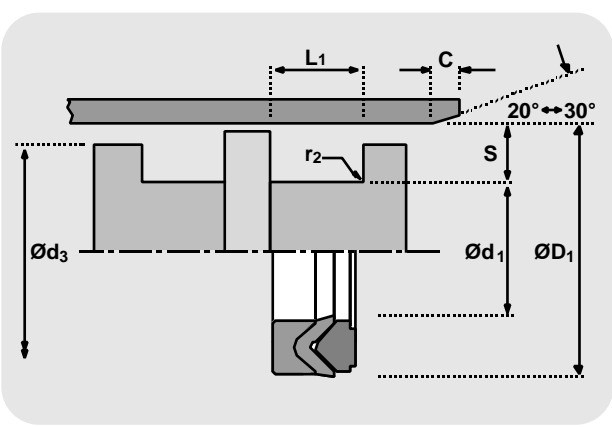
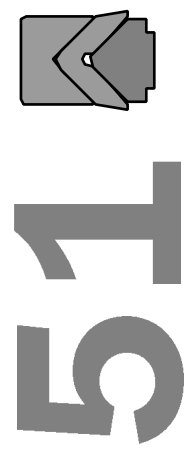


| TECHNICAL DETAILS | | METRIC | INCH |
|--|--------------------|-------------------|-------------------|
| OPERATING CONDITIONS | | | |
| MAXIMUM SPEED | 0.5 m/sec | 1.5 ft/sec | |
| TEMPERATURE RANGE | -30°C + 100°C | -22°F + 212°F | |
| MAXIMUM PRESSURE | 700 bar | 10,000 p.s.i. | |
| MAXIMUM EXTRUSION GAP | | | |
| PRESSURE bar | 160 | 250 | 400 |
| MAXIMUM GAP mm | 0.35 | 0.3 | 0.2 |
| PRESSURE p.s.i. | 2400 | 3750 | 6000 |
| SURFACE ROUGHNESS | | | |
| DYNAMIC SEALING FACE $\varnothing D_1$ | 0.1 \ddot{O} 0.4 | 4 max | 4 \ddot{O} 16 |
| STATIC SEALING FACE $\varnothing d_1$ | 1.6 max | 10 max | 5 \ddot{O} 18 |
| STATIC HOUSING FACES L_1 | 3.2 max | 16 max | 125 max |
| CHAMFERS & RADII | | | |
| GROOVE SECTION S mm | 7.5 | 10.0 | 12.5 |
| MIN CHAMFER C mm | 4.0 | 5.0 | 6.5 |
| MAX FILLET RAD r_2 mm | 0.8 | 1.2 | 1.6 |
| TOLERANCES | | | |
| | $\varnothing D_1$ | $\varnothing d_1$ | $\varnothing d_3$ |
| mm | H9 | h11 | +0 -0.3 |



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

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.

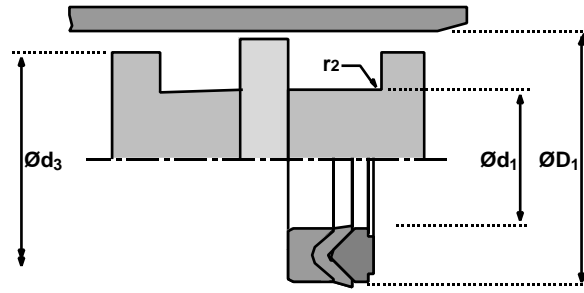
FEATURES

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

Piston seals

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 |