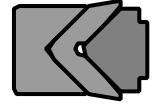


Piston seals

Hallite



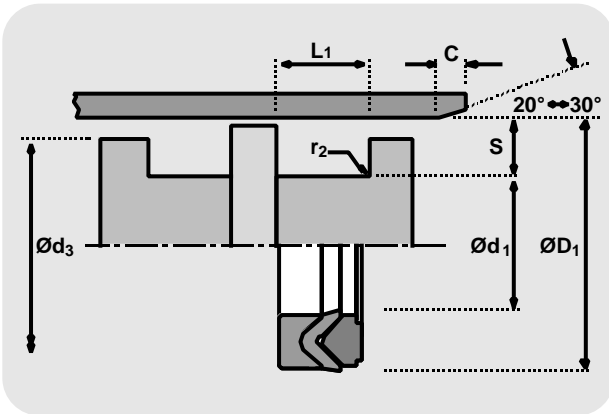
TECHNICAL DETAILS		METRIC	INCH	
OPERATING CONDITIONS				
MAXIMUM SPEED	0.5 m/sec	1.5 ft/sec		
TEMPERATURE RANGE	-30°C + 100°C	-22°F + 212°F		
MAXIMUM PRESSURE	700 bar	10,000 p.s.i.		
MAXIMUM EXTRUSION GAP				
PRESSURE bar	160	250	400	700
MAXIMUM GAP mm	0.35	0.3	0.2	0.1
PRESSURE p.s.i.	2400	3750	6000	10,000
SURFACE ROUGHNESS				
DYNAMIC SEALING FACE $\varnothing D_1$	$0.1 \leftrightarrow 0.4$	4 max	$4 \leftrightarrow 16$	$5 \leftrightarrow 18$
STATIC SEALING FACE $\varnothing d_1$	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	7.5	10.0	12.5	15.0
MIN CHAMFER C mm	4.0	5.0	6.5	7.5
MAX FILLET RAD r_2 mm	0.8	1.2	1.6	1.6
TOLERANCES				
	$\varnothing D_1$	$\varnothing d_1$	$\varnothing d_3$	L_1
mm	H9	h11	+0 -0.3	+0.25 -0

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

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

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

$\varnothing D_1$	$\varnothing d_1$	$\varnothing d_3$	L_1
H9	h11	+0 -0.3	+0.25 -0



DESIGN

The Hallite 51 is a heavy duty piston seal which, when installed in pairs, provides an excellent double acting piston design. It is particularly suitable for difficult operating conditions such as pressure surging, vibration or some misalignment.

The seal is an assembly of three parts, a male adaptor, a V ring and a female adaptor. Both the V ring and the female adaptor are made from rubberised fabric which has durability and strength, it also retains lubricant at the sliding surfaces so friction and wear are kept to a minimum. The V ring being the primary seal is more flexible than the adaptor which supports it and prevents extrusion damage. At higher pressures the adaptor deforms and becomes a secondary seal.

The polyacetal male adaptor has grooves across the face to ensure pressure is evenly applied to the V ring.

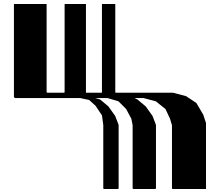
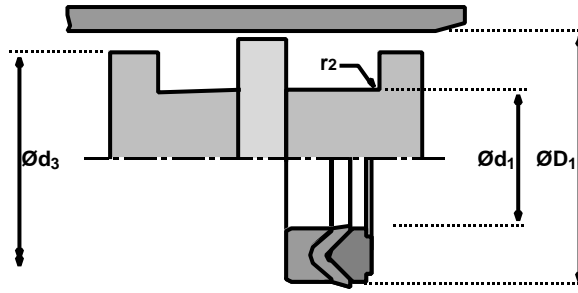
FEATURES

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

Piston seals

Hallite 51

metric



ØD ₁	TOL H9	Ød ₁	TOL h11	Ød ₃ Tol +0 -0.3	L ₁ +0.25-0	PART No.
30	+0.05 +0.00	20	+0.00 -0.13	29.0	9.30	4208310
40	+0.06 +0.00	25	+0.00 -0.13	39.0	11.50	4208010
50	+0.06 +0.00	35	+0.00 -0.16	49.0	11.50	4207610
55	+0.07 +0.00	40	+0.00 -0.16	54.0	11.50	4207110
60	+0.07 +0.00	45	+0.00 -0.16	59.0	11.50	4207210
63	+0.07 +0.00	48	+0.00 -0.16	62.0	13.00	4207410
70	+0.07 +0.00	50	+0.00 -0.16	68.5	15.20	4208210
80	+0.07 +0.00	60	+0.00 -0.19	78.5	15.20	4208110
90	+0.09 +0.00	70	+0.00 -0.19	88.5	21.20	4207710
100	+0.09 +0.00	80	+0.00 -0.19	98.5	21.20	4207510
110	+0.09 +0.00	90	+0.00 -0.22	108.5	21.20	4207910

ØD ₁	TOL H9	Ød ₁	TOL h11	Ød ₃ Tol +0 -0.3	L ₁ +0.25-0	PART No.
125	+0.10 +0.00	100	+0.00 -0.22	123.5	25.80	4207810
140	+0.10 +0.00	115	+0.00 -0.22	138.5	25.80	4208410
150	+0.10 +0.00	120	+0.00 -0.22	148.0	29.00	4208510
160	+0.10 +0.00	130	+0.00 -0.25	158.0	29.00	4208710
180	+0.10 +0.00	150	+0.00 -0.25	178.0	31.50	4208610
200	+0.12 +0.00	170	+0.00 -0.25	198.0	33.50	4209010
225	+0.12 +0.00	195	+0.00 -0.29	223.0	33.50	6582110
250	+0.12 +0.00	220	+0.00 -0.29	248.0	33.50	6582310
275	+0.13 +0.00	245	+0.00 -0.29	273.0	33.50	6582410
300	+0.13 +0.00	270	+0.00 -0.32	298.0	33.50	6582510
320	+0.14 +0.00	290	+0.00 -0.36	318.0	33.50	6582610