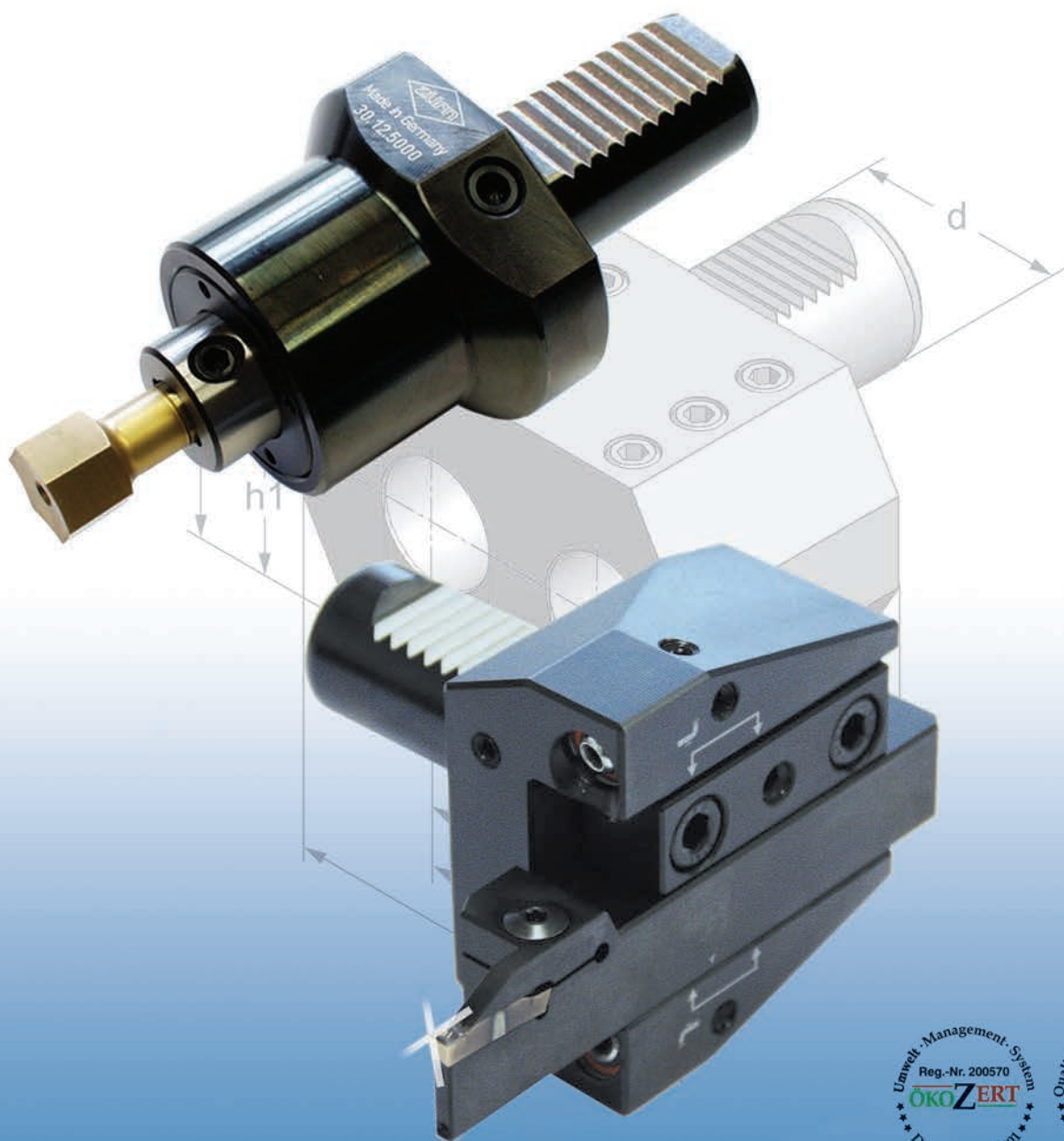


# Werkzeughalter für CNC-Drehmaschinen DIN 69880 / DIN ISO 10889

Toolholders for CNC machines  
DIN 69880 / DIN ISO 10889



**Katalog Nr. 165**  
**Catalogue No. 165**



| Produktgruppen<br>Product groups  | Seite<br>Page |
|---|---------------|
| <b>Scheibenrevolver</b><br>Disk-turret  | 4             |
| <b>Stangengreifer / Mitlaufender Anschlag</b><br>Bar puller / Rotary Stop   | 5             |
| <b>Radial- / Axial-Werkzeughalter</b><br>Radial- / Axial-toolholders  | 6-11          |
| <b>Mehrfachaufnahmen / Unterlegplatten</b><br>Multiple toolholders / Shims  | 12-13         |
| <b>Spannzangenhalter</b><br>Collet chucks   | 14            |
| <b>Bohrerhalter für Wendepplattenbohrer</b><br>Holders for insert drills  | 15            |
| <b>Bohrerhalter Whistle Notch</b><br>Holders for insert drills Whistle Notch  | 16            |
| <b>Bohrstangenhalter / Reduzierbuchsen</b><br>Boring bar holders / Reduction bushes   | 17-21         |
| <b>Schnellspann-Bohrfutter</b><br>Quick locking drill chucks  | 22            |
| <b>Gewindeschneidfutter / Einsätze für Schneideisen</b><br>Auto tappers / Die housing inserts                               | 23            |
| <b>Pendelhalter, achsparallel ausgleichend einstellbar</b><br>Floating holders, axially parallel compensating, adjustable   | 24            |
| <b>Abstechmeisselhalter höhenverstellbar ±0,5mm</b><br>Toolholders for cut off tools adjustable in height ±0,5mm            | 25            |
| <b>Werkzeughalter höhenverstellbar mit Verzahnung</b><br>Toolholders adjustable in height with toothing                     | 26-27         |
| <b>Räumwerkzeughalter für Innenprofile / Räumstempel</b><br>Broaching toolholders for internal profiles / Broaching cutters | 28-29         |
| <b>Werkzeughalter-Rohlinge</b><br>Toolholder-blanks   | 30-31         |



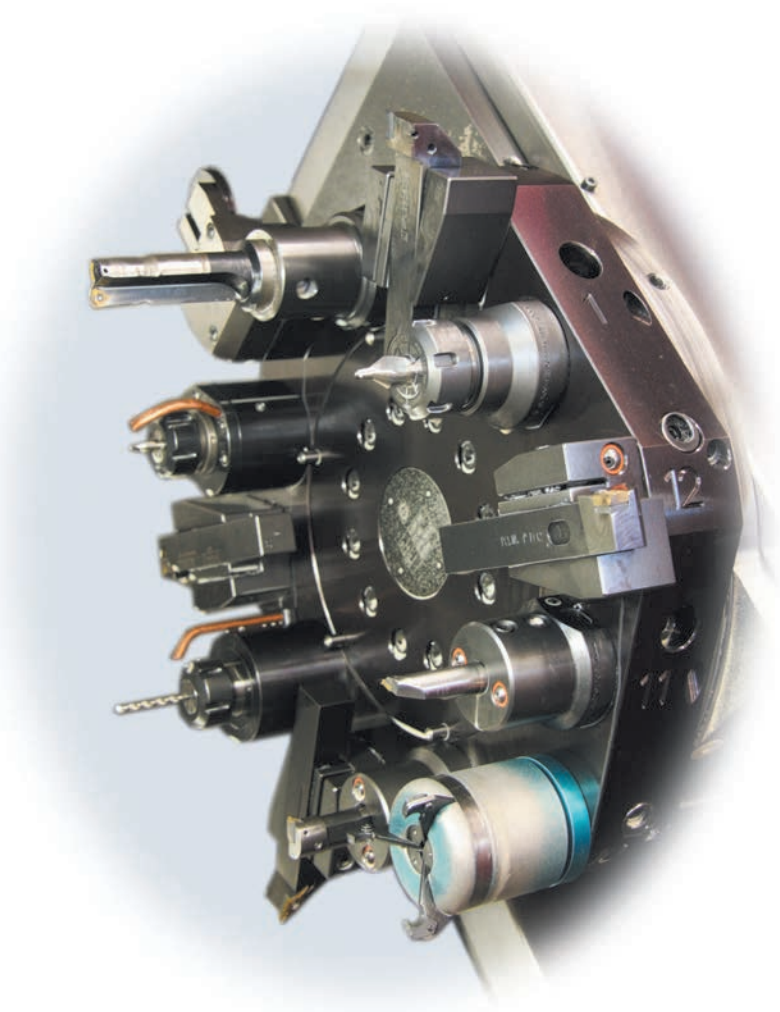
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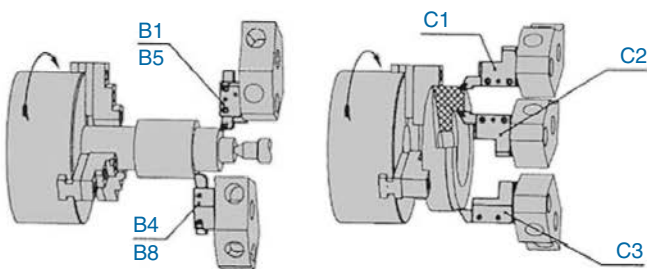
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| Produktgruppen<br>Product groups  | Seite<br>Page |
|---|---------------|
| <b>Kontrolldorne / Schutzstopfen / Zentrierspitzen</b><br>Test arbors / Blind tooling bore / Driver centering point | 32            |
| <b>Sternrevolver</b><br>Star-turret   | 33            |
| <b>Werkzeughalter VDI 30 mit HSK-T40 Spanneinheit</b><br>Toolholders VDI 30 with HSK-T40 clamping unit              | 34            |
| <b>Drehhalter</b><br>Turning-toolholders  | 35–37         |
| <b>Abstechhalter</b><br>Infeed toolholders  | 38–39         |
| <b>Kombiwerkzeughalter</b><br>Combi toolholders   | 40–43         |
| <b>Ausgleichhalter / Doppel-Spannzangenhalter</b><br>Adaptors for VDI 30 + VDI 40 / Double collet chuck toolholders | 44            |
| <b>Ausrichtplatten für Kombiwerkzeughalter</b><br>Adjust plates for combi-toolholders                               | 45            |
| <b>Angetriebene Werkzeuge</b><br>Driven tools   | 46–50         |
| <b>Spannzangenfutter zylindrisch</b><br>Collet chucks cylindrical   | 51            |
| <b>Spritzdüsen-Elemente</b><br>Coolant nozzles  | 52            |
| <b>Spannmuttern</b><br>Clamping nuts  | 53–54         |
| <b>Dichtscheiben</b><br>Sealing discs   | 55            |
| <b>Spannzangen</b><br>Collets   | 56–57         |
| <b>Gewindebohrzangen</b><br>Tapping collets   | 58            |
| <b>TOOLFIX Werkzeugmontagegerät</b><br>TOOLFIX mounting equipment   | 59            |

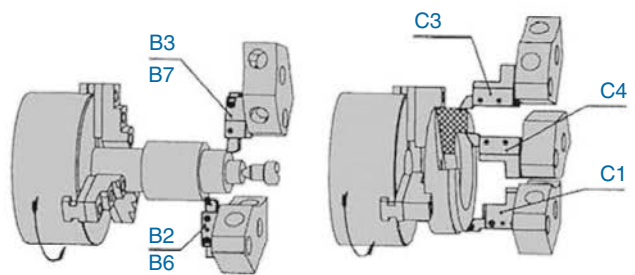
**Scheibenrevolver**  
 Disk-turret



**Werkzeugzuordnung für Scheibenrevolver**  
 Tool assignment for disk-turret



Einsatz von Werkzeughaltern bei **linker** Spindeldrehrichtung  
 Application of toolholders with **anti-clockwise** spindle rotation



Einsatz von Werkzeughaltern bei **rechter** Spindeldrehrichtung  
 Application of toolholders with **clockwise** spindle rotation

**Werkstoff:** Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 800 N/mm<sup>2</sup>

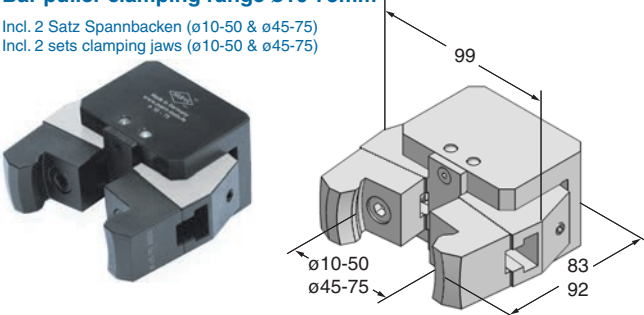

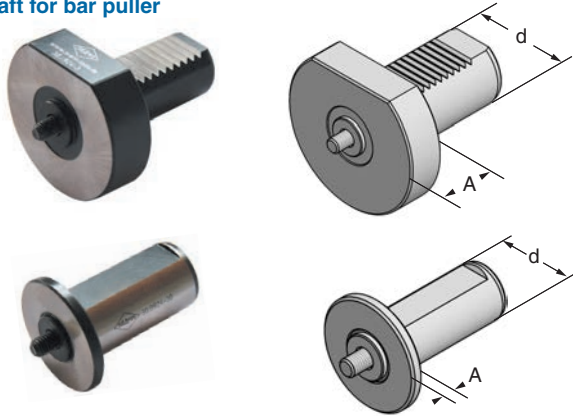
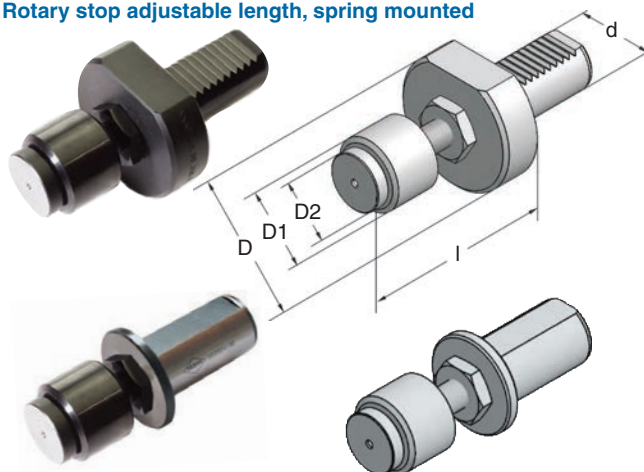

**Material:** Case hardened steel, tensile strength in the core min. 800 N/mm<sup>2</sup>

**Ausführung:** Einsatzgehärtet HRc 60 - 2 (HV 700 ± 50)  
 Härtetiefe 0,8 mm - 0,2  
 Brüniert und Präzisionsgeschliffen

**Execution:** Case hardened HRc 60 - 2 (HV 700 ± 50)  
 Depth of case 0,8 mm - 0,2  
 Brown-finish end precision ground

Technische Änderungen vorbehalten

We reserve the right to make technical changes

| <p><b>Stangengreifer Spannereich ø10-75mm</b><br/> <b>Bar puller clamping range ø10-75mm</b></p> <p>Incl. 2 Satz Spannbacken (ø10-50 &amp; ø45-75)<br/>         Incl. 2 sets clamping jaws (ø10-50 &amp; ø45-75)</p>   | <p><b>Art.-Nr.</b><br/>         30.0924 <i>excl. Schaft / excl. shank</i></p> <p><i>Der Schaft muss separat bestellt werden!</i><br/> <i>The shank has to be ordered separately!</i></p>   |          |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
|---|---|----------|-----|----|-----------|--------|----|-----------|-----------|--------|-----------|--------|----|-----------|--------|-----------|----------|----|----|------------|--------|--------|------------|--------|----|------------|--------|----|------------|-----------|--------|------------|--------|----|--------------|------------|----------|-----|---|---|----|----|---|-----------|---------|----|----|----|----|-------|----------|-----|---|---|----|----|---|-----------|--------|----|----|----|----|----|----------|-----|---|---|----|----|---|-----------|---------|----|---|----|----|----|
| <p><b>Schaft für Stangengreifer</b><br/> <b>Shaft for bar puller</b></p>    | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>d</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>30.0924-2</td> <td>VDI 20</td> <td>15</td> </tr> <tr> <td>30.0924-3</td> <td>VDI 30</td> <td>20</td> </tr> <tr> <td>30.0924-4</td> <td>VDI 40</td> <td>20</td> </tr> <tr> <td>30.0924-5</td> <td>VDI 50</td> <td>20</td> </tr> </tbody> </table> <p style="text-align: center;"><b>Zylinderschaft</b></p> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>d</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>30.0924-25</td> <td>zyl.25</td> <td>5</td> </tr> <tr> <td>30.0924-30</td> <td>zyl.30</td> <td>5</td> </tr> <tr> <td>30.0924-32</td> <td>zyl.32</td> <td>5</td> </tr> <tr> <td>30.0924-40</td> <td>zyl.40</td> <td>5</td> </tr> <tr> <td>30.0924-50</td> <td>zyl.50</td> <td>0</td> </tr> </tbody> </table> <p style="text-align: center;"><b>INCH</b></p> <table border="1"> <tbody> <tr> <td>30.0924-38,1</td> <td>zyl.1 1/2"</td> <td>5</td> </tr> </tbody> </table>  | Art.-Nr. | d   | A  | 30.0924-2 | VDI 20 | 15 | 30.0924-3 | VDI 30    | 20     | 30.0924-4 | VDI 40 | 20 | 30.0924-5 | VDI 50 | 20        | Art.-Nr. | d  | A  | 30.0924-25 | zyl.25 | 5      | 30.0924-30 | zyl.30 | 5  | 30.0924-32 | zyl.32 | 5  | 30.0924-40 | zyl.40    | 5      | 30.0924-50 | zyl.50 | 0  | 30.0924-38,1 | zyl.1 1/2" | 5        |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| Art.-Nr.  | d   | A        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-2   | VDI 20  | 15       |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-3   | VDI 30  | 20       |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-4   | VDI 40  | 20       |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-5   | VDI 50  | 20       |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| Art.-Nr.  | d   | A        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-25  | zyl.25  | 5        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-30  | zyl.30  | 5        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-32  | zyl.32  | 5        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-40  | zyl.40  | 5        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-50  | zyl.50  | 0        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.0924-38,1  | zyl.1 1/2"  | 5        |     |    |           |        |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| <p><b>Mitlaufender Anschlag längeneinstellbar, gefedert</b><br/> <b>Rotary stop adjustable length, spring mounted</b></p>  <p><b>Mitlaufender Anschlag gefedert</b><br/> <b>Rotary stop spring mounted</b></p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> <th>D2</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>25.30.355</td> <td>VDI 25</td> <td>25</td> <td>58</td> <td>38</td> <td>25</td> <td>65-100</td> </tr> <tr> <td>30.38.355</td> <td>VDI 30</td> <td>30</td> <td>68</td> <td>38</td> <td>25</td> <td>65-100</td> </tr> <tr> <td>40.60.355</td> <td>VDI 40</td> <td>40</td> <td>83</td> <td>60</td> <td>40</td> <td>80-150</td> </tr> <tr> <td>50.60.355</td> <td>VDI 50</td> <td>50</td> <td>98</td> <td>60</td> <td>40</td> <td>80-150</td> </tr> </tbody> </table> <p style="text-align: center;"><b>Zylinderschaft</b></p> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> <th>D2</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>32.38.355</td> <td>zyl. 32</td> <td>32</td> <td>44</td> <td>38</td> <td>25</td> <td>50-85</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> <th>D2</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>20.30.355</td> <td>VDI 20</td> <td>20</td> <td>50</td> <td>38</td> <td>25</td> <td>55</td> </tr> </tbody> </table> <p style="text-align: center;"><b>Zylinderschaft</b></p> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> <th>D2</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>32.60.355</td> <td>zyl. 32</td> <td>32</td> <td>-</td> <td>60</td> <td>40</td> <td>69</td> </tr> </tbody> </table> | Art.-Nr. | Typ | d  | D         | D1     | D2 | l         | 25.30.355 | VDI 25 | 25        | 58     | 38 | 25        | 65-100 | 30.38.355 | VDI 30   | 30 | 68 | 38         | 25     | 65-100 | 40.60.355  | VDI 40 | 40 | 83         | 60     | 40 | 80-150     | 50.60.355 | VDI 50 | 50         | 98     | 60 | 40           | 80-150     | Art.-Nr. | Typ | d | D | D1 | D2 | l | 32.38.355 | zyl. 32 | 32 | 44 | 38 | 25 | 50-85 | Art.-Nr. | Typ | d | D | D1 | D2 | l | 20.30.355 | VDI 20 | 20 | 50 | 38 | 25 | 55 | Art.-Nr. | Typ | d | D | D1 | D2 | l | 32.60.355 | zyl. 32 | 32 | - | 60 | 40 | 69 |
| Art.-Nr.  | Typ   | d        | D   | D1 | D2        | l      |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 25.30.355   | VDI 25  | 25       | 58  | 38 | 25        | 65-100 |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 30.38.355   | VDI 30  | 30       | 68  | 38 | 25        | 65-100 |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 40.60.355   | VDI 40  | 40       | 83  | 60 | 40        | 80-150 |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 50.60.355   | VDI 50  | 50       | 98  | 60 | 40        | 80-150 |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| Art.-Nr.  | Typ   | d        | D   | D1 | D2        | l      |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 32.38.355   | zyl. 32   | 32       | 44  | 38 | 25        | 50-85  |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| Art.-Nr.  | Typ   | d        | D   | D1 | D2        | l      |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 20.30.355   | VDI 20  | 20       | 50  | 38 | 25        | 55     |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| Art.-Nr.  | Typ   | d        | D   | D1 | D2        | l      |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |
| 32.60.355   | zyl. 32   | 32       | -   | 60 | 40        | 69     |    |           |           |        |           |        |    |           |        |           |          |    |    |            |        |        |            |        |    |            |        |    |            |           |        |            |        |    |              |            |          |     |   |   |    |    |   |           |         |    |    |    |    |       |          |     |   |   |    |    |   |           |        |    |    |    |    |    |          |     |   |   |    |    |   |           |         |    |   |    |    |    |

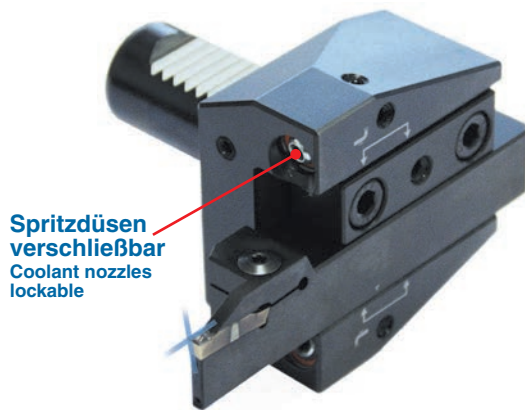
**Radial-Werkzeughalter Form B1-B4 mit Innenkühlung**

- für Klemmhalter mit Kühlmittelzufuhr **direkt zur Schneide**
- für ISO-Klemmhalter **mit Pratzenklemmung zur optimalen Kühlung der Schneide**
- mit Doppelverzahnung / Kühlmitteldruck bis 100 bar

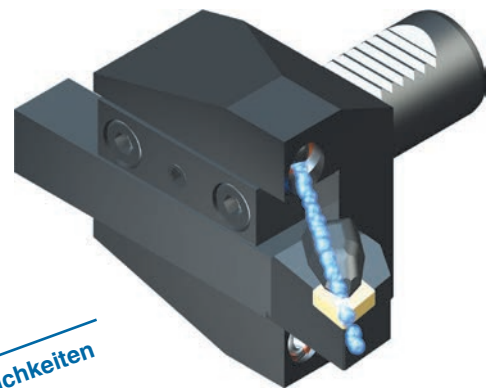
**Radial toolholders form B1-B4 with internal coolant**

- for clamping holders with coolant channels **directly to the cutting edge**
- for ISO-clamping holders **with claw clamping for best possible coolant supply**
- with double toothing / coolant pressure up to 100 bar

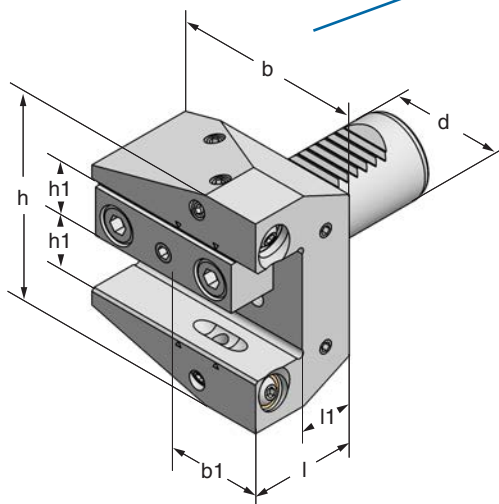
Lieferumfang ohne Werkzeug  
 Delivery without tool



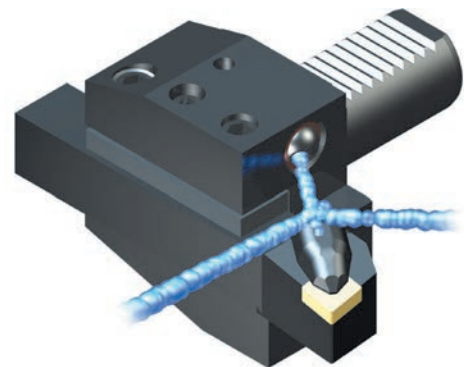
**Spritzdüsen  
 verschließbar**  
 Coolant nozzles  
 lockable



**Ein Drehhalter - vier Einsatzmöglichkeiten**  
**Form B1, B2, B3, B4**  
**links - rechts - vorkopf - überkopf**  
**One turning-toolholder - four possibilities**  
**Form B1, B2, B3, B4**  
**left - right - forehead - overhead**



**Ehemaliger Standard DIN ISO:**



**keine direkte Kühlung  
 der Schneide möglich**

| Art.-Nr.  | Typ             | d  | b  | b1   | h   | h1 | l  | l1 |
|-----------|-----------------|----|----|------|-----|----|----|----|
| 30.20.063 | B1-B4-30Dx20x40 | 30 | 70 | 35,0 | 78  | 20 | 40 | 20 |
| 40.25.063 | B1-B4-40Dx25x47 | 40 | 85 | 42,5 | 94  | 25 | 47 | 22 |
| 50.25.063 | B1-B4-50Dx25x55 | 50 | 98 | 49,0 | 120 | 25 | 55 | 30 |

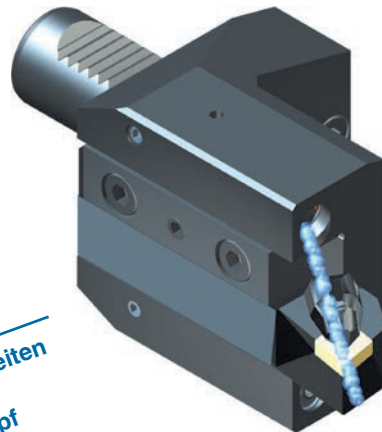
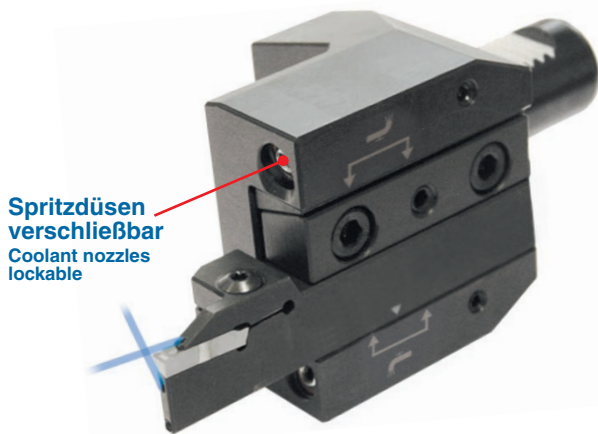
**Axial-Werkzeughalter Form C1-C4 mit Innenkühlung**

- für Klemmhalter mit Kühlmittelzufuhr **direkt zur Schneide**
- für ISO-Klemmhalter **mit Pratzenklemmung zur optimalen Kühlung der Schneide**
- mit Doppelverzahnung / Kühlmitteldruck bis 100 bar

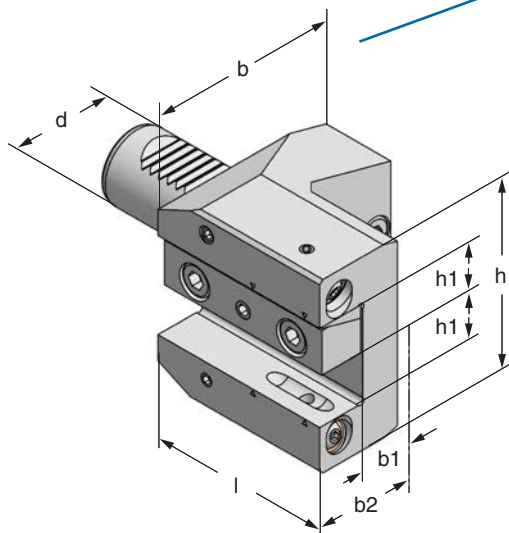
**Axial toolholders form C1-C4 with internal coolant**

- for clamping holders with coolant channels **directly to the cutting edge**
- for ISO-clamping holders **with claw clamping for best possible coolant supply**
- with double toothing / coolant pressure up to 100 bar

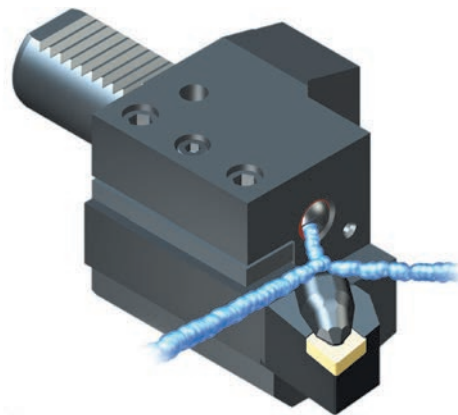
Lieferumfang ohne Werkzeug  
 Delivery without tool



Ein Drehhalter - vier Einsatzmöglichkeiten  
 Form C1, C2, C3, C4  
 links - rechts - vorkopf - überkopf  
 One turning-toolholder - four possibilities  
 Form C1, C2, C3, C4  
 left - right - forehead - overhead


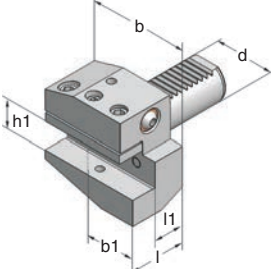

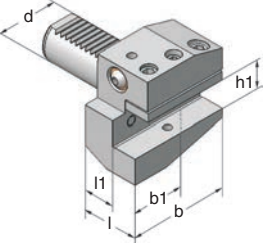

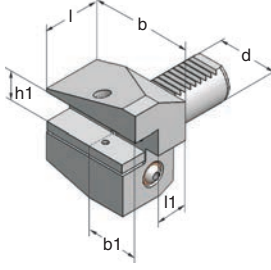

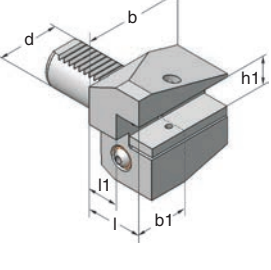


**Ehemaliger Standard DIN ISO:**




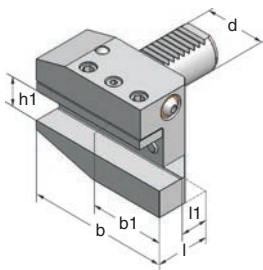

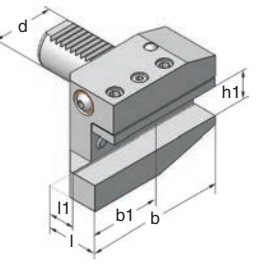

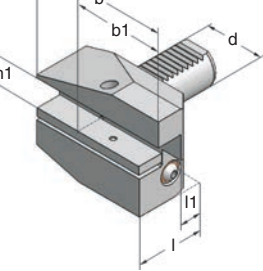

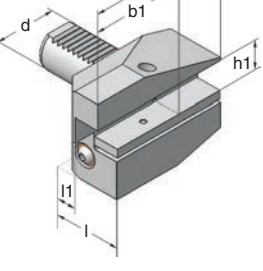
**keine direkte Kühlung der Schneide möglich**


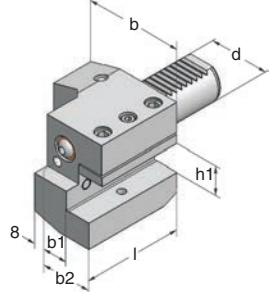

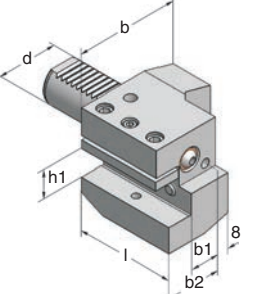

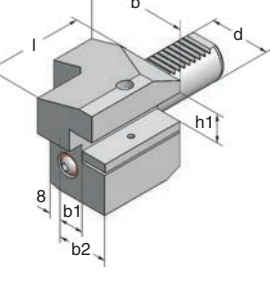

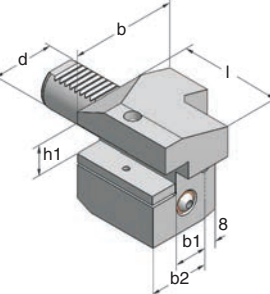
| Art.-Nr.  | Typ              | d  | b   | b1   | b2   | h   | h1 | l   |
|-----------|------------------|----|-----|------|------|-----|----|-----|
| 30.20.043 | C1-C4-30Dx20x 75 | 30 | 78  | 23,0 | 43,0 | 78  | 20 | 75  |
| 40.25.043 | C1-C4-40Dx25x 90 | 40 | 94  | 27,5 | 52,5 | 94  | 25 | 90  |
| 50.25.043 | C1-C4-50Dx25x100 | 50 | 105 | 38,0 | 63,0 | 100 | 25 | 100 |

