

## PSO

### TENUTA PISTONE TIPO PSO

#### Descrizione

La guarnizione tipo PSO ha uno speciale profilo con doppie punte sulla parte dinamica e un piano con due piccoli gradini di contenimento sulla parte statica dove alloggia l'o-ring, che energizza la guarnizione e garantisce la perfetta tenuta a basse e alte pressioni. Il peculiare profilo evita pressioni idrodinamiche sulla tenuta e di conseguenza l'effetto blow-by.

#### Dati tecnici

|              |                                                             |
|--------------|-------------------------------------------------------------|
| Pressione:   | < 250 bar con materiale standard<br>93 Sh A a 60° C (C0)    |
| Pressione:   | < 400 bar con materiale alternativo<br>98 Sh A a 60° C (D0) |
| Pressione:   | < 500 bar con materiale alternativo<br>55 Sh D a 60° C (E0) |
| Velocità:    | < 0.5 m/s                                                   |
| Temperatura: | da - 35° C a + 100° C con punte fino a<br>110° C            |
| Fluidi:      | fluidi a base minerale<br>(v. tabella 3 a p. 14)            |

#### Materiale

I materiali proposti sono TPU in differenti durezza a seconda delle pressioni di esercizio (C0/D0 / E0).  
O-ring in NBR 70 Shore A. (N0).

#### Montaggio

- Eliminare spigoli taglienti e bave nella sede dove alloggia la guarnizione
- eseguire lo smusso di invito sulla camicia per facilitare il montaggio del pistone.

Per ulteriori informazioni leggere le istruzioni a p. 61.

**Nota: in caso di finitura da lucido di trafilatura si consiglia l'utilizzo di tenuta pistone in PTFE.**

### PSO TYPE PISTON SEAL

#### Description

The PSO seal type shows a double profile on the dynamic side and a surface with two small steps on the static side, where the o-ring is housed. The presence of the o-ring, which energizes the seal, ensures a perfect seal performance at low and high pressure. The special double profile avoids any Hydro-dynamic pressure on the sealing part and the consequent blow-by effect.

#### Technical data

|              |                                                           |
|--------------|-----------------------------------------------------------|
| Pressure:    | < 250 bar with standard material 93 Sh A at 60° C (C0)    |
| Pressure:    | < 400 bar with alternative material 98 Sh A at 60° C (D0) |
| Pressure:    | < 500 bar with alternative material 55 Sh D at 60° C (E0) |
| Speed:       | < 0.5 m/s                                                 |
| Temperature: | from - 35° C to + 100° C, with peaks at 110° C            |
| Fluids:      | mineral-based fluids<br>(see table 3, page 14)            |

#### Material

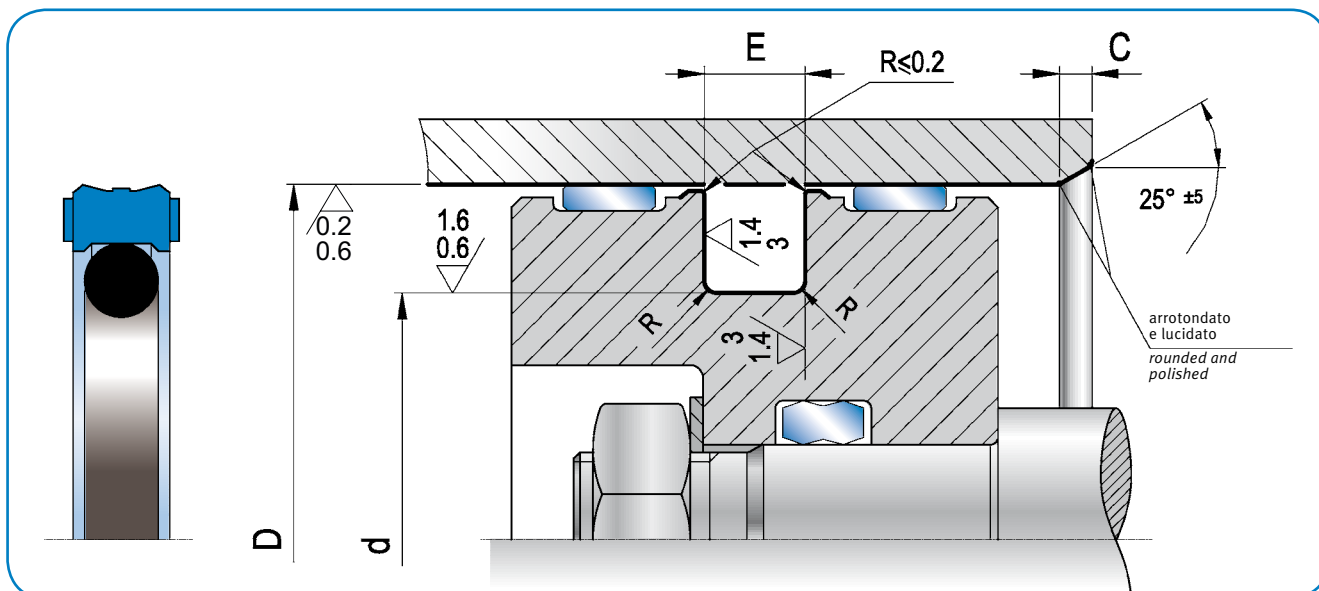
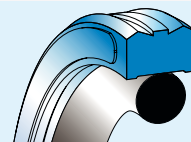
Material proposed are TPUs with different hardness according to the working pressure (C0 / D0 / E0).  
O-ring in NBR 70 Shore A (N0).  
Compound reference: CN (or, in alternative, DN / EN).

