

# MD 100X80X25-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 | 100 mm |
| Piston groove diameter | 80 mm |
| Piston groove width | 25 mm |

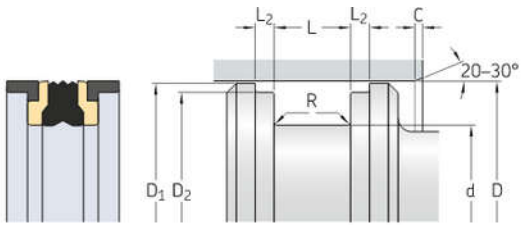
### Performance

| | |
|---|---|
| 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 | 100 mm | Cylinder bore diameter |
| $D_1$ | 98 mm | Piston outside diameter |
| $D_2$ | 95 mm | Additional groove diameter |
| d | 80 mm | Piston groove diameter |
| L | 25 mm | Piston groove width |
| $L_2$ | 6.3 mm | Additional groove width |
| S | 10 mm | Radial depth |
| R | max. 0.8 mm | Groove radius |
| C | min. 5 mm | Lead-in chamfer length |

### Tolerances

| | | |
|---|---|---|
| tol D | 0.087 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 |
| | -0.074 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) |

## Compliance with standard

| | |
|---|---|
| In accordance with | ISO 6547 |

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