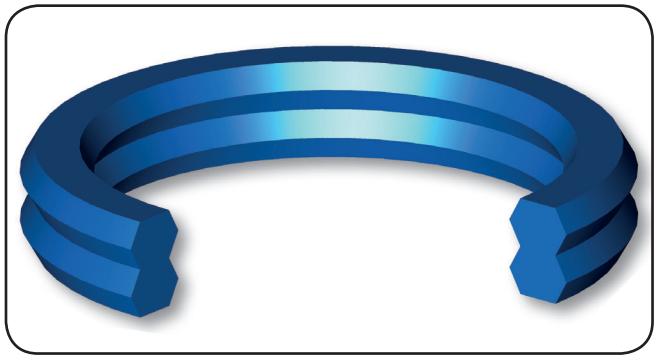
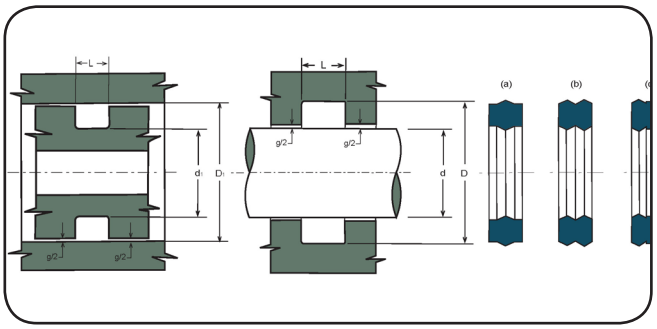


OP DOUBLE-ACTING SEALS



MAIN FEATURES

The OP type seal is designed as an alternative to the O-Ring, in heavy duty applications to avoid the extrusion phenomenon, which usually occurs in the presence of high coupling clearance or high pressure.
It is a preferably static seal which, activated by fluid pressure, can work as single- or double-acting. The radial load, which guarantees good sealing, increases with fluid pressure. Thanks to its elasticity, it can be easily installed in a short time without tools or accessories. The material, coated with a special polyurethane resin, ensures excellent anti-extrusion properties, long operation life and resistance to extrusion.

º High extrusion resistance
º Single- and double-acting assembly
º Simple housing design
º Alternative pressure stability
º Long operating life

OP

DESCRIPTION

Double-acting seal for rod and piston.

DYNAMIC SURFACE MATERIAL

Polyurethane
Hardness: 93 Shore A

Temperature: -30 to + 80ºC
Fluid: Hydraulic oil (mineral based)

SURFACE ROUGHNESS

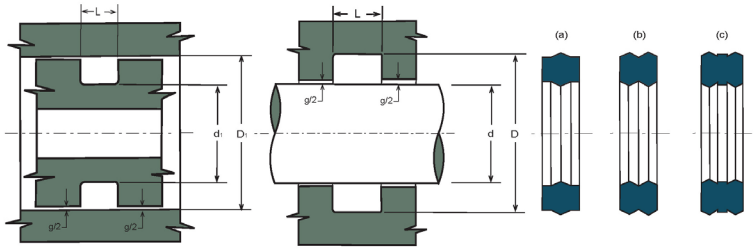
Ra < 0.8 µm Rt < 4.8 µm

COUPLING CLEARANCE G

To avoid extrusion, the maximum allowable pressure depends on the coupling clearance:

º 50 bar. 1.20 mm
º 100 bar. 0.80 mm
º 200 bar. 0.40 mm
º 300 bar. 0.25 mm
º 400 bar. 0.17 mm
º 500 bar. 0.10 mm

OP



Ref.	For Inner Rod d f7	For Outer Rod D H9	For Inner Piston d1 H9	For Outer Piston D1 H8	Width L + 0.2	Type
OP009	5.00	8.10	5.90	9.00	2.50	A
OP012	9.00	12.10	9.90	13.00	2.50	A
OP013	11.00	14.10	10.90	14.00	2.50	A
OP014	13.00	16.10	12.90	16.00	2.50	A
OP014/A	-	-	13.10	15.90	3.50	A
OP015	14.00	17.10	14.90	18.00	2.50	A
OP015/A	-	-	14.70	17.50	3.50	B
OP016	16.00	19.10	15.90	19.00	2.50	A
OP016/A	-	-	16.30	19.10	3.50	B
OP031	44.00	47.10	44.90	48.00	2.50	A
OP034	54.00	57.10	54.90	58.00	2.50	A
OP109	8.00	12.50	8.50	13.00	3.50	B
OP113	14.00	18.50	14.50	19.00	3.50	B
OP115	17.00	21.50	17.50	22.00	3.50	B
OP116/A	19.00	23.60	-	-	5.50	B
OP117	20.00	24.50	20.50	25.00	3.50	B
OP119	24.00	28.50	24.50	29.00	3.50	B
OP121	28.00	31.50	27.50	32.00	3.50	B
OP123	30.00	34.50	30.50	35.00	3.50	B
OP126	35.00	39.50	35.50	40.00	3.50	B
OP132	44.00	48.50	44.50	49.00	3.50	B
OP133	46.00	50.50	46.50	51.00	3.50	B
OP147	68.00	72.50	68.50	73.00	3.50	B
OP153	89.00	93.50	89.50	94.00	3.50	B
OP156	108.00	112.50	108.50	113.00	3.50	B
OP216	28.00	34.20	28.80	35.00	4.50	B
OP216/A	28.00	34.30	-	-	6.50	B

Ref.	For Inner Rod d f7	For Outer Rod D H9	For Inner Piston d1 H9	For Outer Piston D1 H8	Width L + 0.2	
OP217	30.00	36.20	30.80	37.00	4.50	B
OP217/A	30.00	36.30	-	-	6.50	B
OP218	31.00	37.20	31.80	38.00	4.50	B
OP219	33.00	39.20	33.80	40.00	4.50	B
OP225/829	48.00	54.20	47.80	54.00	4.50	B
OP227/833	54.00	60.20	54.80	61.00	4.50	B
OP230	64.00	70.20	63.80	70.00	4.50	B
OP233	73.00	79.20	73.80	80.00	4.50	B
OP236	82.00	88.20	82.80	89.00	4.50	B
OP239	92.00	98.20	92.80	99.00	4.50	B
OP247	117.00	123.20	117.80	124.00	4.50	B
OP342/A	92.00	101.40	92.60	102.00	9.00	C
OP430	130.00	142.20	130.80	143.00	9.50	C
OP614	12.00	16.80	-	-	3.50	B
OP616	15.00	19.50	15.50	20.00	3.50	B
OP617	18.00	22.80	-	-	3.50	B
OP620	80.00	89.40	80.60	90.00	7.00	C
OP621	90.00	99.40	90.60	100.00	7.00	C
OP623/A	110.00	119.40	110.60	120.00	9.00	C
OP806	11.00	14.10	11.90	15.00	2.50	A
OP826	43.00	49.20	43.80	50.00	4.50	B
OP832	52.00	58.20	53.80	60.00	4.50	B
OP834	56.00	62.20	55.80	62.00	4.50	B
OP835	57.00	63.20	57.80	64.00	4.50	B
OP836	59.00	65.20	58.80	65.00	4.50	B
OP839	64.00	70.20	63.80	70.00	4.50	B
OP845	73.00	79.20	73.80	80.00	4.50	B