

***Precision meets Motion***



***PRODUKTKATALOG***  
*Product Catalog*

EWS Group  
**WSW**  
**Tooling Systems**

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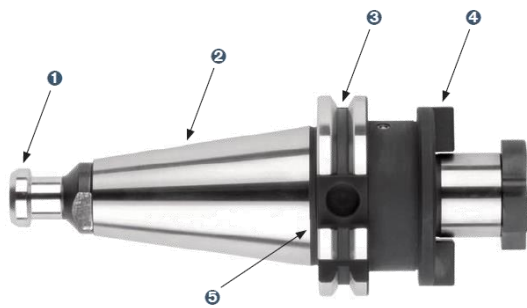
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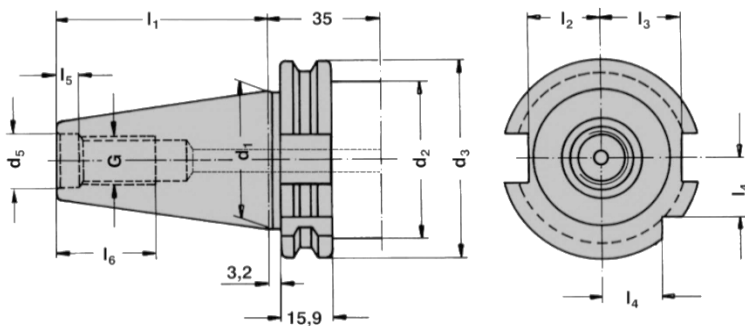
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- |   |                                |                                 |
|---|--------------------------------|---------------------------------|
| ① | Anzugsbolzen                   | Pull Stud                       |
| ② | Kegelschaft                    | Tapered Shank                   |
| ③ | Greiferrille: umlaufende V-Nut | Gripper groove: circular groove |
| ④ | Adapter – Werkzeugaufnahme     | Adapter                         |
| ⑤ | Mitnahme-Nut                   | Opposed Slot                    |



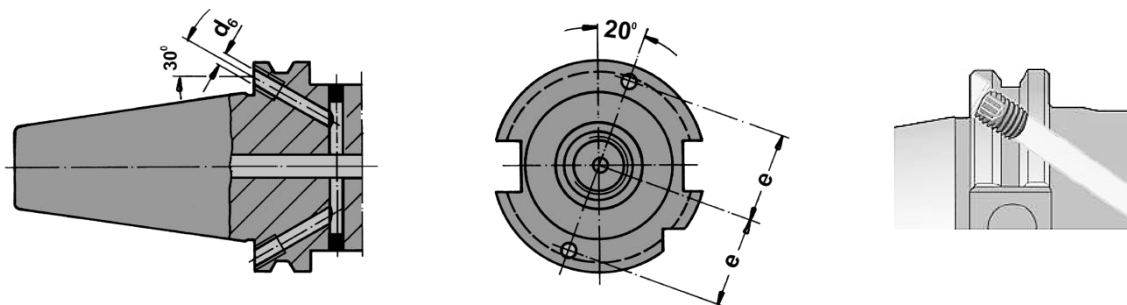
| SK | d1    | G   | d5 | d2 | d3    | l1     | l2   | l3   | l4   | l5   | l6 | d6 | e  |
|----|-------|-----|----|----|-------|--------|------|------|------|------|----|----|----|
| 30 | 31,75 | M12 | 13 | 45 | 50,00 | 47,80  | 16,4 | 19,0 | 15,0 | 5,5  | 24 | M4 | 21 |
| 40 | 44,45 | M16 | 17 | 50 | 63,55 | 68,40  | 22,8 | 25,0 | 18,5 | 8,2  | 32 | M4 | 27 |
| 50 | 69,85 | M24 | 25 | 80 | 97,50 | 101,75 | 35,5 | 37,7 | 30,0 | 11,5 | 47 | M6 | 42 |

### Form AD/AF (AD/B) with internal coolant through the collar

(Delivery with headless screws in closed position) Toolholders form AD/B have internal coolant supply. To use form B (coolant supply through the collar) the two headless screws must be removed and a sealed pull stud must be inserted. To use form AD (central coolant supply) the two headless screws must remain at the collar and a pull stud with drill through must be inserted.

### Form AD/AF (AD/B) mit innerer Kühlmittelzufuhr über den Bund

(Bei Lieferung mit Gewindestiften verschlossen) Aufnahmen Form AD/B haben Innenkühlung. Bei Form B (Kühlmittelzufuhr durch den Bund) müssen die beiden Gewindestifte entfernt und ein nicht durchbohrter Anzugsbolzen eingesetzt werden. Bei Form AD (zentrale Kühlmittelzufuhr) müssen die beiden Gewindestifte im Bund verbleiben und ein Anzugsbolzen mit Bohrung eingesetzt werden.



**Material**..... Case hardened steel, tensile strength in the core min. 950 N/mm<sup>2</sup>  
**Execution**..... Case hardened HRC 58±2 depth of case 0,6mm ± 0,2mm, black-finish  
**Accuracy**..... Cone angle AT3 according to DIN 2080  
 Surface roughness of cone max 0,001mm

**Werkstoff**..... Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 950 N/mm<sup>2</sup>  
**Ausführung**..... Einsatzgehärtet HRC 58±2 Härtetiefe 0,6mm ± 0,2mm, brüniert  
**Genauigkeit**..... Kegelwinkel-Toleranzqualität AT3 nach DIN 2080  
 Oberflächenrauigkeit des Kegels max. 0,001mm

**Toolholder ISO 7388-1 DIN 69871****Werkzeugaufnahmen ISO 7388-1 DIN 69871**

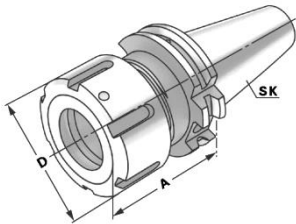
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| <b>Spannfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER                        | <b>Collet chucks</b><br>for collets DIN 6499 / ISO15488 System ER                          | <b>01.01</b> |
| <b>Fräseraufnahmen DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon                  | <b>End mill holder DIN 6359</b><br>for end mills DIN 1835-B (Weldon)                       | <b>01.03</b> |
| <b>Fräseraufnahmen mit Kühlkanal DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon    | <b>End mill holder with coolant channel DIN 6359</b><br>for end mills DIN 1835-B (Weldon)  | <b>01.06</b> |
| <b>Hochleistungs-Kraftspannfutter HKS</b><br>Werkzeuge mit Zylinderschaft DIN1835/ DIN6535 | <b>High Performance Milling Chuck HKS-system</b><br>Straight-shank tools DIN 1835/DIN 6535 | <b>01.07</b> |
| <b>Fräseraufnahmen DIN 6359 Whistle Notch</b><br>für Zylinderschaft DIN 1835-E             | <b>End mill holder DIN 6359 Whistle Notch</b><br>for end mills DIN 1835-E                  | <b>01.08</b> |
| <b>Zwischenhülsen / Reduzierhülsen</b><br>für MK DIN 6383 / DIN 6384                       | <b>Morse taper adaptor / Reduction sleeves</b><br>DIN 6383 / DIN 6384                      | <b>01.08</b> |
| <b>Kombi-Aufsteckfräserdorne DIN 6358</b>                                                  | <b>Combi shell mill holder DIN 6358</b>                                                    | <b>01.10</b> |
| <b>Quernut Aufsteckfräserdorne DIN 6357</b><br>mit vergrößertem Bunddurchmesser            | <b>Shell mill holder DIN 6357</b><br>for cutters with driving slot                         | <b>01.12</b> |
| <b>Schrumpffutter</b><br>zum Spannen von HM und HSS Werkzeugschäften                       | <b>Shrink chuck</b><br>for mounting of solide carbide and HSS Cutters                      | <b>01.15</b> |
| <b>Bohrerhalter</b><br>für Wendepplattenbohrer E1                                          | <b>Boring holder</b><br>for drill with indexable inserts form E1                           | <b>01.17</b> |
| <b>CNC-Präzisionsbohrfutter</b><br>für Rechts- und Linkslauf                               | <b>CNC- Universal Drill Chuck Heads</b><br>for right and left rotation                     | <b>01.17</b> |
| <b>Gewindeschneid-Schnellwechselfutter</b><br>mit/ohne Längenausgleich auf Druck und Zug   | <b>Quick-change Tapping Chucks</b><br>with/without axial compensation                      | <b>01.18</b> |
| <b>Synchro-Gewindeschneidfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER       | <b>Synchro Tapping Chucks</b><br>For Collets DIN 6499 / ISO15488 System ER                 | <b>01.19</b> |
| <b>Hydro-Dehnspannfutter</b>                                                               | <b>Hydraulic expansions chucks</b>                                                         | <b>01.20</b> |
| <b>Fräseraufnahmen</b><br>für Einschraubfräser                                             | <b>Milling arbors</b><br>for screw-in cutters                                              | <b>01.22</b> |
| <b>Bohrstangenrohlinge</b><br>zur Anfertigung von Sonderwerkzeugen                         | <b>Boring bar blanks</b><br>for the production of special tools                            | <b>01.23</b> |
| <b>Kontrolldorne</b>                                                                       | <b>Test arbors</b>                                                                         | <b>01.23</b> |

**OZ Collet Chucks DIN 6391** for collets DIN 6388 / ISO 10897**OZ Spannfutter DIN 6391** für Spannzangen DIN 6388 / ISO 10897

| Form                          | Typ | Order No.     | Capacity     | Collets |    |                 |
|-------------------------------|-----|---------------|--------------|---------|----|-----------------|
| AD                            | OZ  | Bestell-Nr.   | Spannbereich | A       | D  | Spannzange      |
| G6.3 15.000 min <sup>-1</sup> |     | 31.SK30Z16L60 | SK30 2-16    | 60      | 43 | 025 415E (OZ16) |
| ⌀0,003mm                      |     | 31.SK30Z25L80 | SK30 2-25    | 80      | 60 | 035 462E (OZ25) |

| Form                          | Typ | Order No.       | Capacity     | Collets |    |                  |
|-------------------------------|-----|-----------------|--------------|---------|----|------------------|
| AD/AF<br>(AD/B)               | OZ  | Bestell-Nr.     | Spannbereich | A       | D  | Spannzange       |
| G6.3 15.000 min <sup>-1</sup> |     | 31.SK40Z16L70B  | SK40 2-16    | 70      | 43 | 025 415E (OZ16)  |
| ⌀0,003mm                      |     | 31.SK40Z16L100B | SK40 2-16    | 100     | 43 | 025 415E (OZ16)  |
|                               |     | 31.SK40Z25L70B  | SK40 2-25    | 70      | 60 | 035 462E (OZ25)  |
|                               |     | 31.SK40Z25L100B | SK40 2-25    | 100     | 60 | 035 462E (OZ25)  |
|                               |     | 31.SK40Z32L80B  | SK40 4-32    | 80      | 72 | 044 0467E (OZ32) |

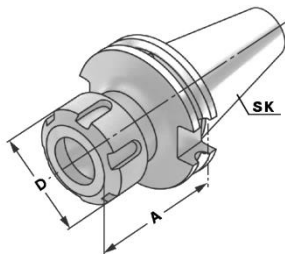


|                 |      |      |     |    |                  |
|-----------------|------|------|-----|----|------------------|
| 31.SK50Z16L70B  | SK50 | 2-16 | 70  | 43 | 025 415E (OZ16)  |
| 31.SK50Z25L70B  | SK50 | 2-25 | 70  | 60 | 035 462E (OZ25)  |
| 31.SK50Z32L80B  | SK50 | 4-32 | 80  | 72 | 044 0467E (OZ32) |
| 31.SK50Z32L100B | SK50 | 4-32 | 100 | 72 | 044 0467E (OZ32) |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut

**ER Collet Chucks** for collets DIN 6499 / ISO 15488**ER Spannfutter** für Spannzangen DIN 6499 / ISO 15488

| Form                          | Typ | Order No.      | Capacity     | Collets |    |                 |
|-------------------------------|-----|----------------|--------------|---------|----|-----------------|
| AD                            | ER  | Bestell-Nr.    | Spannbereich | A       | D  | Spannzange      |
| G6.3 15.000 min <sup>-1</sup> |     | 31.SK30R16L70  | SK30 1-10    | 70      | 32 | 160 426E (E16)  |
| ⌀0,003mm                      |     | 31.SK30R16L100 | SK30 1-10    | 100     | 32 | 160 426E (E16)  |
|                               |     | 31.SK30R25L70  | SK30 2-16    | 70      | 42 | 250 430E (E25)  |
|                               |     | 31.SK30R25L100 | SK30 2-16    | 100     | 42 | 250 430E (E25)  |
|                               |     | 31.SK30R32L70  | SK30 2-20    | 70      | 50 | 320 470E (ER32) |
|                               |     | 31.SK30R32L100 | SK30 2-20    | 100     | 50 | 320 470E (ER32) |
|                               |     | 31.SK30R40L70  | SK30 3-26    | 70      | 63 | 400 472E (ER40) |



|                |      |      |     |    |                 |
|----------------|------|------|-----|----|-----------------|
| 31.SK40R16L63  | SK40 | 1-10 | 63  | 32 | 160 426E (E16)  |
| 31.SK40R16L100 | SK40 | 1-10 | 100 | 32 | 160 426E (E16)  |
| 31.SK40R25L60  | SK40 | 2-16 | 60  | 42 | 250 430E (E25)  |
| 31.SK40R25L100 | SK40 | 2-16 | 100 | 42 | 250 430E (E25)  |
| 31.SK40R32L70  | SK40 | 2-20 | 70  | 50 | 320 470E (ER32) |
| 31.SK40R32L100 | SK40 | 2-20 | 100 | 50 | 320 470E (ER32) |
| 31.SK40R40L80  | SK40 | 3-26 | 80  | 63 | 400 472E (ER40) |
| 31.SK40R40L100 | SK40 | 3-26 | 100 | 63 | 400 472E (ER40) |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut





## ER Collet Chucks for collets DIN 6499 / ISO 15488

## ER Spannfutter für Spannzangen DIN 6499 / ISO 15488

**Form**  
**AD/AF**  
**(AD/B)**

G6.3 15.000 min<sup>-1</sup>

↗ 0,003mm

**Typ**  
**ER**

**Order No.**  
**Bestell-Nr.**

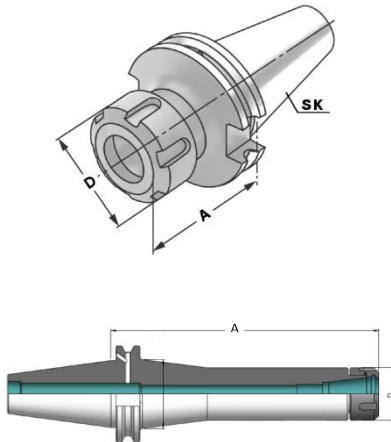
**SK**

**Capacity**  
**Spannbereich**

**A**

**D**

**Collets**  
**Spannzange**



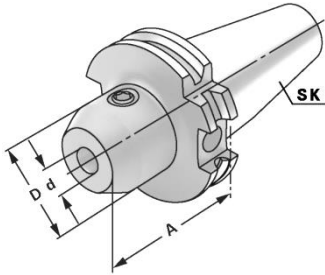
|                 |      |        |     |    |                 |
|-----------------|------|--------|-----|----|-----------------|
| 31.SK40R16L70B  | SK40 | 1 - 10 | 70  | 32 | 160 426E (ER16) |
| 31.SK40R16L100B | SK40 | 1 - 10 | 100 | 32 | 160 426E (ER16) |
| 31.SK40R16L130B | SK40 | 1 - 10 | 130 | 32 | 160 426E (ER16) |
| 31.SK40R16L160B | SK40 | 1 - 10 | 160 | 32 | 160 426E (ER16) |
| 31.SK40R16L200B | SK40 | 1 - 10 | 200 | 32 | 160 426E (ER16) |
| 31.SK40R25L70B  | SK40 | 2 - 16 | 70  | 42 | 250 430E (ER25) |
| 31.SK40R25L100B | SK40 | 2 - 16 | 100 | 42 | 250 430E (ER25) |
| 31.SK40R25L130B | SK40 | 2 - 16 | 130 | 42 | 250 430E (ER25) |
| 31.SK40R25L160B | SK40 | 2 - 16 | 160 | 42 | 250 430E (ER25) |
| 31.SK40R25L200B | SK40 | 2 - 16 | 200 | 42 | 250 430E (ER25) |
| 31.SK40R32L70B  | SK40 | 2 - 20 | 70  | 50 | 320 470E (ER32) |
| 31.SK40R32L100B | SK40 | 2 - 20 | 100 | 50 | 320 470E (ER32) |
| 31.SK40R32L130B | SK40 | 2 - 20 | 130 | 50 | 320 470E (ER32) |
| 31.SK40R32L160B | SK40 | 2 - 20 | 160 | 50 | 320 470E (ER32) |
| 31.SK40R32L200B | SK40 | 2 - 20 | 200 | 50 | 320 470E (ER32) |
| 31.SK40R40L70B  | SK40 | 3 - 26 | 70  | 63 | 400 472E (ER40) |
| 31.SK40R40L100B | SK40 | 3 - 26 | 100 | 63 | 400 472E (ER40) |
| 31.SK40R40L130B | SK40 | 3 - 26 | 130 | 63 | 400 472E (ER40) |
| 31.SK40R40L160B | SK40 | 3 - 26 | 160 | 63 | 400 472E (ER40) |
| 31.SK40R40L200B | SK40 | 3 - 26 | 200 | 63 | 400 472E (ER40) |
| 31.SK50R16L80B  | SK50 | 1 - 10 | 80  | 32 | 160 426E (ER16) |
| 31.SK50R16L100B | SK50 | 1 - 10 | 100 | 32 | 160 426E (ER16) |
| 31.SK50R16L130B | SK50 | 1 - 10 | 130 | 32 | 160 426E (ER16) |
| 31.SK50R16L160B | SK50 | 1 - 10 | 160 | 32 | 160 426E (ER16) |
| 31.SK50R16L200B | SK50 | 1 - 10 | 200 | 32 | 160 426E (ER16) |
| 31.SK50R25L80B  | SK50 | 2 - 16 | 80  | 42 | 250 430E (ER25) |
| 31.SK50R25L100B | SK50 | 2 - 16 | 100 | 42 | 250 430E (ER25) |
| 31.SK50R25L130B | SK50 | 2 - 16 | 130 | 42 | 250 430E (ER25) |
| 31.SK50R25L160B | SK50 | 2 - 16 | 160 | 42 | 250 430E (ER25) |
| 31.SK50R25L200B | SK50 | 2 - 16 | 200 | 42 | 250 430E (ER25) |
| 31.SK50R32L80B  | SK50 | 2 - 20 | 80  | 50 | 320 470E (ER32) |
| 31.SK50R32L100B | SK50 | 2 - 20 | 100 | 50 | 320 470E (ER32) |
| 31.SK50R32L130B | SK50 | 2 - 20 | 130 | 50 | 320 470E (ER32) |
| 31.SK50R32L160B | SK50 | 2 - 20 | 160 | 50 | 320 470E (ER32) |
| 31.SK50R32L200B | SK50 | 2 - 20 | 200 | 50 | 320 470E (ER32) |
| 31.SK50R40L80B  | SK50 | 3 - 26 | 80  | 63 | 400 472E (ER40) |
| 31.SK50R40L100B | SK50 | 3 - 26 | 100 | 63 | 400 472E (ER40) |
| 31.SK50R40L130B | SK50 | 3 - 26 | 130 | 63 | 400 472E (ER40) |
| 31.SK50R40L160B | SK50 | 3 - 26 | 160 | 63 | 400 472E (ER40) |
| 31.SK50R40L200B | SK50 | 3 - 26 | 200 | 63 | 400 472E (ER40) |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut



**Form****AD**G6.3 15.000 min<sup>-1</sup>

√0,003mm

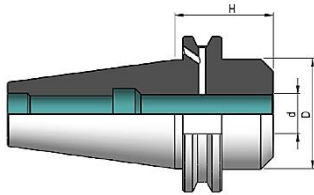
**Order No.****Bestell-Nr.****SK****d****A****D**

|                |      |    |     |    |
|----------------|------|----|-----|----|
| 27.SK3006WL50  | SK30 | 6  | 50  | 25 |
| 27.SK3008WL50  | SK30 | 8  | 50  | 28 |
| 27.SK3010WL50  | SK30 | 10 | 50  | 35 |
| 27.SK3012WL50  | SK30 | 12 | 50  | 42 |
| 27.SK3014WL63  | SK30 | 14 | 63  | 44 |
| 27.SK3016WL63  | SK30 | 16 | 63  | 48 |
| 27.SK3018WL63  | SK30 | 18 | 63  | 50 |
| 27.SK3020WL70  | SK30 | 20 | 70  | 52 |
| 27.SK4006WL50  | SK40 | 6  | 50  | 25 |
| 27.SK4008WL50  | SK40 | 8  | 50  | 28 |
| 27.SK4010WL50  | SK40 | 10 | 50  | 35 |
| 27.SK4012WL50  | SK40 | 12 | 50  | 42 |
| 27.SK4014WL50  | SK40 | 14 | 50  | 44 |
| 27.SK4016WL63  | SK40 | 16 | 63  | 48 |
| 27.SK4018WL63  | SK40 | 18 | 63  | 50 |
| 27.SK4020WL63  | SK40 | 20 | 63  | 52 |
| 27.SK4025WL100 | SK40 | 25 | 100 | 63 |
| 27.SK4032WL100 | SK40 | 32 | 100 | 72 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

**Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No.****Bestell-Nr.****SK****d****A****D**

|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.SK4006WL50B  | SK40 | 6  | 50  | 25 |
| 27.SK4006WL100B | SK40 | 6  | 100 | 25 |
| 27.SK4006WL130B | SK40 | 6  | 130 | 25 |
| 27.SK4006WL160B | SK40 | 6  | 160 | 25 |
| 27.SK4006WL200B | SK40 | 6  | 200 | 25 |
| 27.SK4008WL50B  | SK40 | 8  | 50  | 28 |
| 27.SK4008WL100B | SK40 | 8  | 100 | 28 |
| 27.SK4008WL130B | SK40 | 8  | 130 | 28 |
| 27.SK4008WL160B | SK40 | 8  | 160 | 28 |
| 27.SK4008WL200B | SK40 | 8  | 200 | 28 |
| 27.SK4010WL50B  | SK40 | 10 | 50  | 35 |
| 27.SK4010WL100B | SK40 | 10 | 100 | 35 |
| 27.SK4010WL130B | SK40 | 10 | 130 | 35 |
| 27.SK4010WL160B | SK40 | 10 | 160 | 35 |
| 27.SK4010WL200B | SK40 | 10 | 200 | 35 |

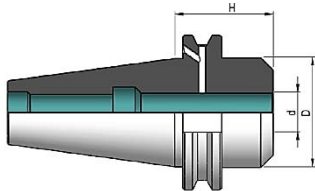
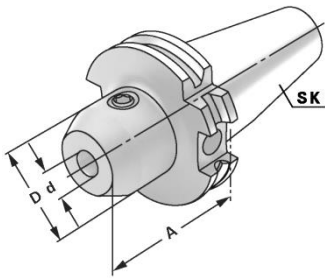
Lieferumfang: inkl. Spannschraube • Included: Clamping screw



10.01

**End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No****Bestell-Nr.****SK****d****A****D**

|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.SK4012WL50B  | SK40 | 12 | 50  | 42 |
| 27.SK4012WL100B | SK40 | 12 | 100 | 42 |
| 27.SK4012WL130B | SK40 | 12 | 130 | 42 |
| 27.SK4012WL160B | SK40 | 12 | 160 | 42 |
| 27.SK4012WL200B | SK40 | 12 | 200 | 42 |
| 27.SK4014WL50B  | SK40 | 14 | 50  | 44 |
| 27.SK4014WL100B | SK40 | 14 | 100 | 44 |
| 27.SK4014WL130B | SK40 | 14 | 130 | 44 |
| 27.SK4014WL160B | SK40 | 14 | 160 | 44 |
| 27.SK4014WL200B | SK40 | 14 | 200 | 44 |
| 27.SK4016WL35B  | SK40 | 16 | 35  | 44 |
| 27.SK4016WL63B  | SK40 | 16 | 63  | 48 |
| 27.SK4016WL100B | SK40 | 16 | 100 | 48 |
| 27.SK4016WL130B | SK40 | 16 | 130 | 48 |
| 27.SK4016WL160B | SK40 | 16 | 160 | 48 |
| 27.SK4016WL200B | SK40 | 16 | 200 | 48 |
| 27.SK4018WL63B  | SK40 | 18 | 63  | 50 |
| 27.SK4018WL100B | SK40 | 18 | 100 | 50 |
| 27.SK4018WL130B | SK40 | 18 | 130 | 50 |
| 27.SK4018WL160B | SK40 | 18 | 160 | 50 |
| 27.SK4018WL200B | SK40 | 18 | 200 | 50 |
| 27.SK4020WL35B  | SK40 | 20 | 35  | 44 |
| 27.SK4020WL63B  | SK40 | 20 | 63  | 52 |
| 27.SK4020WL100B | SK40 | 20 | 100 | 52 |
| 27.SK4020WL130B | SK40 | 20 | 130 | 52 |
| 27.SK4020WL160B | SK40 | 20 | 160 | 52 |
| 27.SK4020WL200B | SK40 | 20 | 200 | 52 |
| 27.SK4025WL35B  | SK40 | 25 | 35  | 50 |
| 27.SK4025WL100B | SK40 | 25 | 100 | 65 |
| 27.SK4025WL130B | SK40 | 25 | 130 | 65 |
| 27.SK4025WL160B | SK40 | 25 | 160 | 65 |
| 27.SK4025WL200B | SK40 | 25 | 200 | 65 |
| 27.SK4032WL70B  | SK40 | 32 | 70  | 72 |
| 27.SK4032WL100B | SK40 | 32 | 100 | 72 |
| 27.SK4032WL160B | SK40 | 32 | 160 | 72 |
| 27.SK4032WL200B | SK40 | 32 | 200 | 72 |
| 27.SK4040WL120B | SK40 | 40 | 120 | 80 |
| 27.SK4040WL160B | SK40 | 40 | 160 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw



10.01



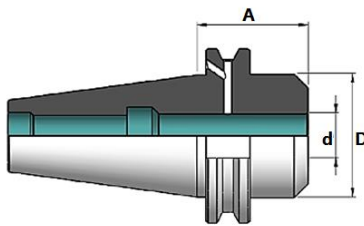
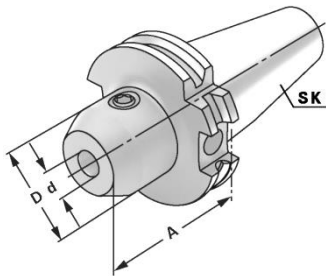
## Form

## AD/AF

## (AD/B)

G6.3 15.000 min<sup>-1</sup>

⌀ 0,003mm



## Order No

## Bestell-Nr.

## SK

## d

## A

## D

|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.SK5006WL63B  | SK50 | 6  | 63  | 25 |
| 27.SK5006WL100B | SK50 | 6  | 100 | 25 |
| 27.SK5006WL130B | SK50 | 6  | 130 | 25 |
| 27.SK5006WL160B | SK50 | 6  | 160 | 25 |
| 27.SK5006WL200B | SK50 | 6  | 200 | 25 |
| 27.SK5008WL63B  | SK50 | 8  | 63  | 28 |
| 27.SK5008WL100B | SK50 | 8  | 100 | 28 |
| 27.SK5008WL130B | SK50 | 8  | 130 | 28 |
| 27.SK5008WL160B | SK50 | 8  | 160 | 28 |
| 27.SK5008WL200B | SK50 | 8  | 200 | 28 |
| 27.SK5010WL63B  | SK50 | 10 | 63  | 35 |
| 27.SK5010WL100B | SK50 | 10 | 100 | 35 |
| 27.SK5010WL130B | SK50 | 10 | 130 | 35 |
| 27.SK5010WL160B | SK50 | 10 | 160 | 35 |
| 27.SK5010WL200B | SK50 | 10 | 200 | 35 |
| 27.SK5012WL63B  | SK50 | 12 | 63  | 42 |
| 27.SK5012WL100B | SK50 | 12 | 100 | 42 |
| 27.SK5012WL130B | SK50 | 12 | 130 | 42 |
| 27.SK5012WL160B | SK50 | 12 | 160 | 42 |
| 27.SK5012WL200B | SK50 | 12 | 200 | 42 |
| 27.SK5014WL63B  | SK50 | 14 | 63  | 44 |
| 27.SK5014WL100B | SK50 | 14 | 100 | 44 |
| 27.SK5014WL130B | SK50 | 14 | 130 | 44 |
| 27.SK5014WL160B | SK50 | 14 | 160 | 44 |
| 27.SK5014WL200B | SK50 | 14 | 200 | 44 |
| 27.SK5016WL63B  | SK50 | 16 | 63  | 48 |
| 27.SK5016WL100B | SK50 | 16 | 100 | 48 |
| 27.SK5016WL130B | SK50 | 16 | 130 | 48 |
| 27.SK5016WL160B | SK50 | 16 | 160 | 48 |
| 27.SK5016WL200B | SK50 | 16 | 200 | 48 |
| 27.SK5018WL63B  | SK50 | 18 | 63  | 50 |
| 27.SK5018WL100B | SK50 | 18 | 100 | 50 |
| 27.SK5018WL130B | SK50 | 18 | 130 | 50 |
| 27.SK5018WL160B | SK50 | 18 | 160 | 50 |
| 27.SK5018WL200B | SK50 | 18 | 200 | 50 |
| 27.SK5020WL63B  | SK50 | 20 | 63  | 52 |
| 27.SK5020WL100B | SK50 | 20 | 100 | 52 |
| 27.SK5020WL130B | SK50 | 20 | 130 | 52 |
| 27.SK5020WL160B | SK50 | 20 | 160 | 52 |
| 27.SK5020WL200B | SK50 | 20 | 200 | 52 |

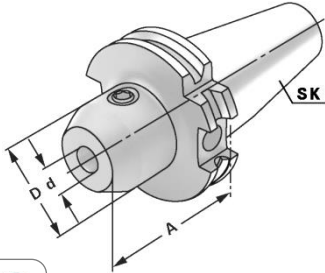


10.01

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

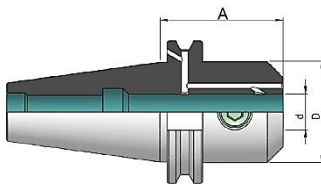
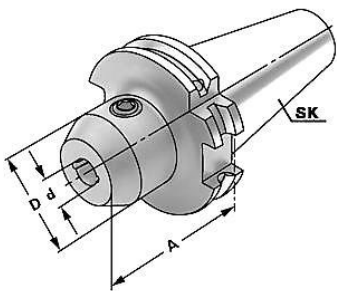
**End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF  
(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**10.01****Order No****Bestell-Nr.****SK****d****A****D**

|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.SK5025WL80B  | SK50 | 25 | 80  | 65 |
| 27.SK5025WL100B | SK50 | 25 | 100 | 65 |
| 27.SK5025WL130B | SK50 | 25 | 130 | 65 |
| 27.SK5025WL160B | SK50 | 25 | 160 | 65 |
| 27.SK5025WL200B | SK50 | 25 | 200 | 65 |
| 27.SK5032WL100B | SK50 | 32 | 100 | 72 |
| 27.SK5032WL130B | SK50 | 32 | 130 | 72 |
| 27.SK5032WL160B | SK50 | 32 | 160 | 65 |
| 27.SK5032WL200B | SK50 | 32 | 200 | 72 |
| 27.SK5040WL120B | SK50 | 40 | 120 | 80 |
| 27.SK5040WL160B | SK50 | 40 | 160 | 80 |
| 27.SK5040WL200B | SK50 | 40 | 200 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

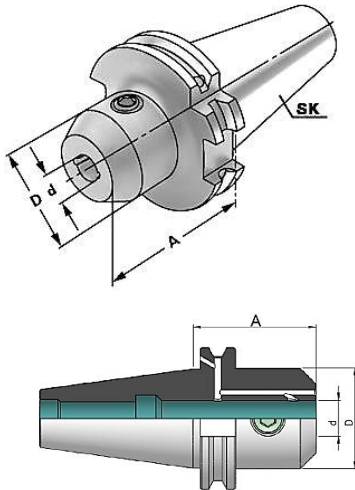
**End Mill Holder with Coolant Channel DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen mit Kühlkanal DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF  
(AD/B)**G6.3 15.000 min<sup>-1</sup>**10.01****Order No****Bestell-Nr.****SK****d****A****D**

|                   |      |    |     |    |
|-------------------|------|----|-----|----|
| 27.SK4006WL50B.K  | SK40 | 6  | 50  | 25 |
| 27.SK4006WL100B.K | SK40 | 6  | 100 | 25 |
| 27.SK4008WL50B.K  | SK40 | 8  | 50  | 28 |
| 27.SK4008WL100B.K | SK40 | 8  | 100 | 28 |
| 27.SK4010WL50B.K  | SK40 | 10 | 50  | 35 |
| 27.SK4010WL100B.K | SK40 | 10 | 100 | 35 |
| 27.SK4012WL50B.K  | SK40 | 12 | 50  | 42 |
| 27.SK4012WL100B.K | SK40 | 12 | 100 | 42 |
| 27.SK4014WL50B.K  | SK40 | 14 | 50  | 44 |
| 27.SK4014WL100B.K | SK40 | 14 | 100 | 44 |
| 27.SK4016WL63B.K  | SK40 | 16 | 63  | 48 |
| 27.SK4016WL100B.K | SK40 | 16 | 100 | 48 |
| 27.SK4018WL63B.K  | SK40 | 18 | 63  | 50 |
| 27.SK4018WL100B.K | SK40 | 18 | 100 | 50 |
| 27.SK4020WL63B.K  | SK40 | 20 | 63  | 52 |
| 27.SK4020WL100B.K | SK40 | 20 | 100 | 52 |
| 27.SK4025WL100B.K | SK40 | 25 | 100 | 63 |
| 27.SK4032WL100B.K | SK40 | 32 | 100 | 72 |
| 27.SK4040WL120B.K | SK40 | 40 | 120 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

**End Mill Holder with Coolant Channel DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen mit Kühlkanal DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF**

(AD/B)

**Order No****Bestell-Nr.****SK****d****A****D**

27.SK5006WL63B.K

SK50

6

63

25

27.SK5006WL100B.K

SK50

6

100

25

27.SK5008WL63B.K

SK50

8

63

28

27.SK5008WL100B.K

SK50

8

100

28

27.SK5010WL63B.K

SK50

10

63

35

27.SK5010WL100B.K

SK50

10

100

35

27.SK5012WL63B.K

SK50

12

63

42

27.SK5012WL100B.K

SK50

12

100

42

27.SK5014WL63B.K

SK50

14

63

44

27.SK5014WL100B.K

SK50

14

100

44

27.SK5016WL63B.K

SK50

16

63

48

27.SK5016WL100B.K

SK50

16

100

48

27.SK5018WL63B.K

SK50

18

63

50

27.SK5018WL100B.K

SK50

18

100

50

27.SK5020WL63B.K

SK50

20

63

52

27.SK5020WL100B.K

SK50

20

100

52

27.SK5025WL80B.K

SK50

25

80

65

27.SK5032WL100B.K

SK50

32

100

72

27.SK5040WL120B.K

SK50

40

120

80



10.01

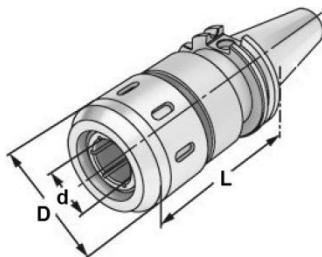
Lieferumfang: inkl. Spannschraube • Included: Clamping screw

**High performance Milling Chuck HKS****Hochleistungs-Kraftspannfutter HKS****Form****AD/AF**

(AD/B)

G6.3 15.000 min<sup>-1</sup>

±0,003mm

**Order No****Bestell-Nr.****SK****Capacity****Spannbereich****L****D**

27.SK4020L90HKSB

SK40

20 (HKS 20)

90

53

27.SK4032L105HKSB

SK40

32 (HKS 32)

105

68

27.SK5020L90HKSB

SK50

20 (HKS 20)

90

53

27.SK5032L90HKSB

SK50

32 (HKS 32)

90

68

Verwendung: Zur Aufnahme von Werkzeugen mit Zylinderschaft nach DIN 1835 Form A+B+E und DIN 6535 Form HA+HB+HE (größer 20mm nur mit Reduzierung)

Application: for mounting straight-shank tools acc. DIN 1835 form A+B+E and DIN 6535 form HA+HB+HE (larger than dia. 20 mm only with reduction sleeve).



07.07



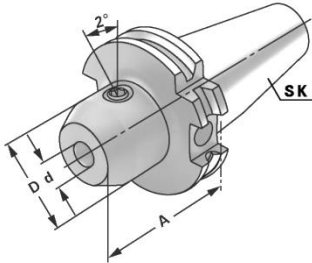
10.01



10.10

**End Mill Holder DIN 6359 for Whistle Notch type end mills DIN 1835-E****Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-E / Whistle Notch****Form****AD/AF  
(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No****Bestell-Nr.****SK****d****A****D**

27.SK4006WNL50B  
27.SK4008WNL50B  
27.SK4010WNL50B  
27.SK4012WNL50B  
27.SK4014WNL50B  
27.SK4016WNL63B  
27.SK4018WNL63B  
27.SK4020WNL63B  
27.SK4025WNL100B  
27.SK4032WNL100B  
27.SK4040WNL115B

SK40  
SK40  
SK40  
SK40  
SK40  
SK40  
SK40  
SK40  
SK40  
SK40  
SK40

6  
8  
10  
12  
14  
16  
18  
20  
25  
32  
40

50  
50  
50  
50  
50  
63  
63  
63  
100  
100  
115

25  
28  
35  
42  
44  
48  
50  
52  
65  
72  
80

27.SK5006WNL63B  
27.SK5008WNL63B  
27.SK5010WNL63B  
27.SK5012WNL63B  
27.SK5014WNL63B  
27.SK5016WNL63B  
27.SK5018WNL63B  
27.SK5020WNL63B  
27.SK5025WNL80B  
27.SK5032WNL100B  
27.SK5040WNL120B

SK50  
SK50  
SK50  
SK50  
SK50  
SK50  
SK50  
SK50  
SK50  
SK50  
SK50

6  
8  
10  
12  
14  
16  
18  
20  
25  
32  
40

63  
63  
63  
63  
63  
63  
63  
63  
80  
100  
120

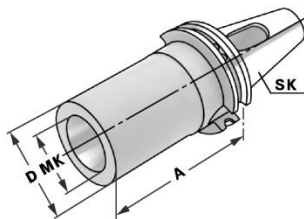
25  
28  
35  
42  
44  
48  
50  
52  
65  
72  
80

**10.01**

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

**Morse Taper Adaptor DIN 6383****Zwischenhülse DIN 6383 für MK mit Austreibblappen****Form****AD**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No****Bestell-Nr.****SK****MK****A****D**

28.SK30MK1L50AL  
28.SK30MK2L65AL  
28.SK30MK3L80AL

SK30  
SK30  
SK30

1  
2  
3

50  
65  
80

25  
32  
40

28.SK40MK1L50AL  
28.SK40MK2L50AL  
28.SK40MK3L70AL  
28.SK40MK4L95AL

SK40  
SK40  
SK40  
SK40

1  
2  
3  
4

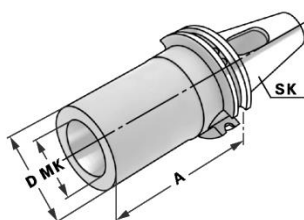
50  
50  
70  
95

25  
32  
40  
48

**10.01**

**Morse Taper Adaptor DIN 6383****Zwischenhülse DIN 6383 für MK mit Austreibblappen****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H 0,005mm

**Order No****Bestell-Nr.****SK****MK****A****D**

28.SK40MK1L50ALB

SK40

1

50

25

28.SK40MK2L50ALB

SK40

2

50

32

28.SK40MK3L70ALB

SK40

3

70

40

28.SK40MK4L95ALB

SK40

4

95

48

28.SK50MK1L45ALB

SK50

1

45

25

28.SK50MK2L60ALB

SK50

2

60

32

28.SK50MK3L65ALB

SK50

3

65

40

28.SK50MK4L95ALB

SK50

4

95

48

28.SK5050L105ALB

SK50

5

105

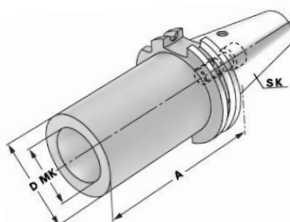
63



10.01

**Morse Taper Adaptor DIN 6364 for morse taper shank and thread****Zwischenhülse DIN 6364 für MK mit Anzugsgewinde****Form****A**G6.3 15.000 min<sup>-1</sup>

H 0,005mm

**Order No****Bestell-Nr.****SK****MK****A****D**

28.SK40MK1L50AG

SK40

1

50

25

28.SK40MK2L50AG

SK40

2

50

32

28.SK40MK3L70AG

SK40

3

70

40

28.SK40MK4L95AG

SK40

4

95

48

28.SK50MK1L50AG

SK50

1

50

25

28.SK50MK2L50AG

SK50

2

50

32

28.SK50MK3L65AG

SK50

3

65

40

28.SK50MK4L95AG

SK50

4

95

48

28.SK50MK5L100AG

SK50

5

100

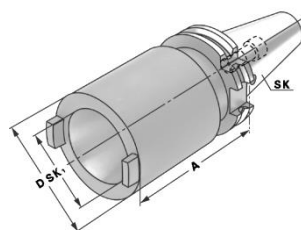
63



10.01

**Reduction Sleeve****Reduzierhülse****Form****A**G6.3 15.000 min<sup>-1</sup>

H 0,005mm

**Order No****Bestell-Nr.****SK****SK1****A****D**

28.SK40SK30L70

SK40

SK30

70

49

28.SK40SK40L100

SK40

SK40

100

68

28.SK50SK40L70

SK50

SK40

70

68

28.SK50SK50L120

SK50

SK50

120

100

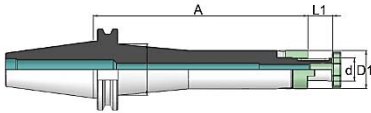
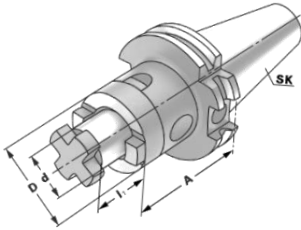


10.01



**Combi Shell Mill Holder DIN 6358****Kombi Aufsteckfräserdorne DIN 6358****Form****AD**G6.3 15.000 min<sup>-1</sup>

√0,005mm

**Order No****Bestell-Nr.****SK****d****A****l1****D**

|                 |      |    |     |    |    |
|-----------------|------|----|-----|----|----|
| 42.SK3016L50KA  | SK30 | 16 | 50  | 17 | 32 |
| 42.SK3022L50KA  | SK30 | 22 | 50  | 19 | 40 |
| 42.SK3027L55KA  | SK30 | 27 | 55  | 21 | 48 |
| 42.SK3032L60KA  | SK30 | 32 | 60  | 24 | 58 |
| 42.SK4016L55KA  | SK40 | 16 | 55  | 17 | 32 |
| 42.SK4016L100KA | SK40 | 16 | 100 | 17 | 32 |
| 42.SK4016L160KA | SK40 | 16 | 160 | 17 | 32 |
| 42.SK4022L55KA  | SK40 | 22 | 55  | 19 | 40 |
| 42.SK4022L100KA | SK40 | 22 | 100 | 19 | 40 |
| 42.SK4022L160KA | SK40 | 22 | 160 | 19 | 40 |
| 42.SK4027L55KA  | SK40 | 27 | 55  | 21 | 48 |
| 42.SK4027L100KA | SK40 | 27 | 100 | 21 | 48 |
| 42.SK4027L160KA | SK40 | 27 | 160 | 21 | 48 |
| 42.SK4032L60KA  | SK40 | 32 | 60  | 24 | 58 |
| 42.SK4032L100KA | SK40 | 32 | 100 | 24 | 58 |
| 42.SK4032L160KA | SK40 | 32 | 160 | 24 | 58 |
| 42.SK4040L60KA  | SK40 | 40 | 60  | 27 | 70 |
| 42.SK4040L100KA | SK40 | 40 | 100 | 27 | 70 |
| 42.SK4040L160KA | SK40 | 40 | 160 | 27 | 70 |
| 42.SK5016L55KA  | SK50 | 16 | 55  | 17 | 32 |
| 42.SK5016L100KA | SK50 | 16 | 100 | 17 | 32 |
| 42.SK5016L160KA | SK50 | 16 | 160 | 17 | 32 |
| 42.SK5022L55KA  | SK50 | 22 | 55  | 19 | 40 |
| 42.SK5022L100KA | SK50 | 22 | 100 | 19 | 40 |
| 42.SK5022L160KA | SK50 | 22 | 160 | 19 | 40 |
| 42.SK5027L55KA  | SK50 | 27 | 55  | 21 | 48 |
| 42.SK5027L100KA | SK50 | 27 | 100 | 21 | 48 |
| 42.SK5027L160KA | SK50 | 27 | 160 | 21 | 48 |
| 42.SK5032L55KA  | SK50 | 32 | 55  | 24 | 58 |
| 42.SK5032L100KA | SK50 | 32 | 100 | 24 | 58 |
| 42.SK5032L160KA | SK50 | 32 | 160 | 24 | 58 |
| 42.SK5040L55KA  | SK50 | 40 | 55  | 27 | 70 |
| 42.SK5040L100KA | SK50 | 40 | 100 | 27 | 70 |
| 42.SK5040L160KA | SK50 | 40 | 160 | 27 | 70 |

Lieferumfang: Inklusive Passfeder, Mitnehmerring und Fräseranzugsschraube  
Included: Retaining screw, driving ring and feather key



10.11



10.12



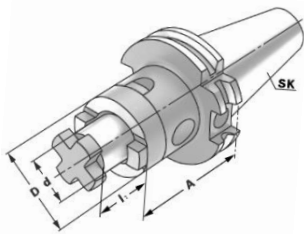
10.01



10.12

**Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,005mm

**Order No****Bestell-Nr.****SK****d****A****L1****D**

42.SK4016L55KAB

SK40

16

55

17

32

42.SK4016L100KAB

SK40

16

100

17

32

42.SK4016L160KAB

SK40

16

160

17

32

42.SK4022L55KAB

SK40

22

55

19

40

42.SK4022L100KAB

SK40

22

100

19

40

42.SK4022L160KAB

SK40

22

160

19

40

42.SK4027L55KAB

SK40

27

55

21

48

42.SK4027L100KAB

SK40

27

100

21

48

42.SK4027L160KAB

SK40

27

160

21

48

42.SK4032L60KAB

SK40

32

60

24

58

42.SK4032L100KAB

SK40

32

100

24

58

42.SK4032L160KAB

SK40

32

160

24

58

42.SK4040L60KAB

SK40

40

60

27

70

42.SK4040L100KAB

SK40

40

100

27

70

42.SK4040L160KAB

SK40

40

160

27

70

42.SK5016L55KAB

SK50

16

55

17

32

42.SK5016L100KAB

SK50

16

100

17

32

42.SK5016L160KAB

SK50

16

160

17

32

42.SK5022L55KAB

SK50

22

55

19

40

42.SK5022L100KAB

SK50

22

100

19

40

42.SK5022L160KAB

SK50

22

160

19

40

42.SK5027L55KAB

SK50

27

55

21

48

42.SK5027L100KAB

SK50

27

100

21

48

42.SK5027L160KAB

SK50

27

160

21

48

42.SK5032L60KAB

SK50

32

55

24

58

42.SK5032L100KAB

SK50

32

100

24

58

42.SK5032L160KAB

SK50

32

160

24

58

42.SK5040L60KAB

SK50

40

55

27

70

42.SK5040L100KAB

SK50

40

100

27

70

42.SK5040L160KAB

SK50

40

160

27

70

Lieferumfang: Inklusive Paßfeder, Mitnehmerring und Fräseranzugsschraube  
Included: Retaining screw, driving ring and feather key



10.11



10.12



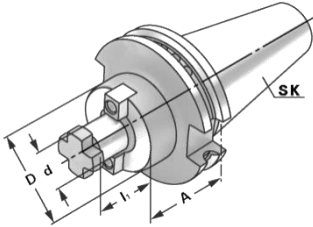
10.01



10.12

**Shell Mill Holder DIN 6357 for cutters with driving slots****Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser****Form****AD**G6.3 15.000 min<sup>-1</sup>

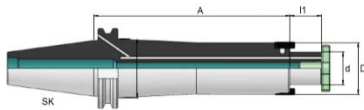
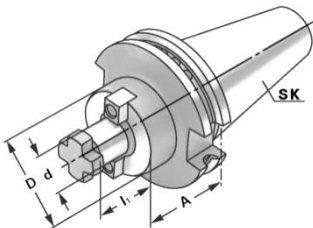
⌀ 0,005mm

**Order No**

| <b>Bestell-Nr.</b> | <b>SK</b> | <b>d</b> | <b>A</b> | <b>L1</b> | <b>D</b> |
|--------------------|-----------|----------|----------|-----------|----------|
| 42.SK3016L40MA     | SK30      | 16       | 40       | 17        | 38       |
| 42.SK3022L40MA     | SK30      | 22       | 40       | 19        | 48       |
| 42.SK3027L50MA     | SK30      | 27       | 50       | 21        | 58       |
| 42.SK3032L50MA     | SK30      | 32       | 50       | 24        | 78       |
| 42.SK4016L35MA     | SK40      | 16       | 35       | 17        | 38       |
| 42.SK4022L35MA     | SK40      | 22       | 35       | 19        | 48       |
| 42.SK4027L40MA     | SK40      | 27       | 40       | 21        | 58       |
| 42.SK4032L50MA     | SK40      | 32       | 50       | 24        | 78       |
| 42.SK4040L50MA     | SK40      | 40       | 50       | 27        | 88       |

**Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

⌀ 0,005mm

**Order No**

| <b>Bestell-Nr.</b> | <b>SK</b> | <b>d</b> | <b>A</b> | <b>L1</b> | <b>D</b> |
|--------------------|-----------|----------|----------|-----------|----------|
| 42.SK4016L45MAB    | SK40      | 16       | 45       | 17        | 38       |
| 42.SK4016L100MAB   | SK40      | 16       | 100      | 17        | 38       |
| 42.SK4016L130MAB   | SK40      | 16       | 130      | 17        | 38       |
| 42.SK4016L160MAB   | SK40      | 16       | 160      | 17        | 38       |
| 42.SK4022L45MAB    | SK40      | 22       | 45       | 19        | 48       |
| 42.SK4022L100MAB   | SK40      | 22       | 100      | 19        | 48       |
| 42.SK4022L130MAB   | SK40      | 22       | 130      | 19        | 48       |
| 42.SK4022L160MAB   | SK40      | 22       | 160      | 19        | 48       |
| 42.SK4027L50MAB    | SK40      | 27       | 50       | 21        | 58       |
| 42.SK4027L100MAB   | SK40      | 27       | 100      | 21        | 58       |
| 42.SK4027L130MAB   | SK40      | 27       | 130      | 21        | 58       |
| 42.SK4027L160MAB   | SK40      | 27       | 160      | 21        | 58       |
| 42.SK4032L55MAB    | SK40      | 32       | 55       | 24        | 78       |
| 42.SK4032L100MAB   | SK40      | 32       | 100      | 24        | 78       |
| 42.SK4032L130MAB   | SK40      | 32       | 130      | 24        | 78       |
| 42.SK4032L160MAB   | SK40      | 32       | 160      | 24        | 78       |
| 42.SK4040L55MAB    | SK40      | 40       | 55       | 27        | 88       |
| 42.SK4040L100MAB   | SK40      | 40       | 100      | 27        | 88       |
| 42.SK4040L130MAB   | SK40      | 40       | 130      | 27        | 88       |
| 42.SK4040L160MAB   | SK40      | 40       | 160      | 27        | 88       |

Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.

Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant

**D2=40/D2=60** Für große Planfräser mit vier zusätzlichen Gewindebohrungen nach DIN 2079. • For large diameter face mill cutters with four additional threaded holes according to DIN 2079.



10.11



10.12



10.01

## Shell Mill Holder DIN 6357 for cutters with driving slots

## Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser

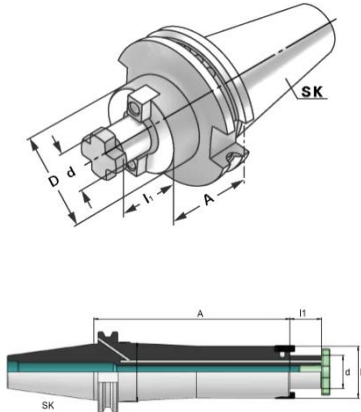
## Form

AD/AF

(AD/B)

G6.3 15.000 min<sup>-1</sup>

H7 0,005mm



## Order No

| Bestell-Nr.      | SK   | d  | A   | L1 | D  |
|------------------|------|----|-----|----|----|
| 42.SK5016L45MAB  | SK50 | 16 | 45  | 17 | 38 |
| 42.SK5016L100MAB | SK50 | 16 | 100 | 17 | 38 |
| 42.SK5016L130MAB | SK50 | 16 | 130 | 17 | 38 |
| 42.SK5016L160MAB | SK50 | 16 | 160 | 17 | 38 |
| 42.SK5022L45MAB  | SK50 | 22 | 45  | 19 | 48 |
| 42.SK5022L100MAB | SK50 | 22 | 100 | 19 | 48 |
| 42.SK5022L130MAB | SK50 | 22 | 130 | 19 | 48 |
| 42.SK5022L160MAB | SK50 | 22 | 160 | 19 | 48 |
| 42.SK5027L45MAB  | SK50 | 27 | 45  | 21 | 58 |
| 42.SK5027L100MAB | SK50 | 27 | 100 | 21 | 58 |
| 42.SK5027L130MAB | SK50 | 27 | 130 | 21 | 58 |
| 42.SK5027L160MAB | SK50 | 27 | 160 | 21 | 58 |
| 42.SK5032L55MAB  | SK50 | 32 | 55  | 24 | 78 |
| 42.SK5032L100MAB | SK50 | 32 | 100 | 24 | 78 |
| 42.SK5032L130MAB | SK50 | 32 | 130 | 24 | 78 |
| 42.SK5032L160MAB | SK50 | 32 | 160 | 24 | 78 |
| 42.SK5040L55MAB  | SK50 | 40 | 55  | 27 | 88 |
| 42.SK5040L100MAB | SK50 | 40 | 100 | 27 | 88 |
| 42.SK5040L130MAB | SK50 | 40 | 130 | 27 | 88 |
| 42.SK5040L160MAB | SK50 | 40 | 160 | 27 | 88 |

Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.

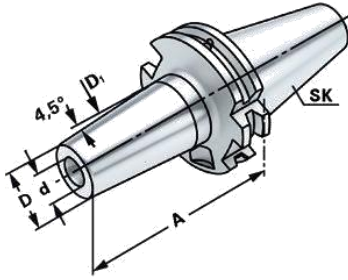
Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant

**D2=40/D2=60** Für große Planfräser mit vier zusätzlichen Gewindebohrungen nach DIN 2079. • For large diameter face mill cutters with four additional threaded holes according to DIN 2079.



