

# RBB-90X105.1X6.3-J0S



## Hydraulic buffer U-cup seal, with integrated anti-extrusion ring

These hydraulic buffer seals consist of a U-cup LUBRITHANE thermoplastic polyurethane sealing ring and an integrated polyamide anti-extrusion ring. They are designed to vent pressure back to the system side and can tolerate abrupt pressure peaks, while providing increased resistance to deformation, wear, and gap extrusion.

- Suitable for seal housings according to ISO 7425-2
- Width suitable for use in narrower seal housings
- Accommodate pressures up to 690 bar (10 000 psi)
- Suitable for medium to heavy duty applications
- Available in metric and inch sizes

## Overview

### Dimensions

Rod diameter	90 mm
Housing groove diameter	105.1 mm
Housing groove width	6.3 mm

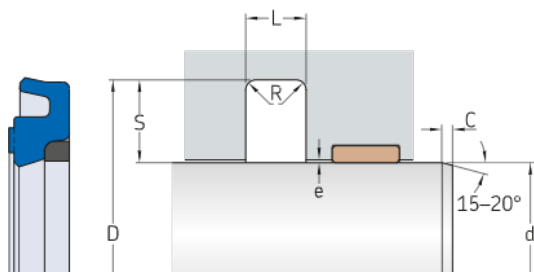
## Performance

Pressure limit, maximum	69 N/mm
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## Properties

Design	RBB
Primary sealing element	Polyurethane (TPU U-1029)
Compound 2	Acetal (POM P-2518)

## Technical Specification



### Dimensions

d	90 mm	Rod diameter
D	105.1 mm	Housing groove diameter
L	6.3 mm	Housing groove width
S	7.55 mm	Radial depth
R	max. 0.7 mm	Groove radius
C	min. 8 mm	Lead-in chamfer length

### Tolerances

tol d	-0.036 mm	Upper limit deviation
	-0.09 mm	Lower limit deviation
f8		Tolerance class for rod diameter
h9		Alternative tolerance class for rod diameter
tol D	0.087 mm	Upper limit deviation
	0 mm	Lower limit deviation
H9		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		80 °C
Extrusion gap at 160 bar	e	0.8 mm
Extrusion gap at 250 bar	e	0.55 mm
Extrusion gap at 400 bar	e	0.35 mm
Extrusion gap at 690 bar	e	0.15 mm

## Pressure and speed

Pressure	max. 690 bar
Speed	max. 1 m/s



## Operating temperature

T <sub>ε</sub> 120 °C	Extreme upper temperature limit
T <sub>ε</sub> 110 °C	Reduced performance upper temperature limit
T <sub>4</sub> 100 °C	Upper operating temperature limit
T <sub>ε</sub> -25 °C	Lower operating temperature limit
T <sub>2</sub> -30 °C	Reduced performance lower temperature limit
T <sub>1</sub> -40 °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	Polyurethane (TPU U-1029)
Additional element	Acetal (POM P-2518)

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