

## New products for machining technicians

### **NEW** M03Speed – Precision adjustment head



- ▲ Application range  $\varnothing$  24.8 – 206 mm
- ▲ Unique: Automatic, dynamic balancing compensation in the slide for maximum speeds
- ▲ Extremely user-friendly: Adjustment scale: high resolution gives easy read-off

→ Page 15+16

### **NEW** FF precision adjustment head



- ▲ Application range  $\varnothing$  29.5 – 199 mm
- ▲ Precision rotary cartridge can also be implemented just as flexibly into tools developed in-house

→ Page 17+18

### **NEW** Fine boring bar



- ▲ Application range  $\varnothing$  15.9 – 26 mm
- ▲ Precision adjustment range: 0.02 mm in  $\varnothing$  per line
- ▲ Ideal for high speeds

→ Page 21

### **NEW** TwinKom



- ▲ Application range  $\varnothing$  24 – 215 mm
- ▲ Twin cutter with axially and radially adjustable insert holders
- ▲ Compact, very stable design

→ Page 42-44

### **NEW** hi.flex – Digital



- ▲ hi.flex goes digital: The newly developed variant of the hi.flex precision adjustment head now supports the analogue and digital adjustment of the diameter to be machined

→ Page 11

### **NEW** Digital stick



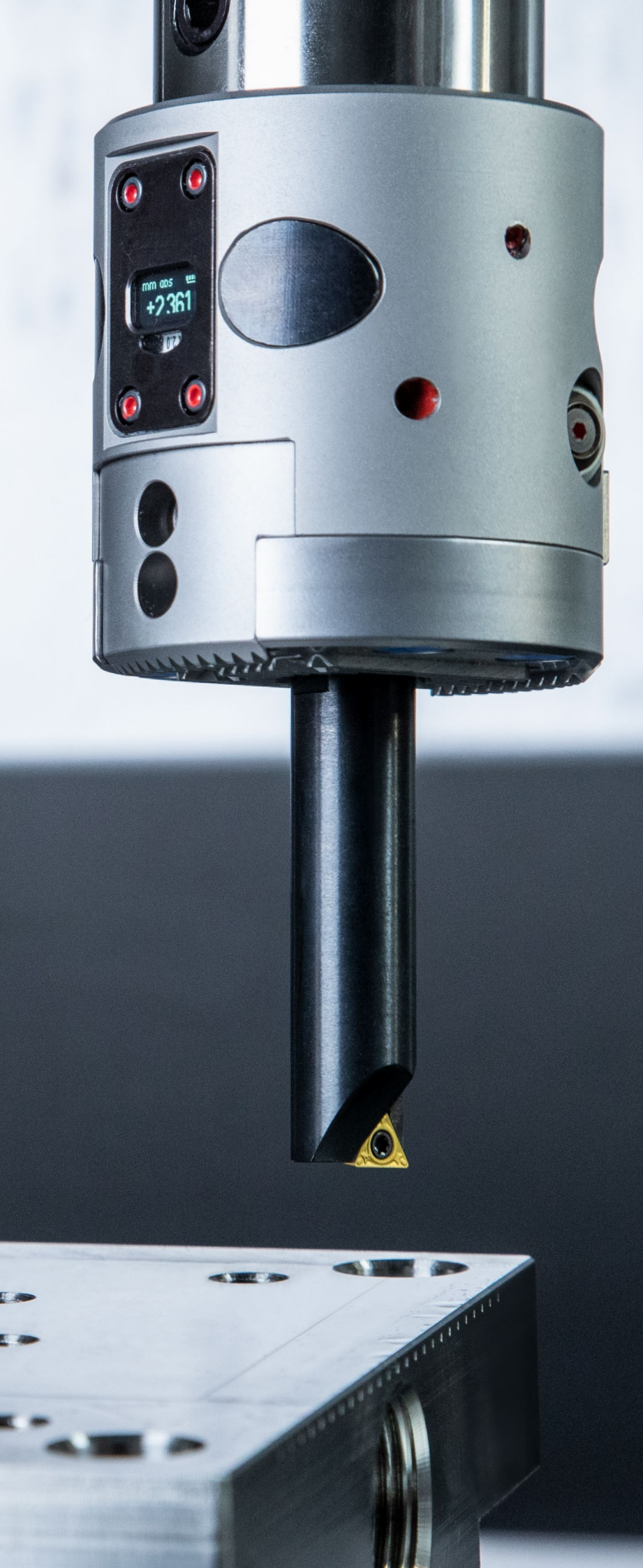
- ▲ Digital 2.0: Update of the existing digital stick from the SpinTools line for even more precise adjusting

### **NEW** Accessories



- ▲ Expansion of the existing equipment for hi.flex and BluFlex 2 with various attachments
- ▲ Expansion of the spindle range:  $\varnothing$  5.6 – 365 mm





Solid drilling and bore machining

- 1 HSS drilling
- 2 Solid carbide drilling
- 3 Indexable insert drilling
- 4 Reaming and Countersinking

5 Spindle Tooling

5

Threading

- 6 Taps and thread formers
- 7 Circular and Thread Milling
- 8 Thread turning

Turning

- 9 Turning Tools
- 10 Multifunctional Tools – EcoCut and FreeTurn
- 11 Grooving Tools
- 12 Miniature turning tools

Milling

- 13 HSS Milling Cutters
- 14 Solid Carbide milling cutters
- 15 Milling tools with indexable inserts

Catalogue –  
Clamping technology

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## KOMET \ Performance


Premium quality tools for high performance.

The premium quality tools from the **KOMET Performance** product line have been designed for specific applications and are distinguished by their outstanding performance. If you make high demands on the performance of your production and want to achieve the very best results, we recommend the Premium tools in this product line.

## Symbol explanation

- F** Fine Machining
- M** Medium Machining
- R** Rough Machining

-  Smooth cut
-  Irregular cutting depth
-  Interrupted cut

 Coolant supply central  
Steep taper Form AD

 Coolant supply either  
via the flange or centrally

**ABS** **KOMET ABS** – modular coupling system  
for rotating and stationary tools

**STM** Modular SpinTools interface

**ER 32** System-independent ER 32 interface

Micron-precise display resolution:  
0.001 mm in diameter

Modern, high contrast OLED display  
on the precision adjustment head itself

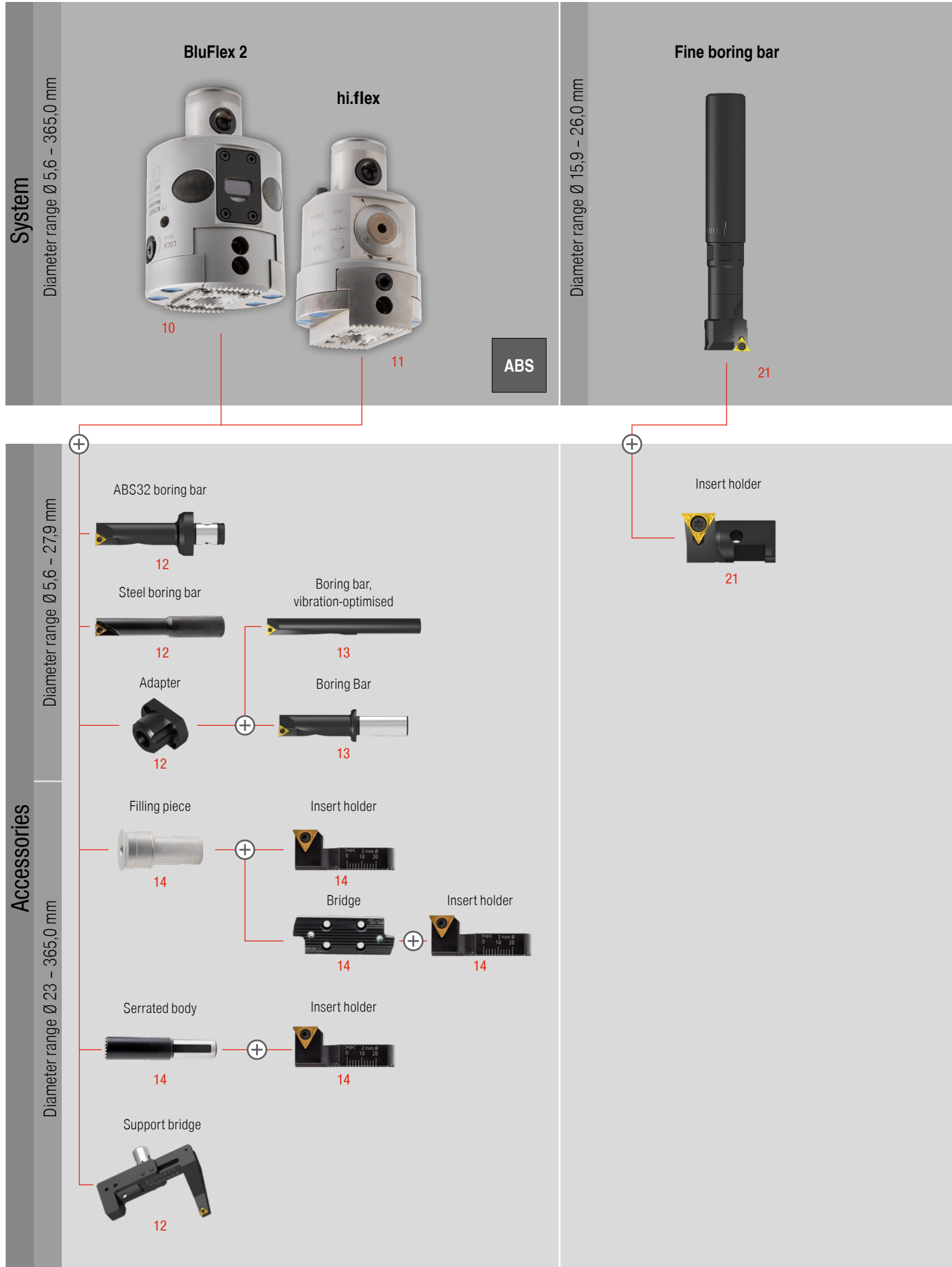


# Toolfinder

| System               | Diameter range per head in mm                          |  |                             |                             |                           | Digital                   | Analogue           | ABS Modular | STM Modular | ER 32 Modular | Monoblock | Through spindle | Comments                     | Page No.                                 |       |
|----------------------|--|--|-----------------------------|-----------------------------|---------------------------|---------------------------|--------------------|-------------|-------------|---------------|-----------|-----------------|------------------------------|--|-------|
|                      |  |  |                             |                             |                           |                           |                    |             |             |               |           |                 |                              |  |       |
| Machining            | Finishing  | BluFlex 2 – precision adjustment head<br>Ø 5,6–365 mm    | 5,6–365                     |                             |                           |                           |                    | ✓           |             | ✓             |           |                 | ✓                            | Through spindle<br>larger head diameters | 10    |
|                      |  | hi.flex – precision adjustment head<br>Ø 5,6–365 mm      | 5,6–365                     |                             |                           |                           |                    | ✓           | ✓           | ✓             |           |                 | ✓                            | Through spindle<br>larger head diameters | 11    |
|                      |  | M03 Speed – precision adjustment head<br>Ø 24,8–206 mm   | 24,8–33,0<br>79–103         | 29–39<br>100–206            | 38–50                     | 49–63                     | 62–80              |             | ✓           | ✓             |           |                 | ✓                            |  | 15    |
|                      |  | FF precision adjustment head<br>Ø 29,5–199 mm            | 29,5–36<br>56–66<br>100–121 | 35,5–42<br>58–71<br>120–141 | 39–45<br>70–83<br>138–159 | 44–50<br>79–94<br>158–179 | 47–57<br>93–108    |             | ✓           | ✓             |           |                 | ✓                            |  | 17    |
|                      |  | Micro Boring Head<br>Ø 0,3–19,1 mm                       | 0,3–7,1                     |                             | 0,3–19,1                  |                           |                    | ✓           | ✓           |               |           |                 |                              |  | 19    |
|                      |  | Fine boring bar<br>Ø 15,9–26 mm                          | 15,9–20                     | 19–23                       | 22–26                     |                           |                    |             | ✓           |               |           |                 | ✓                            |  | 21    |
|                      |  | Fine boring head<br>Ø 14,7–24,1 mm                       | 14,7–17,1                   | 16,7–20,1                   | 19,7–24,1                 |                           |                    |             | ✓           |               |           |                 | ✓                            |  | 22    |
|                      |  | Multi-Head – Fine boring head<br>Ø 3,0–320 mm            | 3,0–320                     |                             |                           |                           |                    |             | ✓           | ✓             | ✓         | ✓               | ✓                            | Through spindle<br>larger head diameters | 24    |
|                      |  | Single point boring head<br>Ø 3,0–88,1 mm                | 3,0–88,1                    |                             |                           |                           |                    | ✓           | ✓           | ✓             | ✓         | ✓               | ✓                            | Through spindle<br>larger head diameters | 26–28 |
|                      |  | Single point finish boring heads<br>Ø 23,9–116,1 mm      | 23,9–31,1<br>86,9–116,1     | 30,9–40,1                   | 39,9–51,1                 | 50,9–67,1                 | 66,9–87,1          | ✓           | ✓           | ✓             |           |                 | ✓                            |  | 35    |
|                      |  | Vario-Head – boring and fine boring head<br>Ø 3,0–152 mm | 3,0–152                     |                             |                           |                           |                    | ✓           |             | ✓             |           |                 |                              |  | 38    |
|                      |  | Single point finish boring heads<br>Ø 86–402 mm          | 86–402                      |                             |                           |                           |                    |             | ✓           |               | ✓         |                 | ✓                            |  | 40    |
|                      |  | Console tool with baseplate<br>Ø 150–655 mm              | 150–205<br>400–455          | 200–255<br>450–505          | 250–305<br>500–555        | 300–355<br>550–605        | 350–405<br>600–655 |             | ✓           |               |           |                 | ✓                            | also available<br>with roughing head     |       |
|                      |  | Console tool with slide<br>Ø 650–2205 mm                 | 650–1105                    | 1100–1655                   | 1650–2205                 |                           |                    |             | ✓           |               |           |                 | ✓                            | also available<br>with roughing head     |       |
| Roughing – Finishing | TwinKom<br>Ø 24–215 mm                                 | 24–32<br>83–124  | 30–41<br>109–167            | 39–53<br>139–215            | 51–71                     | 64–91                     |                    | ✓           | ✓           |               |           | ✓               | in short and<br>long version | 42                                       |       |
|                      | Twin edged rough / fine boring head<br>Ø 29,5–115,5 mm | 29,5–40,1  | 39,5–50,5                   | 49,5–66,5                   | 65,5–87,5                 | 86,5–115,5                | ✓                  |             | ✓           |               | ✓         |                 | 45                           |  |       |
| Roughing             | Twin rough boring head<br>Ø 23,5–153,0 mm              | 23,5–30,5<br>86,5–115,5                                  | 29,5–40,1<br>114,5–153,0    | 39,5–50,5                   | 49,5–66,5                 | 65,5–87,5                 | ✓                  |             | ✓           |               | ✓         |                 | 47                           |  |       |

This article can be found in our online shop at [cuttingtools.ceratizit.com](http://cuttingtools.ceratizit.com)

# System overview – MicroKom

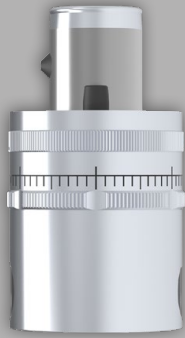




— = necessary  
- - - = optional

Diameter range Ø 24,8 – 206,0 mm

**M03 Speed precision adjustment head**



15

ABS

Diameter range Ø 25,9 – 199,0 mm

**FF precision adjustment head**

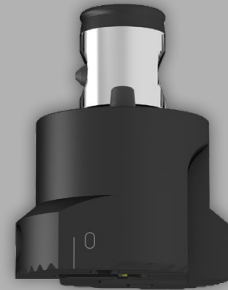


17

ABS

Diameter range Ø 24 – 215,0 mm

**TwinKom**



42

ABS

Diameter range Ø 24,8 – 39,0 mm

Insert holder



16

Diameter range Ø 38,0 – 103,0 mm

Insert holder



16

Diameter range Ø 100,0 – 206,0 mm

Interchangeable bridge



16

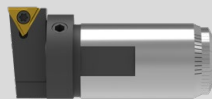
Insert holder



16

+

Precision turning insert



18

+

Tool holder 90°  
radially adjustable



43

Tool holder 80°  
radially adjustable



43

Basic tool holder,  
radially + axially adjustable



44

Indexable insert  
90°






44

Indexable insert  
80°



44

# System overview – SpinTools

| System   | Multi-Head boring and fine boring head  | Fine boring head                       |    |        |     |   |
|--|---|--|----|--------|-----|---|
| <p><b>System</b></p> <p>Diameter range Ø 0,3 – 19,1 mm</p> <p><b>Micro Boring Head</b></p>  <p>19</p> | <p>Diameter range Ø 3,0 – 320,0 mm</p> <p><b>Multi-Head boring and fine boring head</b></p>  <p>24</p> <table border="1" data-bbox="1034 510 1193 667"> <tr> <td>HSK-A</td> <td>SK</td> </tr> <tr> <td>MAS BT</td> <td>STM</td> </tr> </table> | HSK-A                                  | SK | MAS BT | STM | <p>Diameter range Ø 14,7 – 24,1 mm</p> <p><b>Fine boring head</b></p>  <p>22</p> |
| HSK-A  | SK  |  |    |        |     |   |
| MAS BT   | STM   |  |    |        |     |   |
| <p><b>Accessories</b></p>  | <p>Diameter range Ø 3,0 – 53,1 mm</p> <p>Diameter range Ø 29,75 – 320 mm</p>  | <p>Diameter range Ø 14,7 – 24,1 mm</p> |    |        |     |   |

**Accessories for Micro Boring Head**

- Adapter 20
- Solid carbide cutting insert 20
- Solid carbide cutting insert 20
- Tool holder for solid carbide insert 20
- Solid carbide insert 20

**Accessories for Multi-Head boring and fine boring head**

- Balancing ring 32
- Reduction sleeve 30
- Boring tool with carbide shank 29
- Boring bar with carbide shank 30
- High-speed boring shank / head 23+31
- Steel boring bar 29
- Boring tool extension 30
- Over turning holder for boring head 31
- High-speed boring head 31
- Adjustable boring bar 29
- Bridge for Multi-Head 25
- Counterweight 25
- Axial grooving holder for UltraMini 25
- Insert holder 29

**Accessories for Fine boring head**

- High-speed boring shank, carbide / steel 23+31
- Shank extension 23
- Insert holder, 90° 22

— = necessary  
- - - = optional

Diameter range Ø 23,9 – 134,1 mm

**Single point finish boring heads**

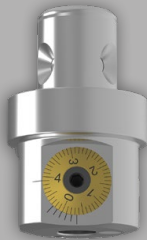


35

STM

Diameter range Ø 3,0 – 88,0 mm

**Single point boring head**



26-28

ER 32  
HSK-A SK  
MAS BT STM

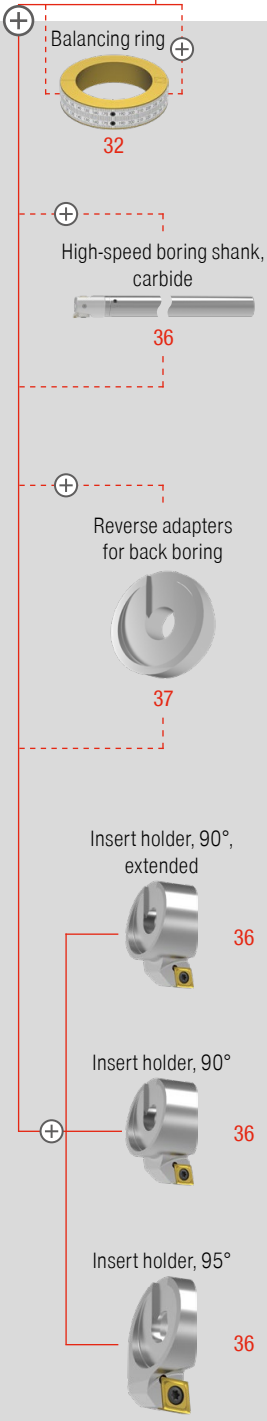
Diameter range Ø 3,0 – 152 mm

**Vario-Head - boring and fine boring head**

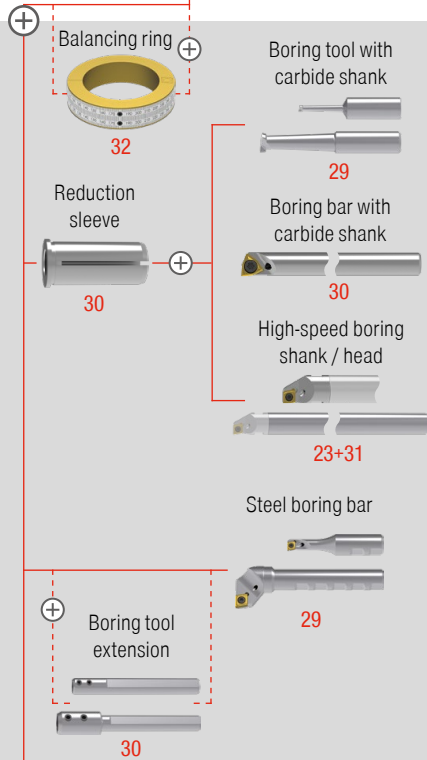


38

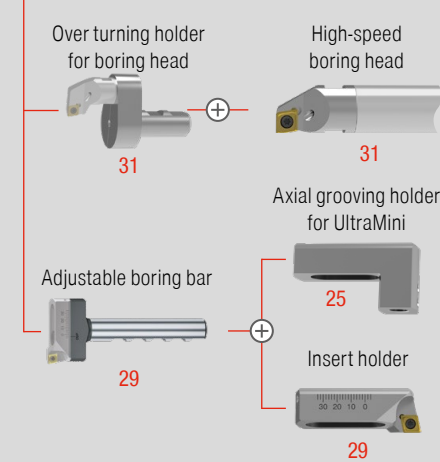
STM



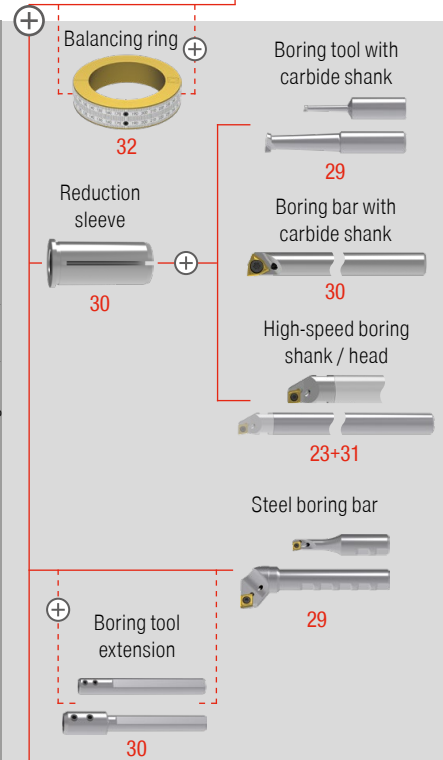
Diameter range Ø 3,0 – 53,1 mm



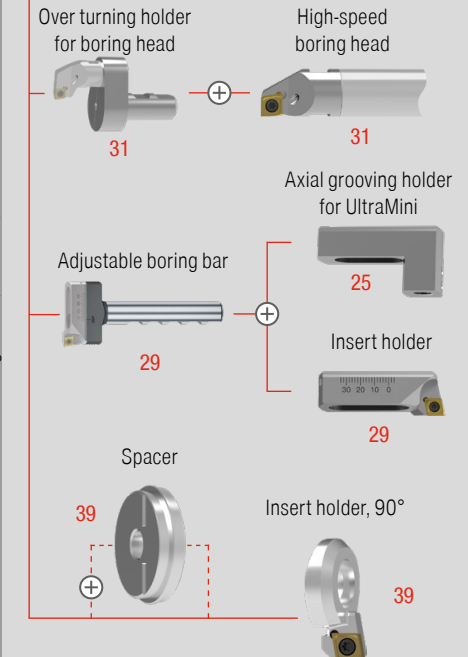
Diameter range Ø 29,75 – 88,0 mm



Diameter range Ø 3,0 – 53,1 mm





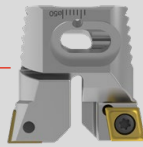

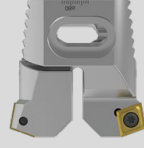




Diameter range Ø 29,75 – 152,0 mm











# System overview – SpinTools





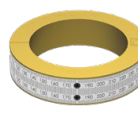


| System   | System  | System   |
|--|---|--|
| <p data-bbox="119 705 167 1512" style="writing-mode: vertical-rl; transform: rotate(180deg);">Accessories</p>  |   |  |
| <p data-bbox="127 369 167 481" style="writing-mode: vertical-rl; transform: rotate(180deg);">System</p> <p data-bbox="167 257 199 548" style="writing-mode: vertical-rl; transform: rotate(180deg);">Diameter range Ø 86,0 – 402,0 mm</p> <p data-bbox="287 257 494 324"><b>Single point finish boring heads</b></p>  <p data-bbox="375 616 406 649">40</p> <p data-bbox="510 604 574 660"><b>STM</b></p> | <p data-bbox="598 257 630 548" style="writing-mode: vertical-rl; transform: rotate(180deg);">Diameter range Ø 29,5 – 115,5 mm</p> <p data-bbox="710 257 917 324"><b>Twin edged rough / fine boring head</b></p>  <p data-bbox="798 616 829 649">45</p> <p data-bbox="933 604 997 660"><b>STM</b></p> | <p data-bbox="1021 257 1053 548" style="writing-mode: vertical-rl; transform: rotate(180deg);">Diameter range Ø 23,5 – 153,0 mm</p> <p data-bbox="1125 268 1388 302"><b>Twin rough boring head</b></p>  <p data-bbox="1236 616 1268 649">47</p> <p data-bbox="1396 604 1460 660"><b>STM</b></p>   |
| <p data-bbox="223 694 255 728">+</p> <p data-bbox="335 750 446 772">Insert holder</p>  <p data-bbox="375 851 406 884">40</p>  | <p data-bbox="686 694 718 728">+</p> <p data-bbox="710 739 917 795">Pair of roughing/finishing insert holders, 90°</p>  <p data-bbox="798 952 829 985">46</p>  | <p data-bbox="1093 694 1125 728">+</p> <p data-bbox="1165 761 1348 817">Pair of insert holders, Standard 90°</p>  <p data-bbox="1236 985 1268 1019">48</p> <p data-bbox="1165 1086 1348 1142">Pair of insert holders, Standard 70°</p>  <p data-bbox="1236 1310 1268 1344">48</p> <p data-bbox="1165 1400 1348 1456">Pair of insert holders, Synchro 90°</p>  <p data-bbox="1236 1624 1268 1657">49</p> <p data-bbox="1165 1724 1348 1780">Insert holder 90°, axial offset 0.4 mm</p>  <p data-bbox="1236 1971 1268 2004">49</p> |

## Overview of base adapters and accessories

|              |   |     |  |  |  |  |
|--------------|---|-----|---|---|---|---|
| System       |   |     | SK  | MAS-BT  | HSK-A   | Cylindrical shank   |
| Base adapter |  | ABS | Catalogue - Clamping technology → Page:   |   |   |   |
|              |   |     | 41  | 87  | 146   |   |
| Base adapter |  | STM | 51  | 52  | 53  | 54  |

5

## Accessories

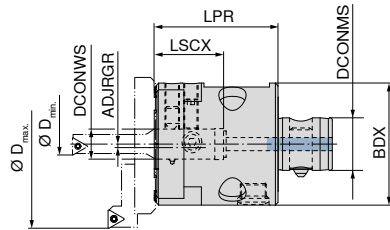
|                             |   |     |       |
|-----------------------------|---|-----|-------|
| Extension                   |    | STM | 57    |
| Reduction                   |  | STM | 55+56 |
| Collet Chuck                |  | STM | 50    |
| Shell mill adapter          |  | STM | 50    |
| <b>General</b>              |   |     |       |
| Balancing rings             |  |     | 32    |
| Indexable inserts MicroKom  |  |     | 58-61 |
| Indexable inserts SpinTools |  |     | 62+63 |

# MicroKom – BluFlex 2 – precision adjustment head

- ▲ Via the free app (Android/IOS), an extended display can be transferred to a standard smartphone (62 840 16097)
- ▲ For MicroKom boring bars with Ø 16 or with ABS 32, MicroKom bridges, and serrated body
- ▲ With thro' coolant supply
- ▲ LSCX = Recess depth of boring bar

**Scope of supply:**

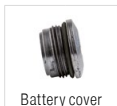
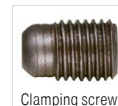
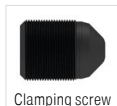
incl. Battery



without Bluetooth      with Bluetooth

**62 820 ...**      **62 840 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Adapter | DCONWS<br>mm | DCONMS<br>mm | BDX<br>mm | LPR<br>mm | LSCX<br>mm | ADJRGR<br>mm | without Bluetooth | with Bluetooth |
|---|-----------|---------|--------------|--------------|-----------|-----------|------------|--------------|-------------------|----------------|
| 5,6 - 365                                 | M04 30100 | ABS 50  | 16           | 28           | 65        | 71        | 38         | 4,65         | 16097             |                |
| 5,6 - 365                                 | M04 30000 | ABS 50  | 16           | 28           | 65        | 71        | 38         | 4,65         |                   | 16097          |



**62 950 ...**      **62 950 ...**      **62 950 ...**      **62 950 ...**      **62 950 ...**

**Spare parts  
for Article no.**

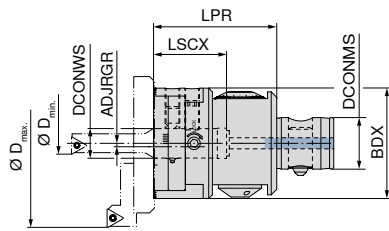
|              |             |              |             |              |           |              |           |              |       |       |
|--------------|-------------|--------------|-------------|--------------|-----------|--------------|-----------|--------------|-------|-------|
| 62 820 16097 | M8x1x12/SW4 | <b>13989</b> | M8x1x20/SW4 | <b>13700</b> | M5x14/SW4 | <b>18600</b> | M5x14/SW4 | <b>18600</b> | 18500 | 18400 |
| 62 840 16097 | M8x1x12/SW4 | <b>13989</b> | M8x1x20/SW4 | <b>13700</b> | M5x14/SW4 | <b>18600</b> | M5x14/SW4 | <b>18600</b> | 18500 | 18400 |

Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

# MicroKom – hi.flex – precision adjustment head

- ▲ for MicroKom boring bars with Ø 16 mm or ABS 32, MicroKom bridges, and serrated body
- ▲ with thro' coolant supply
- ▲ LSCX = Recess depth of boring bar

**ABS**

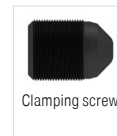
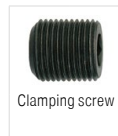


5

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Adapter | DCONWS<br>mm | DCONMS<br>mm | BDX<br>mm | LPR<br>mm | LSCX<br>mm | ADJRGR<br>mm | NEW                 |                     |
|---|-----------|---------|--------------|--------------|-----------|-----------|------------|--------------|---------------------|---------------------|
|   |           |         |              |              |           |           |            |              | Analogue            | Digital             |
| 5,6 - 365                                 | M05 01000 | ABS 50  | 16           | 28           | 60        | 67        | 39,7       | 10,5         | 62 800 ...<br>16097 | 62 800 ...<br>16197 |
| 5,6 - 365                                 | M04 10040 | ABS 50  | 16           | 28           | 60        | 67        | 39,7       | 10,5         |                     |                     |

**Spare parts  
for Article no.**

|              |          |       |             |       |             |       |
|--------------|----------|-------|-------------|-------|-------------|-------|
| 62 800 16097 | M8x8/SW4 | 14700 | M8x1x12/SW4 | 13989 | M8x1x20/SW4 | 13700 |
| 62 800 16197 | M8x8/SW4 | 14700 | M8x1x12/SW4 | 13989 | M8x1x20/SW4 | 13700 |



**i** Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

# SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

**Scope of supply:**

incl. AAA Battery

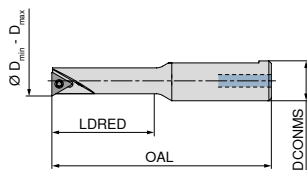


**NEW**  
**62 309 ...**  
00100



## MicroKom – Steel boring bar for hi.flex, BluFlex 2

▲ With internal coolant supply



**62 850 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | OAL<br>mm | LDRED<br>mm | DCONMS <sub>h6</sub><br>mm | Insert    |       |
|---|-----------|-----------|-------------|----------------------------|-----------|-------|
| 6 - 8                                     | B05 20100 | 71,7      | 21,0        | 16                         | WO.. 02T0 | 00600 |
| 8 - 12                                    | B05 20120 | 77,4      | 28,0        | 16                         | TO.. 06T1 | 00800 |
| 10 - 14                                   | B05 20140 | 81,8      | 34,0        | 16                         | TO.. 0902 | 01000 |
| 12 - 18                                   | B05 20160 | 88,2      | 42,0        | 16                         | TO.. 0902 | 01200 |
| 14 - 18                                   | B05 20180 | 94,4      | 50,0        | 16                         | TO.. 0902 | 01400 |
| 18 - 25                                   | B05 20220 | 100,0     | 60,0        | 16                         | TO.. 0902 | 01800 |
| 22 - 26                                   | B05 20260 | 108,0     | 68,5        | 16                         | TO.. 1403 | 02200 |



TORX® Screws

**62 950 ...**

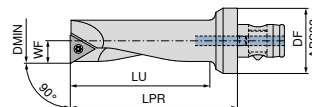
### Spare parts

| Insert    |       |
|-----------|-------|
| TO.. 06T1 | 12800 |
| TO.. 0902 | 12000 |
| TO.. 1403 | 12600 |
| WO.. 02T0 | 11800 |