**Shrink Chuck for mounting of solide carbide and HSS Cutters****Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No****Bestell-Nr.**

| Bestell-Nr.       | SK   | d  | A   | D1 | D  | l1 | g     | l2 |
|-------------------|------|----|-----|----|----|----|-------|----|
| 27.SK3003L80SHRB  | SK30 | 3  | 80  | 11 | 15 | 10 | -     | -  |
| 27.SK3003L160SHRB | SK30 | 3  | 160 | 11 | 15 | 10 | -     | 5  |
| 27.SK3004L80SHRB  | SK30 | 4  | 80  | 14 | 22 | 20 | M3    | 5  |
| 27.SK3004L160SHRB | SK30 | 4  | 160 | 14 | 22 | 20 | M3    | 5  |
| 27.SK3005L80SHRB  | SK30 | 5  | 80  | 16 | 22 | 20 | M4    | 5  |
| 27.SK3005L160SHRB | SK30 | 5  | 160 | 16 | 22 | 20 | M4    | 10 |
| 27.SK3006L80SHRB  | SK30 | 6  | 80  | 21 | 27 | 36 | M5    | 10 |
| 27.SK3006L160SHRB | SK30 | 6  | 160 | 21 | 27 | 36 | M5    | 10 |
| 27.SK3008L80SHRB  | SK30 | 8  | 80  | 21 | 27 | 36 | M6    | 10 |
| 27.SK3008L160SHRB | SK30 | 8  | 160 | 21 | 27 | 36 | M6    | 10 |
| 27.SK3010L80SHRB  | SK30 | 10 | 80  | 24 | 32 | 42 | M8x1  | 10 |
| 27.SK3010L160SHRB | SK30 | 10 | 160 | 24 | 32 | 42 | M8x1  | 10 |
| 27.SK3012L100SHRB | SK30 | 12 | 100 | 24 | 32 | 47 | M10x1 | 10 |
| 27.SK3012L160SHRB | SK30 | 12 | 160 | 24 | 32 | 47 | M10x1 | 10 |
| 27.SK3014L100SHRB | SK30 | 14 | 100 | 27 | 34 | 47 | M10x1 | 10 |
| 27.SK3014L160SHRB | SK30 | 14 | 160 | 27 | 34 | 47 | M10x1 | 10 |
| 27.SK3016L100SHRB | SK30 | 16 | 100 | 27 | 34 | 50 | M12x1 | 10 |
| 27.SK3016L160SHRB | SK30 | 16 | 160 | 27 | 34 | 50 | M12x1 | 10 |
| 27.SK3018L100SHRB | SK30 | 18 | 100 | 33 | 42 | 50 | M12x1 | 10 |
| 27.SK3018L160SHRB | SK30 | 18 | 160 | 33 | 42 | 50 | M12x1 | 10 |
| 27.SK3020L100SHRB | SK30 | 20 | 100 | 33 | 42 | 52 | M16x1 | 10 |
| 27.SK3020L160SHRB | SK30 | 20 | 160 | 33 | 42 | 52 | M16x1 | 10 |
| 27.SK4003L80SHRB  | SK40 | 3  | 80  | 11 | 15 | 10 | -     | -  |
| 27.SK4003L120SHRB | SK40 | 3  | 120 | 11 | 15 | 10 | -     | -  |
| 27.SK4003L160SHRB | SK40 | 3  | 160 | 11 | 15 | 10 | -     | -  |
| 27.SK4004L80SHRB  | SK40 | 4  | 80  | 14 | 22 | 20 | M3    | 5  |
| 27.SK4004L120SHRB | SK40 | 4  | 120 | 14 | 22 | 20 | M3    | 5  |
| 27.SK4004L160SHRB | SK40 | 4  | 160 | 14 | 22 | 20 | M3    | 5  |
| 27.SK4005L80SHRB  | SK40 | 5  | 80  | 16 | 22 | 20 | M4    | 5  |
| 27.SK4005L120SHRB | SK40 | 5  | 120 | 16 | 22 | 20 | M4    | 5  |
| 27.SK4005L160SHRB | SK40 | 5  | 160 | 16 | 22 | 20 | M4    | 5  |
| 27.SK4006L80SHRB  | SK40 | 6  | 80  | 21 | 27 | 36 | M5    | 10 |
| 27.SK4006L120SHRB | SK40 | 6  | 120 | 21 | 27 | 36 | M5    | 10 |
| 27.SK4006L160SHRB | SK40 | 6  | 160 | 21 | 27 | 36 | M5    | 10 |
| 27.SK4008L80SHRB  | SK40 | 8  | 80  | 21 | 27 | 36 | M6    | 10 |
| 27.SK4008L120SHRB | SK40 | 8  | 120 | 21 | 27 | 36 | M6    | 10 |
| 27.SK4008L160SHRB | SK40 | 8  | 160 | 21 | 27 | 36 | M6    | 10 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

10.01

l1 = max. Einstecktiefe / max. depth of insertion  
 l2 = max. Verstellweg / max. distance adjustment  
 g = Verstellschraube / adjustment screw

## Shrink Chuck for mounting of solide carbide and HSS Cutters

## Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften

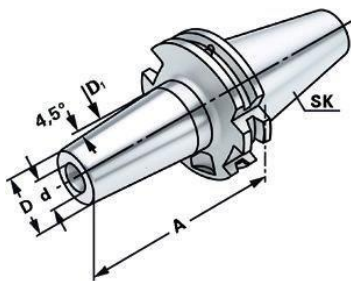
## Form

AD/AF

(AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No

Bestell-Nr.

| Bestell-Nr.       | SK   | d  | A   | D1 | D  | l1 | g     | l2 |
|-------------------|------|----|-----|----|----|----|-------|----|
| 27.SK4010L80SHRB  | SK40 | 10 | 80  | 24 | 32 | 42 | M8x1  | 10 |
| 27.SK4010L120SHRB | SK40 | 10 | 120 | 24 | 32 | 42 | M8x1  | 10 |
| 27.SK4010L160SHRB | SK40 | 10 | 160 | 24 | 32 | 42 | M8x1  | 10 |
| 27.SK4012L80SHRB  | SK40 | 12 | 80  | 24 | 32 | 47 | M10x1 | 10 |
| 27.SK4012L120SHRB | SK40 | 12 | 120 | 24 | 32 | 47 | M10x1 | 10 |
| 27.SK4012L160SHRB | SK40 | 12 | 160 | 24 | 32 | 47 | M10x1 | 10 |
| 27.SK4014L80SHRB  | SK40 | 14 | 80  | 27 | 34 | 47 | M10x1 | 10 |
| 27.SK4014L120SHRB | SK40 | 14 | 120 | 27 | 34 | 47 | M10x1 | 10 |
| 27.SK4014L160SHRB | SK40 | 14 | 160 | 27 | 34 | 47 | M10x1 | 10 |
| 27.SK4016L80SHRB  | SK40 | 16 | 80  | 27 | 34 | 50 | M12x1 | 10 |
| 27.SK4016L120SHRB | SK40 | 16 | 120 | 27 | 34 | 50 | M12x1 | 10 |
| 27.SK4016L160SHRB | SK40 | 16 | 160 | 27 | 34 | 50 | M12x1 | 10 |
| 27.SK4018L80SHRB  | SK40 | 18 | 80  | 33 | 42 | 50 | M12x1 | 10 |
| 27.SK4018L120SHRB | SK40 | 18 | 120 | 33 | 42 | 50 | M12x1 | 10 |
| 27.SK4018L160SHRB | SK40 | 18 | 160 | 33 | 42 | 50 | M12x1 | 10 |
| 27.SK4020L80SHRB  | SK40 | 20 | 80  | 33 | 42 | 52 | M16x1 | 10 |
| 27.SK4020L120SHRB | SK40 | 20 | 120 | 33 | 42 | 52 | M16x1 | 10 |
| 27.SK4020L160SHRB | SK40 | 20 | 160 | 33 | 42 | 52 | M16x1 | 10 |
| 27.SK4025L100SHRB | SK40 | 25 | 100 | 44 | 53 | 58 | M16x1 | 10 |
| 27.SK4025L120SHRB | SK40 | 25 | 120 | 44 | 53 | 58 | M16x1 | 10 |
| 27.SK4025L160SHRB | SK40 | 25 | 160 | 44 | 53 | 58 | M16x1 | 10 |
| 27.SK4032L100SHRB | SK40 | 32 | 100 | 44 | 53 | 62 | M16x1 | 10 |
| 27.SK4032L120SHRB | SK40 | 32 | 120 | 44 | 53 | 62 | M16x1 | 10 |
| 27.SK4032L160SHRB | SK40 | 32 | 160 | 33 | 42 | 62 | M16x1 | 10 |
|                   |      |    |     |    |    |    |       |    |
| 27.SK5003L80SHRB  | SK50 | 3  | 80  | 11 | 15 | 10 | -     | -  |
| 27.SK5004L80SHRB  | SK50 | 4  | 80  | 14 | 22 | 20 | M3    | 5  |
| 27.SK5004L160SHRB | SK50 | 4  | 160 | 14 | 22 | 20 | M3    | 5  |
| 27.SK5005L80SHRB  | SK50 | 5  | 80  | 16 | 22 | 20 | M4    | 5  |
| 27.SK5005L160SHRB | SK50 | 5  | 160 | 16 | 22 | 20 | M4    | 5  |
| 27.SK5006L80SHRB  | SK50 | 6  | 80  | 21 | 27 | 36 | M5    | 10 |
| 27.SK5006L160SHRB | SK50 | 6  | 160 | 27 | 21 | 36 | M5    | 10 |
| 27.SK5006L200SHRB | SK50 | 6  | 200 | 27 | 21 | 36 | M5    | 10 |
| 27.SK5008L80SHRB  | SK50 | 8  | 80  | 21 | 27 | 36 | M6    | 10 |
| 27.SK5008L160SHRB | SK50 | 8  | 160 | 27 | 21 | 36 | M6    | 10 |
| 27.SK5008L200SHRB | SK50 | 8  | 200 | 27 | 21 | 36 | M6    | 10 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

l1 = max. Einstecktiefe / max. depth of insertion  
 l2 = max. Verstellweg / max. distance adjustment  
 g = Verstellschraube / adjustment screw

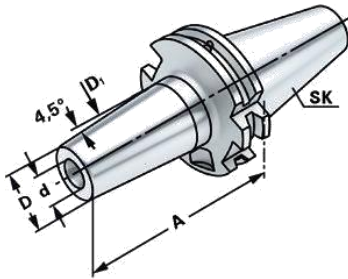


10.01



**Shrink Chuck for mounting of solid carbide and HSS Cutters****Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

±0,005mm

**Order No****Bestell-Nr.**

|                   | SK   | d  | A   | D1 | D  | l1 | g     | l2 |
|-------------------|------|----|-----|----|----|----|-------|----|
| 27.SK5010L80SHRB  | SK50 | 10 | 80  | 24 | 32 | 42 | M8x1  | 10 |
| 27.SK5010L160SHRB | SK50 | 10 | 160 | 32 | 24 | 42 | M8x1  | 10 |
| 27.SK5010L200SHRB | SK50 | 10 | 200 | 32 | 24 | 42 | M8x1  | 10 |
| 27.SK5012L80SHRB  | SK50 | 12 | 80  | 24 | 32 | 47 | M10x1 | 10 |
| 27.SK5012L160SHRB | SK50 | 12 | 160 | 32 | 24 | 47 | M10x1 | 10 |
| 27.SK5012L200SHRB | SK50 | 12 | 200 | 32 | 24 | 47 | M10x1 | 10 |
| 27.SK5014L80SHRB  | SK50 | 14 | 80  | 27 | 34 | 47 | M10x1 | 10 |
| 27.SK5014L160SHRB | SK50 | 14 | 160 | 34 | 27 | 47 | M10x1 | 10 |
| 27.SK5014L200SHRB | SK50 | 14 | 200 | 34 | 27 | 47 | M10x1 | 10 |
| 27.SK5016L80SHRB  | SK50 | 16 | 80  | 27 | 34 | 50 | M12x1 | 10 |
| 27.SK5016L160SHRB | SK50 | 16 | 160 | 34 | 27 | 50 | M12x1 | 10 |
| 27.SK5016L200SHRB | SK50 | 16 | 200 | 34 | 27 | 50 | M12x1 | 10 |
| 27.SK5018L80SHRB  | SK50 | 18 | 80  | 33 | 42 | 50 | M12x1 | 10 |
| 27.SK5018L160SHRB | SK50 | 18 | 160 | 42 | 33 | 50 | M12x1 | 10 |
| 27.SK5018L200SHRB | SK50 | 18 | 200 | 42 | 33 | 50 | M12x1 | 10 |
| 27.SK5020L80SHRB  | SK50 | 20 | 80  | 33 | 42 | 52 | M16x1 | 10 |
| 27.SK5020L160SHRB | SK50 | 20 | 160 | 42 | 33 | 52 | M16x1 | 10 |
| 27.SK5020L200SHRB | SK50 | 20 | 200 | 42 | 33 | 52 | M16x1 | 10 |
| 27.SK5025L100SHRB | SK50 | 25 | 100 | 44 | 53 | 58 | M16x1 | 10 |
| 27.SK5025L160SHRB | SK50 | 25 | 160 | 53 | 44 | 58 | M16x1 | 10 |
| 27.SK5025L200SHRB | SK50 | 25 | 200 | 53 | 44 | 58 | M16x1 | 10 |
| 27.SK5032L100SHRB | SK50 | 32 | 100 | 44 | 53 | 62 | M16x1 | 10 |
| 27.SK5032L160SHRB | SK50 | 32 | 160 | 53 | 44 | 62 | M16x1 | 10 |
| 27.SK5032L200SHRB | SK50 | 32 | 200 | 53 | 44 | 62 | M16x1 | 10 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

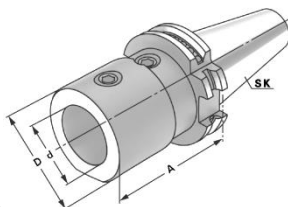
l1 = max. Einstecktiefe / max. depth of insertion  
 l2 = max. Verstellweg / max. distance adjustment  
 g = Verstellschraube / adjustment screw



10.01

**Boring Holders for drills with indexable inserts form E1****Bohrerhalter für Wendepplattenbohrer Form E1****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H7/0,005mm

**Order No****Bestell-Nr.****SK****d****A****D**

27.SK4020L65WPB

SK40

20

65

40

27.SK4025L70WPB

SK40

25

70

45

27.SK4032L75WPB

SK40

32

75

52

27.SK5020L70WPB

SK50

20

70

40

27.SK5025L70WPB

SK50

25

70

45

27.SK5032L70WPB

SK50

32

70

52

27.SK5040L80WPB

SK50

40

80

60

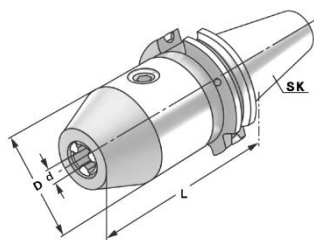
Lieferumfang: inkl. Spannschraube • Included: Clamping screw

Zur Aufnahme von allen nach DIN 6595 genormten Vollbohrer mit Zylinderschaft  
For mounting solid drills with cylindrical shank according to DIN 6595

10.01

**CNC Universal Drill Chuck Heads for right and left hand rotation****CNC Präzisionsbohrfutter für Rechts- und Linkslauf****Form****A**G 6.3 25.000 min<sup>-1</sup>

H7/0,02mm

**Order No.****Bestell-Nr.****SK****Capacity****Spannbereich****L****D****L1 (max)**

25.SK3008L70BF

SK30

0,3 - 8

70

36

73

25.SK3013L111BF

SK30

0,5 - 13

111

50

117

25.SK4008L70BF

SK40

0,3 - 8

70

36

73

25.SK4013L90BF

SK40

0,5 - 13

90

50

96

25.SK4016L95BF

SK40

2,5 - 16

95

57

101

25.SK5016L106BF

SK50

0,5 - 13

106

50

112

25.SK5016L111BF

SK50

2,5 - 16

111

57

117

Lieferumfang: inklusive Spannschlüssel • Included: Wrench

**Form****AD/AF****(AD/B)**G 6.3 25.000 min<sup>-1</sup>**Order No.****Bestell-Nr.****SK****Capacity****Spannbereich****L****D****L1 (max)**

25.SK4008L73BFB

SK40

0,3 - 8

73

36

76

25.SK4013L90BFB

SK40

0,5 - 13

90

50

96

25.SK4016L95BFB

SK40

2,5 - 16

95

57

101

25.SK5013L106BFB

SK50

0,5 - 13

106

50

112

25.SK5016L111BFB

SK50

2,5 - 16

111

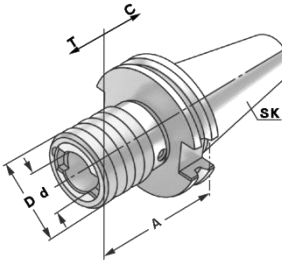
57

117

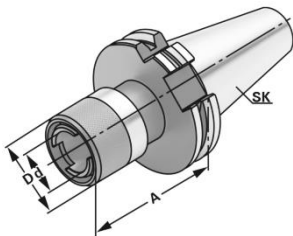
Lieferumfang: inklusive Spannschlüssel • Included: Wrench



10.01

**Quick change tapping chucks with axial compensation on compression and expansion****Gewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug****Form****A**G6.3 15.000 min<sup>-1</sup>**Order No.****Bestell-Nr.****SK****Capacity****Spannbereich****Size****Größe****d****A****D****T****C**

|                 |      |         |   |    |     |    |      |      |
|-----------------|------|---------|---|----|-----|----|------|------|
| 25.SK3019L65GC  | SK30 | M3-M14  | 1 | 19 | 65  | 38 | 7    | 7    |
| 25.SK3031L99GC  | SK30 | M5-M22  | 2 | 31 | 99  | 54 | 12   | 12   |
| 25.SK4019L59GC  | SK40 | M3-M14  | 1 | 19 | 59  | 38 | 7    | 7    |
| 25.SK4031L97GC  | SK40 | M5-M22  | 2 | 31 | 97  | 54 | 12   | 12   |
| 25.SK4048L156GC | SK40 | M14-M36 | 3 | 48 | 156 | 78 | 17,5 | 17,5 |
| 25.SK5019L63GC  | SK50 | M3-M14  | 1 | 19 | 63  | 38 | 7    | 7    |
| 25.SK5031L97GC  | SK50 | M5-M22  | 2 | 31 | 97  | 54 | 12   | 12   |
| 25.SK5048L140GC | SK50 | M14-M36 | 3 | 48 | 140 | 78 | 17,5 | 17,5 |

Für Bearbeitungszentren **ohne** Synchronspindel • For machining centres **without** synchronous spindle**Quick change tapping chucks without axial compensation on compression and expansion****Gewindeschneid-Schnellwechselfutter ohne Längenausgleich auf Druck und Zug****Form****AD**G6.3 15.000 min<sup>-1</sup>**Order No.****Bestell-Nr.****SK****Capacity****Spannbereich****Size****Größe****d****A****D**

|                |      |         |   |    |     |    |
|----------------|------|---------|---|----|-----|----|
| 25.SK3019L58G  | SK30 | M3-M14  | 1 | 19 | 58  | 38 |
| 25.SK3031L103G | SK30 | M5-M22  | 2 | 31 | 103 | 54 |
| 25.SK4019L62G  | SK40 | M3-M14  | 1 | 19 | 62  | 38 |
| 25.SK4031L95G  | SK40 | M5-M22  | 2 | 31 | 95  | 54 |
| 25.SK4048L130G | SK40 | M14-M36 | 3 | 48 | 130 | 78 |
| 25.SK5019L60G  | SK50 | M3-M14  | 1 | 19 | 60  | 38 |
| 25.SK5031L85G  | SK50 | M5-M22  | 2 | 31 | 85  | 54 |
| 25.SK5048L117G | SK50 | M14-M36 | 3 | 48 | 117 | 78 |

Für Bearbeitungszentren **mit** Synchronspindel • For machining centres **with** synchronous spindle

10.04



10.03

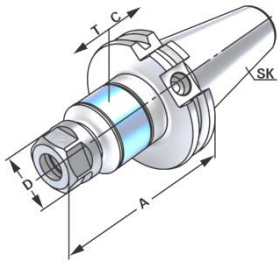


10.01

**Tapping Chucks Synchro** for synchronisation for collets DIN 6499 / ISO 15488 ER**Gewindeschneidfutter Synchro** für Synchronisation für Spannzangen DIN 6499 / ISO15488 ER

| Form                          | Order No.     | Capacity |               |    |    |         |
|-------------------------------|---------------|----------|---------------|----|----|---------|
| AD                            | Bestell-Nr.   | SK       | Spannbereich  | A  | D  | T C     |
| G6.3 15.000 min <sup>-1</sup> | 25.SK3020L85S | SK30     | M3-M16 (ER20) | 85 | 34 | 0,5 0,5 |

| Form                          | Order No.         | Capacity |                 |     |    |         |
|-------------------------------|-------------------|----------|-----------------|-----|----|---------|
| AD/AF                         | Bestell-Nr.       | SK       | Spannbereich    | A   | D  | T C     |
| (AD/B)                        | 25.SK4016L79GSYB  | SK40     | M3 – M12 (ER16) | 79  | 28 | 0,5 0,5 |
| G6.3 15.000 min <sup>-1</sup> | 25.SK4020L80GSYB  | SK40     | M3 – M16 (ER20) | 80  | 34 | 0,5 0,5 |
|                               | 25.SK4025L84GSYB  | SK40     | M3 – M20 (ER25) | 84  | 42 | 0,5 0,5 |
|                               | 25.SK4032L95GSYB  | SK40     | M3 – M27 (ER32) | 95  | 50 | 0,5 0,5 |
|                               | 25.SK4040L120GSYB | SK40     | M3 – M33 (ER40) | 120 | 63 | 0,5 0,5 |
|                               | 25.SK5016L79GSYB  | SK50     | M3 – M12 (ER16) | 79  | 28 | 0,5 0,5 |
|                               | 25.SK5020L80GSYB  | SK50     | M3 – M16 (ER20) | 80  | 34 | 0,5 0,5 |
|                               | 25.SK5025L84GSYB  | SK50     | M3 – M20 (ER25) | 84  | 42 | 0,5 0,5 |
|                               | 25.SK5032L95GSYB  | SK50     | M3 – M27 (ER32) | 95  | 50 | 0,5 0,5 |
|                               | 25.SK5040L105GSYB | SK50     | M3 – M33 (ER40) | 105 | 63 | 0,5 0,5 |



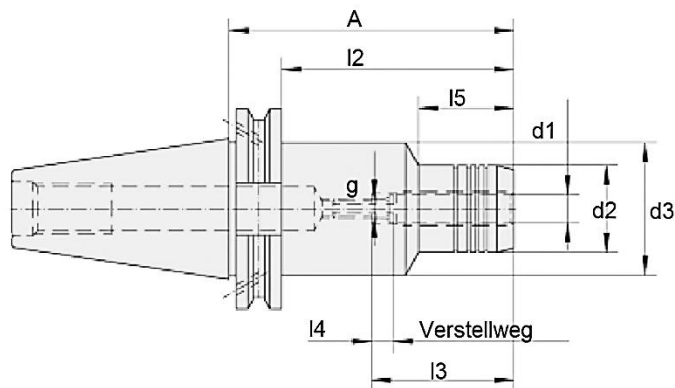
Für Bearbeitungszentren **mit** Synchronspindel • For machining centres **with** synchronous spindle

- Synchro tapping chucks compensate synchronisation errors
- Minimal axial compensation on compression and expansion balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks
- A possible increase of axial force during the tapping process is reduced to a minimum
- Suitable for internal coolant
- Coolant pressure up to max. 100bar
- Synchro-Gewindeschneidfutter kompensieren Synchronisationsfehler
- Minimallängenausgleich in Druck- und Zugrichtung zwischen Synchronspindel und Gewindebohrer reduziert zu hohe Gewindeflankenreibungskräfte
- Reduziert eventuelle Axialkraftherhöhung während des Schneidzyklus auf ein Minimum
- Geeignet für Innenkühlung
- Kühlmitteldruck max. 100bar



**Hydraulic Chucks with coolant feed****Hydro-Dehnspannfutter mit Kühlmittelzuführung****Form****AD/AF****(AD/B)****Order No.****Bestell-Nr.**

| Bestell-Nr.       | SK   | d1 | d2 | d3 | A   | l2  | l3 | L5 | g     | l4 |
|-------------------|------|----|----|----|-----|-----|----|----|-------|----|
| 19.SK3006L60HYDB  | SK30 | 6  | 26 | 45 | 60  | 41  | 37 | 25 | M5    | 10 |
| 19.SK3008L64HYDB  | SK30 | 8  | 28 | 45 | 64  | 45  | 37 | 29 | M6    | 10 |
| 19.SK3010L64HYDB  | SK30 | 10 | 30 | 45 | 64  | 45  | 42 | 35 | M8x1  | 10 |
| 19.SK3012L72HYDB  | SK30 | 12 | 32 | 45 | 72  | 53  | 47 | 43 | M10x1 | 10 |
| 19.SK3014L72HYDB  | SK30 | 14 | 34 | 45 | 72  | 53  | 47 | 42 | M10x1 | 10 |
| 19.SK3016L72HYDB  | SK30 | 16 | 38 | 45 | 72  | 53  | 52 | 43 | M12x1 | 10 |
| 19.SK3018L72HYDB  | SK30 | 18 | 40 | 45 | 72  | 53  | 52 | 43 | M12x1 | 10 |
| 19.SK3020L90HYDB  | SK30 | 20 | 42 | 42 | 90  | 71  | 52 | 71 | M12x1 | 10 |
| 19.SK3025L105HYDB | SK30 | 25 | 50 | 45 | 105 | 86  | 58 | 70 | M16x1 | 10 |
| 19.SK3025L135HYDB | SK30 | 25 | 50 | 45 | 135 | 120 | 58 | 70 | M16x1 | 10 |
|                   |      |    |    |    |     |     |    |    |       |    |
| 19.SK4006L68HYDB  | SK40 | 6  | 26 | 50 | 68  | 49  | 37 | 33 | M5    | 10 |
| 19.SK4006L110HYDB | SK40 | 6  | 26 | 50 | 110 | 91  | 37 | 33 | M5    | 10 |
| 19.SK4008L68HYDB  | SK40 | 8  | 28 | 50 | 68  | 49  | 37 | 33 | M6    | 10 |
| 19.SK4008L110HYDB | SK40 | 8  | 28 | 50 | 110 | 91  | 37 | 33 | M6    | 10 |
| 19.SK4010L72HYDB  | SK40 | 10 | 30 | 50 | 72  | 53  | 42 | 37 | M8x1  | 10 |
| 19.SK4010L110HYDB | SK40 | 10 | 30 | 50 | 110 | 91  | 42 | 37 | M8x1  | 10 |
| 19.SK4012L77HYDB  | SK40 | 12 | 32 | 50 | 77  | 58  | 47 | 42 | M10x1 | 10 |
| 19.SK4012L110HYDB | SK40 | 12 | 32 | 50 | 110 | 91  | 47 | 42 | M10x1 | 10 |
| 19.SK4014L77HYDB  | SK40 | 14 | 34 | 50 | 77  | 58  | 47 | 42 | M10x1 | 10 |
| 19.SK4014L110HYDB | SK40 | 14 | 34 | 50 | 110 | 91  | 47 | 42 | M10x1 | 10 |
| 19.SK4016L80HYDB  | SK40 | 16 | 38 | 50 | 80  | 61  | 52 | 43 | M12x1 | 10 |
| 19.SK4016L110HYDB | SK40 | 16 | 38 | 50 | 110 | 91  | 52 | 42 | M12x1 | 10 |
| 19.SK4018L80HYDB  | SK40 | 18 | 40 | 50 | 80  | 61  | 52 | 43 | M12x1 | 10 |
| 19.SK4018L110HYDB | SK40 | 18 | 40 | 50 | 110 | 91  | 52 | 47 | M12x1 | 10 |
| 19.SK4020L82HYDB  | SK40 | 20 | 42 | 50 | 82  | 63  | 52 | 47 | M12x1 | 10 |
| 19.SK4020L110HYDB | SK40 | 20 | 42 | 50 | 110 | 91  | 52 | 47 | M12x1 | 10 |
| 19.SK4025L117HYDB | SK40 | 25 | 50 | 63 | 117 | 98  | 58 | 51 | M16x1 | 10 |
| 19.SK4032L117HYDB | SK40 | 32 | 60 | 63 | 117 | 98  | 62 | 56 | M16x1 | 10 |



07.07



10.01



## Form

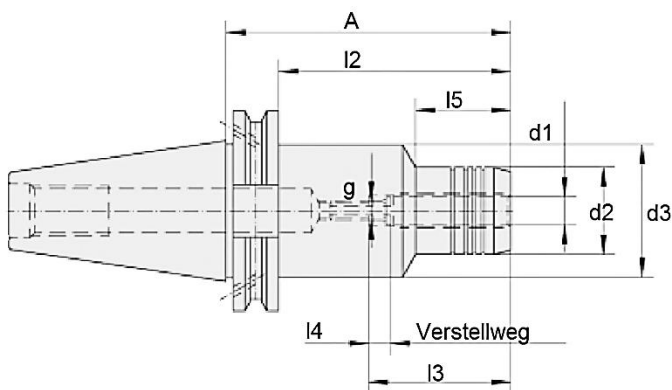
AD/AF

(AD/B)

## Order No.

Bestell-Nr.

|                   | SK   | d1 | d2 | d3 | A   | l2  | l3 | l5  | g     | G   |
|-------------------|------|----|----|----|-----|-----|----|-----|-------|-----|
| 19.SK5006L68HYDB  | SK50 | 6  | 26 | 80 | 68  | 49  | 37 | 33  | M5    | M24 |
| 19.SK5006L110HYDB | SK50 | 6  | 26 | 50 | 110 | 91  | 37 | 33  | M5    | M24 |
| 19.SK5008L68HYDB  | SK50 | 8  | 28 | 80 | 68  | 49  | 37 | 33  | M6    | M24 |
| 19.SK5008L110HYDB | SK50 | 8  | 28 | 50 | 110 | 91  | 37 | 33  | M6    | M24 |
| 19.SK5010L72HYDB  | SK50 | 10 | 30 | 80 | 72  | 53  | 42 | 37  | M8x1  | M24 |
| 19.SK5010L110HYDB | SK50 | 10 | 30 | 50 | 110 | 91  | 42 | 37  | M8x1  | M24 |
| 19.SK5012L77HYDB  | SK50 | 12 | 32 | 80 | 77  | 58  | 47 | 42  | M10x1 | M24 |
| 19.SK5012L110HYDB | SK50 | 12 | 32 | 50 | 110 | 91  | 42 | 42  | M10x1 | M24 |
| 19.SK5014L77HYDB  | SK50 | 14 | 34 | 80 | 77  | 58  | 47 | 42  | M10x1 | M24 |
| 19.SK5014L110HYDB | SK50 | 14 | 34 | 50 | 110 | 91  | 47 | 42  | M10x1 | M24 |
| 19.SK5016L80HYDB  | SK50 | 16 | 38 | 80 | 80  | 61  | 52 | 45  | M12x1 | M24 |
| 19.SK5016L110HYDB | SK50 | 16 | 38 | 50 | 110 | 91  | 52 | 42  | M12x1 | M24 |
| 19.SK5018L80HYDB  | SK50 | 18 | 40 | 80 | 80  | 61  | 52 | 45  | M12x1 | M24 |
| 19.SK5018L110HYDB | SK50 | 18 | 40 | 50 | 110 | 91  | 52 | 47  | M12x1 | M24 |
| 19.SK5020L82HYDB  | SK50 | 20 | 42 | 80 | 82  | 63  | 52 | 47  | M16x1 | M24 |
| 19.SK5020L110HYDB | SK50 | 20 | 42 | 50 | 110 | 91  | 52 | 47  | M12x1 | M24 |
| 19.SK5025L87HYDB  | SK50 | 25 | 50 | 80 | 87  | 68  | 58 | 52  | M16x1 | M24 |
| 19.SK5025L110HYDB | SK50 | 25 | 50 | 80 | 110 | 91  | 58 | 47  | M16x1 | M24 |
| 19.SK5032L91HYDB  | SK50 | 32 | 60 | 80 | 91  | 72  | 62 | 56  | M16x1 | M24 |
| 19.SK5032L110HYDB | SK50 | 32 | 60 | 80 | 110 | 91  | 62 | 75  | M16x1 | M24 |
| 19.SK5040L120HYDB | SK50 | 40 | 70 | 70 | 120 | 101 | 74 | 101 | M16x1 | M24 |



07.07



10.01



## Milling arbors for screw-in cutters

## Fräseraufnahme für Einschraubfräser

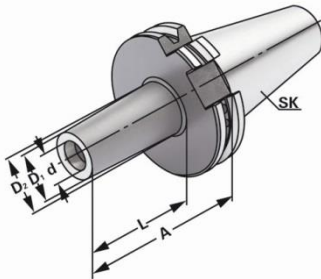
## Form

AD/AF

(AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No.

Bestell-Nr.

|                  | SK   | M  | d    | D1 | D2 | A   | L   |
|------------------|------|----|------|----|----|-----|-----|
| 27.SK4006L44ESB  | SK40 | 6  | 6,5  | 10 | 13 | 44  | 25  |
| 27.SK4006L69ESB  | SK40 | 6  | 6,5  | 10 | 13 | 69  | 50  |
| 27.SK4006L94ESB  | SK40 | 6  | 6,5  | 10 | 13 | 94  | 75  |
| 27.SK4008L44ESB  | SK40 | 8  | 8,5  | 13 | 15 | 44  | 25  |
| 27.SK4008L69ESB  | SK40 | 8  | 8,5  | 13 | 23 | 69  | 50  |
| 27.SK4008L94ESB  | SK40 | 8  | 8,5  | 13 | 23 | 94  | 75  |
| 27.SK4008L119ESB | SK40 | 8  | 8,5  | 13 | 25 | 119 | 100 |
| 27.SK4010L24ESB  | SK40 | 10 | 10,5 | 18 | 18 | 24  | 5   |
| 27.SK4010L69ESB  | SK40 | 10 | 10,5 | 18 | 23 | 69  | 50  |
| 27.SK4010L119ESB | SK40 | 10 | 10,5 | 18 | 32 | 119 | 100 |
| 27.SK4010L169ESB | SK40 | 10 | 10,5 | 18 | 37 | 169 | 150 |
| 27.SK4012L24ESB  | SK40 | 12 | 12,5 | 21 | 21 | 24  | 5   |
| 27.SK4012L69ESB  | SK40 | 12 | 12,5 | 21 | 24 | 69  | 50  |
| 27.SK4012L119ESB | SK40 | 12 | 12,5 | 21 | 33 | 119 | 100 |
| 27.SK4012L169ESB | SK40 | 12 | 12,5 | 21 | 40 | 169 | 150 |
| 27.SK4016L24ESB  | SK40 | 16 | 17   | 29 | 29 | 24  | 5   |
| 27.SK4016L69ESB  | SK40 | 16 | 17   | 29 | 34 | 69  | 50  |
| 27.SK4016L119ESB | SK40 | 16 | 17   | 29 | 36 | 119 | 100 |
| 27.SK4016L169ESB | SK40 | 16 | 17   | 29 | 43 | 169 | 105 |
| 27.SK5008L69ESB  | SK50 | 8  | 8,5  | 13 | 23 | 69  | 50  |
| 27.SK5008L119ESB | SK50 | 8  | 8,5  | 13 | 25 | 119 | 100 |
| 27.SK5008L169ESB | SK50 | 8  | 8,5  | 13 | 30 | 169 | 150 |
| 27.SK5010L69ESB  | SK50 | 10 | 10,5 | 18 | 23 | 69  | 50  |
| 27.SK5010L119ESB | SK50 | 10 | 10,5 | 18 | 32 | 119 | 100 |
| 27.SK5010L169ESB | SK50 | 10 | 10,5 | 18 | 37 | 169 | 150 |
| 27.SK5012L69ESB  | SK50 | 12 | 12,5 | 21 | 24 | 69  | 50  |
| 27.SK5012L119ESB | SK50 | 12 | 12,5 | 21 | 33 | 119 | 100 |
| 27.SK5012L169ESB | SK50 | 12 | 12,5 | 21 | 40 | 169 | 150 |
| 27.SK5016L69ESB  | SK50 | 16 | 16   | 29 | 34 | 69  | 50  |
| 27.SK5016L119ESB | SK50 | 16 | 16   | 29 | 36 | 119 | 100 |
| 27.SK5016L169ESB | SK50 | 16 | 16   | 29 | 43 | 169 | 150 |

Zur Aufnahme von Einschraubfräsern mit Gewinde

For mounting screw-in cutters with thread



10.01

**Boring Bar Blanks for the production of special tools****Bohrstangenrohlinge zur Anfertigung von Sonderwerkzeugen)****Form****A****Order No****Bestell-Nr.****SK****A****D**

R.SK3041L160

SK30

160

40,5

R.SK4063L250

SK40

250

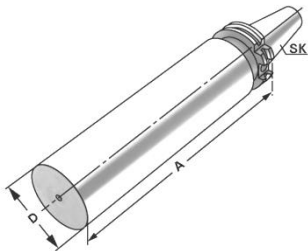
63

R.SK5097L315

SK50

315

97



Ausführung: Mit Steilkegel und Bund gehärtet und geschliffen. Schaft weich zur weiteren Bearbeitung

Version: Taper and flange hardened and grinded. Soft body for later processing.



10.01

**Test arbors****Kontrolldorne****Form****A****Order No****Bestell-Nr.****SK****A****D****(x)**

P.SK3032L300

SK30

300

32

0,003

P.SK4040L300

SK40

300

40

0,003

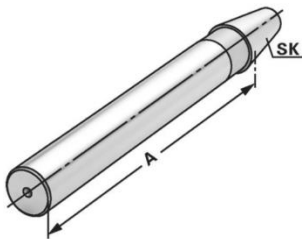
P.SK5050L300

SK50

300

50

0,003



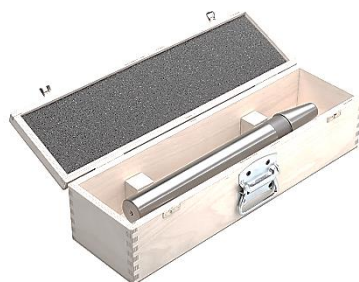
(x) max. Rundlaufabweichung • max. concentricity deviation

Lieferung mit Prüfprotokoll • Delivery box with certificate

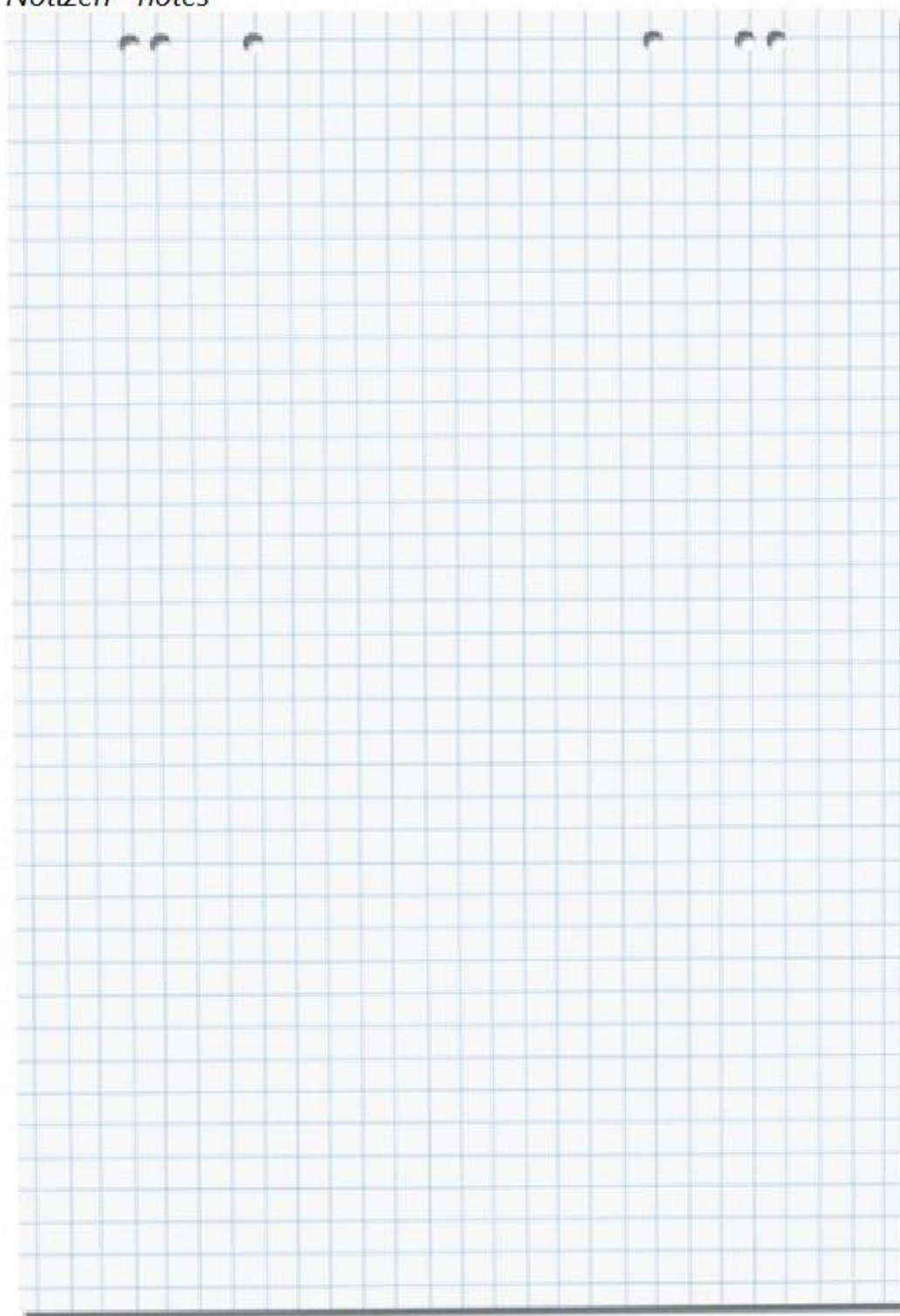
Verwendung: Zur Abnahme von Werkzeugmaschinen gemäß ISO-Empfehlung R 230

Application: For acceptance tests of machine tools in accordance with ISO-recommendation ISO R 230

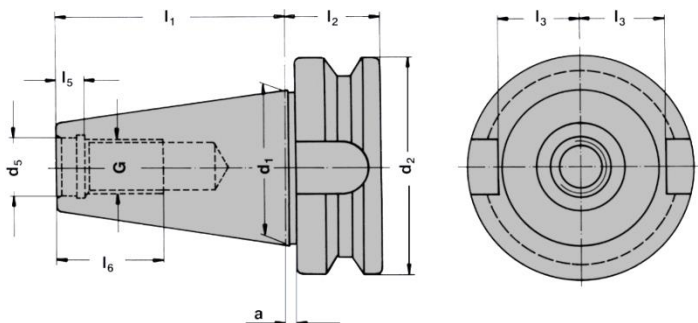
Holzkasten für Kontrolldorne auf Anfrage  
Wooden Box for test arbors on request



Notizen • notes



**WSW**



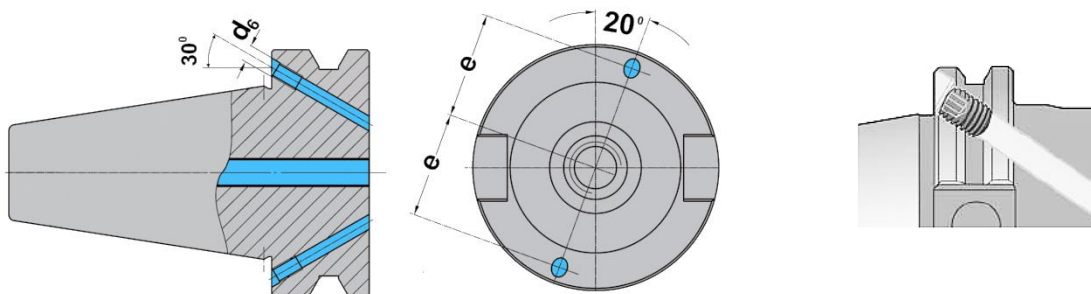
| SK | d1    | G   | d5   | d2  | a | l1    | L2 | L3   | l5   | L6 | e  | d6 |
|----|-------|-----|------|-----|---|-------|----|------|------|----|----|----|
| 30 | 31,75 | M12 | 12,5 | 46  | 2 | 48,4  | 22 | 16,3 | 7,0  | 24 | -  | -  |
| 40 | 44,45 | M16 | 17,0 | 63  | 2 | 65,4  | 27 | 22,5 | 8,2  | 32 | 27 | M4 |
| 50 | 69,85 | M24 | 25,0 | 100 | 3 | 101,8 | 38 | 35,3 | 11,0 | 47 | 42 | M6 |

### Form AD/AF (AD/B) with internal coolant through the collar

(Delivery with headless screws in closed position) Toolholders form AD/B have internal coolant supply. To use form B (coolant supply through the collar) the two headless screws must be removed and a sealed pull stud must be inserted. To use form AD (central coolant supply) the two headless screws must remain at the collar and a pull stud with drill through must be inserted.

### Form AD/AF (AD/B) mit innerer Kühlmittelzufuhr über den Bund

(Bei Lieferung mit Gewindestiften verschlossen) Aufnahmen Form AD/B haben Innenkühlung. Bei Form B (Kühlmittelzufuhr durch den Bund) müssen die beiden Gewindestifte entfernt und ein nicht durchbohrter Anzugsbolzen eingesetzt werden. Bei Form AD (zentrale Kühlmittelzufuhr) müssen die beiden Gewindestifte im Bund verbleiben und ein Anzugsbolzen mit Bohrung eingesetzt werden.



**Material**..... Case hardened steel, tensile strength in the core min. 950 N/mm<sup>2</sup>  
**Execution**..... Case hardened HRC 58±2 depth of case 0,6mm ± 0,2mm, black-finish  
**Accuracy**..... Cone angle AT3 according to DIN 2080  
 Surface roughness of cone max 0,001mm

**Werkstoff**..... Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 950 N/mm<sup>2</sup>  
**Ausführung**..... Einsatzgehärtet HRC 58±2 Härtetiefe 0,6mm ± 0,2mm, brüniert  
**Genauigkeit**..... Kegelwinkel-Toleranzqualität AT3 nach DIN 2080  
 Oberflächenrauigkeit des Kegels max. 0,001mm

**Toolholder ISO 7388-2 JIS B6339 / MAS 403BT****Werkzeugaufnahmen ISO 7388-2 JIS B6339 / MAS 403BT**

Seite • Page

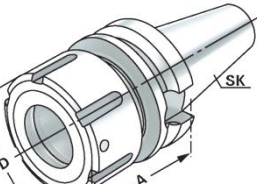
|                                                                                            |                                                                                            |              |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------|
| <b>Spannfutter DIN 6391</b><br>für Spannzangen DIN 6388 / ISO10897 System OZ               | <b>Collet chucks DIN 6391</b><br>for collets DIN 6388 / ISO10897 System OZ                 | <b>02.01</b> |
| <b>Spannfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER                        | <b>Collet chucks</b><br>for collets DIN 6499 ER / ISO15488 System ER                       | <b>02.01</b> |
| <b>Fräseraufnahmen DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon                  | <b>End mill holder DIN 6359</b><br>for end mills DIN 1835-B (Weldon)                       | <b>02.03</b> |
| <b>Fräseraufnahmen mit Kühlkanal DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon    | <b>End mill holder with coolant channel DIN 6359</b><br>for end mills DIN 1835-B (Weldon)  | <b>02.06</b> |
| <b>Hochleistungs-Kraftspannfutter HKS</b><br>Werkzeuge mit Zylinderschaft DIN1835/ DIN6535 | <b>High Performance Milling Chuck HKS-system</b><br>Straight-shank tools DIN 1835/DIN 6535 | <b>02.07</b> |
| <b>Fräseraufnahmen DIN 6359 Whistle Notch</b><br>für Zylinderschaft DIN 1835-E             | <b>End mill holder DIN 6359 Whistle Notch</b><br>for end mills DIN 1835-E                  | <b>02.08</b> |
| <b>Zwischenhülsen / Reduzierhülsen</b><br>für MK DIN 6383 / DIN 6384                       | <b>Morse taper adaptor / Reduction sleeves</b><br>DIN 6383 / DIN 6384                      | <b>02.08</b> |
| <b>Kombi-Aufsteckfräserdorne DIN 6358</b>                                                  | <b>Combi shell mill holder DIN 6358</b>                                                    | <b>02.10</b> |
| <b>Quernut Aufsteckfräserdorne DIN 6357</b><br>mit vergrößertem Bunddurchmesser            | <b>Shell mill holder DIN 6357</b><br>for cutters with driving slot                         | <b>02.12</b> |
| <b>Schrumpffutter</b><br>zum Spannen von HM und HSS Werkzeugschäften                       | <b>Shrink chuck</b><br>for mounting of solide carbide and HSS Cutters                      | <b>02.14</b> |
| <b>CNC-Präzisionsbohrfutter</b><br>für Rechts- und Linkslauf                               | <b>CNC- Universal Drill Chuck Heads</b><br>for right and left rotation                     | <b>02.16</b> |
| <b>Gewindeschneid-Schnellwechselfutter</b><br>mit/ohne Längenausgleich auf Druck und Zug   | <b>Quick-change Tapping Chucks</b><br>with/without axial compensation                      | <b>02.17</b> |
| <b>Synchro-Gewindeschneidfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER       | <b>Synchro Tapping Chucks</b><br>for Collets DIN 6499 / ISO15488 System ER                 | <b>02.18</b> |
| <b>Hydro-Dehnspannfutter</b>                                                               | <b>Hydraulic expansions chucks</b>                                                         | <b>02.19</b> |
| <b>Fräseraufnahmen</b><br>für Einschraubfräser                                             | <b>Milling arbors</b><br>for screw-in cutters                                              | <b>02.21</b> |
| <b>Bohrstangenrohlinge</b><br>zur Anfertigung von Sonderwerkzeugen                         | <b>Boring bar blanks</b><br>for the production of special tools                            | <b>02.22</b> |
| <b>Kontrolldorne</b>                                                                       | <b>Test arbors</b>                                                                         | <b>02.22</b> |

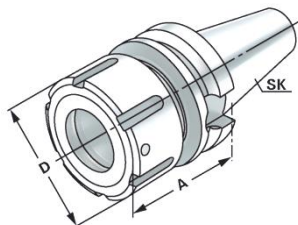
## OZ Collet Chucks DIN 6391 for collets DIN 6388 / ISO 10897

**OZ Spannfutter DIN 6391** für Spannzangen DIN 6388 / ISO 10897

| Form                          | Typ | Order No.     | Capacity |              |    |    | Collets         |
|-------------------------------|-----|---------------|----------|--------------|----|----|-----------------|
| AD                            | OZ  | Bestell-Nr.   | BT       | Spannbereich | A  | D  | Spannzange      |
| G6.3 15.000 min <sup>-1</sup> |     | 31.BT30Z16L60 | BT30     | 2-16         | 60 | 43 | 025 415E (OZ16) |
| ≥ 0,003mm                     |     | 31.BT30Z25L80 | BT30     | 2-25         | 80 | 60 | 035 462E (OZ25) |

| Form                          | Typ | Order No.       | Capacity |              |     |    | Collets          |
|-------------------------------|-----|-----------------|----------|--------------|-----|----|------------------|
| AD/AF                         | OZ  | Bestell-Nr.     | BT       | Spannbereich | A   | D  | Spannzange       |
| (AD/B)                        |     | 31.BT40Z16L70B  | BT40     | 2-16         | 70  | 43 | 025 415E (OZ16)  |
| G6.3 15.000 min <sup>-1</sup> |     | 31.BT40Z25L70B  | BT40     | 2-25         | 70  | 60 | 035 462E (OZ25)  |
| ↗0,003mm                      |     | 31.BT40Z25L100B | BT40     | 2-25         | 100 | 60 | 035 462E (OZ25)  |
|                               |     | 31.BT40Z32L80B  | BT40     | 4-32         | 80  | 72 | 044 0467E (OZ32) |
|                               |     | 31.BT40Z32L90B  | BT40     | 4-32         | 90  | 72 | 044 0467E (OZ32) |
|                               |     | 31.BT50Z16L70B  | BT50     | 2-16         | 70  | 43 | 025 415E (OZ16)  |
|                               |     | 31.BT50Z25L85B  | BT50     | 2-25         | 85  | 60 | 035 462E (OZ25)  |
|                               |     | 31.BT50Z32L90B  | BT50     | 4-32         | 90  | 72 | 044 0467E (OZ32) |



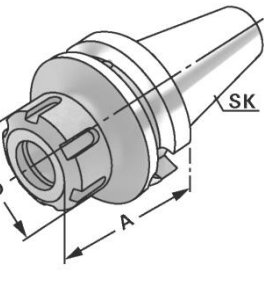


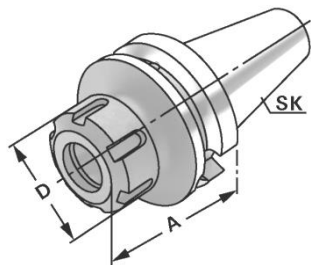
Lieferumfang: inkl. Spannmutter ▪ Included: Clamping nut

## ER Collet Chucks for collets DIN 6499 / ISO 15488

## ER Spannfutter für Spannzangen DIN 6499 / ISO 15488

| Form                          | Typ | Order No.      | Capacity | Collets      |     |    |                 |
|-------------------------------|-----|----------------|----------|--------------|-----|----|-----------------|
| AD                            | ER  | Bestell-Nr.    | BT       | Spannbereich | A   | D  | Spannzange      |
| G6.3 15.000 min <sup>-1</sup> |     | 31.BT30R16L70  | BT30     | 1 – 10       | 70  | 32 | 160 426E (ER16) |
| ↗0,003mm                      |     | 31.BT30R16L100 | BT30     | 1 – 10       | 100 | 32 | 160 426E (ER16) |
|                               |     | 31.BT30R25L70  | BT30     | 2 – 16       | 70  | 42 | 250 430E (ER25) |
|                               |     | 31.BT30R25L100 | BT30     | 2 – 16       | 100 | 42 | 250 430E (ER25) |
|                               |     | 31.BT30R32L70  | BT30     | 2 – 20       | 70  | 50 | 320 470E (ER32) |
|                               |     | 31.BT30R32L100 | BT30     | 2 – 20       | 100 | 50 | 320 470E (ER32) |
|                               |     | 31.BT30R40L70  | BT30     | 3 - 26       | 70  | 63 | 400 472E (ER40) |
|                               |     | 31.BT40R16L63  | BT40     | 1 – 10       | 63  | 32 | 160 426E (ER16) |
|                               |     | 31.BT40R16L100 | BT40     | 1 – 10       | 100 | 32 | 160 426E (ER16) |
|                               |     | 31.BT40R25L60  | BT40     | 2 – 16       | 60  | 42 | 250 430E (ER25) |
|                               |     | 31.BT40R25L100 | BT40     | 2 – 16       | 100 | 42 | 250 430E (ER25) |
|                               |     | 31.BT40R32L70  | BT40     | 2 – 20       | 70  | 50 | 320 470E (ER32) |
|                               |     | 31.BT40R32L100 | BT40     | 2 – 20       | 100 | 50 | 320 470E (ER32) |
|                               |     | 31.BT40R40L80  | BT40     | 3 - 26       | 80  | 63 | 400 472E (ER40) |
|                               |     | 31.BT40R40L100 | BT40     | 3 - 26       | 100 | 63 | 400 472E (ER40) |

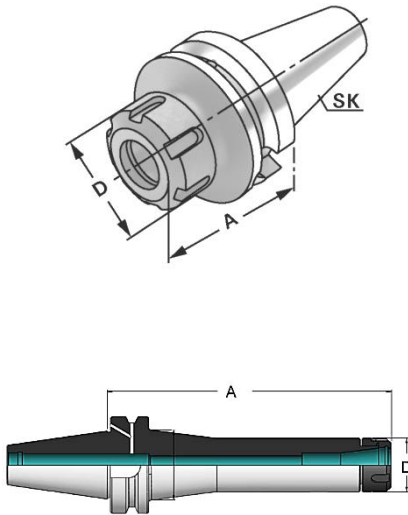




*Lieferumfang: inkl. Spannmutter ▪ Included: Clamping nut*

**ER Collet Chucks for collets DIN 6499 / ISO 15488****ER Spannfutter für Spannzangen DIN 6499 / ISO 15488****Form**  
**AD/AF**  
**(AD/B)****Typ**  
**ER****Order No.**  
**Bestell-Nr.****BT****Capacity**  
**Spannbereich****A****D****Collets**  
**Spannzange**G6.3 15.000 min<sup>-1</sup>

↗ 0,003mm



|                 |      |        |     |    |                 |
|-----------------|------|--------|-----|----|-----------------|
| 31.BT40R16L70B  | BT40 | 1 - 10 | 70  | 32 | 160 426E (ER16) |
| 31.BT40R16L100B | BT40 | 1 - 10 | 100 | 32 | 160 426E (ER16) |
| 31.BT40R16L130B | BT40 | 1 - 10 | 130 | 32 | 160 426E (ER16) |
| 31.BT40R16L160B | BT40 | 1 - 10 | 160 | 32 | 160 426E (ER16) |
| 31.BT40R16L200B | BT40 | 1 - 10 | 200 | 32 | 160 426E (ER16) |
| 31.BT40R25L70B  | BT40 | 2 - 16 | 70  | 42 | 250 430E (ER25) |
| 31.BT40R25L100B | BT40 | 2 - 16 | 100 | 42 | 250 430E (ER25) |
| 31.BT40R25L130B | BT40 | 2 - 16 | 130 | 42 | 250 430E (ER25) |
| 31.BT40R25L160B | BT40 | 2 - 16 | 160 | 42 | 250 430E (ER25) |
| 31.BT40R25L200B | BT40 | 2 - 16 | 200 | 42 | 250 430E (ER25) |
| 31.BT40R32L70B  | BT40 | 2 - 20 | 70  | 50 | 320 470E (ER32) |
| 31.BT40R32L100B | BT40 | 2 - 20 | 100 | 50 | 320 470E (ER32) |
| 31.BT40R32L130B | BT40 | 2 - 20 | 130 | 50 | 320 470E (ER32) |
| 31.BT40R32L160B | BT40 | 2 - 20 | 160 | 50 | 320 470E (ER32) |
| 31.BT40R32L200B | BT40 | 2 - 20 | 200 | 50 | 320 470E (ER32) |
| 31.BT40R40L70B  | BT40 | 3 - 26 | 70  | 63 | 400 472E (ER40) |
| 31.BT40R40L100B | BT40 | 3 - 26 | 100 | 63 | 400 472E (ER40) |
| 31.BT40R40L130B | BT40 | 3 - 26 | 130 | 63 | 400 472E (ER40) |
| 31.BT40R40L160B | BT40 | 3 - 26 | 160 | 63 | 400 472E (ER40) |
| 31.BT40R40L200B | BT40 | 3 - 26 | 200 | 63 | 400 472E (ER40) |
| 31.BT50R16L80B  | BT50 | 1 - 10 | 80  | 32 | 160 426E (ER16) |
| 31.BT50R16L100B | BT50 | 1 - 10 | 100 | 32 | 160 426E (ER16) |
| 31.BT50R16L130B | BT50 | 1 - 10 | 130 | 32 | 160 426E (ER16) |
| 31.BT50R16L160B | BT50 | 1 - 10 | 160 | 32 | 160 426E (ER16) |
| 31.BT50R16L200B | BT50 | 1 - 10 | 200 | 32 | 160 426E (ER16) |
| 31.BT50R25L80B  | BT50 | 2 - 16 | 80  | 42 | 250 430E (ER25) |
| 31.BT50R25L100B | BT50 | 2 - 16 | 100 | 42 | 250 430E (ER25) |
| 31.BT50R25L130B | BT50 | 2 - 16 | 130 | 42 | 250 430E (ER25) |
| 31.BT50R25L160B | BT50 | 2 - 16 | 160 | 42 | 250 430E (ER25) |
| 31.BT50R25L200B | BT50 | 2 - 16 | 200 | 42 | 250 430E (ER25) |
| 31.BT50R32L80B  | BT50 | 2 - 20 | 80  | 50 | 320 470E (ER32) |
| 31.BT50R32L100B | BT50 | 2 - 20 | 100 | 50 | 320 470E (ER32) |
| 31.BT50R32L130B | BT50 | 2 - 20 | 130 | 50 | 320 470E (ER32) |
| 31.BT50R32L160B | BT50 | 2 - 20 | 160 | 50 | 320 470E (ER32) |
| 31.BT50R32L200B | BT50 | 2 - 20 | 200 | 50 | 320 470E (ER32) |
| 31.BT50R40L80B  | BT50 | 3 - 26 | 80  | 63 | 400 472E (ER40) |
| 31.BT50R40L100B | BT50 | 3 - 26 | 100 | 63 | 400 472E (ER40) |
| 31.BT50R40L130B | BT50 | 3 - 26 | 130 | 63 | 400 472E (ER40) |
| 31.BT50R40L160B | BT50 | 3 - 26 | 160 | 63 | 400 472E (ER40) |
| 31.BT50R40L200B | BT50 | 3 - 26 | 200 | 63 | 400 472E (ER40) |



Lieferumfang: inkl. Spannmutter • Included: Clamping nut



## End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)

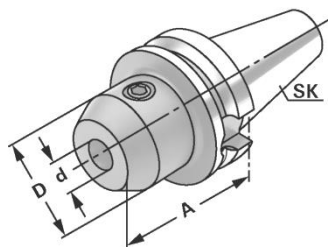
## Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)

## Form

## AD

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No.

