



# KOMdrive Feed-out tools

for Special-Purpose Machines

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# KOMdrive – High-precision feed out tools for special-purpose machines

## Unbeatable precision combined with a long service life

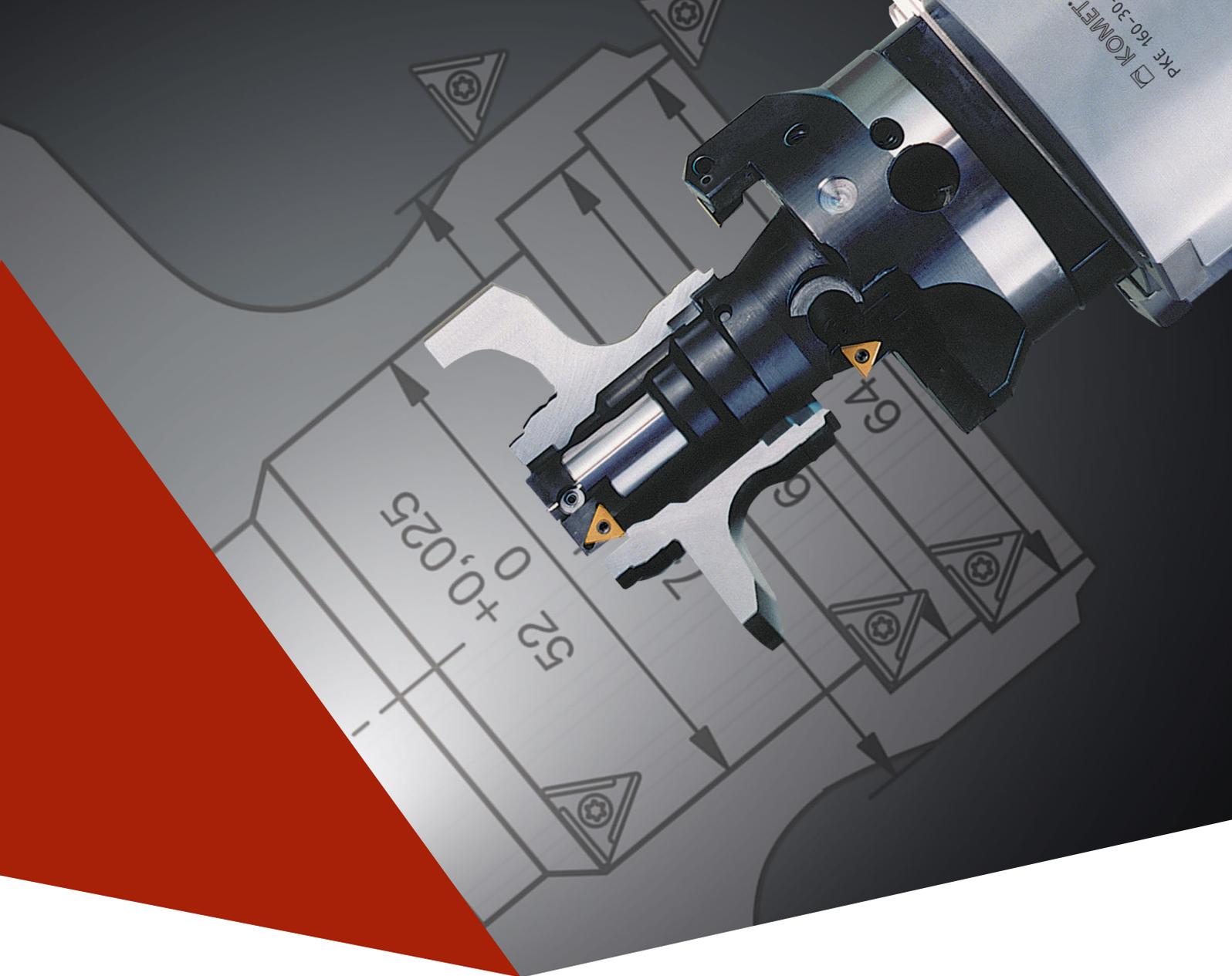
The slides of the facing heads are actuated mechanically through precision ground serrated rack components designed with maximum engagement of the teeth. The radial stroke is limited through fine adjustable internal stops for safety reasons. Sliding parts are made of long-term nitrided steel with high surface hardness and low friction properties.

Your Technical Sales Engineer will be happy to answer any further questions or please contact directly

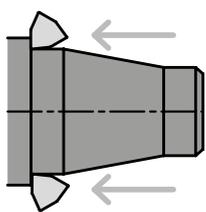
**[Offer.Actuatingtools@ceratizit.com](mailto:Offer.Actuatingtools@ceratizit.com)**

## Advantages

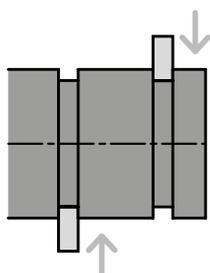
- ▲ Low coefficient of friction through special surface treatment of the sliding components
- ▲ Minimal backlash in the  $\mu\text{m}$  range
- ▲ Compact slide designs including integrated ABS connections for highest rigidity and metal removal
- ▲ High spindle speeds without compromising machining accuracy or service life
- ▲ Precision manufacturing processes and extensive research and development warrant the highest technological level



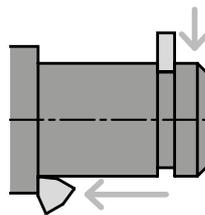
### Machining examples



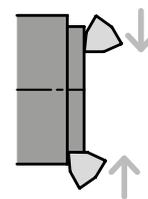
Contour machining



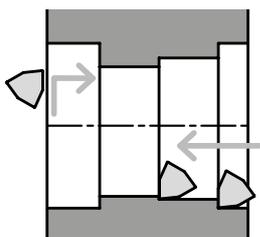
External grooving



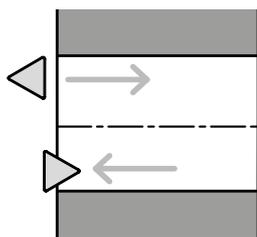
Grooving and facing



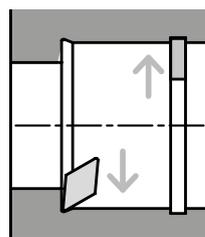
Face turning towards center



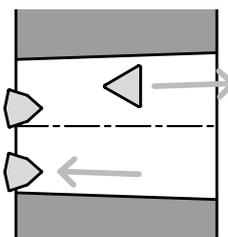
Boring and facing



Internal Machining



Facing and grooving



Drilling taper and boring

## KOMdrive PKE

Facing head with single slide for low spindle speeds

- ▲ Very attractive price
- ▲ Available ex stock
- ▲ Increased service life thanks to the surface-treated gear parts
- ▲ Can be used on transfer lines, special purpose machines and automatic rotary indexing machines
- ▲ Can be adapted to almost any spindle using the intermediate flange



## KOMdrive PKD

Facing head with double slide for medium to high spindle speeds (depending on size of facing head)

- ▲ Design-dependently balanced system
- ▲ Long service life thanks to large toothings surfaceche
- ▲ Significant cycle time reduction due to twin cutting and higher rpm



## KOMdrive PKU

Counterweighted facing head for medium to high spindle speeds (depending on size of facing head)

PKU balanced facing heads are suitable for the highest spindle speeds. The tool mounting areas are similar to the facing heads with a single slide, and offer optimum tooling rigidity. The facing heads may be furnished with an additional tool guide for heavy duty machining conditions. Please note that the weight of the front tools is limited for this series of facing heads (see page 24).

Balancing note: Balancing of these facing heads is achieved in any slide position through the weighting of the sliding components. The snap-on tools are involved in this dynamic and must therefore be adjusted in respect of weight and centre of gravity (see column „weight“), i.e. facing heads are finely balanced with the snap-on tools.

- ▲ Cycle time reduction through higher rotation speed ranges
- ▲ Optimally balanced system due to balancing weight adjusted to tool weight
- ▲ Available in different versions for optimum process
- ▲ Facing heads with short stroke are suitable for: Internal machining (grooving, under-cutting and boring) with heavy front tools.



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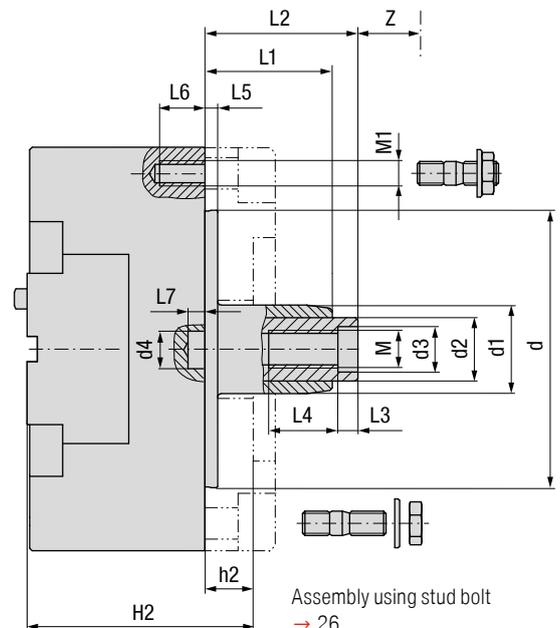
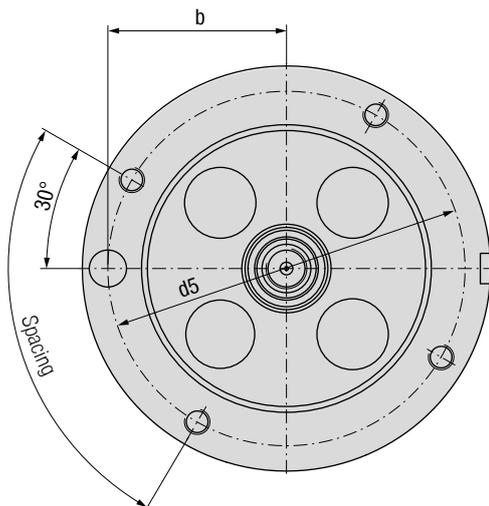
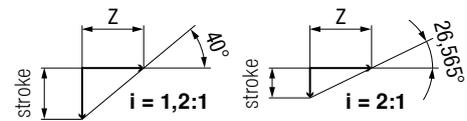
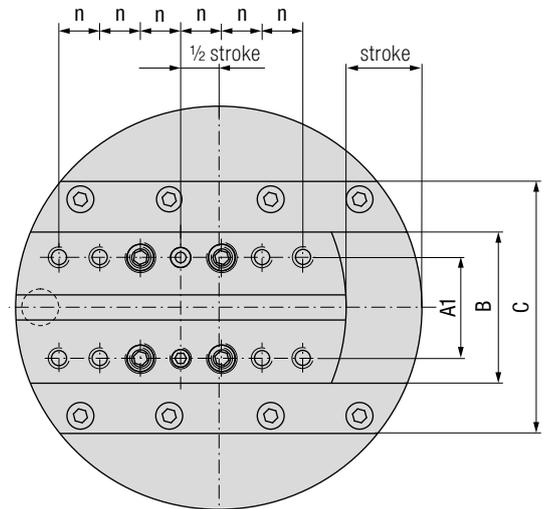
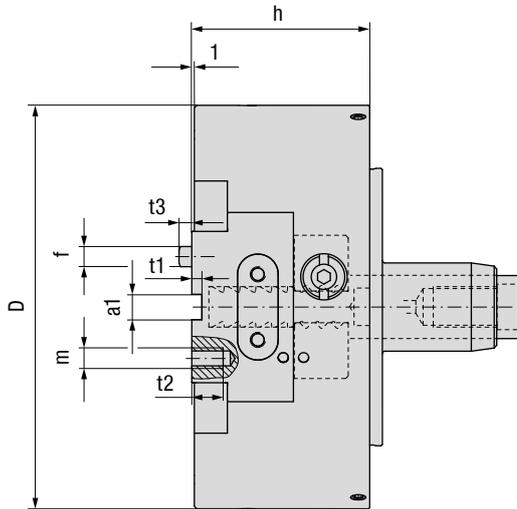
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# KOMdrive PKE-101 / PKE-101-QA

Facing head with single slide with mounting holes in slide



Adaptor with  
ABS-N connection  
→ 14



Assembly using stud bolt  
→ 26  
Adaptor flange for spindle  
according to DIN 2079  
→ 25

| External dimensions   |                                  |                       |              |                 |         |         |         |                       |          |          |                        |                          |
|-----------------------|----------------------------------|-----------------------|--------------|-----------------|---------|---------|---------|-----------------------|----------|----------|------------------------|--------------------------|
| Description           | KOMET No.<br>Article No.         | D <sub>hs</sub><br>mm | Stroke<br>mm | i<br>Traduction | Pitch   | Z<br>mm | h<br>mm | d <sub>hs</sub><br>mm | d1<br>mm | d2<br>mm | d3 <sup>H7</sup><br>mm | d4 <sup>+0,1</sup><br>mm |
| PKE 80-12-101         | <b>P01 00010</b>                 | 80                    | 12           | 1,2 : 1         |         | 14,3    | 42      | 50                    | 25       | 16       | 12                     | 10,3                     |
| PKE 100-17-101 QA     | <b>P01 10011</b><br>60 000 10017 | 100                   | 17           | 1,2 : 1         | 40°     | 20,3    | 50      | 65                    | 25       | 16       | 12                     | 10,3                     |
| PKE 100-10-101 QA 2:1 | <b>P01 10016</b><br>60 000 10010 |                       | 10           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 125-22-101 QA     | <b>P01 20011</b><br>60 000 12522 | 125                   | 22           | 1,2 : 1         | 40°     | 26,2    | 58      | 90                    | 30       | 20       | 14                     | 14,6                     |
| PKE 125-13-101 QA 2:1 | <b>P01 20016</b><br>60 000 12513 |                       | 13           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 160-30-101 QA     | <b>P01 30011</b><br>60 000 16030 | 160                   | 30           | 1,2 : 1         | 40°     | 35,7    | 70      | 110                   | 35       | 25       | 18                     | 14,6                     |
| PKE 160-18-101 QA 2:1 | <b>P01 30016</b><br>60 000 16018 |                       | 18           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 200-40-101 QA     | <b>P01 40011</b>                 | 200                   | 40           | 1,2 : 1         | 40°     | 47,7    | 85      | 150                   | 44       | 32       | 18                     | 16,2                     |
| PKE 200-24-101 QA 2:1 | <b>P01 40016</b>                 |                       | 24           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 250-50-101 QA     | <b>P01 50011</b>                 | 250                   | 50           | 1,2 : 1         | 40°     | 59,6    | 100     | 180                   | 46       | 32       | 18                     | 19,4                     |
| PKE 250-30-101 QA 2:1 | <b>P01 50016</b>                 |                       | 30           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |

| Slide dimensions |         |         |          |                        |          |          |     |                       |         |                      |
|------------------|---------|---------|----------|------------------------|----------|----------|-----|-----------------------|---------|----------------------|
| Size             | B<br>mm | C<br>mm | A1<br>mm | a1 <sup>H8</sup><br>mm | t1<br>mm | t2<br>mm | m   | f <sub>m6</sub><br>mm | n<br>mm | No. of<br>bolt holes |
| PKE 80           | 36      | -       | 22       | 8                      | 3        | 10       | M6  | 6                     | 12      | 8                    |
| PKE 100          | 40      | 72      | 26       | 8                      | 3        | 10       | M6  | 6                     | 11      | 12                   |
| PKE 125          | 50      | 86      | 32       | 10                     | 4        | 12       | M8  | 8                     | 13      | 12                   |
| PKE 160          | 60      | 100     | 40       | 10                     | 4        | 12       | M8  | 8                     | 16      | 12                   |
| PKE 200          | 80      | 130     | 55       | 12                     | 4        | 15       | M10 | 10                    | 20      | 12                   |
| PKE 250          | 100     | 150     | 70       | 12                     | 4        | 18       | M12 | 12                    | 20      | 16                   |

| Mounting dimensions |          |     |          |            |          |          |          |          |          |             |          |                 |          |          |                          |
|---------------------|----------|-----|----------|------------|----------|----------|----------|----------|----------|-------------|----------|-----------------|----------|----------|--------------------------|
| Size                | M        | M1  | L1<br>mm | L2±1<br>mm | L3<br>mm | L4<br>mm | L5<br>mm | L6<br>mm | L7<br>mm | b±0,1<br>mm | d5<br>mm | Spacing         | H2<br>mm | h2<br>mm | Spindle size<br>DIN 2079 |
| PKE 80              | M10×1L   | M6  | 28       | 38         | 8        | 14       | 4        | 10       | 5        | 32          | 68       | 4×90°<br>3×120° | 60       | 18       | 30                       |
| PKE 100             | M10×1L   | M8  | 30       | 40         | 8        | 14       | 4        | 12       | 5        | 42          | 84       | 4×90°<br>3×120° | 65       | 15       | 30                       |
| PKE 125             | M12×1,5L | M8  | 37       | 47         | 8        | 16       | 4        | 12       | 6        | 54          | 110      | 6×60°           | 75       | 17       | 40                       |
| PKE 160             | M16×1,5L | M10 | 50       | 60         | 10       | 25       | 5        | 15       | 6        | 70          | 140      | 4×90°           | 90       | 20       | 40                       |
| PKE 200             | M16×1,5L | M12 | 70       | 80         | 10       | 25       | 5        | 18       | 6        | 87,5        | 175      | 4×90°           | 110      | 25       | 50                       |
| PKE 250             | M16×1,5L | M16 | 90       | 100        | 10       | 25       | 6        | 22       | 6        | 108         | 216      | 4×90°           | 125      | 25       | 50                       |

**Order example:**

Facing head Ø 100 mm / stroke 17 mm / type 101 QA: Description PKE100-17-101QA / KOMET No. P01 10011 or Article-Nr. 60 000 10017

PKE size 320 / 400 / 500 on request.



