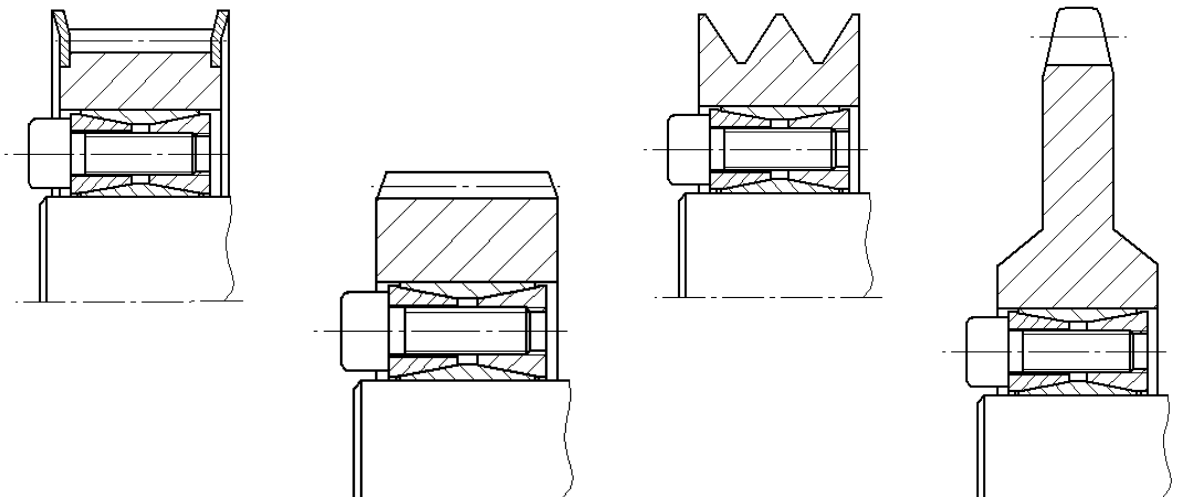
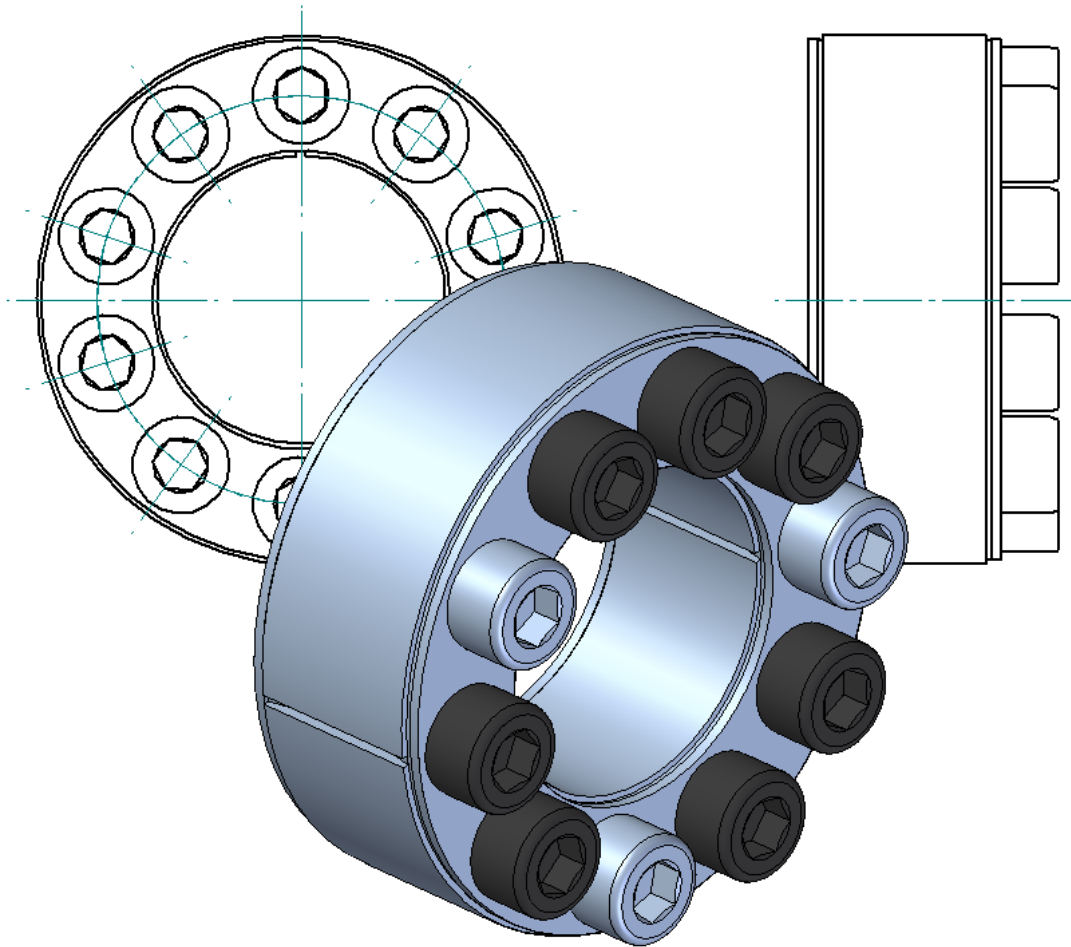




## Clamping Set KBS 40



**KBS 40 Clamping Set** is a frictionally engaged detachable shaft-hub connection for cylindrical shafts and bores without keyway.