## Bestell-Nr.

## BT

## d

## A

## D

|                |      |    |     |    |
|----------------|------|----|-----|----|
| 27.BT3006WL50  | BT30 | 6  | 50  | 25 |
| 27.BT3008WL50  | BT30 | 8  | 50  | 28 |
| 27.BT3010WL50  | BT30 | 10 | 50  | 35 |
| 27.BT3012WL50  | BT30 | 12 | 50  | 42 |
| 27.BT3014WL50  | BT30 | 14 | 50  | 44 |
| 27.BT3016WL63  | BT30 | 16 | 63  | 48 |
| 27.BT3018WL63  | BT30 | 18 | 63  | 50 |
| 27.BT3020WL63  | BT30 | 20 | 63  | 52 |
| 27.BT4006WL50  | BT40 | 6  | 50  | 25 |
| 27.BT4008WL50  | BT40 | 8  | 50  | 28 |
| 27.BT4010WL63  | BT40 | 10 | 63  | 35 |
| 27.BT4012WL63  | BT40 | 12 | 63  | 42 |
| 27.BT4014WL63  | BT40 | 14 | 63  | 44 |
| 27.BT4016WL63  | BT40 | 16 | 63  | 48 |
| 27.BT4018WL63  | BT40 | 18 | 63  | 50 |
| 27.BT4020WL63  | BT40 | 20 | 63  | 52 |
| 27.BT4025WL90  | BT40 | 25 | 90  | 63 |
| 27.BT4032WL100 | BT40 | 32 | 100 | 72 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

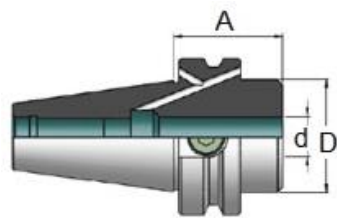
## Form

## AD/AF

## (AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No.

## Bestell-Nr.

## BT

## d

## A

## D

|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.BT4006WL60B  | BT40 | 6  | 60  | 25 |
| 27.BT4006WL100B | BT40 | 6  | 100 | 25 |
| 27.BT4006WL130B | BT40 | 6  | 130 | 25 |
| 27.BT4006WL160B | BT40 | 6  | 160 | 25 |
| 27.BT4006WL200B | BT40 | 6  | 200 | 25 |
| 27.BT4008WL60B  | BT40 | 8  | 60  | 28 |
| 27.BT4008WL100B | BT40 | 8  | 100 | 28 |
| 27.BT4008WL130B | BT40 | 8  | 130 | 28 |
| 27.BT4008WL160B | BT40 | 8  | 160 | 28 |
| 27.BT4008WL200B | BT40 | 8  | 200 | 28 |
| 27.BT4010WL65B  | BT40 | 10 | 65  | 35 |
| 27.BT4010WL100B | BT40 | 10 | 100 | 35 |
| 27.BT4010WL130B | BT40 | 10 | 130 | 35 |
| 27.BT4010WL160B | BT40 | 10 | 160 | 35 |
| 27.BT4010WL200B | BT40 | 10 | 200 | 35 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw



10.01

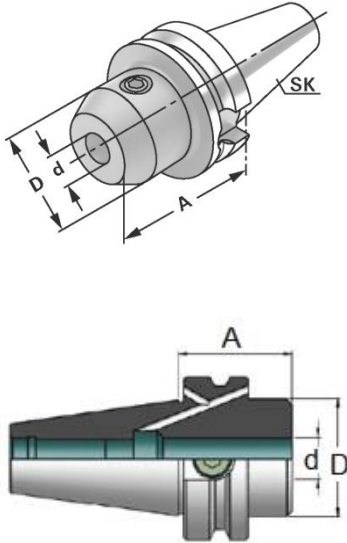
## End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)

## Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)

## Form

AD/AF  
(AD/B)G6.3 15.000 min<sup>-1</sup>

±0,003mm



## Order No

| Bestell-Nr.     | BT   | d  | A   | D  |
|-----------------|------|----|-----|----|
| 27.BT4012WL65B  | BT40 | 12 | 65  | 42 |
| 27.BT4012WL100B | BT40 | 12 | 100 | 42 |
| 27.BT4012WL130B | BT40 | 12 | 130 | 42 |
| 27.BT4012WL160B | BT40 | 12 | 160 | 42 |
| 27.BT4012WL200B | BT40 | 12 | 200 | 42 |
| 27.BT4014WL65B  | BT40 | 14 | 65  | 44 |
| 27.BT4014WL100B | BT40 | 14 | 100 | 44 |
| 27.BT4014WL130B | BT40 | 14 | 130 | 44 |
| 27.BT4014WL160B | BT40 | 14 | 160 | 44 |
| 27.BT4014WL200B | BT40 | 14 | 200 | 44 |
| 27.BT4016WL35B  | BT40 | 16 | 35  | 44 |
| 27.BT4016WL70B  | BT40 | 16 | 70  | 48 |
| 27.BT4016WL100B | BT40 | 16 | 100 | 48 |
| 27.BT4016WL130B | BT40 | 16 | 130 | 48 |
| 27.BT4016WL160B | BT40 | 16 | 160 | 48 |
| 27.BT4016WL200B | BT40 | 16 | 200 | 48 |
| 27.BT4018WL70B  | BT40 | 18 | 70  | 50 |
| 27.BT4018WL100B | BT40 | 18 | 100 | 50 |
| 27.BT4018WL130B | BT40 | 18 | 130 | 50 |
| 27.BT4018WL160B | BT40 | 18 | 160 | 50 |
| 27.BT4018WL200B | BT40 | 18 | 200 | 50 |
| 27.BT4020WL35B  | BT40 | 20 | 35  | 44 |
| 27.BT4020WL70B  | BT40 | 20 | 70  | 52 |
| 27.BT4020WL100B | BT40 | 20 | 100 | 50 |
| 27.BT4020WL130B | BT40 | 20 | 130 | 50 |
| 27.BT4020WL160B | BT40 | 20 | 160 | 50 |
| 27.BT4020WL200B | BT40 | 20 | 200 | 50 |
| 27.BT4025WL35B  | BT40 | 25 | 35  | 44 |
| 27.BT4025WL100B | BT40 | 25 | 100 | 65 |
| 27.BT4025WL160B | BT40 | 25 | 160 | 65 |
| 27.BT4025WL200B | BT40 | 25 | 200 | 65 |
| 27.BT4032WL70B  | BT40 | 32 | 70  | 72 |
| 27.BT4032WL100B | BT40 | 32 | 110 | 72 |
| 27.BT4032WL160B | BT40 | 32 | 160 | 72 |
| 27.BT4032WL200B | BT40 | 32 | 200 | 72 |
| 27.BT4040WL120B | BT40 | 40 | 120 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw



10.01

## End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)

## Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)

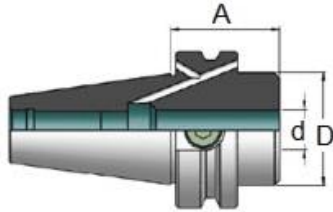
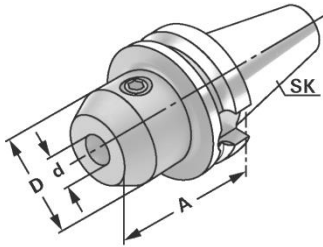
## Form

AD/AF

(AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No

Bestell-Nr.

BT

d

A

D

|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.BT5006WL63B  | BT50 | 6  | 63  | 25 |
| 27.BT5006WL100B | BT50 | 6  | 100 | 25 |
| 27.BT5006WL130B | BT50 | 6  | 130 | 25 |
| 27.BT5006WL160B | BT50 | 6  | 160 | 25 |
| 27.BT5006WL200B | BT50 | 6  | 200 | 25 |
| 27.BT5008WL63B  | BT50 | 8  | 63  | 28 |
| 27.BT5008WL100B | BT50 | 8  | 100 | 28 |
| 27.BT5008WL130B | BT50 | 8  | 130 | 28 |
| 27.BT5008WL160B | BT50 | 8  | 160 | 28 |
| 27.BT5008WL200B | BT50 | 8  | 200 | 28 |
| 27.BT5010WL63B  | BT50 | 10 | 63  | 35 |
| 27.BT5010WL100B | BT50 | 10 | 100 | 35 |
| 27.BT5010WL130B | BT50 | 10 | 130 | 35 |
| 27.BT5010WL160B | BT50 | 10 | 160 | 35 |
| 27.BT5010WL200B | BT50 | 10 | 200 | 35 |
| 27.BT5012WL80B  | BT50 | 12 | 80  | 42 |
| 27.BT5012WL100B | BT50 | 12 | 100 | 42 |
| 27.BT5012WL130B | BT50 | 12 | 130 | 42 |
| 27.BT5012WL160B | BT50 | 12 | 160 | 42 |
| 27.BT5012WL200B | BT50 | 12 | 200 | 42 |
| 27.BT5014WL80B  | BT50 | 14 | 80  | 44 |
| 27.BT5014WL100B | BT50 | 14 | 100 | 44 |
| 27.BT5014WL130B | BT50 | 14 | 130 | 44 |
| 27.BT5014WL160B | BT50 | 14 | 160 | 44 |
| 27.BT5014WL200B | BT50 | 14 | 200 | 44 |
| 27.BT5016WL80B  | BT50 | 16 | 80  | 48 |
| 27.BT5016WL100B | BT50 | 16 | 100 | 48 |
| 27.BT5016WL130B | BT50 | 16 | 130 | 48 |
| 27.BT5016WL160B | BT50 | 16 | 160 | 48 |
| 27.BT5016WL200B | BT50 | 16 | 200 | 48 |
| 27.BT5018WL80B  | BT50 | 18 | 80  | 50 |
| 27.BT5018WL100B | BT50 | 18 | 100 | 50 |
| 27.BT5018WL130B | BT50 | 18 | 130 | 50 |
| 27.BT5018WL160B | BT50 | 18 | 160 | 50 |
| 27.BT5018WL200B | BT50 | 18 | 200 | 50 |
| 27.BT5020WL80B  | BT50 | 20 | 80  | 52 |
| 27.BT5020WL100B | BT50 | 20 | 100 | 52 |
| 27.BT5020WL130B | BT50 | 20 | 130 | 52 |
| 27.BT5020WL160B | BT50 | 20 | 160 | 52 |
| 27.BT5020WL200B | BT50 | 20 | 200 | 52 |

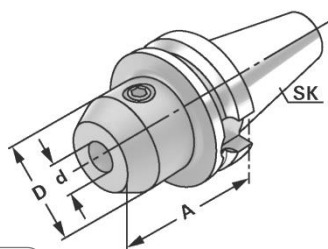


10.01

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

**End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H7/k6 0,003mm

**Order No****Bestell-Nr.****BT****d****A****D**

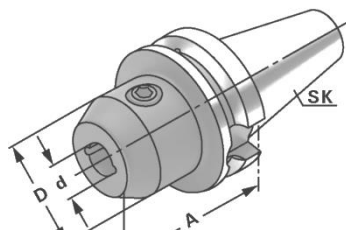
|                 |      |    |     |    |
|-----------------|------|----|-----|----|
| 27.BT5025WL100B | BT50 | 25 | 100 | 65 |
| 27.BT5025WL130B | BT50 | 25 | 130 | 65 |
| 27.BT5025WL160B | BT50 | 25 | 160 | 65 |
| 27.BT5025WL200B | BT50 | 25 | 200 | 65 |
| 27.BT5032WL100B | BT50 | 32 | 105 | 72 |
| 27.BT5032WL130B | BT50 | 32 | 130 | 72 |
| 27.BT5032WL160B | BT50 | 32 | 160 | 72 |
| 27.BT5032WL200B | BT50 | 32 | 200 | 72 |
| 27.BT5040WL110B | BT50 | 40 | 110 | 80 |
| 27.BT5040WL130B | BT50 | 40 | 130 | 80 |
| 27.BT5040WL160B | BT50 | 40 | 160 | 80 |
| 27.BT5040WL200B | BT50 | 40 | 200 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

10.01

**End Mill Holder with Coolant Channel DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen mit Kühlkanal DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H7/k6 0,003mm

**Order No****Bestell-Nr.****BT****d****A****D**

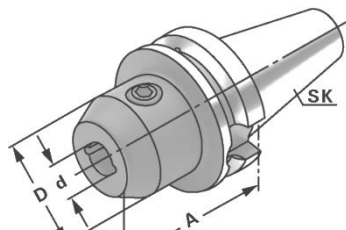
|                   |      |    |     |    |
|-------------------|------|----|-----|----|
| 27.BT4006WL50B.K  | BT40 | 6  | 50  | 25 |
| 27.BT4006WL100B.K | BT40 | 6  | 100 | 25 |
| 27.BT4008WL50B.K  | BT40 | 8  | 50  | 28 |
| 27.BT4008WL100B.K | BT40 | 8  | 100 | 28 |
| 27.BT4010WL63B.K  | BT40 | 10 | 63  | 35 |
| 27.BT4010WL100B.K | BT40 | 10 | 100 | 35 |
| 27.BT4012WL63B.K  | BT40 | 12 | 63  | 42 |
| 27.BT4012WL100B.K | BT40 | 12 | 100 | 42 |
| 27.BT4014WL63B.K  | BT40 | 14 | 63  | 44 |
| 27.BT4014WL100B.K | BT40 | 14 | 100 | 44 |
| 27.BT4016WL63B.K  | BT40 | 16 | 63  | 48 |
| 27.BT4016WL100B.K | BT40 | 16 | 100 | 48 |
| 27.BT4018WL63B.K  | BT40 | 18 | 63  | 50 |
| 27.BT4018WL100B.K | BT40 | 18 | 100 | 50 |
| 27.BT4020WL63B.K  | BT40 | 20 | 63  | 52 |
| 27.BT4020WL100B.K | BT40 | 20 | 100 | 52 |
| 27.BT4025WL90B.K  | BT40 | 25 | 90  | 63 |
| 27.BT4032WL100B.K | BT40 | 32 | 100 | 72 |
| 27.BT4040WL120B.K | BT40 | 40 | 120 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

10.01

**End Mill Holder with Coolant Channel DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen mit Kühlkanal DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H7 0,003mm

**Order No****Bestell-Nr.****BT****d****A****D**

27.BT5006WL63B.K

BT50

6

63

25

27.BT5008WL63B.K

BT50

8

63

28

27.BT5010WL63B.K

BT50

10

63

35

27.BT5012WL80B.K

BT50

12

80

42

27.BT5014WL80B.K

BT50

14

80

44

27.BT5016WL80B.K

BT50

16

80

48

27.BT5018WL80B.K

BT50

18

80

50

27.BT5020WL80B.K

BT50

20

80

52

27.BT5025WL100B.K

BT50

25

100

65

27.BT5032WL105B.K

BT50

32

105

72

27.BT5040WL110B.K

BT50

40

110

80

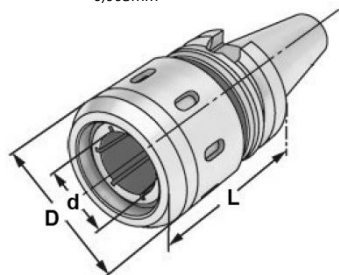
Lieferumfang: inkl. Spannschraube • Included: Clamping screw



10.01

**High performance Milling Chuck HKS****Hochleistungs-Kraftspannfutter HKS****HKS****(AD/AF)****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H7 0,003mm

**Order No****Bestell-Nr.****SK****Capacity****Spannbereich****L****D**

27.BT4020L90HKSB

BT40

20 (HKS 20)

90

53

27.BT4032L90HKSB

BT40

32 (HKS 32)

90

68

27.BT5020L95HKSB

BT50

20 (HKS 20)

95

53

27.BT5032L90HKSB

BT50

32 (HKS 32)

90

68

Verwendung: Zur Aufnahme von Werkzeugen mit Zylinderschaft nach DIN 1835 Form A+B+E und IN 6535 Form HA+HB+HE (größer 20mm nur mit Reduzierung)

Application: for mounting straight-shank tools acc. DIN 1835 form A+B+E and IN 6535 form HA+HB+HE (larger than dia. 20 mm only with reduction sleeve).



07.07



10.01



10.10

End Mill Holder DIN 6359 for whistle notch type end mills DIN 1835-E

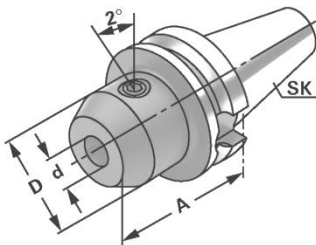
Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-E / Whistle Notch

Form

AD/AF  
(AD/B)

G6.3 15.000 min<sup>-1</sup>

↗0,003mm



Order No

Bestell-Nr.

BT

d

A

D

|                  |      |    |     |    |
|------------------|------|----|-----|----|
| 27.BT4006WNL50B  | BT40 | 6  | 50  | 25 |
| 27.BT4008WNL50B  | BT40 | 8  | 50  | 28 |
| 27.BT4010WNL63B  | BT40 | 10 | 63  | 35 |
| 27.BT4012WNL63B  | BT40 | 12 | 63  | 42 |
| 27.BT4014WNL63B  | BT40 | 14 | 63  | 44 |
| 27.BT4016WNL63B  | BT40 | 16 | 63  | 48 |
| 27.BT4018WNL63B  | BT40 | 18 | 63  | 50 |
| 27.BT4020WNL63B  | BT40 | 20 | 63  | 52 |
| 27.BT4025WNL90B  | BT40 | 25 | 90  | 65 |
| 27.BT4032WNL100B | BT40 | 32 | 100 | 72 |
| 27.BT4040WNL105B | BT40 | 40 | 105 | 80 |
| 27.BT4040WNL120B | BT40 | 40 | 120 | 80 |

|                  |      |    |     |    |
|------------------|------|----|-----|----|
| 27.BT5006WNL63B  | BT50 | 6  | 63  | 25 |
| 27.BT5008WNL63B  | BT50 | 8  | 63  | 28 |
| 27.BT5010WNL70B  | BT50 | 10 | 70  | 35 |
| 27.BT5012WNL80B  | BT50 | 12 | 80  | 42 |
| 27.BT5014WNL80B  | BT50 | 14 | 80  | 44 |
| 27.BT5016WNL80B  | BT50 | 16 | 80  | 48 |
| 27.BT5018WNL80B  | BT50 | 18 | 80  | 50 |
| 27.BT5020WNL80B  | BT50 | 20 | 80  | 52 |
| 27.BT5025WNL100B | BT50 | 25 | 100 | 65 |
| 27.BT5032WNL105B | BT50 | 32 | 105 | 72 |
| 27.BT5040WNL120B | BT50 | 40 | 120 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw



10.01

Morse Taper Adaptor DIN 6383

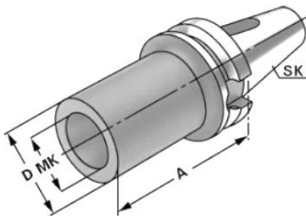
Zwischenhülse DIN 6383 für MK mit Austreibblappen

Form

AD

G6.3 15.000 min<sup>-1</sup>

↗0,003mm



Order No

Bestell-Nr.

BT

MK

A

D

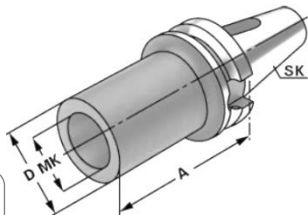
|                 |      |   |    |    |
|-----------------|------|---|----|----|
| 28.BT30MK1L45AL | BT30 | 1 | 45 | 25 |
| 28.BT30MK2L60AL | BT30 | 2 | 60 | 32 |
| 28.BT30MK3L75AL | BT30 | 3 | 75 | 40 |
| 28.BT40MK1L50AL | BT40 | 1 | 50 | 25 |
| 28.BT40MK2L50AL | BT40 | 2 | 50 | 32 |
| 28.BT40MK3L70AL | BT40 | 3 | 70 | 40 |
| 28.BT40MK4L95AL | BT40 | 4 | 95 | 48 |



10.01

**Morse Taper Adaptor DIN 6383****Zwischenhülse DIN 6383 für MK mit Austreibblappen****Form****AD/AF  
(AD/B)**G6.3 15.000 min<sup>-1</sup>

⌀ 0,003mm

**Order No****Bestell-Nr.****BT****MK****A****D**

28.BT40MK1L50ALB

BT40

1

50

25

28.BT40MK2L50ALB

BT40

2

50

32

28.BT40MK3L70ALB

BT40

3

70

40

28.BT40MK4L95ALB

BT40

4

95

48

28.BT50MK1L45ALB

BT50

1

45

25

28.BT50MK2L60ALB

BT50

2

60

32

28.BT50MK3L65ALB

BT50

3

65

40

28.BT50MK4L95ALB

BT50

4

95

48

28.BT50MK5L105ALB

BT50

5

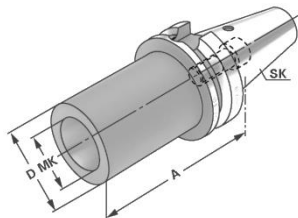
105

63

10.01

**Morse Taper Adaptor DIN 6364 for morse taper shank and thread****Zwischenhülse DIN 6364 für MK mit Anzugsgewinde****Form****A**G6.3 15.000 min<sup>-1</sup>

⌀ 0,003mm

**Order No****Bestell-Nr.****BT****MK****A****D**

28.BT40MK1L50AG

BT40

1

50

25

28.BT40MK2L50AG

BT40

2

50

32

28.BT40MK3L70AG

BT40

3

70

40

28.BT40MK4L95AG

BT40

4

95

48

28.BT50MK1L50AG

BT50

1

50

25

28.BT50MK2L50AG

BT50

2

50

32

28.BT50MK3L65AG

BT50

3

65

40

28.BT50MK4L70AG

BT50

4

70

48

28.BT50MK5L100AG

BT50

5

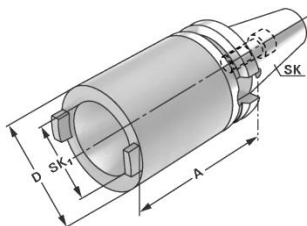
100

63

10.01

**Reduction Sleeve****Reduzierhülse****Form****A**G6.3 15.000 min<sup>-1</sup>

⌀ 0,003mm

**Order No****Bestell-Nr.****BT****MK****A****D**

28.BT40BT30L70

BT40

BT30

70

50

28.BT40BT40L100

BT40

BT40

100

68

28.BT50BT40L70

BT50

BT40

70

78

28.BT50BT50L120

BT50

BT50

120

100

10.01



Combi Shell Mill Holder DIN 6358

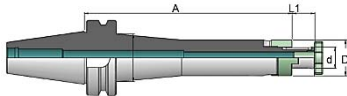
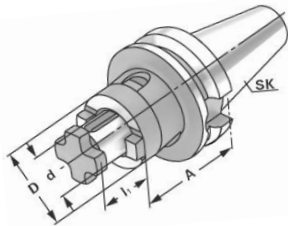
Kombi Aufsteckfräserdorne DIN 6358

Form

AD

G6.3 15.000 min<sup>-1</sup>

√0,003mm



Order No

Bestell-Nr.

BT

d

A

L1

D

|                 |      |    |     |    |    |
|-----------------|------|----|-----|----|----|
| 42.BT3016L45KA  | BT30 | 16 | 45  | 17 | 32 |
| 42.BT3022L47KA  | BT30 | 22 | 47  | 19 | 40 |
| 42.BT3027L49KA  | BT30 | 27 | 49  | 21 | 48 |
| 42.BT4016L55KA  | BT40 | 16 | 55  | 17 | 32 |
| 42.BT4016L100KA | BT40 | 16 | 100 | 17 | 32 |
| 42.BT4016L160KA | BT40 | 16 | 160 | 17 | 32 |
| 42.BT4022L55KA  | BT40 | 22 | 55  | 19 | 40 |
| 42.BT4022L100KA | BT40 | 22 | 100 | 19 | 40 |
| 42.BT4022L160KA | BT40 | 22 | 160 | 19 | 40 |
| 42.BT4027L55KA  | BT40 | 27 | 55  | 21 | 48 |
| 42.BT4027L100KA | BT40 | 27 | 100 | 21 | 48 |
| 42.BT4027L160KA | BT40 | 27 | 160 | 21 | 48 |
| 42.BT4032L60KA  | BT40 | 32 | 60  | 24 | 58 |
| 42.BT4032L100KA | BT40 | 32 | 100 | 24 | 58 |
| 42.BT4032L160KA | BT40 | 32 | 160 | 24 | 58 |
| 42.BT4040L60KA  | BT40 | 40 | 60  | 27 | 70 |
| 42.BT4040L100KA | BT40 | 40 | 100 | 27 | 70 |
| 42.BT4040L160KA | BT40 | 40 | 160 | 27 | 70 |
| 42.BT5016L70KA  | BT50 | 16 | 70  | 17 | 32 |
| 42.BT5016L100KA | BT50 | 16 | 100 | 17 | 32 |
| 42.BT5016L160KA | BT50 | 16 | 160 | 17 | 32 |
| 42.BT5022L70KA  | BT50 | 22 | 70  | 19 | 40 |
| 42.BT5022L100KA | BT50 | 22 | 100 | 19 | 40 |
| 42.BT5022L160KA | BT50 | 22 | 160 | 19 | 40 |
| 42.BT5027L70KA  | BT50 | 27 | 70  | 21 | 48 |
| 42.BT5027L100KA | BT50 | 27 | 100 | 21 | 48 |
| 42.BT5027L160KA | BT50 | 27 | 160 | 21 | 48 |
| 42.BT5032L70KA  | BT50 | 32 | 70  | 24 | 58 |
| 42.BT5032L100KA | BT50 | 32 | 100 | 24 | 58 |
| 42.BT5032L160KA | BT50 | 32 | 160 | 24 | 58 |
| 42.BT5040L70KA  | BT50 | 40 | 70  | 27 | 70 |
| 42.BT5040L100KA | BT50 | 40 | 100 | 27 | 70 |
| 42.BT5040L160KA | BT50 | 40 | 160 | 27 | 70 |

Lieferumfang: Inklusive Paßfeder, Mitnehmerring und Fräseranzugsschraube  
Included: Retaining screw, driving ring and feather key



## Combi Shell Mill Holder DIN 6358

## Kombi Aufsteckfräserdorne DIN 6358

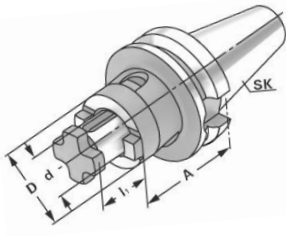
## Form

## AD/AF

## (AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No.

## Bestell-Nr.

## BT

## d

## A

## L1

## D

|                  |      |    |     |    |    |
|------------------|------|----|-----|----|----|
| 42.BT4016L55KAB  | BT40 | 16 | 55  | 17 | 32 |
| 42.BT4016L100KAB | BT40 | 16 | 100 | 17 | 32 |
| 42.BT4016L160KAB | BT40 | 16 | 160 | 17 | 32 |
| 42.BT4022L55KAB  | BT40 | 22 | 55  | 19 | 40 |
| 42.BT4022L100KAB | BT40 | 22 | 100 | 19 | 40 |
| 42.BT4022L160KAB | BT40 | 22 | 160 | 19 | 40 |
| 42.BT4027L55KAB  | BT40 | 27 | 55  | 21 | 48 |
| 42.BT4027L100KAB | BT40 | 27 | 100 | 21 | 48 |
| 42.BT4027L160KAB | BT40 | 27 | 160 | 21 | 48 |
| 42.BT4032L60KAB  | BT40 | 32 | 60  | 24 | 58 |
| 42.BT4032L100KAB | BT40 | 32 | 100 | 24 | 58 |
| 42.BT4032L160KAB | BT40 | 32 | 160 | 24 | 58 |
| 42.BT4040L60KAB  | BT40 | 40 | 60  | 27 | 70 |
| 42.BT4040L100KAB | BT40 | 40 | 100 | 27 | 70 |
| 42.BT4040L160KAB | BT40 | 40 | 160 | 27 | 70 |
| 42.BT5016L70KAB  | BT50 | 16 | 70  | 17 | 32 |
| 42.BT5016L160KAB | BT50 | 16 | 160 | 17 | 32 |
| 42.BT5022L70KAB  | BT50 | 22 | 70  | 19 | 40 |
| 42.BT5022L160KAB | BT50 | 22 | 160 | 19 | 40 |
| 42.BT5027L70KAB  | BT50 | 27 | 70  | 21 | 48 |
| 42.BT5027L160KAB | BT50 | 27 | 160 | 21 | 48 |
| 42.BT5032L70KAB  | BT50 | 32 | 70  | 24 | 58 |
| 42.BT5032L160KAB | BT50 | 32 | 160 | 24 | 58 |
| 42.BT5040L70KAB  | BT50 | 40 | 70  | 27 | 70 |
| 42.BT5040L160KAB | BT50 | 40 | 160 | 27 | 70 |

Lieferumfang: Inklusive Paßfeder, Mitnehmerring und Fräseranzugsschraube  
Included: Retaining screw, driving ring and feather key



10.11



10.12



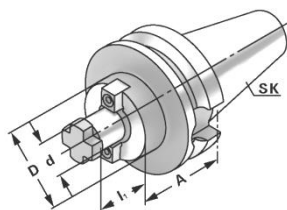
10.01



10.12

**Shell Mill Holder DIN 6357 for cutters with driving slots****Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser****Form****AD**G6.3 15.000 min<sup>-1</sup>

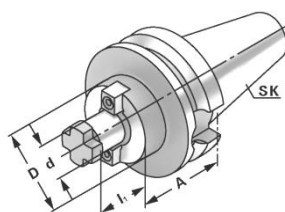
H7/k6, 0,003mm

**Order No**

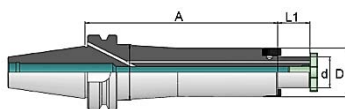
| Bestell-Nr.    | BT   | d  | A  | L1 | D  |
|----------------|------|----|----|----|----|
| 42.BT3016L40MA | BT30 | 16 | 40 | 17 | 38 |
| 42.BT3022L40MA | BT30 | 22 | 40 | 19 | 48 |
| 42.BT3027L40MA | BT30 | 27 | 40 | 21 | 58 |
| 42.BT3032L50MA | BT30 | 32 | 50 | 24 | 78 |

**Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,003mm

**Order No**

| Bestell-Nr.      | BT   | d  | A   | L1 | D  |
|------------------|------|----|-----|----|----|
| 42.BT4016L45MAB  | BT40 | 16 | 45  | 17 | 38 |
| 42.BT4016L100MAB | BT40 | 16 | 100 | 17 | 38 |
| 42.BT4016L130MAB | BT40 | 16 | 130 | 17 | 38 |
| 42.BT4016L160MAB | BT40 | 16 | 160 | 17 | 38 |
| 42.BT4022L45MAB  | BT40 | 22 | 45  | 19 | 48 |
| 42.BT4022L100MAB | BT40 | 22 | 100 | 19 | 48 |
| 42.BT4022L130MAB | BT40 | 22 | 130 | 19 | 48 |
| 42.BT4022L160MAB | BT40 | 22 | 160 | 19 | 48 |
| 42.BT4027L45MAB  | BT40 | 27 | 45  | 21 | 58 |
| 42.BT4027L100MAB | BT40 | 27 | 100 | 21 | 58 |
| 42.BT4027L130MAB | BT40 | 27 | 130 | 21 | 58 |
| 42.BT4027L160MAB | BT40 | 27 | 160 | 21 | 58 |
| 42.BT4032L50MAB  | BT40 | 32 | 50  | 24 | 78 |
| 42.BT4032L100MAB | BT40 | 32 | 100 | 24 | 78 |
| 42.BT4032L130MAB | BT40 | 32 | 130 | 24 | 78 |
| 42.BT4032L160MAB | BT40 | 32 | 160 | 24 | 78 |
| 42.BT4040L55MAB  | BT40 | 40 | 55  | 27 | 88 |
| 42.BT4040L100MAB | BT40 | 40 | 100 | 27 | 88 |
| 42.BT4040L130MAB | BT40 | 40 | 130 | 27 | 88 |
| 42.BT4040L160MAB | BT40 | 40 | 160 | 27 | 88 |



Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.

Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant

**D2=40/D2=60** Für große Planfräser mit vier zusätzlichen Gewindebohrungen nach DIN 2079. • For large diameter face mill cutters with four additional threaded holes according to DIN 2079.



## Shell Mill Holder DIN 6357 for cutters with driving slots

## Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser)

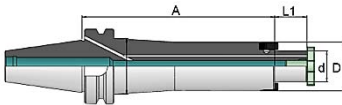
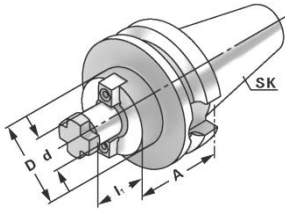
## Form

AD/AF

(AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No

Bestell-Nr.

BT

d

A

L1

D

42.BT5016L60MAB

BT50

16

60

17

38

42.BT5016L100MAB

BT50

16

100

17

38

42.BT5016L130MAB

BT50

16

130

17

38

42.BT5016L160MAB

BT50

16

160

17

38

42.BT5022L60MAB

BT50

22

60

19

48

42.BT5022L100MAB

BT50

22

100

19

48

42.BT5022L130MAB

BT50

22

130

19

48

42.BT5022L160MAB

BT50

22

160

19

48

42.BT5027L60MAB

BT50

27

60

21

58

42.BT5027L100MAB

BT50

27

100

21

58

42.BT5027L130MAB

BT50

27

130

21

58

42.BT5027L160MAB

BT50

27

160

21

58

42.BT5032L60MAB

BT50

32

60

24

78

42.BT5032L100MAB

BT50

32

100

24

78

42.BT5032L130MAB

BT50

32

130

24

78

42.BT5032L160MAB

BT50

32

160

24

78

42.BT5040L60MAB

BT50

40

60

27

88

42.BT5040L100MAB

BT50

40

100

27

88

42.BT5040L130MAB

BT50

40

130

27

88

42.BT5040L160MAB

BT50

40

160

27

88

Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.

Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant

**D2=40/D2=60** Für große Planfräser mit vier zusätzlichen Gewindebohrungen nach DIN 2079. • For large diameter face mill cutters with four additional threaded holes according to DIN 2079.



10.11



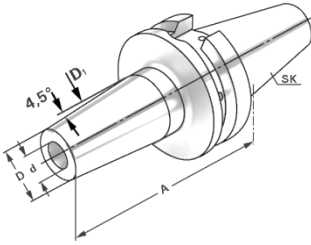
10.12



10.01

**Shrink Chuck for mounting of solid carbide and HSS Cutters****Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften****Form****AD**G6.3 15.000 min<sup>-1</sup>

⌀ 0,003mm

**Order No****Bestell-Nr.**

| Bestell-Nr.      | BT   | d  | A   | D1 | D  | l1 | g     | l2 |
|------------------|------|----|-----|----|----|----|-------|----|
| 27.BT3003L80SHR  | BT30 | 3  | 80  | 11 | 15 | 10 | -     | -  |
| 27.BT3004L80SHR  | BT30 | 4  | 80  | 14 | 22 | 20 | M3    | 5  |
| 27.BT3005L80SHR  | BT30 | 5  | 80  | 16 | 22 | 20 | M4    | 10 |
| 27.BT3006L80SHR  | BT30 | 6  | 80  | 21 | 27 | 36 | M5    | 10 |
| 27.BT3008L80SHR  | BT30 | 8  | 80  | 21 | 27 | 36 | M6    | 10 |
| 27.BT3010L90SHR  | BT30 | 10 | 90  | 24 | 32 | 42 | M8x1  | 10 |
| 27.BT3012L90SHR  | BT30 | 12 | 90  | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT3014L90SHR  | BT30 | 14 | 90  | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT3016L90SHR  | BT30 | 16 | 90  | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT3018L90SHR  | BT30 | 18 | 90  | 33 | 42 | 50 | M12x1 | 10 |
| 27.BT3020L90SHR  | BT30 | 20 | 90  | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT3025L100SHR | BT30 | 25 | 100 | 4  | 53 | 58 | M16x1 | 10 |

**Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

⌀ 0,003mm

**Order No****Bestell-Nr.**

| Bestell-Nr.       | BT   | d  | A   | D1 | D  | l1 | g     | l2 |
|-------------------|------|----|-----|----|----|----|-------|----|
| 27.BT4003L80SHRB  | BT40 | 3  | 80  | 11 | 15 | 10 | -     | -  |
| 27.BT4004L80SHRB  | BT40 | 4  | 80  | 14 | 22 | 20 | M3    | 5  |
| 27.BT4005L80SHRB  | BT40 | 5  | 80  | 16 | 22 | 20 | M4    | 5  |
| 27.BT4006L90SHRB  | BT40 | 6  | 90  | 21 | 27 | 36 | M5    | 10 |
| 27.BT4006L120SHRB | BT40 | 6  | 120 | 21 | 27 | 36 | M5    | 10 |
| 27.BT4006L160SHRB | BT40 | 6  | 160 | 21 | 27 | 36 | M5    | 10 |
| 27.BT4008L90SHRB  | BT40 | 8  | 90  | 21 | 27 | 36 | M6    | 10 |
| 27.BT4008L120SHRB | BT40 | 8  | 120 | 21 | 27 | 36 | M6    | 10 |
| 27.BT4008L160SHRB | BT40 | 8  | 160 | 21 | 27 | 36 | M6    | 10 |
| 27.BT4010L90SHRB  | BT40 | 10 | 90  | 24 | 32 | 41 | M8x1  | 10 |
| 27.BT4010L120SHRB | BT40 | 10 | 120 | 24 | 32 | 41 | M8x1  | 10 |
| 27.BT4010L160SHRB | BT40 | 10 | 160 | 24 | 32 | 41 | M8x1  | 10 |
| 27.BT4012L90SHRB  | BT40 | 12 | 90  | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT4012L120SHRB | BT40 | 12 | 120 | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT4012L160SHRB | BT40 | 12 | 160 | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT4014L90SHRB  | BT40 | 14 | 90  | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT4014L120SHRB | BT40 | 14 | 120 | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT4014L160SHRB | BT40 | 14 | 160 | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT4016L90SHRB  | BT40 | 16 | 90  | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT4016L120SHRB | BT40 | 16 | 120 | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT4016L160SHRB | BT40 | 16 | 160 | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT4018L90SHRB  | BT40 | 18 | 90  | 33 | 42 | 50 | M12x1 | 10 |
| 27.BT4018L120SHRB | BT40 | 18 | 120 | 33 | 42 | 50 | M12x1 | 10 |
| 27.BT4018L160SHRB | BT40 | 18 | 160 | 33 | 42 | 50 | M12x1 | 10 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

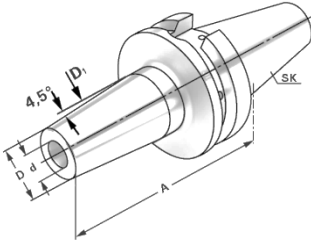
l1 = max. Einstecktiefe / max. depth of insertion

l2 = max. Verstellweg / max. distance adjustment

g = Verstellerschraube / adjustment screw

**Shrink Chuck for mounting of solid carbide and HSS cutters****Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften****Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No****Bestell-Nr.**

|                   | BT   | d  | A   | D1 | D  | l1 | g     | l2 |
|-------------------|------|----|-----|----|----|----|-------|----|
| 27.BT4020L90SHRB  | BT40 | 20 | 90  | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT4020L120SHRB | BT40 | 20 | 120 | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT4020L160SHRB | BT40 | 20 | 160 | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT4025L100SHRB | BT40 | 25 | 100 | 44 | 53 | 58 | M16x1 | 10 |
| 27.BT4025L120SHRB | BT40 | 25 | 120 | 44 | 53 | 58 | M16x1 | 10 |
| 27.BT4025L160SHRB | BT40 | 25 | 160 | 44 | 53 | 58 | M16x1 | 10 |
| 27.BT4032L160SHRB | BT40 | 32 | 160 | 33 | 42 | 58 | M16x1 | 10 |
| 27.BT5004L100SHRB | BT50 | 4  | 100 | 14 | 22 | 20 | M3    | 5  |
| 27.BT5005L100SHRB | BT50 | 5  | 100 | 16 | 22 | 20 | M4    | 10 |
| 27.BT5006L100SHRB | BT50 | 6  | 100 | 21 | 27 | 36 | M5    | 10 |
| 27.BT5006L160SHRB | BT50 | 6  | 160 | 21 | 27 | 36 | M5    | 10 |
| 27.BT5006L200SHRB | BT50 | 6  | 200 | 21 | 27 | 36 | M5    | 10 |
| 27.BT5008L100SHRB | BT50 | 8  | 100 | 21 | 27 | 36 | M6    | 10 |
| 27.BT5008L160SHRB | BT50 | 8  | 160 | 21 | 27 | 36 | M6    | 10 |
| 27.BT5008L200SHRB | BT50 | 8  | 200 | 21 | 27 | 36 | M6    | 10 |
| 27.BT5010L100SHRB | BT50 | 10 | 100 | 24 | 32 | 41 | M8x1  | 10 |
| 27.BT5010L160SHRB | BT50 | 10 | 160 | 24 | 32 | 41 | M8x1  | 10 |
| 27.BT5010L200SHRB | BT50 | 10 | 200 | 24 | 32 | 41 | M8x1  | 10 |
| 27.BT5012L100SHRB | BT50 | 12 | 100 | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT5012L160SHRB | BT50 | 12 | 160 | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT5012L200SHRB | BT50 | 12 | 200 | 24 | 32 | 47 | M10x1 | 10 |
| 27.BT5014L100SHRB | BT50 | 14 | 100 | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT5014L160SHRB | BT50 | 14 | 160 | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT5014L200SHRB | BT50 | 14 | 200 | 27 | 34 | 47 | M10x1 | 10 |
| 27.BT5016L100SHRB | BT50 | 16 | 100 | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT5016L160SHRB | BT50 | 16 | 160 | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT5016L200SHRB | BT50 | 16 | 200 | 27 | 34 | 50 | M12x1 | 10 |
| 27.BT5018L110SHRB | BT50 | 18 | 110 | 33 | 42 | 50 | M12x1 | 10 |
| 27.BT5018L160SHRB | BT50 | 18 | 160 | 33 | 42 | 50 | M12x1 | 10 |
| 27.BT5018L200SHRB | BT50 | 18 | 200 | 33 | 42 | 50 | M12x1 | 10 |
| 27.BT5020L110SHRB | BT50 | 20 | 110 | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT5020L160SHRB | BT50 | 20 | 160 | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT5020L200SHRB | BT50 | 20 | 200 | 33 | 42 | 52 | M16x1 | 10 |
| 27.BT5025L120SHRB | BT50 | 25 | 120 | 44 | 53 | 58 | M16x1 | 10 |
| 27.BT5025L160SHRB | BT50 | 25 | 160 | 44 | 53 | 58 | M16x1 | 10 |
| 27.BT5025L200SHRB | BT50 | 25 | 200 | 44 | 53 | 58 | M16x1 | 10 |
| 27.BT5032L120SHRB | BT50 | 32 | 120 | 44 | 53 | 62 | M16x1 | 10 |
| 27.BT5032L160SHRB | BT50 | 32 | 160 | 44 | 53 | 62 | M16x1 | 10 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

l1 = max. Einstecktiefe / max. depth of insertion

l2 = max. Verstellweg / max. distance adjustment

g = Verstellschraube / adjustment screw



10.01

CNC Universal Drill Chuck Heads for right and left hand rotation

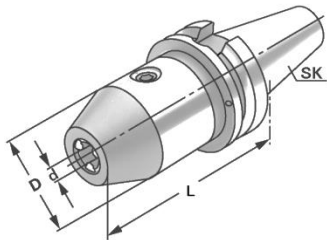
CNC Präzisionsbohrfutter für Rechts- und Linkslauf

Form

A

G 6.3 25.000 min<sup>-1</sup>

±0,02mm



Order No.

Bestell-Nr.

BT

Capacity (d)

Spannbereich

L

D

L1 (max)

25.BT3008L74BF

BT30

0,3-8

74

36

77

25.BT3013L96BF

BT30

0,5-13

96

50

102

25.BT4008L78BF

BT40

0,3-8

78

36

81

25.BT4013L98BF

BT40

0,5-13

98

50

104

25.BT4016L103BF

BT40

2,5-16

103

57

109

25.BT5013L110BF

BT50

0,5-13

110

50

116

25.BT5016L115BF

BT50

2,5-16

115

57

121

Lieferumfang: inklusive Spannschlüssel • Included: Wrench

Form

AD/AF

(AD/B)

G 6.3 25.000 min<sup>-1</sup>



Order No.

Bestell-Nr.

BT

Capacity (d)

Spannbereich

L

D

L1 (max)

25.BT4008L81BFB

BT40

0,3 - 8

81

36

84

25.BT4013L98BFB

BT40

0,5 - 13

98

50

104

25.BT4016L103BFB

BT40

2,5 - 16

103

57

109

25.BT5013L110BFB

BT50

0,5 - 13

110

50

116

25.BT5016L115BFB

BT50

2,5 - 16

115

57

121

Lieferumfang: inklusive Spannschlüssel • Included: Wrench



10.01



**Quick change tapping chucks with axial compensation on compression and expansion****Gewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug****Form****A****Order No.****Bestell-Nr.****Capacity****Spannbereich****Size****Größe****d****A****D****T****C**

25.BT3019L62GC

BT30

M3-M14

1

19

62

38

7

7

25.BT3031L95GC

BT30

M5-M22

2

31

95

54

12

12

25.BT4019L65GC

BT40

M3-M14

1

19

65

38

7

7

25.BT4031L93GC

BT40

M5-M22

2

31

93

54

12

12

25.BT4048L166GC

BT40

M14-M36

3

48

166

78

20

20

25.BT5019L100GC

BT50

M3-M14

1

19

100

38

7

7

25.BT5031L100GC

BT50

M5-M22

2

31

100

54

12

12

25.BT5048L142GC

BT50

M14-M36

3

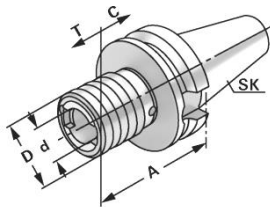
48

142

78

17,5

17,5

Für Bearbeitungszentren ohne Synchronspindel • For machining centres without synchronous spindle**Quick change tapping chucks without axial compensation on compression and expansion****Gewindeschneid-Schnellwechselfutter ohne Längenausgleich auf Druck und Zug****Form****AD****Order No.****Bestell-Nr.****Capacity****Spannbereich****Size****Größe****d****A****D**

25.BT3019L66G

BT30

M3-M14

1

19

66

38

25.BT3031L80G

BT30

M5-M22

2

31

80

54

25.BT4019L72G

BT40

M3-M14

1

19

72

38

25.BT4031L93G

BT40

M5-M22

2

31

93

54

25.BT4048L130G

BT40

M14-M36

3

48

130

78

25.BT5019L80G

BT50

M3-M14

1

19

80

38

25.BT5031L95G

BT50

M5-M22

2

31

95

54

25.BT5048L142G

BT50

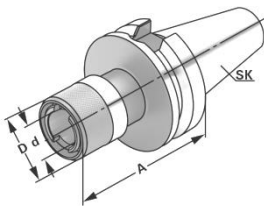
M14-M36

3

48

142

78

Für Bearbeitungszentren mit Synchronspindel • For machining centres with synchronous spindle

**Tapping Chucks Synchro** for synchronisation for collets DIN 6499 / ISO 15488 ER**Gewindeschneidfutter Synchro** für Synchronisation für Spannzangen DIN 6499 / ISO15488 ER**Form****AD/AF****(AD/B)**G6.3 15.000 min<sup>-1</sup>**Order No.****Bestell-Nr.****SK****Capacity (d)****Spannbereich****A****D****T****C**

25.BT4016L79GSY

BT40

M3 – M12 (ER16)

79

28

0,5

0,5

25.BT4020L85GSY

BT40

M3 – M16 (ER20)

85

34

0,5

0,5

25.BT4025L89GSY

BT40

M3 – M20 (ER25)

89

42

0,5

0,5

25.BT4032L110GSY

BT40

M3 – M27 (ER32)

110

50

0,5

0,5

25.BT4040L115GSY

BT40

M3 – M33 (ER40)

115

63

0,5

0,5

25.BT5016L95GSY

BT50

M3 – M12 (ER16)

95

28

0,5

0,5

25.BT5020L100GSY

BT50

M3 – M16 (ER20)

100

34

0,5

0,5

25.BT5025L110GSY

BT50

M3 – M20 (ER25)

110

42

0,5

0,5

25.BT50329L120GSY

BT50

M3 – M27 (ER32)

120

50

0,5

0,5

25.BT5040L120GSY

BT50

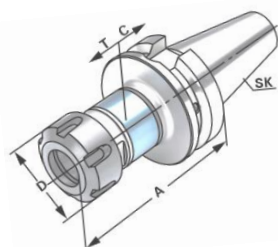
M3 – M33 (ER40)

120

63

0,5

0,5

Für Bearbeitungszentren **mit** Synchronspindel • For machining centres **with** synchronous spindle

- Synchro tapping chucks compensate synchronisation errors
- Minimal axial compensation on compression and expansion balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks
- A possible increase of axial force during the tapping process is reduced to a minimum
- Suitable for internal coolant
- Coolant pressure up to max. 100bar
- Synchro-Gewindeschneidfutter kompensieren Synchronisationsfehler
- Minimallängenausgleich in Druck- und Zugrichtung zwischen Synchronspindel und Gewindebohrer reduziert zu hohe Gewindeflankenreibungskräfte
- Reduziert eventuelle Axialkrafteerhöhung während des Schneidzyklus auf ein Minimum
- Geeignet für Innenkühlung
- Kühlmitteldruck max. 100bar



10.10



07.03



10.01

## Form

## AD/AF

## (AD/B)

## Order No.

## Bestell-Nr.

## BT

## d1

## d2

## d3

## A

## l2

## l3

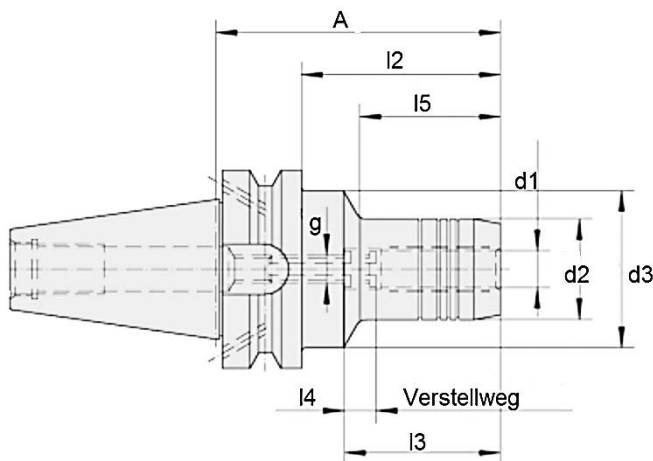
## L5

## g

## l4

|                   |      |    |    |    |     |    |    |      |       |    |
|-------------------|------|----|----|----|-----|----|----|------|-------|----|
| 19.BT3006L60HYDB  | BT30 | 6  | 26 | 26 | 60  | 38 | 37 | 33,0 | M5    | 10 |
| 19.BT3008L64HYDB  | BT30 | 8  | 28 | 28 | 64  | 42 | 37 | 29,0 | M6    | 10 |
| 19.BT3010L64HYDB  | BT30 | 10 | 30 | 30 | 64  | 42 | 42 | 37,0 | M8x1  | 10 |
| 19.BT3012L72HYDB  | BT30 | 12 | 32 | 32 | 72  | 50 | 47 | 43,0 | M10x1 | 10 |
| 19.BT3014L70HYDB  | BT30 | 14 | 34 | 34 | 70  | 48 | 47 | 45,0 | M10x1 | 10 |
| 19.BT3016L90HYDB  | BT30 | 16 | 38 | 50 | 90  | 63 | 52 | 47,0 | M12x1 | 10 |
| 19.BT3018L90HYDB  | BT30 | 18 | 40 | 42 | 90  | 68 | 52 | 68,0 | M12x1 | 10 |
| 19.BT3020L90HYDB  | BT30 | 20 | 42 | 42 | 90  | 68 | 52 | 68,0 | M12x1 | 10 |
| 19.BT3025L110HYDB | BT30 | 25 | 50 | 50 | 110 | 88 | 58 | 78,0 | M12x1 | 10 |

|                   |      |    |    |    |     |      |    |       |       |    |
|-------------------|------|----|----|----|-----|------|----|-------|-------|----|
| 19.BT4006L90HYDB  | BT40 | 6  | 26 | 50 | 90  | 63   | 37 | 43,0  | M5    | 10 |
| 19.BT4006L150HYDB | BT40 | 6  | 26 | 50 | 150 | 123  | 37 | 102,0 | M5    | 10 |
| 19.BT4008L90HYDB  | BT40 | 8  | 28 | 50 | 90  | 63   | 37 | 43,5  | M6    | 10 |
| 19.BT4008L150HYDB | BT40 | 8  | 28 | 50 | 150 | 123  | 37 | 103,0 | M6    | 10 |
| 19.BT4010L90HYDB  | BT40 | 10 | 30 | 50 | 90  | 63   | 42 | 44,0  | M8x1  | 10 |
| 19.BT4010L150HYDB | BT40 | 10 | 30 | 50 | 150 | 123  | 42 | 104,0 | M8x1  | 10 |
| 19.BT4012L90HYDB  | BT40 | 12 | 32 | 50 | 90  | 63   | 47 | 44,5  | M10x1 | 10 |
| 19.BT4012L150HYDB | BT40 | 12 | 32 | 50 | 150 | 123  | 47 | 105,0 | M10x1 | 10 |
| 19.BT4014L90HYDB  | BT40 | 14 | 34 | 50 | 90  | 63   | 47 | 47,5  | M10x1 | 10 |
| 19.BT4014L150HYDB | BT40 | 14 | 34 | 50 | 150 | 123  | 47 | 105,0 | M10x1 | 10 |
| 19.BT4016L90HYDB  | BT40 | 16 | 38 | 50 | 90  | 63   | 52 | 47,5  | M12x1 | 10 |
| 19.BT4016L150HYDB | BT40 | 16 | 38 | 50 | 150 | 123  | 52 | 106,0 | M12x1 | 10 |
| 19.BT4018L90HYDB  | BT40 | 18 | 40 | 50 | 90  | 63   | 52 | 47,5  | M12x1 | 10 |
| 19.BT4018L150HYDB | BT40 | 18 | 40 | 50 | 150 | 123  | 52 | 107,0 | M12x1 | 10 |
| 19.BT4020L90HYDB  | BT40 | 20 | 42 | 50 | 90  | 63   | 52 | 47,5  | M12x1 | 10 |
| 19.BT4020L150HYDB | BT40 | 20 | 42 | 50 | 150 | 123  | 52 | 108,0 | M12x1 | 10 |
| 19.BT4025L90HYDB  | BT40 | 25 | 50 | 63 | 90  | 51   | 58 | 51,0  | M12x1 | 10 |
| 19.BT4025L150HYDB | BT40 | 25 | 50 | 50 | 150 | 123  | 58 | 123,0 | M16x1 | 10 |
| 19.BT4032L110HYDB | BT40 | 32 | 60 | 60 | 110 | 81,5 | 62 | 81,5  | M16x1 | 10 |
| 19.BT4032L150HYDB | BT40 | 32 | 60 | 50 | 150 | 123  | 62 | 123,0 | M16x1 | 10 |

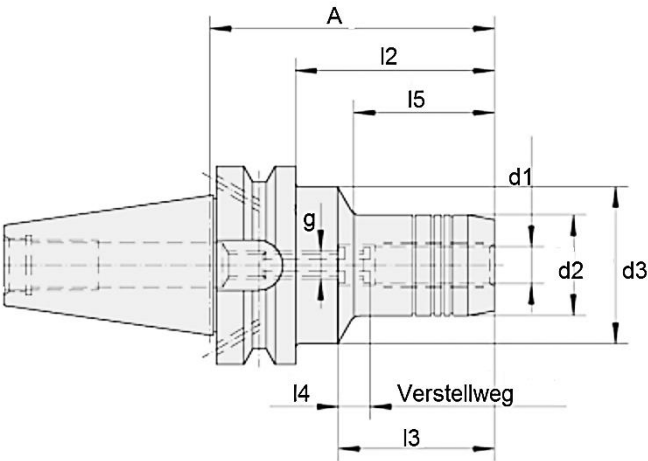


Hydraulic Chucks with coolant feed

Hydro-Dehnspannfutter mit Kühlmittelzuführung

Form  
AD/AF  
(AD/B)

| Order No.<br>Bestell-Nr. | BT   | d1 | d2 | d3 | A   | l2  | l3 | L5    | g     | l4 |
|--------------------------|------|----|----|----|-----|-----|----|-------|-------|----|
| 19.BT5006L110HYDB        | BT50 | 6  | 26 | 80 | 110 | 72  | 37 | 43,0  | M5    | 10 |
| 19.BT5006L160HYDB        | BT50 | 6  | 26 | 80 | 160 | 122 | 37 | 100,0 | M5    | 10 |
| 19.BT5008L110HYDB        | BT50 | 8  | 28 | 80 | 110 | 72  | 37 | 43,5  | M6    | 10 |
| 19.BT5008L160HYDB        | BT50 | 8  | 28 | 80 | 160 | 122 | 37 | 100,0 | M6    | 10 |
| 19.BT5010L110HYDB        | BT50 | 10 | 30 | 80 | 110 | 72  | 42 | 44,0  | M8x1  | 10 |
| 19.BT5010L160HYDB        | BT50 | 10 | 30 | 80 | 160 | 122 | 42 | 100,0 | M8x1  | 10 |
| 19.BT5012L110HYDB        | BT50 | 12 | 32 | 80 | 110 | 72  | 47 | 42,0  | M10x1 | 10 |
| 19.BT5012L160HYDB        | BT50 | 12 | 32 | 80 | 160 | 122 | 47 | 100,0 | M10x1 | 10 |
| 19.BT5014L110HYDB        | BT50 | 14 | 34 | 80 | 110 | 72  | 47 | 42,0  | M10x1 | 10 |
| 19.BT5014L160HYDB        | BT50 | 14 | 34 | 80 | 160 | 122 | 47 | 100,0 | M10x1 | 10 |
| 19.BT5016L110HYDB        | BT50 | 16 | 38 | 80 | 110 | 72  | 52 | 45,0  | M12x1 | 10 |
| 19.BT5016L160HYDB        | BT50 | 16 | 38 | 80 | 160 | 122 | 52 | 100,0 | M12x1 | 10 |
| 19.BT5018L110HYDB        | BT50 | 18 | 40 | 80 | 110 | 72  | 52 | 45,0  | M12x1 | 10 |
| 19.BT5018L160HYDB        | BT50 | 18 | 40 | 80 | 160 | 122 | 52 | 100,0 | M12x1 | 10 |
| 19.BT5020L110HYDB        | BT50 | 20 | 42 | 80 | 110 | 72  | 52 | 47,5  | M12x1 | 10 |
| 19.BT5020L160HYDB        | BT50 | 20 | 42 | 80 | 160 | 122 | 52 | 100,0 | M12x1 | 10 |
| 19.BT5025L110HYDB        | BT50 | 25 | 50 | 80 | 110 | 72  | 58 | 47,5  | M12x1 | 10 |
| 19.BT5025L160HYDB        | BT50 | 25 | 50 | 80 | 160 | 122 | 58 | 100,0 | M16x1 | 10 |
| 19.BT5032L110HYDB        | BT50 | 32 | 60 | 80 | 110 | 72  | 62 | 47,5  | M12x1 | 10 |
| 19.BT5032L160HYDB        | BT50 | 32 | 60 | 80 | 160 | 122 | 62 | 100,0 | M16x1 | 10 |
| 19.BT5040L130HYDB        | BT50 | 40 | 70 | 70 | 130 | 92  | 72 | 47,5  | M12x1 | 10 |



## Milling arbors for screw-in cutters

## Fräseraufnahme für Einschraubfräser

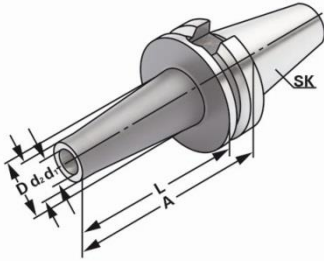
## Form

AD/AF

(AD/B)

G6.3 15.000 min<sup>-1</sup>

√0,003mm



## Order No.

Bestell-Nr.