Article no. 60.... available from stock

# KOMdrive PKE-101-QA-IK-F-BR

## Facing head with single slide with mounting holes in slide

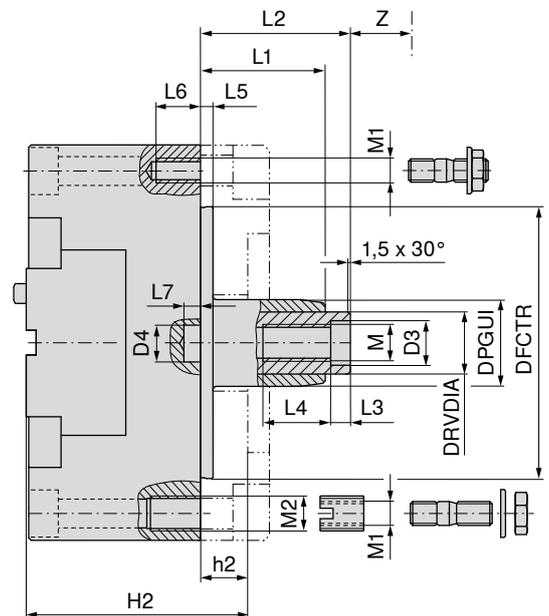
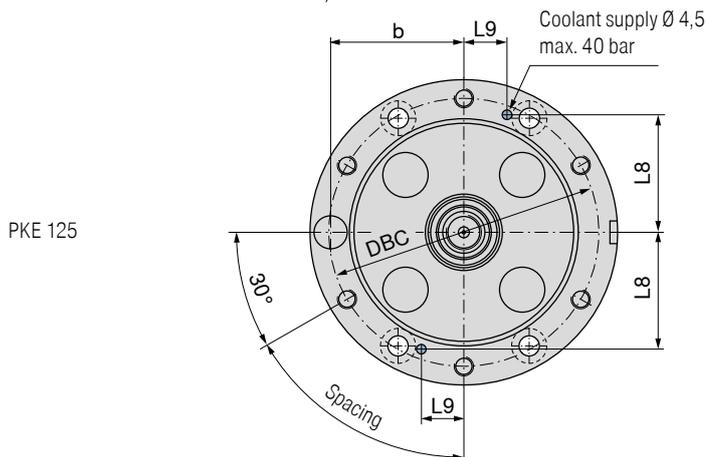
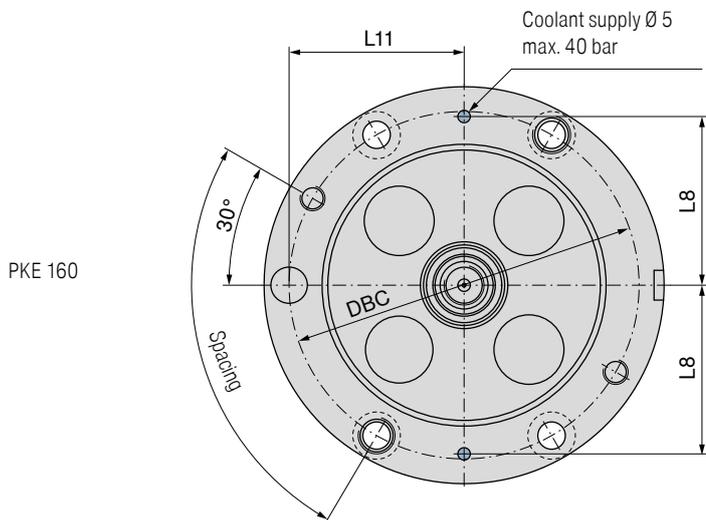
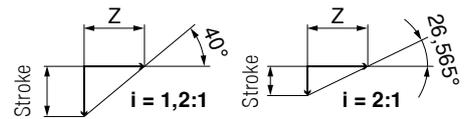
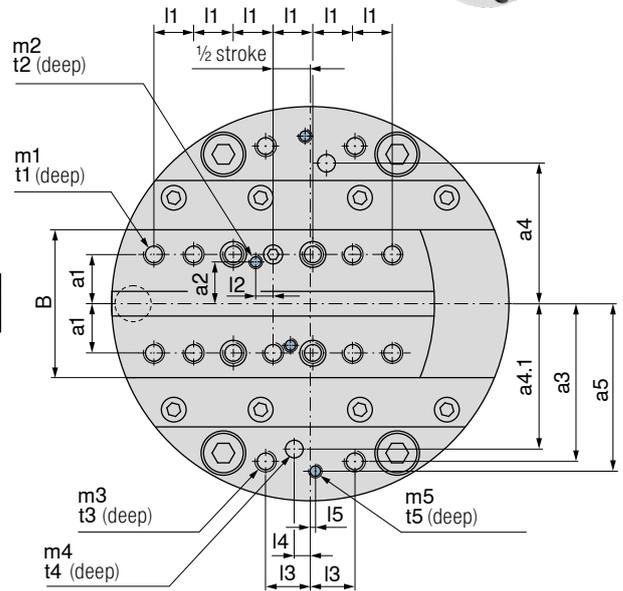
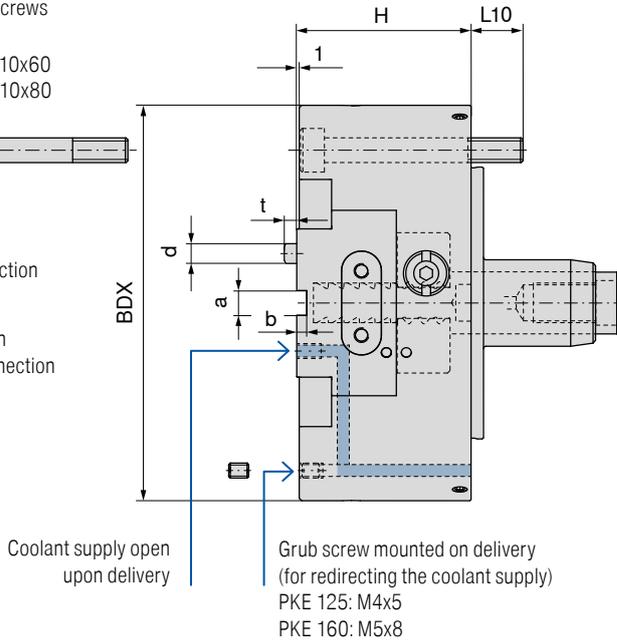
- ▲ with internal coolant supply
- ▲ additional mounting option on the housing, e.g. a bridge



Assembly using cylindrical screws  
→ 27  
PKE 125: M10x60  
PKE 160: M10x80

Bridge with ABS connection  
→ 9

Adaptor with ABS-N connection  
→ 14



- Assembly using stud bolt  
→ 26
- Assembly using threaded insert/  
stud bolt (PKE 160)  
→ 26
- Adaptor flange for spindle  
according to DIN 2079  
(without coolant supply)  
→ 25

| External dimensions       |                           |                         |              |                          |         |         |         |                           |             |              |                        |                          |  |
|---------------------------|---------------------------|-------------------------|--------------|--------------------------|---------|---------|---------|---------------------------|-------------|--------------|------------------------|--------------------------|--|
| Description               | Article No.<br>KOMET No.  | BDX <sub>h6</sub><br>mm | Stroke<br>mm | i<br>Traduction<br>Pitch |         | Z<br>mm | H<br>mm | DFCTR <sub>h6</sub><br>mm | DPGUI<br>mm | DRVDIA<br>mm | D3 <sup>H7</sup><br>mm | d4 <sup>+0.1</sup><br>mm |  |
| PKE 125-22-101 QA.IK.F.BR | 60 001 22522<br>P01 20020 | 125                     | 22           | 1,2 : 1                  | 40°     | 26,2    | 58      | 90                        | 30          | 20           | 14                     | 14,6                     |  |
| PKE 125-13-101 QA.IK.F.BR | 60 001 22513<br>P01 20120 |                         | 13           | 2 : 1                    | 26,565° | 26      |         |                           |             |              |                        |                          |  |
| PKE 160-30-101 QA.IK.F.BR | 60 001 26030<br>P01 30020 | 160                     | 30           | 1,2 : 1                  | 40°     | 35,7    | 70      | 110                       | 35          | 25           | 18                     | 14,6                     |  |
| PKE 160-18-101 QA.IK.F.BR | 60 001 26018<br>P01 30120 |                         | 18           | 2 : 1                    | 26,565° | 36      |         |                           |             |              |                        |                          |  |

| Slide dimensions |         |                       |         |               |          |          |          |                  |          |          |          |                       |         |                      |
|------------------|---------|-----------------------|---------|---------------|----------|----------|----------|------------------|----------|----------|----------|-----------------------|---------|----------------------|
| Size             | B<br>mm | Slot                  |         | Location hole |          |          |          | Coolant transfer |          |          |          | Positioning pin       |         | No. of<br>bolt holes |
|                  |         | a <sup>H8</sup><br>mm | b<br>mm | a1<br>mm      | l1<br>mm | m1<br>mm | t1<br>mm | a2<br>mm         | l2<br>mm | m2<br>mm | t2<br>mm | d <sub>m6</sub><br>mm | t<br>mm |                      |
| PKE 125          | 50      | 10                    | 4       | 16            | 13       | M8       | 12       | 10,5             | 6,5      | M4       | 5        | 8                     | 5       | 12                   |
| PKE 160          | 60      | 10                    | 4       | 20            | 16       | M8       | 12       | = a1             | 7        | M5       | 6        | 8                     | 5       | 12                   |

| Mounting dimensions – Bridge |               |          |          |          |                  |          |          |          |                 |            |          |               |          |
|------------------------------|---------------|----------|----------|----------|------------------|----------|----------|----------|-----------------|------------|----------|---------------|----------|
| Size                         | Location hole |          |          |          | Coolant transfer |          |          |          | Positioning pin |            |          |               |          |
|                              | a3<br>mm      | l3<br>mm | m3<br>mm | t3<br>mm | a5<br>mm         | l5<br>mm | m5<br>mm | t5<br>mm | a4<br>mm        | a4.1<br>mm | l4<br>mm | m4±0.05<br>mm | t4<br>mm |
| PKE 125                      | 53            | 13,5     | M6       | 10       | 47,85            | 3,77     | M4       | 7        | 53              | 54,5       | 3        | 6,15          | 8        |
| PKE 160                      | 64            | 18       | M8       | 16       | 68               | 0        | M5       | 10       | 57              | 59         | 6,5      | 7,15          | 9        |

| Mounting dimensions |          |     |         |               |      |    |    |    |    |    |    |    |      |               |           |               |          |          |                          |
|---------------------|----------|-----|---------|---------------|------|----|----|----|----|----|----|----|------|---------------|-----------|---------------|----------|----------|--------------------------|
| Size                | M        | M1  | M2      | Location hole |      |    |    |    |    |    |    |    |      | L11±0.1<br>mm | DBC<br>mm | Spacing<br>mm | H2<br>mm | h2<br>mm | Spindle size<br>DIN 2079 |
|                     |          |     |         | L1            | L2±1 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | L10  |               |           |               |          |          |                          |
| PKE 125             | M12×1,5L | M8  | -       | 37            | 47   | 8  | 16 | 4  | 12 | 6  | 47 | 17 | 14,5 | 54            | 110       | 6×60°         | 75       | 17       | 40                       |
| PKE 160             | M16×1,5L | M10 | M14×1,5 | 50            | 60   | 10 | 25 | 5  | 15 | 6  | 68 | -  | 22   | 70            | 140       | 4×90°         | 90       | 20       | 40                       |

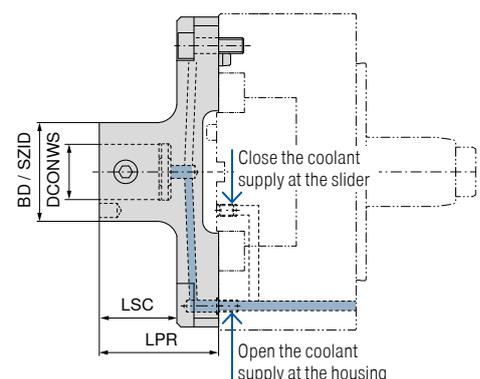
**Order example:**

Facing head Ø 125 mm / stroke 22 mm / type 101 QA.IK.F.BR: Description PKE 125-22-101 QA.IK.F.BR / KOMET No. P01 20020 or Article-Nr. 60 001 22522

Facing head **Article no. 60 001** .... available from stock

| Bridge with ABS connection |                           |       |          |              |           |           |
|----------------------------|---------------------------|-------|----------|--------------|-----------|-----------|
| Description                | Article No.<br>KOMET No.  | SZID  | BD<br>mm | DCONWS<br>mm | LSC<br>mm | LPR<br>mm |
| BR.PKE 125-ABS40           | 60 006 12500<br>P80 24050 | ABS40 | 40       | 20           | 29        | 45        |
| BR.PKE 160-ABS50           | 60 006 16000<br>P80 35050 | ABS50 | 50       | 28           | 39        | 60        |

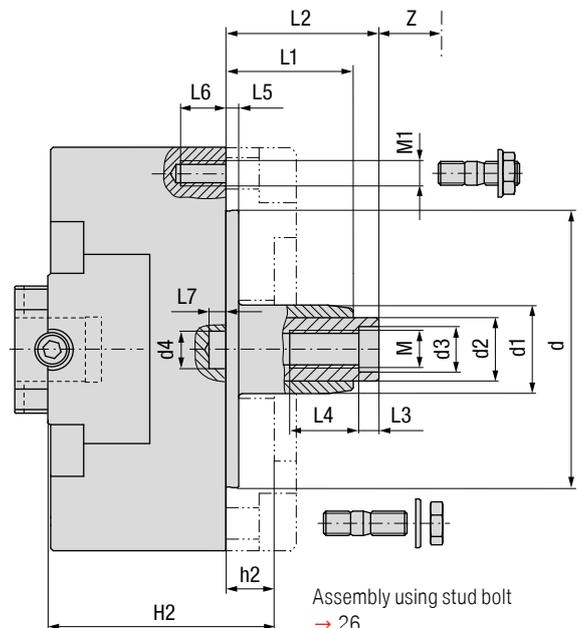
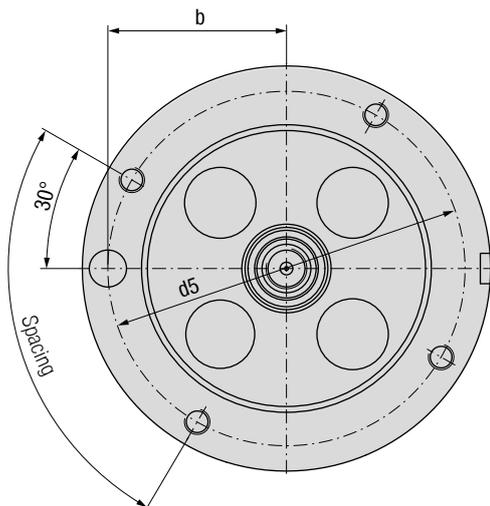
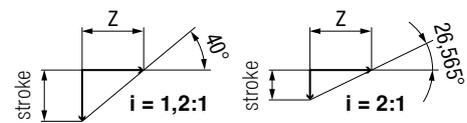
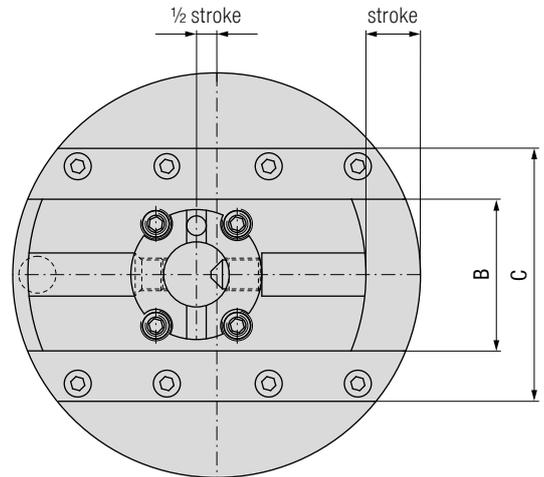
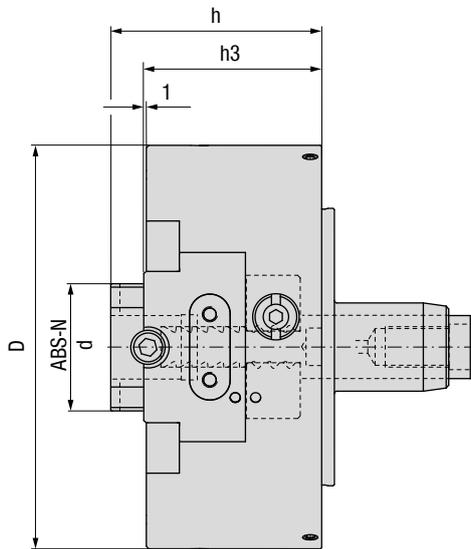
For redirecting the coolant supply, remove the grub screw on the housing and close the coolant holes on the slider.



