Zurcon® Glyd Ring P®

Double-acting

Rubber-energized plastic-faced seal

Step Cut Sealing Element

Material:
Zurcon® Polyamid + NBR

Zurcon® Glyd Ring® P

Description

The double acting Zurcon® Glyd Ring® P is a combination of a Zurcon® based material slipper seal with a step cut and an energising rectangular elastomeric ring. It is produced with an interference fit at closed step cut which together with the squeeze of the rectangular energizer ring ensures a good sealing effect even at low pressure.

At higher system pressures, the rectangular ring is energised by the fluid, pushing the Zurcon® Glyd Ring® P against the sealing face with increased force. At high peak pressures, the Zurcon® step cut seal ring can follow ballooning of the tube without loosing the sealability.

Due to the Zurcon® high strength plastic material, two times bigger extrusion gaps are possible compared with Turcon® materials. The step cut in the ring is necessary for installation in closed grooves and for the flexibility of the seal ring due to the high stiffness of the material.

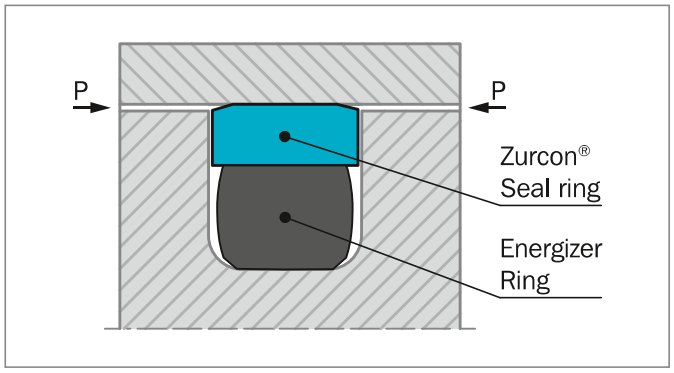

Figure 114: Zurcon® Glyd Ring® P

STEP CUT

For easy installation on the piston and for the flexibility of the seal ring a precision step cut is produced by special tool technology.

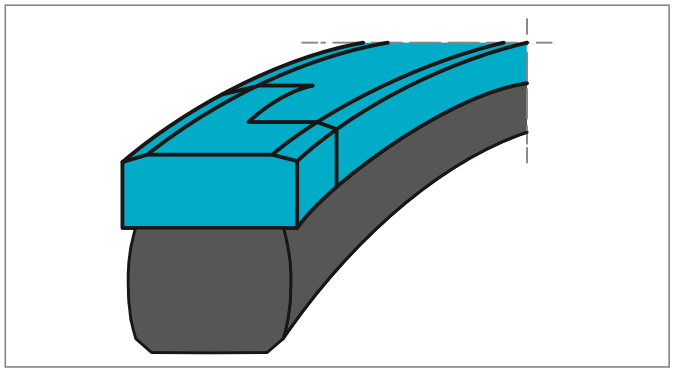

Figure 115: Step cut on Zurcon® Glyd Ring® P

ADVANTAGES

- Easy installation on piston without special tools
- Due to large extrusion gap, safe use even with soiled media
- Installation grooves acc. to ISO 7425-1
- Simple groove design, one piece piston possible
- Increased clearance compare to Turcon® Glyd Ring® seals (Approximately +50%), depending on operation conditions
- Resistent against shock loads
- High wear resistant material ensures long service life

APPLICATION EXAMPLES

- Construction machinery, e.g. excavators
- Truck cranes
- Fork lifts

It is particularly recommended for heavy duty applications.

OPERATING CONDITIONS

Zurcon® Glyd Ring® P is recommended for linear movements where the dimensional gap between piston and tube shall be as big as possible or where high pressure peaks occure during operation.

Pressure:	50 MPa standard 100 MPa pressure peak
Speed:	up to 1 m/s
Temperature:	-30 °C to +110 °C standard Special materials are available on request for applications outside this temperature range.
Media:	mineral oil based hydraulic fluids

IMPORTANT NOTE

The above data are maximum values and cannot be used at the same time, e.g. the maximum operating speed depends on material type, pressure, temperature and gap value.

MATERIALS

Standard Application:
For hydraulic components in mineral oils or medias with good lubricating performance.