## MicroKom – Boring bar

▲ With internal coolant supply

ABS



**NEW**

**62 857 ...**

| DMIN<br>mm | KOMET no. | WF<br>mm | DF<br>mm | LU<br>mm | LPR<br>mm | Insert      |       |
|------------|-----------|----------|----------|----------|-----------|-------------|-------|
| 7,9        | B00 25610 | 3,95     | 32       | 28       | 42        | TO.X 06T1.. | 07989 |
| 8,9        | B00 25700 | 4,45     | 32       | 34       | 48        | TO.X 06T1.. | 21989 |
| 9,9        | B00 25620 | 4,95     | 32       | 34       | 48        | TO.X 06T1.. | 08989 |
| 10,9       | B00 25710 | 5,45     | 32       | 43       | 57        | TO.X 0902.. | 23989 |
| 11,9       | B00 25630 | 5,95     | 32       | 43       | 57        | TO.X 0902.. | 09989 |
| 13,9       | B00 25640 | 6,95     | 32       | 50       | 64        | TO.X 0902.. | 10989 |
| 15,9       | B00 25650 | 7,95     | 32       | 58       | 72        | TO.X 0902.. | 11989 |
| 17,9       | B00 25661 | 8,95     | 32       | 59       | 72        | TO.X 0902.. | 13989 |
| 19,9       | B00 25671 | 9,90     | 32       | 70       | 82        | TO.X 0902.. | 15989 |
| 21,9       | B00 25681 | 10,90    | 32       | 70       | 82        | TO.X 0902.. | 17989 |
| 23,9       | B00 25691 | 11,90    | 32       | 70       | 82        | TO.X 0902.. | 19989 |



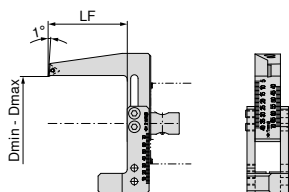
TORX® Screws

**62 950 ...**

### Spare parts

| Insert      |       |
|-------------|-------|
| TO.X 06T1.. | 12800 |
| TO.X 0902.. | 12000 |

## MicroKom – Spindle tool



**NEW**

**62 866 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | LF<br>mm | Insert      |       |
|---|-----------|----------|-------------|-------|
| 5 - 70                                    | M05 90300 | 58       | TO.X 0902.. | 07000 |



Cylindrical screw



TORX® Screws

**62 950 ...**

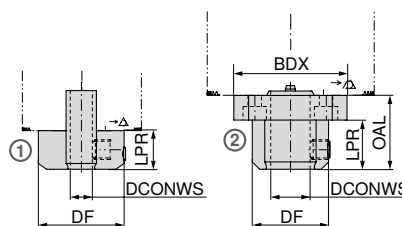
**62 950 ...**

### Spare parts

| Insert      |       |
|-------------|-------|
| TO.X 0902.. | 26800 |

## MicroKom – Adapter

▲ for 62 852 ..., 62 853 ..., 62 856 ... (essential for using the boring bar)



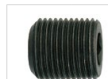
**NEW**

**62 851 ...**

| DCONWS<br>mm | KOMET no. | OAL<br>mm | BDX<br>mm | DF<br>mm | LPR<br>mm | Fig. |       |
|--------------|-----------|-----------|-----------|----------|-----------|------|-------|
| 6            | M05 90200 |           |           | 31       | 16        | 1    | 00600 |
| 8            | M05 90210 |           |           | 31       | 16        | 1    | 00800 |
| 10           | M05 90220 | 25        | 46        | 31       | 15        | 2    | 01000 |
| 12           | M05 90230 | 25        | 46        | 31       | 15        | 2    | 01200 |
| 16           | M05 90240 | 30        | 46        | 31       | 20        | 2    | 01600 |



Cylindrical screw



Clamping screw

**62 950 ...**

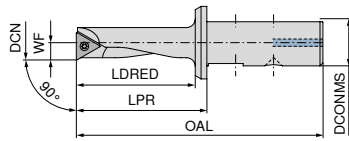
**62 950 ...**

### Spare parts

| DCONWS  |       |
|---------|-------|
| 6 - 8   | 44800 |
| 10 - 12 | 44800 |
| 16      | 14700 |

## MicroKom – Boring bar

- ▲ can only be used with adapter 62 851 ...
- ▲ with internal coolant supply



NEW

62 856 ...

| DCN  | KOMET no. | OAL | LPR | DCONMS | WF    | LDRED | Insert      |       |
|------|-----------|-----|-----|--------|-------|-------|-------------|-------|
| mm   |           | mm  | mm  | mm     | mm    | mm    |             |       |
| 5,6  | B00 37010 | 48  | 26  | 8      | 2,75  | 22    | WOHX 02T0.. | 05600 |
| 6,5  | B00 37020 | 52  | 30  | 8      | 3,20  | 26    | WOHX 02T0.. | 06500 |
| 8,0  | B00 15510 | 57  | 35  | 8      | 3,95  | 28    | TO.X 06T1.. | 08000 |
| 8,0  | B00 15610 | 75  | 35  | 16     | 3,95  | 30    | TO.X 06T1.. | 08000 |
| 10,0 | B00 15620 | 80  | 40  | 16     | 4,95  | 35    | TO.X 0902.. | 01000 |
| 11,0 | B00 15710 | 85  | 45  | 16     | 5,45  | 40    | TO.X 0902.. | 01100 |
| 12,0 | B00 15530 | 67  | 45  | 16     | 5,95  | 38    | TO.X 0902.. | 11200 |
| 12,0 | B00 15630 | 85  | 45  | 16     | 5,95  | 40    | TO.X 0902.. | 01200 |
| 14,0 | B00 15640 | 90  | 50  | 16     | 6,95  | 45    | TO.X 0902.. | 01400 |
| 16,0 | B00 15650 | 95  | 55  | 16     | 7,95  | 50    | TO.X 0902.. | 01600 |
| 18,0 | B00 15661 | 100 | 60  | 16     | 8,95  | 55    | TO.X 0902.. | 01800 |
| 19,0 | B00 15751 | 105 | 65  | 16     | 9,45  | 60    | TO.X 0902.. | 01900 |
| 20,0 | B00 15671 | 105 | 65  | 16     | 9,90  | 60    | TO.X 0902.. | 02000 |
| 22,0 | B00 15681 | 105 | 65  | 16     | 10,90 | 60    | TO.X 0902.. | 02200 |
| 24,0 | B00 15691 | 105 | 65  | 16     | 11,90 | 60    | TO.X 0902.. | 02400 |



TORX® Screws

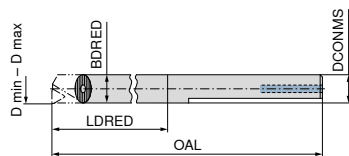
62 950 ...

### Spare parts

| DCN     |  |       |
|---------|--|-------|
| 5,6-6,5 |  | 11800 |
| 8-10    |  | 12800 |
| 11-24   |  | 12000 |

## MicroKom – Carbide boring shank

- ▲ for boring head 62 854 ...
- ▲ can only be used with adapter 62 851 ...
- ▲ with internal coolant supply



NEW

62 853 ...

| D <sub>min</sub> - D <sub>max</sub> | KOMET no. | OAL | BDRED | LDRED | DCONMS |       |
|-------------------------------------|-----------|-----|-------|-------|--------|-------|
| mm                                  |           | mm  | mm    | mm    | mm     |       |
| 13 - 17                             | G10 12060 | 120 | 12    | 75    | 12     | 01300 |
| 17 - 22                             | G10 12070 | 140 | 16    | 100   | 16     | 01700 |
| 22 - 26                             | G10 12080 | 140 | 16    | 100   | 16     | 02200 |



Fillister-head screw

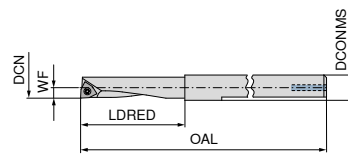
62 950 ...

### Spare parts

| DCONMS |       |
|--------|-------|
| 12     | 19700 |
| 16     | 19800 |

## MicroKom – Boring bar, vibration-optimised

- ▲ can only be used with adapter 62 851 ...
- ▲ with internal coolant supply



NEW

62 852 ...

| DCN  | KOMET no. | OAL | LDRED | DCONMS | Insert      |                     |
|------|-----------|-----|-------|--------|-------------|---------------------|
| mm   |           | mm  | mm    | mm     |             |                     |
| 5,6  | B00 30280 | 65  | 22    | 6      | WOHX 02T0.. | 10600               |
| 6,9  | B00 30290 | 80  | 36    | 6      | WOHX 02T0.. | 00600 <sup>1)</sup> |
| 9,0  | B00 00680 | 90  | 24    | 8      | TO.X 06T1.. | 00800 <sup>1)</sup> |
| 11,0 | B00 00690 | 95  | 50    | 10     | TO.X 06T1.. | 01000 <sup>1)</sup> |

1) Carbide version



TORX® Screws

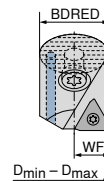
62 950 ...

### Spare parts

| Insert      |       |
|-------------|-------|
| TO.X 06T1.. | 09700 |
| WOHX 02T0.. | 11800 |

## MicroKom – Boring head

- ▲ for boring shank 62 853 ...



NEW

62 854 ...

| D <sub>min</sub> - D <sub>max</sub> | KOMET no. | WF    | BDRED | Insert      |       |
|-------------------------------------|-----------|-------|-------|-------------|-------|
| mm                                  |           | mm    | mm    |             |       |
| 13 - 15                             | G10 12621 | 6,45  | 12    | TO.X 0902.. | 01300 |
| 15 - 17                             | G10 12841 | 8,45  | 16    | TO.X 0902.. | 01500 |
| 17 - 19                             | G10 12711 | 8,45  | 12    | TO.X 0902.. | 01700 |
| 19 - 22                             | G10 12861 | 9,45  | 16    | TO.X 0902.. | 01900 |
| 22 - 26                             | G10 12731 | 10,95 | 16    | TO.X 0902.. | 02200 |



TORX® Screws

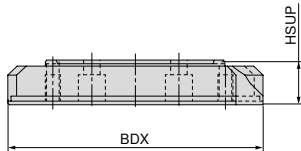
62 950 ...

### Spare parts

| Insert      |       |
|-------------|-------|
| TO.X 0902.. | 12000 |

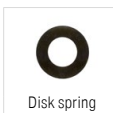
Suitable inserts can be found on → Page 58–61.

## MicroKom – Bridge for hi.flex, BluFlex 2



**NEW**  
62 860 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | BDX<br>mm | HSUP<br>mm | WT<br>kg |       |
|---|-----------|-----------|------------|----------|-------|
| 90 - 125                                  | M05 80101 | 85        | 12,00      | 0,147    | 12500 |
| 120 - 155                                 | M05 80200 | 115       | 18,25      | 0,107    | 15500 |
| 150 - 185                                 | M05 80300 | 145       | 20,25      | 0,152    | 18500 |
| 180 - 215                                 | M05 80400 | 175       | 23,25      | 0,229    | 21500 |
| 210 - 245                                 | M05 80500 | 205       | 25,00      | 0,309    | 24500 |
| 240 - 275                                 | M05 80510 | 235       | 25,00      | 0,349    | 27500 |
| 270 - 305                                 | M05 80520 | 265       | 25,00      | 0,394    | 30500 |
| 300 - 335                                 | M05 80530 | 295       | 25,00      | 0,435    | 33500 |
| 330 - 365                                 | M05 80540 | 325       | 25,00      | 0,478    | 36500 |



62 950 ...

62 950 ...

**Spare parts**

**BDX**

85 - 325

00000

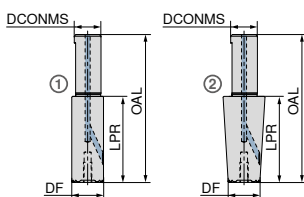
19100

## MicroKom – Serrated body for hi.flex, BluFlex 2

▲ With internal coolant supply

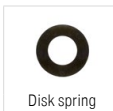
**Scope of supply:**

without insert holder



**NEW**  
62 861 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | DCONMS<br>mm | OAL<br>mm | LPR<br>mm | DF<br>mm | Fig. |       |
|---|-----------|--------------|-----------|-----------|----------|------|-------|
| 25 - 63                                   | M05 90100 | 16           | 88,50     | 51,50     | 19       | 1    | 06300 |
| 25 - 63                                   | M05 90110 | 16           | 129,12    | 92,12     | 24       | 2    | 16300 |



62 950 ...

62 950 ...

**Spare parts**

**DCONMS**

16

00000

19100

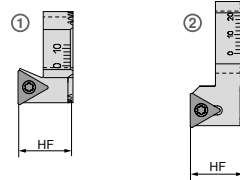
## MicroKom – Insert holder for hi.flex, BluFlex 2

▲ With internal coolant supply

**Scope of supply:**

without inserts

incl. mounting screws



62 863 ...

| DCN<br>mm | DCX<br>mm | KOMET no. | HF<br>mm | Insert    | Fig. |       |
|-----------|-----------|-----------|----------|-----------|------|-------|
| 25        | 44        | M05 20101 | 13,5     | TO.. 06T1 | 1    | 04400 |
| 44        | 63        | M05 20151 | 13,5     | TO.. 0902 | 2    | 12500 |



62 950 ...

**Spare parts**

**Insert**

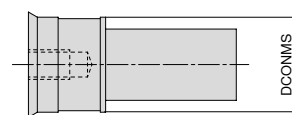
TO.. 06T1

09700

TO.. 0902

09900

## MicroKom – Filling piece for hi.flex, BluFlex 2



62 862 ...

| DCONMS<br>mm | KOMET no. |       |
|--------------|-----------|-------|
| 16           | M05 90501 | 09300 |



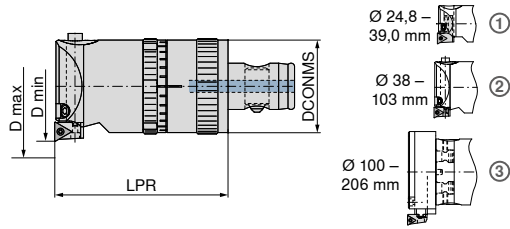
Suitable inserts can be found on → **Page 58–61.**

# MicroKom – M03Speed – precision adjustment head

**Scope of supply:**

Precision adjustment head with clamping screw  
Please order insert holder and indexable insert separately

**ABS**



**NEW**

**62 815 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Adapter | DCONMS<br>mm | LPR<br>mm | Fig. |                     |
|---|-----------|---------|--------------|-----------|------|---------------------|
| 24,8 - 33,0                               | M03 00115 | ABS 25  | 25           | 50        | 1    | 03390               |
| 29 - 39                                   | M03 00515 | ABS 25  | 25           | 50        | 1    | 03990               |
| 38 - 50                                   | M03 01025 | ABS 32  | 32           | 60        | 2    | 05089               |
| 49 - 63                                   | M03 01535 | ABS 40  | 40           | 70        | 2    | 06388               |
| 62 - 80                                   | M03 02045 | ABS 50  | 50           | 75        | 2    | 08097               |
| 79 - 103                                  | M03 02555 | ABS 63  | 63           | 80        | 2    | 10396               |
| 100 - 206                                 | M03 20090 | ABS 63  | 63           | 106       | 3    | 20696 <sup>1)</sup> |

1) can only be used with interchangeable bridge (Art. No. 62 865 ...)

| TORX® Screws | Clamping screw | Grub screw |
|--------------|----------------|------------|
| 62 950 ...   | 62 950 ...     | 10 950 ... |
| 12600        | 37400          | 15600      |
| 45400        |                | 15600      |
|              |                | 15700      |
|              |                | 15700      |
|              |                | 11300      |

**Spare parts for Article no.**

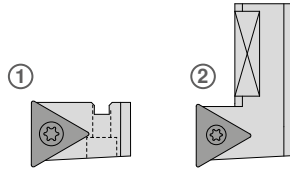
|              |       |       |       |
|--------------|-------|-------|-------|
| 62 815 03390 |       |       | 15600 |
| 62 815 03990 |       |       | 15600 |
| 62 815 05089 | 12600 |       | 15600 |
| 62 815 06388 | 12600 |       | 15700 |
| 62 815 08097 | 12600 |       | 15700 |
| 62 815 10396 | 45400 |       | 11300 |
| 62 815 20696 | 45400 | 37400 |       |

- The TORX® screws 62 950 12600 / 62 950 45400 are designed for mounting the insert holder on the precision adjustment head.
- A detailed operating manual is available for download in the online shop next to the product.
- Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**



# MicroKom – M03Speed – Insert holder

**Scope of supply:**  
without inserts  
incl. mounting screws

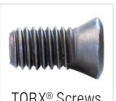


**NEW**

**62 864 ...**

| for                         | KOMET no. | Insert    | Fig. |                     |
|-----------------------------|-----------|-----------|------|---------------------|
| 62 815 03390                | M03 10011 | TO.. 06T1 | 2    | 03300               |
| 62 815 03990                | M03 10021 | TO.. 06T1 | 2    | 03900               |
| 62 815 05089                | M03 10033 | TO.. 06T1 | 1    | 05000               |
| 62 815 06388 / 62 815 08097 | M03 10043 | TO.. 0902 | 1    | 08000               |
| 62 815 10396                | M03 10063 | TO.. 0902 | 1    | 10300               |
| 62 815 20696                | M03 10070 | TO.. 0902 | 1    | 20600 <sup>1)</sup> |

1) only for M03Speed – interchangeable bridge (62 865 ...)



TORX® Screws

**62 950 ...**

**Spare parts**  
**Insert**

|           |       |
|-----------|-------|
| TO.. 06T1 | 09700 |
| TO.. 0902 | 12000 |

# MicroKom – M03Speed – Interchangeable bridge

▲ for head 62 815 20696

**Scope of supply:**  
without insert holder



**NEW**

**62 865 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. |       |
|---|-----------|-------|
| 100 - 130                                 | M03 20100 | 13000 |
| 128 - 168                                 | M03 20110 | 16800 |
| 166 - 206                                 | M03 20120 | 20600 |

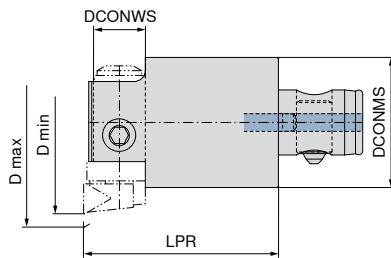
**i** Suitable inserts can be found on → Page 58–61.

# FF precision adjustment head

**Scope of supply:**

Head with clamping screw  
without precision turning insert

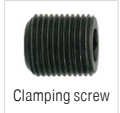
**ABS**



**NEW**

**62 810 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Adapter | DCONWS<br>mm | DCONMS<br>mm | LPR<br>mm |       |
|---|-----------|---------|--------------|--------------|-----------|-------|
| 29,5 - 36                                 | B30 11010 | ABS 25  | 10           | 25           | 50        | 03690 |
| 35,5 - 42                                 | B30 11020 | ABS 25  | 10           | 25           | 50        | 04290 |
| 39 - 45                                   | B30 12010 | ABS 32  | 12           | 32           | 60        | 04589 |
| 44 - 50                                   | B30 12020 | ABS 32  | 12           | 32           | 60        | 05089 |
| 47 - 57                                   | B30 13010 | ABS 40  | 16           | 40           | 60        | 05788 |
| 56 - 66                                   | B30 13020 | ABS 40  | 16           | 40           | 60        | 06688 |
| 58 - 71                                   | B30 14010 | ABS 50  | 20           | 50           | 70        | 07197 |
| 70 - 83                                   | B30 14020 | ABS 50  | 20           | 50           | 70        | 08397 |
| 79 - 94                                   | B30 15010 | ABS 63  | 25           | 63           | 70        | 09496 |
| 93 - 108                                  | B30 15020 | ABS 63  | 25           | 63           | 70        | 10896 |
| 100 - 121                                 | B30 16010 | ABS 80  | 32           | 80           | 90        | 12192 |
| 120 - 141                                 | B30 16020 | ABS 80  | 32           | 80           | 90        | 14192 |
| 138 - 159                                 | B30 17010 | ABS 100 | 32           | 100          | 90        | 15991 |
| 158 - 179                                 | B30 17020 | ABS 100 | 32           | 100          | 90        | 17991 |
| 178 - 199                                 | B30 17030 | ABS 100 | 32           | 100          | 90        | 19991 |



**62 950 ...**

**Spare parts**  
**DCONWS**

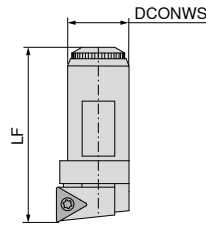
|    |             |       |
|----|-------------|-------|
| 10 | M6x6/SW3    | 44700 |
| 12 | M8x10/SW4   | 44800 |
| 12 | M8x8/SW4    | 14700 |
| 16 | M10x10/SW5  | 44900 |
| 20 | M12x12/SW6  | 45000 |
| 25 | M16x16/SW8  | 45100 |
| 32 | M20x20/SW10 | 45200 |
| 32 | M20x30/SW10 | 45300 |

**1** Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

# FF precision turning insert

**Scope of supply:**

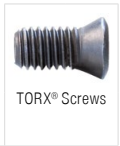
Precision turning insert with insert screw  
Please order insert separately



**NEW**

**62 855 ...**


| for  | DCONWS<br>mm | KOMET no. | LF<br>mm | Insert    |              |
|--|--------------|-----------|----------|-----------|--------------|
| 62 810 0369 / 62 810 04290                 | 10           | M30 20011 | 28,5     | TO.. 06T1 | <b>03000</b> |
| 62 810 04589 / 62 810 05089                | 12           | M30 20021 | 37,5     | TO.. 06T1 | <b>03900</b> |
| 62 810 05788 / 62 810 06688                | 16           | M30 20031 | 45,0     | TO.. 0902 | <b>04700</b> |
| 62 810 07197 / 62 810 08397                | 20           | M30 20041 | 56,0     | TO.. 0902 | <b>05800</b> |
| 62 810 09496 / 62 810 10896                | 25           | M30 20051 | 77,5     | TO.. 1403 | <b>07900</b> |
| 62 810 12192 / 62 810 14192                | 32           | M30 20061 | 97,0     | TO.. 1403 | <b>10000</b> |
| 62 810 15991 / 62 810 17991 / 62 810 19991 | 32           | M30 20071 | 131,0    | TO.. 1403 | <b>13800</b> |



**62 950 ...**

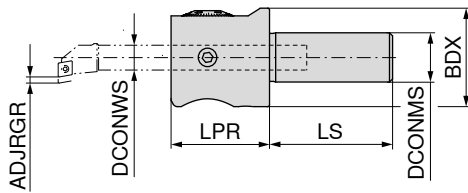
**Spare parts**  
**DCONWS**

|    |                 |              |
|----|-----------------|--------------|
| 10 | M2x3,8/IP6      | <b>12800</b> |
| 12 | M2x3,8/IP6      | <b>12800</b> |
| 16 | M2,6x5,2 - 08IP | <b>12000</b> |
| 20 | M2,6x6,2 - 08IP | <b>09900</b> |
| 25 | M3,5x7,3 - 10IP | <b>12600</b> |
| 32 | M3,5x7,3 - 10IP | <b>12600</b> |

 Suitable inserts can be found on → **Page 58–61.**

# SpinTools – Micro-Boring Head

▲ max. speed 30,000 U/min



| D <sub>min</sub> - D <sub>max</sub><br>mm | BDX<br>mm | DCONWS<br>mm | DCONMS<br>mm | LPR<br>mm | LS<br>mm | ADJRGR<br>mm | Digital    | Analogue   |
|---|-----------|--------------|--------------|-----------|----------|--------------|------------|------------|
|   |           |              |              |           |          |              | 62 386 ... | 62 382 ... |
| 0,3 - 7,1                                 | 25        | 4            | 10           | 25        | 25       | 0 - 1,7      | 025        | 025        |
| 0,3 - 19,1                                | 32        | 7            | 16           | 32        | 40       | 0 - 2,75     | 032        | 032        |

5



Clamping screw ST



Locking screw

**Spare parts for Article no.**

| Article no.             | Clamping screw ST | Locking screw |
|-------------------------|-------------------|---------------|
| 62 382 025 / 62 386 025 | M5x4 214          | M4x8 228      |
| 62 382 032 / 62 386 032 | M6x5 215          | M6x10 229     |

# SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

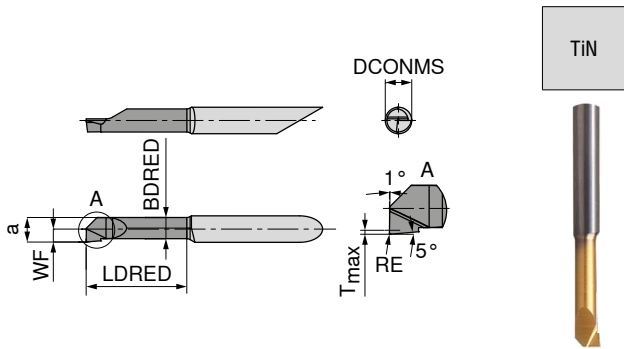
**Scope of supply:**  
incl. AAA Battery



**NEW**  
**62 309 ...**  
00100



### SpinTools – Solid carbide boring bar



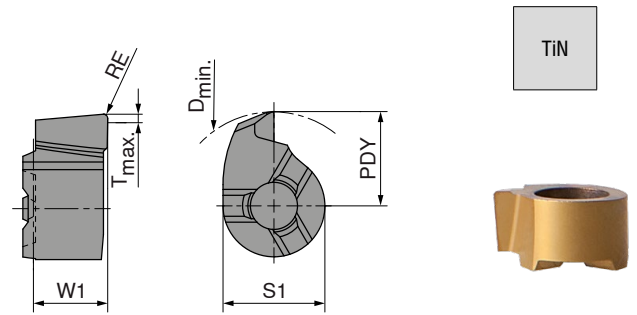
62 383 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | DCONMS<br>mm | LDRED<br>mm | RE<br>mm | a<br>mm | BDRED<br>mm | WF<br>mm | T <sub>max</sub><br>mm |     |
|---|--------------|-------------|----------|---------|-------------|----------|------------------------|-----|
| 0,3 - 0,7                                 | 4            | 1,2         |          | 0,25    | 0,15        | 0,15     | 0,03                   | 003 |
| 0,6 - 1,1                                 | 4            | 2,5         |          | 0,55    | 0,46        | 0,30     | 0,05                   | 006 |
| 1,0 - 2,3                                 | 4            | 4,0         | 0,05     | 0,95    | 0,65        | 0,50     | 0,10                   | 010 |
| 2,2 - 3,3                                 | 4            | 6,0         | 0,05     | 2,00    | 1,55        | 1,10     | 0,20                   | 022 |
| 3,2 - 4,3                                 | 4            | 10,2        | 0,05     | 3,00    | 2,55        | 1,60     | 0,20                   | 032 |
| 3,9 - 7,1                                 | 4            | 15,2        | 0,05     | 3,70    | 3,45        | 1,95     | 0,30                   | 039 |
| 5,2 - 6,3                                 | 7            | 20,3        | 0,05     | 5,00    | 4,25        | 2,60     | 0,50                   | 052 |
| 6,2 - 7,3                                 | 7            | 20,3        | 0,05     | 6,00    | 5,25        | 3,10     | 0,50                   | 062 |
| 6,9 - 8,1                                 | 7            | 25,4        | 0,20     | 6,70    | 6,25        | 3,45     | 0,50                   | 069 |

|   |   |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ● |
| S | ● |
| H | ○ |
| O | ● |

→ v<sub>c</sub> Page 66

### SpinTools – Carbide inserts



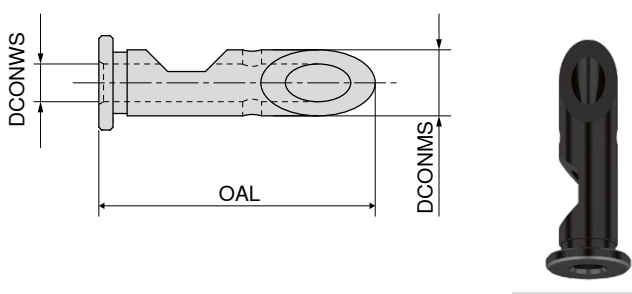
62 384 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | RE<br>mm | PDY<br>mm | S1<br>mm | W1<br>mm | T <sub>max</sub><br>mm |     |
|---|----------|-----------|----------|----------|------------------------|-----|
| 6,9 - 8,1                                 | 0,2      | 3,45      | 4,8      | 3,5      | 1                      | 069 |
| 7,9 - 9,1                                 | 0,2      | 3,95      | 4,8      | 3,5      | 1                      | 079 |
| 8,9 - 10,1                                | 0,2      | 4,45      | 4,8      | 3,5      | 1                      | 089 |
| 9,9 - 12,1                                | 0,2      | 4,95      | 7,0      | 3,9      | 1                      | 099 |
| 11,9 - 14,1                               | 0,2      | 5,95      | 7,0      | 3,9      | 1                      | 119 |
| 13,9 - 19,1                               | 0,2      | 6,95      | 7,0      | 3,9      | 1                      | 139 |

|   |   |
|---|---|
| P | ● |
| M | ● |
| K | ● |
| N | ● |
| S | ● |
| H | ○ |
| O | ● |

→ v<sub>c</sub> Page 66

### SpinTools – Adapter

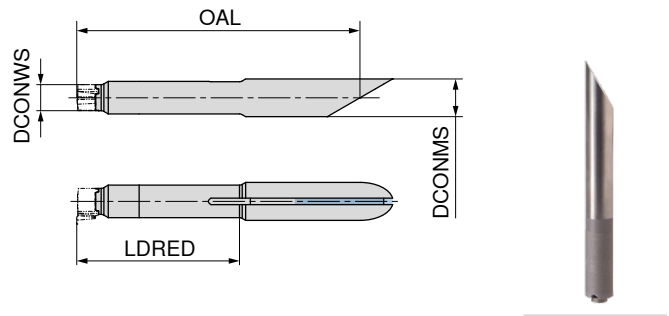


62 335 ...

| DCONMS<br>mm | DCONWS<br>mm | OAL<br>mm |     |
|--------------|--------------|-----------|-----|
| 7            | 4            | 30        | 407 |

### SpinTools – Toolholder for carbide inserts

- ▲ with thro' coolant
- ▲ appropriate inserts for article no. 62 384 ... can be found in the table above



62 385 ...

| DCONMS<br>mm | LDRED<br>mm | DCONWS<br>mm | OAL<br>mm |     |
|--------------|-------------|--------------|-----------|-----|
| 7            | 30          | 4,8          | 56        | 330 |
| 7            | 35          | 7,0          | 61        | 350 |



62 950 ... 80 950 ...

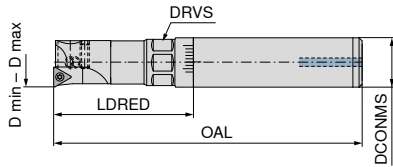
| Spare parts<br>for Article no. |     |     |
|--------------------------------|-----|-----|
| 62 385 330                     | 007 | 124 |
| 62 385 350                     | 094 | 126 |

# MicroKom – Fine boring bar

▲ Precision adjustment range: 0.02 mm in Ø per line

### Scope of supply:


Fine boring bar incl. insert holder, insert holder screw and indexable insert screw



**NEW**


**62 858 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | DCONMS<br>mm | OAL<br>mm | DRVS<br>mm | LDRED<br>mm | Insert    |       |
|---|--------------|-----------|------------|-------------|-----------|-------|
| 15,9 - 20                                 | 16           | 100       | 14         | 29          | TO.. 06T1 | 15900 |
| 19 - 23                                   | 16           | 105       | 14         |             | TO.. 06T1 | 19000 |
| 22 - 26                                   | 16           | 110       | 18         |             | TO.. 06T1 | 22000 |




Insert holders

**62 859 ...**




Adjustment screw

**62 950 ...**



TORX® Screws

**62 950 ...**



Clamping screw

**62 950 ...**

### Spare parts

#### for Article no.

|              |       |       |       |       |
|--------------|-------|-------|-------|-------|
| 62 858 15900 | 15900 | 37600 | 12800 | 37500 |
| 62 858 19000 | 19000 | 37700 | 12800 | 37500 |
| 62 858 22000 | 22000 | 37800 | 12800 | 37500 |

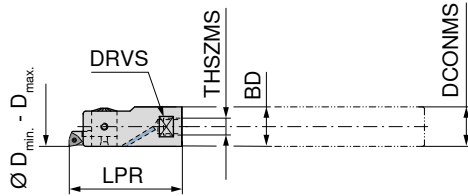
 Suitable inserts can be found on → **Page 58–61.**

# SpinTools – Precision boring head

▲ With internal coolant supply

### Scope of supply:

Fine boring head without shank, without insert holder



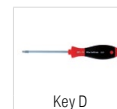
62 304 ...

| BD<br>mm | D <sub>min</sub> - D <sub>max</sub><br>mm | THSZMS | DCONMS<br>mm | LPR<br>mm | DRVS<br>mm |
|----------|---|--------|--------------|-----------|------------|
| 14       | 14,7 - 17,1                               | M6     | 14           | 40        | 12         |
| 16       | 16,7 - 20,1                               | M10    | 16           | 40        | 14         |
| 19       | 19,7 - 24,1                               | M10    | 18           | 40        | 16         |

017  
020  
024



TORX® Screws



Key D



Clamping screw  
ST

62 950 ...

80 950 ...

62 950 ...

### Spare parts for Article no.

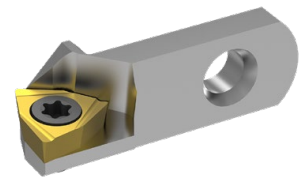
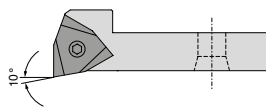
|            |        |     |     |     |        |     |
|------------|--------|-----|-----|-----|--------|-----|
| 62 304 017 | M2,5x6 | 022 | T07 | 109 | M3x2   | 017 |
| 62 304 020 | M2,5x6 | 022 | T07 | 109 | M3x2,5 | 018 |
| 62 304 024 | M2,5x6 | 022 | T07 | 109 | M3x4   | 019 |

Information on the working length can be found on → **Page 73**

# SpinTools – Insert holder, 90°

### Scope of supply:

without insert



62 317 ...

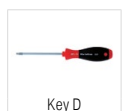
| for boring head | Insert      |
|-----------------|-------------|
| 62 304 ...      | WC.. 0201.. |

024

Suitable inserts can be found on → **Page 62.**



TORX® Screws



Key D

62 950 ...

80 950 ...