# KOMdrive PKE-103 / PKE-103-QA

Facing head with single slide with integrated ABS-N connection

on request



Assembly using stud bolt  
→ 26  
Adaptor flange for spindle  
according to DIN 2079  
→ 25

| External dimensions   |           |                       |              |                 |         |         |         |          |                       |          |          |                        |                          |
|-----------------------|-----------|-----------------------|--------------|-----------------|---------|---------|---------|----------|-----------------------|----------|----------|------------------------|--------------------------|
| Description           | KOMET No. | D <sub>h6</sub><br>mm | Stroke<br>mm | i<br>Traduction | Pitch   | Z<br>mm | h<br>mm | h3<br>mm | d <sub>h6</sub><br>mm | d1<br>mm | d2<br>mm | d3 <sup>H7</sup><br>mm | d4 <sup>+0,1</sup><br>mm |
| PKE 80-6-103          | P01 00030 | 80                    | 6            | 1,2 : 1         |         | 7,2     | 52      | 42       | 50                    | 25       | 16       | 12                     | 10,3                     |
| PKE 100-10-103 QA     | P01 10031 | 100                   | 10           | 1,2 : 1         | 40°     | 11,9    | 60      | 50       | 65                    | 25       | 16       | 12                     | 10,3                     |
| PKE 100-6-103 QA 2:1  | P01 10036 |                       | 6            | 2 : 1           | 26,565° |         |         |          |                       |          |          |                        |                          |
| PKE 125-12-103 QA     | P01 20031 | 125                   | 12           | 1,2 : 1         | 40°     | 14,3    | 68      | 58       | 90                    | 30       | 20       | 14                     | 14,6                     |
| PKE 125-7-103 QA 2:1  | P01 20036 |                       | 7            | 2 : 1           | 26,565° |         |         |          |                       |          |          |                        |                          |
| PKE 160-15-103 QA     | P01 30031 | 160                   | 15           | 1,2 : 1         | 40°     | 17,9    | 85      | 70       | 110                   | 35       | 25       | 18                     | 14,6                     |
| PKE 160-9-103 QA 2:1  | P01 30036 |                       | 9            | 2 : 1           | 26,565° |         |         |          |                       |          |          |                        |                          |
| PKE 200-20-103 QA     | P01 40031 | 200                   | 20           | 1,2 : 1         | 40°     | 23,8    | 100     | 85       | 150                   | 44       | 32       | 18                     | 16,2                     |
| PKE 200-12-103 QA 2:1 | P01 40036 |                       | 12           | 2 : 1           | 26,565° |         |         |          |                       |          |          |                        |                          |
| PKE 250-30-103        | P01 50030 | 250                   | 30           | 2 : 1           |         | 35,7    | 120     | 100      | 180                   | 46       | 32       | 18                     | 19,4                     |

| Slide dimensions |         |         |            |
|------------------|---------|---------|------------|
| Size             | B<br>mm | C<br>mm | d<br>ABS-N |
| PKE 80           | 36      | -       | 32         |
| PKE 100          | 40      | 72      | 32         |
| PKE 125          | 50      | 86      | 40         |
| PKE 160          | 60      | 100     | 50         |
| PKE 200          | 80      | 130     | 63         |
| PKE 250          | 100     | 150     | 80         |

| Mounting dimensions |          |     |          |            |          |          |          |          |          |             |          |                 |          |          |                          |
|---------------------|----------|-----|----------|------------|----------|----------|----------|----------|----------|-------------|----------|-----------------|----------|----------|--------------------------|
| Size                | M        | M1  | L1<br>mm | L2±1<br>mm | L3<br>mm | L4<br>mm | L5<br>mm | L6<br>mm | L7<br>mm | b±0,1<br>mm | d5<br>mm | Spacing         | H2<br>mm | h2<br>mm | Spindle size<br>DIN 2079 |
| PKE 80              | M10×1L   | M6  | 28       | 38         | 8        | 14       | 4        | 10       | 5        | 32          | 68       | 4×90°<br>3×120° | 70       | 18       | 30                       |
| PKE 100             | M10×1L   | M8  | 30       | 40         | 8        | 14       | 4        | 12       | 5        | 42          | 84       | 4×90°<br>3×120° | 75       | 15       | 30                       |
| PKE 125             | M12×1,5L | M8  | 37       | 47         | 8        | 16       | 4        | 12       | 6        | 54          | 110      | 6×60°           | 85       | 17       | 40                       |
| PKE 160             | M16×1,5L | M10 | 50       | 60         | 10       | 25       | 5        | 15       | 6        | 70          | 140      | 4×90°           | 105      | 20       | 40                       |
| PKE 200             | M16×1,5L | M12 | 70       | 80         | 10       | 25       | 5        | 18       | 6        | 87,5        | 175      | 4×90°           | 125      | 25       | 50                       |
| PKE 250             | M16×1,5L | M16 | 90       | 100        | 10       | 25       | 6        | 22       | 6        | 108         | 216      | 4×90°           | 145      | 25       | 50                       |

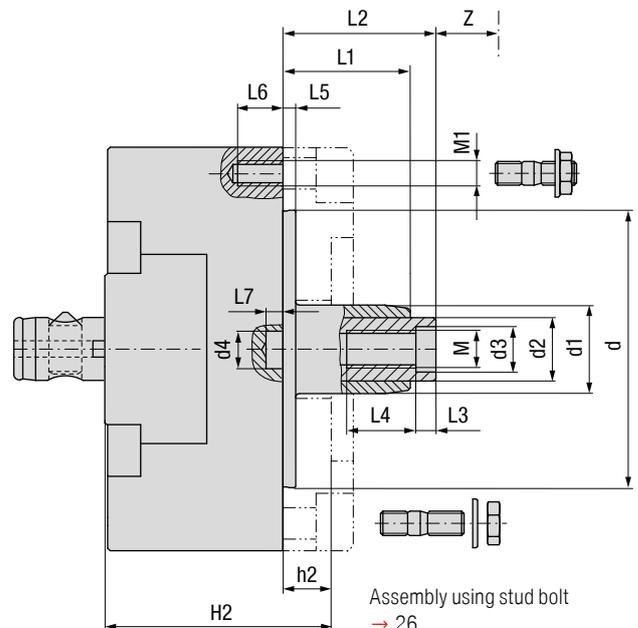
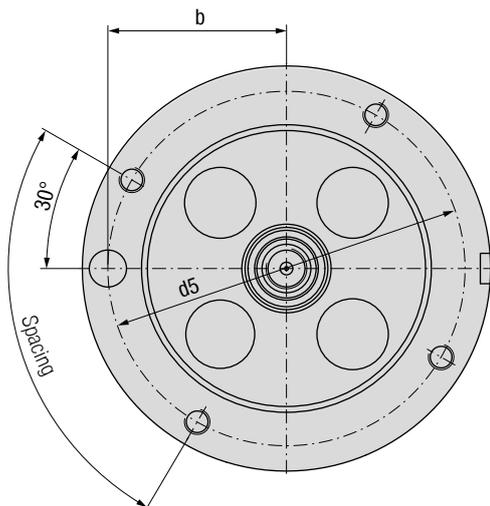
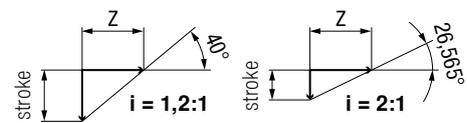
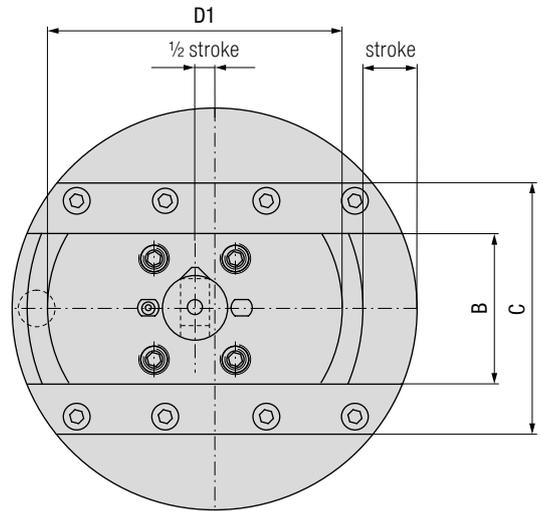
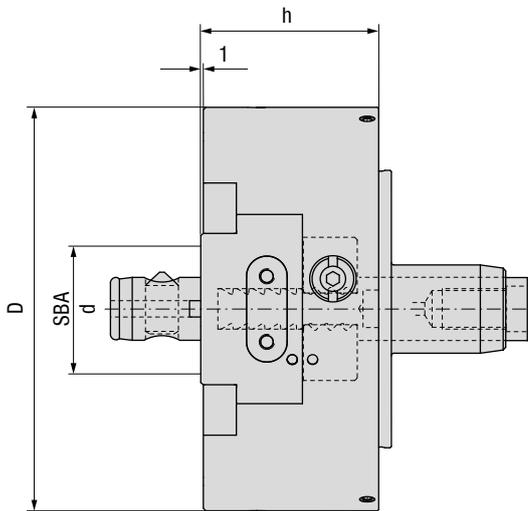
**Order example:**

Facing head Ø 250 mm / stroke 30 mm / type 103: Description PKE250-30-103 / KOMET No. P01 50030

# KOMdrive PKE-104 / PKE-104-QA

Facing head with single slide with integrated SBA connection

on request



Assembly using stud bolt  
→ 26  
Adaptor flange for spindle  
according to DIN 2079  
→ 25

| External dimensions   |           |                       |              |                 |         |         |         |                       |          |          |                        |                          |
|-----------------------|-----------|-----------------------|--------------|-----------------|---------|---------|---------|-----------------------|----------|----------|------------------------|--------------------------|
| Description           | KOMET No. | D <sub>ns</sub><br>mm | Stroke<br>mm | i<br>Traduction | Pitch   | Z<br>mm | h<br>mm | d <sub>ns</sub><br>mm | d1<br>mm | d2<br>mm | d3 <sup>H7</sup><br>mm | d4 <sup>+0,1</sup><br>mm |
| PKE 80-12-104         | P01 00040 | 80                    | 12           | 1,2 : 1         |         | 14,3    | 42      | 50                    | 25       | 16       | 12                     | 10,3                     |
| PKE 100-15-104 QA     | P01 10041 | 100                   | 15           | 1,2 : 1         | 40°     | 17,9    | 50      | 65                    | 25       | 16       | 12                     | 10,3                     |
| PKE 100-9-104 QA 2:1  | P01 10046 |                       | 9            | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 125-20-104 QA     | P01 20041 | 125                   | 20           | 1,2 : 1         | 40°     | 23,8    | 58      | 90                    | 30       | 20       | 14                     | 14,6                     |
| PKE 125-12-104 QA 2:1 | P01 20046 |                       | 12           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 160-25-104 QA     | P01 30041 | 160                   | 25           | 1,2 : 1         | 40°     | 29,8    | 70      | 110                   | 35       | 25       | 18                     | 14,6                     |
| PKE 160-15-104 QA 2:1 | P01 30046 |                       | 15           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 200-30-104 QA     | P01 40041 | 200                   | 30           | 1,2 : 1         | 40°     | 35,7    | 85      | 150                   | 44       | 32       | 18                     | 16,2                     |
| PKE 200-18-104 QA 2:1 | P01 40046 |                       | 18           | 2 : 1           | 26,565° |         |         |                       |          |          |                        |                          |
| PKE 250-40-104        | P01 50040 | 250                   | 40           | 2 : 1           |         | 47,7    | 100     | 180                   | 46       | 32       | 18                     | 19,4                     |
| PKE 320-55-104        | P01 60040 | 320                   | 55           | 2 : 1           |         | 65,6    | 124     | 220                   | 63       | 40       | 22                     | 24,2                     |

| Slide dimensions |         |         |          |          |
|------------------|---------|---------|----------|----------|
| Size             | B<br>mm | C<br>mm | D1<br>mm | d<br>SBA |
| PKE 80           | 36      | -       | 60       | 32       |
| PKE 100          | 40      | 72      | 75       | 40       |
| PKE 125          | 50      | 86      | 95       | 50       |
| PKE 160          | 60      | 100     | 115      | 63       |
| PKE 200          | 80      | 130     | 140      | 80       |
| PKE 250          | 100     | 150     | 170      | 100      |
| PKE 320          | 110     | 178     | 200      | 100      |

| Mounting dimensions |          |     |          |            |          |          |          |          |          |             |          |                 |          |          |                          |
|---------------------|----------|-----|----------|------------|----------|----------|----------|----------|----------|-------------|----------|-----------------|----------|----------|--------------------------|
| Size                | M        | M1  | L1<br>mm | L2±1<br>mm | L3<br>mm | L4<br>mm | L5<br>mm | L6<br>mm | L7<br>mm | b±0,1<br>mm | d5<br>mm | Spacing         | H2<br>mm | h2<br>mm | Spindle size<br>DIN 2079 |
| PKE 80              | M10×1L   | M6  | 28       | 38         | 8        | 14       | 4        | 10       | 5        | 32          | 68       | 4×90°<br>3×120° | 60       | 18       | 30                       |
| PKE 100             | M10×1L   | M8  | 30       | 40         | 8        | 14       | 4        | 12       | 5        | 42          | 84       | 4×90°<br>3×120° | 65       | 15       | 30                       |
| PKE 125             | M12×1,5L | M8  | 37       | 47         | 8        | 16       | 4        | 12       | 6        | 54          | 110      | 6×60°           | 75       | 17       | 40                       |
| PKE 160             | M16×1,5L | M10 | 50       | 60         | 10       | 25       | 5        | 15       | 6        | 70          | 140      | 4×90°           | 90       | 20       | 40                       |
| PKE 200             | M16×1,5L | M12 | 70       | 80         | 10       | 25       | 5        | 18       | 6        | 87,5        | 175      | 4×90°           | 110      | 25       | 50                       |
| PKE 250             | M16×1,5L | M16 | 90       | 100        | 10       | 25       | 6        | 22       | 6        | 108         | 216      | 4×90°           | 125      | 25       | 50                       |
| PKE 320             | M20×1,5L | M16 | 106      | 116        | 10       | 30       | 6        | 22       | 8        | 137,5       | 275      | 6×60°           | 150      | 26       | 60                       |

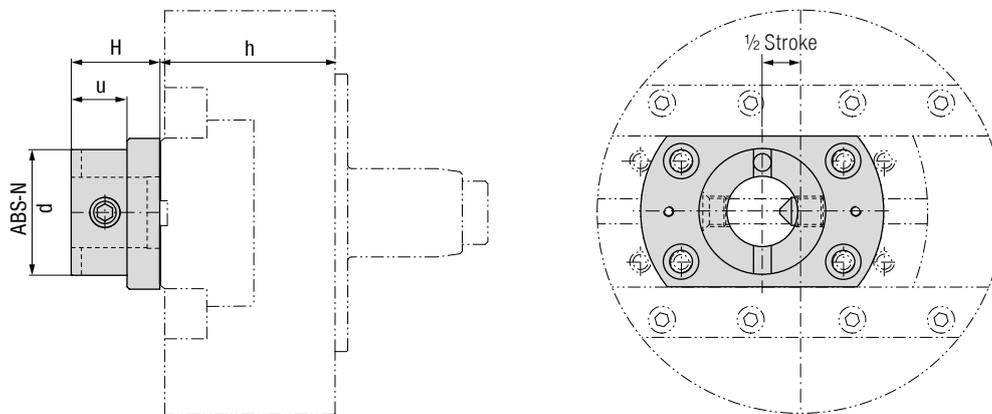
**Order example:**

Facing head Ø 250 mm / stroke 40 mm / type 104: Description PKE250-40-104 / KOMET No. P01 50040

