

# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**HSK50A**

DIN 69893 | ISO 12164

**M1  
M12**

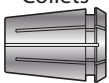


| Halter   Holder |         |      | Schneidbereich<br>Tapping range | D  | D1 | D2 | L   | L1 | L2 |  |  |
|-----------------|---------|------|---------------------------------|----|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50A          | -SFH8S  | -110 | M1-M8                           | 16 | 32 | 42 | 110 | 84 | 65 | ER11-GB                                                                             | S-11E                                                                               |
|                 | -SFH12S | -110 | M2-M12                          | 32 | 34 | 42 | 110 | 84 | 64 | ER16-GB                                                                             | FK-0034                                                                             |

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.

**ER-GB**  
Spannzangen  
Collets



S.|P. 199

**ERP**  
Spannmutter  
Cap nut



S.|P. 198

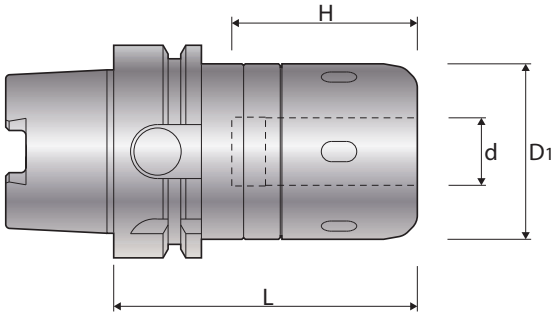
**S-E|FK|HS**  
Spannschlüssel  
Spanners



S.|P. 198

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



**HSK63A**

DIN 69893 | ISO 12164

**3.0**  
**32.0**

**0.005**  
**3x D**

**max**  
**20.000**  
**min<sup>-1</sup>**



**MMS**  
**MQL**

| Halter   Holder |         | d                  | D1 | L  | L1  | H   |  |  |           |
|-----------------|---------|--------------------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| HSK63A          | -CT16SA | -75 <sup>1</sup>   | 16 | 45 | 75  | 49  | 47                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -90                | 16 | 45 | 90  | 64  | 60                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 | -CT20SA | -75 <sup>1,2</sup> | 20 | 52 | 75  | 49  | 49                                                                                  | MC20-d-SL                                                                           | HS-2-20   |
|                 |         | -90 <sup>1</sup>   | 20 | 52 | 90  | 64  | 60                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -105 <sup>1</sup>  | 20 | 52 | 105 | 79  | 75                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -135 <sup>1</sup>  | 20 | 52 | 135 | 109 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 | -CT25SA | -105 <sup>1</sup>  | 25 | 61 | 105 | -   | 75                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 |         | -120 <sup>1</sup>  | 25 | 61 | 120 | -   | 75                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 |         | -135 <sup>1</sup>  | 25 | 61 | 135 | -   | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -CT32SA | -105 <sup>1</sup>  | 32 | 73 | 105 | -   | 75                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -120 <sup>1</sup>  | 32 | 73 | 120 | -   | 90                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -150 <sup>1</sup>  | 32 | 73 | 150 | -   | 120                                                                                 | MC32-d                                                                              | HS-3-32   |

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK ohne Bohrung für Handspannung.

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> MC20-d-SL Spannhülsen: Seite ...

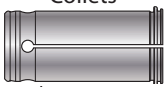
HSK-Coolant pipe included in delivery.

HSK without holes for manual clamping.

<sup>1</sup> MC-A Collets cannot be used.

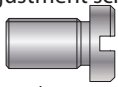
<sup>2</sup> MC20-d-SL Straight Collets: Page ...

**MC**  
Spannhülsen  
Collets



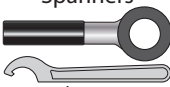
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



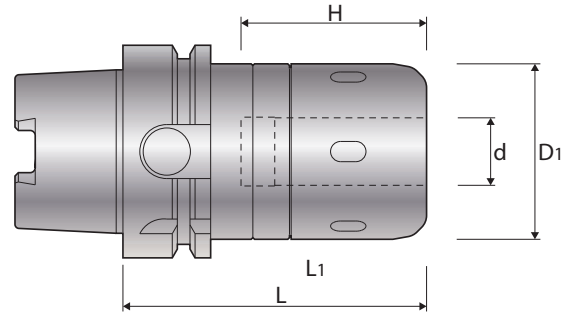
S.|P. 187



# CT-SA-C Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Coolant Jet Series



### HSK63A

DIN 69893 | ISO 12164

4.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

**mit Peripheriekühlung**  
with side-through coolant

| Halter   Holder            | d  | D1 | L  | L1 | H  |  |  |
|----------------------------|----|----|----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>HSK63A</b> -CT20SA -90C | 20 | 52 | 90 | 64 | 60 | MC20-d                                                                              | HS-2-20                                                                             |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
MC-A Spannhülsen nicht einsetzbar.  
Mit ID-Chip Bohrung.

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
MC-A Collets cannot be used.  
With ID-Chip hole.



**IKZ und Coolant Jet-Peripheriekühlung** für effektive Spanabfuhr  
Inner coolant and side-through coolant for efficient chip removal

**MC**  
Spannhülsen  
Collets



S./P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S./P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S./P. 190

**EM**  
Verlängerungen  
Extensions

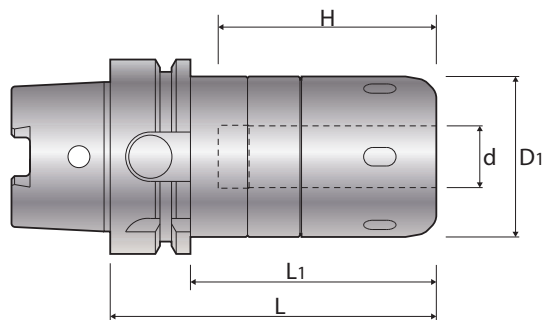
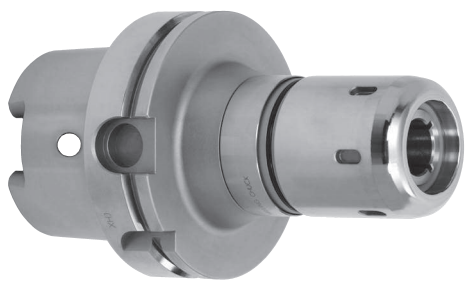


S./P. 187

CTS-P

Power Series

Hochleistungs-Kraftspannfutter  
High Performance Milling Chuck



HSK63A

DIN 69893 | ISO 12164

3.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>



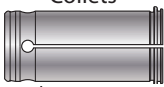
mit erhöhter Spannkraft  
with enhanced clamping force

| Halter   Holder |        |       | d  | D1 | L   | L1 | H  |  |  |
|-----------------|--------|-------|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63A          | -CT20S | -115P | 20 | 52 | 115 | 89 | 75 | MC20-d                                                                              | RS-20                                                                               |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.  
Mit ID-Chip Bohrung.

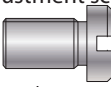
HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.  
With ID-Chip hole.

**MC**  
Spannhülsen  
Collets



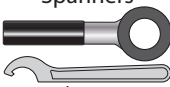
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



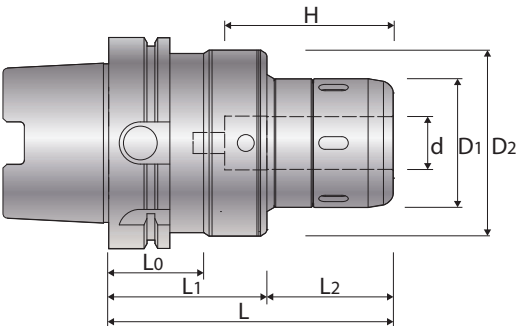
S.|P. 187

# CTZ-SA

R"0" Series

Hochleistungs-Kraftspannfutter

High Performance Milling Chuck



HSK63A

DIN 69893 | ISO 12164

4.0  
32.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>



| Halter   Holder |                            | d  | D1 | D2 | L   | L1 | L2 | L0 | H   |  |  |  |
|-----------------|----------------------------|----|----|----|-----|----|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63A          | -CTZ25SA -135 <sup>1</sup> | 25 | 61 | 74 | 135 | 71 | 64 | 42 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -150 <sup>1</sup>          | 25 | 61 | 74 | 150 | 71 | 79 | 42 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -CTZ32SA -135 <sup>1</sup> | 32 | 68 | 80 | 135 | 71 | 64 | 42 | 105 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |
|                 | -150 <sup>1</sup>          | 32 | 68 | 80 | 150 | 71 | 79 | 42 | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
MC-A Spannhülsen nicht einsetzbar.

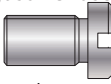
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



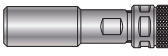
S.|P. 190

**HS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

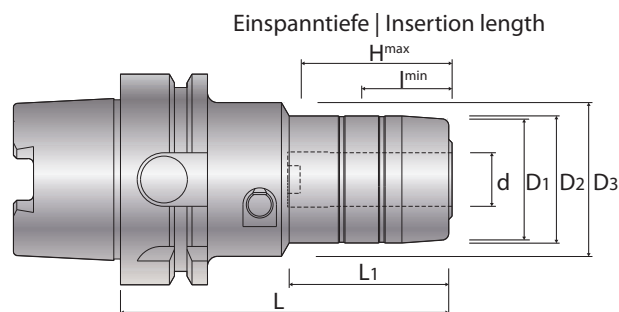
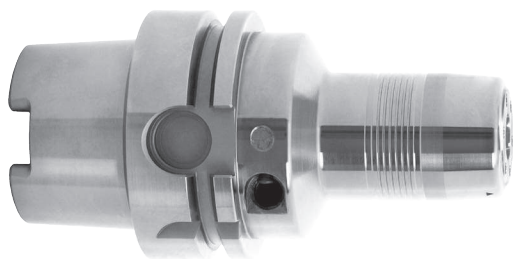


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK63A

DIN 69893 | ISO 12164

3.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

Tol.  
h6

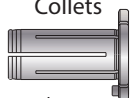


| Halter   Holder | d  | D1 | D2 | D3 | L   | L1  | I min | H max |  |  |
|-----------------|----|----|----|----|-----|-----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| -PHC03A -65     | 3  | -  | 24 | 46 | 65  | 20  | 18    | 27    | -                                                                                   | L-4T                                                                                |
| -PHC04A -70     | 4  | -  | 25 | 46 | 70  | 25  | 24    | 29    | -                                                                                   | L-4T                                                                                |
| -PHC06A -75     | 6  | 24 | 26 | 46 | 75  | 30  | 29    | 34    | -                                                                                   | L-4T                                                                                |
| -120            | 6  | 24 | 26 | 46 | 120 | 41  | 29    | 45    | -                                                                                   | L-4T                                                                                |
| -PHC08A -75     | 8  | 26 | 28 | 46 | 75  | 30  | 29    | 34    | -                                                                                   | L-4T                                                                                |
| -120            | 8  | 26 | 28 | 46 | 120 | 41  | 29    | 45    | -                                                                                   | L-4T                                                                                |
| -PHC10A -90     | 10 | 28 | 30 | 52 | 90  | 44  | 40    | 50    | -                                                                                   | L-4T                                                                                |
| -120            | 10 | 28 | 30 | 52 | 120 | 64  | 40    | 70    | -                                                                                   | L-4T                                                                                |
| -PHC12A -90     | 12 | 30 | 32 | 52 | 90  | 45  | 40    | 50    | PHS12-d                                                                             | L-4T                                                                                |
| -120            | 12 | 30 | 32 | 52 | 120 | 65  | 40    | 70    | PHS12-d                                                                             | L-4T                                                                                |
| -PHC14A -90     | 14 | 34 | 36 | 52 | 90  | 46  | 40    | 50    | -                                                                                   | L-4T                                                                                |
| -120            | 14 | 34 | 36 | 52 | 120 | 66  | 40    | 70    | -                                                                                   | L-4T                                                                                |
| -PHC16A -90     | 16 | 36 | 38 | 52 | 90  | 46  | 40    | 50    | -                                                                                   | L-4T                                                                                |
| -120            | 16 | 36 | 38 | 52 | 120 | 66  | 40    | 70    | -                                                                                   | L-4T                                                                                |
| -PHC20A -90     | 20 | 40 | 42 | 46 | 90  | 49  | 40    | 50    | PHS20-d                                                                             | L-4T                                                                                |
| -120            | 20 | 40 | 42 | 46 | 120 | 69  | 40    | 70    | PHS20-d                                                                             | L-4T                                                                                |
| -PHC25A -135    | 25 | 50 | 52 | 59 | 135 | 59  | 50    | 60    | -                                                                                   | L-6T                                                                                |
| -150            | 25 | 50 | 52 | 59 | 150 | 79  | 50    | 80    | -                                                                                   | L-6T                                                                                |
| -PHC32A -135    | 32 | 60 | 62 | 85 | 135 | 42  | 65    | 80    | -                                                                                   | L-6T                                                                                |
| -150            | 32 | 60 | 62 | 62 | 150 | 108 | 65t   | 80    | -                                                                                   | L-6T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

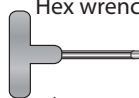
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench

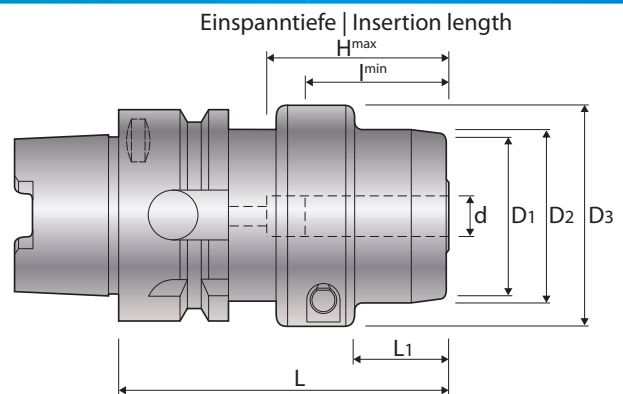


S./P. 193

# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### HSK63A

DIN 69893 | ISO 12164

6.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>



Tol.  
h6



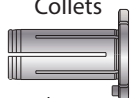
**mit erhöhter Spannkraft**  
with enhanced clamping force

| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | l min | H max |  |  |
|-----------------|--------------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63A          | -PHC16H -75  | 16 | -  | 44 | 56 | 75  | 21 | 45    | 51    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20H -105 | 20 | 48 | 50 | 60 | 105 | 32 | 50    | 75    | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -PHC25H -105 | 25 | 58 | 60 | 69 | 105 | 35 | 55    | 75    | -                                                                                   | L-5T                                                                                |
|                 | -105         | 32 | 63 | 65 | 75 | 105 | 37 | 65    | 78    | PHS32H-d                                                                            | L-5T                                                                                |
|                 | -135         | 32 | 63 | 65 | 75 | 135 | 47 | 65    | 105   | PHS32H-d                                                                            | L-5T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

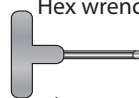
HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.

**PHS**  
Spannhülsen  
Collets



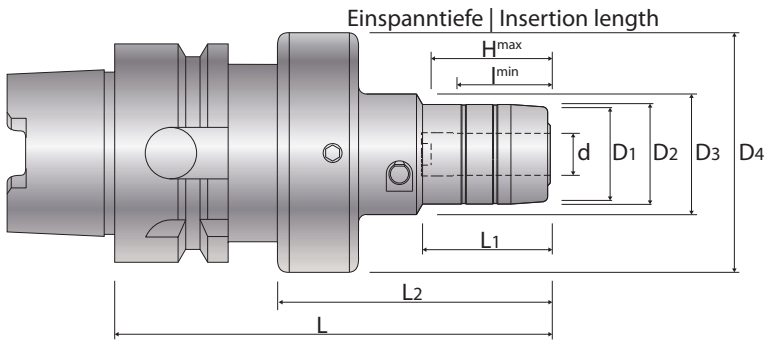
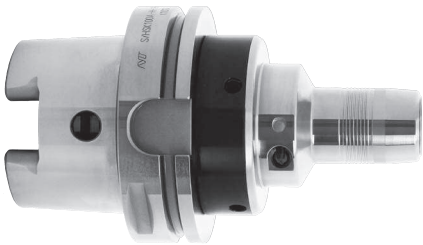
S./P. 192

**L-T**  
6kant  
Hex wrench



S./P. 193

# PHC-Z Dehnspannfutter mit Rundlauf "0" Hydro Chuck with run out "0" R"0" Series



HSK63A

DIN 69893 | ISO 12164

3.0  
20.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

Tol.  
h6

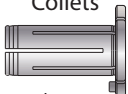


| Halter   Holder |          |      | d  | D1 | D2 | D3 | D4 | L   | L1 | L2 | I min | H max |         |      |      |
|-----------------|----------|------|----|----|----|----|----|-----|----|----|-------|-------|---------|------|------|
| HSK63A          | -PHC-Z12 | -135 | 12 | 30 | 32 | 52 | 76 | 135 | 45 | 93 | 40    | 50    | PHS12-d | L-4T | L-5T |
|                 | -PHC-Z20 | -135 | 20 | 40 | 42 | 46 | 69 | 135 | 50 | 93 | 40    | 50    | PHS20-d | L-4T | L-5T |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.  
 Mit ID-Chip Bohrung.  
 \* 6kant-Schlüssel für Einstellring.

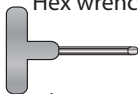
HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.  
 With axial length adjustment.  
 With ID-Chip hole.  
 \* Hex wrench for Rotor ring.

PHS  
Spannhülsen  
Collets



S.|P. 192

L-T  
6kant  
Hex wrench



S.|P. 193

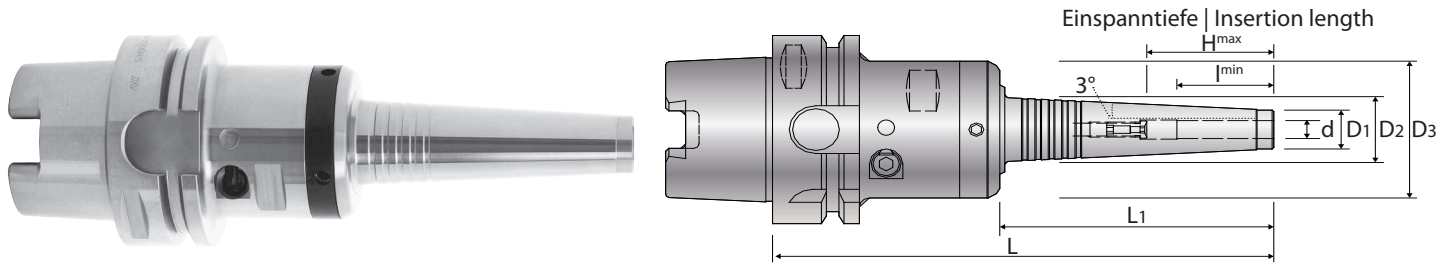


# PHZ-SA

R"0" Series

## Dehnspannfutter R"0" superschlank

Slim Hydro Chuck with run out "0"



### HSK63A

DIN 69893 | ISO 12164

6.0  
12.0

0-2  
μm

max  
20.000  
min<sup>-1</sup>



Tol.  
h6



mit Coolant Jet: PHZ-SC  
with Coolant Jet: PHZ-SC

| Halter   Holder |          | d    | PHZ-SA |    | PHZ-SC |    | D3   | L  | L1  | l <sub>min</sub> | H <sup>max</sup> |  |  |  | *    |
|-----------------|----------|------|--------|----|--------|----|------|----|-----|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
|                 |          |      | D1     | D2 | D1     | D2 |      |    |     |                  |                  |                                                                                     |                                                                                     |                                                                                     |      |
| HSK63A          | -PHZ06SA | -150 | 6      | 13 | 21.5   | 14 | 22.5 | 46 | 150 | 82               | 29               | 37                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 |          | -180 | 6      | 13 | 24.6   | 14 | 25.6 | 46 | 180 | 112              | 29               | 37                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 | -PHZ08SA | -150 | 8      | 15 | 23.5   | 16 | 24.5 | 46 | 150 | 82               | 29               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 |          | -180 | 8      | 15 | 26.6   | 16 | 25.6 | 46 | 180 | 112              | 29               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 | -PHZ10SA | -150 | 10     | 17 | 25.5   | 18 | 24.5 | 46 | 150 | 82               | 40               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 |          | -180 | 10     | 17 | 28.2   | 18 | 29.2 | 46 | 180 | 112              | 40               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 | -PHZ12SA | -150 | 12     | 19 | 27.4   | 20 | 28.4 | 46 | 150 | 82               | 40               | 70                                                                                  | HS12-d                                                                              | L-4T                                                                                | L-3T |
|                 |          | -180 | 12     | 19 | 28.2   | 20 | 29.2 | 46 | 180 | 112              | 40               | 70                                                                                  | HS12-d                                                                              | L-4T                                                                                | L-3T |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung  
\* 6kant-Schlüssel für Einstellring

HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment  
\* Hex wrench for Rotor ring

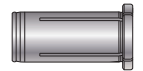


## PHZ-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**  
With internal coolant nozzles.

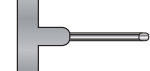
**Bestellbeispiel | Order example**  
HSK63A-PHZ06SC-150

**HS**  
Spannhülsen  
Collets



S./P. 193

**L-T**  
6kant  
Hex wrench

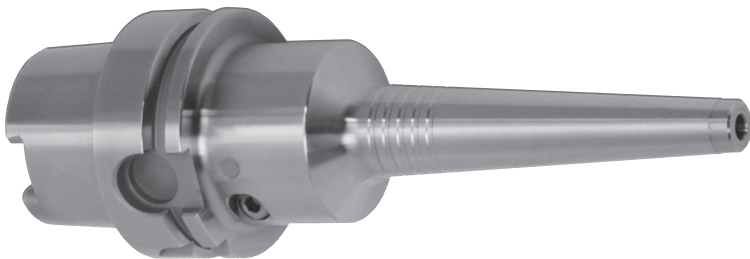


S./P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



HSK63A

DIN 69893 | ISO 12164

3.0  
25.0

0.003  
3x D

G2.5  
25,000  
min<sup>-1</sup>

Tol.  
h6

HA ✓

HB ✗

mit Coolant Jet: PHC-SC

with Coolant Jet: PHC-SC

| Halter   Holder |              | d  | PHC-S |      | PHC-SC |      | D3 | L   | L1  | I min | H max |   |      |
|-----------------|--------------|----|-------|------|--------|------|----|-----|-----|-------|-------|---|------|
|                 |              |    | D1    | D2   | D1     | D2   |    |     |     |       |       |   |      |
| HSK63A          | -75          | 3  | 11    | 13.0 | -      | -    | 46 | 75  | 19  | 18    | 30    | - | L-4T |
|                 | -PHC03SA -90 | 3  | 11    | 14.2 | -      | -    | 46 | 90  | 30  | 18    | 30    | - | L-4T |
|                 | -135         | 3  | 11    | 18.2 | 11.6   | 19.1 | 46 | 135 | 71  | 18    | 30    | - | L-4T |
|                 | -75          | 4  | 11    | 13.0 | -      | -    | 46 | 75  | 19  | 24    | 36    | - | L-4T |
|                 | -PHC04SA -90 | 4  | 11    | 14.2 | -      | -    | 46 | 90  | 30  | 24    | 36    | - | L-4T |
|                 | -135         | 4  | 11    | 18.2 | 11.6   | 19.1 | 46 | 135 | 71  | 24    | 36    | - | L-4T |
|                 | -90          | 6  | 13    | 15.8 | -      | -    | 46 | 90  | 26  | 29    | 59    | - | L-4T |
|                 | -115         | 6  | 13    | 18.3 | -      | -    | 46 | 115 | 51  | 29    | 37    | - | L-4T |
|                 | -135         | 6  | 13    | 20.5 | 14     | 21.5 | 46 | 135 | 71  | 29    | 59    | - | L-4T |
|                 | -150         | 6  | 13    | 22.2 | -      | -    | 46 | 150 | 87  | 29    | 59    | - | L-4T |
|                 | -165         | 6  | 13    | 23.7 | -      | -    | 46 | 165 | 102 | 29    | 59    | - | L-4T |
|                 | -180         | 6  | 13    | 25.4 | -      | -    | 46 | 180 | 118 | 29    | 59    | - | L-4T |
|                 | -90          | 8  | 15    | 17.9 | -      | -    | 46 | 90  | 27  | 29    | 59    | - | L-4T |
|                 | -115         | 8  | 15    | 20.3 | -      | -    | 46 | 115 | 51  | 29    | 50    | - | L-4T |
|                 | -135         | 8  | 15    | 22.6 | 16     | 23.6 | 46 | 135 | 72  | 29    | 59    | - | L-4T |
|                 | -150         | 8  | 15    | 24.2 | -      | -    | 46 | 150 | 87  | 29    | 59    | - | L-4T |
|                 | -165         | 8  | 15    | 25.8 | -      | -    | 46 | 165 | 103 | 29    | 59    | - | L-4T |
|                 | -180         | 8  | 15    | 27.4 | -      | -    | 46 | 180 | 118 | 29    | 59    | - | L-4T |
|                 | -105         | 10 | 17    | 21.5 | -      | -    | 46 | 105 | 42  | 40    | 70    | - | L-4T |
|                 | -115         | 10 | 17    | 22.5 | -      | -    | 46 | 115 | 52  | 40    | 50    | - | L-4T |
|                 | -135         | 10 | 17    | 24.6 | 18     | 25.6 | 46 | 135 | 72  | 40    | 69    | - | L-4T |
|                 | -150         | 10 | 17    | 26.3 | -      | -    | 46 | 150 | 88  | 40    | 69    | - | L-4T |
|                 | -165         | 10 | 17    | 27.8 | -      | -    | 46 | 165 | 103 | 40    | 69    | - | L-4T |
|                 | -180         | 10 | 17    | 29.5 | -      | -    | 46 | 180 | 119 | 40    | 61    | - | L-4T |

HS

Spannhülsen  
Collets

S.|P. 193

L-T

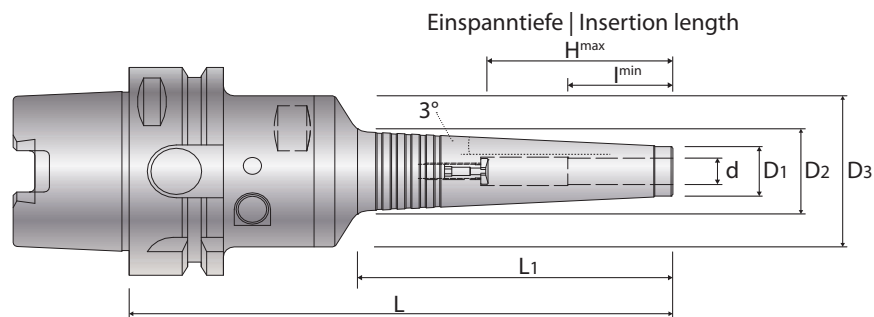
6kant  
Hex wrench

S.|P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



| Halter   Holder |      | d  | PHC-S |      | PHC-SC |      | D3   | L   | L1  | I min | H max |  |  |
|-----------------|------|----|-------|------|--------|------|------|-----|-----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 |      |    | D1    | D2   | D1     | D2   |      |     |     |       |       |                                                                                     |                                                                                     |
| HSK63A          | -105 | 12 | 19    | 23.6 | -      | -    | 46   | 105 | 43  | 40    | 64    | HS12-d                                                                              | L-4T                                                                                |
|                 | -115 | 12 | 19    | 24.5 | -      | -    | 46   | 115 | 52  | 40    | 60    | HS12-d                                                                              | L-4T                                                                                |
|                 | -135 | 12 | 19    | 26.7 | 20     | 27.7 | 46   | 135 | 73  | 40    | 69    | HS12-d                                                                              | L-4T                                                                                |
|                 | -150 | 12 | 19    | 28.3 | -      | -    | 46   | 150 | 88  | 40    | 69    | HS12-d                                                                              | L-4T                                                                                |
|                 | -165 | 12 | 19    | 30.0 | -      | -    | 46   | 165 | 104 | 40    | 69    | HS12-d                                                                              | L-4T                                                                                |
|                 | -180 | 12 | 19    | 31.5 | 20     | 32.5 | 46   | 180 | 119 | 40    | 61    | HS12-d                                                                              | L-4T                                                                                |
|                 | -135 | 16 | 23    | 30.6 | 24     | 31.6 | 52.5 | 135 | 72  | 40    | 85    | -                                                                                   | L-4T                                                                                |
|                 | -165 | 16 | 23    | 33.8 | -      | -    | 52.5 | 165 | 103 | 40    | 80    | -                                                                                   | L-4T                                                                                |
|                 | -180 | 16 | 23    | 35.5 | 24     | 36.5 | 52.5 | 180 | 119 | 40    | 80    | -                                                                                   | L-4T                                                                                |
|                 | -150 | 20 | 28    | 34.7 | 29     | 35.7 | 62   | 150 | 63  | 40    | 80    | HS20-d                                                                              | L-6T                                                                                |
|                 | -180 | 20 | 28    | 37.8 | -      | -    | 62   | 180 | 93  | 40    | 80    | HS20-d                                                                              | L-6T                                                                                |
|                 | -195 | 20 | 28    | 39.5 | 29     | 40.5 | 62   | 195 | 109 | 40    | 80    | HS20-d                                                                              | L-6T                                                                                |
|                 | -150 | 25 | 37    | 43.9 | 38     | 44.9 | 62   | 150 | 65  | 50    | 80    | -                                                                                   | L-6T                                                                                |
|                 | -180 | 25 | 37    | 47.1 | -      | -    | 62   | 180 | 96  | 50    | 90    | -                                                                                   | L-6T                                                                                |
|                 | -195 | 25 | 37    | 48.8 | 38     | 49.8 | 62   | 195 | 112 | 50    | 90    | -                                                                                   | L-6T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.

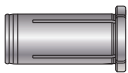
HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
 With axial length adjustment.



### PHC-SC Coolant Jet

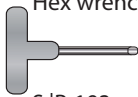
**Mit innenliegenden Kühlmittelnuten.**  
 With internal coolant nozzles.

**Bestellbeispiel | Order example**  
[HSK63A-PHC06SC-135](#)



**HS**  
Spannhülsen  
Collets

S.|P. 193

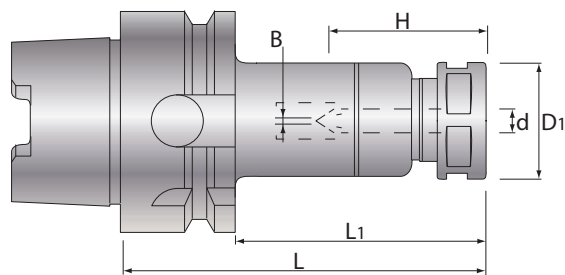
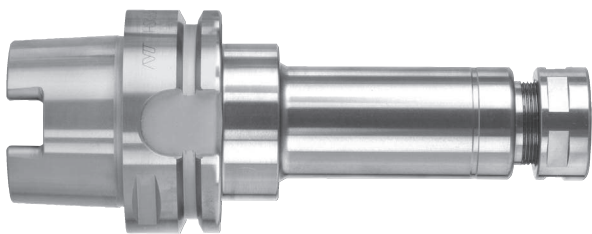


**L-T**  
6kant  
Hex wrench

S.|P. 193

# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



### HSK63A

DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

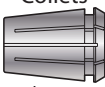


MMS  
MQL

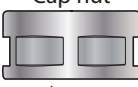
| Halter   Holder |         | d    | D1       | L  | L1  | H   | B      |  |  |      |
|-----------------|---------|------|----------|----|-----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| HSK63A          | -HDC07A | -75  | 1.0-7.0  | 23 | 75  | 49  | 22-32  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -90  | 1.0-7.0  | 23 | 90  | 64  | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -120 | 1.0-7.0  | 23 | 120 | 94  | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -150 | 1.0-7.0  | 23 | 150 | 124 | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -180 | 1.0-7.0  | 23 | 180 | 154 | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 | -HDC09A | -75  | 3.0-9.0  | 26 | 75  | 49  | 27-31  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -90  | 3.0-9.0  | 26 | 90  | 64  | 27-39  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -120 | 3.0-9.0  | 26 | 120 | 94  | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -150 | 3.0-9.0  | 26 | 150 | 124 | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -180 | 3.0-9.0  | 26 | 180 | 154 | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 | -HDC12A | -75  | 3.0-12.0 | 32 | 75  | 49  | 46     | -                                                                                   | FDC-12                                                                              | S-3L |
|                 |         | -90  | 3.0-12.0 | 32 | 90  | 64  | 33-45  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120 | 3.0-12.0 | 32 | 120 | 94  | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -150 | 3.0-12.0 | 32 | 150 | 124 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -180 | 3.0-12.0 | 32 | 180 | 154 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -210 | 3.0-12.0 | 32 | 210 | 184 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -75  | 4.0-16.0 | 36 | 75  | 49  | 45     | -                                                                                   | FDC-16                                                                              | S-4L |
|                 |         | -90  | 4.0-16.0 | 36 | 90  | 64  | 38-45  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -120 | 4.0-16.0 | 36 | 120 | 94  | 38-59  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -150 | 4.0-16.0 | 36 | 150 | 124 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -180 | 4.0-16.0 | 36 | 180 | 154 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -210 | 4.0-16.0 | 36 | 210 | 184 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -90  | 4.0-22.0 | 46 | 90  | 64  | 60     | -                                                                                   | FDC-22                                                                              | S-5L |
|                 |         | -120 | 4.0-22.0 | 46 | 120 | 94  | 47-60  | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -150 | 4.0-22.0 | 46 | 150 | 124 | 47-90  | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -180 | 4.0-22.0 | 46 | 180 | 154 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -210 | 4.0-22.0 | 46 | 210 | 184 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets  
  
S.|P. 195

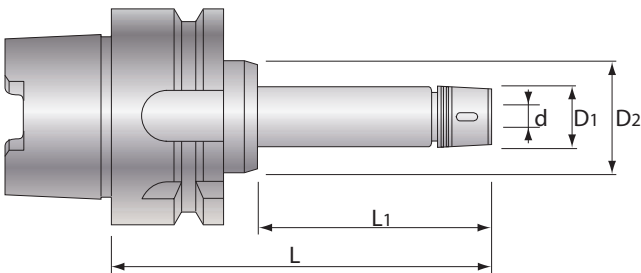
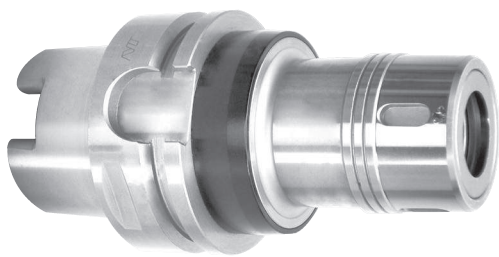
**HDS**  
Einstellschraube  
Preset screw  
  
S.|P. 194

**HDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK63A**

DIN 69893 | ISO 12164

**1.0**  
**22.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

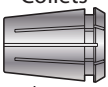


| Halter   Holder |      | d        | D1 | D2 | L   | L1  |  |  |
|-----------------|------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>HSK63A</b>   | -75  | 1.0-7.0  | 23 | 52 | 75  | 34  | FDC-07                                                                              | S-0                                                                                 |
|                 | -90  | 1.0-7.0  | 23 | 52 | 90  | 49  | FDC-07                                                                              | S-0                                                                                 |
|                 | -120 | 1.0-7.0  | 23 | 52 | 120 | 79  | FDC-07                                                                              | S-0                                                                                 |
|                 | -75  | 3.0-9.0  | 29 | 52 | 75  | 34  | FDC-09                                                                              | S-0                                                                                 |
|                 | -90  | 3.0-9.0  | 29 | 52 | 90  | 49  | FDC-09                                                                              | S-0                                                                                 |
|                 | -120 | 3.0-9.0  | 29 | 52 | 120 | 79  | FDC-09                                                                              | S-0                                                                                 |
|                 | -90  | 3.0-12.0 | 34 | 52 | 90  | 49  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -120 | 3.0-12.0 | 34 | 52 | 120 | 79  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -150 | 3.0-12.0 | 34 | 52 | 150 | 109 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -90  | 4.0-16.0 | 38 | 52 | 90  | 49  | FDC-16                                                                              | FK-0034                                                                             |
|                 | -120 | 4.0-16.0 | 38 | 52 | 120 | 79  | FDC-16                                                                              | FK-0034                                                                             |
|                 | -150 | 4.0-16.0 | 38 | 52 | 150 | 109 | FDC-16                                                                              | FK-0034                                                                             |
|                 | -90  | 4.0-22.0 | 49 | 52 | 90  | 49  | FDC-22                                                                              | FK-0045                                                                             |
|                 | -120 | 4.0-22.0 | 49 | 52 | 120 | 79  | FDC-22                                                                              | FK-0045                                                                             |
|                 | -150 | 4.0-22.0 | 49 | 52 | 150 | 109 | FDC-22                                                                              | FK-0045                                                                             |

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.

Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

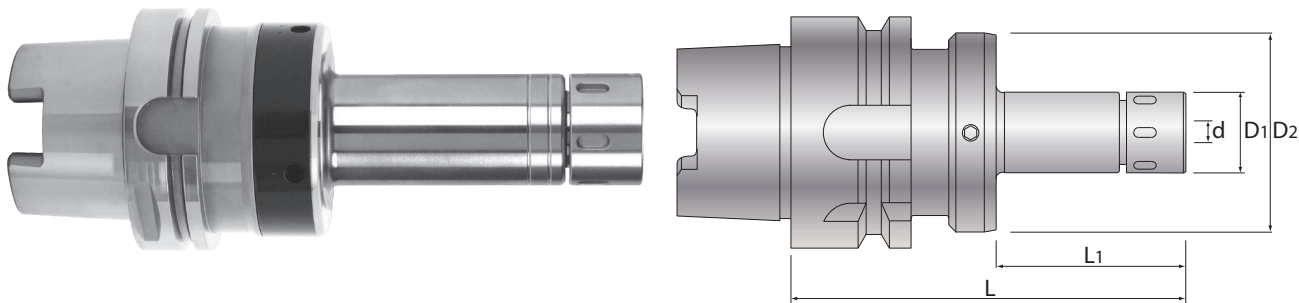
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

ERZ
R"0" Series

Spannzangenfutter mit Rundlauf "0"  
Collet Chuck with run out "0"



HSK63A

DIN 69893 | ISO 12164

1.0  
20.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>

für ER-Spannzangen  
for ER-Collets

| Halter   Holder |         |      | d        | D1 | D2 | L   | L1 |      |         |      |
|-----------------|---------|------|----------|----|----|-----|----|------|---------|------|
| HSK63A          | -ERZ11S | -90  | 1.0-7.0  | 16 | 34 | 90  | 48 | ER11 | S-11E   | L-3T |
|                 | -ERZ16  | -120 | 1.0-10.0 | 32 | 56 | 120 | 58 | ER16 | FK-0034 | L-4T |
|                 | -ERZ32  | -120 | 2.0-20.0 | 50 | 76 | 120 | 49 | ER32 | HS-2-20 | L-5T |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

ER

Spannzangen  
Collets

S.|P. 196

ES

Einstellschraube  
Preset srew

S.|P. 196

ERP

Spannmutter  
Cap nut

S.|P. 196

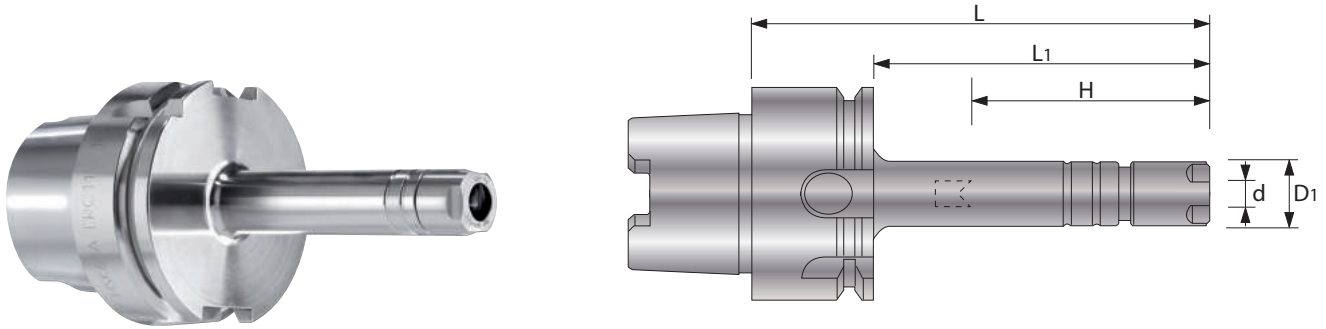
S-E|FK|HS

Spannschlüssel  
Spanners

S.|P. 196

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### HSK63A

DIN 69893 | ISO 12164

1.0  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

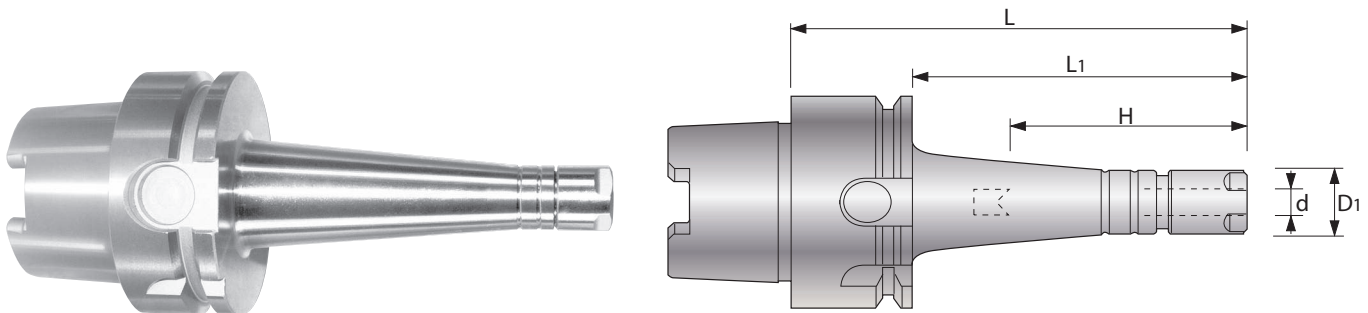
Super-  
schlank  
Super slim

### Form S

| Halter   Holder |         |                   | d       | D1 | L   | L1 | H          |  |  |
|-----------------|---------|-------------------|---------|----|-----|----|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63A          | -ERC8   | -75 <sup>1</sup>  | 1.0-5.0 | 12 | 75  | 49 | 34 (19-28) | ER8                                                                                 | S-8E                                                                                |
|                 |         | -105 <sup>1</sup> | 1.0-5.0 | 12 | 105 | 79 | 34 (19-31) | ER8                                                                                 | S-8E                                                                                |
|                 | -ERC11S | -75               | 1.0-7.0 | 16 | 75  | 49 | 22-34      | ER11                                                                                | S-11E                                                                               |
|                 |         | -105              | 1.0-7.0 | 16 | 105 | 79 | 22-45      | ER11                                                                                | S-11E                                                                               |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
<sup>1</sup> Without preset screw.



### HSK63A

DIN 69893 | ISO 12164

1.0  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

### Form T

| Halter   Holder |         | d     | D1      | L  | L1  | H   |  |  |       |
|-----------------|---------|-------|---------|----|-----|-----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|
| HSK63A          | -ERC11S | -105T | 1.0-7.0 | 16 | 105 | 79  | 22-45                                                                                 | ER11                                                                                  | S-11E |
|                 |         | -120T | 1.0-7.0 | 16 | 120 | 94  | 22-45                                                                                 | ER11                                                                                  | S-11E |
|                 |         | -135T | 1.0-7.0 | 16 | 135 | 109 | 22-45                                                                                 | ER11                                                                                  | S-11E |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Ohne Einstellschraube

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
<sup>1</sup> Without preset screw

**ER**  
Spannzangen  
Collets  
  
S.|P. 196

**ES**  
Einstellschraube  
Preset screw  
  
S.|P. 196

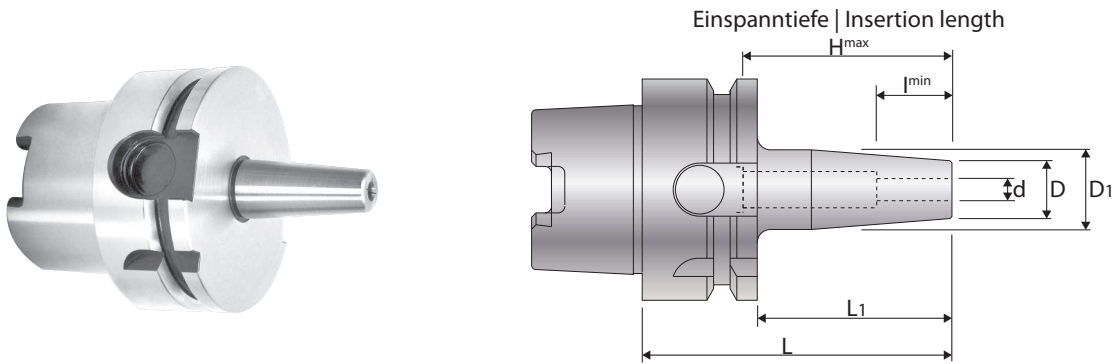
**Mini ERP**  
Spannmutter  
Cap nut  
  
S.|P. 196

**S-E**  
Spannschlüssel  
Spanners  
  
S.|P. 196



# SRE Schrumpffutter

## Shrink Fit Chuck



HSK63A

DIN 69893 | ISO 12164

6.0

16.0

3

µm

max

25.000

min<sup>-1</sup>

Tol.

h6

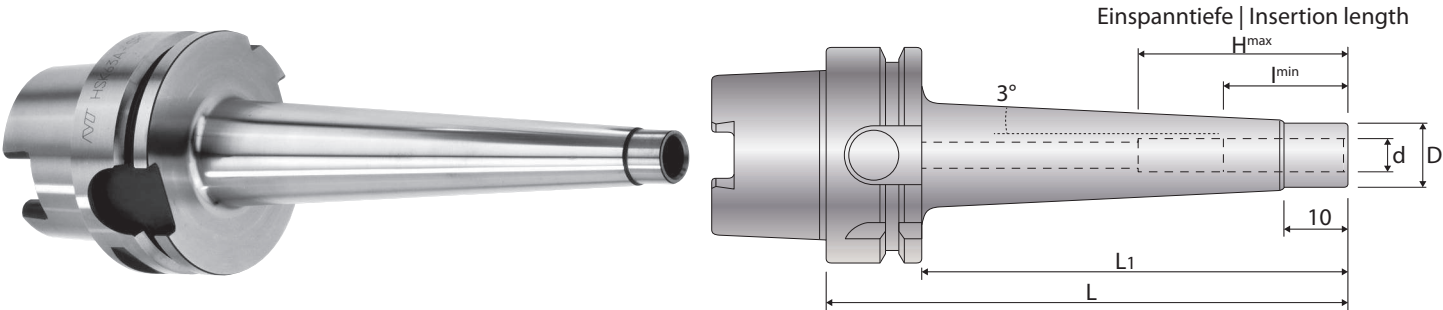
| Halter   Holder |         | d    | D  | D <sub>1</sub> | L  | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |     |
|-----------------|---------|------|----|----------------|----|----------------|------------------|------------------|-----|
| HSK63A          | -SRE6A  | -50  | 6  | 13             | 16 | 50             | 24               | 19               | 26  |
|                 |         | -70  | 6  | 13             | 16 | 70             | 44               | 27               | 46  |
|                 |         | -90  | 6  | 13             | 18 | 90             | 64               | 27               | 66  |
|                 |         | -120 | 6  | 13             | 18 | 120            | 94               | 27               | 96  |
|                 |         | -135 | 6  | 13             | 18 | 135            | 109              | 27               | 111 |
|                 |         | -165 | 6  | 13             | 18 | 165            | 139              | 27               | 141 |
|                 | -SRE8A  | -50  | 8  | 13             | 16 | 50             | 24               | 19               | 26  |
|                 |         | -70  | 8  | 13             | 16 | 70             | 44               | 27               | 46  |
|                 |         | -90  | 8  | 13             | 18 | 90             | 64               | 27               | 66  |
|                 |         | -120 | 8  | 13             | 18 | 120            | 94               | 27               | 96  |
|                 |         | -135 | 8  | 13             | 18 | 135            | 109              | 27               | 111 |
|                 |         | -165 | 8  | 13             | 18 | 165            | 139              | 27               | 141 |
|                 | -SRE10A | -65  | 10 | 16             | 19 | 65             | 34               | 26               | 39  |
|                 |         | -120 | 10 | 16             | 19 | 120            | 94               | 26               | 50  |
|                 |         | -165 | 10 | 16             | 19 | 165            | 139              | 26               | 50  |
|                 | -SRE12A | -65  | 12 | 18             | 21 | 65             | 34               | 26               | 39  |
|                 |         | -120 | 12 | 18             | 21 | 120            | 94               | 26               | 50  |
|                 |         | -165 | 12 | 18             | 21 | 165            | 139              | 26               | 50  |
|                 | -SRE16A | -60  | 16 | 22             | 25 | 60             | 34               | 26               | 34  |
|                 |         | -120 | 16 | 22             | 25 | 120            | 94               | 26               | 70  |
|                 |         | -165 | 16 | 22             | 25 | 165            | 139              | 39               | 70  |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
 Nur für HM-Werkzeuge geeignet.

HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
 Only for carbide tools.

# SRS Schrumpffutter superschlank

## Shrink Fit Chuck slim type



**HSK63A**

DIN 69893 | ISO 12164

6.0  
20.0

3  
μm

max  
25.000  
min<sup>-1</sup>



Tol.  
h6

| Halter   Holder |      | d  | D  | L   | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |
|-----------------|------|----|----|-----|----------------|------------------|------------------|
| HSK63A          | -105 | 6  | 9  | 105 | 79             | 26               | 36               |
|                 | -135 | 6  | 9  | 135 | 109            | 26               | 36               |
|                 | -165 | 6  | 9  | 165 | 139            | 26               | 36               |
|                 | -105 | 8  | 11 | 105 | 79             | 26               | 50               |
|                 | -135 | 8  | 11 | 135 | 109            | 26               | 50               |
|                 | -165 | 8  | 11 | 165 | 139            | 26               | 50               |
|                 | -105 | 10 | 13 | 105 | 79             | 32               | 50               |
|                 | -135 | 10 | 13 | 135 | 109            | 32               | 50               |
|                 | -165 | 10 | 13 | 165 | 139            | 32               | 50               |
|                 | -105 | 12 | 15 | 105 | 79             | 37               | 70               |
|                 | -135 | 12 | 15 | 135 | 109            | 37               | 70               |
|                 | -165 | 12 | 15 | 165 | 139            | 37               | 70               |
|                 | -105 | 16 | 20 | 105 | 79             | 40               | 75               |
|                 | -135 | 16 | 20 | 135 | 109            | 40               | 80               |
|                 | -165 | 16 | 20 | 165 | 139            | 40               | 80               |
|                 | -105 | 20 | 26 | 105 | 79             | 42               | 75               |
|                 | -135 | 20 | 26 | 135 | 109            | 42               | 100              |
|                 | -165 | 20 | 26 | 165 | 139            | 42               | 100              |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Nur für HM-Werkzeuge geeignet.

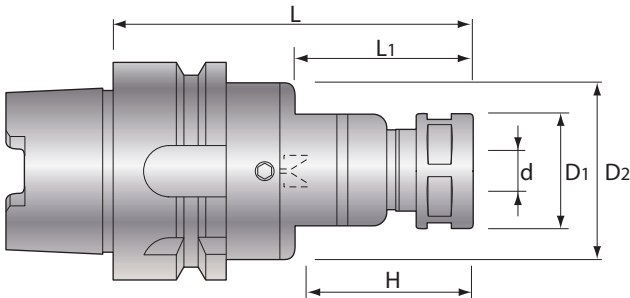
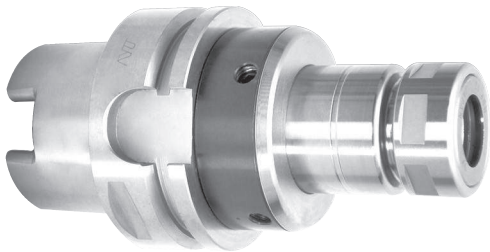
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Only for carbide tools.

HDZ-A

Spannzangenfutter mit Rundlauf "0"

Collet Chuck with run out "0"

R"0" Series



HSK63A

DIN 69893 | ISO 12164

1.0  
22.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

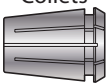
für FDC-Spannzangen  
for FDC-Collets

| Halter   Holder |      | d        | D1 | D2 | L   | L1  | H     |  |  |  |
|-----------------|------|----------|----|----|-----|-----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63A          | -75  | 1.0-7.0  | 23 | 41 | 75  | 33  | 22-34 | FDC-07                                                                              | S-0                                                                                 | L-3T                                                                                |
|                 | -90  | 1.0-7.0  | 23 | 41 | 90  | 48  | 22-45 | FDC-07                                                                              | S-0                                                                                 | L-3T                                                                                |
|                 | -120 | 1.0-7.0  | 23 | 41 | 120 | 78  | 22-45 | FDC-07                                                                              | S-0                                                                                 | L-3T                                                                                |
|                 | -75  | 3.0-9.0  | 26 | 45 | 75  | 33  | 27-34 | FDC-09                                                                              | S-1L                                                                                | L-3T                                                                                |
|                 | -90  | 3.0-9.0  | 26 | 45 | 90  | 48  | 27-42 | FDC-09                                                                              | S-1L                                                                                | L-3T                                                                                |
|                 | -120 | 3.0-9.0  | 26 | 45 | 120 | 78  | 27-57 | FDC-09                                                                              | S-1L                                                                                | L-3T                                                                                |
|                 | -90  | 3.0-12.0 | 32 | 52 | 90  | 44  | 33-47 | FDC-12                                                                              | S-3L                                                                                | L-4T                                                                                |
|                 | -120 | 3.0-12.0 | 32 | 52 | 120 | 74  | 33-69 | FDC-12                                                                              | S-3L                                                                                | L-4T                                                                                |
|                 | -150 | 3.0-12.0 | 32 | 52 | 150 | 104 | 33-69 | FDC-12                                                                              | S-3L                                                                                | L-4T                                                                                |
|                 | -90  | 3.0-16.0 | 36 | 56 | 90  | 28  | 38-47 | FDC-16                                                                              | S-4L                                                                                | L-4T                                                                                |
|                 | -120 | 3.0-16.0 | 36 | 56 | 120 | 58  | 38-61 | FDC-16                                                                              | S-4L                                                                                | L-4T                                                                                |
|                 | -150 | 3.0-16.0 | 36 | 56 | 150 | 88  | 38-81 | FDC-16                                                                              | S-4L                                                                                | L-4T                                                                                |
| -HDZ22A         | -120 | 4.0-22.0 | 46 | 69 | 120 | 49  | 47-63 | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |
|                 | -150 | 4.0-22.0 | 46 | 69 | 150 | 79  | 47-93 | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

FDC  
Spannzangen  
Collets



S.|P. 195

HDS  
Einstellschraube  
Preset screw



S.|P. 194

HDP  
Spannmutter  
Cap nut



S.|P. 194

S-0|S-L  
Spannschlüssel  
Spanners



S.|P. 194

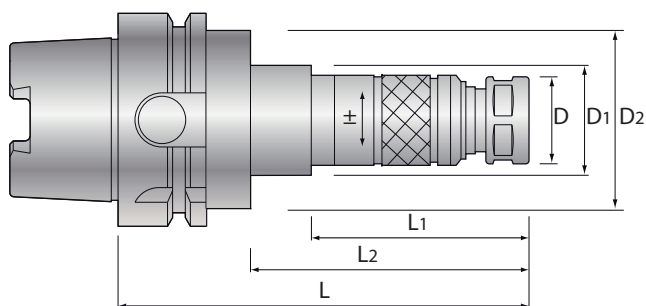
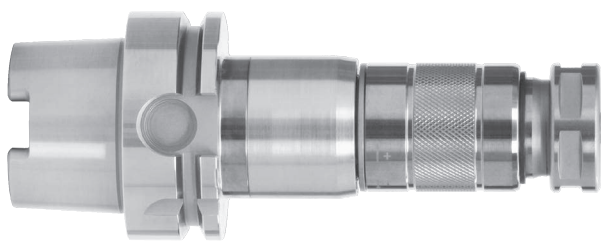
L-T  
6kant  
Hex wrench



S.|P. 193

# SFH|-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**HSK63A**

DIN 69893 | ISO 12164

**M3  
M30**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



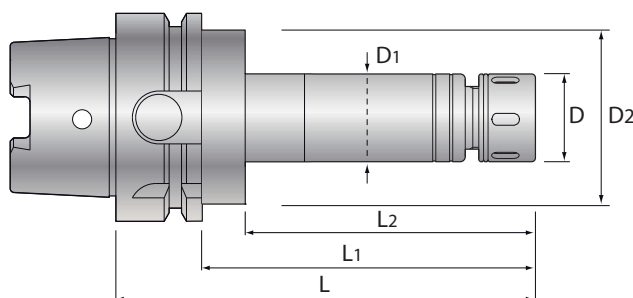
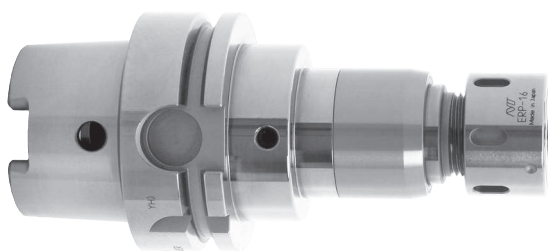
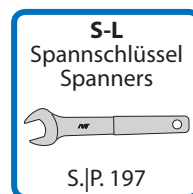
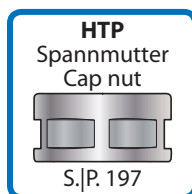
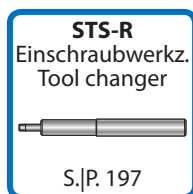
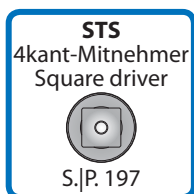
**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

**M1  
M27**

| Halter   Holder |             | Schneidbereich<br>Tapping range | D  | D1 | D2 | L   | L1 | L2  |        |      |
|-----------------|-------------|---------------------------------|----|----|----|-----|----|-----|--------|------|
| <b>HSK63A</b>   | -135        | M3-M8                           | 26 | 34 | 47 | 135 | 60 | 93  | FSC-09 | S-1L |
|                 | -SFH12 -150 | M3-M8                           | 26 | 34 | 47 | 150 | 75 | 108 | FSC-09 | S-1L |
|                 | -165        | M3-M8                           | 26 | 34 | 47 | 165 | 90 | 123 | FSC-09 | S-1L |
|                 | -SFH18 -150 | M5-M20                          | 36 | 40 | 47 | 150 | 68 | 108 | FSC-16 | S-4L |
|                 | -180        | M5-M20                          | 36 | 40 | 47 | 180 | 96 | 138 | FSC-16 | S-4L |
|                 | -SFH30 -180 | M20-M30                         | 46 | 50 | -  | 180 | 87 | 154 | FSC-22 | S-5L |

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

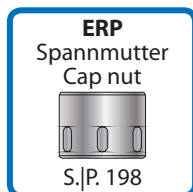
HSK-Coolant pipe and cap nut included in delivery.  
HSK without holes for manual clamping.



| Halter   Holder |              | Schneidbereich<br>Tapping range | D  | D1 | D2   | L   | L1  | L2  |         |         |
|-----------------|--------------|---------------------------------|----|----|------|-----|-----|-----|---------|---------|
| <b>HSK63A</b>   | -SFH8S -105  | M1-M8                           | 16 | 32 | 46.5 | 105 | 79  | 63  | ER11-GB | S-11E   |
|                 | -SFH12S -105 | M3-M12                          | 32 | 34 | 46.5 | 105 | 79  | 63  | ER16-GB | FK-0034 |
|                 | -SFH18S -130 | M3-M20                          | 42 | 40 | 46.5 | 130 | 104 | 88  | ER25-GB | HS-1-16 |
|                 | -SFH30S -150 | M4-M27                          | 50 | 50 | 50   | 150 | 124 | 124 | ER32-GB | HS-2-20 |

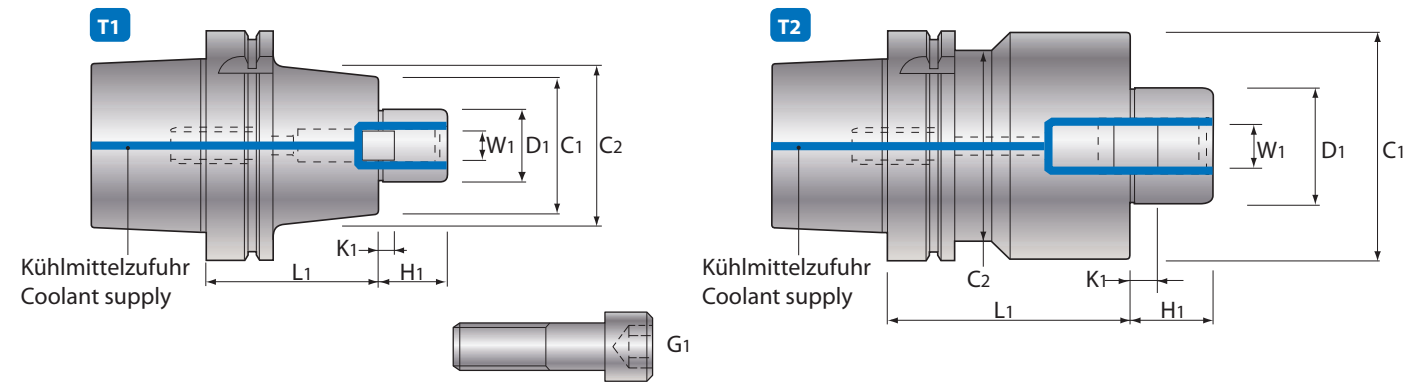
HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.



