

Function:

Piston seals are designed to seal the pressurized hydraulic fluid against the atmosphere or between two pressurized spaces.

Features:

- Asymmetrical, single acting piston seal, designed with interference of the preload element on the ID and slight interference of the PTFE glide ring on the OD.
- High pressure force because of a machined rubber preload element. Less relative movement of the rubber part compared to an O-Ring giving the seal a higher wear resistance.
- Excellent sealing performance in low and high speeds.
- Suitable for positioning functions.
- Negligible tendency to “stick-slip” effect, good sliding properties.
- Low break-away load after long standstills.
- Excellent gap extrusion resistance.
- Can be used in grooves where no O-Ring is possible.

Application:

Reciprocating pistons in hydraulic cylinders, plungers in heavy-duty applications.

Max. pressure 400 bar, max. speed 10 m/s.

Max. allowable gaps (PTFE Compounds):

Profile dimension	16 MPa	26 MPa	32 MPa	40 MPa
10,0 mm	0,60 mm	0,50 mm	0,40 mm	0,40 mm
>12,5 mm ... ≤17,5 mm	0,75 mm	0,65 mm	0,55 mm	0,55 mm
20,0 mm	0,80 mm	0,70 mm	0,60 mm	0,55 mm

Seal housing recommendation:

Tolerances	[mm]	
L < 10 mm	+ 0.2	
L ≥ 10 mm	+ 0.3	
Ø NA	H8	
Ø NI	h8	

Surface roughness	Rtmax [µ]	Ra [µ]
Bottom of groove	≤ 6.3	≤ 1.6
Face of groove	≤ 15	≤ 3

Sliding surface	Rtmax [µ]	Ra [µ]
PU, elastomeres	≤ 2.5	≤ 0.1 - 0.5
PTFE	≤ 2	≤ 0.05 - 0.3

Installation:

Snap-in installation.

Attention: PTFE glide rings need calibration after installation!