SK

M

d

D1

D2

A

L

|                  |      |    |      |    |    |     |     |
|------------------|------|----|------|----|----|-----|-----|
| 27.BT4006L52ESB  | BT40 | 6  | 6,5  | 10 | 13 | 52  | 25  |
| 27.BT4006L77ESB  | BT40 | 6  | 6,5  | 10 | 20 | 77  | 50  |
| 27.BT4006L102ESB | BT40 | 6  | 6,5  | 10 | 23 | 102 | 75  |
| 27.BT4008L52ESB  | BT40 | 8  | 8,5  | 13 | 15 | 52  | 25  |
| 27.BT4008L77ESB  | BT40 | 8  | 8,5  | 13 | 23 | 77  | 50  |
| 27.BT4008L102ESB | BT40 | 8  | 8,5  | 13 | 23 | 102 | 75  |
| 27.BT4008L127ESB | BT40 | 8  | 8,5  | 13 | 25 | 127 | 100 |
| 27.BT4010L52ESB  | BT40 | 10 | 10,5 | 18 | 20 | 52  | 25  |
| 27.BT4010L77ESB  | BT40 | 10 | 10,5 | 18 | 23 | 77  | 50  |
| 27.BT4010L127ESB | BT40 | 10 | 10,5 | 18 | 32 | 127 | 100 |
| 27.BT4012L52ESB  | BT40 | 12 | 12,5 | 21 | 24 | 52  | 25  |
| 27.BT4012L102ESB | BT40 | 12 | 12,5 | 21 | 31 | 102 | 75  |
| 27.BT4012L152ESB | BT40 | 12 | 12,5 | 21 | 36 | 152 | 125 |
| 27.BT4016L52ESB  | BT40 | 16 | 17   | 29 | 29 | 52  | 25  |
| 27.BT4016L102ESB | BT40 | 16 | 17   | 29 | 34 | 102 | 75  |
| 27.BT4016L152ESB | BT40 | 16 | 17   | 29 | 40 | 152 | 125 |
| 27.BT5008L88ESB  | BT50 | 8  | 8,5  | 13 | 23 | 88  | 50  |
| 27.BT5008L138ESB | BT50 | 8  | 8,5  | 13 | 25 | 138 | 100 |
| 27.BT5008L188ESB | BT50 | 8  | 8,5  | 13 | 30 | 188 | 150 |
| 27.BT5010L88ESB  | BT50 | 10 | 10,5 | 18 | 23 | 88  | 50  |
| 27.BT5010L138ESB | BT50 | 10 | 10,5 | 18 | 32 | 138 | 100 |
| 27.BT5010L188ESB | BT50 | 10 | 10,5 | 18 | 37 | 188 | 150 |
| 27.BT5012L88ESB  | BT50 | 12 | 12,5 | 21 | 24 | 88  | 50  |
| 27.BT5012L138ESB | BT50 | 12 | 12,5 | 21 | 33 | 138 | 100 |
| 27.BT5012L188ESB | BT50 | 12 | 12,5 | 21 | 40 | 188 | 150 |
| 27.BT5016L88ESB  | BT50 | 16 | 17   | 29 | 34 | 88  | 50  |
| 27.BT5016L138ESB | BT50 | 16 | 17   | 29 | 36 | 138 | 100 |
| 27.BT5016L188ESB | BT50 | 16 | 17   | 29 | 43 | 188 | 150 |

Zur Aufnahme von Einschraubfräsern mit Gewinde

For mounting screw-in cutters with thread



10.01

Boring Bar Blanks for the production of special tools

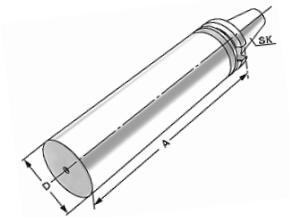
Bohrstangenrohlinge zur Anfertigung von Sonderwerkzeugen

Form

A

Order No

| Bestell-Nr.  | SK   | A   | D    |
|--------------|------|-----|------|
| R.BT3041L160 | BT30 | 160 | 40,5 |
| R.BT4063L215 | BT40 | 215 | 63   |
| R.BT5097L315 | BT50 | 315 | 97   |



Ausführung: Mit Steilkegel und Bund gehärtet und geschliffen. Schaft weich zur weiteren Bearbeitung  
Version: Taper and flange hardened and grinded. Soft body for later processing.



Test arbors

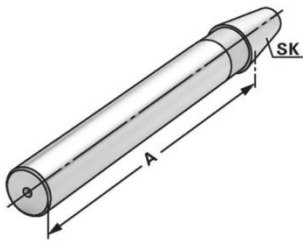
Kontrolldorne

Form

A

Order No

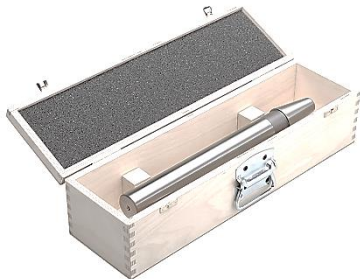
| Bestell-Nr.  | SK   | A   | D  | (x)   |
|--------------|------|-----|----|-------|
| P.BT3032L300 | BT30 | 300 | 32 | 0,003 |
| P.BT4040L300 | BT40 | 300 | 40 | 0,003 |
| P.BT5050L300 | BT50 | 300 | 50 | 0,003 |

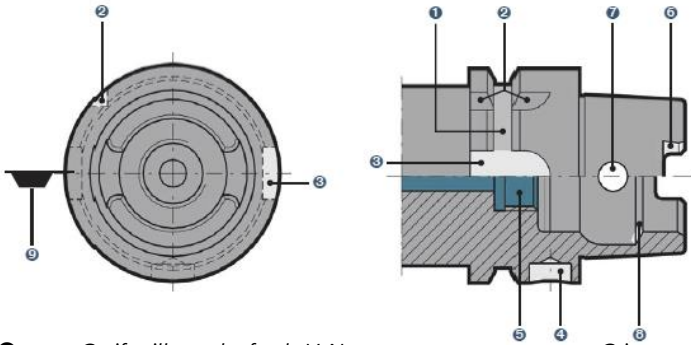


(x) max. Rundlaufabweichung ▪ max. concentricity deviation  
Lieferung mit Prüfprotokoll ▪ Delivery box with certificate

Verwendung: Zur Abnahme von Werkzeugmaschinen gemäß ISO-Empfehlung R 230  
Application: For acceptance tests of machine tools in accordance with ISO-recommendation ISO R 230

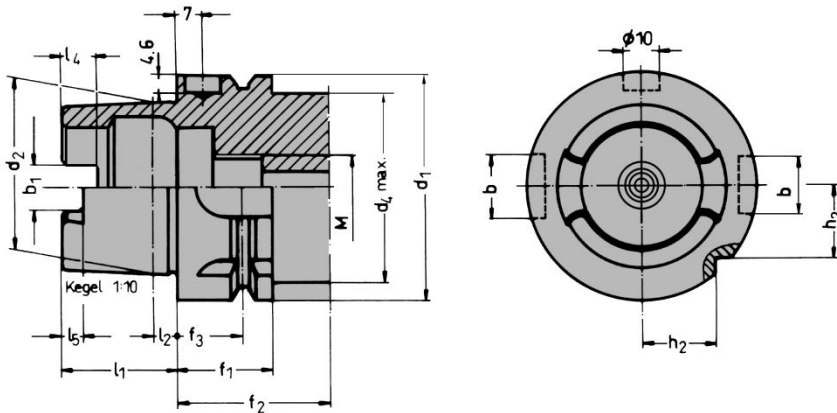
Holzkasten für Kontrolldorne auf Anfrage  
Wooden Box for test arbors on request





- ① Greiferrille: umlaufende V-Nut
- ② Positionskerbe quer zur Greiferrille (Indexierung)
- ③ Mitnehmernut am Bund
- ④ Codierbohrung
- ⑤ Anschlussgewinde für Kühlmittelübergabeeinheit
- ⑥ Mitnehmernut am Kegelschaft
- ⑦ Radiale Zugriffsbohrung
- ⑧ Spannschulter
- ⑨ Lage der Werkzeugschneide bei einschneidigen Werkzeugen

- Gripper groove: circular groove
- Index notch
- Keyway on collar
- Coding / Identification
- Thread for coolant
- Keyway on taper shank
- Radial bore in taper shank
- Clamping shoulder
- Position of the tool edge of single-edged tools



| d1  | d2 | d4 | l1 | l2   | l4 | l5 | M       | f1 | f2 | f3 | b1    | b2 | b3 |
|-----|----|----|----|------|----|----|---------|----|----|----|-------|----|----|
| 63  | 48 | 53 | 32 | 6,3  | 10 | 6  | M18x1   | 26 | 42 | 18 | 12,54 | 16 | 18 |
| 100 | 75 | 85 | 50 | 10,0 | 15 | 10 | M24x1,5 | 29 | 45 | 20 | 20,02 | 22 | 20 |

d1: Nenngröße / Nominal Size

l1: Schaftlänge / shaft length

f1: Flanscbreite (HSK-A) / flange with (HSK-A)

d2: Kegeldurchmesser / Taper diameter

b1: Nutbreite / groove width

**Application**.....Form A is made for automatic tool change.**Material**.....Case hardened steel, tensile strength in the core min. 950 N/mm<sup>2</sup>**Execution**.....Case hardened HRC 58±2 depth of case 0,6mm ± 0,2mm, black-finish**Accuracy**.....Cone angle AT3 according to DIN 2080

Surface roughness of cone max 0,001mm

**Verwendung**.....Form A für automatischen Werkzeugwechsel.**Werkstoff**.....Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 950 N/mm<sup>2</sup>**Ausführung**.....Einsatzgehärtet HRC 58±2 Härtetiefe 0,6mm ± 0,2mm, brüniert**Genauigkeit**.....Kegelwinkel-Toleranzqualität AT3 nach DIN 2080

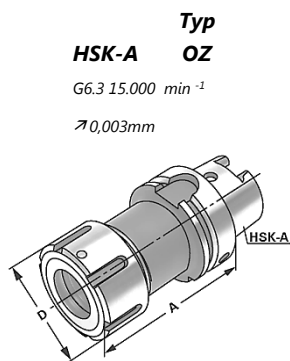
Oberflächenrauigkeit des Kegels max. 0,001mm



**Toolholder DIN 69893 / ISO12164 (Hollow Taper Shank / HSK-A)****Werkzeugaufnahmen DIN 69893 / ISO12164 (Hohlschaftkegel HSK-A)**

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|                                                                                            |                                                                                            |              |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------|
| <b>Spannfutter DIN 6391</b><br>für Spannzangen DIN 6388 / ISO10897 System OZ               | <b>Collet chucks DIN 6391</b><br>for collets DIN 6388 / ISO10897 System OZ                 | <b>03.01</b> |
| <b>Spannfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER                        | <b>Collet chucks</b><br>for collets DIN 6499 ER / ISO15488 System ER                       | <b>03.01</b> |
| <b>Fräseraufnahmen DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon                  | <b>End mill holder DIN 6359</b><br>for end mills DIN 1835-B (Weldon)                       | <b>03.02</b> |
| <b>Fräseraufnahmen mit Kühlkanal DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon    | <b>End mill holder with Coolant Channel DIN 6359</b><br>for end mills DIN 1835-B (Weldon)  | <b>03.04</b> |
| <b>Hochleistungs-Kraftspannfutter HKS</b><br>Werkzeuge mit Zylinderschaft DIN1835/ DIN6535 | <b>High Performance Milling Chuck HKS-system</b><br>Straight-shank tools DIN 1835/DIN 6535 | <b>03.04</b> |
| <b>Fräseraufnahmen DIN 6359 Whistle Notch</b><br>für Zylinderschaft DIN 1835-E             | <b>End mill holder DIN 6359 Whistle Notch</b><br>for end mills DIN 1835-E                  | <b>03.05</b> |
| <b>Zwischenhülsen</b><br>für MK DIN 6383 / DIN 6384                                        | <b>Morse taper adaptor</b><br>DIN 6383 / DIN 6384                                          | <b>03.05</b> |
| <b>Kombi-Aufsteckfräserdorne DIN 6358</b>                                                  | <b>Combi shell mill holder DIN 6358</b>                                                    | <b>03.07</b> |
| <b>Quernut Aufsteckfräserdorne DIN 6357</b><br>mit vergrößertem Bunddurchmesser            | <b>Shell mill holder DIN 6357</b><br>for cutters with driving slot                         | <b>03.07</b> |
| <b>CNC-Präzisionsbohrfutter</b><br>für Rechts- und Linkslauf                               | <b>CNC- Universal Drill Chuck Heads</b><br>for right and left rotation                     | <b>03.08</b> |
| <b>Gewindeschneid-Schnellwechselfutter</b><br>mit/ohne Längenausgleich auf Druck und Zug   | <b>Quick-change Tapping Chucks</b><br>with/without axial compensation                      | <b>03.09</b> |
| <b>Synchro Gewindeschneidfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER       | <b>Synchro Tapping Chucks</b><br>for collets DIN 6499 ER / ISO15488 System ER              | <b>03.10</b> |
| <b>Schrumpffutter</b><br>zum Spannen von HM und HSS Werkzeugschäften                       | <b>Shrink chuck</b><br>for mounting of solide carbide and HSS Cutters                      | <b>03.11</b> |
| <b>Hydro-Dehnspannfutter</b>                                                               | <b>Hydraulic expansions chucks</b>                                                         | <b>03.13</b> |
| <b>Fräseraufnahmen</b><br>für Einschraubfräser                                             | <b>Milling arbors</b><br>for screw-in cutters                                              | <b>03.15</b> |
| <b>Bohrstangenrohlinge</b><br>zur Anfertigung von Sonderwerkzeugen                         | <b>Boring bar blanks</b><br>for the production of special tools                            | <b>03.16</b> |
| <b>Kontrolldorne</b>                                                                       | <b>Test Arbors</b>                                                                         | <b>03.16</b> |
| <b>Bohrstangenhalter HSK-T</b>                                                             | <b>Boring Bar Holder HSK T</b>                                                             | <b>03.17</b> |
| <b>Bohrstangenrohlinge HSK-T</b>                                                           | <b>Boring bar blanks HSK-T</b>                                                             | <b>03.17</b> |



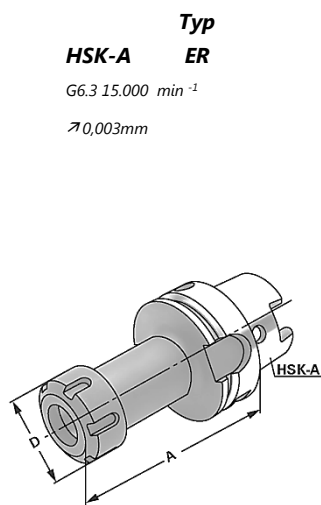
| Typ<br>HSK-A OZ               | Order No.<br>Bestell-Nr. | HSK  | Capacity<br>Spannbereich | A   | D  | Collets<br>Spannzange |
|-------------------------------|--------------------------|------|--------------------------|-----|----|-----------------------|
| G6.3 15.000 min <sup>-1</sup> | 31.HSK63AZ16L100         | A63  | 2 - 16                   | 100 | 43 | 025 415E (OZ16)       |
| ⌀0,003mm                      | 31.HSK63AZ25L100         | A63  | 2 - 25                   | 100 | 60 | 035 462E (OZ25)       |
|                               | 31.HSK63AZ32L120         | A63  | 4 - 32                   | 120 | 72 | 044 0467E (OZ32)      |
|                               | 31.HSK100AZ16L110        | A100 | 2 - 16                   | 110 | 43 | 025 415E (OZ16)       |
|                               | 31.HSK100AZ25L120        | A100 | 2 - 25                   | 120 | 60 | 035 462E (OZ25)       |
|                               | 31.HSK100AZ32L130        | A100 | 4 - 32                   | 130 | 72 | 044 0467E (OZ32)      |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut



## ER Collet Chucks for collets DIN 6499 / ISO15488

## ER Spannfutter für Spannzangen DIN 6499 / ISO15488



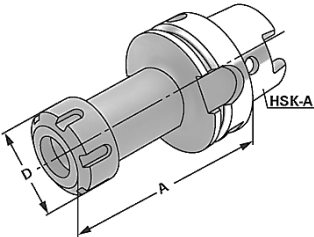
| Typ<br>HSK-A ER               | Order No.<br>Bestell-Nr. | HSK | Capacity<br>Spannbereich | A   | D  | Collets<br>Spannzange |
|-------------------------------|--------------------------|-----|--------------------------|-----|----|-----------------------|
| G6.3 15.000 min <sup>-1</sup> | 31.HSK63AR16L100         | A63 | 1 - 10                   | 100 | 32 | 160 426E (ER16)       |
| ⌀0,003mm                      | 31.HSK63AR16L130         | A63 | 1 - 10                   | 130 | 32 | 160 426E (ER16)       |
|                               | 31.HSK63AR16L160         | A63 | 1 - 10                   | 160 | 32 | 160 426E (ER16)       |
|                               | 31.HSK63AR16L200         | A63 | 1 - 10                   | 200 | 32 | 160 426E (ER16)       |
|                               | 31.HSK63AR25L75          | A63 | 2 - 16                   | 75  | 42 | 250 430E (ER25)       |
|                               | 31.HSK63AR25L100         | A63 | 2 - 16                   | 100 | 42 | 250 430E (ER25)       |
|                               | 31.HSK63AR25L130         | A63 | 2 - 16                   | 130 | 42 | 250 430E (ER25)       |
|                               | 31.HSK63AR25L160         | A63 | 2 - 16                   | 160 | 42 | 250 430E (ER25)       |
|                               | 31.HSK63AR25L200         | A63 | 2 - 16                   | 200 | 42 | 250 430E (ER25)       |
|                               | 31.HSK63AR32L75          | A63 | 2 - 20                   | 75  | 50 | 320 470E (ER32)       |
|                               | 31.HSK63AR32L100         | A63 | 2 - 20                   | 100 | 50 | 320 470E (ER32)       |
|                               | 31.HSK63AR32L130         | A63 | 2 - 20                   | 130 | 50 | 320 470E (ER32)       |
|                               | 31.HSK63AR32L160         | A63 | 2 - 20                   | 160 | 50 | 320 470E (ER32)       |
|                               | 31.HSK63AR32L200         | A63 | 2 - 20                   | 200 | 50 | 320 470E (ER32)       |
|                               | 31.HSK63AR40L80          | A63 | 3 - 26                   | 80  | 63 | 400 472E (ER40)       |
|                               | 31.HSK63AR40L100         | A63 | 3 - 26                   | 100 | 63 | 400 472E (ER40)       |
|                               | 31.HSK63AR40L130         | A63 | 3 - 26                   | 130 | 63 | 400 472E (ER40)       |
|                               | 31.HSK63AR40L160         | A63 | 3 - 26                   | 160 | 63 | 400 472E (ER40)       |
|                               | 31.HSK63AR40L200         | A63 | 3 - 26                   | 200 | 63 | 400 472E (ER40)       |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut



ER Collet Chucks for collets DIN 6499 / ISO15488

ER Spannfutter für Spannzangen DIN 6499 / ISO15488

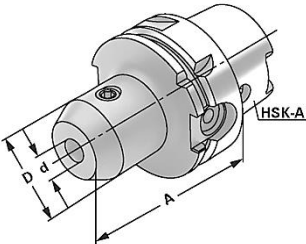
| HSK-A                                      | Typ<br>ER                                                                        | Order No.         | HSK  | Capacity     | A   | D  | Collets         |
|--------------------------------------------|----------------------------------------------------------------------------------|-------------------|------|--------------|-----|----|-----------------|
|                                            |                                                                                  | Bestell-Nr.       |      | Spannbereich |     |    | Spannzange      |
| G6.3 15.000 min <sup>-1</sup><br>IT0,003mm |  | 31.HSK100AR16L100 | A100 | 1 - 10       | 100 | 32 | 160 426E (ER16) |
|                                            |                                                                                  | 31.HSK100AR16L160 | A100 | 1 - 10       | 160 | 32 | 160 426E (ER16) |
|                                            |                                                                                  | 31.HSK100AR25L100 | A100 | 2 - 16       | 100 | 42 | 250 430E (ER25) |
|                                            |                                                                                  | 31.HSK100AR25L160 | A100 | 2 - 16       | 160 | 42 | 250 430E (ER25) |
|                                            |                                                                                  | 31.HSK100AR32L100 | A100 | 2 - 20       | 100 | 50 | 320 470E (ER32) |
|                                            |                                                                                  | 31.HSK100AR32L160 | A100 | 2 - 20       | 160 | 50 | 320 470E (ER32) |
|                                            |                                                                                  | 31.HSK100AR40L100 | A100 | 3 - 26       | 100 | 63 | 400 472E (ER40) |
|                                            |                                                                                  | 31.HSK100AR40L160 | A100 | 3 - 26       | 160 | 63 | 400 472E (ER40) |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut



End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)

Fräseraufnahmen Din 6359 für Zylinderschaft DIN 1835-B (Weldon)

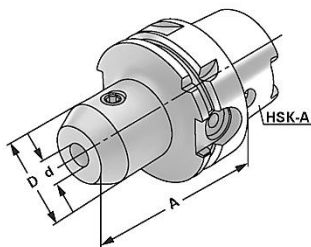
| HSK-A                                      | Order No.                                                                           | Bestell-Nr.      | HSK | d  | A   | D  |
|--------------------------------------------|-------------------------------------------------------------------------------------|------------------|-----|----|-----|----|
|                                            |                                                                                     |                  |     |    |     |    |
| G6.3 15.000 min <sup>-1</sup><br>IT0,003mm |  | 27.HSK63A06WL65  | A63 | 6  | 65  | 25 |
|                                            |                                                                                     | 27.HSK63A06WL100 | A63 | 6  | 100 | 25 |
|                                            |                                                                                     | 27.HSK63A06WL160 | A63 | 6  | 160 | 25 |
|                                            |                                                                                     | 27.HSK63A08WL65  | A63 | 8  | 65  | 28 |
|                                            |                                                                                     | 27.HSK63A08WL100 | A63 | 8  | 100 | 28 |
|                                            |                                                                                     | 27.HSK63A08WL160 | A63 | 8  | 160 | 28 |
|                                            |                                                                                     | 27.HSK63A10WL65  | A63 | 10 | 65  | 35 |
|                                            |                                                                                     | 27.HSK63A10WL100 | A63 | 10 | 100 | 35 |
|                                            |                                                                                     | 27.HSK63A10WL160 | A63 | 10 | 160 | 35 |
|                                            |                                                                                     | 27.HSK63A12WL80  | A63 | 12 | 80  | 42 |
|                                            |                                                                                     | 27.HSK63A12WL100 | A63 | 12 | 100 | 42 |
|                                            |                                                                                     | 27.HSK63A12WL160 | A63 | 12 | 160 | 42 |
|                                            |                                                                                     | 27.HSK63A14WL80  | A63 | 14 | 80  | 44 |
|                                            |                                                                                     | 27.HSK63A14WL100 | A63 | 14 | 100 | 44 |
|                                            |                                                                                     | 27.HSK63A14WL160 | A63 | 14 | 160 | 44 |
|                                            |                                                                                     | 27.HSK63A16WL80  | A63 | 16 | 80  | 48 |
|                                            |                                                                                     | 27.HSK63A16WL100 | A63 | 16 | 100 | 48 |
|                                            |                                                                                     | 27.HSK63A16WL160 | A63 | 16 | 160 | 48 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw



**HSK-A**G6.3 15.000 min<sup>-1</sup>

⌀0,003mm

**Order No.**

| <b>Bestell-Nr.</b> | <b>HSK</b> | <b>d</b> | <b>A</b> | <b>D</b> |
|--------------------|------------|----------|----------|----------|
| 27.HSK63A18WL80    | A63        | 18       | 80       | 50       |
| 27.HSK63A18WL100   | A63        | 18       | 100      | 50       |
| 27.HSK63A18WL160   | A63        | 18       | 160      | 50       |
| 27.HSK63A20WL80    | A63        | 20       | 80       | 52       |
| 27.HSK63A20WL100   | A63        | 20       | 100      | 52       |
| 27.HSK63A20WL160   | A63        | 20       | 160      | 52       |
| 27.HSK63A25WL110   | A63        | 25       | 110      | 65       |
| 27.HSK63A25WL160   | A63        | 25       | 160      | 65       |
| 27.HSK63A32WL110   | A63        | 32       | 110      | 72       |
| 27.HSK63A32WL160   | A63        | 32       | 160      | 72       |
| 27.HSK63A40WL125   | A63        | 40       | 125      | 80       |
| 27.HSK63A40WL160   | A63        | 40       | 160      | 80       |
|                    |            |          |          |          |
| 27.HSK100A06WL80   | A100       | 6        | 80       | 25       |
| 27.HSK100A06WL160  | A100       | 6        | 160      | 25       |
| 27.HSK100A08WL80   | A100       | 8        | 80       | 28       |
| 27.HSK100A08WL160  | A100       | 8        | 160      | 28       |
| 27.HSK100A10WL80   | A100       | 10       | 80       | 35       |
| 27.HSK100A10WL160  | A100       | 10       | 160      | 35       |
| 27.HSK100A12WL80   | A100       | 12       | 80       | 42       |
| 27.HSK100A12WL160  | A100       | 12       | 160      | 42       |
| 27.HSK100A14WL80   | A100       | 14       | 80       | 44       |
| 27.HSK100A14WL160  | A100       | 14       | 160      | 44       |
| 27.HSK100A16WL100  | A100       | 16       | 100      | 48       |
| 27.HSK100A16WL160  | A100       | 16       | 160      | 48       |
| 27.HSK100A18WL100  | A100       | 18       | 100      | 50       |
| 27.HSK100A18WL160  | A100       | 18       | 160      | 50       |
| 27.HSK100A20WL100  | A100       | 20       | 100      | 52       |
| 27.HSK100A20WL160  | A100       | 20       | 160      | 52       |
| 27.HSK100A25WL100  | A100       | 25       | 100      | 65       |
| 27.HSK100A25WL160  | A100       | 25       | 160      | 65       |
| 27.HSK100A32WL100  | A100       | 32       | 100      | 72       |
| 27.HSK100A32WL160  | A100       | 32       | 160      | 72       |
| 27.HSK100A40WL160  | A100       | 40       | 105      | 80       |
| 27.HSK100A40WL160  | A100       | 40       | 160      | 80       |

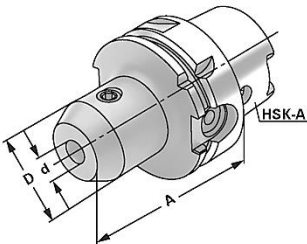
Lieferumfang: inkl. Spannschraube • Included: Clamping screw



End Mill Holder with Coolant Channel DIN 6359 for end mills DIN 1835-B (Weldon)  
Fräseraufnahmen mit Kühlkanal DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)

HSK-A

G6.3 15.000 min<sup>-1</sup>  
H7/k6,003mm



Order No.

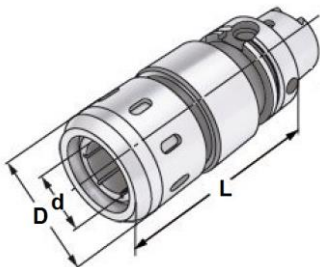
| Bestell-Nr.         | HSK  | d  | A   | D  |
|---------------------|------|----|-----|----|
| 27.HSK63A06WL65.K   | A63  | 6  | 65  | 25 |
| 27.HSK63A08WL65.K   | A63  | 8  | 65  | 28 |
| 27.HSK63A10WL65.K   | A63  | 10 | 65  | 35 |
| 27.HSK63A12WL80.K   | A63  | 12 | 80  | 42 |
| 27.HSK63A14WL80.K   | A63  | 14 | 80  | 44 |
| 27.HSK63A16WL80.K   | A63  | 16 | 80  | 48 |
| 27.HSK63A18WL80.K   | A63  | 18 | 80  | 50 |
| 27.HSK63A20WL80.K   | A63  | 20 | 80  | 52 |
| 27.HSK63A25WL110.K  | A63  | 25 | 110 | 65 |
| 27.HSK63A32WL110.K  | A63  | 32 | 110 | 72 |
| 27.HSK63A40WL125.K  | A63  | 40 | 125 | 80 |
| 27.HSK100A06WL80.K  | A100 | 6  | 80  | 25 |
| 27.HSK100A08WL80.K  | A100 | 8  | 80  | 28 |
| 27.HSK100A10WL80.K  | A100 | 10 | 80  | 35 |
| 27.HSK100A12WL80.K  | A100 | 12 | 80  | 42 |
| 27.HSK100A14WL80.K  | A100 | 14 | 80  | 44 |
| 27.HSK100A16WL100.K | A100 | 16 | 100 | 48 |
| 27.HSK100A18WL100.K | A100 | 18 | 100 | 50 |
| 27.HSK100A20WL100.K | A100 | 20 | 100 | 52 |
| 27.HSK100A25WL100.K | A100 | 25 | 100 | 65 |
| 27.HSK100A32WL100.K | A100 | 32 | 100 | 72 |
| 27.HSK100A40WL160.K | A100 | 40 | 105 | 80 |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

High performance Milling Chuck HKS  
Hochleistungs-Kraftspannfutter HKS

HKS (HSK-A)

G6.3 15.000 min<sup>-1</sup>  
H7/k6,003mm



Order No

| Bestell-Nr.             | SK   | Capacity (d)<br>Spannbereich | L   | D  |
|-------------------------|------|------------------------------|-----|----|
| 27.HSK63A20L95HKS       | A63  | 20 (HKS 20)                  | 95  | 53 |
| 27.HSK63A32HKS L110HKS  | A63  | 32 (HKS 32)                  | 110 | 68 |
| 27.HSK100A20HKS L105HKS | A100 | 20 (HKS 20)                  | 105 | 53 |
| 27.HSK100A32HKS L105HKS | A100 | 32 (HKS 32)                  | 105 | 68 |

Verwendung: Zur Aufnahme von Werkzeugen mit Zylinderschaft nach DIN 1835 Form A+B+E und IN 6355 Form HA+HB+HE (größer 20mm nur mit Reduzierung)  
Application: for mounting straight-shank tools acc. DIN 1835 form A+B+E and IN 6355 form HA+HB+HE (larger than dia. 20 mm only with reduction sleeve).



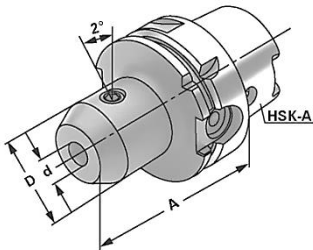
## End Mill Holder DIN 6359 for whistle notch type end mills DIN 1835-E

## Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B / Whistle Notch

## HSK-A

G6.3 15.000 min<sup>-1</sup>

H7/0,003mm



## Order No.

## Bestell-Nr.

| Bestell-Nr.        | HSK  | d  | A   | D  |
|--------------------|------|----|-----|----|
| 27.HSK63A06WNL80   | A63  | 6  | 80  | 25 |
| 27.HSK63A08WNL80   | A63  | 8  | 80  | 28 |
| 27.HSK63A10WNL80   | A63  | 10 | 80  | 35 |
| 27.HSK63A12WNL90   | A63  | 12 | 90  | 42 |
| 27.HSK63A14WNL90   | A63  | 14 | 90  | 44 |
| 27.HSK63A16WNL100  | A63  | 16 | 100 | 48 |
| 27.HSK63A18WNL100  | A63  | 18 | 100 | 50 |
| 27.HSK63A20WNL100  | A63  | 20 | 100 | 52 |
| 27.HSK63A25WNL110  | A63  | 25 | 110 | 65 |
| 27.HSK63A32WNL110  | A63  | 32 | 110 | 72 |
| 27.HSK100A06WNL90  | A100 | 6  | 90  | 25 |
| 27.HSK100A08WNL90  | A100 | 8  | 90  | 28 |
| 27.HSK100A10WNL90  | A100 | 10 | 90  | 35 |
| 27.HSK100A12WNL100 | A100 | 12 | 100 | 42 |
| 27.HSK100A14WNL100 | A100 | 14 | 100 | 44 |
| 27.HSK100A16WNL100 | A100 | 16 | 100 | 48 |
| 27.HSK100A18WNL100 | A100 | 18 | 100 | 50 |
| 27.HSK100A20WNL110 | A100 | 20 | 110 | 52 |
| 27.HSK100A25WNL120 | A100 | 25 | 120 | 65 |
| 27.HSK100A32WNL120 | A100 | 32 | 120 | 72 |
| 27.HSK100A40WNL120 | A100 | 40 | 120 | 80 |



10.05

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

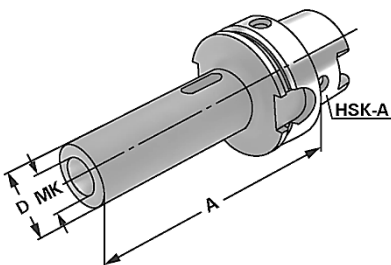
## Morse Taper Adaptor DIN 6383

## Zwischenhülse DIN 6383 für MK mit Austreibblappen

## HSK-A

G6.3 15.000 min<sup>-1</sup>

H7/0,003mm



## Order No.

## Bestell-Nr.

| Bestell-Nr.         | HSK  | d | A   | D  |
|---------------------|------|---|-----|----|
| 25.HSK63AMK1L100AL  | A63  | 1 | 100 | 25 |
| 25.HSK63AMK2L120AL  | A63  | 2 | 120 | 32 |
| 25.HSK63AMK3L140AL  | A63  | 3 | 140 | 40 |
| 25.HSK63AMK4L160AL  | A63  | 4 | 160 | 48 |
| 25.HSK100AMK1L110AL | A100 | 1 | 110 | 25 |
| 25.HSK100AMK2L120AL | A100 | 2 | 120 | 32 |
| 25.HSK100AMK3L150AL | A100 | 3 | 150 | 40 |
| 25.HSK100AMK4L170AL | A100 | 4 | 170 | 48 |
| 25.HSK100AMK5L200AL | A100 | 5 | 200 | 63 |



10.05

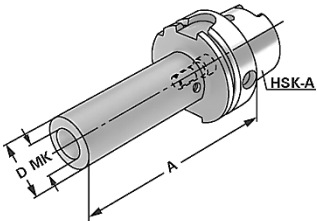
Morse Taper Adaptor DIN 6364 for morse taper shank and thread

Zwischenhülse DIN 6364 für MK mit Anzugsgewinde

HSK-A

G6.3 15.000 min<sup>-1</sup>

∅0,003mm



Order No.

| Bestell-Nr.         | HSK  | d | A   | D  |
|---------------------|------|---|-----|----|
| 25.HSK63AMK1L100AG  | A63  | 1 | 100 | 25 |
| 25.HSK63AMK2L120AG  | A63  | 2 | 120 | 32 |
| 25.HSK63AMK3L140AG  | A63  | 3 | 140 | 40 |
| 25.HSK63AMK4L160AG  | A63  | 4 | 160 | 48 |
| 25.HSK100AMK1L110AG | A100 | 1 | 110 | 25 |
| 25.HSK100AMK2L120AG | A100 | 2 | 120 | 32 |
| 25.HSK100AMK3L150AG | A100 | 3 | 150 | 40 |
| 25.HSK100AMK4L170AG | A100 | 4 | 170 | 48 |
| 25.HSK100AMK5L200AG | A100 | 5 | 200 | 63 |



10.05

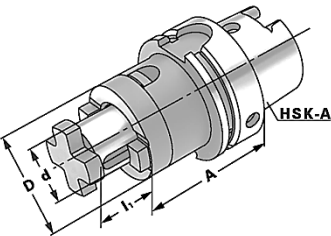
Combi Shell Mill Holder DIN 6358

Kombi Aufsteckfräserdorne DIN 6358

HSK-A

G6.3 15.000 min<sup>-1</sup>

∅0,003mm



Order No.

| Bestell-Nr.       | HSK | d  | A   | L1 | D  |
|-------------------|-----|----|-----|----|----|
| 42.HSK63A16L60KA  | A63 | 16 | 60  | 17 | 32 |
| 42.HSK63A16L100KA | A63 | 16 | 100 | 17 | 32 |
| 42.HSK63A16L160KA | A63 | 16 | 160 | 17 | 32 |
| 42.HSK63A22L60KA  | A63 | 22 | 60  | 19 | 40 |
| 42.HSK63A22L100KA | A63 | 22 | 100 | 19 | 40 |
| 42.HSK63A22L160KA | A63 | 22 | 160 | 19 | 40 |
| 42.HSK63A27L60KA  | A63 | 27 | 60  | 21 | 48 |
| 42.HSK63A27L100KA | A63 | 27 | 100 | 21 | 48 |
| 42.HSK63A27L160KA | A63 | 27 | 160 | 21 | 48 |
| 42.HSK63A32L60KA  | A63 | 32 | 60  | 24 | 58 |
| 42.HSK63A32L100KA | A63 | 32 | 100 | 24 | 58 |
| 42.HSK63A32L160KA | A63 | 32 | 160 | 24 | 58 |
| 42.HSK63A40L70KA  | A63 | 40 | 70  | 27 | 70 |
| 42.HSK63A40L100KA | A63 | 40 | 100 | 27 | 70 |
| 42.HSK63A40L160KA | A63 | 40 | 160 | 27 | 70 |



10.11



10.12



10.05



10.12



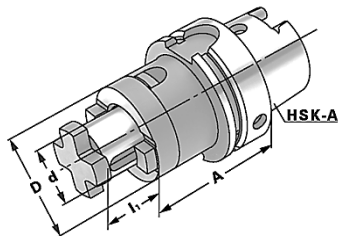
## Combi Shell Mill Holder DIN 6358

## Kombi Aufsteckfräserdorne DIN 6358

## HSK-A

G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,003mm



## Order No.

| Bestell-Nr.        | HSK  | d  | A   | L1 | D  |
|--------------------|------|----|-----|----|----|
| 42.HSK100A16L60KA  | A100 | 16 | 60  | 17 | 32 |
| 42.HSK100A16L100KA | A100 | 16 | 100 | 17 | 32 |
| 42.HSK100A16L160KA | A100 | 16 | 160 | 17 | 32 |
| 42.HSK100A22L60KA  | A100 | 22 | 60  | 19 | 40 |
| 42.HSK100A22L100KA | A100 | 22 | 100 | 19 | 40 |
| 42.HSK100A22L160KA | A100 | 22 | 160 | 19 | 40 |
| 42.HSK100A27L60KA  | A100 | 27 | 60  | 21 | 48 |
| 42.HSK100A27L100KA | A100 | 27 | 100 | 21 | 48 |
| 42.HSK100A27L160KA | A100 | 27 | 160 | 21 | 48 |
| 42.HSK100A32L60KA  | A100 | 32 | 60  | 24 | 58 |
| 42.HSK100A32L100KA | A100 | 32 | 100 | 24 | 58 |
| 42.HSK100A32L160KA | A100 | 32 | 160 | 24 | 58 |
| 42.HSK100A40L70KA  | A100 | 40 | 70  | 27 | 70 |
| 42.HSK100A40L100KA | A100 | 40 | 100 | 27 | 70 |
| 42.HSK100A40L160KA | A100 | 40 | 160 | 27 | 70 |

Lieferumfang: Inklusive Paßfeder, Mitnehmerring und Fräseranzugsschraube  
Included: retaining screw, driving ring and feather key



10.11



10.12



10.05



10.12

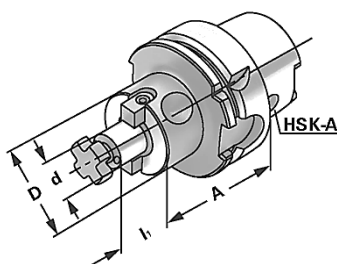
## Shell Mill Holder DIN 6357 for cutters with driving slots

## Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser

## HSK-A

G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,003mm



## Order No.

| Bestell-Nr.       | HSK | d  | A   | L1 | D  |
|-------------------|-----|----|-----|----|----|
| 42.HSK63A16L50MA  | A63 | 16 | 50  | 17 | 38 |
| 42.HSK63A16L100MA | A63 | 16 | 100 | 17 | 38 |
| 42.HSK63A16L160MA | A63 | 16 | 160 | 17 | 38 |
| 42.HSK63A22L50MA  | A63 | 22 | 50  | 19 | 48 |
| 42.HSK63A22L100MA | A63 | 22 | 100 | 19 | 48 |
| 42.HSK63A22L160MA | A63 | 22 | 160 | 19 | 48 |
| 42.HSK63A27L60MA  | A63 | 27 | 60  | 21 | 58 |
| 42.HSK63A27L100MA | A63 | 27 | 100 | 21 | 58 |
| 42.HSK63A27L160MA | A63 | 27 | 160 | 21 | 58 |
| 42.HSK63A32L60MA  | A63 | 32 | 60  | 24 | 78 |
| 42.HSK63A32L100MA | A63 | 32 | 100 | 24 | 78 |
| 42.HSK63A32L160MA | A63 | 32 | 160 | 24 | 78 |
| 42.HSK63A40L60MA  | A63 | 40 | 60  | 27 | 88 |
| 42.HSK63A40L100MA | A63 | 40 | 100 | 27 | 88 |
| 42.HSK63A40L160MA | A63 | 40 | 160 | 27 | 88 |

Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.  
Included: drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant



10.11



10.12

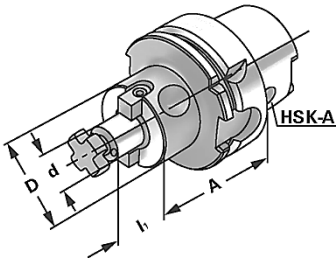


10.05

Shell Mill Holder DIN 6357 for cutters with driving slots  
Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser

HSK-A

G6.3 15.000 min<sup>-1</sup>  
⌀0,003mm



Order No.

| Bestell-Nr.        | HSK  | d  | A   | L1 | D   |
|--------------------|------|----|-----|----|-----|
| 42.HSK100A16L50MA  | A100 | 16 | 50  | 17 | 38  |
| 42.HSK100A16L100MA | A100 | 16 | 100 | 17 | 38  |
| 42.HSK100A16L160MA | A100 | 16 | 160 | 17 | 38  |
| 42.HSK100A22L50MA  | A100 | 22 | 50  | 19 | 48  |
| 42.HSK100A22L100MA | A100 | 22 | 100 | 19 | 48  |
| 42.HSK100A22L160MA | A100 | 22 | 160 | 19 | 48  |
| 42.HSK100A27L50MA  | A100 | 27 | 50  | 21 | 58  |
| 42.HSK100A27L100MA | A100 | 27 | 100 | 21 | 58  |
| 42.HSK100A27L160MA | A100 | 27 | 160 | 21 | 58  |
| 42.HSK100A32L50MA  | A100 | 32 | 50  | 24 | 78  |
| 42.HSK100A32L100MA | A100 | 32 | 100 | 24 | 78  |
| 42.HSK100A32L160MA | A100 | 32 | 160 | 24 | 78  |
| 42.HSK100A40L60MA  | A100 | 40 | 60  | 27 | 88  |
| 42.HSK100A40L100MA | A100 | 40 | 100 | 27 | 88  |
| 42.HSK100A40L160MA | A100 | 40 | 160 | 27 | 88  |
| 42.HSK100A60L70MA  | A100 | 60 | 70  | 40 | 130 |

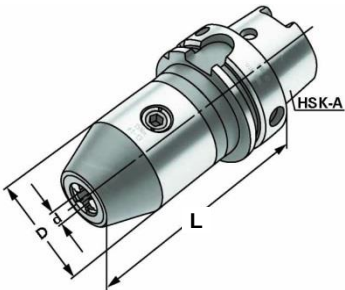
Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.  
Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant



CNC Universal Drill Chuck Heads for right and left hand rotation  
CNC Präzisionsbohrfutter für Rechts- und Linkslauf

HSK-A

G6.3 25.000 min<sup>-1</sup>  
⌀0,02mm



Typ  
ER

Order No.

Bestell-Nr.

Capacity

| Bestell-Nr.          | HSK  | Spannbereich | L   | D  | L1(max) |
|----------------------|------|--------------|-----|----|---------|
| 25.HSK63A13L104BF    | A63  | 0,5 - 13     | 104 | 50 | 110     |
| 25.HSK63A13L104BF.1  | A63  | 0,5 - 13     | 104 | 50 | 110 *   |
| 25.HSK63A16L109BF    | A63  | 2,5 - 16     | 109 | 57 | 115     |
| 25.HSK63A16L109BF.1  | A63  | 2,5 - 16     | 109 | 57 | 115 *   |
| 25.HSK100A13L111BF   | A100 | 0,5 - 13     | 111 | 50 | 111     |
| 25.HSK100A13L111BF.1 | A100 | 0,5 - 13     | 111 | 50 | 111 *   |
| 25.HSK100A16L116BF   | A100 | 2,5 - 16     | 116 | 57 | 122     |
| 25.HSK100A16L116BF.1 | A100 | 2,5 - 16     | 116 | 57 | 122 *   |

Lieferumfang: inklusive Spannschlüssel Included: Wrench  
\*mit zentraler Kühlmittelzufuhr / with central coolant supply



Quick change tapping chucks with axial compensation on compression and expansionGewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug

## HSK-A

G6.3 15.000 min<sup>-1</sup>

⌈ 0,003mm

## Order No.

## Bestell-Nr.

## HSK

## Capacity

## Spannbereich

## Size

## Größe

d

A

D

T

C

25.HSK63A19L102GC

A63

M3-M14

1

19

102

38

7

7

25.HSK63A31L140GC

A63

M5-M22

2

31

140

54

12

12

25.HSK100A19L112GC

A100

M3-M14

1

19

112

38

7

7

25.HSK100A31L148GC

A100

M5-M22

2

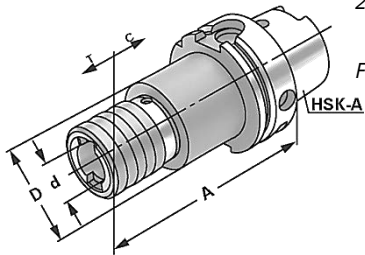
31

148

54

12

12

Für Bearbeitungszentren **ohne** Synchronspindel ▪ For machining centres **without** synchronous spindleQuick change tapping chucks without axial compensation on compression and expansionGewindeschneid-Schnellwechselfutter ohne Längenausgleich auf Druck und Zug

## HSK-A

G6.3 15.000 min<sup>-1</sup>

⌈ 0,003mm

## Order No.

## Bestell-Nr.

## HSK

## Capacity

## Spannbereich

## Size

## Größe

d

A

D

25.HSK63A19L65G

A63

M3-M14

1

19

65

38

25.HSK63A31L100G

A63

M5-M22

2

31

100

54

25.HSK100A19L80G

A100

M3-M14

1

19

80

38

25.HSK100A31L90G

A100

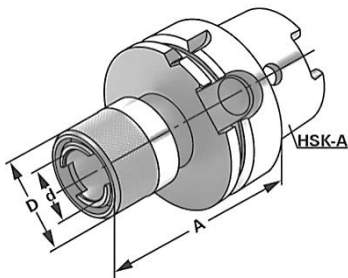
M5-M22

2

31

90

54

Für Bearbeitungszentren **mit** Synchronspindel ▪ For machining centres **with** synchronous spindle

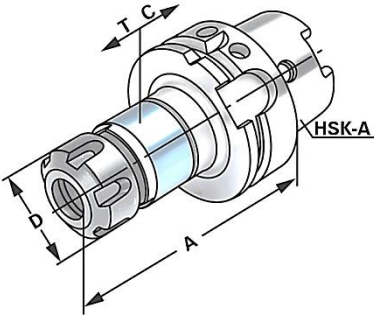
**Tapping Chucks Synchro** for synchronisation for collets DIN 6499 / ISO 15488 ER

**Gewindeschneidfutter Synchro** für Synchronisation für Spannzangen DIN 6499 / ISO15488 ER

**HSK-A**

G6.3 15.000 min<sup>-1</sup>

±0,003mm



| Order No.           | Capacity |                 |       |    |     |     |
|---------------------|----------|-----------------|-------|----|-----|-----|
| Bestell-Nr.         | HSK      | Spannbereich    | A     | D  | T   | C   |
| 25.HSK63A16L89GSY   | A63      | M3 - M12 (ER16) | 89    | 28 | 0,5 | 0,5 |
| 25.HSK63A20L90GSY   | A63      | M3 - M16 (ER20) | 90    | 34 | 0,5 | 0,5 |
| 25.HSK63A25L94GSY   | A63      | M3 - M20 (ER25) | 94    | 42 | 0,5 | 0,5 |
| 25.HSK63A32L105GSY  | A63      | M3 - M27 (ER32) | 105   | 50 | 0,5 | 0,5 |
| 25.HSK63A40L134GSY  | A63      | M3 - M33 (ER40) | 133,5 | 63 | 0,5 | 0,5 |
| 25.HSK100A16L96GSY  | A100     | M3 - M12 (ER16) | 96    | 28 | 0,5 | 0,5 |
| 25.HSK100A20L97GSY  | A100     | M3 - M16 (ER20) | 97    | 34 | 0,5 | 0,5 |
| 25.HSK100A25L101GSY | A100     | M3 - M20 (ER25) | 101   | 42 | 0,5 | 0,5 |
| 25.HSK100A32L110GSY | A100     | M3 - M27 (ER32) | 110   | 50 | 0,5 | 0,5 |
| 25.HSK100A32L160GSY | A100     | M3 - M27 (ER32) | 160   | 50 | 0,5 | 0,5 |
| 25.HSK100A32L190GSY | A100     | M3 - M27 (ER32) | 190   | 50 | 0,5 | 0,5 |
| 25.HSK100A40L133GSY | A100     | M3 - M33 (ER40) | 133   | 63 | 0,5 | 0,5 |

Für Bearbeitungszentren **mit** Synchronspindel • For machining centres **with** synchronous spindle

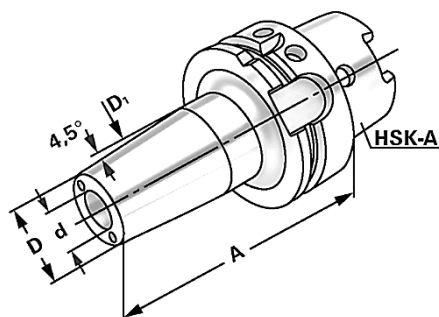
- Synchro tapping chucks compensate synchronisation errors
- Minimal axial compensation on compression and expansion balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks
- A possible increase of axial force during the tapping process is reduced to a minimum
- Suitable for internal coolant
- Coolant pressure up to max. 100bar
- Synchro-Gewindeschneidfutter kompensieren Synchronisationsfehler
- Minimallängenausgleich in Druck- und Zugrichtung zwischen Synchronspindel und Gewindebohrer reduziert zu hohe Gewindeflankenreibungskräfte
- Reduziert eventuelle Axialkraftehöhung während des Schneidzyklus auf ein Minimum
- Geeignet für Innenkühlung
- Kühlmitteldruck max. 100bar



## HSK-A

G6.3 15.000 min<sup>-1</sup>

⌀0,003mm



## Order No.

| Bestell-Nr.        | HSK | d  | A   | D1 | D  | g     |
|--------------------|-----|----|-----|----|----|-------|
| 27.HSK63A03L80SHR  | A63 | 3  | 80  | 11 | 15 | -     |
| 27.HSK63A03L120SHR | A63 | 3  | 120 | 11 | 15 | -     |
| 27.HSK63A03L160SHR | A63 | 3  | 160 | 11 | 15 | -     |
| 27.HSK63A04L80SHR  | A63 | 4  | 80  | 14 | 22 | M3    |
| 27.HSK63A04L120SHR | A63 | 4  | 120 | 14 | 22 | M3    |
| 27.HSK63A04L160SHR | A63 | 4  | 160 | 14 | 22 | M3    |
| 27.HSK63A05L80SHR  | A63 | 5  | 80  | 16 | 22 | M4    |
| 27.HSK63A05L120SHR | A63 | 5  | 120 | 16 | 22 | M4    |
| 27.HSK63A05L160SHR | A63 | 5  | 160 | 16 | 22 | M4    |
| 27.HSK63A06L80SHR  | A63 | 6  | 80  | 21 | 27 | M5    |
| 27.HSK63A06L120SHR | A63 | 6  | 120 | 21 | 27 | M5    |
| 27.HSK63A06L160SHR | A63 | 6  | 160 | 21 | 27 | M5    |
| 27.HSK63A08L80SHR  | A63 | 8  | 80  | 21 | 27 | M6    |
| 27.HSK63A08L120SHR | A63 | 8  | 120 | 21 | 27 | M6    |
| 27.HSK63A08L160SHR | A63 | 8  | 160 | 21 | 27 | M6    |
| 27.HSK63A10L85SHR  | A63 | 10 | 85  | 24 | 32 | M8x1  |
| 27.HSK63A10L120SHR | A63 | 10 | 120 | 24 | 32 | M8x1  |
| 27.HSK63A10L160SHR | A63 | 10 | 160 | 24 | 32 | M8x1  |
| 27.HSK63A12L90SHR  | A63 | 12 | 90  | 24 | 32 | M10x1 |
| 27.HSK63A12L120SHR | A63 | 12 | 120 | 24 | 32 | M10x1 |
| 27.HSK63A12L160SHR | A63 | 12 | 160 | 24 | 32 | M10x1 |
| 27.HSK63A14L90SHR  | A63 | 14 | 90  | 27 | 34 | M10x1 |
| 27.HSK63A14L120SHR | A63 | 14 | 120 | 27 | 34 | M10x1 |
| 27.HSK63A14L160SHR | A63 | 14 | 160 | 27 | 34 | M10x1 |
| 27.HSK63A16L95SHR  | A63 | 16 | 95  | 27 | 34 | M12x1 |
| 27.HSK63A16L120SHR | A63 | 16 | 120 | 27 | 34 | M12x1 |
| 27.HSK63A16L160SHR | A63 | 16 | 160 | 27 | 34 | M12x1 |
| 27.HSK63A18L95SHR  | A63 | 18 | 95  | 33 | 42 | M12x1 |
| 27.HSK63A18L120SHR | A63 | 18 | 120 | 33 | 42 | M12x1 |
| 27.HSK63A18L160SHR | A63 | 18 | 160 | 33 | 42 | M12x1 |
| 27.HSK63A20L100SHR | A63 | 20 | 100 | 33 | 42 | M16x1 |
| 27.HSK63A20L120SHR | A63 | 20 | 120 | 33 | 42 | M16x1 |
| 27.HSK63A20L160SHR | A63 | 20 | 160 | 33 | 42 | M16x1 |
| 27.HSK63A25L115SHR | A63 | 25 | 115 | 44 | 53 | M16x1 |
| 27.HSK63A32L120SHR | A63 | 25 | 120 | 44 | 53 | M16x1 |
| 27.HSK63A25L160SHR | A63 | 25 | 160 | 44 | 53 | M16x1 |
| 27.HSK63A32L120SHR | A63 | 32 | 120 | 44 | 53 | M16x1 |
| 27.HSK63A32L160SHR | A63 | 32 | 160 | 44 | 53 | M16x1 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

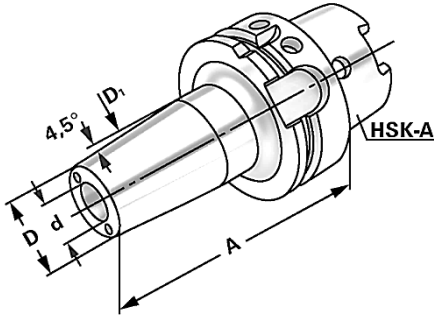


10.05

Shrink Chuck for mounting of solid carbide and HSS cutters

Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften

HSK-A



Order No.