## KOMdrive PKE-101 / PKE-101-QA

## Adaptor with ABS-N connection

without internal coolant supply



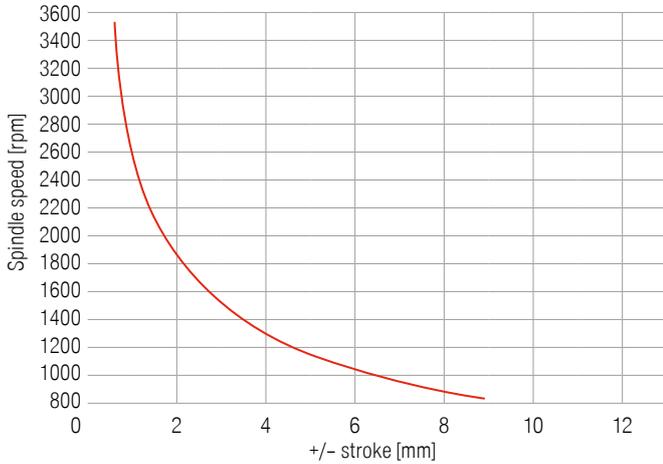
| ABS-N Adaptor  |                  |            |         |         |         |
|----------------|------------------|------------|---------|---------|---------|
| Size           | KOMET No.        | d<br>ABS-N | H<br>mm | u<br>mm | h<br>mm |
| PKE 80-...-101 | <b>P80 03010</b> | 32         | 25      | 15      | 42      |
| PKE100-...-101 | <b>P80 13010</b> | 32         | 25      | 15      | 50      |
| PKE125-...-101 | <b>P80 24010</b> | 40         | 30      | 17      | 58      |
| PKE160-...-101 | <b>P80 35010</b> | 50         | 35      | 22      | 70      |
| PKE200-...-101 | <b>P80 46010</b> | 63         | 40      | 24      | 85      |
| PKE250-...-101 | <b>P80 57010</b> | 80         | 45      | 25      | 100     |
| PKE320-...-101 | <b>P80 68010</b> | 100        | 60      | 40      | 124     |

# KOMdrive PKE-... / PKE-...-QA

## Technical notes

### Stroke/spindle speed diagram

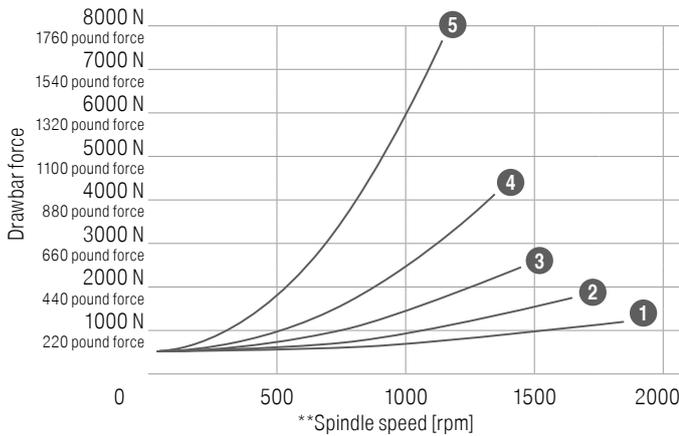
\*\*\*max. weight of front tool



### Drawbar force

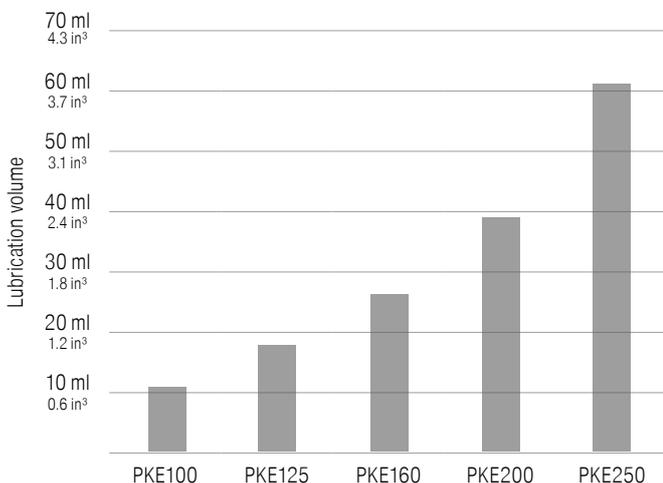
Full max. stroke

The diagram serves as a guideline. A specific calculation can be produced with consideration to all parameters.



### Lubrication requirements

Slide movement: 150 m / 6,000 in. (corresponds to one shift, 8 h)



The maximum spindle speed is estimated as follows:

$$r.p.m._{max} = \frac{2500}{\sqrt{\text{stroke}^*}}$$

\* stroke in mm from /to rotational axis

\*\* Spindle speed [rpm]

Drawbar forces shown are valid for maximum weight of front tool.

\*\*\*max. weight of front tool

|   |        |         |          |
|---|--------|---------|----------|
| 1 | PKE100 | 1,2 kg  | 2.6 lbs  |
| 2 | PKE125 | 2,0 kg  | 4.4 lbs  |
| 3 | PKE160 | 3,2 kg  | 7.1 lbs  |
| 4 | PKE200 | 5,5 kg  | 12.1 lbs |
| 5 | PKE250 | 12,0 kg | 26.5 lbs |

### Lubrication volume required for one shift

The values specified are guide values and must, where required, be adjusted to the application conditions such as rotation speed, stroke and environmental influences such as coolant, dirt, etc.

### Lubricants

We recommend Mobilux EP004 liquid grease for all speed ranges. Furthermore, it is also possible to use slideway oils according to DIN 51502 with the identifier CG-L68 or CG-L220 (CG-L220 is preferred for speeds from 700 rpm).

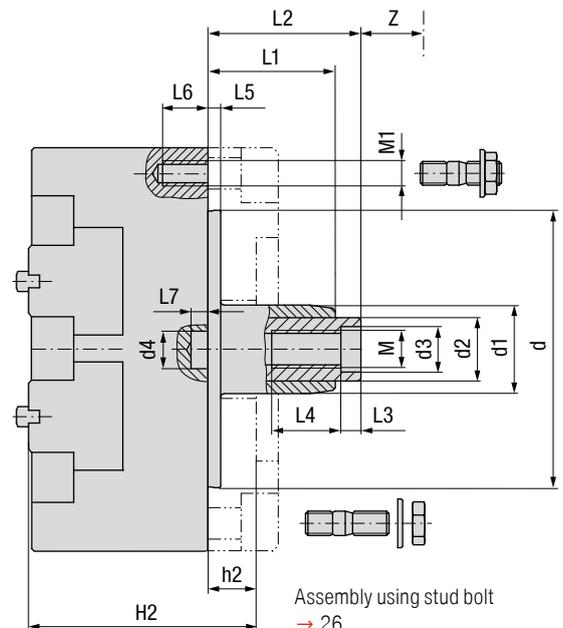
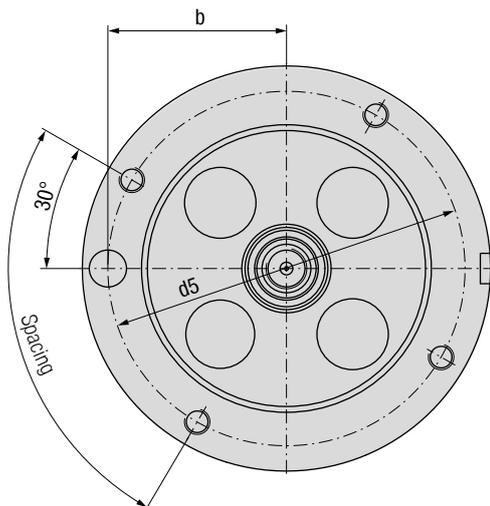
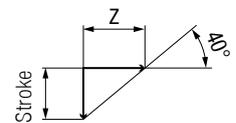
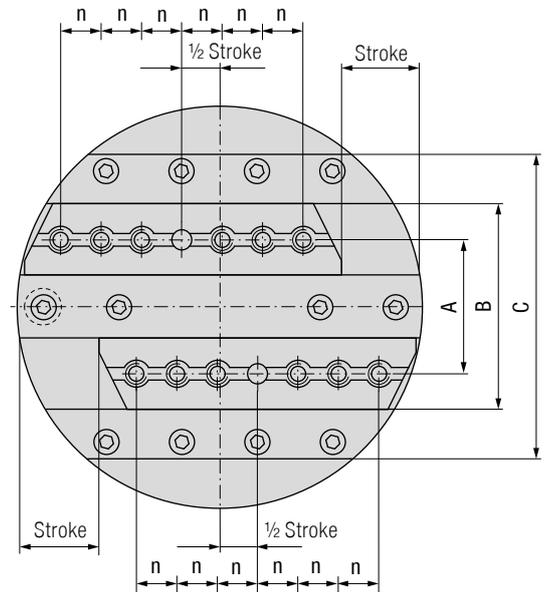
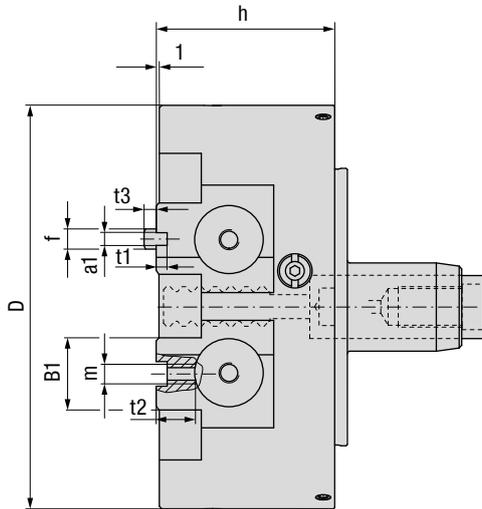
The relevant commercial names of the mineral oil companies for slide-way oils can be ascertained from the machine lubrication instructions. These lubrication instructions apply to all generating tools supplied by KOMET.

# KOMdrive PKD-101

Facing head with double slide with mounting holes in slides



Adaptor with  
ABS-N connection  
→ 18



Assembly using stud bolt  
→ 26  
Adaptor flange for spindle  
according to DIN 2079  
→ 25

| External dimensions |                                  |                       |              |         |         |                       |          |          |                        |                          |
|---------------------|----------------------------------|-----------------------|--------------|---------|---------|-----------------------|----------|----------|------------------------|--------------------------|
| Description         | KOMET No.<br>Article No.         | D <sub>h6</sub><br>mm | Stroke<br>mm | Z<br>mm | h<br>mm | d <sub>h6</sub><br>mm | d1<br>mm | d2<br>mm | d3 <sup>H7</sup><br>mm | d4 <sup>+0,1</sup><br>mm |
| PKD 80-12-101       | <b>P05 00010</b><br>60 002 08012 | 80                    | 12           | 14,3    | 42      | 50                    | 25       | 16       | 12                     | 10,3                     |
| PKD 100-17-101      | <b>P05 10010</b><br>60 002 10017 | 100                   | 17           | 20,3    | 50      | 65                    | 25       | 16       | 12                     | 10,3                     |
| PKD 125-22-101      | <b>P05 20010</b><br>60 002 12522 | 125                   | 22           | 26,2    | 58      | 90                    | 30       | 20       | 14                     | 14,6                     |
| PKD 160-30-101      | <b>P05 30010</b><br>60 002 16030 | 160                   | 30           | 35,7    | 70      | 110                   | 35       | 25       | 18                     | 14,6                     |
| PKD 200-40-101      | <b>P05 40010</b>                 | 200                   | 40           | 47,7    | 85      | 150                   | 44       | 32       | 18                     | 16,2                     |
| PKD 250-50-101      | <b>P05 50010</b>                 | 250                   | 50           | 59,6    | 100     | 180                   | 46       | 32       | 18                     | 19,4                     |
| PKD 320-63-101      | <b>P05 60010</b>                 | 320                   | 63           | 75,1    | 124     | 220                   | 63       | 40       | 22                     | 24,2                     |

| Slide dimensions |         |          |         |         |                        |          |          |     |                       |         |                      |
|------------------|---------|----------|---------|---------|------------------------|----------|----------|-----|-----------------------|---------|----------------------|
| Size             | B<br>mm | B1<br>mm | C<br>mm | A<br>mm | a1 <sup>H8</sup><br>mm | t1<br>mm | t2<br>mm | m   | f <sub>m6</sub><br>mm | n<br>mm | No. of<br>bolt holes |
| PKD 80           | 46      | 15       | -       | 30      | 6                      | 3        | 10       | M6  | 6                     | 12      | 4                    |
| PKD 100          | 56      | 20       | -       | 36      | 8                      | 3        | 15       | M8  | 8                     | 10      | 6                    |
| PKD 125          | 72      | 26       | -       | 46      | 8                      | 3        | 15       | M8  | 8                     | 12      | 6                    |
| PKD 160          | 84      | 30       | 124     | 56      | 8                      | 3        | 16       | M10 | 10                    | 15      | 6                    |
| PKD 200          | 102     | 36       | 148     | 64      | 8                      | 3        | 16       | M10 | 10                    | 20      | 6                    |
| PKD 250          | 136     | 50       | 186     | 78      | 10                     | 4        | 18       | M12 | 12                    | 20      | 8                    |
| PKD 320          | 166     | 60       | 226     | 106     | 12                     | 4        | 25       | M16 | 16                    | 25      | 8                    |

| Mounting dimensions |          |     |          |            |          |          |          |          |          |             |          |                 |          |          |                          |
|---------------------|----------|-----|----------|------------|----------|----------|----------|----------|----------|-------------|----------|-----------------|----------|----------|--------------------------|
| Size                | M        | M1  | L1<br>mm | L2±1<br>mm | L3<br>mm | L4<br>mm | L5<br>mm | L6<br>mm | L7<br>mm | b±0,1<br>mm | d5<br>mm | Spacing         | H2<br>mm | h2<br>mm | Spindle size<br>DIN 2079 |
| PKD 80              | M10×1L   | M6  | 28       | 38         | 8        | 14       | 4        | 10       | 5        | 32          | 68       | 4×90°<br>3×120° | -        | -        | 30                       |
| PKD 100             | M10×1L   | M8  | 30       | 40         | 8        | 14       | 4        | 12       | 5        | 42          | 84       | 4×90°<br>3×120° | 65       | 15       | 30                       |
| PKD 125             | M12×1,5L | M8  | 37       | 47         | 8        | 16       | 4        | 12       | 6        | 54          | 110      | 6×60°           | 75       | 17       | 40                       |
| PKD 160             | M16×1,5L | M10 | 50       | 60         | 10       | 25       | 5        | 15       | 6        | 70          | 140      | 4×90°           | 90       | 20       | 40                       |
| PKD 200             | M16×1,5L | M12 | 70       | 80         | 10       | 25       | 5        | 18       | 6        | 87,5        | 175      | 4×90°           | 110      | 25       | 50                       |
| PKD 250             | M16×1,5L | M16 | 90       | 100        | 10       | 25       | 6        | 22       | 6        | 108         | 216      | 4×90°           | 125      | 25       | 50                       |
| PKD 320             | M20×1,5L | M16 | 106      | 116        | 10       | 30       | 6        | 22       | 8        | 137,5       | 275      | 6×60°           | 150      | 26       | 60                       |

**Order example:**

Facing head Ø 160 mm / stroke 30 mm / type 101: Description PKD 160-30-101 / KOMET No. P05 30010 or Article-Nr. 60 002 16030

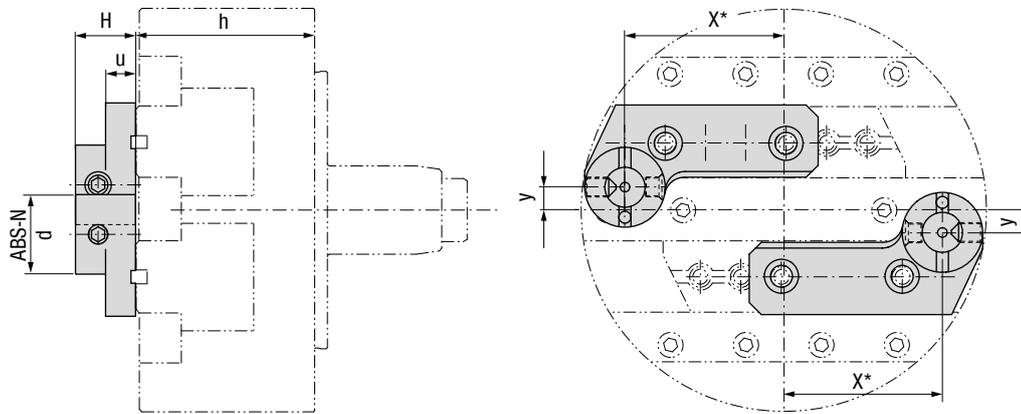


Article no. 60.... available from stock

## KOMdrive PKD-101

## Adaptor with ABS-N connection

\* ABS-N adaptors have two key ways for radial positioning



| ABS-N Adaptor  |                  |            |         |         |         |          |         |
|----------------|------------------|------------|---------|---------|---------|----------|---------|
| Size           | KOMET No.        | d<br>ABS-N | H<br>mm | u<br>mm | h<br>mm | X*<br>mm | y<br>mm |
| PKD 80-...-101 | -                |            |         |         |         |          |         |
| PKD100-...-101 | <b>P80 12050</b> | 25         | 25      | 12      | 50      | 35       | - 7     |
| PKD125-...-101 | <b>P80 22050</b> | 25         | 25      | 12      | 58      | 47 35    | 7       |
| PKD160-...-101 | <b>P80 33050</b> | 32         | 25      | 10      | 70      | 60 45    | 8       |
| PKD200-...-101 | <b>P80 44050</b> | 40         | 30      | 15      | 85      | 80 60    | 10      |
| PKD250-...-101 | <b>P80 55050</b> | 50         | 35      | 15      | 100     | 100 80   | 12      |
| PKD320-...-101 | <b>P80 66050</b> | 63         | 40      | 15      | 124     | 125 100  | 14      |

