

Grease seals GPSM

DESCRIPTION

GPSM type sealing rings are special rotary seals designed for the retention of lubricating grease. Compared with conventional oil seals, the profile operates without an internal garter spring to reduce friction on the shaft and incorporates a front dust lip to protect against external contamination.

PROFILE

GPSM configuration

Compact grease seal with dust lip

The profile combines an internal "L"-shaped metal insert, embedded in the rubber, with a springless main lip and a second front lip designed to protect against dust and environmental contaminants.

Lubrication	Grease
Spring	None
Dust lip	Present

MATERIALS

Materials and operating conditions

MATERIAL	SPEED	TEMPERATURE	PRESSURE
NBR	6.0 m/s	−40 / +100 °C	No pressure (0 bar)
PU Non-standard	—	—	—
Viton / FKM	6.0 m/s	−30 / +200 °C	No pressure (0 bar)

COMPATIBLE FLUIDS

Mineral and synthetic greases, high-viscosity oils, dust and environmental contaminants.

FEATURES

Main features

Springless operation

The profile uses the natural elasticity of the rubber lip to retain high-viscosity fluids, reducing frictional heat and shaft breakaway torque.

Standard NBR compound

The standard configuration uses NBR 70 Shore A nitrile rubber, characterized by flexibility, elastic memory and compatibility with the lubricants specified for this type of application.

Dust lip

The GPSM profile incorporates a second auxiliary front lip, flanged towards the outside, which protects the system against dust, mud and environmental moisture.

ADVANTAGES

Advantages of the GPSM profile

Reduced shaft wear

The absence of a spring reduces the radial load at the contact point, limiting wear and the risk of scoring on the rotating shaft.

Minimum axial dimensions

The particularly compact structure, with thicknesses as low as 4 or 5 mm, allows installation in very narrow grooves where a conventional oil seal could not be accommodated.

Value for money

A simple and competitive solution for the protection and sealing of industrial bearings and mechanical joints lubricated with grease.

COMPLIANCE AND STANDARDS

Construction specifications

Regulatory specifications, dimensional tolerances and any company certifications relating to this profile are currently being defined.

RELATED PROFILES

Family variants

WITHOUT DUST LIP

GSM

Basic single-lip profile without a front dust lip, designed for internal grease retention.

ADVANTAGES

Further reduced friction thanks to the presence of a single contact lip.

APPLICATION

Protected internal housings where the risk of external contamination is limited.

EXTERNAL METAL CASING

MSM

Configuration with an exposed and ground external metal casing, not covered with rubber. The lip remains single and springless.

ADVANTAGES

Rigid, stable and precise mechanical press-fitting within the housing.

APPLICATION

High-precision metal housings with particularly strict dimensional tolerances.

COMMERCIAL EQUIVALENTS

Family cross-reference

PROFILE	NET SEALS	DICHTOMATIK	INTERNATIONAL NOMENCLATURE	OTHER EQUIVALENTS
GPSM	GPSM Profile	VB Profile (with lip)	VC / G4 / AS-O-Spring	Freudenberg: special springless profile with dust lip
GSM	GSM Profile	Standard VB Profile	VA / G / SC-O-Spring	—
MSM	MSM Profile	VC Profile	KC / B4	—