### Spare parts

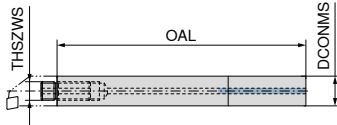
|                       |        |     |     |     |
|-----------------------|--------|-----|-----|-----|
| Insert<br>WC.. 0201.. | M2x3,7 | 021 | T06 | 108 |
|-----------------------|--------|-----|-----|-----|

## SpinTools – High-speed carbide boring bars

- ▲ with threaded mounting stud made of high quality steel
- ▲ with thro' coolant
- ▲ Shank clamping length 35 mm
- ▲ Boring shanks with DCONMS Ø 18 mm are for use in collet chuck or hydraulic chuck

### Scope of supply:

boring shank, without boring head

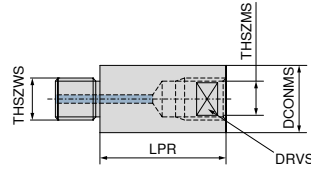


62 353 ...

| DCONMS <sub>h6</sub><br>mm | OAL<br>mm | THSZWS |     |
|----------------------------|-----------|--------|-----|
| 14                         | 110       | M6     | 014 |
| 16                         | 120       | M10    | 016 |
| 18                         | 100       | M10    | 018 |
| 18                         | 140       | M10    | 118 |
| 18                         | 180       | M10    | 218 |

## SpinTools – Shank extensions (tempered steel)

- ▲ with thro' coolant



62 349 ...

| DCONMS <sub>h9</sub><br>mm | LPR<br>mm | THSZWS | THSZMS | DRVS<br>mm |     |
|----------------------------|-----------|--------|--------|------------|-----|
| 16                         | 32        | M10    | M10    | 14         | 732 |
| 16                         | 64        | M10    | M10    | 14         | 764 |

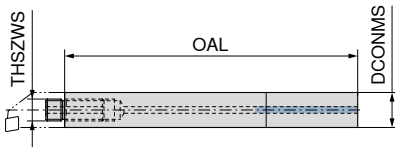
5

## SpinTools – High Speed Steel Extension

- ▲ with thro' coolant
- ▲ Boring shanks with DCONMS Ø 18 mm are for use in collet chuck or hydraulic chuck


### Scope of supply:

boring shank, without boring head



62 329 ...

| DCONMS <sub>h6</sub><br>mm | OAL<br>mm | THSZWS |     |
|----------------------------|-----------|--------|-----|
| 14                         | 60        | M6     | 660 |
| 16                         | 70        | M10    | 770 |
| 18                         | 80        | M10    | 880 |

 Information on the working length can be found on → **Page 73**



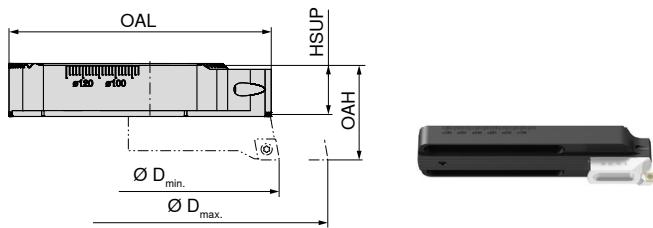


## SpinTools – Bridge for Multi-Head

- ▲ Ø adjustable
- ▲ With internal coolant supply

### Scope of supply:

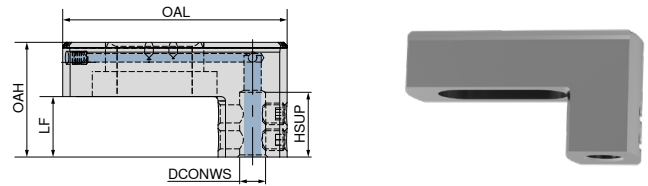
without tool holder  
including fixation screws



| $D_{min} - D_{max}$<br>mm | OAL<br>mm | HSUP<br>mm | OAH<br>mm | 62 376 ... |
|---------------------------|-----------|------------|-----------|------------|
| 86 - 164                  | 80        | 15         | 29        | 164        |
| 162 - 320                 | 158       | 15         | 29        | 320        |

## SpinTools – Axial grooving holder for UltraMini

- ▲ With internal coolant supply



| DCONWS<br>mm | OAL<br>mm | OAH<br>mm | HSUP<br>mm | LF<br>mm | WT<br>kg | 62 358 ... |
|--------------|-----------|-----------|------------|----------|----------|------------|
| 6            | 52        | 26,58     | 15         | 14       | 0,092    | 006        |
| 7            | 52        | 26,58     | 15         | 14       | 0,091    | 007        |
| 8            | 52        | 26,58     | 20         | 14       | 0,088    | 008        |

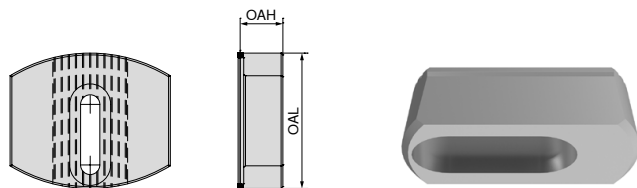
5

Insert holders (62 377 ...) can be found on → **Page 29.**

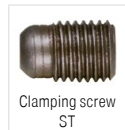
Suitable inserts for axial grooving can be found in → **Chapter 12, Miniature Turning Tools**

## SpinTools – Counterweight

- Scope of supply:**  
Including fixation screw



| for        | OAL<br>mm | OAH<br>mm | 62 378 ... |
|------------|-----------|-----------|------------|
| 62 376 ... | 38        | 12        | 320        |



| Spare parts<br>DCONWS | 62 950 ... |
|-----------------------|------------|
| 6                     | 214        |
| 7                     | 214        |
| 8                     | 214        |

## SpinTools – Multi-Head – Boring and Fine Boring Head Set

- ▲ suitable for Ø 3 – Ø 320 mm

### Scope of supply:

- ▲ 1 Tool Kit
- ▲ 1 Multi-Head-Boring- and Fine Boring Head (depending on selection)
- ▲ 4 Boring bars
  - 62 345 015 Ø 9.75 – Ø 15.1 mm
  - 62 345 020 Ø 14.75 – Ø 20.1 mm
  - 62 345 024 Ø 19.75 – Ø 25.1 mm
  - 62 345 029 Ø 24.75 – Ø 30.1 mm
- ▲ 2 Boring tools, adjustable
  - 62 375 048 Ø 29.75 – Ø 48.1 mm
  - 62 375 088 Ø 47.75 – Ø 88.1 mm
- ▲ incl. insert holder
  - 62 377 048 CC.. 0602
  - 62 377 088 CC.. 0602
- ▲ 1 Bridge
  - 62 376 164 Ø 86 – Ø 164 mm
- ▲ 1 Torx-Key – T7
- ▲ 1 6-adjustment key – SW5

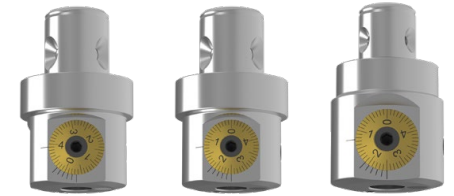
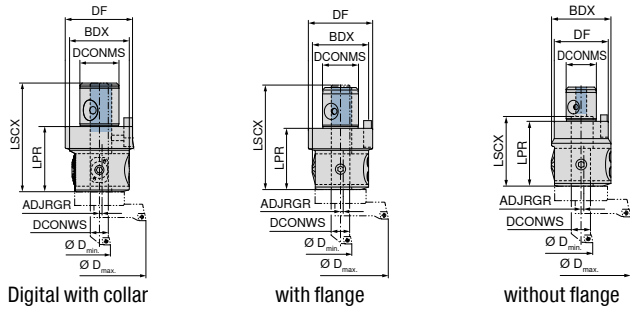


| $D_{min} - D_{max}$<br>mm | Adapter  | STM Modular<br>62 374 ... | HSK-A<br>62 379 ... | SK<br>62 379 ... | MAS-BT<br>62 379 ... |
|---------------------------|----------|---------------------------|---------------------|------------------|----------------------|
| 9,75 - 164                | STM 36   | 999                       |                     |                  |                      |
| 9,75 - 164                | HSK-A 63 |                           | 996                 |                  |                      |
| 9,75 - 164                | SK 40    |                           |                     | 990              |                      |
| 9,75 - 164                | BT 40    |                           |                     |                  | 993                  |

# SpinTools – Single point boring heads – Modular system

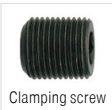
- ▲ LSCX = Boring depth
- ▲ With internal coolant supply

## STM

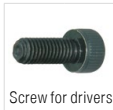


Digital with collar STM Modular **62 326 ...**  
 with flange STM Modular **62 332 ...**  
 without flange STM Modular **62 332 ...**  
 036 653 553

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter | DCONMS<br>mm | BDX<br>mm | DF<br>mm | DCONWS<br>mm | LPR<br>mm | LSCX<br>mm | ADJRGR<br>mm | WT<br>kg |
|---|---------|--------------|-----------|----------|--------------|-----------|------------|--------------|----------|
| 3,0 - 88,1                                | STM 28  | 28           | 55        | 50       | 16           | 60        | 62         | 0 - 2,7      | 0,98     |
| 3,0 - 88,1                                | STM 36  | 36           | 55        | 63       | 16           | 60        | 101        | 0 - 2,7      | 1,26     |
| 3,0 - 88,1                                | STM 36  | 36           | 55        | 63       | 16           | 60        | 106        | 0 - 2,7      | 0,43     |



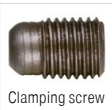
Clamping screw



Screw for drivers



Driver



Clamping screw ST

62 950 ... 62 950 ... 62 950 ... 62 950 ...

### Spare parts for Article no.

|            |        |     |       |     |           |     |       |     |
|------------|--------|-----|-------|-----|-----------|-----|-------|-----|
| 62 332 553 | M10x16 | 047 | M5x10 | 166 | 12x20x6   | 039 | M10x8 | 046 |
| 62 332 653 | M10x16 | 047 | M6x12 | 167 | 16x26,5x8 | 040 | M10x8 | 046 |
| 62 326 036 | M10x16 | 047 | M6x12 | 167 | 16x26,5x8 | 040 | M10x8 | 046 |

Suitable base adapters can be found on → [page 51](#).

## SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

### Scope of supply:

incl. AAA Battery



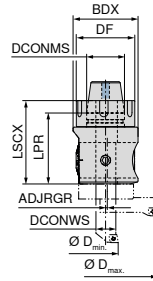
**NEW**  
**62 309 ...**

00100

# SpinTools – Single point boring heads

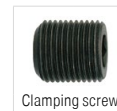
- ▲ Interface for use on ER32 collet chucks
- ▲ LSCX = Recess depth of boring bar
- ▲ with thro' coolant supply
- ▲ Suitable for Ø 3.0 - Ø 88.1 mm

ER 32



ER 32  
**62 332 ...**  
732

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter | DCONMS<br>mm | BDX<br>mm | DF<br>mm | DCONWS<br>mm | LPR<br>mm | LSCX<br>mm | ADJRGR<br>mm |
|---|---------|--------------|-----------|----------|--------------|-----------|------------|--------------|
| 3,0 - 88,1                                | ER 32   | 32           | 55        | 49,5     | 16           | 60        | 86,5       | 0 - 2,7      |



Clamping screw



Clamping screw  
ST

**62 950 ...**

**62 950 ...**

Spare parts  
for Article no.  
62 332 732

M10x16

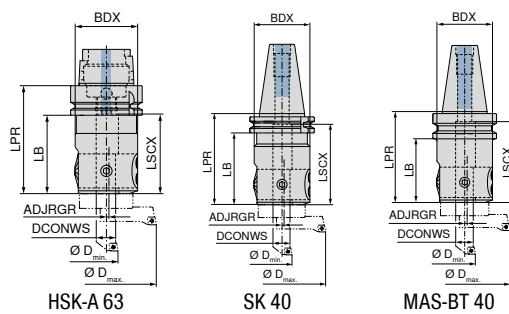
047

M10x8

046

# SpinTools – Single Point Boring Head – Monoblock

- ▲ LSCX = Boring depth
- ▲ With internal coolant supply



HSK-A  
**62 333 ...**  
653

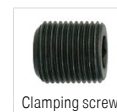


SK  
**62 333 ...**  
153

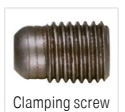


MAS-BT  
**62 333 ...**  
453

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter  | BDX<br>mm | DCONWS<br>mm | LPR<br>mm | LB<br>mm | LSCX<br>mm | ADJRGR<br>mm | WT<br>kg |
|---|----------|-----------|--------------|-----------|----------|------------|--------------|----------|
| 3,0 - 88,1                                | HSK-A 63 | 55        | 16           | 95        | 69       | 70         | 0 - 2,7      | 1,66     |
| 3,0 - 88,1                                | SK 40    | 55        | 16           | 90        | 70       | 80         | 0 - 2,7      | 1,83     |
| 3,0 - 88,1                                | BT 40    | 55        | 16           | 90        | 63       | 80         | 0 - 2,7      | 1,90     |



Clamping screw



Clamping screw  
ST

**62 950 ...**

**62 950 ...**

Spare parts  
D<sub>min</sub> - D<sub>max</sub>  
3,0 - 88,1

M10x16

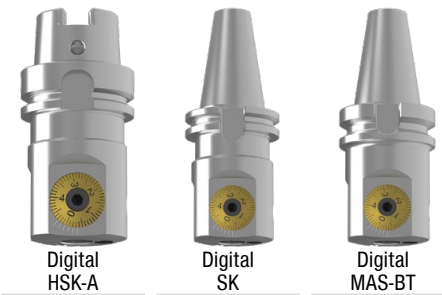
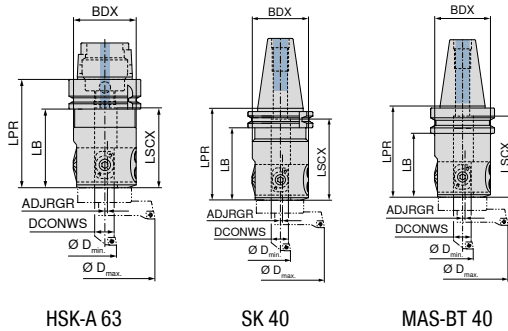
047

M10x8

046

# SpinTools – Single Point Boring Head – Monoblock

- ▲ LSCX = Boring depth
- ▲ With internal coolant supply

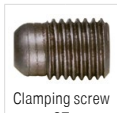


| Adapter        | Article no.    |
|----------------|----------------|
| Digital HSK-A  | 62 363 ... 688 |
| Digital SK     | 62 363 ... 188 |
| Digital MAS-BT | 62 363 ... 488 |

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter  | BDX<br>mm | DCONWS<br>mm | LPR<br>mm | LB<br>mm | LSCX<br>mm | ADJRGR<br>mm |
|---|----------|-----------|--------------|-----------|----------|------------|--------------|
| 3,0 - 88,1                                | HSK-A 63 | 55        | 16           | 95        | 70       | 70         | 0 - 2,7      |
| 3,0 - 88,1                                | SK 40    | 55        | 16           | 90        | 71       | 80         | 0 - 2,7      |
| 3,0 - 88,1                                | BT 40    | 55        | 16           | 90        | 59       | 80         | 0 - 2,7      |



Clamping screw



Clamping screw  
ST

| Adapter | Article no.    |
|---------|----------------|
| M10x16  | 62 950 ... 047 |
| M10x8   | 62 950 ... 046 |

**Spare parts**  
for Article no.  
62 363 488 / 62 363 188

# SpinTools – Digital Stick

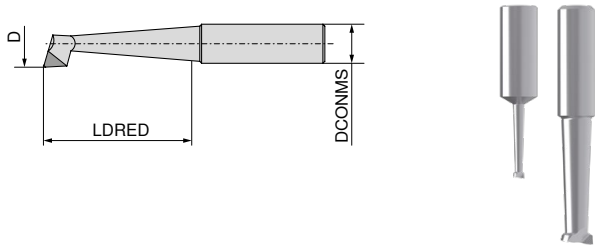
- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

**Scope of supply:**  
incl. AAA Battery



**NEW**  
**62 309 ...**  
00100

## SpinTools – Boring tools with carbide cutting edge



| $D_{min} - D_{max}$<br>mm | LDRED<br>mm | DCONMS <sub>h6</sub><br>mm |     |
|---------------------------|-------------|----------------------------|-----|
| 3,0 - 8,0                 | 20          | 10                         | 008 |
| 4,0 - 9,0                 | 23          | 10                         | 009 |
| 5,0 - 10,0                | 25          | 10                         | 010 |
| 6,0 - 11,0                | 25          | 10                         | 011 |
| 7,0 - 12,0                | 31          | 10                         | 012 |

|   |   |
|---|---|
| P | ● |
| M | ○ |
| K | ○ |
| N | ● |
| S | ○ |
| H | ○ |
| O | ○ |

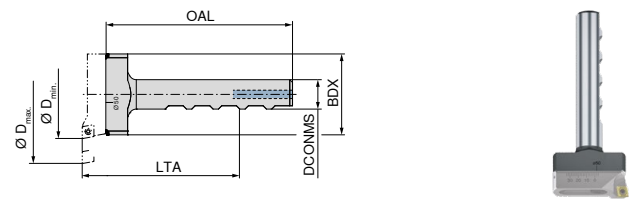
62 346 ...

→ v<sub>c</sub> Page 66

## SpinTools – Adjustable boring bar bridge

▲ With internal coolant supply

Scope of supply:  
without insert holder



62 375 ...

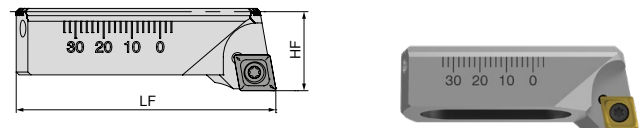
| $D_{min} - D_{max}$<br>mm | OAL<br>mm | BDX<br>mm | LTA<br>mm | DCONMS<br>mm |     |
|---------------------------|-----------|-----------|-----------|--------------|-----|
| 29,75 - 48,1              | 103       | 25        | 85        | 16           | 048 |
| 47,75 - 88,1              | 101       | 44        | 85        | 16           | 088 |

5

## SpinTools – Tool holder for boring bar and bridge Multi-Head

▲ With internal coolant supply

Scope of supply:  
without inserts  
incl. mounting screws

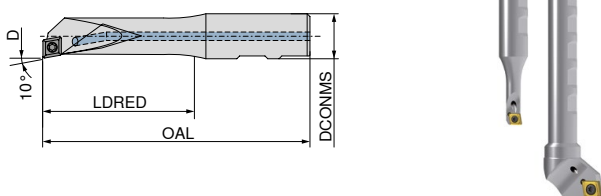


62 377 ...

| for                     | LF<br>mm | HF<br>mm | Insert    |     |
|-------------------------|----------|----------|-----------|-----|
| 62 375 048              | 28,2     | 12       | CC.. 0602 | 048 |
| 62 375 088 / 62 376 ... | 46,0     | 14       | CC.. 0602 | 088 |
| 62 375 088 / 62 376 ... | 46,0     | 14       | CC.. 09T3 | 089 |

## SpinTools – Steel boring bars

▲ With internal coolant supply



62 345 ...

| $D_{min} - D_{max}$<br>mm | OAL<br>mm | LDRED<br>mm | DCONMS <sub>h6</sub><br>mm | Insert    |     |
|---------------------------|-----------|-------------|----------------------------|-----------|-----|
| 9,75 - 15,1               | 75        | 30          | 16                         | CC.. 0602 | 015 |
| 11,75 - 17,1              | 80        | 37          | 16                         | CC.. 0602 | 017 |
| 13,75 - 19,1              | 85        | 43          | 16                         | CC.. 0602 | 019 |
| 14,75 - 20,1              | 90        | 51          | 16                         | CC.. 0602 | 020 |
| 15,75 - 21,1              | 95        | 57          | 16                         | CC.. 0602 | 021 |
| 17,75 - 23,1              | 100       | 67          | 16                         | CC.. 0602 | 023 |
| 19,75 - 25,1              | 105       | 72          | 16                         | CC.. 0602 | 024 |
| 19,75 - 25,1              | 105       | 72          | 16                         | CC.. 09T3 | 025 |
| 21,75 - 27,1              | 110       | 77          | 16                         | CC.. 09T3 | 027 |
| 24,75 - 30,1              | 115       | 82          | 16                         | CC.. 0602 | 029 |
| 24,75 - 30,1              | 115       | 82          | 16                         | CC.. 09T3 | 030 |
| 27,75 - 33,1              | 115       | 82          | 16                         | CC.. 09T3 | 033 |
| 31,75 - 37,1              | 115       | 82          | 16                         | CC.. 09T3 | 037 |
| 34,75 - 40,1              | 115       | 82          | 16                         | CC.. 09T3 | 040 |
| 38,75 - 44,1              | 115       | 82          | 16                         | CC.. 09T3 | 044 |
| 42,75 - 48,1              | 115       | 82          | 16                         | CC.. 09T3 | 048 |
| 47,75 - 53,1              | 115       | 82          | 16                         | CC.. 09T3 | 053 |

Suitable inserts can be found on → Page 63.

|            | TORX® Screws | Key D | Flange screw |
|------------|--------------|-------|--------------|
| 62 950 ... | 022          | 109   | 225          |
| 80 950 ... | 022          | 109   | 225          |
| 62 950 ... | 023          | 113   | 225          |

Spare parts  
for Article no.

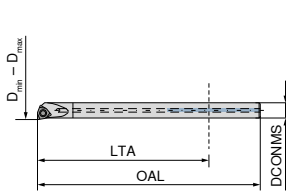
|            |     |     |     |
|------------|-----|-----|-----|
| 62 377 048 | 022 | 109 | 225 |
| 62 377 088 | 022 | 109 | 225 |
| 62 377 089 | 023 | 113 | 225 |

Suitable inserts can be found on → Page 63.



## SpinTools – Boring bars with carbide shank


- ▲ With internal coolant supply
- ▲ LTA = max. overhang



62 341 ...

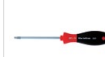
| D <sub>min</sub> - D <sub>max</sub><br>mm | DCONMS <sub>H6</sub><br>mm | OAL<br>mm | LTA<br>mm | Insert      |     |
|---|----------------------------|-----------|-----------|-------------|-----|
| 5,8 - 11,2                                | 5                          | 80        | 45        | WC.. 0201.. | 011 |
| 7,8 - 13,2                                | 6                          | 100       | 60        | WC.. 0201.. | 013 |

Suitable inserts can be found on → Page 62.



TORX® Screws

62 950 ...



Key D

80 950 ...

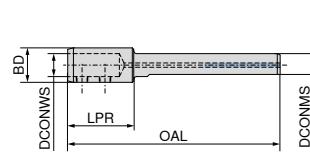
Spare parts  
Insert  
WC.. 0201..

021

108

## SpinTools – Boring tool extensions

- ▲ with thro' coolant



62 337 ...

| DCONWS<br>mm | DCONMS<br>mm | BD<br>mm | OAL<br>mm | LPR<br>mm |     |
|--------------|--------------|----------|-----------|-----------|-----|
| 10           | 16           | 16       | 128       |           | 128 |
| 16           | 16           | 24       | 148       | 44        | 148 |



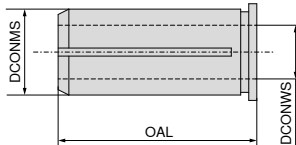
62 950 ...

Spare parts  
for Article no.  
62 337 128  
62 337 148

048  
049

## SpinTools – Reduction sleeves

- ▲ for boring bars and boring tools



62 335 ...

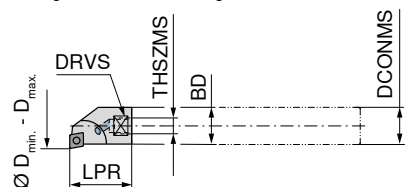
| DCONMS<br>mm | DCONWS<br>mm | OAL<br>mm |     |
|--------------|--------------|-----------|-----|
| 16           | 4            | 37        | 104 |
| 16           | 5            | 37        | 105 |
| 16           | 6            | 37        | 106 |
| 16           | 8            | 37        | 108 |
| 16           | 9            | 37        | 109 |
| 16           | 10           | 37        | 110 |
| 16           | 11           | 37        | 111 |
| 16           | 12           | 37        | 112 |
| 16           | 13           | 37        | 113 |
| 16           | 14           | 37        | 114 |

## SpinTools – High-speed boring head

- ▲ for overturning holder and high speed carbide shank
- ▲ With internal coolant supply
- ▲  $D_{max}$  = using a head with fine adjustment 0 – 2,7 mm

### Scope of supply:

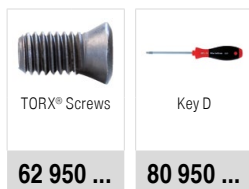
Boring head without boring shank, without inserts



62 361 ...

| $D_{min} - D_{max}$<br>mm | LPR<br>mm | THSZMS | DCONMS <sub>h6</sub><br>mm | Insert    |     |
|---------------------------|-----------|--------|----------------------------|-----------|-----|
| 8,75 - 14,1               | 18        | M5     | 8                          | CC.. 0602 | 014 |
| 9,75 - 15,1               | 18        | M5     | 9                          | CC.. 0602 | 015 |
| 10,75 - 16,1              | 23        | M6     | 10                         | CC.. 0602 | 016 |
| 11,75 - 17,1              | 23        | M6     | 11                         | CC.. 0602 | 017 |
| 12,75 - 18,1              | 23        | M6     | 12                         | CC.. 0602 | 018 |
| 13,75 - 19,1              | 23        | M6     | 13                         | CC.. 0602 | 019 |
| 14,75 - 20,1              | 23        | M6     | 14                         | CC.. 0602 | 020 |
| 15,75 - 21,1              | 23        | M6     | 14                         | CC.. 0602 | 021 |
| 16,75 - 22,1              | 27        | M10    | 16                         | CC.. 0602 | 022 |
| 17,75 - 23,1              | 27        | M10    | 16                         | CC.. 0602 | 023 |
| 19,75 - 25,1              | 27        | M10    | 16                         | CC.. 0602 | 025 |
| 21,75 - 27,1              | 27        | M10    | 16                         | CC.. 0602 | 027 |
| 24,75 - 30,1              | 27        | M10    | 16                         | CC.. 0602 | 030 |
| 27,75 - 33,1              | 27        | M10    | 16                         | CC.. 0602 | 033 |
| 31,75 - 37,1              | 27        | M10    | 16                         | CC.. 0602 | 037 |
| 34,75 - 40,1              | 27        | M10    | 16                         | CC.. 0602 | 040 |

Suitable inserts can be found on → Page 63.



62 950 ...

80 950 ...

### Spare parts

#### Insert

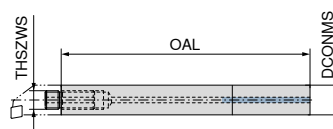
|           |     |     |
|-----------|-----|-----|
| CC.. 0602 | 022 | 109 |
|-----------|-----|-----|

## SpinTools – High-speed carbide boring bars

- ▲ with threaded mounting stud made of high quality steel
- ▲ with thro' coolant
- ▲ Shank clamping length 35 mm
- ▲ Boring shanks with DCONMS Ø 18 mm are for use in collet chuck or hydraulic chuck

### Scope of supply:

boring shank, without boring head



62 353 ...

| DCONMS <sub>h6</sub><br>mm | OAL<br>mm | THSZWS |     |
|----------------------------|-----------|--------|-----|
| 8                          | 73        | M5     | 008 |
| 9                          | 80        | M5     | 009 |
| 10                         | 82        | M6     | 010 |
| 11                         | 89        | M6     | 011 |
| 12                         | 96        | M6     | 012 |
| 13                         | 103       | M6     | 013 |
| 14                         | 110       | M6     | 014 |
| 16                         | 120       | M10    | 016 |

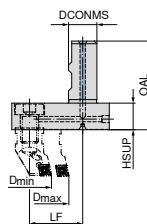
Information on the working length can be found on → Page 73.

## SpinTools – Over turning holder for boring head

- ▲ With internal coolant supply

### Scope of supply:

Over turning holder incl. fixing screw, but without boring head and indexable inserts

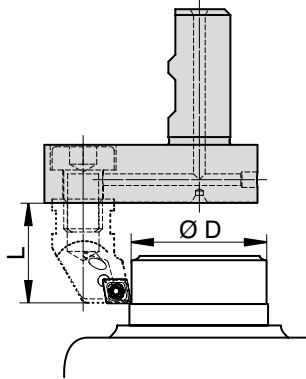


62 404 ...

| $D_{min} - D_{max}$<br>mm | DCONMS <sub>h6</sub><br>mm | LF<br>mm | HSUP<br>mm | OAL<br>mm |     |
|---------------------------|----------------------------|----------|------------|-----------|-----|
| 5,3 - 28,6                | 16                         | 20       | 15         | 50        | 028 |
| 25,3 - 48,6               | 16                         | 30       | 15         | 50        | 048 |

## Help me choose the correct over-turning adapter

- ▲ for the combination of overturning with high speed boring heads
- ▲ the length L can be extended with shank extensions



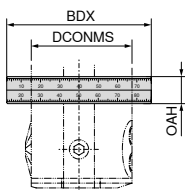
| Boring range<br>Ø D <sub>min.</sub> - Ø D <sub>max.</sub><br>mm | Tool holder<br>62 404 ... | L<br>mm | Boring Head<br>62 361 ... | Page No. |
|---|---------------------------|---------|---------------------------|----------|
| 5,3 - 10,6  | 028                       | 27      | 040                       | 31       |
| 8,3 - 13,6  | 028                       | 27      | 037                       |          |
| 12,3 - 17,6   | 028                       | 27      | 033                       |          |
| 15,3 - 20,6   | 028                       | 27      | 030                       |          |
| 18,3 - 23,6   | 028                       | 27      | 027                       |          |
| 20,3 - 25,6   | 028                       | 27      | 025                       |          |
| 22,3 - 27,6   | 028                       | 27      | 023                       |          |
| 23,3 - 28,6   | 028                       | 27      | 022                       |          |
| 25,3 - 30,6   | 048                       | 27      | 040                       |          |
| 28,3 - 33,6   | 048                       | 27      | 037                       |          |
| 32,3 - 37,6   | 048                       | 27      | 033                       |          |
| 35,3 - 40,6   | 048                       | 27      | 030                       |          |
| 38,3 - 43,6   | 048                       | 27      | 027                       |          |
| 40,3 - 45,6   | 048                       | 27      | 025                       |          |
| 42,3 - 47,6   | 048                       | 27      | 023                       |          |
| 43,3 - 48,6   | 048                       | 27      | 022                       |          |

## SpinTools – Balancing rings

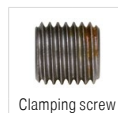
- ▲ For balancing the tools without dynamic balancing machine

### Scope of supply:

CD-ROM with application data and setting values



| 62 300 ... |     |     |      |     |
|------------|-----|-----|------|-----|
| DCONMS     | BDX | OAH | WT   |     |
| mm         | mm  | mm  | kg   |     |
| 32         | 50  | 16  | 0,08 | 032 |
| 40         | 58  | 16  | 0,09 | 040 |
| 50         | 70  | 16  | 0,13 | 050 |
| 55         | 75  | 16  | 0,14 | 055 |
| 63         | 84  | 16  | 0,16 | 063 |



Clamping screw

62 950 ...