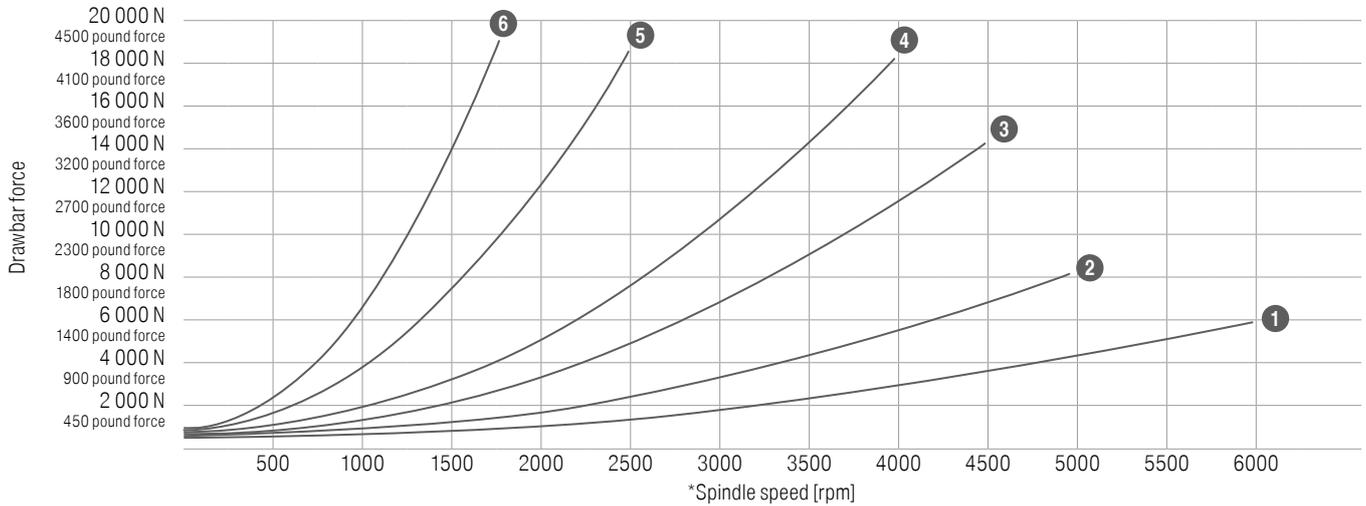
# KOMdrive PKD-...

## Technical notes

### Drawbar force

stroke = start position

The diagram serves as a guideline. A specific calculation can be produced with consideration to all parameters.



\* Spindle speed [rpm]

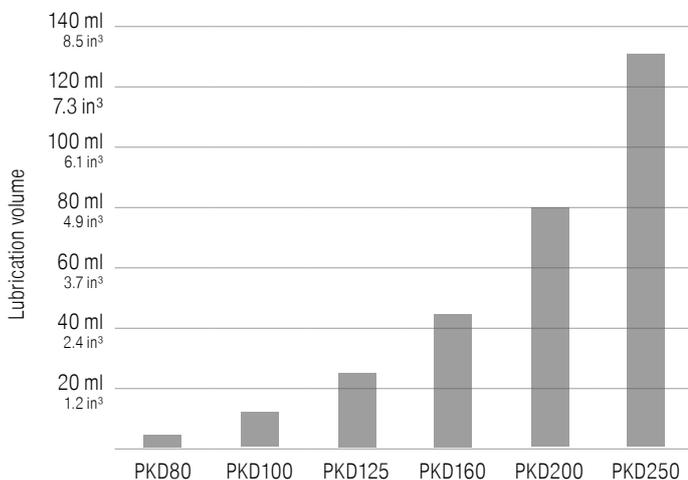
Drawbar forces shown are valid for maximum weight of front tool.

max. weight of front tool

|   |        |            |            |
|---|--------|------------|------------|
| 1 | PKD 80 | 2× 0,2 kg  | 2× 0.4 lbs |
| 2 | PKD100 | 2× 0,3 kg  | 2× 0.7 lbs |
| 3 | PKD125 | 2× 0,45 kg | 2× 1.0 lbs |
| 4 | PKD160 | 2× 0,6 kg  | 2× 1.3 lbs |
| 5 | PKD200 | 2× 0,8 kg  | 2× 1.8 lbs |
| 6 | PKD250 | 2×1,0 kg   | 2× 2.2 lbs |

### Lubrication requirements

Slide movement: 150 m / 6,000 in. (corresponds to one shift, 8 h)



### Lubrication volume required for one shift

The values specified are guide values and must, where required, be adjusted to the application conditions such as rotation speed, stroke and environmental influences such as coolant, dirt, etc.

### Lubricants

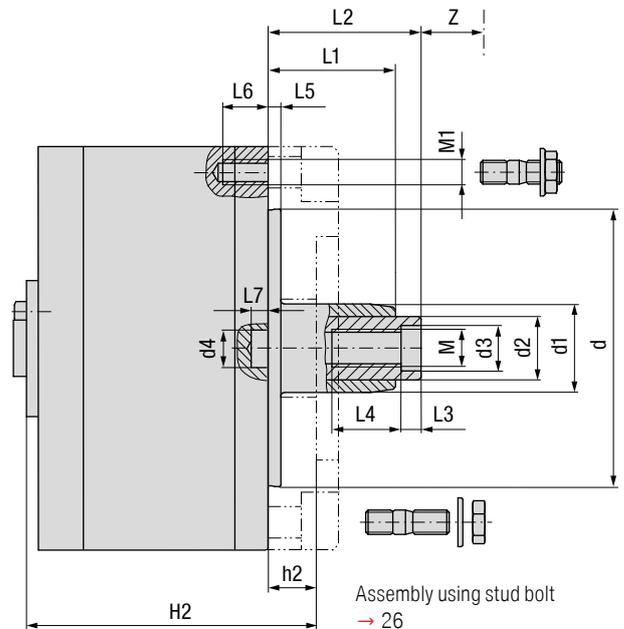
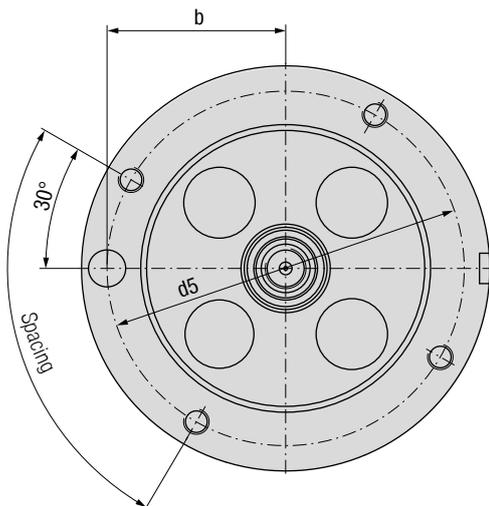
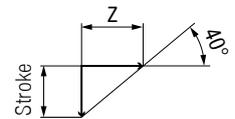
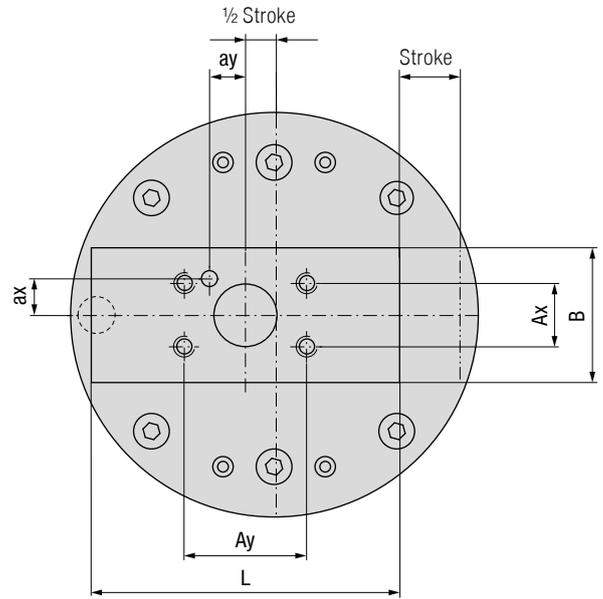
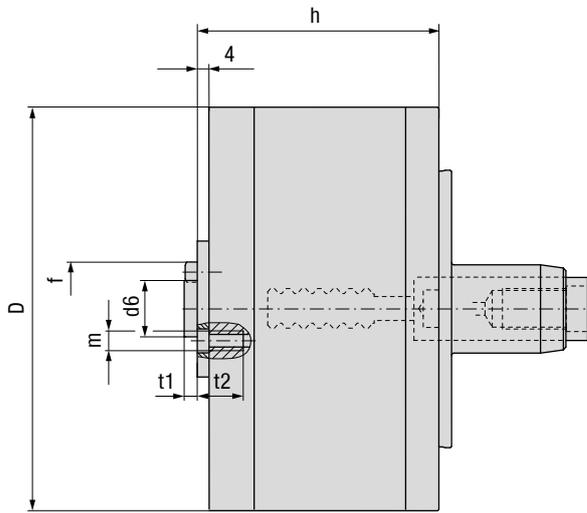
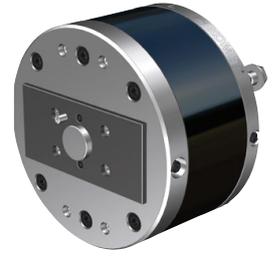
We recommend Mobilux EP004 liquid grease for all speed ranges. Furthermore, it is also possible to use slideway oils according to DIN 51502 with the identifier CG-L68 or CG-L220 (CG-L220 is preferred for speeds from 700 rpm).

The relevant commercial names of the mineral oil companies for slide-way oils can be ascertained from the machine lubrication instructions. These lubrication instructions apply to all generating tools supplied by KOMET.

# KOMdrive PKU-101

Facing head with counterweighted with mounting holes in slide

on request



Assembly using stud bolt  
→ 26  
Adaptor flange for spindle  
according to DIN 2079  
→ 25

| External dimensions |                  |                       |              |         |         |                       |          |          |                        |                          |
|---------------------|------------------|-----------------------|--------------|---------|---------|-----------------------|----------|----------|------------------------|--------------------------|
| Description         | KOMET No.        | D <sub>h6</sub><br>mm | Stroke<br>mm | Z<br>mm | h<br>mm | d <sub>h6</sub><br>mm | d1<br>mm | d2<br>mm | d3 <sup>H7</sup><br>mm | d4 <sup>+0,1</sup><br>mm |
| PKU 100-10-101      | <b>P20 10110</b> | 100                   | 10           | 11,9    | 66      | 65                    | 25       | 16       | 12                     | 10,3                     |
| PKU 125-6-101       | <b>P20 20010</b> | 125                   | 6            | 7,2     | 73      | 90                    | 30       | 20       | 14                     | 14,6                     |
| PKU 125-15-101      | <b>P20 20110</b> |                       | 15           | 17,9    |         |                       |          |          |                        |                          |
| PKU 160-8-101       | <b>P20 30010</b> | 160                   | 8            | 9,5     | 95      | 110                   | 35       | 25       | 18                     | 14,6                     |
| PKU 160-22-101      | <b>P20 30110</b> |                       | 22           | 26,2    |         |                       |          |          |                        |                          |
| PKU 200-10-101      | <b>P20 40010</b> | 200                   | 10           | 11,9    | 115     | 150                   | 44       | 32       | 18                     | 16,2                     |
| PKU 200-30-101      | <b>P20 40110</b> |                       | 30           | 35,7    |         |                       |          |          |                        |                          |
| PKU 250-12-101      | <b>P20 50010</b> | 250                   | 12           | 14,3    | 140     | 180                   | 46       | 32       | 18                     | 19,4                     |
| PKU 250-40-101      | <b>P20 50110</b> |                       | 40           | 47,7    |         |                       |          |          |                        |                          |
| PKU 320-15-101      | <b>P20 60010</b> | 320                   | 15           | 17,9    | 174     | 220                   | 63       | 40       | 22                     | 24,2                     |
| PKU 320-50-101      | <b>P20 60110</b> |                       | 50           | 59,6    |         |                       |          |          |                        |                          |

| Slide dimensions |     |     |    |     |         |         |                  |    |    |     |                 | Front tool  |            |
|------------------|-----|-----|----|-----|---------|---------|------------------|----|----|-----|-----------------|-------------|------------|
| Size             | B   | L   | Ax | Ay  | ax±0,02 | ay±0,02 | d6 <sub>h6</sub> | t1 | t2 | m   | f <sub>m6</sub> | kg          | lbs        |
|                  | mm  | mm  | mm | mm  | mm      | mm      | mm               | mm | mm | mm  | mm              | min - max   | min - max  |
| PKU 100-10-101   | 42  | 80  | 18 | 33  | 11      | 7       | 16               | 5  | 9  | M6  | 5               | 0,22 - 0,4  | 0,5 - 0,9  |
| PKU 125-6-101    | 52  | 88  | 28 | 50  | 14      | 15      | 20               | 5  | 16 | M8  | 6               | 0,55 - 1,05 | 1,2 - 2,3  |
| PKU 125-15-101   | 46  | 92  | 22 | 42  | 11      | 12      | 20               | 5  | 13 | M6  | 5               | 0,53 - 0,9  | 1,2 - 2,0  |
| PKU 160-8-101    | 66  | 106 | 32 | 60  | 16      | 18      | 25               | 5  | 19 | M10 | 6               | 0,46 - 1,5  | 1,0 - 3,3  |
| PKU 160-22-101   | 56  | 120 | 28 | 50  | 14      | 15      | 25               | 5  | 16 | M8  | 6               | 0,47 - 1,2  | 1,0 - 2,6  |
| PKU 200-10-101   | 78  | 130 | 40 | 80  | 20      | 25      | 30               | 5  | 18 | M12 | 8               | 1,25 - 3,5  | 2,8 - 7,7  |
| PKU 200-30-101   | 68  | 150 | 32 | 60  | 16      | 18      | 30               | 5  | 18 | M10 | 6               | 1,15 - 2,7  | 2,5 - 6,0  |
| PKU 250-12-101   | 93  | 156 | 50 | 90  | 25      | 30      | 32               | 5  | 18 | M12 | 10              | 1,51 - 5,3  | 3,3 - 11,7 |
| PKU 250-40-101   | 78  | 190 | 40 | 80  | 20      | 25      | 32               | 5  | 18 | M12 | 8               | 1,23 - 3,8  | 2,7 - 6,0  |
| PKU 320-15-101   | 108 | 194 | 60 | 120 | 30      | 40      | 40               | 5  | 28 | M16 | 12              | 0 - 7,2     | 0 - 15,9   |
| PKU 320-50-101   | 92  | 234 | 50 | 90  | 25      | 30      | 40               | 5  | 22 | M12 | 10              | 0 - 5,4     | 0 - 11,9   |

