

Technical Information March 2020

Lubrication for ball screws

Improved initial lubrication of ball screws

The initial lubrication of ball screws serves to ensure the supply of lubricant until the introduction of central lubrication or manual relubrication. Steinmeyer improves the process reliability of the initial lubrication of ball screws through partial automation as part of product development. **Benefits:**

- Process-safe application of grease for initial lubrication
- More even grease distribution in the nut
- Optimized grease quantities depending on the size of the ball screws

For ball screws, the lubricant supply must be matched to the wipers or seals on the nut. When selecting the right grease for initial lubrication, not only the environmental conditions but also the operating conditions play a role. The selection of an unsuitable initial lubricant can lead to noticeable losses in the service life of the ball screw - for this reason, Steinmeyer generally converts the initial lubrication to our proven and standardized lubricants.

Lubrication system	Application	Lubricant	Manufacturer	Lower temp. limit [C°]	Upper temp. limit [C°]	Base oil viscosity at 40°C [mm²/s]	NLGI-Klasse	Nominal-Ø [mm]
Central lubrication	Standard	Divinol Lithogrease 000	Zeller & Gmelin	-30	140	380	OOO	16-125
	Option	Castrol Spheerol EPL 000	Castrol	-10	120	150-200	OO	16-125
Long-term lubrication with relubrication	Standard (Dynamic & heavy duty)	Klüberplex BEM 34-131N	Klüber	-35	150	134	I	16-125
	Standard	Klüber Isoflex NBU 15	Klüber	-30	130	23	II	3-16
	Cleanroom	Klübersynth BEM 34-32	Klüber	-40	260	400	II	3-16
	Food and pharmaceutical processing	Klübersynth UH1 14-151	Klüber	-45	120	150	I	3-125
	Medicine (resistant to sterilisation)	Klüber NBU 8	Klüber	-20	140	97	II	3-125
	Aerospace	Shell Aeroshell Grease 7/22/33	Shell	-73/-65/-73	149/204/121	10,3/30,5/14,2	II	3-125
Lifetime lubrication	Standard	Klüberplex BEM 34-131N	Klüber	-35	150	134	I	16-125
	Special cases	Fuchs Gleitmo 585 M	Fuchs Lubrication	-25	120	50	II	3-125
	High and low temperature for vacuum (resistant to radiation)	Barrierta L55 / 0 Barrierta L55 / 2	Klüber	-40	260	400	II	3-6 8-16

Divinol Lithogrease 000 is the new standard in ball screws for axes in mechanical engineering applications equipped with a central lubrication system. Our standard fluid grease is evenly distributed in the nut and is compatible with all common operating lubricants (fluid grease or slideway / gear oil) used by the customer.

Rolling bearing greases Alternatively for ball screws special rolling bearing greases are used for equipment construction. Above all if no defined relubrication is carried out, it is very important that the quantity of grease applied during the initial greasing process is sufficient for a longest possible service life - without the need for the friction torque of the ball screw to increase too much.

Special grease for high temperature or vacuum applications Steinmeyer also offers a range of synthetic lubricant solutions for such applications. Particular care is taken to ensure that any cleaning and conservation processes are aligned with the lubricant.

Talk to us about our verified lubricants - we will be pleased to advise you.