

DESCRIPTION

Single acting rod 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 rod seal type XB is composed of:

- A dynamic seal element which assures exceptional low friction and high speed performance, as well as high compatibility with nearly all media due to the chemical resistance which exceeds that of all other thermoplastics and elastomers
- 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"

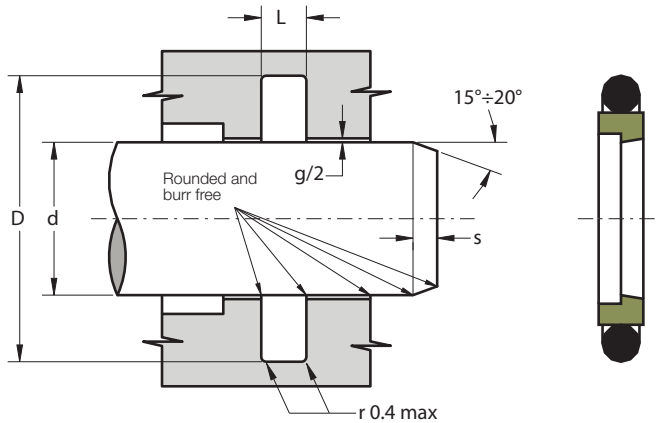
The largest gap dimension [mm] appearing in operation on the non-pressurised side:

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

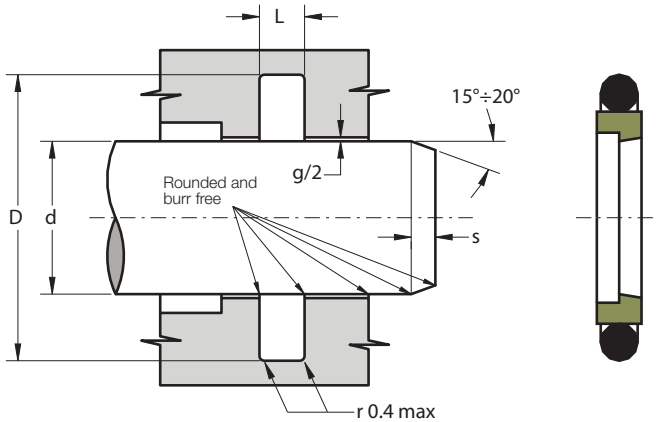
L	S	L	S
2.2	2.0	8.1	6.5
3.2	2.5	9.5	7.5
4.2	3.5	13.8	10.0
6.3	5.0		

- 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 ^{H10}	L ^{+0.2}	OR
XB 4 8.9 2.2	4	8.9	2.2	010
XB 5 9.9 2.2	5	9.9	2.2	010
XB 7 11.9 2.2	7	11.9	2.2	012
XB 8 15.3 3.2	8	15.3	3.2	111
XB 10 17.3 3.2	10	17.3	3.2	112
XB 12 19.3 3.2	12	19.3	3.2	114
XB 14 21.3 3.2	14	21.3	3.2	115
XB 15 22.3 3.2	15	22.3	3.2	116
XB 16 23.3 3.2	16	23.3	3.2	116
XB 17 24.3 3.2	17	24.3	3.2	117
XB 18 25.3 3.2	18	25.3	3.2	117
XB 20 30.7 4.2	20	30.7	4.2	214
XB 22 32.7 4.2	22	32.7	4.2	215
XB 24 34.7 4.2	24	34.7	4.2	216
XB 25 35.7 4.2	25	35.7	4.2	217
XB 26 36.7 4.2	26	36.7	4.2	218
XB 28 38.7 4.2	28	38.7	4.2	219
XB 30 40.7 4.2	30	40.7	4.2	220
XB 32 42.7 4.2	32	42.7	4.2	221
XB 35 45.7 4.2	35	45.7	4.2	222
XB 36 46.7 4.2	36	46.7	4.2	223
XB 37 47.7 4.2	37	47.7	4.2	223
XB 38 53.1 6.3	38	53.1	6.3	327
XB 40 55.1 6.3	40	55.1	6.3	327
XB 42 57.1 6.3	42	57.1	6.3	328