# FMH Aufsteck-Fräsdorn

## Face Mill Arbor



### HSK63A

DIN 69893 | ISO 12164

**mit Kühlkanalbohrungen**  
with Coolant Jet

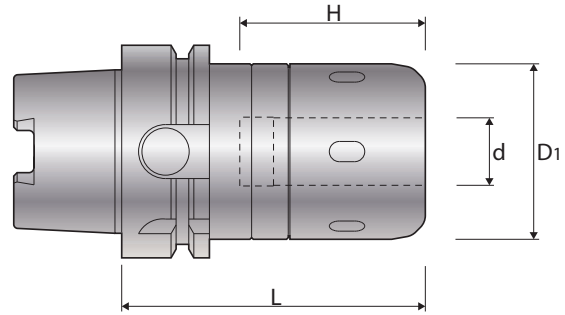
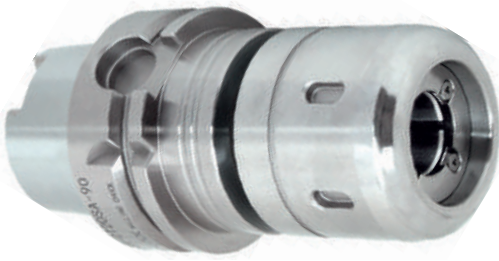
| Halter   Holder |             | Type    | D1<br>(h6) | L1  | C1 | C2 | H1 | W1 | K1 | G1  | Messerkopf<br>Cutter<br>Ø |
|-----------------|-------------|---------|------------|-----|----|----|----|----|----|-----|---------------------------|
| HSK63A          | -FMH16 -34  | -60 T1  | 16         | 60  | 34 | -  | 17 | 8  | 5  | M8  | 40 50                     |
|                 |             | -90 T1  | 16         | 90  | 34 | -  | 17 | 8  | 5  | M8  | 40 50                     |
|                 |             | -120 T1 | 16         | 120 | 34 | -  | 17 | 8  | 5  | M8  | 40 50                     |
|                 | -FMH22 -47  | -60 T1  | 22         | 60  | 47 | -  | 18 | 10 | 5  | M10 | 50 63                     |
|                 |             | -90 T1  | 22         | 90  | 47 | -  | 18 | 10 | 5  | M10 | 50 63                     |
|                 |             | -120 T1 | 22         | 120 | 47 | -  | 18 | 10 | 5  | M10 | 50 63                     |
|                 | -FMH27 -60  | -60 T2  | 22         | 60  | 60 | 53 | 18 | 10 | 5  | M10 | 50 63                     |
|                 |             | -90 T2  | 22         | 90  | 60 | 53 | 18 | 10 | 5  | M10 | 50 63                     |
|                 |             | -120 T2 | 22         | 120 | 60 | 53 | 18 | 10 | 5  | M10 | 50 63                     |
|                 | -FMH32 -76  | -60 T2  | 27         | 60  | 60 | 53 | 20 | 12 | 6  | M12 | 80                        |
|                 |             | -90 T2  | 27         | 90  | 60 | 53 | 20 | 12 | 6  | M12 | 80                        |
|                 |             | -120 T2 | 27         | 120 | 60 | 53 | 20 | 12 | 6  | M12 | 80                        |
|                 | -FMH32 -96  | -60 T2  | 27         | 60  | 76 | 53 | 20 | 12 | 6  | M12 | 80                        |
|                 |             | -90 T2  | 27         | 90  | 76 | 53 | 20 | 12 | 6  | M12 | 80                        |
|                 |             | -120 T2 | 27         | 120 | 76 | 53 | 20 | 12 | 6  | M12 | 80                        |
|                 | -FMH32 -120 | -60 T2  | 32         | 60  | 96 | 53 | 22 | 14 | 7  | M16 | 100                       |
|                 |             | -90 T2  | 32         | 90  | 96 | 53 | 22 | 14 | 7  | M16 | 100                       |
|                 |             | -120 T2 | 32         | 120 | 96 | 53 | 22 | 14 | 7  | M16 | 100                       |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.

HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK80A

DIN 69893 | ISO 12164

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>



| Halter   Holder |         |                   | d  | D1 | L   | L1 | H  |  |  |
|-----------------|---------|-------------------|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK80A          | -CT20SA | -105              | 20 | 52 | 105 | 79 | 70 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -105              | 25 | 61 | 105 | 79 | 70 | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -CT32SA | -120 <sup>1</sup> | 32 | 73 | 120 | -  | 70 | MC32-d                                                                              | HS-3-32                                                                             |

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK ohne Bohrung für Handspannung.

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

HSK-Coolant pipe included in delivery.

HSK without holes for manual clamping.

<sup>1</sup> MC-A Collets cannot be used.

**MC**

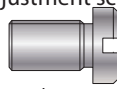
Spannhülsen  
Collets



S.|P. 188-189

**BL**

Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**

Spannschlüssel  
Spanners



S.|P. 190

**EM**

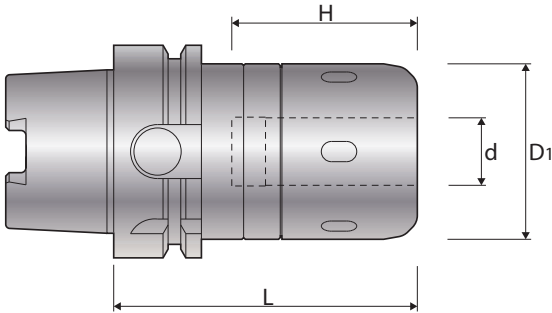
Verlängerungen  
Extensions



S.|P. 187

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



HSK100A

DIN 69893 | ISO 12164

3.0

42.0

0.005

3x D

max

15.000

min<sup>-1</sup>

MMS

MQL

| Halter   Holder |         | d                  | D1                 | L  | L1  | H   |  |  |           |
|-----------------|---------|--------------------|--------------------|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| HSK100A         | -CT16SA | -90 <sup>1</sup>   | 16                 | 45 | 90  | -   | 55                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -105               | 16                 | 45 | 105 | -   | 70                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 | -CT20SA | -90 <sup>3</sup>   | 20                 | 52 | 90  | -   | 55                                                                                  | MC20-d-SL                                                                           | HS-2-20   |
|                 |         | -105               | 20                 | 52 | 105 | -   | 70                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -120               | 20                 | 52 | 120 | -   | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -135               | 20                 | 52 | 135 | -   | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -150               | 20                 | 52 | 150 | -   | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -CT25SA            | -90 <sup>1,2</sup> | 25 | 61  | 90  | 61                                                                                  | 55                                                                                  | -         |
|                 | -105    |                    | 25                 | 61 | 105 | -   | 70                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -120    |                    | 25                 | 61 | 120 | -   | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -135    |                    | 25                 | 61 | 135 | -   | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -150    |                    | 25                 | 61 | 150 | -   | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -CT32SA | -90 <sup>1,2</sup> | 32                 | 73 | 90  | 61  | 55                                                                                  | -                                                                                   | HS-3-32   |
|                 |         | -105 <sup>1</sup>  | 32                 | 73 | 105 | 76  | 70                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -120 <sup>1</sup>  | 32                 | 73 | 120 | 91  | 85                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -135 <sup>1</sup>  | 32                 | 73 | 135 | 106 | 100                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -150 <sup>1</sup>  | 32                 | 73 | 150 | 121 | 115                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 | -CT42SA | -105 <sup>2</sup>  | 42                 | 88 | 105 | -   | 70                                                                                  | -                                                                                   | HS-4-42   |
|                 |         | -120 <sup>1</sup>  | 42                 | 88 | 120 | -   | 85                                                                                  | MC42-d                                                                              | HS-4-42   |
|                 |         | -135 <sup>1</sup>  | 42                 | 88 | 135 | -   | 100                                                                                 | MC42-d                                                                              | HS-4-42   |
|                 |         | -150 <sup>1</sup>  | 42                 | 88 | 150 | -   | 110                                                                                 | MC42-d                                                                              | HS-4-42   |
|                 |         | -165 <sup>1</sup>  | 42                 | 88 | 165 | -   | 120                                                                                 | MC42-d                                                                              | HS-4-42   |

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK ohne Bohrung für Handspannung.

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> MC Spannhülsen nicht einsetzbar, nur Direktspannung.

<sup>3</sup> MC20-d-SL Spannhülsen: Seite ...

HSK-Coolant pipe included in delivery.

HSK without holes for manual clamping.

<sup>1</sup> MC-A Collets cannot be used.

<sup>2</sup> MC straight collets cannot be used, only direct chucking.

<sup>3</sup> MC20-d-SL Straight Collets: Page ...

MC

Spannhülsen

Collets

S.|P. 188-189

BL

Einstellschrauben

Adjustment screw

S.|P. 190

HS|RS

Spannschlüssel

Spanners

S.|P. 190

EM

Verlängerungen

Extensions

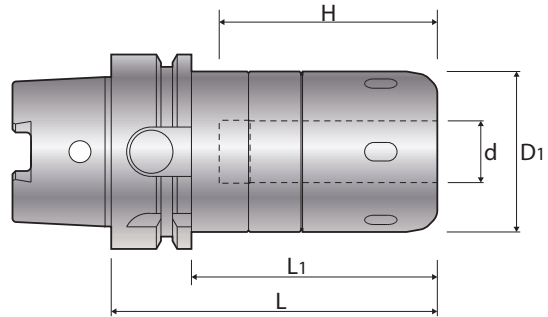
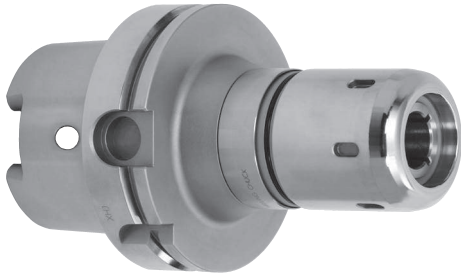
S.|P. 187



# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



HSK100A

DIN 69893 | ISO 12164

3.0  
32.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>

mit erhöhter Spannkraft

with enhanced clamping force

| Halter   Holder |        |       | d  | D1 | L   | L1 | H  |        |       |
|-----------------|--------|-------|----|----|-----|----|----|--------|-------|
| HSK100A         | -CT20S | -115P | 20 | 52 | 115 | 86 | 80 | MC20-d | RS-20 |
|                 | -CT25S | -115P | 25 | 61 | 115 | 86 | 80 | MC25-d | RS-25 |
|                 | -CT32S | -115P | 32 | 73 | 115 | 86 | 80 | MC32-d | RS-32 |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.  
 Mit ID-Chip Bohrung.

HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.  
 With ID-Chip hole.

MC

Spannhülsen  
Collets

S.|P. 188-189

BL

Einstellschrauben  
Adjustment screw

S.|P. 190

HS|RS

Spannschlüssel  
Spanners

S.|P. 190

EM

Verlängerungen  
Extensions

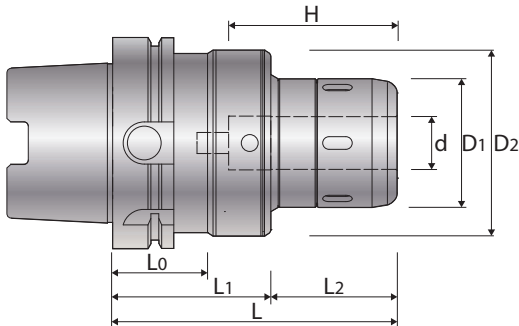
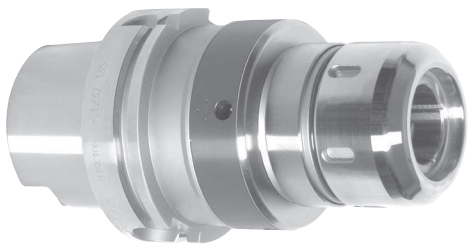
S.|P. 187

# CTZ-SA

R"0" Series

## Hochleistungs-Kraftspannfutter

### High Performance Milling Chuck



HSK100A

DIN 69893 | ISO 12164

4.0

42.0

0-2

µm

max

10.000

min<sup>-1</sup>

| Halter   Holder |                            | d  | D1 | D2 | L   | L1 | L2 | L0 | H   |        |           |      |
|-----------------|----------------------------|----|----|----|-----|----|----|----|-----|--------|-----------|------|
| HSK100A         | -CTZ25SA -135              | 25 | 61 | 74 | 135 | 65 | 70 | -  | 80  | MC25-d | HS-2.5-25 | L-6L |
|                 | -150                       | 25 | 61 | 74 | 150 | 65 | 85 | -  | 80  | MC25-d | HS-2.5-25 | L-6L |
|                 | -CTZ32SA -135 <sup>1</sup> | 32 | 68 | 80 | 135 | 65 | 70 | -  | 100 | MC32-d | HS-3-32   | L-6L |
|                 | -150 <sup>1</sup>          | 32 | 68 | 80 | 150 | 65 | 85 | -  | 115 | MC32-d | HS-3-32   | L-6L |
|                 | -CTZ42SA -135 <sup>1</sup> | 42 | 88 | 99 | 135 | 76 | 59 | 45 | 100 | MC42-d | HS-4-42   | L-6L |
|                 | -150 <sup>1</sup>          | 42 | 88 | 99 | 150 | 76 | 74 | 45 | 110 | MC42-d | HS-4-42   | L-6L |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup> MC-A Collets cannot be used.

MC

Spannhülsen  
Collets

S.|P. 188-189

BL

Einstellschrauben  
Adjustment screw

S.|P. 190

HS

Spannschlüssel  
Spanners

S.|P. 190

EM

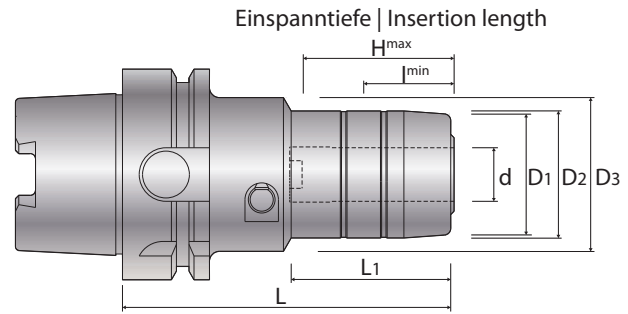
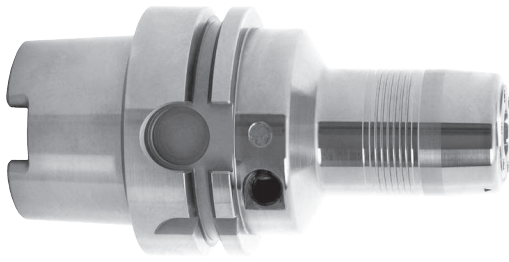
Verlängerungen  
Extensions

S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### HSK100A

DIN 69893 | ISO 12164

3.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>



MMS  
MQL

Tol.  
h6

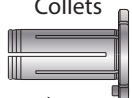


| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | I min | H max |  |  |
|-----------------|--------------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK100A         | -90          | 6  | 24 | 26 | 46 | 90  | 30 | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A -120 | 6  | 24 | 26 | 46 | 120 | 41 | 29    | 45    | -                                                                                   | L-4T                                                                                |
|                 | -150         | 6  | 24 | 26 | 46 | 150 | 41 | 29    | 45    | -                                                                                   | L-4T                                                                                |
|                 | -90          | 8  | 26 | 28 | 46 | 90  | 30 | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -120 | 8  | 26 | 28 | 46 | 120 | 41 | 29    | 45    | -                                                                                   | L-4T                                                                                |
|                 | -150         | 8  | 26 | 28 | 46 | 150 | 41 | 29    | 45    | -                                                                                   | L-4T                                                                                |
|                 | -105         | 10 | 28 | 30 | 52 | 105 | 44 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -135 | 10 | 28 | 30 | 52 | 135 | 64 | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -165         | 10 | 28 | 30 | 52 | 165 | 64 | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -105         | 12 | 30 | 32 | 52 | 105 | 45 | 40    | 50    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC12A -135 | 12 | 30 | 32 | 52 | 135 | 65 | 40    | 70    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -165         | 12 | 30 | 32 | 52 | 165 | 65 | 40    | 70    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -105         | 14 | 34 | 36 | 52 | 105 | 46 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC14A -135 | 14 | 34 | 36 | 52 | 135 | 66 | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -165         | 14 | 34 | 36 | 52 | 165 | 66 | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -105         | 16 | 36 | 38 | 52 | 105 | 46 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A -135 | 16 | 36 | 38 | 52 | 135 | 66 | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -165         | 16 | 36 | 38 | 52 | 165 | 66 | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -105         | 20 | 40 | 42 | 46 | 105 | 49 | 40    | 50    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -PHC20A -135 | 20 | 40 | 42 | 46 | 135 | 69 | 40    | 70    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -165         | 20 | 40 | 42 | 46 | 165 | 69 | 40    | 70    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -120         | 25 | 50 | 52 | 62 | 120 | 59 | 50    | 64    | -                                                                                   | L-6T                                                                                |
|                 | -PHC25A -165 | 25 | 50 | 52 | 62 | 165 | 79 | 50    | 80    | -                                                                                   | L-6T                                                                                |
|                 | -135         | 32 | 60 | 62 | -  | 135 | -  | 65    | 80    | -                                                                                   | L-6T                                                                                |
|                 | -PHC32A -165 | 32 | 60 | 62 | -  | 165 | -  | 65    | 80    | -                                                                                   | L-6T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

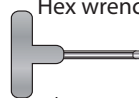
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

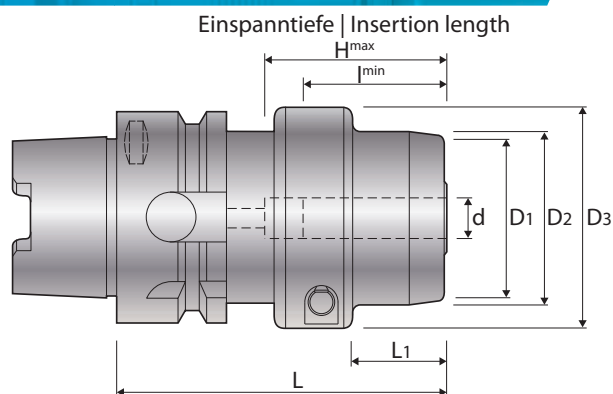
**L-T**  
6kant  
Hex wrench



S./P. 193

# PHC-H Hochdruck-Dehnspannfutter High Pressure Hydro Chuck

## Power Series



# HSK100A

DIN 69893 | ISO 12164

~~6.0  
-  
32.0~~

$$\frac{0.003}{50}$$

max  
20.000  
min<sup>-1</sup>



**Tol.  
h6**



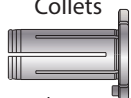
**mit erhöhter Spannkraft**  
with enhanced clamping force

| Halter   Holder |         |      | d  | D1 | D2 | D3 | L   | L1 | I min | H max |  |  |
|-----------------|---------|------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK100A         | -PHC16H | -75  | 16 | -  | 44 | 56 | 75  | 21 | 45    | 51    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20H | -105 | 20 | 48 | 50 | 60 | 105 | 32 | 50    | 70    | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -PHC25H | -105 | 25 | 58 | 60 | 69 | 105 | 35 | 55    | 70    | -                                                                                   | L-5T                                                                                |
|                 |         | -135 | 25 | 58 | 60 | 69 | 135 | 35 | 55    | 100   | -                                                                                   | L-5T                                                                                |
|                 | -PHC32H | -115 | 32 | 63 | 65 | 75 | 115 | 47 | 65    | 78    | PHS32H-d                                                                            | L-5T                                                                                |
|                 |         | -135 | 32 | 63 | 65 | 75 | 135 | 47 | 65    | 100   | PHS32H-d                                                                            | L-5T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

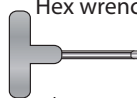
HSK-Coolant pipe included in delivery.  
HSK with holes for manual clamping.

## PHS-H



S./P. 192

**L-T**  
6kant  
Hex wrench

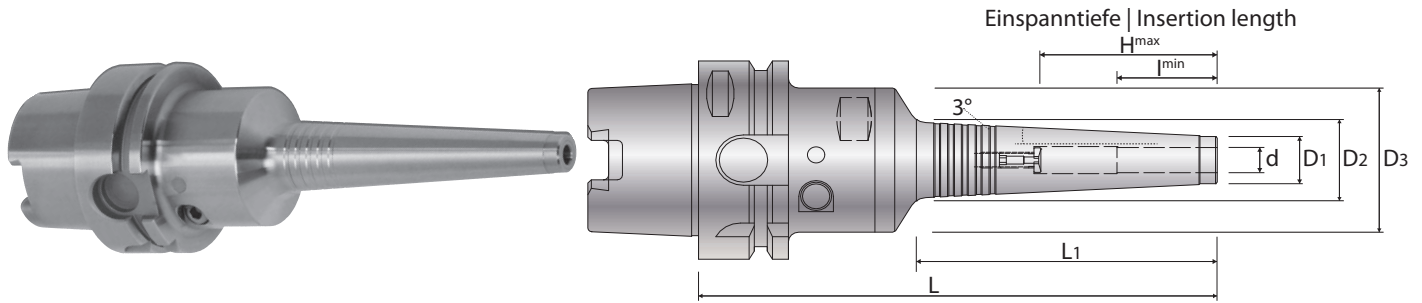


S./P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### HSK100A

DIN 69893 | ISO 12164

6.0  
25.0

0.003  
3x D

G2.5  
25.000  
min<sup>-1</sup>



Tol.  
h6



| Halter   Holder |               | d  | D1 | D2   | D3   | L   | L1  | I <sub>min</sub> | H <sub>max</sub> |  |  |
|-----------------|---------------|----|----|------|------|-----|-----|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK100A         | -105          | 6  | 13 | 15.8 | 46   | 105 | 26  | 29               | 59               | -                                                                                   | L-4T                                                                                |
|                 | -150          | 6  | 13 | 20.5 | 46   | 150 | 71  | 29               | 52               | -                                                                                   | L-4T                                                                                |
|                 | -PHC06SA -165 | 6  | 13 | 22.2 | 46   | 165 | 87  | 29               | 57               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 6  | 13 | 23.7 | 46   | 180 | 102 | 29               | 52               | -                                                                                   | L-4T                                                                                |
|                 | -195          | 6  | 13 | 25.4 | 46   | 195 | 118 | 29               | 59               | -                                                                                   | L-4T                                                                                |
|                 | -105          | 8  | 15 | 17.9 | 46   | 105 | 27  | 29               | 59               | -                                                                                   | L-4T                                                                                |
|                 | -150          | 8  | 15 | 22.6 | 46   | 150 | 72  | 29               | 52               | -                                                                                   | L-4T                                                                                |
|                 | -PHC08SA -165 | 8  | 15 | 24.2 | 46   | 165 | 87  | 29               | 57               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 8  | 15 | 25.8 | 46   | 180 | 103 | 29               | 52               | -                                                                                   | L-4T                                                                                |
|                 | -195          | 8  | 15 | 27.4 | 46   | 195 | 118 | 29               | 59               | -                                                                                   | L-4T                                                                                |
|                 | -150          | 10 | 17 | 24.6 | 46   | 150 | 72  | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -PHC10SA -165 | 10 | 17 | 26.3 | 46   | 165 | 88  | 40               | 63               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 10 | 17 | 27.8 | 46   | 180 | 103 | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -195          | 10 | 17 | 29.5 | 46   | 195 | 119 | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -150          | 12 | 19 | 26.7 | 46   | 150 | 73  | 40               | 70               | HS12-d                                                                              | L-4T                                                                                |
|                 | -PHC12SA -165 | 12 | 19 | 28.3 | 46   | 165 | 88  | 40               | 63               | HS12-d                                                                              | L-4T                                                                                |
|                 | -180          | 12 | 19 | 30.0 | 46   | 180 | 104 | 40               | 70               | HS12-d                                                                              | L-4T                                                                                |
|                 | -195          | 12 | 19 | 31.5 | 46   | 195 | 119 | 40               | 70               | HS12-d                                                                              | L-4T                                                                                |
|                 | -150          | 16 | 23 | 30.6 | 52.5 | 150 | 72  | 40               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -PHC16SA -180 | 16 | 23 | 33.8 | 52.5 | 180 | 103 | 40               | 80               | -                                                                                   | L-4T                                                                                |
|                 | -195          | 16 | 23 | 35.5 | 52.5 | 195 | 119 | 40               | 80               | -                                                                                   | L-4T                                                                                |
|                 | -150          | 20 | 28 | 34.7 | 62   | 150 | 63  | 40               | 80               | HS20-d                                                                              | L-6T                                                                                |
|                 | -PHC20SA -180 | 20 | 28 | 37.8 | 62   | 180 | 93  | 40               | 80               | HS20-d                                                                              | L-6T                                                                                |
|                 | -195          | 20 | 28 | 39.5 | 62   | 195 | 109 | 40               | 80               | HS20-d                                                                              | L-6T                                                                                |
|                 | -150          | 25 | 37 | 43.9 | 62   | 150 | 65  | 50               | 80               | -                                                                                   | L-6T                                                                                |
|                 | -PHC25SA -180 | 25 | 37 | 47.1 | 62   | 180 | 96  | 50               | 90               | -                                                                                   | L-6T                                                                                |
|                 | -195          | 25 | 37 | 48.8 | 62   | 195 | 112 | 50               | 90               | -                                                                                   | L-6T                                                                                |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Mit axialer Längeneinstellung.

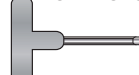
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
With axial length adjustment.

HS  
Spannhülsen  
Collets



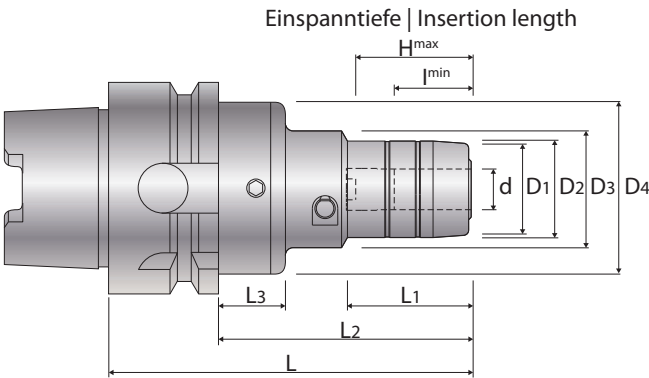
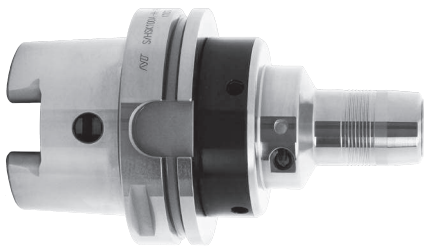
S./P. 193

L-T  
6kant  
Hex wrench



S./P. 193

# PHC-Z Dehnspannfutter mit Rundlauf "0" Hydro Chuck with run out "0" R"0" Series



HSK100A

DIN 69893 | ISO 12164

3.0

20.0

0-2

µm

max

15.000

min<sup>-1</sup>

MMS

MQL

Tol.

h6

HA

HB

| Halter   Holder |               | d  | D1 | D2 | D3 | D4 | L   | L1 | L2 | L3 | l min | H max |         |      |      |
|-----------------|---------------|----|----|----|----|----|-----|----|----|----|-------|-------|---------|------|------|
| HSK100A         | -PHC-Z12 -120 | 12 | 30 | 32 | 52 | 76 | 120 | 45 | 91 | 24 | 40    | 50    | PHS12-d | L-4T | L-5T |
|                 | -PHC-Z20 -120 | 20 | 40 | 42 | 46 | 69 | 120 | 50 | 91 | 24 | 40    | 50    | PHS20-d | L-4T | L-5T |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.  
 \* 6kant-Schlüssel für Einstellring.

HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.  
 With axial length adjustment.  
 \* Hex wrench for Rotor ring.

PHS

Spannhülsen

Collets

S.|P. 192

L-T

6kant

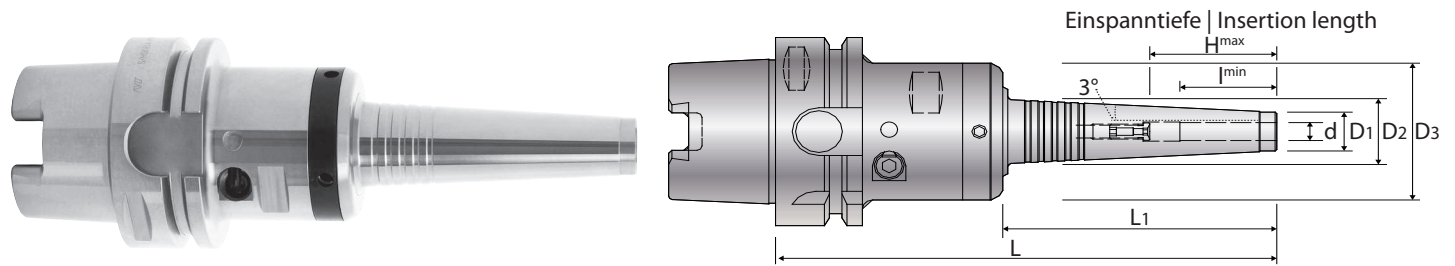
Hex wrench

S.|P. 193

# PHZ-SA Dehnspannfutter R"0" superschlank

## Slim Hydro Chuck with run out "0"

R"0" Series



HSK100A

DIN 69893 | ISO 12164

6.0

12.0

0-2

µm

max

15.000

min<sup>-1</sup>

Tol.

h6

HA ✓

HB ✗

| Halter   Holder |               | d  | D1  | D2   | D3 | L   | L1  | l <sub>min</sub> | H <sub>max</sub> |        |      |      |
|-----------------|---------------|----|-----|------|----|-----|-----|------------------|------------------|--------|------|------|
| HSK100A         | -PHZ06SA -165 | 6  | 13  | 21.5 | 46 | 165 | 82  | 29               | 37               | -      | L-4T | L-3T |
|                 | -195          | 6  | 13  | 24.6 | 46 | 195 | 112 | 29               | 37               | -      | L-4T | L-3T |
|                 | -PHZ08SA -165 | 8  | 15  | 23.5 | 46 | 165 | 82  | 29               | 50               | -      | L-4T | L-3T |
|                 | -195          | 8  | 15t | 26.6 | 46 | 195 | 112 | 29               | 50               | -      | L-4T | L-3T |
|                 | -PHZ10SA -165 | 10 | 17  | 25.5 | 46 | 165 | 82  | 40               | 50               | -      | L-4T | L-3T |
|                 | -195          | 10 | 17  | 28.2 | 46 | 195 | 112 | 40               | 50               | -      | L-4T | L-3T |
|                 | -PHZ12SA -165 | 12 | 19  | 27.4 | 46 | 165 | 82  | 40               | 70               | HS12-d | L-4T | L-3T |
|                 | -195          | 12 | 19  | 28.2 | 46 | 195 | 112 | 40               | 70               | HS12-d | L-4T | L-3T |
|                 |               |    |     |      |    |     |     |                  |                  |        |      | *    |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
 Mit axialer Längeneinstellung.  
 \* 6kant-Schlüssel für Einstellring.

HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
 With axial length adjustment.  
 \* Hex wrench for Rotor ring.

HS

Spannhülsen

Collets

S./P. 193

L-T

6kant

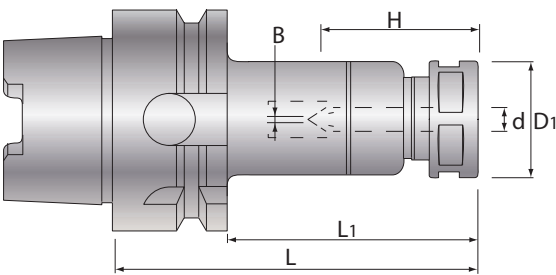
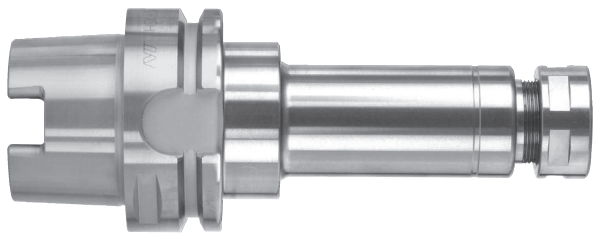
Hex wrench

S./P. 193



# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



### HSK100A

DIN 69893 | ISO 12164

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

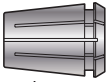


| Halter   Holder |         | d    | D1       | L  | L1  | H   | B      |  |  |      |
|-----------------|---------|------|----------|----|-----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| HSK100A         | -HDC07A | -75  | 1.0-7.0  | 23 | 75  | 36  | 22-24  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -90  | 1.0-7.0  | 23 | 90  | 51  | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -120 | 1.0-7.0  | 23 | 120 | 81  | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -150 | 1.0-7.0  | 23 | 150 | 111 | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -180 | 1.0-7.0  | 23 | 180 | 141 | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 | -HDC09A | -75  | 3.0-9.0  | 26 | 75  | 36  | 44     | -                                                                                   | FDC-09                                                                              | S-1L |
|                 |         | -90  | 3.0-9.0  | 26 | 90  | 51  | 27-45  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -120 | 3.0-9.0  | 26 | 120 | 81  | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -150 | 3.0-9.0  | 26 | 150 | 111 | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -180 | 3.0-9.0  | 26 | 180 | 141 | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 | -HDC12A | -90  | 3.0-12.0 | 32 | 90  | 61  | 33-38  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120 | 3.0-12.0 | 32 | 120 | 91  | 33-56  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -150 | 3.0-12.0 | 32 | 150 | 121 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -180 | 3.0-12.0 | 32 | 180 | 151 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -210 | 3.0-12.0 | 32 | 210 | 181 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -90  | 4.0-16.0 | 36 | 90  | 61  | 54     | -                                                                                   | FDC-16                                                                              | S-4L |
|                 |         | -120 | 4.0-16.0 | 36 | 120 | 91  | 38-59  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -150 | 4.0-16.0 | 36 | 150 | 121 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -180 | 4.0-16.0 | 36 | 180 | 151 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -210 | 4.0-16.0 | 36 | 210 | 181 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -90  | 4.0-22.0 | 46 | 90  | 61  | 54     | -                                                                                   | FDC-22                                                                              | S-5L |
|                 |         | -120 | 4.0-22.0 | 46 | 120 | 91  | 47-56  | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -150 | 4.0-22.0 | 46 | 150 | 121 | 47-80  | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -180 | 4.0-22.0 | 46 | 180 | 151 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -210 | 4.0-22.0 | 46 | 210 | 181 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

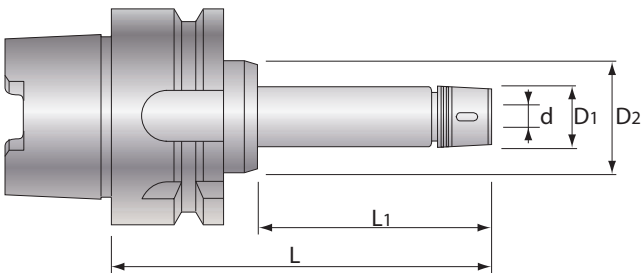
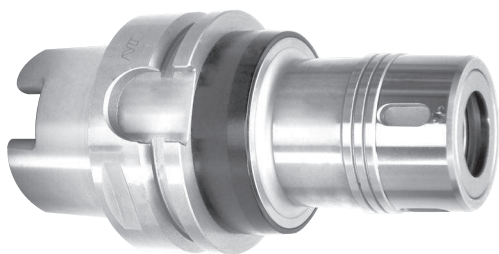
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK100A**  
DIN 69893 | ISO 12164

**3.0**  
**22.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

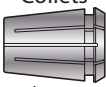


| Halter   Holder |         |      | d        | D1 | D2 | L   | L1  |  |  |
|-----------------|---------|------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK100A         | -GDC12A | -90  | 3.0-12.0 | 34 | 84 | 90  | 46  | FDC-12                                                                              | FK-0034                                                                             |
|                 |         | -120 | 3.0-12.0 | 34 | 84 | 120 | 76  | FDC-12                                                                              | FK-0034                                                                             |
|                 |         | -150 | 3.0-12.0 | 34 | 84 | 150 | 106 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC16A | -90  | 3.0-16.0 | 38 | 84 | 90  | 46  | FDC-16                                                                              | FK-0034                                                                             |
|                 |         | -120 | 3.0-16.0 | 38 | 84 | 120 | 76  | FDC-16                                                                              | FK-0034                                                                             |
|                 |         | -150 | 3.0-16.0 | 38 | 84 | 150 | 106 | FDC-16                                                                              | FK-0034                                                                             |
|                 | -GDC22A | -90  | 4.0-22.0 | 49 | 84 | 90  | 46  | FDC-22                                                                              | FK-0045                                                                             |
|                 |         | -120 | 4.0-22.0 | 49 | 84 | 120 | 76  | FDC-22                                                                              | FK-0045                                                                             |
|                 |         | -150 | 4.0-22.0 | 49 | 84 | 150 | 106 | FDC-22                                                                              | FK-0045                                                                             |

Spannmutter und HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
Einstellschraube optional.

Cap nut and HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**GDP**  
Spannmutter  
Cap nut



S.|P. 194

**FK**  
Spannschlüssel  
Spanners



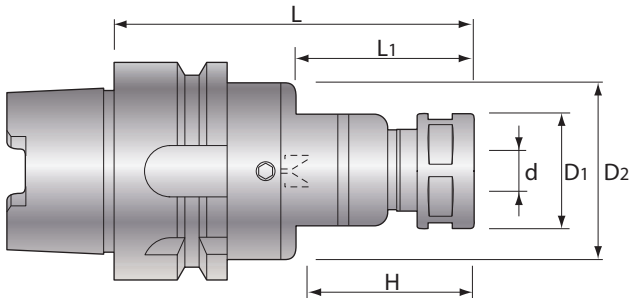
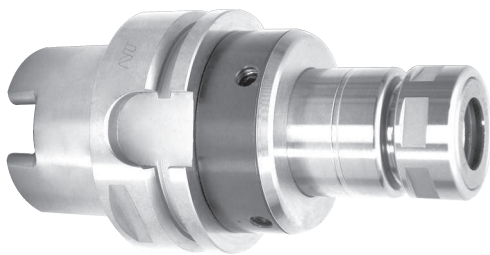
S.|P. 194

HDZ-A

Spannzangenfutter mit Rundlauf "0"

Collet Chuck with run out "0"

R"0" Series



HSK100A

DIN 69893 | ISO 12164

3.0  
22.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>

MMS  
MQL

| Halter   Holder |         |                  | d        | D1 | D2 | L   | L1  | H     |  |  |  |
|-----------------|---------|------------------|----------|----|----|-----|-----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK100A         | -HDZ12A | -90              | 3.0-12.0 | 32 | 56 | 90  | 41  | 33-40 | FDC-12                                                                              | S-3L                                                                                | L-4T                                                                                |
|                 |         | -120             | 3.0-12.0 | 32 | 56 | 120 | 71  | 33-58 | FDC-12                                                                              | S-3L                                                                                | L-4T                                                                                |
|                 |         | -150             | 3.0-12.0 | 32 | 56 | 150 | 101 | 33-68 | FDC-12                                                                              | S-3L                                                                                | L-4T                                                                                |
|                 | -HDZ16A | -90              | 3.0-16.0 | 36 | 62 | 90  | 41  | 38-40 | FDC-16                                                                              | S-4L                                                                                | L-4T                                                                                |
|                 |         | -120             | 3.0-16.0 | 36 | 62 | 120 | 71  | 38-61 | FDC-16                                                                              | S-4L                                                                                | L-4T                                                                                |
|                 |         | -150             | 3.0-16.0 | 36 | 62 | 150 | 101 | 38-81 | FDC-16                                                                              | S-4L                                                                                | L-4T                                                                                |
|                 | -HDZ22A | -90 <sup>1</sup> | 4.0-22.0 | 46 | 76 | 90  | 37  | 56    | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |
|                 |         | -120             | 4.0-22.0 | 46 | 76 | 120 | 67  | 47-59 | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |
|                 |         | -150             | 4.0-22.0 | 46 | 76 | 150 | 97  | 47-83 | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |

Spannmutter, HSK-Kühlmittelrohr und Einstellschraube im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Ohne Einstellschraube.  
Mit axialer Längeneinstellung.

Cap nut, HSK-Coolant pipe and preset screw included in delivery.  
HSK without holes for manual clamping.  
<sup>1</sup> Without preset screw.  
With axial length adjustment.

FDC  
Spannzangen  
Collets

S.|P. 195

HDS  
Einstellschraube  
Preset screw

S.|P. 194

HDP  
Spannmutter  
Cap nut

S.|P. 194

S-L  
Spannschlüssel  
Spanners

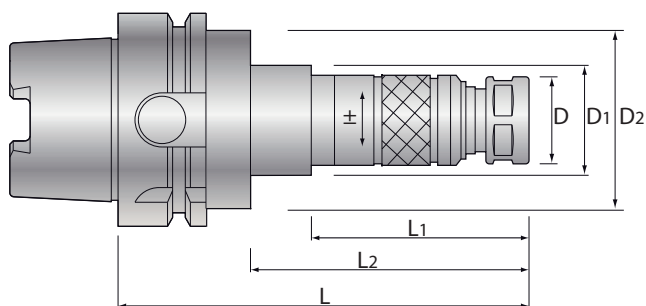
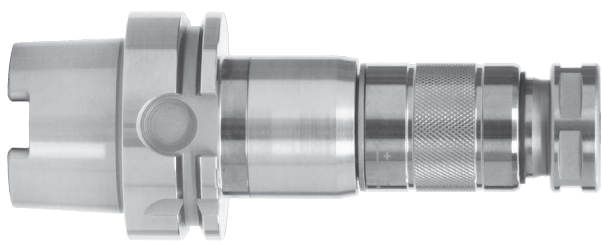
S.|P. 194

L-T  
6kant  
Hex wrench

S.|P. 193

# SFH|-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**HSK100A**

DIN 69893 | ISO 12164

**M3  
M30**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



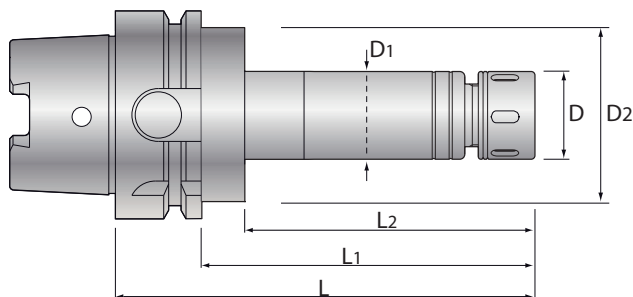
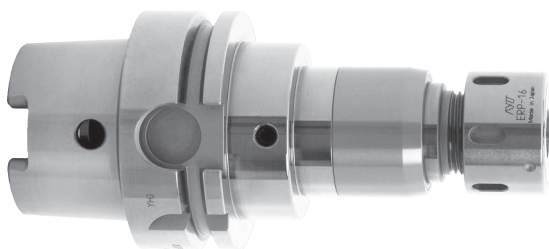
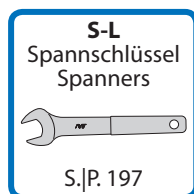
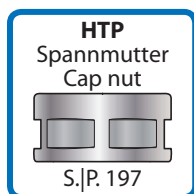
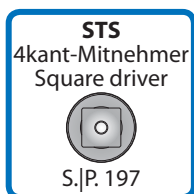
**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

**M2  
M27**

| Halter   Holder |             | Schneidbereich<br>Tapping range | D  | D1 | D2 | L   | L1  | L2  |        |      |
|-----------------|-------------|---------------------------------|----|----|----|-----|-----|-----|--------|------|
| <b>HSK100A</b>  | -135        | M3-M8                           | 26 | 34 | 46 | 135 | 55  | 89  | FSC-09 | S-1L |
|                 | -SFH12 -150 | M3-M8                           | 26 | 34 | 46 | 150 | 70  | 104 | FSC-09 | S-1L |
|                 | -180        | M3-M8                           | 26 | 34 | 46 | 180 | 100 | 134 | FSC-09 | S-1L |
|                 | -SFH18 -155 | M5-M20                          | 36 | 40 | 46 | 155 | 68  | 108 | FSC-16 | S-4L |
|                 | -180        | M5-M20                          | 36 | 40 | 46 | 180 | 93  | 133 | FSC-16 | S-4L |
|                 | -SFH30 -180 | M20-M30                         | 46 | 50 | -  | 180 | 87  | 151 | FSC-22 | S-5L |

HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

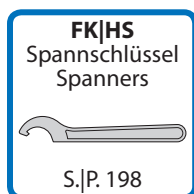
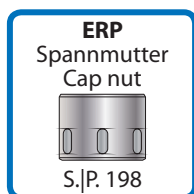
HSK-Coolant pipe and cap nut included in delivery.  
HSK without holes for manual clamping.



| Halter   Holder |              | Schneidbereich<br>Tapping range | D  | D1 | D2 | L   | L1  | L2  |         |         |
|-----------------|--------------|---------------------------------|----|----|----|-----|-----|-----|---------|---------|
| <b>HSK100A</b>  | -SFH12S -110 | M2-M12                          | 32 | 34 | 46 | 110 | 81  | 64  | ER16-GB | FK-0034 |
|                 | -SFH18S -135 | M3-M20                          | 42 | 40 | 46 | 135 | 106 | 88  | ER25-GB | HS-1-16 |
|                 | -SFH30S -150 | M4-M27                          | 50 | 50 | 50 | 150 | 121 | 121 | ER32-GB | HS-2-20 |

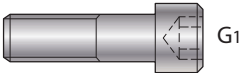
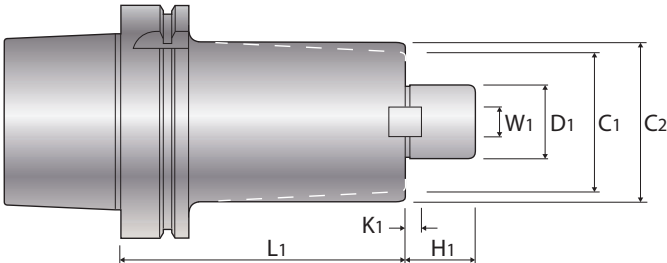
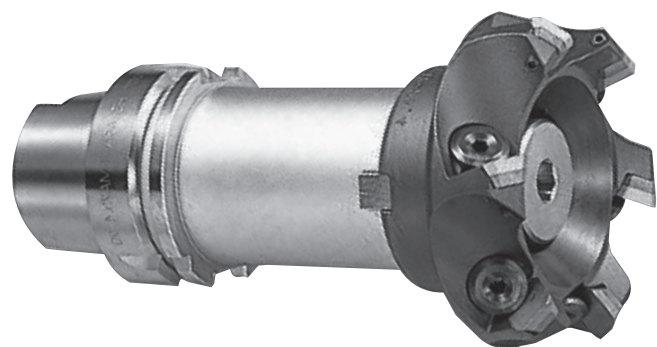
HSK-Kühlmittelrohr und Spannmutter im Lieferumfang enthalten.  
HSK mit Bohrung für Handspannung.

HSK-Coolant pipe and cap nut included in delivery.  
HSK with holes for manual clamping.



# FMC Aufsteck-Fräsdorn extra lang

## Face Mill Arbor extra long



### HSK100A

DIN 69893 | ISO 12164

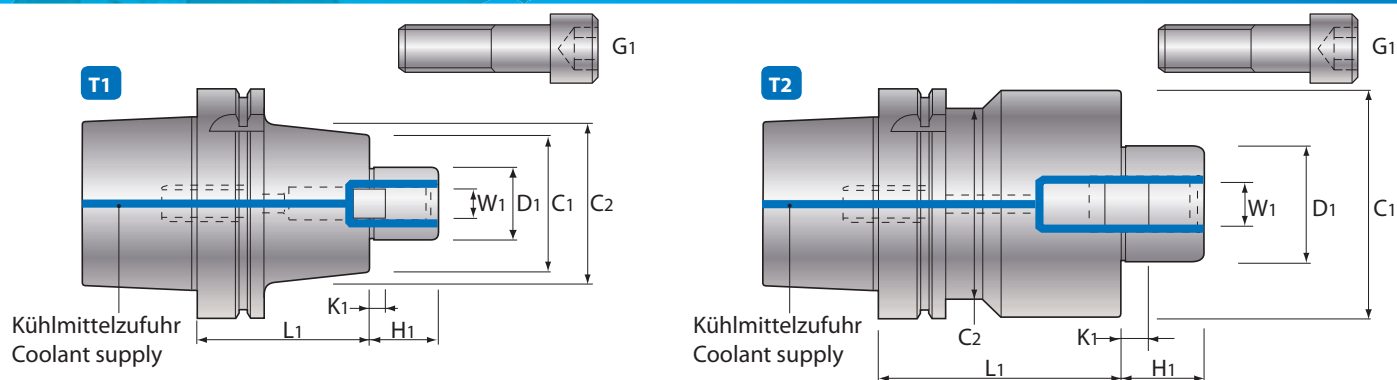
| Halter   Holder |                   | D1<br>(h6)        | L1  | C1  | C2 | H1 | W1   | K1   | G1  | Messerkopf<br>Cutter<br>Ø |       |
|-----------------|-------------------|-------------------|-----|-----|----|----|------|------|-----|---------------------------|-------|
| HSK100A         | -185              | 22                | 185 | 45  | 85 | 18 | 10.5 | 5    | M10 | 50 63                     |       |
|                 | -FMC22            | -285              | 22  | 285 | 45 | 85 | 18   | 10.5 | 5   | M10                       | 50 63 |
|                 | -388              | 22                | 388 | 45  | 85 | 18 | 10.5 | 5    | M10 | 50 63                     |       |
|                 | -185              | 27                | 185 | 70  | 85 | 20 | 12.5 | 6    | M12 | 80                        |       |
|                 | -FMC27            | -285 <sup>1</sup> | 27  | 285 | 70 | -  | 20   | 12.5 | 6   | M12                       | 80    |
|                 | -385 <sup>1</sup> | 27                | 385 | 70  | -  | 20 | 12.5 | 6    | M12 | 80                        |       |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK ohne Bohrung für Handspannung.  
<sup>1</sup> Bauform zylindrisch.

HSK-Coolant pipe included in delivery.  
 HSK without holes for manual clamping.  
<sup>1</sup> Straight shank type.

# FMH Aufsteck-Fräsdorn

## Face Mill Arbor



### HSK100A

DIN 69893 | ISO 12164

**mit Kühlkanalbohrungen**  
with Coolant Jet

| Halter   Holder |        | Type | D1<br>(h6) | L1  | C1  | C2 | H1 | W1 | K1  | G1  | Messerkopf<br>Cutter<br>Ø |       |
|-----------------|--------|------|------------|-----|-----|----|----|----|-----|-----|---------------------------|-------|
| HSK100A         | -FMH16 | -34  | T1         | 16  | 75  | 34 | -  | 17 | 8   | 5   | M8                        | 40 50 |
|                 |        | -105 | T1         | 16  | 105 | 34 | -  | 17 | 8   | 5   | M8                        | 40 50 |
|                 |        | -135 | T1         | 16  | 135 | 34 | -  | 17 | 8   | 5   | M8                        | 40 50 |
|                 |        | -150 | T1         | 16  | 150 | 34 | -  | 17 | 8   | 5   | M8                        | 40 50 |
|                 |        | -200 | T1         | 16  | 200 | 34 | -  | 17 | 8   | 5   | M8                        | 40 50 |
|                 |        | -250 | T1         | 16  | 250 | 34 | -  | 17 | 8   | 5   | M8                        | 40 50 |
|                 | -FMH22 | -47  | T1         | 22  | 75  | 47 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -105 | T1         | 22  | 105 | 47 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -135 | T1         | 22  | 135 | 47 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -150 | T1         | 22  | 150 | 47 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -200 | T1         | 22  | 200 | 47 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -250 | T1         | 22  | 250 | 47 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 | -60    | -75  | T1         | 22  | 75  | 60 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -105 | T1         | 22  | 105 | 60 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -135 | T1         | 22  | 135 | 60 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -150 | T1         | 22  | 150 | 60 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -200 | T1         | 22  | 200 | 60 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 |        | -250 | T1         | 22  | 250 | 60 | -  | 18 | 10  | 5   | M10                       | 50 63 |
|                 | -FMH27 | -75  | T1         | 27  | 75  | 60 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -105 | T1         | 27  | 105 | 60 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -135 | T1         | 27  | 135 | 60 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -150 | T1         | 27  | 150 | 60 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -200 | T1         | 27  | 200 | 60 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -75  | T1         | 27  | 75  | 76 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -105 | T1         | 27  | 105 | 76 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -135 | T1         | 27  | 135 | 76 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -150 | T1         | 27  | 150 | 76 | -  | 20 | 12  | 6   | M12                       | 80    |
|                 |        | -200 | T1         | 27  | 200 | 76 | -  | 20 | 12  | 6   | M12                       | 80    |
| -FMH32          | -96    | T2   | 32         | 75  | 96  | 85 | 22 | 14 | 7   | M16 | 100                       |       |
|                 | -105   | T2   | 32         | 105 | 96  | 85 | 22 | 14 | 7   | M16 | 100                       |       |
|                 | -135   | T2   | 32         | 135 | 96  | 85 | 22 | 14 | 7   | M16 | 100                       |       |
| -FMH40          | -100   | T3   | 40         | 75  | 100 | 85 | 26 | 16 | 8.5 | M20 | 100 125                   |       |
|                 | -105   | T3   | 40         | 105 | 100 | 85 | 26 | 16 | 8.5 | M20 | 100 125                   |       |
|                 | -135   | T3   | 40         | 135 | 100 | 85 | 26 | 16 | 8.5 | M20 | 100 125                   |       |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
HSK ohne Bohrung für Handspannung.

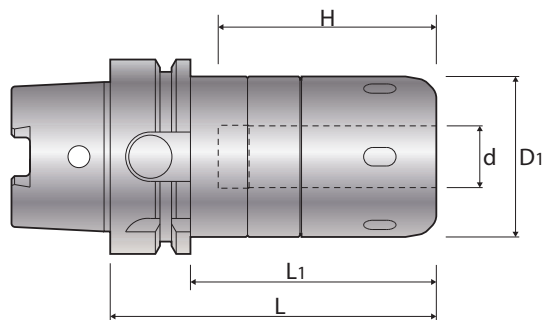
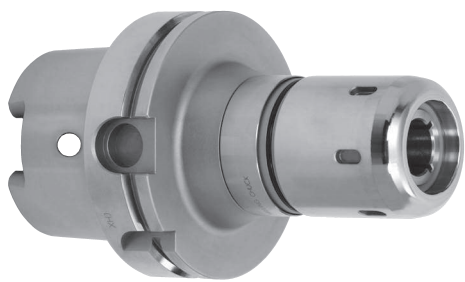
HSK-Coolant pipe included in delivery.  
HSK without holes for manual clamping.

CTS-P

Power Series

Hochleistungs-Kraftspannfutter

High Performance Milling Chuck



HSK125A

DIN 69893 | ISO 12164

3.0  
32.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>



mit erhöhter Spannkraft  
with enhanced clamping force

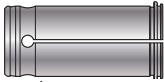
| Halter   Holder |        |       | d  | D1 | L   | L1 | H  |  |  |
|-----------------|--------|-------|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK125A         | -CT20S | -120P | 20 | 52 | 120 | 86 | 80 | MC20-d                                                                              | RS-20                                                                               |
|                 | -CT25S | -120P | 25 | 61 | 120 | 86 | 80 | MC25-d                                                                              | RS-25                                                                               |
|                 | -CT32S | -120P | 32 | 73 | 120 | 86 | 80 | MC32-d                                                                              | RS-32                                                                               |

HSK-Kühlmittelrohr im Lieferumfang enthalten.  
 HSK mit Bohrung für Handspannung.  
 Mit ID-Chip Bohrung.

HSK-Coolant pipe included in delivery.  
 HSK with holes for manual clamping.  
 With ID-Chip hole.

MC

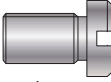
Spannhülsen  
Collets



S.|P. 188-189

BL

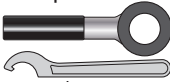
Einstellschrauben  
Adjustment screw



S.|P. 190

HS|RS

Spannschlüssel  
Spanners



S.|P. 190

EM

Verlängerungen  
Extensions



S.|P. 187

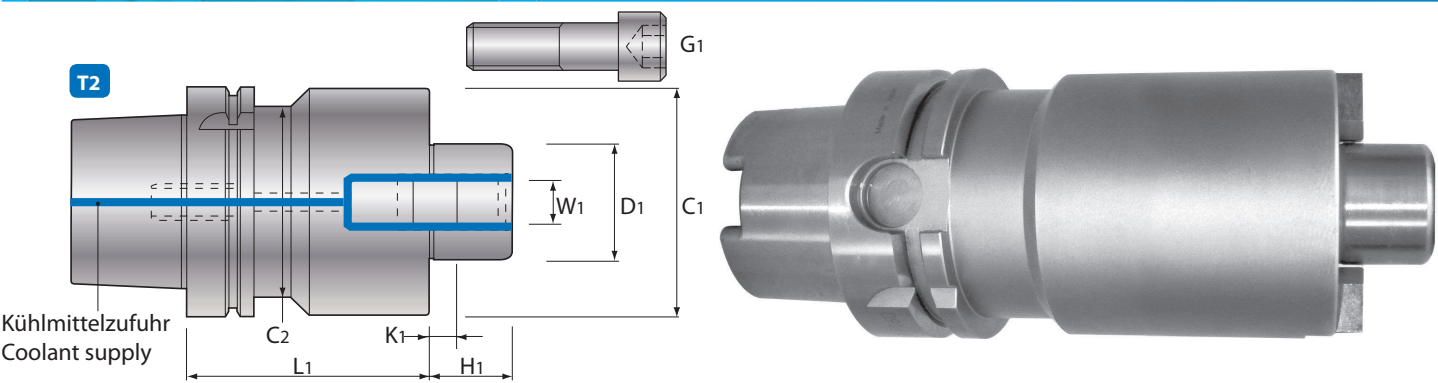




# FMH

## Aufsteck-Fräsdorn

## Face Mill Arbor



### HSK125A

DIN 69893 | ISO 12164



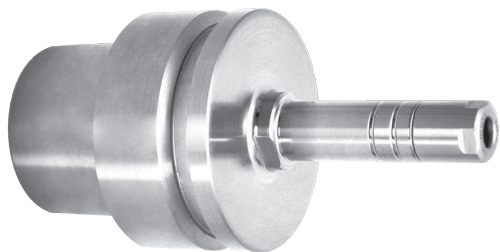
mit Kühlkanalbohrungen

with Coolant Jet

| Halter   Holder |        |      | Type | D1<br>(h6) | L1  | C1 | C2 | H1 | W1   | K1  | G1  | Messerkopf<br>Cutter<br>Ø |
|-----------------|--------|------|------|------------|-----|----|----|----|------|-----|-----|---------------------------|
| HSK125A         | -FMH32 | -100 | T2   | 32         | 100 | 78 | 78 | 24 | 16.5 | 8   | M16 | 100                       |
|                 | -FMH40 | -100 | T2   | 42         | 100 | 85 | 85 | 26 | 28   | 8.5 | M20 | 125                       |



**Spannzangenfutter**  
Collet Chuck



**HSK25E**

DIN 69893



**0.005**  
**3x D**

max  
42.000  
min<sup>-1</sup>

**Super-  
schlank**  
Super slim

| Halter   Holder |         |                  | d       | D <sub>1</sub> | L  | L <sub>1</sub> | H     |  |  |
|-----------------|---------|------------------|---------|----------------|----|----------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK25E          | -ERC11S | -45 <sup>1</sup> | 1.0-7.0 | 16             | 45 | 35             | 34    | ER11                                                                                | S-11E                                                                               |
|                 |         | -60              | 1.0-7.0 | 16             | 60 | 50             | 20-30 | ER11                                                                                | S-11E                                                                               |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.

**ER**  
Spannzangen  
Collets

S./P. 196

**ES**  
Einstellschraube  
Preset screw



S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut



S./P. 196

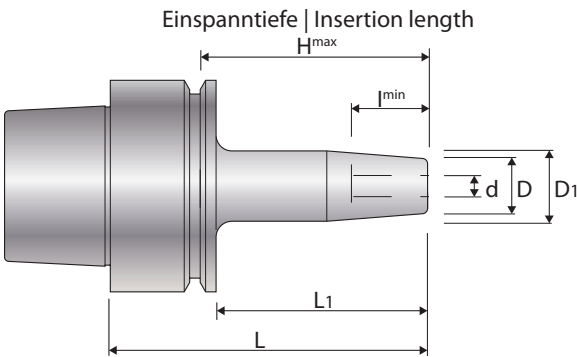
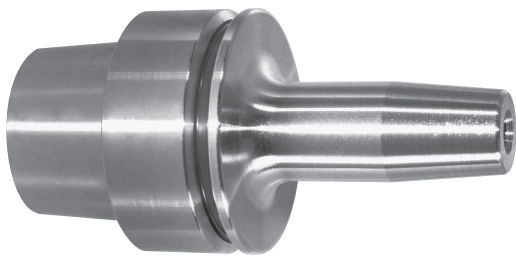
**S-E**  
Spannschlüssel  
Spanners



S./P. 196

# SRE Schrumpffutter

## Shrink Fit Chuck



**HSK25E**

DIN 69893

6.0  
8.0

3

μm

max  
50.000  
min<sup>-1</sup>



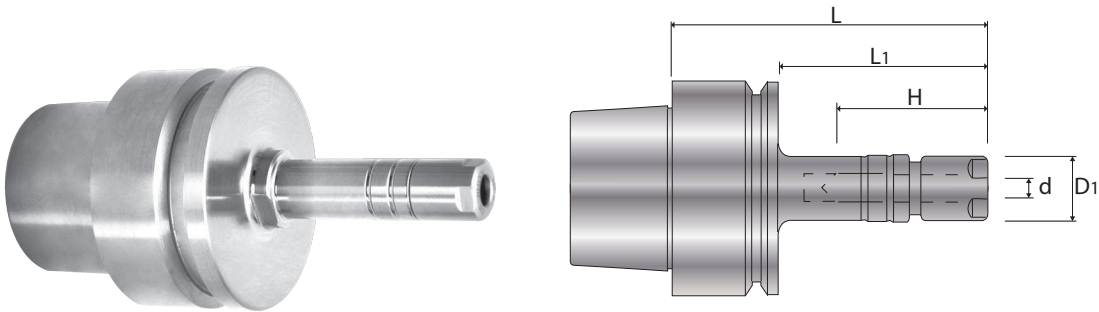
| Halter   Holder |            | d | D  | D1 | L  | L1 | l min | H max |
|-----------------|------------|---|----|----|----|----|-------|-------|
| HSK25E          | -SRE6A -35 | 6 | 13 | 16 | 35 | 25 | 19    | 20    |
|                 | -50        | 6 | 13 | 16 | 50 | 40 | 24    | 35    |
|                 | -SRE8A -35 | 8 | 13 | 16 | 35 | 25 | 19    | 20    |
|                 | -50        | 8 | 13 | 16 | 50 | 40 | 24    | 35    |

Nur für HM-Werkzeuge geeignet.

Only for carbide tools.

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



HSK32E

DIN 69893

1.0  
7.0

0.005  
3x D

max  
42.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

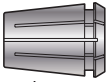
| Halter   Holder |         |                  | d       | D1 | L  | L1 | H     |  |  |
|-----------------|---------|------------------|---------|----|----|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK32E          | -ERC11S | -45 <sup>1</sup> | 1.0-7.0 | 16 | 45 | 25 | 31    | ER11                                                                                | S-11E                                                                               |
|                 |         | -60              | 1.0-7.0 | 16 | 60 | 40 | 22-27 | ER11                                                                                | S-11E                                                                               |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.

