

Design

The Hallite 657 has been designed especially to fit SAE J518 flanges.

High pressure and pumping are common problems which prevent reliable sealing in applications where O rings are fitted. Hallite's 657 overcomes these.

Manufactured as standard in Hallite's high quality Hythane® 181, the material provides excellent extrusion resistance and is able to perform at both low and high temperatures. The seal's profile is designed to ensure that pumping is prevented and to provide reliable sealing of the flange.

In addition to the high specification material, the Hallite 657 is also manufactured in an industrial standard polyurethane.

Please ensure that the correct part number is specified for the material option that is required. See left for details.

NB: Also listed, two non-SAE seal sizes for metric flanges.

Features

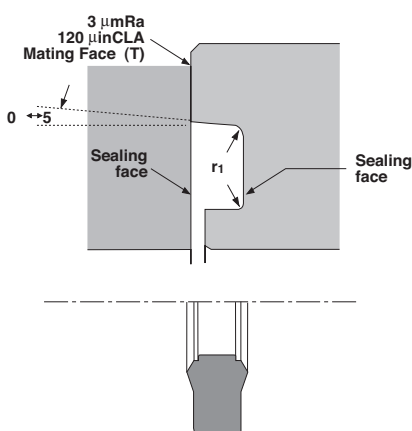
- High specification material
- Industrial grade material option
- SAE flange sizes

Material

Standard material
Hythane® _ _ _ _ 00

Material options:
93IRHD Polyurethane (AU)
_ _ _ _ 01

NB: Temperature rating for 93IRHD Polyurethane (AU) changes to:
-30°C +100°C (-22°F +212°F)



Technical details

Operating conditions

Maximum Speed
Temperature Range
Maximum Pressure

Metric

Static
-45°C +110°C
600 bar

Inch

Static
-50°F +230°F
8500 p.s.i.

Surface roughness

Sealing Faces
Mating Face

| µmRa | µmRt |
|------|---------|
| 0.8 | 6.3 |
| 3 | 20 ÷ 30 |

| µinCLA | µinRMS |
|--------|--------|
| 32 | 35 |
| 120 | 120 |

Radii

Max Fillet Rad r_1 mm
Max Fillet Rad r_1 in

0.80
0.03

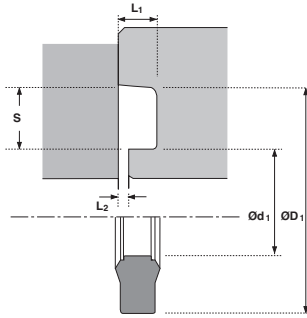
Tolerances

mm
in

| ØD ₁ | S | L ₁ | L ₂ |
|-----------------|--------|----------------|----------------|
| ±0.100 | ±0.25 | ±0.050 | +0 -0.25 |
| +0.005 -0 | ±0.015 | +0.005 -0 | +0 -0.010 |



flange seals

**metric**

| ØD ₁ | TOL | Ød ₁ | S | TOL | L ₁ | TOL | L ₂ | TOL | PART No. |
|-----------------|------------------|-----------------|-----|----------------|----------------|------------------|----------------|------------------|----------|
| 33.5 | +0.100 -0.100 | 26.3 | 3.6 | +0.25 -0.25 | 2.200 | +0.050 -0.050 | 0.25 | +0.000 -0.250 | 44328_ _ |
| 45.0 | +0.100 -0.100 | 36.2 | 4.4 | +0.25 -0.25 | 3.300 | +0.050 -0.050 | 0.25 | +0.000 -0.250 | 44912_ _ |

inch – SAE J518

| NOMINAL (SAE J518) | ØD ₁ | TOL | Ød ₁ | S | TOL | L ₁ | TOL | L ₂ | TOL | PART No. |
|-----------------------|-----------------|------------------|-----------------|-------|------------------|----------------|------------------|----------------|------------------|----------|
| ½ | 1.000 | +0.005 -0.000 | 0.670 | 0.165 | +0.010 -0.010 | 0.110 | +0.005 -0.000 | 0.010 | +0.000 -0.010 | 44909_ _ |
| ¾ | 1.250 | +0.005 -0.000 | 0.920 | 0.165 | +0.010 -0.010 | 0.110 | +0.005 -0.000 | 0.010 | +0.000 -0.010 | 44910_ _ |
| 1 | 1.560 | +0.005 -0.000 | 1.230 | 0.165 | +0.010 -0.010 | 0.110 | +0.005 -0.000 | 0.010 | +0.000 -0.010 | 44911_ _ |
| 1¼ | 1.750 | +0.005 -0.000 | 1.420 | 0.165 | +0.010 -0.010 | 0.110 | +0.005 -0.000 | 0.010 | +0.000 -0.010 | 44220_ _ |
| 1½ | 2.125 | +0.010 -0.000 | 1.785 | 0.165 | +0.010 -0.010 | 0.110 | +0.005 -0.000 | 0.010 | +0.000 -0.010 | 44221_ _ |
| 2 | 2.500 | +0.010 -0.000 | 2.160 | 0.165 | +0.010 -0.010 | 0.110 | +0.005 -0.000 | 0.010 | +0.000 -0.010 | 44222_ _ |