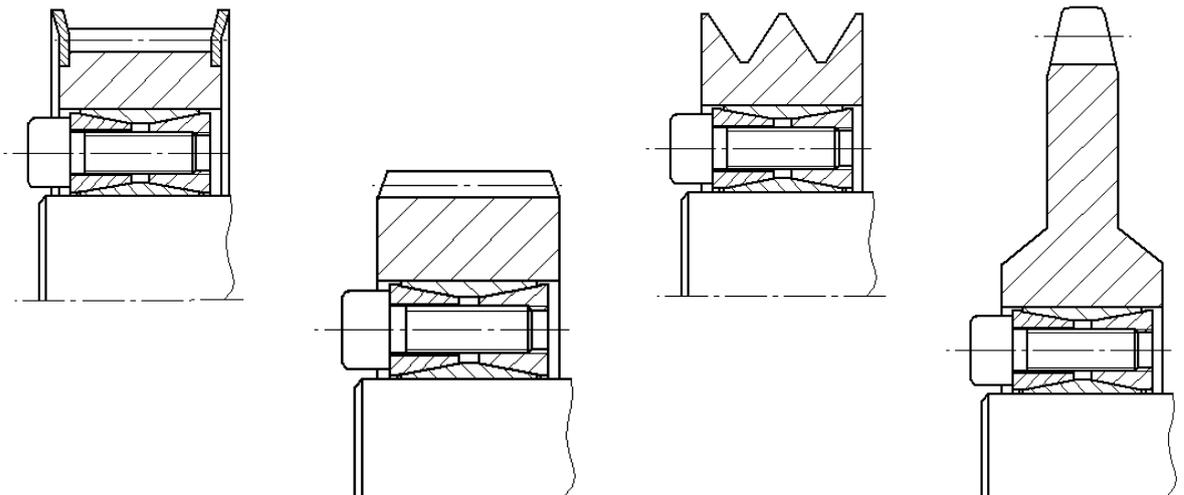
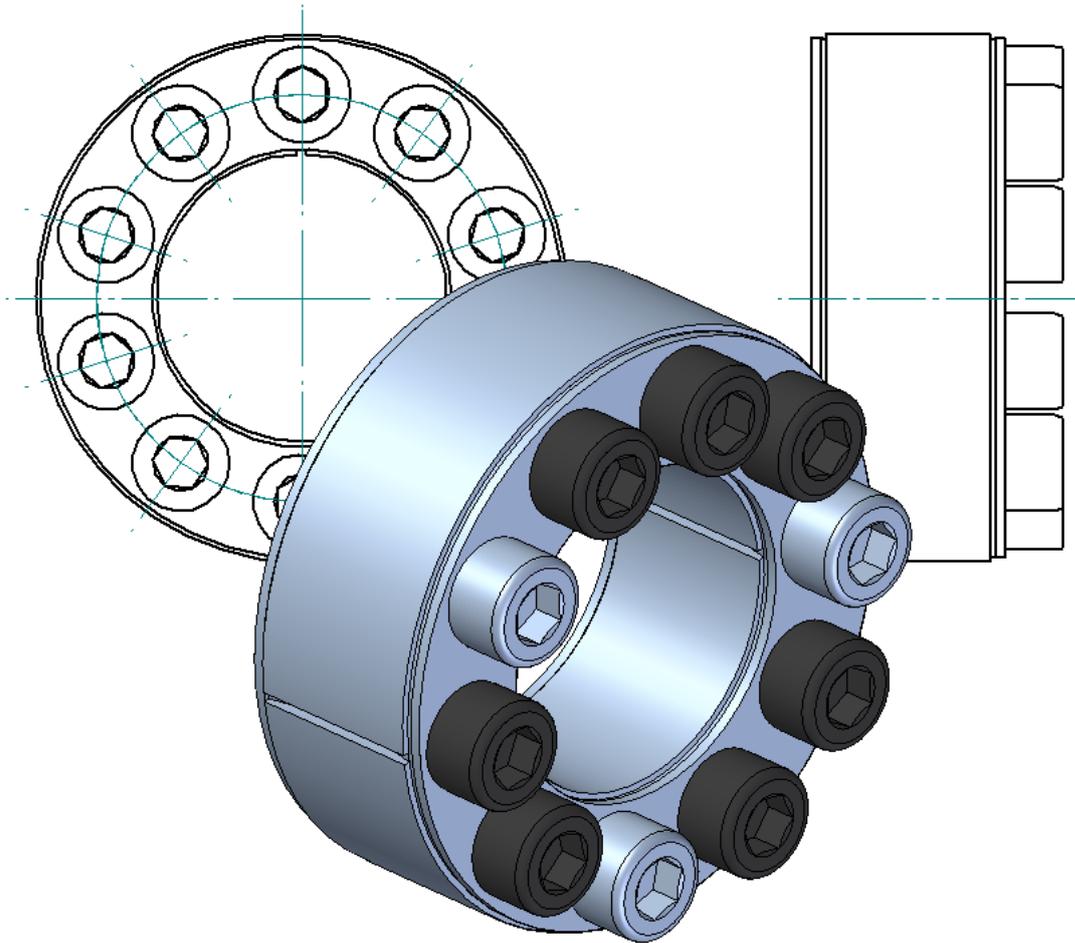