ER

Spannzangen  
Collets



S.|P. 196

ES

Einstellschraube  
Preset srew



S.|P. 196

Mini ERP

Spannmutter  
Cap nut



S.|P. 196

S-E

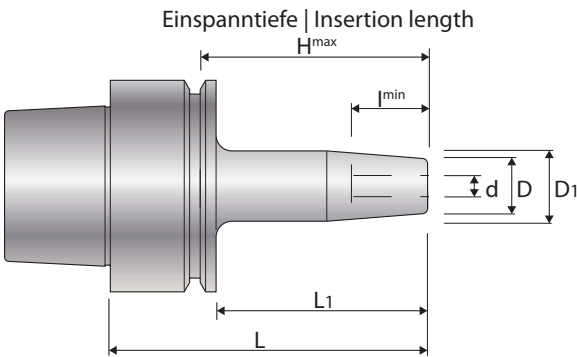
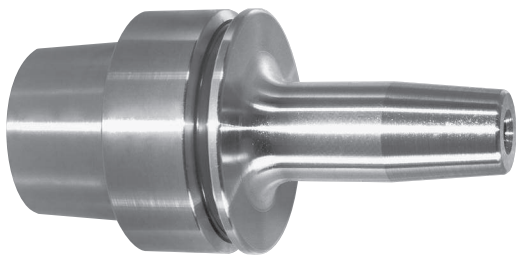
Spannschlüssel  
Spanners



S.|P. 196

# SRE Schrumpffutter

## Shrink Fit Chuck



**HSK32E**

DIN 69893

6.0  
8.0

3  
μm

max  
50.000  
min<sup>-1</sup>



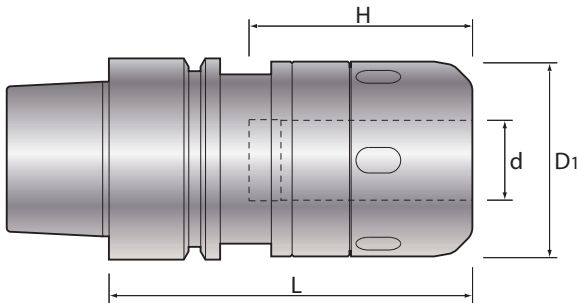
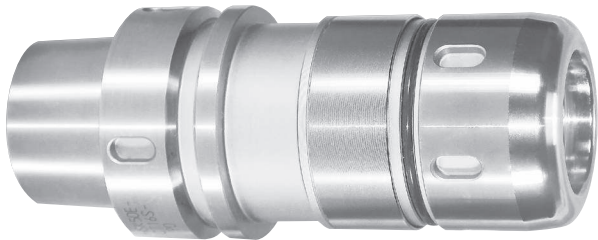
| Halter   Holder |            | d | D  | D1 | L  | L1 | l min | H max |
|-----------------|------------|---|----|----|----|----|-------|-------|
| HSK32E          | -SRE6A -45 | 6 | 13 | 16 | 45 | 25 | 19    | 28    |
|                 | -60        | 6 | 13 | 16 | 60 | 40 | 24    | 43    |
|                 | -SRE8A -45 | 8 | 13 | 16 | 45 | 25 | 19    | 28    |
|                 | -60        | 8 | 13 | 16 | 60 | 40 | 24    | 43    |

Nur für HM-Werkzeuge geeignet.

Only for carbide tools.

CT-SA

Hochleistungs-Kraftspannfutter  
High Performance Milling Chuck



HSK40E

DIN 69893

3.0  
25.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

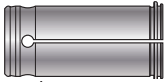


| Halter   Holder |              | d  | D1 | L   | H  |  |  |
|-----------------|--------------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40E          | -CT16SA -75  | 16 | 45 | 75  | 55 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -90          | 16 | 45 | 90  | 70 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA -90  | 20 | 52 | 90  | 70 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -105         | 20 | 52 | 105 | 85 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA -105 | 25 | 61 | 105 | 85 | MC25-d                                                                              | HS-2.5-25                                                                           |

MC-A Spannhülsen nicht einsetzbar.

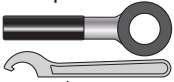
MC-A Collets cannot be used.

MC  
Spannhülsen  
Collets



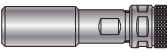
S.|P. 188-189

HS|RS  
Spannschlüssel  
Spanners



S.|P. 190

EM  
Verlängerungen  
Extensions



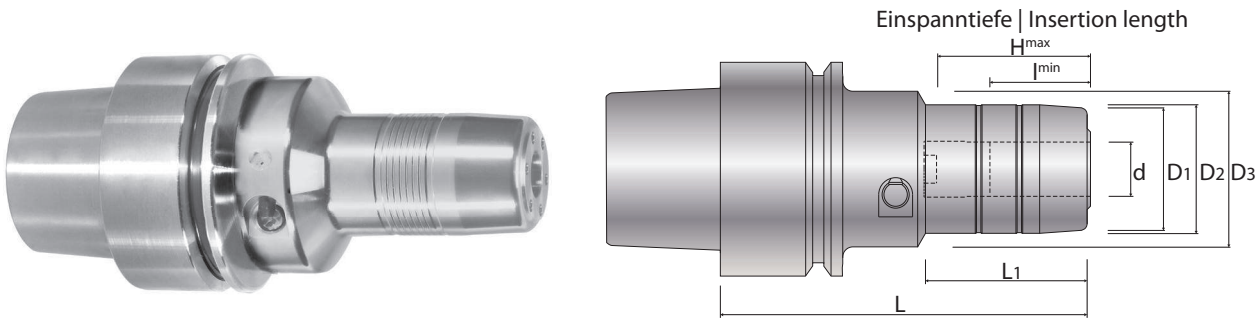
S.|P. 187



# PHC-A

Power Dehnspannfutter  
Power Hydro Chuck

Power Series



**HSK40E**  
DIN 69893

3.0  
12.0

0.003  
50

max  
20.000  
min<sup>-1</sup>



Tol.  
h6

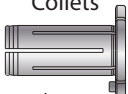


| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | I min | H max |  |  |
|-----------------|--------------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40E          | -PHC06A -90  | 6  | 24 | 26 | 46 | 90  | 30 | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -90  | 8  | 26 | 28 | 46 | 90  | 30 | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -105 | 10 | 28 | 30 | 52 | 105 | 44 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A -105 | 12 | 30 | 32 | 52 | 105 | 45 | 40    | 50    | PHS12-d                                                                             | L-4T                                                                                |

Mit axialer Längeneinstellung.

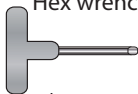
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S.|P. 192

**L-T**  
6kant  
Hex wrench



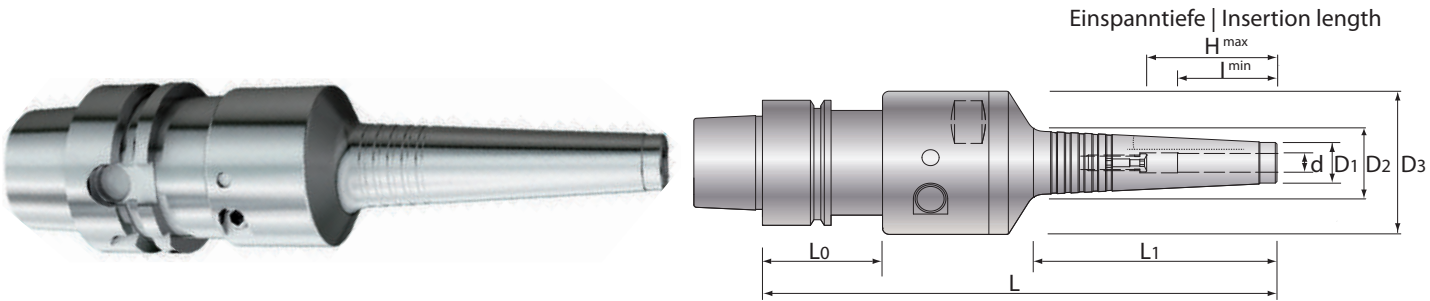
S.|P. 193



PHC-SA

Dehnspannfutter superschlank  
Slim Hydro Chuck

Super slim Series



HSK40E

DIN 69893

3.0  
12.0

0.005  
3x D

G2.5  
25.000  
min<sup>-1</sup>



Tol.  
h6



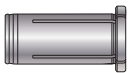
| Halter   Holder |               | d  | D1 | D2   | D3 | L   | L0 | L1 | I min | H max |  |  |
|-----------------|---------------|----|----|------|----|-----|----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40E          | -PHC03SA -100 | 3  | 11 | 14.2 | 46 | 100 | 35 | 30 | 18    | -     | -                                                                                   | L-4T                                                                                |
|                 | -145          | 3  | 11 | 18.5 | 46 | 145 | 35 | 71 | 18    | -     | -                                                                                   | L-4T                                                                                |
|                 | -PHC04SA -100 | 4  | 11 | 14.2 | 46 | 100 | 35 | 30 | 24    | 52    | -                                                                                   | L-4T                                                                                |
|                 | -145          | 4  | 11 | 18.5 | 46 | 145 | 35 | 71 | 24    | 97    | -                                                                                   | L-4T                                                                                |
|                 | -PHC06SA -135 | 6  | 13 | 18.8 | 46 | 135 | 35 | 55 | 29    | 37    | -                                                                                   | L-4T                                                                                |
|                 | -150          | 6  | 13 | 20.4 | 46 | 150 | 35 | 71 | 29    | 37    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08SA -135 | 8  | 15 | 20.3 | 46 | 135 | 35 | 51 | 29    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -150          | 8  | 15 | 22.5 | 46 | 150 | 35 | 72 | 29    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10SA -150 | 10 | 17 | 24.5 | 46 | 150 | 35 | 72 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -PHC12SA -150 | 12 | 19 | 26.7 | 46 | 150 | 35 | 73 | 40    | 70    | HS12-d                                                                              | L-4T                                                                                |

Mit axialer Längeneinstellung.

With axial length adjustment.

HS

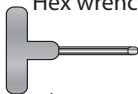
Spannhülsen  
Collets



S./P. 193

L-T

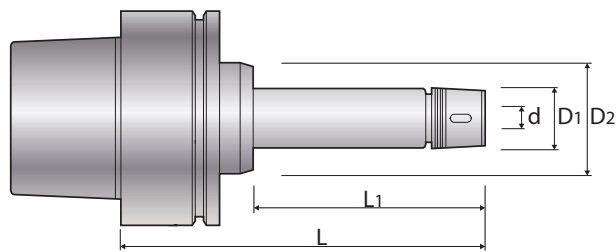
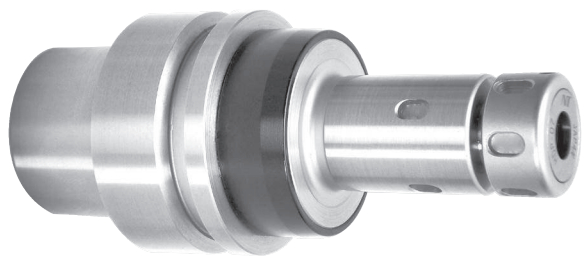
6kant  
Hex wrench



S./P. 193

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK40E**

DIN 69893

**1.0**  
**12.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

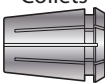


| Halter   Holder |         | d        | D1       | D2 | L   | L1  |  |  |
|-----------------|---------|----------|----------|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>HSK40E</b>   | -75     | 1.0-7.0  | 23       | 34 | 75  | 40  | FDC-07                                                                              | S-0                                                                                 |
|                 | -GDC07A | -90      | 1.0-7.0  | 23 | 34  | 90  | FDC-07                                                                              | S-0                                                                                 |
|                 | -120    | 1.0-7.0  | 23       | 34 | 120 | 85  | FDC-07                                                                              | S-0                                                                                 |
|                 | -75     | 3.0-9.0  | 29       | 34 | 75  | 40  | FDC-09                                                                              | S-0                                                                                 |
|                 | -GDC09A | -90      | 3.0-9.0  | 29 | 34  | 90  | FDC-09                                                                              | S-0                                                                                 |
|                 | -120    | 3.0-9.0  | 29       | 34 | 120 | 85  | FDC-09                                                                              | S-0                                                                                 |
|                 | -90     | 3.0-12.0 | 34       | 39 | 90  | -   | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC12A | -120     | 3.0-12.0 | 34 | 39  | 120 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -150    | 3.0-12.0 | 34       | 39 | 150 | -   | FDC-12                                                                              | FK-0034                                                                             |

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

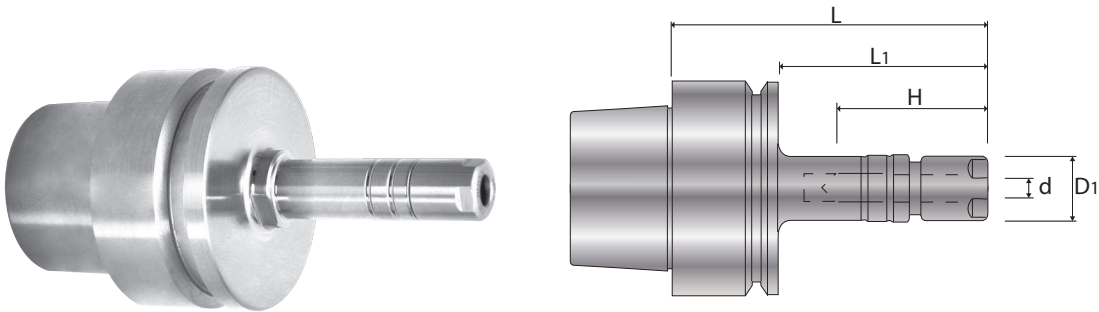
**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



**HSK40E**

DIN 69893

1.0  
7.0

0.005  
3x D

max  
42.000  
min<sup>-1</sup>

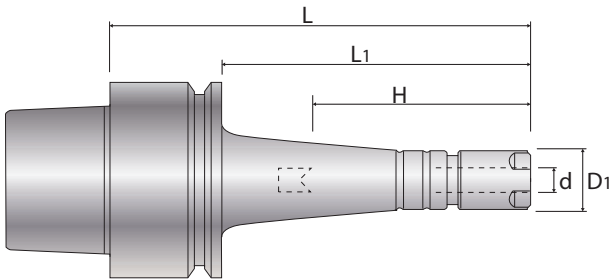
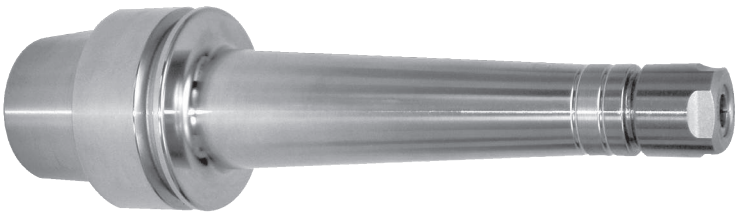
Super-  
schlank  
Super slim

**Form S**

| Halter   Holder |         |                  | d       | D1 | L  | L1 | H     |  |  |
|-----------------|---------|------------------|---------|----|----|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK40E          | -ERC8   | -40 <sup>1</sup> | 1.0-5.0 | 12 | 40 | 20 | 26    | ER8                                                                                 | S-8E                                                                                |
|                 |         | -60 <sup>1</sup> | 1.0-5.0 | 12 | 60 | 40 | 34    | ER8                                                                                 | S-8E                                                                                |
|                 | -ERC11S | -45 <sup>1</sup> | 1.0-7.0 | 16 | 45 | 25 | 31    | ER11                                                                                | S-11E                                                                               |
|                 |         | -60              | 1.0-7.0 | 16 | 60 | 40 | 22-24 | ER11                                                                                | S-11E                                                                               |
|                 |         |                  |         |    |    |    |       |                                                                                     |                                                                                     |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.



**HSK40E**

DIN 69893

1.0  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

**Form T**

| Halter   Holder |         |       | d       | D1 | L   | L1 | H     |  |  |
|-----------------|---------|-------|---------|----|-----|----|-------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| HSK40E          | -ERC11S | -105T | 1.0-7.0 | 16 | 105 | 85 | 22-45 | ER11                                                                                  | S-11E                                                                                 |
|                 |         | -120T | 1.0-7.0 | 16 | 120 | 94 | 22-45 | ER11                                                                                  | S-11E                                                                                 |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.

**ER**  
Spannzangen  
Collets



S.|P. 196

**ES**  
Einstellschraube  
Preset screw



S.|P. 196

**Mini ERP**  
Spannmutter  
Cap nut



S.|P. 196

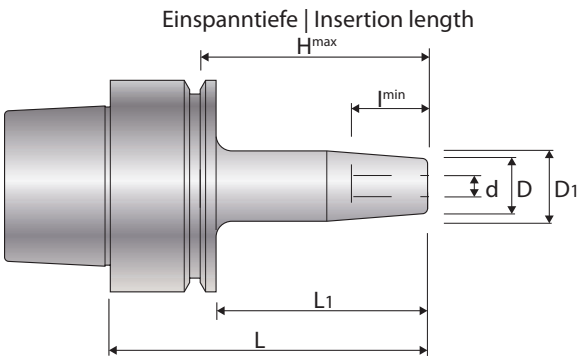
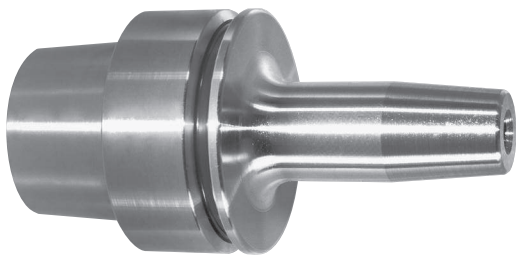
**S-E**  
Spannschlüssel  
Spanners



S.|P. 196

# SRE Schrumpffutter

## Shrink Fit Chuck



**HSK40E**

DIN 69893

6.0  
16.0

3

μm

max  
42.000  
min<sup>-1</sup>



Tol.  
h6

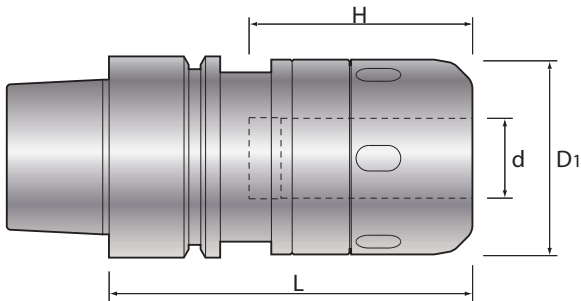
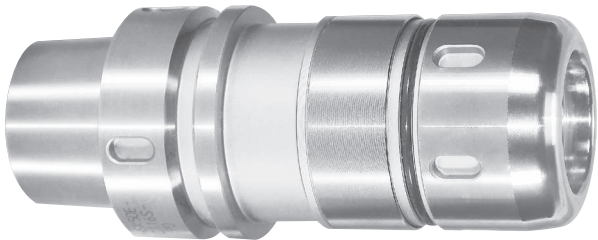
| Halter   Holder |         |     | d  | D  | D1 | L  | L1 | l min | H max |
|-----------------|---------|-----|----|----|----|----|----|-------|-------|
| HSK40E          | -SRE6A  | -45 | 6  | 13 | 16 | 45 | 25 | 19    | 28    |
|                 |         | -60 | 6  | 13 | 16 | 60 | 40 | 27    | 43    |
|                 |         | -80 | 6  | 13 | 16 | 80 | 60 | 27    | 63    |
|                 | -SRE8A  | -45 | 8  | 13 | 16 | 45 | 24 | 19    | 28    |
|                 |         | -60 | 8  | 13 | 16 | 60 | 40 | 27    | 43    |
|                 |         | -80 | 8  | 13 | 16 | 80 | 60 | 27    | 63    |
|                 | -SRE10A | -60 | 10 | 16 | 19 | 60 | 40 | 26    | 40    |
|                 |         | -80 | 10 | 16 | 19 | 80 | 60 | 26    | 50    |
|                 | -SRE12A | -60 | 12 | 18 | 21 | 60 | 40 | 37    | 47    |
|                 |         | -80 | 12 | 18 | 21 | 80 | 60 | 37    | 50    |
|                 | -SRE16A | -60 | 16 | 22 | 25 | 60 | 40 | 39    | 47    |
|                 |         | -80 | 16 | 22 | 25 | 80 | 60 | 39    | 50    |

Nur für HM-Werkzeuge geeignet.

Only for carbide tools.

CT-SA

Hochleistungs-Kraftspannfutter  
High Performance Milling Chuck



HSK50E

DIN 69893

3.0  
25.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>



| Halter   Holder |         |      | d  | D1 | L   | L2 |  |  |
|-----------------|---------|------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50E          | -CT16SA | -90  | 16 | 45 | 90  | 64 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA | -90  | 20 | 52 | 90  | 64 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT20SA | -105 | 20 | 52 | 105 | 79 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -105 | 25 | 61 | 105 | 79 | MC25-d                                                                              | HS-2.5-25                                                                           |

MC-A Spannhülsen nicht einsetzbar.

MC-A Collets cannot be used.

MC

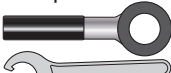
Spannhülsen  
Collets



S.|P. 188-189

HS|RS

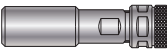
Spannschlüssel  
Spanners



S.|P. 190

EM

Verlängerungen  
Extensions

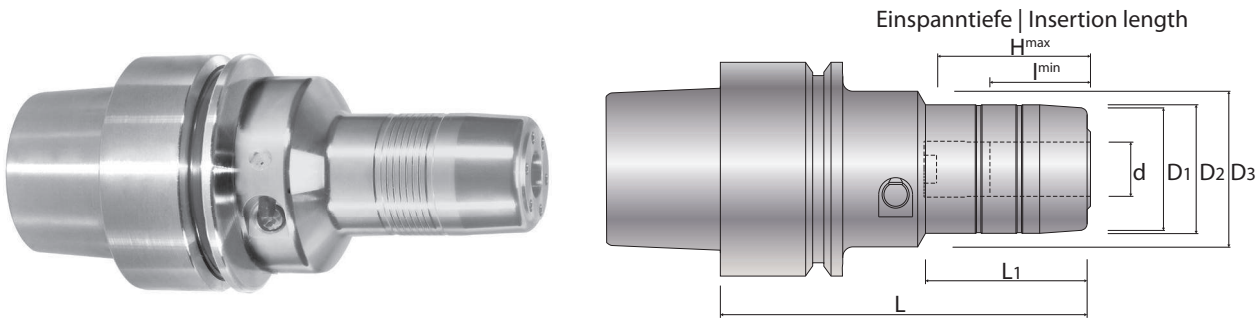


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



**HSK50E**

DIN 69893

3.0  
20.0

0.003  
50

max  
20.000  
min<sup>-1</sup>



Tol.  
h6

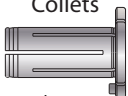


| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | lmin | Hmax |  |  |
|-----------------|--------------|----|----|----|----|-----|----|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50E          | -PHC06A -90  | 6  | 24 | 26 | 46 | 90  | 30 | 29   | 34   | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -90  | 8  | 26 | 28 | 46 | 90  | 30 | 29   | 34   | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -105 | 10 | 28 | 30 | 52 | 105 | 44 | 40   | 50   | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A -105 | 12 | 30 | 32 | 52 | 105 | 45 | 40   | 50   | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC14A -105 | 14 | 34 | 36 | 52 | 105 | 46 | 40   | 50   | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A -105 | 16 | 36 | 38 | 52 | 105 | 46 | 40   | 50   | -                                                                                   | L-4T                                                                                |
|                 | -PHC20A -105 | 20 | 40 | 42 | 46 | 105 | 49 | 40   | 50   | PHS20-d                                                                             | L-4T                                                                                |

Mit axialer Längeneinstellung.

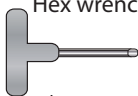
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

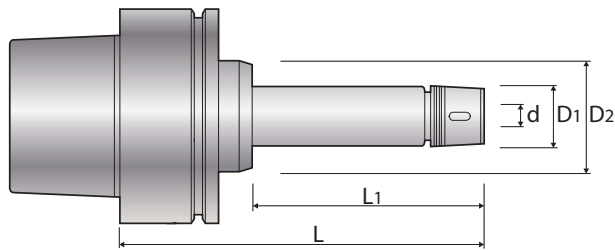
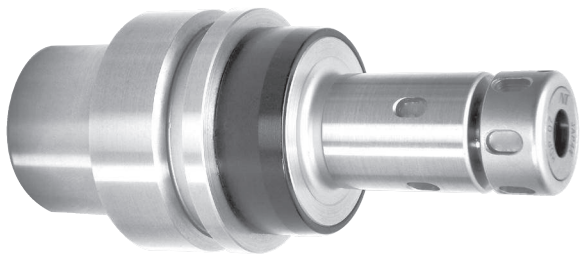
**L-T**  
6kant  
Hex wrench



S./P. 193

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK50E**

DIN 69893

**1.0**  
**16.0**

**0.005**  
**4x D**

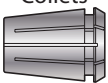
**G2.5**  
**20.000**  
**min<sup>-1</sup>**



| Halter   Holder |              | d        | D1 | D2 | L   | L1  |  |  |
|-----------------|--------------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50E          | -75          | 1.0-7.0  | 23 | 42 | 75  | 34  | FDC-07                                                                              | S-0                                                                                 |
|                 | -GDC07A -90  | 1.0-7.0  | 23 | 42 | 90  | 49  | FDC-07                                                                              | S-0                                                                                 |
|                 | -120         | 1.0-7.0  | 23 | 42 | 120 | 79  | FDC-07                                                                              | S-0                                                                                 |
|                 | -75          | 3.0-9.0  | 29 | 42 | 75  | 34  | FDC-09                                                                              | S-0                                                                                 |
|                 | -GDC09A -90  | 3.0-9.0  | 29 | 42 | 90  | 49  | FDC-09                                                                              | S-0                                                                                 |
|                 | -120         | 3.0-9.0  | 29 | 42 | 120 | 79  | FDC-09                                                                              | S-0                                                                                 |
|                 | -90          | 3.0-12.0 | 34 | 42 | 90  | 49  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC12A -120 | 3.0-12.0 | 34 | 42 | 120 | 79  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -150         | 3.0-12.0 | 34 | 42 | 150 | 109 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -90          | 3.0-16.0 | 38 | 42 | 90  | 49  | FDC-16                                                                              | FK-0034                                                                             |
|                 | -GDC16A -120 | 3.0-16.0 | 38 | 42 | 120 | 79  | FDC-16                                                                              | FK-0034                                                                             |
|                 | -150         | 3.0-16.0 | 38 | 42 | 150 | 109 | FDC-16                                                                              | FK-0034                                                                             |

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets  
  
S.|P. 195

**HDS**  
Einstellschraube  
Preset srew  
  
S.|P. 194

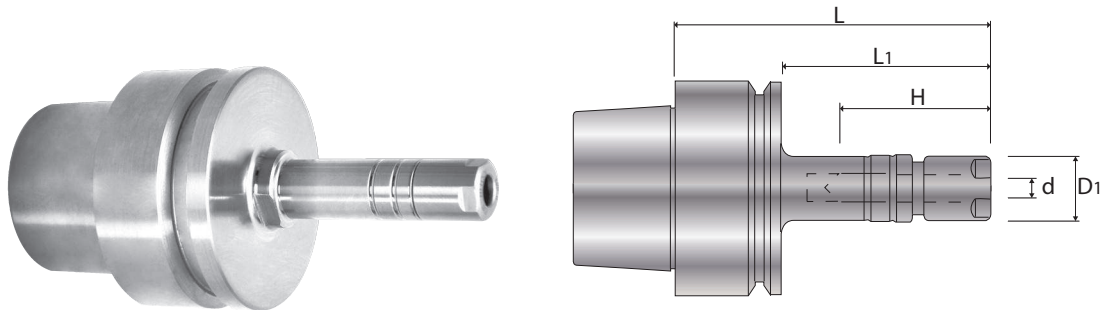
**HDP|GDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners  
  
S.|P. 194



# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### HSK50E

DIN 69893

1.0  
7.0

0.005  
3x D

max  
42.000  
min<sup>-1</sup>

Super-  
schlank  
Super slim

| Halter   Holder |         |                  | d       | D1 | L  | L1 | H     |  |  |
|-----------------|---------|------------------|---------|----|----|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK50E          | -ERC11S | -45 <sup>1</sup> | 1.0-7.0 | 16 | 45 | 19 | 28    | ER11                                                                                | S-11E                                                                               |
|                 |         | -60              | 1.0-7.0 | 16 | 60 | 34 | 22-28 | ER11                                                                                | S-11E                                                                               |
|                 |         | -75              | 1.0-7.0 | 16 | 75 | 49 | 22-39 | ER11                                                                                | S-11E                                                                               |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.

**ER**  
Spannzangen  
Collets  
  
S./P. 196

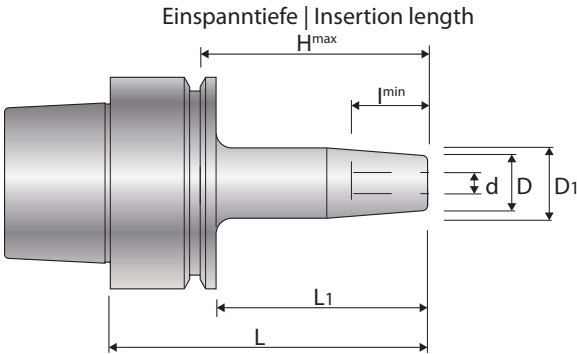
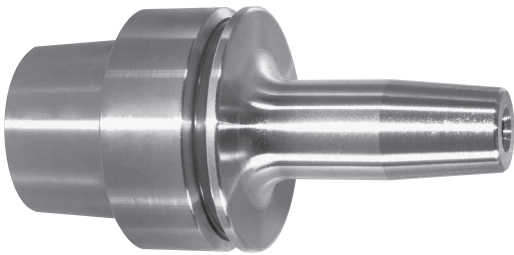
**ES**  
Einstellschraube  
Preset screw  
  
S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut  
  
S./P. 196

**S-E**  
Spannschlüssel  
Spanners  
  
S./P. 196

# SRE Schrumpffutter

## Shrink Fit Chuck



**HSK50E**

DIN 69893

6.0  
16.0

3

µm

max  
42.000  
min<sup>-1</sup>



Tol.  
h6

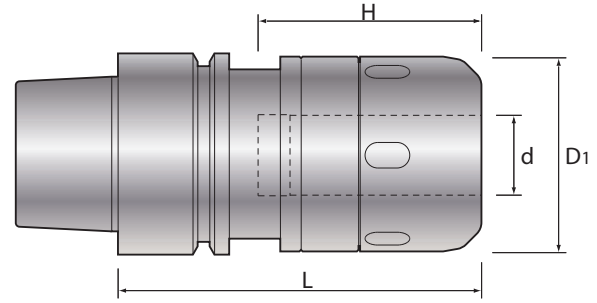
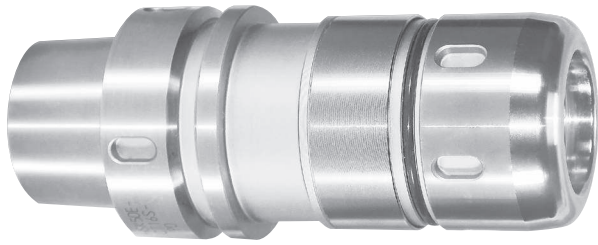
| Halter   Holder |     | d  | D  | D1 | L  | L1 | l <sub>min</sub> | H <sub>max</sub> |
|-----------------|-----|----|----|----|----|----|------------------|------------------|
| HSK50E          | -50 | 6  | 13 | 16 | 50 | 24 | 19               | 31               |
|                 | -70 | 6  | 13 | 16 | 70 | 44 | 27               | 51               |
|                 | -90 | 6  | 13 | 16 | 90 | 64 | 27               | 71               |
|                 | -50 | 8  | 13 | 16 | 50 | 24 | 19               | 31               |
|                 | -70 | 8  | 13 | 16 | 70 | 44 | 27               | 51               |
|                 | -90 | 8  | 13 | 16 | 90 | 64 | 27               | 71               |
|                 | -60 | 10 | 16 | 19 | 60 | 34 | 26               | 40               |
|                 | -80 | 10 | 16 | 19 | 80 | 54 | 26               | 50               |
|                 | -60 | 12 | 18 | 21 | 60 | 34 | 26               | 50               |
|                 | -80 | 12 | 18 | 21 | 80 | 54 | 26               | 50               |
|                 | -60 | 16 | 22 | 25 | 60 | 34 | 26               | 50               |
|                 | -80 | 16 | 22 | 25 | 80 | 54 | 26               | 50               |

Nur für HM-Werkzeuge geeignet

Only for carbide tools.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK63E

DIN 69893

3.0  
32.0

0.005  
3x D

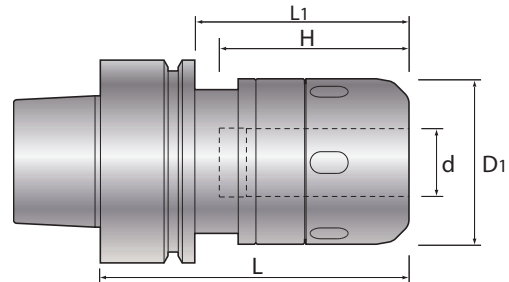
max  
20.000  
min<sup>-1</sup>



| Halter   Holder |         |      | d  | D1 | L   | H  |  |  |
|-----------------|---------|------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63E          | -CT20SA | -105 | 20 | 52 | 105 | 75 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -105 | 25 | 61 | 105 | 75 | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -CT32SA | -105 | 32 | 73 | 105 | 75 | MC32-d                                                                              | HS-3-32                                                                             |

MC-A Spannhülsen nicht einsetzbar.

MC-A Collets cannot be used.



### HSK63F

DIN 69893

3.0  
32.0

0.005  
3x D

max  
25.000  
min<sup>-1</sup>



| Halter   Holder |         |      | d  | D1 | L   | L1 | H  |  |  |
|-----------------|---------|------|----|----|-----|----|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| HSK63F          | -CT20SA | -105 | 20 | 52 | 105 | 79 | 75 | MC20-d                                                                                | HS-2-20                                                                               |
|                 | -CT25SA | -105 | 25 | 61 | 105 | 79 | 75 | MC25-d                                                                                | HS-2.5-25                                                                             |
|                 | -CT32SA | -105 | 32 | 73 | 105 | 79 | 75 | MC32-d                                                                                | HS-3-32                                                                               |

MC-A Spannhülsen nicht einsetzbar.

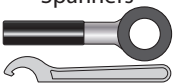
MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



S.|P. 188-189

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

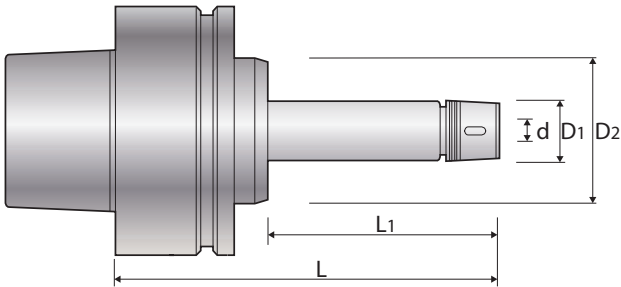
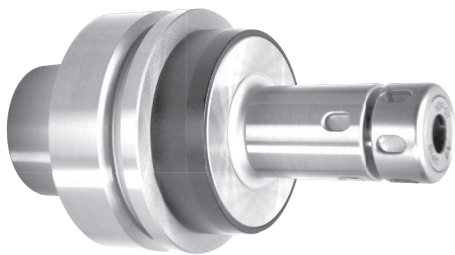
**EM**  
Verlängerungen  
Extensions



S.|P. 187

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**HSK63F**

DIN 69893

**3.0  
22.0**

**0.005  
4x D**

**G2.5  
20.000  
min<sup>-1</sup>**



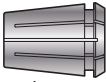
| Halter   Holder |             | d        | D1 | D2 | L   | L1 |  |  |
|-----------------|-------------|----------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>HSK63F</b>   | -GDC12A -90 | 3.0-12.0 | 34 | 52 | 90  | 49 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -120        | 3.0-12.0 | 34 | 52 | 120 | 79 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC16A -90 | 3.0-16.0 | 38 | 52 | 90  | 49 | FDC-16                                                                              | FK-0034                                                                             |
|                 | -120        | 3.0-16.0 | 38 | 52 | 120 | 79 | FDC-16                                                                              | FK-0034                                                                             |

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

FDC

Spannzangen  
Collets



S.|P. 195

HDS

Einstellschraube  
Preset srew



S.|P. 194

GDP

Spannmutter  
Cap nut



S.|P. 194

FK

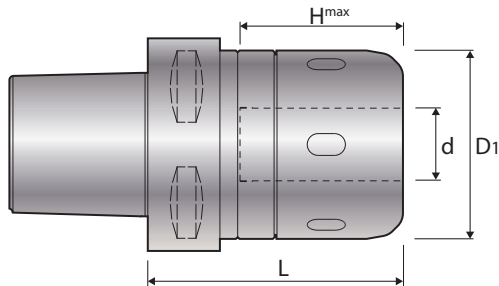
Spannschlüssel  
Spanners



S.|P. 194

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



POLYGON

ISO 26623-1

3.0  
32.0

0.005  
3x D

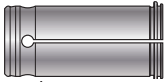
max  
20.000  
min<sup>-1</sup>



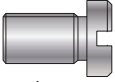
| Halter   Holder |         |                     | d  | D1 | L   | H <sup>max</sup> |  |  |
|-----------------|---------|---------------------|----|----|-----|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| C5              | -CT16SA | -70 <sup>1,2</sup>  | 16 | 45 | 70  | 64               | MC16-d                                                                              | HS-1-16                                                                             |
|                 |         | -90                 | 16 | 45 | 90  | 65               | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA | -75 <sup>1,2</sup>  | 20 | 52 | 75  | 65               | MC20-d                                                                              | HS-2-20                                                                             |
|                 |         | -90 <sup>1,2</sup>  | 20 | 52 | 90  | 80               | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -90 <sup>1,2</sup>  | 25 | 61 | 90  | 80               | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 |         | -105 <sup>1</sup>   | 25 | 61 | 105 | 80               | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -CT32SA | -90 <sup>1,2</sup>  | 32 | 73 | 90  | 75               | MC32-d                                                                              | HS-3-32                                                                             |
| C6              | -CT16SA | -70 <sup>2</sup>    | 16 | 45 | 70  | 61               | MC16-d                                                                              | HS-1-16                                                                             |
|                 |         | -90                 | 16 | 45 | 90  | 65               | MC16-d                                                                              | HS-1-16                                                                             |
|                 |         | -105                | 16 | 45 | 105 | 65               | MC16-d                                                                              | HS-1-16                                                                             |
|                 |         | -135                | 16 | 45 | 135 | 65               | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA | -75 <sup>1,2</sup>  | 20 | 52 | 75  | 60               | MC20-d                                                                              | HS-2-20                                                                             |
|                 |         | -90 <sup>1,2</sup>  | 20 | 52 | 90  | 75               | MC20-d                                                                              | HS-2-20                                                                             |
|                 |         | -105 <sup>1</sup>   | 20 | 52 | 105 | 80               | MC20-d                                                                              | HS-2-20                                                                             |
|                 |         | -135                | 20 | 52 | 135 | 80               | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA | -80 <sup>1,2</sup>  | 25 | 61 | 80  | 65               | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 |         | -90 <sup>1,2</sup>  | 25 | 61 | 90  | 75               | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 |         | -105 <sup>1</sup>   | 25 | 61 | 105 | 80               | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 |         | -135                | 25 | 61 | 135 | 80               | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -CT32SA | -90 <sup>1,2</sup>  | 32 | 73 | 90  | 75               | MC32-d                                                                              | HS-3-32                                                                             |
|                 |         | -105 <sup>1,2</sup> | 32 | 73 | 105 | 90               | MC32-d                                                                              | HS-3-32                                                                             |
|                 |         | -135 <sup>1</sup>   | 32 | 73 | 135 | 100              | MC32-d                                                                              | HS-3-32                                                                             |

<sup>1</sup>MC-A Spannhülsen nicht einsetzbar.  
<sup>2</sup>BL-Einstellschraube nicht einsetzbar.

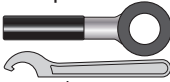
<sup>1</sup>MC-A Collets cannot be used.  
<sup>2</sup>BL Back-up screw cannot be used.



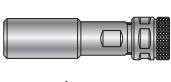
S.|P. 188-189



S.|P. 190



S.|P. 190

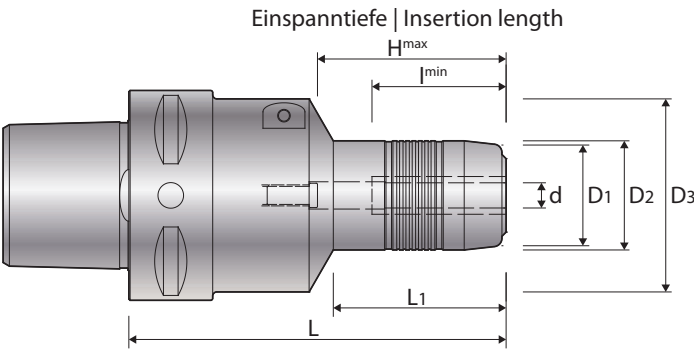


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



**POLYGON**  
ISO 26623-1

**3.0**  
**32.0**

**0.003**  
**50**

**max**  
**20.000**  
**min<sup>-1</sup>**

**Tol.**  
**h6**

**HA**  
**HB**

| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | I min | H max |         |      |
|-----------------|--------------|----|----|----|----|-----|----|-------|-------|---------|------|
| C5              | -PHC03A -55  | 3  | -  | 24 | 46 | 55  | 4  | 18    | 42    | -       | L-4T |
|                 | -90          | 3  | -  | 25 | 46 | 90  | 44 | 18    | 49    | -       | L-4T |
|                 | -PHC04A -55  | 4  | -  | 25 | 46 | 55  | 9  | 24    | 42    | -       | L-4T |
|                 | -90          | 4  | -  | 25 | 46 | 90  | 45 | 24    | 49    | -       | L-4T |
|                 | -PHC06A -55  | 6  | 24 | 26 | 46 | 55  | 11 | 29    | 34    | -       | L-4T |
|                 | -90          | 6  | 24 | 26 | 46 | 90  | 41 | 29    | 45    | -       | L-4T |
|                 | -PHC08A -55  | 8  | 26 | 28 | 46 | 55  | 11 | 29    | 34    | -       | L-4T |
|                 | -90          | 8  | 26 | 28 | 46 | 90  | 41 | 29    | 45    | -       | L-4T |
|                 | -PHC10A -60  | 10 | 28 | 30 | 46 | 60  | 19 | 33    | 47    | -       | L-4T |
|                 | -90          | 10 | 28 | 30 | 52 | 90  | 44 | 40    | 50    | -       | L-4T |
|                 | -PHC12A -60  | 12 | 30 | 32 | 46 | 60  | 17 | 33    | 47    | PHS12-d | L-4T |
|                 | -90          | 12 | 30 | 32 | 52 | 90  | 45 | 40    | 50    | PHS12-d | L-4T |
|                 | -PHC14A -75  | 14 | 34 | 36 | 46 | 75  | 17 | 33    | 50    | -       | L-4T |
|                 | -90          | 14 | 34 | 36 | 52 | 90  | 46 | 40    | 50    | -       | L-4T |
|                 | -PHC16A -75  | 16 | 36 | 38 | 46 | 75  | 18 | 33    | 50    | -       | L-4T |
|                 | -90          | 16 | 36 | 38 | 52 | 90  | 46 | 40    | 50    | -       | L-4T |
|                 | -PHC20A -90  | 20 | 40 | 42 | 46 | 90  | 49 | 40    | 50    | PHS20-d | L-4T |
|                 | -125         | 20 | 40 | 42 | 46 | 125 | 69 | 40    | 70    | PHS20-d | L-4T |
|                 | -PHC25A -105 | 25 | 50 | 52 | 62 | 105 | 59 | 50    | 60    | -       | L-6T |

**PHS**  
Spannhülsen  
Collets  
  
S.|P. 192

**L-T**  
6kant  
Hex wrench  
  
S.|P. 193

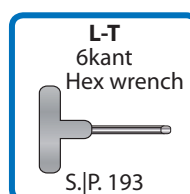
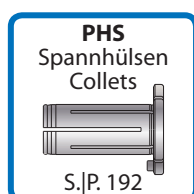
# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



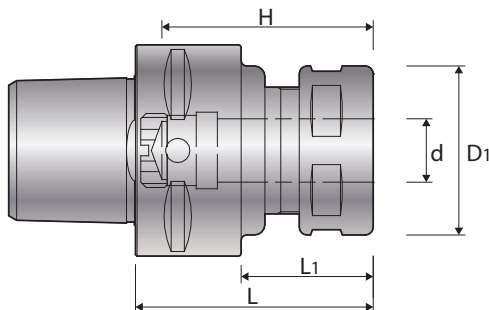
| Halter   Holder |              | d  | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> | L   | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |  |  |
|-----------------|--------------|----|----------------|----------------|----------------|-----|----------------|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| C6              | -PHC03A -50  | 3  | -              | 24             | 46             | 50  | 4              | 18               | 35               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 3  | -              | 25             | 46             | 90  | 44             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -PHC04A -55  | 4  | -              | 25             | 46             | 55  | 9              | 24               | 40               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 4  | -              | 25             | 46             | 90  | 45             | 24               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A -60  | 6  | 24             | 26             | 46             | 60  | 11             | 29               | 34               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 6  | 24             | 26             | 46             | 90  | 41             | 29               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -120         | 6  | 24             | 26             | 46             | 120 | 41             | 29               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -60  | 8  | 26             | 28             | 46             | 60  | 11             | 29               | 34               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 8  | 26             | 28             | 46             | 90  | 41             | 29               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -120         | 8  | 26             | 28             | 46             | 120 | 41             | 29               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -65  | 10 | 28             | 30             | 46             | 65  | 19             | 33               | 47               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 10 | 28             | 30             | 52             | 90  | 44             | 40               | 50               | -                                                                                   | L-4T                                                                                |
|                 | -120         | 10 | 28             | 30             | 52             | 120 | 64             | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A -65  | 12 | 30             | 32             | 46             | 65  | 17             | 33               | 47               | PHS12-d                                                                             | L-4T                                                                                |
|                 | -90          | 12 | 30             | 32             | 52             | 90  | 45             | 40               | 50               | PHS12-d                                                                             | L-4T                                                                                |
|                 | -120         | 12 | 30             | 32             | 52             | 120 | 65             | 40               | 70               | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC14A -75  | 14 | 34             | 36             | 46             | 75  | 17             | 33               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 14 | 34             | 36             | 52             | 90  | 46             | 40               | 50               | -                                                                                   | L-4T                                                                                |
|                 | -120         | 14 | 34             | 36             | 52             | 120 | 66             | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A -75  | 16 | 36             | 38             | 46             | 75  | 18             | 33               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -90          | 16 | 36             | 38             | 52             | 90  | 46             | 40               | 50               | -                                                                                   | L-4T                                                                                |
|                 | -120         | 16 | 36             | 38             | 52             | 120 | 66             | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -PHC20A -90  | 20 | 40             | 42             | 46             | 90  | 49             | 40               | 50               | PHS20-d                                                                             | L-4T                                                                                |
|                 | -120         | 20 | 40             | 42             | 46             | 120 | 69             | 40               | 70               | PHS20-d                                                                             | L-4T                                                                                |
|                 | -PHC25A -105 | 25 | 50             | 52             | 62             | 105 | 59             | 50               | 60               | -                                                                                   | L-6T                                                                                |
|                 | -120         | 25 | 50             | 52             | 62             | 120 | 59             | 50               | 80               | -                                                                                   | L-6T                                                                                |
|                 | -PHC32A -120 | 32 | 60             | 62             | -              | 120 | 96             | 65               | 75               | -                                                                                   | L-6T                                                                                |





# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



POLYGON

ISO 26623-1

1.0  
22.0

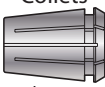
0.005  
4x D

max  
20.000  
min<sup>-1</sup>



| Halter   Holder |         |       | d        | D1 | L   | L1 | H     |  |  |
|-----------------|---------|-------|----------|----|-----|----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| C3              | -HDC07A | -35°  | 1.0-7.0  | 23 | 35  | 17 | 24    | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -45°  | 1.0-7.0  | 23 | 45  | 27 | 34    | FDC-07                                                                              | S-0                                                                                 |
|                 | -HDC09A | -35°  | 3.0-9.0  | 26 | 35  | 17 | 29    | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -45°  | 3.0-9.0  | 26 | 45  | 27 | 34    | FDC-09                                                                              | S-1L                                                                                |
|                 | -HDC12A | -36°  | 3.0-12.0 | 32 | 36  | 18 | 31    | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -45°  | 3.0-12.0 | 32 | 45  | 27 | 37    | FDC-12                                                                              | S-3L                                                                                |
|                 | -HDC16A | -45°  | 4.0-16.0 | 36 | 45  | 27 | 37    | FDC-16                                                                              | S-4L                                                                                |
| C4              | -HDC07A | -45°  | 1.0-7.0  | 23 | 45  | 27 | 34    | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -52°  | 1.0-7.0  | 23 | 52  | 34 | 22-29 | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -70°  | 1.0-7.0  | 23 | 70  | 52 | 22-45 | FDC-07                                                                              | S-0                                                                                 |
|                 | -HDC09A | -45°  | 3.0-9.0  | 26 | 45  | 27 | 34    | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -52°  | 3.0-9.0  | 26 | 52  | 34 | 41    | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -70°  | 3.0-9.0  | 26 | 70  | 52 | 27-45 | FDC-09                                                                              | S-1L                                                                                |
|                 | -HDC12A | -45°  | 3.0-12.0 | 32 | 45  | 27 | 38    | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -52°  | 3.0-12.0 | 32 | 52  | 34 | 40    | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -70°  | 3.0-12.0 | 32 | 70  | 52 | 33-45 | FDC-12                                                                              | S-3L                                                                                |
|                 | -HDC16A | -52°  | 4.0-16.0 | 36 | 52  | 34 | 44    | FDC-16                                                                              | S-4L                                                                                |
|                 | -HDC22A | -54°  | 4.0-22.0 | 46 | 54  | 36 | 47    | FDC-22                                                                              | S-5L                                                                                |
| C5              | -HDC07A | -60°  | 1.0-7.0  | 23 | 60  | 42 | 47    | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -75°  | 1.0-7.0  | 23 | 75  | 57 | 22-37 | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -105° | 1.0-7.0  | 23 | 105 | 87 | 22-45 | FDC-07                                                                              | S-0                                                                                 |
|                 | -HDC09A | -60°  | 3.0-9.0  | 26 | 60  | 42 | 47    | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -75°  | 3.0-9.0  | 26 | 75  | 57 | 27-37 | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -105° | 3.0-9.0  | 26 | 105 | 87 | 27-57 | FDC-09                                                                              | S-1L                                                                                |
|                 | -HDC12A | -60°  | 3.0-12.0 | 32 | 60  | 42 | 43    | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -75°  | 3.0-12.0 | 32 | 75  | 57 | 58    | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -105° | 3.0-12.0 | 32 | 105 | 87 | 33-69 | FDC-12                                                                              | S-3L                                                                                |

**FDC**  
Spannzangen  
Collets



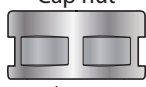
S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# HDC-A Hochgenauigkeits-Spannzangenfutter

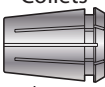
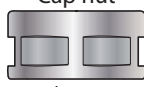
## High Precision Collet Chuck



| Halter   Holder |         |                  | d        | D1 | L   | L1  | H      |  |  |
|-----------------|---------|------------------|----------|----|-----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| C5              | -HDC16A | -60 <sup>1</sup> | 4.0-16.0 | 36 | 60  | 42  | 38     | FDC-16                                                                              | S-4L                                                                                |
|                 |         | -75 <sup>1</sup> | 4.0-16.0 | 36 | 75  | 57  | 53     | FDC-16                                                                              | S-4L                                                                                |
|                 |         | -105             | 4.0-16.0 | 36 | 105 | 87  | 38-73  | FDC-16                                                                              | S-4L                                                                                |
|                 | -HDC22A | -75 <sup>1</sup> | 4.0-22.0 | 46 | 75  | 57  | 57     | FDC-22                                                                              | S-5L                                                                                |
|                 |         | -105             | 4.0-22.0 | 46 | 105 | 87  | 47-68  | FDC-22                                                                              | S-5L                                                                                |
|                 |         |                  |          |    |     |     |        |                                                                                     |                                                                                     |
| C6              | -HDC07A | -60 <sup>1</sup> | 1.0-7.0  | 23 | 60  | 42  | 45     | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -75              | 1.0-7.0  | 23 | 75  | 57  | 22-37  | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -105             | 1.0-7.0  | 23 | 105 | 87  | 22-45  | FDC-07                                                                              | S-0                                                                                 |
|                 |         | -135             | 1.0-7.0  | 23 | 135 | 117 | 22-45  | FDC-07                                                                              | S-0                                                                                 |
|                 | -HDC09A | -60 <sup>1</sup> | 3.0-9.0  | 26 | 60  | 42  | 45     | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -75              | 3.0-9.0  | 26 | 75  | 57  | 27-37  | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -105             | 3.0-9.0  | 26 | 105 | 87  | 27-57  | FDC-09                                                                              | S-1L                                                                                |
|                 |         | -135             | 3.0-9.0  | 26 | 135 | 117 | 27-57  | FDC-09                                                                              | S-1L                                                                                |
|                 | -HDC12A | -60 <sup>1</sup> | 3.0-12.0 | 32 | 60  | 42  | 45     | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -75 <sup>1</sup> | 3.0-12.0 | 32 | 75  | 57  | 60     | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -105             | 3.0-12.0 | 32 | 105 | 87  | 33-64  | FDC-12                                                                              | S-3L                                                                                |
|                 |         | -135             | 3.0-12.0 | 32 | 135 | 117 | 33-69  | FDC-12                                                                              | S-3L                                                                                |
|                 | -HDC16A | -60 <sup>1</sup> | 4.0-16.0 | 36 | 60  | 42  | 41     | FDC-16                                                                              | S-4L                                                                                |
|                 |         | -75 <sup>1</sup> | 4.0-16.0 | 36 | 75  | 57  | 56     | FDC-16                                                                              | S-4L                                                                                |
|                 |         | -105             | 4.0-16.0 | 36 | 105 | 87  | 38-65  | FDC-16                                                                              | S-4L                                                                                |
|                 |         | -135             | 4.0-16.0 | 36 | 135 | 117 | 38-82  | FDC-16                                                                              | S-4L                                                                                |
|                 |         | -150             | 4.0-16.0 | 36 | 150 | 132 | 38-82  | FDC-16                                                                              | S-4L                                                                                |
|                 | -HDC22A | -75 <sup>1</sup> | 4.0-22.0 | 46 | 75  | 57  | 56     | FDC-22                                                                              | S-5L                                                                                |
|                 |         | -105             | 4.0-22.0 | 46 | 105 | 87  | 47-68  | FDC-22                                                                              | S-5L                                                                                |
|                 |         | -135             | 4.0-22.0 | 46 | 135 | 117 | 47-98  | FDC-22                                                                              | S-5L                                                                                |
|                 |         | -150             | 4.0-22.0 | 46 | 150 | 132 | 47-103 | FDC-22                                                                              | S-5L                                                                                |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.  
<sup>1</sup>Ohne axiale Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.  
<sup>1</sup>Without axial length adjustment.

|                                                                                                                                          |                                                                                                                                                    |                                                                                                                                          |                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FDC</b><br>Spannzangen<br>Collets<br><br>S./P. 195 | <b>HDS</b><br>Einstellschraube<br>Preset screw<br><br>S./P. 194 | <b>HDP</b><br>Spannmutter<br>Cap nut<br><br>S./P. 194 | <b>S-0/S-L</b><br>Spannschlüssel<br>Spanners<br><br>S./P. 194 |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|

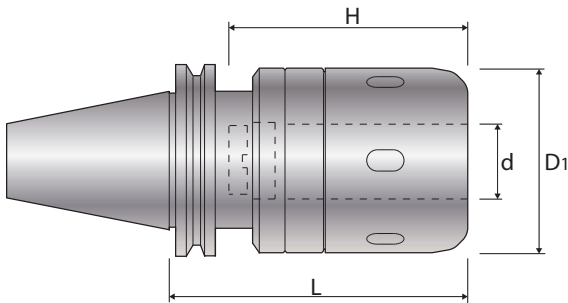
# SK

## DIN 69871 | ISO 7388-1

| Spannsystem |                                     | Tooling System                 | 30  | SK<br>40 | 50  |
|-------------|-------------------------------------|--------------------------------|-----|----------|-----|
| CT-SA       | Hochleistungs-Kraftspannfutter      | High Performance Milling Chuck | 114 | 116      | 134 |
| CT-SA-C     | Kraftspannfutter Coolant Jet        | Milling Chuck Coolant Jet      | -   | 117      | -   |
| CTS-P       | Power-Kraftspannfutter              | Power Milling Chuck            | -   | 118      | 135 |
| CTZ-SA      | Kraftspannfutter Rundlauf "0"       | Milling Chuck R-Zero           | -   | 119      | 136 |
| PHC-A       | Power Dehnspannfutter               | Power Hydro Chuck              | -   | 120      | 137 |
| PHC-H       | Hochdruck-Dehnspannfutter           | High Pressure Hydro Chuck      | -   | 121      | 138 |
| PHC-SA      | Dehnspannfutter superschlank        | Slim Hydro Chuck               | -   | 122-123  | 139 |
| PHC-SC      | Dehnspannfutter schlank Coolant Jet | Slim Hydro Chuck Coolant Jet   | -   | 122-123  | -   |
| PHZ-SA      | Dehnspannfutter Rundlauf "0"        | Slim Hydro Chuck R-Zero        | -   | 124      | -   |
| HDC-A       | Hochgenauigkeits-Spannzangenfutter  | High Precision Collet Chuck    | -   | 125      | 140 |
| GDC-A       | Highspeed-Spannzangenfutter         | Highspeed Collet Chuck         | -   | 126      | -   |
| HDZ-A       | Spannzangenfutter Rundlauf "0"      | Collet Chuck R-Zero            | -   | 127      | 141 |
| ERZ         | ER-Spannzangenfutter Rundlauf "0"   | ER-Collet Chuck R-Zero         | -   | 128      | -   |
| ERC         | Mikro-Spannzangenfutter             | Micro Collet Chuck             | 115 | 129      | -   |
| SRE         | Schrumpffutter                      | Shrink Fit Chuck               | -   | 130      | -   |
| SRS         | Schrumpffutter superschlank         | Slim Shrink Fit Chuck          | -   | 131      | -   |
| SFH         | SynchroFit-Gewindescheidfutter      | SynchroFit Tapping Holder      | -   | 132      | 142 |
| SFH-S       | SynchroFit-Gewindescheidfutter      | SynchroFit Tapping Holder      | -   | 132      | 142 |
| FMC         | Aufsteck-Fräsdorn extra lang        | Face Mill Arbor extra long     | -   | -        | 143 |
| HPH         | Präzisions-Schnelllaufspindel       | Precision Hyper Spindle        | -   | 133      | 144 |

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



SK30

DIN 69871 | ISO 7388-1

3.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

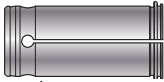
| Halter   Holder |         |      | d  | D1 | L   | H  |  |  |
|-----------------|---------|------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK30            | -CT16SA | -90  | 16 | 45 | 90  | 65 | MC16-d                                                                              | HS-1-16                                                                             |
|                 |         | -105 | 16 | 45 | 105 | 65 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA | -90  | 20 | 52 | 90  | 80 | MC20-d                                                                              | HS-2-20                                                                             |
|                 |         | -105 | 20 | 52 | 105 | 80 | MC20-d                                                                              | HS-2-20                                                                             |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery).

MC

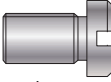
Spannhülsen  
Collets



S.|P. 188-189

BL

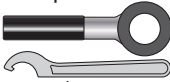
Einstellschrauben  
Adjustment screw



S.|P. 190

HS|RS

Spannschlüssel  
Spanners



S.|P. 190

EM

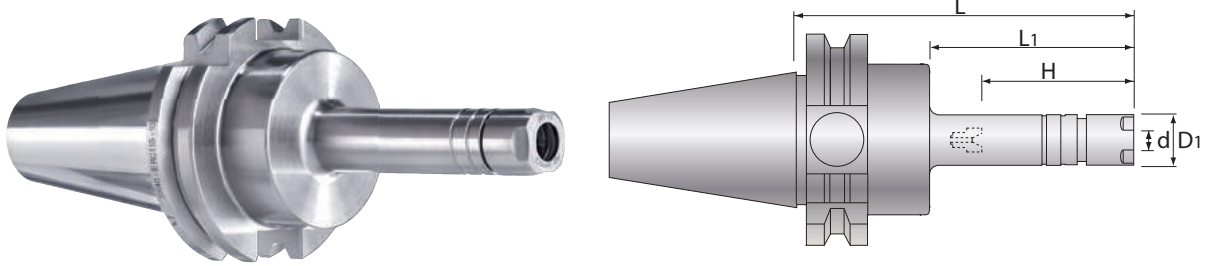
Verlängerungen  
Extensions



S.|P. 187

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### SK30

DIN 69871 | ISO 7388-1

1.0  
7.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

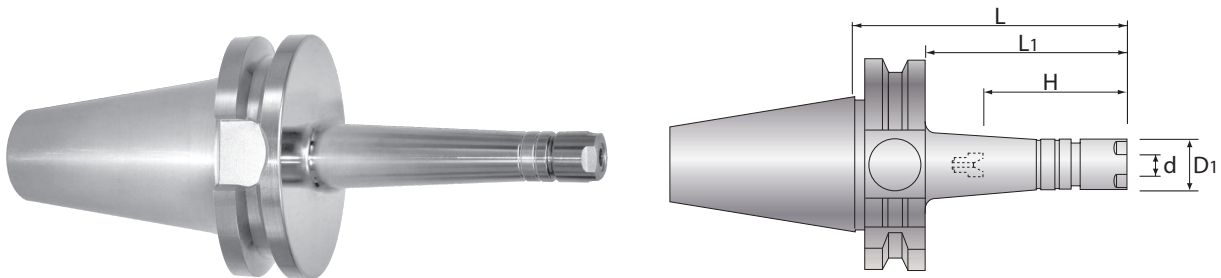
Super-  
schlank  
Super slim

### Form S

| Halter   Holder |         |      | d       | D <sub>1</sub> | L   | L <sub>1</sub> | H     |  |  |
|-----------------|---------|------|---------|----------------|-----|----------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK30            | -ERC11S | -75  | 1.0-7.0 | 16             | 75  | 40             | 22-42 | ER11                                                                                | S-11E                                                                               |
|                 |         | -105 | 1.0-7.0 | 16             | 105 | 70             | 22-42 | ER11                                                                                | S-11E                                                                               |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.