### Spare parts

DCONMS

32 - 63

009

## SpinTools – Single point boring heads Set 1

- ▲ suitable for  $\varnothing 3 - \varnothing 88.1$  mm
- ▲ supplied with  $\varnothing 9.75 - \varnothing 30.1$  or  $\varnothing 9.75 - \varnothing 40.1$  mm
- ▲ with thro' coolant

### Scope of supply:

- ▲ 1 Tool Kit - 62 345 033  $\varnothing 27.75 - \varnothing 33.1$  mm
- ▲ 1 single point boring head (depending on selection) - 62 345 037  $\varnothing 31.75 - \varnothing 37.1$  mm
- 62 345 040  $\varnothing 34.75 - \varnothing 40.1$  mm
- ▲ 4 Boring bars (SK40- and MAS-BT-Set) ▲ 1 6-adjustment key – SW5
- 62 345 015  $\varnothing 9.75 - \varnothing 15.1$  mm
- 62 345 020  $\varnothing 14.75 - \varnothing 20.1$  mm
- 62 345 024  $\varnothing 19.75 - \varnothing 25.1$  mm
- 62 345 029  $\varnothing 24.75 - \varnothing 30.1$  mm
- ▲ 8 Boring bars (Modular-Set) ▲ 1 Torx-Key – T7
- 62 345 015  $\varnothing 9.75 - \varnothing 15.1$  mm
- 62 345 019  $\varnothing 13.75 - \varnothing 19.1$  mm
- 62 345 023  $\varnothing 17.75 - \varnothing 23.1$  mm
- 62 345 027  $\varnothing 21.75 - \varnothing 27.1$  mm
- 62 345 030  $\varnothing 24.75 - \varnothing 30.1$  mm



5

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter |
|---|---------|
| 9,75 - 40,1                               | STM 36  |
| 9,75 - 30,1                               | SK 40   |
| 9,75 - 30,1                               | BT 40   |

| STM Modular<br>62 334 ... | SK<br>62 345 ... | MAS-BT<br>62 345 ... |
|---------------------------|------------------|----------------------|
| 999                       | 990              | 993                  |

## SpinTools – Single point boring heads Set 2

- ▲ suitable for  $\varnothing 3 - \varnothing 88.1$  mm
- ▲ Supplied with  $\varnothing 9.75 - \varnothing 88.1$  mm
- ▲ with thro' coolant

### Scope of supply:

- ▲ 1 Tool Kit
- ▲ 1 Fine boring head (depending on selection)
- ▲ 4 Boring bars
  - 62 345 015  $\varnothing 9.75 - \varnothing 15.1$  mm
  - 62 345 020  $\varnothing 14.75 - \varnothing 20.1$  mm
  - 62 345 024  $\varnothing 19.75 - \varnothing 25.1$  mm
  - 62 345 029  $\varnothing 24.75 - \varnothing 30.1$  mm
- ▲ 2 Boring tools, adjustable
  - 62 375 048  $\varnothing 29.75 - \varnothing 48.1$  mm
  - 62 375 088  $\varnothing 47.75 - \varnothing 88.1$  mm
- ▲ incl. insert holder
  - 62 377 048 CC.. 0602
  - 62 377 088 CC.. 0602
- ▲ 1 Torx key – T7
- ▲ 1 6-adjustment key – SW5



| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter  |
|---|----------|
| 9,75 - 88,1                               | STM 36   |
| 9,75 - 88,1                               | HSK-A 63 |
| 9,75 - 88,1                               | SK 40    |
| 9,75 - 88,1                               | BT 40    |

| STM Modular<br>62 334 ... | HSK-A<br>62 345 ... | SK<br>62 345 ... | MAS-BT<br>62 345 ... |
|---------------------------|---------------------|------------------|----------------------|
| 997                       | 997                 | 998              | 999                  |

## SpinTools – Single point boring heads ER32 Set

- ▲ Suitable for  $\varnothing$  3.0 -  $\varnothing$  88.1 mm
- ▲ Scope of supply  $\varnothing$  9.75 -  $\varnothing$  30.1 mm
- ▲ with thro' coolant supply

### Scope of supply:

- ▲ 1 tool kit
- ▲ 1 single point boring head (62 332 732)
- ▲ 4 boring bars
  - 62 345 015  $\varnothing$  9.75 -  $\varnothing$  15.1 mm
  - 62 345 020  $\varnothing$  14.75 -  $\varnothing$  20.1 mm
  - 62 345 024  $\varnothing$  19.75 -  $\varnothing$  25.1 mm
  - 62 345 029  $\varnothing$  24.75 -  $\varnothing$  30.1 mm
- ▲ 1 Torx Key – T7
- ▲ 1 Allen Key – SW5



62 332 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter |
|---|---------|
| 9,75 - 30,1                               | ER 32   |

999

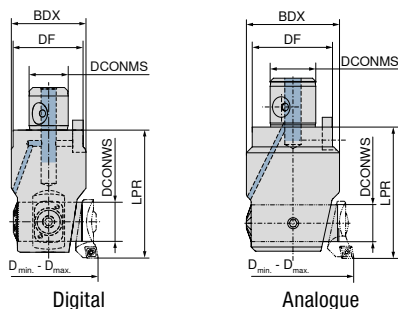
# SpinTools – Single point finish boring heads

▲ With internal coolant supply

**Scope of supply:**

without insert holder and inserts

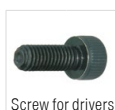
**STM**



Digital STM Modular **62 308 ...**  
Analogue STM Modular **62 303 ...**

| D <sub>min</sub> - D <sub>max</sub> mm | D <sub>min</sub> - D <sub>max</sub> extended mm | Adapter | DCONMS mm | BDX mm | DF mm | LPR mm | DCONWS mm | WT kg | Digital STM Modular | Analogue STM Modular |
|--|---|---------|-----------|--------|-------|--------|-----------|-------|---------------------|----------------------|
| 23,9 - 31,1                            | 29,9 - 37,1                                     | STM 11  | 11        | 22,5   | 20    | 40     | 11        | 0,08  | <b>031</b>          | <b>031</b>           |
| 30,9 - 40,1                            | 37,9 - 47,1                                     | STM 14  | 14        | 29,0   | 25    | 45     | 13        | 0,15  | <b>040</b>          | <b>040</b>           |
| 39,9 - 51,1                            | 47,9 - 59,1                                     | STM 18  | 18        | 37,0   | 32    | 65     | 17        | 0,38  | <b>051</b>          | <b>051</b>           |
| 50,9 - 67,1                            | 64,9 - 81,1                                     | STM 22  | 22        | 47,0   | 40    | 72     | 22        | 0,70  | <b>067</b>          | <b>067</b>           |
| 66,9 - 87,1                            | 84,9 - 105,1                                    | STM 28  | 28        | 59,0   | 50    | 82     | 30        | 1,32  | <b>087</b>          | <b>087</b>           |
| 86,9 - 116,1                           | 104,9 - 134,1 (124,9 - 154,1)                   | STM 36  | 36        | 72,0   | 63    | 105    | 30        | 3,15  | <b>116</b>          | <b>116</b>           |

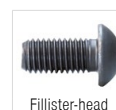
For optimal stability when fine boring the main insert holder ranges are preferred over the extended range.



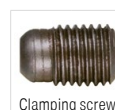
Screw for drivers



Driver



Fillister-head screw



Clamping screw ST

**62 950 ...**      **62 950 ...**      **62 950 ...**      **62 950 ...**

**Spare parts**

**for Article no.**

|                         |        |            |           |            |        |            |        |            |
|-------------------------|--------|------------|-----------|------------|--------|------------|--------|------------|
| 62 303 031 / 62 308 031 | M2x2,5 | <b>162</b> | 5x8,5x3   | <b>035</b> | M4x6   | <b>287</b> | M4x3   | <b>213</b> |
| 62 303 040 / 62 308 040 | M2,5x6 | <b>163</b> | 6x10,3x4  | <b>036</b> | M5x8   | <b>288</b> | M5x4   | <b>214</b> |
| 62 303 051 / 62 308 051 | M3x8   | <b>164</b> | 8x15x5    | <b>037</b> | M6x10  | <b>289</b> | M6x5   | <b>215</b> |
| 62 303 067 / 62 308 067 | M4x10  | <b>165</b> | 10x18,1x6 | <b>038</b> | M8x12  | <b>290</b> | M8x6   | <b>216</b> |
| 62 303 087 / 62 308 087 | M5x10  | <b>166</b> | 12x20x6   | <b>039</b> | M10x16 | <b>291</b> | M10x10 | <b>217</b> |
| 62 303 116 / 62 308 116 | M6x12  | <b>167</b> | 16x26,5x8 | <b>040</b> | M10x16 | <b>291</b> | M10x18 | <b>218</b> |

Suitable base adapters can be found on → **page 51.**

## SpinTools – Digital Stick

▲ suitable for all SpinTools digital heads as well as for hi.flex Digital

▲ revised software for even more precise adjustment

**Scope of supply:**

incl. AAA Battery



**NEW**  
**62 309 ...**

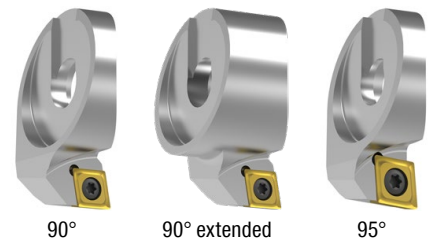
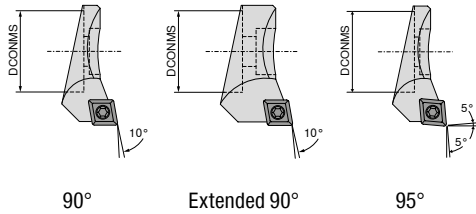
00100

## SpinTools – Insert holder, 90° and 95°

▲ for single point finish boring heads Art. No. 62 303 ..., 62 308 ...

### Scope of supply:

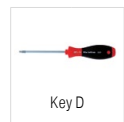
incl. Torx clamping screw for inserts, without fixing bolt for holder



| DCONMS<br>mm | Insert    |
|--------------|-----------|
| 11           | CC.. 0602 |
| 13           | CC.. 0602 |
| 17           | CC.. 0602 |
| 22           | CC.. 0602 |
| 30           | CC.. 0602 |
| 30           | CC.. 09T3 |
| 30           | CC.. 09T3 |

| 62 318 ... | 62 318 ... | 62 320 ... |
|------------|------------|------------|
| 031        | 037        | 031        |
| 040        | 047        | 040        |
| 051        | 059        | 051        |
| 067        | 081        | 067        |
| 087        | 105        |            |
| 116        | 134        | 087        |
|            | 154        |            |

Suitable inserts can be found on → **Page 63.**



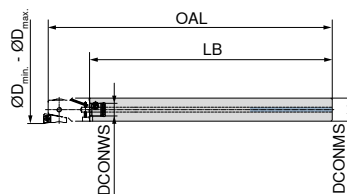
### Spare parts

| Insert    |        | 62 950 ... | 80 950 ... |
|-----------|--------|------------|------------|
| CC.. 0602 | M2,5x6 | 022        | T07 109    |
| CC.. 09T3 | M4x9   | 023        | T15 113    |

## SpinTools – High-speed carbide boring tools

▲ Shaft extension for single point finish boring heads Art. No. 62 303 ..., 62 308 ...

▲ with thro' coolant supply



| D <sub>min</sub> - D <sub>max</sub><br>mm | DCONWS<br>mm | DCONMS <sub>h5</sub><br>mm | OAL<br>mm | LB<br>mm | WT<br>kg | 62 354 ... |
|---|--------------|----------------------------|-----------|----------|----------|------------|
| 23,9 - 31,1                               | 11           | 20                         | 250       | 210      | 0,81     | 020        |
| 30,9 - 40,1                               | 14           | 25                         | 306       | 261      | 1,54     | 025        |
| 39,9 - 51,1                               | 18           | 32                         | 380       | 315      | 3,03     | 032        |

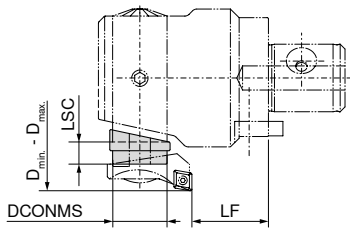


# SpinTools – Reverse adapter for back boring

▲ For insert holder Art. No. 62 318 ... / 62 320 ...

### Scope of supply:

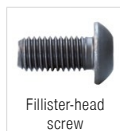
Adapter including fixing bolt



62 321 ...

| LSC<br>mm | DCONMS<br>mm | LF<br>mm | D <sub>min</sub> - D <sub>max</sub><br>mm |     |
|-----------|--------------|----------|---|-----|
| 6,5       | 11           | 13,0     | 37 - 44                                   | 044 |
| 8,0       | 11           | 13,0     | 40 - 47                                   | 051 |
| 6,5       | 13           | 12,6     | 44 - 53                                   | 053 |
| 10,0      | 13           | 12,6     | 51 - 60                                   | 060 |
| 6,5       | 17           | 31,3     | 53 - 64                                   | 064 |
| 10,0      | 17           | 31,3     | 60 - 71                                   | 071 |
| 6,5       | 22           | 31,2     | 68 - 80                                   | 080 |
| 12,0      | 22           | 31,2     | 75 - 91                                   | 091 |
| 10,0      | 30           | 29,0     | 87 - 107                                  | 107 |

 Note left hand direction of spindle rotation when in use



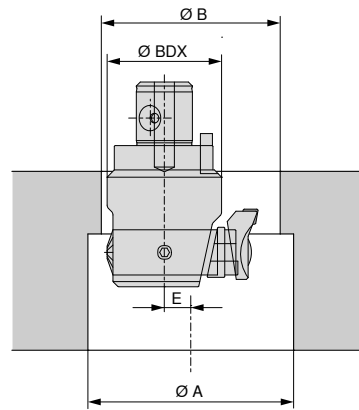
Fillister-head screw

62 950 ...

### Spare parts for Article no.

|            |     |
|------------|-----|
| 62 321 044 | 278 |
| 62 321 051 | 279 |
| 62 321 053 | 280 |
| 62 321 060 | 281 |
| 62 321 064 | 282 |
| 62 321 071 | 283 |
| 62 321 080 | 284 |
| 62 321 091 | 285 |
| 62 321 107 | 286 |

# Minimum diameter (Ø B) during retraction for back boring



Minimum diameter (Ø B) of the entry bore

$$\varnothing B = \frac{\varnothing BDX + \varnothing A}{2} + 1^*$$

Minimum offset (E) for starting

$$E = \frac{\varnothing A - \varnothing B}{2} + 0,5^*$$

\*Safety margin

Example:

Boring head = 62 303 031

Insert Holder = 62 318 031

Reverse adapter = 62 321 044

Ø BDX = 20 mm

Ø A ≙ Amin. = 37 mm

\*Safety margin = 1 mm

$$\varnothing B = \frac{20 + 37}{2} = 28,5 + 1 = 29,5 \text{ mm}$$

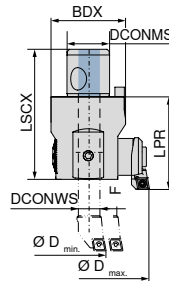
## SpinTools – Vario-Head – boring and fine boring head

- ▲ For boring bars with a diameter of 16 mm and insert holders
- ▲ with thro' coolant supply
- ▲ LSCX = Recess depth of boring bar

### Scope of supply:

Without boring bar and insert holder  
Incl. coolant insert




**STM**



Digital  
STM Modular  
**62 364 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter | DCONMS<br>mm | BDX<br>mm | DCONWS<br>mm | LPR<br>mm | LSCX<br>mm | ADJRGR<br>mm |     |
|---|---------|--------------|-----------|--------------|-----------|------------|--------------|-----|
| 3 - 152,1                                 | STM 36  | 36           | 63        | 16           | 76,5      | 110        | 0 - 6,5      | 101 |

### Spare parts for Article no. 62 364 101

|   |   |   |
|---|---|---|
|  |  |  |
| Coolant insert  | Clamping screw<br>VH  | Grubscrew   |
| <b>62 366 ...</b>   | <b>62 950 ...</b>   | <b>62 950 ...</b>   |
| 002   | M10X12  | 341   |
|   |   | M3X14   |
|   |   | 340   |

### Spare parts for Article no. 62 364 101

|   |   |
|---|---|
|  |  |
| Cylindrical screw   | Clamping screw  |
| <b>62 950 ...</b>   | <b>62 950 ...</b>   |
| M10x25  | 343   |
|   | M10X18  |
|   | 342   |

 Suitable base adapters can be found on → **page 51.**

## SpinTools – Digital Stick

- ▲ suitable for all SpinTools digital heads as well as for hi.flex Digital
- ▲ revised software for even more precise adjustment

### Scope of supply:

incl. AAA Battery



**NEW**  
**62 309 ...**

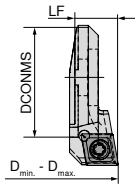
00100

## SpinTools – Insert holder, 90°

▲ for Vario-Head boring and fine boring head 62 364 101

**Scope of supply:**

incl. Torx clamping screw for inserts, without fixing bolt for holder

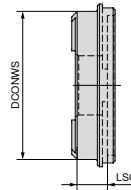


90°  
**62 365 ...**

| LF<br>mm | DCONMS<br>mm | Insert    | D <sub>min</sub> - D <sub>max</sub><br>mm | D <sub>min</sub> - D <sub>max</sub> extended<br>mm |     |
|----------|--------------|-----------|---|--|-----|
| 13,05    | 30           | CC.. 09T3 | 87,75 - 101,1                             | 100,75 - 114,1                                     | 101 |
| 22,05    | 30           | CC.. 09T3 | 105,75 - 119,1                            | 118,75 - 132,1                                     | 119 |
| 32,05    | 30           | CC.. 09T3 | 125,75 - 139,1                            | 138,75 - 152,1                                     | 139 |

## SpinTools – Spacer

▲ For insert holder article no. 62 365 ...



**62 366 ...**  
001

| LSC<br>mm | DCONWS<br>mm |
|-----------|--------------|
| 6,5       | 30           |

Suitable inserts can be found on → **Page 63.**

## SpinTools – Vario Digital single point boring head (set)

- ▲ Suitable for Ø 3 – Ø 152 mm
- ▲ supplied with Ø 9.75 – Ø 101.1 mm
- ▲ with thro' coolant supply

**Scope of supply:**

- ▲ 1 tool kit
- ▲ 1 single point finish boring head
  - 62 364 101
- ▲ 2 boring bars
  - 62 345 015 Ø 9.75 – Ø 20.1 mm
  - 62 345 024 Ø 19.75 – Ø 30.1 mm
- ▲ Boring bars, adjustable
  - 62 375 048 Ø 29.75 – Ø 48.1 mm
  - 62 375 088 Ø 47.75 – Ø 88.1 mm
- ▲ 3 insert holders
  - 62 377 048 Ø 29.75 – Ø 48.1 mm
  - 62 377 088 Ø 47.75 – Ø 88.1 mm
  - 62 365 101 Ø 87.75 – Ø 101.1 mm
- ▲ 1 coolant insert 62 366 002
- ▲ 1 digital display unit 62 309 00100
- ▲ 4 Allen keys – SW2.5/4/5/8
- ▲ 2 Torx keys – T7/15



STM Modular  
**62 364 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter |
|---|---------|
| 9,75 - 101,1                              | STM 36  |

999

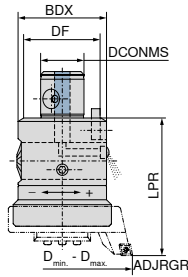
## SpinTools – Single point finish boring heads

- ▲ With internal coolant supply
- ▲ extremely stable connection between insert holder and boring head

### Scope of supply:

Boring head, without insert holder, pressure plate and support

**STM**



STM Modular  
**62 305 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter | DCONMS<br>mm | BDX<br>mm | DF<br>mm | LPR<br>mm | ADJRGR<br>mm | WT<br>kg |            |
|---|---------|--------------|-----------|----------|-----------|--------------|----------|------------|
| 86 - 402                                  | STM 36  | 36           | 72        | 63       | 120       | ± 1,25       | 2,94     | <b>302</b> |



Cylindrical screw



Screw for drivers



Driver



Clamping screw  
ST

**62 950 ...**

**62 950 ...**

**62 950 ...**

**62 950 ...**

### Spare parts for Article no.

|            |       |            |       |            |           |            |       |            |
|------------|-------|------------|-------|------------|-----------|------------|-------|------------|
| 62 305 302 | M8x45 | <b>292</b> | M6x12 | <b>167</b> | 16x26,5x8 | <b>040</b> | M8x60 | <b>011</b> |
|------------|-------|------------|-------|------------|-----------|------------|-------|------------|

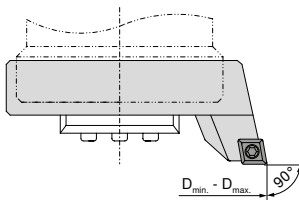
Suitable base adapters can be found on → **page 51.**

## SpinTools – Tool holder

- ▲ for single point finish boring heads
- ▲ Approach angle 90°

### Scope of supply:

incl. cover plate and support







**62 438 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Insert    |            |
|---|-----------|------------|
| 86 - 138                                  | CC.. 09T3 | <b>138</b> |
| 86 - 138                                  | CC.. 1204 | <b>238</b> |
| 136 - 220                                 | CC.. 09T3 | <b>220</b> |
| 136 - 220                                 | CC.. 1204 | <b>320</b> |
| 188 - 302                                 | CC.. 09T3 | <b>302</b> |
| 242 - 402                                 | CC.. 09T3 | <b>402</b> |

Suitable inserts can be found on → **Page 63.**

## Spare parts – insert holder

|                                    |       |  |  |  |  |
|------------------------------------|-------|---|---|---|---|
|                                    |       | 62 950 ...  | 80 950 ...  | 62 950 ...  | 62 950 ...  |
| <b>Spare parts for Article no.</b> |       |   |   |   |   |
| 62 438 138                         | M4x9  | 023   | T15   | 113   | 152   |
| 62 438 238                         | M5x10 | 232   | T20   | 114   | 152   |
| 62 438 220                         | M4x9  | 023   | T15   | 113   | 153   |
| 62 438 320                         | M5x10 | 232   | T20   | 114   | 153   |
| 62 438 302                         | M4x9  | 023   | T15   | 113   | 153   |
| 62 438 402                         | M4x9  | 023   | T15   | 113   | 153   |

5

## SpinTools – Boring set

- ▲ suitable for Ø 86 – Ø 402 mm
- ▲ supplied with Ø 86 – Ø 302 mm
- ▲ with thro' coolant

### Scope of supply:

- ▲ 1 Case
- ▲ 1 single point finish boring head
  - 62 305 302
- ▲ 3 insert holders
  - 62 438 138 Ø 86 – Ø 138 mm
  - 62 438 220 Ø 136 – Ø 220 mm
  - 62 438 302 Ø 188 – Ø 302 mm
- ▲ 2 pressure plates and 2 supports
  - 62 950 149
  - 62 950 150
  - 62 950 152
  - 62 950 153
- ▲ 1 Allen Key – SW5
- ▲ 1 Torx Key – T15



STM Modular  
62 439 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter |     |
|---|---------|-----|
| 86 - 302                                  | STM 36  | 999 |

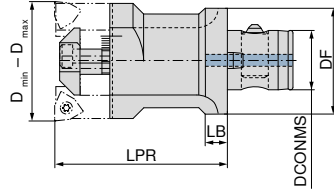
# TwinKom – Base body

## Scope of supply:

Clamping plate incl. adjustment and fixing screws

Order tool holder (+ indexable insert) and indexable inserts separately

**ABS**



| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | DCONMS<br>mm | DF<br>mm | Adapter | LPR<br>mm | LB<br>mm | NEW                 |                     |
|---|-----------|--------------|----------|---------|-----------|----------|---------------------|---------------------|
|   |           |              |          |         |           |          | long                | short               |
| 24 - 32                                   | G01 70552 | 13           | 25       | ABS 25  | 45        | 6,0      | 62 870 ...          | 62 870 ...          |
| 24 - 32                                   | G01 71072 | 16           | 32       | ABS 32  | 70        | 7,0      | 13289               | 03290               |
| 30 - 41                                   | G01 70562 | 13           | 25       | ABS 25  | 50        |          |                     | 04190               |
| 30 - 41                                   | G01 71132 | 16           | 32       | ABS 32  | 85        | 7,5      | 14189               | 05389               |
| 39 - 53                                   | G01 71022 | 16           | 32       | ABS 32  | 60        |          |                     | 07188               |
| 39 - 53                                   | G01 71622 | 20           | 40       | ABS 40  | 120       | 8,0      | 15388               | 09197               |
| 51 - 71                                   | G01 71522 | 20           | 40       | ABS 40  | 60        |          |                     | 12496               |
| 51 - 71                                   | G01 72122 | 28           | 50       | ABS 50  | 135       | 10,0     | 17197               | 16792 <sup>1)</sup> |
| 64 - 91                                   | G01 72022 | 28           | 50       | ABS 50  | 70        |          |                     | 21591 <sup>1)</sup> |
| 64 - 91                                   | G01 72622 | 34           | 63       | ABS 63  | 155       | 13,0     | 19196               |                     |
| 83 - 124                                  | G01 72522 | 34           | 63       | ABS 63  | 70        |          |                     |                     |
| 83 - 124                                  | G01 73122 | 46           | 80       | ABS 80  | 155       | 16,5     | 12592               |                     |
| 109 - 167                                 | G01 73032 | 46           | 80       | ABS 80  | 90        |          |                     |                     |
| 109 - 167                                 | G01 73042 | 46           | 80       | ABS 80  | 175       |          | 16892 <sup>1)</sup> |                     |
| 139 - 215                                 | G01 73562 | 56           | 100      | ABS 100 | 125       |          |                     |                     |
| 139 - 215                                 | G01 73572 | 56           | 100      | ABS 100 | 240       |          | 21691 <sup>1)</sup> |                     |

1) Diameter range can only be achieved with TwinKom basic tool holder (radially + axially adjustable) and corresponding indexable insert!

| Spare parts<br>D <sub>min</sub> - D <sub>max</sub> | Adjustment pin | Adjustment screw | TwinKom clamping plate | Fixing screw |
|--|----------------|------------------|------------------------|--------------|
|  |                |                  |                        |              |
| 24 - 32  |                |                  |                        |              |
| 30 - 41  | 46200          | M2,5X5.SW1,3     | 16500                  | 46900        |
| 39 - 53  | 46300          | M2,5X5.SW1,3     | 16500                  | 47000        |
| 51 - 71  | 46400          | M4x8 - SW2       | 11100                  | 47100        |
| 64 - 91  | 46500          | M4x10 - SW2      | 11200                  | 47200        |
| 83 - 124   | 46600          | M6X12 SW3        | 16100                  | 47300        |
| 109 - 167  | 46700          | M6X20 SW3        | 16200                  | 47400        |
| 139 - 215  | 46800          | M8X20.SW4        | 16600                  | 47500        |
|  |                | M10X20 DIN 913   | 17500                  | 47700        |
|  |                |                  |                        | M6x20 Sw5    |
|  |                |                  |                        | 15800        |
|  |                |                  |                        | 15900        |
|  |                |                  |                        | 16000        |
|  |                |                  |                        | 16300        |
|  |                |                  |                        | 13500        |
|  |                |                  |                        | 11000        |
|  |                |                  |                        | 17600        |

| Spare parts<br>D <sub>min</sub> - D <sub>max</sub> | Cylindrical screw<br>TwinKom | Cylindrical screw |
|--|------------------------------|-------------------|
|  |                              |                   |
| 24 - 32  |                              |                   |
| 30 - 41  | M3X16                        | 46000             |
| 39 - 53  | M4X20                        | 45500             |
| 51 - 71  | M5X25                        | 45600             |
| 64 - 91  | M6X30                        | 45700             |
| 83 - 124   | M8X35                        | 45800             |
| 109 - 167  | M8X45                        | 45900             |
| 139 - 215  | M10X50                       | 46100             |
|  | M12x60                       | 47600             |
|  |                              | M5x16             |
|  |                              | 00000             |

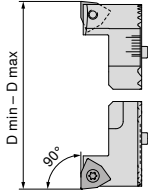
A detailed operating manual is available for download in the online shop next to the product.

## TwinKom – Tool holder 90°

- ▲ radially adjustable
- ▲ Price per piece

### Scope of supply:

including clamping screw  
Order indexable inserts separately



NEW

62 871 ...

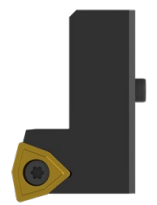
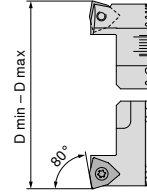
| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Insert    |       |
|---|-----------|-----------|-------|
| 24 - 32                                   | G03 70330 | WO.X 0403 | 03200 |
| 30 - 41                                   | G03 70141 | WO.X 05T3 | 04100 |
| 39 - 53                                   | G03 70230 | WO.X 05T3 | 05300 |
| 51 - 71                                   | G03 70240 | WO.X 06T3 | 07100 |
| 64 - 91                                   | G03 70250 | WO.X 0804 | 09100 |
| 83 - 124                                  | G03 70260 | WO.X 1005 | 12400 |

## TwinKom – Tool holder 80°

- ▲ radially adjustable
- ▲ Price per piece

### Scope of supply:

including clamping screw  
Order indexable inserts separately



NEW

62 875 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Insert    |       |
|---|-----------|-----------|-------|
| 24 - 32                                   | G03 80310 | WO.X 0403 | 03200 |
| 30 - 41                                   | G03 80021 | WO.X 05T3 | 04100 |
| 39 - 53                                   | G03 80090 | WO.X 05T3 | 05300 |
| 51 - 71                                   | G03 80100 | WO.X 06T3 | 07100 |
| 64 - 91                                   | G03 80110 | WO.X 0804 | 09100 |
| 83 - 124                                  | G03 80120 | WO.X 1005 | 12400 |



Clamping screw

10 950 ...

| D <sub>min</sub> - D <sub>max</sub> |       |
|-------------------------------------|-------|
| 24 - 32                             | 10700 |
| 30 - 41                             | 10500 |
| 39 - 53                             | 10500 |
| 51 - 71                             | 10600 |
| 64 - 91                             | 12700 |
| 83 - 124                            | 12700 |

Suitable inserts can be found on → **Page 59.**

## TwinKom – depths of cut

| a <sub>pmax</sub> | P   | M   | K   | N   | S   |
|-------------------|-----|-----|-----|-----|-----|
| WO.X 0302         | 1,5 | 1,0 | 1,5 | 2,0 | 1,0 |
| WO.X 0403         | 2,5 | 1,5 | 3,0 | 3,0 | 1,5 |
| WO.X 05T3         | 4,5 | 3,5 | 5,0 | 5,0 | 3,5 |
| WO.X 05T6         | 6,0 | 4,0 | 6,0 | 6,0 | 4,0 |
| WO.X 0804         | 7,5 | 6,0 | 7,5 | 7,5 | 6,0 |
| WO.X 1005         | 9,0 | 9,0 | 9,0 | 9,0 | 9,0 |

Further cutting data can be found on → **Page 65.**

Suitable ABS adapters can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

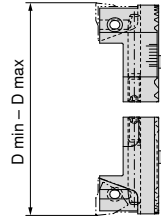


# TwinKom – Basic tool holder, radially and axially adjustable

▲ Price per piece

### Scope of supply:

Order indexable insert seats and indexable inserts separately



NEW

62 872 ...

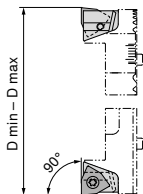
| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. |       |
|---|-----------|-------|
| 24 - 32                                   | G03 70011 | 03200 |
| 30 - 41                                   | G03 70021 | 04100 |
| 39 - 53                                   | G03 70031 | 05300 |
| 51 - 71                                   | G03 70041 | 07100 |
| 64 - 91                                   | G03 70061 | 09100 |
| 83 - 124                                  | G03 70071 | 12400 |
| 109 - 167                                 | G03 70081 | 16700 |
| 139 - 215                                 | G03 70091 | 21500 |

# TwinKom – Indexable insert, 90°

▲ axially adjustable  
▲ Price per piece

### Scope of supply:

including clamping screw  
Order indexable inserts separately



NEW

62 873 ...

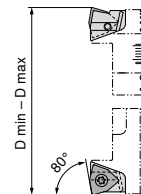
| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Insert    |       |
|---|-----------|-----------|-------|
| 24 - 32                                   | D54 60510 | WO.X 0302 | 03200 |
| 30 - 41                                   | D54 60520 | WO.X 0403 | 04100 |
| 39 - 53                                   | D54 60030 | WO.X 05T3 | 05300 |
| 51 - 71                                   | D54 60040 | WO.X 06T3 | 07100 |
| 64 - 91                                   | D54 60050 | WO.X 0804 | 09100 |
| 83 - 167                                  | D54 60060 | WO.X 1005 | 12400 |
| 139 - 215                                 | D54 60070 | WO.X 1206 | 21500 |

# TwinKom – Indexable insert, 80°

▲ axially adjustable  
▲ Price per piece

### Scope of supply:

including clamping screw  
Order indexable inserts separately



NEW

62 874 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | KOMET no. | Insert    |       |
|---|-----------|-----------|-------|
| 24 - 32                                   | D54 60610 | WO.X 0302 | 03200 |
| 30 - 41                                   | D54 60620 | WO.X 0403 | 04100 |
| 39 - 53                                   | D54 60130 | WO.X 05T3 | 05300 |
| 51 - 71                                   | D54 60140 | WO.X 06T3 | 07100 |
| 64 - 91                                   | D54 60150 | WO.X 0804 | 09100 |
| 83 - 167                                  | D54 60160 | WO.X 1005 | 16700 |
| 139 - 215                                 | D54 60170 | WO.X 1206 | 21500 |



Clamping screw

10 950 ...

### Spare parts

| D <sub>min</sub> - D <sub>max</sub> |       |
|-------------------------------------|-------|
| 24 - 32                             | 10000 |
| 30 - 41                             | 10700 |
| 39 - 53                             | 10800 |
| 51 - 71                             | 16400 |
| 64 - 91                             | 12700 |
| 83 - 167                            | 12700 |
| 139 - 215                           | 17400 |

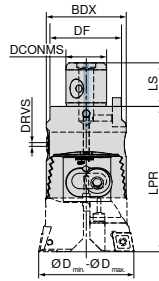
# SpinTools – Twin edged Rough / Finish Boring Head

- ▲ Adjustable tools with through coolant
- ▲ each line on the adjustment scale equivalent to 0.01 mm on diameter

### Scope of supply:

Boring head with spindle adjustment, carrier, stop pin, 2 screws, 2 lock washers

**STM**

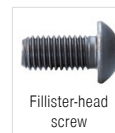


5

STM Modular  
**62 380 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter | DCONMS<br>mm | BDX<br>mm | DF<br>mm | LPR<br>mm | LS<br>mm | DRVS<br>mm | WT<br>kg |
|---|---------|--------------|-----------|----------|-----------|----------|------------|----------|
| 29,5 - 40,1                               | STM 14  | 14           | 25        | 25       | 55        | 16       | 2,5        | 0,12     |
| 39,5 - 50,5                               | STM 18  | 18           | 32        | 32       | 65        | 20       | 2,5        | 0,24     |
| 49,5 - 66,5                               | STM 22  | 22           | 42        | 40       | 82        | 24       | 3,0        | 0,48     |
| 65,5 - 87,5                               | STM 28  | 28           | 55        | 50       | 100       | 30       | 3,0        | 0,94     |
| 86,5 - 115,5                              | STM 36  | 36           | 72        | 63       | 125       | 40       | 3,0        | 1,89     |

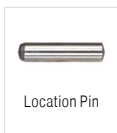
040  
050  
066  
087  
115



62 950 ...



62 950 ...



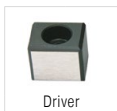
62 950 ...

### Spare parts for Article no.

|            |        |     |             |     |     |
|------------|--------|-----|-------------|-----|-----|
| 62 380 040 | M5x12  | 293 | Ø 5,3/9,3   | 312 | 231 |
| 62 380 050 | M6x16  | 294 | Ø 6,4/10,2  | 313 | 231 |
| 62 380 066 | M8x20  | 295 | Ø 8,4/14,0  | 314 | 234 |
| 62 380 087 | M10x25 | 296 | Ø 10,5/17,0 | 315 | 234 |
| 62 380 115 | M12x25 | 297 | Ø 13,0/21,0 | 316 | 234 |



62 950 ...



62 950 ...