**Features**

- delivered in mounted condition
- non self-centering
- concentricity **0,02 – 0,04 mm**

***Tolerances, Surfaces***

- a good turning process is sufficient: **Rz ≤ 16 µm**
- maximum tolerance: **d = h11/H11 – shaft/hub**

**Components of clamping set KBS 40**

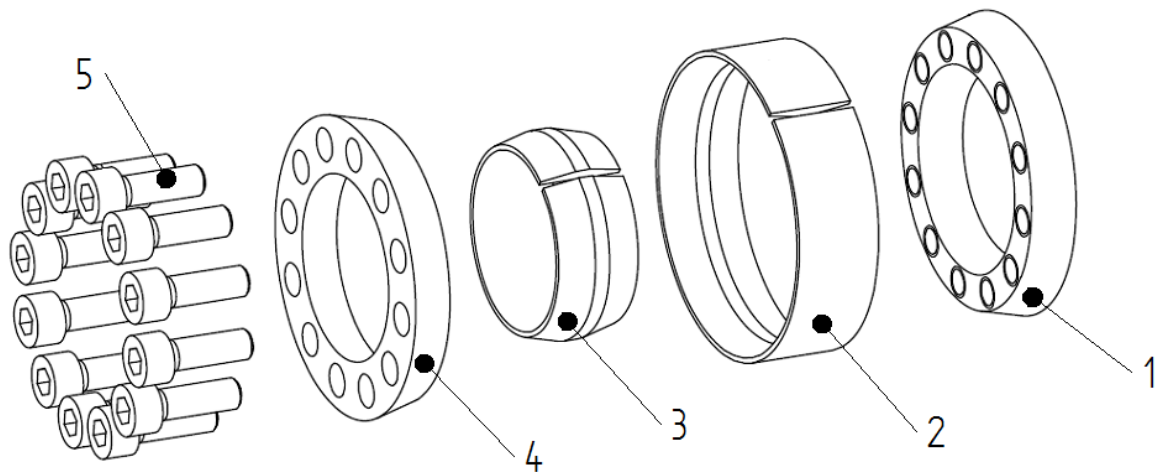


Image 2) KBS 40

Component	Quantity	Description
1	1	rear pressure ring
2	1	outer ring (slotted)
3	1	inner ring (slotted)
4	1	front pressure ring (slotted)
5	see catalogue	socket head screw DIN EN ISO 4762



**Information!**

Contaminated or used clamping sets have to be detached and cleaned prior to installation. Then apply a thin layer of low viscosity oil (e.g. Ballistol all-purpose oil or Klüber Quietsch-Ex).





### Assembly of the clamping set

- Check shaft- and hub-position regarding the stipulated tolerance (h11/H11).
- Clean contact surfaces of clamping set as well as contact surfaces of shaft and hub (see image 3). Then apply a thin layer of low viscosity oil (e.g. Ballistol oil or Klüber Quietsch-Ex)

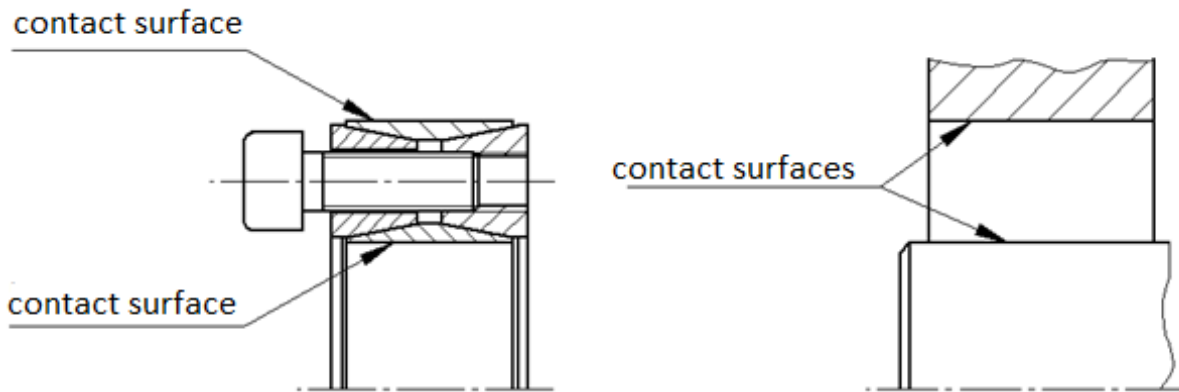


Image 3) Cleaning the contact surfaces



#### ATTENTION!

Do not use any oil, grease or sliding-grease paste reducing the coefficient of friction significantly. Oil-free assembly of the clamping set may result in different values shown in the table and the values calculated.