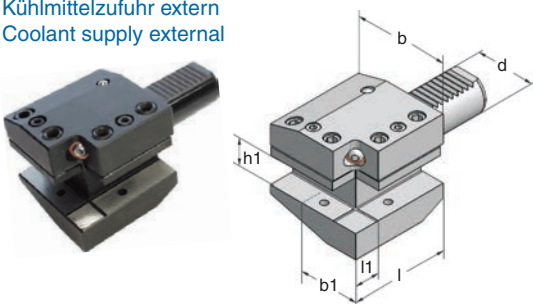
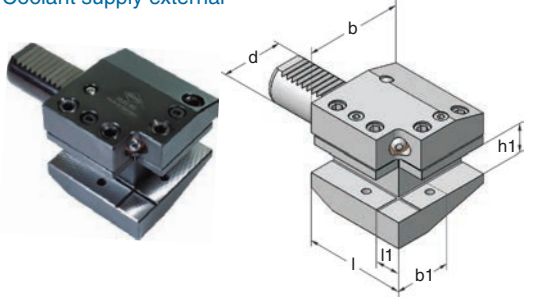
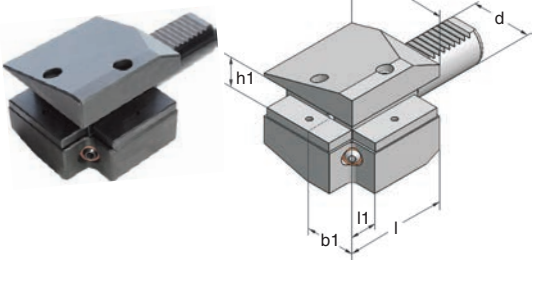
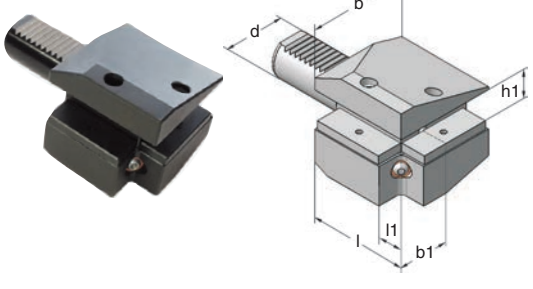
| Radial-Werkzeughalter Form B1 kurz<br>Radial toolholders form B1 short   |                 | Art.-Nr.        | Typ | d   | b           | b1     | h1 | l  | l1 |  |
|--|-----------------|-----------------|-----|-----|-------------|--------|----|----|----|--|
|   <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p>     | 16.12.060       | B1-16x12x24     | 16  | 42  | 23          | 12     | 24 | 13 |    |  |
|  | 20.16.060       | B1-20x16x30     | 20  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 25.16.060       | B1-25x16x30     | 25  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 30.20.060       | B1-30x20x40     | 30  | 70  | 35          | 20     | 40 | 22 |    |  |
|  | 30.25.060       | B1-30x25x44     | 30  | 70  | 35          | 25     | 44 | 22 |    |  |
|  | 40.25.060       | B1-40x25x44     | 40  | 85  | 42,5        | 25     | 44 | 22 |    |  |
|  | 50.32.060       | B1-50x32x55     | 50  | 100 | 50          | 32     | 55 | 30 |    |  |
|  | 60.32.060       | B1-60x32x60     | 60  | 125 | 62,5        | 32     | 60 | 30 |    |  |
|  |                 |                 |     |     | <b>INCH</b> |        |    |    |    |  |
|  | 307206          | B1-30x3/4"x40   | 30  | 70  | 35          | 3/4"   | 40 | 22 |    |  |
|  | 343206          | B1-30x1" x44    | 30  | 70  | 35          | 1"     | 44 | 22 |    |  |
|  | 407206          | B1-40x1" x44    | 40  | 85  | 42,5        | 1"     | 44 | 22 |    |  |
| 507206   | B1-50x1 1/4"x55 | 50              | 100 | 50  | 1 1/4"      | 55     | 30 |    |    |  |
| Radial-Werkzeughalter Form B2 kurz<br>Radial toolholders form B2 short   |                 | Art.-Nr.        | Typ | d   | b           | b1     | h1 | l  | l1 |  |
|   <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p>   | 16.12.090       | B2-16x12x24     | 16  | 42  | 23          | 12     | 24 | 13 |    |  |
|  | 20.16.090       | B2-20x16x30     | 20  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 25.16.090       | B2-25x16x30     | 25  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 30.20.090       | B2-30x20x40     | 30  | 70  | 35          | 20     | 40 | 22 |    |  |
|  | 30.25.090       | B2-30x25x44     | 30  | 70  | 35          | 25     | 44 | 22 |    |  |
|  | 40.25.090       | B2-40x25x44     | 40  | 85  | 42,5        | 25     | 44 | 22 |    |  |
|  | 50.32.090       | B2-50x32x55     | 50  | 100 | 50          | 32     | 55 | 30 |    |  |
|  | 60.32.090       | B2-60x32x60     | 60  | 125 | 62,5        | 32     | 60 | 30 |    |  |
|  |                 |                 |     |     | <b>INCH</b> |        |    |    |    |  |
|  | 308206          | B2-30x3/4"x40   | 30  | 70  | 35          | 3/4"   | 40 | 22 |    |  |
|  | 344206          | B2-30x1" x44    | 30  | 70  | 35          | 1"     | 44 | 22 |    |  |
|  | 408206          | B2-40x1" x44    | 40  | 85  | 42,5        | 1"     | 44 | 22 |    |  |
| 508206   | B2-50x1 1/4"x55 | 50              | 100 | 50  | 1 1/4"      | 55     | 30 |    |    |  |
| Radial-Werkzeughalter Form B3 kurz<br>Radial toolholders form B3 short   |                 | Art.-Nr.        | Typ | d   | b           | b1     | h1 | l  | l1 |  |
|   <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p> | 16.12.070       | B3-16x12x24     | 16  | 42  | 23          | 12     | 24 | 13 |    |  |
|  | 20.16.070       | B3-20x16x30     | 20  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 25.16.070       | B3-25x16x30     | 25  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 30.20.070       | B3-30x20x40     | 30  | 70  | 35          | 20     | 40 | 22 |    |  |
|  | 30.25.070       | B3-30x25x44     | 30  | 70  | 35          | 25     | 44 | 22 |    |  |
|  | 40.25.070       | B3-40x25x44     | 40  | 85  | 42,5        | 25     | 44 | 22 |    |  |
|  | 50.32.070       | B3-50x32x55     | 50  | 100 | 50          | 32     | 55 | 30 |    |  |
|  | 60.32.070       | B3-60x32x60     | 60  | 125 | 62,5        | 32     | 60 | 30 |    |  |
|  |                 |                 |     |     | <b>INCH</b> |        |    |    |    |  |
|  | 309206          | B3-30x3/4"x40   | 30  | 70  | 35          | 3/4"   | 40 | 22 |    |  |
|  | 345206          | B3-30x1" x44    | 30  | 70  | 35          | 1"     | 44 | 22 |    |  |
|  | 409206          | B3-40x1" x44    | 40  | 85  | 42,5        | 1"     | 44 | 22 |    |  |
| 509206   | B3-50x1 1/4"x55 | 50              | 100 | 50  | 1 1/4"      | 55     | 30 |    |    |  |
| Radial-Werkzeughalter Form B4 kurz<br>Radial toolholders form B4 short   |                 | Art.-Nr.        | Typ | d   | b           | b1     | h1 | l  | l1 |  |
|   <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p> | 16.12.080       | B4-16x12x24     | 16  | 42  | 23          | 12     | 24 | 13 |    |  |
|  | 20.16.080       | B4-20x16x30     | 20  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 25.16.080       | B4-25x16x30     | 25  | 55  | 30          | 16     | 30 | 16 |    |  |
|  | 30.20.080       | B4-30x20x40     | 30  | 70  | 35          | 20     | 40 | 22 |    |  |
|  | 40.25.080       | B4-40x25x44     | 40  | 85  | 42,5        | 25     | 44 | 22 |    |  |
|  | 50.32.080       | B4-50x32x55     | 50  | 100 | 50          | 32     | 55 | 30 |    |  |
|  | 60.32.080       | B4-60x32x60     | 60  | 125 | 62,5        | 32     | 60 | 30 |    |  |
|  |                 |                 |     |     | <b>INCH</b> |        |    |    |    |  |
|  | 310206          | B4-30x3/4"x40   | 30  | 70  | 35          | 3/4"   | 40 | 22 |    |  |
|  | 410206          | B4-40x1" x44    | 40  | 85  | 42,5        | 1"     | 44 | 22 |    |  |
|  | 510206          | B4-50x1 1/4"x55 | 50  | 100 | 50          | 1 1/4" | 55 | 30 |    |  |

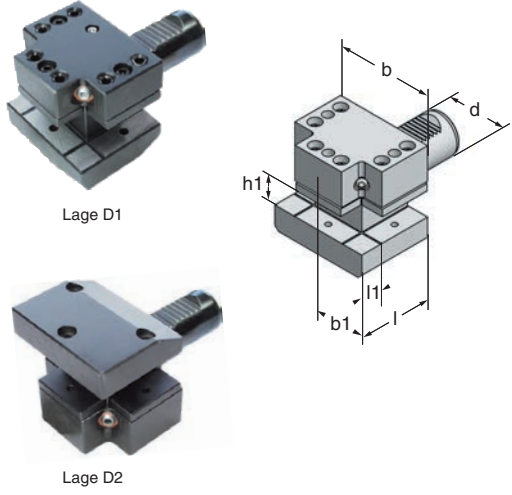
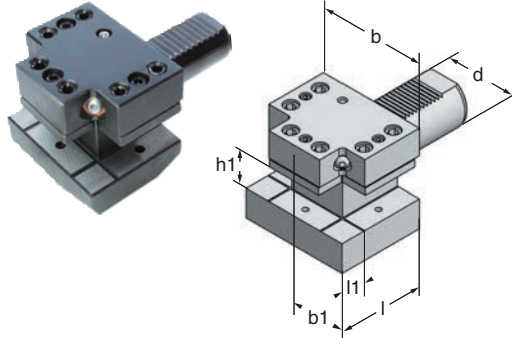
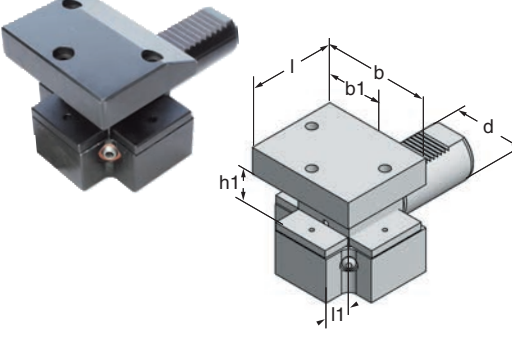




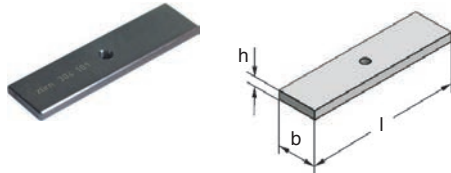
| Radial-Werkzeughalter Form B5 lang<br>Radial toolholders form B5 long   |   | Art.-Nr.     | Typ             | d           | b           | b1 | h1     | l  | l1 |    |
|---|---|--------------|-----------------|-------------|-------------|----|--------|----|----|----|
| Kühlmittelzufuhr extern<br>Coolant supply external<br>      |   | 16.12.100    | B5-16x12x24     | 16          | 58          | 39 | 12     | 24 | 13 |    |
|   |   | 20.16.100    | B5-20x16x30     | 20          | 75          | 50 | 16     | 30 | 16 |    |
|   |   | 30.20.100    | B5-30x20x40     | 30          | 97          | 63 | 20     | 40 | 22 |    |
|   |   | 30.20.100-60 | B5-30x20x60     | 30          | 97          | 63 | 20     | 60 | 42 |    |
|   |   | 30.25.100    | B5-30x25x44     | 30          | 97          | 63 | 25     | 44 | 22 |    |
|   |   | 40.25.100    | B5-40x25x44     | 40          | 107         | 66 | 25     | 44 | 22 |    |
|   |   | 50.32.100    | B5-50x32x55     | 50          | 130         | 80 | 32     | 55 | 30 |    |
|   |   | 60.32.100    | B5-60x32x60     | 60          | 145         | 82 | 32     | 60 | 30 |    |
|   |   |              |                 |             | <b>INCH</b> |    |        |    |    |    |
|   |   | 411206       | B5-40x1" x44    | 40          | 107         | 66 | 1"     | 44 | 22 |    |
|   |   | 511206       | B5-50x1 1/4"x55 | 50          | 130         | 80 | 1 1/4" | 55 | 30 |    |
|   |   |              |                 |             |             |    |        |    |    |    |
| Radial-Werkzeughalter Form B6 lang<br>Radial toolholders form B6 long   |   | Art.-Nr.     | Typ             | d           | b           | b1 | h1     | l  | l1 |    |
| Kühlmittelzufuhr extern<br>Coolant supply external<br>    |   | 16.12.130    | B6-16x12x24     | 16          | 58          | 39 | 12     | 24 | 13 |    |
|   |   | 20.16.130    | B6-20x16x30     | 20          | 75          | 50 | 16     | 30 | 16 |    |
|   |   | 30.20.130    | B6-30x20x40     | 30          | 100         | 65 | 20     | 40 | 22 |    |
|   |   | 40.25.130    | B6-40x25x44     | 40          | 107         | 66 | 25     | 44 | 22 |    |
|   |   | 50.32.130    | B6-50x32x55     | 50          | 130         | 80 | 32     | 55 | 30 |    |
|   |   | 60.32.130    | B6-60x32x60     | 60          | 145         | 82 | 32     | 60 | 30 |    |
|   |   |              |                 |             | <b>INCH</b> |    |        |    |    |    |
|   |   | 412206       | B6-40x1" x44    | 40          | 107         | 66 | 1"     | 44 | 22 |    |
|   |   | 512206       | B6-50x1 1/4"x55 | 50          | 130         | 80 | 1 1/4" | 55 | 30 |    |
|   |   |              |                 |             |             |    |        |    |    |    |
|   | Radial-Werkzeughalter Form B7 lang<br>Radial toolholders form B7 long   |              | Art.-Nr.        | Typ         | d           | b  | b1     | h1 | l  | l1 |
|   | Kühlmittelzufuhr extern<br>Coolant supply external<br>  |              | 16.12.110       | B7-16x12x24 | 16          | 58 | 39     | 12 | 24 | 13 |
|   |   | 20.16.110    | B7-20x16x30     | 20          | 75          | 50 | 16     | 30 | 16 |    |
|   |   | 30.20.110    | B7-30x20x40     | 30          | 100         | 65 | 20     | 40 | 22 |    |
|   |   | 40.25.110    | B7-40x25x44     | 40          | 107         | 66 | 25     | 44 | 22 |    |
|   |   | 50.32.110    | B7-50x32x55     | 50          | 130         | 80 | 32     | 55 | 30 |    |
|   |   | 60.32.110    | B7-60x32x60     | 60          | 145         | 82 | 32     | 60 | 30 |    |
|   |   |              |                 |             | <b>INCH</b> |    |        |    |    |    |
|   |   | 413206       | B7-40x1" x44    | 40          | 107         | 66 | 1"     | 44 | 22 |    |
|   |   | 513206       | B7-50x1 1/4"x55 | 50          | 130         | 80 | 1 1/4" | 55 | 30 |    |
|   |   |              |                 |             |             |    |        |    |    |    |
| Radial-Werkzeughalter Form B8 lang<br>Radial toolholders form B8 long   |   | Art.-Nr.     | Typ             | d           | b           | b1 | h1     | l  | l1 |    |
| Kühlmittelzufuhr extern<br>Coolant supply external<br>  |   |              | 16.12.120       | B8-16x12x24 | 16          | 58 | 39     | 12 | 24 | 13 |
|   |   | 20.16.120    | B8-20x16x30     | 20          | 75          | 50 | 16     | 30 | 16 |    |
|   |   | 30.20.120    | B8-30x20x40     | 30          | 100         | 65 | 20     | 40 | 22 |    |
|   |   | 40.25.120    | B8-40x25x44     | 40          | 107         | 66 | 25     | 44 | 22 |    |
|   |   | 50.32.120    | B8-50x32x55     | 50          | 130         | 80 | 32     | 55 | 30 |    |
|   |   | 60.32.120    | B8-60x32x60     | 60          | 145         | 82 | 32     | 60 | 30 |    |
|   |   |              |                 |             | <b>INCH</b> |    |        |    |    |    |
|   |   | 414206       | B8-40x1" x44    | 40          | 107         | 66 | 1"     | 44 | 22 |    |
|   |   | 514206       | B8-50x1 1/4"x55 | 50          | 130         | 80 | 1 1/4" | 55 | 30 |    |
|   |   |              |                 |             |             |    |        |    |    |    |

|   |   |                 |             |             |           |           |           |           |          |
|---|---|-----------------|-------------|-------------|-----------|-----------|-----------|-----------|----------|
| <p><b>Axial-Werkzeughalter Form C1</b><br/>Axial toolholders form C1</p> <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p>       | <b>Art.-Nr.</b>   | <b>Typ</b>      | <b>d</b>    | <b>b</b>    | <b>b1</b> | <b>b2</b> | <b>h1</b> | <b>l</b>  |          |
|   | 16.12.020   | C1-16x12x 44    | 16          | 43          | 13,0      | 25        | 12        | 44        |          |
|   | 20.16.020   | C1-20x16x 50    | 20          | 65          | 25,5      | 40        | 16        | 50        |          |
|   | 25.20.020   | C1-25x20x 55    | 25          | 58          | 15,0      | 33        | 20        | 55        |          |
|   | 25.25.020   | C1-25x25x 75    | 25          | 65          | 18,5      | 40        | 25        | 75        |          |
|   | 30.20.020   | C1-30x20x 70    | 30          | 70          | 17,0      | 35        | 20        | 70        |          |
|   | 30.25.021   | C1/C4-30x25x70* | 30          | 77          | 21,0      | 43        | 25        | 70        |          |
|   | 40.25.020   | C1-40x25x 85    | 40          | 85          | 20,5      | 42,5      | 25        | 85        |          |
|   | 50.32.020   | C1-50x32x100    | 50          | 100         | 25,5      | 50        | 32        | 100       |          |
|   | 60.32.020   | C1-60x32x125    | 60          | 125         | 32,5      | 62,5      | 32        | 125       |          |
|   | * Doppelverzahnung / Double toothing  |                 |             |             |           |           |           |           |          |
|   |   |                 |             | <b>INCH</b> |           |           |           |           |          |
|   | 303206  | C1-30x3/4"x 70  | 30          | 70          | 17,0      | 35        | 3/4"      | 70        |          |
|   | 403206  | C1-40x1" x 85   | 40          | 85          | 20,5      | 42,5      | 1"        | 85        |          |
|   | <p><b>Axial-Werkzeughalter Form C2</b><br/>Axial toolholders form C2</p> <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p>     | <b>Art.-Nr.</b> | <b>Typ</b>  | <b>d</b>    | <b>b</b>  | <b>b1</b> | <b>b2</b> | <b>h1</b> | <b>l</b> |
| 16.12.050   |   | C2-16x12x 44    | 16          | 43          | 13,0      | 25        | 12        | 44        |          |
| 20.16.050   |   | C2-20x16x 50    | 20          | 65          | 25,5      | 40        | 16        | 50        |          |
| 25.20.050   |   | C2-25x20x 55    | 25          | 58          | 19,0      | 37        | 20        | 55        |          |
| 25.25.050   |   | C2-25x25x 75    | 25          | 65          | 18,5      | 40        | 25        | 75        |          |
| 30.20.050   |   | C2-30x20x 70    | 30          | 73          | 21,0      | 39        | 20        | 70        |          |
| 30.25.051   |   | C2/C3-30x25x70* | 30          | 77          | 21,0      | 43        | 25        | 70        |          |
| 40.25.050   |   | C2-40x25x 85    | 40          | 88          | 25,5      | 47,5      | 25        | 85        |          |
| 50.32.050   |   | C2-50x32x100    | 50          | 105         | 30,0      | 55        | 32        | 100       |          |
| 60.32.050   |   | C2-60x32x125    | 60          | 125         | 32,5      | 62,5      | 32        | 125       |          |
| * Doppelverzahnung / Double toothing  |   |                 |             |             |           |           |           |           |          |
|   |   |                 | <b>INCH</b> |             |           |           |           |           |          |
| 304206  |   | C2-30x3/4"x 70  | 30          | 73          | 21,0      | 39        | 3/4"      | 70        |          |
| 404206  |   | C2-40x1" x 85   | 40          | 88          | 25,5      | 47,5      | 1"        | 85        |          |
| <p><b>Axial-Werkzeughalter Form C3</b><br/>Axial toolholders form C3</p> <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p>   |   | <b>Art.-Nr.</b> | <b>Typ</b>  | <b>d</b>    | <b>b</b>  | <b>b1</b> | <b>b2</b> | <b>h1</b> | <b>l</b> |
|   | 16.12.030   | C3-16x12x 44    | 16          | 43          | 13,0      | 25        | 12        | 44        |          |
|   | 20.16.030   | C3-20x16x 50    | 20          | 65          | 25,5      | 40        | 16        | 50        |          |
|   | 25.20.030   | C3-25x20x 55    | 25          | 58          | 15,0      | 33        | 20        | 55        |          |
|   | 25.25.030   | C3-25x25x 75    | 25          | 65          | 18,5      | 40        | 25        | 75        |          |
|   | 30.20.030   | C3-30x20x 70    | 30          | 70          | 17,0      | 35        | 20        | 70        |          |
|   | 30.25.051   | C2/C3-30x25x70* | 30          | 77          | 21,0      | 43        | 25        | 70        |          |
|   | 40.25.030   | C3-40x25x 85    | 40          | 85          | 20,5      | 42,5      | 25        | 85        |          |
|   | 50.32.030   | C3-50x32x100    | 50          | 100         | 25,5      | 50        | 32        | 100       |          |
|   | 60.32.030   | C3-60x32x125    | 60          | 125         | 32,5      | 62,5      | 32        | 125       |          |
|   | * Doppelverzahnung / Double toothing  |                 |             |             |           |           |           |           |          |
|   |   |                 |             | <b>INCH</b> |           |           |           |           |          |
|   | 305206  | C3-30x3/4"x 70  | 30          | 70          | 20,5      | 35        | 3/4"      | 70        |          |
|   | 405206  | C3-40x1" x 85   | 40          | 85          | 25,5      | 42,5      | 1"        | 85        |          |
|   | <p><b>Axial-Werkzeughalter Form C4</b><br/>Axial toolholders form C4</p> <p>Kühlmittelzufuhr extern<br/>Coolant supply external</p>   | <b>Art.-Nr.</b> | <b>Typ</b>  | <b>d</b>    | <b>b</b>  | <b>b1</b> | <b>b2</b> | <b>h1</b> | <b>l</b> |
| 16.12.040   |   | C4-16x12x 44    | 16          | 43          | 13,0      | 25        | 12        | 44        |          |
| 20.16.040   |   | C4-20x16x 50    | 20          | 65          | 25,5      | 40        | 16        | 50        |          |
| 25.20.040   |   | C4-25x20x 55    | 25          | 62          | 19,0      | 37        | 20        | 55        |          |
| 25.25.040   |   | C4-25x25x 75    | 25          | 65          | 18,5      | 40        | 25        | 75        |          |
| 30.20.040   |   | C4-30x20x 70    | 30          | 73          | 23,0      | 41        | 20        | 70        |          |
| 30.25.021   |   | C1/C4-30x25x70* | 30          | 77          | 21,0      | 43        | 25        | 70        |          |
| 40.25.040   |   | C4-40x25x 85    | 40          | 88          | 25,5      | 47,5      | 25        | 85        |          |
| 50.32.040   |   | C4-50x32x100    | 50          | 105         | 30,0      | 55        | 32        | 100       |          |
| 60.32.040   |   | C4-60x32x125    | 60          | 125         | 32,5      | 62,5      | 32        | 125       |          |
| * Doppelverzahnung / Double toothing  |   |                 |             |             |           |           |           |           |          |
|   |   |                 | <b>INCH</b> |             |           |           |           |           |          |
| 306206  |   | C4-30x3/4"x 70  | 30          | 73          | 23,0      | 41        | 3/4"      | 70        |          |
| 406206  |   | C4-40x1" x 85   | 40          | 88          | 25,5      | 47,5      | 1"        | 85        |          |

|  |                 |                                      |                        |          |           |           |          |           |    |
|--|-----------------|--------------------------------------|------------------------|----------|-----------|-----------|----------|-----------|----|
| <p><b>Radial-Axial-Werkzeughalter Form B1/C1</b><br/> <b>Radial-axial toolholders form B1/C1</b><br/>                     Kühlmittelzufuhr extern<br/>                     Coolant supply external</p>    | <b>Art.-Nr.</b> | <b>Typ</b>                           | <b>d</b>               | <b>b</b> | <b>b1</b> | <b>h1</b> | <b>l</b> | <b>l1</b> |    |
|  | 20.16.150       | B1/C1-20x16x                         | 50                     | 20       | 65        | 40,0      | 16       | 50        | 14 |
|  | 30.20.150       | B1/C1-30x20x                         | 70                     | 30       | 70        | 35,0      | 20       | 70        | 18 |
|  | 50.32.150       | B1/C1-50x32x120                      | 120                    | 50       | 100       | 50,0      | 32       | 120       | 25 |
|  | 60.32.150       | B1/C1-60x32x135                      | 135                    | 60       | 125       | 62,5      | 32       | 135       | 30 |
|  | 40.25.150/180   | B1/C1+B4/C4-40x25x100*               |                        |          |           |           |          |           |    |
|  |                 | * Doppelverzahnung / Double toothing |                        |          |           |           |          |           |    |
| <p><b>Radial-Axial-Werkzeughalter Form B2/C2</b><br/> <b>Radial-axial toolholders form B2/C2</b><br/>                     Kühlmittelzufuhr extern<br/>                     Coolant supply external</p>   | <b>Art.-Nr.</b> | <b>Typ</b>                           | <b>d</b>               | <b>b</b> | <b>b1</b> | <b>h1</b> | <b>l</b> | <b>l1</b> |    |
|  | 20.16.160       | B2/C2-20x16x                         | 50                     | 20       | 65        | 40,0      | 16       | 50        | 14 |
|  | 30.20.160       | B2/C2-30x20x                         | 70                     | 30       | 72        | 39,0      | 20       | 70        | 18 |
|  | 50.32.160       | B2/C2-50x32x120                      | 120                    | 50       | 105       | 55,0      | 32       | 120       | 25 |
|  | 60.32.160       | B2/C2-60x32x135                      | 135                    | 60       | 125       | 62,5      | 32       | 135       | 30 |
|  | 40.25.160/170   | B2/C2+B3/C3-40x25x100*               |                        |          |           |           |          |           |    |
|  |                 | * Doppelverzahnung / Double toothing |                        |          |           |           |          |           |    |
| <p><b>Radial-Axial-Werkzeughalter Form B3/C3</b><br/> <b>Radial-axial toolholders form B3/C3</b><br/>                     Kühlmittelzufuhr extern<br/>                     Coolant supply external</p>  | <b>Art.-Nr.</b> | <b>Typ</b>                           | <b>d</b>               | <b>b</b> | <b>b1</b> | <b>h1</b> | <b>l</b> | <b>l1</b> |    |
|  | 30.20.170       | B3/C3-30x20x                         | 70                     | 30       | 70        | 35,0      | 20       | 70        | 18 |
|  | 50.32.170       | B3/C3-50x32x120                      | 120                    | 50       | 100       | 50,0      | 32       | 120       | 25 |
|  | 60.32.170       | B3/C3-60x32x135                      | 135                    | 60       | 125       | 62,5      | 32       | 135       | 30 |
|  |                 | 40.25.160/170                        | B2/C2+B3/C3-40x25x100* |          |           |           |          |           |    |
|  |                 | * Doppelverzahnung / Double toothing |                        |          |           |           |          |           |    |
| <p><b>Radial-Axial-Werkzeughalter Form B4/C4</b><br/> <b>Radial-axial toolholders form B4/C4</b><br/>                     Kühlmittelzufuhr extern<br/>                     Coolant supply external</p>  | <b>Art.-Nr.</b> | <b>Typ</b>                           | <b>d</b>               | <b>b</b> | <b>b1</b> | <b>h1</b> | <b>l</b> | <b>l1</b> |    |
|  | 30.20.180       | B4/C4-30x20x                         | 70                     | 30       | 74        | 39,0      | 20       | 70        | 18 |
|  | 50.32.180       | B4/C4-50x32x120                      | 120                    | 50       | 105       | 55,0      | 32       | 120       | 25 |
|  | 60.32.180       | B4/C4-60x32x135                      | 135                    | 60       | 125       | 62,5      | 32       | 135       | 30 |
|  |                 | 40.25.150/180                        | B1/C1+B4/C4-40x25x100* |          |           |           |          |           |    |
|  |                 | * Doppelverzahnung / Double toothing |                        |          |           |           |          |           |    |

| <p><b>Mehrfachaufnahmen Form D1/D2</b><br/> <b>Multiple toolholders form D1/D2</b><br/> <b>Doppelverzahnung / Double toothing</b><br/> <b>Kühlmittelzufuhr extern</b><br/> <b>Coolant supply external</b></p>  <p>Lage D1</p> <p>Lage D2</p> | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>b</th> <th>b1</th> <th>h1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>25.16.151/171</td> <td>D1/D2-25Dx16</td> <td>25</td> <td>66</td> <td>33,0</td> <td>16</td> <td>48</td> <td>14</td> </tr> <tr> <td>30.20.151/171</td> <td>D1/D2-30Dx20</td> <td>30</td> <td>78</td> <td>39,0</td> <td>20</td> <td>60</td> <td>18</td> </tr> <tr> <td>40.25.151/171</td> <td>D1/D2-40Dx25</td> <td>40</td> <td>95</td> <td>47,5</td> <td>25</td> <td>72</td> <td>22</td> </tr> </tbody> </table> | Art.-Nr. | Typ | d    | b  | b1  | h1 | l | l1 | 25.16.151/171 | D1/D2-25Dx16 | 25 | 66  | 33,0 | 16 | 48 | 14 | 30.20.151/171 | D1/D2-30Dx20 | 30 | 78  | 39,0 | 20 | 60  | 18 | 40.25.151/171 | D1/D2-40Dx25 | 40 | 95 | 47,5 | 25 | 72 | 22 |
|---|--|----------|-----|------|----|-----|----|---|----|---------------|--------------|----|-----|------|----|----|----|---------------|--------------|----|-----|------|----|-----|----|---------------|--------------|----|----|------|----|----|----|
| Art.-Nr.  | Typ  | d        | b   | b1   | h1 | l   | l1 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 25.16.151/171   | D1/D2-25Dx16   | 25       | 66  | 33,0 | 16 | 48  | 14 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 30.20.151/171   | D1/D2-30Dx20   | 30       | 78  | 39,0 | 20 | 60  | 18 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 40.25.151/171   | D1/D2-40Dx25   | 40       | 95  | 47,5 | 25 | 72  | 22 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| <p><b>Mehrfachaufnahmen Form D1</b><br/> <b>Multiple toolholders form D1</b><br/> <b>Kühlmittelzufuhr extern</b><br/> <b>Coolant supply external</b></p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>b</th> <th>b1</th> <th>h1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>50.32.151</td> <td>D1-50x32x 85</td> <td>50</td> <td>105</td> <td>52,5</td> <td>32</td> <td>85</td> <td>25</td> </tr> <tr> <td>60.32.151</td> <td>D1-60x32x110</td> <td>60</td> <td>115</td> <td>57,5</td> <td>32</td> <td>110</td> <td>25</td> </tr> </tbody> </table>  | Art.-Nr. | Typ | d    | b  | b1  | h1 | l | l1 | 50.32.151     | D1-50x32x 85 | 50 | 105 | 52,5 | 32 | 85 | 25 | 60.32.151     | D1-60x32x110 | 60 | 115 | 57,5 | 32 | 110 | 25 |               |              |    |    |      |    |    |    |
| Art.-Nr.  | Typ  | d        | b   | b1   | h1 | l   | l1 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 50.32.151   | D1-50x32x 85   | 50       | 105 | 52,5 | 32 | 85  | 25 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 60.32.151   | D1-60x32x110   | 60       | 115 | 57,5 | 32 | 110 | 25 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| <p><b>Mehrfachaufnahmen Form D2</b><br/> <b>Multiple toolholders form D2</b><br/> <b>Kühlmittelzufuhr extern</b><br/> <b>Coolant supply external</b></p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>b</th> <th>b1</th> <th>h1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>50.32.171</td> <td>D2-50x32x 85</td> <td>50</td> <td>105</td> <td>52,5</td> <td>32</td> <td>85</td> <td>25</td> </tr> <tr> <td>60.32.171</td> <td>D2-60x32x110</td> <td>60</td> <td>115</td> <td>57,5</td> <td>32</td> <td>110</td> <td>25</td> </tr> </tbody> </table>  | Art.-Nr. | Typ | d    | b  | b1  | h1 | l | l1 | 50.32.171     | D2-50x32x 85 | 50 | 105 | 52,5 | 32 | 85 | 25 | 60.32.171     | D2-60x32x110 | 60 | 115 | 57,5 | 32 | 110 | 25 |               |              |    |    |      |    |    |    |
| Art.-Nr.  | Typ  | d        | b   | b1   | h1 | l   | l1 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 50.32.171   | D2-50x32x 85   | 50       | 105 | 52,5 | 32 | 85  | 25 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |
| 60.32.171   | D2-60x32x110   | 60       | 115 | 57,5 | 32 | 110 | 25 |   |    |               |              |    |     |      |    |    |    |               |              |    |     |      |    |     |    |               |              |    |    |      |    |    |    |

**Unterlegplatten**  
**Shims**



| Art.-Nr. | für Typ                                      | l       | bxh  |
|----------|--|---------|------|
| 314101   | 20.16.020 .030 .040 .050                     | 54      | 14x4 |
| 315101   | 20.16.060 .070 .080 .090                     | 49      | 14x4 |
| 303101   | 20.16.100 .110 .120 .130                     | 74      | 14x4 |
| 324101   | 20.16.150 .160 (2 Stück)                     | 49/64   | 14x4 |
| 304101   | 30.20.020 .030 .040 .050 .060 .070 .080 .090 | 69      | 18x4 |
| 309101   | 30.20.100 .110 .120 .130                     | 97      | 18x4 |
| 304101   | 30.20.150 .160 .170 .180                     | 69      | 18x4 |
| 310101   | 40.25.020 .030 .040 .050 .060 .070 .080 .090 | 84      | 22x5 |
| 311101   | 40.25.100 .110 .120 .130                     | 106     | 22x5 |
| 326101   | 40.25.150/180 40.25.160/170 (2 Stück)        | 86/99   | 22x5 |
| 387101   | 40.25.151/171                                |         |      |
| 306101   | 50.32.020 .030                               | 99      | 24x7 |
| 301101   | 50.32.040 .050 .060 .070 .080 .090           | 98      | 25x7 |
| 305101   | 50.32.100 .110 .102 .130                     | 128     | 25x7 |
| 331101   | 50.32.150 .170 (2 Stück)                     | 99/119  | 24x7 |
| 327101   | 50.32.160 .180 (2 Stück)                     | 104/119 | 25x7 |
| 388101   | 50.32.151 .171                               | 84      | 25x7 |
| 312101   | 60.32.020 .030 .040 .050 .060 .070 .080 .090 | 124     | 30x7 |
| 313101   | 60.32.100 .110 .120 .130                     | 144     | 30x7 |
| 312101   | 60.32.150 .160 .170 .180                     | 124     | 30x7 |
| 389101   | 60.32.151 .171                               | 109     | 25x7 |

**Spannzangenhalter Form E4  
für Spannzangen ER DIN 6499 / ISO 15488**

**Collet chucks form E4  
for collets ER DIN 6499 / ISO 15488**

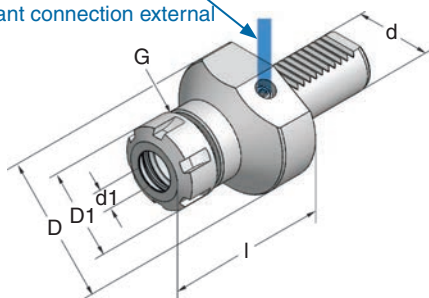
Kühlmittelzufuhr intern  
Coolant supply internal



ER 16

Alternative Spannmuttern siehe Seiten 53+54  
Alternative nuts see pages 53+54

**VDI 30, 40, 50, 60**  
Kühlmittelanschluß extern  
Coolant connection external



Spannzangen siehe Seiten 56+57  
Collets see pages 56+57

| Art.-Nr.  | Typ           | d  | d1   | D   | D1 | l  | G        |
|-----------|---------------|----|------|-----|----|----|----------|
| 16.10.330 | E4-16xER16x50 | 16 | 1-10 | 40  | 28 | 50 | M22x1,50 |
| 16.16.330 | E4-16xER25x50 | 16 | 1-16 | 40  | 42 | 50 | M32x1,50 |
| 20.10.330 | E4-20xER16x55 | 20 | 1-10 | 50  | 28 | 55 | M22x1,50 |
| 20.16.330 | E4-20xER25x55 | 20 | 1-16 | 50  | 42 | 55 | M32x1,50 |
| 20.20.330 | E4-20xER32x55 | 20 | 2-20 | 50  | 50 | 55 | M40x1,50 |
| 25.16.330 | E4-25xER25x55 | 25 | 1-16 | 58  | 42 | 55 | M32x1,50 |
| 25.20.330 | E4-25xER32x55 | 25 | 2-20 | 58  | 50 | 55 | M40x1,50 |
| 30.16.330 | E4-30xER25x75 | 30 | 1-16 | 68  | 42 | 75 | M32x1,50 |
| 30.16.331 | E4-30xER25x55 | 30 | 1-16 | 68  | 42 | 55 | M32x1,50 |
| 30.20.330 | E4-30xER32x75 | 30 | 2-20 | 68  | 50 | 75 | M40x1,50 |
| 30.20.331 | E4-30xER32x55 | 30 | 2-20 | 68  | 50 | 55 | M40x1,50 |
| 30.26.330 | E4-30xER40x75 | 30 | 3-30 | 68  | 63 | 75 | M50x1,50 |
| 40.13.330 | E4-40xER20x75 | 40 | 1-13 | 83  | 34 | 75 | M25x1,50 |
| 40.16.330 | E4-40xER25x75 | 40 | 1-16 | 83  | 42 | 75 | M32x1,50 |
| 40.20.330 | E4-40xER32x75 | 40 | 2-20 | 83  | 50 | 75 | M40x1,50 |
| 40.26.330 | E4-40xER40x75 | 40 | 3-30 | 83  | 63 | 75 | M50x1,50 |
| 50.20.330 | E4-50xER32x90 | 50 | 2-20 | 98  | 50 | 90 | M40x1,50 |
| 50.26.330 | E4-50xER40x90 | 50 | 3-30 | 98  | 63 | 90 | M50x1,50 |
| 50.34.330 | E4-50xER50x90 | 50 | 6-34 | 98  | 78 | 90 | M64x2,00 |
| 60.26.330 | E4-60xER40x90 | 60 | 3-30 | 123 | 63 | 90 | M50x1,50 |
| 60.34.330 | E4-60xER50x99 | 60 | 6-34 | 123 | 78 | 99 | M64x2,00 |

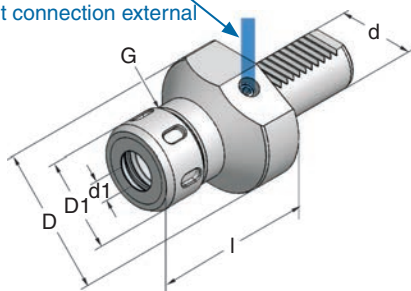
**Spannzangenhalter Form E3  
für Spannzangen DIN 6388 / ISO 10897**

