AB Seals
ADVANCED SEALING TECHNOLOGIES

SP

Design

The AB Seals SP is a two piece piston seal for heavy duty applications which, when installed in pairs, provides an excellent double-acting piston design. It is suitable for difficult operating conditions such as pressure surging, vibration or some misalignment . Both parts are manufactured from rubberised fabric which gives strength and durability and retains lubrication to keep friction low and reduce wear. By extending the centre of the seal past the sealing edges, they are protected from damage should interseal pressure force the seal against the housing wall. Grooves across the protruding face allow pressure to reach both sealing edges. The support ring is manufactured from a hard rubberised fabric to protect the seal from extrusion damage.

NB: Some Part numbers have housing sizes to meet ISO 5597.

Features

- Effective seal for extreme applications
- Precision moulded vee packs
- High load capability
- Pressure activating grooves

MATERIALS

- Fabric reinforced rubber-NBRC

Applicatio

- Machine tools
- Injection cylinder
- Hydraulic presses

Technical details	**Metric**	**inch**
Operating Conc		
Maximum speed	0.8m/sec	2.4ft/sec
Temperature Ra	-30	-22
Maximum Press	600 bar	9000 p.s.i

Maximum extrusion gap: Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø. Refer to Housing Design Section.

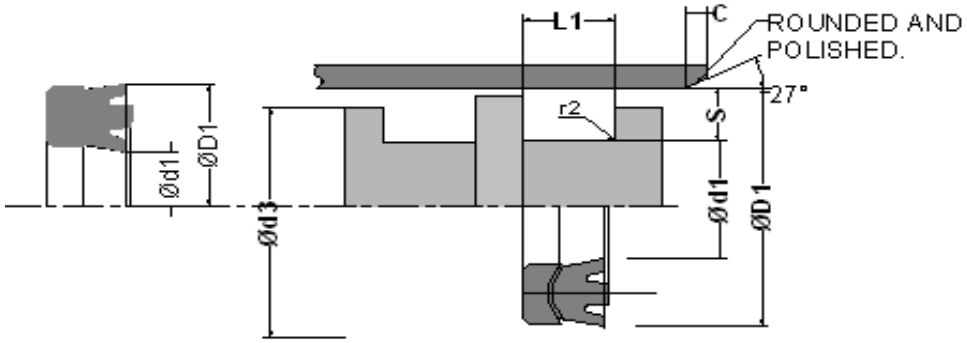
Pressure Bar	160	250	400	600
Maximum Gap mm.	0.35	0.3	0.2	0.1
Pressure p.s.i.	2400	3750	6000	9,000

Surface roughness	umRa	umrt	Uin CLA	JIN RMS
Dynamic Sealing FaceØD1	0.1<> 0.4	4 max	4<>16	5<>18
static sealing face Ød1	1.6 max	10 max	63 max	70 max
static housing faces L1	3.2 max	16 max	125 max	140 max

chamafers & Radii					
Grove section < s mm	5,0	7.5	10,0	12.5	15,0
Min chamfer C mm	2.5	4,0	5,0	6.5	7.5
max Fillet Rad r1 mm	0.8	0.8	0.8	1.2	1.6

Tolerance

ØD1	Ød1	Ød3	L1
H9	h11	0.3	0.3



ØD1	TOL H9	d_1	TOL H11	d_3 -0.3	L1 0.3	PART NO.	ØD1	TOL H9	d_1	TOL H11	d_3 -0.3	L1 0.3	PART NO.
25	0.05 0	15	0 -0.11	24	6.3	SP- 25x15x6.3	100	0.09 0	80	0 -0.19	98.5	12.5	SP- 100x80x12.5
32	0.06 0	20	0 -0.13	31	7.8	SP- 32x20x7.8	110	0.09 0	90	0 -0.22	108.5	13	SP- 110x90x13
32	0.06 0	22	0 -0.13	31	6.3	SP- 32x22x6.3	125	0.1 0	100	0 -0.22	123.5	16	SP-125x100x16
40	0.06 0	25	0 -0.13	39	10	SP- 40x25x10	140	0.1 0	115	0 -0.22	138.5	16.2	SP- 140x115x16.2
40	0.06 0	30	0 -0.13	39	6.3	SP- 40x30x6.3	160	0.1 0	130	0 -0.25	158	19.8	SP- 160x130x19.8
45	0.06 0	30	0 -0.13	44	10	SP- 45x30x10	160	0.1 0	135	0 -0.25	158	16	SP-160x135x16
50	0.06 0	35	0 -0.16	49	9.5	SP- 50x35x9.5	180	0.1 0	150	0 -0.25	178	19.8	SP- 180x150x19.8
55	0.07 0	40	0 -0.16	54	10	SP- 50x40x10	200	0.12 0	170	0 -0.25	198	20	SP-200x170x20
60	0.07 0	45	0 -0.16	59	10	SP- 60x45x10	225	0.12 0	195	0 -0.29	223	19.8	SP- 225x195x19.8
63	0.07 0	48	0 -0.16	62	9.5	SP- 63x48x9.5	250	0.12 0	220	0 -0.29	248	20	SP-250x220x20
70	0.07 0	50	0 -0.16	68.5	13	SP- 70x50x13	275	0.13 0	245	0 -0.29	273	19.8	SP- 275x245x19.8
80	0.07 0	60	0 -0.19	78.5	12.5	SP- 80x60x12.5	300	0.13 0	270	0 -0.32	298	19.8	SP- 300x270x19.8
90	0.09 0	70	0 -0.19	88.5	13	SP- 90x70x13							