

TECHNICAL DETAILS

OPERATING CONDITIONS

MAXIMUM SPEED 0.8 m/sec
 TEMPERATURE RANGE -30°C + 100°C
 MAXIMUM PRESSURE 600 bar

2.4 ft/sec
 -22°F + 212°F
 9000 p.s.i.

MAXIMUM EXTRUSION GAP

PRESSURE bar 160 250 400 600
 MAXIMUM GAP mm 0.35 0.3 0.2 0.1
 PRESSURE p.s.i. 2400 3750 6000 9000

SURFACE ROUGHNESS

DYNAMIC SEALING FACE ØD_1 0.1 Ö 0.4 4 max μinCLA 4 Ö 16 5 Ö 18
 STATIC SEALING FACE Ød_1 1.6 max 10 max 63 max 70 max
 STATIC HOUSING FACES L_1 3.2 max 16 max 125 max 140 max

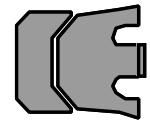
CHAMFERS & RADII

GROOVE 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 r_2 mm 0.8 0.8 0.8 1.2 1.6

TOLERANCES

mm ØD_1 Ød_1 Ød_3 L_1
 H9 h11 +0 -0.3 +0.3 -0

METRIC INCH

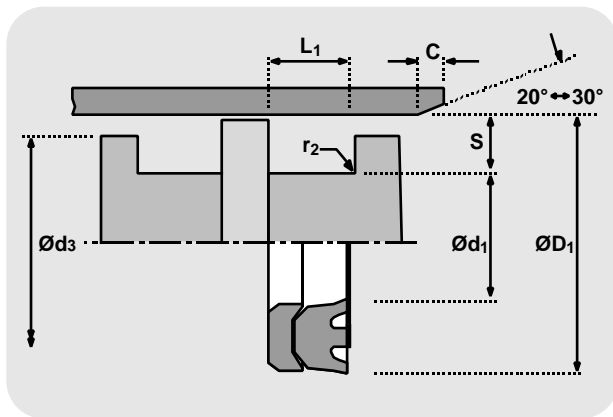


Figures show the maximum permissible gap all on one side using the minimum clearance Ø and maximum bore Ø

μmRa	μmRt	μinCLA	μinRMS
0.1 Ö 0.4	4 max	4 Ö 16	5 Ö 18
1.6 max	10 max	63 max	70 max
3.2 max	16 max	125 max	140 max

5.0	7.5	10.0	12.5	15.0
2.5	4.0	5.0	6.5	7.5
0.8	0.8	0.8	1.2	1.6

mm	ØD_1	Ød_1	Ød_3	L_1
	H9	h11	+0 -0.3	+0.3 -0



DESIGN

The Hallite 52 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 inter-seal 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. The 'U' shape of the ring provides a secondary seal as pressure deforms the lips to increase the sealing area.

NB: Part numbers suffixed by "‡" indicate housing sizes to meet ISO 5597.

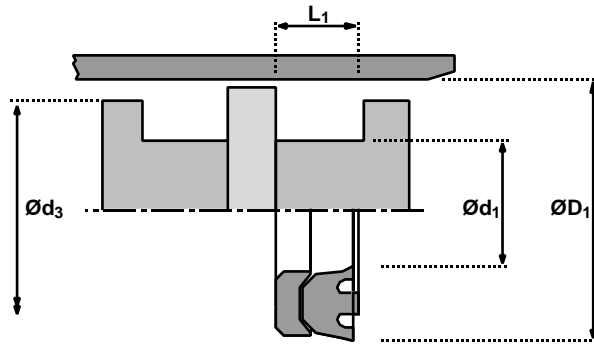
FEATURES

- EFFECTIVE SEAL FOR EXTREME APPLICATIONS
- PRECISION MOULDED VEE PACKS
- HIGH LOAD CAPABILITY
- PRESSURE ACTIVATING GROOVES

Piston seals

52

metric



ØD ₁	TOL H9	Ød ₁	TOL h11	Ød ₃ Tol +0 -0.3	L ₁ +0.3 -0	PART No.
25	+0.05 +0.00	15	+0.00 -0.11	24.0	6.30	6619810‡
32	+0.06 +0.00	20	+0.00 -0.13	31.0	7.80	1791610
32	+0.06 +0.00	22	+0.00 -0.13	31.0	6.30	6619910‡
40	+0.06 +0.00	25	+0.00 -0.13	39.0	10.00	2149810
40	+0.06 +0.00	30	+0.00 -0.13	39.0	6.30	6620010‡
45	+0.06 +0.00	30	+0.00 -0.13	44.0	10.00	2150010
50	+0.06 +0.00	35	+0.00 -0.16	49.0	9.50	2150210‡
55	+0.07 +0.00	40	+0.00 -0.16	54.0	10.00	2150410
60	+0.07 +0.00	45	+0.00 -0.16	59.0	10.00	2150610
63	+0.07 +0.00	48	+0.00 -0.16	62.0	9.50	2150810‡
70	+0.07 +0.00	50	+0.00 -0.16	68.5	13.00	2151010
80	+0.07 +0.00	60	+0.00 -0.19	78.5	12.50	2151210‡
90	+0.09 +0.00	70	+0.00 -0.19	88.5	13.00	2151410

ØD ₁	TOL H9	Ød ₁	TOL h11	Ød ₃ Tol +0 -0.3	L ₁ +0.3 -0	PART No.
100	+0.09 +0.00	80	+0.00 -0.19	98.5	12.50	2151610‡
110	+0.09 +0.00	90	+0.00 -0.22	108.5	13.00	2151810
125	+0.10 +0.00	100	+0.00 -0.22	123.5	16.00	2152010‡
140	+0.10 +0.00	115	+0.00 -0.22	138.5	16.20	2152210
160	+0.10 +0.00	130	+0.00 -0.25	158.0	19.80	2152410
160	+0.10 +0.00	135	+0.00 -0.25	158.0	16.00	6620110‡
180	+0.10 +0.00	150	+0.00 -0.25	178.0	19.80	2152610
200	+0.12 +0.00	170	+0.00 -0.25	198.0	20.00	2152810‡
225	+0.12 +0.00	195	+0.00 -0.29	223.0	19.80	2197010
250	+0.12 +0.00	220	+0.00 -0.29	248.0	20.00	2197210‡
275	+0.13 +0.00	245	+0.00 -0.29	273.0	19.80	2197410
300	+0.13 +0.00	270	+0.00 -0.32	298.0	19.80	2188310