



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 on the ID which provides a good static fit in the groove.
- ⇒ Dynamic sealing lip shorter than static lip to avoid drag pressure.
- ⇒ Excellent static and dynamic sealing performance.
- ⇒ Useable for long stroke lengths.
- ⇒ Negligible tendency to “stick-slip” effect above a speed of 0.15 m/s.
For lower speeds the dynamic lip should be redesigned (shorter, stiffer).
- ⇒ Activated back-up rings prevent and reduce gap extrusion.

Application

Reciprocating pistons in hydraulic cylinders, plungers.
 Universal piston seal for small extrusion gaps and minor load impacts.
 Max. pressure 700 bar, max. speed 0.5 m/s.

Installation

Snap-in installation.

Seal housing recommendation

Tolerances	[mm]	
L < 10mm	+ 0.2	
L ≥ 10mm	+ 0.3	
∅ NA	H9	
∅ NI	h10	
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

Profile description

Piston Seal
PS02