

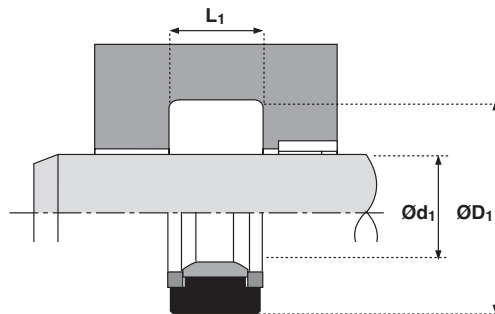


Design

The Hallite 744 is a robust double acting rod seal specifically developed for longwall mining roof support applications. It is of similar construction to the well established Hallite 730 and comprises a tough wear resistant thermoplastic polyester elastomer (TPE) face, which is loaded by a profiled nitrile energiser. Most designs have rectangular polyacetal anti-extrusion rings. This seal has been developed as a double acting rod seal, which is required for a constant setting mining roof support leg cylinder. The operating conditions given are for HFA (water based) fluids.

Features

- High shock load capability
- High pressure capability



Technical details

Operating conditions

Maximum Speed	0.3 m/sec
Temperature Range	-0°C +60°C
Maximum Pressure	700 bar
Static Pressure	1200bar

Inch

1.0 ft/sec
-32°F + 140°F
10,000 p.s.i.
17,400 p.s.i.

Maximum extrusion gap

Pressure bar	160	250	500	700	1200
Maximum Gap mm	1.00	0.80	0.40	0.25	0.10
Pressure p.s.i.	2400	3750	7500	10,000	17,400

Surface roughness

	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face ØD ₁	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face Ød ₁ Ød ₂	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

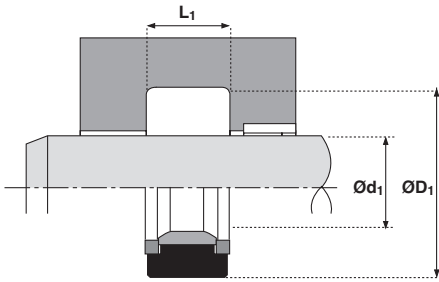
Groove Section ≤ S mm	7.5	10.0	12.5
Min Chamfer C mm	4.0	5.0	6.5
Max Fillet Rad r ₁ mm	0.2	0.4	0.8

Tolerances

Ød ₁	ØD ₁	L ₁
f9	Js11	+0.2 - 0



double acting rod seals



$\text{Ø}d_1$	TOL f9	$\text{Ø}D_1$	TOL Js11	L_1 +0.25 -0	PART No.
63	-0.030 -0.104	76.0	+0.095 -0.095	14.5	2365110
80	-0.030 -0.104	95.0	+0.110 -0.110	18.0	2360610
110	-0.036 -0.123	125.0	+0.125 -0.125	16.0	2364910

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