### SK30

DIN 69871 | ISO 7388-1

1.0  
7.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Super-  
schlank  
Super slim

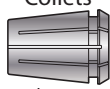
### Form T

| Halter   Holder |         |       | d       | D <sub>1</sub> | L   | L <sub>1</sub> | H     |  |  |
|-----------------|---------|-------|---------|----------------|-----|----------------|-------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SK30            | -ERC11S | -75T  | 1.0-7.0 | 16             | 75  | 56             | 22-45 | ER11                                                                                  | S-11E                                                                                 |
|                 |         | -105T | 1.0-7.0 | 16             | 105 | 86             | 22-45 | ER11                                                                                  | S-11E                                                                                 |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.

**ER**  
Spannzangen  
Collets



S./P. 196

**ES**  
Einstellschraube  
Preset screw



S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut



S./P. 196

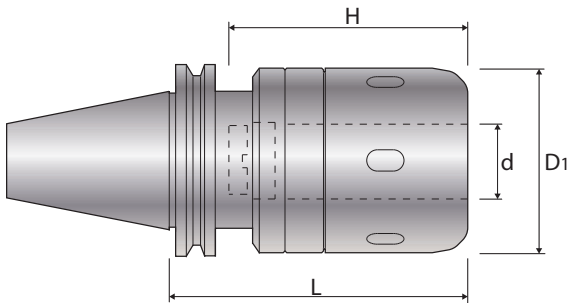
**S-E**  
Spannschlüssel  
Spanners



S./P. 196

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



**SK40**

DIN 69871 | ISO 7388-1

**3.0**  
**32.0**

**0.005**  
**3x D**

**max**  
**20.000**  
**min<sup>-1</sup>**

**Form**  
**AD**

| Halter   Holder |                           | d  | D1 | L   | H   |  |  |
|-----------------|---------------------------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -CT16SA -90               | 16 | 45 | 90  | 65  | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -75 <sup>4</sup>          | 20 | 52 | 75  | 80  | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT20SA -90 <sup>2</sup>  | 20 | 52 | 90  | 80  | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -105                      | 20 | 52 | 105 | 80  | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -120                      | 20 | 52 | 120 | 80  | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA -105 <sup>2</sup> | 25 | 61 | 105 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -135                      | 25 | 61 | 135 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -105 <sup>1/2</sup>       | 32 | 73 | 105 | 85  | MC32-d                                                                              | HS-3-32                                                                             |
|                 | -CT32SA -120 <sup>1</sup> | 32 | 73 | 120 | 85  | MC32-d                                                                              | HS-3-32                                                                             |
|                 | -135                      | 32 | 73 | 135 | 120 | MC32-d                                                                              | HS-3-32                                                                             |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> Lagerstandard mit Form B

<sup>4</sup> Ohne Freistich nach DIN 69871 vor dem Greiferbund.

<sup>4</sup> Nicht einsetzbar auf bestimmten BAZ.

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery).

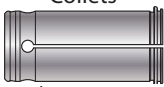
<sup>1</sup> MC-A Collets cannot be used.

<sup>2</sup> Form B Standard

<sup>4</sup> Without undercut (DIN 69871) before flange.

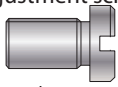
<sup>4</sup> Not suitable for certain M/C.

**MC**  
Spannhülsen  
Collets



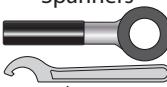
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



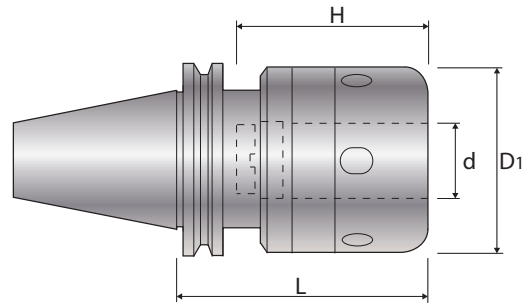
S.|P. 187



# CT-SA-C Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Coolant Jet Series



**SK40**

DIN 69871 | ISO 7388-1

**4.0**  
**20.0**

**0.005**  
**3x D**

**max**  
**20.000**  
**min<sup>-1</sup>**

**Form**  
**AD**



**mit Peripheriekühlung**  
with side-through coolant

| Halter   Holder |                |             | d  | D1 | L  | H  |  |  |
|-----------------|----------------|-------------|----|----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>SK40</b>     | <b>-CT20SA</b> | <b>-90C</b> | 20 | 52 | 90 | 80 | MC20-d                                                                              | HS-2-20                                                                             |

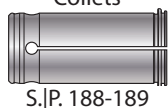
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten)

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery)



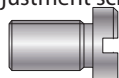
**IKZ und Coolant Jet-Peripheriekühlung** für effektive Spanabfuhr  
Inner coolant and side-through coolant for efficient chip removal.

**MC**  
Spannhülsen  
Collets



S./P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S./P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S./P. 190

**EM**  
Verlängerungen  
Extensions



S./P. 187

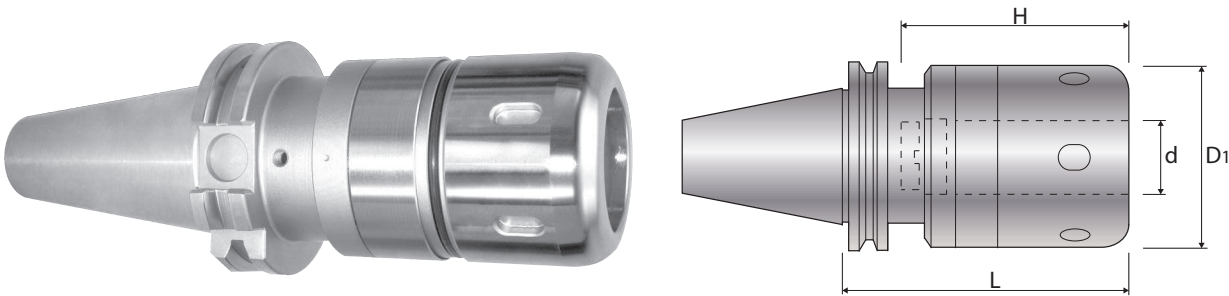


CTS-P

Power Series

Hochleistungs-Kraftspannfutter

High Performance Milling Chuck



SK40

DIN 69871 | ISO 7388-1

3.0  
20.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

mit erhöhter Spannkraft

with enhanced clamping force

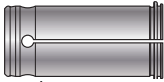
| Halter   Holder |        |       | d  | D1 | L   | H  |  |  |
|-----------------|--------|-------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -CT20S | -115P | 20 | 52 | 115 | 80 | MC20-d                                                                              | RS-20                                                                               |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

MC

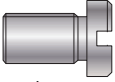
Spannhülsen  
Collets



S.|P. 188-189

BL

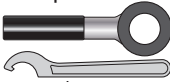
Einstellschrauben  
Adjustment screw



S.|P. 190

HS|RS

Spannschlüssel  
Spanners



S.|P. 190

EM

Verlängerungen  
Extensions

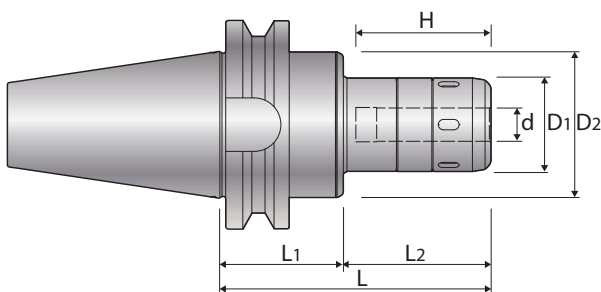
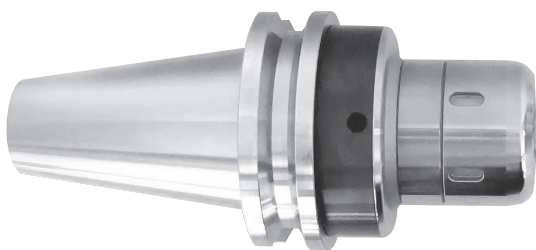


S.|P. 187

CTZ-SA

Hochleistungs-Kraftspannfutter  
High Performance Milling Chuck

R"0" Series



SK40

DIN 69871 | ISO 7388-1

4.0  
32.0

0-2  
µm

max  
15.000  
min<sup>-1</sup>

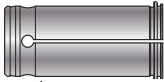
Form  
AD

| Halter   Holder |               | d  | D1 | D2 | L   | L1 | L2 | H   |  |  |  |
|-----------------|---------------|----|----|----|-----|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -CTZ25SA -135 | 25 | 61 | 74 | 135 | 64 | 71 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -150          | 25 | 61 | 74 | 150 | 64 | 86 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -CTZ32SA -135 | 32 | 68 | 80 | 135 | 64 | 71 | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |
|                 | -150          | 32 | 68 | 80 | 150 | 64 | 86 | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

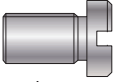
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

MC  
Spannhülsen  
Collets



S.|P. 188-189

BL  
Einstellschrauben  
Adjustment screw



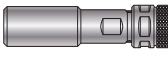
S.|P. 190

HS  
Spannschlüssel  
Spanners



S.|P. 190

EM  
Verlängerungen  
Extensions

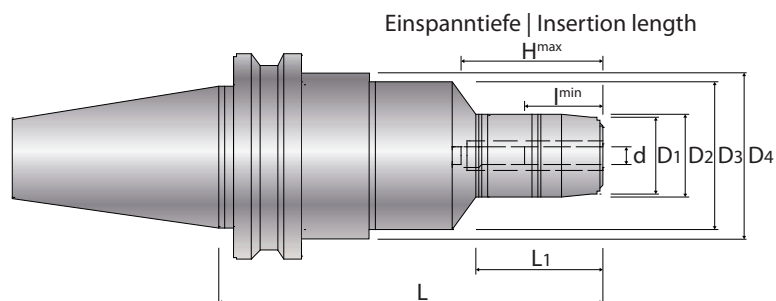
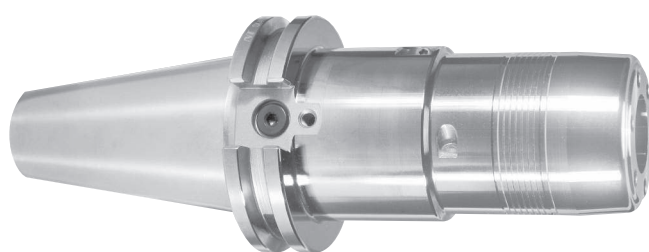


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### SK40

DIN 69871 | ISO 7388-1

3.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

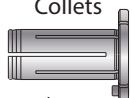


| Halter   Holder |         |      | d  | D1 | D2 | D3 | D4  | L   | L1 | I min | H max |  |  |
|-----------------|---------|------|----|----|----|----|-----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -PHC03A | -60  | 3  | -  | 24 | 46 | -   | 60  | 20 | 18    | 27    | -                                                                                   | L-4T                                                                                |
|                 | -PHC04A | -65  | 4  | -  | 25 | 46 | -   | 65  | 25 | 24    | 29    | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A | -90  | 6  | 24 | 26 | 46 | -   | 90  | 30 | 29    | 33    | -                                                                                   | L-4T                                                                                |
|                 |         | -120 | 6  | 24 | 26 | 46 | -   | 120 | 41 | 29    | 43    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A | -90  | 8  | 26 | 28 | 46 | -   | 90  | 30 | 29    | 33    | -                                                                                   | L-4T                                                                                |
|                 |         | -120 | 8  | 26 | 28 | 46 | -   | 120 | 41 | 29    | 43    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A | -105 | 10 | 28 | 30 | 52 | 50  | 105 | 44 | 40    | 48    | -                                                                                   | L-4T                                                                                |
|                 |         | -135 | 10 | 28 | 30 | 52 | 50  | 135 | 64 | 40    | 68    | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A | -105 | 12 | 30 | 32 | 52 | 50  | 105 | 45 | 40    | 48    | PHS12-d                                                                             | L-4T                                                                                |
|                 |         | -135 | 12 | 30 | 32 | 52 | 50  | 135 | 65 | 40    | 68    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC14A | -105 | 14 | 34 | 36 | 52 | 50  | 105 | 46 | 40    | 48    | -                                                                                   | L-4T                                                                                |
|                 |         | -135 | 14 | 34 | 36 | 52 | 50  | 135 | 66 | 40    | 68    | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A | -105 | 16 | 36 | 38 | 52 | 50  | 105 | 46 | 40    | 48    | -                                                                                   | L-4T                                                                                |
|                 |         | -135 | 16 | 36 | 38 | 52 | 50  | 135 | 66 | 40    | 68    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20A | -105 | 20 | 40 | 42 | 46 | -   | 105 | 49 | 40    | 48    | PHS20-d                                                                             | L-4T                                                                                |
|                 |         | -135 | 20 | 40 | 42 | 46 | -   | 135 | 69 | 40    | 68    | PHS20-d                                                                             | L-4T                                                                                |
| -PHC25A         | -120    | 25   | 50 | 52 | 62 | 50 | 120 | 59  | 50 | 58    | -     | L-6T                                                                                |                                                                                     |
|                 | -150    | 25   | 50 | 52 | 62 | 50 | 150 | 79  | 50 | 78    | -     | L-6T                                                                                |                                                                                     |
| -PHC32A         | -135    | 32   | 60 | 62 | 62 | 50 | 135 | 100 | 65 | 73    | -     | L-6T                                                                                |                                                                                     |
|                 | -165    | 32   | 60 | 62 | 62 | 50 | 165 | 130 | 65 | 78    | -     | L-6T                                                                                |                                                                                     |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten). Mit axialer Längeneinstellung.

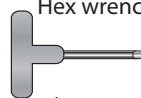
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery). With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench

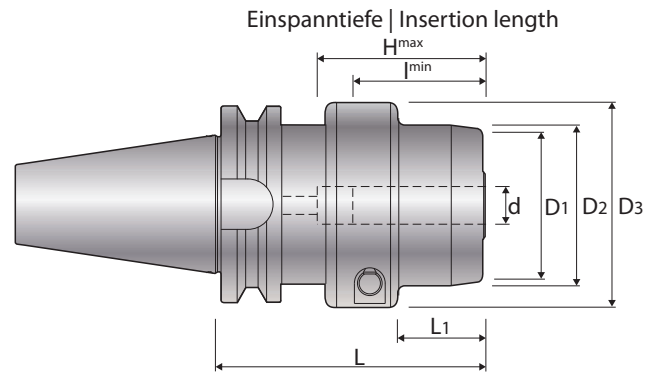


S./P. 193

# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



### SK40

DIN 69871 | ISO 7388-1

6.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



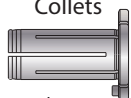
**mit erhöhter Spannkraft**  
with enhanced clamping force

| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | I min | H max |  |  |
|-----------------|--------------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -PHC16H -45  | 16 | 42 | -  | 56 | 45  | -  | 45    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -75          | 16 | -  | 44 | 56 | 75  | 20 | 45    | 85    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20H -75  | 20 | -  | 50 | 60 | 75  | 16 | 50    | 80    | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -105         | 20 | 48 | 50 | 60 | 105 | 32 | 50    | 110   | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -PHC25H -75  | 25 | -  | 60 | 69 | 75  | 17 | 55    | 80    | -                                                                                   | L-5T                                                                                |
|                 | -105         | 25 | 58 | 60 | 69 | 105 | 35 | 55    | 110   | -                                                                                   | L-5T                                                                                |
|                 | -PHC32H -105 | 32 | 63 | 65 | 75 | 105 | 47 | 65    | 105   | PHS32H-d                                                                            | L-5T                                                                                |
|                 | -135         | 32 | 63 | 65 | 75 | 135 | 47 | 65    | 120   | PHS32H-d                                                                            | L-5T                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

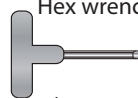
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench

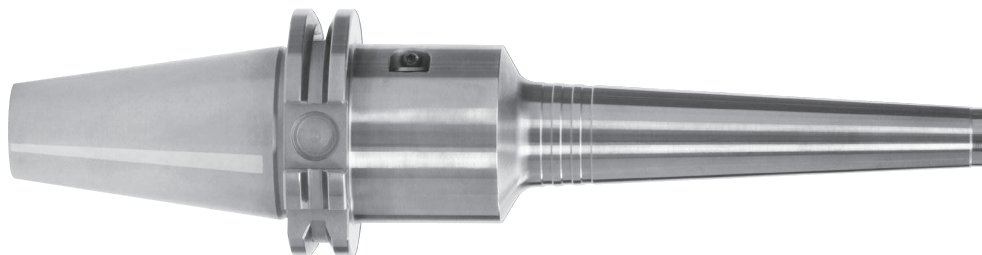


S./P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### SK40

DIN 69871 | ISO 7388-1

3.0  
25.0

0.003  
3x D

G2.5  
25,000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



mit Coolant Jet: PHC-SC  
with Coolant Jet: PHC-SC

| Halter   Holder |               | d  | PHC-S          |                | PHC-SC         |                | D <sub>3</sub> | L   | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |  |  |
|-----------------|---------------|----|----------------|----------------|----------------|----------------|----------------|-----|----------------|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 |               |    | D <sub>1</sub> | D <sub>2</sub> | D <sub>1</sub> | D <sub>2</sub> |                |     |                |                  |                  |                                                                                     |                                                                                     |
| SK40            | -75           | 3  | 11             | 13.0           | -              | -              | 46             | 75  | 19             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -PHC03SA -90  | 3  | 11             | 14.2           | 11.6           | 14.8           | 46             | 90  | 30             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 3  | 11             | 18.5           | 11.6           | 19.1           | 46             | 135 | 71             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -75           | 4  | 11             | 13.0           | -              | -              | 46             | 75  | 19             | 24               | 55               | -                                                                                   | L-4T                                                                                |
|                 | -PHC04SA -90  | 4  | 11             | 14.2           | 11.6           | 14.8           | 46             | 90  | 30             | 24               | 55               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 4  | 11             | 18.5           | 11.6           | 19.1           | 46             | 135 | 71             | 24               | 55               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 6  | 13             | 15.8           | 14             | 16.8           | 46             | 90  | 26             | 29               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 6  | 13             | 20.5           | 14             | 21.5           | 46             | 135 | 71             | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -PHC06SA -150 | 6  | 13             | 22.2           | -              | -              | 46             | 150 | 87             | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -165          | 6  | 13             | 23.7           | -              | -              | 46             | 165 | 102            | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 6  | 13             | 25.4           | -              | -              | 46             | 180 | 118            | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 8  | 15             | 17.9           | 16             | 18.9           | 46             | 90  | 27             | 29               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 8  | 15             | 22.6           | 16             | 23.6           | 46             | 135 | 72             | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -PHC08SA -150 | 8  | 15             | 24.2           | -              | -              | 46             | 150 | 87             | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -165          | 8  | 15             | 25.8           | -              | -              | 46             | 165 | 103            | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 8  | 15             | 27.4           | -              | -              | 46             | 180 | 118            | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 10 | 17             | 20.4           | 18             | 21.4           | 46             | 90  | 32             | 40               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 10 | 17             | 24.6           | 18             | 25.6           | 46             | 135 | 72             | 40               | 80               | -                                                                                   | L-4T                                                                                |
|                 | -PHC10SA -150 | 10 | 17             | 26.3           | -              | -              | 46             | 150 | 87             | 40               | 95               | -                                                                                   | L-4T                                                                                |
|                 | -165          | 10 | 17             | 27.8           | -              | -              | 46             | 165 | 103            | 40               | 80               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 10 | 17             | 29.5           | -              | -              | 46             | 180 | 119            | 40               | 95               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 12 | 19             | 22.5           | 20             | 23.5           | 46             | 90  | 33             | 40               | 85               | HS12-d                                                                              | L-4T                                                                                |
|                 | -135          | 12 | 19             | 26.7           | 20             | 27.7           | 46             | 135 | 73             | 40               | 80               | HS12-d                                                                              | L-4T                                                                                |
|                 | -PHC12SA -150 | 12 | 19             | 28.3           | -              | -              | 46             | 150 | 88             | 40               | 95               | HS12-d                                                                              | L-4T                                                                                |
|                 | -165          | 12 | 19             | 30.0           | -              | -              | 46             | 165 | 104            | 40               | 80               | HS12-d                                                                              | L-4T                                                                                |
|                 | -180          | 12 | 19             | 31.5           | -              | -              | 46             | 180 | 119            | 40               | 95               | HS12-d                                                                              | L-4T                                                                                |

HS  
Spannhülsen  
Collets



S./P. 193

L-T  
6kant  
Hex wrench

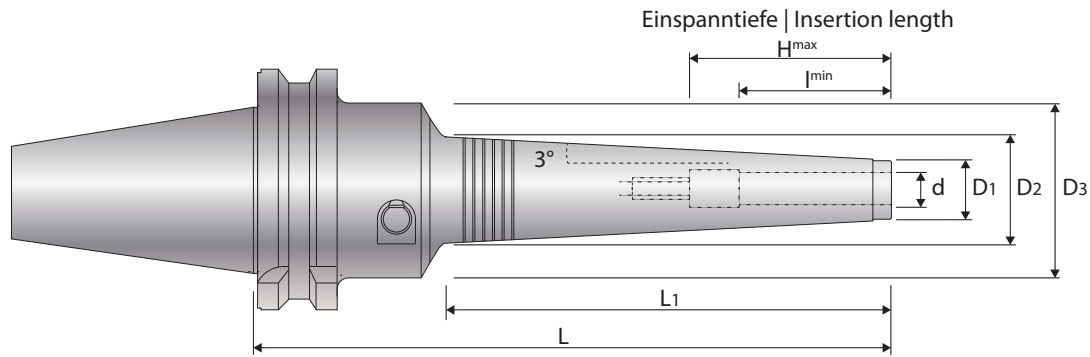


S./P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



| Halter   Holder |          | d    | PHC-S          |                | PHC-SC         |                | D <sub>3</sub> | L    | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |  |  |      |
|-----------------|----------|------|----------------|----------------|----------------|----------------|----------------|------|----------------|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
|                 |          |      | D <sub>1</sub> | D <sub>2</sub> | D <sub>1</sub> | D <sub>2</sub> |                |      |                |                  |                  |                                                                                     |                                                                                     |      |
| SK40            | -PHC16SA | -135 | 16             | 23             | 30.6           | 24             | 31.6           | 52.5 | 135            | 72               | 40               | 83                                                                                  | -                                                                                   | L-4T |
|                 |          | -165 | 16             | 23             | 33.8           | 24             | 34.8           | 52.5 | 165            | 103              | 40               | 105                                                                                 | -                                                                                   | L-4T |
|                 |          | -180 | 16             | 23             | 35.5           | -              | -              | 52.5 | 180            | 119              | 40               | 105                                                                                 | -                                                                                   | L-4T |
|                 | -PHC20SA | -150 | 20             | 28             | 34.7           | 29             | 35.7           | 62   | 150            | 63               | 40               | 70                                                                                  | HS20-d                                                                              | L-6T |
|                 |          | -180 | 20             | 28             | 37.8           | -              | -              | 62   | 180            | 93               | 40               | 110                                                                                 | HS20-d                                                                              | L-6T |
|                 |          | -195 | 20             | 28             | 39.5           | 29             | 40.5           | 62   | 195            | 109              | 40               | 100                                                                                 | HS20-d                                                                              | L-6T |
|                 | -PHC25SA | -150 | 25             | 37             | 43.9           | 38             | 44.9           | 62   | 150            | 65               | 50               | 70                                                                                  | -                                                                                   | L-6T |
|                 |          | -180 | 25             | 37             | 47.1           | -              | -              | 62   | 180            | 96               | 50               | 120                                                                                 | -                                                                                   | L-6T |
|                 |          | -195 | 25             | 37             | 48.8           | 38             | 49.8           | 62   | 195            | 112              | 50               | 110                                                                                 | -                                                                                   | L-6T |

L-T 6kant im Lieferumfang enthalten.  
 Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
 Mit axialer Längeneinstellung.

L-T hex wrench included in delivery.  
 Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
 With axial length adjustment.



## PHC-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**  
 With internal coolant nozzles.

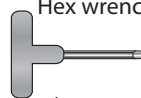
**Bestellbeispiel | Order example**  
 SK40-PHC06SC-135

**HS**  
 Spannhülsen  
 Collets



S./P. 193

**L-T**  
 6kant  
 Hex wrench

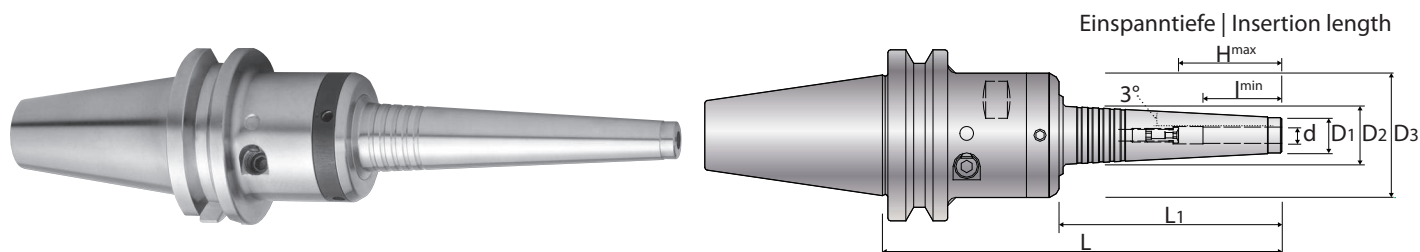


S./P. 193

# PHZ-SA Dehnspannfutter R"0" superschlank

## Slim Hydro Chuck with run out "0"

R"0" Series



### SK40

DIN 69871 | ISO 7388-1

6.0  
12.0

0-2  
μm

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



| Halter   Holder |          | d    | D1 | D2 | D3   | L  | L1  | I <sup>min</sup> | H <sup>max</sup> |  |  |  |      |
|-----------------|----------|------|----|----|------|----|-----|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK40            | -PHZ06SA | -150 | 6  | 13 | 21.5 | 46 | 150 | 82               | 29               | 37                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 |          | -180 | 6  | 13 | 24.6 | 46 | 180 | 112              | 29               | 37                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 | -PHZ08SA | -150 | 8  | 15 | 23.5 | 46 | 150 | 82               | 29               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 |          | -180 | 8  | 15 | 26.6 | 46 | 180 | 112              | 29               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 | -PHZ10SA | -150 | 10 | 17 | 25.5 | 46 | 150 | 82               | 40               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 |          | -180 | 10 | 17 | 28.2 | 46 | 180 | 112              | 40               | 50                                                                                  | -                                                                                   | L-4T                                                                                | L-3T |
|                 | -PHZ12SA | -150 | 12 | 19 | 27.4 | 46 | 150 | 82               | 40               | 70                                                                                  | HS12-d                                                                              | L-4T                                                                                | L-3T |
|                 |          | -180 | 12 | 19 | 28.2 | 46 | 180 | 112              | 40               | 70                                                                                  | HS12-d                                                                              | L-4T                                                                                | L-3T |

\* 6kant-Schlüssel für Einstellring.  
Mit axialer Längeneinstellung.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

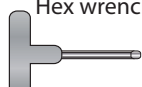
\* Hex wrench for Rotor ring  
With axial length adjustment.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).

HS  
Spannhülsen  
Collets



S./P. 193

L-T  
6kant  
Hex wrench

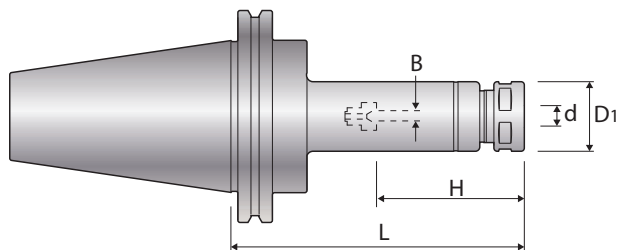
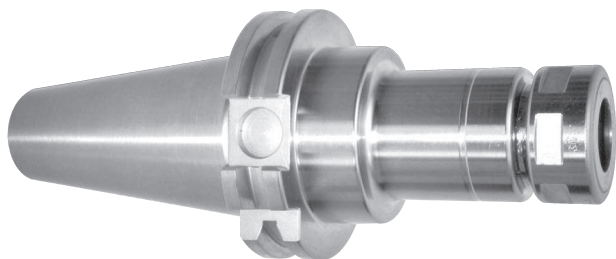


S./P. 193



# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



### SK40

DIN 69871 | ISO 7388-1

1.0  
22.0

0.005  
4x D

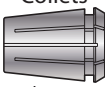
max  
20.000  
min<sup>-1</sup>

Form  
AD

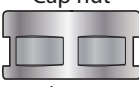
| Halter   Holder |         | d    | D1       | L  | H   | B      |  |  |      |
|-----------------|---------|------|----------|----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK40            | -HDC07A | -75  | 1.0-7.0  | 23 | 75  | 22-45  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -90  | 1.0-7.0  | 23 | 90  | 22-45  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -105 | 1.0-7.0  | 23 | 105 | 22-45  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 | -HDC09A | - 90 | 3.0-9.0  | 26 | 90  | 27-57  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -105 | 3.0-9.0  | 26 | 105 | 27-57  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -120 | 3.0-9.0  | 26 | 120 | 27-57  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -135 | 3.0-9.0  | 26 | 135 | 27-57  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -165 | 3.0-9.0  | 26 | 165 | 27-57  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 | -HDC12A | -90  | 3.0-12.0 | 32 | 90  | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -105 | 3.0-12.0 | 32 | 105 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120 | 3.0-12.0 | 32 | 120 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -135 | 3.0-12.0 | 32 | 135 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -165 | 3.0-12.0 | 32 | 165 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -90  | 4.0-16.0 | 36 | 90  | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -105 | 4.0-16.0 | 36 | 105 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -120 | 4.0-16.0 | 36 | 120 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -135 | 4.0-16.0 | 36 | 135 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -165 | 4.0-16.0 | 36 | 165 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -105 | 4.0-22.0 | 46 | 105 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -120 | 4.0-22.0 | 46 | 120 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -135 | 4.0-22.0 | 46 | 135 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -165 | 4.0-22.0 | 46 | 165 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -195 | 4.0-22.0 | 46 | 195 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

**FDC**  
Spannzangen  
Collets  
  
S.|P. 195

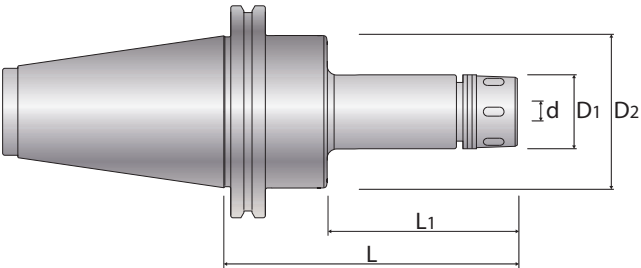
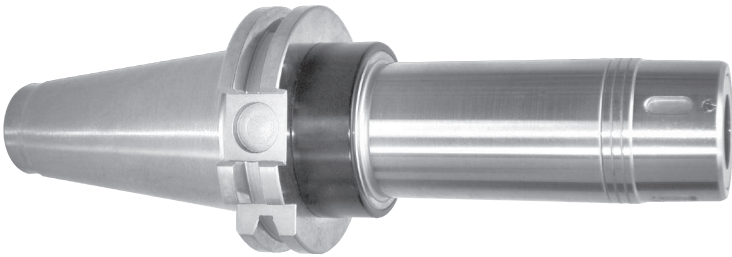
**HDS**  
Einstellschraube  
Preset screw  
  
S.|P. 194

**HDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**SK40**

DIN 69871 | ISO 7388-1

**1.0**  
**22.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

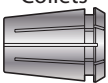
**Form**  
**AD**

| Halter   Holder |      | d        | D1 | D2 | L   | L1  |  |  |
|-----------------|------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -75  | 1.0-7.0  | 23 | 45 | 75  | 55  | FDC-07                                                                              | S-0                                                                                 |
|                 | -90  | 1.0-7.0  | 23 | 45 | 90  | 56  | FDC-07                                                                              | S-0                                                                                 |
|                 | -120 | 1.0-7.0  | 23 | 45 | 120 | 85  | FDC-07                                                                              | S-0                                                                                 |
|                 | -90  | 3.0-9.0  | 29 | 45 | 90  | 55  | FDC-09                                                                              | S-0                                                                                 |
|                 | -120 | 3.0-9.0  | 29 | 45 | 120 | 85  | FDC-09                                                                              | S-0                                                                                 |
|                 | -90  | 3.0-12.0 | 34 | 45 | 90  | 55  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -120 | 3.0-12.0 | 34 | 45 | 120 | 85  | FDC-12                                                                              | FK-0034                                                                             |
|                 | -90  | 3.0-16.0 | 38 | 45 | 90  | 55  | FDC-16                                                                              | FK-0034                                                                             |
|                 | -120 | 3.0-16.0 | 38 | 45 | 120 | 85  | FDC-16                                                                              | FK-0034                                                                             |
|                 | -90  | 4.0-22.0 | 49 | 45 | 90  | 55  | FDC-22                                                                              | FK-0045                                                                             |
| -GDC22A         | -105 | 4.0-22.0 | 49 | 45 | 105 | 70  | FDC-22                                                                              | FK-0045                                                                             |
|                 | -135 | 4.0-22.0 | 49 | 45 | 135 | 100 | FDC-22                                                                              | FK-0045                                                                             |

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset srew



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners

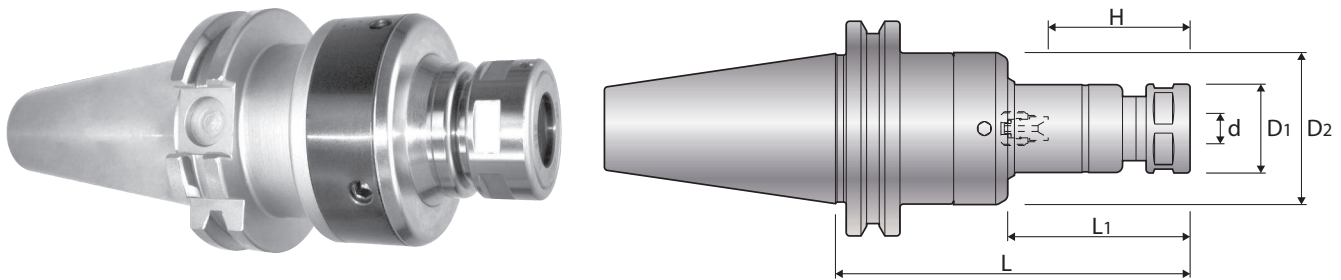


S.|P. 194

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



SK40

DIN 69871 | ISO 7388-1

1.0  
22.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>

Form  
AD

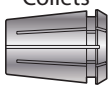
FDC-Spannzangen  
for FDC-Collets

| Halter   Holder |         | d        | D1       | D2 | L   | L1  | H      |  |  |  |      |
|-----------------|---------|----------|----------|----|-----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK40            | -HDZ07A | -75      | 1.0-7.0  | 23 | 41  | 75  | 20     | 20-45                                                                               | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 |         | -90      | 1.0-7.0  | 23 | 41  | 90  | 39     | 20-45                                                                               | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 |         | -105     | 1.0-7.0  | 23 | 41  | 105 | 54     | 20-45                                                                               | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 | -HDZ09A | -90      | 3.0-9.0  | 26 | 45  | 90  | 39     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -105     | 3.0-9.0  | 26 | 45  | 105 | 54     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -120     | 3.0-9.0  | 26 | 45  | 120 | 69     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -135     | 3.0-9.0  | 26 | 45  | 135 | 84     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -165     | 3.0-9.0  | 26 | 45  | 165 | 114    | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 | -HDZ12A | -90      | 3.0-12.0 | 32 | 56  | 90  | 26     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -105     | 3.0-12.0 | 32 | 56  | 105 | 45     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -120     | 3.0-12.0 | 32 | 56  | 120 | 60     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -135     | 3.0-12.0 | 32 | 56  | 135 | 75     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -165     | 3.0-12.0 | 32 | 56  | 165 | 105    | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 | -HDZ16A | -195     | 3.0-12.0 | 32 | 56  | 195 | 135    | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -90      | 3.0-16.0 | 36 | 62  | 90  | 26     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -105     | 3.0-16.0 | 36 | 62  | 105 | 45     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -120     | 3.0-16.0 | 36 | 62  | 120 | 60     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -135     | 3.0-16.0 | 36 | 62  | 135 | 75     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -165     | 3.0-16.0 | 36 | 62  | 165 | 105    | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 | -HDZ22A | -195     | 3.0-16.0 | 36 | 62  | 195 | 135    | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -105     | 4.0-22.0 | 46 | 69  | 105 | 31     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -120     | 4.0-22.0 | 46 | 69  | 120 | 46     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -135     | 4.0-22.0 | 46 | 69  | 135 | 61     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -165     | 4.0-22.0 | 46 | 69  | 165 | 91     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 | -195    | 4.0-22.0 | 46       | 69 | 195 | 121 | 47-103 | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |      |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

FDC  
Spannzangen  
Collets



S./P. 195

HDS  
Einstellschraube  
Preset screw



S./P. 194

HDP  
Spannmutter  
Cap nut



S./P. 194

S-0|S-L  
Spannschlüssel  
Spanners



S./P. 194

L-T  
6kant  
Hex wrench



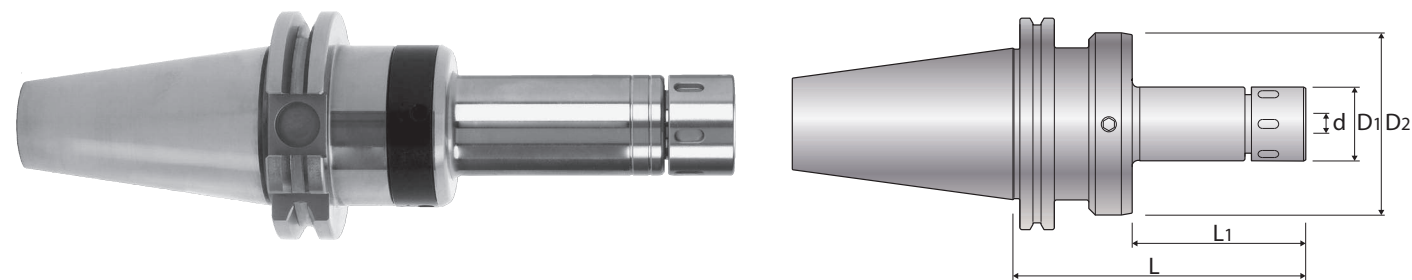
S./P. 193

ERZ

R"0" Series

Spannzangenfutter mit Rundlauf "0"

Collet Chuck with run out "0"



SK40

DIN 69871 | ISO 7388-1

1.0  
20.0

0-2  
µm

max  
20.000  
min<sup>-1</sup>

Form  
AD

ER-Spannzangen  
for ER-Collets

| Halter   Holder |        |      | d        | D1 | D2 | L   | L1      |      |         |      |
|-----------------|--------|------|----------|----|----|-----|---------|------|---------|------|
| SK40            | -ERZ16 | -120 | 1.0-10.0 | 32 | 56 | 120 | 60 (73) | ER16 | FK-0034 | L-4T |
|                 | -ERZ32 | -120 | 2.0-20.0 | 50 | 76 | 120 | 56 (46) | ER32 | HS-2-20 | L-5T |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.

ER

Spannzangen  
Collets

S.|P. 196

ES

Einstellschraube  
Preset srew

S.|P. 196

ERP

Spannmutter  
Cap nut

S.|P. 196

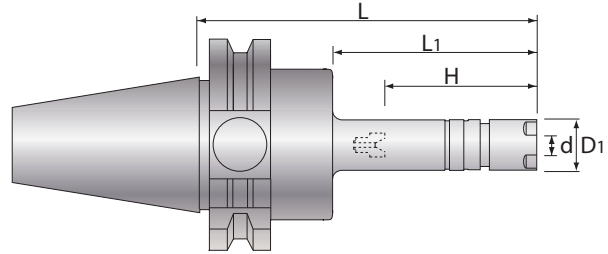
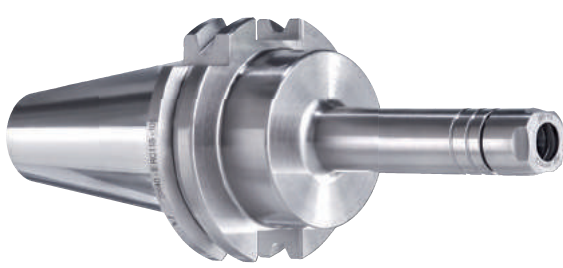
FK|HS

Spannschlüssel  
Spanners

S.|P. 196

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### SK40

DIN 69871 | ISO 7388-1

1.0  
7.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Super-  
schlank  
Super slim

### Form S

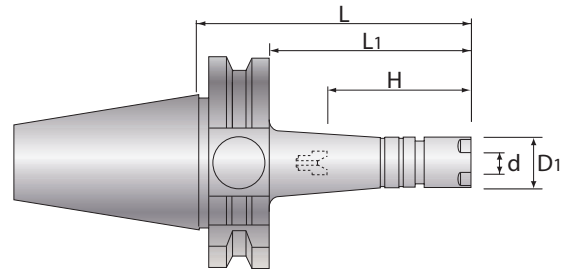
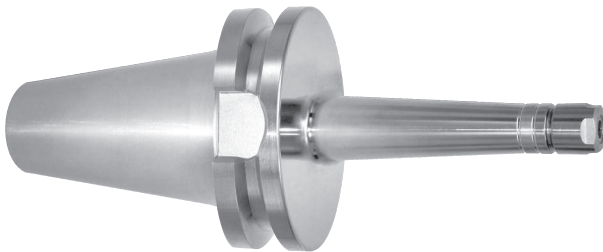
| Halter   Holder |         |                   | d       | D1 | L   | L1  | H     |  |  |
|-----------------|---------|-------------------|---------|----|-----|-----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK40            | -ERC8   | -75 <sup>1</sup>  | 1.0-5.0 | 12 | 75  | 40  | 33    | ER8                                                                                 | S-8E                                                                                |
|                 |         | -105 <sup>1</sup> | 1.0-5.0 | 12 | 105 | 70  | 33    | ER8                                                                                 | S-8E                                                                                |
|                 | -ERC11S | -75               | 1.0-7.0 | 16 | 75  | 40  | 22-42 | ER11                                                                                | S-11E                                                                               |
|                 |         | -105              | 1.0-7.0 | 16 | 105 | 70  | 22-42 | ER11                                                                                | S-11E                                                                               |
|                 |         | -135              | 1.0-7.0 | 16 | 135 | 100 | 22-42 | ER11                                                                                | S-11E                                                                               |
|                 |         |                   |         |    |     |     |       |                                                                                     |                                                                                     |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.

<sup>1</sup> Without preset screw.



### SK40

DIN 69871 | ISO 7388-1

1.0  
7.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Super-  
schlank  
Super slim

### Form T

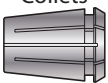
| Halter   Holder |         |                    | d       | D1 | L   | L1  | H          |  |  |
|-----------------|---------|--------------------|---------|----|-----|-----|------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| SK40            | -ERC8   | -105T <sup>1</sup> | 1.0-5.0 | 12 | 105 | 86  | 34 (19-31) | ER8                                                                                   | S-8E                                                                                  |
|                 |         | -135T <sup>1</sup> | 1.0-5.0 | 12 | 135 | 116 | 34 (19-31) | ER8                                                                                   | S-8E                                                                                  |
|                 | -ERC11S | -75T               | 1.0-7.0 | 16 | 75  | 56  | 22-45      | ER11                                                                                  | S-11E                                                                                 |
|                 |         | -105T              | 1.0-7.0 | 16 | 105 | 86  | 22-45      | ER11                                                                                  | S-11E                                                                                 |
|                 |         | -135T              | 1.0-7.0 | 16 | 135 | 116 | 22-45      | ER11                                                                                  | S-11E                                                                                 |
|                 |         |                    |         |    |     |     |            |                                                                                       |                                                                                       |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

<sup>1</sup> Ohne Einstellschraube

Cap nut and preset screw included in delivery.

<sup>1</sup> Without preset screw

**ER**  
Spannzangen  
Collets  
  
S./P. 196

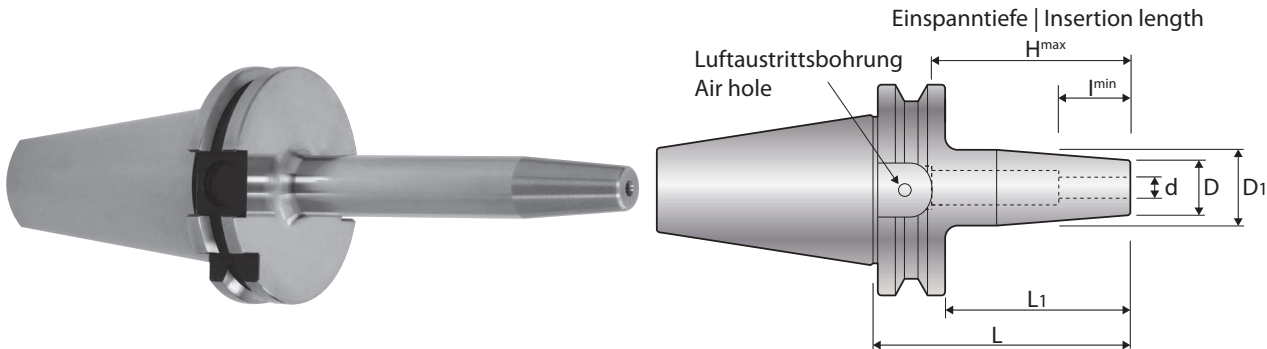
**ES**  
Einstellschraube  
Preset screw  
  
S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut  
  
S./P. 196

**S-E**  
Spannschlüssel  
Spanners  
  
S./P. 196

# SRE Schrumpffutter

## Shrink Fit Chuck



SK40

DIN 69871 | ISO 7388-1

6.0  
16.0

3

µm

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

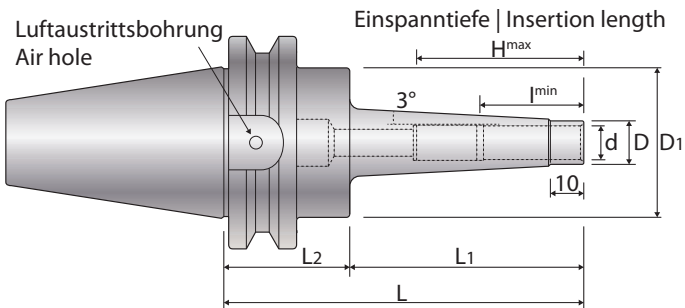
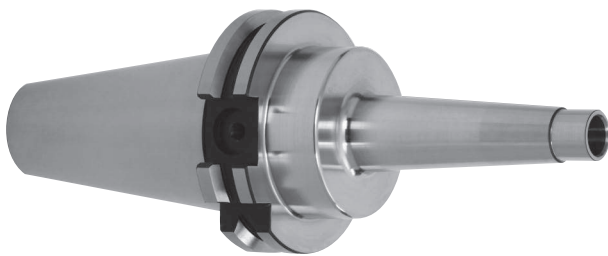
| Halter   Holder |         | d    | D  | D <sub>1</sub> | L  | L <sub>1</sub> | I <sup>min</sup> | H <sup>max</sup> |     |
|-----------------|---------|------|----|----------------|----|----------------|------------------|------------------|-----|
| SK40            | -SRE6A  | -45  | 6  | 13             | 16 | 45             | 25.9             | 19               | 28  |
|                 |         | -60  | 6  | 13             | 16 | 60             | 40.9             | 27               | 43  |
|                 |         | -90  | 6  | 13             | 18 | 90             | 70.9             | 27               | 73  |
|                 |         | -120 | 6  | 13             | 18 | 120            | 100.9            | 27               | 103 |
|                 |         | -135 | 6  | 13             | 18 | 135            | 115.9            | 27               | 112 |
|                 |         | -160 | 6  | 13             | 18 | 160            | 140.9            | 27               | 137 |
|                 | -SRE8A  | -45  | 8  | 13             | 16 | 45             | 25.9             | 19               | 28  |
|                 |         | -60  | 8  | 13             | 16 | 60             | 40.9             | 27               | 43  |
|                 |         | -90  | 8  | 13             | 18 | 90             | 70.9             | 27               | 73  |
|                 |         | -120 | 8  | 13             | 18 | 120            | 100.9            | 27               | 103 |
|                 |         | -135 | 8  | 13             | 18 | 135            | 115.9            | 27               | 112 |
|                 |         | -160 | 8  | 13             | 18 | 160            | 140.9            | 27               | 137 |
|                 | -SRE10A | -70  | 10 | 16             | 19 | 70             | 50.9             | 26               | 50  |
|                 |         | -120 | 10 | 16             | 19 | 120            | 100.9            | 26               | 50  |
|                 |         | -160 | 10 | 16             | 19 | 160            | 140.9            | 26               | 50  |
|                 | -SRE12A | -70  | 12 | 18             | 21 | 70             | 50.9             | 26               | 49  |
|                 |         | -120 | 12 | 18             | 21 | 120            | 100.9            | 26               | 70  |
|                 |         | -160 | 12 | 18             | 21 | 160            | 140.9            | 26               | 70  |
|                 | -SRE16A | -70  | 16 | 22             | 25 | 70             | 50.9             | 26               | 49  |
|                 |         | -120 | 16 | 22             | 25 | 120            | 100.9            | 26               | 70  |
|                 |         | -160 | 16 | 22             | 25 | 160            | 140.9            | 26               | 70  |

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).

# SRS Schrumpffutter superschlank

## Shrink Fit Chuck slim type



**SK40**

DIN 69871 | ISO 7388-1

**6.0**  
**20.0**

**3**

**$\mu\text{m}$**

**max**  
**25.000**  
**min<sup>-1</sup>**

**Form**  
**AD**

**Tol.**  
**h6**

| Halter   Holder |         |      | d  | D  | D1   | L   | L1  | L2 | l <sub>min</sub> | H <sub>max</sub> |
|-----------------|---------|------|----|----|------|-----|-----|----|------------------|------------------|
| SK40            | -SRS6A  | -105 | 6  | 9  | 44.7 | 105 | 59  | 46 | 26               | 36               |
|                 |         | -135 | 6  | 9  | 44.7 | 135 | 89  | 46 | 26               | 36               |
|                 | -SRS8A  | -105 | 8  | 11 | 44.7 | 105 | 59  | 46 | 26               | 50               |
|                 |         | -135 | 8  | 11 | 44.7 | 135 | 89  | 46 | 26               | 50               |
|                 | -SRS10A | -105 | 10 | 13 | 44.7 | 105 | 70  | 35 | 32               | 50               |
|                 |         | -135 | 10 | 13 | 44.7 | 135 | 100 | 35 | 32               | 50               |
|                 |         | -165 | 10 | 13 | 44.7 | 165 | 130 | 35 | 32               | 50               |
|                 | -SRS12A | -105 | 12 | 15 | 44.7 | 105 | 70  | 35 | 37               | 70               |
|                 |         | -135 | 12 | 15 | 44.7 | 135 | 100 | 35 | 37               | 70               |
|                 |         | -165 | 12 | 15 | 44.7 | 165 | 130 | 35 | 37               | 70               |
|                 | -SRS16A | -105 | 16 | 20 | 44.7 | 105 | 70  | 35 | 40               | 80               |
|                 |         | -135 | 16 | 20 | 44.7 | 135 | 100 | 35 | 40               | 80               |
|                 |         | -165 | 16 | 20 | 44.7 | 165 | 130 | 35 | 40               | 80               |
|                 | -SRS20A | -105 | 20 | 26 | 44.7 | 105 | 70  | 35 | 42               | 100              |
|                 |         | -135 | 20 | 26 | 44.7 | 135 | 100 | 35 | 42               | 100              |
|                 |         | -165 | 20 | 26 | 44.7 | 165 | 130 | 35 | 42               | 100              |

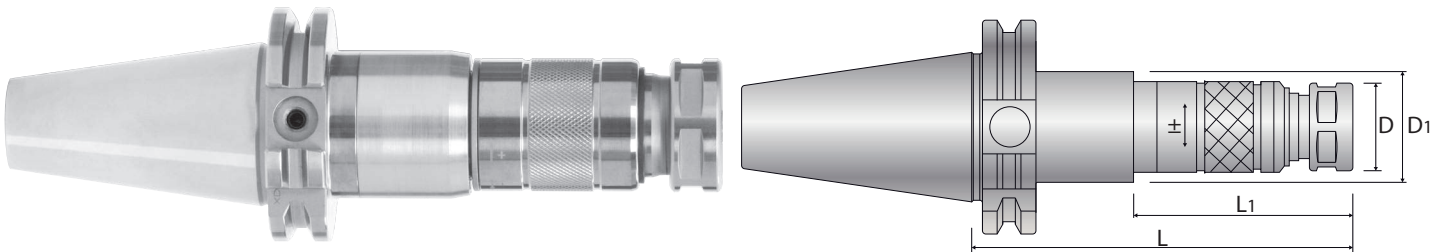
Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).



# SFH|-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**SK40**

DIN 69871 | ISO 7388-1

**M3  
M20**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

**M2  
M20**

| Halter   Holder |        | Schneidbereich<br>Tapping range | D  | D1 | L   | L1  |  |  |
|-----------------|--------|---------------------------------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>SK40</b>     | -SFH12 | -105 M3-M8                      | 26 | 34 | 105 | 55  | FSC-09                                                                              | S-1L                                                                                |
|                 |        | -120 M3-M8                      | 26 | 34 | 120 | 70  | FSC-09                                                                              | S-1L                                                                                |
|                 |        | -150 M3-M8                      | 26 | 34 | 150 | 100 | FSC-09                                                                              | S-1L                                                                                |
|                 | -SFH18 | -125 M5-M20                     | 36 | 40 | 125 | 68  | FSC-16                                                                              | S-4L                                                                                |
|                 |        | -135 M5-M20                     | 36 | 40 | 135 | 78  | FSC-16                                                                              | S-4L                                                                                |
|                 |        | -150 M5-M20                     | 36 | 40 | 150 | 93  | FSC-16                                                                              | S-4L                                                                                |

Spannmutter im Lieferumfang enthalten.

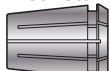
Cap nut included in delivery.

**STS**  
4kant-Mitnehmer  
Square driver



S.|P. 197

**FSC**  
Spannzangen  
Collets



S.|P. 197

**STS-R**  
Einschraubwerkz.  
Tool changer



S.|P. 197

**HTP**  
Spannmutter  
Cap nut

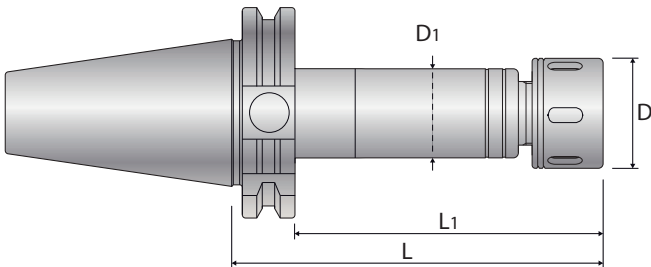
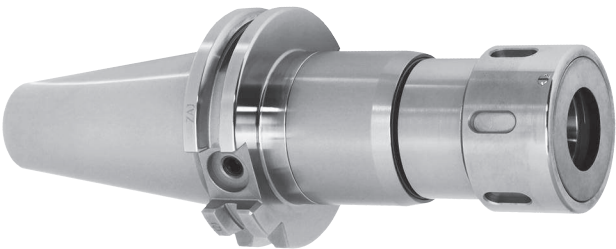


S.|P. 197

**S-L**  
Spannschlüssel  
Spanners



S.|P. 197

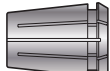


| Halter   Holder |              | Schneidbereich<br>Tapping range | D  | D1 | L   | L1 |  |  |
|-----------------|--------------|---------------------------------|----|----|-----|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>SK40</b>     | -SFH12S -80  | M2-M12                          | 32 | 34 | 80  | 61 | ER16-GB                                                                               | FK-0034                                                                               |
|                 | -SFH18S -105 | M3-M20                          | 42 | 40 | 105 | 86 | ER25-GB                                                                               | HS-1-16                                                                               |

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.

**ER-GB**  
Spannzangen  
Collets



S.|P. 199

**ERP**  
Spannmutter  
Cap nut



S.|P. 198

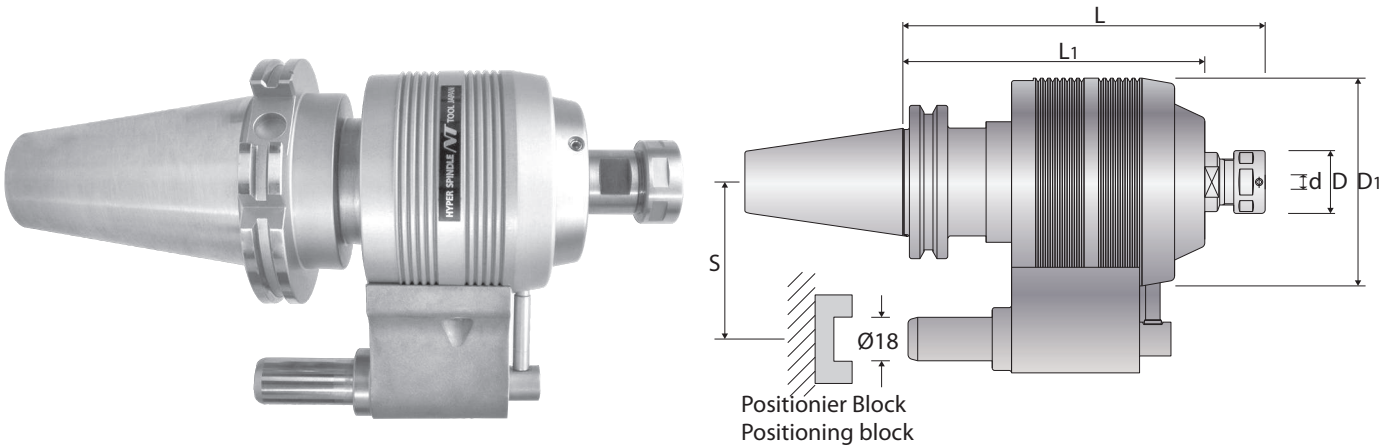
**FK|HS**  
Spannschlüssel  
Spanners



S.|P. 198

# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



SK40

DIN 69871 | ISO 7388-1

1.0  
12.0

0.01  
100

Übersetzung  
1:5  
Gear ratio

max  
30.000  
min<sup>-1</sup>

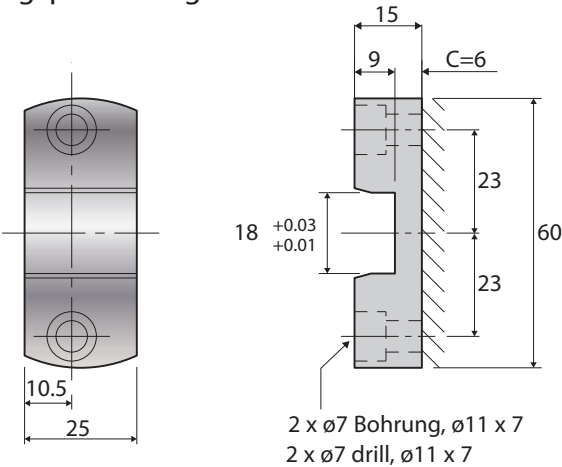
| Halter   Holder |        | d                   | D        | D1 | L  | L1  | S   | Übersetzung<br>Gear ratio | max. Drehzahl<br>max. speed rpm |  |  |      |
|-----------------|--------|---------------------|----------|----|----|-----|-----|---------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK40            | -HP07H | -150-3              | 1.0-7.0  | 23 | 86 | 150 | 125 | 65                        | 1:5                             | 30.000 <sup>1</sup><br>25.000 <sup>2</sup>                                          | FDC-07                                                                              | S-0  |
|                 |        | -180-3              | 1.0-7.0  | 23 | 86 | 180 | 125 | 65                        | 1:5                             |                                                                                     | FDC-07                                                                              | S-0  |
|                 | -HP09H | -150-3              | 3.0-9.0  | 26 | 86 | 150 | 125 | 65                        | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 |        | -180-3              | 3.0-9.0  | 26 | 86 | 180 | 125 | 65                        | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 | -HP12H | -165-3 <sup>3</sup> | 3.0-12.0 | 32 | 86 | 165 | 125 | 65                        | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |
|                 |        | -180-3              | 3.0-12.0 | 32 | 86 | 180 | 125 | 65                        | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |

<sup>1</sup> Max. Drehzahl 20% /Std.  
<sup>2</sup> Max. Drehzahl 80% /Std.