#### Assembling

- Remove any cutting edges and flash in the housing of the seal
- ensure a lead-in chamfer in the bore to facilitate the piston installation.

For further information please refer to the installation instructions page 61.

**Note: in case of Bright drawn surface machining it is recommended to use PTFE piston seals.**

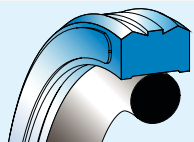
**PSO**

PSA  
PAE  
PSH  
RR  
**PSO**  
PSQ  
PSN  
TPD  
PSZ  
PHP  
KDSA  
KDSB  
KDSP  
KDAE

Oleodinamica  
Hydraulic

|   | $D_{H9}$ | $d_{h9}$ | $E_{+0,2}$ | $C$ | $R$ | o-ring<br>(no) | ART / ITEM           |
|---|----------|----------|------------|-----|-----|----------------|----------------------|
| * | 12,00    | 7,1      | 2,2        | 2,0 | 0,2 | OR 610         | PSO 0120 0710 022 CN |
|   | 20,00    | 12,50    | 3,2        | 3,0 | 0,2 | OR 112         | PSO 0200 0125 032 CN |
|   | 22,00    | 14,50    | 3,2        | 3,0 | 0,2 | OR 113         | PSO 0220 0145 032 CN |
| * | 24,00    | 16,50    | 3,2        | 3,0 | 0,2 | OR 114         | PSO 0240 0165 032 CN |
|   | 25,00    | 14,00    | 4,2        | 4,0 | 0,4 | OR 207         | PSO 0250 0140 042 CN |
|   | 25,00    | 17,50    | 3,2        | 3,0 | 0,2 | OR 115         | PSO 0250 0175 032 CN |
|   | 28,00    | 20,50    | 3,2        | 3,0 | 0,4 | OR 117         | PSO 0280 0205 032 CN |
|   | 30,00    | 22,50    | 3,2        | 3,0 | 0,4 | OR 118         | PSO 0300 0225 032 CN |
|   | 32,00    | 21,00    | 4,2        | 4,0 | 0,4 | OR 211         | PSO 0320 0210 042 CN |
| * | 32,00    | 24,50    | 3,2        | 3,0 | 0,4 | OR 119         | PSO 0320 0245 032 CN |
|   | 35,00    | 24,00    | 4,2        | 4,0 | 0,4 | OR 213         | PSO 0350 0240 042 CN |
|   | 35,00    | 27,50    | 3,2        | 3,0 | 0,4 | OR 121         | PSO 0350 0275 032 CN |
|   | 36,00    | 25,00    | 4,2        | 4,0 | 0,4 | OR 213         | PSO 0360 0250 042 CN |
|   | 36,00    | 28,50    | 3,2        | 3,0 | 0,4 | OR 122         | PSO 0360 0285 032 CN |
|   | 38,00    | 30,50    | 3,2        | 3,0 | 0,4 | OR 123         | PSO 0380 0305 032 CN |
| * | 40,00    | 24,50    | 6,3        | 5,0 | 0,5 | OR 318         | PSO 0400 0245 063 CN |
|   | 40,00    | 29,00    | 4,2        | 4,0 | 0,4 | OR 216         | PSO 0400 0290 042 CN |
|   | 42,00    | 31,00    | 4,2        | 4,0 | 0,5 | OR 217         | PSO 0420 0310 042 CN |
|   | 45,00    | 29,50    | 6,3        | 5,0 | 0,5 | OR 320         | PSO 0450 0295 063 CN |
|   | 45,00    | 34,00    | 4,2        | 4,0 | 0,5 | OR 219         | PSO 0450 0340 042 CN |
|   | 48,00    | 37,00    | 4,2        | 4,0 | 0,5 | OR 221         | PSO 0480 0370 042 CN |
| * | 49,00    | 38,00    | 4,2        | 4,0 | 0,5 | OR 222         | PSO 0490 0380 042 CN |
|   | 50,00    | 34,50    | 6,3        | 5,0 | 0,5 | OR 324         | PSO 0500 0345 063 CN |
|   | 50,00    | 39,00    | 4,2        | 4,0 | 0,5 | OR 222         | PSO 0500 0390 042 CN |
|   | 50,80    | 39,80    | 4,2        | 4,0 | 0,5 | OR 222         | PSO 0508 0398 042 CN |
|   | 52,00    | 36,50    | 6,3        | 5,0 | 0,5 | OR 324         | PSO 0520 0365 063 CN |
|   | 55,00    | 39,50    | 6,3        | 5,0 | 0,5 | OR 325         | PSO 0550 0395 063 CN |

