

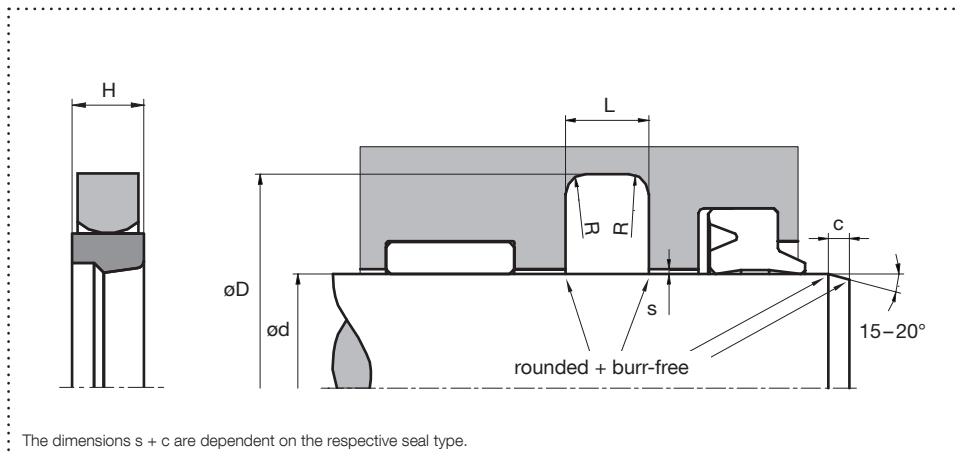


trygonal

# Rod Seal TS09ES/F

## Hydraulics, single acting

### Housing design



### Design

- Preload element supported PTFE sealing element; single acting
- Particularly stable design for heavy hydraulics
- In combination with double wiper TA11 or rod seal TS01P
- For special housing design dimensions

### 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	0,05 – 0,3	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)	max. radial extrusion gap s <sup>1</sup> (mm)			
						100 bar	200 bar	400 bar	600 bar
> 4 – ≤ 50	d + 10	5,0	0,2	4,70	4,0	0,40	0,30	0,20	0,10
> 50 – ≤ 60	d + 15	7,5	0,3	7,00	5,0	0,50	0,30	0,20	0,10
> 60 – ≤ 200	d + 20	10,0	0,4	9,40	6,0	0,60	0,40	0,25	0,15
> 200 – ≤ 300	d + 25	12,5	0,4	11,70	8,5	0,60	0,40	0,25	0,15
> 300 – ≤ 530	d + 30	15,0	0,8	14,10	10,0	0,70	0,50	0,30	0,20
> 530 – ≤ 680	d + 35	17,5	1,2	16,40	11,5	0,80	0,60	0,50	0,20
> 680 – ≤ 1500	d + 40	20,0	1,2	18,80	13,0	1,00	0,70	0,60	0,30

<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>
PTFE glass wear	NBR standard	-30 – +100	10	600 bar (60 MPa)
PTFE bronze wear	NBR standard	-30 – +100	10	600 bar (60 MPa)
PTFE carbon slide	FPM diet br	-20 – +200	10	600 bar (60 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.