Part.	d ^{h9}	D ^{H10}	L ^{+0.2}	OR
XB 45 60.1 6.3	45	60.1	6.3	329
XB 48 63.1 6.3	48	63.1	6.3	330
XB 50 65.1 6.3	50	65.1	6.3	331
XB 52 67.1 6.3	52	67.1	6.3	331
XB 55 70.1 6.3	55	70.1	6.3	332
XB 58 73.1 6.3	58	73.1	6.3	333
XB 60 75.1 6.3	60	75.1	6.3	334
XB 65 80.1 6.3	65	80.1	6.3	335
XB 70 85.1 6.3	70	85.1	6.3	337
XB 75 90.1 6.3	75	90.1	6.3	339
XB 80 95.1 6.3	80	95.1	6.3	340
XB 85 100.1 6.3	85	100.1	6.3	342
XB 90 105.1 6.3	90	105.1	6.3	343
XB 95 110.1 6.3	95	110.1	6.3	345
XB 100 115.1 6.3	100	115.1	6.3	346
XB 110 125.1 6.3	110	125.1	6.3	350
XB 120 135.1 6.3	120	135.1	6.3	353
XB 125 140.1 6.3	125	140.1	6.3	354
XB 130 145.1 6.3	130	145.1	6.3	356
XB 140 155.1 6.3	140	155.1	6.3	359
XB 150 165.1 6.3	150	165.1	6.3	361
XB 155 170.1 6.3	155	160.1	6.3	362
XB 160 175.1 6.3	160	175.1	6.3	363
XB 170 185.1 6.3	170	185.1	6.3	365
XB 175 190.1 6.3	175	190.1	6.3	366
XB 180 195.1 6.3	180	195.1	6.3	366
XB 185 200.1 6.3	185	200.1	6.3	367
XB 190 205.1 6.3	190	205.1	6.3	368
XB 195 210.1 6.3	195	210.1	6.3	368
XB 200 220.5 8.1	200	220.5	8.1	674
XB 210 230.5 8.1	210	230.5	8.1	446
XB 220 240.5 8.1	220	240.5	8.1	447
XB 225 245.5 8.1	225	245.5	8.1	447
XB 230 250.5 8.1	230	250.5	8.1	678
XB 240 260.5 8.1	240	260.5	8.1	448
XB 250 270.5 8.1	250	270.5	8.1	449
XB 260 284.0 8.1	260	284.0	8.1	450
XB 270 294.0 8.1	270	294.0	8.1	451
XB 280 304.0 8.1	280	304.0	8.1	452
XB 290 314.0 8.1	290	314.0	8.1	453



Part.	d ^{h9}	D ^{H10}	L ^{+0.2}	OR
XB 300 324.0 8.1	300	324.0	8.1	454
XB 310 334.0 8.1	310	334.0	8.1	454
XB 320 344.0 8.1	320	344.0	8.1	455
XB 330 354.0 8.1	330	354.0	8.1	456
XB 340 364.0 8.1	340	364.0	8.1	457
XB 350 374.0 8.1	350	374.0	8.1	458
XB 360 384.0 8.1	360	384.0	8.1	458
XB 370 394.0 8.1	370	394.0	8.1	459
XB 380 404.0 8.1	380	404.0	8.1	460
XB 390 414.0 8.1	390	414.0	8.1	461
XB 400 424.0 8.1	400	424.0	8.1	461
XB 420 444.0 8.1	420	444.0	8.1	463
XB 440 464.0 8.1	440	464.0	8.1	464
XB 450 474.0 8.1	450	474.0	8.1	465
XB 460 484.0 8.1	460	484.0	8.1	466
XB 480 504.0 8.1	480	504.0	8.1	468
XB 500 524.0 8.1	500	524.0	8.1	469

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			
8 ÷ 18.9	3 ÷ 7.9		d + 4.90	2.2	1.78
19 ÷ 37.9	8 ÷ 18.9		d + 7.30	3.2	2.62
38 ÷ 199.9	19 ÷ 37.9	8 ÷ 18.9	d + 10.7	4.2	3.53
200 ÷ 255.9	38 ÷ 199.9	19 ÷ 37.9	d + 15.1	6.3	5.34
256 ÷ 649.9	200 ÷ 255.9	38 ÷ 199.9	d + 20.5	8.1	6.99
650 ÷ 999.9	256 ÷ 649.9	200 ÷ 255.9	d + 24.0	8.1	6.99
	650 ÷ 999.9	256 ÷ 649.9	d + 27.3	9.5	8.40
	> 1000		d + 38.0	13.8	12.0