\* in conformità alle norme ISO/DIN 5597 e ISO 5597/1 – in accordance with ISO/DIN 5597 and ISO 5597/1 norms

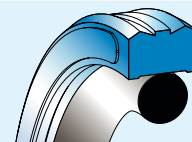


# PSO

|   | D <sub>H9</sub> | d <sub>H9</sub> | E <sub>+0,2</sub> | C   | R   | o-ring<br>(no) | ART / ITEM           |
|---|-----------------|-----------------|-------------------|-----|-----|----------------|----------------------|
|   | 55,00           | 44,00           | 4,2               | 4,0 | 0,5 | OR 224         | PSO 0550 0440 042 CN |
|   | 57,00           | 46,00           | 4,2               | 4,0 | 0,5 | OR 224         | PSO 0570 0460 042 CN |
|   | 60,00           | 44,50           | 6,3               | 5,0 | 0,5 | OR 327         | PSO 0600 0445 063 CN |
|   | 60,00           | 49,00           | 4,2               | 4,0 | 0,5 | OR 225         | PSO 0600 0490 042 CN |
| * | 63,00           | 47,50           | 6,3               | 5,0 | 0,5 | OR 328         | PSO 0630 0475 063 CN |
| * | 63,00           | 52,00           | 4,2               | 4,0 | 0,5 | OR 226         | PSO 0630 0520 042 CN |
|   | 63,50           | 52,50           | 4,2               | 4,0 | 0,5 | OR 226         | PSO 0635 0525 042 CN |
|   | 65,00           | 49,50           | 6,3               | 5,0 | 0,5 | OR 328         | PSO 0650 0495 063 CN |
|   | 65,00           | 54,00           | 4,2               | 4,0 | 0,5 | OR 227         | PSO 0650 0540 042 CN |
|   | 70,00           | 54,50           | 6,3               | 5,0 | 0,5 | OR 330         | PSO 0700 0545 063 CN |
|   | 70,00           | 59,00           | 4,2               | 4,0 | 0,5 | OR 228         | PSO 0700 0590 042 CN |
|   | 72,00           | 61,00           | 4,2               | 4,0 | 0,5 | OR 229         | PSO 0720 0610 042 CN |
|   | 75,00           | 59,50           | 6,3               | 5,0 | 0,5 | OR 331         | PSO 0750 0595 063 CN |
|   | 75,00           | 64,00           | 4,2               | 4,0 | 0,5 | OR 230         | PSO 0750 0640 042 CN |
| * | 80,00           | 64,50           | 6,3               | 5,0 | 0,5 | OR 333         | PSO 0800 0645 063 CN |
| * | 80,00           | 69,00           | 4,2               | 4,0 | 0,5 | OR 842         | PSO 0800 0690 042 CN |
|   | 85,00           | 69,50           | 6,3               | 5,0 | 0,5 | OR 335         | PSO 0850 0695 063 CN |
|   | 88,90           | 73,40           | 6,3               | 5,0 | 0,5 | OR 336         | PSO 0889 0734 063 CN |
|   | 90,00           | 74,50           | 6,3               | 5,0 | 0,5 | OR 336         | PSO 0900 0745 063 CN |
|   | 95,00           | 79,50           | 6,3               | 5,0 | 0,5 | OR 338         | PSO 0950 0795 063 CN |
| * | 100,00          | 84,50           | 6,3               | 5,0 | 0,5 | OR 339         | PSO 1000 0845 063 CN |
|   | 105,00          | 89,50           | 6,3               | 5,0 | 0,5 | OR 341         | PSO 1050 0895 063 CN |
|   | 110,00          | 94,50           | 6,3               | 5,0 | 0,5 | OR 343         | PSO 1100 0945 063 CN |
|   | 115,00          | 94,00           | 8,1               | 6,0 | 0,5 | OR 94X7        | PSO 1150 0940 081 CN |
|   | 115,00          | 99,50           | 6,3               | 5,0 | 0,5 | OR 344         | PSO 1150 0995 063 CN |
|   | 118,00          | 102,50          | 6,3               | 5,0 | 0,5 | OR 345         | PSO 1180 1025 063 CN |
|   | 120,00          | 104,50          | 6,3               | 5,0 | 0,5 | OR 346         | PSO 1200 1045 063 CN |
| * | 125,00          | 104,00          | 8,1               | 6,0 | 0,5 | OR 100X7       | PSO 1250 1040 081 CN |
| * | 125,00          | 109,50          | 6,3               | 5,0 | 0,5 | OR 347         | PSO 1250 1095 063 CN |
|   | 130,00          | 109,00          | 8,1               | 6,0 | 0,6 | OR 106X7       | PSO 1300 1090 081 CN |
|   | 130,00          | 114,50          | 6,3               | 5,0 | 0,6 | OR 349         | PSO 1300 1145 063 CN |
|   | 135,00          | 114,00          | 8,1               | 6,0 | 0,6 | OR 425         | PSO 1350 1140 081 CN |
|   | 135,00          | 119,50          | 6,3               | 5,0 | 0,6 | OR 350         | PSO 1350 1195 063 CN |
|   | 140,00          | 119,00          | 8,1               | 6,0 | 0,6 | OR 426         | PSO 1400 1190 081 CN |
|   | 145,00          | 124,00          | 8,1               | 6,0 | 0,6 | OR 428         | PSO 1450 1240 081 CN |
|   | 150,00          | 129,00          | 8,1               | 6,0 | 0,6 | OR 430         | PSO 1500 1290 081 CN |
| * | 160,00          | 139,00          | 8,1               | 6,0 | 0,6 | OR 433         | PSO 1600 1390 081 CN |
|   | 170,00          | 149,00          | 8,1               | 6,0 | 0,6 | OR 436         | PSO 1700 1490 081 CN |
|   | 177,80          | 156,80          | 8,1               | 6,0 | 0,6 | OR 437         | PSO 1778 1568 081 CN |



