

Reliable sealing for every eventuality

Sealing systems for a variety of environments and applications

Oil seals

→ 3/2022



Oil seals Guideline

Oil seals are rather like a barrier along a rotating shaft. When the gear unit is stationary, the sealing lip presses against the shaft surface. Gaps are closed and the various components are sealed off from each other.

When the shaft rotates, the sealing lip floats on a film of lubricating oil, rather like a water-skier. Provided a motor runs constantly and smoothly, hardly any frictional forces are generated and wear is minimal.

Positioning drives with a fast pulsed voltage supply and a constantly changing direction of movement create challenging conditions for sealing rings. The intervals are too short to enable the sealing lip to float, and high friction causes temperatures to rise and wear to increase.

Whatever the application or environment, SEW-EURODRIVE has specially selected the appropriate seal for the relevant gearmotor requirements. In close collaboration with our suppliers, we have been repeatedly setting new standards for the past 60 years with the sealing technology we use in our drives.

For the motor shaft and gear shaft

NBR oil seal

For standard applications

- Moderate ambient conditions
- Motor speeds up to 1800 min⁻¹
- Maintenance interval 10 000 h
- -40 °C to +80 °C

For the motor shaft
**Premium Sine Seal*
oil seal**

For demanding applications

- High switching frequencies and/or motor speeds up to 6000 min⁻¹
- Maintenance interval 20 000 h
- -25 °C to +115 °C

For the motor shaft
**Premium Sine Seal conductive
oil seal**

Protects against electrical erosion

- Prevents the passage of current into the motor bearing
- Motor speeds up to 6000 min⁻¹
- Maintenance interval 10 000 h
- -25 °C to +115 °C

For the gear shaft

FKM/FKM* combined sealing ring **For a long service life**

- High switching frequencies
- Maintenance interval 20 000 h
- -25 °C to +115 °C



For the motor shaft and gear shaft

FKM oil seal

For high speeds and temperatures

- Motor speeds up to 6000 min⁻¹
- Maintenance interval 10 000 h
- -25 °C to +115 °C

For the gear shaft

FKM + non-woven fabric oil seal

For high levels of soiling and moisture

- Intermittent duty
- Maintenance interval 10 000 h
- -25 °C to +115 °C

For the gear shaft

NBR/FKM* combined sealing ring

For low temperatures

- Moderate ambient conditions
- Maintenance interval 20 000 h
- -40 °C to +80 °C

* Especially recommended with GearOil by SEW-EURODRIVE or GearFluid by SEW-EURODRIVE.

Other topics that might be of interest to you

Lubricants

Gear units

Motors

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