



## TECHNICAL INFORMATION

# Piston Seals | Turcon® Variseal® M2S

### Description

The Turcon® Variseal® M2 is a single-acting seal consisting of a U-shaped seal jacket and a V-shaped corrosion resistant spring. Variseal® M2 has an asymmetric seal profile. The heavy profile of its dynamic lip with an optimized front angle offers good leakage control, reduced friction and long service life.

At low and zero pressure, the metal spring provides the primary sealing force. As the system pressure increases, the main sealing force is achieved by the system pressure and

ensures a tight seal from zero to high pressure. The possibility of matching suitable materials for the seal and the spring allows use in a wide range of applications going. The Variseal® M2S is especially suited to use as a scraper seal. For standard sealing applications, the Variseal® W2 can be used.

Variseal® M2S seals can be installed in grooves to AS4716 and ISO 3771. The seal can only be installed to a limited extent in closed grooves.

### Advantages

- Resistant to most fluids and chemicals
- Low coefficients of friction
- Stick-slip free operating for precise control
- High abrasion resistance and dimensional stability
- Can handle rapid changes in temperature
- No contamination in contact with foodstuffs, pharmaceutical and medicinal fluids
- Sterilisable
- Unlimited shelf life



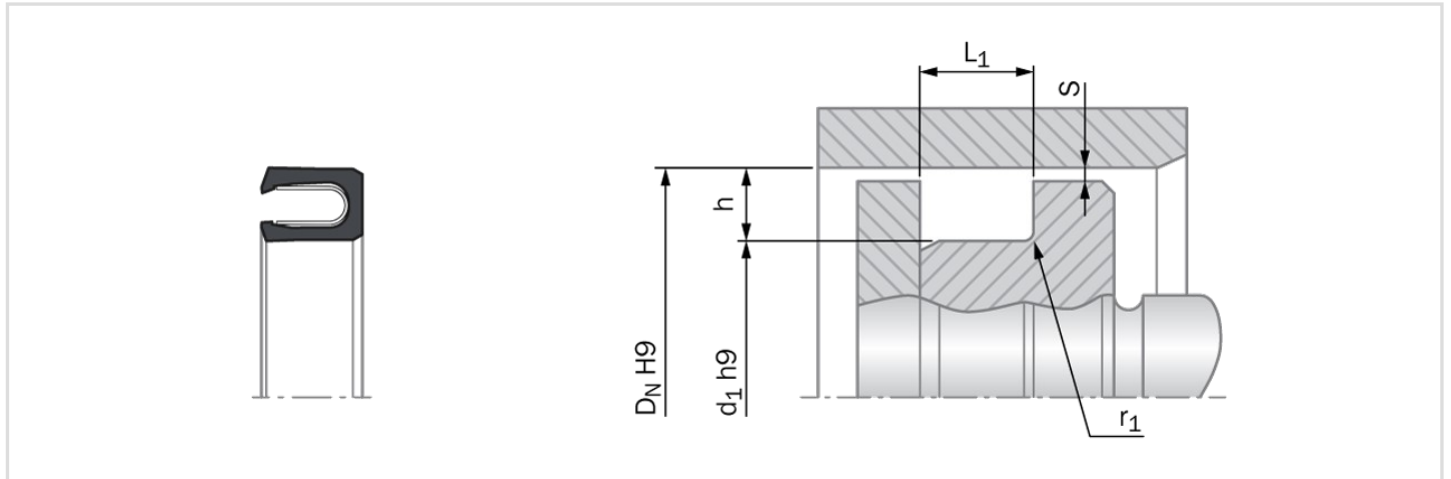
### Technical Data

Pressure	:	For static loads	:	40 MPa
		For dynamic loads	:	20 MPa
Speed	:	Reciprocating	:	Up to 15 m/s
		Rotating	:	Up to 1 m/s
Temperature	:	-70 °C to +260 °C		
Media	:	Virtually all fluids, chemicals and gases		
Clearance	:	The maximum permissible radial clearance $S_{max}$ is shown in the table on the next page as a function of the operating pressure and functional diameter.		



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### Installation dimensions - Standard recommendations

Series No.	Bore Diameter $D_N$ H9		Groove Depth h	Groove Diameter $d_1$ h9	Groove Width $L_1 + 0.2$	Radius $r_{1 \text{ max.}}$	Radial Clearance $S_{\text{max.}}$			
	Standard Range	Extended Range					2 MPa	10 MPa	20 MPa	40 MPa
PVC0	6.0 - 13.9	6.0 - 40.0	1.45	$D_N - 2.9$	2.4	0.4	0.20	0.10	0.08	0.05
PVC1	14.0 - 24.9	10.0 - 200.0	2.25	$D_N - 4.5$	3.6	0.4	0.25	0.15	0.10	0.07
PVC2	25.0 - 45.9	16.0 - 400.0	3.10	$D_N - 6.2$	4.8	0.6	0.35	0.20	0.15	0.08
PVC3	46.0 - 124.9	28.0 - 700.0	4.70	$D_N - 9.4$	7.1	0.8	0.50	0.25	0.20	0.10
PVC4	125.0 - 999.9	45.0 - 1600.0	6.10	$D_N - 12.2$	9.5	0.8	0.60	0.30	0.25	0.12
PVC5	1000.0 - 2500.0	100.0 - 2500.0	9.50	$D_N - 19.0$	15.0	0.8	0.90	0.50	0.40	0.20

### Important Note

Installation suggestions, material recommendations, parameters and further data provided are always subject to the particular field of use and the application in which the seal is intended to be used, in particular the interaction of the seal with other components of the application. Therefore they neither constitute an agreement on the legal and factual nature nor a guarantee of quality. Technical changes and errors remain reserved.