

Design

The Hallite 11 is a vee pack rod seal for medium duty applications offering excellent performance and long life even under difficult operating conditions such as pressure surges, vibration and some misalignment. The seal consists of a male and female adaptor and 5 vee rings. The male adaptor is usually manufactured from polyacetal but some of the larger sizes use rubberised fabric. It has grooves across one face to ensure equal pressure to the sealing edges of the vee ring.

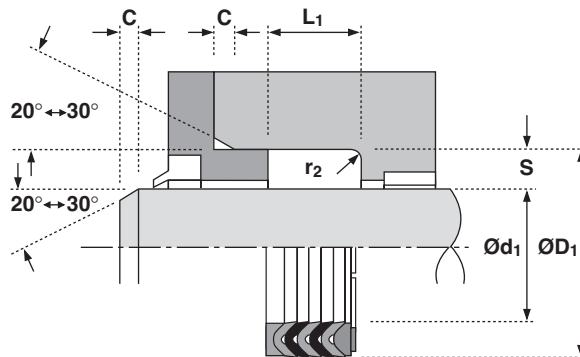
All sizes have three vee rings manufactured from rubberised fabric because this has strength and durability and permits an oil film to lubricate the other parts of the seal. Two rubber vee rings are supplied between the rubberised fabric vee rings (up to and including 140mm diameter) to aid low pressure sealing.

The female adaptor uses a hard rubberised fabric to support the vee rings and protect them from extrusion damage. At high pressure the lips of the adaptor acts as a secondary seal.

The proportions of the range have been determined to give a satisfactory performance when used with the recommended operating conditions.

Features

- Precision moulded vee rings
- Pressure distribution adaptors
- Reliable sealing



Technical details

Operating conditions

Maximum Speed 0.5 m/sec
 Temperature Range -30°C +100°C
 Maximum Pressure 400 bar

Inch

1.5 ft/sec
 -22°F +212°F
 6,000 p.s.i.

Maximum extrusion gap

Figures show the maximum permissible gap all on one side using minimum rod \varnothing and maximum clearance \varnothing . Refer to Housing Design section.

	100	160	250	400
Pressure bar	100	160	250	400
Maximum Gap mm	0.45	0.4	0.3	0.2
Pressure p.s.i.	1500	2400	3750	6000

Surface roughness

	μmRa	μmRt	μinCLA	μinRMS
Dynamic Sealing Face $\varnothing d_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 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

	7.5	10.0	12.5	15.0
Groove Section $\leq S$ 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_1 mm	0.4	1.2	1.6	1.6

Tolerances

	$\varnothing d_1$	$\varnothing D_1$	L_1 mm
	f9	H11	+0.2 -0

