

DESCRIPTION

Double acting piston seal

MATERIAL ON DYNAMIC SURFACE

Type: Polytetrafluoroethylene + Bronze

Designation: SEALFLON + Bronze

⇒ it can be provided with different fillers according to applications

MATERIAL ON STATIC SURFACE

Type: Nitril Rubber NBR

Designation: RUBSEAL 70

Hardness: 70 °ShA

⇒ it can be provided with different materials according to working conditions

MAIN FEATURES

The piston seal type YB is composed of:

- A dynamic seal element which assures exceptional low friction and high speed performance, high compatibility with nearly all media due to the chemical resistance which exceeds that of all other thermoplastics and elastomers. Side grooves ensure that pressure loads the energizing O-Ring in all work conditions
- A standard size O-Ring with low permanent deformation as energizing component on the static side
- Low static and dynamic friction
- High speed allowed
- No tendency of stick-slip
- Space-saving construction and simple groove design
- High compatibility with nearly all fluids (with the right choice of O-Ring material)
- High resistance against extrusion
- High temperature resistance

FIELD OF APPLICATION

Pressure	≤ 600 bar
Speed	≤ 15 m/s
Temperature	-30°C ÷ +130°C (with OR in NBR) -30°C ÷ +200°C (with OR in FKM)
Fluids	High compatibility with nearly all fluids (with the right choice of O-Ring material)

SURFACE ROUGHNESS

Dynamic surface	Ra ≤ 0.3 µm	Rt ≤ 2.5 µm
Static surface	Ra ≤ 1.6 µm	Rt ≤ 6.3 µm

GAP DIMENSION “g”

The largest gap dimension appearing [mm] in operation on the non-pressurised side:

L	100 BAR	200 BAR	400 BAR
2.2	0.60	0.40	0.30
3.2	0.80	0.50	0.30
4.2	0.80	0.50	0.40
6.3	1.00	0.60	0.40
8.1	1.20	0.70	0.50
9.5	1.40	1.00	0.60
13.8	2.00	1.40	1.20
> 400 bar ⇒ $g_{max} = H8/f8$			

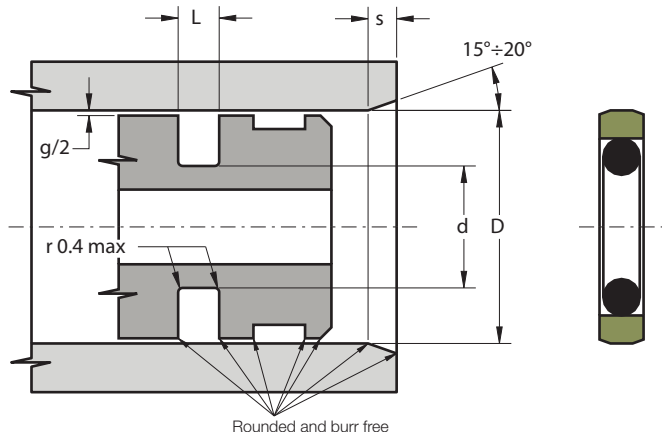
LEAD-IN CHAMFERS

L	s
2.2	2.0
3.2	2.5
4.2	3.5
6.3	5.0

LEAD-IN CHAMFERS

L	s
8.1	6.5
9.5	7.5
13.8	10.0

- to avoid damaging the seal during installation, housing must have rounded chamfers. Sharp edges and burrs within the installation area of the seal must be removed



Part.	D ^{H9}	d ^{h9}	L ^{+0.2}	OR
YB 260 239 8.1	260	239.0	8.1	447
YB 270 249 8.1	270	249.0	8.1	448
YB 280 259 8.1	280	259.0	8.1	449
YB 290 269 8.1	290	269.0	8.1	450
YB 300 279 8.1	300	279.0	8.1	451
YB 310 289 8.1	310	289.0	8.1	451

Part.	D ^{H9}	d ^{h9}	L ^{+0.2}	OR
YB 320 299 8.1	320	299.0	8.1	452
YB 330 305.5 8.1	330	305.5	8.1	453
YB 340 315.5 8.1	340	315.5	8.1	453
YB 350 325.5 8.1	350	325.5	8.1	454
YB 360 335.5 8.1	360	335.5	8.1	455
YB 370 345.5 8.1	370	345.5	8.1	456
YB 380 355.5 8.1	380	355.5	8.1	457
YB 390 365.5 8.1	390	365.5	8.1	457
YB 400 375.5 8.1	400	375.5	8.1	458
YB 410 385.5 8.1	410	385.5	8.1	459
YB 420 395.5 8.1	420	395.5	8.1	460
YB 430 405.5 8.1	430	405.5	8.1	461
YB 440 415.5 8.1	440	415.5	8.1	461
YB 450 425.5 8.1	450	425.5	8.1	462
YB 460 435.5 8.1	460	435.5	8.1	463
YB 470 445.5 8.1	470	445.5	8.1	464
YB 480 455.5 8.1	480	455.5	8.1	464
YB 490 465.5 8.1	490	465.5	8.1	465
YB 500 475.5 8.1	500	475.5	8.1	466

Other sizes not present in the above table can be provided in according to the following scheme:

D			d	L	S. OR
Light series	Standard series	Heavy series			
15 ÷ 39.9	8 ÷ 14.9		D - 4.9	2.2	1.78
40 ÷ 79.9	15 ÷ 39.9		D - 7.5	3.2	2.62
80 ÷ 132.9	40 ÷ 79.9	15 ÷ 39.9	D - 11.0	4.2	3.53
133 ÷ 329.9	80 ÷ 132.9	40 ÷ 79.9	D - 15.5	6.3	5.34
330 ÷ 669.9	133 ÷ 329.9	80 ÷ 132.9	D - 21.0	8.1	6.99
670 ÷ 999.9	330 ÷ 669.9	133 ÷ 329.9	D - 24.5	8.1	6.99
	670 ÷ 999.9	330 ÷ 669.9	D - 28.0	9.5	8.40
	> 1000		D - 38.0	13.8	12.0