<sup>1</sup> Max. rotation speed 20% /h  
<sup>2</sup> Max. rotation speed 80% /h

### Bsp. Positionierblock<sup>1)</sup>

e.g. positioning block<sup>1)</sup>

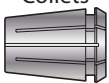


<sup>1)</sup> abhängig vom Maschinentyp  
<sup>1)</sup> depends on machine

| HP07   09   12 | Positionierkolben   Plunger |       |                   |       |       |
|----------------|-----------------------------|-------|-------------------|-------|-------|
|                | No.1                        | No.2  | No.3 <sup>3</sup> | No.4  | No.5  |
| A min (mm)     | +15.1                       | +6.1  | -2.9              | -3.0  | -12.0 |
| A max (mm)     | +24.0                       | +15.0 | +6.0              | -11.9 | -20.9 |

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.  
<sup>3</sup> We deliver plunger No.3 ex stock.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

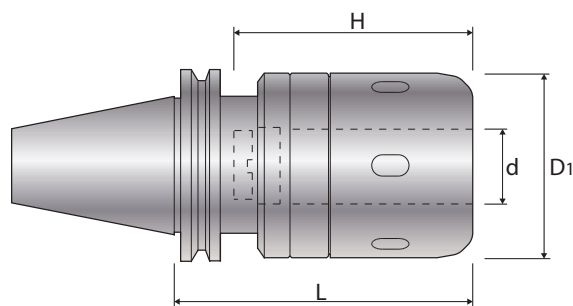
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### SK50

DIN 69871 | ISO 7388-1

3.0  
42.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>

Form  
AD

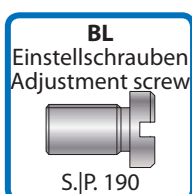
| Halter   Holder |         | d                 | D1                | L  | H   |  |  |           |
|-----------------|---------|-------------------|-------------------|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| SK50            | -CT16SA | -90               | 16                | 45 | 90  | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -105 <sup>1</sup> | 16                | 45 | 105 | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -135              | 16                | 45 | 135 | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 | -CT20SA | -90               | 20                | 52 | 90  | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -105 <sup>1</sup> | 20                | 52 | 105 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -135              | 20                | 52 | 135 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -165              | 20                | 52 | 165 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -200              | 20                | 52 | 200 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -250              | 20                | 52 | 250 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -300              | 20                | 52 | 300 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -CT25SA           | -105 <sup>1</sup> | 25 | 61  | 105                                                                                 | 80                                                                                  | MC25-d    |
|                 | -135    |                   | 25                | 61 | 135 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -165    |                   | 25                | 61 | 165 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -200    |                   | 25                | 61 | 200 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -250    |                   | 25                | 61 | 250 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -300    |                   | 25                | 61 | 300 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -CT32SA | -95               | 32                | 73 | 95  | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -105 <sup>1</sup> | 32                | 73 | 105 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -120              | 32                | 73 | 120 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -135              | 32                | 73 | 135 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -150              | 32                | 73 | 150 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -165              | 32                | 73 | 165 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -200              | 32                | 73 | 200 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -250              | 32                | 73 | 250 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -300              | 32                | 73 | 300 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 | -CT42SA | -105              | 42                | 88 | 105 | 120                                                                                 | MC42-d                                                                              | HS-4-42   |
|                 |         | -150              | 42                | 88 | 150 | 120                                                                                 | MC42-d                                                                              | HS-4-42   |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> Lagerstandard mit Form B

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

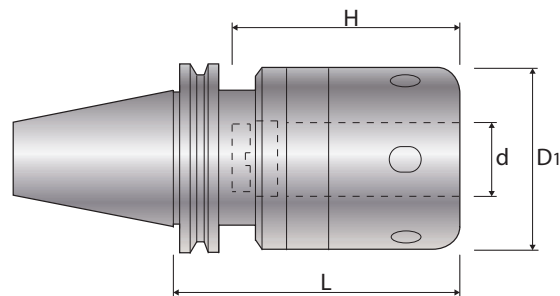
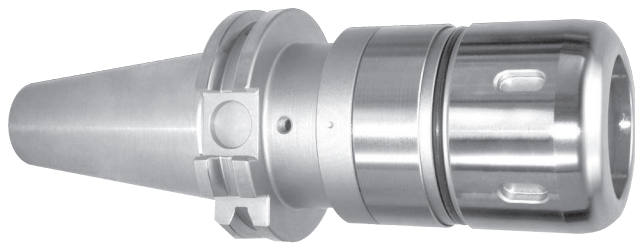
<sup>1</sup> Form B Standard



# CTS-P Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

Power Series



### SK50

DIN 69871 | ISO 7388-1

4.0  
32.0

0.005  
3x D

max  
15.000  
min<sup>-1</sup>

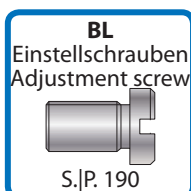
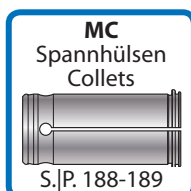
Form  
AD

**mit erhöhter Spannkraft**  
with enhanced clamping force

| Halter   Holder |        |       | d  | D1 | L   | H   |  |  |
|-----------------|--------|-------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK50            | -CT32S | -115P | 32 | 73 | 115 | 120 | MC32-d                                                                              | RS-32                                                                               |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

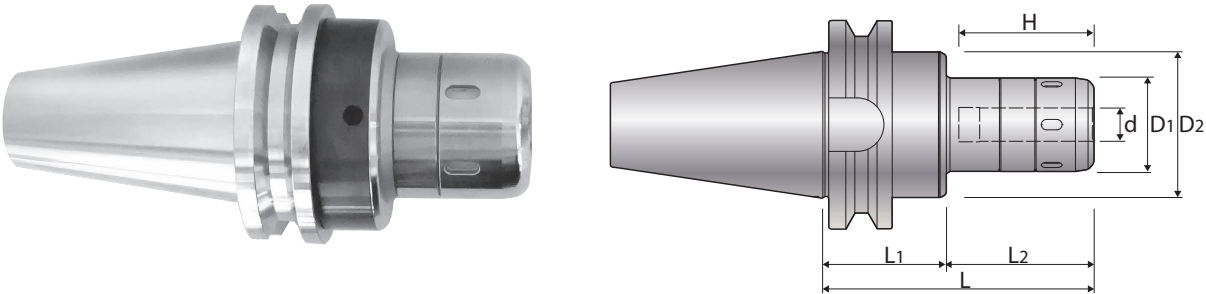


# CTZ-SA

R"0" Series

## Hochleistungs-Kraftspannfutter

### High Performance Milling Chuck



SK50

DIN 69871 | ISO 7388-1

4.0

42.0

0-2

µm

max

10.000

min<sup>-1</sup>

Form

AD

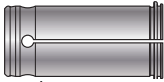
| Halter   Holder |               | d  | D1 | D2 | L   | L1 | L2 | H   |  |  |  |
|-----------------|---------------|----|----|----|-----|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK50            | -CTZ25SA -135 | 25 | 61 | 74 | 135 | 64 | 71 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -150          | 25 | 61 | 74 | 150 | 64 | 86 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -CTZ32SA -135 | 32 | 68 | 80 | 135 | 64 | 71 | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |
|                 | -150          | 32 | 68 | 80 | 150 | 64 | 86 | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |
|                 | -CTZ42SA -135 | 42 | 88 | 99 | 135 | 66 | 69 | 120 | MC42-d                                                                              | HS-4-42                                                                             | L-6L                                                                                |
|                 | -150          | 42 | 88 | 99 | 150 | 66 | 84 | 120 | MC42-d                                                                              | HS-4-42                                                                             | L-6L                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

MC

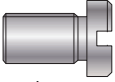
Spannhülsen  
Collets



S.|P. 188-189

BL

Einstellschrauben  
Adjustment screw



S.|P. 190

HS

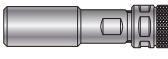
Spannschlüssel  
Spanners



S.|P. 190

EM

Verlängerungen  
Extensions

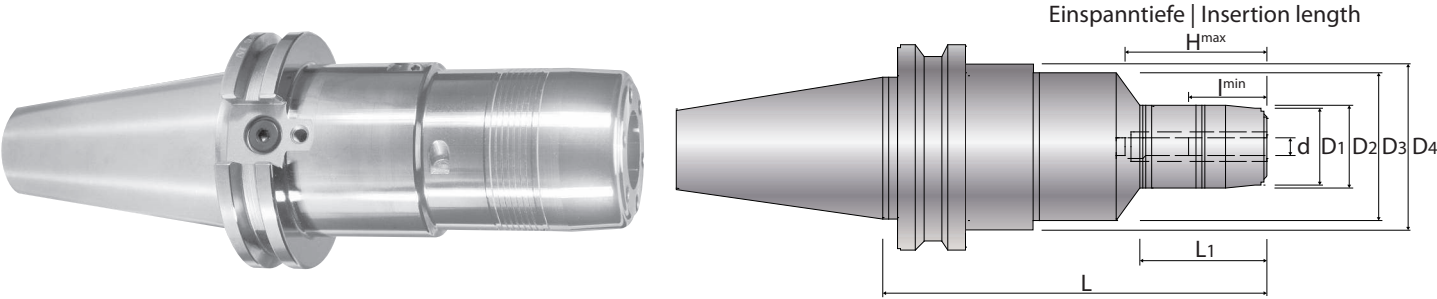


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



**SK50**  
DIN 69871 | ISO 7388-1

3.0  
32.0

0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

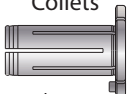
HA  
HB

| Halter   Holder |         |      | d  | D1 | D2 | D3 | D4 | L   | L1  | I min | H max |   |      |
|-----------------|---------|------|----|----|----|----|----|-----|-----|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| SK50            | -PHC20A | -105 | 20 | 40 | 42 | 46 | 80 | 105 | 70  | 40    | 50    | PHS20-d                                                                                                                                                                 | L-4T |
|                 | -PHC32A | -120 | 32 | 60 | 62 | -  | -  | 120 | 100 | 65    | 80    | -                                                                                                                                                                       | L-6T |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

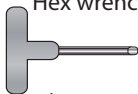
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench



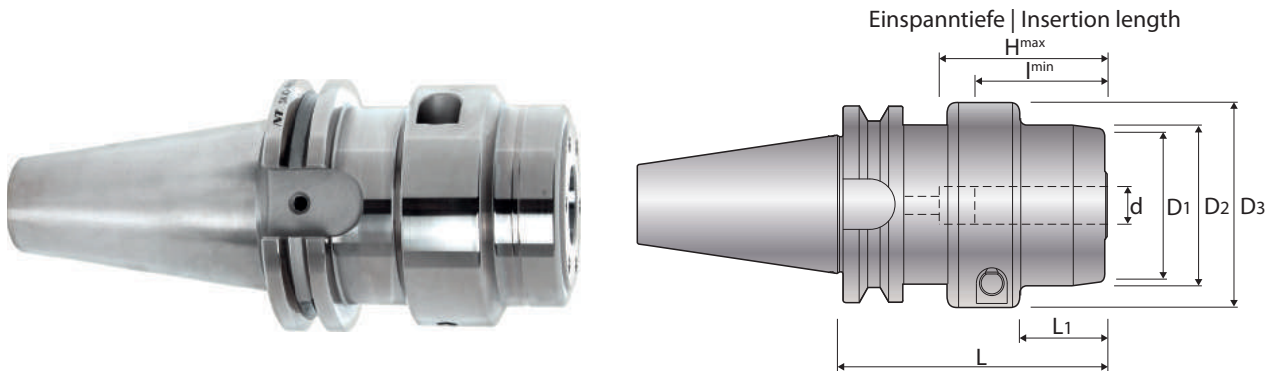
S./P. 193

PHC-H

Power Series

Hochdruck-Dehnspannfutter

High Pressure Hydro Chuck



SK50

6.0  
32.0

0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

HA ✓

HB ✗

mit erhöhter Spannkraft  
with enhanced clamping force

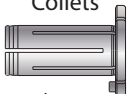
DIN 69871 | ISO 7388-1

| Halter   Holder |             | d  | D1 | D2 | D3 | L   | L1 | I min | H max |  |  |
|-----------------|-------------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK50            | -PHC16H -75 | 16 | 42 | 44 | 56 | 75  | 27 | 45    | 75    | -                                                                                   | L-4T                                                                                |
|                 | -105        | 16 | 42 | 44 | 56 | 105 | 27 | 45    | 105   | -                                                                                   | L-4T                                                                                |
|                 | -PHC20H -75 | 20 | 48 | 50 | 60 | 75  | 32 | 50    | 80    | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -105        | 20 | 48 | 50 | 60 | 105 | 32 | 50    | 110   | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -PHC25H -75 | 25 | 58 | 60 | 69 | 75  | 35 | 55    | 80    | -                                                                                   | L-5T                                                                                |
|                 | -105        | 25 | 58 | 60 | 69 | 105 | 35 | 55    | 110   | -                                                                                   | L-5T                                                                                |
|                 | -135        | 25 | 58 | 60 | 69 | 135 | 35 | 55    | 110   | -                                                                                   | L-5T                                                                                |
|                 | -PHC32H -75 | 32 | 63 | 65 | 75 | 75  | 23 | 65    | 90    | PHS32H-d                                                                            | L-5T                                                                                |
|                 | -105        | 32 | 63 | 65 | 75 | 105 | 47 | 65    | 120   | PHS32H-d                                                                            | L-5T                                                                                |
|                 | -135        | 32 | 63 | 65 | 75 | 135 | 47 | 65    | 120   | PHS32H-d                                                                            | L-5T                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

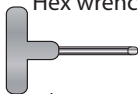
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

PHS-H  
Spannhülsen  
Collets



S./P. 192

L-T  
6kant  
Hex wrench



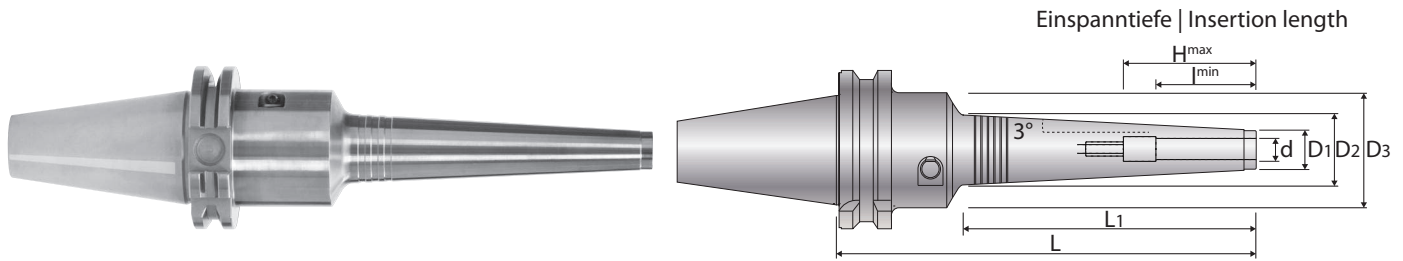
S./P. 193



# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



### SK50

DIN 69871 | ISO 7388-1

6.0  
25.0

0.003  
3x D

G2.5  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



| Halter   Holder |      | d  | D1 | D2   | D3   | L   | L1  | I min | H max |  |  |
|-----------------|------|----|----|------|------|-----|-----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SK50            | -150 | 6  | 13 | 20.5 | 46   | 150 | 71  | 29    | 37    | -                                                                                   | L-4T                                                                                |
|                 | -165 | 6  | 13 | 22.2 | 46   | 165 | 87  | 29    | 37    | -                                                                                   | L-4T                                                                                |
|                 | -180 | 6  | 13 | 23.7 | 46   | 180 | 102 | 29    | 37    | -                                                                                   | L-4T                                                                                |
|                 | -195 | 6  | 13 | 25.4 | 46   | 195 | 118 | 29    | 37    | -                                                                                   | L-4T                                                                                |
|                 | -150 | 8  | 15 | 22.6 | 46   | 150 | 72  | 29    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -165 | 8  | 15 | 24.2 | 46   | 165 | 87  | 29    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -180 | 8  | 15 | 25.8 | 46   | 180 | 103 | 29    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -195 | 8  | 15 | 27.4 | 46   | 195 | 118 | 29    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -150 | 10 | 17 | 24.6 | 46   | 150 | 72  | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -165 | 10 | 17 | 26.3 | 46   | 165 | 88  | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -180 | 10 | 17 | 27.8 | 46   | 180 | 103 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -195 | 10 | 17 | 29.5 | 46   | 195 | 119 | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -150 | 12 | 19 | 26.7 | 46   | 150 | 73  | 40    | 70    | HS12-d                                                                              | L-4T                                                                                |
|                 | -165 | 12 | 19 | 28.3 | 46   | 165 | 88  | 40    | 70    | HS12-d                                                                              | L-4T                                                                                |
|                 | -180 | 12 | 19 | 30.0 | 46   | 180 | 104 | 40    | 70    | HS12-d                                                                              | L-4T                                                                                |
|                 | -195 | 12 | 19 | 31.5 | 46   | 195 | 119 | 40    | 70    | HS12-d                                                                              | L-4T                                                                                |
|                 | -150 | 16 | 23 | 30.6 | 52.5 | 150 | 72  | 40    | 75    | -                                                                                   | L-4T                                                                                |
|                 | -180 | 16 | 23 | 33.8 | 52.5 | 180 | 103 | 40    | 80    | -                                                                                   | L-4T                                                                                |
|                 | -195 | 16 | 23 | 35.5 | 52.5 | 195 | 119 | 40    | 80    | -                                                                                   | L-4T                                                                                |
|                 | -150 | 20 | 28 | 34.7 | 62   | 150 | 63  | 40    | 70    | HS20-d                                                                              | L-6T                                                                                |
|                 | -180 | 20 | 28 | 37.8 | 62   | 180 | 93  | 40    | 100   | HS20-d                                                                              | L-6T                                                                                |
|                 | -195 | 20 | 28 | 39.5 | 62   | 195 | 109 | 40    | 100   | HS20-d                                                                              | L-6T                                                                                |
|                 | -150 | 25 | 37 | 43.9 | 62   | 150 | 65  | 50    | 70    | -                                                                                   | L-6T                                                                                |
|                 | -180 | 25 | 37 | 47.1 | 62   | 180 | 96  | 50    | 100   | -                                                                                   | L-6T                                                                                |
|                 | -195 | 25 | 37 | 48.8 | 62   | 195 | 112 | 50    | 110   | -                                                                                   | L-6T                                                                                |

L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

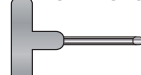
L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).  
With axial length adjustment.

HS  
Spannhülsen  
Collets



S./P. 193

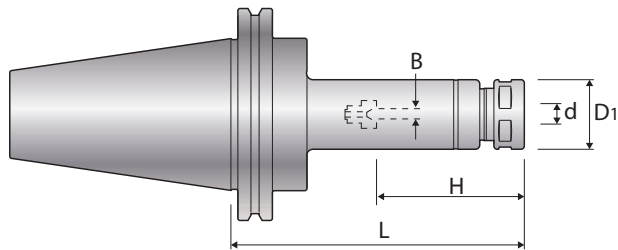
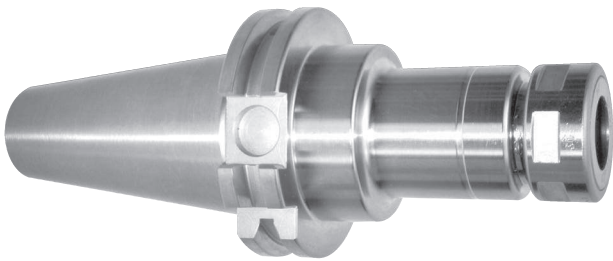
L-T  
6kant  
Hex wrench



S./P. 193

# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



**SK50**

DIN 69871 | ISO 7388-1

**3.0**  
**22.0**

**0.005**  
**4x D**

**max**  
**20.000**  
**min<sup>-1</sup>**

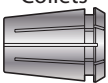
**Form**  
**AD**

| Halter   Holder |         | d    | D1       | L  | H   | B      |  |  |      |
|-----------------|---------|------|----------|----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK50            | -HDC12A | -90  | 3.0-12.0 | 32 | 90  | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -105 | 3.0-12.0 | 32 | 105 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120 | 3.0-12.0 | 32 | 120 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -135 | 3.0-12.0 | 32 | 135 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -165 | 3.0-12.0 | 32 | 165 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -195 | 3.0-12.0 | 32 | 195 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -225 | 3.0-12.0 | 32 | 225 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -255 | 3.0-12.0 | 32 | 255 | 33-68  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -90  | 4.0-16.0 | 36 | 90  | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -105 | 4.0-16.0 | 36 | 105 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -120 | 4.0-16.0 | 36 | 120 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -135 | 4.0-16.0 | 36 | 135 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -165 | 4.0-16.0 | 36 | 165 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -195 | 4.0-16.0 | 36 | 195 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -225 | 4.0-16.0 | 36 | 225 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -255 | 4.0-16.0 | 36 | 255 | 38-81  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -105 | 4.0-22.0 | 46 | 105 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -120 | 4.0-22.0 | 46 | 120 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -135 | 4.0-22.0 | 46 | 135 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -150 | 4.0-22.0 | 46 | 150 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -165 | 4.0-22.0 | 46 | 165 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -195 | 4.0-22.0 | 46 | 195 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -225 | 4.0-22.0 | 46 | 225 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -255 | 4.0-22.0 | 46 | 255 | 47-103 | 0-8                                                                                 | FDC-22                                                                              | S-5L |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-L**  
Spannschlüssel  
Spanners

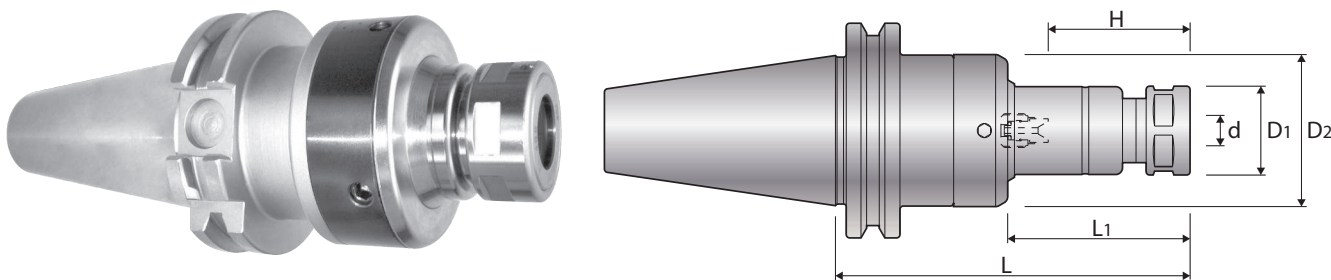


S.|P. 194

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



SK50

DIN 69871 | ISO 7388-1

3.0  
22.0

0-2  
µm

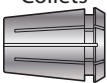
max  
15.000  
min<sup>-1</sup>

Form  
AD

| Halter   Holder |         | d    | D1       | D2 | L  | L1  | H   |  |  |  |       |
|-----------------|---------|------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| SK50            | -HDZ12A | -90  | 3.0-12.0 | 32 | 56 | 90  | 35  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -105 | 3.0-12.0 | 32 | 56 | 105 | 50  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -120 | 3.0-12.0 | 32 | 56 | 120 | 65  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -135 | 3.0-12.0 | 32 | 56 | 135 | 80  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -165 | 3.0-12.0 | 32 | 56 | 165 | 110 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -195 | 3.0-12.0 | 32 | 56 | 195 | 140 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -225 | 3.0-12.0 | 32 | 56 | 225 | 170 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 |         | -255 | 3.0-12.0 | 32 | 56 | 255 | 200 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T  |
|                 | -HDZ16A | -90  | 3.0-16.0 | 36 | 62 | 90  | 35  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -105 | 3.0-16.0 | 36 | 62 | 105 | 50  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -120 | 3.0-16.0 | 36 | 62 | 120 | 65  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -135 | 3.0-16.0 | 36 | 62 | 135 | 80  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -165 | 3.0-16.0 | 36 | 62 | 165 | 110 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -195 | 3.0-16.0 | 36 | 62 | 195 | 140 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -225 | 3.0-16.0 | 36 | 62 | 225 | 170 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 |         | -255 | 3.0-16.0 | 36 | 62 | 255 | 200 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T  |
|                 | -HDZ22A | -105 | 4.0-22.0 | 46 | 76 | 105 | 56  | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T  |
|                 |         | -120 | 4.0-22.0 | 46 | 76 | 120 | 71  | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T  |
|                 |         | -135 | 4.0-22.0 | 46 | 76 | 135 | 86  | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T  |
|                 |         | -165 | 4.0-22.0 | 46 | 76 | 165 | 101 | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T  |
|                 |         | -195 | 4.0-22.0 | 46 | 76 | 195 | 131 | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T  |
|                 |         | -225 | 4.0-22.0 | 46 | 76 | 225 | 161 | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T  |
|                 |         | -255 | 4.0-22.0 | 46 | 76 | 255 | 191 | 47-100                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5tT |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

**FDC**  
Spannzangen  
Collets  
  
S.|P. 195

**HDS**  
Einstellschraube  
Preset screw  
  
S.|P. 194

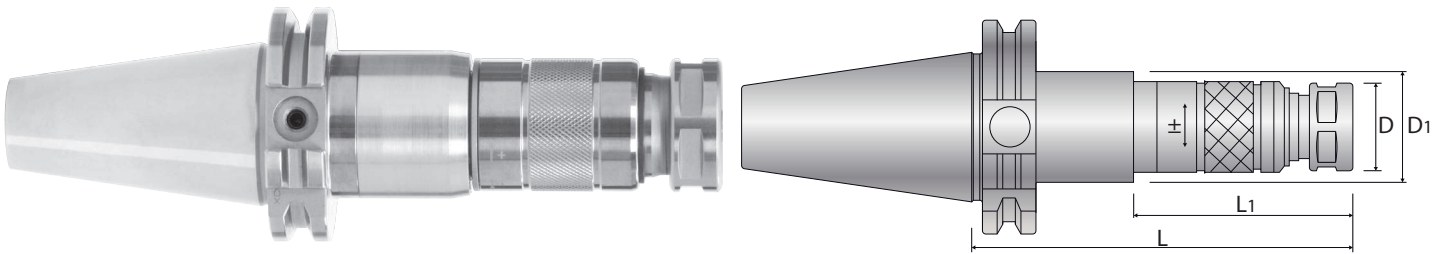
**HDP**  
Spannmutter  
Cap nut  
  
S.|P. 194

**S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 194

**L-T**  
6kant  
Hex wrench  
  
S.|P. 193

# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**SK50**

**M5  
M20**



**SFH** mit easy-Längeneinstellung  
with easy-length adjustment

DIN 69871 | ISO 7388-1

| Halter   Holder |        | Schneidbereich<br>Tapping range | D      | D1 | L  | L1  |  |  |      |
|-----------------|--------|---------------------------------|--------|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK50            | -SFH18 | -125                            | M5-M20 | 36 | 40 | 125 | 68                                                                                  | FSC-16                                                                              | S-4L |
|                 |        | -135                            | M5-M20 | 36 | 40 | 135 | 78                                                                                  | FSC-16                                                                              | S-4L |
|                 |        | -150                            | M5-M20 | 36 | 40 | 150 | 93                                                                                  | FSC-16                                                                              | S-4L |

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.

**STS**  
4kant-Mitnehmer  
Square driver



S.|P. 197

**FSC**  
Spannzangen  
Collets



S.|P. 197

**STS-R**  
Einschraubwerkz.  
Tool changer



S.|P. 197

**HTP**  
Spannmutter  
Cap nut

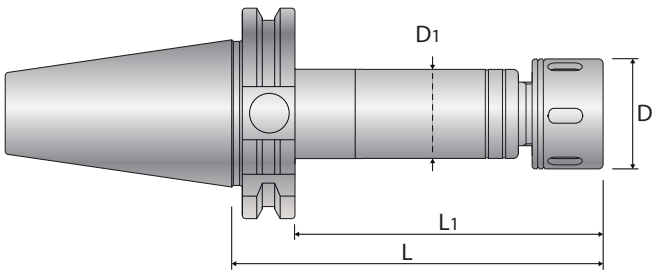
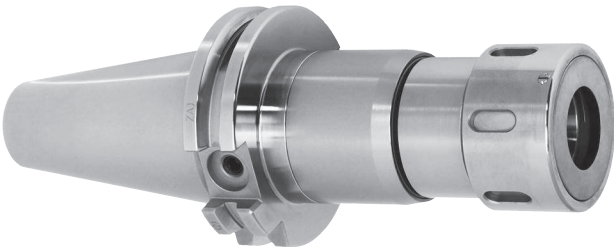


S.|P. 197

**S-L**  
Spannschlüssel  
Spanners



S.|P. 197



**SK50**

**M2  
M20**



**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

DIN 69871 | ISO 7388-1

| Halter   Holder |              | Schneidbereich<br>Tapping range | D  | D1 | L   | L1 |  |  |
|-----------------|--------------|---------------------------------|----|----|-----|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>SK50</b>     | -SFH12S -90  | M2-M12                          | 32 | 34 | 90  | 71 | ER16-GB                                                                               | FK-0034                                                                               |
|                 | -SFH18S -105 | M3-M20                          | 42 | 40 | 105 | 86 | ER25-GB                                                                               | HS-1-16                                                                               |

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.

**ER-GB**  
Spannzangen  
Collets



S.|P. 199

**ERP**  
Spannmutter  
Cap nut



S.|P. 198

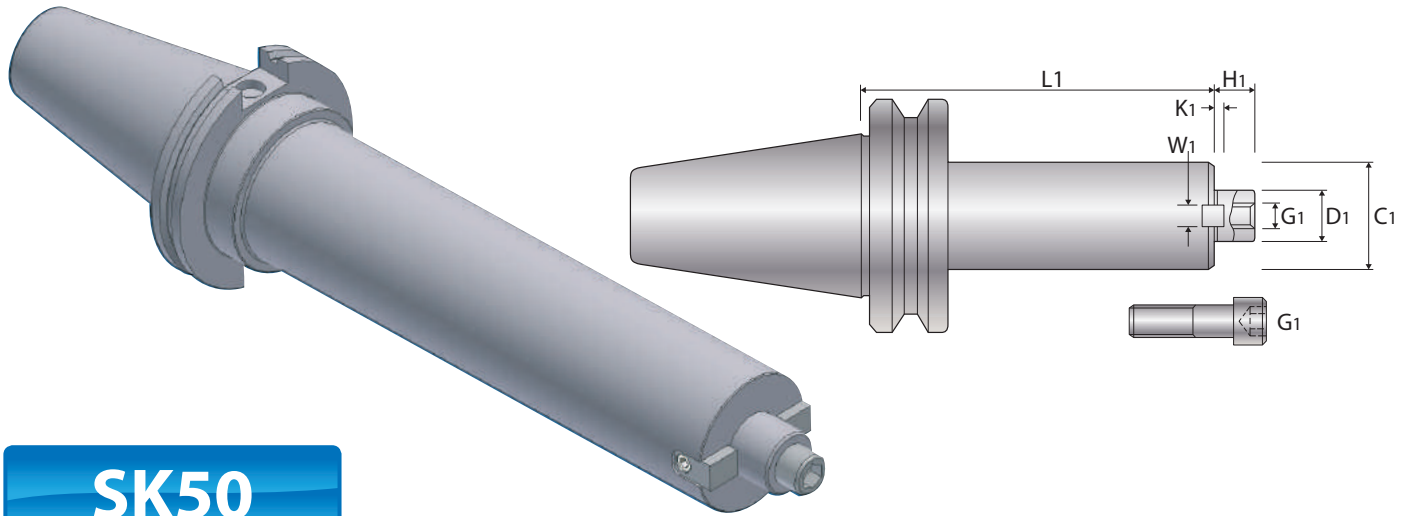
**FK|HS**  
Spannschlüssel  
Spanners



S.|P. 198

# FMC Aufsteck-Fräsdorn extra lang

## Face Mill Arbor extra long



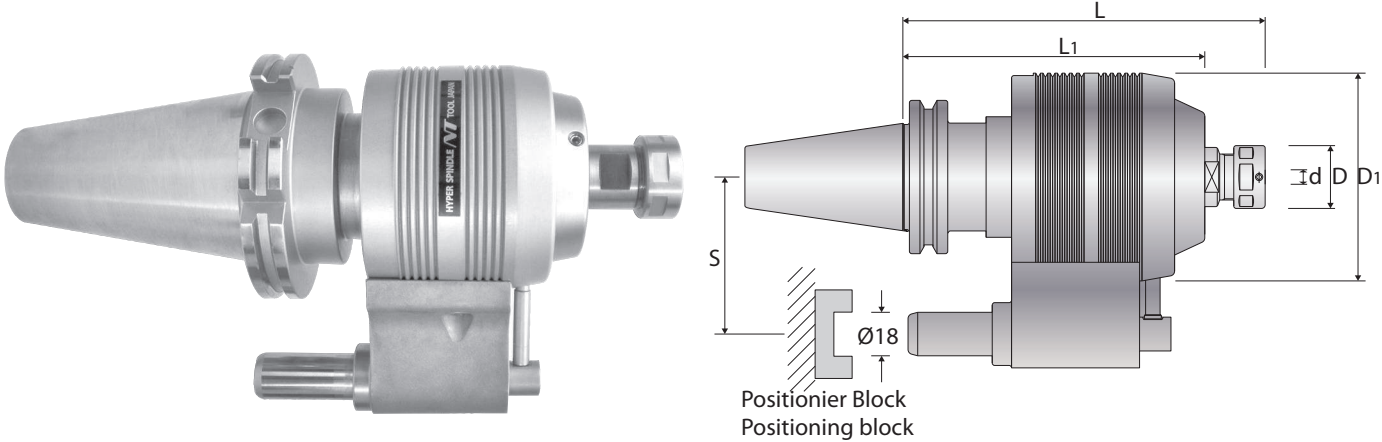
### SK50

DIN 69871 | ISO 7388-1

| Halter   Holder |        | D1<br>(h6) | L1 | C1  | H1 | W1 | K1 | G1  | Messerkopf<br>Cutter<br>Ø |       |
|-----------------|--------|------------|----|-----|----|----|----|-----|---------------------------|-------|
| SK50            | -FMC22 | -185       | 22 | 185 | 49 | 20 | 10 | 5.6 | M10                       | 50 63 |
|                 |        | -285       | 22 | 285 | 49 | 20 | 10 | 5.6 | M10                       | 50 63 |
|                 |        | -388       | 22 | 388 | 49 | 20 | 10 | 5.6 | M10                       | 50 63 |
|                 | -FMC27 | -185       | 27 | 185 | 60 | 21 | 12 | 6.3 | M12                       | 80    |
|                 |        | -285       | 27 | 285 | 60 | 21 | 12 | 6.3 | M12                       | 80    |
|                 |        | -385       | 27 | 385 | 60 | 21 | 12 | 6.3 | M12                       | 80    |

# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



SK50

DIN 69871 | ISO 7388-1

1.0  
12.0

0.01  
100

Übersetzung  
1:5  
Gear ratio

max  
30.000  
min<sup>-1</sup>

| Halter   Holder |        | d                   | D        | D1 | L  | L1  | S   | Übersetzung<br>Gear ratio | max. Drehzahl<br>max. speed rpm |  |  |      |
|-----------------|--------|---------------------|----------|----|----|-----|-----|---------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| SK50            | -HP07H | -150-3              | 1.0-7.0  | 23 | 86 | 150 | 125 | 80                        | 1:5                             | 30.000 <sup>1</sup><br>25.000 <sup>2</sup>                                          | FDC-07                                                                              | S-0  |
|                 |        | -180-3              | 1.0-7.0  | 23 | 86 | 180 | 125 | 80                        | 1:5                             |                                                                                     | FDC-07                                                                              | S-0  |
|                 | -HP09H | -150-3              | 3.0-9.0  | 26 | 86 | 150 | 125 | 80                        | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 |        | -180-3              | 3.0-9.0  | 26 | 86 | 180 | 125 | 80                        | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 | -HP12H | -165-3 <sup>3</sup> | 3.0-12.0 | 32 | 86 | 165 | 125 | 80                        | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |
|                 |        | -180-3              | 3.0-12.0 | 32 | 86 | 180 | 125 | 80                        | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |

<sup>1</sup> Max. Drehzahl 20% /Std.

<sup>2</sup> Max. Drehzahl 80% /Std.

<sup>1</sup> Max. rotation speed 20% /h

<sup>2</sup> Max. rotation speed 80% /h

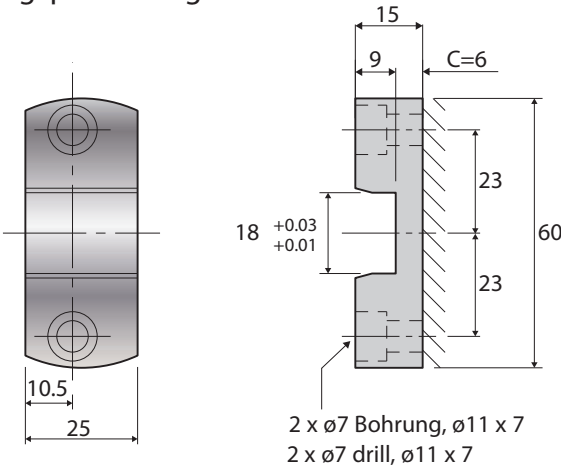
| HP07   09   12 | Positionierkolben   Plunger |       |                   |       |       |
|----------------|-----------------------------|-------|-------------------|-------|-------|
|                | No.1                        | No.2  | No.3 <sup>3</sup> | No.4  | No.5  |
| A min (mm)     | +15.1                       | +6.1  | -2.9              | -3.0  | -12.0 |
| A max (mm)     | +24.0                       | +15.0 | +6.0              | -11.9 | -20.9 |

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

<sup>3</sup> We deliver plunger No.3 ex stock.

### Bsp. Positionierblock<sup>1)</sup>

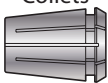
e.g. positioning block<sup>1)</sup>



<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194



# BT

## JIS B6339 | MAS-BT

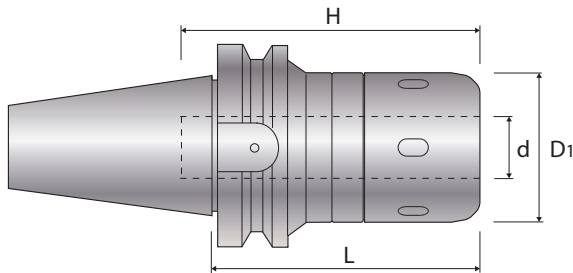
| Spannsystem |                                     | Tooling System                 | 30  | BT<br>40 | 50      |
|-------------|-------------------------------------|--------------------------------|-----|----------|---------|
| CT-SA       | Hochleistungs-Kraftspannfutter      | High Performance Milling Chuck | 146 | 151      | 166-167 |
| CTZ-SA      | Kraftspannfutter Rundlauf "0"       | Milling Chuck R-Zero           | -   | 152      | 168     |
| PHC-A       | Power Dehnspannfutter               | Power Hydro Chuck              | 147 | 153      | 169     |
| PHC-H       | Hochdruck-Dehnspannfutter           | High Pressure Hydro Chuck      | -   | 156      | 170     |
| PHC-SA      | Dehnspannfutter superschlank        | Slim Hydro Chuck               | -   | 154-155  | 171     |
| PHC-SC      | Dehnspannfutter schlank Coolant Jet | Slim Hydro Chuck Coolant Jet   | -   | 154-155  | -       |
| PHZ-SA      | Dehnspannfutter Rundlauf "0"        | Slim Hydro Chuck R-Zero        | -   | 157      | -       |
| HDC-A       | Hochgenauigkeits-Spannzangenfutter  | High Precision Collet Chuck    | 148 | 158      | 172     |
| GDC-A       | Highspeed-Spannzangenfutter         | Highspeed Collet Chuck         | 149 | 159      | -       |
| HDZ-A       | Spannzangenfutter Rundlauf "0"      | Collet Chuck R-Zero            | -   | 160      | 173     |
| ERC         | Mikro-Spannzangenfutter             | Micro Collet Chuck             | 150 | 161      | -       |
| SRE         | Schrumpffutter                      | Shrink Fit Chuck               | -   | 162      | -       |
| SRS         | Schrumpffutter superschlank         | Slim Shrink Fit Chuck          | -   | 163      | -       |
| SFH         | SynchroFit-Gewindescheidfutter      | SynchroFit Tapping Holder      | -   | 164      | 174     |
| FMC         | Aufsteck-Fräsdorn extra lang        | Face Mill Arbor extra long     | -   | -        | 175     |
| HPH         | Präzisions-Schnelllaufspindel       | Precision Hyper Spindle        | -   | 165      | 176     |

Werkzeugspannsysteme für Brother  
Tooling System for Brother's **SPEEDIO**  
**M140X2**  
S./P. 178-182



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



**BT30**

JIS B6339

**3.0**  
**32.0**

**0.005**  
**3x D**

**max**  
**20.000**  
**min<sup>-1</sup>**

**Form**  
**AD**

| Halter   Holder |                          | d  | D1 | L   | H  |  |  |
|-----------------|--------------------------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT30            | -CT16SA -75              | 16 | 45 | 75  | 65 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -90                      | 16 | 45 | 90  | 65 | MC16-d                                                                              | HS-1-16                                                                             |
|                 | -CT20SA -75 <sup>1</sup> | 20 | 52 | 75  | 80 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -90                      | 20 | 52 | 90  | 80 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -105                     | 20 | 52 | 105 | 80 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT25SA -90              | 25 | 61 | 90  | 80 | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -105                     | 25 | 61 | 105 | 80 | MC25-d                                                                              | HS-2.5-25                                                                           |
|                 | -CT32SA -90              | 32 | 68 | 90  | 76 | MC32-d                                                                              | HS-3-32                                                                             |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

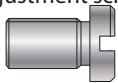
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
<sup>1</sup> MC-A Collets cannot be used.

**MC**  
Spannhülsen  
Collets



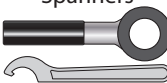
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions

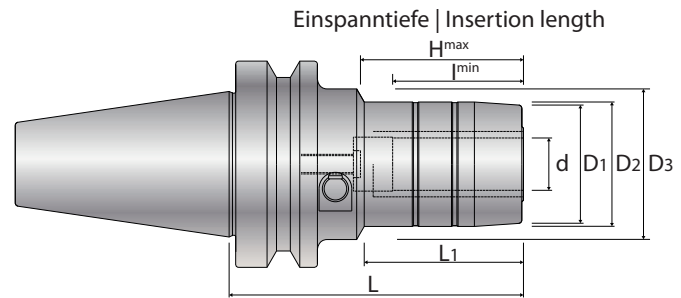
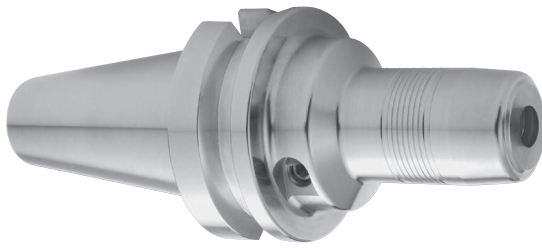


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### BT30

JIS B6339

3.0  
20.0

0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

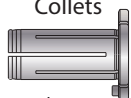


| Halter   Holder |      | d  | D1 | D2 | D3 | L   | L1   | Hmin | Hmax |  |  |
|-----------------|------|----|----|----|----|-----|------|------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT30            | -45  | 3  | -  | 24 | 46 | 45  | 4    | 18   | -    | -                                                                                   | L-4T                                                                                |
|                 | -60  | 3  | -  | 24 | 46 | 60  | 19.8 | 18   | 27   | -                                                                                   | L-4T                                                                                |
|                 | -90  | 3  | -  | 24 | 46 | 90  | 44.8 | 18   | 49   | -                                                                                   | L-4T                                                                                |
|                 | -45  | 4  | -  | 25 | 46 | 45  | 4    | 24   | -    | -                                                                                   | L-4T                                                                                |
|                 | -65  | 4  | -  | 25 | 46 | 65  | 25.1 | 24   | 29   | -                                                                                   | L-4T                                                                                |
|                 | -90  | 4  | -  | 25 | 46 | 90  | 45.1 | 24   | 49   | -                                                                                   | L-4T                                                                                |
|                 | -45  | 6  | -  | 26 | 46 | 45  | 4    | 29   | 34   | -                                                                                   | L-4T                                                                                |
|                 | -75  | 6  | 24 | 26 | 46 | 75  | 30   | 29   | 34   | -                                                                                   | L-4T                                                                                |
|                 | -45  | 8  | -  | 28 | 46 | 45  | 4    | 29   | 34   | -                                                                                   | L-4T                                                                                |
|                 | -75  | 8  | 26 | 28 | 46 | 75  | 30   | 29   | 34   | -                                                                                   | L-4T                                                                                |
|                 | -45  | 10 | -  | 30 | 46 | 45  | 4    | 40   | 45   | -                                                                                   | L-4T                                                                                |
|                 | -90  | 10 | 28 | 30 | 46 | 90  | 46   | 40   | 55   | -                                                                                   | L-4T                                                                                |
|                 | -105 | 10 | 28 | 30 | 52 | 105 | 44   | 40   | 50   | -                                                                                   | L-4T                                                                                |
|                 | -45  | 12 | -  | 30 | 46 | 45  | 4    | 40   | 45   | PHS12-d                                                                             | L-4T                                                                                |
|                 | -90  | 12 | 30 | 32 | 46 | 90  | 46   | 40   | 55   | PHS12-d                                                                             | L-4T                                                                                |
|                 | -105 | 12 | 30 | 32 | 52 | 105 | 45   | 40   | 50   | PHS12-d                                                                             | L-4T                                                                                |
|                 | -45  | 14 | -  | 30 | 46 | 45  | 4    | 40   | 45   | -                                                                                   | L-4T                                                                                |
|                 | -90  | 14 | 34 | 36 | 46 | 90  | 48   | 40   | 55   | -                                                                                   | L-4T                                                                                |
|                 | -105 | 14 | 34 | 36 | 52 | 105 | 46   | 40   | 50   | -                                                                                   | L-4T                                                                                |
|                 | -45  | 16 | -  | 30 | 46 | 45  | 4    | 40   | 45   | -                                                                                   | L-4T                                                                                |
|                 | -90  | 16 | 36 | 38 | 46 | 90  | 48   | 40   | 55   | -                                                                                   | L-4T                                                                                |
|                 | -105 | 16 | 36 | 38 | 52 | 105 | 46   | 40   | 50   | -                                                                                   | L-4T                                                                                |
|                 | -90  | 20 | 40 | 42 | 46 | 90  | 49   | 40   | 50   | PHS20-d                                                                             | L-4T                                                                                |
|                 | -120 | 20 | 40 | 42 | 46 | 120 | 69   | 40   | 70   | PHS20-d                                                                             | L-4T                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

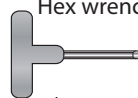
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

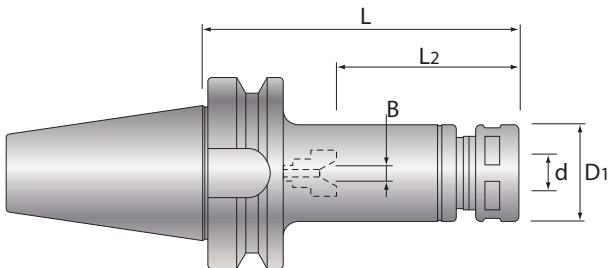
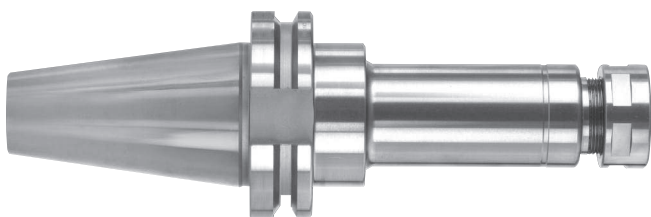
**L-T**  
6kant  
Hex wrench



S./P. 193

# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



**BT30**

JIS B6339

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

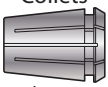
Form  
AD

| Halter   Holder |         | d    | D1       | L  | L2  | B     |  |  |      |
|-----------------|---------|------|----------|----|-----|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT30            | -HDC07A | -45  | 1.0-7.0  | 23 | 45  | 22-42 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -60  | 1.0-7.0  | 23 | 60  | 22-42 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -75  | 1.0-7.0  | 23 | 75  | 22-42 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -90  | 1.0-7.0  | 23 | 90  | 22-42 | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 | -HDC09A | -45  | 3.0-9.0  | 26 | 45  | 27-41 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | - 60 | 3.0-9.0  | 26 | 60  | 27-51 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -75  | 3.0-9.0  | 26 | 75  | 27-54 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -90  | 3.0-9.0  | 26 | 90  | 27-54 | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 | -HDC12A | -45  | 3.0-12.0 | 32 | 45  | 33-48 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -60  | 3.0-12.0 | 32 | 60  | 33-51 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -75  | 3.0-12.0 | 32 | 75  | 33-66 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -90  | 3.0-12.0 | 32 | 90  | 33-66 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -105 | 3.0-12.0 | 32 | 105 | 33-66 | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -45  | 4.0-16.0 | 36 | 45  | 38-49 | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -60  | 4.0-16.0 | 36 | 60  | 38-51 | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -75  | 4.0-16.0 | 36 | 75  | 38-66 | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -90  | 4.0-16.0 | 36 | 90  | 38-79 | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -105 | 4.0-16.0 | 36 | 105 | 38-79 | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -45  | 4.0-22.0 | 46 | 45  | 49    | -                                                                                   | FDC-22                                                                              | S-5L |
|                 |         | -60  | 4.0-22.0 | 46 | 60  | 67    | -                                                                                   | FDC-22                                                                              | S-5L |
|                 |         | -75  | 4.0-22.0 | 46 | 75  | 47-61 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -90  | 4.0-22.0 | 46 | 90  | 47-76 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -105 | 4.0-22.0 | 46 | 105 | 47-91 | 0-8                                                                                 | FDC-22                                                                              | S-5L |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung.

Cap nut and preset screw included in delivery.  
With axial length adjustment.

**FDC**  
Spannzangen  
Collets



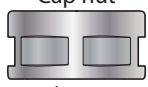
S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

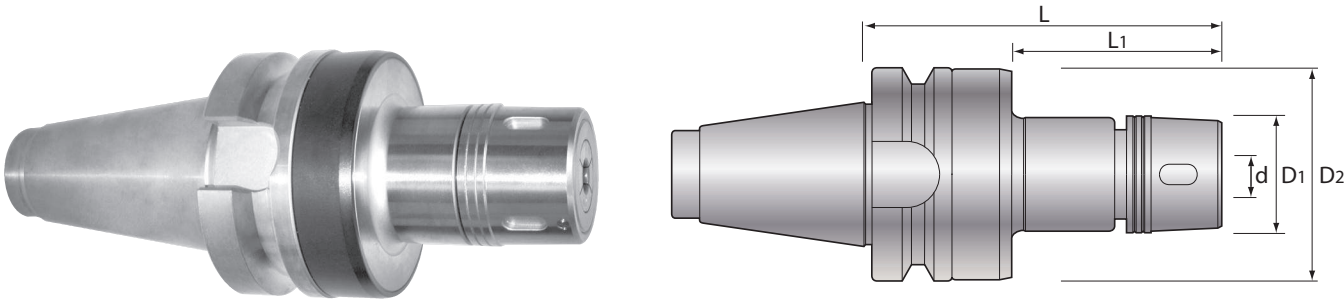
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**BT30**

JIS B6339

**3.0**  
**12.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

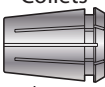
**Form**  
**AD**

| Halter   Holder |              | d        | D1 | D2 | L   | L1 |  |  |
|-----------------|--------------|----------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>BT30</b>     | -GDC09A -90  | 3.0-9.0  | 29 | 46 | 90  | 53 | FDC-09                                                                              | S-0                                                                                 |
|                 | -90          | 3.0-12.0 | 34 | 46 | 90  | 53 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC12A -105 | 3.0-12.0 | 34 | 46 | 105 | 68 | FDC-12                                                                              | FK-0034                                                                             |

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S./P. 195

**HDS**  
Einstellschraube  
Preset screw



S./P. 194

**GDP**  
Spannmutter  
Cap nut



S./P. 194

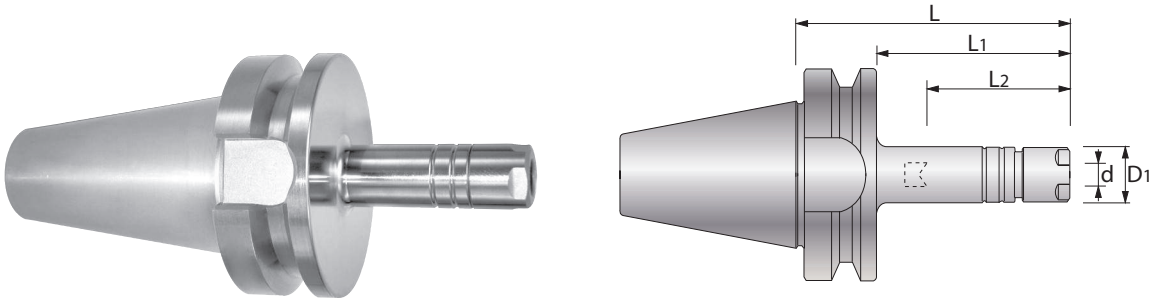
**S-0|FK**  
Spannschlüssel  
Spanners



S./P. 194

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



**BT30**

JIS B6339

1.0  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

Form  
AD

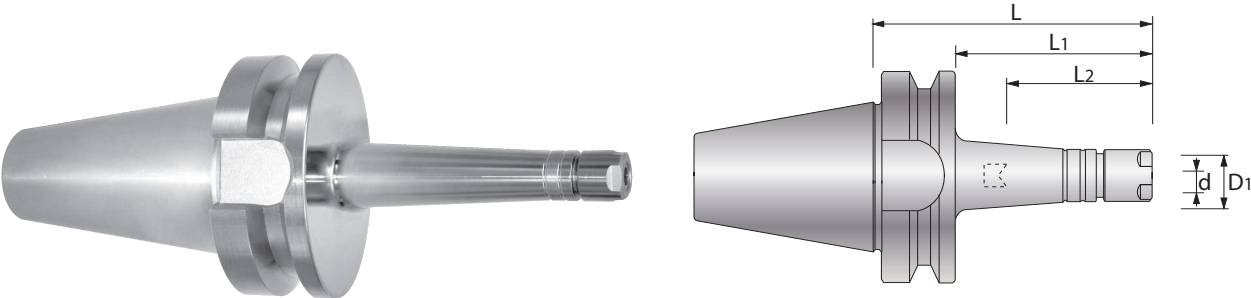
Super-  
schlank  
Super slim

**Form S**

| Halter   Holder |         |                  | d       | D1 | L  | L1 | L2         |  |  |
|-----------------|---------|------------------|---------|----|----|----|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT30            | -ERC8   | -75 <sup>1</sup> | 1.0-5.0 | 12 | 75 | 53 | 34 (19-31) | ER8                                                                                 | S-8E                                                                                |
|                 |         | -90 <sup>1</sup> | 1.0-5.0 | 12 | 90 | 68 | 34 (19-31) | ER8                                                                                 | S-8E                                                                                |
|                 | -ERC11S | -75              | 1.0-7.0 | 16 | 75 | 53 | 22-45      | ER11                                                                                | S-11E                                                                               |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
<sup>1</sup> Ohne Einstellschraube.

Cap nut and preset screw included in delivery.  
<sup>1</sup> Without preset screw.



**BT30**

JIS B6339

1.0  
7.0

0.005  
3x D

max  
30.000  
min<sup>-1</sup>

Form  
AD

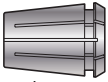
Super-  
schlank  
Super slim

**Form T**

| Halter   Holder |         |       | d       | D1 | L   | L1 | L2    |  |  |
|-----------------|---------|-------|---------|----|-----|----|-------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| BT30            | -ERC11S | -75T  | 1.0-7.0 | 16 | 75  | 53 | 22-45 | ER11                                                                                  | S-11E                                                                                 |
|                 |         | -105T | 1.0-7.0 | 16 | 105 | 83 | 22-45 | ER11                                                                                  | S-11E                                                                                 |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw included in delivery.

**ER**  
Spannzangen  
Collets  
  
S./P. 196

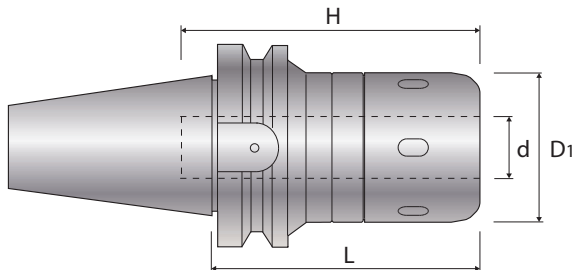
**ES**  
Einstellschraube  
Preset screw  
  
S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut  
  
S./P. 196

**S-E**  
Spannschlüssel  
Spanners  
  
S./P. 196

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



BT40

JIS B6339

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

| Halter   Holder |         | d                 | D1 | L  | L2  |  |  |           |
|-----------------|---------|-------------------|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| BT40            | -CT16SA | -75               | 16 | 45 | 75  | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -90               | 16 | 45 | 90  | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 | -CT20SA | -75               | 20 | 52 | 75  | 75                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -90 <sup>2</sup>  | 20 | 52 | 90  | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -105              | 20 | 52 | 105 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -120              | 20 | 52 | 120 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 | -CT25SA | -90               | 25 | 61 | 90  | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 |         | -105 <sup>2</sup> | 25 | 61 | 105 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 |         | -120              | 25 | 61 | 120 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 |         | -135              | 25 | 61 | 135 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -CT32SA | -90 <sup>1</sup>  | 32 | 73 | 90  | 76                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -105 <sup>2</sup> | 32 | 73 | 105 | 85                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -120              | 32 | 73 | 120 | 85                                                                                  | MC32-d                                                                              | HS-3-32   |
|                 |         | -135              | 32 | 73 | 135 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

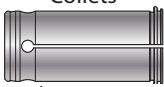
<sup>2</sup> Lagerstandard mit Form B

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

<sup>1</sup> MC-A Collets cannot be used.