**Collet chucks form E3 for collets DIN 6388 / ISO 10897**

Kühlmittelzufuhr intern  
Coolant supply internal



**VDI 30, 40, 50, 60**  
Kühlmittelanschluß extern  
Coolant connection external



Spannzangen auf Anfrage  
Collets on inquiry

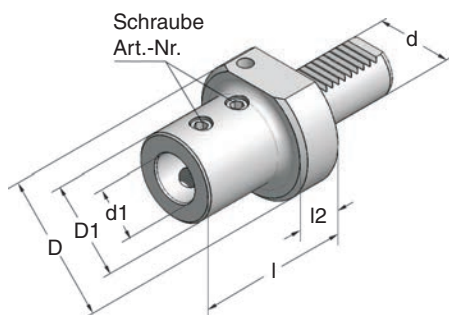
| Art.-Nr.  | Typ           | d  | d1   | D   | D1 | l  | G        |
|-----------|---------------|----|------|-----|----|----|----------|
| 20.16.320 | E3-20x1-16x55 | 20 | 2-16 | 50  | 40 | 55 | M33x1,50 |
| 30.25.320 | E3-30x2-25x75 | 30 | 2-25 | 68  | 60 | 75 | M48x2,00 |
| 40.25.320 | E3-40x2-25x75 | 40 | 2-25 | 83  | 60 | 75 | M48x2,00 |
| 40.32.320 | E3-40x4-32x90 | 40 | 4-32 | 83  | 72 | 90 | M60x2,50 |
| 50.32.320 | E3-50x4-32x90 | 50 | 4-32 | 98  | 72 | 90 | M60x2,50 |
| 60.32.320 | E3-60x4-32x90 | 60 | 4-32 | 123 | 72 | 90 | M60x2,50 |

#### Bohrerhalter für Wendepplattenbohrer Form E1

Holders for insert drills form E1

Kühlmittelezufuhr intern

Coolant supply internal



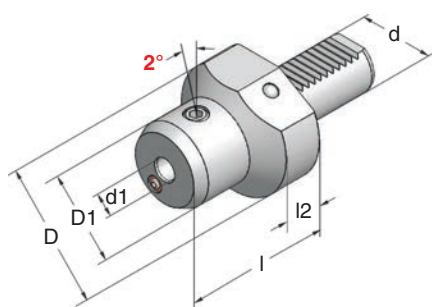
| Art.-Nr.                            | Typ          | d  | d1  | D   | D1 | l   | l1 | l2 | Schraube |
|-------------------------------------|--------------|----|-----|-----|----|-----|----|----|----------|
| 20.16.220                           | E1-20x16x 60 | 20 | 16  | 50  | 34 | 60  | 54 | 18 | 114100   |
| 20.20.220                           | E1-20x20x 67 | 20 | 20  | 50  | 40 | 67  | 54 | 18 | 114100   |
| 20.25.220                           | E1-20x25x 71 | 20 | 25  | 50  | 45 | 71  | 59 | 18 | 122100   |
| 25.16.220                           | E1-25x16x 60 | 25 | 16  | 58  | 34 | 60  | 54 | 18 | 114100   |
| 25.20.220                           | E1-25x20x 67 | 25 | 20  | 58  | 40 | 67  | 54 | 18 | 114100   |
| 25.25.220                           | E1-25x25x 71 | 25 | 25  | 58  | 45 | 71  | 59 | 18 | 122100   |
| 25.32.220                           | E1-25x32x 71 | 25 | 32  | 58  | 52 | 71  | 63 | 18 | 122100   |
| 30.16.220                           | E1-30x16x 66 | 30 | 16  | 68  | 34 | 66  | 54 | 22 | 114100   |
| 30.20.220                           | E1-30x20x 67 | 30 | 20  | 68  | 40 | 67  | 54 | 22 | 114100   |
| 30.25.220                           | E1-30x25x 71 | 30 | 25  | 68  | 45 | 71  | 59 | 22 | 122100   |
| 30.32.220                           | E1-30x32x 75 | 30 | 32  | 68  | 52 | 75  | 63 | 22 | 122100   |
| 30.40.220                           | E1-30x40x 80 | 30 | 40  | 68  | 60 | 80  | 73 | 22 | 144100   |
| 40.16.220                           | E1-40x16x 66 | 40 | 16  | 83  | 34 | 66  | 54 | 22 | 114100   |
| 40.20.220                           | E1-40x20x 67 | 40 | 20  | 83  | 40 | 67  | 54 | 22 | 114100   |
| 40.25.220                           | E1-40x25x 75 | 40 | 25  | 83  | 45 | 75  | 59 | 22 | 122100   |
| 40.32.220                           | E1-40x32x 75 | 40 | 32  | 83  | 52 | 75  | 63 | 22 | 122100   |
| 40.40.220                           | E1-40x40x 90 | 40 | 40  | 83  | 60 | 90  | 73 | 22 | 144100   |
| 40.50.220                           | E1-40x50x 95 | 40 | 50  | 83  | 70 | 95  | 83 | 22 | 144100   |
| 50.20.220                           | E1-50x20x 67 | 50 | 20  | 98  | 40 | 67  | 54 | 30 | 114100   |
| 50.25.220                           | E1-50x25x 80 | 50 | 25  | 98  | 45 | 80  | 59 | 30 | 122100   |
| 50.32.220                           | E1-50x32x 80 | 50 | 32  | 98  | 52 | 80  | 63 | 30 | 122100   |
| 50.40.220                           | E1-50x40x 90 | 50 | 40  | 98  | 60 | 90  | 73 | 30 | 144100   |
| 50.50.220                           | E1-50x50x100 | 50 | 50  | 98  | 70 | 100 | 83 | 30 | 144100   |
| 60.20.220                           | E1-60x20x 80 | 60 | 20  | 123 | 40 | 80  | 54 | 30 | 114100   |
| 60.25.220                           | E1-60x25x 80 | 60 | 25  | 123 | 45 | 80  | 59 | 30 | 122100   |
| 60.32.220                           | E1-60x32x 80 | 60 | 32  | 123 | 52 | 80  | 63 | 30 | 122100   |
| 60.40.220                           | E1-60x40x 90 | 60 | 40  | 123 | 60 | 90  | 73 | 30 | 144100   |
| 60.50.220                           | E1-60x50x100 | 60 | 50  | 123 | 70 | 100 | 83 | 30 | 144100   |
| <b>INCH</b>                         |              |    |     |     |    |     |    |    |          |
| 324206                              | E1-30x1" x71 | 30 | 1"  | 68  | 45 | 71  | 59 | 22 | 122100   |
| 325206                              | E1-30x1¼"x75 | 30 | 1¼" | 68  | 52 | 75  | 63 | 22 | 122100   |
| 326206                              | E1-30x1½"x80 | 30 | 1½" | 50  | 45 | 80  | 59 | 18 | 144100   |
| 424206                              | E1-40x1" x71 | 40 | 1"  | 83  | 45 | 71  | 59 | 22 | 122100   |
| 425206                              | E1-40x1¼"x75 | 40 | 1¼" | 83  | 52 | 75  | 63 | 22 | 122100   |
| 426206                              | E1-40x1½"x90 | 40 | 1½" | 83  | 60 | 90  | 73 | 22 | 144100   |
| 524206                              | E1-50x1" x71 | 50 | 1"  | 98  | 45 | 71  | 59 | 30 | 122100   |
| 525206                              | E1-50x1¼"x75 | 50 | 1¼" | 98  | 52 | 75  | 63 | 30 | 122100   |
| 526206                              | E1-50x1½"x85 | 50 | 1½" | 98  | 60 | 85  | 73 | 30 | 144100   |
| l1 = Bohrungstiefe l1 = drill depth |              |    |     |     |    |     |    |    |          |

**Bohrerhalter Whistle-Notch E1**

**Drill holders Whistle-Notch E1**

Kühlmittelezufuhr intern + extern  
 Coolant supply internal + external

**DIN 1835 Form E**



| Art.-Nr.  | Typ          | d  | d1 | D  | D1 | l  | l1 | l2 |
|-----------|--------------|----|----|----|----|----|----|----|
| 20.06.221 | E1-20x06Ex60 | 20 | 6  | 50 | 35 | 60 | 36 | 18 |
| 20.08.221 | E1-20x08Ex60 | 20 | 8  | 50 | 35 | 60 | 36 | 18 |
| 20.10.221 | E1-20x10Ex60 | 20 | 10 | 50 | 35 | 60 | 40 | 18 |
| 20.12.221 | E1-20x12Ex60 | 20 | 12 | 50 | 44 | 60 | 45 | 18 |
| 20.14.221 | E1-20x14Ex60 | 20 | 14 | 50 | 44 | 60 | 45 | 18 |
| 20.16.221 | E1-20x16Ex60 | 20 | 16 | 50 | 50 | 60 | 48 | -  |
| 20.18.221 | E1-20x18Ex60 | 20 | 18 | 50 | 50 | 60 | 48 | -  |
| 20.20.221 | E1-20x20Ex60 | 20 | 20 | 50 | 50 | 60 | 50 | -  |
|           |              |    |    |    |    |    |    |    |
| 30.06.221 | E1-30x06Ex67 | 30 | 6  | 68 | 35 | 67 | 36 | 22 |
| 30.08.221 | E1-30x08Ex67 | 30 | 8  | 68 | 35 | 67 | 36 | 22 |
| 30.10.221 | E1-30x10Ex67 | 30 | 10 | 68 | 35 | 67 | 40 | 22 |
| 30.12.221 | E1-30x12Ex67 | 30 | 12 | 68 | 44 | 67 | 45 | 22 |
| 30.14.221 | E1-30x14Ex67 | 30 | 14 | 68 | 44 | 67 | 45 | 22 |
| 30.16.221 | E1-30x16Ex67 | 30 | 16 | 68 | 52 | 67 | 48 | 22 |
| 30.18.221 | E1-30x18Ex67 | 30 | 18 | 68 | 52 | 67 | 48 | 22 |
| 30.20.221 | E1-30x20Ex67 | 30 | 20 | 68 | 52 | 67 | 50 | 22 |
|           |              |    |    |    |    |    |    |    |
| 40.06.221 | E1-40x06Ex67 | 40 | 6  | 83 | 35 | 67 | 36 | 22 |
| 40.08.221 | E1-40x08Ex67 | 40 | 8  | 83 | 35 | 67 | 36 | 22 |
| 40.10.221 | E1-40x10Ex67 | 40 | 10 | 83 | 35 | 67 | 40 | 22 |
| 40.12.221 | E1-40x12Ex67 | 40 | 12 | 83 | 44 | 67 | 45 | 22 |
| 40.14.221 | E1-40x14Ex67 | 40 | 14 | 83 | 44 | 67 | 45 | 22 |
| 40.16.221 | E1-40x16Ex67 | 40 | 16 | 83 | 52 | 67 | 48 | 22 |
| 40.18.221 | E1-40x18Ex67 | 40 | 18 | 83 | 52 | 67 | 48 | 22 |
| 40.20.221 | E1-40x20Ex67 | 40 | 20 | 83 | 52 | 67 | 50 | 22 |

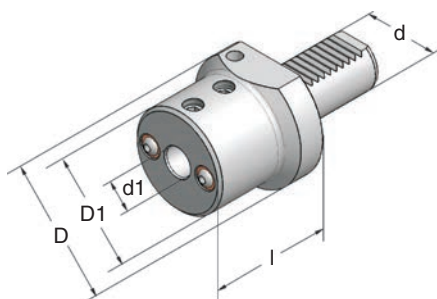
l1 = Bohrungstiefe l1 = drill depth



**Bohrstangenhalter Form E2**

**Boring bar holders form E2**

Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external



Reduzierbuchsen siehe Seite 21  
 Reducing bushes see page 21

| Art.-Nr.  | Typ         | d  | d1 | D  | D1 | l  | l1  |
|-----------|-------------|----|----|----|----|----|-----|
| 16.06.290 | E2-16x06x44 | 16 | 6  | 40 | 40 | 44 | 39  |
| 16.08.290 | E2-16x08x44 | 16 | 8  | 40 | 40 | 44 | 39  |
| 16.10.290 | E2-16x10x44 | 16 | 10 | 40 | 40 | 44 | 39  |
| 16.12.290 | E2-16x12x44 | 16 | 12 | 40 | 40 | 44 | 39  |
| 16.16.290 | E2-16x16x44 | 16 | 16 | 40 | 40 | 44 | 39  |
| 20.06.290 | E2-20x06x50 | 20 | 6  | 50 | 40 | 50 | 84  |
| 20.08.290 | E2-20x08x50 | 20 | 8  | 50 | 40 | 50 | 84  |
| 20.10.290 | E2-20x10x50 | 20 | 10 | 50 | 40 | 50 | 45  |
| 20.12.290 | E2-20x12x50 | 20 | 12 | 50 | 40 | 50 | 45  |
| 20.16.290 | E2-20x16x50 | 20 | 16 | 50 | 44 | 50 | 45  |
| 20.20.290 | E2-20x20x50 | 20 | 20 | 50 | 49 | 50 | 45  |
| 20.25.290 | E2-20x25x50 | 20 | 25 | 54 | 54 | 50 | 45  |
| 25.06.290 | E2-25x06x50 | 25 | 6  | 58 | 40 | 50 | 84  |
| 25.08.290 | E2-25x08x50 | 25 | 8  | 58 | 40 | 50 | 84  |
| 25.10.290 | E2-25x10x50 | 25 | 10 | 58 | 40 | 50 | 84  |
| 25.12.290 | E2-25x12x50 | 25 | 12 | 58 | 40 | 50 | 45  |
| 25.16.290 | E2-25x16x50 | 25 | 16 | 58 | 40 | 50 | 45  |
| 25.20.290 | E2-25x20x50 | 25 | 20 | 58 | 58 | 50 | 45  |
| 25.25.290 | E2-25x25x50 | 25 | 25 | 58 | 58 | 50 | 45  |
| 30.06.290 | E2-30x06x60 | 30 | 6  | 68 | 50 | 60 | 106 |
| 30.08.290 | E2-30x08x60 | 30 | 8  | 68 | 50 | 60 | 106 |
| 30.10.290 | E2-30x10x60 | 30 | 10 | 68 | 50 | 60 | 106 |
| 30.12.290 | E2-30x12x60 | 30 | 12 | 68 | 50 | 60 | 106 |
| 30.16.290 | E2-30x16x60 | 30 | 16 | 68 | 55 | 60 | 106 |
| 30.20.290 | E2-30x20x60 | 30 | 20 | 68 | 55 | 60 | 55  |
| 30.25.290 | E2-30x25x60 | 30 | 25 | 68 | 55 | 60 | 55  |
| 30.30.290 | E2-30x30x65 | 30 | 30 | 68 | 68 | 65 | 57  |
| 30.32.290 | E2-30x32x65 | 30 | 32 | 68 | 68 | 65 | 57  |
| 30.40.290 | E2-30x40x75 | 30 | 40 | 74 | 74 | 75 | 66  |
| 40.08.290 | E2-40x08x75 | 40 | 8  | 83 | 50 | 75 | 130 |
| 40.10.290 | E2-40x10x75 | 40 | 10 | 83 | 50 | 75 | 130 |
| 40.12.290 | E2-40x12x75 | 40 | 12 | 83 | 50 | 75 | 130 |
| 40.16.290 | E2-40x16x75 | 40 | 16 | 83 | 55 | 75 | 130 |
| 40.20.290 | E2-40x20x75 | 40 | 20 | 83 | 55 | 75 | 130 |
| 40.25.290 | E2-40x25x75 | 40 | 25 | 83 | 60 | 75 | 66  |
| 40.30.290 | E2-40x30x75 | 40 | 30 | 83 | 72 | 75 | 66  |
| 40.32.290 | E2-40x32x75 | 40 | 32 | 83 | 72 | 75 | 66  |
| 40.40.290 | E2-40x40x85 | 40 | 40 | 83 | 83 | 85 | 73  |
| 50.12.290 | E2-50x12x90 | 50 | 12 | 98 | 56 | 90 | 156 |
| 50.16.290 | E2-50x16x90 | 50 | 16 | 98 | 56 | 90 | 156 |
| 50.20.290 | E2-50x20x90 | 50 | 20 | 98 | 56 | 90 | 156 |
| 50.25.290 | E2-50x25x90 | 50 | 25 | 98 | 65 | 90 | 156 |
| 50.30.290 | E2-50x30x90 | 50 | 30 | 98 | 68 | 90 | 110 |
| 50.32.290 | E2-50x32x90 | 50 | 32 | 98 | 68 | 90 | 110 |
| 50.40.290 | E2-50x40x90 | 50 | 40 | 98 | 80 | 90 | 81  |
| 50.50.290 | E2-50x50x95 | 50 | 50 | 98 | 90 | 95 | 83  |

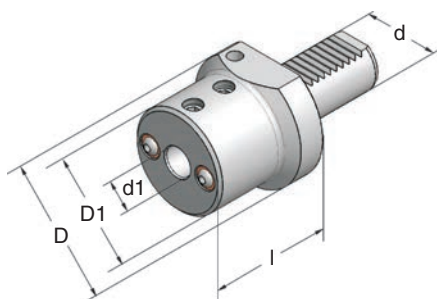
l1 = Bohrungstiefe l1 = drill depth

#### Bohrstangenhalter Form E2

#### Boring bar holders form E2

Kühlmittelezufuhr intern + extern

Coolant supply internal + external



Reduzierbuchsen siehe Seite 21  
Reducing bushes see page 21

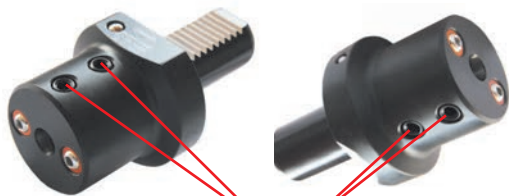
| Art.-Nr.    | Typ             | d  | d1     | D   | D1  | l   | l1  |
|-------------|-----------------|----|--------|-----|-----|-----|-----|
| 60.12.290   | E2-60x12x 90    | 60 | 12     | 123 | 52  | 90  | 174 |
| 60.16.290   | E2-60x16x 90    | 60 | 16     | 123 | 60  | 90  | 174 |
| 60.20.290   | E2-60x20x 90    | 60 | 20     | 123 | 60  | 90  | 174 |
| 60.25.290   | E2-60x25x 90    | 60 | 25     | 123 | 65  | 90  | 174 |
| 60.30.290   | E2-60x30x 90    | 60 | 30     | 123 | 70  | 90  | 172 |
| 60.32.290   | E2-60x32x 90    | 60 | 32     | 123 | 70  | 90  | 172 |
| 60.40.290   | E2-60x40x 90    | 60 | 40     | 123 | 80  | 90  | 110 |
| 60.50.290   | E2-60x50x100    | 60 | 50     | 123 | 90  | 100 | 88  |
| 60.60.290   | E2-60x60x100    | 60 | 60     | 123 | 100 | 100 | 88  |
| <b>INCH</b> |                 |    |        |     |     |     |     |
| 329206      | E2-30x3/8"x60   | 30 | 3/8"   | 68  | 50  | 60  | 106 |
| 330206      | E2-30x1/2"x60   | 30 | 1/2"   | 68  | 50  | 60  | 106 |
| 331206      | E2-30x5/8"x60   | 30 | 5/8"   | 68  | 55  | 60  | 106 |
| 332206      | E2-30x3/4"x60   | 30 | 3/4"   | 68  | 55  | 60  | 55  |
| 333206      | E2-30x1" x60    | 30 | 1"     | 68  | 55  | 60  | 55  |
| 334206      | E2-30x1 1/4"x65 | 30 | 1 1/4" | 68  | 68  | 65  | 57  |
| 335206      | E2-30x1 1/2"x75 | 30 | 1 1/2" | 74  | 74  | 75  | 65  |
| 429206      | E2-40x3/8"x75   | 40 | 3/8"   | 83  | 50  | 75  | 130 |
| 430206      | E2-40x1/2"x75   | 40 | 1/2"   | 83  | 50  | 75  | 130 |
| 431206      | E2-40x5/8"x75   | 40 | 5/8"   | 83  | 55  | 75  | 130 |
| 432206      | E2-40x3/4"x75   | 40 | 3/4"   | 83  | 55  | 75  | 130 |
| 433206      | E2-40x1" x75    | 40 | 1"     | 83  | 60  | 75  | 66  |
| 434206      | E2-40x1 1/4"x75 | 40 | 1 1/4" | 83  | 72  | 75  | 66  |
| 435206      | E2-40x1 1/2"x85 | 40 | 1 1/2" | 83  | 72  | 85  | 73  |
| 436206      | E2-40x1 3/4"x85 | 40 | 1 3/4" | 83  | 83  | 85  | 73  |
| 530206      | E2-50x1/2"x90   | 50 | 1/2"   | 98  | 56  | 90  | 156 |
| 531206      | E2-50x5/8"x90   | 50 | 5/8"   | 98  | 56  | 90  | 156 |
| 532206      | E2-50x3/4"x90   | 50 | 3/4"   | 98  | 56  | 90  | 156 |
| 533206      | E2-50x1" x90    | 50 | 1"     | 98  | 65  | 90  | 156 |
| 534206      | E2-50x1 1/4"x90 | 50 | 1 1/4" | 98  | 68  | 90  | 110 |
| 535206      | E2-50x1 1/2"x90 | 50 | 1 1/2" | 98  | 68  | 90  | 110 |
| 536206      | E2-50x1 3/4"x90 | 50 | 1 3/4" | 98  | 80  | 90  | 81  |
| 537206      | E2-50x2" x95    | 50 | 2"     | 98  | 90  | 95  | 83  |

l1 = Bohrungstiefe l1 = drill depth

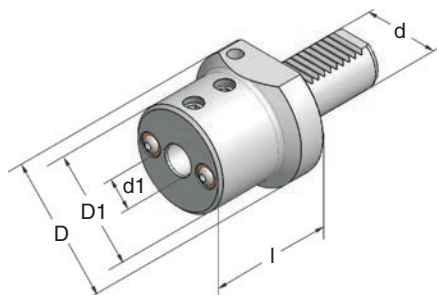
**Bohrstangenhalter Form E2**

**Boring bar holders form E2**

Kühlmittelezufuhr intern + extern  
 Coolant supply internal + external



**Spannmöglichkeit beidseitig**  
**Clamping possible on both sides**



| Art.-Nr.    | Typ         | d  | d1 | D  | D1 | l  | l1  |
|-------------|-------------|----|----|----|----|----|-----|
| 30.10.290-2 | E2-30x10x60 | 30 | 10 | 68 | 50 | 60 | 106 |
| 30.12.290-2 | E2-30x12x60 | 30 | 12 | 68 | 50 | 60 | 106 |
| 30.16.290-2 | E2-30x16x60 | 30 | 16 | 68 | 55 | 60 | 106 |
| 30.20.290-2 | E2-30x20x60 | 30 | 20 | 68 | 55 | 60 | 55  |
| 30.25.290-2 | E2-30x25x60 | 30 | 25 | 68 | 55 | 60 | 55  |
| 30.32.290-2 | E2-30x32x65 | 30 | 32 | 68 | 68 | 65 | 57  |
| 40.08.290-2 | E2-40x08x75 | 40 | 08 | 83 | 50 | 75 | 130 |
| 40.10.290-2 | E2-40x10x75 | 40 | 10 | 83 | 50 | 75 | 130 |
| 40.12.290-2 | E2-40x12x75 | 40 | 12 | 83 | 50 | 75 | 130 |
| 40.16.290-2 | E2-40x16x75 | 40 | 16 | 83 | 55 | 75 | 130 |
| 40.20.290-2 | E2-40x20x75 | 40 | 20 | 83 | 55 | 75 | 130 |
| 40.25.290-2 | E2-40x25x75 | 40 | 25 | 83 | 60 | 75 | 66  |
| 40.32.290-2 | E2-40x32x75 | 40 | 32 | 83 | 72 | 75 | 66  |
| 40.40.290-2 | E2-40x40x85 | 40 | 40 | 83 | 83 | 85 | 73  |

l1 = Bohrungstiefe l1 = drill depth



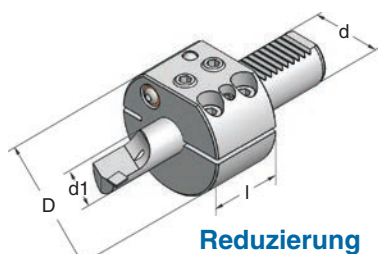
Reduzierbuchsen siehe Seite 21  
 Reducing bushes see page 21

**Bohrstangenhalter geschlitzt**

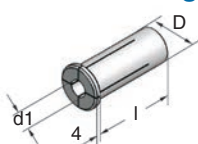
**Boring bar holders slotted**

Kühlmittelezufuhr intern + extern  
 Coolant supply internal + external

Lieferumfang ohne Werkzeug  
 Delivery without tool



**Reduzierung**



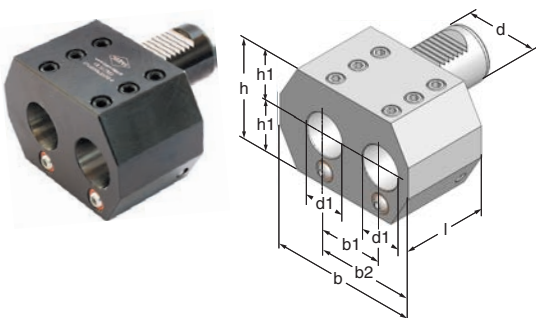
| Art.-Nr.  | Typ         | d  | d1 | D   | l  | l1  |
|-----------|-------------|----|----|-----|----|-----|
| 30.16.230 | E2-30x16x42 | 30 | 16 | 68  | 42 | 88  |
| 30.20.230 | E2-30x20x42 | 30 | 20 | 68  | 42 | 88  |
| 40.16.230 | E2-40x16x46 | 40 | 16 | 83  | 46 | 100 |
| 40.20.230 | E2-40x20x46 | 40 | 20 | 83  | 46 | 100 |
| 40.25.230 | E2-40x25x46 | 40 | 25 | 83  | 46 | 100 |
| 40.32.230 | E2-40x32x90 | 40 | 32 | 83  | 90 | 83  |
| 50.16.230 | E2-50x16x55 | 50 | 16 | 98  | 55 | 125 |
| 50.20.230 | E2-50x20x55 | 50 | 20 | 98  | 55 | 125 |
| 50.25.230 | E2-50x25x55 | 50 | 25 | 98  | 55 | 125 |
| 50.32.230 | E2-50x32x55 | 50 | 32 | 98  | 55 | 125 |
| 60.25.230 | E2-60x25x60 | 60 | 25 | 123 | 60 | 145 |
| 60.32.230 | E2-60x32x60 | 60 | 32 | 123 | 60 | 145 |
| 60.40.230 | E2-60x40x60 | 60 | 40 | 123 | 60 | 145 |
| 203201    | Reduzierung |    | 8  | 20  | 51 |     |
| 203202    | Reduzierung |    | 10 | 20  | 51 |     |
| 203203    | Reduzierung |    | 12 | 20  | 51 |     |
| 203205    | Reduzierung |    | 16 | 20  | 51 |     |

l1 = Bohrungstiefe l1 = drill depth

**Bohrstangenhalter Form E7/E8**  
**Boring bar holders form E7/E8**

Doppelverzahnung / Double toothing

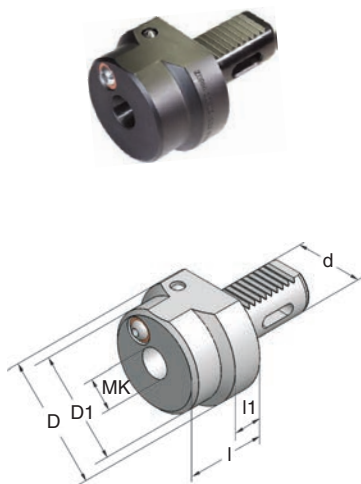
Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external



| Art.-Nr.   | Typ             | d  | d1 | b   | b1 | b2  | h  | l  |
|------------|-----------------|----|----|-----|----|-----|----|----|
| 30.25.2903 | E7+E8-30Dx25x56 | 30 | 25 | 95  | 45 | 65  | 64 | 56 |
| 40.32.2903 | E7+E8-40Dx32x66 | 40 | 32 | 115 | 50 | 75  | 78 | 66 |
| 50.50.2903 | E7+E8-50Dx50x90 | 50 | 50 | 154 | 70 | 105 | 98 | 90 |

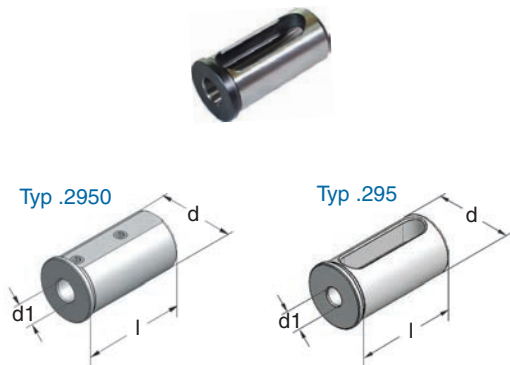
**Bohrerhalter Form F1**  
**für MK-Werkzeuge ISO 296**  
**Holder form F1 for M.T. shanks ISO 296**

Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external



| Art.-Nr.  | Typ          | d  | MK | D   | D1 | l  | l1 |
|-----------|--------------|----|----|-----|----|----|----|
| 20.01.200 | F1-20xMK1x22 | 20 | 1  | 50  | -  | 22 | -  |
| 30.01.200 | F1-30xMK1x25 | 30 | 1  | 68  | 52 | 25 | 25 |
| 30.02.200 | F1-30xMK2x42 | 30 | 2  | 68  | 58 | 42 | 25 |
| 30.03.200 | F1-30xMK3x66 | 30 | 3  | 68  | 68 | 66 | -  |
| 40.01.200 | F1-40xMK1x25 | 40 | 1  | 83  | -  | 25 | -  |
| 40.02.200 | F1-40xMK2x34 | 40 | 2  | 83  | 58 | 34 | 25 |
| 40.03.200 | F1-40xMK3x58 | 40 | 3  | 83  | 64 | 58 | 25 |
| 40.04.200 | F1-40xMK4x86 | 40 | 4  | 83  | 72 | 86 | 25 |
| 50.02.200 | F1-50xMK2x25 | 50 | 2  | 98  | -  | 25 | -  |
| 50.03.200 | F1-50xMK3x42 | 50 | 3  | 98  | 64 | 42 | 25 |
| 50.04.200 | F1-50xMK4x71 | 50 | 4  | 98  | 72 | 71 | 25 |
| 60.02.200 | F1-60xMK2x27 | 60 | 2  | 123 | -  | 27 | -  |
| 60.03.200 | F1-60xMK3x27 | 60 | 3  | 123 | -  | 27 | -  |
| 60.04.200 | F1-60xMK4x55 | 60 | 4  | 123 | 72 | 55 | 25 |
| 60.05.200 | F1-60xMK5x94 | 60 | 5  | 123 | 90 | 94 | 30 |

**Reduzierbuchsen für Bohrstangenhalter**  
**Reduction bushes for boring bar holders**



| Art.-Nr.   | für Typ        | d  | d1 | l  |
|------------|----------------|----|----|----|
| 20.06.295  |                | 20 | 6  | 48 |
| 20.08.295  |                | 20 | 8  | 48 |
| 20.10.295  |                | 20 | 10 | 48 |
| 20.12.295  |                | 20 | 12 | 48 |
| 20.16.295  |                | 20 | 16 | 48 |
| 25.06.2950 | 30.25.290 / -2 | 25 | 6  | 50 |
| 25.08.2950 | 30.25.290 / -2 | 25 | 8  | 50 |
| 25.10.295  | 30.25.290 / -2 | 25 | 10 | 50 |
| 25.12.295  | 30.25.290 / -2 | 25 | 12 | 50 |
| 25.14.295  | 30.25.290 / -2 | 25 | 14 | 50 |
| 25.16.295  | 30.25.290 / -2 | 25 | 16 | 50 |
| 25.18.295  | 30.25.290 / -2 | 25 | 18 | 50 |
| 25.20.295  | 30.25.290 / -2 | 25 | 20 | 50 |
| 32.06.2950 | 40.32.290 / -2 | 32 | 6  | 60 |
| 32.08.2950 | 40.32.290 / -2 | 32 | 8  | 60 |
| 32.10.2950 | 40.32.290 / -2 | 32 | 10 | 60 |
| 32.12.295  | 40.32.290 / -2 | 32 | 12 | 60 |
| 32.14.295  | 40.32.290 / -2 | 32 | 14 | 60 |
| 32.16.295  | 40.32.290 / -2 | 32 | 16 | 60 |
| 32.18.295  | 40.32.290 / -2 | 32 | 18 | 60 |
| 32.20.295  | 40.32.290 / -2 | 32 | 20 | 60 |
| 32.25.295  | 40.32.290 / -2 | 32 | 25 | 60 |
| 40.06.2950 | 50.40.290      | 40 | 6  | 72 |
| 40.08.2950 | 50.40.290      | 40 | 8  | 72 |
| 40.10.2950 | 50.40.290      | 40 | 10 | 72 |
| 40.12.2950 | 50.40.290      | 40 | 12 | 72 |
| 40.14.295  | 50.40.290      | 40 | 14 | 72 |
| 40.16.295  | 50.40.290      | 40 | 16 | 72 |
| 40.18.295  | 50.40.290      | 40 | 18 | 72 |
| 40.20.295  | 50.40.290      | 40 | 20 | 72 |
| 40.25.295  | 50.40.290      | 40 | 25 | 72 |
| 40.32.295  | 50.40.290      | 40 | 32 | 72 |
| 50.10.2950 | 60.50.290      | 50 | 10 | 80 |
| 50.12.2950 | 60.50.290      | 50 | 12 | 80 |
| 50.16.2950 | 60.50.290      | 50 | 16 | 80 |
| 50.20.295  | 60.50.290      | 50 | 20 | 80 |
| 50.25.295  | 60.50.290      | 50 | 25 | 80 |
| 50.32.295  | 60.50.290      | 50 | 32 | 80 |
| 50.40.295  | 60.50.290      | 50 | 40 | 80 |

INCH-Größen auf Anfrage / INCH-sizes on inquiry

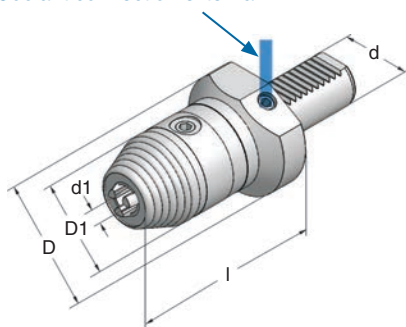
**Schnellspan-Bohrfutter für Links- und Rechtslauf**

Quick locking drill chucks for left and right rotation

Kühlmittelzufuhr intern  
 Coolant supply internal



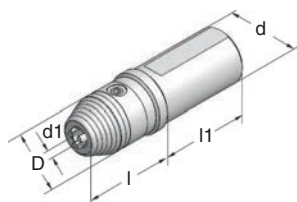
Typ .13 + Typ .16  
 Kühlmittelanschluß extern  
 Coolant connection external



| Art.-Nr. | Typ           | d  | d1   | D   | D1 | l  |
|----------|---------------|----|------|-----|----|----|
| 16.06.08 | VDI16x1- 8x68 | 16 | 1- 8 | 44  | 36 | 68 |
| 20.06.08 | VDI20x1- 8x68 | 20 | 1- 8 | 50  | 36 | 68 |
| 20.06.13 | VDI20x1-13x96 | 20 | 1-13 | 68  | 50 | 96 |
| 25.06.08 | VDI25x1- 8x68 | 25 | 1- 8 | 58  | 36 | 68 |
| 30.06.13 | VDI30x1-13x96 | 30 | 1-13 | 68  | 50 | 96 |
| 40.06.13 | VDI40x1-13x96 | 40 | 1-13 | 83  | 50 | 96 |
| 40.06.16 | VDI40x3-16x96 | 40 | 3-16 | 83  | 57 | 96 |
| 50.06.16 | VDI50x3-16x96 | 50 | 3-16 | 98  | 57 | 96 |
| 60.06.16 | VDI60x3-16x96 | 60 | 3-16 | 123 | 57 | 96 |

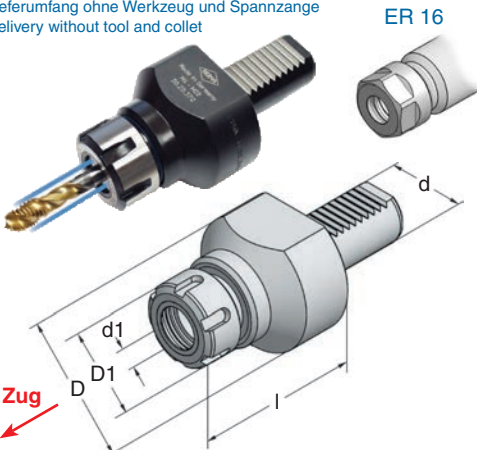
**Schnellspan-Bohrfutter mit Zylinderschaft**

Quick locking drill chucks cylindrical shank



| Art.-Nr. | Typ            | d  | d1   | D1 | l  | l1 |
|----------|----------------|----|------|----|----|----|
| 25.08.13 | zyl.25x1-13x74 | 25 | 1-13 | 50 | 74 | 55 |
| 30.08.13 | zyl.30x1-13x74 | 30 | 1-13 | 50 | 74 | 55 |
| 32.08.13 | zyl.32x1-13x74 | 32 | 1-13 | 50 | 74 | 55 |
| 40.08.13 | zyl.40x1-13x74 | 40 | 1-13 | 50 | 74 | 68 |
| 40.08.16 | zyl.40x3-16x74 | 40 | 3-16 | 57 | 74 | 68 |
| 50.08.13 | zyl.50x1-13x74 | 50 | 1-13 | 50 | 74 | 88 |
| 50.08.16 | zyl.50x3-16x74 | 50 | 3-16 | 57 | 74 | 88 |

