

Design

Hallite 735 is a compact double acting piston seal assembly designed for one piece pistons and is suitable for low to high pressure, medium to heavy duty applications. The assembly comprises as standard a self lubricating wear resistant bronze filled or glass / MoS2 filled PTFE cap ring, which is loaded by a NBR energiser. Thermoplastic split anti-extrusion rings support the seal on both sides and prevent contamination of the the energiser and cap ring.

Hallite's 735 piston seal is designed to be used in a variety of equipment and is particularly suited to use in earthmoving and other off-highway equipment.

The range consists of seals to suit popular North American and Asian housings.

For information about other material options available, please contact your local Hallite Seals office.

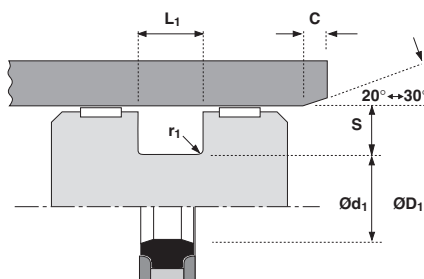
Features

- Heavy duty
- High pressure capability
- PTFE cap ring
- Compact design
- Low friction
- Long life
- Range of material options to extend service temperature range

Material

Material options (cap ring):
PTFE, 40% Bronze

PTFE, 15% Glass 5% MoS2



Technical details

Operating conditions

Maximum Speed	1.5 m/sec
Temperature Range	-40°C +120°C
Maximum Pressure	500 bar

Inch

4.5 ft/sec
-40°F +250°F
7500 p.s.i.

Maximum extrusion gap

	160	250	400	500
Pressure bar	160	250	400	500
Maximum Gap mm	1.0	0.8	0.6	0.5
Pressure p.s.i.	2400	3750	6000	7500
Maximum Gap in	0.040	0.030	0.024	0.020

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

Surface roughness

	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face ØD1	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face Ød1	1.6 max	10 max	63 max	70 max
Static Housing Faces L1	3.2 max	16 max	125 max	140 max

Chamfers & Radii

Groove Section ≤ S mm	7.0	7.5	11.5	14.0
Min Chamfer C mm	4.0	5.0	7.0	8.0
Max Fillet Rad r1 mm	0.8	0.8	0.8	0.8
Groove Section ≤ S in	0.187	0.240	0.365	0.470
Min Chamfer C in	0.160	0.200	0.250	0.280
Max Fillet Rad r1 in	0.016	0.016	0.032	0.032

Tolerances

	ØD1	Ød1	L1
mm	H9	+0 -0.2	+0.2 -0
in	H9	*see below	+0.01 -0
ØD1 in	≤ 3.000	≤ 4.500	> 4.500
Ød1 Tol	+0 - 0.002	+0 - 0.003	+0 - 0.004

