

Actuator lubrication

The linear motor is guided with WON recirculating ball linear guides. The linear guide blocks are equipped with LF seals designed to avoid lubrication on the end-customer side.



The lubrication is guaranteed using porous resin containing lubricant. This lubricant improves dramatically the lubrication interval.

The GDM linear stage integrates 2 x H20RUU + LF option. With this technology the carriage can run for very long time without lubrication.

The typical value is more than 192 times the standard lubrication interval.

Please do not use grease lubrication in the GDM stage. Grease lubrication is not optimal with high-speed linear motion.

LF lubrication seal test

Please see attached information: [:gdm_linear_axes:lf_seal_tank_2.pdf](#)

RoHS certification

The RoHS certification for the LF seal is here: [:gdm_linear_axes:lf_seal_approved_by_rohs.pdf](#)

Maintenance

WON guides allow for extended maintenance intervals; below are the estimated inspection example schedules.

Stroke [mm]	Mov/minutes	Axis duty cycle	Check intervals
250	40	7/7 24/24	2-2.5 years
500	82	7/7 24/24	1-1.5 years

Please check the following:

- 1) Axis smoothness check
- 2) Check the lubrication due to the LF seal $\Rightarrow$ if the lubrication is not effective, replace the LF seals with new ones.

From:

<https://dokuwiki.nilab.at/> - **NiLAB GmbH**
Knowledgebase

Permanent link:

https://dokuwiki.nilab.at/doku.php?id=en:gdm_linear_axes:lubrication

Last update: **2026/09/11 07:54**