**Gewindeschneidfutter VDI mit elastischem Längenausgleich auf Zug**  
**Auto tappers VDI - flexible differential position**  
 Kühlmittelzufuhr intern  
 Coolant supply internal  
 Lieferumfang ohne Werkzeug und Spannzange  
 Delivery without tool and collet




ER 16

Spannzangen siehe Seiten 56+57  
 Collets see pages 56+57

| Art.-Nr.      | Typ           | d  | d1          | l  | Zug | D   | D1 |
|---------------|---------------|----|-------------|----|-----|-----|----|
| 16.12.370     | VDI16xER16x60 | 16 | 1-10/M3-M12 | 60 | 12  | 40  | 28 |
| 20.12.370     | VDI20xER16x60 | 20 | 1-10/M3-M12 | 60 | 12  | 50  | 28 |
| 20.20.370     | VDI20xER25x85 | 20 | 2-16/M4-M20 | 85 | 15  | 50  | 42 |
| 25.12.370     | VDI25xER16x60 | 25 | 1-10/M3-M12 | 60 | 12  | 58  | 28 |
| 25.20.370     | VDI25xER25x79 | 25 | 2-16/M4-M20 | 79 | 15  | 58  | 42 |
| 30.20.370     | VDI30xER25x75 | 30 | 2-16/M4-M20 | 75 | 15  | 68  | 42 |
| 30.20.370ER32 | VDI30xER32x92 | 30 | 3-20/M4-M24 | 92 | 15  | 68  | 50 |
| 40.20.370     | VDI40xER25x75 | 40 | 2-16/M4-M20 | 75 | 15  | 83  | 42 |
| 40.20.370ER32 | VDI40xER32x92 | 40 | 3-20/M4-M24 | 92 | 15  | 83  | 50 |
| 40.33.370     | VDI40xER40x98 | 40 | 4-30/M8-M33 | 98 | 20  | 83  | 63 |
| 50.20.370     | VDI50xER25x75 | 50 | 2-16/M4-M20 | 75 | 15  | 98  | 42 |
| 50.33.370     | VDI50xER40x98 | 50 | 4-30/M8-M33 | 98 | 20  | 98  | 63 |
| 60.33.370     | VDI60xER40x75 | 60 | 4-30/M8-M33 | 75 | 20  | 125 | 63 |

**Gewindeschneidfutter zylindrisch mit elastischem Längenausgleich auf Zug**  
**Auto tappers cylindric - flexible differential position**

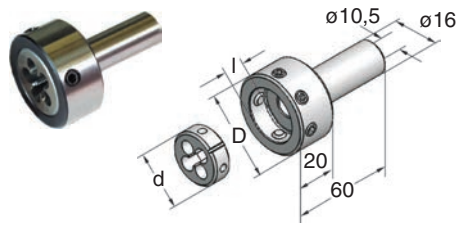


ER 16

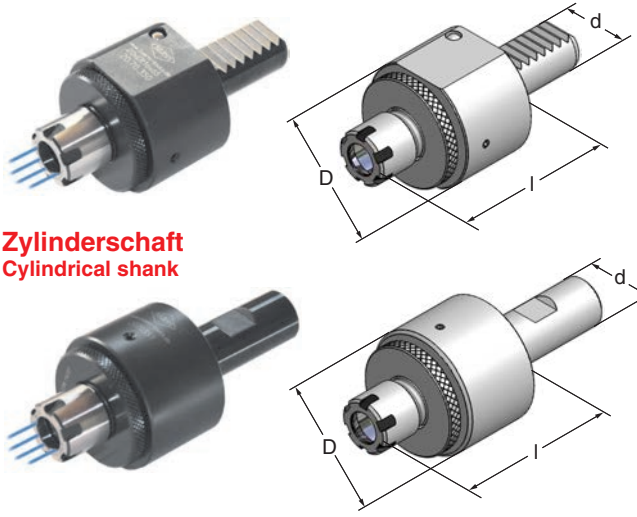
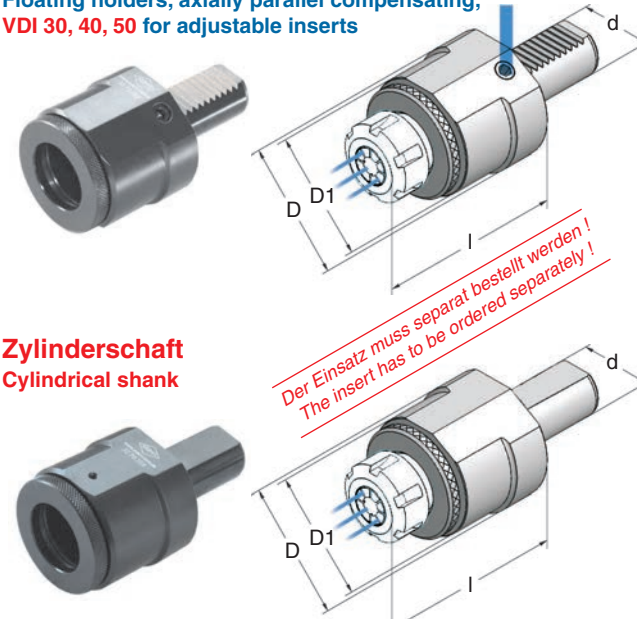

Spannzangen siehe Seiten 56+57  
 Collets see pages 56+57

| Art.-Nr.   | Typ            | d    | d1          | l  | Zug | D  | l1  |
|--|----------------|------|-------------|----|-----|----|-----|
| 16.12.372  | zyl.16xER16x60 | 16   | 1-10/M3-M12 | 60 | 12  | 32 | 40  |
| 20.12.372  | zyl.20xER16x60 | 20   | 1-10/M3-M12 | 60 | 12  | 32 | 48  |
| 20.20.372  | zyl.20xER25x75 | 20   | 2-16/M4-M20 | 75 | 15  | 45 | 48  |
| 25.20.372  | zyl.25xER25x75 | 25   | 2-16/M4-M20 | 75 | 15  | 45 | 48  |
| 30.20.372  | zyl.30xER25x75 | 30   | 2-16/M4-M20 | 75 | 15  | 45 | 55  |
| 32.20.372  | zyl.32xER25x75 | 32   | 2-16/M4-M20 | 75 | 15  | 49 | 58  |
| 40.20.372  | zyl.40xER25x60 | 40   | 2-16/M4-M20 | 60 | 15  | 49 | 68  |
| 50.33.372  | zyl.50xER40x60 | 50   | 4-30/M8-M33 |    | 15  | 58 | 120 |
| 25.20.375  | zyl.25xER25x75 | 25   | 2-16/M4-M20 | 75 | 15  | 53 | 54  |
| 32.20.375  | zyl.32xER25x75 | 32   | 2-16/M4-M20 | 75 | 15  | 53 | 54  |
| Typ .375 mit innerer Kühlmittelzufuhr / Typ .375 with internal coolant |                |      |             |    |     |    |     |
| <b>INCH</b>  |                |      |             |    |     |    |     |
| 1".20.372  | 1"xER25x75     | 25,4 | 2-16/M4-M20 | 75 | 15  | 45 | 48  |

**Einsätze für Schneideisen**  
**Die housing inserts**  
 Lieferumfang ohne Schneideisen  
 Delivery without tool



| Art.-Nr. | Typ    | d  | D  | l    |
|----------|--------|----|----|------|
| 153101   | ø16x16 | 16 | 28 | 6,0  |
| 154101   | ø16x20 | 20 | 32 | 7,5  |
| 155101   | ø16x25 | 25 | 37 | 9,5  |
| 156101   | ø16x30 | 30 | 42 | 11,0 |

| <p><b>Pendelhalter, achsparallel ausgleichend einstellbar</b><br/> <b>VDI 16, 20, 25 für Spannzangen ER16/426E ø1-10</b><br/>                     Floating holders, axially parallel compensating, adjustable<br/> <b>VDI 16, 20, 25 for collets ER16/426E ø1-10</b></p>  <p><b>Zylinderschaft</b><br/>                     Cylindrical shank</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>I</th> </tr> </thead> <tbody> <tr> <td>16.70.350</td> <td>VDI16xER16x67</td> <td>16</td> <td>50</td> <td>67</td> </tr> <tr> <td>20.70.350</td> <td>VDI20xER16x63</td> <td>20</td> <td>50</td> <td>63</td> </tr> <tr> <td>25.70.350</td> <td>VDI25xER16x65</td> <td>25</td> <td>58</td> <td>65</td> </tr> </tbody> </table> <p>Kühlmittelzufuhr intern<br/>                     Lieferumfang <b>inclusive</b> Einsatz + Spannmutter<br/>                     Coolant supply internal<br/>                     Delivery <b>including</b> insert + clamping nut</p> <p style="text-align: center;"><b>Zylinderschaft</b></p> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>I</th> </tr> </thead> <tbody> <tr> <td>20.70.351</td> <td>zyl.20xER16mx63</td> <td>20</td> <td>50</td> <td>63</td> </tr> <tr> <td colspan="5" style="text-align: center;"><b>INCH</b></td> </tr> <tr> <td>3/4.70.351</td> <td>zyl.3/4"xER16mx63</td> <td>19,05</td> <td>50</td> <td>63</td> </tr> </tbody> </table> <p>Kühlmittelzufuhr intern<br/>                     Lieferumfang <b>inclusive</b> Einsatz + Spannmutter<br/>                     Coolant supply internal<br/>                     Delivery <b>including</b> insert + clamping nut</p> | Art.-Nr. | Typ | d  | D | I      | 16.70.350    | VDI16xER16x67 | 16 | 50     | 67            | 20.70.350 | VDI20xER16x63 | 20   | 50 | 63 | 25.70.350 | VDI25xER16x65 | 25           | 58 | 65 | Art.-Nr. | Typ          | d  | D  | I      | 20.70.351    | zyl.20xER16mx63 | 20 | 50     | 63           | <b>INCH</b> |    |        |              |    | 3/4.70.351 | zyl.3/4"xER16mx63 | 19,05        | 50 | 63 |        |             |     |    |
|---|---|----------|-----|----|---|--------|--------------|---------------|----|--------|---------------|-----------|---------------|--|----|----|-----------|---------------|--------------|----|----|----------|--------------|----|----|--------|--------------|-----------------|----|--------|--------------|-------------|----|--------|--------------|----|------------|-------------------|--------------|----|----|--------|-------------|-----|----|
| Art.-Nr.  | Typ   | d        | D   | I  |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 16.70.350   | VDI16xER16x67   | 16       | 50  | 67 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 20.70.350   | VDI20xER16x63   | 20       | 50  | 63 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 25.70.350   | VDI25xER16x65   | 25       | 58  | 65 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| Art.-Nr.  | Typ   | d        | D   | I  |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 20.70.351   | zyl.20xER16mx63   | 20       | 50  | 63 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| <b>INCH</b>   |   |          |     |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 3/4.70.351  | zyl.3/4"xER16mx63   | 19,05    | 50  | 63 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| <p><b>Pendelhalter, achsparallel ausgleichend einstellbar</b><br/> <b>VDI 30, 40, 50 für auswechselbare Einsätze</b><br/>                     Floating holders, axially parallel compensating,<br/> <b>VDI 30, 40, 50 for adjustable inserts</b></p>  <p><b>Zylinderschaft</b><br/>                     Cylindrical shank</p> <p style="color: red; transform: rotate(-15deg); font-weight: bold;">Der Einsatz muss separat bestellt werden!<br/>                     The insert has to be ordered separately!</p> | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> </tr> </thead> <tbody> <tr> <td>30.70.350</td> <td>VDI 30</td> <td>30</td> <td>68</td> <td>64</td> </tr> <tr> <td>40.70.350</td> <td>VDI 40</td> <td>40</td> <td>83</td> <td>64</td> </tr> <tr> <td>50.70.350</td> <td>VDI 50</td> <td>50</td> <td>98</td> <td>64</td> </tr> </tbody> </table> <p>Kühlmittelzufuhr intern / Kühlmittelschluß extern<br/>                     Lieferumfang <b>exclusive</b> Einsatz + Spannmutter<br/>                     Coolant supply internal / coolant connection external<br/>                     Delivery <b>excluding</b> insert + clamping nut</p> <p style="text-align: center;"><b>Zylinderschaft</b></p> <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> </tr> </thead> <tbody> <tr> <td>32.70.351</td> <td>Zylinderschaft</td> <td>32</td> <td>68</td> <td>64</td> </tr> </tbody> </table> <p>Kühlmittelzufuhr intern<br/>                     Lieferumfang <b>exclusive</b> Einsatz + Spannmutter<br/>                     Coolant supply internal<br/>                     Delivery <b>excluding</b> insert + clamping nut</p> <p style="text-align: center;"><b>Einsatz</b></p>  | Art.-Nr. | Typ | d  | D | D1     | 30.70.350    | VDI 30        | 30 | 68     | 64            | 40.70.350 | VDI 40        | 40   | 83 | 64 | 50.70.350 | VDI 50        | 50           | 98 | 64 | Art.-Nr. | Typ          | d  | D  | D1     | 32.70.351    | Zylinderschaft  | 32 | 68     | 64           |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| Art.-Nr.  | Typ   | d        | D   | D1 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 30.70.350   | VDI 30  | 30       | 68  | 64 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 40.70.350   | VDI 40  | 40       | 83  | 64 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 50.70.350   | VDI 50  | 50       | 98  | 64 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| Art.-Nr.  | Typ   | d        | D   | D1 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 32.70.351   | Zylinderschaft  | 32       | 68  | 64 |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| <p><b>Einsätze für Pendelhalter</b><br/>                     Inserts for floating holder</p> <p>Art.- Nr. 101101</p> <p>Art.- Nr. 103101 - 108101</p> <p>Art.- Nr. 109101</p>    | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d1</th> <th>I</th> </tr> </thead> <tbody> <tr> <td>101101</td> <td>Einsatz ER25</td> <td>1-16</td> <td>90</td> </tr> <tr> <td>102101</td> <td>Einsatz DA180</td> <td>2-20</td> <td>95</td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>Art.-Nr. 101101 + 102101 incl. Spannmutter / incl. clamping nut</b></td> </tr> <tr> <td>103101</td> <td>Einsatz B-12</td> <td>12</td> <td>76</td> </tr> <tr> <td>104101</td> <td>Einsatz B-15</td> <td>15</td> <td>76</td> </tr> <tr> <td>105101</td> <td>Einsatz B-16</td> <td>16</td> <td>81</td> </tr> <tr> <td>106101</td> <td>Einsatz B-18</td> <td>18</td> <td>81</td> </tr> <tr> <td>107101</td> <td>Einsatz B-20</td> <td>20</td> <td>81</td> </tr> <tr> <td>108101</td> <td>Einsatz B-25</td> <td>25</td> <td>90</td> </tr> <tr> <td>109101</td> <td>Einsatz MK2</td> <td>MK2</td> <td>76</td> </tr> </tbody> </table>   | Art.-Nr. | Typ | d1 | I | 101101 | Einsatz ER25 | 1-16          | 90 | 102101 | Einsatz DA180 | 2-20      | 95            | <b>Art.-Nr. 101101 + 102101 incl. Spannmutter / incl. clamping nut</b> |    |    |           | 103101        | Einsatz B-12 | 12 | 76 | 104101   | Einsatz B-15 | 15 | 76 | 105101 | Einsatz B-16 | 16              | 81 | 106101 | Einsatz B-18 | 18          | 81 | 107101 | Einsatz B-20 | 20 | 81         | 108101            | Einsatz B-25 | 25 | 90 | 109101 | Einsatz MK2 | MK2 | 76 |
| Art.-Nr.  | Typ   | d1       | I   |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 101101  | Einsatz ER25  | 1-16     | 90  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 102101  | Einsatz DA180   | 2-20     | 95  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| <b>Art.-Nr. 101101 + 102101 incl. Spannmutter / incl. clamping nut</b>  |   |          |     |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 103101  | Einsatz B-12  | 12       | 76  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 104101  | Einsatz B-15  | 15       | 76  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 105101  | Einsatz B-16  | 16       | 81  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 106101  | Einsatz B-18  | 18       | 81  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 107101  | Einsatz B-20  | 20       | 81  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 108101  | Einsatz B-25  | 25       | 90  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |
| 109101  | Einsatz MK2   | MK2      | 76  |    |   |        |              |               |    |        |               |           |               |  |    |    |           |               |              |    |    |          |              |    |    |        |              |                 |    |        |              |             |    |        |              |    |            |                   |              |    |    |        |             |     |    |



# Werkzeughalter für CNC-Drehmaschinen DIN 69880 / DIN ISO 10889

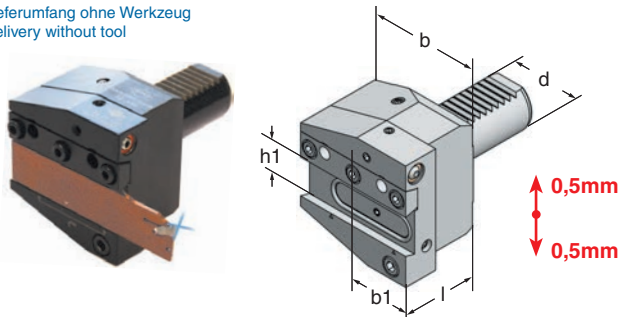
Toolholders for CNC machines DIN 69880 / DIN ISO 10889



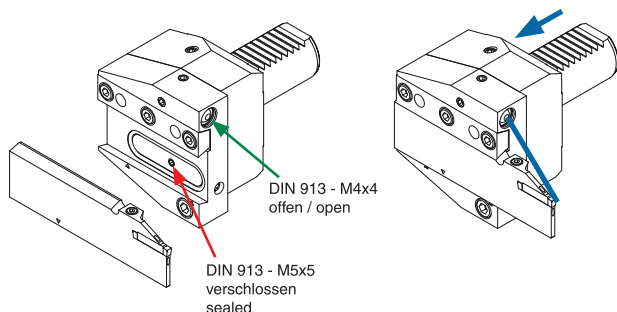
## Abstechmeisselhalter, höhenverstellbar ±0,5mm rechts

Toolholders for cut off tools adjustable in height ±0,5mm right

Lieferumfang ohne Werkzeug  
Delivery without tool

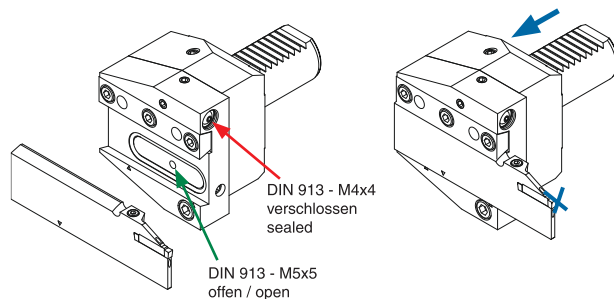


**Version 1** Kühlmittelzufuhr mittels schwenkbarer Spritzdüse  
Coolant supply with swivelling coolant nozzle



| Art.-Nr.  | Typ           | d  | b   | b1   | l  | h1 |
|-----------|---------------|----|-----|------|----|----|
| 30.26.480 | VDI30x26x50-r | 30 | 65  | 35   | 50 | 26 |
| 30.32.480 | VDI30x32x50-r | 30 | 65  | 35   | 50 | 32 |
| 40.26.480 | VDI40x26x50-r | 40 | 85  | 42,5 | 50 | 26 |
| 40.32.480 | VDI40x32x50-r | 40 | 85  | 42,5 | 50 | 32 |
| 50.26.480 | VDI50x26x50-r | 50 | 100 | 50   | 50 | 26 |
| 50.32.480 | VDI50x32x50-r | 50 | 100 | 50   | 50 | 32 |
| 60.32.480 | VDI60x32x60-r | 60 | 100 | 62,5 | 60 | 32 |

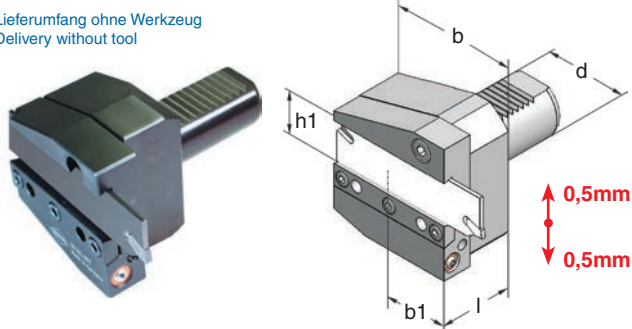
**Version 2** Kühlmittelzufuhr intern durch das Abstechschwert  
Coolant supply internal through the infeed toolholder



## Abstechmeisselhalter, höhenverstellbar ±0,5mm Überkopf rechts

Toolholders for cut off tools adjustable in height ±0,5mm overhead right

Lieferumfang ohne Werkzeug  
Delivery without tool

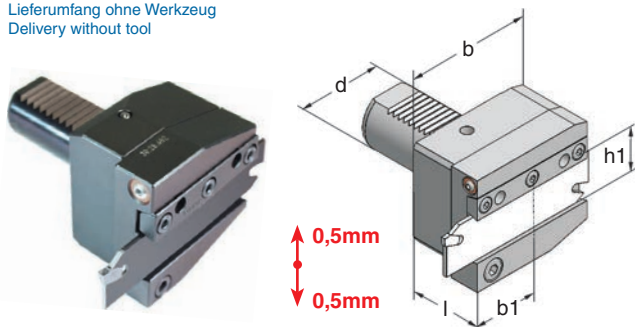


| Art.-Nr.  | Typ             | d  | b   | b1   | l  | h1 |
|-----------|-----------------|----|-----|------|----|----|
| 30.26.481 | VDI30x26x50-rük | 30 | 65  | 35   | 50 | 26 |
| 30.32.481 | VDI30x32x50-rük | 30 | 65  | 35   | 50 | 32 |
| 40.32.481 | VDI40x32x50-rük | 40 | 85  | 42,5 | 50 | 32 |
| 50.32.481 | VDI50x32x50-rük | 50 | 100 | 50   | 50 | 32 |

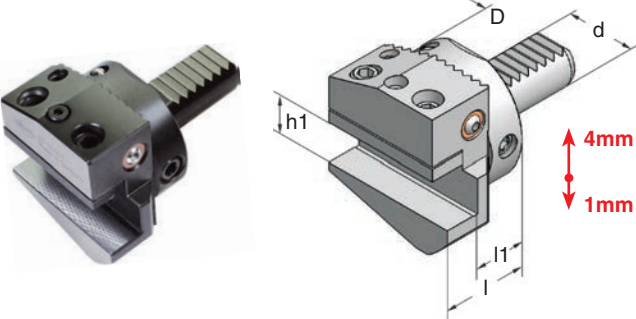
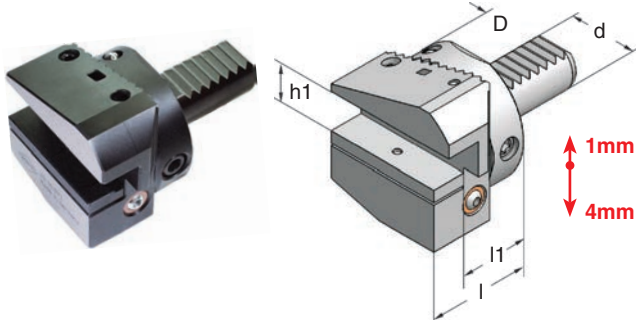
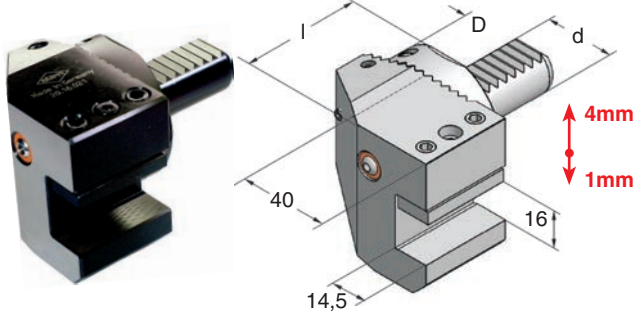
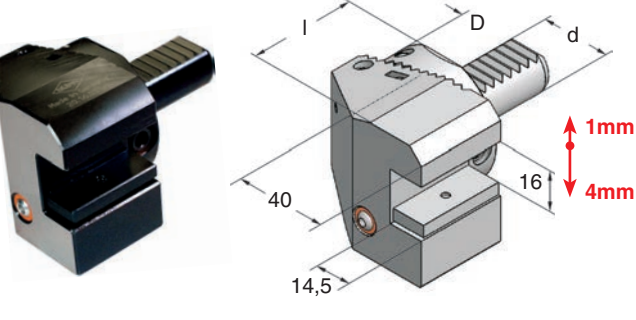
## Abstechmeisselhalter, höhenverstellbar ±0,5mm links

Toolholders for cut off tools adjustable in height ±0,5mm left

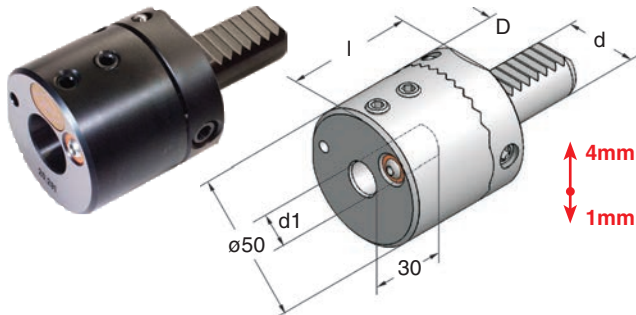
Lieferumfang ohne Werkzeug  
Delivery without tool



| Art.-Nr.  | Typ           | d  | b   | b1   | l  | h1 |
|-----------|---------------|----|-----|------|----|----|
| 30.26.482 | VDI30x26x50-l | 30 | 65  | 35   | 50 | 26 |
| 30.32.482 | VDI30x32x50-l | 30 | 65  | 35   | 50 | 32 |
| 40.26.482 | VDI40x26x50-l | 40 | 85  | 42,5 | 50 | 26 |
| 40.32.482 | VDI40x32x50-l | 40 | 85  | 42,5 | 50 | 32 |
| 50.32.482 | VDI50x32x50-l | 50 | 100 | 50   | 50 | 32 |

| <p><b>Radial-Werkzeughalter Form B1 höhenverstellbar</b><br/>Radial toolholders Form B1 adjustable in height</p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>h1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>16.12.061</td> <td>B1-16x12x34</td> <td>16</td> <td>36</td> <td>12</td> <td>34</td> <td>23</td> </tr> <tr> <td>20.16.061</td> <td>B1-20x16x40</td> <td>20</td> <td>50</td> <td>16</td> <td>40</td> <td>27</td> </tr> <tr> <td>25.16.061</td> <td>B1-25x16x45</td> <td>25</td> <td>58</td> <td>16</td> <td>45</td> <td>32</td> </tr> <tr> <td>30.16.061</td> <td>B1-30x16x45</td> <td>30</td> <td>68</td> <td>16</td> <td>45</td> <td>32</td> </tr> </tbody> </table> | Art.-Nr. | Typ | d  | D  | h1 | l         | l1          | 16.12.061 | B1-16x12x34 | 16 | 36        | 12          | 34 | 23 | 20.16.061 | B1-20x16x40 | 20          | 50 | 16 | 40 | 27 | 25.16.061 | B1-25x16x45 | 25 | 58 | 16 | 45 | 32 | 30.16.061 | B1-30x16x45 | 30 | 68 | 16 | 45 | 32 |
|---|--|----------|-----|----|----|----|-----------|-------------|-----------|-------------|----|-----------|-------------|----|----|-----------|-------------|-------------|----|----|----|----|-----------|-------------|----|----|----|----|----|-----------|-------------|----|----|----|----|----|
| Art.-Nr.  | Typ  | d        | D   | h1 | l  | l1 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 16.12.061   | B1-16x12x34  | 16       | 36  | 12 | 34 | 23 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 20.16.061   | B1-20x16x40  | 20       | 50  | 16 | 40 | 27 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 25.16.061   | B1-25x16x45  | 25       | 58  | 16 | 45 | 32 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 30.16.061   | B1-30x16x45  | 30       | 68  | 16 | 45 | 32 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| <p><b>Radial-Werkzeughalter Form B3 höhenverstellbar</b><br/>Radial toolholders Form B3 adjustable in height</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>h1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>16.12.071</td> <td>B3-16x12x34</td> <td>16</td> <td>36</td> <td>12</td> <td>34</td> <td>23</td> </tr> <tr> <td>20.16.071</td> <td>B3-20x16x40</td> <td>20</td> <td>50</td> <td>16</td> <td>40</td> <td>27</td> </tr> <tr> <td>25.16.071</td> <td>B3-25x16x45</td> <td>25</td> <td>58</td> <td>16</td> <td>45</td> <td>32</td> </tr> <tr> <td>30.16.071</td> <td>B3-30x16x45</td> <td>30</td> <td>68</td> <td>16</td> <td>45</td> <td>32</td> </tr> </tbody> </table> | Art.-Nr. | Typ | d  | D  | h1 | l         | l1          | 16.12.071 | B3-16x12x34 | 16 | 36        | 12          | 34 | 23 | 20.16.071 | B3-20x16x40 | 20          | 50 | 16 | 40 | 27 | 25.16.071 | B3-25x16x45 | 25 | 58 | 16 | 45 | 32 | 30.16.071 | B3-30x16x45 | 30 | 68 | 16 | 45 | 32 |
| Art.-Nr.  | Typ  | d        | D   | h1 | l  | l1 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 16.12.071   | B3-16x12x34  | 16       | 36  | 12 | 34 | 23 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 20.16.071   | B3-20x16x40  | 20       | 50  | 16 | 40 | 27 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 25.16.071   | B3-25x16x45  | 25       | 58  | 16 | 45 | 32 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 30.16.071   | B3-30x16x45  | 30       | 68  | 16 | 45 | 32 |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| <p><b>Axial-Werkzeughalter Form C1 höhenverstellbar</b><br/>Axial toolholders Form C1 adjustable in height</p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>20.16.021</td> <td>C1-20x16x50</td> <td>20</td> <td>50</td> <td>50</td> </tr> <tr> <td>25.16.021</td> <td>C1-25x16x55</td> <td>25</td> <td>58</td> <td>55</td> </tr> <tr> <td>30.16.021</td> <td>C1-30x16x55</td> <td>30</td> <td>68</td> <td>55</td> </tr> </tbody> </table>  | Art.-Nr. | Typ | d  | D  | l  | 20.16.021 | C1-20x16x50 | 20        | 50          | 50 | 25.16.021 | C1-25x16x55 | 25 | 58 | 55        | 30.16.021   | C1-30x16x55 | 30 | 68 | 55 |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| Art.-Nr.  | Typ  | d        | D   | l  |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 20.16.021   | C1-20x16x50  | 20       | 50  | 50 |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 25.16.021   | C1-25x16x55  | 25       | 58  | 55 |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 30.16.021   | C1-30x16x55  | 30       | 68  | 55 |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| <p><b>Axial-Werkzeughalter Form C3 höhenverstellbar</b><br/>Axial toolholders Form C3 adjustable in height</p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>20.16.031</td> <td>C3-20x16x50</td> <td>20</td> <td>50</td> <td>50</td> </tr> <tr> <td>25.16.031</td> <td>C3-25x16x55</td> <td>25</td> <td>58</td> <td>55</td> </tr> <tr> <td>30.16.031</td> <td>C3-30x16x55</td> <td>30</td> <td>68</td> <td>55</td> </tr> </tbody> </table>  | Art.-Nr. | Typ | d  | D  | l  | 20.16.031 | C3-20x16x50 | 20        | 50          | 50 | 25.16.031 | C3-25x16x55 | 25 | 58 | 55        | 30.16.031   | C3-30x16x55 | 30 | 68 | 55 |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| Art.-Nr.  | Typ  | d        | D   | l  |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 20.16.031   | C3-20x16x50  | 20       | 50  | 50 |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 25.16.031   | C3-25x16x55  | 25       | 58  | 55 |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |
| 30.16.031   | C3-30x16x55  | 30       | 68  | 55 |    |    |           |             |           |             |    |           |             |    |    |           |             |             |    |    |    |    |           |             |    |    |    |    |    |           |             |    |    |    |    |    |

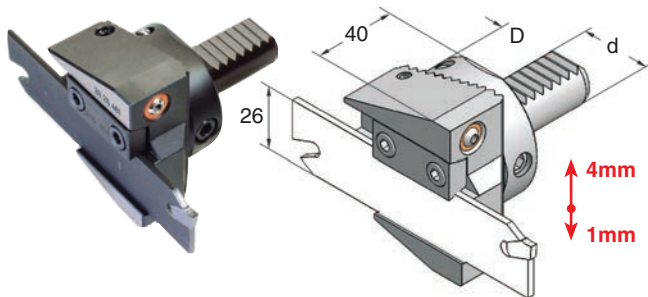
**Bohrstangenhalter Form E2 höhenverstellbar**  
**Boring bar holders Form E2 adjustable in height**



| Art.-Nr.  | Typ         | d  | d1 | D  | l  |
|-----------|-------------|----|----|----|----|
| 20.08.291 | E2-20x08x50 | 20 | 8  | 50 | 50 |
| 20.10.291 | E2-20x10x50 | 20 | 10 | 50 | 50 |
| 20.12.291 | E2-20x12x50 | 20 | 12 | 50 | 50 |
| 20.16.291 | E2-20x16x50 | 20 | 16 | 50 | 50 |
| 20.20.291 | E2-20x20x50 | 20 | 20 | 50 | 50 |
|           |             |    |    |    |    |
| 25.08.291 | E2-25x08x50 | 25 | 8  | 58 | 55 |
| 25.10.291 | E2-25x10x50 | 25 | 10 | 58 | 55 |
| 25.12.291 | E2-25x12x50 | 25 | 12 | 58 | 55 |
| 25.16.291 | E2-25x16x50 | 25 | 16 | 58 | 55 |
| 25.20.291 | E2-25x20x50 | 25 | 20 | 58 | 55 |
|           |             |    |    |    |    |
| 30.08.291 | E2-30x08x50 | 30 | 8  | 68 | 55 |
| 30.10.291 | E2-30x10x50 | 30 | 10 | 68 | 55 |
| 30.12.291 | E2-30x12x50 | 30 | 12 | 68 | 55 |
| 30.16.291 | E2-30x16x50 | 30 | 16 | 68 | 55 |
| 30.20.291 | E2-30x20x50 | 30 | 20 | 68 | 55 |

**Abstechmeißelhalter höhenverstellbar rechts**  
**Toolholders for cut off tools adjustable height right**

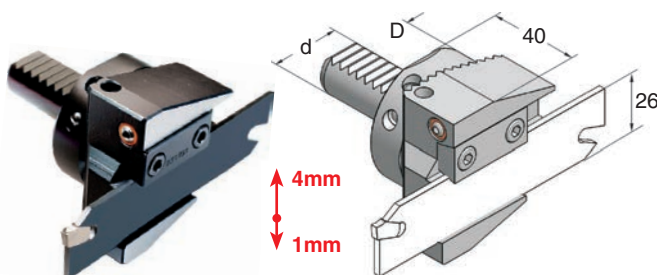
Lieferumfang ohne Werkzeug  
 Delivery without tool



| Art.-Nr.  | Typ           | d  | D  |
|-----------|---------------|----|----|
| 20.26.481 | VDI20x26x40-r | 20 | 50 |
| 25.26.481 | VDI25x26x40-r | 25 | 58 |

**Abstechmeißelhalter höhenverstellbar links**  
**Toolholders for cut off tools adjustable height left**

Lieferumfang ohne Werkzeug  
 Delivery without tool



| Art.-Nr.  | Typ           | d  | D  |
|-----------|---------------|----|----|
| 20.26.482 | VDI20x26x40-l | 20 | 50 |
| 25.26.482 | VDI25x26x40-l | 25 | 58 |



**Räumwerkzeughalter mit Zylinderschaft**  
**Broaching toolholders with cylindrical shank**

Lieferumfang ohne Räumstempel  
Delivery without broaching cutter

| Art.-Nr.                              | Typ         | d      | d1 | I   | D  | A   |
|---------------------------------------|-------------|--------|----|-----|----|-----|
| 16.08.5010                            | zyl. 16     | 16     | 8  | 38  | 40 | 65  |
| 20.08.5010                            | zyl. 20     | 20     | 8  | 38  | 40 | 65  |
| 22.08.5010                            | zyl. 22     | 22     | 8  | 48  | 40 | 65  |
| 25.08.5010                            | zyl. 25     | 25     | 8  | 48  | 40 | 65  |
| INCH                                  |             |        |    |     |    |     |
| 1587.08.5010                          | zyl. 5/8"   | 15,875 | 8  | 38  | 40 | 65  |
| 1905.08.5010                          | zyl. 3/4"   | 19,05  | 8  | 38  | 40 | 65  |
| 2540.08.5010                          | zyl. 1"     | 25,4   | 8  | 48  | 40 | 65  |
| 2540.12.5010                          | zyl. 1"     | 25,4   | 12 | 48  | 50 | 88  |
| 3175.12.5010                          | zyl. 1 1/4" | 31,75  | 12 | 48  | 50 | 88  |
| Schwere Ausführung<br>Heavy execution |             |        |    |     |    |     |
| 40.12.5015                            | zyl. 40     | 40     | 12 | 100 | 70 | 121 |
| 50.12.5015                            | zyl. 50     | 50     | 12 | 100 | 70 | 121 |

