



The Turcon Roto Variseal **TVM** is a single-acting seal consisting of a U-shaped seal jacket and a V-shaped corrosion resistant metal spring.

The characteristic of the Roto Variseal is the flanged heel, which prevents the seal from rotating by clamping in the groove and the short and heavy dynamic lip offering reduced friction, long service life and a good scraping effect in highly viscous media.

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.

Operating conditions

Pressure	≤ 15 MPa
Temperature	-100°C to 260°C
Speed	≤ 2 m/s
pv value	≤ 5 MPa.m/s
Fluids	Mineral oils, HFA, HFB, HFC, HFD
Shaft surface hardness	≥ 55 HRC
Shaft hardness depth	≥ 0,3 mm

Materials

Seal ①	T40
Spring ②	SS (AISI 301)

Assembly

In open housings

Advantages

- Low friction
- Stick-slip free
- Protects against mechanical torsion
- Remains tight in groove even when subject to oscillating or helical movements
- High abrasion resistance
- Excellent chemical and temperature resistance
- Good scraping ability

Please contact us for applications approaching maximum values.

d	D	P	L	E	Reference
30	37	42,5	4,8	1,35	TVM200300-T24S
40	50,5	57,5	7,1	1,8	TVM300400-T24S
40	50,5	57,5	7,1	1,8	TVM300400-T40S
50	60,5	67,5	7,1	1,8	TVM300500-T40S
60	70,5	77,5	7,1	1,8	TVM300600-T40S
120	130,5	137,5	7,1	1,8	TVM301200-T40S

Serie N°	d (mm)		D (mm)	P (mm)	L _{min.} (mm)	E (mm)	R (mm)	k (mm)	a (mm)	e max (mm)		
	Standard range	Extended range								2 MPa	10 MPa	15 MPa
TVM1	5 → 19,9	20 → 200	d + 5	d + 9	3,6	0,85 ⁰ _{-0,1}	0,3	0,8	4,5	0,25	0,15	0,1
TVM2	20 → 39,9	10 → 400	d + 7	d + 12,5	4,8	1,35 ⁰ _{-0,15}	0,4	1,1	5	0,35	0,2	0,15
TVM3	40 → 399,9	20 → 700	d + 10,5	d + 17,5	7,1	1,8 ⁰ _{-0,2}	0,5	1,4	8	0,5	0,25	0,2
TVM4	400 → 999,9	35 → 999,9	d + 14	d + 22	9,5	2,8 ⁰ _{-0,2}	0,5	1,6	12	0,6	0,3	0,25