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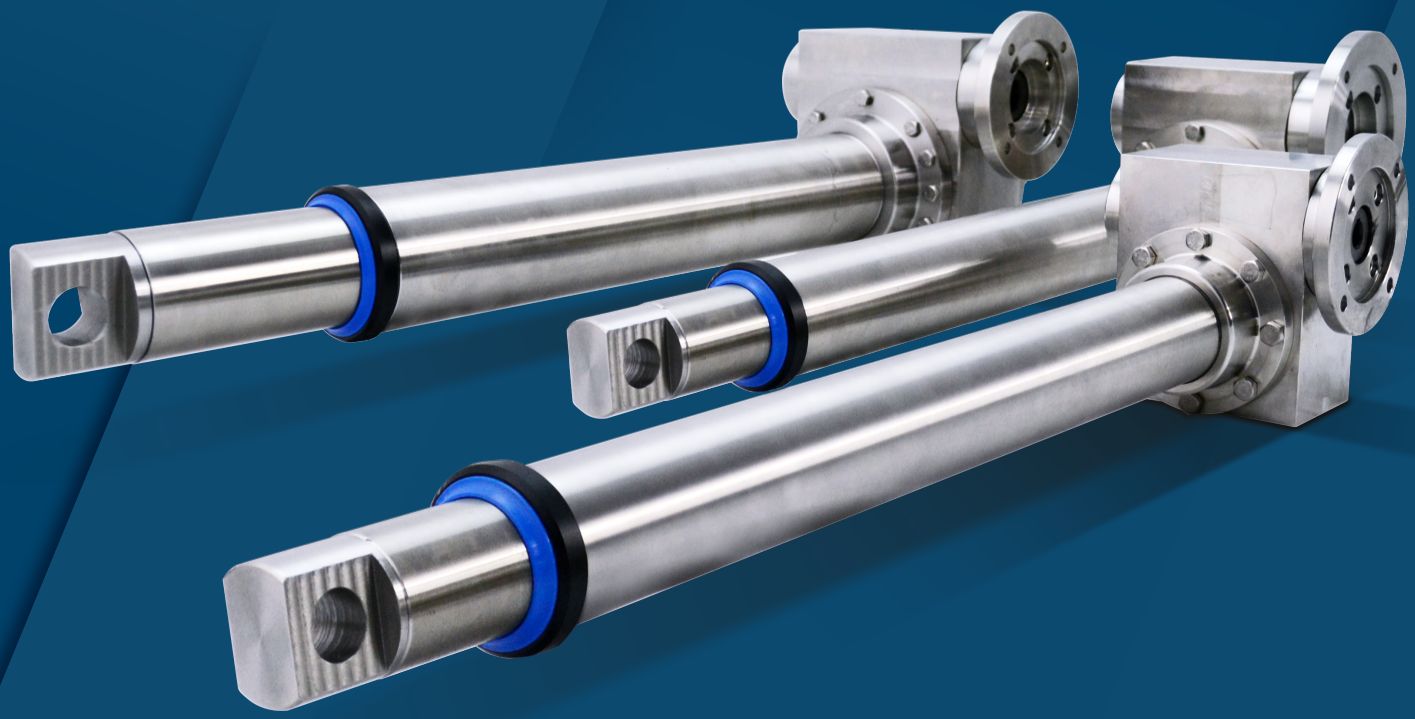


Stainless steel actuator

Manual

Customisation is our standard

Mounting and relubrication guide

Stainless steel trapezoidal or ball screw actuator

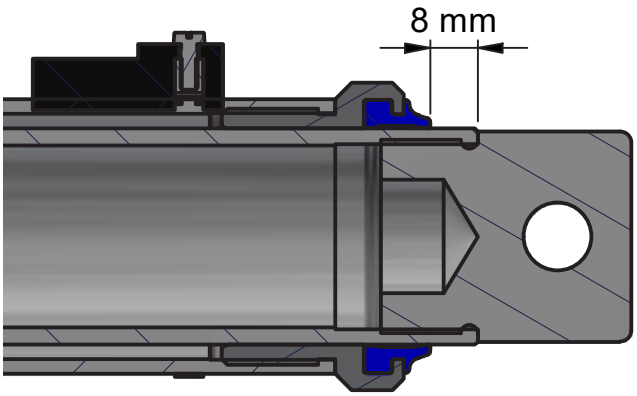
Series: AKS 42
AKS 52
AKS 61

Mounting:

1. It is important that the actuator I well aligned and that there is no tension between any parts. It is recommended to mount the actuator without tightening the fixations after which the actuator is run manually from one end to the other. If the actuator runs freely the fixations can be tightened. If not, adjust until it runs freely, and tighten.