**Räumwerkzeughalter DIN 69880**  
**Broaching toolholders DIN 69880**

Lieferumfang ohne Räumstempel  
Delivery without broaching cutter


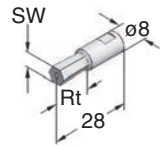

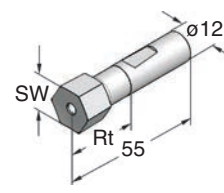

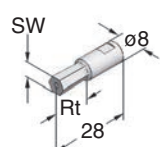

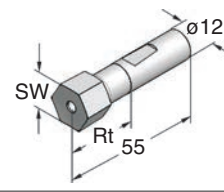

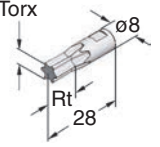

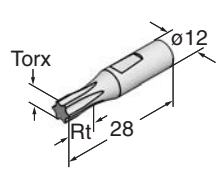
| Art.-Nr.                              | Typ    | d  | d1 | D  | D1 | A   |
|---------------------------------------|--------|----|----|----|----|-----|
| 16.08.5000                            | VDI 16 | 16 | 8  | 40 | 44 | 70  |
| 20.08.5000                            | VDI 20 | 20 | 8  | 40 | 50 | 70  |
| 25.08.5000                            | VDI 25 | 25 | 8  | 40 | 58 | 70  |
| 25.12.5000                            | VDI 25 | 25 | 12 | 50 | 58 | 96  |
| 30.12.5000                            | VDI 30 | 30 | 12 | 50 | 68 | 96  |
| 40.12.5000                            | VDI 40 | 40 | 12 | 50 | 83 | 96  |
| Schwere Ausführung<br>Heavy execution |        |    |    |    |    |     |
| 40.12.5005                            | VDI 40 | 40 | 12 | 70 | 83 | 121 |

**Reduzierung**  
**Reduction**

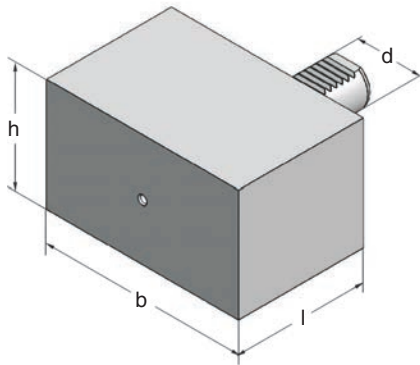
| Art.-Nr.  | Typ                            |
|-----------|--------------------------------|
| 1208.5000 | Reduzierung / Reduction ø12/ø8 |

**Kontrolldorn**  
**Control arbor**

| Art.-Nr. | d  | I  |
|----------|----|----|
| 08.5000  | 8  | 28 |
| 12.5000  | 12 | 55 |

| <b>Räumstempel SW</b><br>Hexagon-broaching cutters   |    | <b>Art.-Nr.</b>  | <b>SW</b>      | <b>ø</b>        | <b>Rt = Räumtiefe</b> |          |                       |
|--|----|--|----------------|-----------------|-----------------------|----------|-----------------------|
| TiN beschichtet<br>TiN coated<br>      |    | 08.015   | 1,5            | 8               | 3                     |          |                       |
|  |    | 08.020   | 2              | 8               | 4                     |          |                       |
|                                        |    | 08.025   | 2,5            | 8               | 4                     |          |                       |
|  |    | 08.030   | 3              | 8               | 5                     |          |                       |
|  |    | 08.040   | 4              | 8               | 7                     |          |                       |
|  |    | 08.050   | 5              | 8               | 9                     |          |                       |
|  |    | 08.060   | 6              | 8               | 11                    |          |                       |
|  |    | 08.070   | 7              | 8               | 11                    |          |                       |
|  |    | 08.080   | 8              | 8               | 11                    |          |                       |
|  |    | 08.100   | 10             | 8               | 14                    |          |                       |
|  |    | 12.040   | 4              | 12              | 7                     |          |                       |
|  |    | 12.050   | 5              | 12              | 9                     |          |                       |
|  |    | 12.060   | 6              | 12              | 11                    |          |                       |
|  |    | 12.070   | 7              | 12              | 13                    |          |                       |
|  |    | 12.080   | 8              | 12              | 15                    |          |                       |
|  |    | 12.090   | 9              | 12              | 16                    |          |                       |
|  |    | 12.100   | 10             | 12              | 19                    |          |                       |
|  |    | 12.110   | 11             | 12              | 19                    |          |                       |
|  |    | 12.120   | 12             | 12              | 19                    |          |                       |
|  |    | 12.130   | 13             | 12              | 19                    |          |                       |
|  |    | 12.140   | 14             | 12              | 24                    |          |                       |
|  |    | 12.150   | 15             | 12              | 24                    |          |                       |
| 12.160   | 16 | 12   | 24             |                 |                       |          |                       |
| 12.170   | 17 | 12   | 24             |                 |                       |          |                       |
| 12.190   | 19 | 12   | 24             |                 |                       |          |                       |
| 12.220   | 22 | 12   | 24             |                 |                       |          |                       |
| <b>Räumstempel SW INCH</b><br>Hexagon-broaching cutters INCH   |    | <b>Art.-Nr.</b>  | <b>SW INCH</b> | <b>ø</b>        | <b>Rt = Räumtiefe</b> |          |                       |
| TiN beschichtet<br>TiN coated<br>  |    | 08.3/32  | 3/32"          | 8               | 4                     |          |                       |
|  |    | 08.7/64  | 7/64"          | 8               | 4                     |          |                       |
|                                    |    | 08.1/8   | 1/8"           | 8               | 5                     |          |                       |
|  |    | 08.3/16  | 3/16"          | 8               | 9                     |          |                       |
|  |    | 08.7/32  | 7/32"          | 8               | 9                     |          |                       |
|  |    | 08.1/4   | 1/4"           | 8               | 11                    |          |                       |
|  |    | 08.5/16  | 5/16"          | 8               | 11                    |          |                       |
|  |    | 08.3/8   | 3/8"           | 8               | 11                    |          |                       |
|  |    | 12.1/4   | 1/4"           | 12              | 11                    |          |                       |
|  |    | 12.3/8   | 3/8"           | 12              | 19                    |          |                       |
|  |    | 12.7/16  | 7/16"          | 12              | 19                    |          |                       |
|  |    | 12.1/2   | 1/2"           | 12              | 19                    |          |                       |
|  |    | <b>Räumstempel TORX EN ISO 10664</b><br>Broaching cutters TORX EN ISO 10664  |                | <b>Art.-Nr.</b> | <b>TORX</b>           | <b>ø</b> | <b>Rt = Räumtiefe</b> |
|  |    | TiN beschichtet<br>TiN coated<br>  |                | 08.T05          | 5                     | 8        | 3                     |
|  |    |  |                | 08.T06          | 6                     | 8        | 3                     |
|  |    |                                    |                | 08.T07          | 7                     | 8        | 3                     |
|  |    |  |                | 08.T08          | 8                     | 8        | 3                     |
|  |    |  |                | 08.T09          | 9                     | 8        | 3                     |
| 08.T10   | 10 |  |                | 8               | 3                     |          |                       |
| 08.T15   | 15 |  |                | 8               | 3                     |          |                       |
| 08.T20   | 20 |  |                | 8               | 4                     |          |                       |
| 08.T25   | 25 |  |                | 8               | 4                     |          |                       |
| 08.T27   | 27 |  |                | 8               | 4                     |          |                       |
| 08.T30   | 30 |  |                | 8               | 4                     |          |                       |
| 08.T40   | 40 |  |                | 8               | 5                     |          |                       |
| 08.T45   | 45 |  |                | 8               | 5                     |          |                       |
| 12.T50   | 50 |  |                | 12              | 7                     |          |                       |
| 12.T55   | 55 |  |                | 12              | 10                    |          |                       |

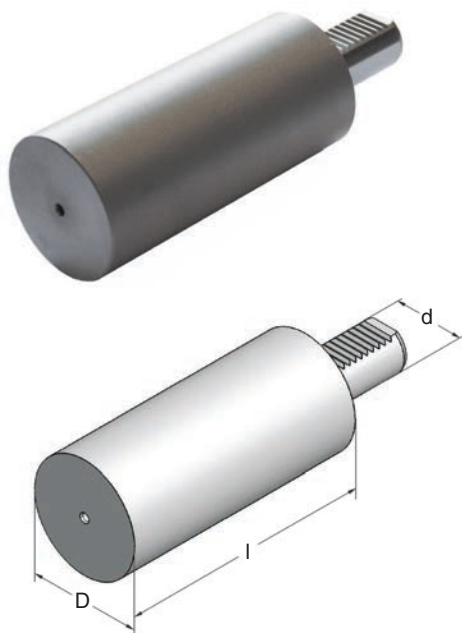
**Werkzeughalter-Rohlinge Form A1**  
**Toolholder blanks form A1**



| Art.-Nr.   | Typ       | d  | b   | h   | l   |
|------------|-----------|----|-----|-----|-----|
| 20.050.001 | A1-20x 60 | 20 | 68  | 60  | 60  |
| 25.075.001 | A1-25x 75 | 25 | 100 | 60  | 75  |
| 30.085.001 | A1-30x 85 | 30 | 130 | 76  | 85  |
| 40.100.001 | A1-40x100 | 40 | 156 | 96  | 100 |
| 50.125.001 | A1-50x125 | 50 | 160 | 120 | 125 |
| 60.160.001 | A1-60x160 | 60 | 165 | 125 | 160 |

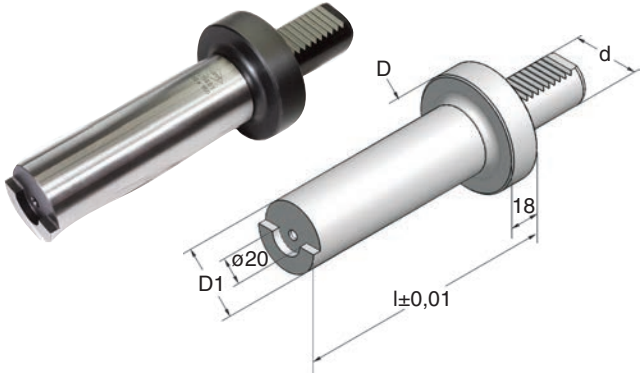
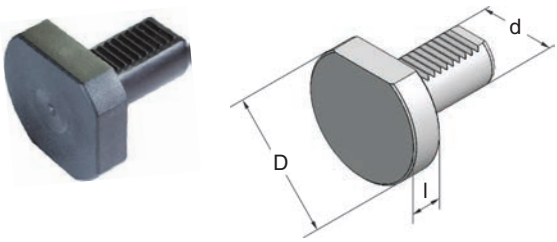
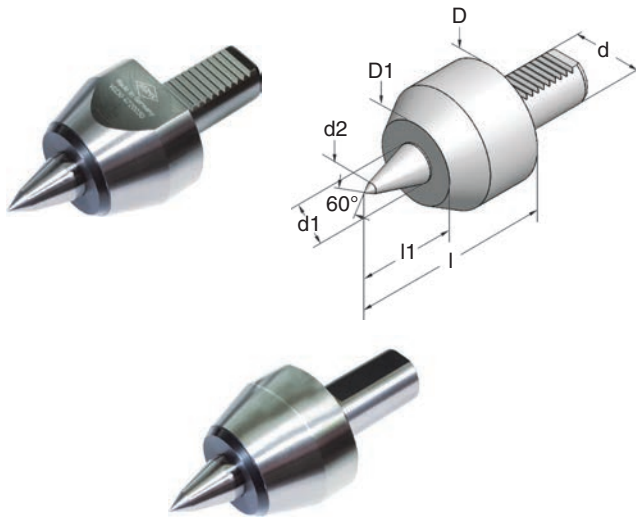
**Sondergrößen auf Anfrage !**  
**Special sizes on inquiry !**

**Werkzeughalter-Rohlinge Form A2**  
**Toolholder blanks form A2**



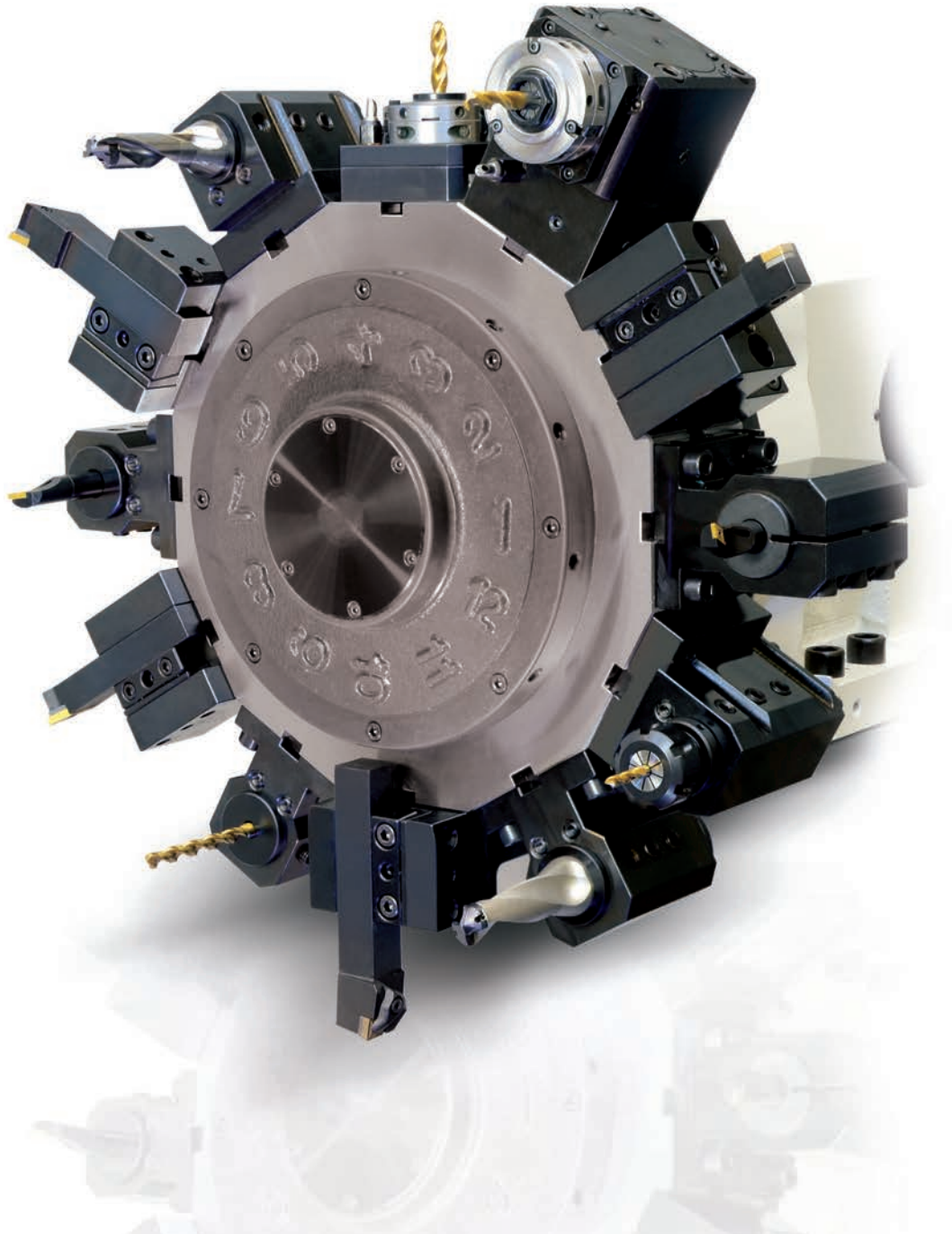
| Art.-Nr.   | Typ           | d  | D   | l   |
|------------|---------------|----|-----|-----|
| 20.070.010 | A2-20x 49x 70 | 20 | 49  | 70  |
| 25.080.010 | A2-25x 58x 80 | 25 | 58  | 80  |
| 30.150.010 | A2-30x 68x150 | 30 | 68  | 150 |
| 40.180.010 | A2-40x 83x180 | 40 | 83  | 180 |
| 40.400.010 | A2-40x 83x400 | 40 | 83  | 400 |
| 50.210.010 | A2-50x 98x210 | 50 | 98  | 210 |
| 60.240.010 | A2-60x123x240 | 60 | 123 | 240 |

*Sondergrößen auf Anfrage !  
 Special sizes on inquiry !*

| <p><b>Kontrolldorne in Holzetui</b><br/>Test arbors in wooden case</p> <p>inkl. Prüfprotokoll<br/>incl. Certificate</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>D1</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>16.100.01</td> <td>VDI16x40x100</td> <td>16</td> <td>40</td> <td>40</td> <td>100</td> </tr> <tr> <td>20.100.01</td> <td>VDI20x40x100</td> <td>20</td> <td>50</td> <td>40</td> <td>100</td> </tr> <tr> <td>25.125.01</td> <td>VDI25x40x125</td> <td>25</td> <td>58</td> <td>40</td> <td>125</td> </tr> <tr> <td>30.150.01</td> <td>VDI30x40x150</td> <td>30</td> <td>68</td> <td>40</td> <td>150</td> </tr> <tr> <td>40.150.01</td> <td>VDI40x40x150</td> <td>40</td> <td>83</td> <td>40</td> <td>150</td> </tr> <tr> <td>50.200.01</td> <td>VDI50x50x200</td> <td>50</td> <td>98</td> <td>50</td> <td>200</td> </tr> <tr> <td>60.200.01</td> <td>VDI60x50x200</td> <td>60</td> <td>125</td> <td>50</td> <td>200</td> </tr> </tbody> </table>  | Art.-Nr. | Typ | d  | D   | D1 | l         | 16.100.01        | VDI16x40x100 | 16 | 40      | 40            | 100              | 20.100.01 | VDI20x40x100 | 20 | 50        | 40               | 100 | 25.125.01 | VDI25x40x125  | 25        | 58               | 40 | 125 | 30.150.01 | VDI30x40x150 | 30               | 68      | 40            | 150 | 40.150.01 | VDI40x40x150     | 40 | 83 | 40  | 150       | 50.200.01        | VDI50x50x200 | 50  | 98 | 50          | 200                 | 60.200.01 | VDI60x50x200 | 60 | 125         | 50                  | 200 |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
|---|---|----------|-----|----|-----|----|-----------|------------------|--------------|----|---------|---------------|------------------|-----------|--------------|----|-----------|------------------|-----|-----------|---------------|-----------|------------------|----|-----|-----------|--------------|------------------|---------|---------------|-----|-----------|------------------|----|----|-----|-----------|------------------|--------------|-----|----|-------------|---------------------|-----------|--------------|----|-------------|---------------------|-----|----|----|-------------|---------------------|----|----|------------|-------------|---------------------|----|----|----|-------------|---------------------|----|-----|----|
| Art.-Nr.  | Typ   | d        | D   | D1 | l   |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 16.100.01   | VDI16x40x100  | 16       | 40  | 40 | 100 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 20.100.01   | VDI20x40x100  | 20       | 50  | 40 | 100 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 25.125.01   | VDI25x40x125  | 25       | 58  | 40 | 125 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 30.150.01   | VDI30x40x150  | 30       | 68  | 40 | 150 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 40.150.01   | VDI40x40x150  | 40       | 83  | 40 | 150 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 50.200.01   | VDI50x50x200  | 50       | 98  | 50 | 200 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 60.200.01   | VDI60x50x200  | 60       | 125 | 50 | 200 |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| <p><b>Schutzstopfen Form Z2</b><br/>Blind toolings bore form Z2</p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>D</th> <th>l</th> </tr> </thead> <tbody> <tr> <td>16.00.500</td> <td>Z2-16 Kunststoff</td> <td>16</td> <td>40</td> <td>16</td> </tr> <tr> <td>20.00.500</td> <td>Z2-20 Kunststoff</td> <td>20</td> <td>50</td> <td>16</td> </tr> <tr> <td>25.00.500</td> <td>Z2-25 Kunststoff</td> <td>25</td> <td>58</td> <td>16</td> </tr> <tr> <td>30.00.500</td> <td>Z2-30 Kunststoff</td> <td>30</td> <td>68</td> <td>20</td> </tr> <tr> <td>40.00.500</td> <td>Z2-40 Kunststoff</td> <td>40</td> <td>83</td> <td>20</td> </tr> <tr> <td>50.00.500</td> <td>Z2-50 Kunststoff</td> <td>50</td> <td>98</td> <td>20</td> </tr> <tr> <td>60.00.500</td> <td>Z2-60 Kunststoff</td> <td>60</td> <td>123</td> <td>20</td> </tr> <tr> <td>20.00.500-S</td> <td>Z2-20 Stahl / Steel</td> <td>20</td> <td>50</td> <td>16</td> </tr> <tr> <td>30.00.500-S</td> <td>Z2-30 Stahl / Steel</td> <td>30</td> <td>68</td> <td>20</td> </tr> <tr> <td>40.00.500-S</td> <td>Z2-40 Stahl / Steel</td> <td>40</td> <td>83</td> <td>20</td> </tr> <tr> <td>50.00.500-S</td> <td>Z2-50 Stahl / Steel</td> <td>50</td> <td>98</td> <td>20</td> </tr> <tr> <td>60.00.500-S</td> <td>Z2-60 Stahl / Steel</td> <td>60</td> <td>123</td> <td>20</td> </tr> </tbody> </table> | Art.-Nr. | Typ | d  | D   | l  | 16.00.500 | Z2-16 Kunststoff | 16           | 40 | 16      | 20.00.500     | Z2-20 Kunststoff | 20        | 50           | 16 | 25.00.500 | Z2-25 Kunststoff | 25  | 58        | 16            | 30.00.500 | Z2-30 Kunststoff | 30 | 68  | 20        | 40.00.500    | Z2-40 Kunststoff | 40      | 83            | 20  | 50.00.500 | Z2-50 Kunststoff | 50 | 98 | 20  | 60.00.500 | Z2-60 Kunststoff | 60           | 123 | 20 | 20.00.500-S | Z2-20 Stahl / Steel | 20        | 50           | 16 | 30.00.500-S | Z2-30 Stahl / Steel | 30  | 68 | 20 | 40.00.500-S | Z2-40 Stahl / Steel | 40 | 83 | 20         | 50.00.500-S | Z2-50 Stahl / Steel | 50 | 98 | 20 | 60.00.500-S | Z2-60 Stahl / Steel | 60 | 123 | 20 |
| Art.-Nr.  | Typ   | d        | D   | l  |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 16.00.500   | Z2-16 Kunststoff  | 16       | 40  | 16 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 20.00.500   | Z2-20 Kunststoff  | 20       | 50  | 16 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 25.00.500   | Z2-25 Kunststoff  | 25       | 58  | 16 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 30.00.500   | Z2-30 Kunststoff  | 30       | 68  | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 40.00.500   | Z2-40 Kunststoff  | 40       | 83  | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 50.00.500   | Z2-50 Kunststoff  | 50       | 98  | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 60.00.500   | Z2-60 Kunststoff  | 60       | 123 | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 20.00.500-S   | Z2-20 Stahl / Steel   | 20       | 50  | 16 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 30.00.500-S   | Z2-30 Stahl / Steel   | 30       | 68  | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 40.00.500-S   | Z2-40 Stahl / Steel   | 40       | 83  | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 50.00.500-S   | Z2-50 Stahl / Steel   | 50       | 98  | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 60.00.500-S   | Z2-60 Stahl / Steel   | 60       | 123 | 20 |     |    |           |                  |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| <p><b>Mitlaufende Zentrierspitzen, gefedert</b><br/>Driver centering point, spring mounted</p>                         | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>d</th> <th>d1</th> <th>d2</th> <th>D</th> <th>D1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>4720020</td> <td>VDI20x60°x 73</td> <td>20</td> <td>18</td> <td>6</td> <td>50</td> <td>41</td> <td>73</td> <td>42</td> </tr> <tr> <td>4720030</td> <td>VDI30x60°x 88</td> <td>30</td> <td>22</td> <td>11</td> <td>68</td> <td>47</td> <td>88</td> <td>51</td> </tr> <tr> <td>4720040</td> <td>VDI40x60°x111</td> <td>40</td> <td>32</td> <td>16</td> <td>83</td> <td>56</td> <td>111</td> <td>63</td> </tr> </tbody> </table><br><table border="1"> <thead> <tr> <th colspan="2">Zylinderschaft</th> <th>d</th> <th>d1</th> <th>d2</th> <th>D</th> <th>D1</th> <th>l</th> <th>l1</th> </tr> </thead> <tbody> <tr> <td>Art.-Nr.</td> <td>Typ</td> <td>d</td> <td>d1</td> <td>d2</td> <td>D</td> <td>D1</td> <td>l</td> <td>l1</td> </tr> <tr> <td>25.10.6000</td> <td>zyl.25x60°x</td> <td>86</td> <td>25</td> <td>22</td> <td>11</td> <td>54</td> <td>44</td> <td>86</td> <td>36</td> </tr> </tbody> </table>   | Art.-Nr. | Typ | d  | d1  | d2 | D         | D1               | l            | l1 | 4720020 | VDI20x60°x 73 | 20               | 18        | 6            | 50 | 41        | 73               | 42  | 4720030   | VDI30x60°x 88 | 30        | 22               | 11 | 68  | 47        | 88           | 51               | 4720040 | VDI40x60°x111 | 40  | 32        | 16               | 83 | 56 | 111 | 63        | Zylinderschaft   |              | d   | d1 | d2          | D                   | D1        | l            | l1 | Art.-Nr.    | Typ                 | d   | d1 | d2 | D           | D1                  | l  | l1 | 25.10.6000 | zyl.25x60°x | 86                  | 25 | 22 | 11 | 54          | 44                  | 86 | 36  |    |
| Art.-Nr.  | Typ   | d        | d1  | d2 | D   | D1 | l         | l1               |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 4720020   | VDI20x60°x 73   | 20       | 18  | 6  | 50  | 41 | 73        | 42               |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 4720030   | VDI30x60°x 88   | 30       | 22  | 11 | 68  | 47 | 88        | 51               |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 4720040   | VDI40x60°x111   | 40       | 32  | 16 | 83  | 56 | 111       | 63               |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| Zylinderschaft  |   | d        | d1  | d2 | D   | D1 | l         | l1               |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| Art.-Nr.  | Typ   | d        | d1  | d2 | D   | D1 | l         | l1               |              |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |
| 25.10.6000  | zyl.25x60°x   | 86       | 25  | 22 | 11  | 54 | 44        | 86               | 36           |    |         |               |                  |           |              |    |           |                  |     |           |               |           |                  |    |     |           |              |                  |         |               |     |           |                  |    |    |     |           |                  |              |     |    |             |                     |           |              |    |             |                     |     |    |    |             |                     |    |    |            |             |                     |    |    |    |             |                     |    |     |    |



Sternrevolver  
Star-turret



**Werkstoff:** Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min. 800 N/mm<sup>2</sup>

**Material:** Case hardened steel, tensile strength in the core min. 800 N/mm<sup>2</sup>

**Ausführung:** Einsatzgehärtet HRc 60 - 2 (HV 700 ± 50)  
Härtetiefe 0,8 mm - 0,2  
Brüniert und Präzisionsgeschliffen

**Execution:** Case hardened HRc 60 - 2 (HV 700 ± 50)  
Depth of case 0,8 mm - 0,2  
Brown-finish end precision ground

Technische Änderungen vorbehalten

We reserve the right to make technical changes

# VDI 30 mit HSK-T40 Spanneinheit

## VDI 30 with HSK-T40 clamping unit

**Schnellwechselbar und voreinstellbar**  
Quick-change and pre-setting function

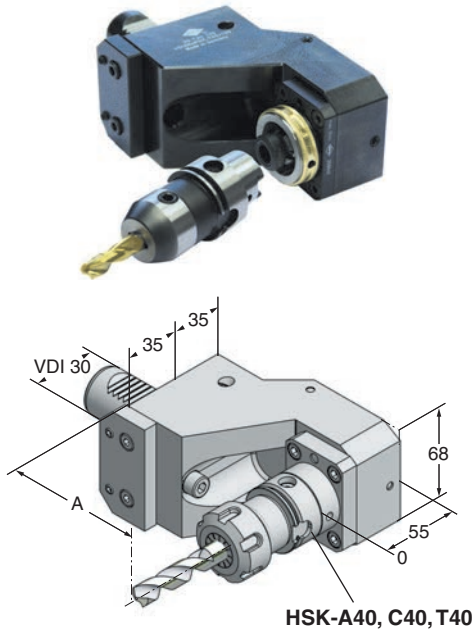


### Werkzeughalter VDI 30 mit HSK-T40 Spanneinheit

Toolholder VDI 30 with HSK-T40 clamping unit

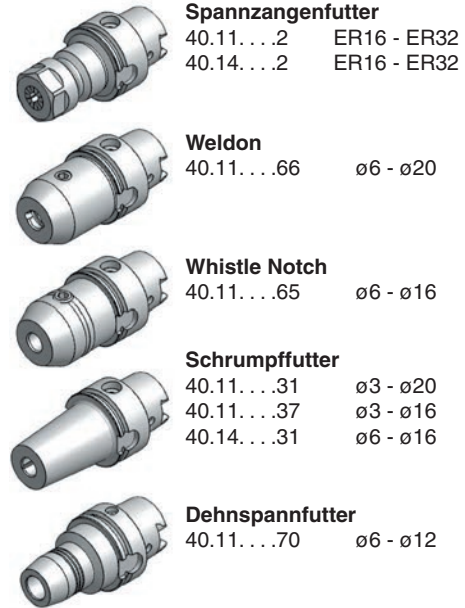
Doppelverzahnung / Double toothing

Lieferumfang ohne HSK-Werkzeughalter  
Delivery without HSK-toolholder



| Art.-Nr.   | Typ              | A   |
|------------|------------------|-----|
| 30.T40.100 | VDI30DxHSK40x100 | 100 |

HSK-Werkzeughalter finden Sie im Katalog Nr. 167  
HSK-toolholders you can find in our Catalogue No. 167

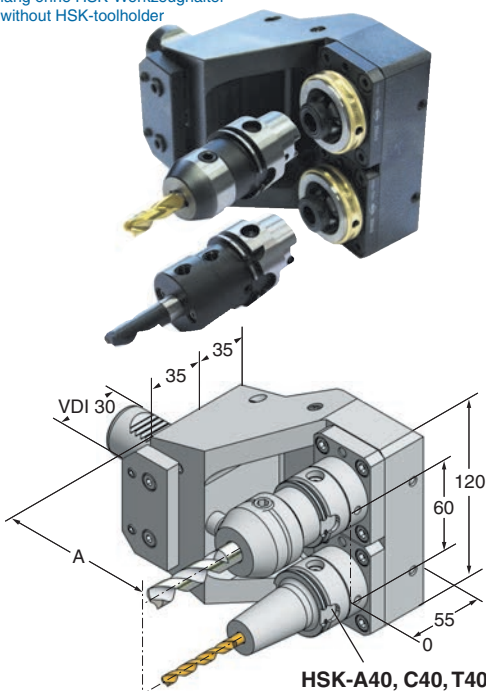


### Doppel-Werkzeughalter VDI 30 mit HSK-T40 Spanneinheit

Double-toolholder VDI 30 with HSK-T40 clamping unit

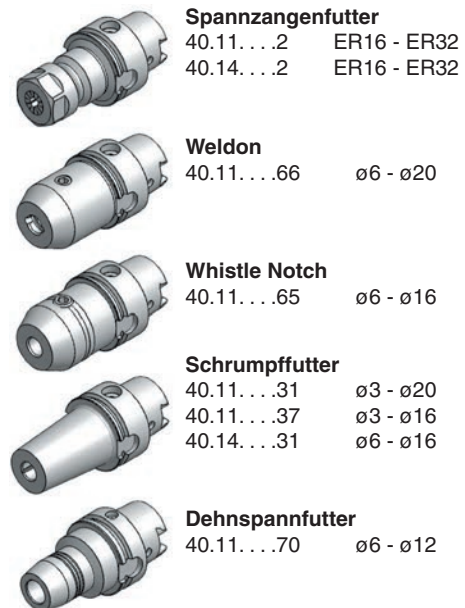
Doppelverzahnung / Double toothing

Lieferumfang ohne HSK-Werkzeughalter  
Delivery without HSK-toolholder



| Art.-Nr.     | Typ              | A   |
|--------------|------------------|-----|
| 30.T40.100-2 | VDI30DxHSK40x100 | 100 |
| 30.T40.115-2 | VDI30DxHSK40x115 | 115 |
| 30.T40.120-2 | VDI30DxHSK40x120 | 120 |

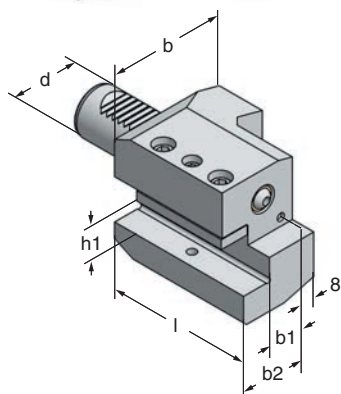
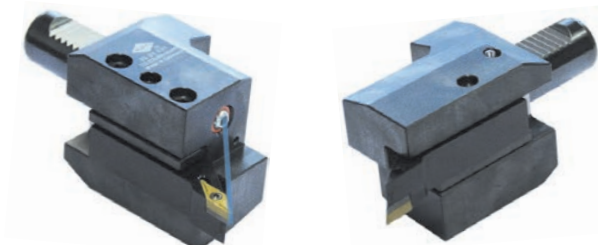
HSK-Werkzeughalter finden Sie im Katalog Nr. 167  
HSK-toolholders you can find in our Catalogue No. 167



**Drehhalter Form C2 / C3**  
**Turning toolholders form C2 / C3**

**Doppelverzahnung / Double toothing**

Lieferumfang ohne Werkzeug  
 Delivery without tool



| Art.-Nr.  | Typ          | d  | b  | b1   | b2   | h1 | l  |
|-----------|--------------|----|----|------|------|----|----|
| 25.20.031 | VDI25D-C2/C3 | 25 | 62 | 19   | 37   | 20 | 55 |
| 30.20.031 | VDI30D-C2/C3 | 30 | 78 | 26   | 44   | 20 | 90 |
| 40.25.031 | VDI40D-C2/C3 | 40 | 90 | 25,5 | 47,5 | 25 | 85 |

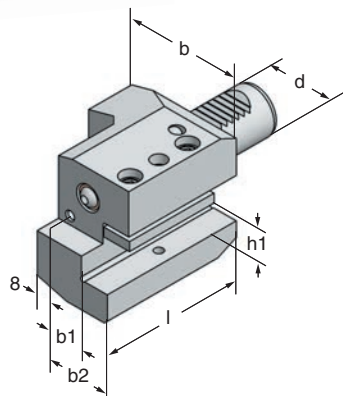


**siehe Seite 7**  
**see page 7**

**Drehhalter Form C1 / C4**  
**Turning toolholders form C1 / C4**

**Doppelverzahnung / Double toothing**

Lieferumfang ohne Werkzeug  
 Delivery without tool

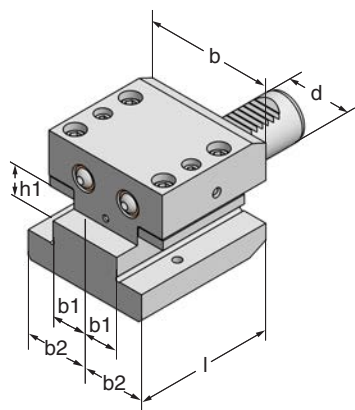


| Art.-Nr.    | Typ          | d  | b  | b1   | b2   | h1 | l  |
|-------------|--------------|----|----|------|------|----|----|
| 25.20.041   | VDI25D-C1/C4 | 25 | 62 | 19   | 37   | 20 | 55 |
| 30.20.041   | VDI30D-C1/C4 | 30 | 78 | 26   | 44   | 20 | 90 |
| 30.25.041   | VDI30D-C1/C4 | 30 | 73 | 19   | 41   | 25 | 90 |
| 40.25.041   | VDI40D-C1/C4 | 40 | 90 | 25,5 | 47,5 | 25 | 85 |
| <b>INCH</b> |              |    |    |      |      |    |    |
| 310208      | VDI30D-C1/C4 | 30 | 79 | 23   | 45   | 1" | 90 |

