



### **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.
- ⇒ Also used for gas applications.
- ⇒ 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. pressure 160 bar, max. speed 5 m/s linear; 0,1m/s rotating.

### **Installation**

Installation in open housing, snap-in installation possible in special designed housings.

#### **Seal housing recommendation**

<b>Tolerances</b>	<b>[mm]</b>	
L < 10mm	+ 0.2	
L ≥ 10mm	+ 0.3	
∅ NA (rod groove)	H10	
∅ NI (rod diam.)	f8	
∅ NA (cylinder diam.)	H9	
∅ NI (piston groove)	h10	
<b>Surface roughness</b>	<b>Rtmax [μ]</b>	<b>Ra [μ]</b>
Bottom of groove	≤ 6.3	≤ 1.6
Face of groove	≤ 15	≤ 3
<b>Sliding surface</b>	<b>Rtmax [μ]</b>	<b>Ra [μ]</b>
PU, elastomeres	≤ 2.5	≤ 0.1-0.5
PTFE	≤ 2	≤ 0.05-0.3

# DS19B