

# Symmetrical Seal XSPRS19D

## Function:

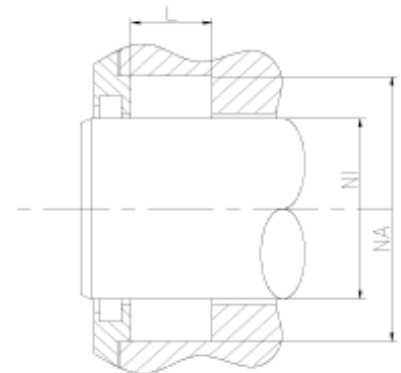
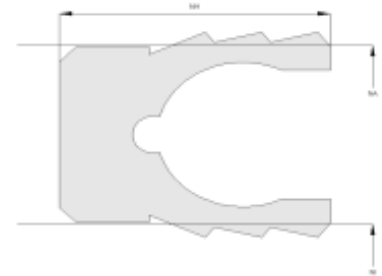
Symmetrical piston/rod seals are designed to seal the pressurized hydraulic fluid against the atmosphere or between two pressurized spaces.

## Features:

- Symmetrical, single acting piston/rod seal, no interference on the ID or OD.
- Preload effected through round Helicoil-spring which ensures high pressure on the sealing edges.
- Excellent static and dynamic sealing performance.
- Excellent sealing performance in low and high pressure ranges.
- Useable for short and long stroke lengths.
- Low friction in dry running or poor lubrication conditions.
- Negligible tendency to “stick-slip” effect, small break away loads.

## Application:

- Reciprocating and swivelling pistons in hydraulic cylinders, plungers.
- Chemical and pharmaceutical industry, aggressive fluids and high temp.
- Max. dyn. presser 450 bar, reciprocating speed 10 m/s, rotating speed 2.5 m/s.



## Seal housing recommendation:

Tolerances	[mm]	
L < 10 mm	+ 0.2	
L ≥ 10 mm	+ 0.3	
Ø NA (rod groove)	H10	
Ø NI (rod diam.)	f 8	
Ø NA (cylinder diam.)	H9	
Ø NI (piston groove)	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

## Installation:

Installation in open housing, snap-in installation possible in special designed housings. We recommend to maintain a nominal width/seal height ration (CS/NH) above 1/1,5.