**Doppel-Drehhalter Form C1-C4**  
**Double turning toolholders form C1-C4**

Doppelverzahnung / Double toothing

Lieferumfang ohne Werkzeuge  
 Delivery without tools



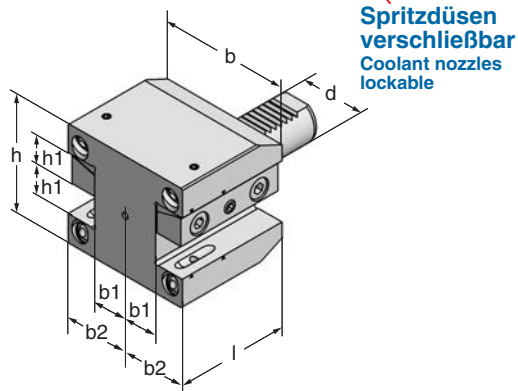
| Art.-Nr.    | Typ    | d  | b  | b1   | b2   | h1 | l  |
|-------------|--------|----|----|------|------|----|----|
| 30.20.042   | VDI30D | 30 | 88 | 26   | 44   | 20 | 90 |
| 40.25.042   | VDI40D | 40 | 95 | 25,5 | 47,5 | 25 | 90 |
| <b>INCH</b> |        |    |    |      |      |    |    |
| 311208      | VDI30D | 30 | 90 | 23   | 45   | 1" | 90 |
| 411208      | VDI40D | 40 | 95 | 25,5 | 47,5 | 1" | 90 |

**Ein Drehhalter - vier Einsatzmöglichkeiten:**  
 links - rechts - vorkopf - überkopf  
**One turning-toolholder - four possibilities:**  
 left - right - forehead - overhead

**Multi-Doppel-Drehhalter Form C1-C4 mit iK**

- für Klemmhalter mit Kühlmittelzufuhr **direkt zur Schneide**
- für ISO-Klemmhalter mit **Pratzenklammern** zur optimalen Kühlung der Schneide
- Multi-double-turning-toolholder form C1-C4 with internal coolant**
- for clamping holders with coolant channels **directly to the cutting edge**
- for ISO-clamping holders **with claw clamping** for best possible coolant supply

Lieferumfang ohne Werkzeuge  
 Delivery without tools



**Spritzdüsen verschließbar**  
 Coolant nozzles lockable

| Art.-Nr.  | d  | b   | b1 | b2 | h  | h1 | l  |
|-----------|----|-----|----|----|----|----|----|
| 30.20.044 | 30 | 86  | 23 | 43 | 78 | 20 | 75 |
| 40.25.044 | 40 | 130 | 40 | 65 | 96 | 25 | 90 |

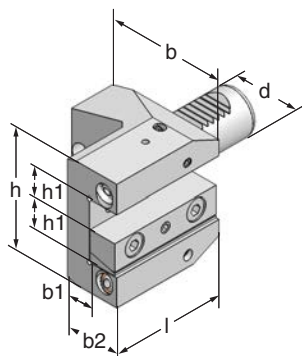


**Ein Drehhalter - vier Einsatzmöglichkeiten:**  
 links - rechts - vorkopf - überkopf  
**One turning-toolholder - four possibilities:**  
 left - right - forehead - overhead

**Multi-Drehhalter Form C1-C4**  
**Multi-turning-toolholder form C1-C4**

**Doppelverzahnung / Double toothing**

Lieferumfang ohne Werkzeug  
 Delivery without tool

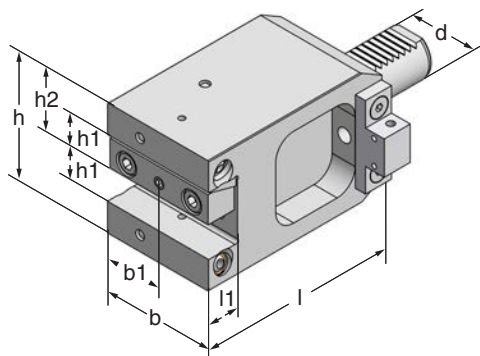
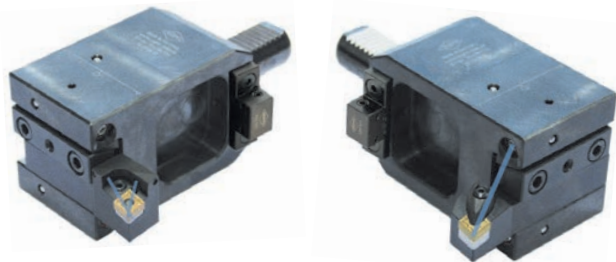


| Art.-Nr.   | d  | b  | b1 | b2 | h  | h1 | l  |
|------------|----|----|----|----|----|----|----|
| 30.20.043E | 30 | 89 | 16 | 54 | 78 | 20 | 85 |

**Ein Drehhalter - vier Einsatzmöglichkeiten:**  
**links - rechts - vorkopf - überkopf**  
**One turning-toolholder - four possibilities:**  
**left - right - forehead - overhead**

**Multi-Drehhalter Form B1-B4**  
**Multi-turning-toolholders form B1-B4**

Lieferumfang ohne Werkzeug  
 Delivery without tool



| Art.-Nr.   | d  | b  | b1 | h  | h1 | h2 | l   | l1 |
|------------|----|----|----|----|----|----|-----|----|
| 30.20.063E | 30 | 70 | 35 | 78 | 20 | 39 | 120 | 20 |
| 40.25.063E | 40 | 96 | 48 | 94 | 25 | 47 | 125 | 25 |

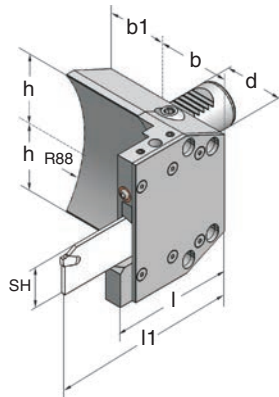
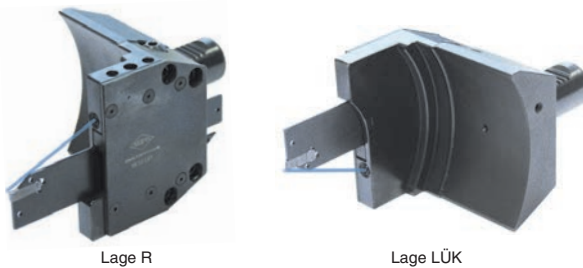
Anschlag links und rechts montierbar  
 Stop left and right mountable

**Ein Drehhalter - vier Einsatzmöglichkeiten:**  
**links - rechts - vorkopf - überkopf**  
**One turning-toolholder - four possibilities:**  
**left - right - forehead - overhead**

**Abstechhalter rechts**  
**Infeed toolholders right**

**Doppelverzahnung / Double toothing**

Lieferumfang ohne Werkzeug  
 Delivery without tool

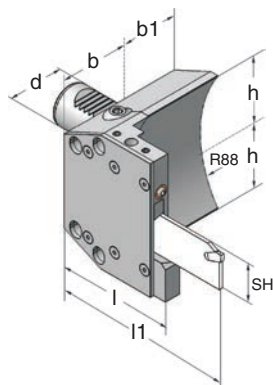
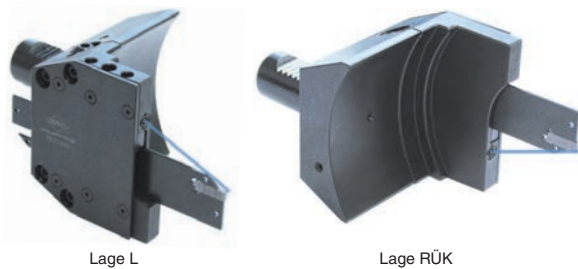


| Art.-Nr.  | Typ            | d  | SH | b  | b1 | h  | l    | l1  |
|-----------|----------------|----|----|----|----|----|------|-----|
| 25.26.485 | VDI25Dx26R+LÜK | 25 | 26 | 43 | 29 | 40 | 85   | 112 |
| 25.32.485 | VDI25Dx32R+LÜK | 25 | 32 | 43 | 29 | 40 | 85   | 112 |
| 30.26.485 | VDI30Dx26R+LÜK | 30 | 26 | 60 | 35 | 50 | 85   | 112 |
| 30.32.485 | VDI30Dx32R+LÜK | 30 | 32 | 60 | 35 | 50 | 85   | 112 |
| 40.32.485 | VDI40Dx32R+LÜK | 40 | 32 | 60 | 35 | 50 | 88,5 | 115 |

**Abstechhalter links**  
**Infeed toolholders left**

**Doppelverzahnung / Double toothing**

Lieferumfang ohne Werkzeug  
 Delivery without tool

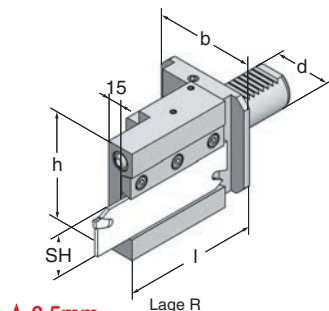


| Art.-Nr.  | Typ            | d  | SH | b  | b1 | h  | l    | l1  |
|-----------|----------------|----|----|----|----|----|------|-----|
| 25.26.486 | VDI25Dx26L+RÜK | 25 | 26 | 43 | 29 | 40 | 85   | 112 |
| 25.32.486 | VDI25Dx32L+RÜK | 25 | 32 | 43 | 29 | 40 | 85   | 112 |
| 30.26.486 | VDI30Dx26L+RÜK | 30 | 26 | 60 | 35 | 50 | 85   | 112 |
| 30.32.486 | VDI30Dx32L+RÜK | 30 | 32 | 60 | 35 | 50 | 85   | 112 |
| 40.32.486 | VDI40Dx32L+RÜK | 40 | 32 | 60 | 35 | 50 | 88,5 | 115 |

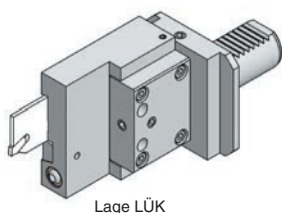
**Abstechhalter rechts**  
**Infeed toolholders right**

Höhenverstellbar  $\pm 0,5\text{mm}$   
 Adjustable in height  $\pm 0,5\text{mm}$

Lieferumfang ohne Werkzeug  
 Delivery without tool



0,5mm  
 0,5mm



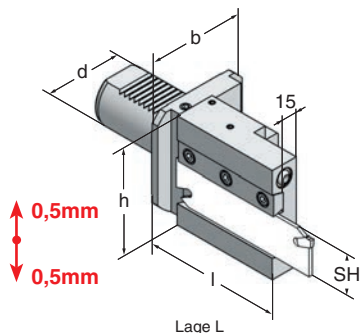
Der Halter kann auch **links** montiert werden:  
 The toolholder can also be mounted **left**:

| Art.-Nr.  | Typ           | d  | SH | b  | h  | l  |
|-----------|---------------|----|----|----|----|----|
| 30.26.487 | VDI30x26R+LÜK | 30 | 26 | 70 | 78 | 95 |
| 30.32.487 | VDI30x32R+LÜK | 30 | 32 | 70 | 78 | 95 |
| 40.32.487 | VDI40x32R+LÜK | 40 | 32 | 70 | 78 | 95 |

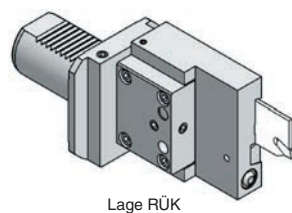
**Abstechhalter links**  
**Infeed toolholders left**

Höhenverstellbar  $\pm 0,5\text{mm}$   
 Adjustable in height  $\pm 0,5\text{mm}$

Lieferumfang ohne Werkzeug  
 Delivery without tool



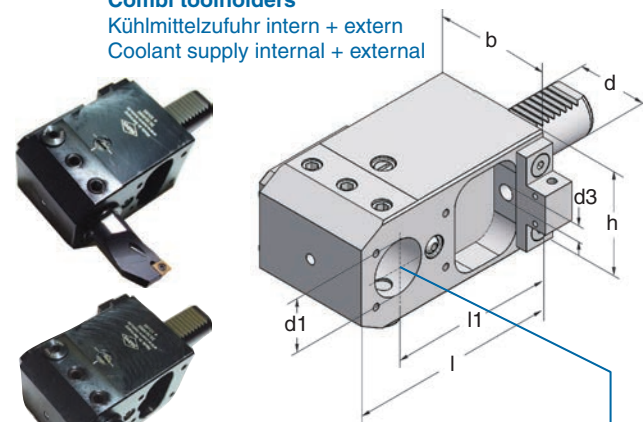
0,5mm  
 0,5mm



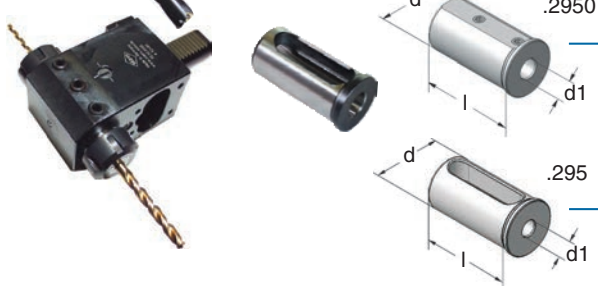
Der Halter kann auch **rechts** montiert werden:  
 The toolholder can also be mounted **right**:

| Art.-Nr.  | Typ           | d  | SH | b  | h  | l  |
|-----------|---------------|----|----|----|----|----|
| 30.26.488 | VDI30x26L+RÜK | 30 | 26 | 70 | 78 | 95 |
| 30.32.488 | VDI30x32L+RÜK | 30 | 32 | 70 | 78 | 95 |
| 40.32.488 | VDI40x32L+RÜK | 40 | 32 | 70 | 78 | 95 |

**VDI 25 Kombiwerkzeughalter**  
**Combi toolholders**  
 Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external



**Reduzierbuchsen**  
**Reduction bushes**



**Spannzangenfutter DIN 6499**  
**Collet chucks DIN 6499**



| Art.-Nr.   | Typ         | d  | d1 | b  | h  | l  | l1 | d3 |
|------------|-------------|----|----|----|----|----|----|----|
| 25.25.0075 | VDI25x25x75 | 25 | 25 | 60 | 54 | 98 | 75 | 7  |
| 25.32.0075 | VDI25x32x75 | 25 | 32 | 60 | 54 | 98 | 75 | 7  |

Anschlag links und rechts montierbar  
 Stop left and right mountable  
 Lieferumfang ohne Werkzeug  
 Delivery without tool

| Art.-Nr.   | d  | d1 | l  |
|------------|----|----|----|
| 25.06.2950 | 25 | 6  | 50 |
| 25.08.2950 | 25 | 8  | 50 |
| 25.10.295  | 25 | 10 | 50 |
| 25.12.295  | 25 | 12 | 50 |
| 25.14.295  | 25 | 14 | 50 |
| 25.16.295  | 25 | 16 | 50 |
| 25.18.295  | 25 | 18 | 50 |
| 25.20.295  | 25 | 20 | 50 |
| 32.06.2950 | 32 | 6  | 60 |
| 32.08.2950 | 32 | 8  | 60 |
| 32.10.2950 | 32 | 10 | 60 |
| 32.12.295  | 32 | 12 | 60 |
| 32.14.295  | 32 | 14 | 60 |
| 32.16.295  | 32 | 16 | 60 |
| 32.18.295  | 32 | 18 | 60 |
| 32.20.295  | 32 | 20 | 60 |
| 32.25.295  | 32 | 25 | 60 |

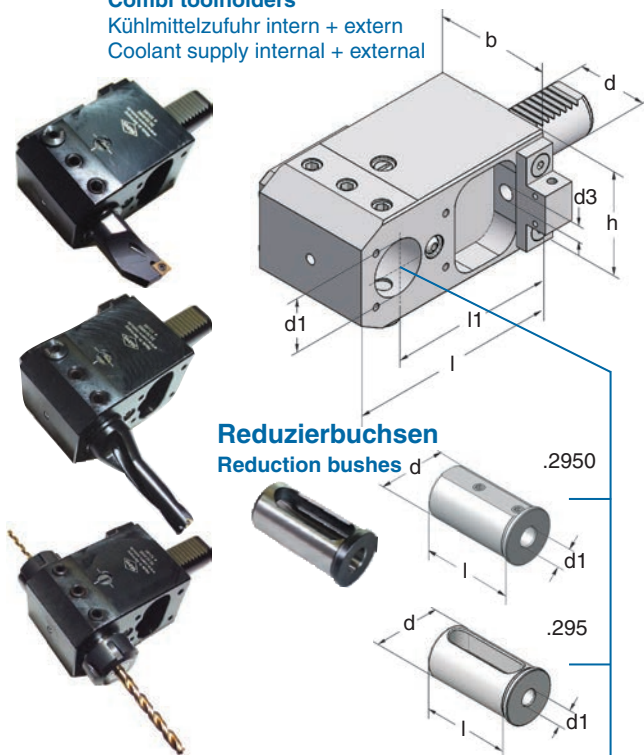
| Art.-Nr. | Typ   | d  | d1        | D  | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 845101   | ER 25 | 25 | 2-16 430E | 42 | 58 | 21-25 |
| 846101   | ER 25 | 32 | 2-16 430E | 42 | 58 | 21-25 |

| Art.-Nr. | Typ   | d  | d1        | D  | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 822101   | ER 25 | 32 | 2-16 430E | 42 | 60 | 21-25 |

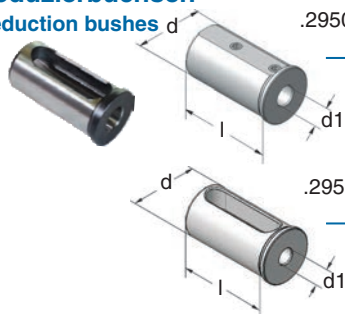
841101 Verschlussmutter ER25 / Sealing nut ER25



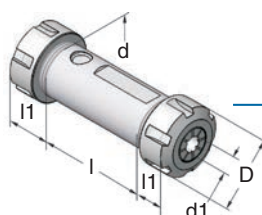
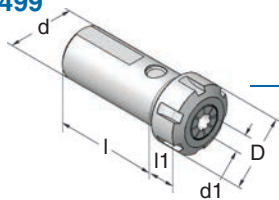
**VDI 30 Kombiwerkzeughalter**  
Combi toolholders  
Kühlmittelzufuhr intern + extern  
Coolant supply internal + external



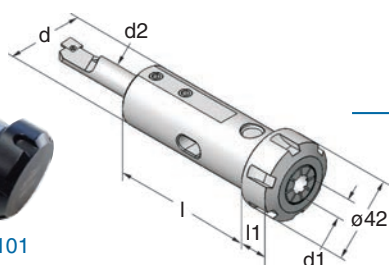
**Reduzierbuchsen**  
Reduction bushes



**Spannzangenfutter DIN 6499**  
Collet chucks DIN 6499



**Spannzangenfutter DIN 6499/430E**  
mit zyl. Aufnahme für Bohrstangen  $\phi 6-16\text{mm}$   
Collet chucks DIN 6499/430E with cyl. adaptor  
for boring bars  $\phi 6-16\text{mm}$



Verschlussmutter 841101  
Sealing nut 841101

| Art.-Nr.   | Typ          | d  | d1 | b  | h  | l   | l1  | d3 |
|------------|--------------|----|----|----|----|-----|-----|----|
| 30.32.0085 | VDI30x32x 85 | 30 | 32 | 70 | 64 | 110 | 85  | 9  |
| 30.32.0100 | VDI30x32x100 | 30 | 32 | 70 | 64 | 125 | 100 | 9  |
| 30.32.0120 | VDI30x32x120 | 30 | 32 | 70 | 64 | 145 | 120 | 9  |

**HARDINGE**

|            |             |    |    |    |    |     |    |  |
|------------|-------------|----|----|----|----|-----|----|--|
| 30.32.0070 | VDI30x32x70 | 30 | 32 | 70 | 64 | 101 | 70 |  |
| 30.40.0070 | VDI30x40x70 | 30 | 40 | 70 | 72 | 105 | 70 |  |

INCH-Größen auf Anfrage / INCH-sizes on inquiry

Anschlag links und rechts montierbar  
Stop left and right mountable

Lieferumfang ohne Werkzeug  
Delivery without tool

| Art.-Nr.   | d  | d1 | l  |
|------------|----|----|----|
| 32.06.2950 | 32 | 6  | 60 |
| 32.08.2950 | 32 | 8  | 60 |
| 32.10.2950 | 32 | 10 | 60 |
| 32.12.295  | 32 | 12 | 60 |
| 32.14.295  | 32 | 14 | 60 |
| 32.16.295  | 32 | 16 | 60 |
| 32.18.295  | 32 | 18 | 60 |
| 32.20.295  | 32 | 20 | 60 |
| 32.25.295  | 32 | 25 | 60 |

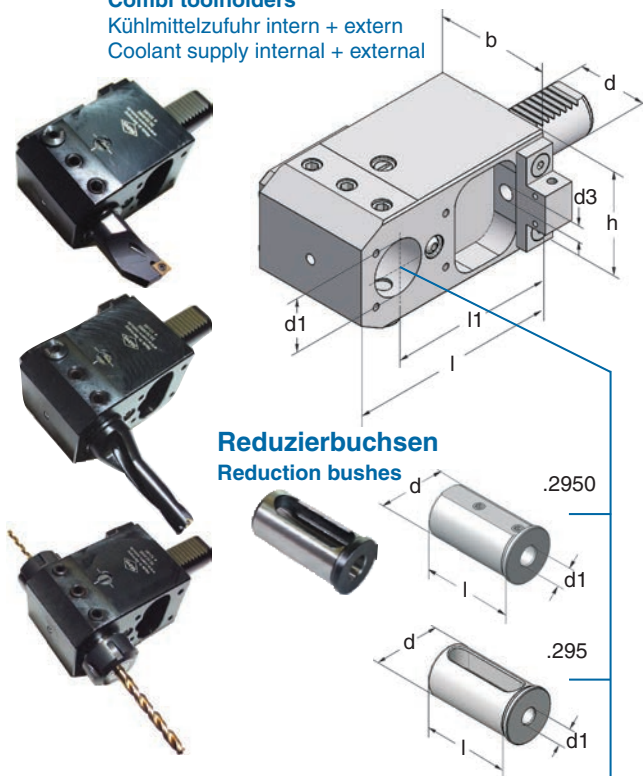
| Art.-Nr. | Typ   | d  | d1        | D  | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 820101   | ER 25 | 32 | 2-16 430E | 42 | 58 | 21-25 |
| 836101   | ER 32 | 32 | 2-20 470E | 50 | 58 | 31-35 |

| Art.-Nr. | Typ   | d  | d1        | D  | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 821101   | ER 25 | 32 | 2-16 430E | 42 | 70 | 21-25 |

| Art.-Nr. | Typ   | d  | d1        | d2 | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 830101   | ER 25 | 32 | 2-16 430E | 6  | 85 | 21-25 |
| 831101   | ER 25 | 32 | 2-16 430E | 8  | 85 | 21-25 |
| 832101   | ER 25 | 32 | 2-16 430E | 10 | 85 | 21-25 |
| 833101   | ER 25 | 32 | 2-16 430E | 12 | 85 | 21-25 |
| 834101   | ER 25 | 32 | 2-16 430E | 14 | 85 | 21-25 |
| 835101   | ER 25 | 32 | 2-16 430E | 16 | 85 | 21-25 |

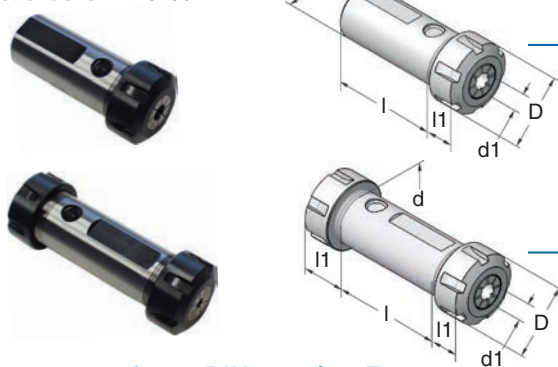
841101 Verschlussmutter ER25 / Sealing nut ER25

**VDI 40 Kombiwerkzeughalter**  
**Combi toolholders**  
 Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external



**Reduzierbuchsen**  
**Reduction bushes**

**Spannzangenfutter DIN 6499**  
**Collet chucks DIN 6499**



**Spannzangenfutter DIN 6499/430E**  
**mit zyl. Aufnahme für Bohrstangen ø6-16mm**  
**Collet chucks DIN 6499/430E with cyl. adaptor**  
**for boring bars ø6-16mm**



Verschlussmutter 841101  
 Sealing nut 841101

| Art.-Nr.   | Typ          | d  | d1 | b  | h  | l   | l1  | d3 |
|------------|--------------|----|----|----|----|-----|-----|----|
| 40.25.0100 | VDI40x25x100 | 40 | 25 | 85 | 76 | 122 | 100 | 11 |
| 40.32.0100 | VDI40x32x100 | 40 | 32 | 85 | 76 | 125 | 100 | 11 |
| 40.40.0100 | VDI40x40x100 | 40 | 40 | 85 | 76 | 129 | 100 | 11 |
| 40.25.0120 | VDI40x25x120 | 40 | 25 | 85 | 76 | 142 | 120 | 11 |
| 40.32.0120 | VDI40x32x120 | 40 | 32 | 85 | 76 | 145 | 120 | 11 |
| 40.40.0120 | VDI40x40x120 | 40 | 40 | 85 | 76 | 149 | 120 | 11 |

INCH-Größen auf Anfrage / INCH-sizes on inquiry

Anschlag links und rechts montierbar  
 Stop left and right mountable

Lieferumfang ohne Werkzeug  
 Delivery without tool

| Art.-Nr.   | d  | d1 | l  |
|------------|----|----|----|
| 32.06.2950 | 32 | 6  | 60 |
| 32.08.2950 | 32 | 8  | 60 |
| 32.10.2950 | 32 | 10 | 60 |
| 32.12.295  | 32 | 12 | 60 |
| 32.14.295  | 32 | 14 | 60 |
| 32.16.295  | 32 | 16 | 60 |
| 32.18.295  | 32 | 18 | 60 |
| 32.20.295  | 32 | 20 | 60 |
| 32.25.295  | 32 | 25 | 60 |

|            |    |    |    |
|------------|----|----|----|
| 40.06.2950 | 40 | 6  | 72 |
| 40.08.2950 | 40 | 8  | 72 |
| 40.10.2950 | 40 | 10 | 72 |
| 40.12.2950 | 40 | 12 | 72 |
| 40.14.295  | 40 | 14 | 72 |
| 40.16.295  | 40 | 16 | 72 |
| 40.18.295  | 40 | 18 | 72 |
| 40.20.295  | 40 | 20 | 72 |
| 40.25.295  | 40 | 25 | 72 |
| 40.32.295  | 40 | 32 | 72 |

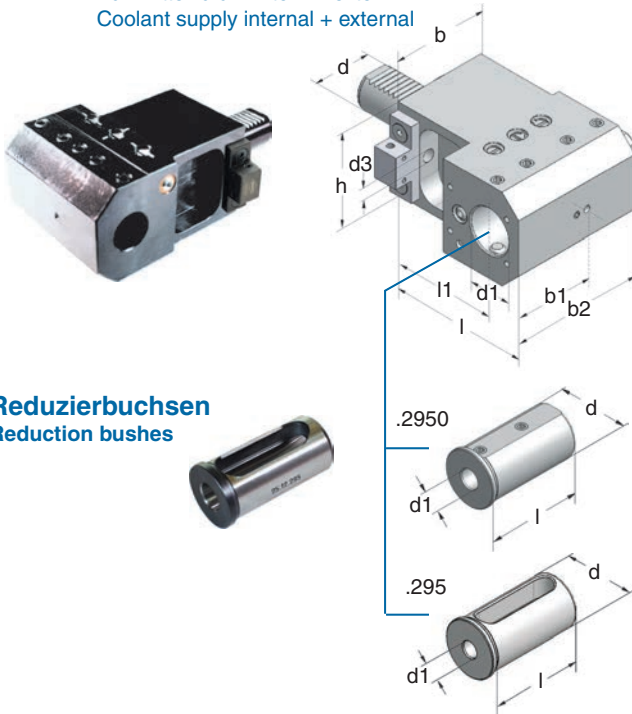
| Art.-Nr. | Typ   | d  | d1        | D  | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 820101   | ER 25 | 32 | 2-16 430E | 42 | 58 | 21-25 |
| 836101   | ER 32 | 32 | 2-20 470E | 50 | 58 | 31-35 |
| 117102   | ER 32 | 40 | 2-20 470E | 50 | 64 | 24-29 |

| Art.-Nr. | Typ   | d  | d1        | D  | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 823101   | ER 25 | 32 | 2-16 430E | 42 | 85 | 21-25 |
| 824101   | ER 32 | 40 | 2-20 470E | 50 | 85 | 24-29 |

| Art.-Nr. | Typ   | d  | d1        | d2 | l  | l1    |
|----------|-------|----|-----------|----|----|-------|
| 830101   | ER 25 | 32 | 2-16 430E | 6  | 85 | 21-25 |
| 831101   | ER 25 | 32 | 2-16 430E | 8  | 85 | 21-25 |
| 832101   | ER 25 | 32 | 2-16 430E | 10 | 85 | 21-25 |
| 833101   | ER 25 | 32 | 2-16 430E | 12 | 85 | 21-25 |
| 834101   | ER 25 | 32 | 2-16 430E | 14 | 85 | 21-25 |
| 835101   | ER 25 | 32 | 2-16 430E | 16 | 85 | 21-25 |

841101 Verschlussmutter ER25 / Sealing nut ER25

**VDI 30 Kombiwerkzeughalter**  
**VDI 40 Combi toolholders**  
 Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external



**Reduzierbuchsen**  
**Reduction bushes**

| Art.-Nr.    | Typ          | d  | d1 | b  | b1   | b2 | h  | l   | l1  | d3 |
|-------------|--------------|----|----|----|------|----|----|-----|-----|----|
| 30.32.00853 | VDI30x32x 85 | 30 | 32 | 70 | 57,5 | 98 | 68 | 110 | 85  | 9  |
| 30.32.0103  | VDI30x32x100 | 30 | 32 | 70 | 57,5 | 98 | 68 | 125 | 100 | 9  |
| 30.32.0123  | VDI30x32x120 | 30 | 32 | 70 | 57,5 | 98 | 68 | 145 | 120 | 9  |

|            |                |    |    |    |      |     |    |     |     |    |
|------------|----------------|----|----|----|------|-----|----|-----|-----|----|
| 40.32.0103 | VDI40Dx32x100* | 40 | 32 | 85 | 77,5 | 120 | 76 | 129 | 100 | 11 |
| 40.32.0123 | VDI40Dx32x120* | 40 | 32 | 85 | 77,5 | 120 | 76 | 149 | 120 | 11 |

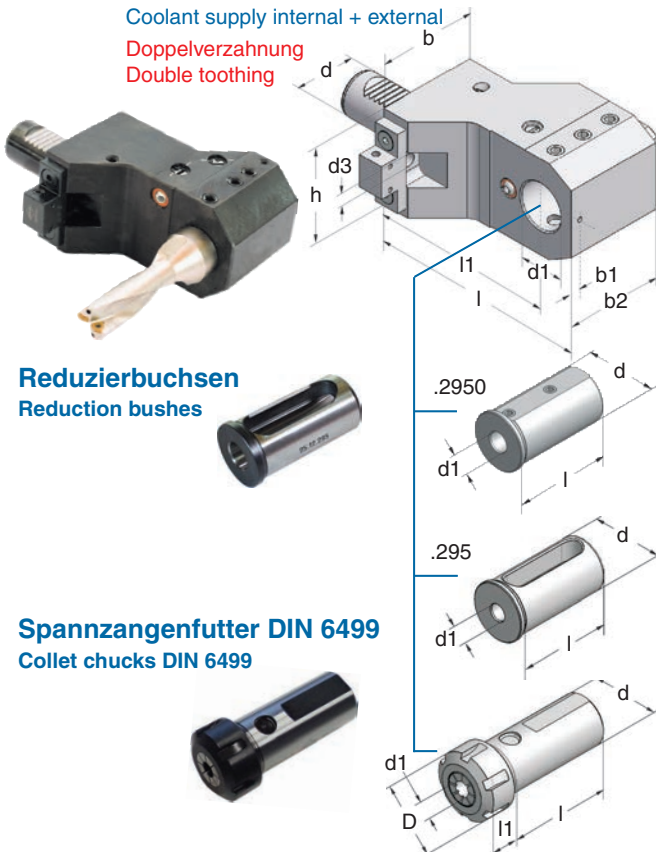
\* **Doppelverzahnung / Double toothing**

Anschlag links und rechts montierbar  
 Stop left and right mountable

| Art.-Nr.   | d  | d1 | l  |
|------------|----|----|----|
| 32.06.2950 | 32 | 6  | 60 |
| 32.08.2950 | 32 | 8  | 60 |
| 32.10.2950 | 32 | 10 | 60 |
| 32.12.295  | 32 | 12 | 60 |
| 32.14.295  | 32 | 14 | 60 |
| 32.16.295  | 32 | 16 | 60 |
| 32.18.295  | 32 | 18 | 60 |
| 32.20.295  | 32 | 20 | 60 |
| 32.25.295  | 32 | 25 | 60 |

**VDI 30 Kombiwerkzeughalter zurückgesetzt**  
**VDI 40 Combi toolholders set back**  
 Kühlmittelzufuhr intern + extern  
 Coolant supply internal + external

**Doppelverzahnung**  
**Double toothing**



**Reduzierbuchsen**  
**Reduction bushes**

**Spannzangenfutter DIN 6499**  
**Collet chucks DIN 6499**

| Art.-Nr.    | Typ           | d  | d1 | b  | b1 | b2 | h  | l   | l1  | d3 |
|-------------|---------------|----|----|----|----|----|----|-----|-----|----|
| 30.32.00085 | VDI30Dx32x 85 | 30 | 32 | 70 | 7  | 69 | 68 | 110 | 85  | 9  |
| 30.30.00100 | VDI30Dx30x100 | 30 | 30 | 70 | 7  | 69 | 68 | 125 | 100 | 9  |
| 30.32.00100 | VDI30Dx32x100 | 30 | 32 | 70 | 7  | 69 | 68 | 125 | 100 | 9  |
| 30.40.00100 | VDI30Dx40x100 | 30 | 40 | 70 | 7  | 69 | 68 | 129 | 100 | 9  |

|             |               |    |    |    |   |    |    |     |     |    |
|-------------|---------------|----|----|----|---|----|----|-----|-----|----|
| 40.40.00100 | VDI40Dx40x100 | 40 | 40 | 85 | 7 | 75 | 76 | 129 | 100 | 11 |
| 40.40.00120 | VDI40Dx40x120 | 40 | 40 | 85 | 7 | 75 | 76 | 149 | 120 | 11 |

Anschlag links und rechts montierbar  
 Stop left and right mountable

Lieferumfang ohne Werkzeug  
 Delivery without tool

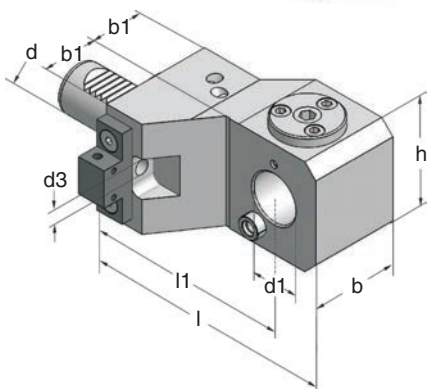
**Reduzierbuchsen siehe Seite 42**  
**Reduction bushes see page 42**

| Art.-Nr. | Typ   | d  | d1   | D    | l  | l1       |
|----------|-------|----|------|------|----|----------|
| 820101   | ER 25 | 32 | 2-16 | 430E | 42 | 58 21-25 |
| 836101   | ER 32 | 32 | 2-20 | 470E | 50 | 58 31-35 |
| 117102   | ER 32 | 40 | 2-20 | 470E | 50 | 64 24-29 |

**Ausgleichhalter VDI 30 + VDI 40**

**Adaptors for VDI 30 + VDI 40**

Doppelverzahnung  
 Double toothing



| Art.-Nr.  | Typ           | d  | d1 | b  | b1   | h  | l   | l1  | d3 |
|-----------|---------------|----|----|----|------|----|-----|-----|----|
| 30.30.070 | VDI30Dx30x 70 | 30 | 30 | 55 | 35   | 68 | 100 | 70  | 9  |
| 30.30.085 | VDI30Dx30x 85 | 30 | 30 | 55 | 35   | 68 | 115 | 85  | 9  |
| 30.30.100 | VDI30Dx30x100 | 30 | 30 | 55 | 35   | 68 | 130 | 100 | 9  |
| 40.40.100 | VDI40Dx40x100 | 40 | 40 | 63 | 42,5 | 85 | 135 | 100 | 11 |
| 40.40.120 | VDI40Dx40x120 | 40 | 40 | 63 | 42,5 | 85 | 155 | 120 | 11 |

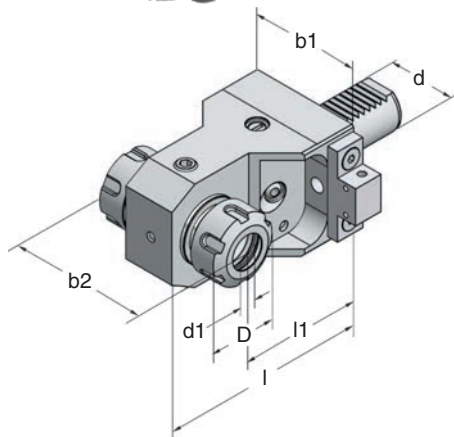
Anschlag links und rechts montierbar  
 Stop left and right mountable