Bestell-Nr.

|                     | HSK  | d  | A   | D1 | D  | g     |
|---------------------|------|----|-----|----|----|-------|
| 27.HSK100A04L85SHR  | A100 | 4  | 85  | 16 | 22 | M3    |
| 27.HSK100A05L85SHR  | A100 | 5  | 85  | 16 | 22 | M4    |
| 27.HSK100A06L85SHR  | A100 | 6  | 85  | 21 | 27 | M5    |
| 27.HSK100A06L120SHR | A100 | 6  | 120 | 21 | 27 | M5    |
| 27.HSK100A06L160SHR | A100 | 6  | 160 | 21 | 27 | M5    |
| 27.HSK100A08L85SHR  | A100 | 8  | 85  | 21 | 27 | M6    |
| 27.HSK100A08L120SHR | A100 | 8  | 120 | 21 | 27 | M6    |
| 27.HSK100A08L160SHR | A100 | 8  | 160 | 21 | 27 | M6    |
| 27.HSK100A10L90SHR  | A100 | 10 | 90  | 24 | 32 | M8x1  |
| 27.HSK100A10L120SHR | A100 | 10 | 120 | 24 | 32 | M8x1  |
| 27.HSK100A10L160SHR | A100 | 10 | 160 | 24 | 32 | M8x1  |
| 27.HSK100A12L95SHR  | A100 | 12 | 95  | 24 | 32 | M10x1 |
| 27.HSK100A12L120SHR | A100 | 12 | 120 | 24 | 32 | M10x1 |
| 27.HSK100A12L160SHR | A100 | 12 | 160 | 24 | 32 | M10x1 |
| 27.HSK100A14L95SHR  | A100 | 14 | 95  | 27 | 34 | M10x1 |
| 27.HSK100A14L120SHR | A100 | 14 | 120 | 27 | 34 | M10x1 |
| 27.HSK100A14L160SHR | A100 | 14 | 160 | 27 | 34 | M10x1 |
| 27.HSK100A16L100SHR | A100 | 16 | 100 | 27 | 34 | M12x1 |
| 27.HSK100A16L120SHR | A100 | 16 | 120 | 27 | 34 | M12x1 |
| 27.HSK100A16L160SHR | A100 | 16 | 160 | 27 | 34 | M12x1 |
| 27.HSK100A18L100SHR | A100 | 18 | 100 | 33 | 42 | M12x1 |
| 27.HSK100A18L120SHR | A100 | 18 | 120 | 33 | 42 | M12x1 |
| 27.HSK100A18L160SHR | A100 | 18 | 160 | 33 | 42 | M12x1 |
| 27.HSK100A20L105SHR | A100 | 20 | 105 | 33 | 42 | M16x1 |
| 27.HSK100A20L120SHR | A100 | 20 | 120 | 33 | 42 | M16x1 |
| 27.HSK100A20L160SHR | A100 | 20 | 160 | 33 | 42 | M16x1 |
| 27.HSK100A25L120SHR | A100 | 25 | 120 | 44 | 53 | M16x1 |
| 27.HSK100A25L160SHR | A100 | 25 | 160 | 44 | 53 | M16x1 |
| 27.HSK100A32L120SHR | A100 | 32 | 120 | 44 | 53 | M16x1 |
| 27.HSK100A32L160SHR | A100 | 32 | 160 | 44 | 53 | M16x1 |
| 27.HSK100A40L150SHR | A100 | 40 | 150 | 78 | 90 | M16x1 |
| 27.HSK100A50L150SHR | A100 | 50 | 150 | 78 | 90 | M16x1 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4



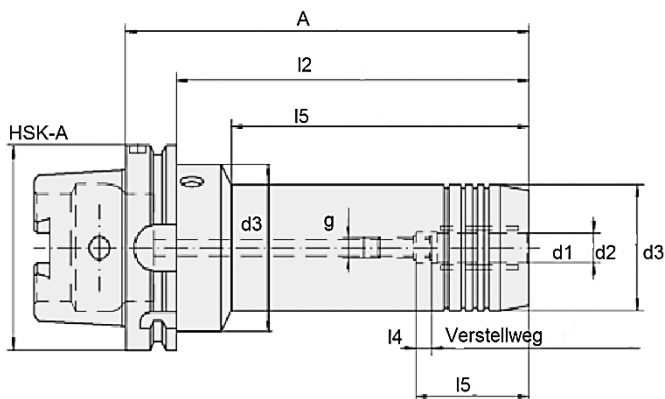
10.05

**HSK-A**G6.3 18.000 min<sup>-1</sup>

±0,003mm

**Order No.**

| <b>Bestell-Nr.</b> | <b>HSK</b> | <b>d1</b> | <b>d2</b> | <b>d3</b> | <b>l1</b> | <b>l2</b> | <b>l3</b> | <b>l5</b> | <b>g</b> |
|--------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| 19.HSK63A06L80HYD  | A63        | 6         | 26        | 50        | 80        | 54        | 37        | 33        | M5       |
| 19.HSK63A06L150HYD | A63        | 6         | 26        | 50        | 150       | 124       | 37        | 103       | M5       |
| 19.HSK63A06L200HYD | A63        | 6         | 26        | 50        | 200       | 174       | 37        | 153       | M5       |
| 19.HSK63A08L80HYD  | A63        | 8         | 28        | 50        | 80        | 54        | 37        | 33        | M6       |
| 19.HSK63A08L150HYD | A63        | 8         | 28        | 50        | 150       | 124       | 37        | 104       | M6       |
| 19.HSK63A08L200HYD | A63        | 8         | 28        | 50        | 200       | 174       | 37        | 154       | M6       |
| 19.HSK63A10L85HYD  | A63        | 10        | 30        | 50        | 85        | 59        | 42        | 39        | M8x1     |
| 19.HSK63A10L150HYD | A63        | 10        | 30        | 50        | 150       | 124       | 42        | 104       | M8x1     |
| 19.HSK63A10L200HYD | A63        | 10        | 30        | 50        | 200       | 174       | 42        | 154       | M8x1     |
| 19.HSK63A12L90HYD  | A63        | 12        | 32        | 50        | 90        | 64        | 47        | 44        | M10x1    |
| 19.HSK63A12L150HYD | A63        | 12        | 32        | 50        | 150       | 124       | 47        | 105       | M10x1    |
| 19.HSK63A12L200HYD | A63        | 12        | 32        | 50        | 200       | 174       | 47        | 155       | M10x1    |
| 19.HSK63A14L90HYD  | A63        | 14        | 34        | 50        | 90        | 64        | 47        | 46        | M10x1    |
| 19.HSK63A14L150HYD | A63        | 14        | 34        | 50        | 150       | 124       | 47        | 105       | M10x1    |
| 19.HSK63A14L200HYD | A63        | 14        | 34        | 50        | 200       | 174       | 47        | 155       | M10x1    |
| 19.HSK63A16L95HYD  | A63        | 16        | 38        | 50        | 95        | 69        | 52        | 52        | M12x1    |
| 19.HSK63A16L150HYD | A63        | 16        | 38        | 50        | 150       | 124       | 52        | 106,5     | M12x1    |
| 19.HSK63A16L200HYD | A63        | 16        | 38        | 50        | 200       | 174       | 52        | 156,5     | M12x1    |
| 19.HSK63A18L95HYD  | A63        | 18        | 40        | 50        | 95        | 69        | 52        | 52        | M12x1    |
| 19.HSK63A18L150HYD | A63        | 18        | 40        | 50        | 150       | 124       | 52        | 107       | M12x1    |
| 19.HSK63A18L200HYD | A63        | 18        | 40        | 50        | 200       | 174       | 52        | 157       | M12x1    |
| 19.HSK63A20L100HYD | A63        | 20        | 42        | 50        | 100       | 74        | 52        | 58        | M16x1    |
| 19.HSK63A20L150HYD | A63        | 20        | 42        | 50        | 150       | 124       | 52        | 108       | M16x1    |
| 19.HSK63A20L200HYD | A63        | 20        | 42        | 50        | 200       | 174       | 52        | 157       | M16x1    |
| 19.HSK63A25L120HYD | A63        | 25        | 50        | 50        | 120       | 94        | 58        | 94        | M16x1    |
| 19.HSK63A25L150HYD | A63        | 25        | 50        | 50        | 150       | 124       | 58        |           | M16x1    |
| 19.HSK63A25L200HYD | A63        | 25        | 50        | 50        | 200       | 174       | 58        |           | M16x1    |
| 19.HSK63A32L125HYD | A63        | 32        | 60        | 50        | 125       | 99        | 62        | 83        | M16x1    |
| 19.HSK63A32L150HYD | A63        | 32        | 60        | 60        | 150       | 124       | 58        | -         | M16x1    |
| 19.HSK63A32L200HYD | A63        | 32        | 60        | 60        | 200       | 174       | 62        | -         | M16x1    |





Hydraulic Chucks with coolant feed

Hydro-Dehnspannfutter mit Kühlmittelzuführung

HSK-A

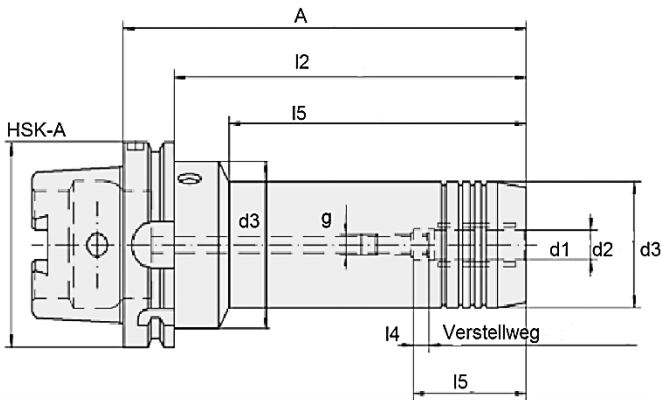
G6.3 18.000 min<sup>-1</sup>

±0,003mm



Order No.

| Bestell-Nr.         | HSK  | d1 | d2 | d3 | A   | l2  | l3 | L5    | g     |
|---------------------|------|----|----|----|-----|-----|----|-------|-------|
| 19.HSK100A06L85HYD  | A100 | 6  | 26 | 50 | 85  | 56  | 37 | 29    | M5    |
| 19.HSK100A06L150HYD | A100 | 6  | 26 | 50 | 150 | 121 | 37 | 94    | M5    |
| 19.HSK100A06L200HYD | A100 | 6  | 26 | 50 | 200 | 171 | 37 | 144   | M5    |
| 19.HSK100A08L85HYD  | A100 | 8  | 28 | 50 | 85  | 56  | 37 | 33    | M6    |
| 19.HSK100A08L150HYD | A100 | 8  | 28 | 50 | 150 | 121 | 37 | 94,5  | M6    |
| 19.HSK100A08L200HYD | A100 | 8  | 28 | 50 | 200 | 171 | 37 | 144,5 | M6    |
| 19.HSK100A10L90HYD  | A100 | 10 | 30 | 50 | 90  | 61  | 42 | 42    | M8x1  |
| 19.HSK100A10L150HYD | A100 | 10 | 30 | 50 | 150 | 121 | 42 | 95    | M8x1  |
| 19.HSK100A10L200HYD | A100 | 10 | 30 | 50 | 200 | 171 | 42 | 145   | M8x1  |
| 19.HSK100A12L95HYD  | A100 | 12 | 32 | 50 | 95  | 66  | 47 | 47    | M10x1 |
| 19.HSK100A12L150HYD | A100 | 12 | 32 | 50 | 150 | 121 | 47 | 95,5  | M10x1 |
| 19.HSK100A12L200HYD | A100 | 12 | 32 | 50 | 200 | 171 | 47 | 145,5 | M10x1 |
| 19.HSK100A14L95HYD  | A100 | 14 | 34 | 63 | 95  | 66  | 47 | 42    | M10x1 |
| 19.HSK100A14L150HYD | A100 | 14 | 34 | 50 | 150 | 121 | 47 | 97    | M10x1 |
| 19.HSK100A14L200HYD | A100 | 14 | 34 | 50 | 200 | 171 | 47 | 147   | M10x1 |
| 19.HSK100A16L100HYD | A100 | 16 | 38 | 50 | 100 | 71  | 52 | 53    | M12x1 |
| 19.HSK100A16L150HYD | A100 | 16 | 38 | 50 | 150 | 121 | 52 | 97,5  | M12x1 |
| 19.HSK100A16L200HYD | A100 | 16 | 38 | 50 | 200 | 171 | 52 | 147,5 | M12x1 |
| 19.HSK100A18L100HYD | A100 | 18 | 40 | 50 | 100 | 71  | 52 | 53    | M12x1 |
| 19.HSK100A18L150HYD | A100 | 18 | 40 | 50 | 150 | 121 | 52 | 98    | M12x1 |
| 19.HSK100A18L200HYD | A100 | 18 | 40 | 50 | 200 | 171 | 52 | 148   | M12x1 |
| 19.HSK100A20L105HYD | A100 | 20 | 42 | 50 | 105 | 76  | 52 | 59    | M16x1 |
| 19.HSK100A20L150HYD | A100 | 20 | 42 | 50 | 150 | 121 | 52 | 99    | M12x1 |
| 19.HSK100A20L200HYD | A100 | 20 | 42 | 50 | 200 | 171 | 52 | 149   | M12x1 |
| 19.HSK100A25L115HYD | A100 | 25 | 50 | 63 | 115 | 86  | 58 | 51    | M16x1 |
| 19.HSK100A25L150HYD | A100 | 25 | 50 | 50 | 150 | 121 | 58 |       | M16x1 |
| 19.HSK100A25L200HYD | A100 | 25 | 50 | 50 | 200 | 171 | 58 |       | M16x1 |
| 19.HSK100A32L120HYD | A100 | 32 | 60 | 63 | 120 | 91  | 62 | 59    | M16x1 |
| 19.HSK100A32L150HYD | A100 | 32 | 60 | 50 | 150 | 121 | 62 |       | M16x1 |
| 19.HSK100A32L200HYD | A100 | 32 | 60 | 50 | 200 | 171 | 62 |       | M16x1 |
| 19.HSK100A40L125HYD | A100 | 40 | 70 | 70 | 125 | 96  | 72 | 96    | M16x1 |
| 19.HSK100A40L150HYD | A100 | 40 | 70 | 70 | 150 | 121 | 72 |       | M16x1 |



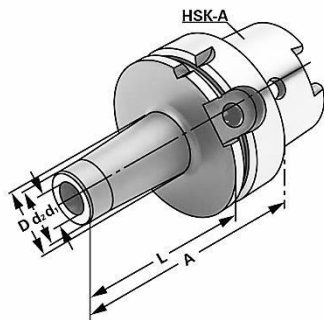
07.07



10.05

**HSK-A**G6.3 15.000 min<sup>-1</sup>

√0,003mm

**Order No.****Bestell-Nr.****SK****M****d****D1****D2****A****L**

|                    |      |    |      |    |    |     |     |
|--------------------|------|----|------|----|----|-----|-----|
| 27.HSK63A06L51ES   | A63  | 6  | 6,5  | 10 | 13 | 51  | 25  |
| 27.HSK63A08L51ES   | A63  | 8  | 8,5  | 13 | 15 | 51  | 25  |
| 27.HSK63A08L76ES   | A63  | 8  | 8,5  | 13 | 23 | 76  | 50  |
| 27.HSK63A08L101ES  | A63  | 8  | 8,5  | 13 | 23 | 101 | 75  |
| 27.HSK63A10L51ES   | A63  | 10 | 10,5 | 18 | 20 | 51  | 25  |
| 27.HSK63A10L76ES   | A63  | 10 | 10,5 | 18 | 23 | 76  | 50  |
| 27.HSK63A10L126ES  | A63  | 10 | 10,5 | 18 | 32 | 126 | 100 |
| 27.HSK63A10L176ES  | A63  | 10 | 10,5 | 18 | 37 | 176 | 150 |
| 27.HSK63A12L51ES   | A63  | 12 | 12,5 | 21 | 24 | 51  | 25  |
| 27.HSK63A12L76ES   | A63  | 12 | 12,5 | 21 | 24 | 76  | 75  |
| 27.HSK63A12L101ES  | A63  | 12 | 12,5 | 21 | 31 | 101 | 125 |
| 27.HSK63A12L126ES  | A63  | 12 | 12,5 | 21 | 33 | 126 | 100 |
| 27.HSK63A12L176ES  | A63  | 12 | 12,5 | 21 | 40 | 176 | 150 |
| 27.HSK63A16L51ES   | A63  | 16 | 17   | 29 | 29 | 51  | 25  |
| 27.HSK63A16L76ES   | A63  | 16 | 17   | 29 | 34 | 76  | 50  |
| 27.HSK63A16L101ES  | A63  | 16 | 17   | 29 | 34 | 101 | 75  |
| 27.HSK63A16L126ES  | A63  | 16 | 17   | 29 | 36 | 126 | 100 |
| 27.HSK63A16L176ES  | A63  | 16 | 17   | 29 | 43 | 176 | 150 |
| 27.HSK100A08L79ES  | A100 | 8  | 8,5  | 13 | 23 | 79  | 50  |
| 27.HSK100A10L79ES  | A100 | 10 | 10,5 | 18 | 23 | 79  | 50  |
| 27.HSK100A10L129ES | A100 | 10 | 10,5 | 18 | 32 | 129 | 100 |
| 27.HSK100A10L179ES | A100 | 10 | 10,5 | 18 | 37 | 179 | 150 |
| 27.HSK100A12L79ES  | A100 | 12 | 12,5 | 21 | 24 | 79  | 50  |
| 27.HSK100A12L129ES | A100 | 12 | 12,5 | 21 | 33 | 129 | 100 |
| 27.HSK100A12L179ES | A100 | 12 | 12,5 | 21 | 40 | 179 | 150 |
| 27.HSK100A16L79ES  | A100 | 16 | 17   | 29 | 34 | 79  | 50  |
| 27.HSK100A16L129ES | A100 | 16 | 17   | 29 | 36 | 129 | 100 |
| 27.HSK100A16L179ES | A100 | 16 | 17   | 29 | 43 | 179 | 150 |

Zur Aufnahme von Einschraubfräsern mit Gewinde

For mounting screw-in cutters with thread

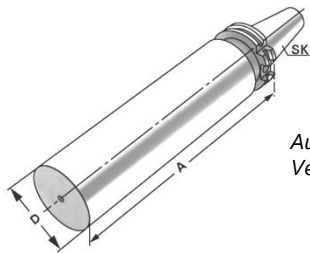


10.05

Boring Bar Blanks for the production of special tools  
Bohrstangenrohlinge zur Anfertigung von Sonderwerkzeugen

Form  
A

| Order No        |      |     |    |  |
|-----------------|------|-----|----|--|
| Bestell-Nr.     | HSK  | A   | D  |  |
| R.HSK63A63L250  | A63  | 250 | 63 |  |
| R.HSK100A97L315 | A100 | 315 | 97 |  |



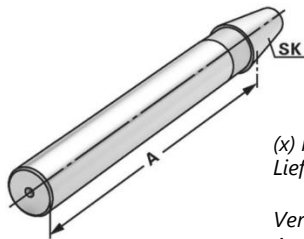
Ausführung: Mit Steilkegel und Bund gehärtet und geschliffen. Schaft weich zur weiteren Bearbeitung  
Version: Taper and flange hardened and grinded. Soft body for later processing.



Test arbors  
Kontrolldorne

Form  
A

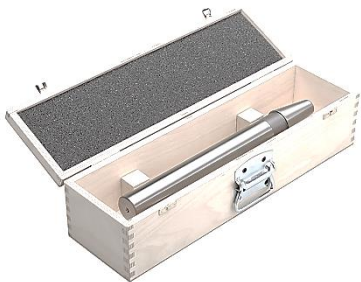
| Order No        |      |     |    |       |
|-----------------|------|-----|----|-------|
| Bestell-Nr.     | SK   | A   | D  | (x)   |
| P.HSK63A40L250  | A63  | 250 | 40 | 0,003 |
| P.HSK100A50L349 | A100 | 349 | 50 | 0,003 |



(x) max. Rundlaufabweichung ▪ max. concentricity deviation  
Lieferung mit Prüfprotokoll ▪ Delivery box with certificate

Verwendung: Zur Abnahme von Werkzeugmaschinen gemäß ISO-Empfehlung R 230  
Application: For acceptance tests of machine tools in accordance with ISO-recommendation ISO R 230

Holzkasten für Kontrolldorne auf Anfrage  
Wooden Box for test arbors on request

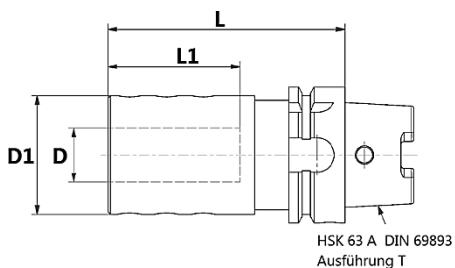


**HSK-T**G6.3 15.000 min<sup>-1</sup>

⌀0,003mm

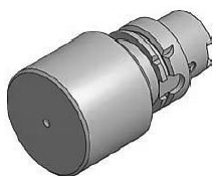
**Order No.****Bestell-Nr.**

| <b>Bestell-Nr.</b> | <b>HSK</b> | <b>D1</b> | <b>D</b> | <b>L1</b> | <b>L</b> |
|--------------------|------------|-----------|----------|-----------|----------|
| 19.HSK63AT06L100   | T63        | 6         | 55       | 61        | 100      |
| 19.HSK63AT08L100   | T63        | 8         | 55       | 61        | 100      |
| 19.HSK63AT10L100   | T63        | 10        | 55       | 61        | 100      |
| 19.HSK63AT12L100   | T63        | 12        | 55       | 61        | 100      |
| 19.HSK63AT16L100   | T63        | 16        | 55       | 61        | 100      |
| 19.HSK63AT20L100   | T63        | 20        | 55       | 61        | 100      |
| 19.HSK63AT25L110   | T63        | 25        | 55       | 61        | 110      |
| 19.HSK63AT32L120   | T63        | 32        | 65       | 61        | 120      |
| 19.HSK63AT40L125   | T63        | 40        | 62       | 75        | 125      |

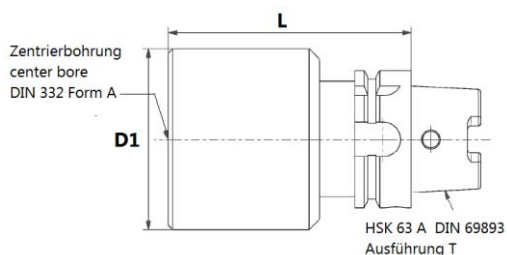


Mit der HSK-T Schnittstelle werden die Vorteile der klassischen VDI-Lösung mit denen anderer Schnittstellen verbunden. So lassen sich angetriebene als auch stehende Werkzeuge damit aufnehmen und bei hoher Präzision gut handhaben.

The HSK-T interface connect the advantages of the classical VDI solution with those of other interfaces. Driven as well as stationary tools are applicable and well handled with high precision.

**Boring Bar Blanks HSK-T****Bohrstangenrohlinge HSK-T****Order No.****Bestell-Nr.**

| <b>Bestell-Nr.</b> | <b>HSK</b> | <b>D1</b> | <b>L</b> |
|--------------------|------------|-----------|----------|
| RHSK63AT.063.070   | T63        | 63        | 70       |
| RHSK63AT.083.200   | T63        | 83        | 200      |
| RHSK63AT.100.127   | T63        | 100       | 127      |





**Slotted boring bar holder**  
**Geschlitzter**  
**Bohrstangenhalter**



**live centre**  
**mitlaufende**  
**Zentrierspitze**



**Adaptor to ABS**  
**Ausgleichhalter**  
*mit ABS-Aufnahme*



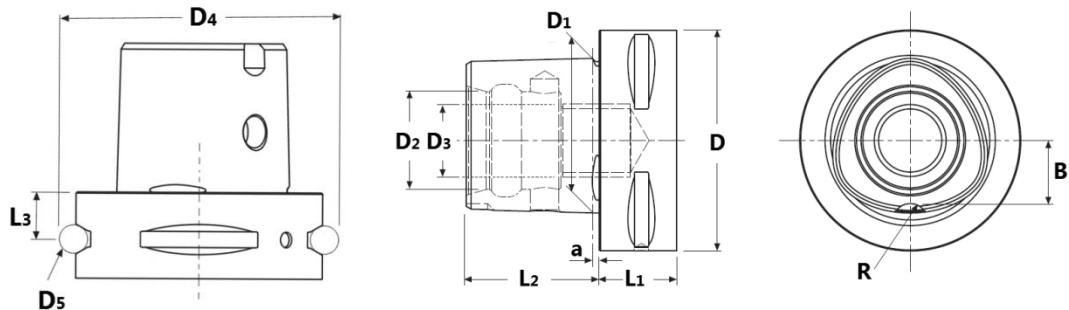
**Floating holder**  
**Pendelhalter**

**EWS – angetriebene  
und statische  
Werkzeugaufnahmen  
für die CNC-  
Drehmaschine**

Bewegung, Schnelligkeit,  
Präzision.  
Das ist die Welt von EWS:  
*Precision meets Motion*

Jetzt Exklusiv!  
Der **EWS** -Online Katalog ►►  
Tool Technologies





| PSC | D  | D <sub>1</sub> | D <sub>2</sub> | D <sub>3</sub> | D <sub>4</sub> | D <sub>5</sub> | L <sub>1 min</sub> | L <sub>2</sub> | L <sub>3</sub> | a   | B    | R |
|-----|----|----------------|----------------|----------------|----------------|----------------|--------------------|----------------|----------------|-----|------|---|
| 50  | 50 | 35             | 21             | M16x1,5        | 59,3           | 7              | 20                 | 30             | 10             | 3,0 | 14,0 | 4 |
| 63  | 63 | 44             | 28             | M20,2,0        | 70,7           | 7              | 22                 | 38             | 12             | 3,0 | 18,0 | 5 |

**Material**..... Case hardened steel, tensile strength in the core min. 950 N/mm<sup>2</sup>  
**Execution**..... Case hardened HRC 58±2 depth of case 0,6mm ± 0,2mm, black-finish  
**Accuracy**..... Cone angle AT3 according to DIN 2080  
 Surface roughness of cone max 0,001mm

**Werkstoff**..... Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 950 N/mm<sup>2</sup>  
**Ausführung**..... Einsatzgehärtet HRC 58±2 Härtetiefe 0,6mm ± 0,2mm, brüniert  
**Genauigkeit**..... Kegelwinkel-Toleranzqualität AT3 nach DIN 2080  
 Oberflächenrauigkeit des Kegels max. 0,001mm

|                                                                                               |                                                                                                   |              |
|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------|
| <b>ER Spannfutter</b><br>für Spannzangen DIN 6499 / ISO15488 ER                               | <b>ER Collet chucks</b><br>for collets DIN 6499 / ISO15488 ER                                     | <b>04.01</b> |
| <b>Hochleistungs-Kraftspannfutter HKS</b><br>Werkzeuge mit Zylinderschaft DIN1835/ DIN6535    | <b>High Performance Milling Chuck HKS-system</b><br>Straight-shank tools DIN 1835/DIN 6535        | <b>04.01</b> |
| <b>Vollbohrerhalter</b> für Werkzeuge nach<br>DIN 1835-B / 1835-E (Weldon ▪ Whistle Notch)    | <b>U-Drill Holder</b> for tools according to<br>DIN 1835-B / 1835-E (Weldon ▪ Whistle Notch)      | <b>04.02</b> |
| <b>Fräseraufnahmen DIN 6359</b><br>für Zylinderschaft DIN 1835-B Weldon                       | <b>End Mill Holder DIN 6359</b><br>for end mills DIN 1835-B (Weldon)                              | <b>04.02</b> |
| <b>Bohrstangenhalter</b><br>für interne und externe Kühlmittelzufuhr                          | <b>Boring Bar Holder</b><br>for internal and external coolant supply                              | <b>04.03</b> |
| <b>Gewindeschneid-Schnellwechselfutter</b><br><u>mit</u> Längenausgleich auf Druck und Zug    | <b>Quick change tapping chucks</b><br><u>with</u> axial compensation on compression and expansion | <b>04.03</b> |
| <b>Axiale Messerkopfaufnahme</b>                                                              | <b>Axial Face Mill Arbor</b>                                                                      | <b>04.04</b> |
| <b>Quernut-Aufsteckfräserdorn DIN 6357</b><br>Vergrößerte Anlagefläche und Kühlkanalbohrungen | <b>Shell Mill Holders DIN 6357</b><br>Enlarged contact face and coolant exit bores                | <b>04.04</b> |
| <b>CNC Präzisionsbohrfutter</b><br>für Rechts- und Linkslauf                                  | <b>CNC Drill Chuck Heads</b><br>for right and left hand rotation                                  | <b>04.05</b> |
| <b>Schrumpffutter</b><br>zum Spannen von HM und HSS-Werkzeugschäften                          | <b>Shrink chucks</b><br>for mounting of solid carbide and HSS cutters                             | <b>04.05</b> |
| <b>Hydro-Dehnspannfutter</b><br>mit Kühlmittelzuführung                                       | <b>Hydraulic Chucks</b><br>with coolant feed                                                      | <b>04.06</b> |
| <b>Morsekonus-Aufnahme</b>                                                                    | <b>Morse Cone Adaptor</b>                                                                         | <b>04.06</b> |
| <b>Bohrstangenrohlinge</b><br>zur Anfertigung von Sonderwerkzeugen                            | <b>Boring bar blanks</b><br>for the production of special tools                                   | <b>04.07</b> |
| <b>Prüfdorne</b>                                                                              | <b>Test Arbors</b>                                                                                | <b>04.07</b> |

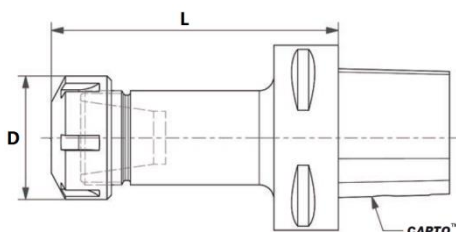


## ER Collet Chucks for collets DIN 6499 / ISO 15488

## ER Spannfutter für Spannzangen DIN 6499 / ISO 15488

## Typ

ER

G2,5 25.000 min<sup>-1</sup>H<sub>0,003</sub>mm

## Order No.

Bestell-Nr.

PSC

## Capacity

Spannbereich

L

D

## Collets

Spannzange

|                     |           |             |            |           |                        |
|---------------------|-----------|-------------|------------|-----------|------------------------|
| 31.C5R16L60         | C5        | 1-10        | 60         | 28        | 160 426E (E16)         |
| 31.C5R16L100        | C5        | 1-10        | 100        | 28        | 160 426E (E16)         |
| 31.C5R20L60         | C5        | 1-13        | 60         | 34        | 200 428E (ER20)        |
| 31.C5R20L100        | C5        | 1-13        | 100        | 34        | 200 428E (ER20)        |
| 31.C5R25L60         | C5        | 2-16        | 60         | 42        | 250 430E (E25)         |
| 31.C5R25L100        | C5        | 2-16        | 100        | 42        | 250 430E (E25)         |
| 31.C5R32L60         | C5        | 2-20        | 60         | 50        | 320 470E (ER32)        |
| 31.C5R32L100        | C5        | 2-20        | 100        | 50        | 320 470E (ER32)        |
| 31.C5R40L65         | C5        | 3-26        | 65         | 63        | 400 472E (ER40)        |
| 31.C5R40L100        | C5        | 3-26        | 100        | 63        | 400 472E (ER40)        |
| 31.C6R16L60         | C6        | 1-10        | 60         | 28        | 160 426E (E16)         |
| <b>31.C6R16L100</b> | <b>C6</b> | <b>1-10</b> | <b>100</b> | <b>28</b> | <b>160 426E (E16)</b>  |
| 31.C6R20L60         | C6        | 1-13        | 60         | 34        | 200 428E (ER20)        |
| 31.C6R20L100        | C6        | 1-13        | 100        | 34        | 200 428E (ER20)        |
| <b>31.C6R25L60</b>  | <b>C6</b> | <b>2-16</b> | <b>60</b>  | <b>42</b> | <b>250 430E (E25)</b>  |
| <b>31.C6R25L100</b> | <b>C6</b> | <b>2-16</b> | <b>100</b> | <b>42</b> | <b>250 430E (E25)</b>  |
| 31.C6R32L60         | C6        | 2-20        | 60         | 50        | 320 470E (ER32)        |
| <b>31.C6R32L70</b>  | <b>C6</b> | <b>2-20</b> | <b>70</b>  | <b>50</b> | <b>320 470E (ER32)</b> |
| <b>31.C6R32L100</b> | <b>C6</b> | <b>2-20</b> | <b>100</b> | <b>50</b> | <b>320 470E (ER32)</b> |
| <b>31.C6R40L65</b>  | <b>C6</b> | <b>3-26</b> | <b>65</b>  | <b>63</b> | <b>400 472E (ER40)</b> |
| 31.C6R40L100        | C6        | 3-26        | 100        | 63        | 400 472E (ER40)        |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut



10.10

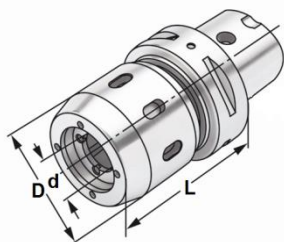


07.01

## High performance Milling Chuck HKS

## Hochleistungs-Kraftspannfutter HKS

## HKS (PSC)

G2,5 25.000 min<sup>-1</sup>H<sub>0,003</sub>mm

## Order No

Bestell-Nr.

PSC

## Capacity

Spannbereich

L

D

|                   |    |             |    |    |
|-------------------|----|-------------|----|----|
| 27.C620L75HKS     | C6 | 20 (HKS 20) | 75 | 53 |
| 27.C632HKS L85HKS | C6 | 32 (HKS 32) | 85 | 68 |

Verwendung: Zur Aufnahme von Werkzeugen mit Zylinderschaft nach DIN 1835 Form A+B+E und IN 6535 Form HA+HB+HE (größer 20mm nur mit Reduzierung)

Application: for mounting straight-shank tools acc. DIN 1835 form A+B+E and IN 6535 form HA+HB+HE (larger than dia. 20 mm only with reduction sleeve).



07.07



10.10

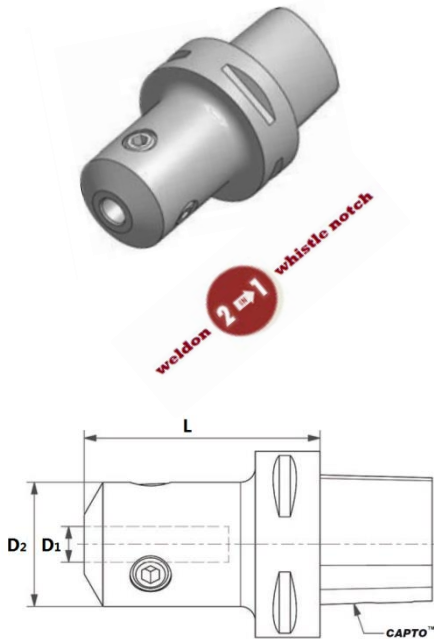
**U-Drill Holder for tools according to DIN 1835-B / 1835-E (Weldon + Whistle Notch)****Vollbohrerhalter für Werkzeuge nach DIN 1835-B / 1835-E (Weldon + Whistle Notch)**G2.5 25.000 min<sup>-1</sup>

√0,003mm

**Order No.**

| <b>Bestell-Nr.</b> | <b>PSC</b> | <b>D1</b> | <b>D2</b> | <b>L</b> |
|--------------------|------------|-----------|-----------|----------|
| 27.C506WNL80       | C5         | 6         | 25        | 80       |
| 27.C508WNL80       | C5         | 8         | 28        | 80       |
| 27.C510WNL80       | C5         | 10        | 35        | 80       |
| 27.C512WNL80       | C5         | 12        | 42        | 80       |
| 27.C514WNL80       | C5         | 14        | 42        | 80       |
| 27.C516WNL80       | C5         | 16        | 48        | 80       |
| 27.C518WNL80       | C5         | 18        | 48        | 80       |
| 27.C520WNL80       | C5         | 20        | 52        | 80       |
| 27.C525WNL90       | C5         | 25        | 65        | 90       |
| 27.C532WNL90       | C5         | 32        | 72        | 90       |
| 27.C540WNL95       | C5         | 40        | 80        | 95       |

|              |    |    |    |    |
|--------------|----|----|----|----|
| 27.C606WNL80 | C6 | 6  | 25 | 80 |
| 27.C608WNL80 | C6 | 8  | 28 | 80 |
| 27.C610WNL80 | C6 | 10 | 35 | 80 |
| 27.C612WNL80 | C6 | 12 | 42 | 80 |
| 27.C614WNL80 | C6 | 14 | 42 | 80 |
| 27.C616WNL80 | C6 | 16 | 48 | 80 |
| 27.C618WNL80 | C6 | 18 | 48 | 80 |
| 27.C620WNL80 | C6 | 20 | 52 | 80 |
| 27.C625WNL90 | C6 | 25 | 65 | 90 |
| 27.C632WNL90 | C6 | 32 | 72 | 90 |
| 27.C640WNL95 | C6 | 40 | 80 | 95 |



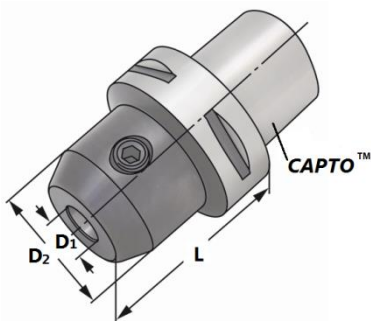
Ab D<sub>1</sub>=25 mit zwei Spannschrauben  
 From D<sub>1</sub>=25 on two clamping screws  
 Lieferumfang: inkl. Spannmutter  
 Included: Clamping nut

**End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)**G2.5 25.000 min<sup>-1</sup>

√0,003mm

**Order No.**

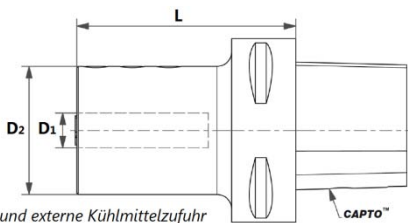
| <b>Bestell-Nr.</b> | <b>PSC</b> | <b>D1</b> | <b>D2</b> | <b>L</b>  |
|--------------------|------------|-----------|-----------|-----------|
| 27.C606WL55        | C6         | 6         | 25        | 55        |
| 27.C608WL55        | C6         | 8         | 28        | 55        |
| 27.C610WL60        | C6         | 10        | 35        | 60        |
| 27.C612WL60        | C6         | 12        | 42        | 60        |
| 27.C614WL60        | C6         | 14        | 42        | 60        |
| 27.C616WL65        | C6         | 16        | 48        | 65        |
| 27.C618WL65        | C6         | 18        | 48        | 65        |
| 27.C620WL65        | C6         | 20        | 52        | 65        |
| <b>27.C625WL80</b> | <b>C6</b>  | <b>25</b> | <b>65</b> | <b>80</b> |
| <b>27.C632WL90</b> | <b>C6</b>  | <b>32</b> | <b>72</b> | <b>90</b> |
| 27.C640WL100       | C6         | 40        | 80        | 100       |



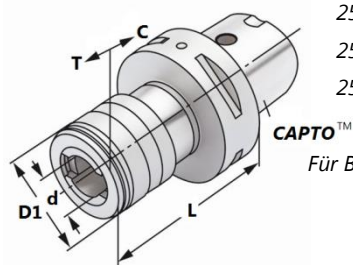
Ab D<sub>1</sub>=25 mit zwei Spannschrauben • From D<sub>1</sub>=25 on two clamping screws  
 Lieferumfang: inkl. Spannmutter • Included: Clamping nut

**Boring Bar Holder for internal and external coolant supply****Bohrstangenhalter für interne und externe Kühlmittelzufuhr**G2.5 25.000 min<sup>-1</sup>

±0,003mm

interne und externe Kühlmittelzufuhr  
internal and external coolant supply

| Order No.<br>Bestell-Nr. | PSC | D1 | D2 | L  |
|--------------------------|-----|----|----|----|
| 19.C506L75               | C5  | 6  | 44 | 75 |
| 19.C508L75               | C5  | 8  | 44 | 75 |
| 19.C510L75               | C5  | 10 | 44 | 75 |
| 19.C512L75               | C5  | 12 | 44 | 75 |
| 19.C516L75               | C5  | 16 | 44 | 75 |
| 19.C520L75               | C5  | 20 | 50 | 75 |
| 19.C525L75               | C5  | 25 | 55 | 75 |
| 19.C532L75               | C5  | 32 | 72 | 75 |
| 19.C540L85               | C5  | 40 | 70 | 85 |
|                          |     |    |    |    |
| 19.C606L75               | C6  | 6  | 44 | 75 |
| 19.C608L75               | C6  | 8  | 44 | 75 |
| 19.C610L75               | C6  | 10 | 44 | 75 |
| 19.C612L75               | C6  | 12 | 44 | 75 |
| 19.C616L75               | C6  | 16 | 44 | 75 |
| 19.C620L75               | C6  | 20 | 50 | 75 |
| 19.C625L75               | C6  | 25 | 55 | 75 |
| 19.C632L75               | C6  | 32 | 72 | 75 |
| 19.C640L85               | C6  | 40 | 70 | 85 |

**Quick change tapping chucks with axial compensation on compression and expansion****Gewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug**

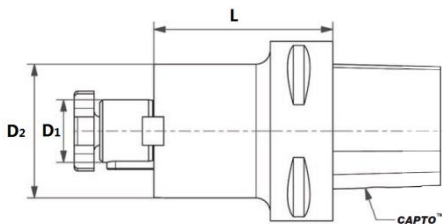
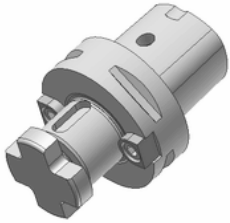
CAPTO™

| Order No.<br>Bestell-Nr. | PSC | Capacity (d)<br>Spannbereich | Size<br>Größe | d  | L   | D1 | T    | C    |
|--------------------------|-----|------------------------------|---------------|----|-----|----|------|------|
| 25.C619L51GC             | C6  | M3-M14                       | 1             | 19 | 51  | 41 | 7,5  | 7,5  |
| 25.C631L75GC             | C6  | M5-M22                       | 2             | 31 | 75  | 60 | 10   | 10   |
| 25.C648L124GC            | C6  | M14-M36                      | 3             | 48 | 124 | 86 | 17,5 | 17,5 |

Für Bearbeitungszentren ohne Synchronspindel • For machining centres without synchronous spindle

**Axial Face Mill Arbor****Axiale Messerkopfaufnahme**G2.5 25.000 min<sup>-1</sup>

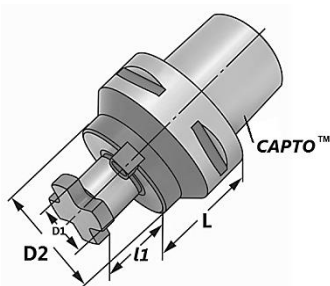
IT 0,005mm

**Order No.**

| <b>Bestell-Nr.</b> | <b>PSC</b> | <b>D1</b> | <b>D2</b> | <b>L</b> |
|--------------------|------------|-----------|-----------|----------|
| 42.C516L63MA       | C5         | 16        | 37        | 63       |
| 42.C522L28MA       | C5         | 22        | 47        | 28       |
| 42.C522L63MA       | C5         | 22        | 47        | 63       |
| 42.C527L28MA       | C5         | 27        | 58        | 28       |
| 42.C527L63MA       | C5         | 27        | 58        | 63       |
| 42.C532L22MA       | C5         | 32        | 63        | 22       |
| 42.C532L63MA       | C5         | 32        | 63        | 63       |
| 42.C532L86MA       | C5         | 32        | 63        | 86       |
| 42.C616L63MA       | C6         | 16        | 37        | 63       |
| 42.C622L28MA       | C6         | 22        | 47        | 28       |
| 42.C622L63MA       | C6         | 22        | 47        | 63       |
| 42.C627L28MA       | C6         | 27        | 58        | 28       |
| 42.C627L63MA       | C6         | 27        | 58        | 63       |
| 42.C632L22MA       | C6         | 32        | 63        | 22       |
| 42.C632L63MA       | C6         | 32        | 63        | 63       |
| 42.C632L86MA       | C6         | 32        | 63        | 86       |

**Shell Mill Holders DIN 6357 with enlarged contact face and coolant exit bores on the end face****Quernut-Aufsteckfräserdorn DIN 6357 mit vergrößerter Anlagefläche und Kühlkanalbohrungen**G2.5 25.000 min<sup>-1</sup>

IT 0,005mm

**Order No.**

| <b>Bestell-Nr.</b> | <b>PSC</b> | <b>D1</b> | <b>D2</b> | <b>L</b> | <b>l1</b> |
|--------------------|------------|-----------|-----------|----------|-----------|
| 42.C616L35MA.1     | C6         | 16        | 38        | 35       | 17        |
| 42.C622L40MA.1     | C6         | 22        | 48        | 40       | 19        |
| 42.C627L40MA.1     | C6         | 27        | 58        | 40       | 21        |
| 42.C632L40MA.1     | C6         | 32        | 78        | 40       | 24        |
| 42.C632L45MA.1     | C6         | 40        | 88        | 45       | 27        |

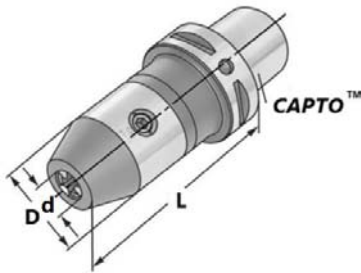
Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.

Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant

**D2=40/D2=60** Für große Planfräser mit vier zusätzlichen Gewindebohrungen nach DIN 2079. • For large diameter face mill cutters with four additional threaded holes according to DIN 2079.

**CNC Drill Chuck Heads for right and left hand rotation****CNC Präzisionsbohrfutter für Rechts- und Linkslauf**G2.5 25.000 min<sup>-1</sup>

H7/0,003mm

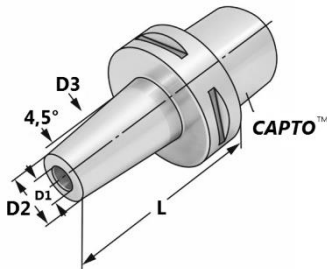


| Order No.<br>Bestell-Nr. | PSC | D  | Capacity (d)<br>Spannbereich | L   |
|--------------------------|-----|----|------------------------------|-----|
| 25.C513L112BF            | C5  | 50 | 0,5-13                       | 112 |
| 25.C516L112BF            | C5  | 57 | 3,0-16                       | 112 |
| 25.C613L104BF            | C6  | 50 | 1,0-13                       | 104 |
| 25.C613L112BF            | C6  | 50 | 0,5-13                       | 112 |
| 25.C616L109BF            | C6  | 50 | 2,5-16                       | 109 |
| 25.C616L112BF            | C6  | 57 | 3,0-16                       | 112 |

Lieferumfang: inklusive Spannschlüssel Included: Wrench

**Shrink chucks for mounting of solid carbide and HSS cutters****Schrumpffutter zum Spannen von HM und HSS-Werkzeugschäften**G2.5 25.000 min<sup>-1</sup>

H7/0,003mm



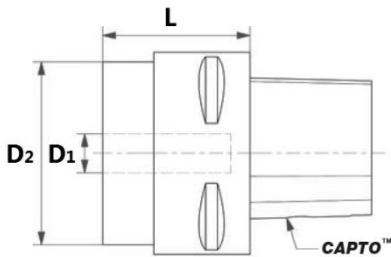
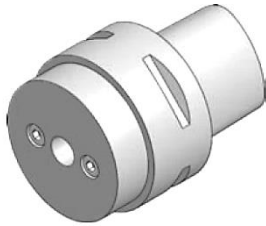
| Order No.<br>Bestell-Nr. | PSC | D1 | L  | D2 | D3 | g     | l1 | l2 |
|--------------------------|-----|----|----|----|----|-------|----|----|
| 27.C510L80SHR            | C5  | 10 | 80 | 24 | 32 | M8x1  | 41 | 10 |
| 27.C512L80SHR            | C5  | 12 | 80 | 24 | 32 | M10x1 | 47 | 10 |
| 27.C514L85SHR            | C5  | 14 | 85 | 27 | 34 | M10x1 | 47 | 10 |
| 27.C518L85SHR            | C5  | 18 | 85 | 33 | 42 | M12x1 | 50 | 10 |
| 27.C520L85SHR            | C5  | 20 | 85 | 33 | 42 | M16x1 | 52 | 10 |
| 27.C525L90SHR            | C5  | 25 | 90 | 44 | 53 | M16,1 | 58 | 10 |
| 27.C532L95SHR            | C5  | 32 | 95 | 44 | 53 | M16x1 | 62 | 10 |
| 27.C606L80SHR            | C6  | 6  | 80 | 21 | 27 | M5    | 36 | 10 |
| 27.C608L80SHR            | C6  | 8  | 80 | 21 | 27 | M6    | 36 | 10 |
| 27.C610L80SHR            | C6  | 10 | 80 | 24 | 32 | M8x1  | 41 | 10 |
| 27.C612L80SHR            | C6  | 12 | 80 | 24 | 32 | M10x1 | 47 | 10 |
| 27.C614L85SHR            | C6  | 14 | 85 | 27 | 34 | M10x1 | 47 | 10 |
| 27.C616L85SHR            | C6  | 16 | 85 | 27 | 34 | M10x1 | 50 | 10 |
| 27.C618L85SHR            | C6  | 18 | 85 | 33 | 42 | M12x1 | 50 | 10 |
| 27.C620L85SHR            | C6  | 20 | 85 | 33 | 42 | M16x1 | 52 | 10 |
| 27.C625L90SHR            | C6  | 25 | 90 | 44 | 53 | M16,1 | 58 | 10 |
| 27.C632L95SHR            | C6  | 32 | 95 | 44 | 53 | M16x1 | 62 | 10 |

Ø6 – Ø32 mit Toleranz h6; Ø3, Ø4, Ø5 mit Toleranz h4  
 Ø6 – Ø32 with tolerance h6; Ø3, Ø4, Ø5 with tolerance h4

l1 = max. Einstecktiefe / max. depth of insertion  
 l2 = max. Verstellweg / max. distance adjustment  
 g = Verstellechraube / adjustment screw

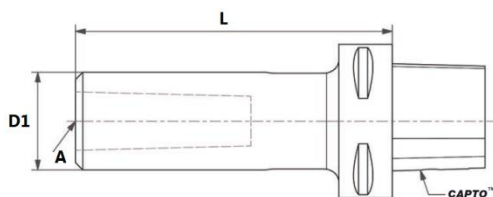
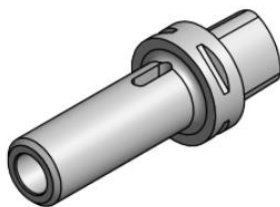
**Hydraulic Chucks with coolant feed****Hydro-Dehnspannfutter mit Kühlmittelzuführung**G2.5 25.000 min<sup>-1</sup>

H7 0,005mm

**Order No.****Bestell-Nr.****PSC****D1****D2****L**

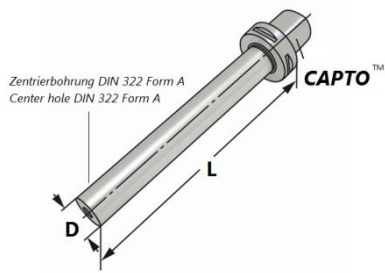
|                |    |    |    |     |
|----------------|----|----|----|-----|
| 19.C506L72HYD  | C5 | 6  | 50 | 72  |
| 19.C508L72HYD  | C5 | 8  | 50 | 72  |
| 19.C510L82HYD  | C5 | 10 | 50 | 82  |
| 19.C512L87HYD  | C5 | 12 | 50 | 87  |
| 19.C514L87HYD  | C5 | 14 | 50 | 87  |
| 19.C516L92HYD  | C5 | 16 | 50 | 92  |
| 19.C516L92HYD  | C5 | 18 | 50 | 92  |
| 19.C520L97HYD  | C5 | 20 | 50 | 97  |
| 19.C525L102HYD | C5 | 25 | 50 | 102 |
| 19.C532L110HYD | C5 | 32 | 50 | 110 |

|                |    |    |    |     |
|----------------|----|----|----|-----|
| 19.C606L72HYD  | C6 | 6  | 50 | 72  |
| 19.C608L72HYD  | C6 | 8  | 50 | 72  |
| 19.C610L82HYD  | C6 | 10 | 50 | 82  |
| 19.C612L87HYD  | C6 | 12 | 50 | 87  |
| 19.C614L87HYD  | C6 | 14 | 50 | 87  |
| 19.C616L92HYD  | C6 | 16 | 50 | 92  |
| 19.C616L92HYD  | C6 | 18 | 50 | 92  |
| 19.C620L97HYD  | C6 | 20 | 50 | 97  |
| 19.C625L102HYD | C6 | 25 | 50 | 102 |
| 19.C632L110HYD | C6 | 32 | 50 | 110 |

**Morse Cone Adaptor****Morsekonus-Aufnahme****Order No.****Bestell-Nr.****PSC****D1****A****L**

|              |    |    |     |     |
|--------------|----|----|-----|-----|
| 25.C5MK2L110 | C5 | 32 | MK2 | 110 |
| 25.C5MK3L130 | C5 | 40 | MK3 | 130 |
| 25.C5MK4L150 | C5 | 52 | MK4 | 150 |

|              |    |    |     |     |
|--------------|----|----|-----|-----|
| 25.C6MK2L110 | C6 | 32 | MK2 | 110 |
| 25.C6MK3L130 | C6 | 40 | MK3 | 130 |
| 25.C6MK4L150 | C6 | 52 | MK4 | 150 |

**Boring Bar Blanks** for the production of special tools**Bohrstangenrohlinge** zur Anfertigung von Sonderwerkzeugen**Order No.****Bestell-Nr.****PSC****D****L**

R.C5B110L120

C5

110

120

R.C6B63L180

C6

63

180

R.C6B110L120

C6

110

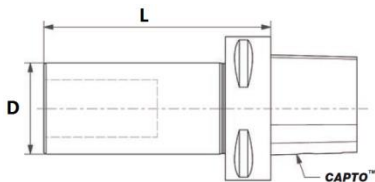
120

R.C6B120L180

C6

120

180

**Test arbors****Prüfdorn****Order No.****Bestell-Nr.****PSC****D****L**

P.C532L200

C5

32

200

P.C540L300

C5

40

300

P.C632L200

C6

32

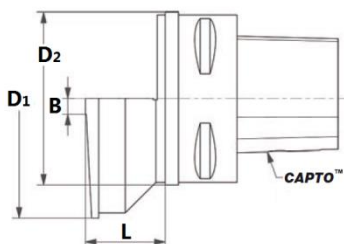
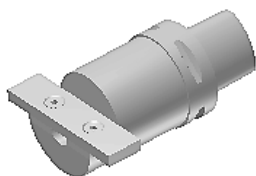
200

P.C640L300

C6

40

300

**Setting holder****Einrichtdorn****Order No.****Bestell-Nr.****PSC****D1****D2****B****L**

E.C590L30

C5

90

65

6

30

E.C690L30

C6

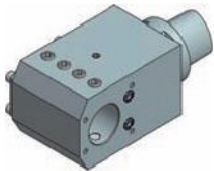
90

65

6

30





**Combi Holder**  
for internal and external coolant supply  
**Kombihalter quer**  
Für Innen- und Außenkühlung



**Double cut-off holder**  
**Abstechhalter**  
mit doppelseitiger Ausführung



**Adaptor to ABS**  
**Ausgleichshalter mit ABS-Aufnahme**



**Axial milling arbor (long)**  
**Axial Fräsdornhalter**  
(lange Ausführung)



**Adaptor to EWS-Varia**  
**Ausgleichshalter mit EWS-Varia**



**Floating holder**  
**Pendelhalter**



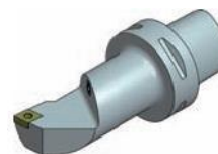
**Slotted Boring Bar Holder**  
**Geschlitzter Bohrstangenhalter**



**Adaptor to HSK**  
**Ausgleichshalter mit HSK-Aufnahme**



**OD Tool Holder**  
**Werkzeug für die Außenbearbeitung**



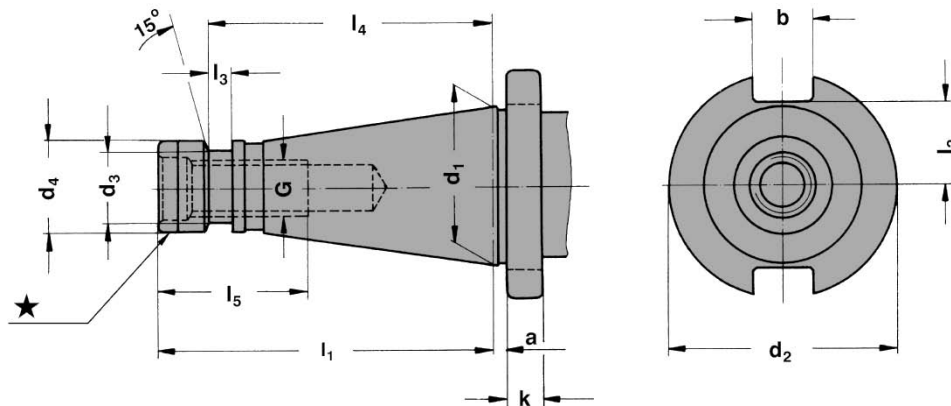
**Boring Bar Holder**  
**Bohrstangenhalter**

**EWS – angetriebene  
und statische  
Werkzeugaufnahmen  
für die CNC-  
Drehmaschine**

Bewegung, Schnelligkeit,  
Präzision.  
Das ist die Welt von EWS:  
*Precision meets Motion*

Jetzt Exklusiv!  
Der **EWS** -Online Katalog ►►  
Tool Technologies





| <i>SK</i> | <i>d1</i> | <i>a</i> | <i>b</i> | <i>k</i> | <i>G</i> | <i>d2</i> | <i>d3</i> | <i>d4</i> | <i>l1</i> | <i>l2</i> | <i>l3</i> | <i>l4</i> | <i>l5</i> |
|-----------|-----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 30        | 31,75     | 1,6      | 16,1     | 8        | M12      | 50        | -         | 17,2      | 68,4      | 16,2      | -         | -         | 24        |
| 40★       | 44,45     | 1,6      | 16,1     | 10       | M16      | 63        | 21,1      | 25        | 93,4      | 22,5      | 7         | 82        | 32        |
| 50★       | 69,85     | 3,2      | 25,7     | 12       | M24      | 97,5      | 32        | 39,2      | 126,8     | 35,3      | 13        | 115       | 47        |

|                        |                                                                               |
|------------------------|-------------------------------------------------------------------------------|
| <b>Material</b> .....  | Case hardened steel, tensile strength in the core min. 950 N/mm <sup>2</sup>  |
| <b>Execution</b> ..... | Case hardened HRC 58±2 depth of case 0,6mm ± 0,2mm, black-finish              |
| <b>Accuracy</b> .....  | Cone angle AT3 according to DIN 2080<br>Surface roughness of cone max 0,001mm |

