

Lubrication Instructions Ball Screws

General

Regular lubrication is essential to ensure functionality and longevity of the ball screw.

Lubrication should be carried out according to usage and regularly monitored and adjusted to requirements.

Due to continual movement of the spindle shaft, grease is lost and must be re-applied at regular intervals.

We generally recommend central lubrication. Should this not be possible, manual lubrication is necessary.

Installation

The installation of ball screws requires specialist knowledge and measuring equipment. Due to the low friction of ball screws, it is not normally possible to feel misalignment when turning by hand.

Radial or eccentric forces must be taken up by external guides. Ball screw drives can absorb only axial forces.

In order to avoid damage to the ball screws, limit switches and end stops must be installed in the machine.

Ball screws should be protected against dirt and kept clean.

Operating temperature

The regular operating temperature for ball screws should be between -20°C and $+80^{\circ}\text{C}$. Short-term variations from this norm are possible but each case should be checked.

Lubrication with grease

Unless otherwise specified by the client, initial lubrication will be with STABURAGS NBU 12/300 grease.

Correct lubrication is important for ball screws in order to reach the expected operating hours, to prevent overheating and to ensure smooth and quiet operation.

The choice of lubricant depends primarily on the operating temperature and various factors, e.g. the amount of load, oscillation, vibration, short-stroke-applications.

In addition, there may be special demands such as use in connection with strong or aggressively impacting mediums, use in the cleanroom, in a vacuum or in the food industry.

If in doubt, contact your lubricant supplier in order to guarantee optimum lubrication.

Relubrication

Relubricate only with a grease of the same specification. All ball screws and bearings must be visually checked for contamination and damage. Any contamination or damage must be resolved before lubrication.



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Should significant contamination or damage be observed, measures should be taken to prevent it in future. Dried grease or larger quantities of dirt can be removed with paraffin, petroleum ether or a thin oil.

Clean the spindle with a clean, lint-free cloth. Re-oil / -grease immediately after cleaning to prevent corrosion.

We recommend that you regularly monitor the quality and quantity of the remaining grease!

Add grease after ca. 2 months as appropriate to the volume lost via the wipers (under normal operating conditions, it is sufficient to add grease every 200 to 300 hours). For the nut, lubricate with a grease gun via the grease nipple. Apply the grease evenly to the spindle using a fine brush.

It is not sufficient to grease just once in the lifetime of a ball screw due to loss of grease.

Lubrication with oil

Do not use more oil than what has been lost via the wipers when lubricating. We recommend circulating oil lubrication.

Oil viscosity should be 25 to 100mm²/s at 100°C.

If your circulating oil lubrication uses oil mist, please be sure to use ball screw nuts without wipers.

Questions

For any other questions, our technical team (construction) will be pleased to help.

Lubrication instructions and data sheets regarding greases / oils used can be obtained from our technical team.

Precision in motion



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