

# Tightening spindles size 5

## Spindle bearing



- ▶ Working range 50–500 Nm
- ▶ Max. output drive speed 515 rpm

Depending on the size, the actual components may differ from those in the illustration.

### FEATURES

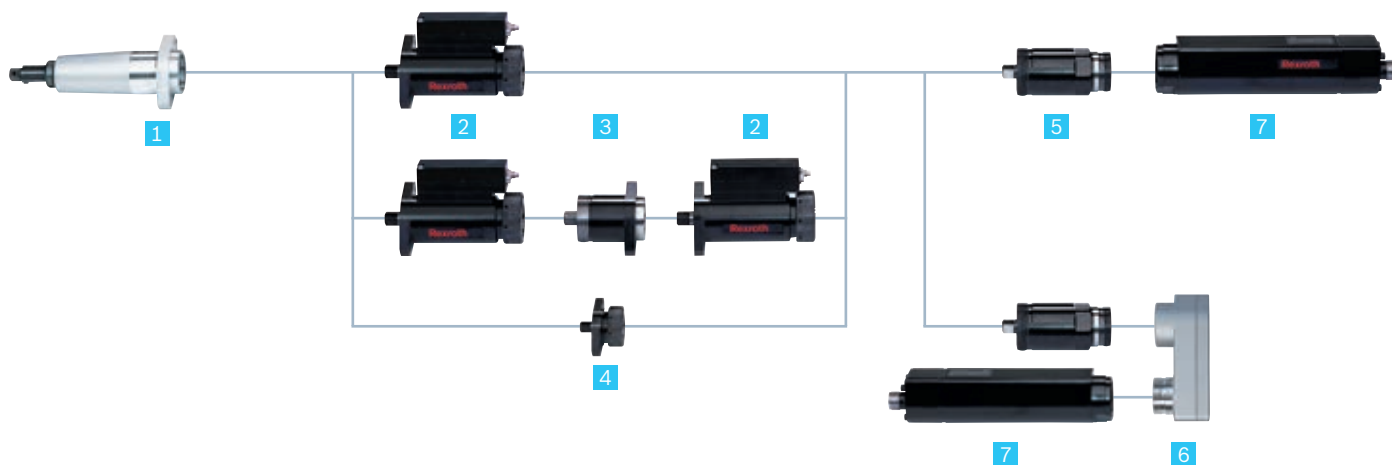
- ▶ Various lengths with axial compensator
- ▶ Standard tool mounts
- ▶ Maximum efficiency
- ▶ Maintenance-free for 1 million full-load cycles





| Tightening spindle |                         |  | Spindle bearing                      |         |               | Measurement transducer   | Planetary gearbox      | EC motor               |
|--------------------|-------------------------|--|--------------------------------------|---------|---------------|--------------------------|------------------------|------------------------|
| Working range*     | Max. output drive speed | Range of spring mm/<br>max. spring force N | Tool mount                           | Code    | Order no.     | Code/<br>Order no.       | Code/<br>Order no.     | Code/<br>Order no.     |
| Nm                 | rpm                     |  |                                      |         |               |                          |                        |                        |
| 50–160             | 515                     | 80/155                                     | 3/4" square drive with centering pin | GK3C281 | 0 608 800 079 | 5DMC530<br>0 608 820 116 | 5GE19<br>0 608 720 058 | EC305<br>0 608 701 019 |
|                    |                         |  |                                      | GK3C350 | 0 608 800 081 |                          |                        |                        |
|                    |                         |  |                                      | GL3C418 | 0 608 800 084 |                          |                        |                        |
| 50–500             | 145                     | 80/155                                     | 3/4" square drive with centering pin | GK3C281 | 0 608 800 079 |                          | 5GE68<br>0 608 720 041 |                        |
|                    |                         |  |                                      | GK3C350 | 0 608 800 081 |                          |                        |                        |
|                    |                         |  |                                      | GL3C418 | 0 608 800 084 |                          |                        |                        |




\*The accuracy within the working range according to VDI/VDE 2647 is  $\pm 2\%$  over 6 s.