**Werkstoff**..... Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 950 N/mm<sup>2</sup>  
**Ausführung**..... Einsatzgehärtet HRC 58±2 Härtetiefe 0,6mm ± 0,2mm, brüniert  
**Genauigkeit**..... Kegelwinkel-Toleranzqualität AT3 nach DIN 2080  
 Oberflächenrauigkeit des Kegels max. 0,001mm

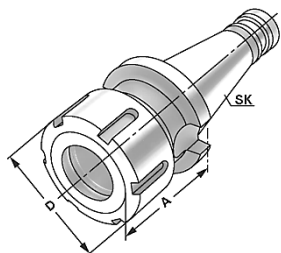
**Toolholder DIN 2080****Werkzeugaufnahmen DIN 2080**

Seite • Page

|                                                                                          |                                                                            |              |
|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------|
| <b>Spannfutter DIN 6391</b><br>für Spannzangen DIN 6388 / ISO10897 System OZ             | <b>Collet chucks DIN 6391</b><br>for collets DIN 6388 / ISO10897 System OZ | <b>05.01</b> |
| <b>Spannfutter</b><br>für Spannzangen DIN 6499 / ISO15488 System ER                      | <b>Collet chucks</b><br>for collets DIN 6499 ER / ISO15488 System ER       | <b>05.01</b> |
| <b>Fräseraufnahmen DIN 6359</b><br>für Zylinderschaft DIN 1835-B   Weldon                | <b>End mill holder DIN 6359</b><br>for end mills DIN 1835-B (Weldon)       | <b>05.02</b> |
| <b>Zwischenhülsen / Reduzierhülsen</b><br>für MK DIN 6383 / DIN 6384                     | <b>Morse taper adaptor / Reduction sleeves</b><br>DIN 6383 / DIN 6384      | <b>05.03</b> |
| <b>Kombi-Aufsteckfräserdorne DIN 6358</b>                                                | <b>Combi shell mill holder DIN 6358</b>                                    | <b>05.04</b> |
| <b>Quernut Aufsteckfräserdorne DIN 6357</b><br>mit vergrößertem Bunddurchmesser          | <b>Shell mill holder DIN 6357</b><br>for cutters with driving slot         | <b>05.04</b> |
| <b>CNC-Präzisionsbohrfutter</b><br>für Rechts- und Linkslauf                             | <b>CNC- Universal Drill Chuck Heads</b><br>for right and left rotation     | <b>05.05</b> |
| <b>Gewindeschneid-Schnellwechselfutter</b><br>mit/ohne Längenausgleich auf Druck und Zug | <b>Quick-change Tapping Chucks</b><br>with/without axial compensation      | <b>05.05</b> |
| <b>Bohrstangenrohlinge</b><br>zur Anfertigung von Sonderwerkzeugen                       | <b>Boring bar blanks</b><br>for the production of special tools            | <b>05.06</b> |
| <b>Kontrolldorne</b>                                                                     | <b>Test arbors</b>                                                         | <b>05.06</b> |

**OZ Collet chucks DIN 6391** for collets DIN 6388 / ISO 10897**OZ Spannfutter DIN 6391** für Spannzangen DIN 6388 / ISO 10897

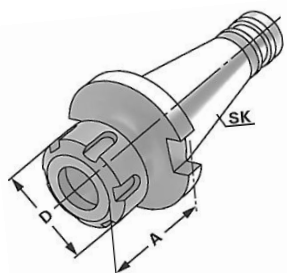
| DIN2080                       | Typ<br>OZ | Order No.       | Capacity |              |    | Collets |                  |
|-------------------------------|-----------|-----------------|----------|--------------|----|---------|------------------|
|                               |           | Bestell-Nr.     | SK       | Spannbereich | A  | D       | Spannzange       |
| G6.3 15.000 min <sup>-1</sup> |           | 31.208030Z16L50 | SK30     | 2-16         | 50 | 43      | 025 415E (OZ16)  |
| ⌀ 0,003mm                     |           | 31.208040Z16L70 | SK40     | 2 – 16       | 70 | 43      | 025 415E (OZ16)  |
|                               |           | 31.208040Z25L70 | SK40     | 3 – 25       | 70 | 60      | 035 462E (OZ25)  |
|                               |           | 31.208040Z32L85 | SK40     | 4 – 32       | 85 | 72      | 044 0467E (OZ32) |
|                               |           | 31.208050Z25L70 | SK50     | 3 – 25       | 70 | 60      | 035 462E (OZ25)  |
|                               |           | 31.208050Z32L80 | SK50     | 4 – 32       | 80 | 72      | 044 0467E (OZ32) |



Lieferumfang: inkl. Spannmutter • Included: Clamping nut

**ER Collet Chucks** for collets DIN 6499 / ISO15488**ER Spannfutter** für Spannzangen DIN 6499 / ISO15488

| DIN2080                       | Typ<br>ER | Order No.       | Capacity |              |    | Collets |                 |
|-------------------------------|-----------|-----------------|----------|--------------|----|---------|-----------------|
|                               |           | Bestell-Nr.     | SK       | Spannbereich | A  | D       | Spannzange      |
| G6.3 15.000 min <sup>-1</sup> |           | 31.208030R25L50 | SK30     | 2 – 16       | 50 | 42      | 250 430E (ER25) |
| ⌀ 0,003mm                     |           | 31.208030R32L50 | SK30     | 2 – 20       | 50 | 50      | 320 470E (ER32) |
|                               |           | 31.208040R16L70 | SK40     | 1 – 10       | 70 | 32      | 160 426E (ER16) |
|                               |           | 31.208040R25L70 | SK40     | 2 – 16       | 70 | 42      | 250 430E (ER25) |
|                               |           | 31.208040R32L70 | SK40     | 2 – 20       | 70 | 50      | 320 470E (ER32) |
|                               |           | 31.208040R40L70 | SK40     | 3 – 26       | 70 | 63      | 400 472E (ER40) |
|                               |           | 31.208050R16L80 | SK50     | 1 – 10       | 80 | 32      | 160 426E (ER16) |
|                               |           | 31.208050R25L80 | SK50     | 2 – 16       | 80 | 42      | 250 430E (ER25) |
|                               |           | 31.208050R32L80 | SK50     | 2 – 20       | 80 | 50      | 320 470E (ER32) |
|                               |           | 31.208050R40L80 | SK50     | 3 – 26       | 80 | 63      | 400 472E (ER40) |

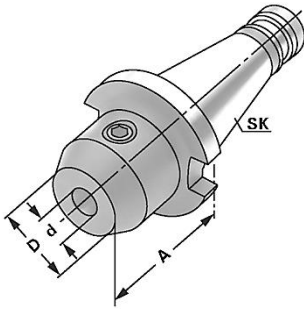


Lieferumfang: inkl. Spannmutter • Included: Clamping nut



**End Mill Holder DIN 6359 for end mills DIN 1835-B (Weldon)****Fräseraufnahmen DIN 6359 für Zylinderschaft DIN 1835-B (Weldon)****DIN 2080**G6.3 15.000 min<sup>-1</sup>

±0,003mm

**Order No**

| <b>Bestell-Nr.</b> | <b>SK</b> | <b>d</b> | <b>A</b> | <b>D</b> |
|--------------------|-----------|----------|----------|----------|
| 27.20803006WL40    | SK30      | 6        | 40       | 25       |
| 27.20803008WL40    | SK30      | 8        | 40       | 28       |
| 27.20803010WL40    | SK30      | 10       | 40       | 35       |
| 27.20803012WL40    | SK30      | 12       | 40       | 42       |
| 27.20803014WL50    | SK30      | 14       | 50       | 44       |
| 27.20803016WL50    | SK30      | 16       | 50       | 48       |
| 27.20803018WL50    | SK30      | 18       | 50       | 50       |
| 27.20803020WL63    | SK30      | 20       | 63       | 52       |
|                    |           |          |          |          |
| 27.20804006WL50    | SK40      | 6        | 50       | 25       |
| 27.20804008WL50    | SK40      | 8        | 50       | 28       |
| 27.20804010WL50    | SK40      | 10       | 50       | 35       |
| 27.20804012WL50    | SK40      | 12       | 50       | 42       |
| 27.20804014WL50    | SK40      | 14       | 50       | 44       |
| 27.20804016WL63    | SK40      | 16       | 63       | 48       |
| 27.20804018WL63    | SK40      | 18       | 63       | 50       |
| 27.20804020WL63    | SK40      | 20       | 63       | 52       |
| 27.20804025WL90    | SK40      | 25       | 90       | 65       |
| 27.20804032WL90    | SK40      | 32       | 90       | 72       |
| 27.20804040WL90    | SK40      | 40       | 90       | 78       |
|                    |           |          |          |          |
| 27.20805006WL50    | SK50      | 6        | 50       | 25       |
| 27.20805008WL50    | SK50      | 8        | 50       | 28       |
| 27.20805010WL63    | SK50      | 10       | 63       | 35       |
| 27.20805012WL63    | SK50      | 12       | 63       | 42       |
| 27.20805014WL63    | SK50      | 14       | 63       | 44       |
| 27.20805016WL63    | SK50      | 16       | 63       | 48       |
| 27.20805018WL63    | SK50      | 18       | 63       | 50       |
| 27.20805020WL63    | SK50      | 20       | 63       | 52       |
| 27.20805025WL80    | SK50      | 25       | 80       | 65       |
| 27.20805032WL85    | SK50      | 32       | 85       | 72       |
| 27.20805040WL95    | SK50      | 40       | 95       | 78       |

Lieferumfang: inkl. Spannschraube • Included: Clamping screw

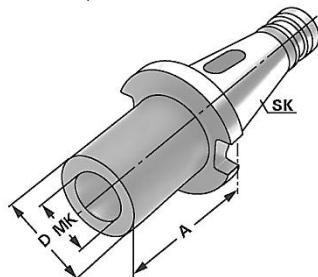
## Morse Taper Adaptor DIN 6383

Zwischenhülse DIN 6383 für MK mit Austreibblappen

## DIN 2080

G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,005mm



## Order No

| Bestell-Nr.        | SK   | MK | A   | D  |
|--------------------|------|----|-----|----|
| 28.208040MK1L50AL  | SK40 | 1  | 50  | 25 |
| 28.208040MK2L50AL  | SK40 | 2  | 50  | 32 |
| 28.208040MK3L65AL  | SK40 | 3  | 65  | 40 |
| 28.208040MK4L95AL  | SK40 | 4  | 95  | 48 |
| 28.208050MK1L45AL  | SK50 | 1  | 45  | 25 |
| 28.208050MK2L60AL  | SK50 | 2  | 60  | 32 |
| 28.208050MK3L65AL  | SK50 | 3  | 65  | 40 |
| 28.208050MK4L70AL  | SK50 | 4  | 70  | 48 |
| 28.208050MK5L105AL | SK50 | 5  | 105 | 63 |

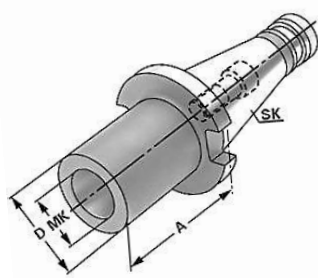
## Morse Taper Adaptor DIN 6364 for morse taper shank and thread

Zwischenhülse DIN 6364 für MK mit Anzugsgewinde

## DIN 2080

G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,005mm



## Order No

| Bestell-Nr.        | SK   | MK | A   | D  |
|--------------------|------|----|-----|----|
| 28.208040MK1L50AG  | SK40 | 1  | 50  | 25 |
| 28.208040MK2L50AG  | SK40 | 2  | 50  | 32 |
| 28.208040MK3L65AG  | SK40 | 3  | 65  | 40 |
| 28.208040MK4L95AG  | SK40 | 4  | 95  | 48 |
| 28.208050MK1L45AG  | SK50 | 1  | 45  | 25 |
| 28.208050MK2L60AG  | SK50 | 2  | 60  | 32 |
| 28.208050MK3L65AG  | SK50 | 3  | 65  | 40 |
| 28.208050MK4L65AG  | SK50 | 4  | 65  | 48 |
| 28.208050MK5L120AG | SK50 | 5  | 120 | 63 |

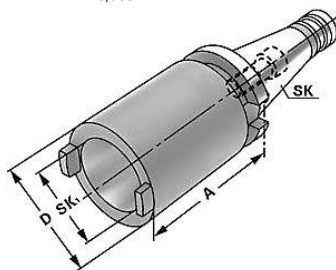
## Reduction Sleeve

Reduzierhülse

## DIN 2080

G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,005mm

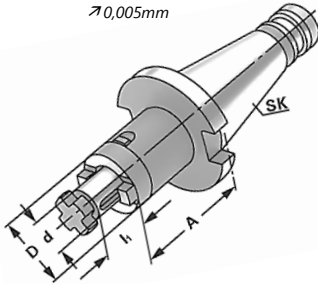


## Order No

| Bestell-Nr.       | SK   | SK1  | A   | D   |
|-------------------|------|------|-----|-----|
| 28.208040SK30L50  | SK40 | SK30 | 50  | 50  |
| 28.208040SK40L100 | SK40 | SK40 | 100 | 68  |
| 28.208050SK40L63  | SK50 | SK40 | 63  | 78  |
| 28.208050SK50L100 | SK50 | SK50 | 100 | 100 |

**Combi Shell Mill Holder DIN 6358****Kombi Aufsteckfräserdorne DIN 6358****DIN 2080**G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,005mm

**Order No**

| Bestell-Nr.      | SK   | d  | A  | L1 | D  |
|------------------|------|----|----|----|----|
| 42.20803016L35KA | SK30 | 16 | 35 | 17 | 32 |
| 42.20803022L35KA | SK30 | 22 | 35 | 19 | 40 |
| 42.20803027L35KA | SK30 | 27 | 35 | 21 | 48 |
| 42.20803032L50KA | SK30 | 32 | 50 | 24 | 58 |
| 42.20804016L52KA | SK40 | 16 | 52 | 17 | 32 |
| 42.20804022L52KA | SK40 | 22 | 52 | 19 | 40 |
| 42.20804027L52KA | SK40 | 27 | 52 | 21 | 48 |
| 42.20804032L52KA | SK40 | 32 | 52 | 24 | 58 |
| 42.20804040L52KA | SK40 | 40 | 52 | 27 | 70 |
| 42.20805016L55KA | SK50 | 16 | 55 | 17 | 32 |
| 42.20805022L55KA | SK50 | 22 | 55 | 19 | 40 |
| 42.20805027L55KA | SK50 | 27 | 55 | 21 | 48 |
| 42.20805032L55KA | SK50 | 32 | 55 | 24 | 58 |
| 42.20805040L55KA | SK50 | 40 | 55 | 27 | 70 |

Lieferumfang: Inklusive Paßfeder, Mitnehmerring und Fräseranzugsschraube  
Included: retaining screw, driving ring and feather key

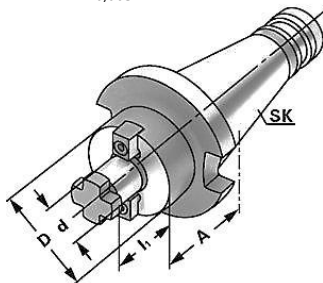
10.11

10.12

10.12

**Shell Mill Holder DIN 6357 for cutters with driving slots****Quernut Aufsteckfräserdorne DIN 6357 mit vergrößertem Bunddurchmesser****DIN 2080**G6.3 15.000 min<sup>-1</sup>

H7/k6, 0,005mm

**Order No**

| Bestell-Nr.      | SK   | d  | A  | L1 | D  |
|------------------|------|----|----|----|----|
| 42.20804016L45MA | SK40 | 16 | 45 | 17 | 38 |
| 42.20804022L45MA | SK40 | 22 | 45 | 19 | 48 |
| 42.20804027L45MA | SK40 | 27 | 45 | 21 | 58 |
| 42.20804032L50MA | SK40 | 32 | 50 | 24 | 78 |
| 42.20804040L55MA | SK40 | 40 | 55 | 27 | 88 |
| 42.20805016L45MA | SK50 | 16 | 45 | 17 | 38 |
| 42.20805022L45MA | SK50 | 22 | 45 | 19 | 48 |
| 42.20805027L45MA | SK50 | 27 | 45 | 21 | 58 |
| 42.20805032L50MA | SK50 | 32 | 50 | 24 | 78 |
| 42.20805040L50MA | SK50 | 40 | 50 | 27 | 88 |

Lieferumfang: Fräseranzugsschraube, Kreuzschraube und Zylinderkopfschraube nach DIN 912 für Fräser mit innerer Kühlmittelzufuhr.

Included: Drivers, cross head retaining screw and cylinder head retaining screw for cutters with central coolant

10.11

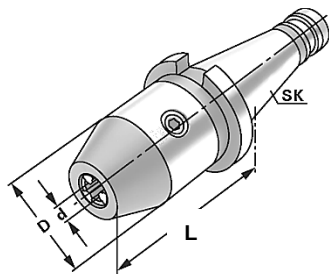
10.12

**D2=40/D2=60** Für große Planfräser mit vier zusätzlichen Gewindebohrungen nach DIN 2079. • For large diameter face mill cutters with four additional threaded holes according to DIN 2079.



**CNC Universal Drill Chuck Heads for right and left hand rotation****CNC Präzisionsbohrfutter für Rechts- und Linkslauf**

DIN 2080

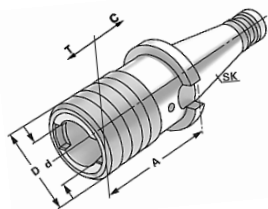


| Order No.<br>Bestell-Nr. | SK   | Capacity (d)<br>Spannbereich | L   | D  | L1 (max) |
|--------------------------|------|------------------------------|-----|----|----------|
| 25.20803008L60BF         | SK30 | 0,3 - 8                      | 60  | 36 | 63       |
| 25.20803013L98BF         | SK30 | 0,5 - 13                     | 98  | 50 | 104      |
| 25.20804008L62BF         | SK40 | 0,3 - 8                      | 62  | 36 | 65       |
| 25.20804013L83BF         | SK40 | 0,5 - 13                     | 83  | 50 | 89       |
| 25.20804016L88BF         | SK40 | 2,5 - 16                     | 88  | 57 | 94       |
| 25.208013L100BF          | SK50 | 0,5 - 13                     | 100 | 50 | 106      |
| 25.208016L105BF          | SK50 | 2,5 - 16                     | 105 | 57 | 111      |

Lieferumfang: inklusive Spannschlüssel • Included: Wrench

Zur Aufnahme von Werkzeugen mit Zylinderschaft  
For mounting tools with straight shanks**Quick change tapping chucks with axial compensation on compression and expansion****Gewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug**

DIN 2080

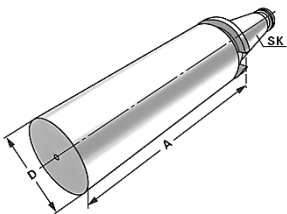


| Order No.<br>Bestell-Nr. | SK   | Capacity (d)<br>Spannbereich | Size<br>Größe | d  | A   | D  | T    | C    |
|--------------------------|------|------------------------------|---------------|----|-----|----|------|------|
| 25.20803019L65GC         | SK30 | M3-M14                       | 1             | 19 | 55  | 38 | 7    | 7    |
| 25.20803031L86GC         | SK30 | M5-M22                       | 2             | 31 | 86  | 54 | 12   | 12   |
| 25.20804019L55GC         | SK40 | M3-M14                       | 1             | 19 | 55  | 38 | 7    | 7    |
| 25.20804031L86GC         | SK40 | M5-M22                       | 2             | 31 | 86  | 54 | 12   | 12   |
| 25.20804048L132GC        | SK40 | M14-M36                      | 3             | 48 | 132 | 78 | 17,5 | 17,5 |
| 25.20805019L62GC         | SK50 | M3-M14                       | 1             | 19 | 62  | 38 | 7    | 7    |
| 25.20805031L90GC         | SK50 | M5-M22                       | 2             | 31 | 90  | 54 | 12   | 12   |
| 25.20805048L117GC        | SK50 | M14-M36                      | 3             | 48 | 117 | 78 | 17,5 | 17,5 |

Für Bearbeitungszentren ohne Synchronspindel • For machining centres without synchronous spindle

Boring Bar Blanks for the production of special tools  
Bohrstangenrohlinge zur Anfertigung von Sonderwerkzeugen

DIN 2080

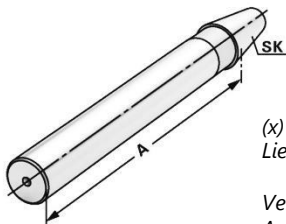


| Order No       |      |     |    |
|----------------|------|-----|----|
| Bestell-Nr.    | SK   | A   | D  |
| R.20804063L250 | SK40 | 250 | 63 |
| R.20805097L315 | SK50 | 315 | 97 |

Ausführung: Mit Steilkegel und Bund gehärtet und geschliffen. Schaft weich zur weiteren Bearbeitung  
Version: Taper and flange hardened and grinded. Soft body for later processing.

Test arbors  
Kontrolldorne

DIN 2080

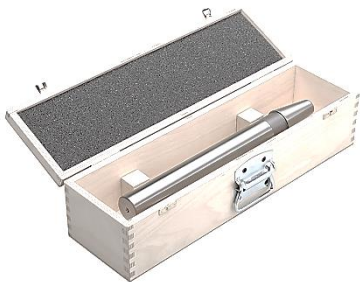


| Order No       |      |     |    |       |
|----------------|------|-----|----|-------|
| Bestell-Nr.    | SK   | A   | D  | (x)   |
| P.20804040L300 | SK40 | 300 | 40 | 0,003 |
| P.20805050L300 | SK50 | 300 | 50 | 0,003 |

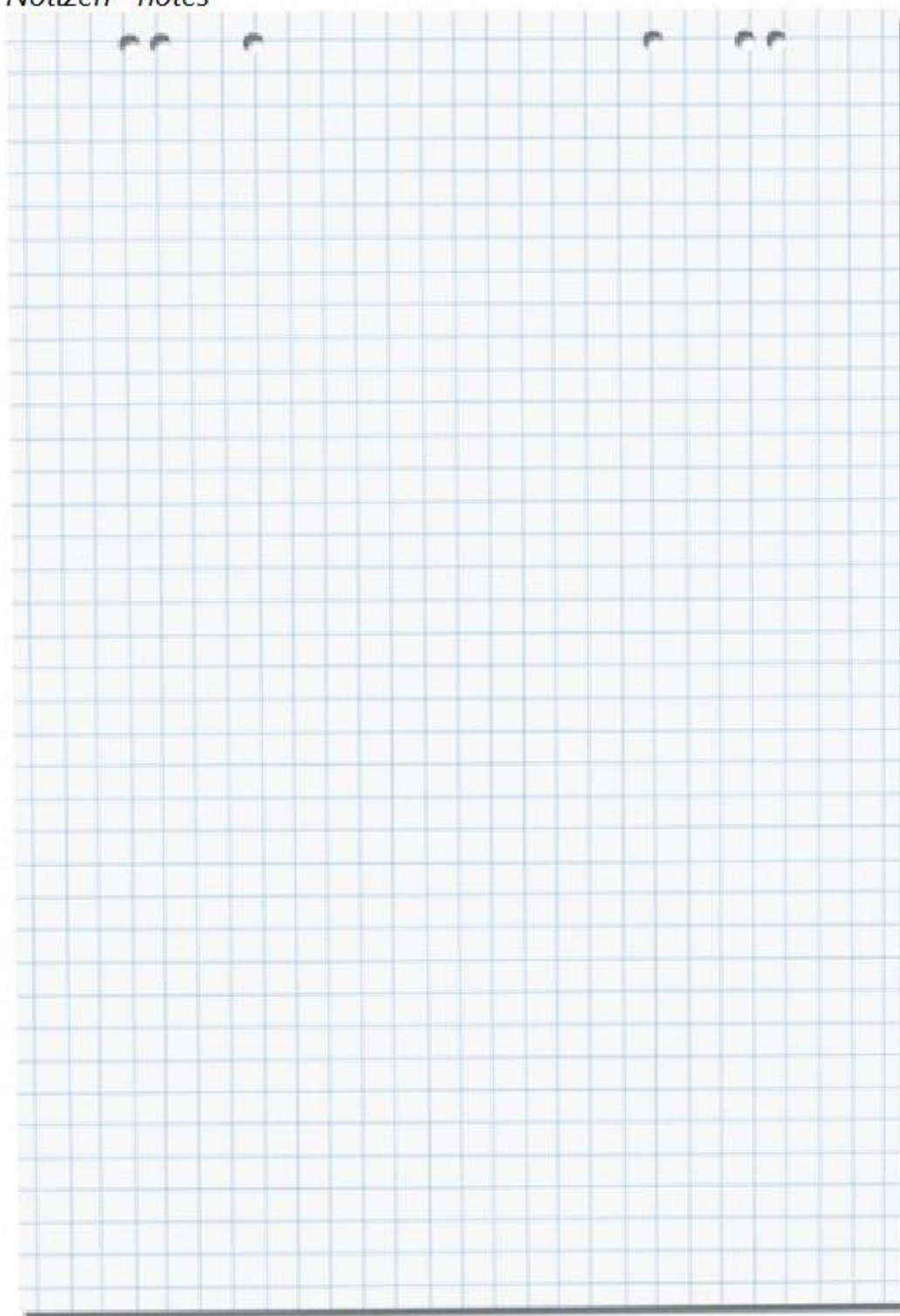
(x) max. Rundlaufabweichung ▪ max. concentricity deviation  
Lieferung mit Prüfprotokoll ▪ Delivery box with certificate

Verwendung: Zur Abnahme von Werkzeugmaschinen gemäß ISO-Empfehlung R 230  
Application: For acceptance tests of machine tools in accordance with ISO-recommendation ISO R 230

Holzkasten für Kontrolldorne auf Anfrage  
Wooden Box for test arbors on request



Notizen • notes



**WSW**

## Toolholder • Straight Shank • MT-Shank DIN 228-1A

## Werkzeugaufnahmen • Zylinderschaft • MK-Schaft DIN 228-1A

Seite • Page

|                                                                                         |                                                                                              |              |
|-----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------|
| <b>Spannfutter mit Zylinderschaft</b><br>für Spannzangen DIN 6499 / ISO15488 System ER  | <b>Collet chucks with straight shank</b><br>for collets DIN 6499 / ISO15488 Systeme ER       | <b>06.01</b> |
| <b>Pendelhalter mit Zylinderschaft</b><br>für Spannzangen DIN 6499 / ISO15488 System ER | <b>Floating Toolholder with straight shank</b><br>for collets DIN 6499 / ISO15488 Systeme ER | <b>06.03</b> |
| <b>Spannfutter MK-DIN 228-1A</b><br>für Spannzangen DIN 6499 / ISO15488 System ER       | <b>Collet chucks with MT-DIN 228-1A</b><br>for collets DIN 6499 / ISO15488 Systeme ER        | <b>06.04</b> |
| <b>Einschraubbare Austreiberlappen</b><br>für Morsekegel                                | <b>Removable Tangs</b><br>for morse taper shanks                                             | <b>06.04</b> |

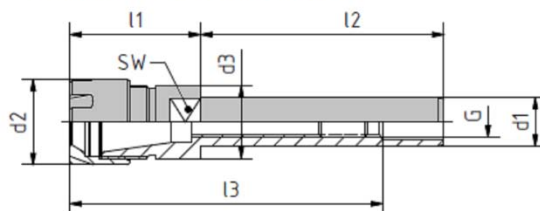
| Order No          |             |    |    |    |    |       |    |     |     | Collets         |    |
|-------------------|-------------|----|----|----|----|-------|----|-----|-----|-----------------|----|
| Bestell-Nr.       |             | d1 | d2 | d3 | SW | G     | l1 | l2  | l3  | Spannzangen     | ZG |
| 31.ZYL08R08L70MN  | 008 08 70.1 | 8  | 12 | 10 | 8  | -     | 25 | 70  | -   | 080 4004E (ER8) | A  |
| 31.ZYL08R11L56MN  | 008 11 56.1 | 8  | 16 | 13 | 11 | -     | 26 | 56  | -   | 110 4008 (ER11) | A  |
| 31.ZYL10R08L80MN  | 010 08 80.1 | 10 | 12 | -  | 8  | -     | 25 | 80  | -   | 080 4004E (ER8) | B  |
| 31.ZYL10R16L80MN  | 010 16 80.1 | 10 | 22 | 19 | 17 | -     | 38 | 80  | -   | 160 426E (ER16) | A  |
| 31.ZYL12R08L80MN  | 012 08 80.1 | 12 | 12 | -  | 10 | -     | 16 | 80  | -   | 080 4004E (ER8) | B  |
| 31.ZYL12R11L100MN | 012 11 00.1 | 12 | 16 | 13 | 11 | M6    | 30 | 100 | 80  | 110 4008 (ER11) | B  |
| 31.ZYL12R16L80MN  | 012 16 80.1 | 12 | 22 | 19 | 17 | M6    | 38 | 80  | 80  | 160 426E (ER16) | A  |
| 31.ZYL16R11L100MN | 016 11 00.1 | 16 | 16 | -  | 14 | M8x1  | 22 | 100 | 80  | 110 4008 (ER11) | B  |
| 31.ZYL16R11L160MN | 016 11 16.1 | 16 | 16 | -  | 14 | M8x1  | 22 | 160 | 100 | 110 4008 (ER11) | B  |
| 31.ZYL16R20L100MN | 016 20 00.1 | 16 | 28 | -  | 22 | M10x1 | 43 | 100 | 100 | 200 428E (ER20) | A  |
| 31.ZYL20R16L160MN | 020 16 16.1 | 20 | 22 | -  | 17 | M10x1 | 34 | 160 | 100 | 160 426E (ER16) | B  |
| 31.ZYL20R20L160MN | 020 20 16.1 | 20 | 28 | 24 | 22 | M12x1 | 43 | 160 | 110 | 200 428E (ER20) | A  |
| 31.ZYL25R20L160MN | 025 20 16.1 | 25 | 28 | 24 | 22 | M12x1 | 34 | 160 | 110 | 200 428E (ER20) | B  |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut

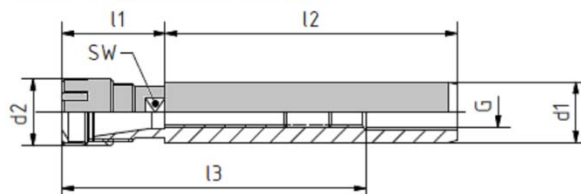
Die Spannfutter sind auch mit Spannfläche lieferbar. Bei Bedarf mit Bestell-Nr. -F angeben: z.B. **31.ZYL12R16L80M-F**  
 The collets chucks are also available with clamping surface. If required, please indicate order number-F.



Drawing / Zeichnung: A



Drawing / Zeichnung: B



Weitere Spannfutter mit Zylinderschaft auf Anfrage. Bei Bedarf bitte die gewünschten Maße angeben.  
 More collet chucks with cylindershank upon request. If required, please specify the requested dimensions.

## ER Collet chucks for collets DIN 6499 / ISO 15488

## ER Spannfutter für Spannzangen DIN 6499 / ISO 15488

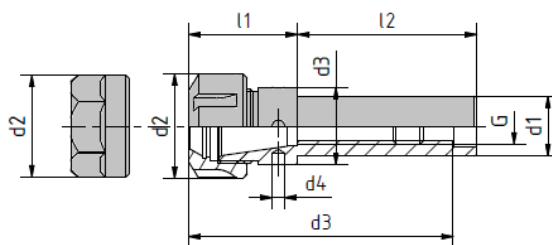
| Order No        |              | Collets |    |    |     |         |    |     |     |                 |   |
|-----------------|--------------|---------|----|----|-----|---------|----|-----|-----|-----------------|---|
| Bestell-Nr.     |              | d1      | d2 | d3 | SW  | G       | l1 | l2  | l3  | Spannzangen     | * |
| 31.ZYL16R16L60  | 016 16 60.1  | 16      | 28 | 24 | 4,1 | M8      | 35 | 60  | 90  | 160 426E (ER16) | A |
| 31.ZYL20R16L50  | 020 16 50.1  | 20      | 28 | 26 | 4,1 | M12x1   | 34 | 50  | 80  | 160 426E (ER16) | A |
| 31.ZYL20R16L100 | 020 16 00.1  | 20      | 28 | 26 | 4,1 | M12x1   | 34 | 100 | 90  | 160 426E (ER16) | A |
| 31.ZYL20R20L60  | 020 20 60.1  | 20      | 34 | 30 | 4,1 | M12x1   | 38 | 60  | 90  | 200 428E (ER20) | A |
| 31.ZYL20R25L50  | 020 25 50.1  | 20      | 42 | 34 | 4,1 | M12x1   | 45 | 50  | 90  | 250 430E (ER25) | A |
| 31.ZYL20R25L100 | 020 25 00.1  | 20      | 42 | 34 | 4,1 | M12x1   | 45 | 100 | 100 | 250 430E (ER25) | A |
| 31.ZYL20R32L50  | 020 32 50.1  | 20      | 50 | 40 | 4,1 | M12x1   | 54 | 50  | 100 | 320 470E (ER32) | A |
| 31.ZYL20R32L100 | 020 32 00.1  | 20      | 50 | 40 | 4,1 | M12x1   | 54 | 100 | 120 | 320 470E (ER32) | A |
| 31.ZYL25R20L100 | 025 20 00.1  | 25      | 34 | 34 | 4,1 | M12x1   | 36 | 100 | 90  | 200 428E (ER20) | A |
| 31.ZYL25R25L50  | 025 25 50.1  | 25      | 42 | 40 | 4,1 | M16x1,5 | 35 | 50  | 80  | 250 430E (ER25) | A |
| 31.ZYL25R25L100 | 025 25 00.1  | 25      | 42 | 40 | 4,1 | M16x1,5 | 35 | 100 | 100 | 250 430E (ER25) | A |
| 31.ZYL25R32L50  | 025 32 50.1  | 25      | 50 | 40 | 4,1 | M16,1,5 | 54 | 50  | 100 | 320 470E (ER32) | A |
| 31.ZYL25R32L100 | 025 32 00.1  | 25      | 50 | 40 | 4,1 | M16x1,5 | 54 | 100 | 110 | 320 470E (ER32) | A |
| 31.ZYL32R25L80  | 700.116/32.1 | 32      | 42 | 40 | 4,1 | M18x1,5 | 40 | 80  | 100 | 250 430E (ER25) | A |
| 31.ZYL32R32L90  | 700.120/32.1 | 32      | 50 | 40 | 4,1 | M22x1,5 | 54 | 90  | 110 | 320 470E (ER32) | A |
| 31.ZYL40R25L80  | 700.116/40.1 | 40      | 42 | -  | 4,1 | M18x1,5 | 40 | 80  | 100 | 250 430E (ER25) | B |
| 31.ZYL40R32L90  | 700.120/40.1 | 40      | 50 | -  | 4,1 | M22x1,5 | 54 | 90  | 110 | 320 470E (ER32) | B |
| 31.ZYL40R40L100 | 700.126/40.1 | 40      | 63 | 50 | 5,1 | M28x1,5 | 60 | 100 | 150 | 400 472E (ER40) | A |
| 31.ZYL50R40L100 | 700.126/50.1 | 50      | 63 | -  | 5,1 | M28x1,5 | 60 | 100 | 150 | 400 472E (ER40) | B |

\*Drawing / Zeichnung

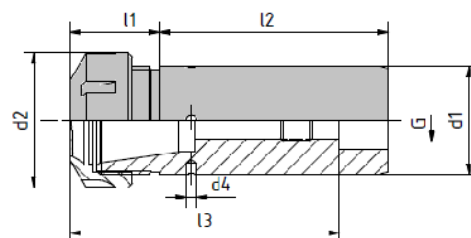
Lieferumfang: inkl. Spannmutter • Included: Clamping nut

Die Spannfutter sind auch mit Spannfläche lieferbar. Bei Bedarf mit Bestell-Nr. -F angeben: z. B: **31.ZYL25R425L50-F**  
 The collets chucks are also available with clamping surface. If required, please indicate order number-F.

## Drawing / Zeichnung: A



## Drawing / Zeichnung: B



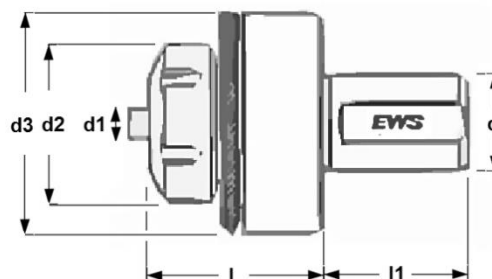
Weitere Spannfutter mit Zylinderschaft auf Anfrage. Bei Bedarf bitte die gewünschten Maße angeben.  
 More collet chucks with cylindershank upon request. If required, please specify the requested dimensions.

| Order No         |    |      |    |      |    |    | Collets          |
|------------------|----|------|----|------|----|----|------------------|
| Bestell-Nr.      | d  | L    | l1 | d1   | d2 | d3 | Spannzange       |
| 31.ZYL16R11L46PH | 16 | 40   | 46 | 1-7  | 19 | 42 | 110 4008E (ER11) |
| 31.ZYL16R16L44PH | 16 | 48,5 | 44 | 2-10 | 32 | 45 | 160 426E (ER16)  |
| 31.ZYL16R20L44PH | 16 | 50   | 44 | 2-13 | 35 | 50 | 200 428E (ER20)  |
| 31.ZYL20R11L46PH | 20 | 40   | 46 | 1-7  | 19 | 42 | 110 4008E (ER11) |
| 31.ZYL20R16L45PH | 20 | 48,5 | 45 | 2-10 | 32 | 45 | 160 426E (ER16)  |
| 31.ZYL20R20L45PH | 20 | 50   | 45 | 2-13 | 35 | 50 | 200 428E (ER20)  |
| 31.ZYL20R25L45PH | 20 | 57   | 45 | 2-16 | 42 | 58 | 250 428E (ER25)  |
| 31.ZYL25R20L45PH | 25 | 50   | 45 | 2-13 | 35 | 50 | 200 428E (ER20)  |
| 31.ZYL25R25L46PH | 25 | 57   | 46 | 2-16 | 42 | 58 | 250 428E (ER25)  |
| 31.ZYL25R32L46PH | 25 | 62   | 46 | 3-20 | 50 | 68 | 320 470E (ER32)  |
| 31.ZYL32R25L55PH | 32 | 57   | 55 | 2-16 | 42 | 58 | 250 428E (ER25)  |
| 31.ZYL32R32L55PH | 32 | 62   | 55 | 3-20 | 50 | 68 | 320 470E (ER32)  |
| 31.ZYL40R25L65PH | 40 | 57   | 65 | 2-16 | 42 | 68 | 250 428E (ER25)  |
| 31.ZYL40R32L65PH | 40 | 62   | 65 | 3-20 | 50 | 68 | 320 470E (ER32)  |

Lieferumfang: inkl. Spannmutter • Included: Clamping nut

Weitere Pendelhalter auf Anfrage. Bei Bedarf bitte die gewünschten Maße angeben.

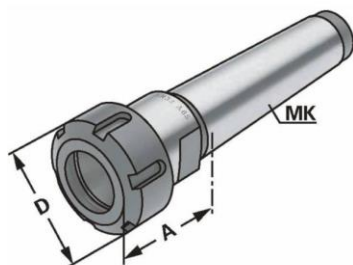
More collet chucks with cylindershank on request. If required, please specify the requested dimensions.





Collet chucks MT-DIN 228-1A for collets DIN 6499 / ISO 15488 System ER

Spannfutter MK-DIN 228-1A für Spannzangen DIN 6499 / ISO 15488 System ER



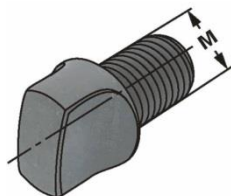
Order No

| Bestell-Nr.  | alt/old   | MK | A  | D  | Spannzange      |
|--------------|-----------|----|----|----|-----------------|
| 31.MK1R11L23 | 40 111 06 | 1  | 23 | 19 | 110 4008 (ER11) |
| 31.MK1R16L41 | 40 116 06 | 1  | 41 | 28 | 160 426E (ER16) |
| 31.MK2R16L42 | 40 216 10 | 2  | 42 | 28 | 160 426E (ER16) |
| 31.MK2R20L43 | 40 220 10 | 2  | 43 | 34 | 200 428E (ER20) |
| 31.MK2R25L47 | 40 225 10 | 2  | 47 | 42 | 250 430E (ER25) |
| 31.MK2R32L60 | 40 232 10 | 2  | 60 | 50 | 320 470E (ER32) |
| 31.MK3R16L37 | 40 316 12 | 3  | 37 | 28 | 116 426E (ER16) |
| 31.MK3R25L47 | 40 325 12 | 3  | 47 | 42 | 250 430E (ER25) |
| 31.MK3R32L64 | 40 332 12 | 3  | 64 | 50 | 320 470E (ER32) |
| 31.MK3R40L64 | 40 340 12 | 3  | 64 | 63 | 400 472E (ER40) |
| 31.MK4R25L56 | 40 425 16 | 4  | 56 | 42 | 250 430E (ER25) |
| 31.MK4R32L54 | 40 432 16 | 4  | 54 | 50 | 320 470E (ER32) |
| 31.MK4R40L75 | 40 440 16 | 4  | 75 | 63 | 400 472E (ER40) |
| 31.MK4R50L96 | 40 450 16 | 4  | 96 | 78 | 500 477E (ER50) |
| 31.MK5R32L50 | 40 532 20 | 5  | 50 | 50 | 320 470E (ER32) |
| 31.MK5R40L82 | 40 540 20 | 5  | 82 | 63 | 400 472E (ER40) |
| 31.MK5R50L91 | 40 550 20 | 5  | 91 | 78 | 500 477E (ER50) |

Lieferumfang: inkl. Spannmutter ▪ Included: Clamping nut

Removable tangs for morse taper shanks

Einschraubbare Austreiberlappen

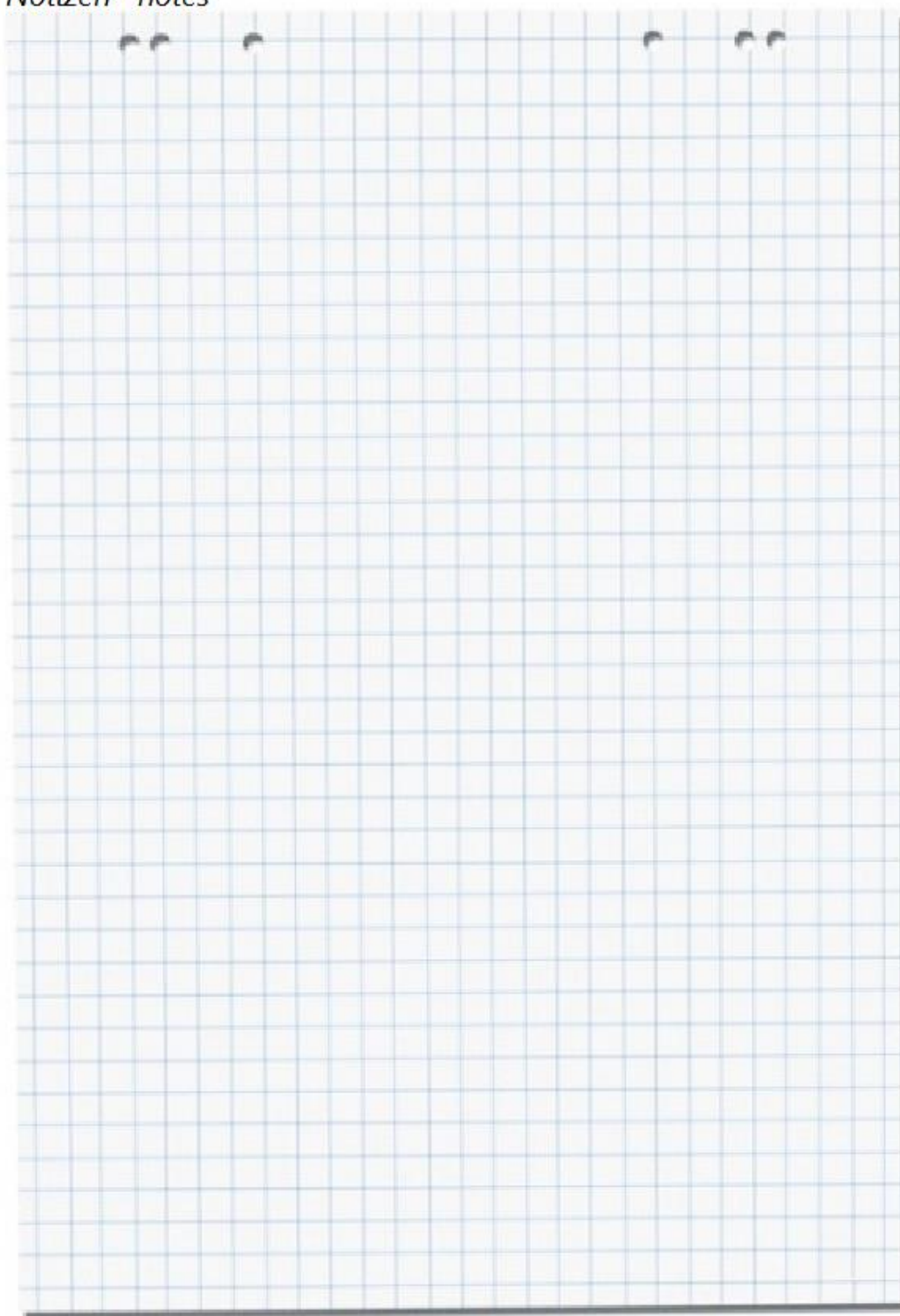


Order No

| Bestell-Nr. | MK | M   |
|-------------|----|-----|
| 40 100      | 1  | M6  |
| 40 200      | 2  | M10 |
| 40 300      | 3  | M12 |
| 40 400      | 4  | M16 |
| 40 500      | 5  | M20 |

Verwendung: Zum Spannen und Austreiben von Werkzeugkegeln DIN 228-1A in Werkzeugaufnahmen DIN 228-1B  
Application: For Mounting and drifting taper shanks DIN 228-1A in toolholders DIN 228-1B

Notizen • notes



**WSW**

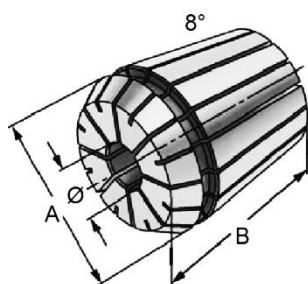
**Collets** for tool clamping**Spannzangen** für die Werkzeugspannung

Seite ▪ Page

|                                                        |                                                         |              |
|--------------------------------------------------------|---------------------------------------------------------|--------------|
| <b>Spannzangen System ER</b><br>DIN 6499 / ISO15488    | <b>Collets System ER</b><br>DIN 6499 / ISO15488         | <b>07.01</b> |
| <b>Spannzangen System OZ</b><br>DIN 6388 / ISO 10897   | <b>Collets System OZ</b><br>DIN 6388 / ISO 10897        | <b>07.05</b> |
| <b>Schrumpf-Spannzangen</b><br>DIN 6499 / ISO15488     | <b>Shrink Collets</b><br>DIN 6499 / ISO15488            | <b>07.05</b> |
| <b>Doppelkonus-Spannzangen Typ Erickson</b>            | <b>Biconical-collets Type Erickson</b>                  | <b>07.05</b> |
| <b>Holzträger / Kunststoffboxen</b><br>für Spannzangen | <b>Wooden Trays / Plastic Boxes</b><br>for collets      | <b>07.06</b> |
| <b>Reduzierungen</b><br>für Hydrodehnspannfutter       | <b>Reducing arbor</b><br>for hydraulic extension chucks | <b>07.07</b> |

ISO15488 B

DIN 6499 B

 $\nabla \leq 0,015\mu\text{m}$  $\nabla \leq 0,010\mu\text{m}$  HP $\nabla \leq 0,005\mu\text{m}$  UP

| Order No.   | Size  |             |                   |       |      |      |                       | Piece |
|-------------|-------|-------------|-------------------|-------|------|------|-----------------------|-------|
| Bestell-Nr. | Größe | Ø           | (mm) <sup>1</sup> | T     | A    | B    | Satz/Set <sup>2</sup> |       |
| 080 4004E   | ER 8  | 1.0 – 5.0   | 0,5               | Ø-0,5 | 8,5  | 13,8 | 9                     |       |
| 110 4008E   | ER 11 | 1.0 – 7.0   | 0,5               | Ø-0,5 | 11,5 | 18,0 | 13                    |       |
| 120 424E    | ER 12 | 1.0 – 3.0   | 0,5               | Ø-0,5 | 12,0 | 19,5 | -                     |       |
| 120 424E    | ER 12 | 4.0 – 7.0   | 1,0 <sup>2</sup>  | Ø-0,5 | 12,0 | 19,5 | -                     |       |
| 160 426E    | ER 16 | 1.0 – 10.0  | 1,0               | Ø-1,0 | 17,0 | 27,5 | 10                    |       |
| 200 428E    | ER 20 | 2.0 – 13.0  | 1,0               | Ø-1,0 | 21,0 | 31,5 | 12                    |       |
| 250 430E    | ER 25 | 2.0 – 16.0  | 1,0               | Ø-1,0 | 26,0 | 34,0 | 15                    |       |
| 320 470E    | ER 32 | 3.0 – 20.0  | 1,0               | Ø-1,0 | 33,0 | 40,0 | 18                    |       |
| 400 472E    | ER 40 | 4.0 – 26.0  | 1,0               | Ø-1,0 | 41,0 | 46,0 | 23                    |       |
| 500 477E    | ER 50 | 12.0 – 34.0 | 2,0               | Ø-1,0 | 52,0 | 60,0 | 12                    |       |

T: Nominal Size / Nennmaß

<sup>1</sup> (mm) Lead / Steigung<sup>2</sup>Satz/Set: Bestellnummer/Order No. 250 430E SATZ

HP – Präzision / precision: Bestell-Nr./Order no. 250 430E HP-Ø6

UP – Hochpräzision / highprecision: Bestell-Nr./Order no. 250 430E UP-Ø6

## ER Collets Set Form B in wooden sockets or plastic boxes

## ER Spannzangensätze System ER Form B im Holzträger oder Kunststoffbox

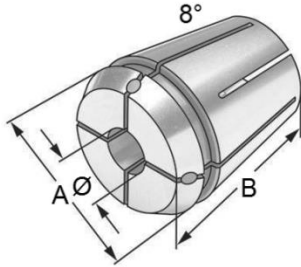
| Order No.   | Size  | Set/<br>piece  |     |     |    | Order-Nr.   | Size  | Set/<br>Piece  |     |     |    |
|-------------|-------|----------------|-----|-----|----|-------------|-------|----------------|-----|-----|----|
| Bestell-Nr. | Größe | Satz/<br>Stück | B   | L   | H  | Bestell-Nr. | Größe | Satz/<br>Stück | B   | L   | H  |
| 08HT        | ER8   | 9              | 61  | 152 | 27 | 08KB        | ER8   | 9              | 101 | 82  | 32 |
| 11HT        | ER11  | 13             | 61  | 152 | 27 | 11KB        | ER11  | 13             | 101 | 82  | 32 |
| 16HT        | ER16  | 10             | 61  | 152 | 27 | 16KB        | ER16  | 10             | 120 | 116 | 40 |
| 20HT        | ER20  | 12             | 61  | 152 | 27 | 20KB        | ER20  | 12             | 120 | 116 | 40 |
| 25HT        | ER25  | 15             | 106 | 185 | 31 | 25KB        | ER25  | 15             | 235 | 185 | 48 |
| 32HT        | ER32  | 18             | 125 | 230 | 31 | 32KB        | ER32  | 18             | 235 | 185 | 48 |
| 40HT        | ER40  | 23             | 196 | 280 | 31 | 40KB        | ER40  | 23             | 340 | 275 | 83 |
| 50HT        | ER50  | 12             | 200 | 250 | 38 | 50KB        | ER50  | 12             | 340 | 275 | 83 |

HP – Präzision / precision: Bestell-Nr./Order no. 25HT-HP

UP – Hochpräzision / highprecision: Bestell-Nr./Order no. 250HT-UP

Beispiel / example



**ER Collets Form A – sealed****ER Spannzangen Form A – abgedichtet****ISO15488 A****DIN 6499 A** $\nabla \leq 0,015\mu\text{m}$  $\nabla \leq 0,005\mu\text{m UP}$  $P_{\text{max}} = 70_{\text{bar}}$ **Order No.****Size****Bestell-Nr.****Größe****Ø****(mm)<sup>1</sup>****T****A****B**

|              |       |         |     |      |      |      |
|--------------|-------|---------|-----|------|------|------|
| 111 4008E NC | ER 11 | 3 - 7   | 0,5 | Ø h8 | 11,3 | 18,0 |
| 112 424E NC  | ER 12 | 3 - 7   | 0,5 | Ø h8 | 11,5 | 19,0 |
| 162 426E NC  | ER 16 | 3 - 10  | 0,5 | Ø h8 | 16,7 | 27,5 |
| 202 428E NC  | ER 20 | 3 - 13  | 0,5 | Ø h8 | 20,7 | 31,5 |
| 252 430E NC  | ER 25 | 3 - 16  | 0,5 | Ø h8 | 25,7 | 34,0 |
| 322 470E NC  | ER 32 | 3 - 20  | 0,5 | Ø h8 | 32,7 | 40,0 |
| 402 470E NC  | ER 40 | 4 - 26  | 0,5 | Ø h8 | 40,7 | 46,0 |
| 502 477E NC  | ER 50 | 12 - 34 | 1   | Ø h8 | 51,5 | 60,0 |

<sup>1</sup> (mm) Lead / Steigung**T:** Nominal Size / Nennmaß

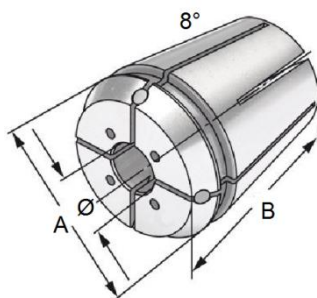
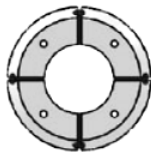
UP – Hochpräzision / highprecision: Bestell-Nr./Order no. 162 426E NC UP-Ø6

Verwendung: für Werkzeuge mit Innenkühlung

Application: for Tools with internal cooling

**ER Collets Form A with 4 directional drill holes – sealed****ER Spannzangen Form A mit 4 Schrägbohrungen – abgedichtet****ISO15488 A****Order No.****Size****DIN 6499 A****Bestell-Nr.****Größe****Ø****(mm)<sup>1</sup>****T****A****B****D2****Ø****3-13****c/α****Ø****14-20****c/α****Ø****31-32****c/α** $\nabla \leq 0,015\mu\text{m}$ 

|                 |       |        |   |      |      |      |      |        |        |        |
|-----------------|-------|--------|---|------|------|------|------|--------|--------|--------|
| 162 426E NC-ECD | ER 16 | 3 - 7  | 1 | Ø h8 | 16,7 | 27,5 | 9,8  | 60/5°  |        |        |
| 202 428E NC-ECD | ER 20 | 3 - 9  | 1 | Ø h8 | 20,7 | 31,5 | 12,3 | 60/6°  |        |        |
| 252 430E NC-ECD | ER 25 | 3 - 14 | 1 | Ø h8 | 25,7 | 34,0 | 17,2 | 60/8°  | 100/5° |        |
| 322 470E NC-ECD | ER 32 | 3 - 20 | 1 | Ø h8 | 32,7 | 40,0 | 23,4 | 60/11° | 100/7° | 150/6° |
| 402 470E NC-ECD | ER 40 | 4 - 26 | 1 | Ø h8 | 40,7 | 46,0 | 29,5 | 60/14° | 100/8° | 150/7° |

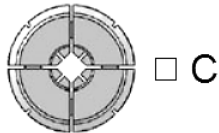
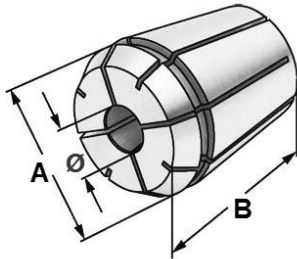
 $P_{\text{max}} = 70_{\text{bar}}$ <sup>1</sup> (mm) Lead / Steigung**T:** Nominal Size / Nennmaß

Verwendung: für Werkzeuge mit Innenkühlung

Application: for Tools with internal cooling

ISO15488 B

DIN 6499 B

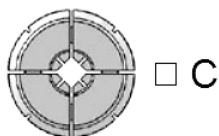
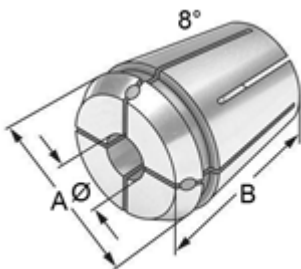
 $\nabla \leq 0,015\mu\text{m}$ 

| Order No.<br>Bestell-Nr. | Size<br>Größe | Bore Ø D / square C<br>Bohrung Ø D / Vierkant C                                                                                                                                                      | A    | B    |
|--------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|
| 111T 4008E-G             | ER11          | 2.5/2.1; 2.8/2.1; 3.5/2.7; 4.0/3.2; 4.5/3.55;<br>5.0/4.0; 5.5/4.5; 6.0/5.0                                                                                                                           | 11,3 | 18,0 |
| 253T 426E-G              | ER16          | 2.8/2.1; 3.5/2.7; 4.0/3.2; 4.5/3.55; 5.0/4.0;<br>5.5/4.5; 6.0/5.0; 6.3/5.0; 7.0/5.6; 7.1/5.6;<br>8.0/6.3; 9.0/7.1                                                                                    | 16,7 | 27,5 |
| 203T 428E-G              | ER20          | 3.5/2.7; 4.0/3.2; 4.5/3.55; 5.0/4.0; 5.5/4.5;<br>6.0/5.0; 6.3/5.0; 7.0/5.6; 7.1/5.6; 8.0/6.3;<br>9.0/7.1; 10.0/8.0; 11.0/9.0; 11.2/9.0                                                               | 20,7 | 31,5 |
| 253T 430E-G              | ER25          | 3.5/2.7; 4.0/3.2; 4.5/3.55; 5.0/4.0; 5.5/4.5;<br>6.0/5.0; 6.3/5.0; 7.0/5.6; 7.1/5.6; 8.0/6.3;<br>9.0/7.1; 10.0/8.0; 11.0/9.0; 11.2/9.0; 12.0/9.0;<br>12.5/10.0; 14.0/11.2; 16.0/12.5                 | 25,7 | 34,0 |
| 323T 470E-G              | ER32          | 4.0/3.2; 4.5/3.55; 5.0/4.0; 5.5/4.5; 6.0/5.0;<br>6.3/5.0; 7.0/5.6; 7.1/5.6; 8.0/6.3; 9.0/7.1;<br>10.0/8.0; 11.0/9.0; 11.2/9.0; 12.0/9.0;<br>12.5/10.0; 14.0/11.2; 16.0/12.5; 18.0/14.5;<br>20.0/16.0 | 32,7 | 40,0 |
| 403T 472E-G              | ER40          | 6.0/5.0; 6.3/5.0; 7.0/5.6; 7.1/5.6; 8.0/6.3;<br>9.0/7.1; 10.0/8.0; 11.0/9.0; 11.2/9.0; 12.0/9.0;<br>12.5/10.0; 14.0/11.2; 16.0/12.5; 18.0/14.5;<br>20.0/16.0; 22.0/18.0; 25.0/20.0                   | 40,7 | 46,0 |
| 503T 477E-G              | ER50          | 8.0/6.3; 9.0/7.1; 10.0/8.0; 11.0/9.0; 11.2/9.0;<br>12.0/9.0; 12.5/10.0; 14.0/11.2; 16.0/12.5;<br>18.0/14.5; 20.0/16.0; 22.0/18.0; 25.0/20.0;<br>28.0/22.0; 32.0/24.0                                 | 51,5 | 60,0 |

Bestellung: bitte **DØ** und **C** angebenOrder: please specify **DØ** and **C**

## ER Collets Form A with Square Socket – sealed

## ER Spannzangen Form A mit Innen-Vierkant – abgedichtet

Spannzangen in abgedichteter Ausführung ergänzt um Zusatz: **NC**  
Bestellbeispiel **111T NC 4008E-G Ø 6,0/5,0**

Verwendung: Für Gewindebohrer mit Innenkühlung

**Bestellung: bitte DØ und C angeben**Collets in sealed add order no. with: **NC**  
Order example **111 T NC 4008E-G Ø 6,0/5,0**

Application: For Tap holders with internal cooling

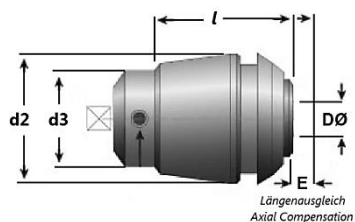
**Order: please specify DØ and C**

## ER Floating Tap Collets with Axial Compensation

## ER Spannzangen mit Längenausgleich

ISO15488 A

DIN 6499 A

 $\nabla \leq 0,015$ 

| Order No.<br>Bestell-Nr. | Size<br>Größe | Min.<br>D Ø | Max.<br>D Ø | d2   | d3   | l    | E    |
|--------------------------|---------------|-------------|-------------|------|------|------|------|
| 114 424E-G               | ER11          | 1,0         | 3,55        | 11,3 | 7,0  | 18,0 | 5,5  |
| 114 424E-GK              | ER11          | 0,9         | 4,5         | 11,3 | 7,0  | 18,0 | 5,5  |
| 164 426E-G               | ER16          | 1,4         | 6,3         | 16,6 | 11,0 | 22,0 | 7,0  |
| 164 426E-GK              | ER16          | 1,4         | 6,3         | 16,6 | 11,0 | 22,0 | 7,0  |
| 204 428E-G               | ER20          | 2,2         | 7,0         | 20,6 | 14,0 | 24,0 | 7,0  |
| 204 428E-GK              | ER20          | 2,2         | 8,0         | 20,6 | 14,0 | 24,0 | 7,0  |
| 254 430E-G               | ER25          | 2,5         | 10,0        | 25,6 | 19,0 | 26,0 | 8,0  |
| 254 430E-GK              | ER25          | 2,5         | 10,0        | 25,6 | 19,0 | 26,0 | 8,0  |
| 324 470E-G               | ER32          | 4,5         | 12,5        | 32,6 | 23,0 | 33,0 | 10,0 |
| 324 470E-GK              | ER32          | 4,5         | 12,5        | 32,6 | 23,0 | 33,0 | 10,0 |
| 404 472E-G               | ER40          | 6,0         | 17,0        | 40,6 | 28,0 | 42,0 | 13,0 |
| 404 472E-GK              | ER40          | 6,0         | 16,0        | 40,6 | 28,0 | 42,0 | 13,0 |

Verwendung: Zum Gewindeschneiden mit Längenausgleich auf Zug  
 Application: For tapping with axial compensation on extension

Ausführung: GK mit Keilwellenverzahnung  
 Version: GK with splined shaft gearing

## ER Quick Change Tap Collets with Axial compensation

## ER Schnellwechsel Spannzangen mit Längenausgleich

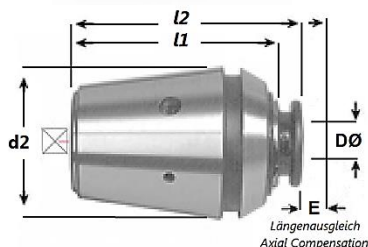
ISO15488 A

DIN 6499 A

 $\nabla \leq 0,015$ 

| Order No.<br>Bestell-Nr. | Size<br>Größe | Min.<br>D Ø | Max.<br>D Ø | d2   | l1   | l2   | E    |
|--------------------------|---------------|-------------|-------------|------|------|------|------|
| RDTB 16                  | ER16          | 2,5         | 4,5         | 17,0 | 30,0 | 34,0 | 7,0  |
| RDTB 20                  | ER20          | 2,5         | 6,0         | 21,0 | 23,0 | 27,0 | 7,0  |
| RDTB 25                  | ER25          | 2,5         | 9,0         | 26,0 | 37,0 | 43,0 | 7,0  |
| RDTB 32                  | ER32          | 3,5         | 12,0        | 33,0 | 42,0 | 48,0 | 11,0 |
| RDTB 40                  | ER40          | 3,5         | 14,0        | 41,0 | 50,0 | 56,0 | 12,0 |

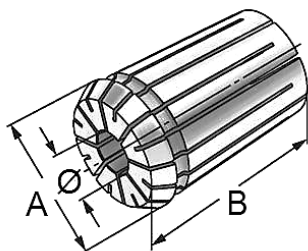
Verwendung: Zum Gewindeschneiden wie oben mit Schnellwechslung  
 Application: For tapping as above with quick change





ISO 10897 B

DIN 6388 B

 $\nabla \leq 0,015\mu\text{m}$  $\nabla \leq 0,010\mu\text{m}$  HP $\nabla \leq 0,005\mu\text{m}$  UP

Order No.

