

Design

The Hallite 616 is a revolutionary seal from Hallite, incorporating the sealing efficiency of the Hallite 605 with the compact grooves used by PTFE rod seals.

Hallite's 616 is an asymmetric twin lip seal, designed for light and medium duty applications where space and friction are at a premium.

Manufactured in Hallite's high performance polyurethane Hythane® 181, the Hallite 616 is an extremely flexible seal making installation very easy.

NB: Part numbers suffixed by "‡" indicate housing sizes to meet ISO7425-2.

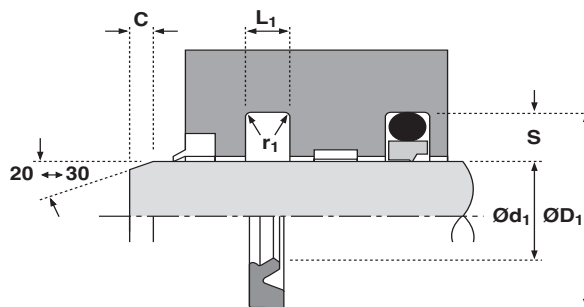
NOTE

Hallite 616 is used either as a single seal or in a combination with Hallite 16. The latter arrangement is recommended when pressure peaks can occur, as in cylinders with cushioning, in this case the Hallite 16 is fitted into the pressure side of the housing while the Hallite 616 ensures minimal leakage sealing.

It is recommended that Hallite Seals be consulted when considering this arrangement.

Features

- Easy assembly
- Twin-lip performance
- ISO 7425 housing



Technical details

Operating conditions

Maximum Speed	1.0 m/sec
Temperature Range	-45°C +110°C
Maximum Pressure	240 bar

Inch

3.0 ft/sec
-50°F +230°F
3500 p.s.i.

Maximum extrusion gap

Pressure bar	160	240
Maximum Gap mm	0.6	0.5
Pressure p.s.i.	2400	3500

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

Surface roughness

	μmRa	μmRt	μinCLA	μinRMS
Dynamic Sealing Face $\varnothing d_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face $\varnothing D_1$	1.6 max	10 max	63 max	70
maxStatic Housing Faces L_1	3.2 max	16 max	125 max	140 max

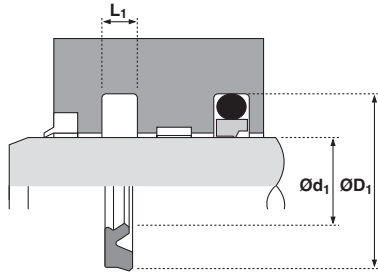
Chamfers & Radii

Groove Section $\leq S$ mm	3.75	5.50	7.75
Min Chamfer C mm	2.0	3.0	5.0
Max Fillet Rad r_1 mm	0.4	0.8	1.2

Tolerances

$\varnothing d_1$	$\varnothing D_1$	L_1 mm
f9	H11	+0.25 -0





Ød1	TOL f9	ØD1	TOL H11	SL	L1 +0.25 -0	PART No.
14	-0.016 -0.059	21.5	+0.13 +0.00	2.8	3.2	4577700‡
18	-0.016 -0.059	25.5	+0.13 +0.00	2.8	3.2	4341800‡
20	-0.020 -0.072	27.5	+0.13 +0.00	2.8	3.2	4721700‡
20	-0.020 -0.072	31.0	+0.16 +0.00	3.9	4.2	4367400‡
22	-0.020 -0.072	33.0	+0.16 +0.00	3.9	4.2	4341900‡
25	-0.020 -0.072	32.5	+0.16 +0.00	2.8	3.2	4721800‡
25	-0.020 -0.072	36.0	+0.16 +0.00	3.9	4.2	4367500‡
25.4	-0.020 -0.072	32.9	+0.16 +0.00	2.8	3.2	4469000
28	-0.020 -0.072	39.0	+0.16 +0.00	3.9	4.2	4367600‡
30	-0.020 -0.072	41.0	+0.16 +0.00	3.9	4.2	4404500
32	-0.025 -0.087	39.5	+0.16 +0.00	2.8	3.2	4714800
32	-0.025 -0.087	43.0	+0.16 +0.00	3.9	4.2	4367700‡
36	-0.025 -0.087	47.0	+0.16 +0.00	3.9	4.2	4353100‡
40	-0.025 -0.087	51.0	+0.19 +0.00	3.9	4.2	4722900‡
40	-0.025 -0.087	55.5	+0.19 +0.00	6.0	6.3	4367800
45	-0.025 -0.087	56.0	+0.19 +0.00	3.9	4.2	4556300‡
45	-0.025 -0.087	60.5	+0.19 +0.00	6.0	6.3	4367900
50	-0.025 -0.087	61.0	+0.19 +0.00	3.9	4.2	4723000‡
50	-0.025 -0.087	65.5	+0.19 +0.00	6.0	6.3	4368000

Ød1	TOL f9	ØD1	TOL H11	SL	L1 +0.25 -0	PART No.
56	-0.030 -0.104	71.5	+0.19 +0.00	6.0	6.3	4368100‡
60	-0.030 -0.104	70.6	+0.19 +0.00	3.9	4.2	4410800
60	-0.030 -0.104	75.5	+0.19 +0.00	6.0	6.3	4727100
63	-0.030 -0.104	78.5	+0.19 +0.00	6.0	6.3	4368200‡
65	-0.030 -0.104	76.0	+0.19 +0.00	3.9	4.2	4853300
65	-0.030 -0.104	80.5	+0.22 +0.00	6.0	6.3	4548000
70	-0.030 -0.104	85.5	+0.22 +0.00	6.0	6.3	4368300‡
75	-0.030 -0.104	90.5	+0.22 +0.00	6.0	6.3	4728200
80	-0.030 -0.104	95.5	+0.22 +0.00	6.0	6.3	4368400‡
85	-0.036 -0.123	100.5	+0.22 +0.00	6.0	6.3	4538400
90	-0.036 -0.123	105.5	+0.22 +0.00	6.0	6.3	4368500‡
95	-0.036 -0.123	110.5	+0.22 +0.00	6.0	6.3	4538500
100	-0.036 -0.123	115.5	+0.22 +0.00	6.0	6.3	4368600‡
110	-0.036 -0.123	125.5	+0.25 +0.00	6.0	6.3	4545400‡
125	-0.043 -0.143	140.5	+0.25 +0.00	6.0	6.3	4545500‡
130	-0.043 -0.143	145.5	+0.25 +0.00	6.0	6.3	4793900
140	-0.043 -0.143	155.5	+0.25 +0.00	6.0	6.3	4545600‡
160	-0.043 -0.143	175.5	+0.25 +0.00	6.0	6.3	4548100‡