Note: You can find component dimensions and 3D/CAD data on the Internet at [www.boschrexroth.com/tightening](http://www.boschrexroth.com/tightening)

## Spindle bearing size 5 – components



|  |                     |                |                |   |        |
|--|---------------------|----------------|----------------|---|--------|
| <b>1 Spindle bearing</b><br>          | <b>Code</b>         | <b>GK3C281</b> | <b>GK3C350</b> | <b>GL3C418</b>  |        |
|  | Order no.           | 0 608 800 079  | 0 608 800 081  | 0 608 800 084   |        |
|  | Max. torque         | Nm             | 500            | 500   | 500    |
|  | Range of spring     | mm             | 80             | 80  | 80     |
|  | Spring force        | N              | 40–155         | 40–155  | 40–155 |
|  | Reduction           |                | 1              | 1   | 1      |
|  | Avg. efficiency     |                | 1              | 1   | 1      |
|  | Length A            | mm             | 284            | 353   | 421    |
|  | Installation length | mm             | 302            | 371   | 439    |
| Weight   | kg                  | 3              | 3.5            | 4.5   |        |
| <b>2 Measurement transducer</b><br> | <b>Code</b>         | <b>5DMC530</b> |                |   |        |
|  | Order no.           | 0 608 820 116  |                |   |        |
|  | Nominal torque      | Nm             | 530            |   |        |
|  | Reduction           |                | 1              |   |        |
|  | Avg. efficiency     |                | 1              |   |        |
|  | Installation length | mm             | 125.5          |   |        |
| Weight   | kg                  | 3.7            |                |   |        |
| <b>3 Redundant adapter</b><br>      | <b>Code</b>         | <b>5AR</b>     |                |   |        |
|  | Order no.           | 0 608 810 023  |                |   |        |
|  | Reduction           |                | 1              |   |        |
|  | Avg. efficiency     |                | 1              |   |        |
|  | Installation length | mm             | 108            |   |        |
|  | Weight              | kg             | 2.4            |   |        |
| <b>4 Adapter</b><br>                | <b>Code</b>         | <b>5A</b>      |                |   |        |
|  | Order no.           | 0 608 810 027  |                |   |        |
|  | Reduction           |                | 1              |   |        |
|  | Avg. efficiency     |                | 1              |   |        |
|  | Installation length | mm             | 48.5           |   |        |
|  | Weight              | kg             | 2.2            |   |        |
|  |                     |                |                | You can configure your tightening spindle with a redundant measurement transducer from the same type. Connect both measurement transducers with the redundant adapter. For measurement transducer cables, see page 140. |        |
|  |                     |                |                | When configuring with a redundant measurement transducer, the adapter connects both measurement transducers.  |        |
|  |                     |                |                | When configuring without a measurement transducer, the adapter connects the output drive and the planetary gearbox.   |        |

| 5 Planetary gearbox   | Code                | 5GE19         | 5GE68  |  |
|---|---------------------|---------------|--|--|
|    | Order no.           | 0 608 720 058 | 0 608 720 041  |  |
|   | Reduction           | 19.3          | 67.9   |  |
|   | Avg. efficiency     | 0.93          | 0.9  |  |
|   | Installation length | mm 154        | 188  |  |
|   | Weight              | kg 2.9        | 3.7  |  |
| 6 Transverse gearbox  | Code                | 5ULG          |  |  |
|  | Order no.           | 0 608 810 039 |  |  |
|   | Reduction           | 1             |  |  |
|   | Avg. efficiency     | 0.95          |  |  |
|   | Installation length | mm 63.8       | The transverse gearbox shortens the length of your tightening spindle by the installation length of the EC motor plus the installation length of the transverse gearbox. |  |
|   | Weight              | kg 3.2        |  |  |
| 7 EC motor  | Code                | EC305         |  |  |
|  | Order no.           | 0 608 701 019 |  |  |
|   | Installation length | mm 304        |  |  |
|   | Weight              | kg 6.4        |  |  |

| Side-by-side arrangement of tightening spindles (center-to-center distance) |      |   |   |   |   |   |
|---|------|---|---|---|---|---|
| Number of tightening spindles   |      | 2   | 3   | 4   | 5   | 6   |
|   |      |  |  |  |  |  |
| Min. circle diameter- $\varnothing d_{\min}$<br>mm                          | G... | 86  | 100   | 131   | 162   | 172   |

# Tightening spindles size 5

## Offset output drive



- ▶ Working range 50–1,000 Nm
- ▶ Max. output drive speed 515 rpm

Depending on the size, the actual components may differ from those in the illustration.