- Slightly loosen the clamping screws. Then insert the clamping set KBS 40 between shaft and hub.
- Slightly tighten the clamping screws manually and align the clamping set with the hub.
- Tighten clamping screws crosswise and evenly in several turns with the tightening torque specified in table 1. Repeat this procedure until a  $\frac{1}{4}$ -turn is no longer possible. Then tighten the clamping screws in sequence according to the specified tightening torque.

**Table 1:**

Clamping Set	KBS 40					
Thread Size M	M6	M8	M10	M12	M14	M16
Tightening Torque $T_A$ [Nm]	14	35	70	125	190	295
Disassembly Auxiliary Thread	M8	M10	M12	M16	M18	M20



#### Information!

Assembly of the KBS 40 may result in an axial displacement between hub and shaft.



## Disassembly of the clamping set



**DANGER!**

Loosened or falling drive components may result in personal injuries or damage to machines. Please secure all drive components prior to disassembly.

- Loosen all clamping screws evenly in sequence. Unscrew all clamping screws by 3-4 thread turns.
- After unscrewing the last clamping screws the clamping connection is normally free.
- In case the pressure is not relieved automatically, the loosening can be effected by pressure or light impact onto the screw heads (see image 4).
- In case the outer pressure ring is jammed, loosening can be achieved by pressure or light impact onto shaft and hub (see image 5).
- Remove the loosened clamping set between shaft and hub.

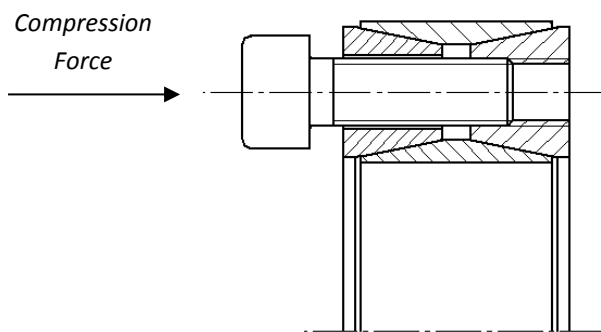


Image 4) Loosening the inner pressure ring

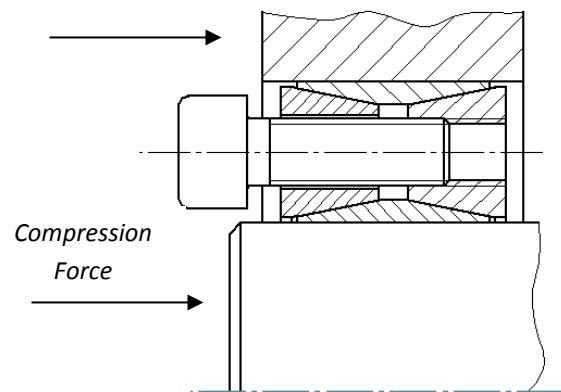


Image 5) Loosening the outer pressure ring



**ATTENTION!**

Non-observance of these instructions or non-consideration of operating conditions selecting the clamping set may impair the function.





**Information!**

The colored screw heads indicate the auxiliary threads for disassembly of the outer pressure ring.  
Upon removal of the colored screws the auxiliary threads of the outer pressure ring are accessible. By using matching screws (see table 1), a clamping set which is located deep inside the hub bore, can be removed.

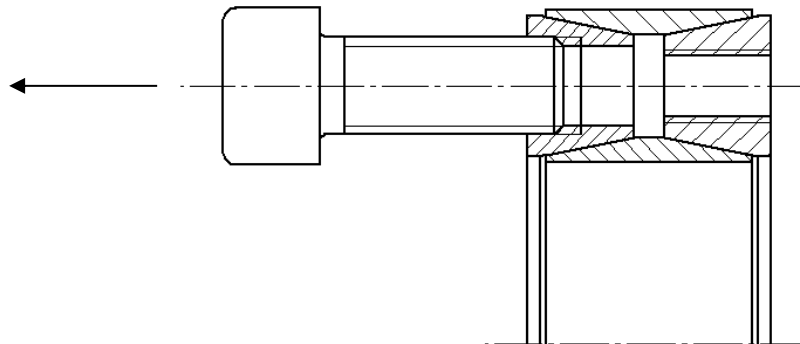


Image 6) Disassembly of auxiliary thread



**ATTENTION!**

The auxiliary threads for disassembly have only about 3-5 load-bearing threads and they are not cut through. These threads are not designed for jackscrews.

**Disposal:** Defective clamping sets must be cleaned and scrapped.

