

# LINEAR GUIDES

perma lubrication systems in operation



Linear guides are machine elements that enable the movement of machines or components in linear direction. They are available in the form of roller bearing guides (e.g. linear ball bearings, linear roller bearings or profile rails) or as sliding guides (e.g. dovetail guides or linear sliding guides). Linear guide drives are mainly screw drives, lifting gears or a combination of both.

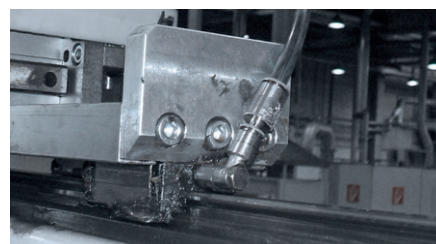
## Challenges

On account of the special design and varied use of linear guide systems, lubrication points in these systems present a challenge for efficient and preventive maintenance. Lubrication points can often only be accessed with assistive equipment. The consequences are neglected or insufficient lubrication of the components.

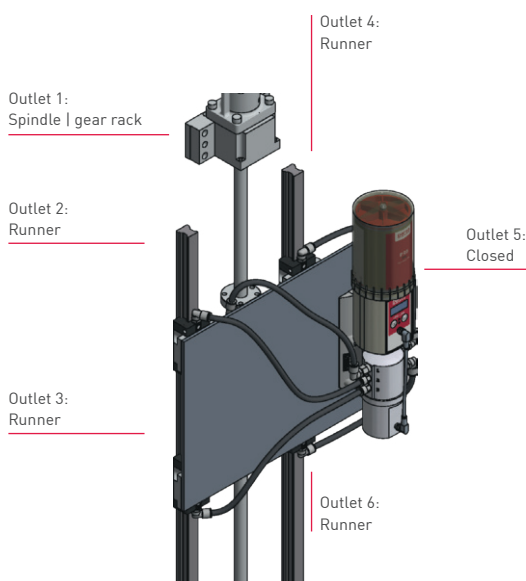
- Prevent equipment downtimes through relubrication
- Workplace safety must be ensured

Many lubrication points must be lubricated exactly according to manufacturer specifications while the equipment is in operation. Different lubrication points require different lubricant amounts. Improper lubrication can cause equipment component failures and reduces productivity and cost effectiveness.

- Recirculating ball | Roller guides: Even lubricant distribution within a runner block requires an increased lubricant volume flow.
- The drive (spindle or gear rack) often requires more lubricant than the runner blocks.



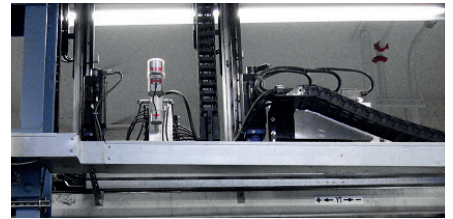
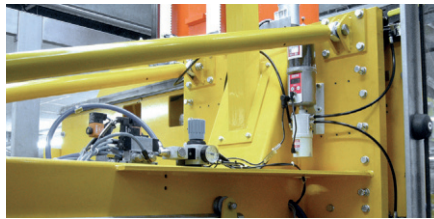
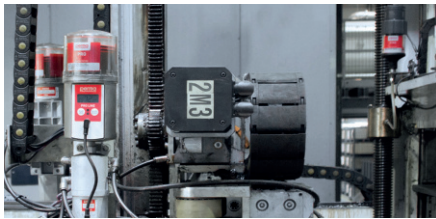
## Lubrication points



Linear guides, like any roller bearing, require adequate lubricant supply. Grease lubrication is the most commonly used relubrication method. Start-stop operations, shock loads, high speeds, and load ratings are challenges for runners and their drives.

Continuous relubrication reduces wear, dampens noise, prevents corrosion and extends service life.

Due to their construction, linear guides place special demands on lubricant supply.



## Industries



Automotive



Machine tools



Packaging industry



Food & Beverage

## Solutions

The development of perfect lubrication solutions requires the consideration of various factors, such as application type, speed and load of the machine as well as ambient temperature.

perma has risen to this challenge, focusing on the development and production of automatic lubrication systems for use across a variety of industries. These solutions have been created in close cooperation with maintenance professionals from various global sectors, addressing the unique demands of each application. In adherence to the highest quality standards, premium-grade raw materials and lubricants are used in the manufacturing process. This ensures that perma products consistently deliver reliable lubrication across all applications, thereby increasing the equipment service life while at the same time minimising costs and operational effort.

### Individual customisation | e.g. with perma STAR CONTROL

- Lubrication systems available in varying sizes
- Simple mounting directly at the lubrication point
- The right lubricant can be selected for every lubrication point

### Special system for linear guides | e.g. with perma PRO LINE

- Different discharge amount can be set for each outlet:  
Number of pump strokes per discharge
- Number of activated outlets can be selected freely: 1–6
- Flexible setting of time between discharges: Setting of  
pauses in days (24 h) possible

perma STAR CONTROL



INSTALLATION KIT STAR  
Standard Duty

1-point  
65 mm beam clamp mount  
incl. 3 m hose



Linear guide outlet assignment, e.g.:

Outlet 1: Spindle | gear rack (= larger discharge quantity)  
Outlet 2: Closed  
Outlet 3: Runner 1  
Outlet 4: Runner 2  
Outlet 5: Runner 3  
Outlet 6: Runner 4