### FEATURES

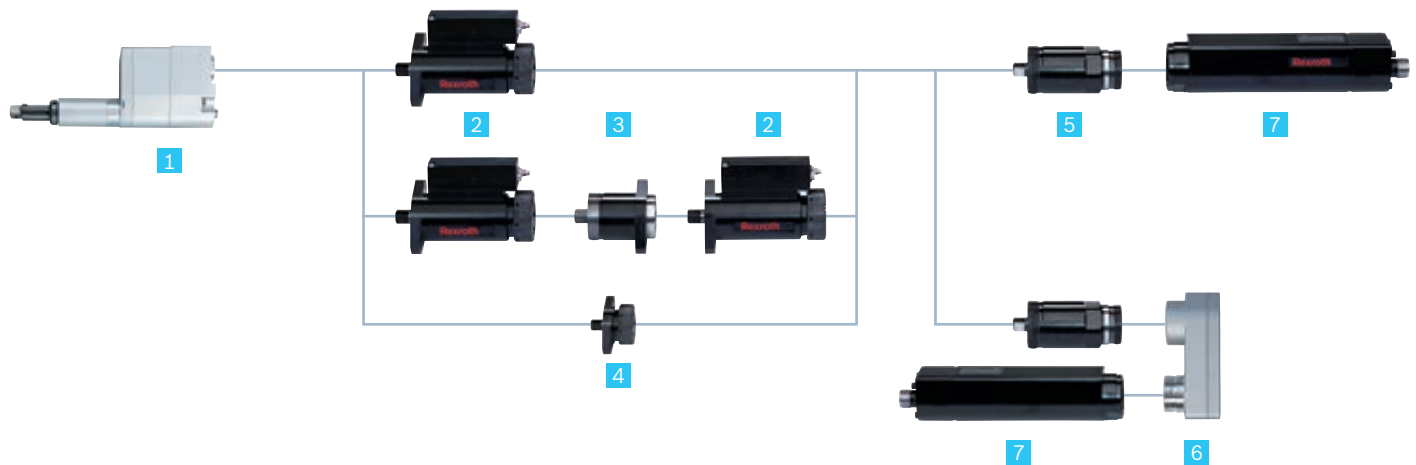
- ▶ For tight hole templates
- ▶ Standard tool mounts
- ▶ Maintenance-free for 1 million full-load cycles





| Tightening spindle  |                                |                       | Offset output drive                  |          |               | Measurement transducer   | Planetary gearbox      | EC motor               |
|---------------------|--------------------------------|-----------------------|--------------------------------------|----------|---------------|--------------------------|------------------------|------------------------|
| Working range<br>Nm | Max. output drive speed<br>rpm | Range of spring<br>mm | Tool mount                           | Code     | Order no.     | Code/<br>Order no.       | Code/<br>Order no.     | Code/<br>Order no.     |
| 50*-148             | 515                            | 80                    | 3/4" square drive with centering pin | VNK3C281 | 0 608 800 543 | 5DMC530<br>0 608 820 116 | 5GE19<br>0 608 720 058 | EC305<br>0 608 701 019 |
|                     |                                |                       |                                      | VNK3C350 | 0 608 800 545 |                          |                        |                        |
|                     |                                |                       |                                      | VNL3C418 | 0 608 800 548 |                          |                        |                        |
| 115*-365            | 200                            | 80                    | 1" square drive with centering pin   | VUK3D316 | 0 608 PE0 017 |                          |                        |                        |
|                     |                                |                       |                                      | VUK3D384 | 0 608 PE0 180 |                          |                        |                        |
| 50*-463             | 145                            | 80                    | 3/4" square drive with centering pin | VNK3C281 | 0 608 800 543 |                          | 5GE68<br>0 608 720 041 |                        |
|                     |                                |                       |                                      | VNK3C350 | 0 608 800 545 |                          |                        |                        |
|                     |                                |                       |                                      | VNL3C418 | 0 608 800 548 |                          |                        |                        |
| 115*-1,000          | 55                             | 80                    | 1" square drive with centering pin   | VUK3D316 | 0 608 PE0 017 |                          |                        |                        |
|                     |                                |                       |                                      | VUK3D384 | 0 608 PE0 180 |                          |                        |                        |




\* Depending on the tolerance limits, position-based MCT required






Note: You can find component dimensions and 3D/CAD data on the Internet at [www.boschrexroth.com/tightening](http://www.boschrexroth.com/tightening)