### Spare parts for Article no.

|            |        |     |           |     |
|------------|--------|-----|-----------|-----|
| 62 380 040 | M2,5x6 | 163 | 6x10,3x4  | 036 |
| 62 380 050 | M3x8   | 164 | 8x15x5    | 037 |
| 62 380 066 | M4x10  | 165 | 10x18,1x6 | 038 |
| 62 380 087 | M5x10  | 166 | 12x20x6   | 039 |
| 62 380 115 | M6x12  | 167 | 16x26,5x8 | 040 |

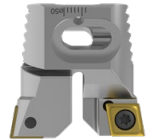
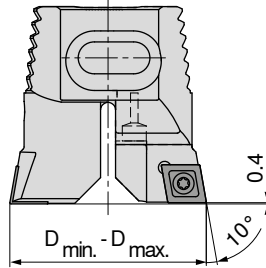
Suitable base adapters can be found on → **Page 51.**

## SpinTools – Pair of Roughing / Finishing Insert Holders, 90°

- ▲ the insert holder for the finishing process is set back axially by 0.4 mm
- ▲ the insert holder for the finishing process is moved by the adjustable spindle
- ▲ the finishing insert must be mounted in the holder without radial adjustment screw
- ▲ machining allowance for the finishing insert holder approximately 0.3 mm in diameter

### Scope of supply:

pair of insert holders, 1 adjusting screw, 2 insert clamping screws, 1 Grub screw



| D <sub>min</sub> - D <sub>max</sub><br>mm | Insert    | 62 381 ... |
|---|-----------|------------|
| 29,5 - 40,1                               | CC.. 0602 | 040        |
| 39,5 - 50,5                               | CC.. 09T3 | 050        |
| 49,5 - 66,5                               | CC.. 09T3 | 066        |
| 65,5 - 87,5                               | CC.. 1204 | 087        |
| 86,5 - 115,5                              | CC.. 1204 | 115        |

Suitable inserts can be found on → **Page 63.**

| Spare parts<br>for Article no. | TORX® Screws |            | Key D      |            | Adjustment screw |            | Backstop screw |     |
|--------------------------------|--------------|------------|------------|------------|------------------|------------|----------------|-----|
|                                | 62 950 ...   | 80 950 ... | 62 950 ... | 62 950 ... | 62 950 ...       | 62 950 ... | 62 950 ...     |     |
| 62 381 040                     | M2,5x6       | 022        | T07        | 109        | M4x0,5x9,5       | 239        | M3x8 - SW1,5   | 015 |
| 62 381 050                     | M4x9         | 023        | T15        | 113        | M4x0,5x13        | 240        | M3x8 - SW1,5   | 015 |
| 62 381 066                     | M4x9         | 023        | T15        | 113        | M6x14            | 241        | M3x8 - SW1,5   | 015 |
| 62 381 087                     | M5x10        | 232        | T20        | 114        | M6x20            | 242        | M3x8 - SW1,5   | 015 |
| 62 381 115                     | M5x10        | 232        | T20        | 114        | M6x30            | 333        | M3x8 - SW1,5   | 015 |

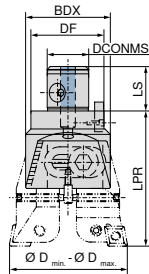
# SpinTools – Boring heads for roughing with 2 cutting edges

▲ With internal coolant supply

## Scope of supply:

Boring head incl. drive dog, fixing screws, spring rings, drive dog screw and stop pin

**STM**



5

STM Modular  
**62 295 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Adapter | DCONMS<br>mm | BDX<br>mm | DF<br>mm | LPR<br>mm | LS<br>mm | WT<br>kg |
|---|---------|--------------|-----------|----------|-----------|----------|----------|
| 23,5 - 30,5                               | STM 11  | 11           | 20        | 20       | 40        | 13       | 0,05     |
| 29,5 - 40,1                               | STM 14  | 14           | 25        | 25       | 45        | 16       | 0,09     |
| 39,5 - 50,5                               | STM 18  | 18           | 32        | 32       | 65        | 20       | 0,25     |
| 49,5 - 66,5                               | STM 22  | 22           | 42        | 40       | 72        | 24       | 0,38     |
| 65,5 - 87,5                               | STM 28  | 28           | 55        | 50       | 82        | 30       | 0,59     |
| 86,5 - 115,5                              | STM 36  | 36           | 72        | 63       | 105       | 40       | 1,23     |
| 114,5 - 153,0                             | STM 36  | 36           | 94        | 94       | 140       | 40       | 2,80     |

030  
040  
050  
066  
087  
115  
153



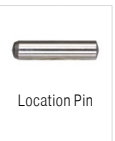
Fillister-head screw

62 950 ...



Spring ring

62 950 ...

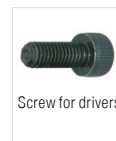


Location Pin

62 950 ...

### Spare parts for Article no.

|            |        |     |             |     |     |
|------------|--------|-----|-------------|-----|-----|
| 62 295 030 | M4x8   | 298 | Ø 4,3/7,3   | 311 | 231 |
| 62 295 040 | M5x12  | 293 | Ø 5,3/9,3   | 312 | 231 |
| 62 295 050 | M6x16  | 294 | Ø 6,4/10,2  | 313 | 231 |
| 62 295 066 | M8x20  | 295 | Ø 8,4/14,0  | 314 | 234 |
| 62 295 087 | M10x25 | 296 | Ø 10,5/17,0 | 315 | 234 |
| 62 295 115 | M12x25 | 297 | Ø 13,0/21,0 | 316 | 234 |
| 62 295 153 | M16x35 | 299 | Ø 17,0/34,0 | 317 | 234 |



Screw for drivers

62 950 ...



Driver

62 950 ...

### Spare parts for Article no.

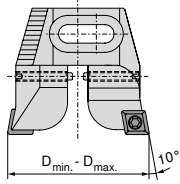
|            |        |     |           |     |
|------------|--------|-----|-----------|-----|
| 62 295 030 | M2x2,5 | 162 | 5x8,5x3   | 035 |
| 62 295 040 | M2,5x6 | 163 | 6x10,3x4  | 036 |
| 62 295 050 | M3x8   | 164 | 8x15x5    | 037 |
| 62 295 066 | M4x10  | 165 | 10x18,1x6 | 038 |
| 62 295 087 | M5x10  | 166 | 12x20x6   | 039 |
| 62 295 115 | M6x12  | 167 | 16x26,5x8 | 040 |
| 62 295 153 | M6x12  | 167 | 16x26,5x8 | 040 |

Suitable base adapters can be found on → page 51.

## SpinTools – Pair of tool holders, standard, 90°

**Scope of supply:**

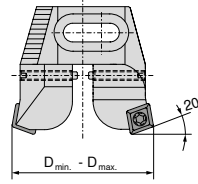
Adjustment screws, positioning pin, insert clamping screws



## SpinTools – Pair of tool holders, standard, 70°

**Scope of supply:**

Adjustment screws, positioning pin, insert clamping screws



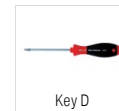
**62 296 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Insert    |     |
|---|-----------|-----|
| 23,5 - 30,5                               | CC.. 0602 | 030 |
| 29,5 - 40,1                               | CC.. 0602 | 040 |
| 39,5 - 50,5                               | CC.. 09T3 | 050 |
| 49,5 - 66,5                               | CC.. 09T3 | 066 |
| 65,5 - 87,5                               | CC.. 1204 | 087 |
| 65,5 - 87,5                               | CN.. 1204 | 088 |
| 86,5 - 115,5                              | CC.. 1204 | 115 |
| 86,5 - 115,5                              | CN.. 1606 | 116 |
| 114,5 - 153                               | CN.. 1606 | 154 |
| 114,5 - 153                               | CC.. 1204 | 153 |

**62 299 ...**

| D <sub>min</sub> - D <sub>max</sub><br>mm | Insert    |     |
|---|-----------|-----|
| 23,5 - 30,5                               | CC.. 0602 | 030 |
| 29,5 - 40,1                               | CC.. 0602 | 040 |
| 39,5 - 50,5                               | CC.. 09T3 | 050 |
| 49,5 - 66,5                               | CC.. 09T3 | 066 |
| 65,5 - 87,5                               | CC.. 1204 | 087 |
| 65,5 - 87,5                               | CN.. 1204 | 088 |
| 86,5 - 115,5                              | CC.. 1204 | 115 |
| 86,5 - 115,5                              | CN.. 1606 | 116 |
| 114,5 - 153                               | CN.. 1606 | 154 |

Suitable indexable inserts can be found in this chapter on → **page 63**.  
Other indexable inserts can be found in Chapter 9 Indexable insert tools.



**62 950 ...**

**80 950 ...**

**62 950 ...**

**Spare parts**

| D <sub>min</sub> - D <sub>max</sub> | Insert    |        |     |     |     |            |     |
|-------------------------------------|-----------|--------|-----|-----|-----|------------|-----|
| 114,5 - 153                         | CC.. 1204 | M5x10  | 232 | T20 | 114 | M6x40      | 335 |
| 23,5 - 30,5                         | CC.. 0602 | M2,5x6 | 022 | T07 | 109 | M4x0,5x7   | 238 |
| 29,5 - 40,1                         | CC.. 0602 | M2,5x6 | 022 | T07 | 109 | M4x0,5x9,5 | 239 |
| 39,5 - 50,5                         | CC.. 09T3 | M4x9   | 023 | T15 | 113 | M4x0,5x13  | 240 |
| 49,5 - 66,5                         | CC.. 09T3 | M4x9   | 023 | T15 | 113 | M6x14      | 241 |
| 65,5 - 87,5                         | CC.. 1204 | M5x10  | 232 | T20 | 114 | M6x20      | 242 |
| 86,5 - 115,5                        | CC.. 1204 | M5x10  | 232 | T20 | 114 | M6x30      | 333 |



**62 950 ...**

**62 950 ...**

**62 950 ...**

**62 950 ...**

**62 950 ...**

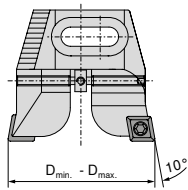
**Spare parts**

| D <sub>min</sub> - D <sub>max</sub> | Insert    |     |     |     |     |       |     |
|-------------------------------------|-----------|-----|-----|-----|-----|-------|-----|
| 114,5 - 153                         | CN.. 1606 | 177 | 180 | 179 | 178 | M8x40 | 334 |
| 65,5 - 87,5                         | CN.. 1204 | 096 | 136 | 125 | 117 | M6x20 | 242 |
| 86,5 - 115,5                        | CN.. 1606 | 177 | 180 | 179 | 178 | M6x30 | 333 |

## SpinTools – Pair of tool holders, ‘Synchro’, 90°

### Scope of supply:

Insert clamping screws, synchronization screw



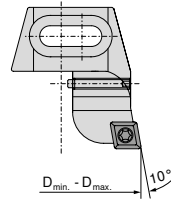
62 297 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | Insert    |     |
|---|-----------|-----|
| 23,5 - 30,5                               | CC.. 0602 | 030 |
| 29,5 - 40,1                               | CC.. 0602 | 040 |
| 39,5 - 50,5                               | CC.. 09T3 | 050 |
| 49,5 - 66,5                               | CC.. 09T3 | 066 |
| 65,5 - 87,5                               | CC.. 1204 | 087 |
| 86,5 - 115,5                              | CC.. 1204 | 115 |
| 114,5 - 153                               | CC.. 1204 | 153 |

## SpinTools – Tool holder 90°, axial offset 0.4 mm

### Scope of supply:

2 adjustment screws, 1 positioning pin, insert clamping screw



62 298 ...

| D <sub>min</sub> - D <sub>max</sub><br>mm | Insert    |     |
|---|-----------|-----|
| 23,5 - 30,5                               | CC.. 0602 | 030 |
| 29,5 - 40,1                               | CC.. 0602 | 040 |
| 39,5 - 50,5                               | CC.. 09T3 | 050 |
| 49,5 - 66,5                               | CC.. 09T3 | 066 |
| 65,5 - 87,5                               | CC.. 1204 | 087 |
| 86,5 - 115,5                              | CC.. 1204 | 115 |
| 114,5 - 153                               | CC.. 1204 | 153 |

5

**1** Suitable indexable inserts can be found in this chapter on → **page 63**.  
Other indexable inserts can be found in Chapter 9 Indexable insert tools.



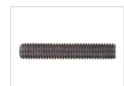
TORX® Screws



Synchronization screw



Key D



Adjustment screw

62 950 ...

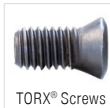
62 950 ...

80 950 ...

62 950 ...

### Spare parts for Article no.

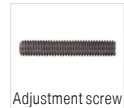
|            |        |     |           |     |     |     |            |     |
|------------|--------|-----|-----------|-----|-----|-----|------------|-----|
| 62 297 030 | M2,5x6 | 022 | M4x0,5x18 | 207 | T07 | 109 | M4x0,5x7   | 238 |
| 62 297 040 | M2,5x6 | 022 | M4x0,5x23 | 208 | T07 | 109 | M4x0,5x9,5 | 239 |
| 62 297 050 | M4x9   | 023 | M4x0,5x30 | 209 | T15 | 113 | M4x0,5x13  | 240 |
| 62 297 066 | M4x9   | 023 | M6x40     | 210 | T15 | 113 | M6x14      | 241 |
| 62 297 087 | M5x10  | 232 | M6x52     | 211 | T20 | 114 | M6x20      | 242 |
| 62 297 115 | M5x10  | 232 | M6x68     | 212 | T20 | 114 | M6x30      | 333 |
| 62 297 153 | M5x10  | 232 | M6x90     | 220 | T20 | 114 | M6x40      | 335 |



TORX® Screws



Key D



Adjustment screw

62 950 ...

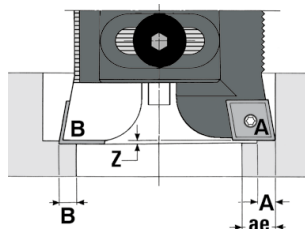
80 950 ...

62 950 ...

### Spare parts for Article no.

|            |        |     |     |     |            |     |
|------------|--------|-----|-----|-----|------------|-----|
| 62 298 030 | M2,5x6 | 022 | T07 | 109 | M4x0,5x7   | 238 |
| 62 298 040 | M2,5x6 | 022 | T07 | 109 | M4x0,5x9,5 | 239 |
| 62 298 050 | M4x9   | 023 | T15 | 113 | M4x0,5x13  | 240 |
| 62 298 066 | M4x9   | 023 | T15 | 113 | M6x14      | 241 |
| 62 298 087 | M5x10  | 232 | T20 | 114 | M6x20      | 242 |
| 62 298 115 | M5x10  | 232 | T20 | 114 | M6x30      | 333 |
| 62 298 153 | M5x10  | 232 | T20 | 114 | M6x40      | 335 |

## Asynchronous machining (divided cut)



Asynchronous boring is possible using a tool holder (A) with offset 0.4mm. This tool holder is black finished and characterized by 3 dots, and must be in the outer position (with regard to the 2 tool holders)

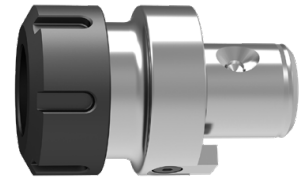
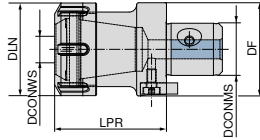
## SpinTools – ER collet chuck

- ▲ for ER clamping to DIN 6499
- ▲ With internal coolant supply

### Scope of supply:

axial tool length adjustment and lock nut






**STM**



STM Modular  
**62 306 ...**

| DCONWS<br>mm | SZID   | DCONMS<br>mm | DF<br>mm | DLN<br>mm | LPR<br>mm | for collet  | WT<br>kg |
|--------------|--------|--------------|----------|-----------|-----------|-------------|----------|
| 1 - 20       | STM 28 | 28           | 50       | 50        | 60        | 470E (ER32) | 0,644    |

**032**

|   |  |   |   |   |
|---|--|---|---|---|
|  |  |  |  |  |
| Y clamping key  | Screw for drivers  | Driver  | Driver  | Stop screw IK   |
| <b>83 357 ...</b>   | <b>62 950 ...</b>  | <b>62 950 ...</b>   | <b>83 950 ...</b>   | <b>62 950 ...</b>   |
| <b>132</b>  | <b>166</b>   | <b>039</b>  | <b>121</b>  | <b>406</b>  |

Spare parts  
for Article no.  
62 306 032

 Suitable collets can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

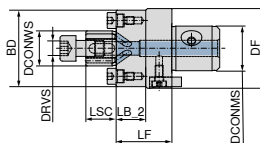
## SpinTools – Shell mill adapter

- ▲ for use on mills with parallel or transverse slot to ISO 3937
- ▲ With internal coolant supply

### Scope of supply:

drive dogs, drive key and clamping bolt

**STM**








STM Modular  
**62 307 ...**

| DCONWS<br>mm | SZID   | DCONMS<br>mm | BD<br>mm | DF<br>mm | LSC<br>mm | LB_2<br>mm | LF<br>mm | DRVS<br>mm | WT<br>kg |
|--------------|--------|--------------|----------|----------|-----------|------------|----------|------------|----------|
| 16           | STM 22 | 22           | 38       | 40       | 17        | 17,1       | 30       | 6          | 0,363    |
| 22           | STM 28 | 28           | 48       | 50       | 19        | 19,1       | 35       | 8          | 0,685    |

**016**

**022**

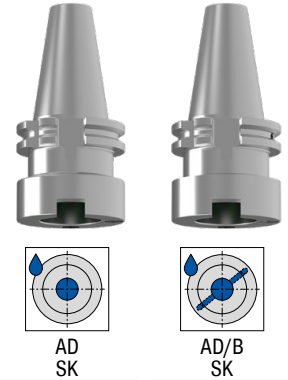
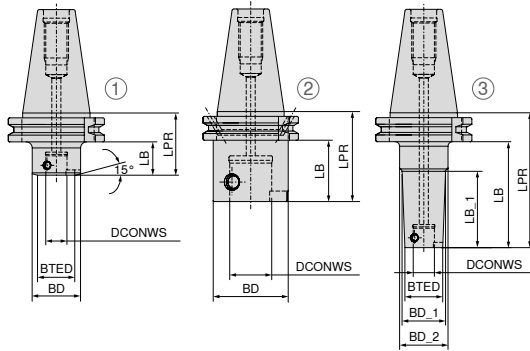
|   |  |   |   |   |
|---|--|---|---|---|
|  |  |  |  |  |
| Parallel key  | Screw for drivers  | Drive dogs  | Driver  | clamping screw  |
| <b>83 950 ...</b>   | <b>62 950 ...</b>  | <b>62 950 ...</b>   | <b>62 950 ...</b>   | <b>83 950 ...</b>   |
| <b>284</b>  | <b>165</b>   | <b>442</b>  | <b>038</b>  | <b>113</b>  |
| <b>285</b>  | <b>166</b>   | <b>443</b>  | <b>039</b>  | <b>124</b>  |

Spare parts  
for Article no.  
62 307 016  
62 307 022



# SpinTools – Base adapters ISO 7388-1 (DIN 69871)

STM



5

|       | Adapter | Fig. | SZID   | DCONWS<br>mm | BTED<br>mm | BD<br>mm | BD_1<br>mm | BD_2<br>mm | LPR<br>mm | LB<br>mm | LB_1<br>mm | WT<br>kg | 62 107 ...        | 62 108 ... |
|-------|---------|------|--------|--------------|------------|----------|------------|------------|-----------|----------|------------|----------|-------------------|------------|
| short | SK 30   | 2    | STM 28 | 28           |            | 50       |            |            | 55        | 35,9     |            | 0,62     | 328               |            |
|       | SK 40   | 1    | STM 11 | 11           | 20         | 32       |            |            | 40        | 20,9     |            | 0,91     | 111 <sup>1)</sup> |            |
|       | SK 40   | 1    | STM 14 | 14           | 25         | 32       |            |            | 40        | 20,9     |            | 0,93     | 114 <sup>1)</sup> |            |
|       | SK 40   | 2    | STM 18 | 18           |            | 32       |            |            | 40        | 20,9     |            | 0,89     | 118               |            |
|       | SK 40   | 2    | STM 22 | 22           |            | 40       |            |            | 50        | 30,9     |            | 1,02     | 122               |            |
|       | SK 40   | 2    | STM 28 | 28           |            | 50       |            |            | 50        | 30,9     |            | 1,11     | 128               | 128        |
|       | SK 40   | 2    | STM 36 | 36           |            | 63       |            |            | 60        | 40,9     |            | 1,27     | 136               | 136        |
| long  | SK 50   | 2    | STM 28 | 28           |            | 50       |            |            | 50        | 30,9     |            | 2,92     | 428               | 428        |
|       | SK 50   | 2    | STM 36 | 36           |            | 63       |            |            | 63        | 43,9     |            | 3,27     | 436               | 436        |
|       | SK 40   | 3    | STM 11 | 11           | 20         |          | 23         | 32         | 80        | 60,9     | 40,9       | 1,04     | 211 <sup>1)</sup> |            |
|       | SK 40   | 3    | STM 14 | 14           | 25         |          | 28         | 32         | 80        | 60,9     | 40,9       | 1,07     | 214 <sup>1)</sup> |            |
|       | SK 40   | 2    | STM 18 | 18           |            | 32       |            |            | 80        | 60,9     |            | 1,13     | 218               |            |
|       | SK 40   | 2    | STM 22 | 22           |            | 40       |            |            | 100       | 80,9     |            | 1,47     | 222               |            |
|       | SK 40   | 2    | STM 28 | 28           |            | 50       |            |            | 100       | 80,9     |            | 1,84     | 228               |            |
|       | SK 40   | 2    | STM 36 | 36           |            | 63       |            |            | 120       | 100,9    |            | 2,68     | 236               | 236        |
|       | SK 50   | 2    | STM 36 | 36           |            | 63       |            |            | 120       | 100,9    |            | 4,60     | 536               | 536        |

1) Note! BD/BD\_1 is larger than BTED, which may lead to a limited bore depth!



O-Ring



Clamping screw  
ST

**Spare parts**  
**DCONWS**

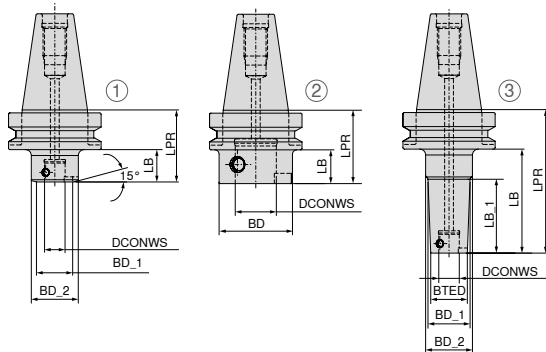
|    |        | 62 950 ... |             | 62 950 ... |
|----|--------|------------|-------------|------------|
| 11 | 9x1,5  | 254        | M4x0,5x6    | 026        |
| 14 | 12x1,5 | 255        | M5x0,5x7,5  | 027        |
| 18 | 16x1,5 | 256        | M6x0,75x9,5 | 028        |
| 22 | 19x2   | 257        | M8x0,75x12  | 029        |
| 28 | 25x2   | 258        | M10x1x14,2  | 030        |
| 36 | 33x2   | 259        | M12x1x18    | 031        |

Suitable pull studs can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

# SpinTools – Base adapters ISO 7388-2 (JIS B 6339 / MAS-BT)

▲ form B available upon request

**STM**



MAS-BT

**62 112 ...**

|       | Adapter | Fig. | SZID   | DCONWS<br>mm | BTED<br>mm | BD<br>mm | BD_1<br>mm | BD_2<br>mm | LPR<br>mm | LB<br>mm | LB_1<br>mm | WT<br>kg |                   |
|-------|---------|------|--------|--------------|------------|----------|------------|------------|-----------|----------|------------|----------|-------------------|
| short | BT 30   | 2    | STM 28 | 28           |            | 50       |            |            | 55        |          |            | 0,64     | <b>328</b>        |
|       | BT 40   | 1    | STM 11 | 11           | 20         | 32       |            |            | 50        | 23       |            | 1,09     | 111 <sup>1)</sup> |
|       | BT 40   | 1    | STM 14 | 14           | 25         | 32       |            |            | 50        | 23       |            | 1,08     | 114 <sup>1)</sup> |
|       | BT 40   | 2    | STM 18 | 18           |            | 32       |            |            | 50        | 23       |            | 1,06     | <b>118</b>        |
|       | BT 40   | 2    | STM 22 | 22           |            | 40       |            |            | 50        | 23       |            | 1,10     | <b>122</b>        |
|       | BT 40   | 2    | STM 28 | 28           |            | 50       |            |            | 50        | 23       |            | 1,14     | <b>128</b>        |
|       | BT 40   | 2    | STM 36 | 36           |            | 63       |            |            | 60        | 33       |            | 1,38     | <b>136</b>        |
| long  | BT 50   | 2    | STM 28 | 28           |            | 50       |            |            | 63        | 25       |            | 3,75     | <b>428</b>        |
|       | BT 50   | 2    | STM 36 | 36           |            | 63       |            |            | 63        | 25       |            | 3,78     | <b>436</b>        |
|       | BT 40   | 3    | STM 11 | 11           | 20         |          | 23         | 32         | 90        | 63       | 43         | 1,20     | 211 <sup>1)</sup> |
|       | BT 40   | 3    | STM 14 | 14           | 25         |          | 28         | 32         | 90        | 63       | 43         | 1,24     | 214 <sup>1)</sup> |
|       | BT 40   | 2    | STM 18 | 18           |            | 32       |            |            | 90        | 63       |            | 1,30     | <b>218</b>        |
|       | BT 40   | 2    | STM 22 | 22           |            | 40       |            |            | 100       | 73       |            | 1,57     | <b>222</b>        |
|       | BT 40   | 2    | STM 28 | 28           |            | 50       |            |            | 100       | 73       |            | 1,87     | <b>228</b>        |
|       | BT 40   | 2    | STM 36 | 36           |            | 63       |            |            | 120       | 93       |            | 2,78     | <b>236</b>        |
|       | BT 50   | 2    | STM 36 | 36           |            | 63       |            |            | 120       | 82       |            | 5,18     | <b>536</b>        |

1) Note! BD/BD\_1 is larger than BTED, which may lead to a limited bore depth!



O-Ring



Clamping screw  
ST

**62 950 ...**

**62 950 ...**

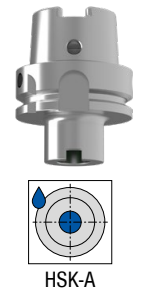
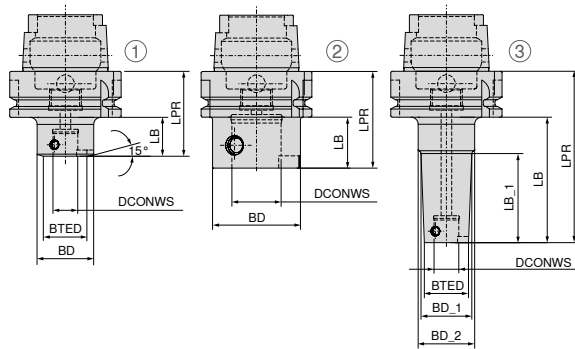
**Spare parts**  
**DCONWS**

|    |        |            |             |            |
|----|--------|------------|-------------|------------|
| 11 | 9x1,5  | <b>254</b> | M4x0,5x6    | <b>026</b> |
| 14 | 12x1,5 | <b>255</b> | M5x0,5x7,5  | <b>027</b> |
| 18 | 16x1,5 | <b>256</b> | M6x0,75x9,5 | <b>028</b> |
| 22 | 19x2   | <b>257</b> | M8x0,75x12  | <b>029</b> |
| 28 | 25x2   | <b>258</b> | M10x1x14,2  | <b>030</b> |
| 36 | 33x2   | <b>259</b> | M12x1x18    | <b>031</b> |

Suitable pull studs can be found in → **Catalogue – Clamping technology, Chapter 16, Adaptors and Accessories.**

# SpinTools – Base adapters HSK-A ISO 12164-1 (DIN 69893-1)

**STM**



HSK-A  
**62 122 ...**

|              | Adapter   | Fig. | SZID   | DCONWS<br>mm | BTED<br>mm | BD<br>mm | BD_1<br>mm | BD_2<br>mm | LPR<br>mm | LB<br>mm | LB_1<br>mm | WT<br>kg |                   |
|--------------|-----------|------|--------|--------------|------------|----------|------------|------------|-----------|----------|------------|----------|-------------------|
| <b>short</b> | HSK-A 63  | 1    | STM 11 | 11           | 20         | 32       |            |            | 50        | 24       |            | 0,77     | 111 <sup>1)</sup> |
|              | HSK-A 63  | 1    | STM 14 | 14           | 25         | 32       |            |            | 50        | 24       |            | 0,76     | 114 <sup>1)</sup> |
|              | HSK-A 63  | 2    | STM 18 | 18           |            | 32       |            |            | 50        | 24       |            | 0,74     | 118               |
|              | HSK-A 63  | 2    | STM 22 | 22           |            | 40       |            |            | 50        | 24       |            | 0,79     | 122               |
|              | HSK-A 63  | 2    | STM 28 | 28           |            | 50       |            |            | 55        | 24       |            | 0,91     | 128               |
|              | HSK-A 63  | 2    | STM 36 | 36           |            | 63       |            |            | 65        | 34       |            | 1,10     | 136               |
|              | HSK-A 100 | 2    | STM 28 | 28           |            | 50       |            |            | 63        | 34       |            | 2,32     | 428               |
|              | HSK-A 100 | 2    | STM 36 | 36           |            | 63       |            |            | 70        | 34       |            | 2,61     | 436               |
| <b>long</b>  | HSK-A 63  | 3    | STM 11 | 11           | 20         |          | 23         | 32         | 90        | 64       | 44         | 0,87     | 211 <sup>1)</sup> |
|              | HSK-A 63  | 3    | STM 14 | 14           | 25         |          | 28         | 32         | 90        | 64       | 44         | 0,93     | 214 <sup>1)</sup> |
|              | HSK-A 63  | 2    | STM 18 | 18           |            | 32       |            |            | 90        | 64       |            | 0,98     | 218               |
|              | HSK-A 63  | 2    | STM 22 | 22           |            | 40       |            |            | 100       | 74       |            | 1,26     | 222               |
|              | HSK-A 63  | 2    | STM 28 | 28           |            | 50       |            |            | 100       | 74       |            | 1,58     | 228               |
|              | HSK-A 63  | 2    | STM 36 | 36           |            | 63       |            |            | 120       | 94       |            | 2,41     | 236               |
|              | HSK-A 100 | 2    | STM 36 | 36           |            | 63       |            |            | 120       | 91       |            | 3,77     | 536               |

1) Note! BD/BD\_1 is larger than BTED, which may lead to a limited bore depth!



O-Ring



Clamping screw  
ST

**62 950 ...**

**62 950 ...**

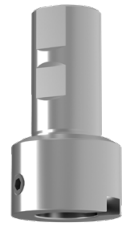
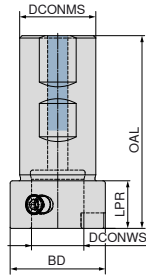
**Spare parts  
DCONWS**

|    |        |            |             |            |
|----|--------|------------|-------------|------------|
| 11 | 9x1,5  | <b>254</b> | M4x0,5x6    | <b>026</b> |
| 14 | 12x1,5 | <b>255</b> | M5x0,5x7,5  | <b>027</b> |
| 18 | 16x1,5 | <b>256</b> | M6x0,75x9,5 | <b>028</b> |
| 22 | 19x2   | <b>257</b> | M8x0,75x12  | <b>029</b> |
| 28 | 25x2   | <b>258</b> | M10x1x14,2  | <b>030</b> |
| 36 | 33x2   | <b>259</b> | M12x1x18    | <b>031</b> |

## SpinTools – Adapters to DIN 1835-B

▲ with thro' coolant

STM

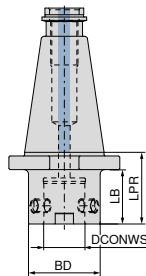


DIN 1835-B  
62 104 ...

| DCONMS<br>mm | BD<br>mm | SZID   | DCONWS<br>mm | LPR<br>mm | OAL<br>mm | WT<br>kg |     |
|--------------|----------|--------|--------------|-----------|-----------|----------|-----|
| 25           | 25       | STM 14 | 14           | 15        | 72        | 0,24     | 014 |
| 32           | 32       | STM 18 | 18           | 15        | 76        | 0,42     | 018 |
| 32           | 50       | STM 28 | 28           | 35        | 96        | 0,72     | 028 |
| 32           | 63       | STM 36 | 36           | 45        | 106       | 1,05     | 036 |

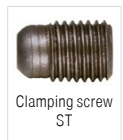
## SpinTools – Base adapter DIN 2080

STM



short  
SK  
62 109 ...

| Adapter | SZID   | DCONWS<br>mm | BD<br>mm | LPR<br>mm | LB<br>mm | WT<br>kg |     |
|---------|--------|--------------|----------|-----------|----------|----------|-----|
| SK 40   | STM 36 | 36           | 63       | 60        | 48,4     | 1,52     | 136 |
| SK 50   | STM 36 | 36           | 63       | 63        | 47,8     | 3,33     | 436 |



62 950 ...

62 950 ...