## PSO



| D <sub>H9</sub> | d <sub>H9</sub> | E <sub>+0,2</sub> | C   | R   | o-ring<br>(no) | ART / ITEM           |
|-----------------|-----------------|-------------------|-----|-----|----------------|----------------------|
| 180,00          | 159,00          | 8,1               | 6,0 | 0,6 | OR 438         | PSO 1800 1590 081 CN |
| 185,00          | 164,00          | 8,1               | 6,0 | 0,6 | OR 874         | PSO 1850 1640 081 CN |
| 190,00          | 169,00          | 8,1               | 6,0 | 0,6 | OR 439         | PSO 1900 1690 081 CN |
| * 200,00        | 179,00          | 8,1               | 6,0 | 0,6 | OR 441         | PSO 2000 1790 081 CN |
| 210,00          | 189,00          | 8,1               | 6,0 | 0,6 | OR 443         | PSO 2100 1890 081 CN |
| 220,00          | 199,00          | 8,1               | 6,0 | 0,6 | OR 444         | PSO 2200 1990 081 CN |
| 230,00          | 209,00          | 8,1               | 6,0 | 0,6 | OR 445         | PSO 2300 2090 081 CN |
| 240,00          | 219,00          | 8,1               | 6,0 | 0,6 | OR 446         | PSO 2400 2190 081 CN |
| * 250,00        | 229,00          | 8,1               | 6,0 | 0,6 | OR 447         | PSO 2500 2290 081 CN |

PSA

PAE

PSH

RR

PSO

PSQ

PSN

TPD

PSZ

PHP

KDSA

KDSB

KDSP

KDAE

\* in conformità alle norme ISO/DIN 5597 e ISO 5597/1 – in accordance with ISO/DIN 5597 and ISO 5597/1 norms

Materiali alternativi: DN (98 Sh A); EN (55 Sh D) – Alternative compounds: DN (98 Sh A); EN (55 Sh D)

Nota: altre dimensioni non a catalogo a richiesta. Consultare il nostro ufficio tecnico.

Remark: please contact our technical dept. for further dimensions not included in the catalogue.