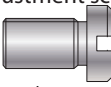
<sup>2</sup>Form B Standard

MC  
Spannhülsen  
Collets



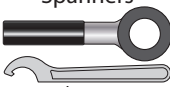
S.|P. 188-189

BL  
Einstellschrauben  
Adjustment screw



S.|P. 190

HS|RS  
Spannschlüssel  
Spanners



S.|P. 190

EM  
Verlängerungen  
Extensions

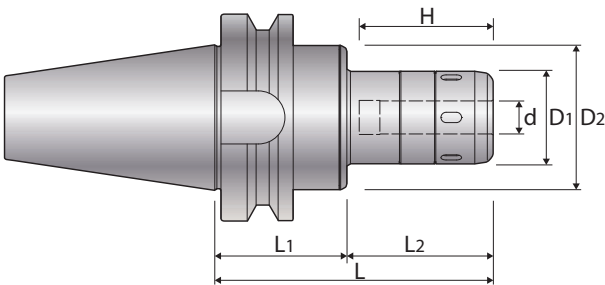
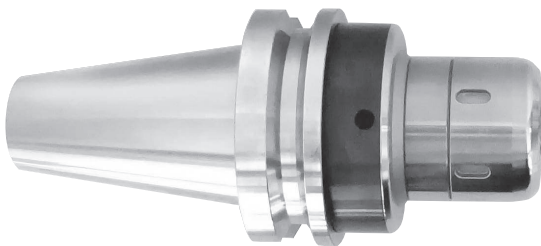


S.|P. 187

CTZ-SA

Hochleistungs-Kraftspannfutter  
High Performance Milling Chuck

R"0" Series



BT40

JIS B6339

4.0  
32.0

0-2  
μm

max  
15.000  
min<sup>-1</sup>

Form  
AD

| Halter   Holder |          | d    | D1 | D2 | L  | L1  | L2 | I  |  |  |  |      |
|-----------------|----------|------|----|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT40            | -CTZ25SA | -125 | 25 | 61 | 74 | 125 | 64 | 61 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L |
|                 |          | -150 | 25 | 61 | 74 | 150 | 74 | 76 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L |
|                 | -CTZ32SA | -125 | 32 | 68 | 80 | 125 | 64 | 61 | 110                                                                                 | MC32-d                                                                              | HS-3-32                                                                             | L-6L |
|                 |          | -150 | 32 | 68 | 80 | 150 | 74 | 76 | 120                                                                                 | MC32-d                                                                              | HS-3-32                                                                             | L-6L |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

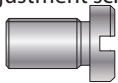
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

MC  
Spannhülsen  
Collets



S.|P. 188-189

BL  
Einstellschrauben  
Adjustment screw



S.|P. 190

HS  
Spannschlüssel  
Spanners



S.|P. 190

EM  
Verlängerungen  
Extensions



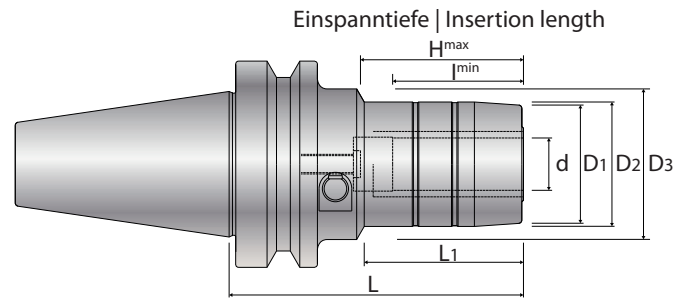
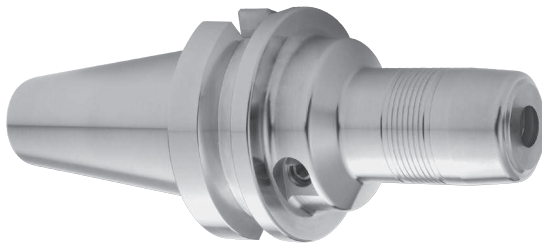
S.|P. 187



# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### BT40

JIS B6339

3.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

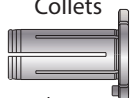
HA  
HB

| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1  | I min | H max |  |  |
|-----------------|--------------|----|----|----|----|-----|-----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT40            | -PHC03A -65  | 3  | -  | 24 | 46 | 65  | 20  | 18    | 27    | -                                                                                   | L-4T                                                                                |
|                 | -90          | 3  | -  | 24 | 46 | 90  | 45  | 18    | 49    | -                                                                                   | L-4T                                                                                |
|                 | -PHC04A -70  | 4  | -  | 25 | 46 | 70  | 25  | 24    | 29    | -                                                                                   | L-4T                                                                                |
|                 | -90          | 4  | -  | 25 | 46 | 90  | 45  | 24    | 49    | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A -75  | 6  | 24 | 26 | 46 | 75  | 30  | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -105         | 6  | 24 | 26 | 46 | 105 | 41  | 29    | 45    | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A -75  | 8  | 26 | 28 | 46 | 75  | 30  | 29    | 34    | -                                                                                   | L-4T                                                                                |
|                 | -105         | 8  | 26 | 28 | 46 | 105 | 41  | 29    | 45    | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A -90  | 10 | 28 | 30 | 52 | 90  | 44  | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -120         | 10 | 28 | 30 | 52 | 120 | 64  | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -PHC12A -90  | 12 | 30 | 32 | 52 | 90  | 45  | 40    | 50    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -120         | 12 | 30 | 32 | 52 | 120 | 65  | 40    | 70    | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC14A -90  | 14 | 34 | 36 | 52 | 90  | 46  | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -120         | 14 | 34 | 36 | 52 | 120 | 66  | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A -90  | 16 | 36 | 38 | 52 | 90  | 46  | 40    | 50    | -                                                                                   | L-4T                                                                                |
|                 | -120         | 16 | 36 | 38 | 52 | 120 | 66  | 40    | 70    | -                                                                                   | L-4T                                                                                |
|                 | -PHC20A -90  | 20 | 40 | 42 | 46 | 90  | 49  | 40    | 50    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -120         | 20 | 40 | 42 | 46 | 120 | 69  | 40    | 70    | PHS20-d                                                                             | L-4T                                                                                |
|                 | -PHC25A -105 | 25 | 50 | 52 | 62 | 105 | 59  | 50    | 60    | -                                                                                   | L-6T                                                                                |
|                 | -135         | 25 | 50 | 52 | 62 | 135 | 79  | 50    | 80    | -                                                                                   | L-6T                                                                                |
|                 | -PHC32A -120 | 32 | 60 | 62 | 62 | 120 | 93  | 65    | 75    | -                                                                                   | L-6T                                                                                |
|                 | -150         | 32 | 60 | 62 | 62 | 150 | 123 | 65    | 80    | -                                                                                   | L-6T                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

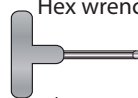
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench



S./P. 193

PHC-SA

Dehnspannfutter superschlank

Slim Hydro Chuck

Super slim Series



BT40

JIS B6339

3.0  
25.0

0.003  
3x D

G2.5  
25,000  
min<sup>-1</sup>

Form  
AD

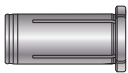
Tol.  
h6



mit Coolant Jet: PHC-SC  
with Coolant Jet: PHC-SC

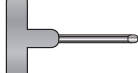
| Halter   Holder |               | d  | PHC-S          |                | PHC-SC         |                | D <sub>3</sub> | L   | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |  |  |
|-----------------|---------------|----|----------------|----------------|----------------|----------------|----------------|-----|----------------|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 |               |    | D <sub>1</sub> | D <sub>2</sub> | D <sub>1</sub> | D <sub>2</sub> |                |     |                |                  |                  |                                                                                     |                                                                                     |
| BT40            | -75           | 3  | 11             | 13.0           | -              | -              | 46             | 75  | 19             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -PHC03SA -90  | 3  | 11             | 14.2           | 11.6           | 14.8           | 46             | 90  | 30             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 3  | 11             | 18.5           | 11.6           | 19.1           | 46             | 135 | 71             | 18               | 49               | -                                                                                   | L-4T                                                                                |
|                 | -75           | 4  | 11             | 13.0           | -              | -              | 46             | 75  | 19             | 24               | 55               | -                                                                                   | L-4T                                                                                |
|                 | -PHC04SA -90  | 4  | 11             | 14.2           | 11.6           | 14.8           | 46             | 90  | 30             | 24               | 55               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 4  | 11             | 18.5           | 11.6           | 19.1           | 46             | 135 | 71             | 24               | 55               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 6  | 13             | 15.8           | 14             | 16.8           | 46             | 90  | 26             | 29               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 6  | 13             | 20.5           | 14             | 21.5           | 46             | 135 | 71             | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -PHC06SA -150 | 6  | 13             | 22.2           | -              | -              | 46             | 150 | 87             | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -165          | 6  | 13             | 23.7           | -              | -              | 46             | 165 | 102            | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 6  | 13             | 25.4           | -              | -              | 46             | 180 | 118            | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 8  | 15             | 17.9           | 16             | 18.9           | 46             | 90  | 27             | 29               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 8  | 15             | 22.6           | 16             | 23.6           | 46             | 135 | 72             | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -PHC08SA -150 | 8  | 15             | 24.2           | -              | -              | 46             | 150 | 87             | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -165          | 8  | 15             | 25.8           | -              | -              | 46             | 165 | 103            | 29               | 69               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 8  | 15             | 27.4           | -              | -              | 46             | 180 | 118            | 29               | 84               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 10 | 17             | 20.4           | 18             | 21.4           | 46             | 90  | 32             | 40               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 10 | 17             | 24.6           | 18             | 25.6           | 46             | 135 | 72             | 40               | 80               | -                                                                                   | L-4T                                                                                |
|                 | -PHC10SA -150 | 10 | 17             | 26.3           | -              | -              | 46             | 150 | 87             | 40               | 95               | -                                                                                   | L-4T                                                                                |
|                 | -165          | 10 | 17             | 27.8           | -              | -              | 46             | 165 | 103            | 40               | 80               | -                                                                                   | L-4T                                                                                |
|                 | -180          | 10 | 17             | 29.5           | -              | -              | 46             | 180 | 119            | 40               | 95               | -                                                                                   | L-4T                                                                                |
|                 | -90           | 12 | 19             | 22.5           | 20             | 23.5           | 46             | 90  | 33             | 40               | 85               | -                                                                                   | L-4T                                                                                |
|                 | -135          | 12 | 19             | 26.7           | 20             | 27.7           | 46             | 135 | 73             | 40               | 80               | HS12-d                                                                              | L-4T                                                                                |
|                 | -PHC12SA -150 | 12 | 19             | 28.3           | -              | -              | 46             | 150 | 88             | 40               | 95               | HS12-d                                                                              | L-4T                                                                                |
|                 | -165          | 12 | 19             | 30.0           | -              | -              | 46             | 165 | 104            | 40               | 80               | HS12-d                                                                              | L-4T                                                                                |
|                 | -180          | 12 | 19             | 31.5           | -              | -              | 46             | 180 | 119            | 40               | 95               | HS12-d                                                                              | L-4T                                                                                |

HS  
Spannhülsen  
Collets



S./P. 193

L-T  
6kant  
Hex wrench

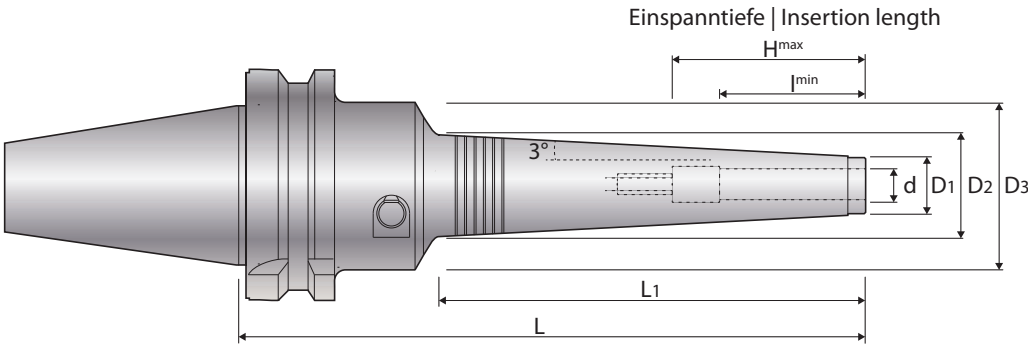


S./P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



| Halter   Holder |          | d    | PHC-S          |                | PHC-SC         |                | D <sub>3</sub> | L    | L <sub>1</sub> | l <sub>min</sub> | H <sup>max</sup> |  |  |      |
|-----------------|----------|------|----------------|----------------|----------------|----------------|----------------|------|----------------|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
|                 |          |      | D <sub>1</sub> | D <sub>2</sub> | D <sub>1</sub> | D <sub>2</sub> |                |      |                |                  |                  |                                                                                     |                                                                                     |      |
| BT40            | -PHC16SA | -135 | 16             | 23             | 30.6           | 24             | 31.6           | 52.5 | 135            | 72               | 40               | 83                                                                                  | -                                                                                   | L-4T |
|                 |          | -165 | 16             | 23             | 33.8           | 24             | 34.8           | 52.5 | 165            | 103              | 40               | 105                                                                                 | -                                                                                   | L-4T |
|                 |          | -180 | 16             | 23             | 35.5           | -              | -              | 52.5 | 180            | 119              | 40               | 105                                                                                 | -                                                                                   | L-4T |
|                 | -PHC20SA | -135 | 20             | 28             | 34.7           | 29             | 35.7           | 62   | 135            | 63               | 40               | 78                                                                                  | HS20-d                                                                              | L-6T |
|                 |          | -165 | 20             | 28             | 37.8           | -              | -              | 62   | 165            | 93               | 40               | 108                                                                                 | HS20-d                                                                              | L-6T |
|                 |          | -180 | 20             | 28             | 39.5           | 29             | 40.5           | 62   | 180            | 109              | 40               | 110                                                                                 | HS20-d                                                                              | L-6T |
|                 | -PHC25SA | -135 | 25             | 37             | 43.9           | 38             | 44.9           | 62   | 135            | 65               | 50               | 78                                                                                  | -                                                                                   | L-6T |
|                 |          | -165 | 25             | 37             | 47.1           | -              | -              | 62   | 165            | 96               | 50               | 108                                                                                 | -                                                                                   | L-6T |
|                 |          | -180 | 25             | 37             | 48.8           | 38             | 49.8           | 62   | 180            | 112              | 50               | 120                                                                                 | -                                                                                   | L-6T |

L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.

L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).  
With axial length adjustment.

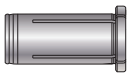


### PHC-SC Coolant Jet

**Mit innenliegenden Kühlmittelnuten.**  
With internal coolant nozzles.

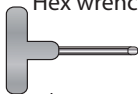
**Bestellbeispiel | Order example**  
BT40-PHC06SC-135

**HS**  
Spannhülsen  
Collets



S.|P. 193

**L-T**  
6kant  
Hex wrench



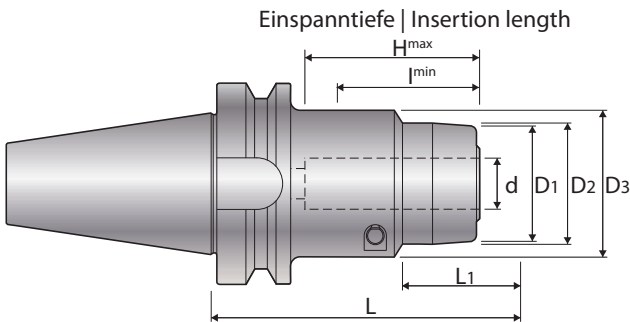
S.|P. 193

PHC-H

Hochdruck-Dehnspannfutter

High Pressure Hydro Chuck

Power Series



BT40

JIS B6339

6.0  
32.0

0.003  
50

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



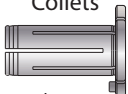
mit erhöhter Spannkraft  
with enhanced clamping force

| Halter   Holder |              | d  | D1 | D2 | D3 | L   | L1 | l min | H max |          |      |
|-----------------|--------------|----|----|----|----|-----|----|-------|-------|----------|------|
| BT40            | -PHC16H -45  | 16 | 42 | -  | 56 | 45  | 18 | 45    | 60    | -        | L-4T |
|                 | -75          | 16 | 42 | 44 | 56 | 75  | 27 | 45    | 85    | -        | L-4T |
|                 | -PHC20H -75  | 20 | 48 | 50 | 60 | 75  | 32 | 50    | 80    | PHS20H-d | L-4T |
|                 | -105         | 20 | 48 | 50 | 60 | 105 | 32 | 50    | 95    | PHS20H-d | L-4T |
|                 | -PHC25H -75  | 25 | 58 | 60 | 69 | 75  | 25 | 55    | 80    | -        | L-5T |
|                 | -105         | 25 | 58 | 60 | 69 | 105 | 35 | 55    | 110   | -        | L-5T |
|                 | -PHC32H -105 | 32 | 63 | 65 | 75 | 105 | 40 | 65    | 90    | PHS32H-d | L-5T |
|                 | -135         | 32 | 63 | 65 | 75 | 135 | 47 | 65    | 120   | PHS32H-d | L-5T |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

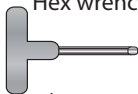
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

PHS-H  
Spannhülsen  
Collets



S./P. 192

L-T  
6kant  
Hex wrench

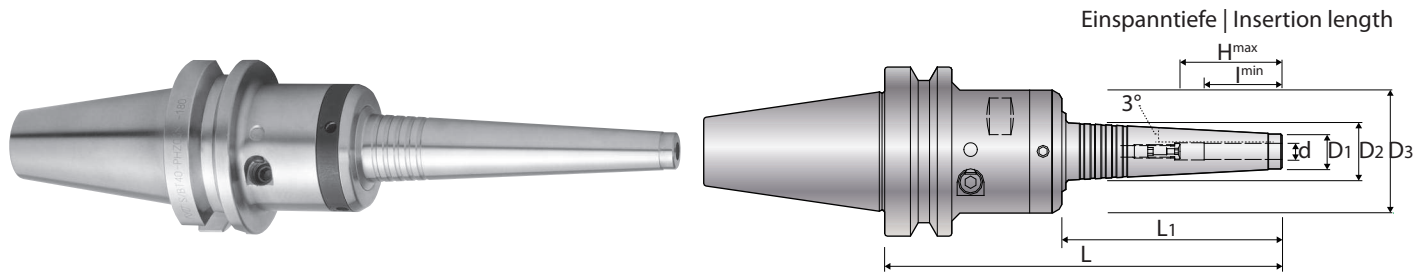


S./P. 193

# PHZ-SA Dehnspannfutter R"0" superschlank

## Slim Hydro Chuck with run out "0"

R"0" Series



**BT40**

JIS B6339

6.0  
12.0

0-2  
μm

max  
20.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



| Halter   Holder |               | d  | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> | L   | L <sub>1</sub> | I <sub>min</sub> | H <sub>max</sub> |  |  |  |
|-----------------|---------------|----|----------------|----------------|----------------|-----|----------------|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT40            | -PHZ06SA -150 | 6  | 13             | 21.5           | 46             | 150 | 82             | 29               | 37               | -                                                                                   | L-4T                                                                                | L-3T                                                                                |
|                 | -180          | 6  | 13             | 24.6           | 46             | 180 | 112            | 29               | 37               | -                                                                                   | L-4T                                                                                | L-3T                                                                                |
|                 | -PHZ08SA -150 | 8  | 15             | 23.5           | 46             | 150 | 82             | 29               | 50               | -                                                                                   | L-4T                                                                                | L-3T                                                                                |
|                 | -180          | 8  | 15             | 26.6           | 46             | 180 | 112            | 29               | 50               | -                                                                                   | L-4T                                                                                | L-3T                                                                                |
|                 | -PHZ10SA -150 | 10 | 17             | 25.5           | 46             | 150 | 82             | 40               | 50               | -                                                                                   | L-4T                                                                                | L-3T                                                                                |
|                 | -180          | 10 | 17             | 28.2           | 46             | 180 | 112            | 40               | 50               | -                                                                                   | L-4T                                                                                | L-3T                                                                                |
|                 | -PHZ12SA -150 | 12 | 19             | 27.4           | 46             | 150 | 82             | 40               | 70               | HS12-d                                                                              | L-4T                                                                                | L-3T                                                                                |
|                 | -180          | 12 | 19             | 28.2           | 46             | 180 | 112            | 40               | 70               | HS12-d                                                                              | L-4T                                                                                | L-3T                                                                                |

\* 6kant-Schlüssel für Einstellring.  
Mit axialer Längeneinstellung.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

\* Hex wrench for Rotor ring  
With axial length adjustment.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).

**HS**  
Spannhülsen  
Collets



S./P. 193

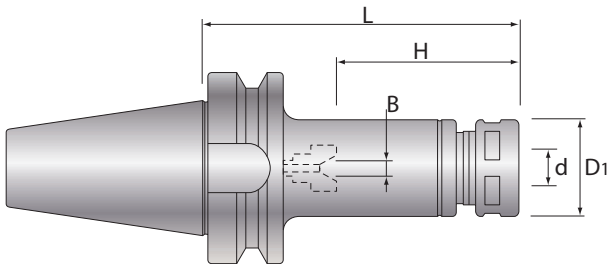
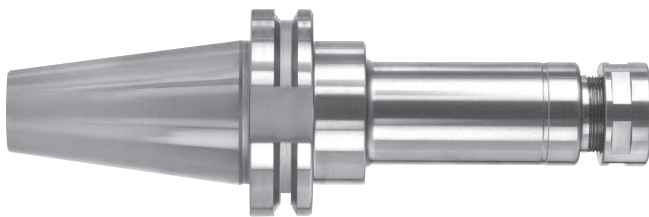
**L-T**  
6kant  
Hex wrench



S./P. 193

# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



**BT40**

JIS B6339

1.0  
22.0

0.005  
4x D

max  
20.000  
min<sup>-1</sup>

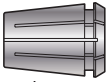
Form  
AD

| Halter   Holder |         | d        | D1       | L   | H      | B      |  |  |      |
|-----------------|---------|----------|----------|-----|--------|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT40            | -HDC07A | -75      | 1.0-7.0  | 23  | 75     | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -90      | 1.0-7.0  | 23  | 90     | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 |         | -105     | 1.0-7.0  | 23  | 105    | 22-42  | 0-4                                                                                 | FDC-07                                                                              | S-0  |
|                 | -HDC09A | -90      | 3.0-9.0  | 26  | 90     | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -105     | 3.0-9.0  | 26  | 105    | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -120     | 3.0-9.0  | 26  | 120    | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -135     | 3.0-9.0  | 26  | 135    | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 |         | -165     | 3.0-9.0  | 26  | 165    | 27-54  | 0-4                                                                                 | FDC-09                                                                              | S-1L |
|                 | -HDC12A | -90      | 3.0-12.0 | 32  | 90     | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -105     | 3.0-12.0 | 32  | 105    | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120     | 3.0-12.0 | 32  | 120    | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -135     | 3.0-12.0 | 32  | 135    | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -165     | 3.0-12.0 | 32  | 165    | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -195     | 3.0-12.0 | 32  | 195    | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -90      | 4.0-16.0 | 36  | 90     | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -105     | 4.0-16.0 | 36  | 105    | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -120     | 4.0-16.0 | 36  | 120    | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -135     | 4.0-16.0 | 36  | 135    | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -165     | 4.0-16.0 | 36  | 165    | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -195     | 4.0-16.0 | 36  | 195    | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -105     | 4.0-22.0 | 46  | 105    | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -120     | 4.0-22.0 | 46  | 120    | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -135     | 4.0-22.0 | 46  | 135    | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
| -165            |         | 4.0-22.0 | 46       | 165 | 47-100 | 0-8    | FDC-22                                                                              | S-5L                                                                                |      |
| -195            |         | 4.0-22.0 | 46       | 195 | 47-100 | 0-8    | FDC-22                                                                              | S-5L                                                                                |      |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

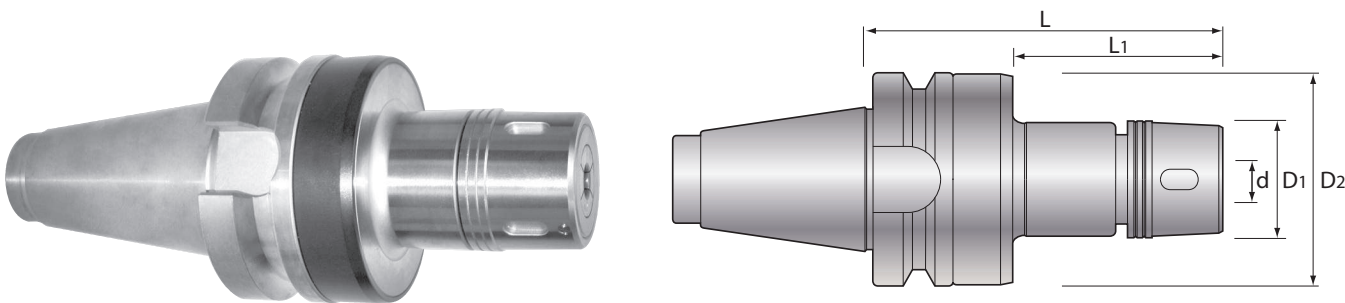
**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# GDC-A Highspeed-Spannzangenfutter

## High Speed Collet Chuck



**BT40**

JIS B6339

**1.0**  
**22.0**

**0.005**  
**4x D**

**G2.5**  
**20.000**  
**min<sup>-1</sup>**

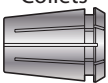
**Form**  
**AD**

| Halter   Holder |             | d        | D1 | D2 | L   | L1 |  |  |
|-----------------|-------------|----------|----|----|-----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>BT40</b>     | -GDC07A -90 | 1.0-7.0  | 23 | 62 | 90  | 48 | FDC-07                                                                              | S-0                                                                                 |
|                 | -120        | 1.0-7.0  | 23 | 62 | 120 | 78 | FDC-07                                                                              | S-0                                                                                 |
|                 | -GDC09A -90 | 3.0-9.0  | 29 | 62 | 90  | 48 | FDC-09                                                                              | S-0                                                                                 |
|                 | -120        | 3.0-9.0  | 29 | 62 | 120 | 78 | FDC-09                                                                              | S-0                                                                                 |
|                 | -GDC12A -90 | 3.0-12.0 | 34 | 62 | 90  | 48 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -120        | 3.0-12.0 | 34 | 62 | 120 | 78 | FDC-12                                                                              | FK-0034                                                                             |
|                 | -GDC16A -90 | 3.0-16.0 | 38 | 62 | 90  | 48 | FDC-16                                                                              | FK-0034                                                                             |
|                 | -120        | 3.0-16.0 | 38 | 62 | 120 | 78 | FDC-16                                                                              | FK-0034                                                                             |
|                 | -GDC22A -90 | 4.0-22.0 | 49 | 62 | 90  | 48 | FDC-22                                                                              | FK-0045                                                                             |
|                 | -105        | 4.0-22.0 | 49 | 62 | 105 | 63 | FDC-22                                                                              | FK-0045                                                                             |
|                 | -135        | 4.0-22.0 | 49 | 62 | 135 | 93 | FDC-22                                                                              | FK-0045                                                                             |

Spannmutter im Lieferumfang enthalten.  
Einstellschraube optional.

Cap nut included in delivery.  
Preset screw optional.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP|GDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|FK**  
Spannschlüssel  
Spanners



S.|P. 194

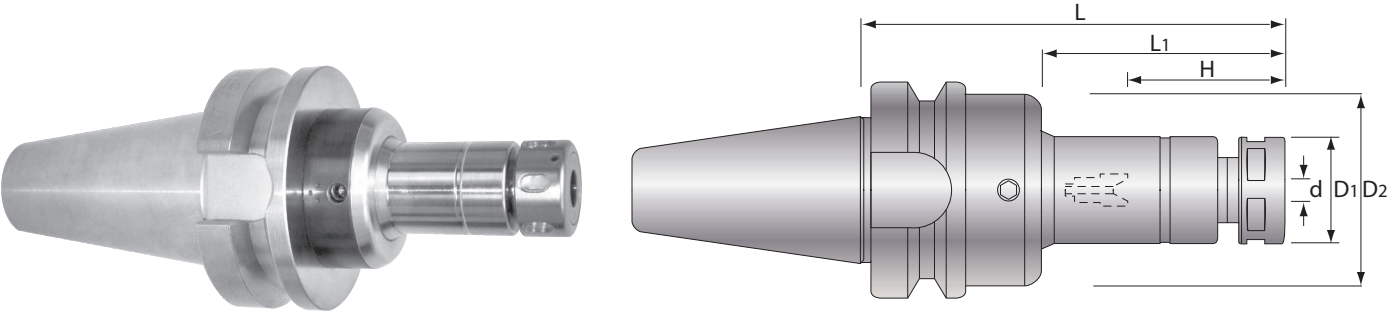


HDZ-A

Spannzangenfutter mit Rundlauf "0"

Collet Chuck with run out "0"

R"0" Series



BT40

JIS B6339

1.0  
22.0

0-2  
μm

max  
20.000  
min<sup>-1</sup>

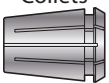
Form  
AD

| Halter   Holder |         | d        | D1       | D2 | L   | L1  | H      |  |  |  |      |
|-----------------|---------|----------|----------|----|-----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT40            | -HDZ07A | -75      | 1.0-7.0  | 23 | 41  | 75  | 32     | 20-45                                                                               | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 |         | -90      | 1.0-7.0  | 23 | 41  | 90  | 47     | 20-45                                                                               | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 |         | -105     | 1.0-7.0  | 23 | 41  | 105 | 62     | 20-45                                                                               | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 | -HDZ09A | -90      | 3.0-9.0  | 26 | 45  | 90  | 47     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -105     | 3.0-9.0  | 26 | 45  | 105 | 62     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -120     | 3.0-9.0  | 26 | 45  | 120 | 77     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -135     | 3.0-9.0  | 26 | 45  | 135 | 92     | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |         | -165     | 3.0-9.0  | 26 | 45  | 165 | 122    | 27-57                                                                               | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 | -HDZ12A | -90      | 3.0-12.0 | 32 | 56  | 90  | 43     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -105     | 3.0-12.0 | 32 | 56  | 105 | 58     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -120     | 3.0-12.0 | 32 | 56  | 120 | 73     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -135     | 3.0-12.0 | 32 | 56  | 135 | 88     | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -165     | 3.0-12.0 | 32 | 56  | 165 | 118    | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -195     | 3.0-12.0 | 32 | 56  | 195 | 148    | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 | -HDZ16A | -90      | 3.0-16.0 | 36 | 62  | 90  | 43     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -105     | 3.0-16.0 | 36 | 62  | 105 | 58     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -120     | 3.0-16.0 | 36 | 62  | 120 | 73     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -135     | 3.0-16.0 | 36 | 62  | 135 | 88     | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -165     | 3.0-16.0 | 36 | 62  | 165 | 118    | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -195     | 3.0-16.0 | 36 | 62  | 195 | 148    | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 | -HDZ22A | -105     | 4.0-22.0 | 46 | 69  | 105 | 31     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -120     | 4.0-22.0 | 46 | 69  | 120 | 46     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -135     | 4.0-22.0 | 46 | 69  | 135 | 61     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -165     | 4.0-22.0 | 46 | 69  | 165 | 91     | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
| -195            |         | 4.0-22.0 | 46       | 69 | 195 | 121 | 47-103 | FDC-22                                                                              | S-5L                                                                                | L-5T                                                                                |      |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment

FDC  
Spannzangen  
Collets



S.|P. 195

HDS  
Einstellschraube  
Preset screw



S.|P. 194

HDP  
Spannmutter  
Cap nut



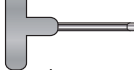
S.|P. 194

S-0|S-L  
Spannschlüssel  
Spanners



S.|P. 194

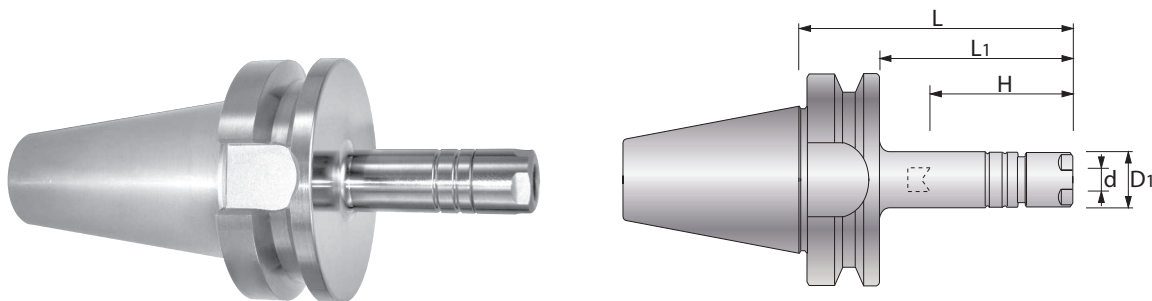
L-T  
6kant  
Hex wrench



S.|P. 193

# ERC Mikro-Spannzangenfutter

## Micro-Collet Chuck



### BT40

JIS B6339

1.0  
7.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Super-  
schlank  
Super slim

### Form S

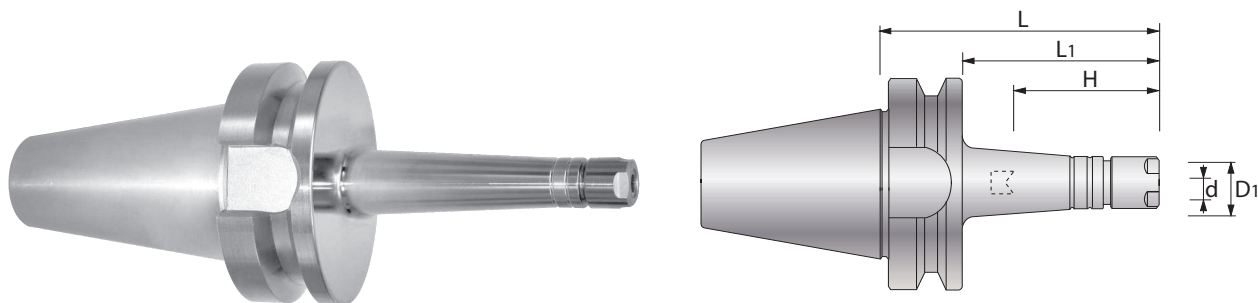
| Halter   Holder |         | d                | D1      | L  | L1  | H   |  |  |       |
|-----------------|---------|------------------|---------|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| BT40            | -ERC8   | -75 <sup>1</sup> | 1.0-5.0 | 12 | 75  | 48  | 34 (19-31)                                                                          | ER8                                                                                 | S-8E  |
|                 |         | -90              | 1.0-5.0 | 12 | 90  | 78  | 34 (19-31)                                                                          | ER8                                                                                 | S-8E  |
|                 | -ERC11S | -75              | 1.0-7.0 | 16 | 75  | 48  | 22-45                                                                               | ER11                                                                                | S-11E |
|                 |         | -105             | 1.0-7.0 | 16 | 105 | 78  | 22-45                                                                               | ER11                                                                                | S-11E |
|                 |         | -135             | 1.0-7.0 | 16 | 135 | 108 | 22-45                                                                               | ER11                                                                                | S-11E |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

<sup>1</sup> Ohne Einstellschraube

Cap nut and preset screw included in delivery.

<sup>1</sup> Without preset screw



### BT40

JIS B6339

1.0  
7.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>

Form  
AD

Super-  
schlank  
Super slim

### Form T

| Halter   Holder |         | d                  | D1      | L  | L1  | H   |  |  |       |
|-----------------|---------|--------------------|---------|----|-----|-----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------|
| BT40            | -ERC11S | -105T <sup>1</sup> | 1.0-5.0 | 12 | 105 | 78  | 34 (19-31)                                                                            | ER8                                                                                   | S-8E  |
|                 |         | -135T <sup>1</sup> | 1.0-5.0 | 12 | 135 | 108 | 34 (19-31)                                                                            | ER8                                                                                   | S-8E  |
|                 |         | -75T               | 1.0-7.0 | 16 | 75  | 48  | 22-45                                                                                 | ER11                                                                                  | S-11E |
|                 |         | -105T              | 1.0-7.0 | 16 | 105 | 78  | 22-45                                                                                 | ER11                                                                                  | S-11E |
|                 |         | -135T              | 1.0-7.0 | 16 | 135 | 108 | 22-45                                                                                 | ER11                                                                                  | S-11E |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

<sup>1</sup> Ohne Einstellschraube

Cap nut and preset screw included in delivery.

<sup>1</sup> Without preset screw

**ER**  
Spannzangen  
Collets  
  
S./P. 196

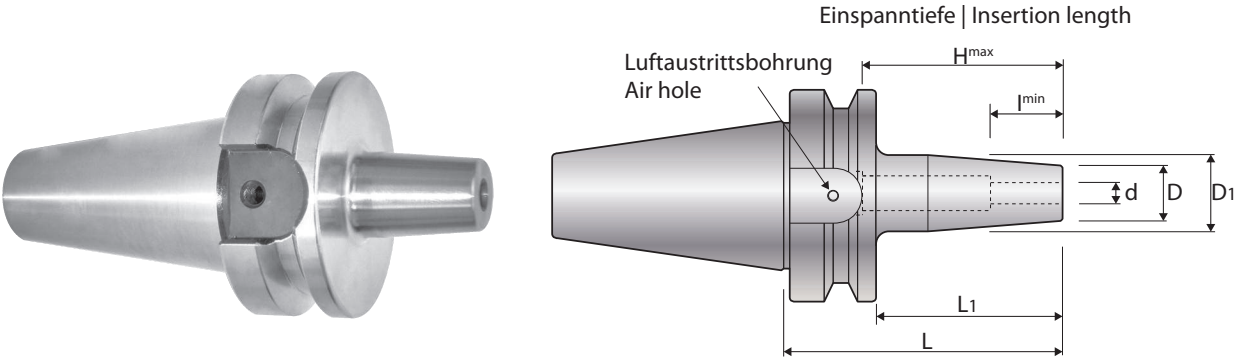
**ES**  
Einstellschraube  
Preset screw  
  
S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut  
  
S./P. 196

**S-E**  
Spannschlüssel  
Spanners  
  
S./P. 196

# SRE Schrumpffutter

## Shrink Fit Chuck



**BT40**

JIS B6339

6.0  
8.0

3  
μm

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

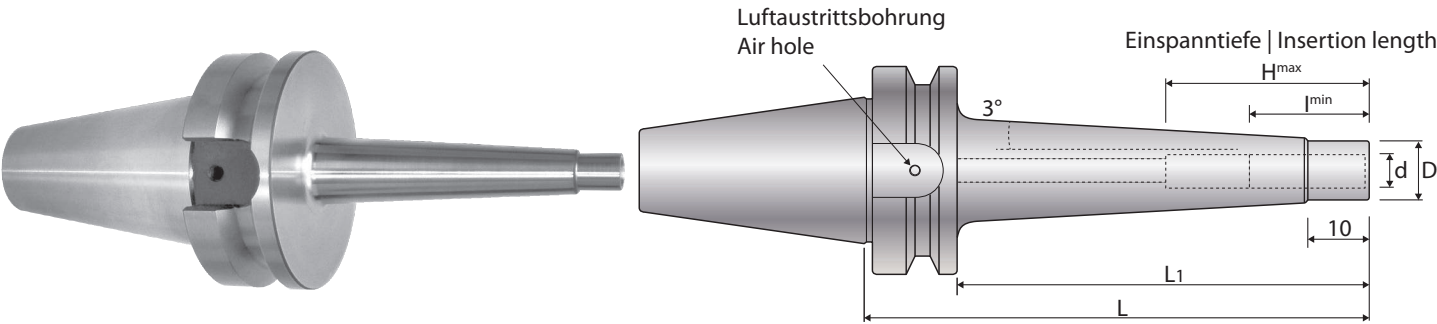
| Halter   Holder |        | d    | D | D <sub>1</sub> | D <sub>2</sub> | L  | L <sub>1</sub> | l <sub>min</sub> | H <sub>max</sub> |     |
|-----------------|--------|------|---|----------------|----------------|----|----------------|------------------|------------------|-----|
| BT40            | -SRE6A | -50  | 6 | 13             | 16             | -  | 50             | 23               | 19               | 27  |
|                 |        | -70  | 6 | 13             | 16             | -  | 70             | 43               | 27               | 47  |
|                 |        | -100 | 6 | 13             | 18             | -  | 100            | 73               | 27               | 77  |
|                 |        | -120 | 6 | 13             | 18             | -  | 120            | 93               | 27               | 97  |
|                 |        | -135 | 6 | 13             | 18             | 30 | 135            | 108              | 27               | 112 |
|                 |        | -160 | 6 | 13             | 18             | 30 | 160            | 133              | 27               | 137 |
|                 | -SRE8A | -50  | 8 | 13             | 16             | -  | 50             | 23               | 19               | 27  |
|                 |        | -70  | 8 | 13             | 16             | -  | 70             | 43               | 27               | 47  |
|                 |        | -100 | 8 | 13             | 18             | -  | 100            | 73               | 27               | 77  |
|                 |        | -120 | 8 | 13             | 18             | -  | 120            | 93               | 27               | 97  |
|                 |        | -135 | 8 | 13             | 18             | 30 | 135            | 108              | 27               | 112 |
|                 |        | -160 | 8 | 13             | 18             | 30 | 160            | 133              | 27               | 137 |

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).

# SRS Schrumpffutter superschlank

## Shrink Fit Chuck slim type



BT40

JIS B6339

6.0  
20.0

3

μm

max  
25.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

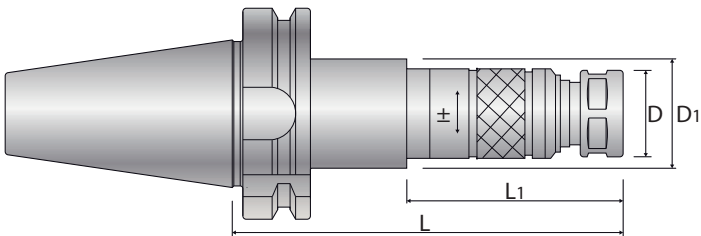
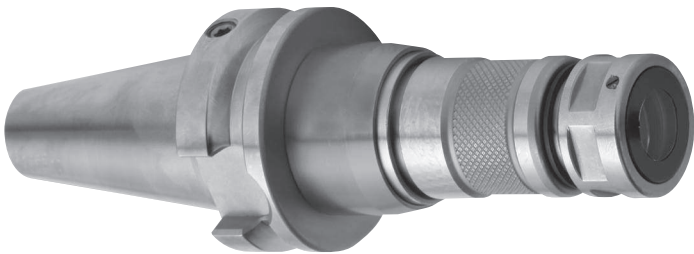
| Halter   Holder |      | d  | D  | L   | L1  | lmin | Hmax |
|-----------------|------|----|----|-----|-----|------|------|
| BT40            | -105 | 6  | 9  | 105 | 78  | 26   | 36   |
|                 | -135 | 6  | 9  | 135 | 108 | 26   | 36   |
|                 | -165 | 6  | 9  | 165 | 138 | 26   | 36   |
|                 | -105 | 8  | 11 | 105 | 78  | 26   | 50   |
|                 | -135 | 8  | 11 | 135 | 108 | 26   | 50   |
|                 | -165 | 8  | 11 | 165 | 138 | 26   | 50   |
|                 | -105 | 10 | 13 | 105 | 78  | 32   | 50   |
|                 | -135 | 10 | 13 | 135 | 108 | 32   | 50   |
|                 | -165 | 10 | 13 | 165 | 138 | 32   | 50   |
|                 | -105 | 12 | 15 | 105 | 78  | 37   | 70   |
|                 | -135 | 12 | 15 | 135 | 108 | 37   | 70   |
|                 | -165 | 12 | 15 | 165 | 138 | 37   | 70   |
|                 | -105 | 16 | 20 | 105 | 78  | 40   | 80   |
|                 | -135 | 16 | 20 | 135 | 108 | 40   | 80   |
|                 | -165 | 16 | 20 | 165 | 138 | 40   | 80   |
|                 | -105 | 20 | 26 | 105 | 78  | 42   | 100  |
|                 | -135 | 20 | 26 | 135 | 108 | 42   | 100  |
|                 | -165 | 20 | 26 | 165 | 138 | 42   | 100  |

Nur für HM-Werkzeuge geeignet.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).

Only for carbide tools.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).

# SFH|S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**BT40**

JIS B6339

**M3  
M20**

**SFH** mit easy-Längeneinstellung  
with easy-length adjustment



**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

**M2  
M20**

| Halter   Holder |        | Schneidbereich<br>Tapping range | D      | D1 | L  | L1  |  |  |      |
|-----------------|--------|---------------------------------|--------|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT40            | -SFH12 | -105                            | M3-M8  | 26 | 34 | 105 | 55                                                                                  | FSC-09                                                                              | S-1L |
|                 |        | -120                            | M3-M8  | 26 | 34 | 120 | 70                                                                                  | FSC-09                                                                              | S-1L |
|                 |        | -150                            | M3-M8  | 26 | 34 | 150 | 100                                                                                 | FSC-09                                                                              | S-1L |
|                 | -SFH18 | -125                            | M5-M20 | 36 | 40 | 125 | 68                                                                                  | FSC-16                                                                              | S-4L |
|                 |        | -135                            | M5-M20 | 36 | 40 | 135 | 78                                                                                  | FSC-16                                                                              | S-4L |
|                 |        | -150                            | M5-M20 | 36 | 40 | 150 | 93                                                                                  | FSC-16                                                                              | S-4L |

Spannmutter im Lieferumfang enthalten.

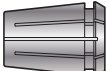
Cap nut included in delivery.

**STS**  
4kant-Mitnehmer  
Square driver



S.|P. 197

**FSC**  
Spannzangen  
Collets



S.|P. 197

**STS-R**  
Einschraubwerkz.  
Tool changer



S.|P. 197

**HTP**  
Spannmutter  
Cap nut

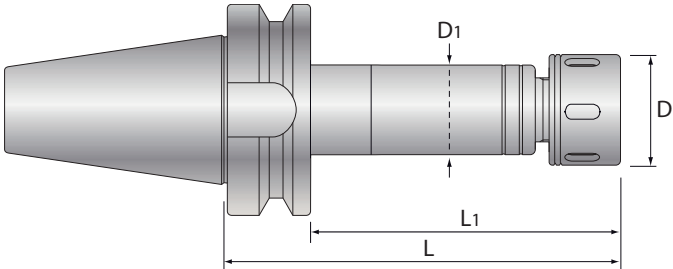
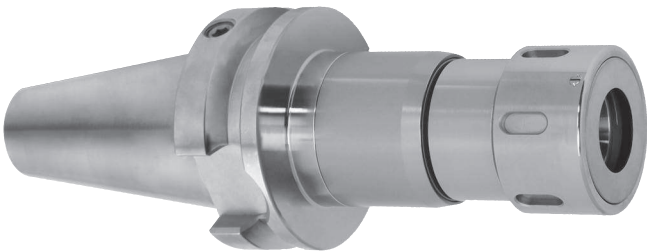


S.|P. 197

**S-L**  
Spannschlüssel  
Spanners



S.|P. 197

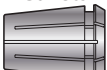


| Halter   Holder |         |      | Schneidbereich<br>Tapping range | D  | D1 | L   | L1 |  |  |
|-----------------|---------|------|---------------------------------|----|----|-----|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| BT 40           | -SFH12S | -80  | M2-M12                          | 32 | 34 | 80  | 61 | ER16-GB                                                                               | FK-0034                                                                               |
|                 | -SFH18S | -105 | M3-M20                          | 42 | 40 | 105 | 86 | ER25-GB                                                                               | HS-1-16                                                                               |

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.

**ER-GB**  
Spannzangen  
Collets



S.|P. 199

**ERP**  
Spannmutter  
Cap nut



S.|P. 198

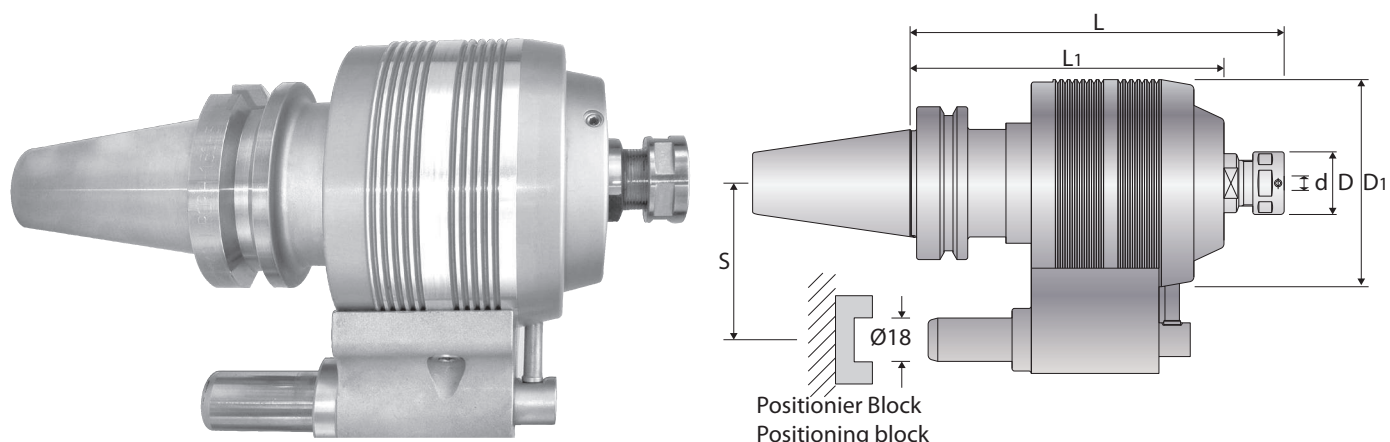
**FK|HS**  
Spannschlüssel  
Spanners



S.|P. 198

# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



**BT40**

DIN 69871 | ISO 7388-1

**1.0**  
**12.0**

**0.01**  
**100**

Übersetzung  
**1:5**  
Gear ratio

max  
**30.000**  
min<sup>-1</sup>

| Halter   Holder |        | d                   | D        | D1 | L  | L1  | S   | Übesetzung<br>Gear ratio | max. Drehzahl<br>max. speed rpm |  |  |      |
|-----------------|--------|---------------------|----------|----|----|-----|-----|--------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT40            | -HP07H | -150-3              | 1.0-7.0  | 23 | 86 | 150 | 125 | 65                       | 1:5                             | 30.000 <sup>1</sup><br>25.000 <sup>2</sup>                                          | FDC-07                                                                              | S-0  |
|                 |        | -180-3              | 1.0-7.0  | 23 | 86 | 180 | 125 | 65                       | 1:5                             |                                                                                     | FDC-07                                                                              | S-0  |
|                 | -HP09H | -150-3              | 3.0-9.0  | 26 | 86 | 150 | 125 | 65                       | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 |        | -180-3              | 3.0-9.0  | 26 | 86 | 180 | 125 | 65                       | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 | -HP12H | -165-3 <sup>3</sup> | 3.0-12.0 | 32 | 86 | 165 | 125 | 65                       | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |
|                 |        | -180-3              | 3.0-12.0 | 32 | 86 | 180 | 125 | 65                       | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |

<sup>1</sup> Max. Drehzahl 20% /Std.

<sup>2</sup> Max. Drehzahl 80% /Std.

<sup>1</sup> Max. rotation speed 20% /h

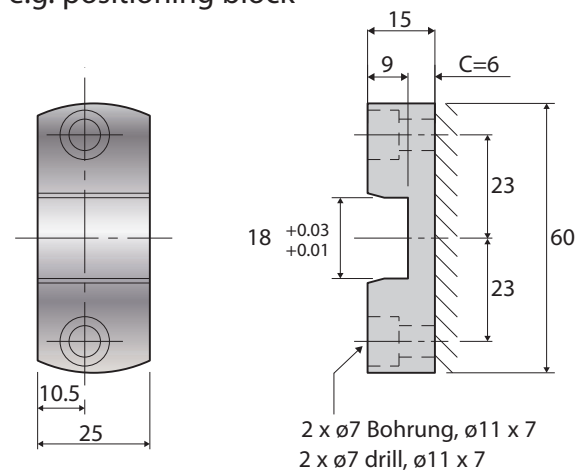
<sup>2</sup> Max. rotation speed 80% /h

| HP07   09   12    | Positionierkolben   Plunger |       |                   |       |       |
|-------------------|-----------------------------|-------|-------------------|-------|-------|
|                   | No.1                        | No.2  | No.3 <sup>3</sup> | No.4  | No.5  |
| <b>A min (mm)</b> | +15.1                       | +6.1  | <b>-2.9</b>       | -3.0  | -12.0 |
| <b>A max (mm)</b> | +24.0                       | +15.0 | <b>+6.0</b>       | -11.9 | -20.9 |

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

<sup>3</sup> We deliver plunger No.3 ex stock.

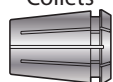
**Bsp. Positionierblock<sup>1)</sup>**  
e.g. positioning block<sup>1)</sup>



<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine

**FDC**  
Spannzangen  
Collets



S./P. 195

**HDP**  
Spannmutter  
Cap nut



S./P. 194

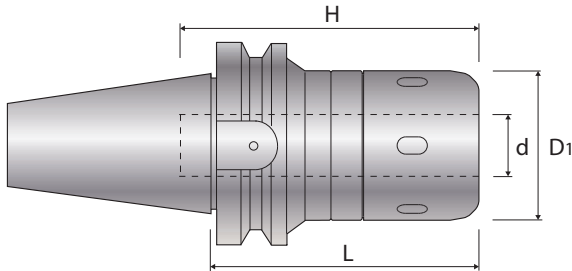
**S-0|S-L**  
Spannschlüssel  
Spanners



S./P. 194

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



**BT50**

JIS B6339

**3.0  
32.0**

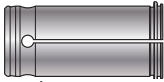
**0.005  
3x D**

**max  
15.000  
min<sup>-1</sup>**

**Form  
AD**

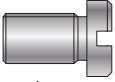
| Halter   Holder |         | d                 | D1                | L  | H   |  |  |           |
|-----------------|---------|-------------------|-------------------|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------|
| BT50            | -CT16SA | -90               | 16                | 45 | 90  | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -105              | 16                | 45 | 105 | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 |         | -135              | 16                | 45 | 135 | 65                                                                                  | MC16-d                                                                              | HS-1-16   |
|                 | -CT20SA | -90               | 20                | 52 | 90  | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -105 <sup>2</sup> | 20                | 52 | 105 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -120              | 20                | 52 | 120 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -135              | 20                | 52 | 136 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -165              | 20                | 52 | 165 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -200              | 20                | 52 | 200 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -250              | 20                | 52 | 250 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -300              | 20                | 52 | 300 | 80                                                                                  | MC20-d                                                                              | HS-2-20   |
|                 |         | -CT25SA           | -105 <sup>2</sup> | 25 | 61  | 105                                                                                 | 80                                                                                  | MC25-d    |
|                 | -120    |                   | 25                | 61 | 120 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -135    |                   | 25                | 61 | 135 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -165    |                   | 25                | 61 | 165 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -200    |                   | 25                | 61 | 200 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -250    |                   | 25                | 61 | 250 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -300    |                   | 25                | 61 | 300 | 80                                                                                  | MC25-d                                                                              | HS-2.5-25 |
|                 | -CT32SA | -95               | 32                | 73 | 95  | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -105 <sup>2</sup> | 32                | 73 | 105 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -120              | 32                | 73 | 120 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -135              | 32                | 73 | 135 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -150              | 32                | 73 | 150 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -165              | 32                | 73 | 165 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -200              | 32                | 73 | 200 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -250              | 32                | 73 | 250 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |
|                 |         | -300              | 32                | 73 | 300 | 120                                                                                 | MC32-d                                                                              | HS-3-32   |

**MC**  
Spannhülsen  
Collets



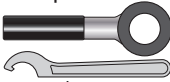
S.|P. 188-189

**BL**  
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS|RS**  
Spannschlüssel  
Spanners



S.|P. 190

**EM**  
Verlängerungen  
Extensions



S.|P. 187



# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck

| Halter   Holder |                   | d  | D1 | L   | H   |  |  |
|-----------------|-------------------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>BT50</b>     | -95 <sup>1</sup>  | 42 | 88 | 95  | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -105 <sup>1</sup> | 42 | 88 | 105 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -120              | 42 | 88 | 120 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -135              | 42 | 88 | 135 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -150              | 42 | 88 | 150 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -165              | 42 | 88 | 165 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -200              | 42 | 88 | 200 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -250              | 42 | 88 | 250 | 120 | MC42-d                                                                              | HS-4-42                                                                             |
|                 | -300              | 42 | 88 | 300 | 120 | MC42-d                                                                              | HS-4-42                                                                             |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

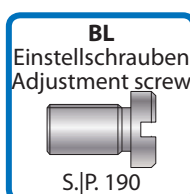
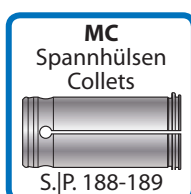
<sup>1</sup> MC-A Spannhülsen nicht einsetzbar.

<sup>2</sup> Lagerstandard mit Form B

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

<sup>1</sup> MC-A Collets cannot be used.

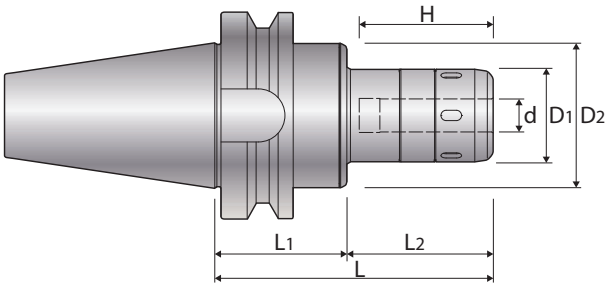
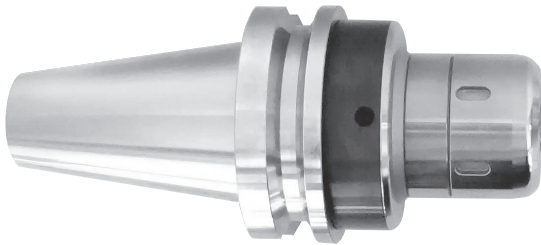
<sup>2</sup> Form B Standard



CTZ-SA

Hochleistungs-Kraftspannfutter  
High Performance Milling Chuck

R"0" Series



BT50

JIS B6339

4.0  
42.0

0-2  
μm

max  
10.000  
min<sup>-1</sup>

Form  
AD

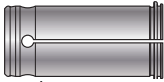
| Halter   Holder |               | d  | D1 | D2 | L   | L1 | L2  | H   |  |  |  |
|-----------------|---------------|----|----|----|-----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT50            | -CTZ25SA -125 | 25 | 61 | 74 | 125 | 64 | 61  | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -165          | 25 | 61 | 74 | 165 | 64 | 101 | 80  | MC25-d                                                                              | HS-2.5-25                                                                           | L-6L                                                                                |
|                 | -CTZ32SA -125 | 32 | 68 | 80 | 125 | 64 | 61  | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |
|                 | -165          | 32 | 68 | 80 | 165 | 64 | 101 | 120 | MC32-d                                                                              | HS-3-32                                                                             | L-6L                                                                                |
|                 | -CTZ42SA -125 | 42 | 88 | 99 | 125 | 64 | 61  | 120 | MC42-d                                                                              | HS-4-42                                                                             | L-6L                                                                                |
|                 | -165          | 42 | 88 | 99 | 165 | 64 | 101 | 120 | MC42-d                                                                              | HS-4-42                                                                             | L-6L                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten)

Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed. (incl. in delivery)

MC

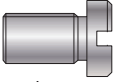
Spannhülsen  
Collets



S.|P. 188-189

BL

Einstellschrauben  
Adjustment screw



S.|P. 190

HS

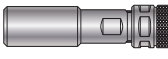
Spannschlüssel  
Spanners



S.|P. 190

EM

Verlängerungen  
Extensions

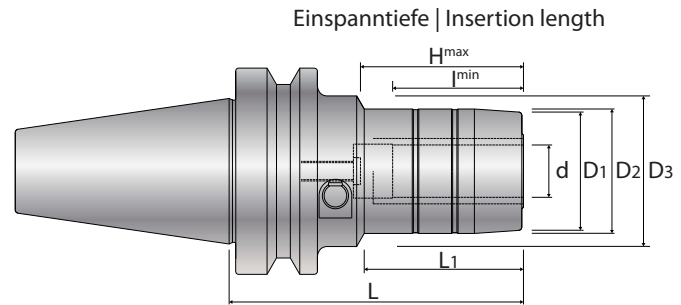
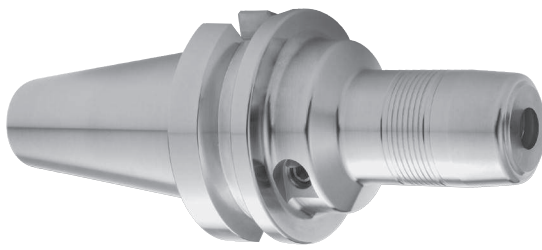


S.|P. 187

# PHC-A Power Dehnspannfutter

## Power Hydro Chuck

Power Series



### BT50

JIS B6339

6.0  
32.0

0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6

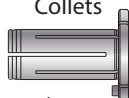


| Halter   Holder |         | d    | D1 | D2 | D3 | L   | L1  | I <sub>min</sub> | H <sub>max</sub> |  |  |
|-----------------|---------|------|----|----|----|-----|-----|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT50            | -90     | 6    | 24 | 26 | 46 | 90  | 30  | 29               | 34               | -                                                                                   | L-4T                                                                                |
|                 | -PHC06A | -120 | 6  | 24 | 26 | 46  | 120 | 41               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -150    | 6    | 24 | 26 | 46 | 150 | 41  | 29               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -90     | 8    | 26 | 28 | 46 | 90  | 30  | 29               | 34               | -                                                                                   | L-4T                                                                                |
|                 | -PHC08A | -120 | 8  | 26 | 28 | 46  | 120 | 41               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -150    | 8    | 26 | 28 | 46 | 150 | 41  | 29               | 45               | -                                                                                   | L-4T                                                                                |
|                 | -105    | 10   | 28 | 30 | 52 | 105 | 44  | 40               | 50               | -                                                                                   | L-4T                                                                                |
|                 | -PHC10A | -135 | 10 | 28 | 30 | 52  | 135 | 64               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -165    | 10   | 28 | 30 | 52 | 165 | 64  | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -105    | 12   | 30 | 32 | 52 | 105 | 45  | 40               | 50               | PHS12-d                                                                             | L-4T                                                                                |
|                 | -PHC12A | -135 | 12 | 30 | 32 | 52  | 135 | 65               | 70               | PHS12-d                                                                             | L-4T                                                                                |
|                 | -165    | 12   | 30 | 32 | 52 | 165 | 65  | 40               | 70               | PHS12-d                                                                             | L-4T                                                                                |
|                 | -105    | 14   | 34 | 36 | 52 | 105 | 46  | 40               | 50               | -                                                                                   | L-4T                                                                                |
|                 | -PHC14A | -135 | 14 | 34 | 36 | 52  | 135 | 66               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -165    | 14   | 34 | 36 | 52 | 165 | 66  | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -105    | 16   | 36 | 38 | 52 | 105 | 46  | 40               | 50               | -                                                                                   | L-4T                                                                                |
|                 | -PHC16A | -135 | 16 | 36 | 38 | 52  | 135 | 66               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -165    | 16   | 36 | 38 | 52 | 165 | 66  | 40               | 70               | -                                                                                   | L-4T                                                                                |
|                 | -105    | 20   | 40 | 42 | 46 | 105 | 49  | 40               | 50               | PHS20-d                                                                             | L-4T                                                                                |
|                 | -PHC20A | -135 | 20 | 40 | 42 | 46  | 135 | 69               | 70               | PHS20-d                                                                             | L-4T                                                                                |
|                 | -165    | 20   | 40 | 42 | 46 | 165 | 69  | 40               | 70               | PHS20-d                                                                             | L-4T                                                                                |
|                 | -120    | 25   | 50 | 52 | 62 | 120 | 59  | 50               | 64               | -                                                                                   | L-6T                                                                                |
|                 | -PHC25A | -150 | 25 | 50 | 52 | 62  | 150 | 79               | 80               | -                                                                                   | L-6T                                                                                |
|                 | -165    | 25   | 50 | 52 | 62 | 165 | 79  | 50               | 80               | -                                                                                   | L-6T                                                                                |
|                 | -135    | 32   | 60 | 62 | -  | 135 | -   | 65               | 75               | -                                                                                   | L-6T                                                                                |
|                 | -PHC32A | -165 | 32 | 60 | 62 | -   | 165 | -                | 80               | -                                                                                   | L-6T                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten). Mit axialer Längeneinstellung

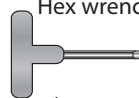
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery). With axial length adjustment

**PHS**  
Spannhülsen  
Collets



S./P. 192

**L-T**  
6kant  
Hex wrench

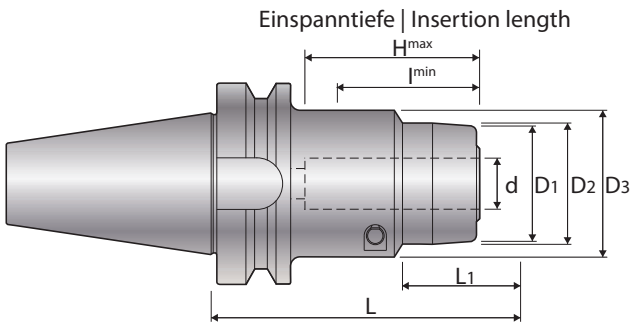


S./P. 193

# PHC-H Hochdruck-Dehnspannfutter

## High Pressure Hydro Chuck

Power Series



**BT50**

JIS B6339

6.0  
32.0

0.003  
50

max  
15.000  
min<sup>-1</sup>

Form  
AD

Tol.  
h6



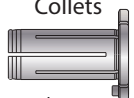
**mit erhöhter Spannkraft**  
with enhanced clamping force

| Halter   Holder |             | d  | D1 | D2 | D3 | L   | L1 | I min | H max |  |  |
|-----------------|-------------|----|----|----|----|-----|----|-------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT50            | -PHC16H -75 | 16 | -  | 44 | 56 | 75  | 17 | 45    | 75    | -                                                                                   | L-4T                                                                                |
|                 | -105        | 16 | 42 | 44 | 56 | 105 | 27 | 45    | 105   | -                                                                                   | L-4T                                                                                |
|                 | -PHC20H -75 | 20 | -  | 50 | 60 | 75  | 17 | 50    | 80    | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -105        | 20 | 48 | 50 | 60 | 105 | 32 | 50    | 110   | PHS20H-d                                                                            | L-4T                                                                                |
|                 | -PHC25H -75 | 25 | -  | 60 | 69 | 75  | 17 | 55    | 80    | -                                                                                   | L-5T                                                                                |
|                 | -105        | 25 | 58 | 60 | 69 | 105 | 35 | 55    | 110   | -                                                                                   | L-5T                                                                                |
|                 | -135        | 25 | 58 | 60 | 69 | 135 | 35 | 55    | 110   | -                                                                                   | L-5T                                                                                |
|                 | -PHC32H -75 | 32 | -  | 65 | 75 | 75  | 17 | 65    | 90    | -                                                                                   | L-5T                                                                                |
|                 | -105        | 32 | 63 | 65 | 75 | 105 | 47 | 65    | 120   | PHS32H-d                                                                            | L-5T                                                                                |
|                 | -135        | 32 | 63 | 65 | 75 | 135 | 47 | 65    | 120   | PHS32H-d                                                                            | L-5T                                                                                |

Bei Verwendung mit innerer Kühlmittelzufuhr die Luftaustrittsbohrungen mit zwei Schrauben M4x5 verschließen (im Lieferumfang enthalten).

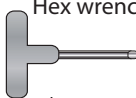
Hex-head screws M4x5 are necessary to plug air hole for center through coolant feed (incl. in delivery).