Size

Bestell-Nr.

Größe

Ø

(mm)<sup>1</sup>

T

A

B

|           |      |         |     |       |      |      |
|-----------|------|---------|-----|-------|------|------|
| 025 415E  | OZ16 | 2 - 16  | 0,5 | Ø-0,5 | 25,5 | 40,0 |
| 030 4541E | OZ20 | 2 - 20  | 0,5 | Ø-0,5 | 29,8 | 45,0 |
| 035 462E  | OZ25 | 2 - 25  | 0,5 | Ø-0,5 | 35,0 | 52,0 |
| 044 467E  | OZ32 | 4 - 32  | 0,5 | Ø-0,5 | 43,7 | 60,0 |
| 052 468E  | OZ40 | 12 - 40 | 0,5 | Ø-0,5 | 52,2 | 68,0 |

<sup>1</sup> (mm) Lead / Steigung

T: Nominal Size / Nennmaß

HP – Präzision / precision: Bestell-Nr./Order no. 250 430E HP-Ø6

UP – Hochpräzision / highprecision: Bestell-Nr./Order no. 250 430E UP-Ø6

Beispiel / example

## ER Shrink Collets

## ER Schrumpf-Spannzangen

ISO15488 B

DIN 6499 B

 $\nabla \leq 3\mu\text{m}$ 

Order No.

Size

Bestell-Nr.

Größe

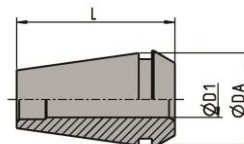
ØD1

(mm)<sup>1</sup>

D

L

|             |       |                 |     |    |    |
|-------------|-------|-----------------|-----|----|----|
| 160 426E-SC | ER 16 | 3.0/4.0/6.0/8.0 | -   | 17 | 31 |
| 200 426E-SC | ER 20 | 6.0 – 10.0      | 2.0 | 21 | 31 |
| 250 430E-SC | ER 25 | 3.0/4.0 – 16.0  | 2.0 | 26 | 35 |
| 320 470E-SC | ER 32 | 6.0 – 20.0      | 2.0 | 33 | 40 |

<sup>1</sup> (mm) Lead / SteigungZubehör und Schrumpfgeräte auf Anfrage.  
Accessoires and shrink units upon request.

## Biconical – Collets System Erickson Type DK/DA

## Doppelkonus-Spannzangen System Erickson Typ DK/DA

Typ DK/DA

 $\nabla \leq 0,015\mu\text{m}$ 

Order No.

Size

Bestell-Nr.

Größe

d1 Ø

(mm)<sup>1</sup>

T

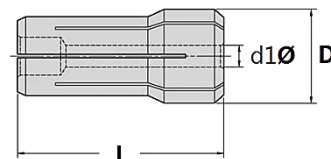
D

L

|         |      |            |     |       |       |      |
|---------|------|------------|-----|-------|-------|------|
| RDA 300 | 416E | 1.0 – 6.5  | 0,5 | Ø-0,5 | 9.50  | 25.5 |
| RDA 200 | 417E | 1.0 – 9.5  | 0,5 | Ø-0,5 | 13.50 | 30.4 |
| RDA 100 | 418E | 1.0 – 14.5 | 0,5 | Ø-0,5 | 19.47 | 36.7 |
| RDA 180 | 419E | 1.0 – 19.0 | 0,5 | Ø-0,5 | 26.05 | 41.7 |

<sup>1</sup> (mm) Lead / Steigung

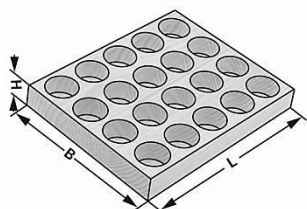
T: Nominal Size / Nennmaß



## Wooden Trays / Plastic Boxes for Collets

## Holzträger / Kunststoffboxen für Spannzangen

ISO15488 A  
DIN 6499 A



| Order No.<br>Bestell-Nr. | B   | L   | H  | Bores<br>Bohrungen | Suitable for<br>Passend für |
|--------------------------|-----|-----|----|--------------------|-----------------------------|
| 308                      | 61  | 152 | 27 | 10                 | ER08                        |
| 311                      | 61  | 152 | 27 | 14                 | ER11                        |
| 316                      | 61  | 152 | 27 | 10                 | ER16                        |
| 320                      | 61  | 152 | 27 | 12                 | ER20                        |
| 325                      | 106 | 185 | 31 | 15                 | ER25                        |
| 332                      | 125 | 230 | 31 | 18                 | ER32                        |
| 340                      | 196 | 280 | 31 | 24                 | ER40                        |
| 350                      | 200 | 250 | 38 | 12                 | ER50                        |
| 3025                     | 78  | 280 | 31 | 16                 | OZ16                        |
| 3035                     | 190 | 280 | 31 | 24                 | OZ25                        |
| 3044                     | 200 | 390 | 38 | 32                 | OZ32                        |

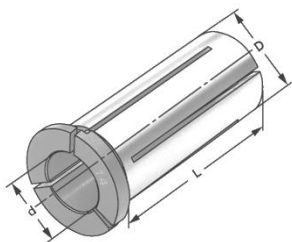
Weitere Holzträger auf Anfrage ▪ More wooden trays on request

ISO15488 A  
DIN 6499 A



| Order No.<br>Bestell-Nr. | B   | L   | H  | Bores<br>Bohrungen | Suitable for<br>Passend für |
|--------------------------|-----|-----|----|--------------------|-----------------------------|
| KB-1 ER08                | 101 | 82  | 32 | 10                 | ER8                         |
| KB-1 ER11                | 101 | 82  | 32 | 14                 | ER11                        |
| KB-2 ER16                | 120 | 116 | 40 | 10                 | ER16                        |
| KB-2 ER20                | 120 | 116 | 40 | 12                 | ER20                        |
| KB-3 ER25                | 235 | 185 | 48 | 15                 | ER25                        |
| KB-3 ER32                | 235 | 185 | 48 | 18                 | ER32                        |
| KB-4 ER40                | 235 | 185 | 48 | 24                 | ER40                        |
| KB-4 ER50                | 340 | 275 | 83 | 12                 | ER50                        |
| KB-3 OZ16                | 340 | 275 | 83 | 16                 | OZ16                        |
| KB-4 OZ25                | 340 | 275 | 83 | 24                 | OZ25                        |
| KB-4 OZ32                | 340 | 275 | 83 | 32                 | OZ32                        |

Weitere Kunststoffboxen auf Anfrage ▪ More plastic-boxes on request



## Order No.

## Bestell-Nr.

D

d

L

## Reduzierstück dichtend • Reducer coolant resistant

28.2003L51HYD.K 20 3 50,9

28.2004L51HYD.K 20 4 50,9

28.2005L51HYD.K 20 5 50,9

28.2006L51HYD.K 20 6 50,9

28.2008L51HYD.K 20 8 50,9

28.2010L51HYD.K 20 10 50,9

28.2012L51HYD.K 20 12 50,9

28.2014L51HYD.K 20 14 50,9

28.2016L51HYD.K 20 16 50,9

## Order No.

## Bestell-Nr.

D

d

L

28.3208L66HYD.K 32 8 66,0

28.3210L66HYD.K 32 10 66,0

28.3212L66HYD.K 32 12 66,0

28.3214L66HYD.K 32 14 66,0

28.3216L66HYD.K 32 16 66,0

28.3218L66HYD.K 32 18 66,0

28.3220L66HYD.K 32 20 66,0

28.3225L66HYD.K 32 25 66,0

## Order No.

## Bestell-Nr.

D

d

L

## Bund geschlitzt, nicht kühlmitteldicht • Collar slotted, not coolant proof

28.2006L52HYD 20 6 52,0

28.2008L52HYD 20 8 52,0

28.2010L52HYD 20 10 52,0

28.2012L52HYD 20 12 52,0

28.2014L52HYD 20 14 52,0

28.2016L52HYD 20 16 52,0

28.2018L52HYD 20 18 52,0

## Order No.

## Bestell-Nr.

D

d

L

28.3206L59HYD 32 6 59,0

28.3208L59HYD 32 8 59,0

28.3210L59HYD 32 10 59,0

28.3212L59HYD 32 12 59,0

28.3214L59HYD 32 14 59,0

28.3216L59HYD 32 16 59,0

28.3218L59HYD 32 18 59,0

28.3220L59HYD 32 20 59,0

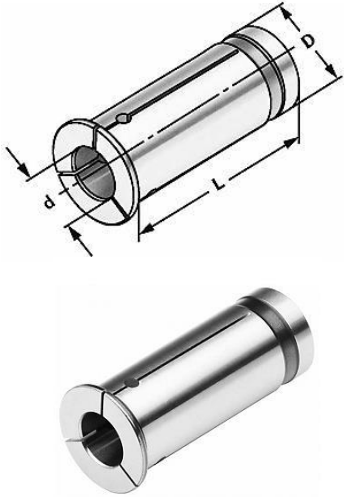
28.3225L59HYD 32 25 59,0



Weitere Reduzierungen gerne auf Anfrage. Further reduction sleeves upon request.

## Reducing Sleeves for high performance milling chucks HKS

## Reduzierungen für HKS



## Order No.

## Bestell-Nr.

D

d

L

## Order No.

## Bestell-Nr.

D

d

L

**Für innere Kühlmittelzufuhr, Bund geschlossen kühlmitteldichtend bis 80bar**  
**For internal coolant supply, closed collar, coolant proof up to max. 80bar**

|                 |    |    |      |                 |    |    |      |
|-----------------|----|----|------|-----------------|----|----|------|
| 28.2003L53HKS.K | 20 | 3  | 52,9 | 28.3203L66HKS.K | 32 | 3  | 66,0 |
| 28.2004L53HKS.K | 20 | 4  | 52,9 | 28.3204L66HKS.K | 32 | 4  | 66,0 |
| 28.2005L53HKS.K | 20 | 5  | 52,9 | 28.3205L66HKS.K | 32 | 5  | 66,0 |
| 28.2006L53HKS.K | 20 | 6  | 52,9 | 28.3206L66HKS.K | 32 | 6  | 66,0 |
| 28.2008L53HKS.K | 20 | 8  | 52,9 | 28.3208L66HKS.K | 32 | 8  | 66,0 |
| 28.2010L53HKS.K | 20 | 10 | 52,9 | 28.3210L66HKS.K | 32 | 10 | 66,0 |
| 28.2012L53HKS.K | 20 | 12 | 52,9 | 28.3212L66HKS.K | 32 | 12 | 66,0 |
| 28.2014L53HKS.K | 20 | 14 | 52,9 | 28.3214L66HKS.K | 32 | 14 | 66,0 |
| 28.2016L53HKS.K | 20 | 16 | 52,9 | 28.3216L66HKS.K | 32 | 16 | 66,0 |
|                 |    |    |      | 28.3218L66HKS.K | 32 | 18 | 66,0 |
|                 |    |    |      | 28.3220L66HKS.K | 32 | 20 | 66,0 |
|                 |    |    |      | 28.3225L66HKS.K | 32 | 25 | 66,0 |



## Order No.

## Bestell-Nr.

D

d

L

## Order No.

## Bestell-Nr.

D

d

L

**Bund geschlitzt, nicht kühlmitteldicht · Collar slotted, not coolant proof**

|               |    |    |      |               |    |    |      |
|---------------|----|----|------|---------------|----|----|------|
| 28.2006L53HKS | 20 | 6  | 52,5 | 28.3206L65HKS | 32 | 6  | 64,6 |
| 28.2008L53HKS | 20 | 8  | 52,5 | 28.3208L65HKS | 32 | 8  | 64,6 |
| 28.2010L53HKS | 20 | 10 | 52,5 | 28.3210L65HKS | 32 | 10 | 64,6 |
| 28.2012L53HKS | 20 | 12 | 52,5 | 28.3212L65HKS | 32 | 12 | 64,6 |
| 28.2014L53HKS | 20 | 14 | 52,5 | 28.3214L65HKS | 32 | 14 | 64,6 |
| 28.2016L53HKS | 20 | 16 | 52,5 | 28.3216L65HKS | 32 | 16 | 64,6 |
|               |    |    |      | 28.3218L65HKS | 32 | 18 | 64,6 |
|               |    |    |      | 28.3220L65HKS | 32 | 20 | 64,6 |
|               |    |    |      | 28.3225L65HKS | 32 | 25 | 64,6 |

## Setting screw for Power Chucks HKS

## Einstellschraube für Hochleistungs-Kraftspannfutter

HKS

## Order No.

## Bestell-Nr.

A

D

28.2019HKSES

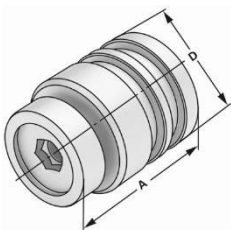
HKS20

19

28.3231HKSES

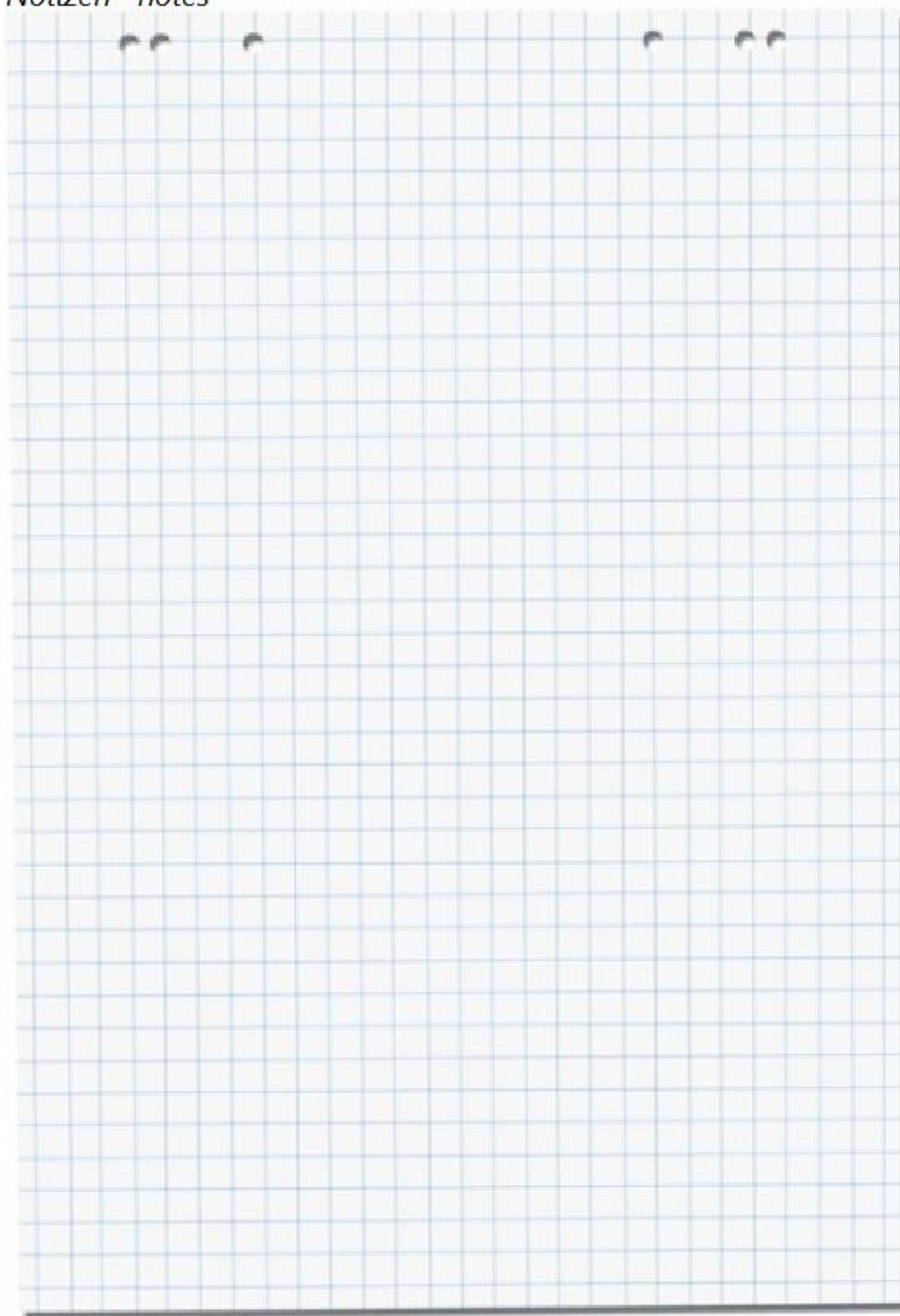
HKS32

31



Verwendung: Zum Einstellen des Werkzeuges beim HKS Spannfutter.  
 Application: For setting the tool in the HKS collet chucks.

Notizen • notes



**WSW**

## Chucks • Clamping heads • Collets for tool clamping

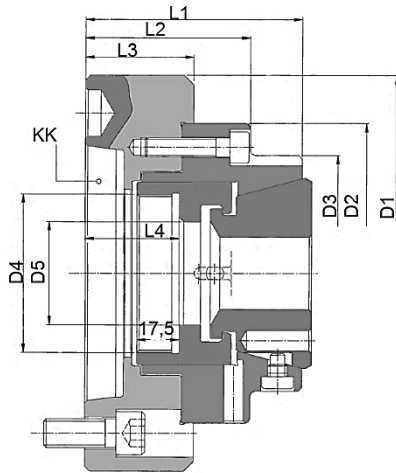
## Spannfutter • Spannköpfe • Spannzangen für Werkstückspannung

Seite • Page

|                                                                     |                                                                           |              |
|---------------------------------------------------------------------|---------------------------------------------------------------------------|--------------|
| <b>Spannfutter</b><br>für Werkstückspannung                         | <b>Chucks</b><br>for Tool Clamping                                        | <b>08.01</b> |
| <b>Grip-Spannköpfe</b><br>Grip-Spannköpfe für Axialzug-Spannsysteme | <b>Clamping Heads</b><br>Clamping Heads for axial draw-back collet chucks | <b>08.02</b> |
| <b>Druckspannzangen Reihe 100</b>                                   | <b>Push-Out Collets series 100</b>                                        | <b>08.03</b> |
| <b>Spannzangenanschlag</b><br>für Druckspannzangen Reihe 100        | <b>Back stop</b><br>for push-out collets series 100                       | <b>08.04</b> |
| <b>Zugspannzangen</b>                                               | <b>Draw-In Collets</b>                                                    | <b>08.05</b> |
| <b>Längenanschlag</b><br>für Drehmaschinen                          | <b>Length Back Stop</b><br>for turning machines                           | <b>08.06</b> |

## Through Bore Chuck short taper flange

## SpannGrip-Futter Kurzkegelaufnahme mit Durchgangsbohrung



## Order No. Size

| Bestell-Nr. | Größe | KK* | D1  | D2  | D3 | D4      | D5 |   |
|-------------|-------|-----|-----|-----|----|---------|----|---|
| GSF-42/5    | 42    | 5   | 140 | 124 | 98 | M66x1,5 | 43 | → |
| GSF-42/6    | 42    | 6   | 165 | 124 | 98 | M66x1,5 | 43 | → |
| GSF-65/5    | 65    | 5   | 140 | -   | -  | M82x1,5 | -  | → |
| GSF-65/6    | 65    | 6   | 165 | 140 | -  | M82x1,5 | -  | → |
| GSF-65/8    | 65    | 8   | 210 | 140 | -  | M82x1,5 | -  | → |

\*Kurzkegel / short taper flange

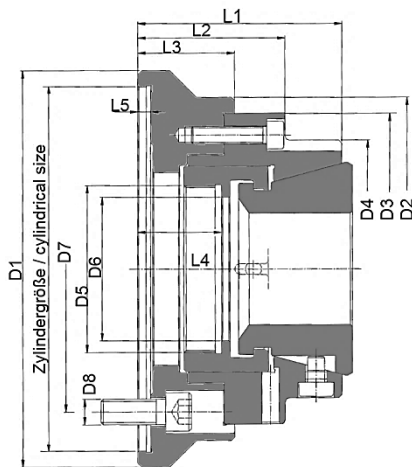
## Order No.

| Bestell-Nr. | L1  | L2   | L3   | L4 |
|-------------|-----|------|------|----|
| → GSF-42/5  | 90  | 68,5 | 45,0 | 39 |
| → GSF-42/6  | 90  | 68,5 | 45,0 | 39 |
| → GSF-65/5  | 100 | 100  | 100  | 37 |
| → GSF-65/6  | 100 | 52,5 | 52,5 | 37 |
| → GSF-65/8  | 100 | 52,5 | 52,5 | 37 |

Weitere Grip-Spannfutter auf Anfrage / More chucks on request.

## Through Bore Chuck cylindrical flange

## SpannGrip-Futter zylindrische Aufnahme mit Durchgangsbohrung



## Order No. \*Size

| Bestell-Nr. | Größe | D1  | D2  | D3  | D4    | D5      | D6 |   |
|-------------|-------|-----|-----|-----|-------|---------|----|---|
| GSF-42/140  | 140   | 150 | 150 | 125 | 98,3  | M66x1,5 | 43 | → |
| GSF-65/170  | 170   | 185 | 160 | 145 | 102,3 | M66x1,5 | 67 | → |

\*Zylindergröße / cylindrical size

## Order No.

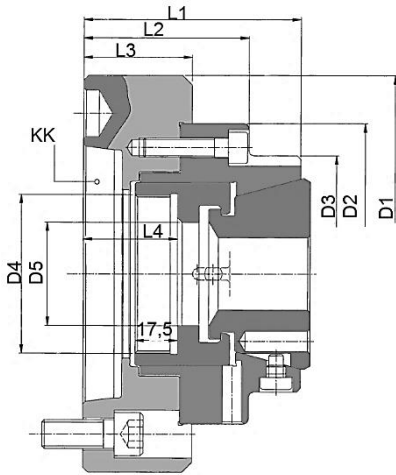
| Bestell-Nr.  | D7    | D8    | L1 | L2   | L3 | L4 | L5 |  |
|--------------|-------|-------|----|------|----|----|----|--|
| → GSF-42/140 | 104,8 | 3XM10 | 90 | 68,5 | 45 | 39 | 6  |  |
| → GSF-65/170 | 133,4 | 6xM12 | 95 | 68,5 | 45 | 39 | 6  |  |

Weitere Grip-Spannfutter auf Anfrage / More chucks on request.



**Endstop Chucks** short taper flange with full passage

**SpannGrip-Futter mit Anschlag** Kurzkegelaufnahme mit Durchgangsbohrung



**Order No. Size**

| Bestell-Nr. | Größe | KK* | D1  | D2  | D3  | D4      | D5   |
|-------------|-------|-----|-----|-----|-----|---------|------|
| GSF-42/5A   | 42    | 5   | 140 | 125 | 98  | M78x1,5 | 43 → |
| GSF-42/6A   | 42    | 6   | 165 | 125 | 98  | M78x1,5 | 43 → |
| GSF-65/5A   | 65    | 5   | 140 | 145 | 120 | M78x1,5 | 66 → |
| GSF-65/6A   | 65    | 6   | 165 | 145 | 120 | M78x1,5 | 66 → |
| GSF-65/8A   | 65    | 8   | 210 | 145 | 120 | M78x1,5 | 66 → |

\*Kurzkegel / short taper flange

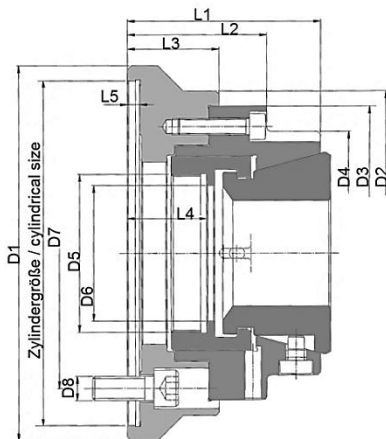
**Order No.**

| Bestell-Nr. | L1  | L2    | L3   | L4 |
|-------------|-----|-------|------|----|
| → GSF-42/5A | 121 | 105,5 | 70   | 39 |
| → GSF-42/6A | 121 | 105,5 | 70   | 39 |
| → GSF-65/5A | 130 | 111,5 | 70,5 | 39 |
| → GSF-65/6A | 130 | 111,5 | 70,5 | 39 |
| → GSF-65/8A | 135 | 116,5 | 75,5 | 44 |

Weitere Grip-Spannfutter auf Anfrage / More chucks on request.

**Endstop Chucks** cylindrical flange with full passage

**SpannGrip-Futter mit Anschlag** zylindrische Aufnahme mit Durchgangsbohrung



**Order No. \*Size**

| Bestell-Nr. | Größe | D1  | D2  | D3  | D4      | D5 | D6 |
|-------------|-------|-----|-----|-----|---------|----|----|
| GSF-42/140A | 140   | 150 | 125 | 98  | M78x1,5 | 43 | →  |
| GSF-65/170A | 170   | 185 | 145 | 120 | M78x1,5 | 66 | →  |

\*Zylindergröße / cylindrical size

**Order No.**

| Bestell-Nr.   | D7 | D8 | L1  | L2    | L3   | L4 | L5 |
|---------------|----|----|-----|-------|------|----|----|
| → GSF-42/140A |    |    | 126 | 110,5 | 75   | 44 | 46 |
| → GSF-65/170A |    |    | 130 | 111,5 | 70,5 | 39 | 55 |

Weitere Grip-Spannfutter auf Anfrage / More chucks on request.

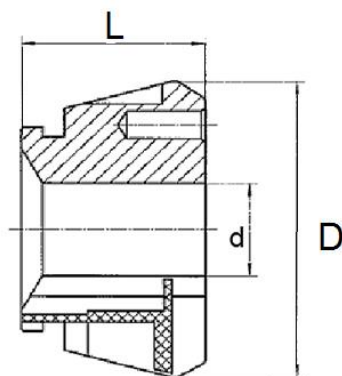
## Clamping Heads

## Grip-Spannköpfe

| Order No.<br>Bestell-Nr. | Size<br>Größe | T (mm)  | Version<br>Ausführung   | bore<br>Bohrung                        | (mm) | D    | L  |
|--------------------------|---------------|---------|-------------------------|----------------------------------------|------|------|----|
| GSK42RG.1                | 42            | 5 – 42  | ○ rund / circle         | Glatt / smooth                         | 0,5  | 79,3 | 47 |
| GSK42RG                  | 42            | 4 – 7   | ○ rund / circle         | Glatt / smooth                         | 0,5  | 79,3 | 47 |
| GSK42RQ                  | 42            | 8 – 10  | ○ rund / circle         | Querrillen / serated                   | 0,5  | 79,3 | 47 |
| GSK42RL                  | 42            | 11 – 42 | ○ rund / circle         | Längs- und Querrillen / double serated | 0,5  | 79,3 | 47 |
| GSK42SG                  | 42            | 7       | ● sechskant / hexagonal | Glatt / smooth                         | 1,0  | 79,3 | 47 |
| GSK42SQ                  | 42            | 8 – 32  | ● sechskant / hexagonal | Querrillen / serated                   | 1,0  | 79,3 | 47 |
| GSK42SQ.1                | 42            | 33 – 36 | ● sechskant / hexagonal | Querrillen / serated                   | 1,0  | 79,3 | 47 |
| GSK42VG                  | 42            | 7       | ■ vierkant / square     | Glatt / smooth                         | 1,0  | 79,3 | 47 |
| GSK42VQ                  | 42            | 8 – 30  | ■ vierkant / square     | Querrillen / serated                   | 1,0  | 79,3 | 47 |
| GSK65RG.1                | 65            | 5 – 65  | ○ rund / circle         | Glatt / smooth                         | 0,5  | 99,5 | 58 |
| GSK65RG                  | 65            | 5 – 7   | ○ rund / circle         | Glatt / smooth                         | 0,5  | 99,5 | 58 |
| GSK65RQ                  | 65            | 8 – 10  | ○ rund / circle         | Querrillen / serated                   | 0,5  | 99,5 | 58 |
| GSK65RL                  | 65            | 11 – 65 | ○ rund / circle         | Längs- und Querrillen / double serated | 0,5  | 99,5 | 58 |
| GSK65SQ                  | 65            | 7 – 32  | ● sechskant / hexagonal | Querrillen / serated                   | 1,0  | 99,5 | 58 |
| GSK65SQ.1                | 65            | 33 – 40 | ● sechskant / hexagonal | Querrillen / serated                   | 1,0  | 99,5 | 58 |
| GSK65SQ.2                | 65            | 41 – 50 | ● sechskant / hexagonal | Querrillen / serated                   | 1,0  | 99,5 | 58 |
| GSK65SQ.3                | 65            | 51 – 56 | ● sechskant / hexagonal | Querrillen / serated                   | 1,0  | 99,5 | 58 |
| GSK65VQ                  | 65            | 8 – 32  | ■ vierkant / square     | Querrillen / serated                   | 1,0  | 99,5 | 58 |
| GSK65VQ.1                | 65            | 33 – 40 | ■ vierkant / square     | Querrillen / serated                   | 1,0  | 99,5 | 58 |
| GSK65VQ.2                | 65            | 41 – 46 | ■ vierkant / square     | Querrillen / serated                   | 1,0  | 99,5 | 58 |

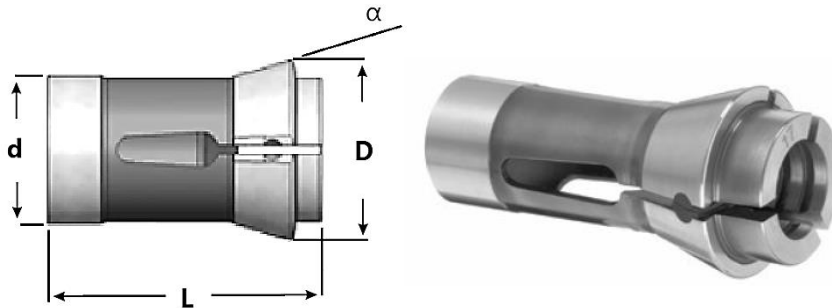
T (mm): Capacity / Spannbereich  
(mm): Lead / Steigung

Weitere Grip-Spannfutter auf Anfrage  
More chucks on request.



## Push-Out Collets Series 100

## Druckspannzangen Reihe 100

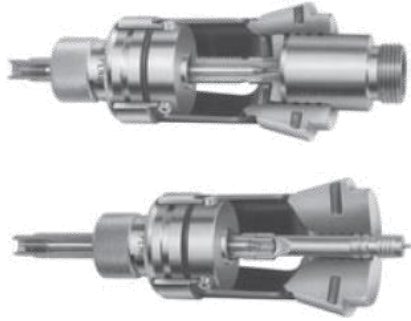


| Order No.   |       |       |       |     | bores |              |      | bores |            |      | bores |            |      |
|-------------|-------|-------|-------|-----|-------|--------------|------|-------|------------|------|-------|------------|------|
| Bestell-Nr. | D     | d     | L     | α   | Form  | Bohrungen    | (mm) | Form  | Bohrungen  | (mm) | Form  | Bohrungen  | (mm) |
| 100E        | 10,0  | 6,0   | 30,0  | 15° | ●     | 0,5 - 6,0    | 0,5  |       |            |      |       |            |      |
| 101E        | 12,0  | 8,0   | 42,0  | 16° | ●     | 0,5 - 6,0    | 0,5  |       |            |      |       |            |      |
| 103E        | 14,0  | 8,0   | 34,0  | 16° | ●     | 0,5 - 5,0    | 0,5  |       |            |      |       |            |      |
| 109E        | 15,5  | 10,0  | 47,5  | 20° | ●     | 1,5 - 7,0    | 0,5  |       |            |      |       |            |      |
| 110E        | 16,0  | 10,0  | 43,0  | 15° | ●     | 1,5 - 7,0    | 0,5  |       |            |      |       |            |      |
| 111E        | 16,0  | 10,0  | 46,0  | 20° | ●     | 1,5 - 7,0    | 0,5  |       |            |      |       |            |      |
| 117E        | 18,0  | 14,0  | 46,0  | 13° | ●     | 1,5 - 10,0   | 0,5  |       |            |      |       |            |      |
| 118E        | 19,5  | 14,0  | 46,0  | 15° | ●     | 1,0 - 10,5   | 0,5  |       |            |      |       |            |      |
| 120E        | 21,0  | 15,0  | 64,0  | 16° | ●     | 1,5 - 12,0   | 0,5  | ■     | 4,0 - 7,0  | 1,0  | ●     | 4,0 - 9,0  | 1,0  |
| 125E        | 22,0  | 17,5  | 51,0  | 15° | ●     | 1,5 - 14,0   | 0,5  |       |            |      |       |            |      |
| 136E        | 26,0  | 20,0  | 54,0  | 15° | ●     | 1,5 - 16,0   | 0,5  |       |            |      |       |            |      |
| 138E        | 28,0  | 20,0  | 67,0  | 15° | ●     | 3,0 - 16,0   | 0,5  |       |            |      |       |            |      |
| 140E        | 30,0  | 22,0  | 55,0  | 15° | ●     | 1,0 - 16,0   | 0,5  | ■     | 4,0 - 10,0 | 1,0  | ●     | 4,0 - 14,0 | 1,0  |
| 143E        | 31,0  | 25,0  | 54,0  | 15° | ●     | 3,0 - 16,0   | 0,5  | ■     | 6,0 - 10,0 | 1,0  | ●     | 6,0 - 14,0 | 1,0  |
| 145E        | 35,0  | 25,0  | 77,0  | 16° | ●     | 3,0 - 20,0   | 0,5  | ■     | 4,0 - 14,0 | 1,0  | ●     | 4,0 - 17,0 | 1,0  |
| 148E        | 38,0  | 28,0  | 70,0  | 15° | ●     | 2,0 - 24,0   | 0,5  | ■     | 4,0 - 14,0 | 1,0  | ●     | 4,0 - 17,0 | 1,0  |
| 157E        | 42,0  | 30,0  | 80,0  | 15° | ●     | 3,0 - 25,0   | 0,5  |       |            |      |       |            |      |
| 161E        | 45,0  | 32,0  | 75,0  | 15° | ●     | 2,0 - 26,0   | 0,5  | ■     | 5,0 - 18,0 | 1,0  | ●     | 4,0 - 22,0 | 1,0  |
| 162E        | 43,0  | 35,0  | 70,0  | 15° | ●     | 3,0 - 25,0   | 0,5  | ■     | 5,0 - 16,0 | 1,0  | ●     | 4,0 - 22,0 | 1,0  |
| 163E        | 48,0  | 35,0  | 80,0  | 15° | ●     | 2,0 - 30,0   | 0,5  | ■     | 5,0 - 20,0 | 1,0  | ●     | 4,0 - 32,0 | 1,0  |
| 164E        | 49,2  | 38,1  | 108,0 | 15° | ●     | 3,0 - 32,0   | 0,5  | ■     | 4,0 - 22,0 | 1,0  | ●     | 4,0 - 32,0 | 1,0  |
| 171E        | 55,0  | 42,0  | 94,0  | 15° | ●     | 3,0 - 36,0   | 0,5  | ■     | 4,0 - 29,0 | 1,0  | ●     | 4,0 - 32,0 | 1,0  |
| 173E        | 60,0  | 48,0  | 94,0  | 15° | ●     | 3,0 - 42,0   | 0,5  | ■     | 6,0 - 29,0 | 1,0  | ●     | 6,0 - 36,0 | 1,0  |
| 185E        | 84,0  | 66,0  | 110,0 | 15° | ●     | 4,0 - 60,0   | 1,0  | ■     | 7,0 - 16,0 | 1,0  | ●     | 8,0 - 36,0 | 1,0  |
| 190E        | 106,0 | 88,0  | 115,0 | 15° | ●     | 20,0 - 80,0  | 1,0  |       |            |      |       |            |      |
| 193E        | 107,0 | 90,0  | 130,0 | 15° | ●     | 20,0 - 80,0  | 1,0  |       |            |      |       |            |      |
| 196E        | 138,0 | 112,0 | 138,0 | 15° | ●     | 20,0 - 100,0 | 1,0  |       |            |      |       |            |      |

(mm): Steigung / lead (metric)

- rund / circle
- sechskant / hexagon
- vierkant / square

Weitere Druckspannzangen auf Anfrage • More push-out collets on request



| Order No.<br>Bestell-Nr. | Collet<br>Spannzange | ØClamping<br>ØSpann | Clamping length<br>Spannlänge |
|--------------------------|----------------------|---------------------|-------------------------------|
| ASF-32/1610000           | 161E                 | 2 - 6               | ca. 125                       |
|                          |                      | 6 - 8               | ca. 65                        |
|                          |                      | 8 - 26              | ca. 40                        |
| ASF-35/1620000           | 162E                 | 3 - 6               | ca. 120                       |
|                          |                      | 6 - 8               | ca. 60                        |
|                          |                      | 8 - 25              | ca. 35                        |
| ASF-35/1630000           | 163E                 | 2 - 6               | ca. 130                       |
|                          |                      | 6 - 8               | ca. 70                        |
|                          |                      | 8 - 30              | ca. 45                        |
| ASF-38/1640000           | 164E                 | 3 - 6               | ca. 150                       |
|                          |                      | 6 - 8               | ca. 100                       |
|                          |                      | 8 - 32              | ca. 60                        |
| ASF-48/1730000           | 173E                 | 3 - 8               | ca. 135                       |
|                          |                      | 8 - 10              | ca. 85                        |
|                          |                      | 10 - 42             | ca. 60                        |
| ASF-66/1850000           |                      | 4 - 14              | ca. 165                       |
|                          |                      | 14 - 18             | ca. 90                        |
|                          |                      | 18 - 60             | ca. 65                        |



Mit diesem Anschlag für Druckspannzangen Reihe 100 kann durch einfache Handhabung Anschlagssicherheit ohne die geringste Verspannung in kürzester Zeit erreicht werden.

Delivery complete in wooden case.

If desired we can supply as well single chuck Tapers or other components on request.

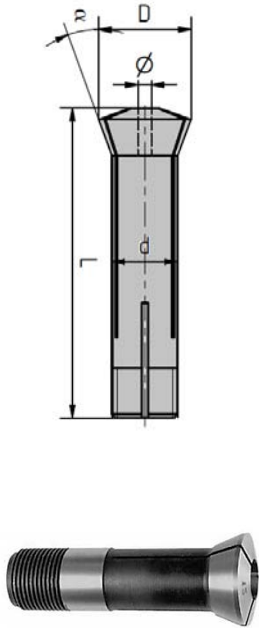
Lieferung komplett im Holzkoffer.

Auf Wunsch sind auch nur Spannkörper oder Einzelteile auf Anfrage lieferbar.

With this back-stop for push-out collets series 100 you can gain a back stop safety through easy handling without any restraint in shortest time.

## Draw-In Collets Series 300

## Zugspannzangen Reihe 300



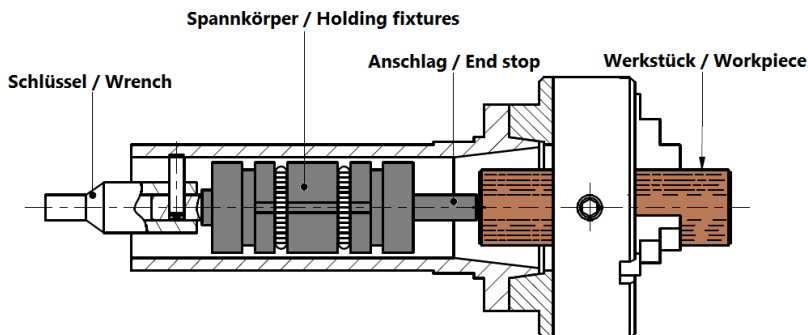
| Order No.<br>Bestell-Nr. | Ø bores<br>Bohrungen | (mm) | D    | d    | L     | Thread<br>Gewinde |
|--------------------------|----------------------|------|------|------|-------|-------------------|
| 302E                     | 1,5 - 6,0            | 0,1  | 12,7 | 8,0  | 35,0  | W6,85x1/40"       |
| 319E                     | 3,0 - 10,0           | 0,5  | 18,0 | 12,0 | 62,2  | Tr.12x1           |
| 324E                     | 1,5 - 13,0           | 0,5  | 21,0 | 15,0 | 55,5  | M13x1             |
| 330E                     | 1,5 - 13,0           | 0,5  | 24,0 | 16,0 | 73,0  | Tr.16x1,5         |
| 349E                     | 1,5 - 20,0           | 0,5  | 26,3 | 20,0 | 73,0  | S19,7x1,667       |
| 351E                     | 1,5 - 17,5           | 0,5  | 28,0 | 20,0 | 83,0  | Tr20x1,5          |
| 355E                     | 1,5 - 18,0           | 0,5  | 28,0 | 20,0 | 123,0 | S20x2             |
| 358E                     | 1,5 - 20,0           | 0,5  | 32,0 | 23,0 | 86,0  | M21x1             |
| 359E                     | 1,5 - 20,0           | 0,5  | 32,0 | 23,0 | 93,8  | Tr23x1,5          |
| 363E                     | 1,5 - 22,0           | 0,5  | 33,5 | 25,0 | 89,0  | M23x1             |
| 364E                     | 1,5 - 22,0           | 0,5  | 33,7 | 25,0 | 97,6  | S25x1/15"         |
| 366E                     | 1,5 - 25,0           | 0,5  | 36,0 | 28,0 | 106,5 | Tr27x1/20"        |
| 367E                     | 1,5 - 24,0           | 0,5  | 38,0 | 28,0 | 104,4 | Tr28x1,5          |
| 385E                     | 1,5 - 26,0           | 0,5  | 37,5 | 31,8 | 87,0  | 1,245" x20        |
| 386E                     | 1,5 - 29,0           | 0,5  | 45,0 | 32,0 | 116,0 | Tr32x1,5          |
| 390E                     | 5,0 - 42,0           | 1,0  | 60,0 | 47,0 | 110,0 | Tr47x1,5          |

(mm): Lead / Steigung

Bohrung: rund  
bores: circleWeitere Zugspannzangen auf Anfrage.  
More draw-in collets on request.

## LA-Length Back Stop for turning machines without hydraulic clamping

## LA-Längenanschlag für Drehmaschinen ohne Kraftspanneinrichtung

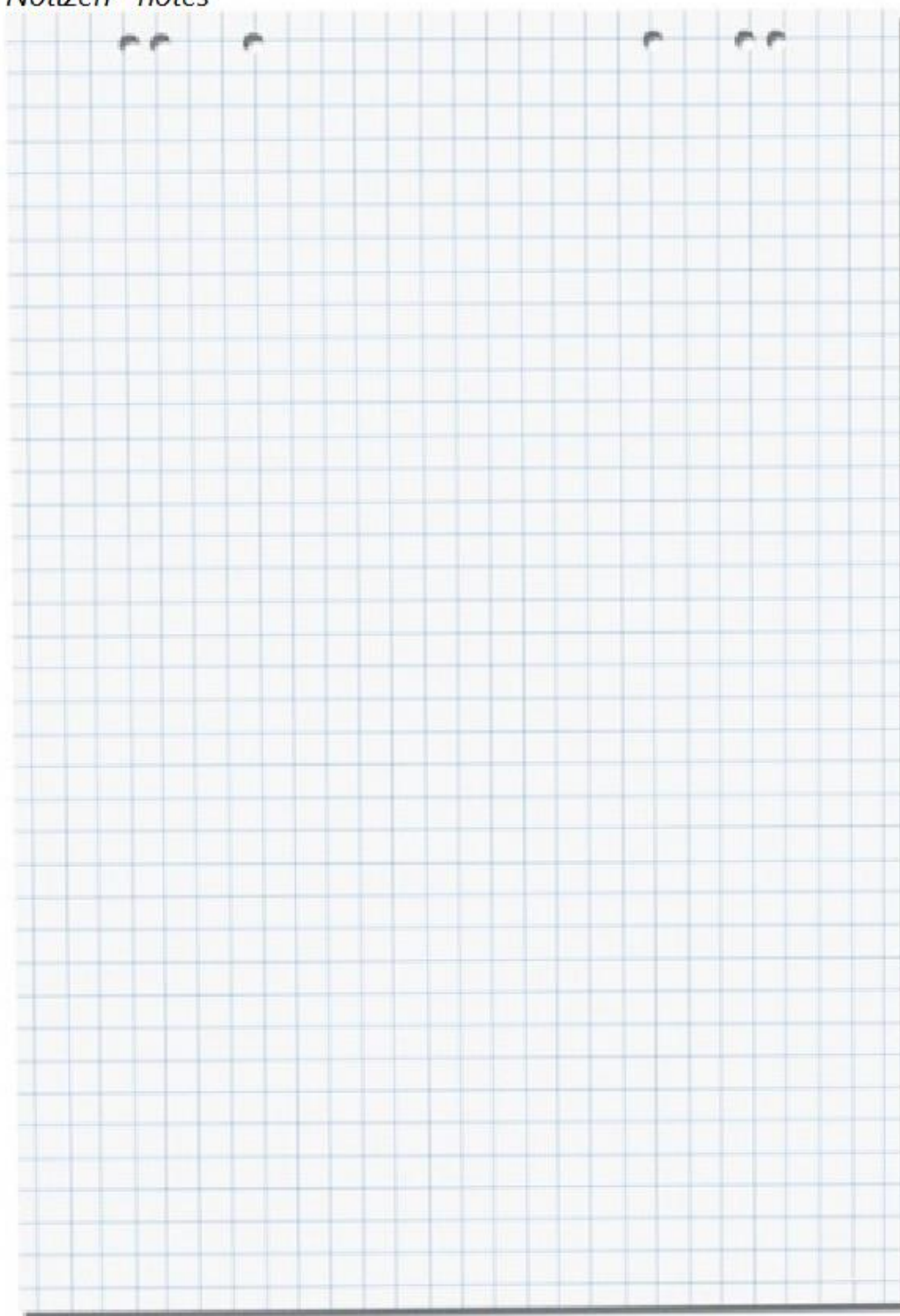


Die Längenanschlätze können problemlos mit Spannschlüssel in der Hohlspindel auf der gewünschten Länge fixiert werden.  
Der passende Spannschlüssel wird für jeden Anschlag mitgeliefert.

The length back stops can be easily fixed on the desired length with a wrench in the hollow spindle.  
The adequate wrench will be delivered with each backstop.

| Order No.<br>Bestell-Nr. | Hollow spindle Ø D<br>Hohlspindel Ø D |
|--------------------------|---------------------------------------|
| LA20.30                  | 20 - 23                               |
| LA23.27                  | 23 - 27                               |
| LA27.31                  | 27 - 31                               |
| LA31.39                  | 31 - 39                               |
| LA39.47                  | 39 - 47                               |
| LA47.57                  | 47 - 57                               |
| LA57.65                  | 57 - 65                               |
| LA65.78                  | 65 - 78                               |
| LA78.94                  | 78 - 94                               |
| LA94.110                 | 94 - 110                              |
| LA110.130                | 110 - 130                             |

Notizen • notes



**WSW**

**Montagehilfen / Montageblöcke**

**CNC Tool Stands- and Transportsystems**

**09.01**

**CNC Werkzeuglager und Transportsysteme**

**Assembly Aids / Assembly Blocs**

**09.02**

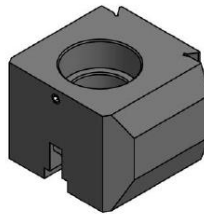




SK / BT



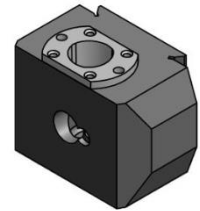
VDI



HSK



VARIA



CAPTO™

**Basic Adaptor**  
**Grundkörper****Adaptors**  
**Wechselhalter**

|        | SK/BT   | VDI3425 | HSK       | VARIA  | CAPTO™                    |
|--------|---------|---------|-----------|--------|---------------------------|
| UMB100 | MW-SK30 | MW-ZY16 | MW-HSK32  | MW-V3  | MW-CAPTO™ C3              |
|        | MW-SK40 | MW-ZY20 | MW-HSK40  | MW-VX3 | MW-CAPTO™ C4              |
|        | MW-SK50 | MW-ZY25 | MW-HSK50  | MW-V4  | MW-CAPTO™ C5              |
|        |         | MW-ZY30 | MW-HSK63  | MW-VX4 | MW-CAPTO™ C6              |
|        |         | MW-ZY40 | MW-HSK80  | MW-V5  | MW-CAPTO™ C8              |
|        |         | MW-ZY50 | MW-HSK100 |        | (Lizenz Sandvik Coromant) |



UMB100

Weitere Wechselhalter auf Anfrage.  
More adaptors on request.

**Tightening fixtures for EWS – VARIA****Montageblöcke für EWS – VARIA****Order No.**  
**Bestell-Nr.****MK**

MB-V3

Varia-V3

MB-VX3

Varia-VX3

MB-V4

Varia-V4

MB-VX4

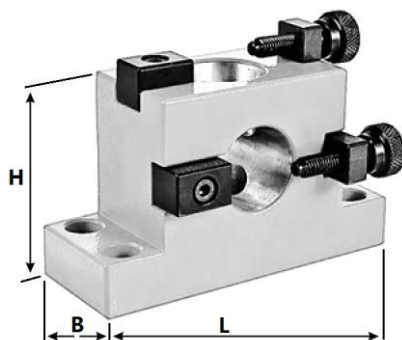
Varia-VX4

MB-V5

Varia-V5

# Tightening Fixtures for ST/BT Tool Holders

## Montageblöcke für SK/BT Aufnahmen



| Order No.<br>Bestell-Nr. | Taper<br>Kegel | L   | B  | H   |
|--------------------------|----------------|-----|----|-----|
| MB-SK30                  | SK30 / BT30    | 126 | 47 | 75  |
| MB-SK40                  | SK40 / BT40    | 160 | 60 | 100 |
| MB-SK50                  | SK50 / BT50    | 180 | 97 | 155 |

Weitere Montageblöcke auf Anfrage  
More tightening fixtures on request

Verwendung: Montagevorrichtung zur vertikalen und horizontalen Aufnahme von Werkzeugen mit Steilkegelschaft.

Application: Assembly device for vertical and horizontal mounting of tools with steep taper shank.