Locking Device KBS 40



KBS 40 Locking Device 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 locking device KBS 40

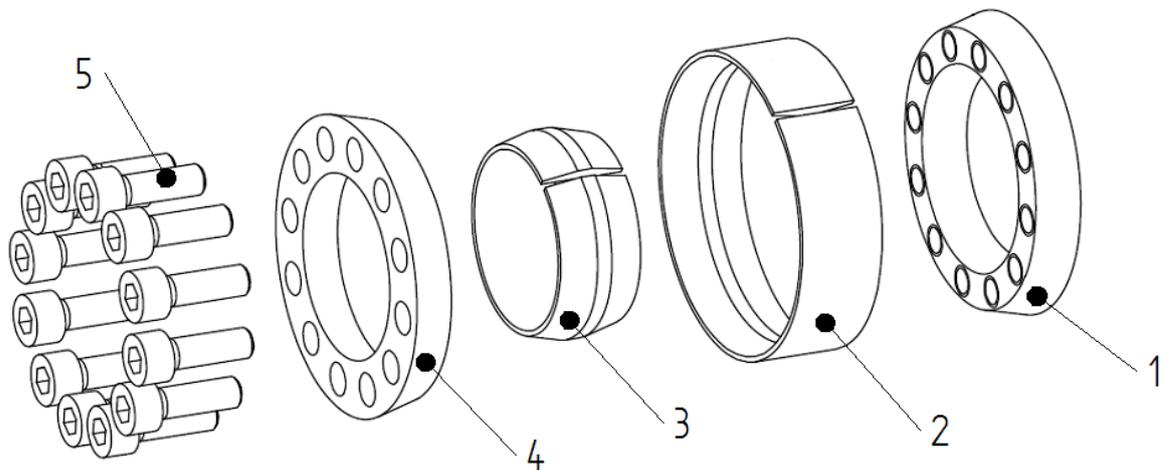


Image 2) KBS 40

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 locking devices 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 locking device