**PHS-H**  
Spannhülsen  
Collets



S.|P. 192

**L-T**  
6kant  
Hex wrench

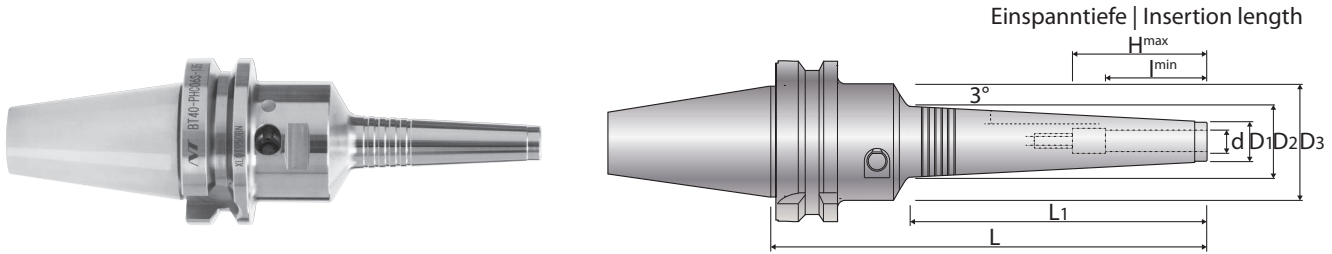


S.|P. 193

# PHC-SA Dehnspannfutter superschlank

## Slim Hydro Chuck

Super slim Series



**BT50**

JIS B6339

**6.0**  
**25.0**

**0.003**  
**3x D**

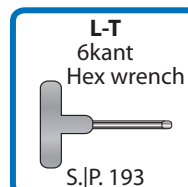
**G2.5**  
**25.000**  
**min<sup>-1</sup>**

**Form**  
**AD**

**HA** ✓  
**HB** ✗

| Halter   Holder |      | d  | D1 | D2   | D3   | L   | L1  | l <sub>min</sub> | H <sup>max</sup> |  |  |
|-----------------|------|----|----|------|------|-----|-----|------------------|------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BT50            | -105 | 6  | 13 | 15.8 | 46   | 105 | 26  | 29               | 121              | -                                                                                   | L-4T                                                                                |
|                 | -150 | 6  | 13 | 20.5 | 46   | 150 | 71  | 29               | 105              | -                                                                                   | L-4T                                                                                |
|                 | -165 | 6  | 13 | 22.2 | 46   | 165 | 87  | 29               | 120              | -                                                                                   | L-4T                                                                                |
|                 | -180 | 6  | 13 | 23.7 | 46   | 180 | 102 | 29               | 105              | -                                                                                   | L-4T                                                                                |
|                 | -195 | 6  | 13 | 25.4 | 46   | 195 | 118 | 29               | 120              | -                                                                                   | L-4T                                                                                |
|                 | -105 | 8  | 15 | 17.9 | 46   | 105 | 27  | 29               | 121              | -                                                                                   | L-4T                                                                                |
|                 | -150 | 8  | 15 | 22.6 | 46   | 150 | 72  | 29               | 105              | -                                                                                   | L-4T                                                                                |
|                 | -165 | 8  | 15 | 24.2 | 46   | 165 | 87  | 29               | 120              | -                                                                                   | L-4T                                                                                |
|                 | -180 | 8  | 15 | 25.8 | 46   | 180 | 103 | 29               | 105              | -                                                                                   | L-4T                                                                                |
|                 | -195 | 8  | 15 | 27.4 | 46   | 195 | 118 | 29               | 120              | -                                                                                   | L-4T                                                                                |
|                 | -150 | 10 | 17 | 24.6 | 46   | 150 | 72  | 40               | 116              | -                                                                                   | L-4T                                                                                |
|                 | -165 | 10 | 17 | 26.3 | 46   | 165 | 88  | 40               | 101              | -                                                                                   | L-4T                                                                                |
|                 | -180 | 10 | 17 | 27.8 | 46   | 180 | 103 | 40               | 116              | -                                                                                   | L-4T                                                                                |
|                 | -195 | 10 | 17 | 29.5 | 46   | 195 | 119 | 40               | 131              | -                                                                                   | L-4T                                                                                |
|                 | -150 | 12 | 19 | 26.7 | 46   | 150 | 73  | 40               | 116              | HS12-d                                                                              | L-4T                                                                                |
|                 | -165 | 12 | 19 | 28.3 | 46   | 165 | 88  | 40               | 101              | HS12-d                                                                              | L-4T                                                                                |
|                 | -180 | 12 | 19 | 30.0 | 46   | 180 | 104 | 40               | 116              | HS12-d                                                                              | L-4T                                                                                |
|                 | -195 | 12 | 19 | 31.5 | 46   | 195 | 119 | 40               | 131              | HS12-d                                                                              | L-4T                                                                                |
|                 | -150 | 16 | 23 | 30.6 | 52.5 | 150 | 72  | 40               | 83               | -                                                                                   | L-4T                                                                                |
|                 | -180 | 16 | 23 | 33.8 | 52.5 | 180 | 103 | 40               | 113              | -                                                                                   | L-4T                                                                                |
|                 | -195 | 16 | 23 | 35.5 | 52.5 | 195 | 119 | 40               | 128              | -                                                                                   | L-4T                                                                                |
|                 | -150 | 20 | 28 | 34.7 | 62   | 150 | 63  | 40               | 78               | HS20-d                                                                              | L-6T                                                                                |
|                 | -180 | 20 | 28 | 37.8 | 62   | 180 | 93  | 40               | 108              | HS20-d                                                                              | L-6T                                                                                |
|                 | -195 | 20 | 28 | 39.5 | 62   | 195 | 109 | 40               | 123              | HS20-d                                                                              | L-6T                                                                                |
|                 | -150 | 25 | 37 | 43.9 | 62   | 150 | 65  | 50               | 78               | -                                                                                   | L-6T                                                                                |
|                 | -180 | 25 | 37 | 47.1 | 62   | 180 | 96  | 50               | 108              | -                                                                                   | L-6T                                                                                |
|                 | -195 | 25 | 37 | 48.8 | 62   | 195 | 112 | 50               | 123              | -                                                                                   | L-6T                                                                                |

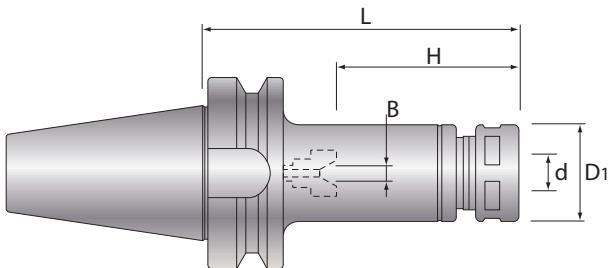
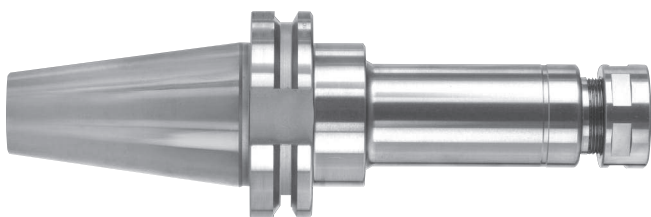
L-T 6kant im Lieferumfang enthalten.  
Bei Verwendung mit innerer Kühlmittelzufuhr die  
Luftaustrittsbohrungen mit zwei Schrauben M4x5  
verschließen (im Lieferumfang enthalten).  
Mit axialer Längeneinstellung.



L-T hex wrench included in delivery.  
Hex-head screws M4x5 are necessary to plug  
air hole for center through coolant feed  
(incl. in delivery).  
With axial length adjustment.

# HDC-A Hochgenauigkeits-Spannzangenfutter

## High Precision Collet Chuck



**BT50**

JIS B6339

**3.0**  
**22.0**

**0.005**  
**4x D**

**max**  
**20.000**  
**min<sup>-1</sup>**

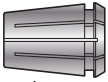
**Form**  
**AD**

| Halter   Holder |         | d    | D1       | L  | H   | B      |  |  |      |
|-----------------|---------|------|----------|----|-----|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT50            | -HDC12A | -90  | 3.0-12.0 | 32 | 90  | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -105 | 3.0-12.0 | 32 | 105 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -120 | 3.0-12.0 | 32 | 120 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -135 | 3.0-12.0 | 32 | 135 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -165 | 3.0-12.0 | 32 | 165 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -195 | 3.0-12.0 | 32 | 195 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -225 | 3.0-12.0 | 32 | 225 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 |         | -255 | 3.0-12.0 | 32 | 255 | 33-66  | 0-5                                                                                 | FDC-12                                                                              | S-3L |
|                 | -HDC16A | -90  | 4.0-16.0 | 36 | 90  | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -105 | 4.0-16.0 | 36 | 105 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -120 | 4.0-16.0 | 36 | 120 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -135 | 4.0-16.0 | 36 | 135 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -165 | 4.0-16.0 | 36 | 165 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -195 | 4.0-16.0 | 36 | 195 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -225 | 4.0-16.0 | 36 | 225 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 |         | -255 | 4.0-16.0 | 36 | 255 | 38-79  | 0-6                                                                                 | FDC-16                                                                              | S-4L |
|                 | -HDC22A | -105 | 4.0-22.0 | 46 | 105 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -120 | 4.0-22.0 | 46 | 120 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -135 | 4.0-22.0 | 46 | 135 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -150 | 4.0-22.0 | 46 | 150 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -165 | 4.0-22.0 | 46 | 165 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -195 | 4.0-22.0 | 46 | 195 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -225 | 4.0-22.0 | 46 | 225 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |
|                 |         | -255 | 4.0-22.0 | 46 | 255 | 47-100 | 0-8                                                                                 | FDC-22                                                                              | S-5L |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-L**  
Spannschlüssel  
Spanners

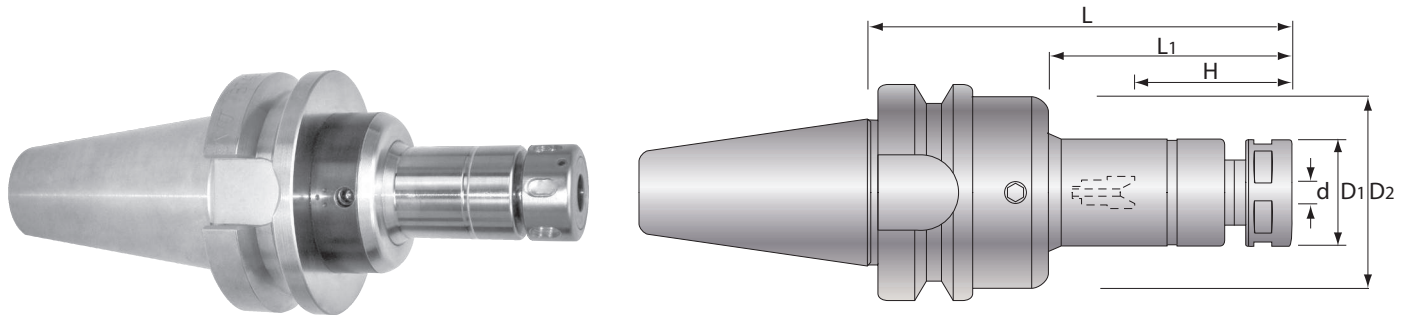


S.|P. 194

# HDZ-A Spannzangenfutter mit Rundlauf "0"

## Collet Chuck with run out "0"

R"0" Series



**BT50**

JIS B6339

**3.0**  
**22.0**

**0-2**  
**µm**

**max**  
**15.000**  
**min<sup>-1</sup>**

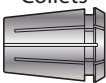
**Form**  
**AD**

| Halter   Holder |         | d    | D1       | D2 | L  | L1  | H   |  |  |  |      |
|-----------------|---------|------|----------|----|----|-----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT50            | -HDZ12A | -90  | 3.0-12.0 | 32 | 56 | 90  | 32  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -105 | 3.0-12.0 | 32 | 56 | 105 | 47  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -120 | 3.0-12.0 | 32 | 56 | 120 | 62  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -135 | 3.0-12.0 | 32 | 56 | 135 | 77  | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -165 | 3.0-12.0 | 32 | 56 | 165 | 107 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -195 | 3.0-12.0 | 32 | 56 | 195 | 137 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -225 | 3.0-12.0 | 32 | 56 | 225 | 167 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 |         | -255 | 3.0-12.0 | 32 | 56 | 255 | 197 | 33-68                                                                               | FDC-12                                                                              | S-3L                                                                                | L-4T |
|                 | -HDZ16A | -90  | 3.0-16.0 | 36 | 62 | 90  | 32  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -105 | 3.0-16.0 | 36 | 62 | 105 | 47  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -120 | 3.0-16.0 | 36 | 62 | 120 | 62  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -135 | 3.0-16.0 | 36 | 62 | 135 | 77  | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -165 | 3.0-16.0 | 36 | 62 | 165 | 107 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -195 | 3.0-16.0 | 36 | 62 | 195 | 137 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -225 | 3.0-16.0 | 36 | 62 | 225 | 167 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 |         | -255 | 3.0-16.0 | 36 | 62 | 255 | 197 | 38-81                                                                               | FDC-16                                                                              | S-4L                                                                                | L-4T |
|                 | -HDZ22A | -105 | 4.0-22.0 | 46 | 76 | 105 | 43  | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -120 | 4.0-22.0 | 46 | 76 | 120 | 58  | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -135 | 4.0-22.0 | 46 | 76 | 135 | 73  | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -150 | 4.0-22.0 | 46 | 76 | 150 | 88  | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -165 | 4.0-22.0 | 46 | 76 | 165 | 103 | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -195 | 4.0-22.0 | 46 | 76 | 195 | 133 | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -225 | 4.0-22.0 | 46 | 76 | 225 | 163 | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |
|                 |         | -255 | 4.0-22.0 | 46 | 76 | 255 | 193 | 47-103                                                                              | FDC-22                                                                              | S-5L                                                                                | L-5T |

Spannmutter und Einstellschraube im Lieferumfang enthalten.  
Mit axialer Längeneinstellung

Cap nut and preset screw included in delivery.  
With axial length adjustment

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-L**  
Spannschlüssel  
Spanners



S.|P. 194

**L-T**  
6kant  
Hex wrench

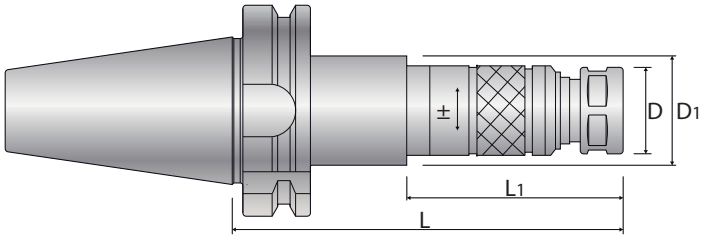
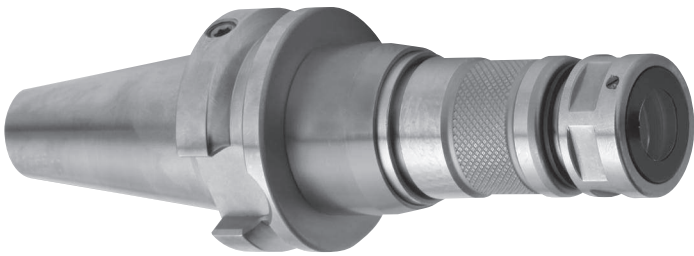


S.|P. 193



# SFH-S SynchroFit Gewindeschneidfutter

## SynchroFit Tapping Holder



**BT50**

JIS B6339

**M5  
M20**



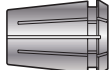
**SFH** mit easy-Längeneinstellung  
with easy-length adjustment

| Halter   Holder |        | Schneidbereich<br>Tapping range | D      | D1 | L  | L1  |  |  |      |
|-----------------|--------|---------------------------------|--------|----|----|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT50            | -SFH18 | -125                            | M5-M20 | 36 | 40 | 125 | 68                                                                                  | FSC-16                                                                              | S-4L |
|                 |        | -135                            | M5-M20 | 36 | 40 | 135 | 78                                                                                  | FSC-16                                                                              | S-4L |
|                 |        | -150                            | M5-M20 | 36 | 40 | 150 | 93                                                                                  | FSC-16                                                                              | S-4L |

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.

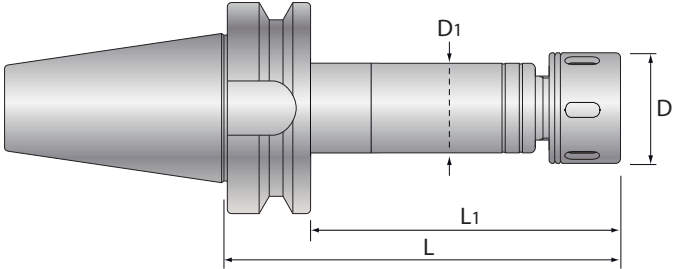
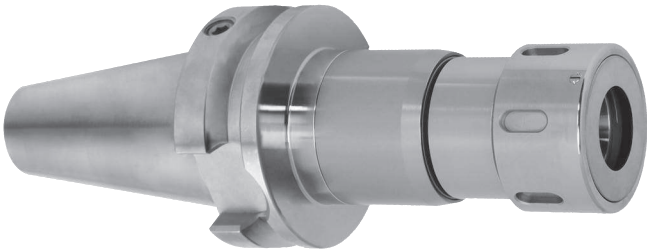
**STS**  
4kant-Mitnehmer  
Square driver  
  
S.|P. 197

**FSC**  
Spannzangen  
Collets  
  
S.|P. 197

**STS-R**  
Einschraubwerkz.  
Tool changer  
  
S.|P. 197

**HTP**  
Spannmutter  
Cap nut  
  
S.|P. 197

**S-L**  
Spannschlüssel  
Spanners  
  
S.|P. 197



**BT50**

JIS B6339

**M2  
M20**

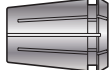


**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

| Halter   Holder |              | Schneidbereich<br>Tapping range | D  | D1 | L   | L1 |  |  |
|-----------------|--------------|---------------------------------|----|----|-----|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>BT 50</b>    | -SFH12S -90  | M2-M12                          | 32 | 34 | 90  | 71 | ER16-GB                                                                               | FK-0034                                                                               |
|                 | -SFH18S -105 | M3-M20                          | 42 | 40 | 105 | 86 | ER25-GB                                                                               | HS-1-16                                                                               |

Spannmutter im Lieferumfang enthalten.

Cap nut included in delivery.

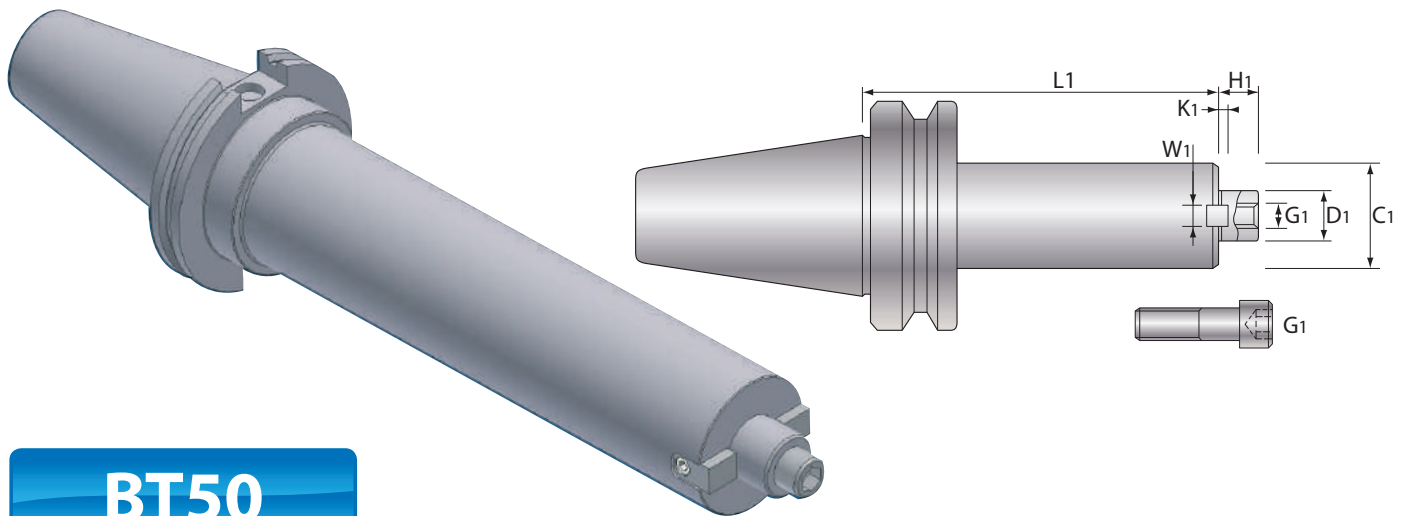
**ER-GB**  
Spannzangen  
Collets  
  
S.|P. 199

**ERP**  
Spannmutter  
Cap nut  
  
S.|P. 198

**FK|HS**  
Spannschlüssel  
Spanners  
  
S.|P. 198

# FMC Aufsteck-Fräsdorn extra lang

## Face Mill Arbor extra long



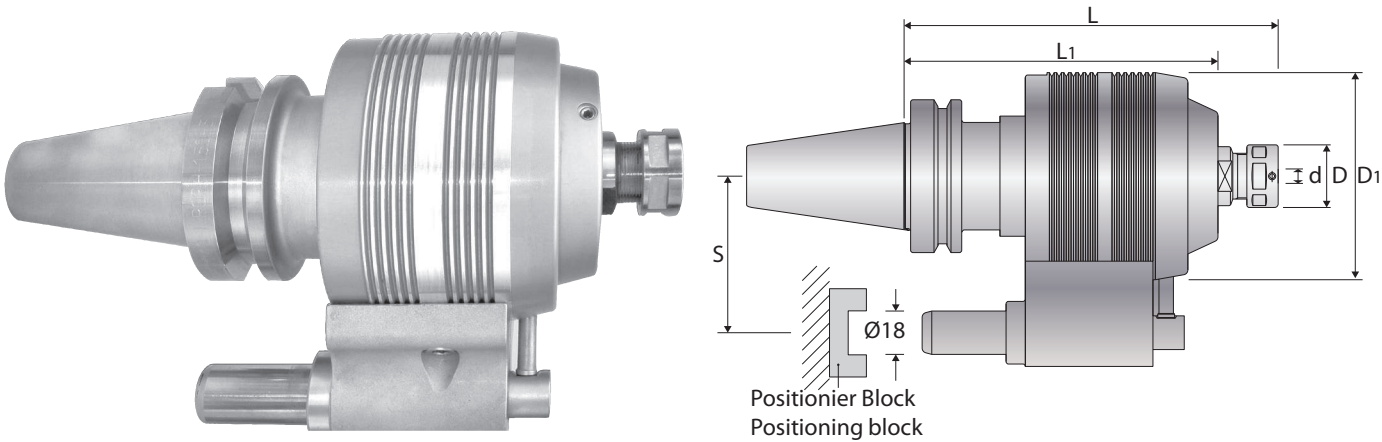
### BT50

JIS B6339

| Halter   Holder |        | D1<br>(h6) | L1 | C1  | H1 | W1 | K1 | G1  | Messerkopf<br>Cutter<br>Ø |       |
|-----------------|--------|------------|----|-----|----|----|----|-----|---------------------------|-------|
| BT50            | -FMC22 | -188       | 22 | 188 | 49 | 20 | 10 | 5.6 | M10                       | 50 63 |
|                 |        | -288       | 22 | 288 | 49 | 20 | 10 | 5.6 | M10                       | 50 63 |
|                 |        | -388       | 22 | 388 | 49 | 20 | 10 | 5.6 | M10                       | 50 63 |
|                 | -FMC27 | -185       | 27 | 185 | 60 | 21 | 12 | 6.3 | M12                       | 80    |
|                 |        | -285       | 27 | 285 | 60 | 21 | 12 | 6.3 | M12                       | 80    |
|                 |        | -385       | 27 | 385 | 60 | 21 | 12 | 6.3 | M12                       | 80    |

# HPH Präzisions-Schnelllaufspindel

## Precision Hyper Spindle



**BT50**

DIN 69871 | ISO 7388-1

**1.0**  
**12.0**

**0.01**  
**100**

Übersetzung  
**1:5**  
Gear ratio

max  
**30.000**  
min<sup>-1</sup>

| Halter   Holder |        | d                   | D        | D1 | L  | L1  | S   | Übersetzung<br>Gear ratio | max. Drehzahl<br>max. speed rpm |  |  |      |
|-----------------|--------|---------------------|----------|----|----|-----|-----|---------------------------|---------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| BT50            | -HP07H | -150-3              | 1.0-7.0  | 23 | 86 | 150 | 125 | 80                        | 1:5                             | 30.000 <sup>1</sup><br>25.000 <sup>2</sup>                                          | FDC-07                                                                              | S-0  |
|                 |        | -180-3              | 1.0-7.0  | 23 | 86 | 180 | 125 | 80                        | 1:5                             |                                                                                     | FDC-07                                                                              | S-0  |
|                 | -HP09H | -150-3              | 3.0-9.0  | 26 | 86 | 150 | 125 | 80                        | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 |        | -180-3              | 3.0-9.0  | 26 | 86 | 180 | 125 | 80                        | 1:5                             |                                                                                     | FDC-09                                                                              | S-1L |
|                 | -HP12H | -165-3 <sup>3</sup> | 3.0-12.0 | 32 | 86 | 165 | 125 | 80                        | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |
|                 |        | -180-3              | 3.0-12.0 | 32 | 86 | 180 | 125 | 80                        | 1:5                             |                                                                                     | FDC-12                                                                              | S-3L |

<sup>1</sup> Max. Drehzahl 20% /Std.

<sup>2</sup> Max. Drehzahl 80% /Std.

<sup>1</sup> Max. rotation speed 20% /h

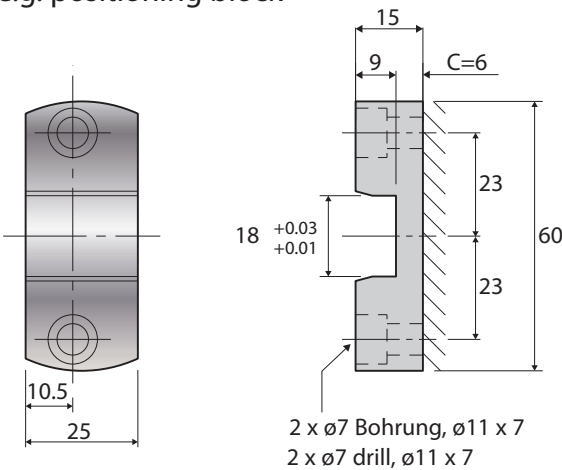
<sup>2</sup> Max. rotation speed 80% /h

| HP07   09   12 | Positionierkolben   Plunger |       |                   |       |       |
|----------------|-----------------------------|-------|-------------------|-------|-------|
|                | No.1                        | No.2  | No.3 <sup>3</sup> | No.4  | No.5  |
| A min (mm)     | +15.1                       | +6.1  | -2.9              | -3.0  | -12.0 |
| A max (mm)     | +24.0                       | +15.0 | +6.0              | -11.9 | -20.9 |

<sup>3</sup> Ab Werk liefern wir Positionierkolben No.3.

<sup>3</sup> We deliver plunger No.3 ex stock.

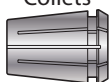
### Bsp. Positionierblock<sup>1)</sup> e.g. positioning block<sup>1)</sup>



<sup>1)</sup> abhängig vom Maschinentyp

<sup>1)</sup> depends on machine

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

**S-0|S-L**  
Spannschlüssel  
Spanners



S.|P. 194

Drehhalter für Brother Speedio Dreh-Fräszentren  
Turning tools for Brother's **SPEEDIO**  
**M140X2**



Dreh-Fräszentrum **SPEEDIO**  
Millturn Center **M140X2**

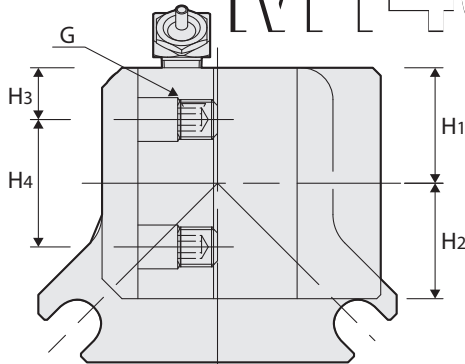
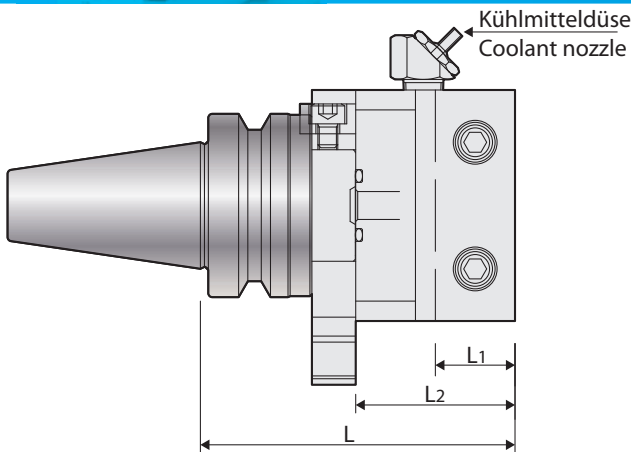


**NT TOOL**



Werkzeugspannsysteme für Brother
Tooling System for Brother's

SPEEDIO
M140X2

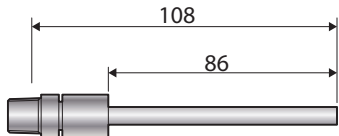
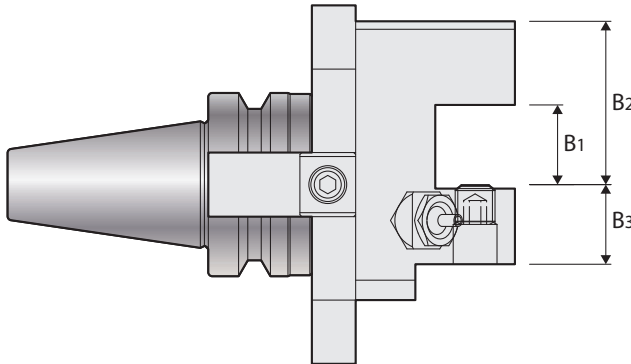


**SBH Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
**SBH Toolholders | for Facing**

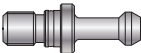
| Halter   Holder |          |       | L  | L1 | L2 | B1 | B2 | B3 | H1 | H2 | H3 | H4 | G   |
|-----------------|----------|-------|----|----|----|----|----|----|----|----|----|----|-----|
| BT30            | -SBH2020 | R -79 | 79 | 20 | 40 | 20 | 41 | 20 | 29 | 29 | 13 | 32 | M10 |
|                 |          | L -79 | 79 | 20 | 40 | 20 | 41 | 20 | 29 | 29 | 13 | 32 | M10 |

Kühlmitteldüsen einstellbar.  
(Nicht in jedem Fall können die Werkzeugschneiden erreicht werden).  
I.d.F. Auskragung verkürzen.

Direction of coolant nozzle can be adjusted.  
(Coolant may not reach the cutting edge properly depending on the bit shape).  
Please shorten a square bit if necessary.



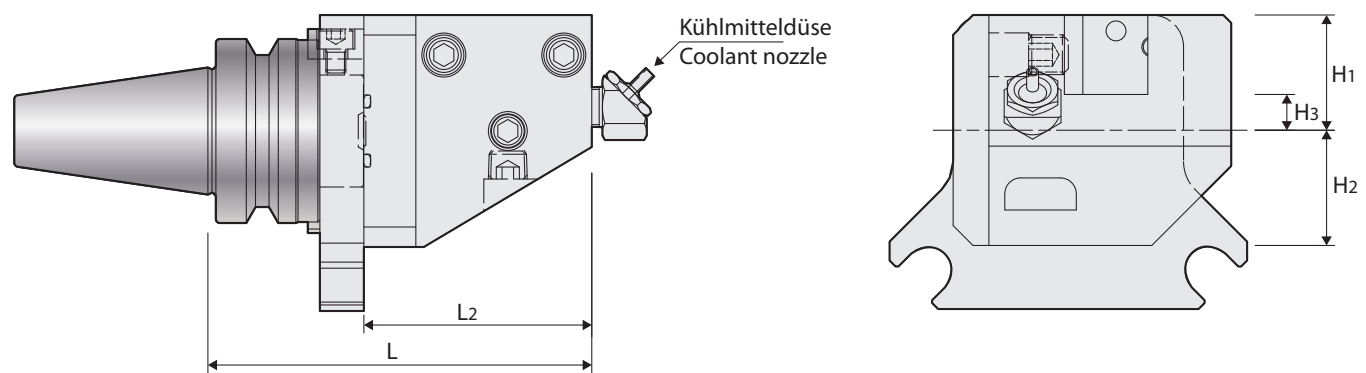
**Kühlmitteldüse lange Ausführung<sup>1</sup>**  
**Replacement copper tube coolant nozzle<sup>1</sup>**

**PSB-0A**  
Anzugsbolzen  
Retention stud


**PSB-26**  
Anzugsbolzen  
für IKZ geeignet  
Retention stud  
for inner coolant


Werkzeugspannsysteme für Brother
Tooling System for Brother's

SPEEDIO
M140X2

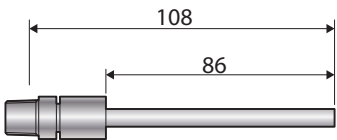
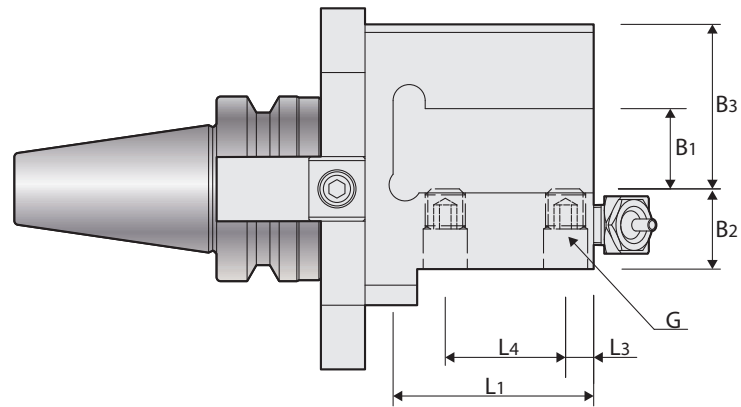


**SBV Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
 SBV Toolholders | for External | Cut-off

| Halter   Holder |          |       | L  | L1 | L2 | L3 | L4 | B1 | B2 | B3 | H1 | H2 | H3 | G   |
|-----------------|----------|-------|----|----|----|----|----|----|----|----|----|----|----|-----|
| BT30            | -SBV2020 | R -96 | 96 | 50 | 57 | 7  | 30 | 20 | 20 | 41 | 29 | 29 | 9  | M10 |
|                 |          | L -96 | 96 | 50 | 57 | 7  | 30 | 20 | 20 | 41 | 29 | 29 | 9  | M10 |

Kühlmitteldüsen einstellbar.  
 (Nicht in jedem Fall können die Werkzeugschneiden erreicht werden).  
 I.d.F. Auskragung verkürzen.  
 \*Kühlmitteldüse lange Ausführung im Lieferumfang enthalten.

Direction of coolant nozzle can be adjusted.  
 (Coolant may not reach the cutting edge properly depending on the bit shape).  
 Please shorten a square bit if necessary.  
 \*Replacement copper tube coolant nozzle included in delivery.



**Kühlmitteldüse lange Ausführung<sup>1</sup>**  
 Replacement copper tube coolant nozzle<sup>1</sup>

**PSB-0A**  
 Anzugsbolzen  
 Retention stud

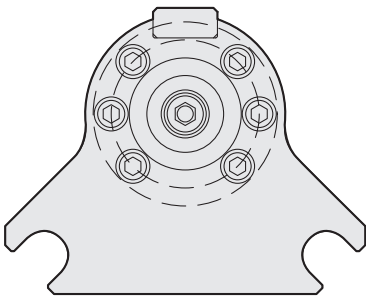
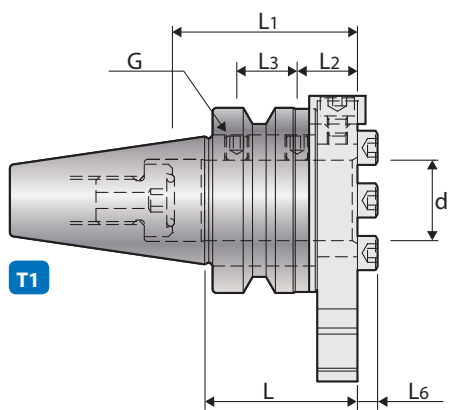
**PSB-26**  
 Anzugsbolzen  
 für IKZ geeignet  
 Retention stud  
 for inner coolant



# Werkzeugspannsysteme für Brother

## Tooling System for Brother's *SPEEDIO*

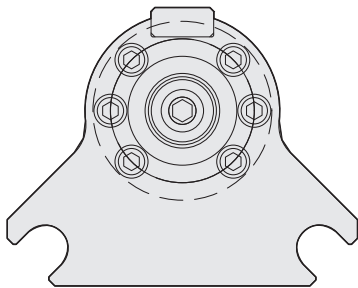
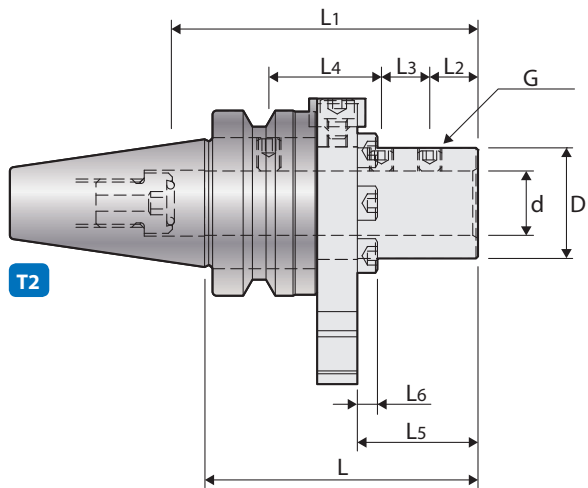
# M140X2



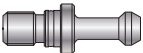
**TSB Bohrstangenhalter**  
 TSB Boring bar holders

ISO 12164-3

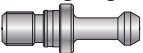
| Halter   Holder |        |     | Type | d  | D    | L  | L <sub>1</sub> | L <sub>2</sub> | L <sub>3</sub> | L <sub>4</sub> | L <sub>5</sub> | L <sub>6</sub> | G  |
|-----------------|--------|-----|------|----|------|----|----------------|----------------|----------------|----------------|----------------|----------------|----|
| BT30            | -TSB10 | -38 | T1   | 10 | -    | 38 | 40             | 15             | 15             | -              | -              | 5              | M6 |
|                 |        | -68 | T2   | 10 | 20   | 68 | 45             | 12             | 12             | -              | 30             | 5              | M6 |
|                 | -TSB12 | -38 | T1   | 12 | -    | 38 | 40             | 15             | 15             | -              | -              | 5              | M6 |
|                 |        | -68 | T2   | 12 | 22   | 68 | 65             | 12             | 12             | 26             | 30             | 5              | M6 |
|                 | -TSB16 | -38 | T1   | 16 | -    | 38 | 46             | 15             | 15             | -              | -              | 5              | M6 |
|                 |        | -68 | T2   | 16 | 27.5 | 68 | 76             | 12             | 12             | 26             | 30             | 5              | M6 |
|                 | -TSB20 | -38 | T1   | 20 | -    | 38 | 46             | 15             | 15             | -              | -              | 5              | M6 |



**PSB-0A**  
 Anzugsbolzen  
 Retention stud



**PSB-26**  
 Anzugsbolzen  
 für IKZ geeignet  
 Retention stud  
 for inner coolant



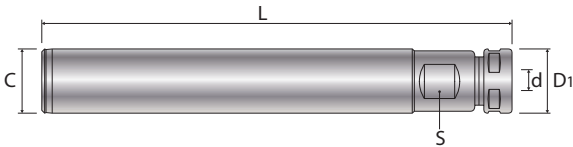


# Zubehör | Accessories

|                                    | Zubehör                                         | Accessories                          | Seite<br>Page  |
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| ST                                 | Verlängerungen für FDC-Spannzangen              | Extensions for FDC-Collets           | <b>184-185</b> |
| ST                                 | Verlängerungen für ER-Spannzangen               | Extensions for ER-Collets            | <b>186</b>     |
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| PHS-H-OH   PHS-H-C                 | Spannhülsen für Dehnspannfutter PHC-H           | Collets for PHC-H                    | <b>192</b>     |
| HS-OH   HS-CF                      | Spannhülsen für Dehnspannfutter PHC-SA   PHZ-SA | Collets for PHC-SA   PHZ-SA          | <b>193</b>     |
| HS-OH   HS-CF                      | Spannhülsen für Dehnspannfutter PHC-SC   PHZ-SC | Collets for PHC-SC   PHZ-SC          | <b>193</b>     |
| HDP   GDP   S-L   S-O   FK   CL    | Zubehör für Spannzangenfutter                   | Accessories for Collet Chucks        | <b>194</b>     |
| FDC                                | Spannzangen für HDC-A   GDC-A   HDZ-A           | Collets for HDC-A   GDC-A   HDZ-A    | <b>195</b>     |
| ES   ERP   S-E   HS   CL   SH   ER | Zubehör und Spannzangen für ERC   ERZ           | Accessories for ERC   ERZ            | <b>196</b>     |
| STS   STS-R   HTP   S-L            | Zubehör für Gewindeschneidfutter SFH            | Accessories for Tapping Holder SFH   | <b>197</b>     |
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# ST Verlängerung für FDC-Spannzangen

## Extension for FDC-Collets



ST20

3.0  
-  
9.0



| Halter   Holder |         |      | d       | D1 | L   | C  | S<br>Spannfläche Flat |  |  |
|-----------------|---------|------|---------|----|-----|----|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| ST20            | -HDC09A | -175 | 3.0-9.0 | 26 | 175 | 20 | 24                    | FDC-09                                                                              | S-1L                                                                                |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.

ST32

3.0  
-  
12.0

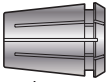


| Halter   Holder |         |      | d        | D1 | L   | C  | S<br>Spannfläche Flat |  |  |
|-----------------|---------|------|----------|----|-----|----|-----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| ST32            | -HDC12A | -185 | 3.0-12.0 | 32 | 185 | 32 | 30                    | FDC-12                                                                                | S-3L                                                                                  |
|                 |         | -235 | 3.0-12.0 | 32 | 235 | 32 | 30                    | FDC-12                                                                                | S-3L                                                                                  |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.

**FDC**  
Spannzangen  
Collets



S.|P. 195

**HDS**  
Einstellschraube  
Preset screw



S.|P. 194

**HDP**  
Spannmutter  
Cap nut



S.|P. 194

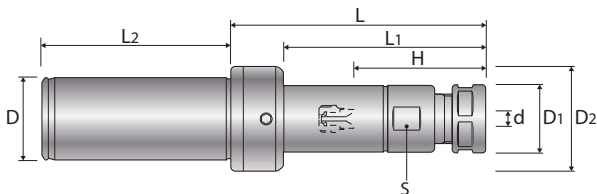
**S-L**  
Spannschlüssel  
Spanners



S.|P. 194

# ST Verlängerung für FDC-Spannzangen

## Extension for FDC-Collets



ST20

1.0  
9.0

0-2  
µm



mit Rundlauf "0"  
with run out "0"

| Halter   Holder |        | d    | D       | D1 | D2 | L  | L1  | L2  | H  | S<br>Spannfläche   Flat |  |  |  |      |
|-----------------|--------|------|---------|----|----|----|-----|-----|----|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| ST20            | -HDZ07 | -75  | 1.0-7.0 | 20 | 23 | 41 | 75  | 44  | 57 | 22-45                   | 19                                                                                  | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 |        | -120 | 1.0-7.0 | 20 | 23 | 41 | 120 | 89  | 57 | 22-45                   | 19                                                                                  | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 |        | -165 | 1.0-7.0 | 20 | 23 | 41 | 165 | 134 | 57 | 22-45                   | 19                                                                                  | FDC-07                                                                              | S-0                                                                                 | L-3T |
|                 | -HDZ09 | -75  | 3.0-9.0 | 20 | 26 | 41 | 75  | 44  | 57 | 27-57                   | 24                                                                                  | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |        | -120 | 3.0-9.0 | 20 | 26 | 41 | 120 | 89  | 57 | 27-57                   | 24                                                                                  | FDC-09                                                                              | S-1L                                                                                | L-3T |
|                 |        | -165 | 3.0-9.0 | 20 | 26 | 41 | 165 | 134 | 57 | 27-57                   | 24                                                                                  | FDC-09                                                                              | S-1L                                                                                | L-3T |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.

ST32

3.0  
22.0

0-2  
µm



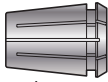
mit Rundlauf "0"  
with run out "0"

| Halter   Holder |        | d    | D        | D1 | D2 | L  | L1  | L2  | H  | S<br>Spannfläche   Flat |  |  |  |      |
|-----------------|--------|------|----------|----|----|----|-----|-----|----|-------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------|
| ST32            | -HDZ12 | -90  | 3.0-12.0 | 32 | 32 | 52 | 90  | 55  | 70 | 33-68                   | 30                                                                                    | FDC-12                                                                                | S-3L                                                                                  | L-4T |
|                 |        | -135 | 3.0-12.0 | 32 | 32 | 52 | 135 | 100 | 70 | 33-68                   | 30                                                                                    | FDC-12                                                                                | S-3L                                                                                  | L-4T |
|                 |        | -180 | 3.0-12.0 | 32 | 32 | 52 | 180 | 145 | 70 | 33-68                   | 30                                                                                    | FDC-12                                                                                | S-3L                                                                                  | L-4T |
|                 | -HDZ16 | -90  | 4.0-16.0 | 32 | 36 | 56 | 90  | 55  | 70 | 38-81                   | 30                                                                                    | FDC-16                                                                                | S-4L                                                                                  | L-4T |
|                 |        | -135 | 4.0-16.0 | 32 | 36 | 56 | 135 | 100 | 70 | 38-81                   | 30                                                                                    | FDC-16                                                                                | S-4L                                                                                  | L-4T |
|                 |        | -180 | 4.0-16.0 | 32 | 36 | 56 | 180 | 145 | 70 | 38-81                   | 30                                                                                    | FDC-16                                                                                | S-4L                                                                                  | L-4T |
|                 | -HDZ22 | -105 | 4.0-22.0 | 32 | 46 | 69 | 105 | 66  | 70 | 47-73                   | 42                                                                                    | FDC-22                                                                                | S-5L                                                                                  | L-5T |
|                 |        | -150 | 4.0-22.0 | 32 | 46 | 69 | 150 | 111 | 70 | 47-103                  | 42                                                                                    | FDC-22                                                                                | S-5L                                                                                  | L-5T |
|                 |        | -195 | 4.0-22.0 | 32 | 46 | 69 | 195 | 156 | 70 | 47-103                  | 42                                                                                    | FDC-22                                                                                | S-5L                                                                                  | L-5T |

Spannmutter und Einstellschraube im Lieferumfang enthalten.

Cap nut and preset screw incl. in delivery.

FDC  
Spannzangen  
Collets



S.|P. 195

HDS  
Einstellschraube  
Preset screw



S.|P. 194

HDP  
Spannmutter  
Cap nut



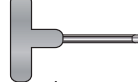
S.|P. 194

S-0|S-L  
Spannschlüssel  
Spanners



S.|P. 194

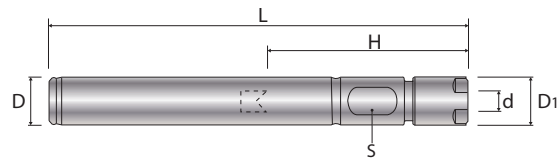
L-T  
6kant  
Hex wrench



S.|P. 193

# ST Verlängerung für ER-Spannzangen

## Extension for ER-Collets



### ST-ERC

1.0  
7.0

Super-  
schlanke  
Bauform  
Super slim  
Design



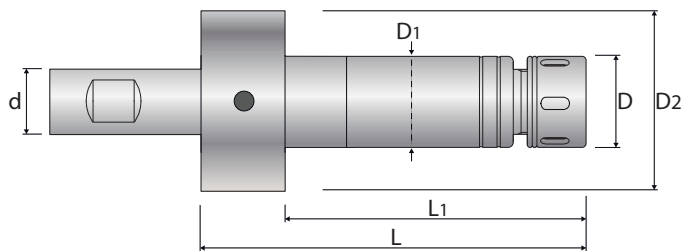
| Halter   Holder   |         | d    | D       | D1 | L   | H     | S<br>Spannfläche Flat |      |       |
|-------------------|---------|------|---------|----|-----|-------|-----------------------|------|-------|
| ST12 <sup>1</sup> | -ERC8   | -75  | 1.0-5.0 | 12 | 75  | 33    | 10                    | ER8  | S-8E  |
|                   |         | -105 | 1.0-5.0 | 12 | 105 | 33    | 10                    | ER8  | S-8E  |
|                   |         | -135 | 1.0-5.0 | 12 | 135 | 33    | 10                    | ER8  | S-8E  |
|                   |         | -220 | 1.0-5.0 | 12 | 220 | 22-42 | 10                    | ER8  | S-8E  |
| ST16 <sup>2</sup> | -ERC11S | -105 | 1.0-7.0 | 16 | 105 | 22-42 | 14                    | ER11 | S-11E |
|                   |         | -135 | 1.0-7.0 | 16 | 135 | 22-42 | 14                    | ER11 | S-11E |
|                   |         | -165 | 1.0-7.0 | 16 | 165 | 22-42 | 14                    | ER11 | S-11E |
|                   |         | -250 | 1.0-7.0 | 16 | 250 | 22-42 | 14                    | ER11 | S-11E |

<sup>1</sup>Spannmutter im Lieferumfang enthalten. Ohne Einstellschraube.

<sup>2</sup>Spannmutter und Einstellschraube im Lieferumfang enthalten.

<sup>1</sup>Cap nut incl. in delivery. Without preset srew.

<sup>2</sup>Cap nut and preset screw incl. in delivery.



### ST-SFH-S

M2  
M27



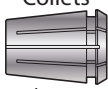
**SynchroFit Gewindeschneidfutter**  
SynchroFit Tapping Holder

**SFH-S** für ER-GB-Spannzangen  
for ER-GB Collets

DIN 1835-B

| Halter   Holder |              | Schneidbereich<br>Tapping range | D  | D1 | D2 | L   | L1 | d  |         |         |
|-----------------|--------------|---------------------------------|----|----|----|-----|----|----|---------|---------|
| ST20            | -SFH12S -80  | M2-M12                          | 32 | 34 | 45 | 80  | 60 | 20 | ER16-GB | FK-0034 |
|                 | -SFH18S -105 | M3-M20                          | 42 | 40 | 45 | 105 | 85 | 20 | ER25-GB | HS-1-16 |
| ST25            | -SFH12S -80  | M2-M12                          | 32 | 34 | 45 | 80  | 60 | 25 | ER16-GB | FK-0034 |
|                 | -SFH18S -105 | M3-M20                          | 42 | 40 | 45 | 105 | 85 | 25 | ER25-GB | HS-1-16 |
|                 | -SFH30S -120 | M4-M27                          | 50 | 50 | 50 | 120 | -  | 25 | ER32-GB | HS-2-20 |

**ER**  
Spannzangen  
Collets



S./P. 196

**ES**  
Einstellschraube  
Preset srew



S./P. 196

**Mini ERP**  
Spannmutter  
Cap nut



S./P. 196

**ERP**  
Spannmutter  
Cap nut



S./P. 196

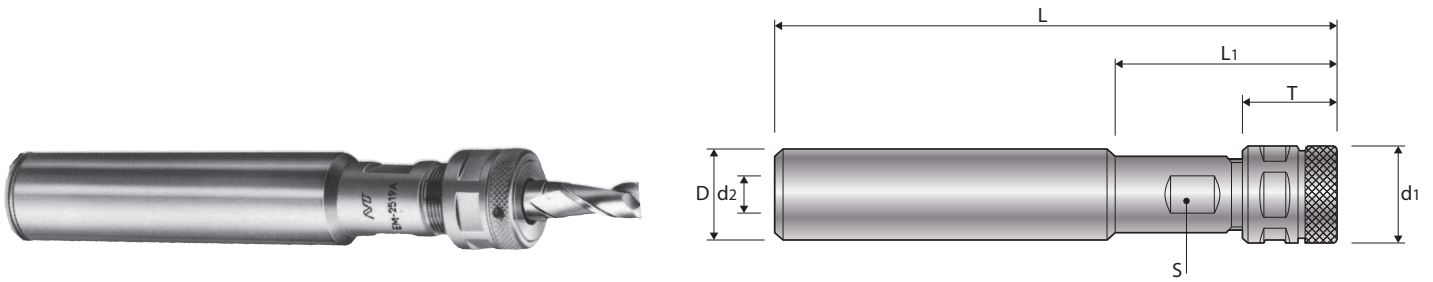
**S-E|FK|HS**  
Spannschlüssel  
Spanners



S./P. 196

# EM Verlängerung für EMS|EMC-Spannzangen

## Extension for EMS|EMC-Collets



**EM**

**Halter**  
Holder

| Halter   Holder |        | Spannbereich<br>Chucking range | D  | d1 | d2   | L   | L1 | T  | S<br>Spannfläche Flat |
|-----------------|--------|--------------------------------|----|----|------|-----|----|----|-----------------------|
| EM              | -2019A | 3.0-10.0                       | 20 | 26 | 11.5 | 125 | 50 | 24 | 17                    |
|                 | -2528A | 3.0-16.0                       | 25 | 36 | 11.5 | 125 | 60 | 33 | 22                    |
|                 | -3228A | 3.0-16.0                       | 32 | 36 | 17.5 | 150 | 60 | 33 | 22                    |

**EM-Set**

**Set-Inhalt | 1x Halter, 5x Spannzangen, 1x Spannmutter, 1x Spannschlüssel**  
Contents of Set | 1x holder, 5x collets, 1x cap nut, 1x spanner

| Verlängerung<br>Extension | Satz<br>Set | Spannmutter mit - zange<br>Cap nut with collet | Zylindrische Spannzange<br>Straight collet |                 |                 |                 |                 |
|---------------------------|-------------|------------------------------------------------|--------------------------------------------|-----------------|-----------------|-----------------|-----------------|
|                           |             | EMP-19A<br>ø 10                                | EMS-0810<br>ø 8                            | EMS-0610<br>ø 6 | EMS-0510<br>ø 5 | EMS-0410<br>ø 4 | EMS-0310<br>ø 3 |
| EM                        | -2019A      | C                                              | ✓                                          | ✓               | ✓               | ✓               | ✓               |

| Verlängerung<br>Extension | Satz<br>Set      | Spannmutter<br>Cap nut | Spannmutter mit - zange<br>Cap nut with collet | Zylindrische Spannzange<br>Straight collet |                  |                 |                 |                 |
|---------------------------|------------------|------------------------|------------------------------------------------|--------------------------------------------|------------------|-----------------|-----------------|-----------------|
|                           |                  | EMP-28A                | EMC-1628<br>ø 16                               | EMS-1216<br>ø 12                           | EMS-1016<br>ø 10 | EMS-0816<br>ø 8 | EMS-0616<br>ø 6 | EMS-0516<br>ø 5 |
| EM                        | -2528A<br>-3228A | C                      | ✓                                              | ✓                                          | ✓                | ✓               | ✓               | ✓               |

**EMS|EMC**

**EMS | Gerade Spannzangen**  
EMS | Straight Collets

**EMC | Konische Spannzangen**  
EMC | Tapered Collets

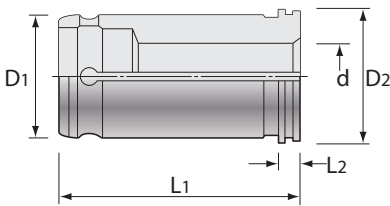
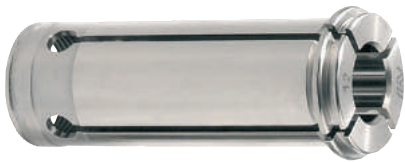
| Spannzange   Collet | Ø   |
|---------------------|-----|
| -0310               | 3.0 |
| -0410               | 4.0 |
| -0610               | 6.0 |
| -0810               | 8.0 |

| Spannzange   Collet | Ø    |
|---------------------|------|
| -0516               | 5.0  |
| -0616               | 6.0  |
| -0816               | 8.0  |
| -1016               | 10.0 |
| -1216               | 12.0 |

| Spannzange   Collet | Ø    |
|---------------------|------|
| -1026               | 10.0 |
| -1228               | 12.0 |
| -1428               | 14.0 |
| -1628               | 15.0 |

# CT-SA Spannhülsen für Kraftspannfutter

## Straight Collets for Milling Chucks

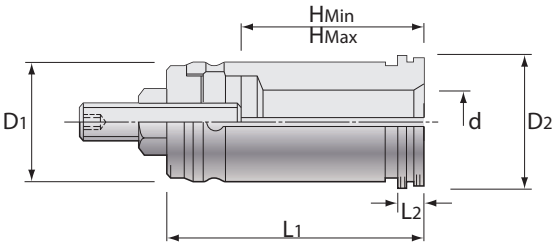


MC

**MC Spannhülsen | dienen zur Reduzierung des Spanndurchmessers.**  
**Das erhöht die Flexibilität und reduziert die Kosten.**

MC Straight Collets | enables you to clamp several shank diameters in one Milling Chuck. This makes the Milling Chuck flexible and saves costs.

| Hülse   Collet |       | D1 | D2 | L1 | L2 | d |   |   |   |    |    |    |    |    |    |    |    |
|----------------|-------|----|----|----|----|---|---|---|---|----|----|----|----|----|----|----|----|
| MC             | -16-d | 16 | 19 | 50 | 4  | - | - | 6 | 8 | 10 | 12 | -  | -  | -  | -  | -  | -  |
|                | -20-d | 20 | 24 | 60 | 4  | - | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | -  | -  | -  |
|                |       | 20 | 24 | 60 | 4  | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | -  | -  | -  | -  |
|                | -25-d | 25 | 29 | 60 | 4  | - | - | 6 | 8 | 10 | 12 | -  | 16 | -  | 20 | -  | -  |
|                | -32-d | 32 | 36 | 72 | 4  | - | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 25 | -  |
|                | -42-d | 42 | 47 | 85 | 4  | - | - | 6 | 8 | 10 | 12 | -  | 16 | -  | 20 | 25 | 32 |



MC-A

**MC-A Spannhülsen | mit Stellschraube zur Einstellung der Auskräglänge.**  
MC-A Straight Collets | with a bolt to adjust the tool-length.

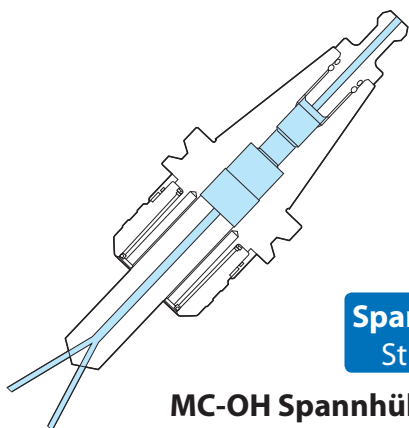
| Hülse   Collet |       | D1 | D2 | L1 | L2 | HMAX | d |   |    |    |    |    |    |    |   |   |   |   |
|----------------|-------|----|----|----|----|------|---|---|----|----|----|----|----|----|---|---|---|---|
| MC-A           | -16-d | 16 | 19 | 55 | 4  | 45   | 6 | 8 | 10 | 12 | -  | -  | -  | -  | - | - | - | - |
|                | -20-d | 20 | 24 | 65 | 4  | 55   | 6 | 8 | 10 | 12 | 16 | -  | -  | -  | - | - | - | - |
|                | -25-d | 25 | 29 | 65 | 4  | 55   | 6 | 8 | 10 | 12 | 16 | 20 | -  | -  | - | - | - | - |
|                | -32-d | 32 | 36 | 79 | 4  | 66   | 6 | 8 | 10 | 12 | 16 | 20 | 25 | -  | - | - | - | - |
|                | -42-d | 42 | 47 | 92 | 4  | 79   | 6 | 8 | 10 | 12 | 16 | 20 | 25 | 32 | - | - | - | - |

| Hülse   Collet |    | HMIN |    |    |    |    |    |    |    |
|----------------|----|------|----|----|----|----|----|----|----|
| MC-A           | D1 | 6    | 8  | 10 | 12 | 16 | 20 | 25 | 32 |
|                | 16 | 24   | 25 | 29 | 35 | -  | -  | -  | -  |
|                | 20 | 22   | 28 | 29 | 35 | 39 | -  | -  | -  |
|                | 25 | 22   | 28 | 29 | 35 | 39 | 39 | -  | -  |
|                | 32 | 27   | 29 | 36 | 35 | 39 | 39 | 49 | -  |
|                | 42 | 27   | 33 | 35 | 43 | 39 | 39 | 49 | 49 |



# CT-SA Spannhülsen für Kraftspannfutter

## Straight Collets for Milling Chucks



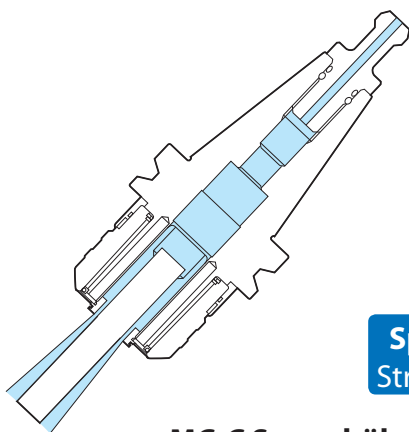
**Spannhülsen für innere Kühlmittelzufuhr**  
Straight Collets for inner coolant supply

**MC-OH**

**MC-OH Spannhülsen** | dichten durch kurze Schlitzte vollständig ab und sind daher für den Einsatz von Werkzeugen mit innerer Kühlmittelzufuhr geeignet. Es werden keine zusätzlichen Dichtmaterialien benötigt (Verschleiß).

MC-OH Straight Collets | completely sealed by short slots for the use of cutting tools with inner coolant supply. No additional seals are necessary (wear down).

| Hülse   Collet |              | D1 | D2 | L1 | L2 | d |   |   |    |    |    |    |    |    |    |    |
|----------------|--------------|----|----|----|----|---|---|---|----|----|----|----|----|----|----|----|
| MC             | -16-d-OH     | 16 | 19 | 50 | 4  | - | 6 | 8 | 10 | 12 | -  | -  | -  | -  | -  | -  |
|                | -20-d -OH    | 20 | 24 | 60 | 4  | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | -  | -  | -  |
|                |              | 20 | 24 | 60 | 4  | 5 | 7 | 9 | 11 | 13 | 15 | 17 | -  | -  | -  | -  |
|                | -25-d -OH    | 25 | 29 | 60 | 4  | - | 6 | 8 | 10 | 12 | -  | 16 | -  | 20 | -  | -  |
|                | -32-d -OH    | 32 | 36 | 72 | 4  | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 25 | -  |
|                | -42-d -OH    | 42 | 47 | 85 | 4  | - | 6 | 8 | 10 | 12 | -  | 16 | -  | 20 | 25 | 32 |
|                | -20-d -OH SL | 20 | 24 | 50 | 4  | - | 6 | 8 | 10 | 12 | -  | 16 | -  | -  | -  | -  |



**Spannhülsen für Peripheriekühlung**  
Straight Collets for side-through coolant

**MC-C**

**MC-C Spannhülsen** | dichten durch kurze Schlitzte vollständig ab. Zwei in der Innenbohrung angebrachte Kühlmittelnuten erlauben eine effektive Kühlung der Schneidenperipherie.

