

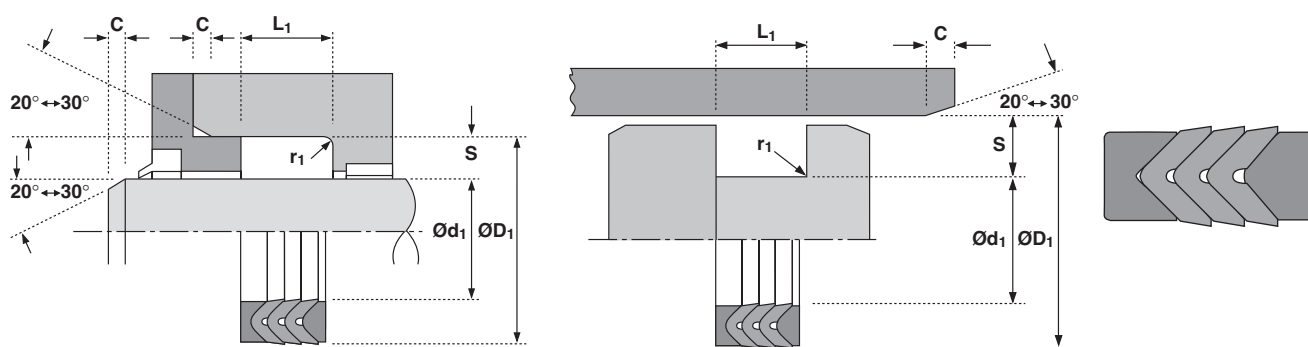
Design

Hallite 09 vee packings incorporate the Hallite 08 vee ring manufactured from fabric reinforced high grade nitrile rubber, which is normally used in multiples in a set with a male and female adaptor. The parts are 'stacked' together and must be lubricated liberally with clean operating fluid prior to assembly.

The packing must be axially pre-loaded by the housing. This preload works through the male adaptor on the pressure side, exerting a hinging action on the vees, forcing the sealing lips apart to ensure a low pressure seal. As the pressure increases, so the hinging action increases, increasing the effectiveness of the seal even where severe vibration, shock loading and knuckling may occur.

The standard Hallite 09 comprises of three vees and two adaptors, available in metric and imperial inch sizes. In addition to the ranges the Hallite 09 is also available for standard American inch housings. Some adaptors are rubber fabric while others are polyacetal resin. Individual vee rings are stocked to supplement the sets, but it should be noted that individual adaptors are only available in special circumstances.

For sizes not listed or for special requirements, please contact your Hallite sales office.



Technical details

Operating conditions

Maximum Speed

Temperature Range

Maximum Pressure

Metric

0.5 m/sec

-30°C +100°C

400 bar

Inch

1.5 ft/sec

-22°F +212°F

6000 p.s.i.

Maximum extrusion gap

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

Pressure bar

Maximum Gap mm

Pressure p.s.i.

Maximum Gap in

100

0.45

1500

0.018

175

0.4

2250

0.015

250

0.3

3500

0.010

400

0.2

6000

0.007

Surface roughness

Dynamic Sealing Face – Rod $\varnothing d_1$

Static Sealing Face – Rod $\varnothing D_1$

Dynamic Sealing Face – Piston $\varnothing d_1$

Static Sealing Face – Piston $\varnothing D_1$

Static Housing Faces L_1

μmRa

0.1 < > 0.4

1.6 max

0.1 < > 0.4

1.6 max

3.2 max

μmRt

4 max

10 max

4 max

10 max

16 max

$\mu inCLA$

4 < > 16

63 max

4 < > 16

63 max

125 max

$\mu inRMS$

5 < > 18

70 max

5 < > 18

70 max

140 max

Chamfers & Radii

Groove Section $\leq S$ mm

Min Chamfer C mm

Max Fillet Rad r_1 mm

Groove Section $\leq S$ in

Min Chamfer C in

Max Fillet Rad r_1 in

5.0

3.0

0.5

0.187

0.093

0.020

7.5

5.0

0.8

0.250

0.125

0.031

10.0

6.5

0.8

0.312

0.156

0.031

12.5

7.0

0.8

0.375

0.187

0.031

15.0

7.5

0.8

0.500

0.250

0.031

Tolerances

Rod

Piston

$\varnothing d_1$

f9

js11

$\varnothing D_1$

Js11

H9

L_1 mm

+0.75 -0.0

+0.75 -0.0

L_1 in

+0.030 -0

+0.030 -0



vee pack sets