

Design

The Hallite 663 is an asymmetric seal offering superlative dry rod sealing for light and medium duty applications.

The seal is a single lip modification of the well established Hallite 605 profile and is ideal for applications which require a double lip wiper such as the Hallite 839, Hallite 844 or Hallite 846.

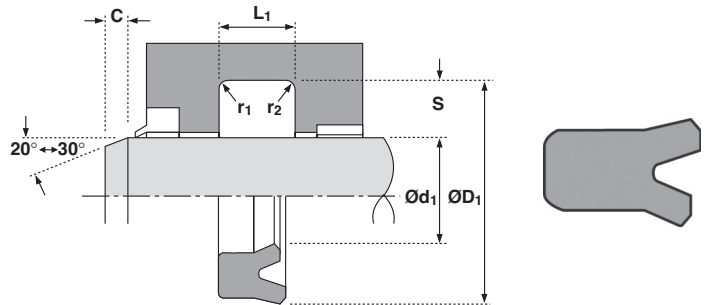
Manufactured in Hythane® – 181, the Hallite 663 is an extremely flexible seal making installation very easy. The Hallite 663 is also available in Hallite 361 material.

Features

- Easy installation
- Dry rod sealing performance when used with Hallite 839, 844 or 846 wipers

Material

Material options:	
Hythane® 181	0
Hallite® 361	6



Technical details

Operating conditions

Maximum Speed	1.0 m/sec
Temperature Range	-45°C +110°C
Maximum Pressure	400 bar

Inch

3.0 ft/sec
-50°F +230°F
6000 p.s.i.

Maximum extrusion gap

Pressure bar	160	250	400
Maximum Gap mm	0.6	0.5	0.4
Pressure p.s.i.	2400	3750	6000

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 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

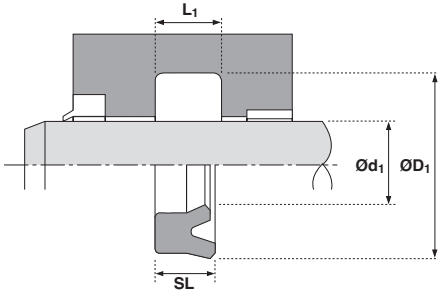
Chamfers & Radii

Groove Section $\leq S$ mm	4.0	5.0	7.5	10
Min Chamfer C mm	3.0	3.5	5.0	6.5
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8
Max Fillet Rad r_2 mm	0.4	0.8	1.2	1.2

Tolerances

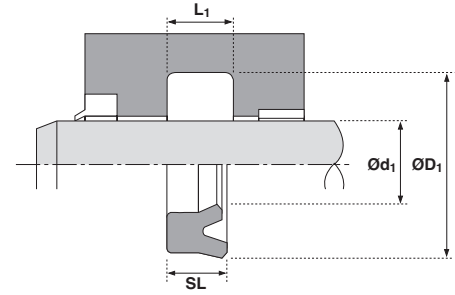
$\varnothing d_1$	$\varnothing D_1$	L_1 mm
f9	Js11	+0.25 -0





$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	L_1 +0.25 -0	PART No.
12.0	-0.016 -0.059	22.0	+0.06 -0.06	7.3	8.0	486510_
14.0	-0.016 -0.059	24.0	+0.06 -0.06	8.2	9.0	486520_
16.0	-0.016 -0.059	24.0	+0.06 -0.06	5.7	6.3	478930_
16.0	-0.016 -0.059	26.0	+0.06 -0.06	7.3	8.0	486530_
18.0	-0.016 -0.059	26.0	+0.06 -0.06	5.7	6.3	478940_
20.0	-0.020 -0.072	28.0	+0.06 -0.06	5.7	6.3	482740_
20.0	-0.020 -0.072	30.0	+0.06 -0.06	7.3	8.0	486540_
22.0	-0.020 -0.072	32.0	+0.08 -0.08	7.3	8.0	486550_
24.0	-0.020 -0.072	34.0	+0.08 -0.08	7.8	8.5	476450_
25.0	-0.020 -0.072	33.0	+0.08 -0.08	5.7	6.3	478950_
25.0	-0.020 -0.072	35.0	+0.08 -0.08	7.3	8.0	486560_
25.0	-0.020 -0.072	40.0	+0.08 -0.08	10.0	11.0	486570_
26.0	-0.020 -0.072	36.0	+0.08 -0.08	10.0	11.0	472600_
28.0	-0.020 -0.072	36.0	+0.08 -0.08	5.7	6.3	478960_
30.0	-0.020 -0.072	38.0	+0.08 -0.08	5.7	6.3	483040_
30.0	-0.020 -0.072	38.0	+0.08 -0.08	8.2	9.0	478970_
30.0	-0.020 -0.072	40.0	+0.08 -0.08	7.3	8.0	481670_
30.0	-0.020 -0.072	40.0	+0.08 -0.08	10.0	11.0	481180_
30.0	-0.010 -0.072	45.0	+0.08 -0.08	10.0	11.0	486580_
32.0	-0.020 -0.072	40.0	+0.08 -0.08	5.7	6.3	482750_
32.0	-0.020 -0.072	42.0	+0.08 -0.08	7.3	8.0	486590_
35.0	-0.025 -0.087	43.0	+0.08 -0.08	5.7	6.3	478980_
35.0	-0.025 -0.087	45.0	+0.08 -0.08	7.3	8.0	481680_