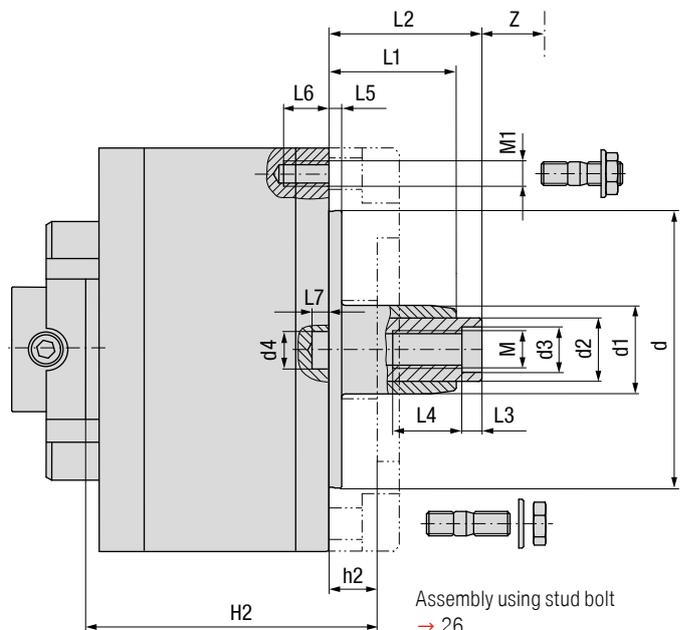
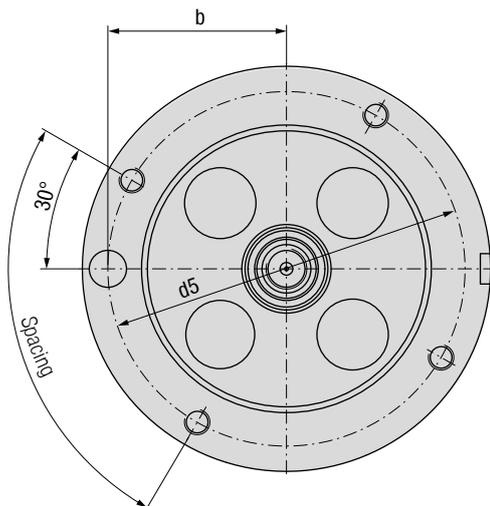
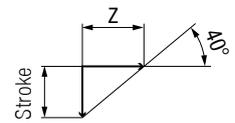
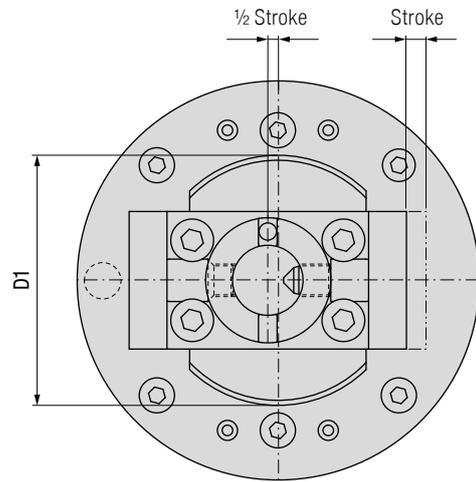
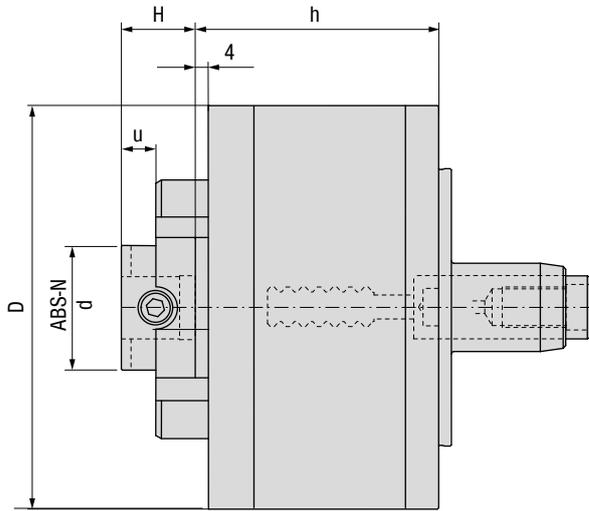
| Mounting dimensions |          |     |     |      |    |    |    |    |    |       |     |                 |     |    |              |
|---------------------|----------|-----|-----|------|----|----|----|----|----|-------|-----|-----------------|-----|----|--------------|
| Size                | M        | M1  | L1  | L2±1 | L3 | L4 | L5 | L6 | L7 | b±0,1 | d5  | Spacing         | H2  | h2 | Spindle size |
|                     |          |     | mm  | mm   | mm | mm | mm | mm | mm | mm    | mm  |                 | mm  | mm | DIN 2079     |
| PKU 100             | M10×1L   | M8  | 30  | 40   | 8  | 14 | 4  | 12 | 5  | 42    | 84  | 4×90°<br>3×120° | 81  | 15 | 30           |
| PKU 125             | M12×1,5L | M8  | 37  | 47   | 8  | 16 | 4  | 12 | 6  | 54    | 110 | 6×60°           | 90  | 17 | 40           |
| PKU 160             | M16×1,5L | M10 | 50  | 60   | 10 | 25 | 5  | 15 | 6  | 70    | 140 | 4×90°           | 115 | 20 | 40           |
| PKU 200             | M16×1,5L | M12 | 70  | 80   | 10 | 25 | 5  | 18 | 6  | 87,5  | 175 | 4×90°           | 140 | 25 | 50           |
| PKU 250             | M16×1,5L | M16 | 90  | 100  | 10 | 25 | 6  | 22 | 6  | 108   | 216 | 4×90°           | 165 | 25 | 50           |
| PKU 320             | M20×1,5L | M16 | 106 | 116  | 10 | 30 | 6  | 22 | 8  | 137,5 | 275 | 6×60°           | 200 | 26 | 60           |

**Order example:**

Facing head Ø 250 mm / stroke 40 mm / type 101: Description PKU 250-40-101 / KOMET No. P20 50110

# KOMdrive PKU-103

Facing head with counterweighted with integrated ABS-N connection



Assembly using stud bolt  
→ 26  
Adaptor flange for spindle  
according to DIN 2079  
→ 25

| External dimensions |                  |                       |              |         |         |          |                       |          |          |                        |                          |
|---------------------|------------------|-----------------------|--------------|---------|---------|----------|-----------------------|----------|----------|------------------------|--------------------------|
| Description         | KOMET No.        | D <sub>ns</sub><br>mm | Stroke<br>mm | Z<br>mm | h<br>mm | D1<br>mm | d <sub>ns</sub><br>mm | d1<br>mm | d2<br>mm | d3 <sup>H7</sup><br>mm | d4 <sup>+0.1</sup><br>mm |
| PKU 100-10-103      | <b>P20 10130</b> | 100                   | 10           | 11,9    | 61      | 64       | 65                    | 25       | 16       | 12                     | 10,3                     |
| PKU 125-6-103       | <b>P20 20030</b> | 125                   | 6            | 7,2     | 73      | 85       | 90                    | 30       | 20       | 14                     | 14,6                     |
| PKU 125-15-103      | <b>P20 20130</b> |                       | 15           | 17,9    |         |          |                       |          |          |                        |                          |
| PKU 160-8-103       | <b>P20 30030</b> | 160                   | 8            | 9,5     | 95      | 100      | 110                   | 35       | 25       | 18                     | 14,6                     |
| PKU 160-22-103      | <b>P20 30130</b> |                       | 22           | 26,2    |         |          |                       |          |          |                        |                          |
| PKU 200-10-103      | <b>P20 40030</b> | 200                   | 10           | 11,9    | 115     | 125      | 150                   | 44       | 32       | 18                     | 16,2                     |
| PKU 200-30-103      | <b>P20 40130</b> |                       | 30           | 35,7    |         |          |                       |          |          |                        |                          |
| PKU 250-12-103      | <b>P20 50030</b> | 250                   | 12           | 14,3    | 140     | 150      | 180                   | 46       | 32       | 18                     | 19,4                     |
| PKU 250-40-103      | <b>P20 50130</b> |                       | 40           | 47,7    |         |          |                       |          |          |                        |                          |
| PKU 320-15-103      | <b>P20 60030</b> | 320                   | 15           | 17,9    | 174     | 180      | 220                   | 63       | 40       | 22                     | 24,2                     |
| PKU 320-50-103      | <b>P20 60130</b> |                       | 50           | 59,6    |         |          |                       |          |          |                        |                          |

| Slide dimensions |            |         |         | Front tool      |                  |
|------------------|------------|---------|---------|-----------------|------------------|
| Size             | d<br>ABS-N | H<br>mm | u<br>mm | kg<br>min - max | lbs<br>min - max |
| PKU 100-10-103   | 32         | 24      | 20      | 0,09 - 0,29     | 0.2 - 0.6        |
| PKU 125-6-103    | 40         | 25      | 12      | 0,2 - 0,8       | 0.4 - 1.8        |
| PKU 125-15-103   | 32         | 20      | 10      | 0,34 - 0,8      | 0.7 - 1.8        |
| PKU 160-8-103    | 50         | 30      | 14      | 0 - 1,0         | 0 - 2.2          |
| PKU 160-22-103   | 40         | 25      | 12      | 0,21 - 0,9      | 0.5 - 2.0        |
| PKU 200-10-103   | 63         | 35      | 16      | 0,32 - 2,5      | 0.7 - 5.5        |
| PKU 200-30-103   | 50         | 30      | 14      | 0,7 - 2,2       | 1.5 - 4.9        |
| PKU 250-12-103   | 80         | 40      | 20      | 0 - 3,7         | 0 - 8.2          |
| PKU 250-40-103   | 63         | 35      | 16      | 0,27 - 2,9      | 0.6 - 6.4        |
| PKU 320-15-103   | 100        | 55      | 30      | 0 - 4,17        | 0 - 9.2          |
| PKU 320-50-103   | 80         | 40      | 20      | 0 - 3,9         | 0 - 8.6          |

| Mounting dimensions |          |     |          |            |          |          |          |          |          |             |          |                 |          |          |                          |
|---------------------|----------|-----|----------|------------|----------|----------|----------|----------|----------|-------------|----------|-----------------|----------|----------|--------------------------|
| Size                | M        | M1  | L1<br>mm | L2±1<br>mm | L3<br>mm | L4<br>mm | L5<br>mm | L6<br>mm | L7<br>mm | b±0,1<br>mm | d5<br>mm | Spacing         | H2<br>mm | h2<br>mm | Spindle size<br>DIN 2079 |
| PKU 100             | M10×1L   | M8  | 30       | 40         | 8        | 14       | 4        | 12       | 5        | 42          | 84       | 4×90°<br>3×120° | 81       | 15       | 30                       |
| PKU 125             | M12×1,5L | M8  | 37       | 47         | 8        | 16       | 4        | 12       | 6        | 54          | 110      | 6×60°           | 90       | 17       | 40                       |
| PKU 160             | M16×1,5L | M10 | 50       | 60         | 10       | 25       | 5        | 15       | 6        | 70          | 140      | 4×90°           | 115      | 20       | 40                       |
| PKU 200             | M16×1,5L | M12 | 70       | 80         | 10       | 25       | 5        | 18       | 6        | 87,5        | 175      | 4×90°           | 140      | 25       | 50                       |
| PKU 250             | M16×1,5L | M16 | 90       | 100        | 10       | 25       | 6        | 22       | 6        | 108         | 216      | 4×90°           | 165      | 25       | 50                       |
| PKU 320             | M20×1,5L | M16 | 106      | 116        | 10       | 30       | 6        | 22       | 8        | 137,5       | 275      | 6×60°           | 200      | 26       | 60                       |

**Order example:**

Facing head Ø 250 mm / stroke 40 mm / type 103: Description PKU 250-40-103 / KOMET No. P20 50130

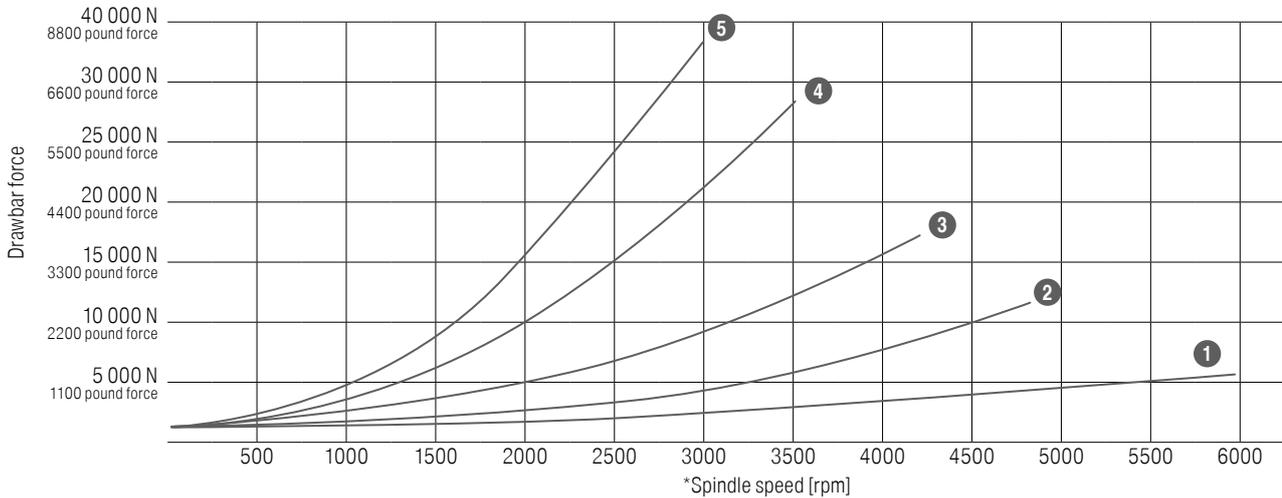
# KOMdrive PKU-...

## Technical notes

### Drawbar force

stroke = start and end position

The diagram serves as a guideline. A specific calculation can be produced with consideration to all parameters.



\* Spindle speed [rpm]

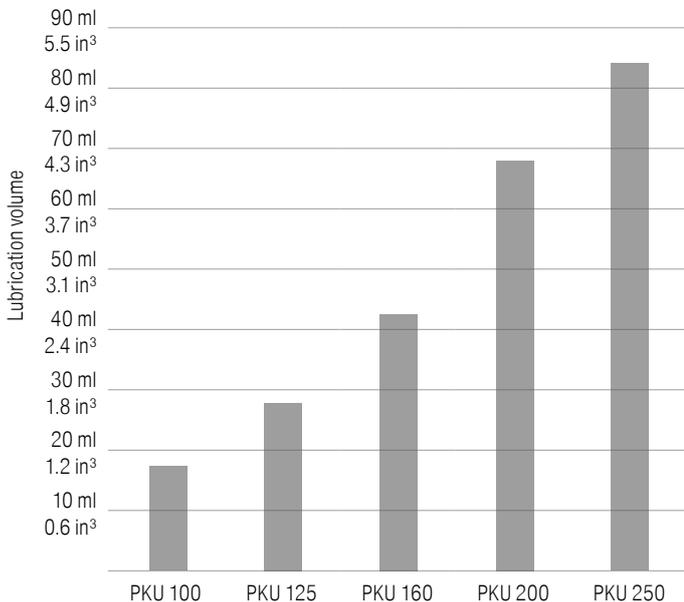
Drawbar forces shown are valid for maximum weight of front tool.

max. weight of front tool

|   |         |        |          |
|---|---------|--------|----------|
| 1 | PKU 100 | 0,4 kg | 0.9 lbs  |
| 2 | PKU 125 | 0,6 kg | 1.3 lbs  |
| 3 | PKU 160 | 0,9 kg | 2.0 lbs  |
| 4 | PKU 200 | 2,0 kg | 4.4 lbs  |
| 5 | PKU 250 | 2,8 kg | 6.17 lbs |

### Lubrication requirements

Slide movement: 150 m / 6,000 in. (corresponds to one shift, 8 h)



### Lubrication volume required for one shift

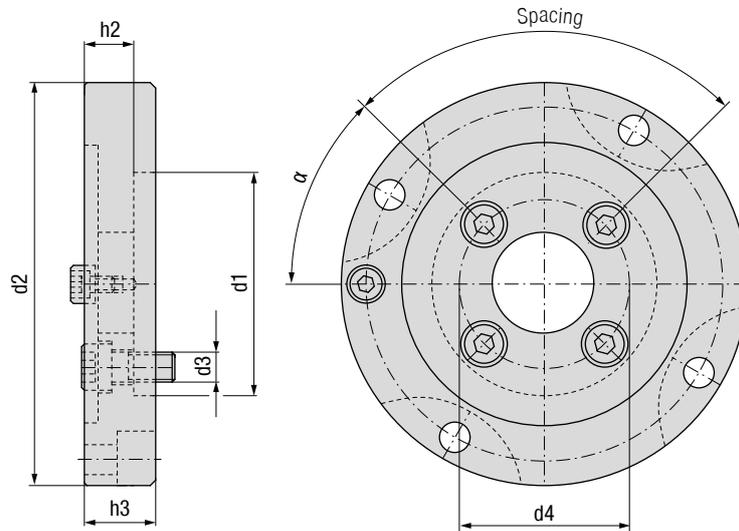
The values specified are guide values and must, where required, be adjusted to the application conditions such as rotation speed, stroke and environmental influences such as coolant, dirt, etc.

### Lubricants

We recommend Mobilux EP004 liquid grease for all speed ranges. Furthermore, it is also possible to use slideway oils according to DIN 51502 with the identifier CG-L68 or CG-L220 (CG-L220 is preferred for speeds from 700 rpm). The relevant commercial names of the mineral oil companies for slide-way oils can be ascertained from the machine lubrication instructions. These lubrication instructions apply to all generating tools supplied by KOMET.

