

MD 50X38X20.5-L

Compact piston seal with guide rings, anti-extrusion rings and seal integrated into the piston seal assembly

MD-L seals are compact, double-acting piston seals. They have a nitrile rubber sealing ring with a polyester elastomer anti-extrusion rings and polyacetal guide rings on both sides. The anti-extrusion rings provide improved high pressure performance by reducing the likelihood of gap extrusion. The integral guide rings do not require additional external piston guide rings. The anti-extrusion and guide rings are split for easy installation.

- Compact, all-in-one sealing solution
- Suitable for light to medium duty applications
- Available in metric sizes
- Fit seal housings in accordance with ISO 6547 for some sizes
- If not in stock alternatives can be produced by SKF SEAL JET systems

Overview

Dimensions

Cylinder bore diameter	50 mm
Piston groove diameter	38 mm
Piston groove width	20.5 mm

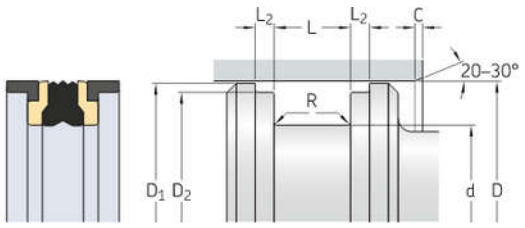
Performance

Pressure limit, maximum	25 N/mm

Properties

Compound 2	Acetal (POM POM/076)
Compound 3	Polyester (TPC-ET72/075)
Design	MD-L
Primary sealing element	Nitrile Rubber (N80/047)

Technical Specification



Dimensions

D	50 mm	Cylinder bore diameter
D_1	49.4 mm	Piston outside diameter
D_2	46 mm	Additional groove diameter
d	38 mm	Piston groove diameter
L	20.5 mm	Piston groove width
L_2	4.2 mm	Additional groove width
S	6 mm	Radial depth
R	max. 0.4 mm	Groove radius
C	min. 4 mm	Lead-in chamfer length

Tolerances

tol D	0.062 mm	Upper limit deviation
	0 mm	Lower limit deviation
	H9	Tolerance class for cylinder bore diameter
tol D_1	h11	Tolerance class for piston outside diameter
tol D_2	h9	Tolerance class for additional groove diameter
tol d	0 mm	Upper limit deviation
	-0.062 mm	Lower limit deviation
	h9	Tolerance class for piston groove diameter
tol L	0.35 mm	Upper limit deviation
	0.1 mm	Lower limit deviation
tol L_2	0.1 mm	Upper limit deviation
	0 mm	Lower limit deviation

Pressure and speed

Pressure	max. 250 bar
Speed	max. 1 m/s



Operating temperature

T_6	max. 120 °C	Extreme upper temperature limit
T_5	max. 110 °C	Reduced performance upper temperature limit
T_4	max. 110 °C	Upper operating temperature limit
T_3	min. -20 °C	Lower operating temperature limit
T_2	min. -25 °C	Reduced performance lower temperature limit
T_1	min. -40 °C	Extreme lower temperature limit

Maximum values of application parameters (e.g. pressure, speed, temperature, e-gap) should not be applied continuously nor simultaneously.

Materials

Primary sealing element	Nitrile Rubber (N80/047)
Additional element	Acetal (POM POM/076)
Additional element	Polyester (TPC-ET72/075)

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