



SIL 12X22X8 Hydraulic rod bump-heel U-cup seal

Hydraulic rod bump-heel U-cup seal

These hydraulic rod seals are of an unloaded U-cup design with a secondary dynamic sealing lip. They are made of an ether-based thermoplastic polyurethane, provide good resistance to hydrolysis (attack from moisture) and have good low temperature resistance.

- Suitable for seal housings according to ISO 5597
- Accommodate pressures up to 350 bar (5 075 psi)
- Suitable for low temperatures and light to medium duty applications
- Available in metric sizes

Overview

Dimensions

Rod diameter	12 mm
Housing groove diameter	22 mm
Housing groove width	8 mm

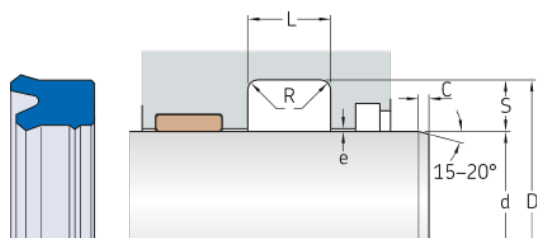
Performance

Pressure limit, maximum	35 N/mm ²
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Properties

Design	SIL
Primary sealing element	B93

Technical Specification



Dimensions

d	12 mm	Rod diameter
D	22 mm	Housing groove diameter
L	8 mm	Housing groove width
S	5 mm	Radial depth
R	max. 0.3 mm	Groove radius
C	min. 2.5 mm	Lead-in chamfer length

Tolerances

tol d	-0.016 mm	Upper limit deviation
	-0.043 mm	Lower limit deviation
	f8	Tolerance class for rod diameter
	h9	Alternative tolerance class for rod diameter
tol D	0.084 mm	Upper limit deviation
	0 mm	Lower limit deviation
	H10	Tolerance class for housing groove diameter
tol L	0.2 mm	Upper limit deviation
	0 mm	Lower limit deviation

Maximum extrusion gap

Reference temperature for extrusion gap		60 °C
Extrusion gap at 160 bar	e	0.45 mm
Extrusion gap at 250 bar	e	0.25 mm
Extrusion gap at 350 bar	e	0.1 mm

Pressure and speed

Pressure	max. 350 bar
Speed	max. 0.5 m/s



Operating temperature

T_6 110 °C	Extreme upper temperature limit
T_4 100 °C	Upper operating temperature limit
T_3 -40 °C	Lower operating temperature limit
T_2 -50 °C	Reduced performance lower temperature limit
T_1 -60 °C	Extreme lower temperature limit

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

Materials

Primary sealing element	B93
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Compliance with standard

In accordance with	ISO 5597
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