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	L_1 +0.25 -0	PART No.
35.0	-0.025 -0.087	45.0	+0.08 -0.08	10.0	11.0	481610_
36.0	-0.025 -0.087	44.0	+0.08 -0.08	5.8	6.3	485960_
36.0	-0.025 -0.087	44.0	+0.08 -0.08	8.0	9.0	472620_
36.0	-0.025 -0.087	46.0	+0.08 -0.08	7.3	8.0	486600_
40.0	-0.025 -0.087	48.0	+0.08 -0.08	5.7	6.3	478990_
40.0	-0.025 -0.087	48.0	+0.08 -0.08	8.2	9.0	479000_
40.0	-0.025 -0.087	50.0	+0.08 -0.08	7.3	8.0	480630_
40.0	-0.025 -0.087	50.0	+0.08 -0.08	8.2	9.0	479010_
40.0	-0.025 -0.087	50.0	+0.08 -0.08	10.0	11.0	455340_
45.0	-0.025 -0.087	53.0	+0.08 -0.08	8.2	9.0	483890_
45.0	-0.025 -0.087	55.0	+0.09 -0.09	7.3	8.0	479020_
45.0	-0.025 -0.087	55.0	+0.09 -0.09	10.3	11.0	472630_
50.0	-0.025 -0.087	57.0	+0.09 -0.09	9.0	10.0	478740_
50.0	-0.025 -0.087	58.0	+0.09 -0.09	8.2	9.0	479030_
50.0	-0.025 -0.087	60.0	+0.09 -0.09	7.3	8.0	472640_
50.0	-0.025 -0.087	60.0	+0.09 -0.09	10.0	11.0	481440_
50.0	-0.025 -0.087	65.0	+0.09 -0.09	11.4	12.5	480640_
54.0	-0.030 -0.104	64.0	+0.09 -0.09	10.0	11.0	486870_
55.0	-0.030 -0.104	65.0	+0.09 -0.09	10.0	11.0	479890_
55.0	-0.030 -0.104	67.0	+0.09 -0.09	10.0	11.0	479380_
56.0	-0.030 -0.104	66.0	+0.09 -0.09	10.0	11.0	472650_
60.0	-0.030 -0.104	68.0	+0.09 -0.09	8.0	9.0	481690_
60.0	-0.030 -0.104	70.0	+0.09 -0.09	7.3	8.0	482260_



$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	L_1 +0.25 -0	PART No.
60.0	-0.030 -0.104	70.0	+0.09 -0.09	10.0	11.0	472660_
60.0	-0.030 -0.104	75.0	+0.09 -0.09	11.4	12.5	480650_
65.0	-0.030 -0.104	75.0	+0.09 -0.09	11.8	13.0	479040_
65.0	-0.030 -0.104	80.0	+0.11 -0.11	11.4	13.0	472670_
70.0	-0.030 -0.104	85.0	+0.11 -0.11	11.4	13.0	479050_
75.0	-0.030 -0.104	95.0	+0.11 -0.11	14.5	16.0	480900_

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	L_1 +0.25 -0	PART No.
80.0	-0.030 -0.104	90.0	+0.11 -0.11	11.8	13.0	476140_
80.0	-0.030 -0.104	100.0	+0.11 -0.11	14.5	16.0	480660_
85.0	-0.036 -0.123	97.0	+0.11 -0.11	8.7	9.6	487010_
85.0	-0.036 -0.123	100.0	+0.11 -0.11	11.8	13.0	480670_
100.0	-0.036 -0.123	115.0	+0.11 -0.11	11.8	13.0	483740_

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