## CNC Tool Stands and Transport Systems

## CNC Werkzeuglager- und Transportsysteme

| Order No.<br>Bestell-Nr. |                                                                                                                               | Tool Tray<br>Werkzeugträger | W<br>B | D<br>T | H<br>H |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------|--------|--------|
| TC-100                   | Tischständer für 1 Werkzeugträger<br>Table stands for 1 tool tray                                                             | 1                           | 620    | 260    | 280    |
| TC-200                   | Tischständer für 2 Werkzeugträger<br>Table stands for 2 tool trays                                                            | 2                           | 620    | 380    | 535    |
| TC-500                   | Tischständer für 5 Werkzeugträger<br>Table stands for 5 tool trays                                                            | 5                           | 620    | 550    | 1.525  |
| TS-400                   | Transport- und Bereitstellungswagen mit Ablageschale und -boden<br>Transport and supply trolley with storage dish and -bottom | 4                           | 620    | 680    | 970    |
| TS-400L                  | (TS-400) beleuchtet<br>(TS-400) illuminated                                                                                   | 4                           | 620    | 680    | 970    |



## CNC Tool Stands and Transport Systems

## CNC Werkzeuglager- und Transportsysteme

| Order No.<br>Bestell-Nr. |                             | Tool type<br>Werkzeugtyp | Toolholder<br>Werkzeugaufnahmen |
|--------------------------|-----------------------------|--------------------------|---------------------------------|
| TP-SK30-20               | Werkzeugträger • Tool trays | SK30/BT30                | 20                              |
| TP-SK40-20               | Werkzeugträger • Tool trays | SK40/BT40                | 20                              |
| TP-SK50-10               | Werkzeugträger • Tool trays | SK50/BT50                | 10                              |
| TP-HSK40-20              | Werkzeugträger • Tool trays | HSK40                    | 20                              |
| TP-HSK50-20              | Werkzeugträger • Tool trays | HSK50                    | 20                              |
| TP-HSK63-20              | Werkzeugträger • Tool trays | HSK63                    | 20                              |
| TP-HSK80-12              | Werkzeugträger • Tool trays | HSK80                    | 12                              |
| TP-HSK100-10             | Werkzeugträger • Tool trays | HSK100                   | 10                              |
| TP-VDI16-24              | Werkzeugträger • Tool trays | VDI16                    | 24                              |
| TP-VDI20-20              | Werkzeugträger • Tool trays | VDI20                    | 20                              |
| TP-VDI25-20              | Werkzeugträger • Tool trays | VDI25                    | 20                              |
| TP-VDI30-12              | Werkzeugträger • Tool trays | VDI30                    | 12                              |
| TP-VDI40-10              | Werkzeugträger • Tool trays | VDI40                    | 10                              |
| TP-VDI50-10              | Werkzeugträger • Tool trays | VDI50                    | 10                              |
| TP-V3/VX3-20             | Werkzeugträger • Tool trays | VARIA V3/VX3             | 20                              |
| TP-V4/VX4-20             | Werkzeugträger • Tool trays | VARIA V4/VX4             | 20                              |
| TP-V5-10                 | Werkzeugträger • Tool trays | VARIA V5                 | 10                              |
| TP-C4-20                 | Werkzeugträger • Tool trays | CAPTO™ 4                 | 20                              |
| TP-C5-20                 | Werkzeugträger • Tool trays | CAPTO™ 5                 | 20                              |
| TP-C6-20                 | Werkzeugträger • Tool trays | CAPTO™ 6                 | 20                              |

TT-280

2. Ablageschale 280x600 • 2nd storage dish 280x600

Weitere Werkzeugträger auf Anfrage  
More tool trays on request



## Accessoires

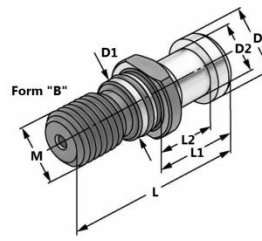
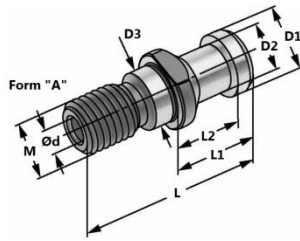
## Zubehör

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|                                                                   |                                                                                      |              |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------|
| <b>Anzugsbolzen</b><br>DIN 69872 / ISO 7388 / CAT / JIS B 6339    | <b>Retension knob for collet clamping</b><br>DIN 69872 / ISO 7388 / CAT / JIS B 6339 | <b>10.01</b> |
| <b>Schnellwechsel-Einsätze</b><br>ohne / mit Rutschkupplung       | <b>Quick Change Tapping Collets</b><br>without/ with clutch                          | <b>10.03</b> |
| <b>Reduzierungen</b><br>für Hydrodehnspannfutter                  | <b>Reducing arbor</b><br>for hydraulic expansions chuck                              | <b>10.05</b> |
| <b>Kühlmittelübergabeeinheit / Schlüssel</b><br>für HSK-Aufnahmen | <b>Delivery unit for coolant / Wrench</b><br>for Hollow Steep Tapers (HSK)           | <b>10.05</b> |
| <b>Spannmuttern</b>                                               | <b>Clamping Nuts</b>                                                                 | <b>10.06</b> |
| <b>Dichtungsringe</b><br>für Spannmuttern                         | <b>Sealing Disks</b><br>for Clamping Nuts                                            | <b>10.09</b> |
| <b>Spannschlüssel</b>                                             | <b>Wrenches</b>                                                                      | <b>10.10</b> |
| <b>Mitnehmerringe</b><br>DIN 6366                                 | <b>Clutch drive rings</b><br>DIN 6366                                                | <b>10.12</b> |
| <b>Fräseranzugsschrauben</b><br>DIN 6367                          | <b>Drawn In Bolt</b><br>DIN 6367                                                     | <b>10.12</b> |
| <b>Kegelwischer</b>                                               | <b>Taper Wiper</b>                                                                   | <b>10.13</b> |

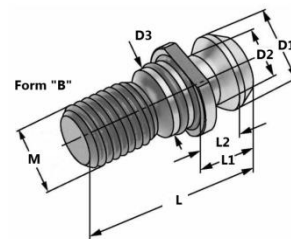
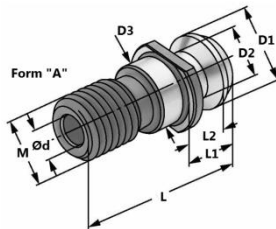
## Retention Knob DIN 69872 • ISO 7388

## Anzugsbolzen DIN 69872 • ISO 7388



## Order No.

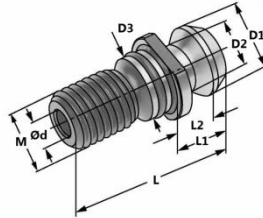
| Bestell-Nr.                                                                                                      | Form                       | M   | L    | L1   | L2   | D1   | D2   | D3   | Ød   | O-Ring      |
|------------------------------------------------------------------------------------------------------------------|----------------------------|-----|------|------|------|------|------|------|------|-------------|
| AB512L44A                                                                                                        | DIN69872A                  | M12 | 44,0 | 24,0 | 19,0 | 13,0 | 9,0  | 13,0 | 3,0  | -           |
| AB516L54A                                                                                                        | DIN69872A                  | M16 | 54,0 | 26,0 | 20,0 | 19,0 | 14,0 | 17,0 | 7,0  | -           |
| AB516L54AO                                                                                                       | DIN69872A                  | M16 | 54,0 | 26,0 | 20,0 | 19,0 | 14,0 | 17,0 | 7,0  | inkl./incl. |
| AB516L54AO.1                                                                                                     | (DIN69872A) <sup>(1)</sup> | M16 | 54,0 | 29,0 | 23,0 | 19,0 | 14,0 | 17,0 | 7,0  | inkl./incl. |
| AB516L54BO                                                                                                       | DIN69872B                  | M16 | 54,0 | 26,0 | 20,0 | 19,0 | 14,0 | 17,0 | -    | inkl./incl. |
| <sup>(1)</sup> Anzugsbolzen ähnlich DIN69872A, 3mm verlängert / Pull studs similar to DIN 69872A, 3mm lengthened |                            |     |      |      |      |      |      |      |      |             |
| AB524L74A                                                                                                        | DIN69872A                  | M24 | 74,0 | 34,0 | 25,0 | 28,0 | 21,0 | 25,0 | 11,5 | -           |
| AB524L74AO                                                                                                       | DIN69872A                  | M24 | 74,0 | 34,0 | 25,0 | 28,0 | 21,0 | 25,0 | 11,5 | inkl./incl. |
| AB524L74BO                                                                                                       | DIN69872A                  | M24 | 74,0 | 34,0 | 25,0 | 28,0 | 21,0 | 25,0 | -    | inkl./incl. |



## Order No.

## Taper

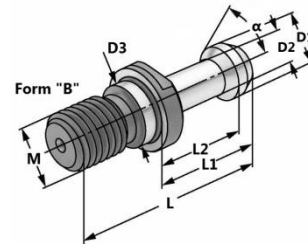
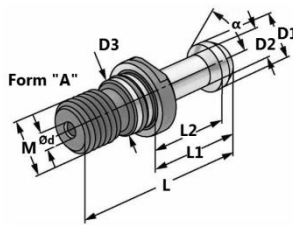
| Bestell-Nr.                                                                                                    | Form                     | M   | L     | L1    | L2    | D1    | D2    | D3    | Ød   | O-Ring      |
|----------------------------------------------------------------------------------------------------------------|--------------------------|-----|-------|-------|-------|-------|-------|-------|------|-------------|
| AB716L45A                                                                                                      | ISO7388                  | M16 | 44,50 | 16,40 | 11,15 | 18,95 | 12,95 | 17,00 | 7,0  | -           |
| AB716L45AO                                                                                                     | ISO7388                  | M16 | 44,50 | 16,40 | 11,15 | 18,95 | 12,95 | 17,00 | 7,0  | inkl./incl. |
| AB716L48AO                                                                                                     | (ISO7388) <sup>(2)</sup> | M16 | 47,50 | 19,25 | 14,15 | 18,95 | 12,95 | 17,00 | 7,3  | inkl./incl. |
| <sup>(2)</sup> Anzugsbolzen ähnlich ISO7388, 3mm verlängert / Pull studs similar to DIN 69872A, 3mm lengthened |                          |     |       |       |       |       |       |       |      |             |
| AB716L45BO                                                                                                     | ISO7388                  | M16 | 44,50 | 16,40 | 11,15 | 18,95 | 12,95 | 17,00 | -    | inkl./incl. |
| AB724L66A                                                                                                      | ISO7388                  | M24 | 65,50 | 25,55 | 17,95 | 29,10 | 19,60 | 25,00 | 11,5 | -           |
| AB724L66AO                                                                                                     | ISO7388                  | M24 | 65,50 | 25,55 | 17,95 | 29,10 | 19,60 | 25,00 | 11,5 | inkl./incl. |
| AB724L66BO                                                                                                     | ISO7388                  | M24 | 65,50 | 25,55 | 17,95 | 29,10 | 19,60 | 25,00 | -    | inkl./incl. |

**Retension Knob CAT • IN 7388-2 • JIS B 6339 / MAS 403 BT****Anzugsbolzen CAT • DIN 7388-2 • JIS B 6339 / MAS 403 BT****Order No.**

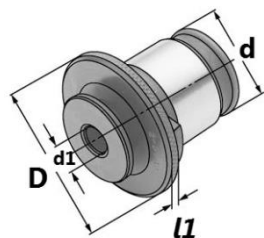
| Bestell-Nr.  | Form         | M   | L     | L1    | L2    | D1    | D2    | D3    | Ød   | O-Ring                        |
|--------------|--------------|-----|-------|-------|-------|-------|-------|-------|------|-------------------------------|
| AB816L42AO   | CAT40 metric | M16 | 41,26 | 16,26 | 11,18 | 18,80 | 12,45 | 17,00 | 7,0  | inkl./incl.                   |
| AB816L42AO.1 | CAT40 metric | M16 | 41,26 | 16,26 | 11,18 | 18,80 | 12,45 | 17,00 | 7,0  | 2 O-Ring <sup>(3)</sup>       |
| AB824L66AO   | CAT50 metric | M24 | 65,40 | 25,40 | 17,80 | 28,95 | 20,80 | 25,00 | 11,5 | mit.../with... <sup>(4)</sup> |
| AB824L66AO.1 | CAT50 metric | M24 | 65,40 | 25,40 | 17,80 | 28,95 | 20,80 | 25,00 | 11,5 | 2 O-Ring <sup>(3)</sup>       |

<sup>(3)</sup> Anzugsbolzen CAT metrisch für Hockdruckkühlung / Pull studs CAT metric for high-pressure cooling

<sup>(4)</sup> SK50 mit Freidrehung im Kopf für O-Rin / SK50 with open head rotation for O-rings

**Order**

| Bestell-Nr.   | Form              | M - α     | L    | L1   | L2   | D1   | D2   | D3   | Ød  | O-Ring      |
|---------------|-------------------|-----------|------|------|------|------|------|------|-----|-------------|
| AB612L43B.45  | JIS B 6339 - BT30 | M12 - 45° | 43,0 | 23,0 | 18,0 | 11,0 | 7,0  | 12,5 | -   | -           |
| AB612L43AO.45 | JIS B 6339 - BT30 | M12 - 45° | 43,0 | 23,0 | 18,0 | 11,0 | 7,0  | 12,5 | 2,5 | inkl./incl. |
| AB612L43B.60  | JIS B 6339 - BT30 | M12 - 60° | 43,0 | 23,0 | 18,0 | 11,0 | 7,0  | 12,5 | -   | -           |
| AB612L43AO.60 | JIS B 6339 - BT30 | M12 - 60° | 43,0 | 23,0 | 18,0 | 11,0 | 7,0  | 12,5 | 2,5 | inkl./incl. |
| AB616L60B.45  | JIS B 6339 - BT40 | M16 - 45° | 60,0 | 35,0 | 28,0 | 15,0 | 10,0 | 17,0 | -   | -           |
| AB616L60AO.45 | JIS B 6339 - BT40 | M16 - 45° | 60,0 | 35,0 | 28,0 | 15,0 | 10,0 | 17,0 | 4,0 | inkl./incl. |
| AB616L60B.60  | JIS B 6339 - BT40 | M16 - 60° | 60,0 | 35,0 | 28,0 | 15,0 | 10,0 | 17,0 | -   | -           |
| AB616L60AO.60 | JIS B 6339 - BT40 | M16 - 60° | 60,0 | 35,0 | 28,0 | 15,0 | 10,0 | 17,0 | 4,0 | inkl./incl. |
| AB616L60B.90  | JIS B 6339 - BT40 | M16 - 90° | 60,0 | 35,0 | 28,0 | 15,0 | 10,0 | 17,0 | -   | -           |
| AB616L60AO.90 | JIS B 6339 - BT40 | M16 - 90° | 60,0 | 35,0 | 28,0 | 15,0 | 10,0 | 17,0 | 4,0 | inkl./incl. |
| AB624L85B.45  | JIS B 6339 - BT50 | M24 - 45° | 85,0 | 45,0 | 35,0 | 23,0 | 17,0 | 25,0 | -   | -           |
| AB624L85AO.45 | JIS B 6339 - BT50 | M24 - 45° | 85,0 | 45,0 | 35,0 | 23,0 | 17,0 | 25,0 | 6,0 | inkl./incl. |
| AB624L85B.60  | JIS B 6339 - BT50 | M24 - 60° | 85,0 | 45,0 | 35,0 | 23,0 | 17,0 | 25,0 | -   | -           |
| AB624L85AO.60 | JIS B 6339 - BT50 | M24 - 60° | 85,0 | 45,0 | 35,0 | 23,0 | 17,0 | 25,0 | 6,0 | inkl./incl. |
| AB624L85B.90  | JIS B 6339 - BT50 | M24 - 90° | 85,0 | 45,0 | 35,0 | 23,0 | 17,0 | 25,0 | -   | -           |
| AB624L85AO.90 | JIS B 6339 - BT50 | M24 - 90° | 85,0 | 45,0 | 35,0 | 23,0 | 17,0 | 25,0 | 6,0 | inkl./incl. |

**Quick Change Rigid Tapping Collets** without safety clutch**Schnellwechsel-Einsätze** ohne Rutschkupplung

**M3 – M14**  
**Größe/size 1**

| <b>Order No.</b><br><b>Bestell-Nr.</b> | <b>D</b> | <b>d</b> | <b>l1</b> | <b>Schaft</b> | <b>■</b> |
|----------------------------------------|----------|----------|-----------|---------------|----------|
| IG1-2821                               | 30       | 19       | 5         | 2,8           | 2,1      |
| IG1- 3527                              | 30       | 19       | 5         | 3,5           | 2,7      |
| IG1- 4030                              | 30       | 19       | 5         | 4,0           | 3,0      |
| IG1- 4534                              | 30       | 19       | 5         | 4,5           | 3,4      |
| IG1- 6049                              | 30       | 19       | 5         | 6,0           | 4,9      |
| IG1- 7055                              | 30       | 19       | 5         | 7,0           | 5,5      |
| IG1- 8062                              | 30       | 19       | 5         | 8,0           | 6,2      |
| IG1- 9070                              | 30       | 19       | 5         | 9,0           | 7,0      |
| IG1- 10080                             | 30       | 19       | 5         | 10,0          | 8,0      |
| IG1- 11090                             | 30       | 19       | 5         | 11,0          | 9,0      |

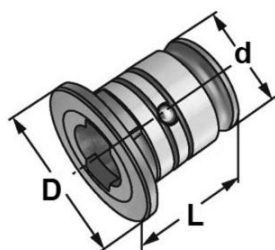


**M5 – M22**  
**Größe/size 2**

| <b>Order No.</b><br><b>Bestell-Nr.</b> | <b>D</b> | <b>d</b> | <b>l1</b> | <b>Schaft</b> | <b>■</b> |
|----------------------------------------|----------|----------|-----------|---------------|----------|
| IG2-6049                               | 48       | 31       | 6         | 6,0           | 4,9      |
| IG2-7055                               | 48       | 31       | 6         | 7,0           | 5,5      |
| IG2-8062                               | 48       | 31       | 6         | 8,0           | 6,2      |
| IG2-9070                               | 48       | 31       | 6         | 9,0           | 7,0      |
| IG2-10080                              | 48       | 31       | 6         | 10,0          | 8,0      |
| IG2-11090                              | 48       | 31       | 6         | 11,0          | 9,0      |
| IG2-12090                              | 48       | 31       | 6         | 12,0          | 9,0      |
| IG2-140110                             | 48       | 31       | 6         | 14,0          | 11,0     |
| IG2-160120                             | 48       | 31       | 6         | 16,0          | 12,0     |
| IG2-180145                             | 48       | 31       | 6         | 18,0          | 14,5     |

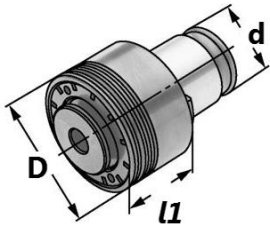
**M14 – M36**  
**Größe/size 3**

| <b>Order No.</b><br><b>Bestell-Nr.</b> | <b>D</b> | <b>d</b> | <b>l1</b> | <b>Schaft</b> | <b>■</b> |
|----------------------------------------|----------|----------|-----------|---------------|----------|
| IG3-11090                              | 63       | 48       | 6         | 11,0          | 9,0      |
| IG3-12090                              | 63       | 48       | 6         | 12,0          | 9,0      |
| IG3-140110                             | 63       | 48       | 6         | 14,0          | 11,0     |
| IG3-160120                             | 63       | 48       | 6         | 16,0          | 12,0     |
| IG3-180145                             | 63       | 48       | 6         | 18,0          | 14,5     |
| IG3-200160                             | 63       | 48       | 6         | 20,0          | 16,0     |
| IG3-220180                             | 63       | 48       | 6         | 22,0          | 18,0     |
| IG3-250200                             | 63       | 48       | 6         | 25,0          | 20,0     |
| IG3-280220                             | 63       | 48       | 6         | 28,0          | 22,0     |

**Reducing adaptors for quick change adaptors****Reduzieradapter für Schnellwechsel-Einsätze**

| <b>Order No.</b><br><b>Bestell-Nr.</b> | <b>D</b> | <b>d</b> | <b>L</b> | <b>Workholder</b><br><b>Aufnahme</b> | <b>Adaptor</b><br><b>Einsatz</b> |
|----------------------------------------|----------|----------|----------|--------------------------------------|----------------------------------|
| IG2-2010R                              | 48       | 31       | 40,4     | 2                                    | 1                                |
| IG3- 3020R                             | 59       | 48       | 62,6     | 3                                    | 2                                |



**Quick Change Tapping Collets with Clutch****Schnellwechsel-Einsätze mit Rutschkupplung****M3 – M14****Größe/size 1****Order No.****Bestell-Nr.**

|             | <b>D</b> | <b>d</b> | <b>L1</b> | <b>M</b> | <b>DIN</b> | <b>Schaft</b> | <b>■</b> |
|-------------|----------|----------|-----------|----------|------------|---------------|----------|
| IG1-2821K   | 32       | 19       | 25        | M2,5     | 371        | 2,8           | 2,1      |
| IG1- 3527K  | 32       | 19       | 25        | M3       | 371        | 3,5           | 2,7      |
| IG1- 4030K  | 32       | 19       | 25        | M3,5     | 371        | 4,0           | 3,0      |
| IG1- 4534K  | 32       | 19       | 25        | M4       | 371        | 4,5           | 3,4      |
| IG1- 6049K  | 32       | 19       | 25        | M5       | 371        | 6,0           | 4,9      |
| IG1-60.149K | 32       | 19       | 25        | M6       | 371        | 6,0           | 4,9      |
| IG1- 7055K  | 32       | 19       | 25        | M10      | 376        | 7,0           | 5,5      |
| IG1- 8062K  | 32       | 19       | 25        | M8       | 371        | 8,0           | 6,2      |
| IG1- 9070K  | 32       | 19       | 25        | M12      | 376        | 9,0           | 7,0      |
| IG1- 10080K | 32       | 19       | 25        | M10      | 371        | 10,0          | 8,0      |
| IG1- 11090K | 32       | 19       | 25        | M14      | 376        | 11,0          | 9,0      |

**M5 – M22****Größe/size 2****Order No.****Bestell-Nr.**

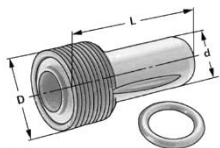
|             | <b>D</b> | <b>d</b> | <b>L1</b> | <b>M</b> | <b>DIN</b> | <b>Schaft</b> | <b>■</b> |
|-------------|----------|----------|-----------|----------|------------|---------------|----------|
| IG2-6049K   | 50       | 31       | 31        | M5       | 371        | 6,0           | 4,9      |
| IG2-60.149K | 50       | 31       | 31        | M6       | 371        | 6,0           | 4,9      |
| IG2-7055K   | 50       | 31       | 31        | M10      | 376        | 7,0           | 5,5      |
| IG2-8062K   | 50       | 31       | 31        | M8       | 371        | 8,0           | 6,2      |
| IG2-9070K   | 50       | 31       | 31        | M12      | 376        | 9,0           | 7,0      |
| IG2-10080K  | 50       | 31       | 31        | M10      | 371        | 10,0          | 8,0      |
| IG2-11090K  | 50       | 31       | 31        | M14      | 376        | 11,0          | 9,0      |
| IG2-12090K  | 50       | 31       | 31        | M16      | 376        | 12,0          | 9,0      |
| IG2-140110K | 50       | 31       | 31        | M18      | 376        | 14,0          | 11,0     |
| IG2-160120K | 50       | 31       | 31        | M20      | 376        | 16,0          | 12,0     |
| IG2-180145K | 50       | 31       | 31        | M22      | 376        | 18,0          | 14,5     |

**M14 – M36****Größe/size 3****Order No.****Bestell-Nr.**

|               | <b>D</b> | <b>d</b> | <b>L1</b> | <b>M</b> | <b>DIN</b> | <b>Schaft</b> | <b>■</b> |
|---------------|----------|----------|-----------|----------|------------|---------------|----------|
| IG3-11090K    | 72       | 48       | 41        | M14      | 376        | 11,0          | 9,0      |
| IG3-12090K    | 72       | 48       | 41        | M16      | 376        | 12,0          | 9,0      |
| IG3-140110K   | 72       | 48       | 41        | M18      | 376        | 14,0          | 11,0     |
| IG3-160120K   | 72       | 48       | 41        | M20      | 376        | 16,0          | 12,0     |
| IG3-180145K   | 72       | 48       | 41        | M22      | 376        | 18,0          | 14,5     |
| IG3-180.1145K | 72       | 48       | 41        | M24      | 376        | 18,0          | 14,5     |
| IG3-200160K   | 72       | 48       | 41        | M27      | 376        | 20,0          | 16,0     |
| IG3-220180K   | 72       | 48       | 41        | M30      | 376        | 22,0          | 18,0     |
| IG3-250200K   | 72       | 48       | 41        | M33      | 376        | 25,0          | 20,0     |
| IG3-280220K   | 72       | 48       | 41        | M36      | 376        | 28,0          | 22,0     |

## Coolant Tubes / Wrench HSK-A

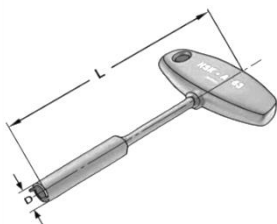
## Kühlmittelübergabeeinheit / Schlüssel HSK-A



## Order No.

| Bestell-Nr. | HSK       | D       | d  | L    |
|-------------|-----------|---------|----|------|
| KE-63       | HSK-A 63  | M18x1   | 12 | 34,5 |
| KE-100      | HSK-A 100 | M24x1,5 | 16 | 44,0 |

Axial abgedichtet mit zwei O-Ringen • Axial sealed with two O-Rings

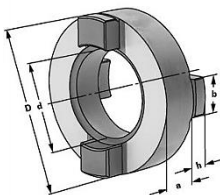


## Order No.

| Bestell-Nr. | HSK       | D    | L   |
|-------------|-----------|------|-----|
| KES-63      | HSK-A 63  | 16,5 | 136 |
| KES-100     | HSK-A 100 | 22,0 | 136 |

## Clutch Driving Rings DIN 6366

## Mitnehmerringe DIN 6366



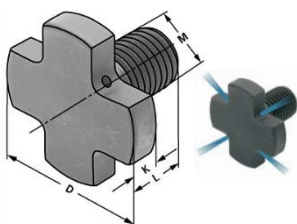
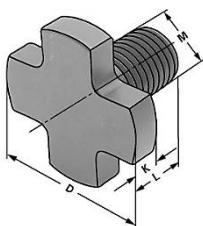
## Order Nr.

| Bestell-Nr. | d  | D  | a  | b  | h   |
|-------------|----|----|----|----|-----|
| 60 40 0 16  | 16 | 32 | 10 | 8  | 5,0 |
| 60 40 0 22  | 22 | 40 | 12 | 10 | 5,6 |
| 60 40 0 27  | 27 | 46 | 12 | 12 | 6,3 |
| 60 40 0 32  | 32 | 55 | 14 | 14 | 7,0 |
| 60 40 0 40  | 40 | 68 | 14 | 16 | 8,0 |

For Combi shell mill holders DIN 6358 • Für Aufsteckfräserdorne DIN 6358

## Draw In Bolt DIN 6367 (optional with drill through for coolant)

## Fräseranzugsschrauben DIN 6367 (optional durchbohrt für Kühlmittelzufuhr)



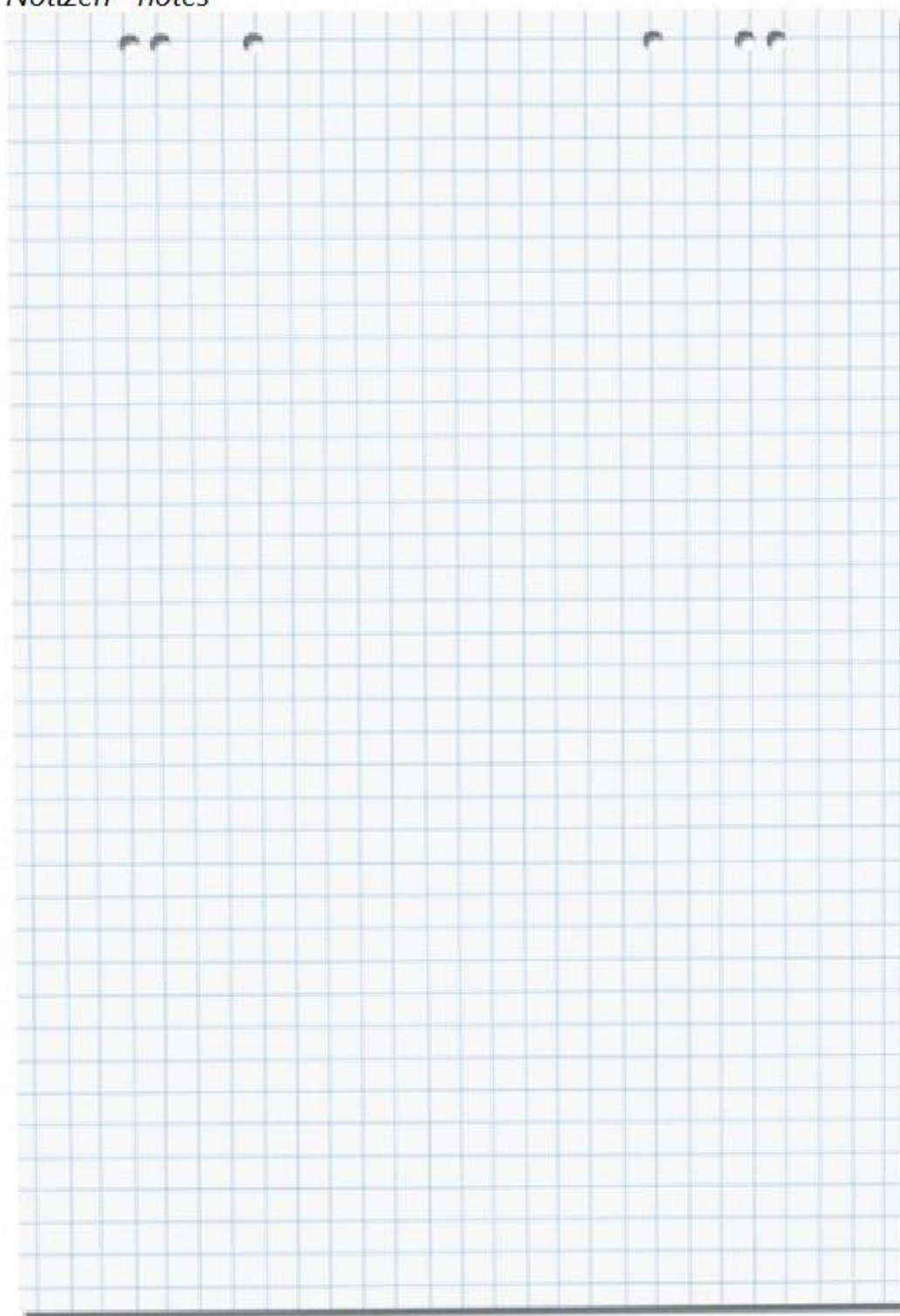
## Order No.

| Bestell-Nr. | Size<br>Abmessung | M   | D  | K  | L  |
|-------------|-------------------|-----|----|----|----|
| 60 40 08    | 16                | M8  | 20 | 6  | 16 |
| 60 40 10    | 22                | M10 | 28 | 7  | 18 |
| 60 40 12    | 27                | M12 | 35 | 8  | 22 |
| 60 40 16    | 32                | M16 | 42 | 9  | 26 |
| 60 40 20    | 40                | M20 | 52 | 10 | 30 |
| 60 40 24    | 50                | M24 | 63 | 12 | 36 |
| 60 40 30    | 60                | M30 | 75 | 14 | 45 |

Fräseranzugsschraube mit Bohrung für Kühlmittelzufuhr: wie oben – Bestellnummer ergänzt um –D Bestellbeispiel: **60 04 08-D**

Draw In Bolt with drill through bore for coolant: as above – Order Nr. added with –D Order example: **60 04 08-D**

Notizen • notes



**WSW**

**ER Clampings Nuts DIN 6499 / ISO 15488****ER Spannmuttern DIN 6499 / ISO 15488**

| Order No.<br>Bestell-Nr.                                                                        | D    | L    | M        | Collets<br>Spannzange | Sealing Disk<br>Dichtscheibe |
|-------------------------------------------------------------------------------------------------|------|------|----------|-----------------------|------------------------------|
| <i>Mini clamping nut<br/>Mini Spannmuttern</i>                                                  |      |      |          |                       |                              |
| 108M                                                                                            | 12.0 | 11.0 | M10x0.75 | 080 4004E (ER8)       | -                            |
| 111M                                                                                            | 16.0 | 12.0 | M13x0.75 | 110 4008 (ER11)       | -                            |
| 116M                                                                                            | 22.0 | 18.0 | M19x1.00 | 160 426E (ER16)       | -                            |
| 120M                                                                                            | 28.0 | 19.5 | M24x1.00 | 200 428E (ER20)       | -                            |
| 125M                                                                                            | 35.0 | 20.5 | M30x1.00 | 250 430E (ER25)       | -                            |
| <i>Mini clamping nut with sealing disk system<br/>Mini Spannmuttern mit Dichtscheibensystem</i> |      |      |          |                       |                              |
| 116M-D                                                                                          | 22.0 | 22.5 | M19x1.00 | 160 426E (ER16)       | DS16                         |
| 120M-D                                                                                          | 28.0 | 24.0 | M24x1.00 | 200 428E (ER20)       | DS20                         |
| 125M-D                                                                                          | 35.0 | 25.0 | M30x1.00 | 250 430E (ER25)       | DS25                         |



| Order No.<br>Bestell-Nr.                                                                                | D    | L    | M        | Collets<br>Spannzange | Sealing Disk<br>Dichtscheibe |
|---------------------------------------------------------------------------------------------------------|------|------|----------|-----------------------|------------------------------|
| <i>Standard clamping nut (Hexagon)<br/>Standard Spannmuttern (Sechskant)</i>                            |      |      |          |                       |                              |
| 111                                                                                                     | 19.0 | 11,8 | M14x0,75 | 110 4008 (ER11)       | -                            |
| 112                                                                                                     | 19.0 | 14,0 | M14x0,75 | 112 424E (ER12)       | -                            |
| 116                                                                                                     | 28.0 | 18,0 | M22x1,50 | 160 426E (ER16)       | -                            |
| 120                                                                                                     | 34.0 | 19,5 | M25x1,50 | 200 428E (ER20)       | -                            |
| <i>Standard clamping nut (Slots)<br/>Standard Spannmuttern (Nuten)</i>                                  |      |      |          |                       |                              |
| 116NU                                                                                                   | 32.0 | 18,0 | M22x1,50 | 160 426E (ER16)       | -                            |
| 120NU                                                                                                   | 35.0 | 19,5 | M25x1,50 | 200 428E (ER20)       | -                            |
| 125                                                                                                     | 42.0 | 20,5 | M32x1,50 | 250 430E (ER25)       | -                            |
| 132                                                                                                     | 50.0 | 23,0 | M40x1,50 | 320 270E (ER32)       | -                            |
| 140                                                                                                     | 63.0 | 26,0 | M50x1,50 | 400 472E (ER40)       | -                            |
| 150                                                                                                     | 78.0 | 36,0 | M64x2.00 | 500 477E (ER50)       | -                            |
| <i>Standard clamping nut with sealing disk system<br/>Standard Spannmuttern mit Dichtscheibensystem</i> |      |      |          |                       |                              |
| 116-D                                                                                                   | 32.0 | 22.5 | M22x1.50 | 160 426E (ER16)       | DS16                         |
| 120-D                                                                                                   | 35.0 | 24.0 | M25x1.50 | 200 428E (ER20)       | DS20                         |
| 125-D                                                                                                   | 42,0 | 25,0 | M32x1,50 | 250 430E (ER25)       | DS25                         |
| 132-D                                                                                                   | 50.0 | 27.5 | M40x1,50 | 320 270E (ER32)       | DS32                         |
| 140-D                                                                                                   | 63.0 | 30.5 | M50x1,50 | 400 472E (ER40)       | DS40                         |

ER Clamping Nuts DIN 6499 / ISO 15488

ER Spannmuttern DIN 6499 / ISO 15488



| Order No.<br>Bestell-Nr.                                                                                             | D  | L    | M        | Collets<br>Spannzange | Sealing Disk<br>Dichtscheibe |
|----------------------------------------------------------------------------------------------------------------------|----|------|----------|-----------------------|------------------------------|
| <i>Sleeve bearing clamping nut</i><br><i>Gleitlagerspannmuttern</i>                                                  |    |      |          |                       |                              |
| 1016G                                                                                                                | 32 | 18,0 | M22x1,50 | 160 426E (ER16)       | -                            |
| 1020G                                                                                                                | 35 | 20,0 | M25x1,50 | 200 428E (ER20)       | -                            |
| 1025G                                                                                                                | 42 | 20,5 | M32x1,50 | 250 430E (ER25)       | -                            |
| 1032G                                                                                                                | 50 | 23,0 | M40x1,50 | 320 270E (ER32)       | -                            |
| 1040G                                                                                                                | 63 | 30,5 | M50x1.50 | 400 472E (ER40)       | -                            |
| <i>Sleeve bearing clamping nut with sealing disk system</i><br><i>Gleitlagerspannmuttern mit Dichtscheibensystem</i> |    |      |          |                       |                              |
| 1016G-D                                                                                                              | 32 | 22,5 | M22x1,5  | 160 426E (ER16)       | DS16                         |
| 1020G-D                                                                                                              | 35 | 24,0 | M25x1,5  | 200 428E (ER20)       | DS20                         |
| 1025G-D                                                                                                              | 42 | 25,0 | M32x1,5  | 250 430E (ER25)       | DS25                         |
| 1032G-D                                                                                                              | 50 | 27,5 | M40x1,5  | 320 270E (ER32)       | DS32                         |
| 1040G-D                                                                                                              | 63 | 30,5 | M50x1,5  | 400 472E (ER40)       | DS40                         |

**EWS . Zero-Zero**  
(DGB-Schutzrecht)

Null Rundlauf mit einer ganz normalen Spannzange!

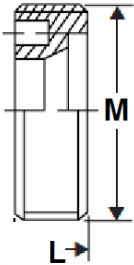
Die neu entwickelte Spannzangenmutter Zero-Zero ermöglicht die Rundlaufoptimierung in weniger als einer Minute auf Null.



| Order No.<br>Bestell-Nr.                                                                                                                                         | D  | L    | M        | Collets<br>Spannzange |   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|----------|-----------------------|---|
| <i>With concentricity optimization for ER system according to DIN 6499 / ISO15488</i><br><i>Mit Rücklaufoptimierung für ER Systeme nach DIN 6499 / ISO 15488</i> |    |      |          |                       |   |
| 116-Zero-Zero                                                                                                                                                    | 35 | 21.0 | M22x1,50 | 160 426E (ER16)       | - |
| 120-Zero-Zero                                                                                                                                                    | 42 | 21.5 | M25x1,50 | 200 428E (ER20)       | - |
| 125-Zero-Zero                                                                                                                                                    | 50 | 22.0 | M32x1,50 | 250 430E (ER25)       | - |
| 132-Zero-Zero                                                                                                                                                    | 63 | 23.0 | M40x1,50 | 320 270E (ER32)       | - |
| 140-Zero-Zero                                                                                                                                                    | 78 | 27.5 | M50x1.50 | 400 472E (ER40)       | - |

## Clamping Nuts external thread

## Spannmuttern Außengewinde



## Order No.

## Bestell-Nr.

## D

## L

## M

## Collets

## Spannzange

Clamping nut with external thread (special wrenches)

Spannmutter mit Außengewinde (Spezialspannschlüssel)

|       |   |      |          |                 |   |
|-------|---|------|----------|-----------------|---|
| E11AK | - | 7.5  | M18x1.00 | 110 4008 (ER11) | - |
| E16AK | - | 7.6  | M24x1.00 | 160 426E (ER16) | - |
| E20AK | - | 8.4  | M28x1.50 | 200 428E (ER20) | - |
| E25AK | - | 8.8  | M32x1.50 | 250 430E (ER25) | - |
| E32AK | - | 9.8  | M40x1.50 | 320 470E (ER32) | - |
| E40AK | - | 11.8 | M50x1.50 | 400 472E (ER40) | - |

Clamping nut with external thread (retention bore)

Spannmutter mit Außengewinde (Anzugsbohrungen)

|      |      |      |          |                 |   |
|------|------|------|----------|-----------------|---|
| E11A | 18,0 | 6,0  | M18x1.00 | 110 4008 (ER11) | - |
| E16A | 24,0 | 8,0  | M24x1.00 | 160 426E (ER16) | - |
| E20A | 28,0 | 11,0 | M28x1.50 | 200 428E (ER20) | - |
| E25A | 32,0 | 12,5 | M32x1.50 | 250 430E (ER25) | - |
| E32A | 40,0 | 14,0 | M40x1.50 | 320 270E (ER32) | - |



## Order No.

## Bestell-Nr.

## D

## L

## M

## Collets

## Spannzange

Clamping nut with external thread / Hexagon optionally with sealing disk system

Spannmutter mit Außengewinde / Sechskant optional mit Dichtscheibensystem

|          |      |      |         |                  |      |
|----------|------|------|---------|------------------|------|
| E 11 ASK | 18,0 | 8,0  | M18x1   | 110 4008E (ER11) | -    |
| E 16 ASK | 24,0 | 11,0 | M24x1   | 160 426E (ER16)  | DS16 |
| E 20 ASK | 28,0 | 12,5 | M28x1,5 | 200 428E (ER20)  | DS20 |
| E 25 ASK | 32,0 | 14,5 | M32x1,5 | 250 430E (ER25)  | DS25 |
| E 32 ASK | 40,0 | 17,5 | M40x1,5 | 320 270E (ER32)  | DS32 |

Clamping nut can be used with or without sealing disk.

Spannmutter kann mit bzw. ohne Dichtscheibe verwendet werden.

OZ Clamping Nuts DIN 6388 / ISO 10897

OZ Spannmuttern DIN 6499 / ISO 15488



Ball bearing clamping nut according to DIN 6388 type OZ  
Kugellagerspannmutter nach DIN 6388 Typ OZ

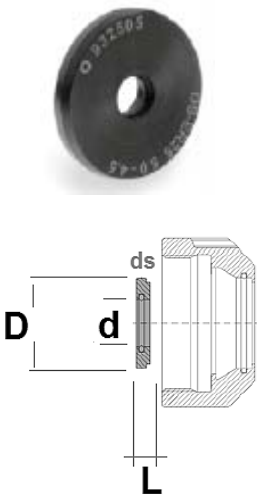
| Order No.   |      |      |          | Collets          | Sealing Disk |
|-------------|------|------|----------|------------------|--------------|
| Bestell-Nr. | D    | L    | M        | Spannzange       | Dichtscheibe |
| 016         | 43,0 | 24,0 | M33x1.50 | 025 415E (OZ16)  | -            |
| 020         | 50,0 | 28,0 | M42x2.00 | 030 4541E (OZ20) | -            |
| 025         | 60,0 | 30,0 | M48x2.00 | 035 462E (OZ25)  | -            |
| 032         | 72,0 | 33,5 | M60x2.50 | 044 467E (OZ32)  | -            |
| 040         | 85,0 | 37,0 | M68x2.50 | 052 468E (OZ40)  | -            |

Ball bearing clamping nut with sealing disk system  
Kugellagerspannmutter mit Dichtscheibensystem

| Order No.   |      |      |          | Collets         | Sealing Disk |
|-------------|------|------|----------|-----------------|--------------|
| Bestell-Nr. | D    | L    | M        | Spannzange      | Dichtscheibe |
| 016-D       | 43,0 | 29,0 | M33x1.50 | 025 415E (OZ16) | DS25         |
| 025-D       | 60,0 | 35,0 | M48x2.00 | 035 462E (OZ25) | DS50         |
| 032-D       | 72,0 | 39,5 | M60x2.50 | 044 467E (OZ32) | DS60         |
| 040-D       | 85,0 | 43,0 | M68x2.50 | 052 468E (OZ40) | DS70         |

ER/OZ Sealing Disks and Sealing Disk Set ISO 15488 ER / ISO 10897 OZ

ER/OZ Dichtscheiben und Dichtscheibensatz DIN 6499 ER / DIN 6388 OZ



| Order No.   |      |     |                     | Lead (mm) | Set             |
|-------------|------|-----|---------------------|-----------|-----------------|
| Bestell-Nr. | D    | L   | d                   | Steigung  | Satz            |
| DS16.ddd    | 13.0 | 4.0 | 2.5-3.0   9.5-10.0  | 0.5       | 7 (4.0 – 10.0)  |
| DS20.ddd    | 16.0 | 4.0 | 2.5-3.0   12.5-13.0 | 0.5       | 10 (4.0 – 13.0) |
| DS25.ddd    | 21.0 | 4.0 | 2.5-3.0   15.5-16.0 | 0.5       | 13 (4.0 – 16.0) |
| DS32.ddd    | 27.0 | 4.0 | 2.5-3.0   19.5-20.0 | 0.5       | 17 (4.0 – 20.0) |
| DS40.ddd    | 33.5 | 4.0 | 2.5-3.0   25.5-26.0 | 0.5       | 23 (4.0 – 26.0) |
| DS50.ddd    | 31.0 | 4.0 | 3.5-4.0   24.5-25.0 | 0.5       | 22 (4.0 – 25.0) |
| DS60.ddd    | 40.0 | 4.0 | 4.5-5.0   31.5-32.0 | 0.5       | -               |
| DS70.ddd    | 47.0 | 4.0 | 4.5-5.0   39.5-40.0 | 0.5       | -               |

Bestellinformation / Order information

Dichtscheibe DS20 / Öffnung 5.5 – 6.0 mm  
Dichtscheibensatz DS32  
Sealing disk DS20 / vent 5.5- 6.0 mm  
Sealing disks set DS32

z.B. / e.g.

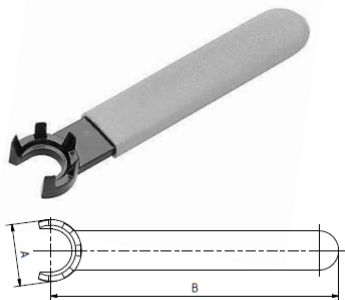
DS20.060  
DS32.SET  
DS20.060  
DS32.SET





## Wrenches for Clamping Nuts

## Spannschlüssel für Spannmuttern



Wrench for Mini-Clamping Nuts ER  
Spannschlüssel für Mini-Spannmuttern ER

## Order No.

## Bestell-Nr.

A

B

ØD

## Clamping Nut

## Spannmutter

208M

12,4

70

-

108M

211M

16,8

90

-

111M

216M

22,5

110

-

116M

220M

29

120

-

120M

225M

36

130

-

125M

Wrench for Groove Nuts ER  
Spannschlüssel für Nut Muttern ER

## Order No.

## Bestell-Nr.

A

B

ØD

## Clamping Nut

## Spannmutter

216

55

160

-

116NU

220

60

180

-

120NU/116-ZERO-ZERO

225

70

200

-

125NU/1025/120-ZERO-ZERO

232

80

250

-

132/1032/125-ZERO-ZERO

240

95

280

-

140/1040/132-ZERO-ZERO

250

115

350

-

150/140-ZERO-ZERO

Wrench for Nuts with retention bore  
Spannschlüssel für Muttern mit Anzugsbohrungen

## Order No.

## Bestell-Nr.

A

B

ØD

## Clamping Nut

## Spannmutter

EA11

7 - 40

115

2

E 11 A

EA16

11 - 60

160

3

E 16 A | E 20 A

EA25

11 - 60

160

4

E 25 A | E 32 A

E 25 ASK

32,0

14,5

M32x1,5

250 430E (ER25)

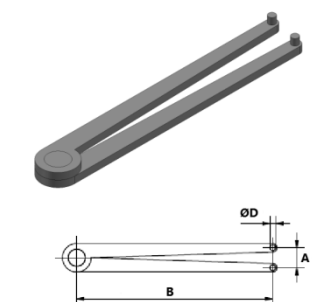
E 32 ASK

40,0

17,5

M40x1,5

320 270E (ER32)



Wrench for Nuts with special Clamping profile  
Spannschlüssel für Muttern mit Spezial-Anzugsprofil

## Order No.

## Bestell-Nr.

A

B

ØD

## Clamping Nut

## Spannmutter

EA11 K

16

102

-

E 11 A K

EA16 K

22

120

-

E 16 A K

EA20 K

24,5

135

-

E 20 A K

EA25 K

30

155

-

E 25 A K

EA32 K

37

195

-

E 32 A K

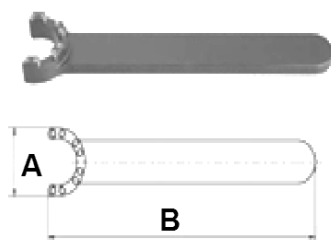
EA40 K

48

220

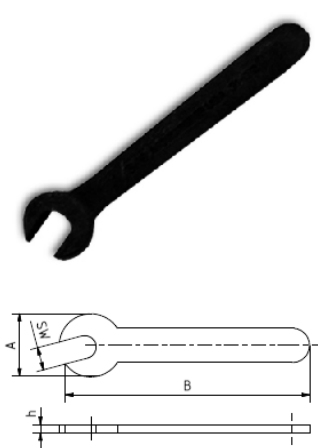
-

E 40



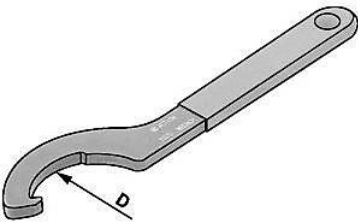
Wrenches for Clamping Nuts / arbors DIN 6368

Spannschlüssel für Spannmuttern / Aufsteckdorne



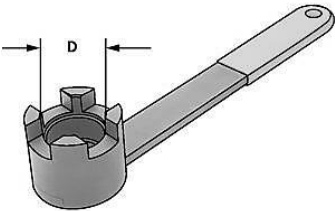
Open-end Wrench for Nuts with hexagon and wrench size  
Spannschlüssel für Muttern mit Sechskant und SW

| Order No.   |    |     |    |   | Clamping Nut   |
|-------------|----|-----|----|---|----------------|
| Bestell-Nr. | A  | B   | SW | H | Spannmutter    |
| GS08        | 22 | 85  | 8  | 3 |                |
| GS10        | 26 | 93  | 10 | 3 |                |
| GS11        | 26 | 93  | 11 | 3 |                |
| GS14        | 30 | 98  | 14 | 3 |                |
| GS15        | 30 | 98  | 15 | 3 | E 11 ASK       |
| GS17        | 37 | 100 | 17 | 3 | 111 / 112      |
| GS19        | 40 | 100 | 19 | 3 | 116 / E 16 ASK |
| GS22        | 47 | 120 | 22 | 4 | E 20 ASK       |
| GS24        | 47 | 120 | 24 | 4 | E 25 ASK       |
| GS25        | 55 | 130 | 25 | 4 | 116            |
| GS27        | 55 | 130 | 27 | 4 |                |
| GS30        | 66 | 140 | 30 | 5 | 125            |
| GS32        | 66 | 140 | 32 | 5 | E 32 ASK       |
| GS36        | 74 | 160 | 36 | 5 |                |
| GS41        | 84 | 170 | 41 | 6 |                |



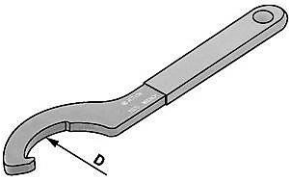
Wrench for Groove Nuts OZ  
Spannschlüssel für Nut Muttern OZ

| Order No.      |    |     |    |   | Clamping Nut |
|----------------|----|-----|----|---|--------------|
| Bestell-Nr.    | A  | B   | SW | H | Spannmutter  |
| DIN1810A-52x55 | 32 | 180 |    |   | 020          |
| DIN1810A-58x62 | 42 | 200 |    |   | 025          |
| DIN1810A-68x75 | 50 | 250 |    |   | 032          |
| DIN1810A-80x90 | 60 | 300 |    |   | 040          |



Wrench DIN 6368  
Spannschlüssel DIN 6368 für Aufsteckdorne

| Order No.   |        |  |
|-------------|--------|--|
| Bestell-Nr. | D      |  |
| 60 40 M8    | 16/M8  |  |
| 60 40 M10   | 22/M10 |  |
| 60 40 M12   | 27/M12 |  |
| 60 40 M16   | 32/M16 |  |
| 60 40 M20   | 40/M20 |  |

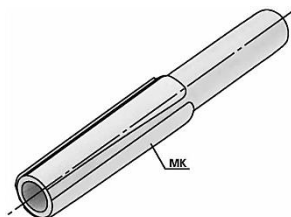


Wrenches for System HKS  
Hakenschlüssel für System HKS

| Order No.   | Size      |    |
|-------------|-----------|----|
| Bestell-Nr. | Abmessung | D  |
| HKS20-53    | HKS 20    | 53 |
| HKS32-68    | HKS 32    | 68 |

## Taper Wipers

## Kegelwischer



## Order No.

## Bestell-Nr.

## MK

606001

1

606002

2

606003

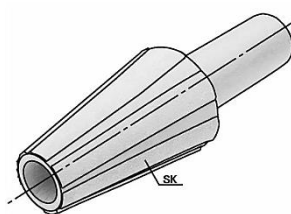
3

606004

4

606005

5



## Order No.

## Bestell-Nr.

## SK

606030

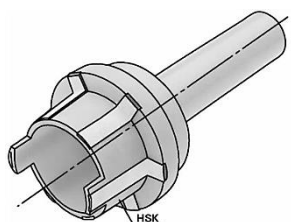
30

606040

40

606050

50



## Order No.

## Bestell-Nr.

## HSK

## Form

607032

32

A-C-E

607040

40

A-C-E

607050

50

A-C-E

607063

63

A-C-E

607080

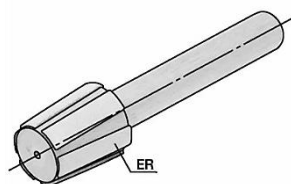
80

A-C-E

6070100

100

A-C-E



## Order No.

## Bestell-Nr.

## ER

608016

16

608025

25

608032

32

608040

40

## Order No.

## Bestell-Nr.

## OZ

608023

16

608033

25

608041

32

Sonderausführungen auf Anfrage.  
Special versions on request.

## Technical Information

## Technische Information

### Toolholder ISO 7388-1 (DIN 69871) • ISO 7388-2 (JIS B 6339) • DIN 2080

### Werkzeugaufnahmen • ISO 7388-1 (DIN 69871) • ISO 7388-2 (JIS B 6339) • DIN 2080

- Legierter Einsatzstahl mit einer
- Zugfestigkeit im Kern von min. 950 N/mm<sup>2</sup>
- Einsatzgehärtet HRC 58 ± 2
- Härtetiefe 0,6 mm + 0,2 mm, brüniert
- Kegelwinkel-Toleranzqualität AT 3 nach DIN 2080
- Oberflächenrauigkeit des Kegels max. 0,001 mm
- Case hardened steel
- tensile strength in the core min 950 N/mm<sup>2</sup>
- Case hardened HRC 58 ± 2
- Depth of case 0,6 mm + 0,2 mm, black-finish
- Taper angle AT 3 according DIN 2080
- Surface roughness of Taper max. 0,001 mm

### Coolant supply ISO 7388-1 (DIN 69871) • ISO 7388-2 (JIS B 6339)

### Kühlmittelzuführung • ISO 7388-1 (DIN 69871) • ISO 7388-2 (JIS B 6339)

- Form A: Keine innere Kühlmittel-Zufuhr
- Form AD: Zentrale Kühlmittel-Zufuhr durch den Anzugsbolzen (mit Durchgangsbohrung Form A)
- Form AD/AF: Seitliche (interne) Kühlmittel-Zufuhr mit abgedichtetem Anzugsbolzen (ohne Bohrung Form B)
- Form A: No internal coolant supply
- Form AD: Central coolant supply through retention knob (with centralized bore form A)
- Form AD/AF: Lateral (central) coolant supply with sealed retention knob (without bore form B)

### CNC Universal Drill Chuck Heads

### CNC Präzisionsbohrfutter

| Typ                                                          | Type                                                      | Typ 08                                  | Typ 13                                  | Typ 16                                  |
|--------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Spannbereich                                                 | Clamping Range                                            | 0,3 – 8,0 mm                            | 0,5 – 13,0 mm                           | 2,5 – 16 mm                             |
| Rundlaufabweichung, maximal                                  | Rotation discrepancy, max.                                | < 0,02 mm <sup>(1)</sup>                | < 0,02 mm <sup>(1)</sup>                | < 0,02 mm <sup>(1)</sup>                |
| Anzugsmoment in Bezug auf Rundlaufabweichung                 | Torque according to the rotation discrepancy              | 8 Nm                                    | 15 Nm                                   | 15 Nm                                   |
| Übertragbares Drehmoment                                     | Transmittable Torque                                      | 18 Nm <sup>(2)</sup>                    | 40 Nm <sup>(2)</sup>                    | 45 Nm <sup>(2)</sup>                    |
| Maximal zulässiges Anzugsmoment                              | Permissible Torque max.                                   | 10 Nm                                   | 20 Nm                                   | 20 Nm                                   |
| Übertragbares Drehmoment bei maximal zulässigem Anzugsmoment | Transmittable Torque according to max. permissible Torque | 30 Nm <sup>(2)</sup>                    | 80 Nm <sup>(2)</sup>                    | 90 Nm <sup>(2)</sup>                    |
| Maximal zulässige Drehzahl                                   | Permissible revolution max.                               | 35.000 min <sup>-1</sup> <sup>(3)</sup> | 35.000 min <sup>-1</sup> <sup>(3)</sup> | 35.000 min <sup>-1</sup> <sup>(3)</sup> |

<sup>(1)</sup> Prüfung der Rundlaufabweichung gemäß Prüfprotokoll „Präzision“.

<sup>(2)</sup> Alle CNC-Bohrfutter werden mittels eines Sechskant-Quergriffschlüssels seitlich über einen Kegelbetrieb gespannt. Für den Einsatz des Bohrfutters ist am Sechskant-Quergriffschlüssel ein Anzugsmoment von 8 Nm bzw. 15 Nm ausreichend.

<sup>(3)</sup> Die CNC-Bohrfutter sind „ungewuchtet“ für einen Einsatz von bis zu 7.000 min<sup>-1</sup> geeignet. Für die Anwendung bei Drehzahlen über 7.000 min<sup>-1</sup> (bis max. 35.000 min<sup>-1</sup>), wie z. B. in der Alu- oder Holzbearbeitung, müssen die Bohrfutter zusätzlich gemäß den Wuchtklassen gewuchtet werden.

<sup>(1)</sup> Examination Rotation discrepancy in accordance to test report „precision“.

<sup>(2)</sup> All CNC Universal drill chucks are tightened by use of a hexagon T-handle wrench tightening torque of 8 Nm and 15 Nm.

<sup>(3)</sup> The CNC drill chucks are "balanced" suitable for use up to 7,000 min<sup>-1</sup>. For application at speeds over 7,000 min<sup>-1</sup> (max. 35,000 min<sup>-1</sup>), for example used in aluminum or wood processing, the chuck must be balanced according to the balancing classes.

Irrtum und technische Änderungen vorbehalten  
We reserve the right of error and technical modifications.

**High Performance Milling Chuck HKS-system  
Hochleistungs-Kraftspannfutter HKS**

Die Hochleistungs-Kraftspannfutter sind für nahezu alle Anwendungen geeignet.

**Anwendung:**

- Schwerzerspannung
- Schlichtfräsen
- Hartfräsen
- Bohren, Reiben
- Gewindefräsen

**Rundlauf:**

Max. 3 µm bei 3xD des eingespannten Werkzeuges.

**Spannkraft:**

Alle marktüblichen Werkzeugschäfte mit oder ohne Weldonenschaft können direkt oder mit Spannhülse gespannt werden.

**Anzugsmoment/Clamping torque: 50-70Nm (Größe/Size 20mm) 80-100Nm (Größe/Size 25mm)**

**Spannkraft/Clamping force: 780Nm (Größe/Size 20mm) 2.000Nm (Größe/Size 25mm)**

The high performance milling chucks are suitable for almost all applications.

**Application:**

- Heavy roughing
- Finish milling
- Hard milling
- Drilling reaming
- Thread milling

**Concentricity:**

Max deviation of concentricity 3 µm at 3xD of the clamped tool.

**Clamping shank:**

All available tool shanks with or without Weldon shank can be clamped directly or with an adapter sleeve.

# **EWS** Group

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