## KOMdrive PKE / PKD / PKU

Adaptor flange for spindle according to DIN 2079

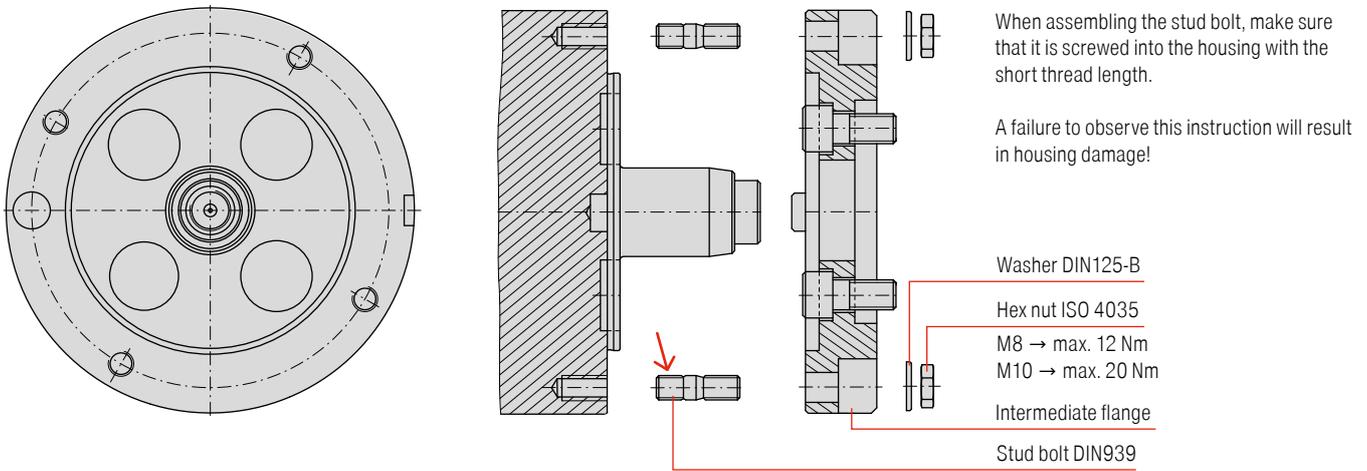


## Mounting dimensions, spindle

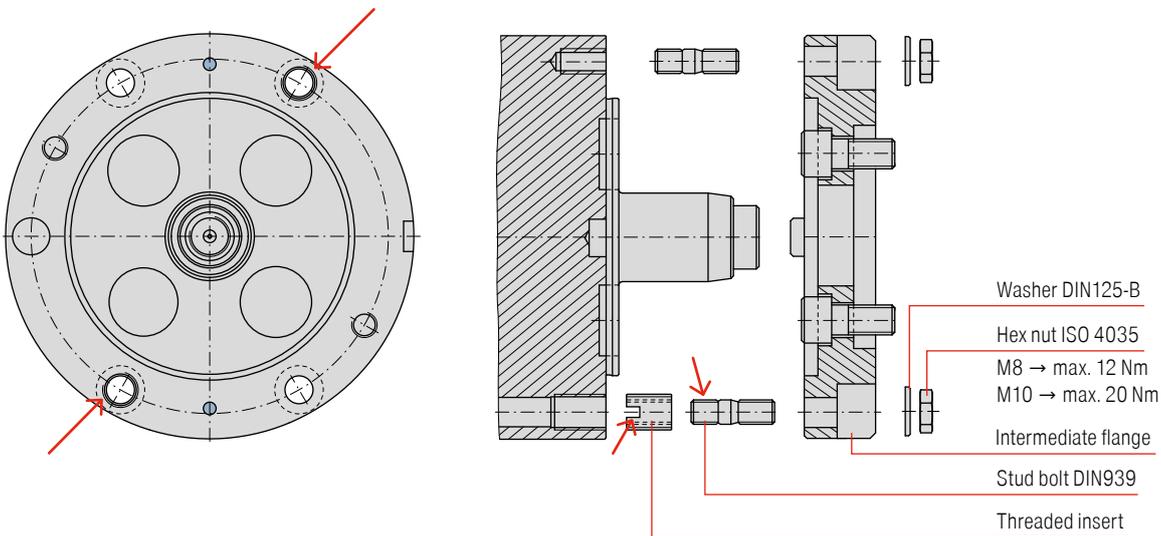
| Size        | KOMET No.        | d1 <sup>H6</sup><br>mm | d2<br>mm | h3<br>mm | h2<br>mm | α   | d3<br>mm | d4±0,2<br>mm | Spacing | Spindle size<br>DIN 2079 |
|-------------|------------------|------------------------|----------|----------|----------|-----|----------|--------------|---------|--------------------------|
| ... 80-...  | <b>P00 00300</b> | 69,832                 | 80       | 26       | 18       | 15° | 10       | 54           | 4×90°   | 30                       |
| ... 100-... | <b>P00 10300</b> | 69,832                 | 100      | 23       | 15       | 15° | 10       | 54           | 4×90°   | 30                       |
| ... 125-... | <b>P00 20400</b> | 88,882                 | 125      | 25       | 17       | 45° | 12       | 66,7         | 4×90°   | 40                       |
| ... 160-... | <b>P00 30400</b> | 88,882                 | 160      | 28       | 20       | 45° | 12       | 66,7         | 4×90°   | 40                       |
| ... 200-... | <b>P00 40500</b> | 128,57                 | 200      | 35       | 25       | 45° | 16       | 101,6        | 4×90°   | 50                       |
| ... 250-... | <b>P00 50500</b> | 128,57                 | 250      | 35       | 25       | 45° | 16       | 101,6        | 4×90°   | 50                       |
| ... 320-... | <b>P00 60600</b> | 221,44                 | 320      | 41       | 26       | 45° | 20       | 177,8        | 4×90°   | 60                       |

## Assembly variants

### Assembly using stud bolt per DIN 939



### Assembly using threaded insert/stud bolt with PKE 160...101-QA-IK-F



When assembling the stud bolt provided, it is necessary to install threaded inserts in two holes. The threads are adapted to the correct size through usage of the threaded inserts provided.

#### Threaded insert assembly:

Observe direction (position of the slot). Screw in the threaded insert until slightly recessed or flush in accordance with the assembly instructions, and secure with medium-tight screw lock.

Use the specified tools or other suitable auxiliary aids to screw in the threaded inserts.

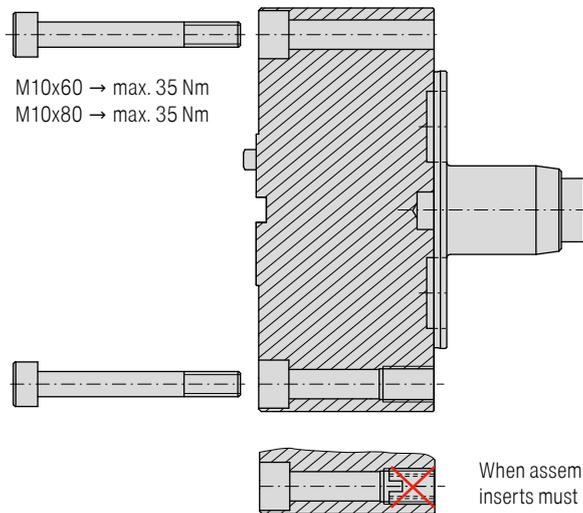
#### Stud bolt assembly:

When assembling the stud bolt, make sure that it is screwed into the threaded insert with the short thread length.

A failure to observe this instruction will result in housing damage!

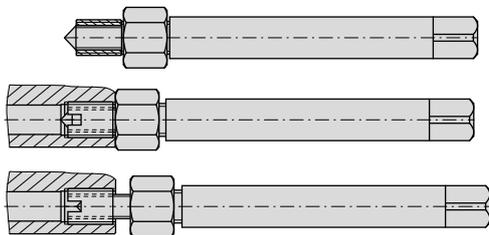
## Assembly variants

### Assembly using cylinder head screws per ISO 4762



### Auxiliary aids for assembly/removal of the threaded insert

Screw in using hand tool:

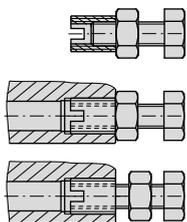


Screwing in by hand usually takes place with the hand tool via the internal thread of the threaded insert:

Screw on the threaded sleeve, note the slot position! Make sure that the screw does not point into the cutting edge geometry after locking with the nut.

Screw in the threaded insert up to approx. 0.1-0.2 mm below the tool surface (in case of makeshift assembly using screw and nut, screw in the threaded insert until flush as a minimum). Ensure vertical assembly.

Makeshift screwing in with screw/nut:



Counter-lock the nut, otherwise the threaded insert will be unscrewed again.

Then unscrew the hand tool or screw/nut.

## Workpiece: hydraulic block

### Machining with rotary-driven slide boring bar

The modular slide boring bar is rotary-driven by the machine spindle, supported by the counter bearing. The boring bar is used in hydraulic block manufacturing and machines the transition from the main bore to the cross bore.

The slide stroke is 18 mm with an external diameter of 50 mm.

The indexable insert holders can be replaced after each machining task (semi, finish). The modular structure means that the boring bar can be flexibly extended using an adapter. The boring bar has a length of 458 mm without an adapter (HSK100 collar up to cutting edge) and 790 mm with an adapter.

Functional sequence:

- ▲ Insertion when stationary and counter-bearing positioned
- ▲ Retraction to the middle of the cross bore
- ▲ Spindle set to machining speed
- ▲ Transition removed (forwards and back)
- ▲ Boring bar moved to middle of cross bore
- ▲ Spindle stopped
- ▲ When stationary, removed from bore
- ▲ The counter bearing is pulled out of the bearing hole

Cutting data:

|                                 |                             |
|---------------------------------|-----------------------------|
| $n = 260 \text{ min}^{-1}$      | $f = 0,20 \text{ mm/rev}$   |
| $v_c = 116 - 130 \text{ m/min}$ | $f_z = 0,10 \text{ mm/rev}$ |
| $v_f = 52 \text{ mm/min}$       |                             |



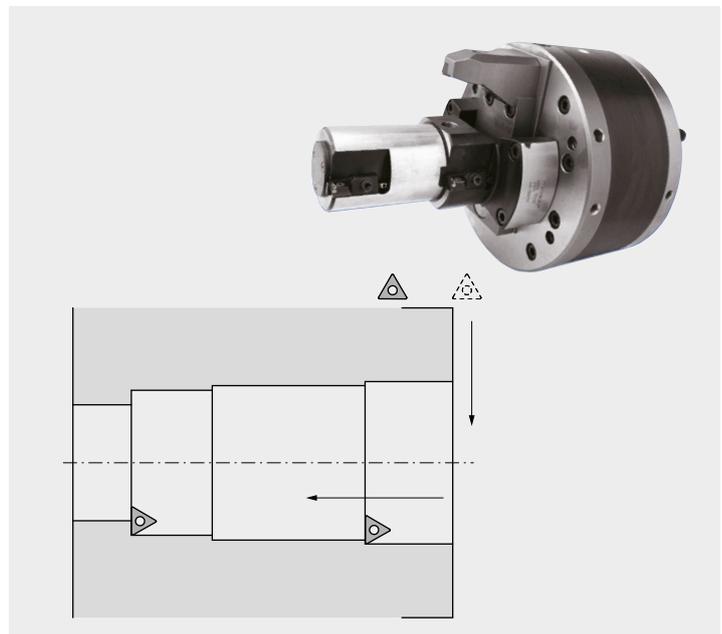
## Workpiece: gear case

Machining:

- ▲ finishbore bearing  $\text{Ø } 80^{\text{H7}} / \text{Ø } 100^{\text{H7}}$   
( $\text{Ø } 3.149'' + 0.00125''$  and  $\text{Ø } 3.937'' + 0.0014''$ )  
with bridge mounted tools
- ▲ retract after boring
- ▲ face turn with slide

Cutting data:

|                                 |                               |
|---------------------------------|-------------------------------|
| $\text{Ø } 80 / 100 \text{ mm}$ | $\text{Ø } 3.149'' / 3.937''$ |
| $v_c = 400 \text{ m/min}$       | 1,300 sfm                     |
| $n = 1591 \text{ min}^{-1}$     | 1,591 rpm                     |
| $f = 0,11 \text{ mm/rev}$       | 0.0044 ipr                    |
| $v_f = 175 \text{ mm/min}$      | 6.89 ipm                      |



## Workpiece: engine block

### Machining: Cylinder bore in engine blocks / coolant-precision drilling system

The tool is loaded with 40 bar (ICS), the cutting edges extend. The pressure is increased on the bottom of the hole, the cutting edges retract.

The tool can be moved out of the fitted position in rapid mode G0 with no contour distortion.

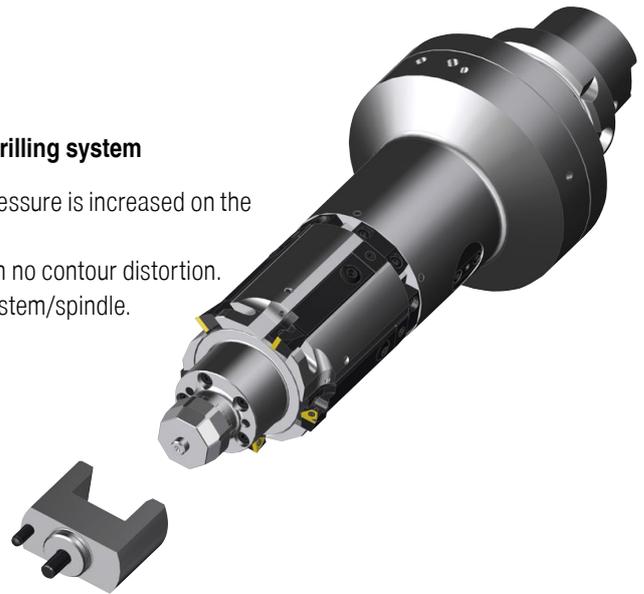
The cutting edge adjustment is performed via the machine control system/spindle.

Material 3.3206 (AlSi7MgCu0,5)

Cutting data:

|                           |                                      |
|---------------------------|--------------------------------------|
| $v_c = 500$ m/min         | $n = 1887$ min <sup>-1</sup>         |
| $v_f = 1415$ mm/min       | $f = 0,75$ mm/rev                    |
| $a_p = 0,35$ mm im Radius | <b>Surface <math>R_z 25,8</math></b> |

- ▲ Central cutting edge adjustment
- ▲ Lifting of the cutting edge above ICS 40 bar



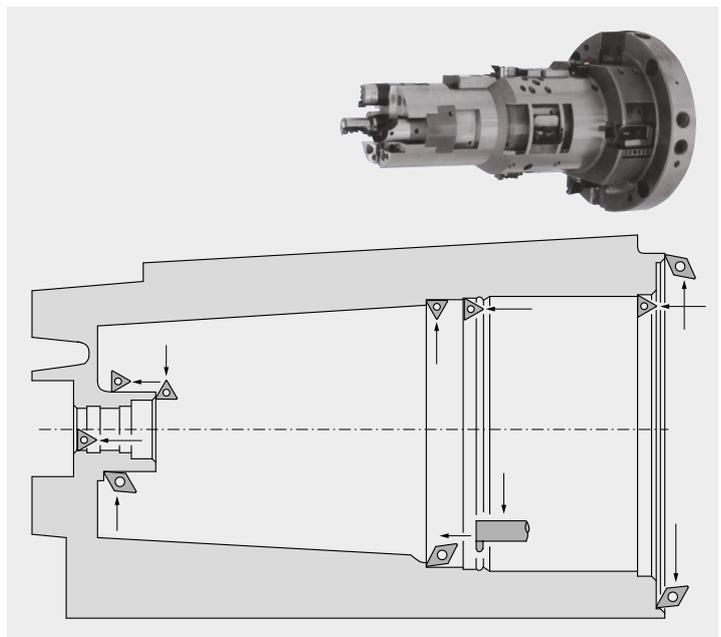
## Workpiece: gear case

Machining:

- ▲ bore  $\varnothing 25/220/227$  mm ( $\varnothing 0.984"/8.661"/8.937"$ ) and turn  $\varnothing 46$  mm ( $\varnothing 1.811"$ ) with fixed tools
- ▲ operate slide to face turn  $\varnothing 226 / 206$  mm ( $\varnothing 8.897"/8.110"$ )
- ▲ face turn  $\varnothing 220$  mm ( $\varnothing 8.661"$ ) and  $\varnothing 46$  mm ( $\varnothing 1.811"$ )
- ▲ groove bottom of gear case with grooving insert

Cutting data:

|                              |  |
|------------------------------|--|
| $\varnothing 25 - 227$ mm    | $\varnothing 0.984"$ to $\varnothing 8.937"$ |
| $v_c = 161 - 1450$ m/min     | 500 - 4800 sfm                               |
| $n = 2000$ min <sup>-1</sup> | 2,000 rpm                                    |
| $f = 0,1$ mm/rev             | 0.004 ipr                                    |
| $v_f = 200$ mm/min           | 7.87 ipm                                     |