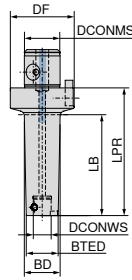
Spare parts  
DCONWS

|    |        |     |             |     |
|----|--------|-----|-------------|-----|
| 14 | 12x1,5 | 255 | M5x0,5x7,5  | 027 |
| 18 | 16x1,5 | 256 | M6x0,75x9,5 | 028 |
| 28 | 25x2   | 258 | M10x1x14,2  | 030 |
| 36 | 33x2   | 259 | M12x1x18    | 031 |

# SpinTools – Reductions

▲ With internal coolant supply

**STM**







STM Modular  
**62 357 ...**

5

| Adapter       | LPR<br>mm | SZID   | DCONMS<br>mm | DCONWS<br>mm | DF<br>mm | BTED<br>mm | BD<br>mm | LB<br>mm | WT<br>kg |     |
|---------------|-----------|--------|--------------|--------------|----------|------------|----------|----------|----------|-----|
| <b>STM 11</b> | 30        | STM 14 | 14           | 11           | 25       | 20         | 23       | 15       | 0,04     | 111 |
| <b>STM 11</b> | 30        | STM 18 | 18           | 11           | 32       | 20         | 23       | 17       | 0,14     | 211 |
| <b>STM 14</b> | 30        | STM 18 | 18           | 14           | 32       | 25         | 28       | 17       | 0,16     | 214 |
| <b>STM 11</b> | 30        | STM 22 | 22           | 11           | 40       | 20         | 23       | 15       | 0,21     | 311 |
| <b>STM 14</b> | 30        | STM 22 | 22           | 14           | 40       | 25         | 28       | 15       | 0,22     | 314 |
| <b>STM 18</b> | 30        | STM 22 | 22           | 18           | 40       | 32         | 37       | 15       | 0,25     | 318 |
| <b>STM 11</b> | 40        | STM 28 | 28           | 11           | 50       | 20         | 23       | 20       | 0,44     | 411 |
| <b>STM 14</b> | 40        | STM 28 | 28           | 14           | 50       | 25         | 28       | 20       | 0,49     | 414 |
| <b>STM 18</b> | 40        | STM 28 | 28           | 18           | 50       | 32         | 37       | 20       | 0,45     | 418 |
| <b>STM 22</b> | 40        | STM 28 | 28           | 22           | 50       | 40         | 46       | 20       | 0,55     | 422 |
| <b>STM 11</b> | 40        | STM 36 | 36           | 11           | 63       | 20         | 22       | 16       | 0,82     | 511 |
| <b>STM 11</b> | 70        | STM 36 | 36           | 11           | 63       | 20         | 23       | 42       | 0,90     | 811 |
| <b>STM 11</b> | 95        | STM 36 | 36           | 11           | 63       | 20         | 23       | 71       | 0,98     | 611 |
| <b>STM 11</b> | 115       | STM 36 | 36           | 11           | 63       | 20         | 23       | 87       | 1,02     | 911 |
| <b>STM 11</b> | 135       | STM 36 | 36           | 11           | 63       | 20         | 23       | 111      | 1,08     | 711 |
| <b>STM 14</b> | 40        | STM 36 | 36           | 14           | 63       | 25         | 27       | 16       | 0,84     | 514 |
| <b>STM 14</b> | 80        | STM 36 | 36           | 14           | 63       | 25         | 28       | 52       | 1,00     | 814 |
| <b>STM 14</b> | 120       | STM 36 | 36           | 14           | 63       | 25         | 28       | 96       | 1,16     | 614 |
| <b>STM 14</b> | 145       | STM 36 | 36           | 14           | 63       | 25         | 28       | 117      | 1,27     | 914 |
| <b>STM 14</b> | 170       | STM 36 | 36           | 14           | 63       | 25         | 28       | 146      | 1,38     | 714 |
| <b>STM 18</b> | 40        | STM 36 | 36           | 18           | 63       | 32         | 37       | 16       | 0,85     | 518 |
| <b>STM 18</b> | 100       | STM 36 | 36           | 18           | 63       | 32         | 38       | 74       | 1,24     | 818 |
| <b>STM 18</b> | 150       | STM 36 | 36           | 18           | 63       | 32         | 38       | 126      | 1,66     | 918 |
| <b>STM 18</b> | 207       | STM 36 | 36           | 18           | 63       | 32         | 38       | 183      | 2,07     | 618 |
| <b>STM 22</b> | 40        | STM 36 | 36           | 22           | 63       | 40         | 46       | 16       | 0,89     | 522 |
| <b>STM 22</b> | 120       | STM 36 | 36           | 22           | 63       | 40         | 48       | 95       | 1,76     | 822 |
| <b>STM 22</b> | 183       | STM 36 | 36           | 22           | 63       | 40         | 48       | 159      | 2,52     | 622 |
| <b>STM 22</b> | 263       | STM 36 | 36           | 22           | 63       | 40         | 48       | 239      | 3,44     | 722 |
| <b>STM 28</b> | 40        | STM 36 | 36           | 28           | 63       | 50         | 58       | 21       | 1,03     | 528 |
| <b>STM 28</b> | 140       | STM 36 | 36           | 28           | 63       | 50         | 60       | 117      | 2,70     | 828 |
| <b>STM 28</b> | 233       | STM 36 | 36           | 28           | 63       | 50         | 60       | 209      | 4,41     | 628 |
| <b>STM 28</b> | 333       | STM 36 | 36           | 28           | 63       | 50         | 60       | 309      | 6,25     | 728 |

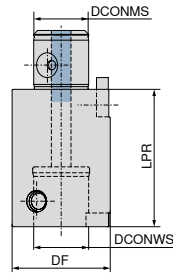
## Reductions – Spare Parts

|                                |        | <br>O-Ring | <br>Screw for drivers | <br>Driver | <br>Clamping screw<br>ST |     |             |     |
|--------------------------------|--------|---|--|---|---|-----|-------------|-----|
|                                |        | 62 950 ...  | 62 950 ...   | 62 950 ...  | 62 950 ...  |     |             |     |
| Spare parts<br>for Article no. |        |   |  |   |   |     |             |     |
| 62 357 111                     | 9x1,5  | 254   | M2,5x6   | 163   | 6x10,3x4  | 036 | M4x0,5x6    | 026 |
| 62 357 211                     | 9x1,5  | 254   | M3x8   | 164   | 8x15x5  | 037 | M4x0,5x6    | 026 |
| 62 357 214                     | 12x1,5 | 255   | M3x8   | 164   | 8x15x5  | 037 | M5x0,5x7,5  | 027 |
| 62 357 311                     | 9x1,5  | 254   | M4x10  | 165   | 10x18,1x6   | 038 | M4x0,5x6    | 026 |
| 62 357 314                     | 12x1,5 | 255   | M4x10  | 165   | 10x18,1x6   | 038 | M5x0,5x7,5  | 027 |
| 62 357 318                     | 16x1,5 | 256   | M4x10  | 165   | 10x18,1x6   | 038 | M6x0,75x9,5 | 028 |
| 62 357 411                     | 9x1,5  | 254   | M5x10  | 166   | 12x20x6   | 039 | M4x0,5x6    | 026 |
| 62 357 414                     | 12x1,5 | 255   | M5x10  | 166   | 12x20x6   | 039 | M5x0,5x7,5  | 027 |
| 62 357 418                     | 16x1,5 | 256   | M5x10  | 166   | 12x20x6   | 039 | M6x0,75x9,5 | 028 |
| 62 357 422                     | 19x2   | 257   | M5x10  | 166   | 12x20x6   | 039 | M8x0,75x12  | 029 |
| 62 357 511                     | 9x1,5  | 254   | M6x12  | 167   | 16x26,5x8   | 040 | M4x0,5x6    | 026 |
| 62 357 811                     | 9x1,5  | 254   | M6x12  | 167   | 16x26,5x8   | 040 | M4x0,5x6    | 026 |
| 62 357 611                     | 9x1,5  | 254   | M6x12  | 167   | 16x26,5x8   | 040 | M4x0,5x6    | 026 |
| 62 357 911                     | 9x1,5  | 254   | M6x12  | 167   | 16x26,5x8   | 040 | M4x0,5x6    | 026 |
| 62 357 711                     | 9x1,5  | 254   | M6x12  | 167   | 16x26,5x8   | 040 | M4x0,5x6    | 026 |
| 62 357 514                     | 12x1,5 | 255   | M6x12  | 167   | 16x26,5x8   | 040 | M5x0,5x7,5  | 027 |
| 62 357 814                     | 12x1,5 | 255   | M6x12  | 167   | 16x26,5x8   | 040 | M5x0,5x7,5  | 027 |
| 62 357 614                     | 12x1,5 | 255   | M6x12  | 167   | 16x26,5x8   | 040 | M5x0,5x7,5  | 027 |
| 62 357 914                     | 12x1,5 | 255   | M6x12  | 167   | 16x26,5x8   | 040 | M5x0,5x7,5  | 027 |
| 62 357 714                     | 12x1,5 | 255   | M6x12  | 167   | 16x26,5x8   | 040 | M5x0,5x7,5  | 027 |
| 62 357 518                     | 16x1,5 | 256   | M6x12  | 167   | 16x26,5x8   | 040 | M6x0,75x9,5 | 028 |
| 62 357 818                     | 16x1,5 | 256   | M6x12  | 167   | 16x26,5x8   | 040 | M6x0,75x9,5 | 028 |
| 62 357 918                     | 16x1,5 | 256   | M6x12  | 167   | 16x26,5x8   | 040 | M6x0,75x9,5 | 028 |
| 62 357 618                     | 16x1,5 | 256   | M6x12  | 167   | 16x26,5x8   | 040 | M6x0,75x9,5 | 028 |
| 62 357 522                     | 19x2   | 257   | M6x12  | 167   | 16x26,5x8   | 040 | M8x0,75x12  | 029 |
| 62 357 822                     | 19x2   | 257   | M6x12  | 167   | 16x26,5x8   | 040 | M8x0,75x12  | 029 |
| 62 357 622                     | 19x2   | 257   | M6x12  | 167   | 16x26,5x8   | 040 | M8x0,75x12  | 029 |
| 62 357 722                     | 19x2   | 257   | M6x12  | 167   | 16x26,5x8   | 040 | M8x0,75x12  | 029 |
| 62 357 528                     | 25x2   | 258   | M6x12  | 167   | 16x26,5x8   | 040 | M10x1x14,2  | 030 |
| 62 357 828                     | 25x2   | 258   | M6x12  | 167   | 16x26,5x8   | 040 | M10x1x14,2  | 030 |
| 62 357 628                     | 25x2   | 258   | M6x12  | 167   | 16x26,5x8   | 040 | M10x1x14,2  | 030 |
| 62 357 728                     | 25x2   | 258   | M6x12  | 167   | 16x26,5x8   | 040 | M10x1x14,2  | 030 |

# SpinTools – Extensions

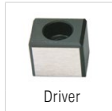
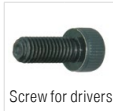
▲ With internal coolant supply

**STM**



STM Modular  
**62 351 ...**

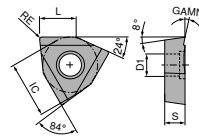
| Adapter       | LPR<br>mm | SZID   | DCONWS<br>mm | DF<br>mm | DCONMS<br>mm | WT<br>kg |            |
|---------------|-----------|--------|--------------|----------|--------------|----------|------------|
| <b>STM 11</b> | 25        | STM 11 | 11           | 20       | 11           | 0,06     | <b>111</b> |
| <b>STM 11</b> | 35        | STM 11 | 11           | 20       | 11           | 0,09     | <b>211</b> |
| <b>STM 14</b> | 30        | STM 14 | 14           | 25       | 14           | 0,11     | <b>114</b> |
| <b>STM 14</b> | 45        | STM 14 | 14           | 25       | 14           | 0,17     | <b>214</b> |
| <b>STM 18</b> | 40        | STM 18 | 18           | 32       | 18           | 0,23     | <b>118</b> |
| <b>STM 18</b> | 60        | STM 18 | 18           | 32       | 18           | 0,35     | <b>218</b> |
| <b>STM 22</b> | 50        | STM 22 | 22           | 40       | 22           | 0,45     | <b>122</b> |
| <b>STM 22</b> | 80        | STM 22 | 22           | 40       | 22           | 0,73     | <b>222</b> |
| <b>STM 28</b> | 50        | STM 28 | 28           | 50       | 28           | 0,71     | <b>128</b> |
| <b>STM 28</b> | 75        | STM 28 | 28           | 50       | 28           | 1,07     | <b>228</b> |
| <b>STM 28</b> | 100       | STM 28 | 28           | 50       | 28           | 1,44     | <b>328</b> |
| <b>STM 36</b> | 60        | STM 36 | 36           | 63       | 36           | 1,33     | <b>136</b> |
| <b>STM 36</b> | 90        | STM 36 | 36           | 63       | 36           | 2,02     | <b>236</b> |
| <b>STM 36</b> | 120       | STM 36 | 36           | 63       | 36           | 2,72     | <b>336</b> |



| Spare parts |        | 62 950 ... |        | 62 950 ... |           | 62 950 ... |             | 62 950 ... |  |
|-------------|--------|------------|--------|------------|-----------|------------|-------------|------------|--|
| DCONWS      |        |            |        |            |           |            |             |            |  |
| 11          | 9x1,5  | <b>254</b> | M2x2,5 | <b>162</b> | 5x8,5x3   | <b>035</b> | M4x0,5x6    | <b>026</b> |  |
| 14          | 12x1,5 | <b>255</b> | M2,5x6 | <b>163</b> | 6x10,3x4  | <b>036</b> | M5x0,5x7,5  | <b>027</b> |  |
| 18          | 16x1,5 | <b>256</b> | M3x8   | <b>164</b> | 8x15x5    | <b>037</b> | M6x0,75x9,5 | <b>028</b> |  |
| 22          | 19x2   | <b>257</b> | M4x10  | <b>165</b> | 10x18,1x6 | <b>038</b> | M8x0,75x12  | <b>029</b> |  |
| 28          | 25x2   | <b>258</b> | M5x10  | <b>166</b> | 12x20x6   | <b>039</b> | M10x1x14,2  | <b>030</b> |  |
| 36          | 33x2   | <b>259</b> | M6x12  | <b>167</b> | 16x26,5x8 | <b>040</b> | M12x1x18    | <b>031</b> |  |

# WOHX

| Designation | L<br>mm | S<br>mm | D1<br>mm | IC<br>mm |
|-------------|---------|---------|----------|----------|
| WOHX 02T0.. | 2,6     | 1,20    | 2        | 4        |



# WOHX

| -G12<br>BK2710    | -G12<br>BK8440    | -G12<br>K10       |
|-------------------|-------------------|-------------------|
|                   |                   |                   |
|                   |                   |                   |
| <b>F</b><br>WOHX  | <b>F</b><br>WOHX  | <b>F</b><br>WOHX  |
| <b>62 600 ...</b> | <b>62 600 ...</b> | <b>62 600 ...</b> |
|                   | 10102             | 00102             |
|                   |                   | 20102             |

| ISO      | KOMET no.        | RE<br>mm |
|----------|------------------|----------|
| 02T001EL | W00 04120.018440 | 0,1      |
| 02T001EL | W00 04120.012710 | 0,1      |
| 02T001FL | W00 04120.0121   | 0,1      |

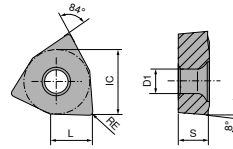
|   |   |   |   |
|---|---|---|---|
| P | • | • |   |
| M | • | • |   |
| K | • | • |   |
| N |   |   | • |
| S |   |   | • |
| H |   | • |   |
| O |   |   | • |

→ v<sub>c</sub> Page 65



### WOEX / WOGX

| Designation | L<br>mm | S<br>mm | D1<br>mm | IC<br>mm |
|-------------|---------|---------|----------|----------|
| WOGX 0302.. | 3,2     | 2,30    | 2,30     | 5,00     |
| WOGX 0403.. | 4,1     | 3,18    | 2,55     | 6,35     |
| WO.X 05T3.. | 5,3     | 3,80    | 2,85     | 8,00     |
| WO.X 06T3.. | 6,6     | 3,80    | 4,05     | 10,00    |
| WO.X 0804.. | 7,9     | 4,80    | 4,90     | 12,00    |
| WOEX 1005.. | 9,9     | 5,30    | 4,90     | 15,00    |



### WOGX / WOEX

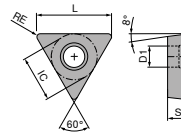
| ISO    | KOMET no.        | RE<br>mm | NEW           |               |               |               |
|--------|------------------|----------|---------------|---------------|---------------|---------------|
|        |                  |          | -15<br>BK8430 | -02<br>BK6440 | -01<br>BK8425 | -01<br>BK6115 |
|        |                  |          | WOGX          | WOEX          | WOEX          | WOEX          |
|        |                  |          | 10 821 ...    | 10 821 ...    | 10 821 ...    | 10 821 ...    |
| 030204 | W29 10010.048425 | 0,4      |               |               | 30301         |               |
| 030204 | W29 10150.048430 | 0,4      | 00315         |               |               | 40301         |
| 030204 | W29 10010.046115 | 0,4      |               |               | 30401         |               |
| 040304 | W29 18010.048425 | 0,4      |               |               |               | 40401         |
| 040304 | W29 18150.048430 | 0,4      | 00415         |               | 30501         |               |
| 040304 | W29 18010.046115 | 0,4      |               |               |               | 40501         |
| 05T304 | W29 24010.048425 | 0,4      |               |               |               |               |
| 05T304 | W29 24020.046440 | 0,4      |               | 25502         |               |               |
| 05T304 | W29 24150.048430 | 0,4      | 00515         |               |               |               |
| 05T304 | W29 24010.046115 | 0,4      |               |               |               |               |
| 06T304 | W29 34010.048425 | 0,4      |               |               | 30601         |               |
| 06T304 | W29 34020.046440 | 0,4      |               | 25602         |               |               |
| 06T304 | W29 34150.048430 | 0,4      | 00615         |               |               |               |
| 06T304 | W29 34010.046115 | 0,4      |               |               |               | 40601         |
| 080404 | W29 42010.048425 | 0,4      |               |               | 30801         |               |
| 080404 | W29 42020.046440 | 0,4      |               | 25802         |               |               |
| 080404 | W29 42150.048430 | 0,4      | 00815         |               |               |               |
| 080404 | W29 42010.046115 | 0,4      |               |               |               | 40801         |
| 100504 | W29 50010.048425 | 0,4      |               |               | 31001         |               |
| 100504 | W29 50020.046440 | 0,4      |               | 26002         |               |               |
| 100504 | W29 50010.046115 | 0,4      |               |               |               | 41001         |
| 120608 | W29 58010.088425 | 0,8      |               |               | 31201         |               |
| 120608 | W29 58020.086440 | 0,8      |               | 21202         |               |               |
| 120608 | W29 58010.086115 | 0,8      |               |               |               | 41201         |
| P      |                  |          | ○             | ●             | ●             | ●             |
| M      |                  |          | ○             | ●             | ●             | ●             |
| K      |                  |          | ○             |               | ●             | ●             |
| N      |                  |          |               |               | ○             |               |
| S      |                  |          | ●             |               |               |               |
| H      |                  |          | ●             |               | ○             | ○             |
| O      |                  |          |               |               |               |               |

5

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# TOGX

| Designation | L<br>mm | S<br>mm | D1<br>mm | IC<br>mm |
|-------------|---------|---------|----------|----------|
| TOGX 06T1.. | 6,64    | 1,80    | 2,2      | 4,0      |
| TOGX 0902.. | 9,12    | 2,50    | 2,8      | 5,6      |
| TOGX 1403.. | 13,62   | 3,00    | 3,8      | 8,2      |

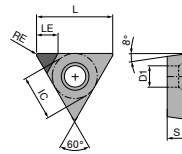


# TOGX

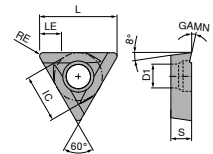
| ISO      | KOMET no.        | RE<br>mm | NEW<br>-18<br>CK32      | NEW<br>-14<br>CK3230    | -14<br>BK60             | -12<br>K10              | NEW<br>CBN40            |
|----------|------------------|----------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
|          |                  |          | F<br>TOGX<br>62 607 ... | F<br>TOGX<br>62 606 ... | F<br>TOGX<br>62 601 ... | F<br>TOGX<br>62 601 ... | F<br>TOGX<br>62 601 ... |
| 06T102EN | W57 04140.0260   | 0,2      |                         |                         | 90206                   |                         |                         |
| 06T102EN | W57 04140.023230 | 0,2      |                         | 10201                   |                         |                         |                         |
| 06T102EN | W57 04180.0432   | 0,4      | 20401                   |                         |                         |                         |                         |
| 06T102FN | W57 04120.0223   | 0,2      |                         |                         |                         | 50206                   |                         |
| 06T102TN | W30 04990.0240   | 0,2      |                         |                         |                         |                         | 60206                   |
| 090204EN | W57 14140.0460   | 0,4      |                         |                         | 70409                   |                         |                         |
| 090204EN | W57 14140.043230 | 0,4      |                         | 11401                   |                         |                         |                         |
| 090204EN | W57 14180.0432   | 0,4      | 21401                   |                         |                         | 50409                   |                         |
| 090204FN | W57 14120.0423   | 0,4      |                         |                         |                         |                         | 60409                   |
| 090204TN | W30 14990.0440   | 0,4      |                         |                         | 70414                   |                         |                         |
| 140304EN | W57 26140.0460   | 0,4      |                         |                         |                         |                         |                         |
| 140304EN | W57 26140.043230 | 0,4      |                         | 12601                   |                         |                         |                         |
| 140304EN | W57 26180.0432   | 0,4      | 22601                   |                         |                         | 50414                   |                         |
| 140304FN | W57 26120.0423   | 0,4      |                         |                         |                         |                         | 62600                   |
| 140304TN | W30 26990.0440   | 0,4      |                         |                         |                         |                         |                         |
| P        |                  |          | •                       | •                       | •                       |                         |                         |
| M        |                  |          | •                       | •                       | •                       |                         |                         |
| K        |                  |          |                         |                         | •                       |                         |                         |
| N        |                  |          |                         |                         |                         | •                       |                         |
| S        |                  |          |                         |                         |                         | •                       |                         |
| H        |                  |          |                         |                         |                         |                         | •                       |
| O        |                  |          |                         |                         |                         | •                       |                         |

## TOEX / TOHX

| Designation | L<br>mm | S<br>mm | D1<br>mm | IC<br>mm | LE<br>mm |
|-------------|---------|---------|----------|----------|----------|
| TOEX 06T1.. | 6,64    | 1,80    | 2,2      | 4,0      | 1,8      |
| TOEX 0902.. | 9,12    | 2,50    | 2,8      | 5,6      | 2,7      |
| TOEX 1403.. | 13,62   | 3,00    | 3,8      | 8,2      | 2,7      |
| TOHX 06T1.. | 6,50    | 1,80    | 2,2      | 4,0      | -        |
| TOHX 0902.. | 9,12    | 2,50    | 2,8      | 5,6      | -        |
| TOHX 1403.. | 13,62   | 3,00    | 3,8      | 8,2      | -        |



TOEX



TOHX

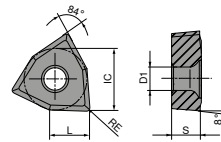
## TOEX / TOHX

| ISO      | KOMET no.        | RE<br>mm | NEW<br>PKD5510<br>CTDPU20<br>TOEX | NEW<br>-G12<br>BK8425<br>TOHX | NEW<br>-G06<br>BK2710<br>TOHX | -G06<br>BK6110<br>TOHX | NEW<br>-G06<br>BK7615<br>TOHX |
|----------|------------------|----------|-----------------------------------|-------------------------------|-------------------------------|------------------------|-------------------------------|
|          |                  |          | 62 605 ...                        | 62 603 ...                    | 62 602 ...                    | 62 602 ...             | 62 602 ...                    |
| 06T102FN | W30 04990.025510 | 0,2      | 00201                             |                               | 10606                         |                        |                               |
| 06T103EL | W30 04060.032710 | 0,3      |                                   |                               |                               | 40606                  |                               |
| 06T103EL | W30 04060.036110 | 0,3      |                                   | 30200                         |                               |                        |                               |
| 06T103EL | W30 04120.038425 | 0,3      |                                   |                               |                               |                        | 80606                         |
| 06T103EL | W30 04060.037615 | 0,3      |                                   | 31800                         | 10409                         |                        |                               |
| 090204EL | W30 14060.042710 | 0,4      |                                   |                               |                               | 40409                  |                               |
| 090204EL | W30 14120.048425 | 0,4      |                                   | 31800                         |                               |                        | 80409                         |
| 090204EL | W30 14060.046110 | 0,4      |                                   |                               |                               |                        |                               |
| 090204EL | W30 14060.047615 | 0,4      | 01401                             |                               | 12600                         |                        |                               |
| 090204FN | W30 14990.045510 | 0,4      | 01401                             |                               |                               |                        |                               |
| 140304EL | W30 26060.042710 | 0,4      |                                   |                               |                               | 40414                  |                               |
| 140304EL | W30 26120.048425 | 0,4      |                                   | 32600                         |                               |                        | 82600                         |
| 140304EL | W30 26060.046110 | 0,4      |                                   |                               |                               |                        |                               |
| 140304EL | W30 26060.047615 | 0,4      |                                   |                               |                               |                        |                               |
| 140304FN | W30 26990.045510 | 0,4      | 02601                             |                               |                               |                        |                               |
| P        |                  |          |                                   | •                             | •                             | •                      |                               |
| M        |                  |          |                                   | •                             | •                             | •                      |                               |
| K        |                  |          |                                   | •                             | •                             | •                      | •                             |
| N        |                  |          | •                                 |                               |                               |                        |                               |
| S        |                  |          |                                   | •                             | •                             | •                      |                               |
| H        |                  |          |                                   | ○                             |                               | •                      |                               |
| O        |                  |          | •                                 |                               |                               |                        |                               |

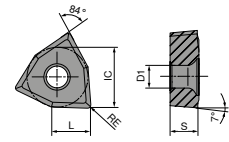
→ v<sub>c</sub> Page 65

## WCMT / WCGT

| Designation | L<br>mm | S<br>mm | D1<br>mm | IC<br>mm |
|-------------|---------|---------|----------|----------|
| WCGT 0201.. | 2,71    | 1,59    | 2,1      | 3,97     |
| WCMT 0201.. | 4,34    | 1,59    | 2,1      | 3,97     |



WCMT



WCGT

## WCMT / WCGT

|  | -SF30<br>CWC06    | -SF20<br>CWN10    | -SF16<br>CWP25    |
|--|-------------------|-------------------|-------------------|
|  |                   |                   |                   |
|  |                   |                   |                   |
|  | <b>F</b>          | <b>F</b>          | <b>F</b>          |
|  | CERMET            | WCGT              | WCGT              |
|  | WCMT              |                   |                   |
|  | <b>70 294 ...</b> | <b>70 295 ...</b> | <b>70 295 ...</b> |
|  | 850               | 850               | 500               |
|  | 852               |                   |                   |

| ISO    | RE<br>mm |
|--------|----------|
| 020102 | 0,2      |
| 020104 | 0,4      |

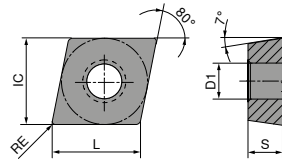
|   |   |   |   |
|---|---|---|---|
| P | ● | ● | ● |
| M | ○ | ● | ● |
| K | ● | ● | ○ |
| N | ● | ● | ● |
| S |   | ● |   |
| H |   | ● |   |
| O |   |   |   |

→ v<sub>c</sub> Page 66

Additional inserts can be found in → **Chapter 9, Turning Tools**

# CCGT

| Designation | L<br>mm | S<br>mm | D1<br>mm | IC<br>mm |
|-------------|---------|---------|----------|----------|
| CCGT 06..   | 6,4     | 2,38    | 2,8      | 6,35     |
| CCGT 09..   | 9,7     | 3,97    | 4,4      | 9,52     |



# CCGT

|  | -SF20<br>CWN10    | -SF15<br>CWC06    | -SF14<br>CWC10    |
|--|-------------------|-------------------|-------------------|
|  |                   |                   |                   |
|  |                   |                   |                   |
|  | <b>F</b>          | <b>F</b>          | <b>F</b>          |
|  | CCGT              | CERMET<br>CCGT    | CERMET<br>CCGT    |
|  | <b>70 296 ...</b> | <b>70 296 ...</b> | <b>70 300 ...</b> |
|  | 300               | 850               | 903               |
|  | 302               | 852               | 905               |
|  | 304               | 854               | 911               |
|  | 306               | 856               | 913               |

| ISO     | RE<br>mm |   |   |   |
|---------|----------|---|---|---|
| 060202L | 0,2      |   |   |   |
| 060204L | 0,4      |   |   |   |
| 09T302L | 0,2      |   |   |   |
| 09T304L | 0,4      |   |   |   |
| P       |          | • | • | • |
| M       |          | • | ○ | • |
| K       |          | • | • | • |
| N       |          | • | • | • |
| S       |          | • | • | • |
| H       |          | • |   |   |
| O       |          |   |   |   |

→ v<sub>c</sub> Page 66

Additional inserts can be found in → **Chapter 9, Turning Tools**

# Material examples for cutting data tables


|   | Material sub-group                         | Index | Composition / Structure / Heat treatment       | Tensile strength<br>N/mm <sup>2</sup> / HB / HRC | Material<br>number | Material<br>designation    | Material<br>number | Material<br>designation |
|---|--|-------|--|--|--------------------|----------------------------|--------------------|-------------------------|
| P | Unalloyed steel                            | P.1.1 | < 0,15 % C<br>Annealed                         | 420 N/mm <sup>2</sup> / 125 HB                   | 1.0401             | C15                        | 1.1141             | Ck15                    |
|   |  | P.1.2 | < 0,45 % C<br>Annealed                         | 640 N/mm <sup>2</sup> / 190 HB                   | 1.1191             | C45E                       | 1.0718             | 9SMnPb28                |
|   |  | P.1.3 | < 0,45 % C<br>Tempered                         | 840 N/mm <sup>2</sup> / 250 HB                   | 1.1191             | C45E                       | 1.0535             | C55                     |
|   |  | P.1.4 | < 0,75 % C<br>Annealed                         | 910 N/mm <sup>2</sup> / 270 HB                   | 1.1223             | C60R                       | 1.0535             | C55                     |
|   |  | P.1.5 | < 0,75 % C<br>Tempered                         | 1010 N/mm <sup>2</sup> / 300 HB                  | 1.1223             | C60R                       | 1.0727             | 45S20                   |
|   | Low-alloy steel                            | P.2.1 | Annealed                                       | 610 N/mm <sup>2</sup> / 180 HB                   | 1.7131             | 16MnCr5                    | 1.6587             | 17CrNiMo6               |
|   |  | P.2.2 | Tempered                                       | 930 N/mm <sup>2</sup> / 275 HB                   | 1.7131             | 16MnCr5                    | 1.6587             | 17CrNiMo6               |
|   |  | P.2.3 | Tempered                                       | 1010 N/mm <sup>2</sup> / 300 HB                  | 1.7225             | 42CrMo4                    | 1.3505             | 100Cr6                  |
|   |  | P.2.4 | Tempered                                       | 1200 N/mm <sup>2</sup> / 375 HB                  | 1.7225             | 42CrMo4                    | 1.3505             | 100Cr6                  |
|   | High-alloy steel and high-alloy tool steel | P.3.1 | Annealed                                       | 680 N/mm <sup>2</sup> / 200 HB                   | 1.4021             | X20Cr13                    | 1.4034             | X46Cr13                 |
|   |  | P.3.2 | Hardened and tempered                          | 1100 N/mm <sup>2</sup> / 300 HB                  | 1.2343             | X38CrMoV5-1                | 1.4034             | X46Cr13                 |
|   |  | P.3.3 | Hardened and tempered                          | 1300 N/mm <sup>2</sup> / 400 HB                  | 1.2343             | X38CrMoV5-1                | 1.4034             | X46Cr13                 |
|   | Stainless steel                            | P.4.1 | Ferritic / martensitic<br>Annealed             | 680 N/mm <sup>2</sup> / 200 HB                   | 1.4016             | X6Cr17                     | 1.2316             | X36CrMo16               |
|   |  | P.4.2 | Martensitic<br>Tempered                        | 1010 N/mm <sup>2</sup> / 300 HB                  | 1.4112             | X90CrMoV18                 | 1.2316             | X36CrMo16               |
| M | Stainless steel                            | M.1.1 | Austenitic / austenitic-ferritic<br>Quenched   | 610 N/mm <sup>2</sup> / 180 HB                   | 1.4301             | X5CrNi18-10                | 1.4571             | X6CrNiMoTi17-12-2       |
|   |  | M.2.1 | Austenitic<br>Tempered                         | 300 HB   | 1.4841             | X15CrNiSi25-21             | 1.4539             | X1NiCrMoCu25-20-5       |
|   |  | M.3.1 | Austenitic / ferritic (Duplex)                 | 780 N/mm <sup>2</sup> / 230 HB                   | 1.4462             | X2CrNiMoN22-5-3            | 1.4501             | X2CrNiMoCuWN25-7-4      |
| K | Grey cast iron                             | K.1.1 | Pearlitic / ferritic                           | 350 N/mm <sup>2</sup> / 180 HB                   | 0.6010             | GG-10                      | 0.6025             | GG-25                   |
|   |  | K.1.2 | Pearlitic (martensitic)                        | 500 N/mm <sup>2</sup> / 260 HB                   | 0.6030             | GG-30                      | 0.6045             | GG-45                   |
|   | Spherulitic graphite cast iron             | K.2.1 | Ferritic                                       | 540 N/mm <sup>2</sup> / 160 HB                   | 0.7040             | GGG-40                     | 0.7060             | GGG-60                  |
|   |  | K.2.2 | Pearlitic                                      | 845 N/mm <sup>2</sup> / 250 HB                   | 0.7070             | GGG-70                     | 0.7080             | GGG-80                  |
|   | Malleable iron                             | K.3.1 | Ferritic                                       | 440 N/mm <sup>2</sup> / 130 HB                   | 0.8035             | GTW-35-04                  | 0.8045             | GTW-45                  |
|   |  | K.3.2 | Pearlitic                                      | 780 N/mm <sup>2</sup> / 230 HB                   | 0.8165             | GTS-65-02                  | 0.8170             | GTS-70-02               |
| N | Aluminium wrought alloy                    | N.1.1 | Non-hardenable                                 | 60 HB  | 3.0255             | Al99,5                     | 3.3315             | AlMg1                   |
|   |  | N.1.2 | Hardenable<br>Age-hardened                     | 340 N/mm <sup>2</sup> / 100 HB                   | 3.1355             | AlCuMg2                    | 3.2315             | AlMgSi1                 |
|   | Cast aluminium alloy                       | N.2.1 | ≤ 12 % Si, non-hardenable                      | 250 N/mm <sup>2</sup> / 75 HB                    | 3.2581             | G-AlSi12                   | 3.2163             | G-AlSi9Cu3              |
|   |  | N.2.2 | ≤ 12 % Si, hardenable<br>Age-hardened          | 300 N/mm <sup>2</sup> / 90 HB                    | 3.2134             | G-AlSi5Cu1Mg               | 3.2373             | G-AlSi9Mg               |
|   |  | N.2.3 | > 12 % Si, non-hardenable                      | 440 N/mm <sup>2</sup> / 130 HB                   |                    | G-AlSi17Cu4Mg              |                    | G-AlSi18CuNiMg          |
|   | Copper and copper alloys (bronze/brass)    | N.3.1 | Free-machining alloys, PB > 1 %                | 375 N/mm <sup>2</sup> / 110 HB                   | 2.0380             | CuZn39Pb2 (Ms58)           | 2.0410             | CuZn44Pb2               |
|   |  | N.3.2 | CuZn, CuSnZn                                   | 300 N/mm <sup>2</sup> / 90 HB                    | 2.0331             | CuZn15                     | 2.4070             | CuZn28Sn1As             |
|   |  | N.3.3 | CuSn, lead-free copper and electrolytic copper | 340 N/mm <sup>2</sup> / 100 HB                   | 2.0060             | E-Cu57                     | 2.0590             | CuZn40Fe                |
|   | Magnesium alloys                           | N.4.1 | Magnesium and magnesium alloys                 | 70 HB  | 3.5612             | MgAl6Zn                    | 3.5312             | MgAl3Zn                 |
| S | Heat-resistant alloys                      | S.1.1 | Fe - basis<br>Annealed                         | 680 N/mm <sup>2</sup> / 200 HB                   | 1.4864             | X12NiCrSi 36-16            | 1.4865             | G-X40NiCrSi38-18        |
|   |  | S.1.2 | Fe - basis<br>Age-hardened                     | 950 N/mm <sup>2</sup> / 280 HB                   | 1.4980             | X6NiCrTiMoVB25-15-2        | 1.4876             | X10NiCrAlTi32-20        |
|   |  | S.2.1 | Ni or Co basis<br>Annealed                     | 840 N/mm <sup>2</sup> / 250 HB                   | 2.4631             | NiCr20TiAl (Nimonic80A)    | 3.4856             | NiCr22Mo9Nb             |
|   |  | S.2.2 | Ni or Co basis<br>Age-hardened                 | 1180 N/mm <sup>2</sup> / 350 HB                  | 2.4668             | NiCr19Nb5Mo3 (Inconel 718) | 2.4955             | NiFe25Cr20NbTi          |
|   |  | S.2.3 | Ni or Co basis<br>Cast                         | 1080 N/mm <sup>2</sup> / 320 HB                  | 2.4765             | CoCr20W15Ni                | 1.3401             | G-X120Mn12              |
|   | Titanium alloys                            | S.3.1 | Pure titanium                                  | 400 N/mm <sup>2</sup>                            | 3.7025             | Ti99,8                     | 3.7034             | Ti99,7                  |
|   |  | S.3.2 | Alpha + beta alloys<br>Age-hardened            | 1050 N/mm <sup>2</sup> / 320 HB                  | 3.7165             | TiAl6V4                    | Ti-6246            | Ti-6Al-2Sn-4Zr-6Mo      |
|   |  | S.3.3 | Beta alloys                                    | 1400 N/mm <sup>2</sup> / 410 HB                  | Ti555.3            | Ti-5Al-5V-5Mo-3Cr          | R56410             | Ti-10V-2Fe-3Al          |
| H | Hardened steel                             | H.1.1 | Hardened and tempered                          | 46-55 HRC  |                    |                            |                    |                         |
|   |  | H.1.2 | Hardened and tempered                          | 56-60 HRC  |                    |                            |                    |                         |
|   |  | H.1.3 | Hardened and tempered                          | 61-65 HRC  |                    |                            |                    |                         |
|   |  | H.1.4 | Hardened and tempered                          | 66-70 HRC  |                    |                            |                    |                         |
|   | Chilled iron                               | H.2.1 | Cast   | 400 HB   |                    |                            |                    |                         |
|   | Hardened cast iron                         | H.3.1 | Hardened and tempered                          | 55 HRC   |                    |                            |                    |                         |
| O | Non-metal materials                        | O.1.1 | Plastics, duroplastic                          | ≤ 150 N/mm <sup>2</sup>                          |                    |                            |                    |                         |
|   |  | O.1.2 | Plastics, thermoplastic                        | ≤ 100 N/mm <sup>2</sup>                          |                    |                            |                    |                         |
|   |  | O.2.1 | Aramid fibre-reinforced                        | ≤ 1000 N/mm <sup>2</sup>                         |                    |                            |                    |                         |
|   |  | O.2.2 | Glass/carbon-fibre reinforced                  | ≤ 1000 N/mm <sup>2</sup>                         |                    |                            |                    |                         |
|   |  | O.3.1 | Graphite                                       |  |                    |                            |                    |                         |

