

# MD 63X47X18.4-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 | 63 mm |
| Piston groove diameter | 47 mm |
| Piston groove width | 18.4 mm |

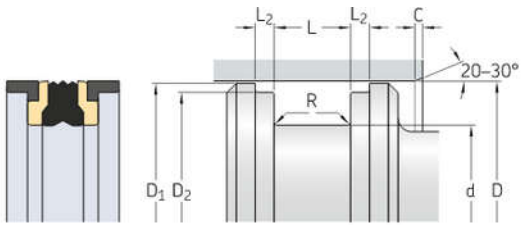
### Performance

| | |
|---|---|
| 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 | 63 mm | Cylinder bore diameter |
| $D_1$ | 61.5 mm | Piston outside diameter |
| $D_2$ | 58.4 mm | Additional groove diameter |
| d | 47 mm | Piston groove diameter |
| L | 18.4 mm | Piston groove width |
| $L_2$ | 6.4 mm | Additional groove width |
| S | 8 mm | Radial depth |
| R | max. 0.4 mm | Groove radius |
| C | min. 5 mm | Lead-in chamfer length |

### Tolerances

| | | |
|---|---|---|
| tol D | 0.074 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) |

# Terms and conditions

By accessing and using this website / app owned and published by AB SKF (publ.) (556007-3495 · Gothenburg) ("SKF"), you agree to the following terms and conditions:

## Warranty Disclaimer and Limitation of Liability

Although every care has been taken to assure the accuracy of the information on this website / app, SKF provides this information "AS IS" and DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. You acknowledge that your use of this website / app is at your sole risk, that you assume full responsibility for all costs associated with use of this website / app, and that SKF shall not be liable for any direct, incidental, consequential, or indirect damages of any kind arising out of your access to, or use of the information or software made available on this website / app. Any warranties and representations in this website / app for SKF products or services that you purchase or use will be subject to the agreed upon terms and conditions in the contract for such product or service. Further, for non-SKF websites / apps that are referenced in our website / app or where a hyperlink appears, SKF makes no warranties concerning the accuracy or reliability of the information in these websites / apps and assumes no responsibility for material created or published by third parties contained therein. In addition, SKF does not warrant that this website / app or these other linked websites / apps are free from viruses or other harmful elements.

## Copyright

Copyright in this website / app copyright of the information and software made available on this website / app rest with SKF or its licensors. All rights are reserved. All licensed material will reference the licensor that has granted SKF the right to use the material. The information and software made available on this website / app may not be reproduced, duplicated, copied, transferred, distributed, stored, modified, downloaded or otherwise exploited for any commercial use without the prior written approval of SKF. However, it may be reproduced, stored and downloaded for use by individuals without prior written approval of SKF. Under no circumstances may this information or software be supplied to third parties.
This website /app includes certain images used under license from Shutterstock, Inc.

## Trademarks and Patents

All trademarks, brand names, and corporate logos displayed on the website / app are the property of SKF or its licensors, and may not be used in any way without prior written approval by SKF. All licensed trademarks published on this website / app reference the licensor that has granted SKF the right to use the trademark. Access to this website / app does not grant to the user any license under any patents owned by or licensed to SKF.

## Changes

SKF reserves the right to make changes or additions to this website / app at any time.