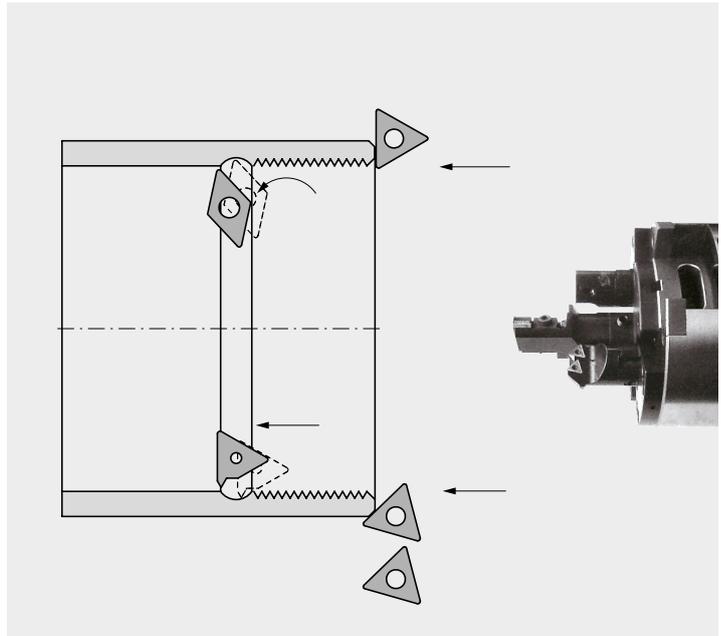
## Workpiece: Tube end machining

### Machining:

- ▲ chamfer bore
- ▲ bore inner contour including undercut
- ▲ chamfer outer diameter and plungecut the face
- ▲ cut thread in multiple passes
- ▲ centrally located front tool is exchangeable for machining different tube diameters

### Cutting data:

|                              |             |
|------------------------------|-------------|
| Ø 94 mm                      | Ø 3.700"    |
| $v_c = 220$ m/min            | 725 sfm     |
| $n = 1350$ min <sup>-1</sup> | 1,350 rpm   |
| $f = 0,12$ mm/rev            | 1,35053 ipr |
| $v_f = 162$ mm/min           | 6.75 ipm    |



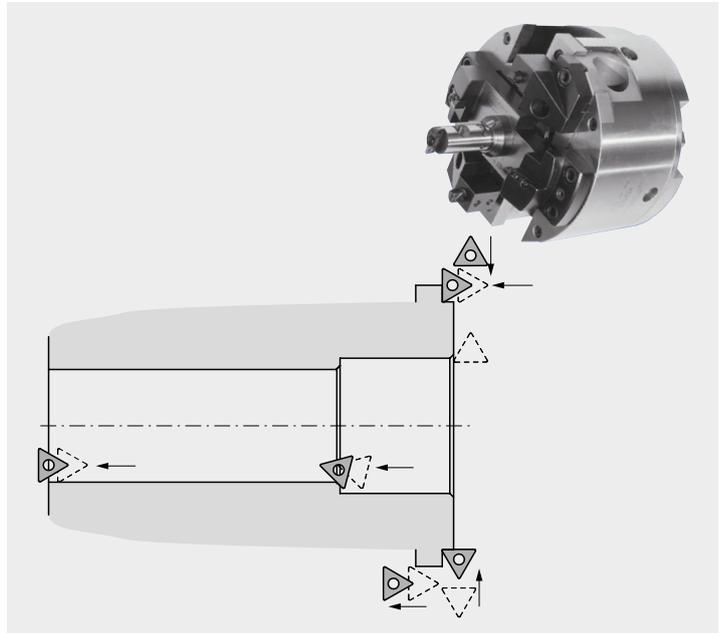
## Workpiece: bearing housing

### Machining:

- ▲ bore Ø 40 mm (Ø 1.575") and chamfer 1×45°;  
Turn outer Ø 95 mm (Ø 3.740") and step Ø 86 mm (Ø 3.386")
- ▲ lift of cutting edges
- ▲ turn both faces

### Cutting data:

|                                |                                  |
|--------------------------------|----------------------------------|
| Ø 50 mm / 1.575"               | Ø <sub>2</sub> 110 mm / 2 4.331" |
| $v_c = 180$ m/min              | 600 sfm                          |
| $n_1 = 1150$ min <sup>-1</sup> | 1,550 rpm                        |
| $n_2 = 520$ min <sup>-1</sup>  | 520 rpm                          |
| $f = 0,15$ mm/rev              | 0.006 ipr                        |
| $v_{f1} = 172$ mm/min          | 6.77 ipm                         |
| $v_{f2} = 80$ mm/min           | 3.15 ipm                         |



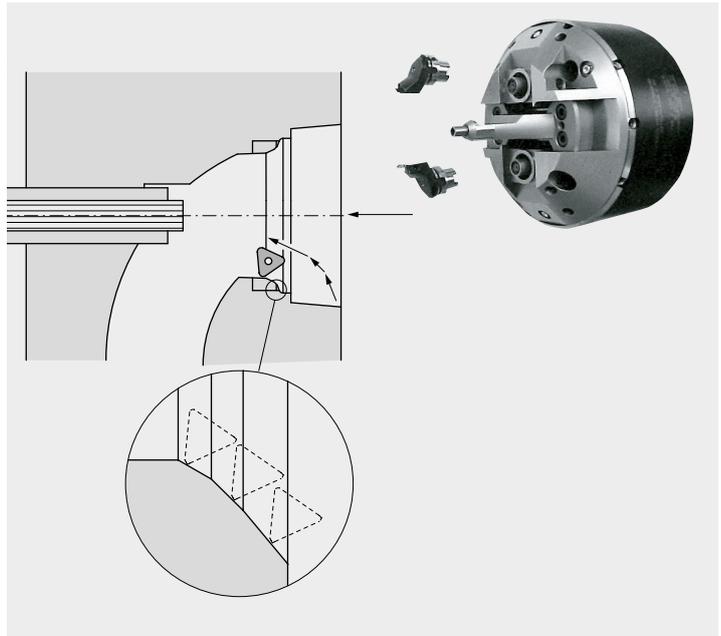
## Workpiece: cylinder head / valve seat

### Machining:

- ▲ generate 120° outer relief angle through coordinated axial movement of the machine spindle and drawbar
- ▲ machine valve sealface 90°-30' through drawbar actuation
- ▲ generate 60° inner relief angle
- ▲ ream valve guide bushing

### Cutting data:

|                              |                    |
|------------------------------|--------------------|
| Ø 38,6 - 23 mm               | Ø 1.520" to 0.906" |
| $v_c = 242 - 144$ m/min      | 800 - 475 sfm      |
| $n = 2000$ min <sup>-1</sup> | 2,000 rpm          |
| $f = 0,08$ mm/rev            | 0.003 ipr          |
| $v_f = 160$ mm/min           | 6.30 ipm           |



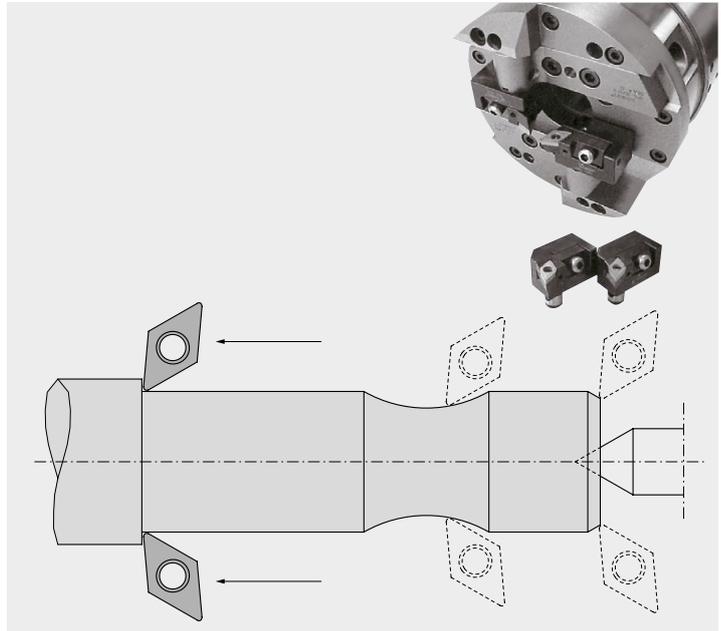
## Workpiece: shaft machining

### Machining:

Turn contour with double slide generating heading furnished with central throughbore (also available with rotating center support)

### Cutting data:

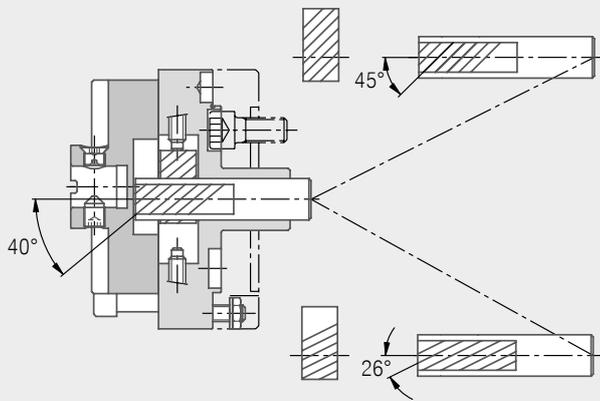
|                              |                      |
|------------------------------|----------------------|
| Ø 37 - 12 mm                 | Ø 1.457" to Ø 0.472" |
| $v_c = 260 - 34$ m/min       | 850 sfm              |
| $n = 2240$ min <sup>-1</sup> | 2,240 rpm            |
| $f = 0,1$ mm/rev             | 0.004 ipr            |
| $v_f = 224$ mm/min           | 8.82 ipm             |



## Modified facing heads

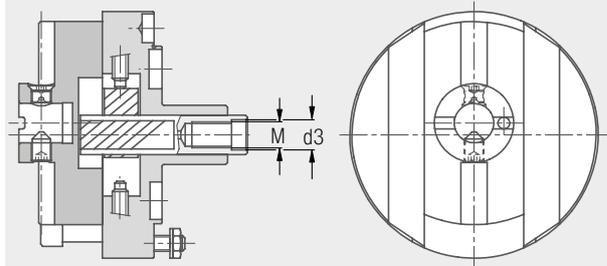
### Modification 1

Rack angle for various transmission ratios. All facing heads are also available with transmission ratios of 1:1 and 1:2.



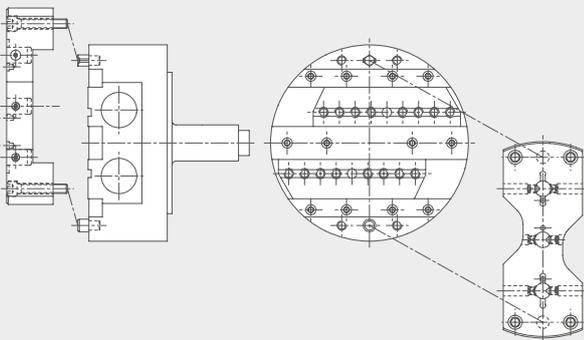
### Modification 2

Drawbar connection with different locating diameter and thread. Capable to connect with existing machines.



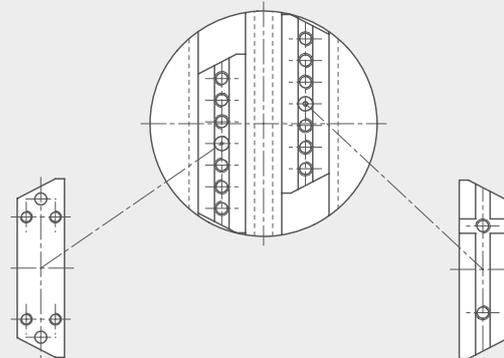
### Modification 3

Additional mounting holes to install bridge. Installation of fixed tools to combine boring and facing operations.



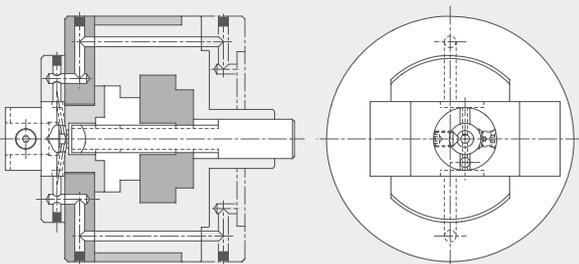
### Modification 4

Modified mounting hole pattern in slides allows the installation of existing cutting tools.



### Modification 5

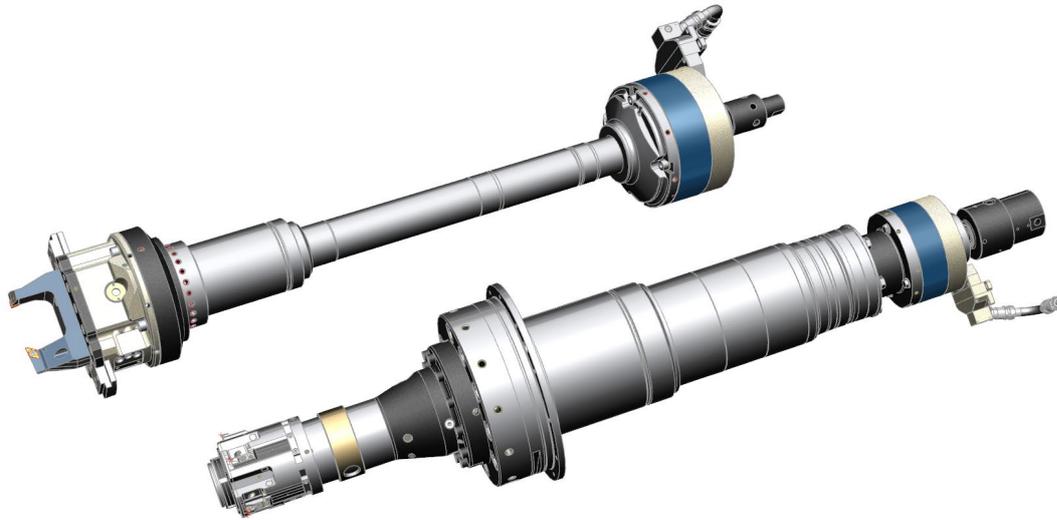
Coolant supply through the face of the spindle. Improved chip control and chip removal in drilling and boring operations.



Below is a listing of modifications to standard facing heads which are available upon request. Replacement parts such as drawbars, gear racks and slides are stocked as semifinished components.

## KOMtronic SMS / UAC / UAD

Facing heads with integrated measuring system and KOMtronic U-axis systems for spindle integration



### **Produce turning contours economically when working with a stationary workpiece**

Based on decades of experience producing facing heads for special purpose machines, CERATIZIT is expanding its product range to include KOMtronic systems for spindle integration for different installation and usage requirements for facing heads.

- ▲ Facing heads with direct encoder on the slide
- ▲ KOMtronic systems for spindle integration with own drive

# KOMlife

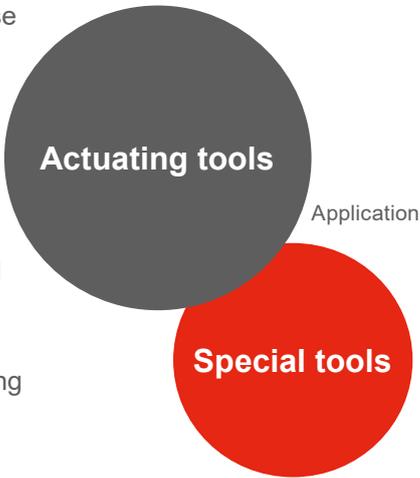
Autonomous acquisition of production data accurate to the second



## Autonomous acquisition and processing of production data directly on the respective tool

### Advantages Benefits

- ▲ **Planned, preventative maintenance**  
Regular, advance maintenance planning can increase tool service life and ensure workpiece quality at all times.
- ▲ **Digital production data acquisition**  
Through a patented, dynamic QR code and the KOMlife app.
- ▲ **Assessment of tool use**  
Conclusions can be drawn about the status and load of the cutting edge by gathering data on tool use.
- ▲ **Not dependent on tool manufacturer**  
KOMlife can be easily integrated into new and existing linear and rotating systems, irrespective of the tool manufacturer.



### Technical data

|                    |                 |
|--------------------|-----------------|
| Lithium battery    | CR2032          |
| Battery life       | Approx. 2 years |
| Min. acceleration  | 1,5 g           |
| Min. tool diameter | 50 mm           |



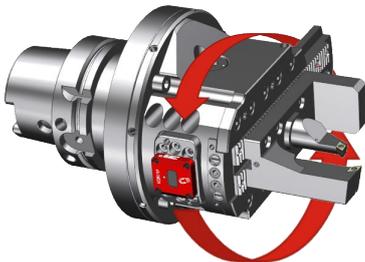
[cutting.tools/int/en/komlife](https://cutting.tools/int/en/komlife)



### Ergonomic display unit

- ▲ Number of operating hours
- ▲ Current status of the maintenance interval
- ▲ Dimensions: 30 x 30 x 11 mm

KOMlife deactivated



Tool rotates

### Can be used with various tool systems

- ▲ With linear or rotary acceleration greater than 1.5 g
- ▲ Required installation space: 30.1 x 30.1 x 10 mm

KOMlife activated



Maintenance interval reached

### Customer-specific adaptation

- ▲ Adjustable maintenance interval depending on the application
- ▲ Visualisation of the necessary tool maintenance with a red, flashing LED

QR code screen



Digital display of production data

### Patented, dynamic QR code

- ▲ Digital acquisition and export of production data via smartphone and KOMlife app
- ▲ Display of serial number and production data



**Try me out with the KOMlife app!**

Free KOMlife app in the App Store for iOS devices



Part of the Plansee Group

We reserve the right to make technical changes and product improvements.

08/2024 - 94.221.01012