MC-C Straight Collets | completely sealed by short slots. Two additional nozzels allow an effective side-through coolant.

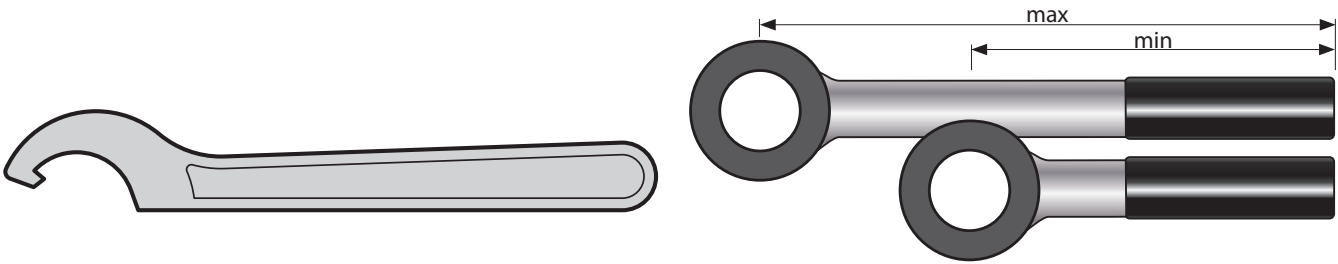
| Hülse   Collet |          | D1 | D2 | L1 | L2 | d |   |   |    |    |    |    |    |    |    |    |
|----------------|----------|----|----|----|----|---|---|---|----|----|----|----|----|----|----|----|
| MC             | -16-d-C  | 16 | 19 | 50 | 4  | - | 6 | 8 | 10 | 12 | -  | -  | -  | -  | -  | -  |
|                | -20-d -C | 20 | 24 | 60 | 4  | 4 | 6 | 8 | 10 | 12 | 14 | 16 | -  | -  | -  | -  |
|                | -25-d -C | 25 | 29 | 60 | 4  | - | 6 | 8 | 10 | 12 | -  | 16 | -  | 20 | -  | -  |
|                | -32-d -C | 32 | 36 | 72 | 4  | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 25 | -  |
|                | -42-d -C | 42 | 47 | 85 | 4  | - | 6 | 8 | 10 | 12 | -  | 16 | -  | 20 | 25 | 32 |



# CT-SA

## Zubehör für Kraftspannfutter

## Accessories for Milling Chucks



### Spannschlüssel für Kraftspannfutter CT-S<sub>Series</sub>

### Spanners for Milling Chucks CT-S<sub>Series</sub>

**HS|RS Spannschlüssel | Unsere Spannschlüssel sind für das funktionsgerechte Spannen ausgelegt. Ihre Anwendung verhindert Überlastung und Bruch. Wegen der schmalen Ausführung der Spannflächen können handelsübliche Spannschlüssel nicht verwendet werden.**

HS|RS Spanners | Our spanners are standardized for an appropriate clamping. They prevent overtightening and breakage. As the spanner flats are special, conventional spanners cannot be used.

HS

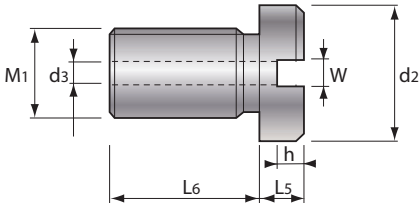
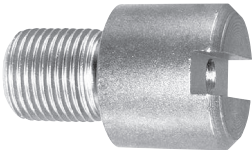
| Halter   Holder   | Hakenschlüssel<br>Hookspanner |
|-------------------|-------------------------------|
| CT16SA            | HS-1-16                       |
| CT20SA   CT20SA-C | HS-2-20                       |
| CT25SA   CTZ25SA  | HS-2.5-25                     |
| CT32SA   CTZ32SA  | HS-3-32                       |
| CT42SA   CTZ42SA  | HS-4-42                       |

RS

### RS Rollenschlüssel | Teleskopausführung

### RS Roller Spanner | Telescope type

| Halter   Holder             | Rollenschlüssel<br>Roller spanner | min.   max. |
|-----------------------------|-----------------------------------|-------------|
| CT20SA   CT20S-P   CT20SA-C | RS-20                             | 250-370     |
| CT25SA   CT25S-P            | RS-25                             | 280-400     |
| CT32SA   CT32S-P            | RS-32                             | 280-400     |



BL

### BL Einstellschraube | für Kraftspannfutter mit SK, BT, POLYGON-Schaft

### BL Back-up screw | for Milling Chucks with SK, BT, POLYGON interface

| Schraube   Screw |        | d2 | d3  | L5         | L6 | M1<br>P=1.0 | W | h   | Halter   Holder |
|------------------|--------|----|-----|------------|----|-------------|---|-----|-----------------|
| BL               | -16-L5 | 15 | 4.5 | 5, 15, 25  | 14 | 10          | 5 | 3.5 | CT16SA          |
|                  | -20-L5 | 18 | 4.5 | 5, 15, 25  | 14 | 12          | 5 | 3.5 | CT20SA, CT25SA  |
|                  | -32-L5 | 25 | 4.5 | 10, 20, 35 | 17 | 18          | 5 | 5   | CT32SA, CT42SA  |

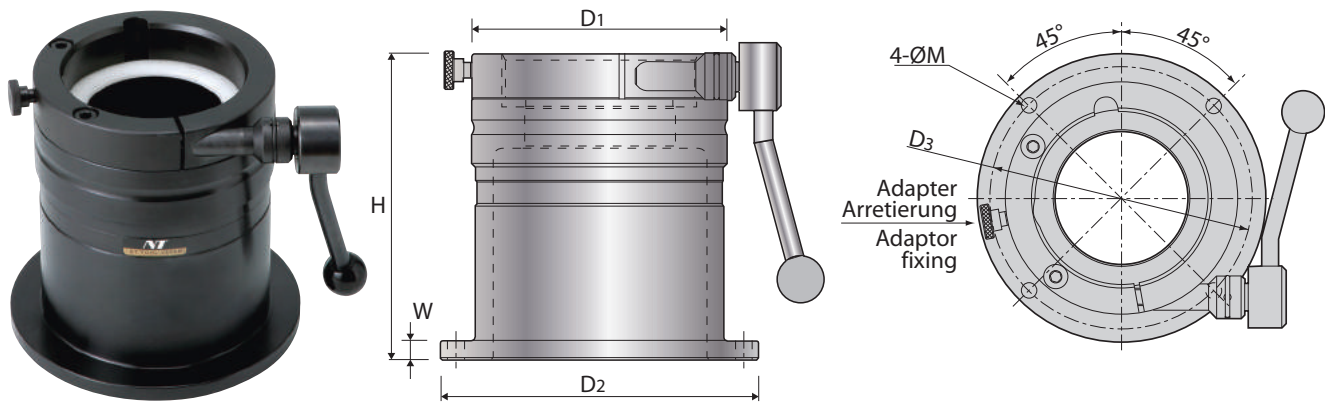
BL

### BL Einstellschraube | für Kraftspannfutter mit HSK-Schaft

### BL Back-up screw | for Milling Chucks with HSK interface

| Schnittstelle   Interface | d2 | d3  | L5        | L6   | M1       | W | h   |
|---------------------------|----|-----|-----------|------|----------|---|-----|
| HSK-A 40 50               | 13 | 2.5 | 5, 15, 25 | 8.5  | M5 x0.8  | 5 | 2.5 |
| HSK-A 63 80               | 15 | 4   | 5         | 5.5  | M8 x1.25 | 5 | 3   |
| HSK-A 63 80               | 15 | 4   | 15, 25    | 7.5  | M8 x1.25 | 5 | 3   |
| HSK-A 100 125             | 15 | 4.5 | 5, 15, 25 | 14.0 | M10 x1.5 | 5 | 3.5 |

# HCL Kompaktspanner Clamper



## HCL

**HCL Grundkörper | für HSK- und Polygonschäfte**  
HCL Body | for HSK- and Polygonshanks

| Grundkörper   Body |      | Schaftgröße<br>Shank size | D1  | D2  | D3  | H   | W  | M | KG  | Adapter<br>Adaptor   |
|--------------------|------|---------------------------|-----|-----|-----|-----|----|---|-----|----------------------|
| HCL                | -63  | HSK63                     | 98  | 131 | 115 | 162 | 10 | 9 | 4.6 | ADS-63 <sup>1</sup>  |
|                    | -100 | HSK100                    | 135 | 168 | 152 | 162 | 10 | 8 | 7.0 | ADS-100 <sup>1</sup> |

<sup>1</sup> Befestigungsschrauben nicht im Lieferumfang enthalten.

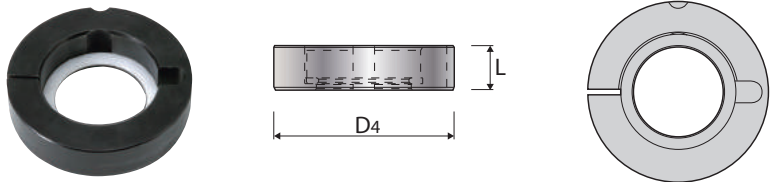
<sup>1</sup> Fixing bolts not included in delivery.

### Grundkörper

- für alle HSK-Schaftformen
- durch Verwendung von Adaptern können alle HSK- und Polygon-Größen gespannt werden
- keine Konus-Beschädigung durch speziellen Kunststoffeinsatz
- kompakte Bauform
- sichere Werkzeugmontage

### Body

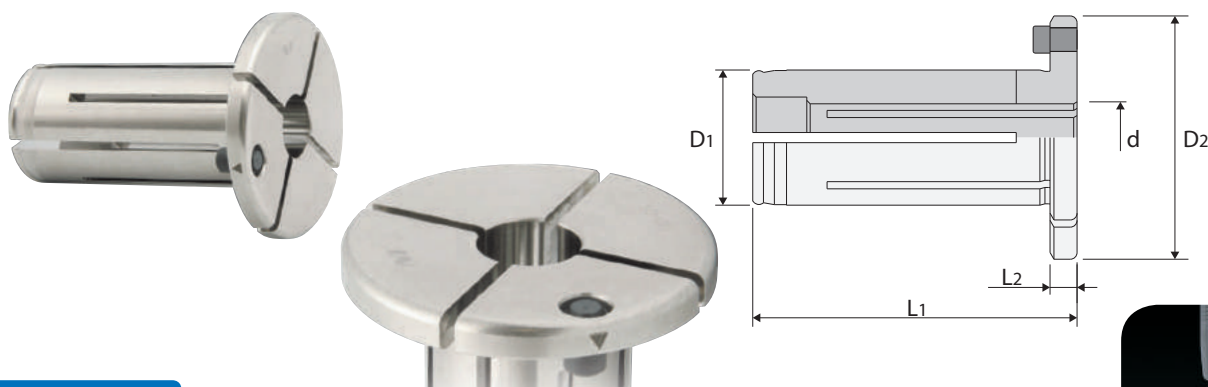
- for all shank types
- with adaptors all HSK and Polygon sizes can be clamped
- vinyl mat prevents damages to the taper
- compact design
- safe tool assembly



## ADS

**ADS Adapter | für HCL**  
ADS Adaptor | for HCL

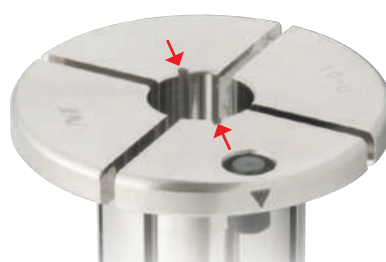
| Adapter   Adaptor |        | Schaftgröße<br>Shank size | D4  | L    | KG  | Grundkörper   Body |
|-------------------|--------|---------------------------|-----|------|-----|--------------------|
| ADS               | -6325  | HSK25                     | 63  | 24.2 | 0.5 | HCL-63             |
|                   | -6332  | HSK32   C3                | 63  | 24.2 | 0.4 | HCL-63             |
|                   | -6340  | HSK40   C4                | 63  | 24.2 | 0.3 | HCL-63             |
|                   | -6350  | HSK50   C5                | 63  | 24.2 | 0.2 | HCL-63             |
|                   | -10063 | HSK63   C6                | 100 | 24.2 | 0.9 | HCL-100            |
|                   | -10080 | HSK80                     | 100 | 24.2 | 0.6 | HCL-100            |



### PHS-OH

**PHS-OH Spannhülsen | für innere Kühlmittelzufuhr**  
PHS-OH Straight Collets | for inner coolant supply

| Hülse   Collet |          | D1 | D2 | L1 | L2 | d                                                   |
|----------------|----------|----|----|----|----|-----------------------------------------------------|
| PHS            | -12-d-OH | 12 | 26 | 49 | 4  | 3, 4, 5, 6, 7, 8, 9, 10                             |
|                | -20-d-OH | 20 | 36 | 49 | 4  | 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18 |



### PHS-C

**PHS-C Spannhülsen | für Peripheriekühlung**  
PHS-C Straight Collets | for side-through coolant supply

| Hülse   Collet |         | D1 | D2 | L1 | L2 | d                                               |
|----------------|---------|----|----|----|----|-------------------------------------------------|
| PHS            | -12-d-C | 12 | 26 | 49 | 4  | 3, 4, 5, 6, 7, 8, 9                             |
|                | -20-d-C | 20 | 36 | 49 | 4  | 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |



### PHS-H-OH

**PHS-OH Spannhülsen | für PHC-H Dehnspannfutter**  
PHS-OH Straight Collets | for PHC-H Collet Chucks

| Hülse   Collet |           | D1 | D2 | L1 | L2 | d                        |
|----------------|-----------|----|----|----|----|--------------------------|
| PHS            | -20H-d-OH | 20 | 41 | 60 | 4  | 6, 8, 10, 12, 16         |
|                | -32H-d-OH | 32 | 55 | 72 | 4  | 6, 8, 10, 12, 16, 20, 25 |

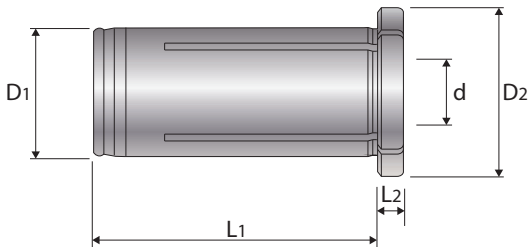
### PHS-H-C

**PHS-C Spannhülsen | für PHC-H Dehnspannfutter**  
PHS-C Straight Collets | for PHC-H Collet Chucks

| Hülse   Collet |          | D1 | D2 | L1 | L2 | d                        |
|----------------|----------|----|----|----|----|--------------------------|
| PHS            | -20H-d-C | 20 | 41 | 60 | 4  | 6, 8, 10, 12, 16         |
|                | -32H-d-C | 32 | 55 | 72 | 4  | 6, 8, 10, 12, 16, 20, 25 |

# PHC-SA Spannhülsen für Dehnspannfutter

# PHZ-SA Collets for Hydro Chucks



## HS-OH

**HS Spannhülsen | zur Durchmesserreduzierung**  
 HS Straight Collets | for diameter reduction

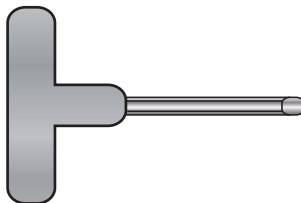
| Hülse   Collet |           | D1 | D2 | L1 | L2 | d                      |
|----------------|-----------|----|----|----|----|------------------------|
| HS             | -12-d-OH  | 12 | 16 | 44 | 4  | 3, 4, 6, 8, 10         |
|                | -20-d -OH | 20 | 25 | 54 | 4  | 3, 4, 6, 8, 10, 12, 16 |



## HS-CF

**HS-CF Spannhülsen | für Peripheriekühlung**  
 HS-CF Straight Collets | for side-through coolant supply

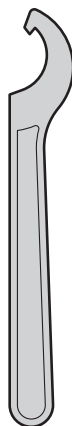
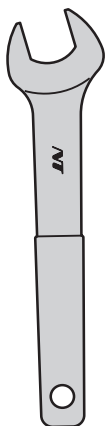
| Hülse   Collet |           | D1 | D2 | L1 | L2 | d                      |
|----------------|-----------|----|----|----|----|------------------------|
| HS             | -12-d-CF  | 12 | 16 | 44 | 4  | 3, 4, 6, 8             |
|                | -20-d -CF | 20 | 25 | 54 | 4  | 3, 4, 6, 8, 10, 12, 16 |



## LT

**LT 6kant-Schlüssel | zur Werkzeugspannung und Rundlaufeinstellung**  
 LT Hex wrench | for tool clamping and run out adjustment

| 6kant   Hex wrench | Passend für R "0" Futter   Fit for R "0" Chucks    |     |     |
|--------------------|----------------------------------------------------|-----|-----|
| L-3T               | PHZ-SA                                             | HDZ | ERZ |
| L-4T               | PHC-A, PHZ-SA, PHZ-SC, PHC-H, PHC-S, PHC-SC, PHC-Z | HDZ | ERZ |
| L-5T               | PHC-Z, PHC-H                                       | HDZ | ERZ |
| L-6T               | PHC-A, PHC-S, PHC-SC                               | -   | -   |



Drehmomentschlüssel  
Torque wrench



HDP

GDP

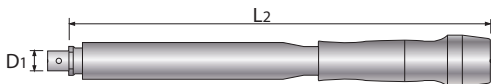
S-L

S-O|FK

CL

T1|T2

| Halter   Holder          | Spannmutter   Cap nut |        | Einstellschraube<br>Preset screw | Spannschlüssel   Spanner |         | Dremo-Schlüssel<br>Torque wrench | Einsteckwerkzeug<br>Spanner head |    |
|--------------------------|-----------------------|--------|----------------------------------|--------------------------|---------|----------------------------------|----------------------------------|----|
|                          | HDP                   | GDP    |                                  |                          |         |                                  | Spanner head                     |    |
| HDC07A   GDC07A   HDZ07A | HDP-07                | -      | HDS-07                           | -                        | S-0     | CL25N x 10D                      | SH-23-10                         | T2 |
| GDC09A                   | -                     | GDP-09 | HDS-09                           | -                        | S-0     | CL50N x 15D                      | SH-25-15                         | T2 |
| HDC09A   HDZ09A          | HDP-09                | -      | HDS-09                           | S-1L                     | -       |                                  | SH-1A-15                         | T1 |
| GDC12A                   | -                     | GDP-12 | HDS-12                           | -                        | FK-0034 | CL100N x 15D                     | SH-34-15                         | T2 |
| HDC12A   HDZ12A          | HDP-12                | -      | HDS-12                           | S-3L                     | -       |                                  | SH-3A-15                         | T1 |
| GDC16A                   | -                     | GDP-16 | HDS-16                           | -                        | FK-0034 |                                  | SH-34-15                         | T2 |
| HDC16A   HDZ16A          | HDP-16                | -      | HDS-16                           | S-4L                     | -       |                                  | SH-4A-15                         | T1 |
| GDC22A                   | -                     | GDP-22 | HDS-22                           | -                        | FK-0045 |                                  | SH-45-15                         | T2 |
| HDC22A   HDZ22A          | HDP-22                | -      | HDS-22                           | S-5L                     | -       |                                  | SH-5A-15                         | T1 |



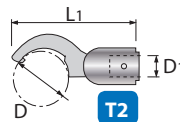
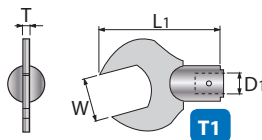
CL

**CL Drehmomentschlüssel** | für HDP | GDP | ERP  
CL Torque wrench | for HDP | GDP | ERP

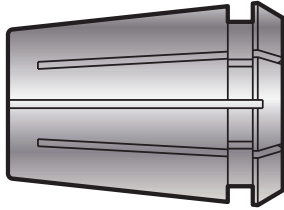
| Dremo<br>Torque wrench | Messbereich<br>Range |           | D1 | L2  |
|------------------------|----------------------|-----------|----|-----|
|                        | 25N                  | 5-25 Nm   |    |     |
| CL                     | 50N                  | 10-50 Nm  | 15 | 219 |
|                        | 100N                 | 20-100 Nm | 15 | 294 |
|                        | 200N                 | 40-200 Nm | 19 | 435 |

SH

**SH Einsteckwerkzeug**  
SH Spanner head



| T1   T2 |        | Type | W  | T   | D  | D1 | L1  | Passende Spannmutter<br>Suitable cap nut | Anzugsmoment<br>Tightening torque | Dremo-Schlüssel<br>Torque wrench | Messbereich<br>Range |
|---------|--------|------|----|-----|----|----|-----|------------------------------------------|-----------------------------------|----------------------------------|----------------------|
| SH      | -1A-15 | T1   | 24 | 4.5 | -  | 15 | 78  | HDP-09                                   | 30-35 Nm                          | CL50N x15D                       | 10-50 Nm             |
|         | -3A-15 | T1   | 30 | 4.5 | -  | 15 | 83  | HDP-12                                   | 34-40 Nm                          | CL100N x15D                      | 20-100 Nm            |
|         | -4A-15 | T1   | 33 | 4.5 | -  | 15 | 84  | HDP-16                                   | 40-45 Nm                          | CL100N x15D                      | 20-100 Nm            |
|         | -5A-15 | T1   | 42 | 5.5 | -  | 15 | 89  | HDP-22                                   | 55-60 Nm                          | CL100N x15D                      | 20-100 Nm            |
|         | -23-10 | T2   | -  | -   | 23 | 10 | 60  | HDP-07A                                  | 10-15 Nm                          | CL25N x15D                       | 5-25 Nm              |
|         | -25-15 | T2   | -  | -   | 29 | 15 | 77  | GDP-09                                   | 30-35 Nm                          | CL50N x15D                       | 10-50 Nm             |
|         | -30-15 | T2   | -  | -   | 34 | 15 | 79  | GDP-12 ERP-16                            | 35-40 Nm                          | CL100N x15D                      | 20-100 Nm            |
|         | -34-15 | T2   | -  | -   | 38 | 15 | 82  | GDP-16                                   | 44-45 Nm                          | CL100N x15D                      | 20-100 Nm            |
|         | -45-15 | T2   | -  | -   | 49 | 15 | 86  | GDP-22 ERP-25                            | 55-60 Nm                          | CL100N x15D                      | 20-100 Nm            |
|         | -6A-19 | T2   | -  | -   | 66 | 19 | 118 | ERP-32                                   | 80-90 Nm                          | CL200N x19D                      | 40-200 Nm            |



## Präzision und Haltekraft

FDC-Spannzangen bieten höchste Rundlaufgenauigkeit sowie Haltekraften, die herkömmlichen Spannzangensystemen und Hydrodehnaufnahmen überlegen sind.

## Precision and Clamping force

FDC Collets for highest run out accuracy and higher clamping forces than conventional collet chucks or Hydro chucks.

## FDC

| Spannzange<br>Collet | Spanndurchmesser   Clamping Range |                   |
|----------------------|-----------------------------------|-------------------|
|                      | 0.5 stgd.   steps                 | 1.0 stgd.   steps |
| FDC-07               | Ø 1.0-7.0                         | -                 |
| FDC-07-OH            | Ø 3.0-7.0                         | -                 |
| FDC-07-C             | Ø 3.0-7.0                         | -                 |
| FDC-07-MS            | -                                 | Ø 3.0-5.0         |
| FDC-09               | Ø 3.0-9.0                         | -                 |
| FDC-09-OH            | Ø 3.0-9.0                         | -                 |
| FDC-09-C             | Ø 3.0-9.0                         | -                 |
| FDC-09-MS            | -                                 | Ø 3.0-8.0         |
| FDC-12               | Ø 3.0-12.0                        | -                 |
| FDC-12-OH            | Ø 3.0-12.0                        | -                 |
| FDC-12-C             | Ø 3.0-12.0                        | -                 |
| FDC-12-MS            | -                                 | Ø 3.0-12.0        |
| FDC-16               | Ø 3.0-16.0                        | -                 |
| FDC-16-OH            | Ø 3.0-16.0*                       | -                 |
| FDC-16-C             | Ø 6.0-16.0                        | -                 |
| FDC-16-MS            | -                                 | Ø 6.0-14.0        |
| FDC-22               | Ø 4.0-22.0                        | -                 |
| FDC-22-OH            | Ø 6.0-22.0                        | -                 |
| FDC-22-C             | Ø 6.0-22.0                        | -                 |
| FDC-22-MS            | -                                 | Ø 6.0-20.0        |

\*Ø 3.0-5.0 = 1.0 stgd. | steps



## FDC-OH Spannzangen

dichten mittels kurzer Kühlmittelnuten vollständig ab und sind für den Einsatz von Schneidwerkzeugen mit innerer Kühlmittelzufuhr geeignet.

Es sind keine zusätzlichen Dichtungen notwendig. (Verschleiß)

## FDC-OH Collets

are completely sealed by short slits and thus suitable for inner coolant supply. No additional sealing necessary. (wearing)



## FDC-C Spannzangen

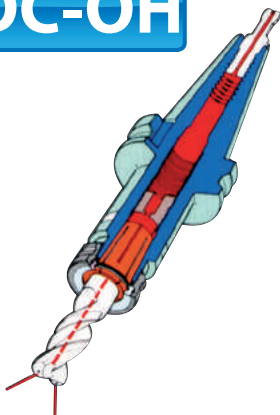
dichten mittels kurzer Kühlmittelnuten vollständig ab. Die Kühlmittelzufuhr erfolgt über innen liegende Kühlmittelnuten, die eine effektive seitliche Kühlung ermöglichen.

## FDC-C Collets

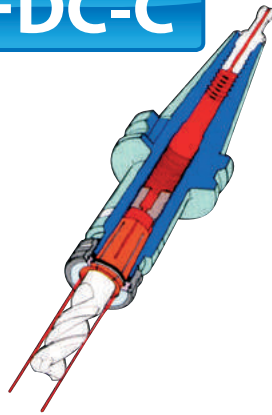
are completely sealed by short slits.

Efficient coolant supply is ensured by two additional nozzles.

## FDC-OH



## FDC-C



## FDC-MS Spannzangen

für die MMS Bearbeitung. Die Kühlmittelnuten erlauben eine effektive Kühlung der Werkzeugschneide.

## FDC-MS Collets

with coolant jet nozzles for MQL applications.

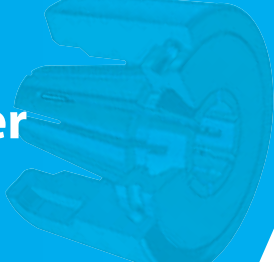


ERC

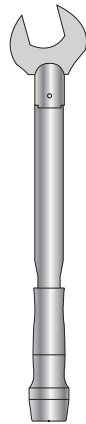
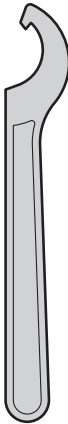
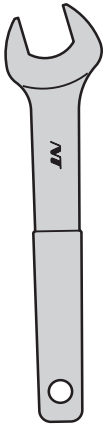
ERZ

Zubehör für Spannzangenfutter

Accessories for Collet Chucks



Mini ERP



Drehmomentschlüssel  
Torque wrench



ES

ERP

S-E

HS

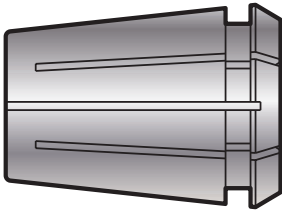
CL

SH

| Halter<br>Holder | Spannmutter   Cap nut |        | Einstellschraube<br>Preset screw | Spannschlüssel   Spanner                                                          |                                                                                     | Einsteckwerkzeug<br>Spanner head |          |
|------------------|-----------------------|--------|----------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------|----------|
|                  | Mini ERP              | ERP    |                                  |  |  |                                  |          |
| ERC8S            | ERP-8                 | -      | ES-8                             | S-8E                                                                              | -                                                                                   | CL25N x 10D                      | SH-11-10 |
| ERC11S           | ERP-11S               | -      | ES-11                            | S-11E                                                                             | -                                                                                   | CL25N x 10D                      | SH-14-10 |
| ERZ16            | -                     | ERP-16 | ES-16                            | -                                                                                 | FK-0034                                                                             | CL100N x 15D                     | SH-25-15 |
| ERZ32            | -                     | ERP-32 | ES-32                            | -                                                                                 | HS-2-20                                                                             | CL200N x 19D                     | SH-45-15 |

Präzisions-Spannzangen

Precision Collets



ER

ER Spannzangen | zur Durchmesserreduzierung

ER Collets | for diameter reduction

DIN 6499 | ISO 15488

| Halter<br>Holder |  | Spann-ø   Clamping range |  | kühlmitteldicht   sealed |  |
|------------------|-------------------------------------------------------------------------------------|--------------------------|--|--------------------------|--|
|                  |                                                                                     | 0.5 stgd.   rising       |  | 1.0 stgd.   rising       |  |
| ERC8             | ER-8                                                                                | Ø 1.0-5.0                |  | auf Anfrage              |  |
| ERC11S           | ER-11                                                                               | Ø 1.0-7.0                |  | Ø 3.0-7.0                |  |
| ERZ16            | ER-16                                                                               | Ø 1.0-10.0               |  | Ø 3.0-10.0               |  |
| ERZ32            | ER-32                                                                               | Ø 3.0-20.0               |  | Ø 6.0-20.0               |  |





# Zubehör für Gewindeschneidfutter

## Accessories for Tapping Holder



| Halter   Holder |         | Schneidbereich<br>Tapping range | 4kant-Mitnehmer<br>Square driver | Einschraubwerkzeug<br>Tool changer |  | Spannmutter<br>Cap nut |  |
|-----------------|---------|---------------------------------|----------------------------------|------------------------------------|-------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|
| SFH12           | DIN 371 | M2                              | STS12-□2.1                       | STS-M2                             | FSC-02809                                                                           | HTP-09                 | S-1L                                                                                |
|                 |         | M3                              | STS12-□2.7                       | STS-M2                             | FSC-03509                                                                           | HTP-09                 | S-1L                                                                                |
|                 |         | M4                              | STS12-□3.4                       | STS-R1                             | FSC-04509                                                                           | HTP-09                 | S-1L                                                                                |
|                 |         | M5                              | STS12-□4.9                       | STS-R1                             | FSC-06009                                                                           | HTP-09                 | S-1L                                                                                |
|                 |         | M6                              | STS12-□4.9                       | STS-R1                             | FSC-06009                                                                           | HTP-09                 | S-1L                                                                                |
|                 |         | M8                              | STS12-□6.2                       | STS-R1                             | FSC-08009                                                                           | HTP-09                 | S-1L                                                                                |
| SFH18           | DIN 371 | M5                              | STS18-□4.9                       | STS-R1                             | FSC-06016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M6                              | STS18-□4.9                       | STS-R1                             | FSC-06016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M8                              | STS18-□6.2                       | STS-R1                             | FSC-08016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M10                             | STS18-□8.0                       | STS-R2                             | FSC-10016                                                                           | HTP-16                 | S-4L                                                                                |
|                 | DIN 376 | M12                             | STS18-□7.0                       | STS-R2                             | FSC-09016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M14                             | STS18-□9.0                       | STS-R2                             | FSC-11016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M16                             | STS18-□9.0                       | STS-R2                             | FSC-12016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M18                             | STS18-□11.0                      | STS-R2                             | FSC-14016                                                                           | HTP-16                 | S-4L                                                                                |
|                 |         | M20                             | STS18-□12.0                      | STS-R2                             | FSC-16016                                                                           | HTP-16                 | S-4L                                                                                |

**FSC-OH Spannzangen | Collets**  
 kühlmitteldicht für innere Kühlmittelzufuhr  
 sealed for inner coolant supply




**FSC-C Spannzangen | Collets**  
 für effektive Peripheriekühlung  
 for effective side-through coolant




# SFH-S

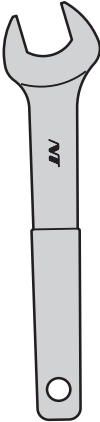
## Zubehör für Gewindeschneidfutter

### Accessories for Tapping Holder

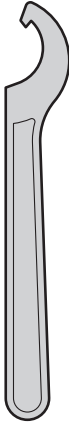


Mini ERP

**ERP**



**S-E**

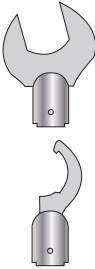


**HS**



**Drehmomentschlüssel**  
Torque wrench

**CL**

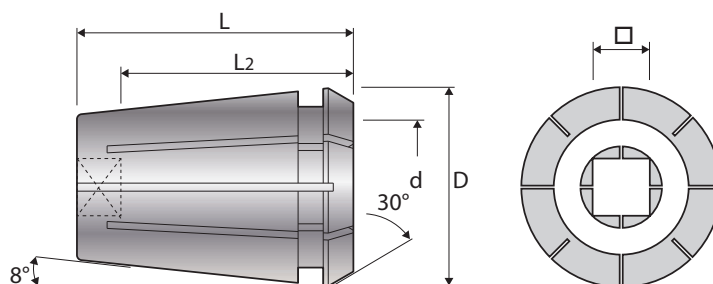


**SH**

| Halter   Holder | Spannmutter<br>Cap Nut | Spannschlüssel<br>Spanner | Drehmomentschlüssel<br>Torque Wrench | Einsteckwerkzeug<br>Torque wrench head |
|-----------------|------------------------|---------------------------|--------------------------------------|----------------------------------------|
| SFH8S           | ERP-11S                | S-11E                     | CL25NX10D                            | SH-14-10                               |
| SFH12S          | ERP-16                 | FK-0034                   | CL100NX15D                           | SH-23-10                               |
| SFH18S          | ERP-25                 | HS-1-16                   | CL100NX15D                           | SH-25-15                               |
| SFH30S          | ERP-32                 | HS-2-20                   | CL200NX19D                           | SH-45-15                               |

# SFH-S Zubehör für Gewindeschneidfutter

## Accessories for Tapping Holder



### ER-GB

### ER-GB Gewindebohrspannzangen

#### ER-GB Tapping Collets

DIN 6449B | ISO 15488

| Spannzange<br>Collet | d         | 4kant<br>Square | D x L       | L 2 | Grösse   Size |
|----------------------|-----------|-----------------|-------------|-----|---------------|
| ER 11-GB             | Ø 2.5 mm  | □ 2.1 mm        | 11.3 x 18.0 | -   | M 1 M 3.5     |
| ER 11-GB             | Ø 2.8 mm  | □ 2.1 mm        | 11.3 x 18.0 | 12  | M 2 M 4       |
| ER 11-GB             | Ø 3.5 mm  | □ 2.7 mm        | 11.3 x 18.0 | 14  | M 3 M 5       |
| ER 11-GB             | Ø 4.5 mm  | □ 3.4 mm        | 11.3 x 18.0 | 14  | M 4 M 6       |
| ER 11-GB             | Ø 6.0 mm  | □ 4.9 mm        | 11.3 x 18.0 | 18  | M 5, M 6 M 8  |
| ER 16-GB             | Ø 2.8 mm  | □ 2.1 mm        | 16.7 x 27.5 | 18  | M 2 M 4       |
| ER 16-GB             | Ø 3.5 mm  | □ 2.7 mm        | 16.7 x 27.5 | 18  | M 3 M 5       |
| ER 16-GB             | Ø 4.5 mm  | □ 3.4 mm        | 16.7 x 27.5 | 18  | M 4 M 6       |
| ER 16-GB             | Ø 6.0 mm  | □ 4.9 mm        | 16.7 x 27.5 | 18  | M 5, M 6 M 8  |
| ER 16-GB             | Ø 7.0 mm  | □ 5.5 mm        | 16.7 x 27.5 | 18  | M 7 M 10      |
| ER 16-GB             | Ø 8.0 mm  | □ 6.2 mm        | 16.7 x 27.5 | 22  | M 8 M 11      |
| ER 16-GB             | Ø 9.0 mm  | □ 7.0 mm        | 16.7 x 27.5 | 22  | M 9 M 12      |
| ER 25-GB             | Ø 4.5 mm  | □ 3.4 mm        | 25.7 x 34   | 18  | M 4 M 6       |
| ER 25-GB             | Ø 6.0 mm  | □ 4.9 mm        | 25.7 x 34   | 18  | M 5, M 6 M 8  |
| ER 25-GB             | Ø 7.0 mm  | □ 5.5 mm        | 25.7 x 34   | 18  | M 7 M 10      |
| ER 25-GB             | Ø 8.0 mm  | □ 6.2 mm        | 25.7 x 34   | 22  | M 8 M 11      |
| ER 25-GB             | Ø 9.0 mm  | □ 7.0 mm        | 25.7 x 34   | 22  | M 9 M 12      |
| ER 25-GB             | Ø 10.0 mm | □ 8.0 mm        | 25.7 x 34   | 25  | M 10 -        |
| ER 25-GB             | Ø 11.0 mm | □ 9.0 mm        | 25.7 x 34   | 25  | - M 14        |
| ER 25-GB             | Ø 12.0 mm | □ 9.0 mm        | 25.7 x 34   | 25  | - M 16        |
| ER 25-GB             | Ø 14.0 mm | □ 11.0 mm       | 25.7 x 34   | 25  | - M 18        |
| ER 25-GB             | Ø 16.0 mm | □ 12.0 mm       | 25.7 x 34   | 25  | - M 20        |
| ER 32-GB             | Ø 4.5 mm  | □ 3.4 mm        | 32.7 x 40   | 18  | M 4 M 6       |
| ER 32-GB             | Ø 6.0 mm  | □ 4.9 mm        | 32.7 x 40   | 18  | M 5, M 6 M 8  |
| ER 32-GB             | Ø 7.0 mm  | □ 5.5 mm        | 32.7 x 40   | 18  | M 7 M 10      |
| ER 32-GB             | Ø 8.0 mm  | □ 6.2 mm        | 32.7 x 40   | 22  | M 8 M 11      |
| ER 32-GB             | Ø 9.0 mm  | □ 7.0 mm        | 32.7 x 40   | 22  | M 9 M 12      |
| ER 32-GB             | Ø 10.0 mm | □ 8.0 mm        | 32.7 x 40   | 25  | M 10 -        |
| ER 32-GB             | Ø 11.0 mm | □ 9.0 mm        | 32.7 x 40   | 25  | - M 14        |
| ER 32-GB             | Ø 12.0 mm | □ 9.0 mm        | 32.7 x 40   | 25  | - M 16        |
| ER 32-GB             | Ø 14.0 mm | □ 11.0 mm       | 32.7 x 40   | 25  | - M 18        |
| ER 32-GB             | Ø 16.0 mm | □ 12.0 mm       | 32.7 x 40   | 25  | - M 20        |
| ER 32-GB             | Ø 18.0 mm | □ 14.5 mm       | 32.7 x 40   | 30  | - M 22, M 24  |
| ER 32-GB             | Ø 20.0 mm | □ 16.0 mm       | 32.7 x 40   | 30  | - M 27        |

# HSK-T

## Aufnahmen für Dreh-Fräszentren

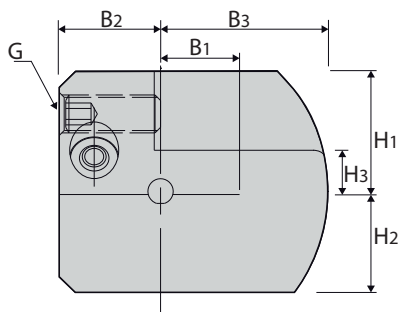
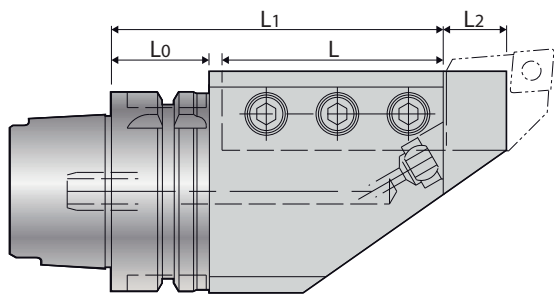
### Millturn Tooling Systems

### ISO 12164

|                       | Zubehör                               | Accessories                    | Seite<br>Page |
|-----------------------|---------------------------------------|--------------------------------|---------------|
| SBV   SBN   SBH   SBT | Drehhalter                            | Turning tools                  | 203 - 204     |
| TSB                   | Bohrstangenhalter                     | Boring bar holder              | 205           |
| TSD                   | Werkzeughalter für Wendeplattenbohrer | Holder for Insert drills       | 206           |
| CT-SA                 | Hochleistungs-Kraftspannfutter        | High Performance Milling Chuck | 207           |

# HSK-T Werkzeugspannsysteme

## Tooling Systems



### HSK-T

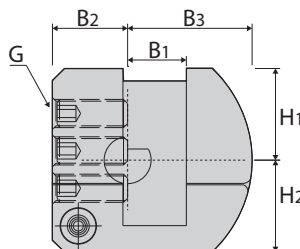
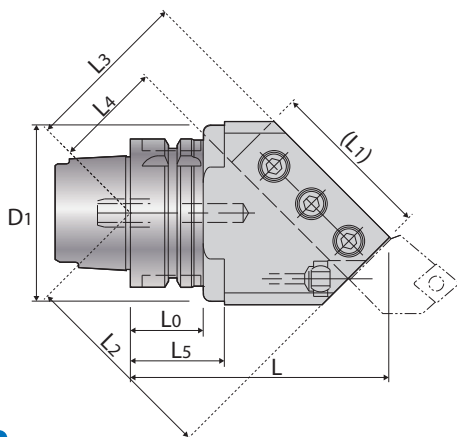
ISO 12164-3

**SBV Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBV Toolholders | for External | Cut-off

| Halter   Holder |                 | L   | L0 | L1  | L2 | B1 | B2 | B3   | H1 | H2 | H3 | G   |
|-----------------|-----------------|-----|----|-----|----|----|----|------|----|----|----|-----|
| HSK63T          | -SBV2020 R -95  | 95  | 32 | 60  | 15 | 20 | 32 | 43,5 | 33 | 32 | 13 | M10 |
|                 | -SBV2020 L -95  | 95  | 32 | 60  | 15 | 20 | 32 | 43,5 | 33 | 32 | 13 | M10 |
|                 | -SBV2525 R -105 | 105 | 32 | 70  | 20 | 25 | 32 | 45   | 30 | 30 | 5  | M12 |
|                 | -SBV2525 L -105 | 105 | 32 | 70  | 20 | 25 | 32 | 45   | 30 | 30 | 5  | M12 |
| HSK100T         | -SBV2525 R -150 | 150 | 35 | 110 | 20 | 25 | 37 | 59   | 48 | 43 | 23 | M12 |
|                 | -SBV2525 L -150 | 150 | 35 | 110 | 20 | 25 | 37 | 59   | 48 | 43 | 23 | M12 |
|                 | -SBV3232 R -150 | 150 | 35 | 110 | 20 | 32 | 40 | 68,5 | 45 | 43 | 15 | M14 |
|                 | -SBV3232 L -150 | 150 | 35 | 110 | 20 | 32 | 40 | 68,5 | 45 | 43 | 15 | M14 |

Kühlmitteldüsen einstellbar.

Direction of coolant nozzle can be adjusted.



### HSK-T

ISO 12164-3

**SBN Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBN Toolholders | for External | Facing

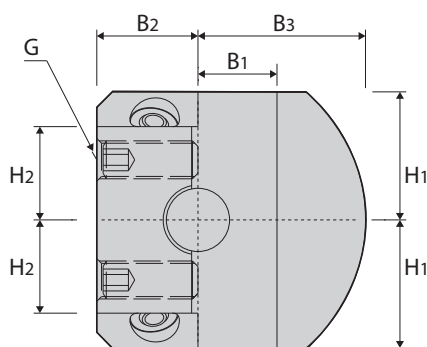
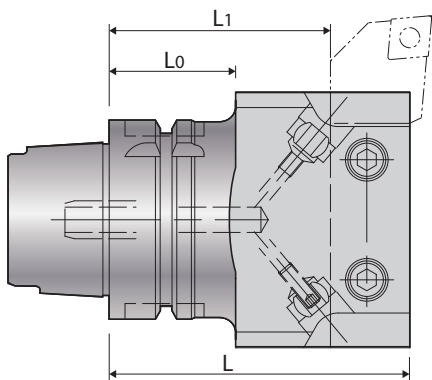
| Halter   Holder |                 | D1 | L   | L0 | (L1) | L2    | L3   | L4   | L5 | B1 | B2 | B3   | H1 | H2 | G   |
|-----------------|-----------------|----|-----|----|------|-------|------|------|----|----|----|------|----|----|-----|
| HSK63T          | -SBN2020 R -110 | -  | 110 | 32 | 60   | 83,1  | 72,8 | 52,8 | -  | 20 | 32 | 43,5 | 35 | 35 | M10 |
|                 | -SBN2020 L -110 | -  | 110 | 32 | 60   | 83,1  | 72,8 | 52,8 | -  | 20 | 32 | 43,5 | 35 | 35 | M10 |
|                 | -SBN2525 R -110 | 90 | 110 | 32 | 70   | 85,2  | 70,8 | 45,8 | 40 | 25 | 32 | 53   | 39 | 39 | M12 |
|                 | -SBN2525 L -110 | 90 | 110 | 32 | 70   | 85,2  | 70,8 | 45,8 | 40 | 25 | 32 | 53   | 39 | 39 | M12 |
| HSK100T         | -SBN2525 R -135 | -  | 135 | 35 | 70   | 102,9 | 88,5 | 63,5 | -  | 25 | 32 | 59   | 43 | 43 | M12 |
|                 | -SBN2525 L -135 | -  | 135 | 35 | 70   | 102,9 | 88,5 | 63,5 | -  | 25 | 32 | 59   | 43 | 43 | M12 |
|                 | -SBN3232 R -140 | -  | 140 | 35 | 85   | 109,9 | 89   | 59   | -  | 32 | 37 | 68,5 | 48 | 43 | M14 |
|                 | -SBN3232 L -140 | -  | 140 | 35 | 85   | 109,9 | 89   | 59   | -  | 32 | 37 | 68,5 | 48 | 43 | M14 |

Kühlmitteldüsen einstellbar.

Direction of coolant nozzle can be adjusted.

# HSK-T Werkzeugspannsysteme

## Tooling Systems



**HSK-T**

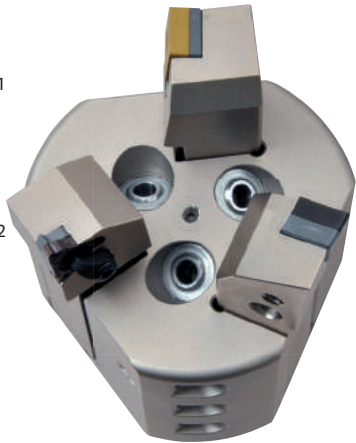
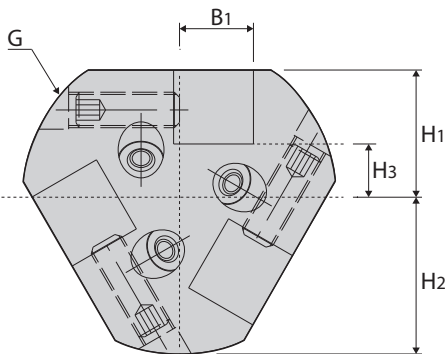
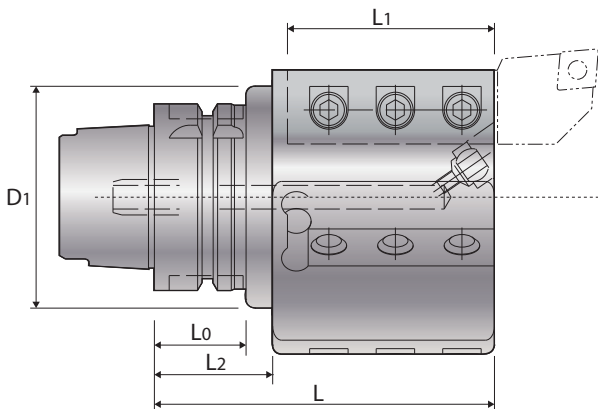
**SBH Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBH Toolholders | for Facing

ISO 12164-3

| Halter   Holder |                 | L   | L0 | L1  | B1 | B2 | B3   | H1   | H2   | G   |
|-----------------|-----------------|-----|----|-----|----|----|------|------|------|-----|
| HSK63T          | -SBH2020 N -90  | 90  | 40 | 70  | 20 | 32 | 43,5 | 30   | -    | M10 |
|                 | -SBH2525 N -90  | 90  | 40 | 65  | 25 | 32 | 53   | 40,5 | 29,5 | M12 |
|                 | -SBH2525 N -120 | 120 | 70 | 95  | 25 | 32 | 53   | 40,5 | 29,5 | M12 |
| HSK100T         | -SBH2525 N -105 | 105 | 35 | 80  | 25 | 32 | 59   | 48   | 37   | M12 |
|                 | -SBH2525 N -150 | 150 | 35 | 125 | 25 | 32 | 59   | 48   | 37   | M12 |
|                 | -SBH3232 N -105 | 105 | 35 | 75  | 32 | 40 | 68,5 | 57   | 43   | M14 |

Kühlmitteldüsen einstellbar.  
Eine Verschlußschraube (M5x15) für Kühlmitteldüsen ist im Lieferumfang enthalten.

Direction of coolant nozzle can be adjusted.  
One plug screw (M5x15) for coolant nozzle is included in delivery.



**HSK-T**

**SBT Werkzeughalter | für Klemmhalter mit 4kant-Schaft**  
SBT Toolholders | for External | for Facing

ISO 12164-3

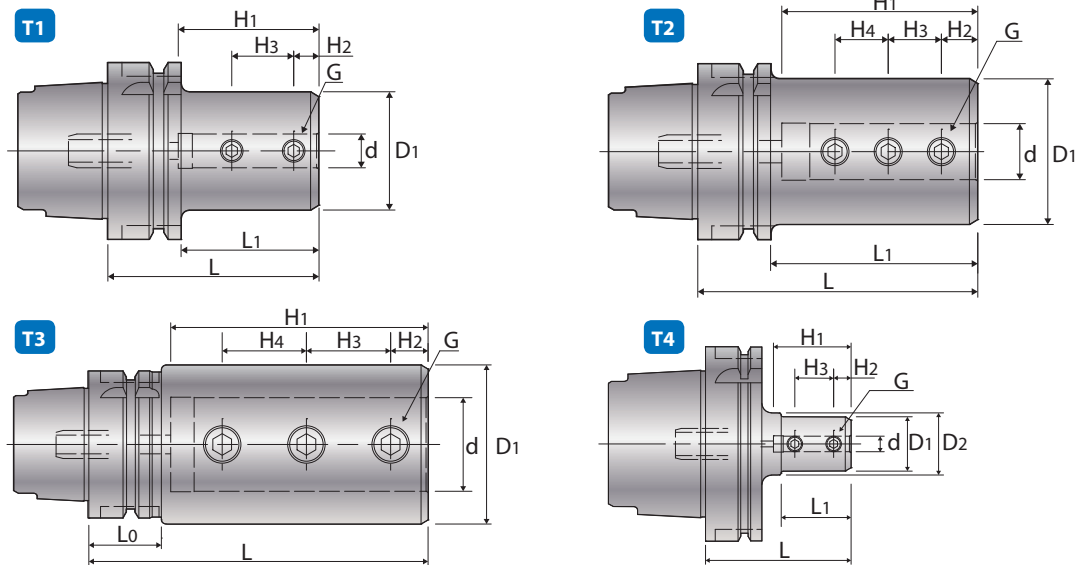
| Halter   Holder |                 | D1 | L   | L0 | L1  | L2 | B1 | H1 | H2   | H3 | G   |
|-----------------|-----------------|----|-----|----|-----|----|----|----|------|----|-----|
| HSK63T          | -SBT2020 R -95  | -  | 95  | 32 | 60  | -  | 20 | 35 | 43,5 | 15 | M10 |
|                 | -SBT2020 L -95  | -  | 95  | 32 | 60  | -  | 20 | 35 | 43,5 | 15 | M10 |
|                 | -SBT2525 R -115 | 90 | 115 | 32 | 70  | 40 | 25 | 43 | 53   | 18 | M12 |
|                 | -SBT2525 L -115 | 90 | 115 | 32 | 70  | 40 | 25 | 43 | 53   | 18 | M12 |
| HSK100T         | -SBT2525 R -150 | -  | 150 | 35 | 110 | -  | 25 | 48 | 59   | 23 | M12 |
|                 | -SBT2525 L -150 | -  | 150 | 35 | 110 | -  | 25 | 48 | 59   | 23 | M12 |

Kühlmitteldüsen einstellbar.  
Zwei Verschlußschrauben (M5x15) für Kühlmitteldüsen sind im Lieferumfang enthalten.

Direction of coolant nozzle can be adjusted.  
Two plug screws (M5x15) for coolant nozzle are included in delivery.



# HSK-T Werkzeugspannsysteme Tooling Systems



## HSK-T

**TSB Bohrstangenhalter**  
TSB Boring bar holders

ISO 12164-3

| Halter   Holder |        |      | Type | d  | D1 | D2 | L   | L0 | L1  | H1  | H2 | H3 | H4 | G   |
|-----------------|--------|------|------|----|----|----|-----|----|-----|-----|----|----|----|-----|
| HSK63T          | -TSB8  | -65  | T1   | 8  | 28 | -  | 65  | -  | 39  | 40  | 9  | 20 | -  | M8  |
|                 | -TSB10 | -70  | T1   | 10 | 35 | -  | 70  | -  | 44  | 45  | 9  | 22 | -  | M8  |
|                 | -TSB12 | -75  | T1   | 12 | 42 | -  | 75  | -  | 49  | 50  | 9  | 22 | -  | M8  |
|                 | -TSB16 | -100 | T2   | 16 | 48 | -  | 100 | -  | 74  | 70  | 14 | 18 | 18 | M10 |
|                 | -TSB20 | -100 | T2   | 20 | 52 | -  | 100 | -  | 74  | 70  | 14 | 18 | 18 | M10 |
|                 | -TSB25 | -115 | T2   | 25 | 62 | -  | 115 | -  | 89  | 85  | 14 | 26 | 26 | M12 |
|                 | -TSB32 | -130 | T2   | 32 | 62 | -  | 130 | -  | 104 | 100 | 14 | 30 | 30 | M12 |
|                 | -TSB40 | -145 | T3   | 40 | 68 | -  | 145 | 32 | -   | 115 | 16 | 36 | 36 | M16 |
| HSK100T         | -TSB8  | -75  | T4   | 8  | 28 | 32 | 75  | -  | 36  | 40  | 9  | 20 | -  | M8  |
|                 | -TSB10 | -80  | T1   | 10 | 35 | -  | 80  | -  | 51  | 45  | 9  | 22 | -  | M8  |
|                 | -TSB12 | -85  | T1   | 12 | 42 | -  | 85  | -  | 56  | 50  | 9  | 22 | -  | M8  |
|                 | -TSB16 | -105 | T2   | 16 | 48 | -  | 105 | -  | 76  | 70  | 14 | 18 | 18 | M10 |
|                 | -TSB20 | -105 | T2   | 20 | 52 | -  | 105 | -  | 76  | 70  | 14 | 18 | 18 | M10 |
|                 | -TSB25 | -120 | T2   | 25 | 62 | -  | 120 | -  | 91  | 85  | 14 | 26 | 26 | M12 |
|                 | -TSB32 | -135 | T2   | 32 | 72 | -  | 135 | -  | 106 | 100 | 14 | 30 | 30 | M12 |
|                 | -TSB40 | -150 | T2   | 40 | 82 | -  | 150 | -  | 121 | 115 | 16 | 36 | 36 | M16 |
|                 | -TSB50 | -180 | T2   | 50 | 92 | -  | 180 | -  | 151 | 145 | 18 | 38 | 38 | M16 |

**TSS**  
Spannhülsen  
Collets

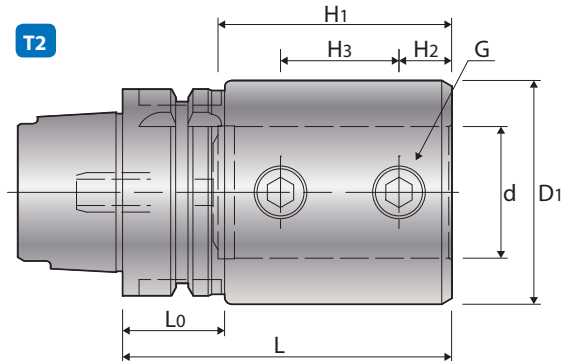
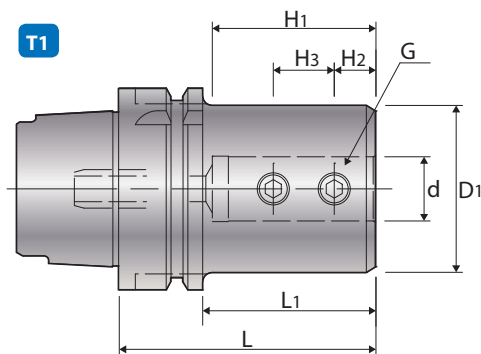


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# HSK-T Werkzeugspannsysteme

## Tooling Systems



HSK-T

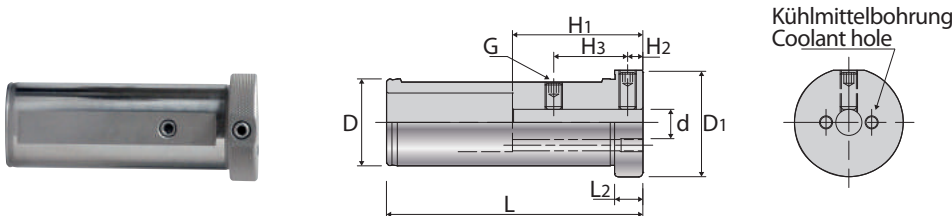
TSD Werkzeughalter | für Wendeplattenbohrer  
TSD Toolholders | for Drills

ISO 12164-3

| Halter   Holder |        |      | Type | d  | D1 | L   | L0 | L1 | H1 | H2 | H3 | G   |
|-----------------|--------|------|------|----|----|-----|----|----|----|----|----|-----|
| HSK63T          | -TSD16 | -75  | T1   | 16 | 48 | 75  | -  | 49 | 49 | 14 | 18 | M10 |
|                 | -TSD20 | -80  | T1   | 20 | 52 | 80  | -  | 54 | 51 | 14 | 18 | M10 |
|                 | -TSD25 | -85  | T1   | 25 | 62 | 85  | -  | 59 | 57 | 14 | 26 | M12 |
|                 | -TSD32 | -90  | T1   | 32 | 62 | 90  | -  | 64 | 61 | 14 | 30 | M12 |
|                 | -TSD40 | -100 | T2   | 40 | 68 | 100 | 32 | -  | 71 | 16 | 36 | M16 |
| HSK100T         | -TSD16 | -85  | T1   | 16 | 48 | 85  | -  | 56 | 49 | 14 | 18 | M10 |
|                 | -TSD20 | -85  | T1   | 20 | 52 | 85  | -  | 56 | 51 | 14 | 18 | M10 |
|                 | -TSD25 | -90  | T1   | 25 | 62 | 90  | -  | 61 | 57 | 14 | 26 | M12 |
|                 | -TSD32 | -95  | T1   | 32 | 72 | 95  | -  | 66 | 61 | 14 | 30 | M12 |
|                 | -TSD40 | -105 | T1   | 40 | 82 | 105 | -  | 76 | 71 | 16 | 36 | M16 |
|                 | -TSD50 | -115 | T1   | 50 | 92 | 115 | -  | 86 | 81 | 18 | 38 | M16 |

HSK-Kühlmittelrohr im Lieferumfang enthalten.

HSK-Coolant pipe included in delivery.



TSS

TSS Reduzierhülsen | für TSB40 Halter  
TSS Reduction Sleeves | for TSB40 Holders

| Hülse   Collet |     | d  | D  | D1 | L1  | L2 | H1 | H2 | H3 | G  |
|----------------|-----|----|----|----|-----|----|----|----|----|----|
| TSS40          | -8  | 8  | 40 | 50 | 118 | 13 | 50 | 7  | 34 | M8 |
|                | -10 | 10 | 40 | 50 | 118 | 13 | 50 | 7  | 34 | M8 |
|                | -12 | 12 | 40 | 50 | 118 | 13 | 60 | 7  | 34 | M8 |
|                | -16 | 16 | 40 | 50 | 118 | 13 | 70 | 7  | 34 | M8 |

Für Anwendungen mit IKZ,  
Kühlmittelbohrung verschließen  
(M6x10, im Lieferumfang enthalten).

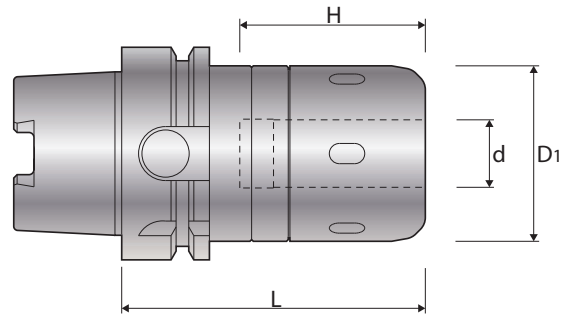
Flexibel durch die Verwendung  
von Reduzierhülsen.

For coolant use, plug one of the two  
coolant holes with plug screw  
(M6x10 included in delivery).

Various sizes of boring bars can be  
clamped by using reduction sleeves.

# CT-SA Hochleistungs-Kraftspannfutter

## High Performance Milling Chuck



### HSK63T

DIN 69893 | ISO 12164

3.0  
32.0

0.005  
3x D

max  
20.000  
min<sup>-1</sup>



| Halter   Holder |         |      | d  | D1 | L   | L1 | H  |  |  |
|-----------------|---------|------|----|----|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| HSK63T          | -CT20SA | -90  | 20 | 52 | 90  | 64 | 60 | MC20-d                                                                              | HS-2-20                                                                             |
|                 | -CT32SA | -105 | 32 | 73 | 105 | -  | 75 | MC32-d                                                                              | HS-3-32                                                                             |

**MC**

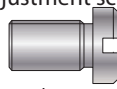
Spannhülsen  
Collets



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**BL**

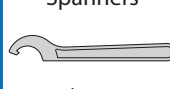
Einstellschrauben  
Adjustment screw



S.|P. 190

**HS**

Spannschlüssel  
Spanners



S.|P. 190

**EM**

Verlängerungen  
Extensions



S.|P. 187