**Doppel-Spannzangenhalter VDI 30 + VDI 40**

**Double-collet chucks toolholder VDI 30 + VDI 40**

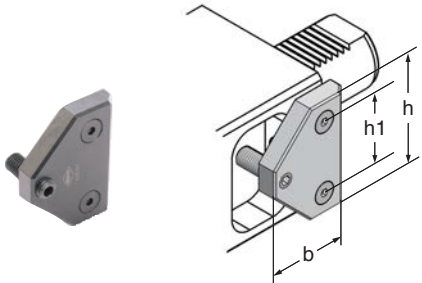
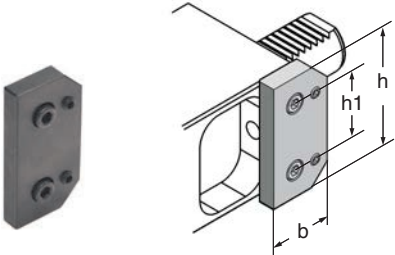
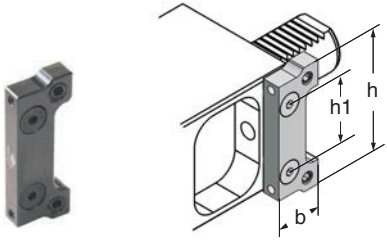
Kühlmittelezufuhr intern + extern  
 Coolant supply internal + external

Lieferumfang ohne Spannzange  
 Delivery without collet



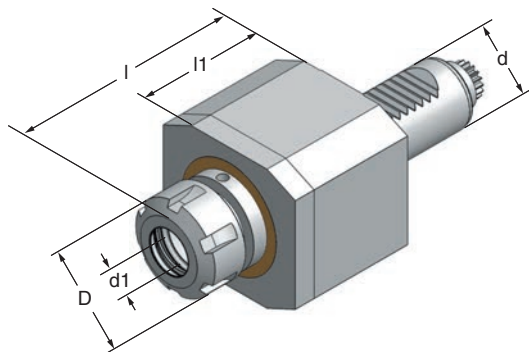
| Art.-Nr.  | Typ                                 | d  | d1   | D  | b1 | b2  | l   | l1  |
|-----------|-------------------------------------|----|------|----|----|-----|-----|-----|
| 30.085.16 | VDI30xER25x 85                      | 30 | 1-16 | 42 | 70 | 88  | 110 | 85  |
| 40.100.20 | VDI40xER32x100                      | 40 | 2-20 | 50 | 85 | 104 | 129 | 100 |
| 841101    | Verschlussmutter ER25 / Sealing nut |    |      |    |    |     |     |     |
| 842101    | Verschlussmutter ER32 / Sealing nut |    |      |    |    |     |     |     |

Anschlag links und rechts montierbar  
 Stop left and right mountable

| <p><b>Ausrichtplatten für Kombiwerkzeughalter</b><br/>Adjust plates for combi toolholder</p>    | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>b</th> <th>h</th> <th>h1</th> </tr> </thead> <tbody> <tr> <td>579101</td> <td>VDI 25</td> <td>40</td> <td>54</td> <td>38</td> </tr> <tr> <td>576101</td> <td>VDI 30</td> <td>50</td> <td>68</td> <td>38</td> </tr> <tr> <td>523101</td> <td>VDI 40</td> <td>50</td> <td>66</td> <td>42</td> </tr> </tbody> </table> | Art.-Nr. | Typ | b  | h | h1 | 579101 | VDI 25       | 40 | 54 | 38 | 576101 | VDI 30 | 50 | 68 | 38 | 523101 | VDI 40 | 50 | 66 | 42 |
|--|--|----------|-----|----|---|----|--------|--------------|----|----|----|--------|--------|----|----|----|--------|--------|----|----|----|
| Art.-Nr.   | Typ  | b        | h   | h1 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| 579101   | VDI 25   | 40       | 54  | 38 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| 576101   | VDI 30   | 50       | 68  | 38 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| 523101   | VDI 40   | 50       | 66  | 42 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| <p><b>Ausrichtplatten für Kombiwerkzeughalter</b><br/>Adjust plates for combi toolholder</p>   | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>b</th> <th>h</th> <th>h1</th> </tr> </thead> <tbody> <tr> <td>503101</td> <td>VDI 30</td> <td>35</td> <td>68</td> <td>38</td> </tr> </tbody> </table>   | Art.-Nr. | Typ | b  | h | h1 | 503101 | VDI 30       | 35 | 68 | 38 |        |        |    |    |    |        |        |    |    |    |
| Art.-Nr.   | Typ  | b        | h   | h1 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| 503101   | VDI 30   | 35       | 68  | 38 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| <p><b>Ausrichtplatten für Kombiwerkzeughalter</b><br/>Adjust plates for combi toolholder</p>  | <table border="1"> <thead> <tr> <th>Art.-Nr.</th> <th>Typ</th> <th>b</th> <th>h</th> <th>h1</th> </tr> </thead> <tbody> <tr> <td>865101</td> <td>Traub TNX 65</td> <td>25</td> <td>70</td> <td>38</td> </tr> </tbody> </table>   | Art.-Nr. | Typ | b  | h | h1 | 865101 | Traub TNX 65 | 25 | 70 | 38 |        |        |    |    |    |        |        |    |    |    |
| Art.-Nr.   | Typ  | b        | h   | h1 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |
| 865101   | Traub TNX 65   | 25       | 70  | 38 |   |    |        |              |    |    |    |        |        |    |    |    |        |        |    |    |    |

**Axial Bohr- und Fräskopf**  
**Axial drilling and milling head**

Lieferumfang ohne Werkzeug und Spannzange  
 Delivery without tool and collet



Sauter-Revolver DIN 5480 .... CTX



Sauter-Revolver DIN 5482 .... 5482



Diplomatic DIN 1809 .... 1809



Barrufaldi TOEM .... TOEM



| Art.-Nr.      | Typ        | d  | d1   | D  | l   | l1 |
|---------------|------------|----|------|----|-----|----|
| 4.2016CTX     | VDI20xER16 | 20 | 1-10 | 28 | 76  | 49 |
| 4.2020CTX     | VDI20xER20 | 20 | 1-13 | 34 | 76  | 49 |
| 4.20161809    | VDI20xER16 | 20 | 1-10 | 28 | 76  | 40 |
| 4.2525K5480   | VDI25xER25 | 25 | 1-16 | 42 | 86  | 58 |
| 4.2520G200    | VDI25xER20 | 25 | 1-13 | 34 | 66  | 55 |
| 4.3025CTX     | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3025CTXk    | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3032CTX     | VDI30xER32 | 30 | 2-20 | 50 | 88  | 58 |
| 4.30255482    | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.30255482k   | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.30251809    | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.30251809k   | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3025TOEM    | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3025TOEMk   | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3025LT10    | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3025LT10k   | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.3025GU600   | VDI30xER25 | 30 | 1-16 | 42 | 88  | 58 |
| 4.4032CTX     | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032CTXk    | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.40325482    | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.40325482k   | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.40321809    | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.40321809k   | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032TOEM    | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032TOEMk   | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032LT15    | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032LT15k   | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032HAASL20 | VDI40xER32 | 40 | 2-20 | 50 | 110 | 76 |
| 4.4032GU800   | VDI40xER32 | 40 | 2-20 | 50 | 110 | 58 |
| 4.4032GU800k  | VDI40xER32 | 40 | 2-20 | 50 | 110 | 58 |
| 4.4032TMM250  | VDI40xER32 | 40 | 2-20 | 50 | 110 | 58 |
| 4.50405480    | VDI50xER40 | 50 | 3-30 | 63 | 120 | 80 |
| 4.50405480k   | VDI50xER40 | 50 | 3-30 | 63 | 120 | 80 |
| 4.50405482    | VDI50xER40 | 50 | 3-30 | 63 | 120 | 80 |
| 4.50405482k   | VDI50xER40 | 50 | 3-30 | 63 | 120 | 80 |
| 4.50401809    | VDI50xER40 | 50 | 3-30 | 63 | 120 | 80 |
| 4.50401809k   | VDI50xER40 | 50 | 3-30 | 63 | 120 | 80 |

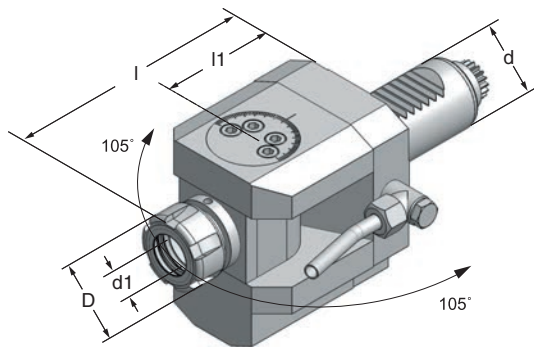
**Ausführung k** mit innerer Kühlmittelzufuhr  
**Type k** with internal cooling supply

Bitte geben Sie bei Ihrer Anfrage den **Maschinentyp** an  
 In case of inquiry please indicate details of **type** of machine as shown

**Schwenkopf**

**Swivel head**

Lieferumfang ohne Werkzeug und Spannzange  
 Delivery without tool and collet



Sauter-Revolver DIN 5480 .... CTX



Sauter-Revolver DIN 5482 .... 5482



Diplomatic DIN 1809 .... 1809



Barrufaldi TOEM .... TOEM



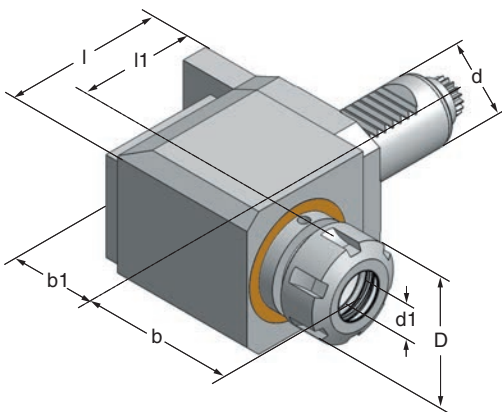
Bitte geben Sie bei Ihrer Anfrage den **Maschinentyp** an  
 In case of inquiry please indicate details of **type** of machine as shown

| Art.-Nr.   | Typ        | d  | d1   | D  | l   | l1 |
|------------|------------|----|------|----|-----|----|
| 5.20165480 | VDI20xER16 | 20 | 1-10 | 28 | 118 | 64 |
| 5.20161809 | VDI20xER16 | 20 | 1-10 | 28 | 118 | 64 |
| 5.2016TOEM | VDI20xER16 | 20 | 1-10 | 28 | 118 | 64 |
| 5.25205480 | VDI25xER20 | 25 | 1-13 | 34 | 115 | 58 |
| 5.3020CTX  | VDI30xER20 | 30 | 1-13 | 34 | 102 | 53 |
| 5.30205482 | VDI30xER20 | 30 | 1-13 | 34 | 102 | 53 |
| 5.30201809 | VDI30xER20 | 30 | 1-13 | 34 | 102 | 53 |
| 5.3020TOEM | VDI30xER20 | 30 | 1-13 | 34 | 102 | 53 |
| 5.4025CTX  | VDI40xER25 | 40 | 1-16 | 42 | 129 | 66 |
| 5.4025LCTX | VDI40xER25 | 40 | 1-16 | 42 | 150 | 87 |
| 5.40255482 | VDI40xER25 | 40 | 1-16 | 42 | 120 | 57 |
| 5.40251809 | VDI40xER25 | 40 | 1-16 | 42 | 120 | 57 |
| 5.4025TOEM | VDI40xER25 | 40 | 1-16 | 42 | 120 | 57 |
| 5.50325480 | VDI50xER32 | 50 | 3-20 | 50 | 150 | 87 |

**Radial Bohr- und Fräskopf**  
 Radial drilling and milling head



Abb. zeigt Ausführung R / Picture shows Type R



Sauter-Revolver DIN 5480 .... CTX



Sauter-Revolver DIN 5482 .... 5482



Diplomatic DIN 1809 .... 1809



Barrufaldi TOEM .... TOEM



Bitte geben Sie bei Ihrer Anfrage den **Maschinentyp** an  
 In case of inquiry please indicate details of **type** of machine as shown

| Art.-Nr.       | Typ        | d  | d1   | l   | l1  | b  | b1 |
|----------------|------------|----|------|-----|-----|----|----|
| 6.2016CTX R    | VDI20xER16 | 20 | 1-10 | 68  | 45  | 57 | 32 |
| 6.2016CTX L    | VDI20xER16 | 20 | 1-10 | 68  | 45  | 57 | 32 |
| 6.2016LCTX R   | VDI20xER16 | 20 | 1-10 | 101 | 75  | 62 | 48 |
| 6.2016LCTX L   | VDI20xER16 | 20 | 1-10 | 101 | 75  | 62 | 48 |
| 6.2020CTX R    | VDI20xER20 | 20 | 1-13 | 68  | 45  | 57 | 32 |
| 6.2020CTX L    | VDI20xER20 | 20 | 1-13 | 68  | 45  | 57 | 32 |
| 6.20161809 R   | VDI20xER16 | 20 | 1-10 | 68  | 48  | 58 | 25 |
| 6.20161809 L   | VDI20xER16 | 20 | 1-10 | 68  | 48  | 58 | 25 |
| <hr/>          |            |    |      |     |     |    |    |
| 6.2525CTXL R   | VDI25xER25 | 25 | 1-16 | 101 | 75  | 63 | 40 |
| 6.2525CTXL L   | VDI25xER25 | 25 | 1-16 | 101 | 75  | 63 | 40 |
| <hr/>          |            |    |      |     |     |    |    |
| 6.3025CTX R    | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025CTX L    | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025CTX Rk   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025CTX Lk   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025LCTX RL  | VDI30xER25 | 30 | 1-16 | 126 | 100 | 63 | 48 |
| 6.3025LCTX RLk | VDI30xER25 | 30 | 1-16 | 126 | 100 | 63 | 48 |
| 6.30255482 R   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30255482 L   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30255482 Rk  | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30255482 Lk  | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30251809 R   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30251809 L   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30251809 Rk  | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.30251809 Lk  | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025LT10 R   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025LT10 L   | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025LT10 Rk  | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |
| 6.3025LT10 Lk  | VDI30xER25 | 30 | 1-16 | 81  | 55  | 63 | 48 |

**Ausführung R** wie abgebildet / **Type R** right hand design as shown

**Ausführung L** spiegelbildlich / **Type L** left hand design reversed

**Ausführung RL** mit doppelverzahntem VDI-Schaft

**Type RL** with doubletoothed VDI-shaft

**Ausführung k** mit innerer Kühlmittelzufuhr

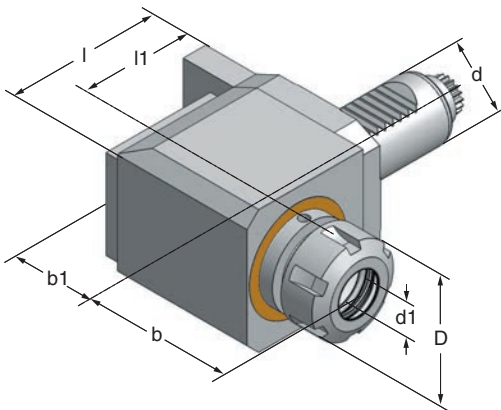
**Type k** with internal cooling supply



**Radial Bohr- und Fräskopf**  
 Radial drilling and milling head



Abb. zeigt Ausführung R / Picture shows Type R



Sauter-Revolver DIN 5480 .... CTX



Sauter-Revolver DIN 5482 .... 5482



Diplomatic DIN 1809 .... 1809



Barrufaldi TOEM .... TOEM



Bitte geben Sie bei Ihrer Anfrage den **Maschinentyp** an  
 In case of inquiry please indicate details of **type** of machine as shown

| Art.-Nr.       | Typ        | d  | d1   | l   | l1  | b  | b1 |
|----------------|------------|----|------|-----|-----|----|----|
| 6.4032CTX R    | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032CTX L    | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032CTX Rk   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032CTX Lk   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032CTX RL   | VDI40xER32 | 40 | 2-20 | 138 | 100 | 85 | 53 |
| 6.4032CTX RLk  | VDI40xER32 | 40 | 2-20 | 138 | 100 | 85 | 53 |
| 6.4032LCTX RL  | VDI40xER32 | 40 | 2-20 | 158 | 120 | 85 | 53 |
| 6.4032LCTX RLk | VDI40xER32 | 40 | 2-20 | 158 | 120 | 85 | 53 |
| 6.40325482 R   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40325482 L   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40325482 Rk  | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40325482 Lk  | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40321809 R   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40321809 L   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40321809 Rk  | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.40321809 Lk  | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032TOEM R   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032TOEM L   | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032LT15 RL  | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032LT15 RLk | VDI40xER32 | 40 | 2-20 | 103 | 65  | 82 | 72 |
| 6.4032TMM250   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 82 | 72 |
| <hr/>          |            |    |      |     |     |    |    |
| 6.50405480 R   | VDI50xER40 | 50 | 3-30 | 119 | 75  | 96 | 84 |
| 6.50405480 L   | VDI50xER40 | 50 | 3-30 | 119 | 75  | 96 | 84 |
| 6.50401809 R   | VDI50xER40 | 50 | 3-30 | 119 | 75  | 96 | 84 |
| 6.50401809 L   | VDI50xER40 | 50 | 3-30 | 119 | 75  | 96 | 84 |
| 6.50401809 Rk  | VDI50xER40 | 50 | 3-30 | 119 | 75  | 96 | 84 |
| 6.50401809 Lk  | VDI50xER40 | 50 | 3-30 | 119 | 75  | 96 | 84 |

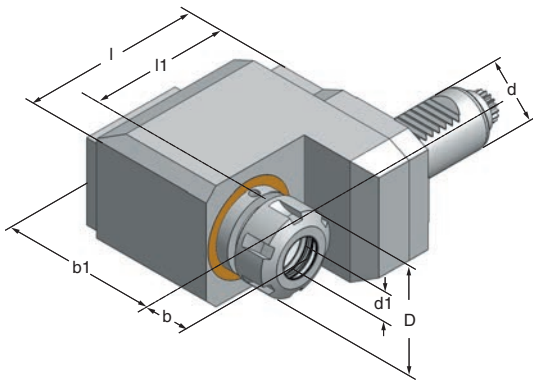
**Ausführung R** wie abgebildet / **Type R** right hand design as shown  
**Ausführung L** spiegelbildlich / **Type L** left hand design reversed  
**Ausführung RL** mit doppelverzahntem VDI-Schaft  
**Type RL** with doubletoothed VDI-shaft

**Ausführung k** mit innerer Kühlmittelzufuhr  
**Type k** with internal cooling supply

**Radial Bohr- und Fräskopf zurückgesetzt**  
 Radial drilling and milling head set back



Abb. zeigt Ausführung R / Picture shows Type R



Sauter-Revolver DIN 5480 .... CTX



Sauter-Revolver DIN 5482 .... 5482



Diplomatic DIN 1809 .... 1809



Barrufaldi TOEM .... TOEM



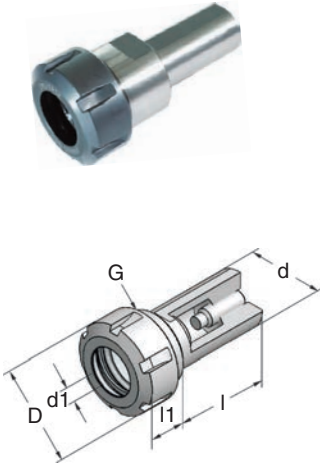
Bitte geben Sie bei Ihrer Anfrage den **Maschinentyp** an  
 In case of inquiry please indicate details of **type** of machine as shown

| Art.-Nr.       | Typ        | d  | d1   | l   | l1  | b  | b1  |
|----------------|------------|----|------|-----|-----|----|-----|
| 8.16125480ZR   | VDI16xER11 | 16 | 1- 7 | 61  | 45  | 15 | 53  |
| 8.20165480 R   | VDI20xER16 | 20 | 1-10 | 77  | 54  | 22 | 81  |
| 8.20165480 L   | VDI20xER16 | 20 | 1-10 | 77  | 54  | 22 | 81  |
| 8.20161809 R   | VDI20xER16 | 20 | 1-10 | 77  | 54  | 22 | 81  |
| 8.20161809 L   | VDI20xER16 | 20 | 1-10 | 77  | 54  | 22 | 81  |
| 8.2016TOEM R   | VDI20xER16 | 20 | 1-10 | 78  | 58  | 22 | 80  |
| 8.2016TOEM L   | VDI20xER16 | 20 | 1-10 | 78  | 58  | 22 | 80  |
| 8.2525L5480 R  | VDI25xER25 | 25 | 1-16 | 104 | 75  | 42 | 70  |
| 8.2525L5480 L  | VDI25xER25 | 25 | 1-16 | 104 | 75  | 42 | 70  |
| 8.3025CTX R    | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.3025CTX L    | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.3025LCTX RL  | VDI30xER25 | 30 | 1-16 | 126 | 100 | 42 | 69  |
| 8.3025LCTX RLk | VDI30xER25 | 30 | 1-16 | 126 | 100 | 42 | 69  |
| 8.30255482 R   | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.30255482 L   | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.30251809 R   | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.30251809 L   | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.3025TOEM R   | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.3025TOEM L   | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.3025TOEM Rk  | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.3025TOEM Lk  | VDI30xER25 | 30 | 1-16 | 115 | 70  | 21 | 83  |
| 8.4032CTX R    | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032CTX L    | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032CTX Rk   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032CTX Lk   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032CTX RL   | VDI40xER32 | 40 | 2-20 | 138 | 100 | 31 | 100 |
| 8.4032CTX RLk  | VDI40xER32 | 40 | 2-20 | 138 | 100 | 31 | 100 |
| 8.4032LCTX RL  | VDI40xER32 | 40 | 2-20 | 158 | 120 | 31 | 100 |
| 8.40325482 R   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.40325482 L   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.40321809 R   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.40321809 L   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.40321809 Rk  | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.40321809 Lk  | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032TOEM R   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032TOEM L   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.4032TMM250   | VDI40xER32 | 40 | 2-20 | 128 | 90  | 32 | 100 |
| 8.50405480 R   | VDI50xER40 | 50 | 3-30 | 156 | 112 | 30 | 126 |
| 8.50405480 L   | VDI50xER40 | 50 | 3-30 | 156 | 112 | 30 | 126 |
| 8.50405480 Rk  | VDI50xER40 | 50 | 3-30 | 156 | 112 | 30 | 126 |
| 8.50405480 Lk  | VDI50xER40 | 50 | 3-30 | 156 | 112 | 30 | 126 |

**Ausführung R** wie abgebildet / **Type R** right hand design as shown  
**Ausführung L** spiegelbildlich / **Type L** left hand design reversed  
**Ausführung RL** mit doppelverzahntem VDI-Schaft  
**Type RL** with doubletoothed VDI-shaft

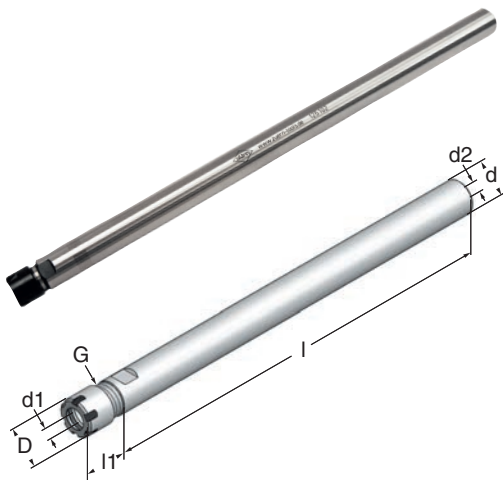
**Ausführung k** mit innerer Kühlmittelzufuhr  
**Type k** with internal cooling supply

**Spannzangenfutter zylindrisch  
für Spannzangen ER/DIN 6499**  
Collet chucks cylindrical for collets ER/DIN 6499



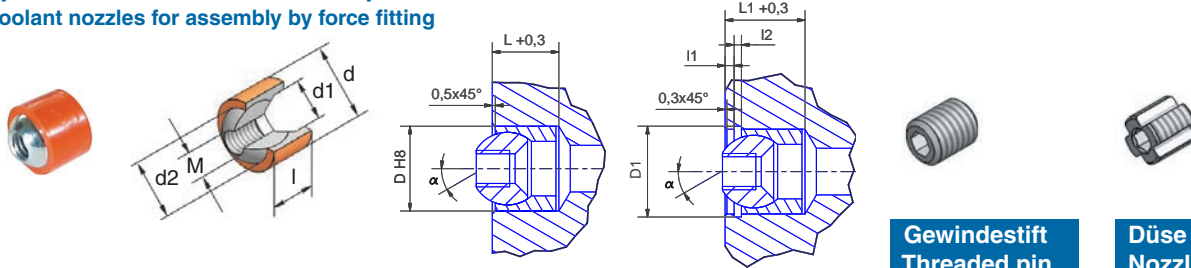
| Art.-Nr. | Typ            | d     | d1    | D  | I   | I1 | G        |
|----------|----------------|-------|-------|----|-----|----|----------|
| 132102   | ø08x80xER 8M   | 8     | 0,5-5 | 12 | 80  | 26 | M10x0,75 |
| 100102   | ø08x56xER11M   | 8     | 1- 7  | 16 | 56  | 26 | M13x0,75 |
| 101102   | ø12x80xER16M   | 12    | 1-10  | 22 | 80  | 38 | M19x1,00 |
| 102102   | ø16x137xER16M  | 16    | 1-10  | 22 | 137 | 36 | M19x1,00 |
| 103102   | ø19,05x50xER25 | 19,05 | 2-16  | 42 | 50  | 46 | M32x1,50 |
| 104102   | ø20x50xER25    | 20    | 2-16  | 42 | 50  | 46 | M32x1,50 |
| 105102   | ø20x100xER25   | 20    | 2-16  | 42 | 100 | 46 | M32x1,50 |
| 106102   | ø25x50xER25    | 25    | 2-16  | 42 | 50  | 40 | M32x1,50 |
| 107102   | ø25x150xER25   | 25    | 2-16  | 42 | 150 | 40 | M32x1,50 |
| 128102   | ø25x50xER32    | 25    | 3-20  | 50 | 50  | 54 | M40x1,50 |
| 108102   | ø25,4x50xER25  | 25,40 | 2-16  | 42 | 50  | 40 | M32x1,50 |
| 109102   | ø25,4x50xER32  | 25,40 | 3-20  | 50 | 50  | 51 | M40x1,50 |
| 110102   | ø31,75x50xER25 | 31,75 | 2-16  | 42 | 50  | 30 | M32x1,50 |
| 111102   | ø31,75x50xER32 | 31,75 | 3-20  | 50 | 50  | 35 | M40x1,50 |
| 112102   | ø32x56xER25    | 32    | 2-16  | 42 | 56  | 30 | M32x1,50 |
| 113102   | ø32x56xER32    | 32    | 3-20  | 50 | 58  | 35 | M40x1,50 |
| 114102   | ø32x150xER25   | 32    | 2-16  | 50 | 150 | 30 | M32x1,50 |
| 115102   | ø32x150xER32   | 32    | 3-20  | 50 | 150 | 35 | M40x1,50 |
| 116102   | ø32x56xER40    | 32    | 3-30  | 63 | 56  | 60 | M50x1,50 |
| 117102   | ø40x64xER32    | 40    | 3-20  | 50 | 64  | 34 | M40x1,50 |
| 118102   | ø40x66xER40    | 40    | 3-30  | 63 | 66  | 55 | M50x1,50 |

**Spannzangenfutter zylindrisch  
für Spannzangen ER/DIN 6499**  
**Verlängerungen**  
Collet chucks cylindrical for collets ER/DIN 6499  
**Extensions**



| Art.-Nr. | Typ           | d  | d1    | d2 | D  | I   | I1 | G        |
|----------|---------------|----|-------|----|----|-----|----|----------|
| 126102   | ø14x202xER8M  | 14 | 0,5-5 | -  | 12 | 202 | 18 | M10x0,75 |
| 125102   | ø16x282xER11M | 16 | 1- 7  | 5  | 16 | 282 | 19 | M13x0,75 |
| 131102   | ø20x254xER16M | 20 | 1-10  | 5  | 22 | 254 | 26 | M19x1,00 |
| 124102   | ø50x180xER40  | 50 | 3-30  | 27 | 63 | 180 | 35 | M50x1,50 |

**Spritzdüsen-Elemente zum Einpressen**  
Coolant nozzles for assembly by force fitting

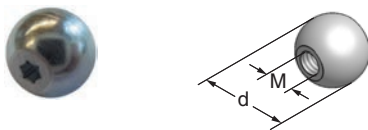


**Gewindestift**  
Threaded pin

**Düse**  
Nozzle

| Art.-Nr. | d  | d1   | d2 | M               | l    | l1  | l2  | D  | D1   | L    | L1   | $\alpha$ | Art.-Nr.    | Art.-Nr.  |
|----------|----|------|----|-----------------|------|-----|-----|----|------|------|------|----------|-------------|-----------|
| 1005     | 6  | 4,0  | 4  | $\emptyset 2,5$ | 4,5  | -   | -   | 6  | -    | 5,0  | -    | 30°      |             |           |
| 1007-5   | 8  | 5,5  | 6  | $\emptyset 2$   | 6,0  | 1,5 | 0,8 | 8  | 8,8  | 6,5  | 8,5  | 30°      |             |           |
| 1007     | 8  | 5,5  | 6  | 3,5             | 6,0  | 1,5 | 0,8 | 8  | 8,8  | 6,5  | 8,5  | 30°      | 1021 M3,5x4 |           |
| 1008     | 10 | 5,5  | 7  | 4               | 7,0  | 1,5 | 0,8 | 10 | 10,8 | 8,0  | 9,5  | 30°      | 1024 M4 x4  |           |
| 1008-T10 | 10 | 5,5  | 7  | TORX 10         | 7,0  | 1,5 | 0,8 | 10 | 10,8 | 8,0  | 9,5  | 40°      |             |           |
| 1010     | 12 | 7,5  | 9  | 5               | 8,0  | 1,5 | 1,0 | 12 | 13,0 | 9,0  | 10,5 | 30°      | 1025 M5 x5  | 1035 M5x5 |
| 1010-4   | 12 | 7,5  | 9  | 6               | 8,0  | 1,5 | 1,0 | 12 | 13,0 | 9,0  | 10,5 | 30°      | 1026 M6 x6  | 1036 M6x6 |
| 1010-T10 | 12 | 7,5  | 9  | TORX 10         | 8,0  | 1,5 | 1,0 | 12 | 13,0 | 9,0  | 10,5 | 40°      |             |           |
| 1012     | 14 | 9,0  | 11 | 6               | 10,0 | 1,5 | 1,0 | 14 | 15,0 | 11,0 | 12,5 | 40°      | 1026 M6 x6  | 1036 M6x6 |
| 1012-4   | 14 | 9,0  | 11 | 6x0,75          | 10,0 | 1,5 | 1,0 | 14 | 15,0 | 11,0 | 12,5 | 40°      |             |           |
| 1012-5   | 14 | 9,0  | 11 | 7               | 10,0 | 1,5 | 1,0 | 14 | 15,0 | 11,0 | 12,5 | 30°      | 1027 M7 x7  | 1037 M7x7 |
| 1014     | 16 | 10,0 | 13 | 7               | 11,0 | 2,0 | 1,6 | 16 | 17,6 | 12,0 | 14,6 | 40°      | 1027 M7 x7  | 1037 M7x7 |
| 1014-3   | 15 | 10,0 | 13 | 7               | 11,0 | 2,0 | 1,6 | 15 | 16,6 | 12,0 | 14,6 | 40°      | 1027 M7 x7  | 1037 M7x7 |

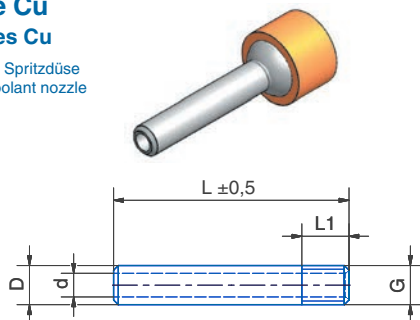
**Spritzkugeln**  
Injection balls



| Art.-Nr. | d  | M               |
|----------|----|-----------------|
| 05.920   | 5  | $\emptyset 2,5$ |
| 07.920   | 7  | M3,5            |
| 08.920   | 8  | M4              |
| 10.920   | 10 | M5              |
| 10.920-4 | 10 | M6              |
| 12.920   | 12 | M6              |
| 12.920-5 | 12 | M7              |
| 14.920   | 14 | M7              |
| 10.921   | 10 | TORX 10         |

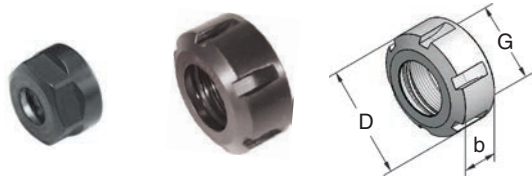
**Spritzrohre Cu**  
Injection tubes Cu

Lieferumfang ohne Spritzdüse  
Delivery without coolant nozzle



| Art.-Nr. | (für Typ Nr.) | G  | D | d   | L  | L1 |
|----------|---------------|----|---|-----|----|----|
| 10086    | (1008)        | M4 | 4 | 2,5 | 50 | 5  |
| 10106    | (1010)        | M5 | 5 | 3,0 | 50 | 6  |
| 10126    | (1012/1010-4) | M6 | 6 | 4,0 | 50 | 6  |
| 10146    | (1014/1012-5) | M7 | 7 | 4,5 | 50 | 6  |

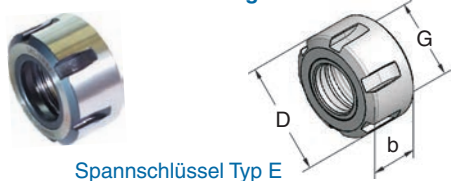
## Spannmuttern DIN 6499 Clamping nuts DIN 6499



Art.-Nr. 711120 - SW17  
Art.-Nr. 716120 - SW25  
Spannschlüssel Typ EP

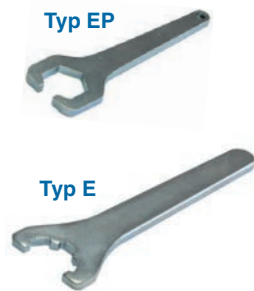
Art.-Nr. 720120 - 750120  
Spannschlüssel Typ E

## Spannmuttern DIN 6499 gleitgelagert Clamping nuts DIN 6499 friction bearing



Spannschlüssel Typ E

## Spannschlüssel Key



Typ EP

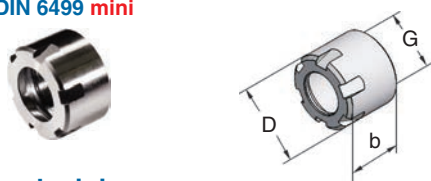
Typ E

| Art.-Nr. | Typ        | D  | b  | G        | Nm max. |
|----------|------------|----|----|----------|---------|
| 711120   | UMQ / ER11 | 19 | 11 | M14x0,75 | 30      |
| 716120   | UMQ / ER16 | 28 | 17 | M22x1,50 | 70      |
| 720120   | UMQ / ER20 | 34 | 19 | M25x1,50 | 100     |
| 725120   | UMQ / ER25 | 42 | 20 | M32x1,50 | 130     |
| 732120   | UMQ / ER32 | 50 | 22 | M40x1,50 | 170     |
| 740120   | UMQ / ER40 | 63 | 25 | M50x1,50 | 220     |
| 750120   | UMQ / ER50 | 78 | 35 | M64x2,00 | 300     |

| Art.-Nr. | Typ        | D  | b  | G        | Nm max. |
|----------|------------|----|----|----------|---------|
| 716123   | GMG / ER16 | 28 | 18 | M22x1,50 | 70      |
| 720123   | GMG / ER20 | 35 | 20 | M25x1,50 | 100     |
| 725123   | GMG / ER25 | 42 | 20 | M32x1,50 | 130     |
| 732123   | GMG / ER32 | 50 | 23 | M40x1,50 | 170     |
| 740123   | GMG / ER40 | 63 | 26 | M50x1,50 | 220     |

| Art.-Nr. | Typ    | für Spannmutter                | SW |
|----------|--------|--------------------------------|----|
| 911180   | E 11 P | 711120                         | 17 |
| 916180   | E 16 P | 716120                         | 25 |
| 920180   | E 20 P |                                | 30 |
| 916181   | E 16   | 716123, 716124, 716130         |    |
| 920181   | E 20   | 720120, 720123, 720124, 720130 |    |
| 925180   | E 25   | 725120, 725123, 725124, 725130 |    |
| 932180   | E 32   | 732120, 732123, 732124, 732130 |    |
| 940180   | E 40   | 740120, 740123, 740124, 740130 |    |
| 950180   | E 50   | 750120                         |    |

## Spannmuttern DIN 6499 mini Clamping nuts DIN 6499 mini



## Spannschlüssel mini Key mini



| Art.-Nr. | Typ   | D  | b  | G        | Nm max. |
|----------|-------|----|----|----------|---------|
| 908100   | ER 8M | 12 | 11 | M10x0,75 | 6       |
| 911100   | ER11M | 16 | 11 | M13x0,75 | 20      |
| 916100   | ER16M | 22 | 17 | M19x1,00 | 30      |
| 920100   | ER20M | 28 | 19 | M24x1,00 | 35      |
| 925100   | ER25M | 35 | 20 | M30x1,00 | 40      |