\* Tensile strength

# Cutting data standard values for indexable inserts – MicroKom tools


| Index                | Indexable inserts for ...   |        |        |     |      |        |        |       |                    |        |      |            |        |        |
|----------------------|---|--------|--------|-----|------|--------|--------|-------|--------------------|--------|------|------------|--------|--------|
|                      | 62 820 ... / 62 840 ... / 62 800 ... / 62 815 ... / 62 810 ... / 62 858 ... |        |        |     |      |        |        |       |                    |        |      | 62 870 ... |        |        |
|                      | BK8440  | BK8425 | BK2710 | K10 | BK60 | BK6110 | BK7615 | CBN40 | PKD5510<br>CTDPU20 | CK3230 | CK32 | BK6440     | BK6115 | BK8430 |
| v <sub>c</sub> m/min |   |        |        |     |      |        |        |       |                    |        |      |            |        |        |
| P.1.1                | 170   | 200    | 230    |     | 270  | 300    |        |       |                    | 350    | 350  | 240        | 300    | 200    |
| P.1.2                | 170   | 200    | 230    |     | 270  | 300    |        |       |                    | 350    | 350  | 240        | 300    | 200    |
| P.1.3                | 170   | 200    | 230    |     | 270  | 300    |        |       |                    | 350    | 350  | 220        | 270    | 200    |
| P.1.4                | 150   | 180    | 210    |     | 250  | 300    |        |       |                    | 320    | 320  | 220        | 250    | 180    |
| P.1.5                | 150   | 180    | 210    |     | 250  | 300    |        |       |                    | 320    | 320  | 220        | 270    | 180    |
| P.2.1                | 140   | 160    | 180    |     | 210  | 270    |        |       |                    | 280    | 280  | 200        | 270    | 160    |
| P.2.2                | 140   | 160    | 180    |     | 210  | 270    |        |       |                    | 280    | 280  | 200        | 260    | 160    |
| P.2.3                | 140   | 160    | 180    |     | 210  | 270    |        |       |                    | 280    | 280  | 200        | 240    | 160    |
| P.2.4                | 140   | 160    | 180    |     | 210  | 270    |        |       |                    | 280    | 280  | 200        | 190    | 160    |
| P.3.1                | 120   | 140    | 160    |     | 190  | 250    |        |       |                    | 250    | 250  | 180        | 200    | 140    |
| P.3.2                | 120   | 140    | 160    |     | 190  | 250    |        |       |                    | 250    | 250  | 160        | 160    | 140    |
| P.3.3                | 120   | 140    | 160    |     | 190  | 250    |        |       |                    | 250    | 250  | 160        | 140    | 140    |
| P.4.1                | 100   | 120    | 140    |     | 160  | 220    |        |       |                    | 210    | 210  | 140        | 220    | 120    |
| P.4.2                | 100   | 120    | 140    |     | 160  | 220    |        |       |                    | 210    | 210  | 140        | 160    | 120    |
| M.1.1                | 140   | 160    | 180    |     | 280  | 220    |        |       |                    | 280    | 280  | 200        | 220    | 160    |
| M.2.1                | 120   | 140    | 160    |     | 250  | 220    |        |       |                    | 250    | 250  | 180        | 220    | 140    |
| M.3.1                | 90  | 100    | 120    |     | 180  | 200    |        |       |                    | 180    | 180  | 160        | 200    | 100    |
| K.1.1                | 150   | 180    | 210    |     | 210  | 290    | 290    |       |                    |        |      |            | 240    | 180    |
| K.1.2                | 140   | 160    | 180    |     | 180  | 290    | 290    |       |                    |        |      |            | 140    | 160    |
| K.2.1                | 120   | 140    | 160    |     | 160  | 270    | 270    |       |                    |        |      |            | 160    | 140    |
| K.2.2                | 120   | 140    | 160    |     | 160  | 250    | 250    |       |                    |        |      |            | 100    | 140    |
| K.3.1                | 100   | 120    | 140    |     | 140  | 220    | 220    |       |                    |        |      |            | 120    | 120    |
| K.3.2                | 100   | 120    | 140    |     | 140  | 220    | 220    |       |                    |        |      |            | 100    | 120    |
| N.1.1                |   |        |        | 250 |      |        |        |       |                    | 500    |      |            |        |        |
| N.1.2                |   |        |        | 250 |      |        |        |       |                    | 500    |      |            |        |        |
| N.2.1                |   |        |        | 250 |      |        |        |       |                    | 500    |      |            |        |        |
| N.2.2                |   |        |        | 250 |      |        |        |       |                    | 500    |      |            |        |        |
| N.2.3                |   |        |        | 250 |      |        |        |       |                    | 500    |      |            |        |        |
| N.3.1                |   |        |        | 230 |      |        |        |       |                    | 450    |      |            |        |        |
| N.3.2                |   |        |        | 230 |      |        |        |       |                    | 450    |      |            |        |        |
| N.3.3                |   |        |        | 230 |      |        |        |       |                    | 450    |      |            |        |        |
| N.4.1                |   |        |        | 230 |      |        |        |       |                    | 450    |      |            |        |        |
| S.1.1                |   | 60     |        | 20  |      |        |        |       |                    |        |      |            |        | 60     |
| S.1.2                |   | 50     |        | 20  |      |        |        |       |                    |        |      |            |        | 50     |
| S.2.1                |   | 60     |        | 20  |      |        |        |       |                    |        |      |            |        | 60     |
| S.2.2                |   | 50     |        | 20  |      |        |        |       |                    |        |      |            |        | 50     |
| S.2.3                |   | 30     |        | 20  |      |        |        |       |                    |        |      |            |        | 30     |
| S.3.1                |   | 100    |        | 60  |      |        |        |       |                    |        |      |            |        | 100    |
| S.3.2                |   | 80     |        | 30  |      |        |        |       |                    |        |      |            |        | 80     |
| S.3.3                |   | 50     |        | 30  |      |        |        |       |                    |        |      |            |        | 50     |
| H.1.1                | 90  | 100    |        |     |      | 100    |        | 160   |                    |        |      |            | 100    | 100    |
| H.1.2                | 70  | 80     |        |     |      | 80     |        | 185   |                    |        |      |            | 80     | 80     |
| H.1.3                | 40  | 50     |        |     |      | 50     |        | 215   |                    |        |      |            | 50     | 50     |
| H.1.4                |   |        |        |     |      |        |        | 240   |                    |        |      |            |        |        |
| H.2.1                | 90  | 100    |        |     |      | 100    |        |       |                    |        |      |            | 100    | 100    |
| H.3.1                | 70  | 80     |        |     |      | 80     |        |       |                    |        |      |            | 80     | 80     |
| O.1.1                |   |        |        | 100 |      |        |        |       |                    | 500    |      |            |        |        |
| O.1.2                |   |        |        | 100 |      |        |        |       |                    | 500    |      |            |        |        |
| O.2.1                |   |        |        |     |      |        |        |       |                    | 500    |      |            |        |        |
| O.2.2                |   |        |        | 100 |      |        |        |       |                    | 300    |      |            |        |        |
| O.3.1                |   |        |        | 100 |      |        |        |       |                    | 300    |      |            |        |        |

5

 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. ± 20 % according to the usage conditions. It is essential to observe the v<sub>c</sub> values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

## Cutting data standard values for indexable inserts – SpinTools

| Index                | Indexable inserts for ... |                      |                      |                      |                 |  |       |       |       |                 | Cutting insert / carbide boring bar |  |
|----------------------|---------------------------|----------------------|----------------------|----------------------|-----------------|--|-------|-------|-------|-----------------|-------------------------------------|--|
|                      | 62 295 ...                |                      |                      |                      |                 | 62 304 ... / 62 372 ... / 62 373 ... / 62 326 ... / 62 332 ... / 62 333 ... / 62 363 ... / 62 308 ... / 62 303 ... / 62 346 ... / 62 380 ... |       |       |       |                 | 62 386 ... / 62 382 ...             |  |
|                      | CTCP125<br>(HCX1125)      | CTCP115<br>(HCX1115) | CTCP135<br>(HCR1135) | CTC2135<br>(CWN2135) | H10T<br>(CWK15) | CWN10  | CWP25 | CWC06 | CWC10 | K10<br>uncoated | TiN                                 |  |
| v <sub>c</sub> m/min |                           |                      |                      |                      |                 |  |       |       |       |                 |                                     |  |
| P.1.1                | 295                       | 370                  | 210                  | 360                  |                 | 185  | 185   | 250   | 175   | 175             | 190                                 |  |
| P.1.2                | 250                       | 315                  | 175                  | 360                  |                 | 185  | 185   | 250   | 140   | 175             | 200                                 |  |
| P.1.3                | 210                       | 270                  | 145                  | 360                  |                 | 185  | 185   | 250   | 140   | 175             | 170                                 |  |
| P.1.4                | 200                       | 250                  | 135                  | 375                  |                 | 185  | 185   | 250   | 140   | 175             | 170                                 |  |
| P.1.5                | 180                       | 230                  | 120                  | 375                  |                 | 185  | 185   | 250   | 140   | 175             | 160                                 |  |
| P.2.1                | 260                       | 325                  | 180                  | 385                  |                 | 185  | 185   | 250   | 140   | 175             | 180                                 |  |
| P.2.2                | 195                       | 250                  | 130                  | 385                  |                 | 185  | 185   | 250   | 175   | 175             | 150                                 |  |
| P.2.3                | 180                       | 230                  | 120                  | 385                  |                 | 185  | 185   | 250   | 140   | 175             | 160                                 |  |
| P.2.4                | 130                       | 170                  | 85                   | 385                  |                 | 185  | 185   | 250   | 140   | 175             | 160                                 |  |
| P.3.1                | 170                       | 200                  | 150                  | 310                  |                 | 185  | 185   | 250   | 175   | 175             | 120                                 |  |
| P.3.2                | 105                       | 140                  | 95                   | 310                  |                 | 135  | 135   | 165   | 140   | 65              | 100                                 |  |
| P.3.3                | 40                        | 85                   | 35                   | 310                  |                 | 135  | 135   | 165   | 140   | 65              | 100                                 |  |
| P.4.1                | 170                       | 200                  | 155                  | 320                  |                 | 125  | 125   | 120   | 120   | 100             | 80                                  |  |
| P.4.2                | 135                       | 170                  | 125                  | 320                  |                 | 125  | 125   | 120   | 120   | 100             | 80                                  |  |
| M.1.1                |                           |                      | 155                  | 300                  |                 | 120  | 120   | 120   | 120   | 100             | 80                                  |  |
| M.2.1                |                           |                      | 95                   | 310                  |                 | 100  | 100   | 100   | 110   | 70              | 80                                  |  |
| M.3.1                |                           |                      | 135                  | 325                  |                 | 120  | 120   | 120   | 120   | 100             | 80                                  |  |
| K.1.1                | 170                       | 255                  |                      |                      | 140             | 160  | 160   | 160   | 225   | 135             | 200                                 |  |
| K.1.2                | 160                       | 235                  |                      |                      | 115             | 160  | 160   | 160   | 225   | 135             | 150                                 |  |
| K.2.1                | 180                       | 270                  |                      |                      | 150             | 160  | 160   | 160   | 125   | 135             | 120                                 |  |
| K.2.2                | 160                       | 205                  |                      |                      | 110             | 140  | 140   | 140   | 125   | 115             | 110                                 |  |
| K.3.1                | 200                       | 250                  |                      |                      | 170             | 140  | 140   | 140   | 125   | 115             | 180                                 |  |
| K.3.2                | 160                       | 210                  |                      |                      | 140             | 140  | 140   | 140   | 125   | 115             | 150                                 |  |
| N.1.1                |                           |                      |                      |                      | 1400            | 400  | 400   | 400   |       | 250             | 300                                 |  |
| N.1.2                |                           |                      |                      |                      | 1100            | 400  | 400   | 400   |       | 250             | 240                                 |  |
| N.2.1                |                           |                      |                      |                      | 950             | 400  | 400   | 400   |       | 250             | 240                                 |  |
| N.2.2                |                           |                      |                      |                      | 950             | 400  | 400   | 400   |       | 250             | 240                                 |  |
| N.2.3                |                           |                      |                      |                      | 500             | 400  | 400   | 400   |       | 250             | 240                                 |  |
| N.3.1                |                           |                      |                      |                      | 425             | 400  | 400   | 400   |       | 250             | 290                                 |  |
| N.3.2                |                           |                      |                      |                      | 400             | 400  | 400   | 400   |       | 250             | 290                                 |  |
| N.3.3                |                           |                      |                      |                      | 275             | 400  | 400   | 400   |       | 250             | 290                                 |  |
| N.4.1                |                           |                      |                      |                      | 225             |  |       |       |       |                 | 220                                 |  |
| S.1.1                |                           |                      | 30                   |                      |                 | 55   |       |       |       |                 | 60                                  |  |
| S.1.2                |                           |                      | 25                   |                      |                 | 55   |       |       |       |                 | 40                                  |  |
| S.2.1                |                           |                      | 15                   |                      |                 | 55   |       |       |       |                 | 30                                  |  |
| S.2.2                |                           |                      | 10                   |                      |                 | 55   |       |       |       |                 | 30                                  |  |
| S.2.3                |                           |                      | 10                   |                      |                 | 55   |       |       |       |                 | 30                                  |  |
| S.3.1                |                           |                      | 105                  |                      |                 | 55   |       |       |       |                 | 30                                  |  |
| S.3.2                |                           |                      | 25                   |                      |                 | 55   |       |       |       |                 | 25                                  |  |
| S.3.3                |                           |                      |                      |                      |                 | 55   |       |       |       |                 | 25                                  |  |
| H.1.1                |                           |                      |                      |                      |                 | 125  |       |       |       |                 | 110                                 |  |
| H.1.2                |                           |                      |                      |                      |                 | 100  |       |       |       |                 | 80                                  |  |
| H.1.3                |                           |                      |                      |                      |                 | 80   |       |       |       |                 | 70                                  |  |
| H.1.4                |                           |                      |                      |                      |                 |  |       |       |       |                 |                                     |  |
| H.2.1                |                           |                      |                      |                      |                 | 170  |       |       |       |                 | 70                                  |  |
| H.3.1                |                           |                      |                      |                      |                 | 125  |       |       |       |                 | 70                                  |  |
| O.1.1                |                           |                      |                      |                      | 130             |  |       |       |       |                 | 240                                 |  |
| O.1.2                |                           |                      |                      |                      |                 |  |       |       |       |                 | 240                                 |  |
| O.2.1                |                           |                      |                      |                      | 105             |  |       |       |       |                 | 180                                 |  |
| O.2.2                |                           |                      |                      |                      |                 |  |       |       |       |                 | 180                                 |  |
| O.3.1                |                           |                      |                      |                      |                 |  |       |       |       |                 | 180                                 |  |

 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx. ± 20 % according to the usage conditions. It is essential to observe the v<sub>c</sub> values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.




# Cutting data standard values for precision adjustment heads

Fine machining with depth of cut  $a_p = 0.1 - 0.2 \text{ mm}$

| Index | BlueFlex 2, hi.flex                  |          |         |         |          | ● 1st choice<br>○ suitable |                |              | MO3 Speed  |          | FF         |         |          | ● 1st choice<br>○ suitable |                |     |
|-------|--------------------------------------|----------|---------|---------|----------|----------------------------|----------------|--------------|------------|----------|------------|---------|----------|----------------------------|----------------|-----|
|       | 62 820 ... / 62 840 ... / 62 800 ... |          |         |         |          | Emulsion                   | Compressed air | MMS          | 62 815 ... |          | 62 810 ... |         |          | Emulsion                   | Compressed air | MMS |
|       | ∅ 6-7,9                              | ∅ 8-11,9 | ∅ 12-25 | ∅ 25-44 | ∅ 44-365 |                            |                |              | ∅ 24,8-63  | ∅ 63-206 | ∅ 29,5-50  | ∅ 47-83 | ∅ 79-199 |                            |                |     |
|       | f in mm/rev.                         |          |         |         |          | f in mm/rev.               |                | f in mm/rev. |            |          |            |         |          |                            |                |     |
| P.1.1 | 0,04                                 | 0,07     | 0,10    | 0,08    | 0,10     | ●                          | ○              |              | 0,08       | 0,10     | 0,08       | 0,10    | 0,15     | ●                          | ○              | ○   |
| P.1.2 | 0,04                                 | 0,07     | 0,12    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,20     | ●                          | ○              | ○   |
| P.1.3 | 0,04                                 | 0,06     | 0,12    | 0,08    | 0,12     | ●                          | ○              |              | 0,08       | 0,12     | 0,08       | 0,12    | 0,20     | ●                          | ○              | ○   |
| P.1.4 | 0,04                                 | 0,06     | 0,10    | 0,08    | 0,10     | ●                          | ○              |              | 0,07       | 0,10     | 0,08       | 0,12    | 0,18     | ●                          | ○              | ○   |
| P.1.5 | 0,04                                 | 0,07     | 0,12    | 0,10    | 0,15     | ●                          | ○              |              | 0,09       | 0,13     | 0,09       | 0,13    | 0,18     | ●                          | ○              | ○   |
| P.2.1 | 0,04                                 | 0,06     | 0,12    | 0,08    | 0,12     | ●                          | ○              |              | 0,08       | 0,12     | 0,08       | 0,12    | 0,20     | ●                          | ○              | ○   |
| P.2.2 | 0,04                                 | 0,06     | 0,10    | 0,08    | 0,10     | ●                          | ○              |              | 0,07       | 0,10     | 0,08       | 0,12    | 0,18     | ●                          | ○              | ○   |
| P.2.3 | 0,03                                 | 0,06     | 0,10    | 0,08    | 0,10     | ●                          | ○              |              | 0,08       | 0,10     | 0,08       | 0,10    | 0,20     | ●                          | ○              | ○   |
| P.2.4 | 0,03                                 | 0,04     | 0,06    | 0,06    | 0,06     | ●                          | ○              |              | 0,06       | 0,08     | 0,06       | 0,08    | 0,10     | ●                          | ○              | ○   |
| P.3.1 | 0,03                                 | 0,05     | 0,10    | 0,06    | 0,10     | ●                          | ○              |              | 0,06       | 0,10     | 0,06       | 0,10    | 0,15     | ●                          | ○              | ○   |
| P.3.2 | 0,03                                 | 0,04     | 0,07    | 0,04    | 0,07     | ●                          | ○              |              | 0,04       | 0,08     | 0,04       | 0,08    | 0,12     | ●                          | ○              | ○   |
| P.3.3 | 0,03                                 | 0,04     | 0,07    | 0,04    | 0,07     | ●                          | ○              |              | 0,04       | 0,07     | 0,04       | 0,08    | 0,10     | ●                          | ○              | ○   |
| P.4.1 | 0,03                                 | 0,05     | 0,10    | 0,06    | 0,10     | ●                          | ○              |              | 0,06       | 0,10     | 0,06       | 0,10    | 0,15     | ●                          | ○              | ○   |
| P.4.2 | 0,03                                 | 0,04     | 0,07    | 0,04    | 0,07     | ●                          | ○              |              | 0,04       | 0,08     | 0,04       | 0,08    | 0,12     | ●                          | ○              | ○   |
| M.1.1 | 0,01                                 | 0,05     | 0,10    | 0,06    | 0,10     | ●                          | ○              |              | 0,06       | 0,10     | 0,06       | 0,10    | 0,15     | ●                          | ○              | ○   |
| M.2.1 | 0,01                                 | 0,04     | 0,08    | 0,06    | 0,10     | ●                          | ○              |              | 0,06       | 0,10     | 0,06       | 0,10    | 0,15     | ●                          | ○              | ○   |
| M.3.1 | 0,01                                 | 0,04     | 0,07    | 0,05    | 0,08     | ●                          | ○              |              | 0,05       | 0,09     | 0,05       | 0,08    | 0,12     | ●                          | ○              | ○   |
| K.1.1 | 0,05                                 | 0,10     | 0,15    | 0,15    | 0,20     | ○                          | ●              |              | 0,15       | 0,20     | 0,15       | 0,20    | 0,30     | ○                          | ●              | ○   |
| K.1.2 | 0,05                                 | 0,10     | 0,15    | 0,15    | 0,20     | ○                          | ●              |              | 0,15       | 0,20     | 0,15       | 0,20    | 0,30     | ○                          | ●              | ○   |
| K.2.1 | 0,04                                 | 0,08     | 0,15    | 0,10    | 0,15     | ○                          | ●              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,25     | ○                          | ●              | ○   |
| K.2.2 | 0,03                                 | 0,07     | 0,12    | 0,08    | 0,12     | ○                          | ●              |              | 0,08       | 0,12     | 0,08       | 0,12    | 0,20     | ○                          | ●              | ○   |
| K.3.1 | 0,04                                 | 0,08     | 0,15    | 0,10    | 0,15     | ○                          | ●              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,25     | ○                          | ●              | ○   |
| K.3.2 | 0,03                                 | 0,07     | 0,12    | 0,08    | 0,12     | ○                          | ●              |              | 0,08       | 0,12     | 0,08       | 0,12    | 0,20     | ○                          | ●              | ○   |
| N.1.1 | 0,02                                 | 0,06     | 0,10    | 0,08    | 0,12     | ●                          | ○              |              | 0,08       | 0,12     | 0,08       | 0,12    | 0,15     | ●                          | ○              | ○   |
| N.1.2 | 0,02                                 | 0,06     | 0,10    | 0,08    | 0,12     | ●                          | ○              |              | 0,08       | 0,12     | 0,08       | 0,12    | 0,15     | ●                          | ○              | ○   |
| N.2.1 | 0,05                                 | 0,08     | 0,12    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,20     | ●                          | ○              | ○   |
| N.2.2 | 0,05                                 | 0,08     | 0,12    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,20     | ●                          | ○              | ○   |
| N.2.3 | 0,05                                 | 0,08     | 0,12    | 0,10    | 0,15     | ●                          | ○              |              | 0,09       | 0,12     | 0,09       | 0,12    | 0,18     | ●                          | ○              | ○   |
| N.3.1 | 0,02                                 | 0,04     | 0,08    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,20     | ●                          | ○              | ○   |
| N.3.2 | 0,02                                 | 0,04     | 0,08    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,11       | 0,16    | 0,22     | ●                          | ○              | ○   |
| N.3.3 | 0,05                                 | 0,08     | 0,15    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,20     | ●                          | ○              | ○   |
| N.4.1 | 0,02                                 | 0,04     | 0,08    | 0,10    | 0,15     | ●                          | ○              |              | 0,10       | 0,15     | 0,10       | 0,15    | 0,20     | ●                          | ○              | ○   |
| S.1.1 | 0,01                                 | 0,04     | 0,08    | 0,06    | 0,08     | ●                          | ○              |              | 0,06       | 0,08     | 0,06       | 0,08    | 0,10     | ●                          | ○              | ○   |
| S.1.2 | 0,01                                 | 0,03     | 0,06    | 0,04    | 0,06     | ●                          | ○              |              | 0,04       | 0,06     | 0,04       | 0,06    | 0,08     | ●                          | ○              | ○   |
| S.2.1 | 0,01                                 | 0,04     | 0,08    | 0,06    | 0,08     | ●                          | ○              |              | 0,06       | 0,08     | 0,06       | 0,08    | 0,10     | ●                          | ○              | ○   |
| S.2.2 | 0,01                                 | 0,03     | 0,06    | 0,04    | 0,06     | ●                          | ○              |              | 0,04       | 0,06     | 0,04       | 0,06    | 0,08     | ●                          | ○              | ○   |
| S.2.3 | 0,05                                 | 0,08     | 0,06    | 0,08    | 0,08     | ●                          | ○              |              | 0,04       | 0,06     | 0,04       | 0,06    | 0,06     | ●                          | ○              | ○   |
| S.3.1 | 0,01                                 | 0,04     | 0,08    | 0,06    | 0,08     | ●                          | ○              |              | 0,06       | 0,08     | 0,07       | 0,09    | 0,11     | ●                          | ○              | ○   |
| S.3.2 | 0,01                                 | 0,04     | 0,08    | 0,06    | 0,08     | ●                          | ○              |              | 0,06       | 0,08     | 0,06       | 0,08    | 0,10     | ●                          | ○              | ○   |
| S.3.3 | 0,01                                 | 0,02     | 0,04    | 0,03    | 0,04     | ●                          | ○              |              | 0,04       | 0,06     | 0,06       | 0,08    | 0,10     | ●                          | ○              | ○   |
| H.1.1 |                                      | 0,05     | 0,08    | 0,08    | 0,08     |                            | ●              |              | 0,08       | 0,08     | 0,08       | 0,08    | 0,10     |                            | ●              | ○   |
| H.1.2 |                                      | 0,05     | 0,08    | 0,06    | 0,08     |                            | ●              |              | 0,06       | 0,06     | 0,06       | 0,06    | 0,08     |                            | ●              | ○   |
| H.1.3 |                                      | 0,02     | 0,04    | 0,03    | 0,04     |                            | ●              |              | 0,04       | 0,04     | 0,03       | 0,04    | 0,04     |                            | ●              | ○   |
| H.1.4 |                                      |          |         |         |          |                            |                |              |            |          |            |         |          |                            |                |     |
| H.2.1 |                                      | 0,05     | 0,08    | 0,08    | 0,08     |                            | ●              |              | 0,05       | 0,06     | 0,08       | 0,08    | 0,10     |                            | ●              | ○   |
| H.3.1 |                                      | 0,05     | 0,08    | 0,06    | 0,08     |                            | ●              |              | 0,05       | 0,06     | 0,06       | 0,06    | 0,08     |                            | ●              | ○   |
| O.1.1 |                                      | 0,04     | 0,04    | 0,06    | 0,06     | ○                          | ●              |              | 0,08       | 0,08     | 0,08       | 0,08    | 0,08     | ○                          | ●              | ○   |
| O.1.2 |                                      | 0,04     | 0,04    | 0,06    | 0,06     | ○                          | ●              |              | 0,08       | 0,08     | 0,08       | 0,08    | 0,08     | ○                          | ●              | ○   |
| O.2.1 |                                      |          |         |         |          |                            |                |              |            |          |            |         |          |                            |                |     |
| O.2.2 |                                      | 0,03     | 0,03    | 0,04    | 0,04     |                            | ●              |              | 0,04       | 0,05     | 0,04       | 0,04    | 0,04     |                            | ●              |     |
| O.3.1 |                                      | 0,03     | 0,03    | 0,04    | 0,04     |                            | ●              |              | 0,04       | 0,05     | 0,04       | 0,04    | 0,04     |                            | ●              |     |


5

 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx.  $\pm 20\%$  according to the usage conditions. It is essential to observe the  $v_c$  values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

# Cutting data values for fine and rough boring heads

Fine machining with depth of cut  $a_p = 0.1 - 0.4$  mm

| Index | M10 boring bar |              |            |          | Single point finish boring heads |     |           | Twin edged rough / fine boring head |           |          | Single point finish boring heads |     |  |
|-------|----------------|--------------|------------|----------|----------------------------------|-----|-----------|-------------------------------------|-----------|----------|----------------------------------|-----|--|
|       | 62 858 ...     |              |            |          | 62 305 ...                       |     |           | 62 380 ...                          |           |          | 62 303 ...                       |     |  |
|       | Ø 15,9-26      |              |            |          | Ø 86-402                         |     |           | Ø 29,5-115,5                        |           |          | Ø 23,9-116,1                     |     |  |
|       | f in mm/rev.   |              |            |          | f in mm/rev.                     |     |           | f in mm/rev.                        |           |          | f in mm/rev.                     |     |  |
|       |                | ● 1st choice | ○ suitable | Emulsion | Compressed air                   | MMS | Emulsion  | Compressed air                      | MMS       | Emulsion | Compressed air                   | MMS |  |
| P.1.1 | 0,07           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.1.2 | 0,07           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.1.3 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.1.4 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.1.5 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.2.1 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.2.2 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.2.3 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.2.4 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.3.1 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.3.2 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.3.3 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.4.1 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| P.4.2 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| M.1.1 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| M.2.1 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| M.3.1 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| K.1.1 | 0,10           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| K.1.2 | 0,10           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| K.2.1 | 0,08           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| K.2.2 | 0,07           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| K.3.1 | 0,08           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| K.3.2 | 0,07           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| N.1.1 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.1.2 | 0,06           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.2.1 | 0,08           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.2.2 | 0,08           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.2.3 | 0,07           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.3.1 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.3.2 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.3.3 | 0,10           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| N.4.1 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.1.1 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.1.2 | 0,03           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.2.1 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.2.2 | 0,03           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.2.3 | 0,03           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.3.1 | 0,05           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.3.2 | 0,04           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| S.3.3 | 0,02           | ●            | ○          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ●        | ○                                |     |  |
| H.1.1 | 0,05           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| H.1.2 | 0,04           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| H.1.3 | 0,02           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| H.1.4 |                |              |            | ○        |                                  |     |           |                                     |           |          |                                  |     |  |
| H.2.1 | 0,05           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| H.3.1 | 0,03           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| O.1.1 | 0,08           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| O.1.2 | 0,08           | ○            | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| O.2.1 |                |              |            | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 | ○        | ●                                |     |  |
| O.2.2 | 0,04           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 |          | ●                                |     |  |
| O.3.1 | 0,04           |              | ●          | ○        |                                  |     | 0,03-0,12 | 0,08-0,20                           | 0,03-0,12 |          | ●                                |     |  |


 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx.  $\pm 20\%$  according to the usage conditions. It is essential to observe the  $v_c$  values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

# Cutting data values for fine and rough boring heads

Single point finish boring heads: Fine machining with depth of cut  $a_p = 0,1 - 0,4$  mm | Micro-Boring Head: Fine machining with depth of cut  $a_p = 0,1 - 0,2$  mm

| Index        | Fine boring head | Multi-Head boring and fine boring head | Single point boring head                          | Vario-Head - boring and fine boring head | Micro Boring Head       | ● 1st choice<br>○ suitable |                |     |
|--------------|------------------|--|---|--|-------------------------|----------------------------|----------------|-----|
|              | 62 304 ...       | 62 372 ... / 62 373 ...                | 62 326 ... / 62 332 ... / 62 333 ... / 62 363 ... | 62 364 ...                               | 62 386 ... / 62 382 ... | Emulsion                   | Compressed air | MMS |
|              | Ø 14,7-24,1      | Ø 2-320                                | Ø 3-88  | Ø 3-152,1                                | Ø 0,3-19,1              |                            |                |     |
| f in mm/rev. |                  |  |   |  |                         |                            |                |     |
| P.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.1.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.1.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.1.4        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.1.5        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.2.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.2.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.2.4        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.3.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.3.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.4.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| P.4.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| M.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| M.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| M.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| K.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| K.1.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| K.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| K.2.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| K.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| K.3.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| N.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.1.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.2.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.2.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.3.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.3.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| N.4.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.1.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.2.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.2.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.3.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| S.3.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ●                          | ○              | ○   |
| H.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| H.1.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| H.1.3        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| H.1.4        |                  |  |   |  |                         |                            |                |     |
| H.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| H.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| O.1.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| O.1.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| O.2.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    | ○                          | ●              | ○   |
| O.2.2        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    |                            | ●              |     |
| O.3.1        | 0,03-0,10        | 0,03-0,12                              | 0,03-0,12   | 0,03-0,12                                | 0,02                    |                            | ●              |     |