## Offset output drive size 5 – components



|  |                     |                 |                 |                 |   |                 |         |
|--|---------------------|-----------------|-----------------|-----------------|---|-----------------|---------|
| <b>1 Offset output drive</b><br>      | <b>Code</b>         | <b>VNK3C281</b> | <b>VNK3C350</b> | <b>VNL3C418</b> | <b>VUK3D316</b>   | <b>VUK3D384</b> |         |
|  | Order no.           | 0 608 800 543   | 0 608 800 545   | 0 608 800 548   | 0 608 PE0 017   | 0 608 PE0 180   |         |
|  | Max. torque         | Nm              | 500             | 500             | 500   | 1,000           | 1,000   |
|  | Range of spring     | mm              | 80              | 80              | 80  | 80              | 80      |
|  | Spring force        | N               | 40–155          | 40–155          | 40–155  | 150–293         | 150–293 |
|  | Reduction           |                 | 1               | 1               | 1   | 2.51            | 2.51    |
|  | Avg. efficiency     |                 | 0.92            | 0.92            | 0.92  | 0.9             | 0.9     |
|  | Length A            | mm              | 284             | 353             | 421   | 320             | 388     |
| Installation length  | mm                  | 482             | 551             | 619             | 572   | 640             |         |
| Weight   | kg                  | 11.7            | 11.7            | 12.9            | 30  | 32              |         |
| <b>2 Measurement transducer</b><br> | <b>Code</b>         | <b>5DMC530</b>  |                 |                 |   |                 |         |
|  | Order no.           | 0 608 820 116   |                 |                 | You can configure your tightening spindle with a redundant measurement transducer from the same type. Connect both measurement transducers with the redundant adapter. For measurement transducer cables, see page 140. |                 |         |
|  | Nominal torque      | Nm              | 530             |                 |   |                 |         |
|  | Reduction           |                 | 1               |                 |   |                 |         |
|  | Avg. efficiency     |                 | 1               |                 |   |                 |         |
|  | Installation length | mm              | 125.5           |                 |   |                 |         |
| Weight   | kg                  | 3.7             |                 |                 |   |                 |         |
| <b>3 Redundant adapter</b><br>      | <b>Code</b>         | <b>5AR</b>      |                 |                 |   |                 |         |
|  | Order no.           | 0 608 810 023   |                 |                 | When configuring with a redundant measurement transducer, the adapter connects both measurement transducers.  |                 |         |
|  | Reduction           |                 | 1               |                 |   |                 |         |
|  | Avg. efficiency     |                 | 1               |                 |   |                 |         |
|  | Installation length | mm              | 108             |                 |   |                 |         |
| Weight   | kg                  | 2.4             |                 |                 |   |                 |         |
| <b>4 Adapter</b><br>                | <b>Code</b>         | <b>5A</b>       |                 |                 |   |                 |         |
|  | Order no.           | 0 608 810 027   |                 |                 | When configuring without a measurement transducer, the adapter connects the output drive and the planetary gearbox.   |                 |         |
|  | Reduction           |                 | 1               |                 |   |                 |         |
|  | Avg. efficiency     |                 | 1               |                 |   |                 |         |
|  | Installation length | mm              | 48.5            |                 |   |                 |         |
| Weight   | kg                  | 2.2             |                 |                 |   |                 |         |

|   |                     |               |  |
|---|---------------------|---------------|--|
| <b>5 Planetary gearbox</b><br> | <b>Code</b>         | <b>5GE19</b>  | <b>5GE68</b>   |
|   | Order no.           | 0 608 720 058 | 0 608 720 041  |
|   | Reduction           | 19.3          | 67.9   |
|   | Avg. efficiency     | 0.93          | 0.9  |
|   | Installation length | mm 154        | 188  |
|   | Weight              | kg 2.9        | 3.7  |
| <b>6 Umlenkgetriebe</b><br>  | <b>Code</b>         | <b>5ULG</b>   |  |
|   | Order no.           | 0 608 810 039 | The transverse gearbox shortens the length of your tightening spindle by the installation length of the EC motor plus the installation length of the transverse gearbox. |
|   | Reduction           | 1             |  |
|   | Avg. efficiency     | 0.95          |  |
|   | Installation length | mm 63.8       |  |
|   | Weight              | kg 3.2        |  |
|   |                     |               |  |
| <b>7 EC-Motor</b><br>        | <b>Code</b>         | <b>EC305</b>  |  |
|   | Order no.           | 0 608 701 019 |  |
|   | Installation length | mm 304        |  |
|   | Weight              | kg 6.4        |  |

| Side-by-side arrangement of tightening spindles (center-to-center distance) |       |   |   |   |   |   |
|---|-------|---|---|---|---|---|
| Number of tightening spindles   |       | 2   | 3   | 4   | 5   | 6   |
|   |       |  |  |  |  |  |
| Min. circle diameter- $\varnothing$ $d_{\min}$<br>mm                        | VN... | 61  | 71  | 87  | 104   | 122   |
|   | VU... | 94  | 108   | 133   | 159   | 187   |