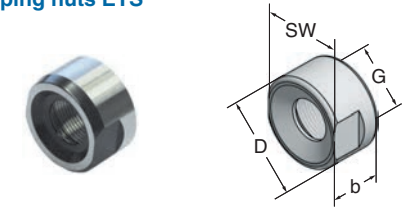
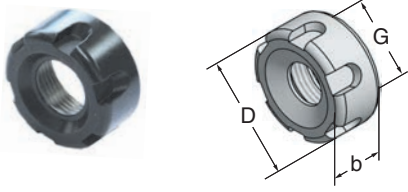


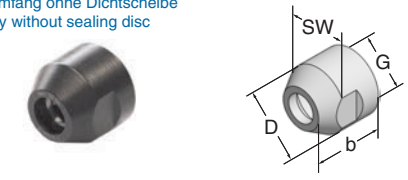

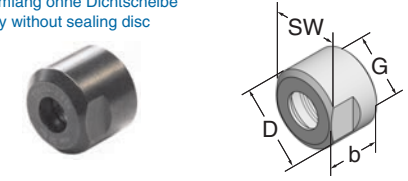

| Art.-Nr. | Typ       | für Spannmutter |
|----------|-----------|-----------------|
| 908160   | E 8 mini  | 908100          |
| 911160   | E 11 mini | 911100          |
| 916160   | E 16 mini | 916100          |
| 920160   | E 20 mini | 920100          |
| 925160   | E 25 mini | 925100          |

## Spannmuttern DIN 6499 mini Clamping nuts DIN 6499 mini



| Art.-Nr. | Typ                 | D  | b    | G        | SW | Nm max. |
|----------|---------------------|----|------|----------|----|---------|
| 716120-2 | ER16                | 25 | 17,5 | M20x1,00 | 22 | 30      |
| 916162   | Spannschlüssel ER16 |    |      |          | 22 |         |

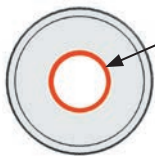


|   |  |
|---|--|
| <b>Spannmuttern ETS</b><br><b>Clamping nuts ETS</b>    | <b>Art.-Nr.</b> <b>Typ</b> <b>D</b> <b>b</b> <b>G</b> <b>SW</b> <b>Nm max.</b>   |
|   | 712130   ETS12   19   12   M14x0,75   17   10<br>716120-2ETS   ETS16   27   15   M20x1,00   24   30  |
|    | <b>Art.-Nr.</b> <b>Typ</b> <b>D</b> <b>b</b> <b>G</b> <b>Spannschlüssel</b> <b>Nm max.</b>   |
|   | 912163   Spanschlüssel ETS12   17<br>916163   Spanschlüssel ETS16   24   |
|   |  |
| Spanschlüssel Typ E siehe Seite 53<br>Key Type E see page 53  |  |
| <b>Spannmuttern DIN 6499 gleitgelagert für Dichtscheiben</b><br><b>Clamping nuts DIN 6499 friction bearing for sealing discs</b><br><small>Lieferumfang ohne Dichtscheibe<br/>Delivery without sealing disc</small>  | <b>Art.-Nr.</b> <b>Typ</b> <b>D</b> <b>b</b> <b>G</b> <b>Nm max.</b> <b>Dichtscheibe</b>   |
|   | 716124   GMGC / ER16   28   23   M22x1,5   70 <b>excl. DS / ER16</b><br>720124   GMGC / ER20   34   25   M25x1,5   100 <b>excl. DS / ER20</b><br>725124   GMGC / ER25   42   26   M32x1,5   130 <b>excl. DS / ER25</b><br>732124   GMGC / ER32   50   28   M40x1,5   170 <b>excl. DS / ER32</b><br>740124   GMGC / ER40   63   31   M50x1,5   220 <b>excl. DS / ER40</b> |
| Spanschlüssel Typ E siehe Seite 53<br>Key Type E see page 53  |  |
| <b>Spannmuttern DIN 6499 mini für Dichtscheiben</b><br><b>Clamping nuts DIN 6499 for sealing discs</b><br><small>Lieferumfang ohne Dichtscheibe<br/>Delivery without sealing disc</small>                            | <b>Art.-Nr.</b> <b>Typ</b> <b>D</b> <b>b</b> <b>G</b> <b>SW</b> <b>Nm max.</b>   |
|   | 716124-2   ER16C mini   25   22   M20x1,0   22   30<br><b>excl. Dichtscheibe/Sealing disc DS / ER16</b>  |
| 916162   Spanschlüssel ER16   22  |  |
|   |  |
| <b>Spannmuttern ETS mini für Dichtscheiben</b><br><b>Clamping nuts ETS mini for sealing discs</b><br><small>Lieferumfang ohne Dichtscheibe<br/>Delivery without sealing disc</small>                                 | <b>Art.-Nr.</b> <b>Typ</b> <b>D</b> <b>b</b> <b>G</b> <b>SW</b> <b>Nm max.</b>   |
|   | 716124-2ETS   ETS16C   27   22,5   M20x1,00   24   30<br><b>excl. Dichtscheibe/Sealing disc DS / ER16</b>  |
| 916163   Spanschlüssel ETS16   24   |  |
|   |  |

**Dichtscheiben für Spannmuttern DIN 6499, DIN 6388 & ETS  
für Werkzeuge mit interner Kühlmittelzufuhr**

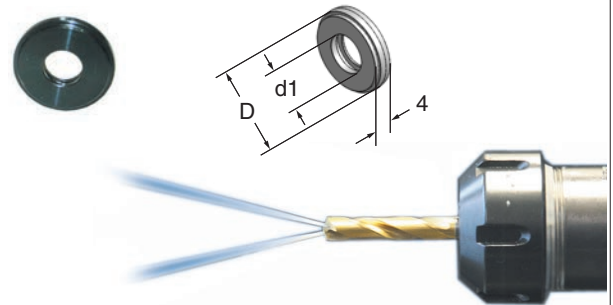
Sealing discs for clamping nuts DIN 6499, DIN 6388 & ETS  
for tools with internal coolant supply

Kühlmitteldruck / Coolant pressure min. 5 bar - max. 100 bar



Der eingelegte O-Ring gewährleistet interne Kühlmittelzufuhr durch das gespannte Werkzeug direkt zur Werkzeugschneide

The inserted O-ring seal ensures a coolant supply internally through the clamped tool directly to the cutting edge



**Dichtscheiben für Spannmuttern  
Ortlieb DIN 6388  
für Werkzeuge mit interner  
Kühlmittelzufuhr**

Sealing discs for clamping nuts  
Ortlieb DIN 6388  
for tools with internal coolant supply

Art.-Nr. Typ D d1

| Art.-Nr. | Typ     | D  | d1      | Art.-Nr. | Typ     | D    | d1      | Art.-Nr. | Typ     | D  | d1       |
|----------|---------|----|---------|----------|---------|------|---------|----------|---------|----|----------|
| 316040   | DS/ER16 | 13 | ø4 - 3  | 332040   | DS/ER32 | 27   | ø4 - 3  | 350050   | DS/OZ25 | 31 | ø5 - 4   |
| 316050   | DS/ER16 | 13 | ø5 - 4  | 332050   | DS/ER32 | 27   | ø5 - 4  | 350060   | DS/OZ25 | 31 | ø6 - 5   |
| 316060   | DS/ER16 | 13 | ø6 - 5  | 332060   | DS/ER32 | 27   | ø6 - 5  | 350070   | DS/OZ25 | 31 | ø7 - 6   |
| 316070   | DS/ER16 | 13 | ø7 - 6  | 332070   | DS/ER32 | 27   | ø7 - 6  | 350080   | DS/OZ25 | 31 | ø8 - 7   |
| 316080   | DS/ER16 | 13 | ø8 - 7  | 332080   | DS/ER32 | 27   | ø8 - 7  | 350090   | DS/OZ25 | 31 | ø9 - 8   |
| 316090   | DS/ER16 | 13 | ø9 - 8  | 332090   | DS/ER32 | 27   | ø9 - 8  | 350100   | DS/OZ25 | 31 | ø10 - 9  |
| 316100   | DS/ER16 | 13 | ø10 - 9 | 332100   | DS/ER32 | 27   | ø10 - 9 | 350110   | DS/OZ25 | 31 | ø11 - 10 |
|          |         |    |         | 332110   | DS/ER32 | 27   | ø11-10  | 350120   | DS/OZ25 | 31 | ø12-11   |
| 320040   | DS/ER20 | 16 | ø4 - 3  | 332120   | DS/ER32 | 27   | ø12-11  | 350130   | DS/OZ25 | 31 | ø13-12   |
| 320050   | DS/ER20 | 16 | ø5 - 4  | 332130   | DS/ER32 | 27   | ø13-12  | 350140   | DS/OZ25 | 31 | ø14-13   |
| 320060   | DS/ER20 | 16 | ø6 - 5  | 332140   | DS/ER32 | 27   | ø14-13  | 350150   | DS/OZ25 | 31 | ø15-14   |
| 320070   | DS/ER20 | 16 | ø7 - 6  | 332150   | DS/ER32 | 27   | ø15-14  | 350160   | DS/OZ25 | 31 | ø16-15   |
| 320080   | DS/ER20 | 16 | ø8 - 7  | 332160   | DS/ER32 | 27   | ø16-15  | 350170   | DS/OZ25 | 31 | ø17-16   |
| 320090   | DS/ER20 | 16 | ø9 - 8  | 332170   | DS/ER32 | 27   | ø17-16  | 350180   | DS/OZ25 | 31 | ø18-17   |
| 320100   | DS/ER20 | 16 | ø10 - 9 | 332180   | DS/ER32 | 27   | ø18-17  | 350190   | DS/OZ25 | 31 | ø19-18   |
| 320110   | DS/ER20 | 16 | ø11-10  | 332190   | DS/ER32 | 27   | ø19-18  | 350200   | DS/OZ25 | 31 | ø20-19   |
| 320120   | DS/ER20 | 16 | ø12-11  | 332200   | DS/ER32 | 27   | ø20-19  | 350210   | DS/OZ25 | 31 | ø21-20   |
| 320130   | DS/ER20 | 16 | ø13-12  |          |         |      |         | 350220   | DS/OZ25 | 31 | ø22-21   |
|          |         |    |         | 340050   | DS/ER40 | 33,5 | ø5 - 4  | 350230   | DS/OZ25 | 31 | ø23-22   |
| 325040   | DS/ER25 | 21 | ø4 - 3  | 340060   | DS/ER40 | 33,5 | ø6 - 5  | 350240   | DS/OZ25 | 31 | ø24-23   |
| 325050   | DS/ER25 | 21 | ø5 - 4  | 340070   | DS/ER40 | 33,5 | ø7 - 6  | 350250   | DS/OZ25 | 31 | ø25-24   |
| 325060   | DS/ER25 | 21 | ø6 - 5  | 340080   | DS/ER40 | 33,5 | ø8 - 7  |          |         |    |          |
| 325070   | DS/ER25 | 21 | ø7 - 6  | 340090   | DS/ER40 | 33,5 | ø9 - 8  |          |         |    |          |
| 325080   | DS/ER25 | 21 | ø8 - 7  | 340100   | DS/ER40 | 33,5 | ø10 - 9 |          |         |    |          |
| 325090   | DS/ER25 | 21 | ø9 - 8  | 340110   | DS/ER40 | 33,5 | ø11-10  |          |         |    |          |
| 325100   | DS/ER25 | 21 | ø10 - 9 | 340120   | DS/ER40 | 33,5 | ø12-11  |          |         |    |          |
| 325110   | DS/ER25 | 21 | ø11-10  | 340130   | DS/ER40 | 33,5 | ø13-12  |          |         |    |          |
| 325120   | DS/ER25 | 21 | ø12-11  | 340140   | DS/ER40 | 33,5 | ø14-13  |          |         |    |          |
| 325130   | DS/ER25 | 21 | ø13-12  | 340150   | DS/ER40 | 33,5 | ø15-14  |          |         |    |          |
| 325140   | DS/ER25 | 21 | ø14-13  | 340160   | DS/ER40 | 33,5 | ø16-15  |          |         |    |          |
| 325150   | DS/ER25 | 21 | ø15-14  | 340170   | DS/ER40 | 33,5 | ø17-16  |          |         |    |          |
| 325160   | DS/ER25 | 21 | ø16-15  | 340180   | DS/ER40 | 33,5 | ø18-17  |          |         |    |          |
|          |         |    |         | 340190   | DS/ER40 | 33,5 | ø19-18  |          |         |    |          |
|          |         |    |         | 340200   | DS/ER40 | 33,5 | ø20-19  |          |         |    |          |
|          |         |    |         | 340210   | DS/ER40 | 33,5 | ø21-20  |          |         |    |          |
|          |         |    |         | 340220   | DS/ER40 | 33,5 | ø22-21  |          |         |    |          |
|          |         |    |         | 340230   | DS/ER40 | 33,5 | ø23-22  |          |         |    |          |
|          |         |    |         | 340240   | DS/ER40 | 33,5 | ø24-23  |          |         |    |          |
|          |         |    |         | 340250   | DS/ER40 | 33,5 | ø25-24  |          |         |    |          |
|          |         |    |         | 340260   | DS/ER40 | 33,5 | ø26-25  |          |         |    |          |

**Spannzangen ER/ESX DIN 6499-B rego-fix**

Collets type ER/ESX DIN 6499-B rego-fix

Sätze / Sets 111002, 116002, 120002, 125002, 132002, 140002  
nicht Original rego-fix / not original rego-fix



| ER 8                 |              | ER 11/424 E          |              | ER 16/426 E          |              | ER 20/428 E           |              |
|----------------------|--------------|----------------------|--------------|----------------------|--------------|-----------------------|--------------|
| Art.-Nr.             | Spannbereich | Art.-Nr.             | Spannbereich | Art.-Nr.             | Spannbereich | Art.-Nr.              | Spannbereich |
| 108001               | Satz / Set   | 111001               | Satz / Set   | 116001               | Satz / Set   | 120001                | Satz / Set   |
|                      |              | 111002               | Satz / Set   | 116002               | Satz / Set   | 120002                | Satz / Set   |
| 9 Stück/pcs. ø1-ø5   |              | 13 Stück/pcs. ø1-ø7  |              | 10 Stück/pcs. ø1-ø10 |              | 12 Stück/pcs. ø2-ø13  |              |
| 108010               | ø1,0 - 0,5   | 111010               | ø1,0 - 0,5   | 116010               | ø1,0 - 0,5   | 120010                | ø1,0 - 0,5   |
| 108015               | ø1,5 - 1,0   | 111015               | ø1,5 - 1,0   | 116020               | ø2,0 - 1,0   | 120020                | ø2,0 - 1,0   |
| 108020               | ø2,0 - 1,5   | 111020               | ø2,0 - 1,5   | 116030               | ø3,0 - 2,0   | 120030                | ø3,0 - 2,0   |
| 108025               | ø2,5 - 2,0   | 111025               | ø2,5 - 2,0   | 116040               | ø4,0 - 3,0   | 120040                | ø4,0 - 3,0   |
| 108030               | ø3,0 - 2,5   | 111030               | ø3,0 - 2,5   | 116050               | ø5,0 - 4,0   | 120050                | ø5,0 - 4,0   |
| 108035               | ø3,5 - 3,0   | 111035               | ø3,5 - 3,0   | 116060               | ø6,0 - 5,0   | 120060                | ø6,0 - 5,0   |
| 108040               | ø4,0 - 3,5   | 111040               | ø4,0 - 3,5   | 116070               | ø7,0 - 6,0   | 120070                | ø7,0 - 6,0   |
| 108045               | ø4,5 - 4,0   | 111045               | ø4,5 - 4,0   | 116080               | ø8,0 - 7,0   | 120080                | ø8,0 - 7,0   |
| 108050               | ø5,0 - 4,5   | 111050               | ø5,0 - 4,5   | 116090               | ø9,0 - 8,0   | 120090                | ø9,0 - 8,0   |
|                      |              | 111055               | ø5,5 - 5,0   | 116100               | ø10,0 - 9,0  | 120100                | ø10,0 - 9,0  |
|                      |              | 111060               | ø6,0 - 5,5   | ER 40/472 E          |              | 120110                | ø11,0 - 10,0 |
|                      |              | 111065               | ø6,5 - 6,0   | 140001               | Satz / Set   | 120120                | ø12,0 - 11,0 |
|                      |              | 111070               | ø7,0 - 6,5   | 140002               | Satz / Set   | 120130                | ø13,0 - 12,0 |
| ER 25/430 E          |              | ER 32/470 E          |              | 23 Stück/pcs. ø3-ø26 |              | ER 50/474 E           |              |
| 125001               | Satz / Set   | 132001               | Satz / Set   | 140030               | ø3,0 - 2,0   | 150001                | Satz / Set   |
| 125002               | Satz / Set   | 132002               | Satz / Set   | 140040               | ø4,0 - 3,0   | 12 Stück/pcs. ø10-ø34 |              |
| 15 Stück/pcs. ø2-ø16 |              | 18 Stück/pcs. ø2-ø20 |              | 140050               | ø6,0 - 5,0   | 150060                | ø6,0 - 5,0   |
| 125010               | ø1,0 - 0,5   |                      |              | 140060               | ø6,0 - 5,0   | 150080                | ø8,0 - 6,0   |
| 125020               | ø2,0 - 1,0   | 132020               | ø2,0 - 1,0   | 140070               | ø7,0 - 6,0   | 150100S               | ø10,0 - 8,0  |
| 125030               | ø3,0 - 2,0   | 132030               | ø3,0 - 2,0   | 140080               | ø8,0 - 7,0   | 150120                | ø12,0 - 10,0 |
| 125040               | ø4,0 - 3,0   | 132040               | ø4,0 - 3,0   | 140090               | ø9,0 - 8,0   | 150140                | ø14,0 - 12,0 |
| 125050               | ø5,0 - 4,0   | 132050               | ø5,0 - 4,0   | 140100               | ø10,0 - 9,0  | 150160                | ø16,0 - 14,0 |
| 125060               | ø6,0 - 5,0   | 132060               | ø6,0 - 5,0   | 140110               | ø11,0 - 10,0 | 150180                | ø18,0 - 16,0 |
| 125070               | ø7,0 - 6,0   | 132070               | ø7,0 - 6,0   | 140120               | ø12,0 - 11,0 | 150200                | ø20,0 - 18,0 |
| 125080               | ø8,0 - 7,0   | 132080               | ø8,0 - 7,0   | 140130               | ø13,0 - 12,0 | 150220                | ø22,0 - 20,0 |
| 125090               | ø9,0 - 8,0   | 132090               | ø9,0 - 8,0   | 140140               | ø14,0 - 13,0 | 150240                | ø24,0 - 22,0 |
| 125100               | ø10,0 - 9,0  | 132100               | ø10,0 - 9,0  | 140150               | ø15,0 - 14,0 | 150250                | ø25,0 - 23,0 |
| 125110               | ø11,0 - 10,0 | 132110               | ø11,0 - 10,0 | 140160               | ø16,0 - 15,0 | 150260                | ø26,0 - 24,0 |
| 125120               | ø12,0 - 11,0 | 132120               | ø12,0 - 11,0 | 140170               | ø17,0 - 16,0 | 150280                | ø28,0 - 26,0 |
| 125130               | ø13,0 - 12,0 | 132130               | ø13,0 - 12,0 | 140180               | ø18,0 - 17,0 | 150300                | ø30,0 - 28,0 |
| 125140               | ø14,0 - 13,0 | 132140               | ø14,0 - 13,0 | 140190               | ø19,0 - 18,0 | 150320                | ø32,0 - 30,0 |
| 125150               | ø15,0 - 14,0 | 132150               | ø15,0 - 14,0 | 140200               | ø20,0 - 19,0 | 150340                | ø34,0 - 32,0 |
| 125160               | ø16,0 - 15,0 | 132160               | ø16,0 - 15,0 | 140210               | ø21,0 - 20,0 |                       |              |
|                      |              | 132170               | ø17,0 - 16,0 | 140220               | ø22,0 - 21,0 |                       |              |
|                      |              | 132180               | ø18,0 - 17,0 | 140230               | ø23,0 - 22,0 |                       |              |
|                      |              | 132190               | ø19,0 - 18,0 | 140240               | ø24,0 - 23,0 |                       |              |
|                      |              | 132200               | ø20,0 - 19,0 | 140250               | ø25,0 - 24,0 |                       |              |
|                      |              |                      |              | 140260               | ø26,0 - 25,0 |                       |              |
|                      |              |                      |              | 140270               | ø27,0 - 26,0 |                       |              |
|                      |              |                      |              | 140280               | ø28,0 - 27,0 |                       |              |
|                      |              |                      |              | 140290               | ø29,0 - 28,0 |                       |              |
|                      |              |                      |              | 140300               | ø30,0 - 29,0 |                       |              |



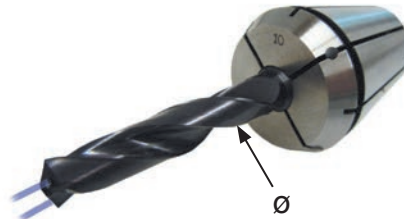
**Spannzangen DIN 6499 abgedichtet**  
**für Werkzeuge mit Innenkühlung**

**Nur Nennmaßspannung**

**Collets DIN 6499 sealed**  
**for tools with inner cooling systems**

**Only for nominal diameter**

Lieferumfang ohne Werkzeug  
Delivery without tool



| ER 16 C              |              | ER 20 C                      |              | ER 25 C              |              | ER 32 C              |              |
|----------------------|--------------|------------------------------|--------------|----------------------|--------------|----------------------|--------------|
| Art.-Nr.             | Spannbereich | Art.-Nr.                     | Spannbereich | Art.-Nr.             | Spannbereich | Art.-Nr.             | Spannbereich |
| 116001C              | Satz / Set   | 120001C                      | Satz / Set   | 125001C              | Satz / Set   | 132001C              | Satz / Set   |
| 8 Stück/pcs. ø3-ø10  |              | 10 Stück/pcs. ø4-ø13         |              | 13 Stück/pcs. ø4-ø16 |              | 17 Stück/pcs. ø4-ø20 |              |
| 116030C              | ø3,0         | 120030C                      | ø3,0         | 125030C              | ø3,0         | 132030C              | ø3,0         |
| 116040C              | ø4,0         | 120040C                      | ø4,0         | 125040C              | ø4,0         | 132040C              | ø4,0         |
| 116050C              | ø5,0         | 120050C                      | ø5,0         | 125050C              | ø5,0         | 132050C              | ø5,0         |
| 116060C              | ø6,0         | 120060C                      | ø6,0         | 125060C              | ø6,0         | 132060C              | ø6,0         |
| 116070C              | ø7,0         | 120070C                      | ø7,0         | 125070C              | ø7,0         | 132070C              | ø7,0         |
| 116080C              | ø8,0         | 120080C                      | ø8,0         | 125080C              | ø8,0         | 132080C              | ø8,0         |
| 116090C              | ø9,0         | 120090C                      | ø9,0         | 125090C              | ø9,0         | 132090C              | ø9,0         |
| 116100C              | ø10,0        | 120100C                      | ø10,0        | 125100C              | ø10,0        | 132100C              | ø10,0        |
|                      |              | 120110C                      | ø11,0        | 125110C              | ø11,0        | 132110C              | ø11,0        |
|                      |              | 120120C                      | ø12,0        | 125120C              | ø12,0        | 132120C              | ø12,0        |
|                      |              | 120130C                      | ø13,0        | 125130C              | ø13,0        | 132130C              | ø13,0        |
| ER 40 C              |              | ER 50 C                      |              | 125140C              | ø14,0        | 132140C              | ø14,0        |
| 140001C              | Satz / Set   | 150001C                      | Satz / Set   | 125150C              | ø15,0        | 132150C              | ø15,0        |
| 23 Stück/pcs. ø4-ø26 |              | 7 Stück/pcs. ø8-ø32*         |              | 125160C              | ø16,0        | 132160C              | ø16,0        |
| 140040C              | ø4,0         | 150120C                      | ø12,0        |                      |              | 132170C              | ø17,0        |
| 140050C              | ø5,0         | 150130C                      | ø13,0        |                      |              | 132180C              | ø18,0        |
| 140060C              | ø6,0         | 150140C                      | ø14,0        |                      |              | 132190C              | ø19,0        |
| 140070C              | ø7,0         | 150150C                      | ø15,0        |                      |              | 132200C              | ø20,0        |
| 140080C              | ø8,0         | 150160C                      | ø16,0        |                      |              |                      |              |
| 140090C              | ø9,0         | 150170C                      | ø17,0        |                      |              |                      |              |
| 140100C              | ø10,0        | 150180C                      | ø18,0        |                      |              |                      |              |
| 140110C              | ø11,0        | 150190C                      | ø19,0        |                      |              |                      |              |
| 140120C              | ø12,0        | 150200C                      | ø20,0        |                      |              |                      |              |
| 140130C              | ø13,0        | 150210C                      | ø21,0        |                      |              |                      |              |
| 140140C              | ø14,0        | 150220C                      | ø22,0        |                      |              |                      |              |
| 140150C              | ø15,0        | 150230C                      | ø23,0        |                      |              |                      |              |
| 140160C              | ø16,0        | 150240C                      | ø24,0        |                      |              |                      |              |
| 140170C              | ø17,0        | 150250C                      | ø25,0        |                      |              |                      |              |
| 140180C              | ø18,0        | 150260C                      | ø26,0        |                      |              |                      |              |
| 140190C              | ø19,0        | 150270C                      | ø27,0        |                      |              |                      |              |
| 140200C              | ø20,0        | 150280C                      | ø28,0        |                      |              |                      |              |
| 140210C              | ø21,0        | 150290C                      | ø29,0        |                      |              |                      |              |
| 140220C              | ø22,0        | 150300C                      | ø30,0        |                      |              |                      |              |
| 140230C              | ø23,0        | 150310C                      | ø31,0        |                      |              |                      |              |
| 140240C              | ø24,0        | 150320C                      | ø32,0        |                      |              |                      |              |
| 140250C              | ø25,0        | 150330C                      | ø33,0        |                      |              |                      |              |
| 140260C              | ø26,0        | 150340C                      | ø34,0        |                      |              |                      |              |
|                      |              | * ø8, 10, 12, 16, 20, 25, 32 |              |                      |              |                      |              |

**Gewindebohrzangen rego-fix**

**Tapping collets rego-fix**

Lieferumfang ohne Werkzeug  
Delivery without tool



| ER 16-GB |                                     | ER 25-GB |                                     | ER 32-GB |                                     | ER 40-GB |                                     |
|----------|-------------------------------------|----------|-------------------------------------|----------|-------------------------------------|----------|-------------------------------------|
| Art.-Nr. | Schaft $\varnothing \times \square$ | Art.-Nr. | Schaft $\varnothing \times \square$ | Art.-Nr. | Schaft $\varnothing \times \square$ | Art.-Nr. | Schaft $\varnothing \times \square$ |
| GB116045 | $\varnothing 4,5 \times 3,4$        | GB125045 | $\varnothing 4,5 \times 3,4$        | GB132045 | $\varnothing 4,5 \times 3,4$        | GB140070 | $\varnothing 7,0 \times 5,5$        |
| GB116055 | $\varnothing 5,5 \times 4,3$        | GB125055 | $\varnothing 5,5 \times 4,3$        | GB132055 | $\varnothing 5,5 \times 4,3$        | GB140080 | $\varnothing 8,0 \times 6,2$        |
| GB116060 | $\varnothing 6,0 \times 4,9$        | GB125060 | $\varnothing 6,0 \times 4,9$        | GB132060 | $\varnothing 6,0 \times 4,9$        | GB140090 | $\varnothing 9,0 \times 7,0$        |
| GB116070 | $\varnothing 7,0 \times 5,5$        | GB125070 | $\varnothing 7,0 \times 5,5$        | GB132070 | $\varnothing 7,0 \times 5,5$        | GB140100 | $\varnothing 10,0 \times 8,0$       |
|          |                                     | GB125080 | $\varnothing 8,0 \times 6,2$        | GB132080 | $\varnothing 8,0 \times 6,2$        | GB140110 | $\varnothing 11,0 \times 9,0$       |
|          |                                     | GB125090 | $\varnothing 9,0 \times 7,0$        | GB132090 | $\varnothing 9,0 \times 7,0$        | GB140120 | $\varnothing 12,0 \times 9,0$       |
|          |                                     | GB125100 | $\varnothing 10,0 \times 8,0$       | GB132100 | $\varnothing 10,0 \times 8,0$       | GB140140 | $\varnothing 14,0 \times 11,0$      |
|          |                                     | GB125110 | $\varnothing 11,0 \times 9,0$       | GB132110 | $\varnothing 11,0 \times 9,0$       | GB140160 | $\varnothing 16,0 \times 12,0$      |
|          |                                     | GB125120 | $\varnothing 12,0 \times 9,0$       | GB132120 | $\varnothing 12,0 \times 9,0$       | GB140180 | $\varnothing 18,0 \times 14,5$      |
|          |                                     |          |                                     | GB132140 | $\varnothing 14,0 \times 11,0$      | GB140200 | $\varnothing 20,0 \times 16,0$      |
|          |                                     |          |                                     | GB132160 | $\varnothing 16,0 \times 12,0$      | GB140220 | $\varnothing 22,0 \times 18,0$      |
|          |                                     |          |                                     |          |                                     |          |                                     |

**Gewindebohrzangen**


**PCM ET1 mit Längenausgleich**

**Tapping collets PCM ET1 with compensation**

Lieferumfang ohne Werkzeug  
Delivery without tool



| ET1-16    |                   | ET1-20    |                   | ET1-25    |                    | ET1-32    |                    | ET1-40    |                    |
|-----------|-------------------|-----------|-------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|
| Art.-Nr.  | Schaft            | Art.-Nr.  | Schaft            | Art.-Nr.  | Schaft             | Art.-Nr.  | Schaft             | Art.-Nr.  | Schaft             |
| ET1-16280 | $\varnothing 2,8$ | ET1-20280 | $\varnothing 2,8$ | ET1-25280 | $\varnothing 2,8$  | ET1-32450 | $\varnothing 4,5$  | ET1-40600 | $\varnothing 6,0$  |
| ET1-16300 | $\varnothing 3,0$ | ET1-20300 | $\varnothing 3,0$ | ET1-25300 | $\varnothing 3,0$  | ET1-32500 | $\varnothing 5,0$  | ET1-40700 | $\varnothing 7,0$  |
| ET1-16350 | $\varnothing 3,5$ | ET1-20350 | $\varnothing 3,5$ | ET1-25350 | $\varnothing 3,5$  | ET1-32550 | $\varnothing 5,5$  | ET1-40800 | $\varnothing 8,0$  |
| ET1-16400 | $\varnothing 4,0$ | ET1-20400 | $\varnothing 4,0$ | ET1-25400 | $\varnothing 4,0$  | ET1-32600 | $\varnothing 6,0$  | ET1-40850 | $\varnothing 8,5$  |
| ET1-16450 | $\varnothing 4,5$ | ET1-20450 | $\varnothing 4,5$ | ET1-25450 | $\varnothing 4,5$  | ET1-32700 | $\varnothing 7,0$  | ET1-40900 | $\varnothing 9,0$  |
| ET1-16500 | $\varnothing 5,0$ | ET1-20500 | $\varnothing 5,0$ | ET1-25500 | $\varnothing 5,0$  | ET1-32800 | $\varnothing 8,0$  | ET1-40100 | $\varnothing 10,0$ |
| ET1-16550 | $\varnothing 5,5$ | ET1-20550 | $\varnothing 5,5$ | ET1-25550 | $\varnothing 5,5$  | ET1-32850 | $\varnothing 8,5$  | ET1-40105 | $\varnothing 10,5$ |
| ET1-16600 | $\varnothing 6,0$ | ET1-20600 | $\varnothing 6,0$ | ET1-25600 | $\varnothing 6,0$  | ET1-32900 | $\varnothing 9,0$  | ET1-40110 | $\varnothing 11,0$ |
|           |                   | ET1-20700 | $\varnothing 7,0$ | ET1-25700 | $\varnothing 7,0$  | ET1-32100 | $\varnothing 10,0$ | ET1-40120 | $\varnothing 12,0$ |
|           |                   |           |                   | ET1-25800 | $\varnothing 8,0$  | ET1-32105 | $\varnothing 10,5$ | ET1-40125 | $\varnothing 12,5$ |
|           |                   |           |                   | ET1-25850 | $\varnothing 8,5$  | ET1-32110 | $\varnothing 11,0$ | ET1-40140 | $\varnothing 14,0$ |
|           |                   |           |                   | ET1-25900 | $\varnothing 9,0$  | ET1-32120 | $\varnothing 12,0$ | ET1-40150 | $\varnothing 15,0$ |
|           |                   |           |                   | ET1-25100 | $\varnothing 10,0$ | ET1-32125 | $\varnothing 12,5$ | ET1-40160 | $\varnothing 16,0$ |
|           |                   |           |                   |           |                    |           |                    | ET1-40170 | $\varnothing 17,0$ |
|           |                   |           |                   |           |                    |           |                    |           |                    |

| <b>TOOLFIX Werkzeugmontagegerät</b><br>TOOLFIX mounting equipment                 |    | <b>Art.-Nr.</b> | <b>Typ</b> | <b>SK</b> |  |
|---|----|-----------------|------------|-----------|--|
|  |    | 250410          | SK 30      | 30        |  |
|   |    | 251410          | SK 40      | 40        |  |
|   |    | 252410          | SK 50      | 50        |  |
|   |    | <b>VDI</b>      |            |           |  |
|   |    | 259410          | VDI 20     | 20        |  |
|   |    | 260410          | VDI 30     | 30        |  |
|   |    | 261410          | VDI 40     | 40        |  |
|   |    | 262410          | VDI 50     | 50        |  |
|   |    | <b>HSK</b>      |            |           |  |
|   |    | 253410          | HSK-A40    | A40       |  |
|   |    | 254410          | HSK-E40    | E40       |  |
|   |    | 255410          | HSK-A50    | A50       |  |
|   |    | 257410          | HSK-A63    | A63       |  |
|   |    | 258410          | HSK-E63    | E63       |  |
|   |    | <b>POLYGON</b>  |            |           |  |
| 263410  | C4 | C4              |            |           |  |
| 264410  | C5 | C5              |            |           |  |
| 265410  | C6 | C6              |            |           |  |
| 266410  | C8 | C8              |            |           |  |

**TOOLFIX VARIO Adaptersystem**






VARIO ist die Version mit Schnellwechsellverschluss zum Auswechseln von verschiedenen Werkzeugadaptern. Die VARIO-Version bietet Anwendern von verschiedenen Werkzeugaufnahmen die Möglichkeit verschiedene Adapterformen auf einem Basiskörper zu verwenden.

VARIO is a version with quick change lock for changing different tool adaptors. The VARIO-version makes possible to use different forms of adaptors on the same base-body for users with different toolholders.

| <b>Art.-Nr.</b> | <b>Typ</b>                            | <b>SK</b> | <b>Art.-Nr.</b> | <b>Typ</b>    | <b>SK</b> |
|-----------------|---------------------------------------|-----------|-----------------|---------------|-----------|
| 31000           | TOOLFIX VARIO Basiskörper / Base-body |           |                 |               |           |
| <b>SK</b>       |                                       |           | <b>HSK</b>      |               |           |
| 31030           | VARIO-Adapter                         | 30        | 31232           | VARIO-Adapter | A 32      |
| 31040           | VARIO-Adapter                         | 40        | 31240           | VARIO-Adapter | A 40      |
| 31050           | VARIO-Adapter                         | 50        | 31250           | VARIO-Adapter | A 50      |
| <b>VDI</b>      |                                       |           | <b>HSK</b>      |               |           |
| 31116           | VARIO-Adapter                         | 16        | 31263           | VARIO-Adapter | A 63      |
| 31120           | VARIO-Adapter                         | 20        | 31280           | VARIO-Adapter | A 80      |
| 31125           | VARIO-Adapter                         | 25        | 31210           | VARIO-Adapter | A100      |
| 31130           | VARIO-Adapter                         | 30        | 31632           | VARIO-Adapter | E 32      |
| 31140           | VARIO-Adapter                         | 40        | 31640           | VARIO-Adapter | E 40      |
| 31150           | VARIO-Adapter                         | 50        | 31650           | VARIO-Adapter | E 50      |
|                 |                                       |           | 31663           | VARIO-Adapter | E 63      |
|                 |                                       |           | <b>POLYGON</b>  |               |           |
|                 |                                       |           | 31803           | VARIO-Adapter | C 3       |
|                 |                                       |           | 31804           | VARIO-Adapter | C 4       |
|                 |                                       |           | 31805           | VARIO-Adapter | C 5       |
|                 |                                       |           | 31806           | VARIO-Adapter | C 6       |
|                 |                                       |           | 31808           | VARIO-Adapter | C 8       |



**zürn**

# Werkzeughalter für CNC-Drehmaschinen DIN 69880 / DIN ISO 10889

Toolholders for CNC machines  
DIN 69880 / DIN ISO 10889