Zurcon® seal ring:	**Zurcon® Z66**
Energiser:	Rectangular ring in NBR 70 shore A, code N
Set reference:	Z66 N

Installation Recommendation

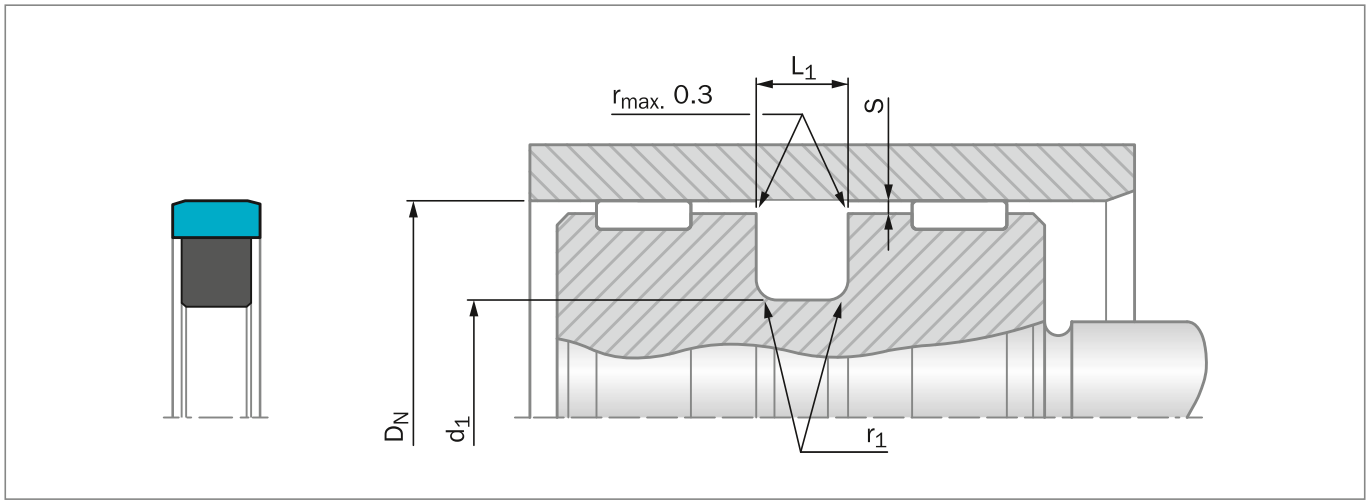

Figure 116: Installation Drawing

Table 97: Installation Dimensions

Series No.	Groove Diameter	Groove Width	Radius	Radial Clearance
	d_1 h9	L_1 +0.2	r_1	S_{max}
PGP2	D_N - 11.0	4.2	0.5	0.35
PGP3	D_N - 15.5	6.3	0.9	0.50
PGP4	D_N - 21.0	8.1	0.9	0.60

ORDERING EXAMPLE

Zurcon® Glyd Ring® P for ISO groove

Cylinder Bore Diameter:	D_N = 125 mm
Series No.:	PGP4 from Table 97
Part No.:	PGP401250 (from Table 98)
TSS Seal Ring Material Code:	Z66
Energizer Material Code:	N
Set Code:	Z66 N

TSS Article No. PGP4 0 1250 - Z66 N

- Series No.
- Type (Standard)
- Cylinder Bore Diameter x 10
- Quality Index (Standard)
- Material Code (Seal Ring)
- Material Code (Energizer)

Table 98: Preferred Series / TSS Part No.

Bore	Groove Diameter	Groove Width	TSS Part No.
D_N H9	d_1 h9	L_1 +/-0,2	
55.0	39.5	6.3	PGP300550
60.0	49.0	4.2	PGP200600
70.0	59.0	4.2	PGP200700
70.0	54.5	6.3	PGP300700
75.0	59.5	6.3	PGP300750
75.0	54.0	8.1	PGP400750
80.0	59.0	8.1	PGP400800
90.0	74.5	6.3	PGP300900
90.0	69.0	8.1	PGP400900
95.0	74.0	8.1	PGP400950
100.0	**84.5**	**6.3**	**PGP301000**
100.0	79.0	8.1	PGP401000
110.0	94.5	6.3	PGP301100
110.0	89.0	8.1	PGP401100
120.0	99.0	8.1	PGP401200
125.0	**109.5**	**6.3**	**PGP301250**
125.0	**104.0**	**8.1**	**PGP401250**
130.0	109.0	8.1	PGP401300
140.0	119.0	8.1	PGP401400
150.0	129.0	8.1	PGP401500
160.0	**139.0**	**8.1**	**PGP401600**
170.0	149.0	8.1	PGP401700
180.0	159.0	8.1	PGP401800
190.0	169.0	8.1	PGP401900

All dimensions in **bold** are suitable for installation in grooves to ISO 7425-1, bore diameter in accordance with ISO 3320.
Further sizes on request.