5

 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx.  $\pm 20\%$  according to the usage conditions. It is essential to observe the  $v_c$  values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

# Cutting data values for rough boring heads

Cutting depth  $a_p = 1,0 - 9,0$  mm

| Index | TwinKom      |         |         |         |         |          |           | ● 1st choice<br>○ suitable |                |     |
|-------|--------------|---------|---------|---------|---------|----------|-----------|----------------------------|----------------|-----|
|       | 62 870 ...   |         |         |         |         |          |           | Emulsion                   | Compressed air | MMS |
|       | Ø 24-32      | Ø 30-41 | Ø 39-53 | Ø 51-71 | Ø 64-91 | Ø 83-124 | Ø 109-167 |                            |                |     |
|       | f in mm/rev. |         |         |         |         |          |           |                            |                |     |
| P.1.1 | 0,15         | 0,16    | 0,18    | 0,20    | 0,22    | 0,25     | 0,28      | ●                          | ○              | ○   |
| P.1.2 | 0,15         | 0,16    | 0,18    | 0,20    | 0,21    | 0,24     | 0,27      | ●                          | ○              | ○   |
| P.1.3 | 0,15         | 0,16    | 0,18    | 0,20    | 0,21    | 0,24     | 0,27      | ●                          | ○              | ○   |
| P.1.4 | 0,15         | 0,16    | 0,18    | 0,20    | 0,21    | 0,24     | 0,27      | ●                          | ○              | ○   |
| P.1.5 | 0,15         | 0,16    | 0,18    | 0,20    | 0,21    | 0,24     | 0,27      | ●                          | ○              | ○   |
| P.2.1 | 0,14         | 0,16    | 0,17    | 0,18    | 0,20    | 0,23     | 0,26      | ●                          | ○              | ○   |
| P.2.2 | 0,14         | 0,16    | 0,17    | 0,18    | 0,20    | 0,23     | 0,26      | ●                          | ○              | ○   |
| P.2.3 | 0,14         | 0,16    | 0,17    | 0,18    | 0,20    | 0,23     | 0,26      | ●                          | ○              | ○   |
| P.2.4 | 0,14         | 0,16    | 0,17    | 0,18    | 0,20    | 0,23     | 0,26      | ●                          | ○              | ○   |
| P.3.1 | 0,13         | 0,15    | 0,16    | 0,17    | 0,19    | 0,22     | 0,25      | ●                          | ○              | ○   |
| P.3.2 | 0,13         | 0,15    | 0,16    | 0,17    | 0,19    | 0,22     | 0,25      | ●                          | ○              | ○   |
| P.3.3 | 0,13         | 0,15    | 0,16    | 0,17    | 0,19    | 0,22     | 0,25      | ●                          | ○              | ○   |
| P.4.1 | 0,12         | 0,13    | 0,14    | 0,15    | 0,16    | 0,18     | 0,20      | ●                          | ○              | ○   |
| P.4.2 | 0,12         | 0,13    | 0,14    | 0,15    | 0,16    | 0,18     | 0,20      | ●                          | ○              | ○   |
| M.1.1 | 0,14         | 0,15    | 0,16    | 0,17    | 0,18    | 0,2      | 0,24      | ●                          | ○              | ○   |
| M.2.1 | 0,12         | 0,13    | 0,14    | 0,15    | 0,16    | 0,18     | 0,20      | ●                          | ○              | ○   |
| M.3.1 | 0,12         | 0,13    | 0,14    | 0,15    | 0,16    | 0,18     | 0,20      | ●                          | ○              | ○   |
| K.1.1 | 0,22         | 0,23    | 0,24    | 0,25    | 0,26    | 0,30     | 0,30      | ○                          | ●              | ○   |
| K.1.2 | 0,22         | 0,23    | 0,24    | 0,25    | 0,26    | 0,30     | 0,30      | ○                          | ●              | ○   |
| K.2.1 | 0,22         | 0,23    | 0,24    | 0,25    | 0,26    | 0,30     | 0,30      | ○                          | ●              | ○   |
| K.2.2 | 0,22         | 0,23    | 0,24    | 0,25    | 0,26    | 0,30     | 0,30      | ○                          | ●              | ○   |
| K.3.1 | 0,20         | 0,20    | 0,22    | 0,23    | 0,24    | 0,26     | 0,26      | ○                          | ●              | ○   |
| K.3.2 | 0,20         | 0,20    | 0,22    | 0,23    | 0,24    | 0,26     | 0,26      | ○                          | ●              | ○   |
| N.1.1 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.1.2 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.2.1 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.2.2 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.2.3 | 0,11         | 0,14    | 0,23    | 0,23    | 0,27    | 0,32     | 0,32      | ●                          | ○              | ○   |
| N.3.1 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.3.2 | 0,13         | 0,16    | 0,27    | 0,27    | 0,32    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.3.3 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| N.4.1 | 0,12         | 0,15    | 0,25    | 0,25    | 0,30    | 0,35     | 0,35      | ●                          | ○              | ○   |
| S.1.1 | 0,06         | 0,06    | 0,07    | 0,08    | 0,08    | 0,10     | 0,10      | ●                          | ○              | ○   |
| S.1.2 | 0,04         | 0,04    | 0,05    | 0,06    | 0,06    | 0,08     | 0,08      | ●                          | ○              | ○   |
| S.2.1 | 0,06         | 0,06    | 0,07    | 0,08    | 0,08    | 0,10     | 0,10      | ●                          | ○              | ○   |
| S.2.2 | 0,04         | 0,04    | 0,05    | 0,06    | 0,06    | 0,08     | 0,08      | ●                          | ○              | ○   |
| S.2.3 | 0,04         | 0,04    | 0,05    | 0,06    | 0,06    | 0,08     | 0,08      | ●                          | ○              | ○   |
| S.3.1 | 0,06         | 0,06    | 0,07    | 0,08    | 0,08    | 0,10     | 0,10      | ●                          | ○              | ○   |
| S.3.2 | 0,06         | 0,06    | 0,07    | 0,08    | 0,08    | 0,10     | 0,10      | ●                          | ○              | ○   |
| S.3.3 | 0,04         | 0,04    | 0,05    | 0,06    | 0,06    | 0,08     | 0,08      | ●                          | ○              | ○   |
| H.1.1 | 0,08         | 0,08    | 0,08    | 0,08    | 0,08    | 0,08     | 0,08      |                            | ●              | ○   |
| H.1.2 | 0,06         | 0,06    | 0,06    | 0,06    | 0,06    | 0,06     | 0,06      |                            | ●              | ○   |
| H.1.3 | 0,04         | 0,04    | 0,04    | 0,04    | 0,04    | 0,04     | 0,04      |                            | ●              | ○   |
| H.1.4 |              |         |         |         |         |          |           |                            |                | ○   |
| H.2.1 | 0,05         | 0,05    | 0,06    | 0,06    | 0,06    | 0,06     | 0,06      |                            | ●              | ○   |
| H.3.1 | 0,05         | 0,05    | 0,06    | 0,06    | 0,06    | 0,06     | 0,06      |                            | ●              | ○   |
| O.1.1 | 0,08         | 0,08    | 0,08    | 0,10    | 0,10    | 0,10     | 0,10      | ○                          | ●              | ○   |
| O.1.2 | 0,08         | 0,08    | 0,08    | 0,10    | 0,10    | 0,10     | 0,10      | ○                          | ●              | ○   |
| O.2.1 |              |         |         |         |         |          |           |                            |                |     |
| O.2.2 | 0,04         | 0,04    | 0,05    | 0,05    | 0,06    | 0,06     | 0,07      |                            | ●              |     |
| O.3.1 | 0,04         | 0,04    | 0,05    | 0,05    | 0,06    | 0,06     | 0,07      |                            | ●              |     |


 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx.  $\pm 20\%$  according to the usage conditions. It is essential to observe the  $v_c$  values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

# Cutting data values for rough boring heads

Cutting depth  $a_p = 2.5 - 7 \text{ mm}$

| Index        | Twin rough boring head  |                         |                         |                        | <input checked="" type="radio"/> 1st choice<br><input type="radio"/> suitable |                |     |
|--------------|-------------------------|-------------------------|-------------------------|------------------------|---|----------------|-----|
|              | 62 295 ...              |                         |                         |                        | Emulsion  | Compressed air | MMS |
|              | $\varnothing 23,5-40,5$ | $\varnothing 40,5-66,5$ | $\varnothing 66,5-87,5$ | $\varnothing 87,5-153$ |   |                |     |
| f in mm/rev. |                         |                         |                         |                        |   |                |     |
| P.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.1.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.1.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.1.4        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.1.5        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.2.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.2.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.2.4        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.3.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.3.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.4.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| P.4.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| M.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| M.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| M.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| K.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| K.1.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| K.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| K.2.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| K.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| K.3.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| N.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.1.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.2.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.2.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.3.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.3.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| N.4.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.1.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.2.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.2.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.3.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| S.3.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ●   | ○              |     |
| H.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| H.1.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| H.1.3        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| H.1.4        |                         |                         |                         |                        |   |                |     |
| H.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| H.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| O.1.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| O.1.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   | ●              |     |
| O.2.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                | ○   |                |     |
| O.2.2        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                |   | ●              |     |
| O.3.1        | 0,3-0,4                 | 0,4-0,5                 | 0,5-0,7                 | 0,5-0,8                |   | ●              |     |

5

 The cutting data is significantly dependent on the external conditions, e.g. stability of the tool and workpiece clamping, material and machine type! The stated values are possible cutting data which have to be increased or reduced according to the application conditions! The specified values represent guideline cutting data that can be adjusted by approx.  $\pm 20\%$  according to the usage conditions. It is essential to observe the  $v_c$  values of the type used (page 65 + 66), the maximum speeds of the system and the reduction of these maximum speeds depending on the type used overhang length. You can find these on pages 72 + 73.

# Maximum Speeds and Scale Accuracy

## Maximum speeds for precision adjustment heads and Micro-Boring Heads

| System   | Boring range  | Maximum speed<br>$n_{max}$ in 1/min |
|--|---------------|-------------------------------------|
| BlueFlex 2<br>(62 820 ... / 62 840 ...)        | Ø 5,6–365 mm  | 20.000                              |
| hi.flex<br>(62 800 ...)                        | Ø 5,6–365 mm  | 17.500                              |
| M10 boring bar<br>(62 858 ...)                 | Ø 15,9–26 mm  | 18.000                              |
| Micro Boring Head<br>(62 386 ... / 62 382 ...) | Ø 0,3–19,1 mm | 30.000                              |
| M03 Speed<br>(62 815 ...)                      | Ø 24–39 mm    | 40.000                              |
|  | Ø 38–50 mm    | 31.000                              |
|  | Ø 49–63 mm    | 24.000                              |
|  | Ø 62–80 mm    | 18.500                              |
|  | Ø 79–103 mm   | 15.000                              |
|  | Ø 100–130 mm  | 11.500                              |
|  | Ø 128–168 mm  | 10.000                              |
| FF<br>(62 810 ...)                             | Ø 29,5–42 mm  | 25.000                              |
|  | Ø 39–50 mm    | 18.000                              |
|  | Ø 47–66 mm    | 12.000                              |
|  | Ø 58–83 mm    | 9.000                               |
|  | Ø 79–108 mm   | 6.000                               |
|  | Ø 100–141 mm  | 4.000                               |
|  | Ø 138–179 mm  | 3.500                               |
| Ø 178–199 mm                                   | 3.000         |                                     |



## Maximum speeds for finish boring heads

| Article no.   | Boring range | Offset<br>$X = \leq 0,5$ mm | Offset<br>$X = > 0,5$ mm |
|---|--------------|-----------------------------|--------------------------|
|   |              | $n_{max}$ in 1/min          | $n_{max}$ in 1/min       |
| 62 372 ... / 62 373 ... / 62 326 ... / 62 332 ... /<br>62 333 ... / 62 363 ... / 62 364 ...<br>with boring bars | Ø 3–20 mm    | 16.000                      | 6.000                    |
|   | Ø 20–48 mm   | 12.000                      | 4.000                    |
|   | Ø 48–88 mm   | 8.000                       | 2.000                    |



| Article no.   | Boring range | Maximum speed with<br>unbalanced system | Maximum speed with<br>balanced System |
|---|--------------|---|---------------------------------------|
|   |              | $n_{max}$ in 1/min                      | $n_{max}$ in 1/min                    |
| 62 308 ... / 62 303 ... / 62 364 ...<br>with insert holders | Ø 24–31 mm   | 9.000                                   | 12.000                                |
|   | Ø 31–40 mm   | 7.500                                   | 10.000                                |
|   | Ø 40–51 mm   | 5.250                                   | 8.000                                 |
|   | Ø 51–67 mm   | 4.000                                   | 6.500                                 |
|   | Ø 67–87 mm   | 3.000                                   | 5.000                                 |
|   | Ø 87–116 mm  | 2.500                                   | 4.000                                 |
|   | Ø 116–153 mm | 1.750                                   | 3.000                                 |



| Article no.                       | Boring range | Maximum speed<br>$n_{max}$ in 1/min     |
|-----------------------------------|--------------|---|
|                                   |              | 62 372 ... / 62 373 ...<br>with bridges |
|                                   | Ø 164–320 mm | 250                                     |
| 62 305 ...<br>with insert holders | Ø 86–138 mm  | 1.150                                   |
|                                   | Ø 136–220 mm | 720                                     |
|                                   | Ø 188–302 mm | 520                                     |
|                                   | Ø 242–402 mm | 400                                     |



## Maximum speeds for two-edged systems

| System  | Boring range | Maximum speed<br>$n_{max}$ in 1/min |
|---|--------------|-------------------------------------|
| TwinKom<br>(62 380 ...)                             | Ø 24–31 mm   | 12.000                              |
|   | Ø 31–40 mm   | 10.000                              |
|   | Ø 40–51 mm   | 8.000                               |
| Twin edged rough / fine boring head<br>(62 295 ...) | Ø 51–68 mm   | 6.500                               |
|   | Ø 67–87 mm   | 5.000                               |
|   | Ø 87–116 mm  | 4.000                               |
| Twin rough boring head<br>(62 870 ...)              | Ø 116–153 mm | 3.000                               |
|   | Ø 153–215 mm | 2.200                               |



**1** The specified maximum speeds refer to an overhang length of up to 4xD.

For longer overhangs the maximum speeds should be reduced as follows:

$$5xD = 80 \% n_{max}$$

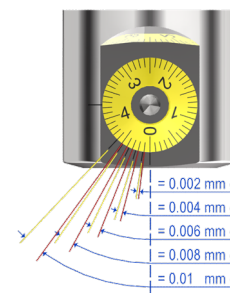
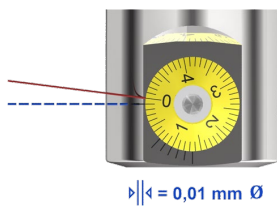
$$6xD = 60 \% n_{max}$$

> 6xD  $n_{max}$  identify with caution

## Scale accuracy

### Large scale with 0.002 mm adjustment

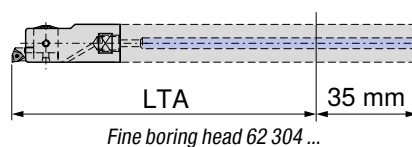
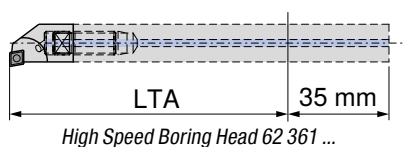
How it works:



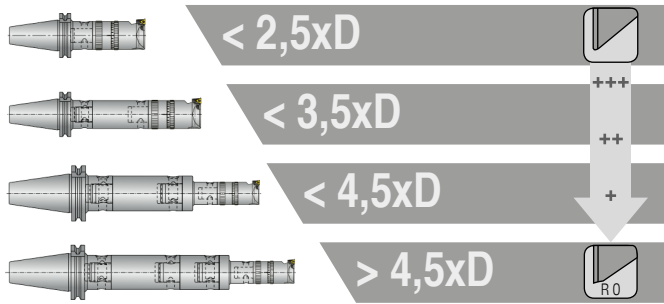
## Maximum overhang length LTA

for 35 mm shank clamping depth

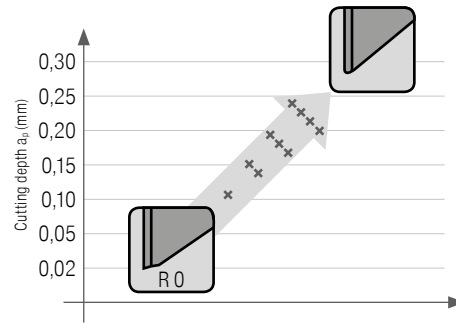
| Boring bar | High Speed Boring Head 62 361 ...   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | Fine boring head 62 304 ... |     |     |
|------------|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------------|-----|-----|
|            | 014                                 | 015 | 016 | 017 | 018 | 019 | 020 | 021 | 022 | 023 | 025 | 027 | 030 | 033 | 037 | 040 | 017                         | 020 | 024 |
| 62 353 ... |                                     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 008        | 56                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 009        | 63                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 010        | 70                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 011        | 77                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 012        | 84                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 013        | 91                                  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 014        | 98 98                               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 016        | 112 112 112 112 112 112 112 112 115 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 018        | 125                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 118        | 105                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
| 218        | 145                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |
|            | 185                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                             |     |     |



### Selection of the cutting radius depending on the overhang length



### Selection of the cutting edge radius in dependency of the cutting depth $a_p$



### Influence of the cutting forces of the cutting edge radius on internal machining

#### Resulting force

$$F_{res} = \sqrt{F_a^2 + F_p^2} = \sqrt{F_c^2 + F_f^2 + F_p^2}$$

#### Tangential cutting force ( $F_c$ )

- ▲ pushes the tool down from the vertical central axis
- ▲ is influenced by the cutting depth and the chip thickness
- ▲ reduces the clearance angle

#### Passive cutting force ( $F_p$ )

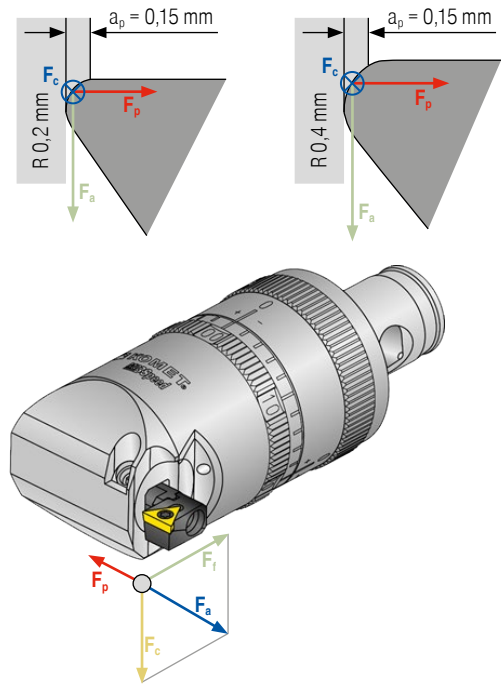
- ▲ pushes the tool away from the horizontal central axis
- ▲ increases the risk of vibrations and causes dimensional inaccuracies

#### Feed force ( $F_f$ )

- ▲ acts in the machining direction of the tool

#### Active cutting force ( $F_a$ )

- ▲ determined by  $F_c$  and  $F_f$



### Selection of the rake angle

Recommendations for the use of inserts with ground Chip breakers

|       | rounded<br><b>E</b> | Sharp<br><b>F</b> | chamfered<br><b>T</b> |
|-------|---------------------|-------------------|-----------------------|
| 0°    | P                   | P                 | P                     |
|       | M                   | M                 | M                     |
|       | <b>K</b>            | <b>K</b>          | <b>K</b>              |
|       | N                   | <b>N</b>          | N                     |
|       | S                   | S                 | S                     |
| ≤ 6°  | <b>P</b>            | P                 | P                     |
|       | <b>M</b>            | M                 | M                     |
|       | <b>K</b>            | <b>K</b>          | <b>K</b>              |
|       | N                   | N                 | N                     |
|       | S                   | S                 | S                     |
| ≤ 12° | <b>P</b>            | P                 | P                     |
|       | <b>M</b>            | M                 | M                     |
|       | <b>K</b>            | <b>K</b>          | <b>K</b>              |
|       | N                   | <b>N</b>          | N                     |
|       | S                   | <b>S</b>          | S                     |
| ≤ 20° | P                   | P                 | P                     |
|       | <b>M</b>            | M                 | M                     |
|       | <b>K</b>            | <b>K</b>          | <b>K</b>              |
|       | N                   | <b>N</b>          | N                     |
|       | S                   | <b>S</b>          | S                     |
|       | H                   | H                 | H                     |



## Types of wear

### Wear on clearance face



Abrasion on the flank: normal wear after a certain period of operation

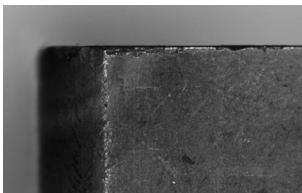
#### Cause

- ▲ Cutting speed too high
- ▲ Carbide grade does not have enough wear resistance
- ▲ Feed not adapted to application

#### Remedy

- ▲ Reduce cutting speed
- ▲ Select a carbide grade with high wear resistance
- ▲ Bring feed into the right relationship with cutting speed and cutting depth

### Edge chipping



Increased mechanical stress on the cutting edge may result in carbide particles breaking off.

#### Cause

- ▲ Grade with too high a wear resistance
- ▲ Vibrations on tool or workpiece
- ▲ Feed rate or cutting depth is too high
- ▲ Built-up edge
- ▲ Interrupted cut
- ▲ Chip stroke

#### Remedy

- ▲ Use tougher grade
- ▲ Improve stability (tool, workpiece)
- ▲ Avoid built-up edges

### Cratering



The outgoing hot chip is causing cratering of the cutting insert on the clamping surface.

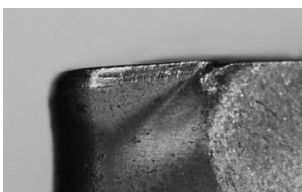
#### Cause

- ▲ Cutting speed, feed rate or both are too high
- ▲ Rake angle too small
- ▲ Grade does not have enough wear resistance
- ▲ Incorrectly supplied coolant

#### Remedy

- ▲ Reduce cutting speed and/or feed rate
- ▲ Choose carbide grades with greater wear-resistance
- ▲ Increase quantity and/or pressure of coolant, check supply
- ▲ Use a more crater-resistant grade

### Plastic deformation



High machining temperature with simultaneous mechanical stress can lead to plastic deformation.

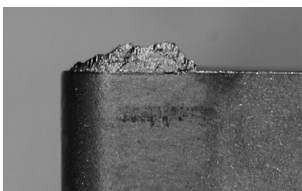
#### Cause

- ▲ Working temperature too high, softening of the base material
- ▲ Damage to the coating
- ▲ Grade does not have enough wear resistance
- ▲ Incorrectly supplied coolant

#### Remedy

- ▲ Reduce cutting speed
- ▲ Choose carbide grades with greater wear-resistance and thermal stability
- ▲ Make provisions for cooling

### Built-up edge



Material builds up on the cutting edge if the chip does not flow correctly due to the cutting temperature being too low.

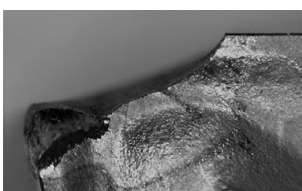
#### Cause

- ▲ Cutting speed too low
- ▲ Rake angle too small
- ▲ Incorrect cutting material
- ▲ Missing coolant/lubrication

#### Remedy

- ▲ Increase cutting speed
- ▲ Increase rake angle
- ▲ Use coating
- ▲ Increase oil content of emulsion

### Insert breakage



If a cutting insert is overloaded, insert breakage may occur.

#### Cause

- ▲ Cutting material overloaded (extreme values)
- ▲ Lack of stability
- ▲ Wedge angle too small
- ▲ Interference contours were not taken into account
- ▲ Interrupted cut

#### Remedy

- ▲ Use a tougher cutting material
- ▲ Use chamfer for edge protection
- ▲ Increase rounding of cutting edge
- ▲ Use more stable geometry
- ▲ Check cutting data
- ▲ Check interference contours

## Type

|        |   |                    |  |
|--------|---|--------------------|--|
| K10    | <ul style="list-style-type: none"> <li>▲ Carbide, uncoated</li> <li>▲ ISO   <b>K10</b></li> <li>▲ Uncoated carbide grade for machining grey cast iron or non-ferrous metals, depending on the cutting edge geometry</li> </ul>  | BK60               | <ul style="list-style-type: none"> <li>▲ Carbide, TiC-TiCN-TiN-coated</li> <li>▲ ISO   P25   <b>M10</b></li> <li>▲ Multi-layer coating for long service life even in the upper cutting speed range</li> </ul>  |
| BK2710 | <ul style="list-style-type: none"> <li>▲ Carbide, TiAlN-coated</li> <li>▲ ISO   P10   M10   <b>K10</b></li> <li>▲ Extremely wear-resistant carbide grade for machining stainless steels, structural steels and tool steels as well as cast iron materials</li> </ul>  | CBN40              | <ul style="list-style-type: none"> <li>▲ Cubic boron nitride, uncoated</li> <li>▲ ISO   <b>H05</b></li> <li>▲ Uncoated cutting material made of cubic boron nitride for machining hardened steels over 45 HRC, heat-resistant nickel-based or cobalt-based alloys</li> </ul>   |
| BK8440 | <ul style="list-style-type: none"> <li>▲ Carbide, TiCN-TiN-coated</li> <li>▲ ISO   <b>P35</b>   M10</li> <li>▲ Very tough carbide grade for medium cutting speeds and interrupted cut</li> </ul>  | BK8425             | <ul style="list-style-type: none"> <li>▲ Carbide, TiAlN/TiN-coated</li> <li>▲ ISO   <b>P25</b>   <b>M25</b>   <b>K25</b></li> <li>▲ Universal grade with greater wear resistance thanks to innovative PVD multi-layer coating</li> </ul>   |
| BK7615 | <ul style="list-style-type: none"> <li>▲ Carbide, TiCN-Al<sub>2</sub>O<sub>3</sub>-coated</li> <li>▲ ISO   <b>K15</b></li> <li>▲ Highly productive grade with extreme edge stability for wet and dry machining of all cast iron materials</li> </ul>  | BK6110             | <ul style="list-style-type: none"> <li>▲ Carbide, TiCN-TiN-Al<sub>2</sub>O<sub>3</sub>-coated</li> <li>▲ ISO   P10   <b>K10</b></li> <li>▲ Wear-resistant carbide for machining cast iron and steel materials</li> </ul>   |
| CWN10  | <ul style="list-style-type: none"> <li>▲ Carbide, TiN-coated</li> <li>▲ ISO   <b>K10</b></li> <li>▲ The carbide grade for machining steels, stainless steels and non-ferrous metals</li> </ul>  | CWC06              | <ul style="list-style-type: none"> <li>▲ Cermet, TiC/TiN-coated</li> <li>▲ ISO   <b>P10</b>   M10   <b>K10</b>   N10</li> <li>▲ Coated cermet grade for fine boring at high cutting speed and with a uniform cut</li> </ul>  |
| CWC10  | <ul style="list-style-type: none"> <li>▲ Cermet, uncoated</li> <li>▲ ISO   <b>P15</b>   <b>M10</b>   K10</li> <li>▲ The uncoated cermet grade for finish machining stainless and hardened steel</li> <li>▲ Particularly wear resistant thanks to high heat resistance</li> </ul>  | CWP25              | <ul style="list-style-type: none"> <li>▲ Carbide, uncoated</li> <li>▲ ISO   <b>P25</b>   <b>M25</b>   K25   <b>N25</b>   S25</li> <li>▲ Uncoated carbide grade for fine boring with large hole depths and small machining allowances</li> </ul>  |
| BK6440 | <ul style="list-style-type: none"> <li>▲ Carbide, CVD-TiCN-Al<sub>2</sub>O<sub>3</sub>-TiN coated</li> <li>▲ ISO   <b>M25</b>   <b>K35</b></li> <li>▲ Extremely tough standard grain grade; good wear resistance in steel and stainless steel materials, even in unfavourable cutting conditions / interrupted cut</li> </ul> | CK32               | <ul style="list-style-type: none"> <li>▲ Cermet, uncoated</li> <li>▲ ISO   <b>P10</b>   <b>M15</b>   K05   N15</li> <li>▲ For fine and finish turning</li> <li>▲ Less wear and greater cutting speed result in longer tool life and high surface quality</li> <li>▲ Cutting material for high productivity in the top cutting speed range</li> </ul> |
| BK6115 | <ul style="list-style-type: none"> <li>▲ Carbide, TiCN-TiN-Al<sub>2</sub>O<sub>3</sub>-coated</li> <li>▲ ISO   <b>P20</b>   <b>K20</b>   H20</li> <li>▲ High-quality, surface-treated coating for machining cast iron materials in normal to stable conditions and at high cutting speeds</li> </ul>                          | CK3230             | <ul style="list-style-type: none"> <li>▲ Cermet, uncoated</li> <li>▲ ISO   <b>P20</b>   <b>M20</b>   K10   N20</li> <li>▲ Extremely tough behaviour with good wear resistance suitable for use also in interrupted cut</li> </ul>  |
| BK8430 | <ul style="list-style-type: none"> <li>▲ Carbide, TiAlN/TiN-coated</li> <li>▲ ISO   <b>P25</b>   <b>M25</b></li> <li>▲ Fine-grain grade with high wear resistance</li> <li>▲ Extreme edge stability and maximum wear resistance in the middle and top speed range</li> </ul>  | PKD5510<br>CTDPU20 | <ul style="list-style-type: none"> <li>▲ Polycrystalline diamond cutting material with mixed grain, uncoated</li> <li>▲ ISO   <b>N15</b></li> <li>▲ Outstanding wear resistance, even where Si content &gt; 12% and high proportion of abrasive reinforcements</li> <li>▲ Used in plastics and fibre composites (GFK, CFK)</li> </ul>                |

## Coatings

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| <b>TiN</b> | <ul style="list-style-type: none"> <li>▲ TiN coating</li> <li>▲ Maximum application temperature: 450 °C</li> </ul> |
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## Chip breakers

|              |   |
|--------------|---|
| <b>-SF14</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 14°</li> <li>▲ Specially developed chip breakers with remarkable chip control for a range of applications, from fine finishing to medium machining</li> </ul> |
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| <b>-SF15</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 15°</li> <li>▲ Balanced geometry: High stability for high cutting edge sharpness</li> <li>▲ Very good chip control with very little built-up edge formation</li> <li>▲ Extremely good chip breakage for small and medium feeds</li> <li>▲ Initial recommendation for machining C-steel, alloyed and stainless steels</li> </ul> |
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| <b>-SF16</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 15°</li> <li>▲ Balanced geometry: High stability for high cutting edge sharpness</li> <li>▲ Large chip chamber, therefore good chip control at low feeds</li> <li>▲ Initial recommendation for machining C-steel, alloyed and stainless steels</li> </ul> |
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| <b>-SF20</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 20°</li> <li>▲ Extremely smooth-cutting thanks to the very positive rake angle</li> <li>▲ Very good chip control and very little built-up edge formation</li> <li>▲ Perfect cutting performance, due to the very positive rake angle, especially for low clamping depths and feeds</li> <li>▲ Initial recommendation for machining stainless steel, alloy steels, carbon steel and non-ferrous metals</li> </ul> |
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| <b>-SF30</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 15°</li> <li>▲ Balanced geometry: High stability for high cutting edge sharpness</li> <li>▲ Chip breaker geometry: Very good chip breakage for small and medium feeds</li> <li>▲ Initial recommendation for machining C-steel, alloyed and stainless steels</li> </ul> |
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| <b>-01</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 12°</li> <li>▲ All-round topography chamfered, rounded</li> <li>▲ Very smooth-cutting thanks to positive cutting edge geometry</li> <li>▲ Also suitable for less-powerful machines and unstable workpieces</li> <li>▲ Easily controllable chip formation also in less solid materials</li> </ul> |
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| <b>-02</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 0°</li> <li>▲ Roughing topography, extremely stable (significant wedge angle)</li> <li>▲ Excellent chip formation for chips that are difficult to control</li> <li>▲ For small cutting depths &lt; 1.5 mm only suitable under certain circumstances</li> </ul> |
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| <b>-12</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 30°</li> <li>▲ Peripheral ground indexable insert with pressed chip breaker</li> <li>▲ Highly positive, sharp and all-round cutting edge, therefore extremely smooth-cutting</li> <li>▲ Peripheral ground flanks guarantee controlled chip formation and best surface quality at low cutting forces</li> </ul> |
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| <b>-14</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 14°</li> <li>▲ Peripheral ground, sintered topography</li> <li>▲ Controlled chip formation in fine and extremely fine machining</li> </ul> |
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| <b>-15</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 15°</li> <li>▲ Semi-finishing chip breaker; peripheral ground, sintered</li> <li>▲ Controlled chip formation in fine and extremely fine machining</li> </ul> |
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| <b>-18</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 14°</li> <li>▲ Peripheral ground and sintered topography</li> <li>▲ Controlled chip formation in fine and extremely fine machining</li> <li>▲ Positive wiper geometry for maximum demands on surface quality</li> </ul> |
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| <b>-G06</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 6°</li> <li>▲ For P / M / K materials</li> <li>▲ High stability due to significant wedge angle</li> </ul> |
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| <b>-G12</b> | <ul style="list-style-type: none"> <li>▲ Rake angle 12°</li> <li>▲ For P / N / S materials</li> <li>▲ Extremely smooth-cutting thanks to positive cutting edge geometry</li> <li>▲ Extremely suitable for less-powerful machines and unstable workpieces</li> <li>▲ Easily controllable chip formation also in less solid materials</li> </ul> |
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