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

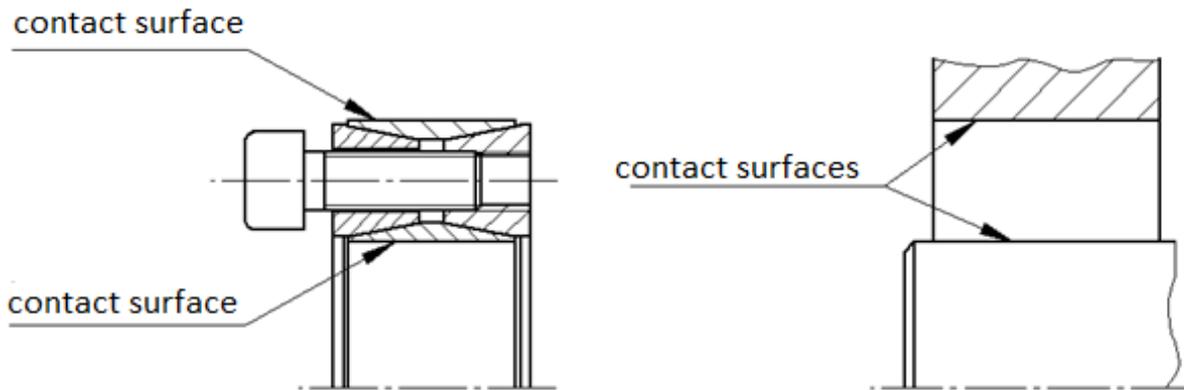


Image 3) Cleaning the contact surfaces



ATTENTION!

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

- Slightly loosen the clamping screws. Then insert the locking device KBS 40 between shaft and hub.
- Slightly tighten the clamping screws manually and align the locking device 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 1/4–turn is no longer possible. Then tighten the clamping screws in sequence according to the specified tightening torque.

Table 1:

Locking Device	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 locking device



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.

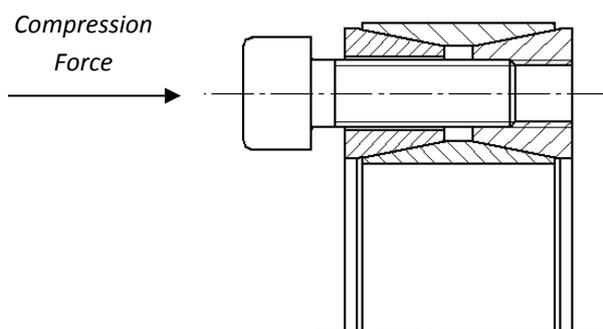


Image 4) Loosening the inner pressure ring

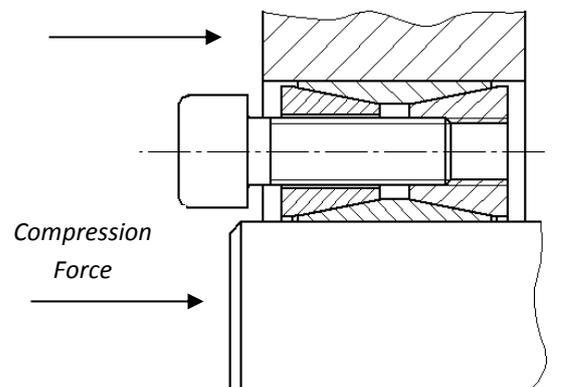


Image 5) Loosening the outer pressure ring



ATTENTION!

Non-observance of these instructions or non-consideration of operating conditions selecting the locking device 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 locking device which is located deep inside the hub bore, can be removed.

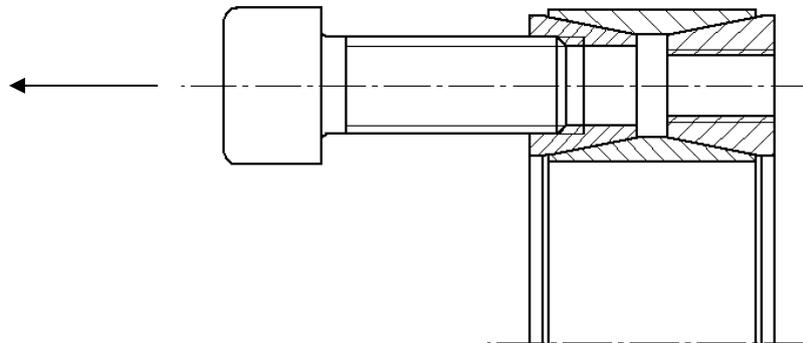


Image 6) Disassembly of auxiliary thread



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 locking devices must be cleaned and scrapped.

