

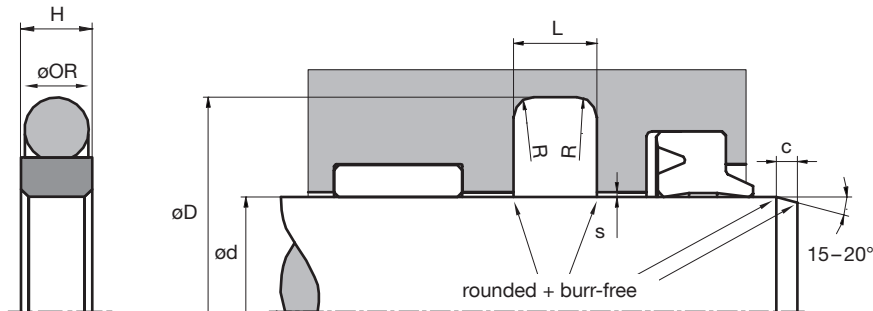


trygonal

# Rod Seal TS09D/X

## Hydraulics, double acting

### Housing design

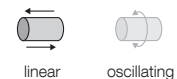


The dimensions  $s + c$  are dependent on the respective seal type.

### Design

- O-ring supported PE or XHPU sealing element, double acting
- Excellent frictional properties; for low and high speeds
- In combination with double wiper TA11 or rod seal TS01P
- Very good suitability for pressure surges

### Application



Brightened symbols:  
Seal only for limited use.  
Please contact us.

### Surface finish

Roughness	R <sub>tmax</sub> (µm)	R <sub>a</sub> (µm)	Material portion
Sliding surface	≤ 2,5	0,1 – 0,5	Ratio contact area: 50 – 95% at a cutting depth of 0.5 x R <sub>z</sub> starting from C <sub>ref</sub> = 0%
Groove base	≤ 6,3	≤ 1,6	
Groove flanks	≤ 15	≤ 3	

### Standard dimensions

ød f8 (mm)	øD H10 (mm)	L +0,2 (mm)	R (mm)	H (mm)	c (mm)	øOR (mm)	max. radial extrusion gap s <sup>1</sup> (mm)			
							100 bar	200 bar	400 bar	600 bar
> 4 – ≤ 8	d + 4,9	2,2	0,4	2,0	2,5	1,78	0,30	0,30	0,20	0,10
> 8 – ≤ 19	d + 7,3	3,2	0,6	3,0	3,5	2,62	0,40	0,30	0,20	0,10
> 19 – ≤ 38	d + 10,7	4,2	1,0	4,0	4,5	3,53	0,50	0,40	0,30	0,20
> 38 – ≤ 200	d + 15,1	6,3	1,3	6,1	5,0	5,33	0,50	0,40	0,30	0,20
> 200 – ≤ 256	d + 20,5	8,1	1,8	7,9	6,0	7,00	0,70	0,50	0,40	0,20
> 256 – ≤ 650	d + 24,0	8,1	1,8	7,9	8,0	7,00	0,70	0,50	0,40	0,20
> 650 – ≤ 1000	d + 27,3	9,5	2,5	9,1	10,0	8,40	0,80	0,70	0,50	0,30
> 1000 – ≤ 3000	d + 38,0	13,8	3,0	13,3	12,0	12,00	1,10	0,80	0,70	0,40

<sup>1</sup>The specified extrusion gap is valid up to 70 °C, higher temperatures require lower values.

### Material and application parameters

Sealing element	Preload element	Temp. (°C)	max. sliding speed (m/s)	max. pressure <sup>2</sup>
XHPU solid	NBR70	-30 – +100	5	600 bar (60 MPa)
XHPU lubric	MVQ70	-55 – +110	5	600 bar (60 MPa)
UHMWPE diet	NBR70	-30 – +80	5	400 bar (40 MPa)
UHMWPE diet	MVQ70	-55 – +80	5	400 bar (40 MPa)

<sup>2</sup>Pressure values as a function of the gap dimension.

The specified application parameters are generally valid values and must not be used simultaneously with the application. An order can be placed by specifying the profile type, material and specified housing design dimensions.

Our applied technical advice, either oral, written or through tests is given according to our best knowledge. However, this information is to be considered as non-obligatory instruction, also in terms of any protective rights of a third party, and does not exempt you from testing our product in reference to its suitability for the intended process and purpose. Utilisation, application and processing of the products occur entirely outside of our control and are therefore exclusively your responsibility. However, should a case of liability come into question, it will be limited to all damages in the value of the product which we delivered and you used. By all means, we do warrant the impeccable quality of our products in accordance with our general sales and delivery conditions.