- Do not subject the actuator to radial loads.
- The actuator is designed in such a way that it is not allowed to run against its own mechanical end stops. To find the end limits use the following procedure:

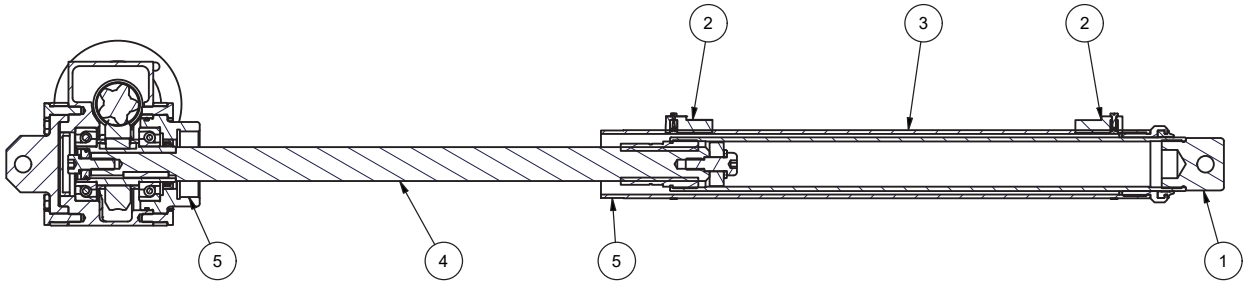
  » Manually thread the spindle until 8 mm can be measured from the top of the inner tube to the top of the scraper ring as seen on the picture below. This ensures, that the actuator can be driven within its defined stroke without both bottoming out and hitting the mechanical end stop at the outermost position.



Relubrication

Disassembly:
The actuator is disassembled following the instructions below:

1. Move the actuator to its outermost position.
2. Remove electric end stop if necessary.
3. The threads of the outer tube are glued and sealed to the gearbox housing using DOWSIL 732. Break this seal by unscrewing the outer tube by hand.
4. Unscrew the outer tube so that the spindle becomes visible.
5. Thoroughly clean the threads on both the outer tube and in the gearbox housing by scraping of any sealing material ensuring that especially the outer tube is not damaged and scratched.



The section on re-lubrication below is divided into two subsections: One on ball screws and one on trapezoidal spindles. Go to the relevant subsection and follow the procedures described below.

Ball screw actuator:

- When the actuator is delivered it is prelubricated. To be able to function correctly and obtain its lifetime, it is very important that the actuator is relubricated at certain intervals. It is the responsibility of the owner to ensure that it does not run dry.
- Relubrication interval depends on several factors, such as temperature, load, speed and cleanness. In the table below are guidelines to relubrication interval for spindles with a certain load. Values are given under the following conditions: Speed: min. 100 min-1, max temperature on ball screw nut: 60° C and maximum load of ≤ 0,2 C.
- Use ordinary ball bearing grease NLGI class 2 for relubrication. Guidelines for the amount of grease to use are given in the table below.
- The ball screw is lubricated via the grease nipple on the ball screw nut.

Guidelines to relubrication interval and grease amount					
Pitch [mm]	**16 x 6**	**16 x 16**	**25 x 5**	**25 x 10**	**25 x 25**
Relubrication interval [km]	**250**	**800**	**250**	**500**	**1250**
Load [N]	**2460**	**1260**	**3180**	**3140**	**2640**
Grease amount [g]	**0,6**	**0,9**	**1,5**	**2**	**3**

Trapezoidal thread actuator:

- The trapezoidal threads on the actuator require regular relubrication to extend the lifetime and keep it functioning correctly. The rest of the actuator is lubricated for life and requires no further maintenance for its whole lifecycle.
- It is not possible to inform about a set service interval for relubrication of the trapezoidal thread as this is down to ex. Load, speed, duty cycle and the ambient temperature.
- If no empirical data is available, BJ Gear recommends checking the lubrication state of the threads to determine when relubrication is necessary. Based on these experiences a schedule for relubrication can be drawn up.
- Other indicators of changes in the state of the lubrication include changes in noise, vibrations, heightened temperature or power consumption.

The lubrication condition is checked following the instructions below:

- There must be an amount of grease corresponding to the cavity between the spindle and the outer tube being approximately half filled, evenly distributed along the spindle.
- If the amount of grease is sufficient and the quality is acceptable, reassemble the actuator.
- If the amount of grease is too low but the quality is acceptable, top up with new grease.
- If the grease is degraded, thoroughly wipe the spindle and then apply new grease.

BJ Gear recommends lubrication of the actuator using the same grease as it has been lubricated with from the factory: Klüberfood NH1 94-402.

This ensures proper function together with continuous food stuff approval.

Reassembly:

1. All sealing surfaces must be clean and dry. Degrease and wash of any contaminants that could impair adhesion.
2. Apply approx. 2 ml of DOWSIL 732 to the sealing surface of the outer tube.
3. Screw the outer tube into the gearbox housing.
4. Remount the electric end stop if necessary.

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