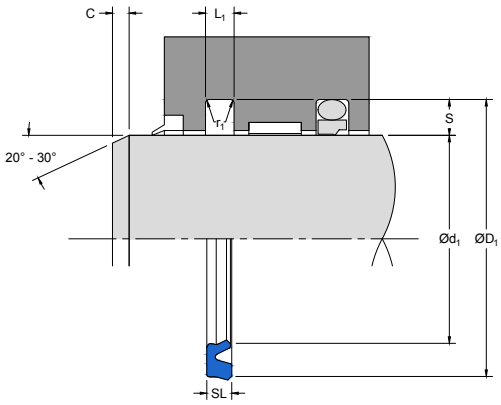
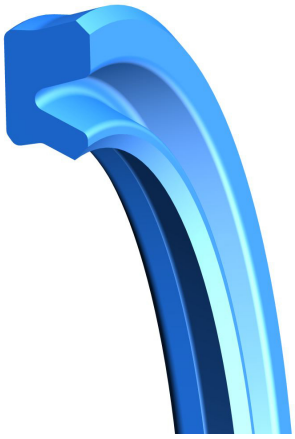


616

ROD SEAL

Twin Lip
Polyurethane

DESIGN



Hallite's 616 is a compact, asymmetric twin lip rod seal offering excellent dry rod sealing for light and medium-duty applications where space and friction are at a premium. The seal is manufactured in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance.

The Hallite 616 design incorporates the sealing efficiency of the Hallite 605 rod seal with the compact grooves used by PTFE rod seals.

Hallite recommends using our 616 rod seal as either a single seal or in combination with the Hallite R16 PTFE rod seal. The combination is recommended for use in applications where pressure peaks may occur, such as cylinders with cushioning. The Hallite R16 PTFE rod seal is fitted into the groove on the pressure side of the gland and the Hallite 616 is used as the secondary seal to ensure minimal leakage. Consult your local Hallite office when considering this arrangement.

FEATURES

- Low friction
- Improved sealability
- Performs well over wide temperature range and is extremely effective in low temperatures
- Easy to install
- ISO 7425-2 housing

MATERIALS

As standard, this product comes in the following material. Contact your local Hallite technical team if you would like to find out if this profile can be made in a custom material to suit your application. For further material details, please refer to the Hallite Material Table.

MATERIAL OPTIONS	Name	Type	Colour
Standard	Hythane® 181	TPU-EU	Blue

TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Maximum Speed	1.0 m/sec	3.0 ft/sec
Temperature Range	-45°C +110°C	-50°F +230°F
Maximum Pressure	240 bar	3500 psi

NOTE

Data given are maximum values and can apply depending on specific application. Maximum ratings of temperature, pressure, or operating speeds are dependent on fluid medium, surface, gap value, and other variables such as dynamic or static service. Maximum values are not intended for use together at the same time, e.g. max temperature and max pressure. Please contact your Hallite technical representative for application support.

MAXIMUM EXTRUSION GAP		
Pressure bar	160	250
Maximum Gap mm	0.60	0.50
Pressure psi	2400	3750
Maximum Gap in	0.024	0.020

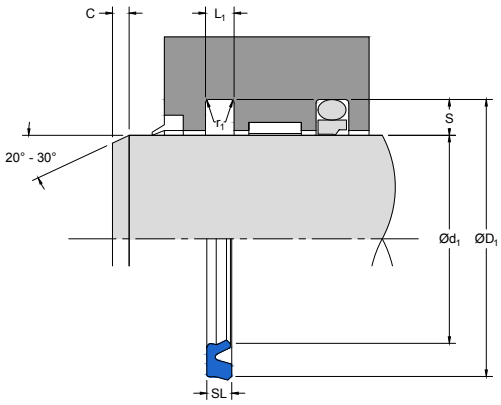
NOTE

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

SURFACE ROUGHNESS	µmRa	µmRz	µmRt	µinRa	µinRz	µinRt
Dynamic Sealing Face $Ød_1$	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $ØD_1$	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Housing Faces L_1	3.2 max	10 max	16 max	125 max	394 max	630 max

CHAMFERS & RADII			
Groove Section <S mm	3.75	5.50	7.75
Min Chamfer C mm	3.00	3.50	5.00
Max Fillet Rad r_1 mm	0.20	0.40	0.80

TOLERANCES	$Ød_1$	$ØD_1$	L_1
Rod mm	f9	H11	+0.25 -0



616

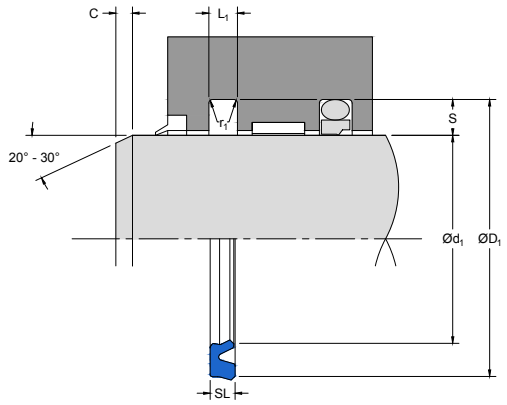
ROD SEAL

Twin Lip
Polyurethane

PART NUMBER RANGE

METRIC						
$Ød_1$	TOL f9	$ØD_1$	TOL H11	SL	L_1 +0.25-0	PART No.
14.00	-0.02 -0.06	21.50	+0.13 0.00	2.80	3.20	4577700‡
18.00	-0.02 -0.06	25.50	+0.13 0.00	2.80	3.20	4341800‡
20.00	-0.02 -0.07	27.50	+0.13 0.00	2.80	3.20	4721700‡
20.00	-0.02 -0.07	31.00	+0.16 0.00	3.90	4.20	4367400‡
22.00	-0.02 -0.07	33.00	+0.16 0.00	3.90	4.20	4341900‡
25.00	-0.02 -0.07	32.50	+0.16 0.00	2.80	3.20	4721800‡
25.00	-0.02 -0.07	36.00	+0.16 0.00	3.90	4.20	4367500‡
25.40	-0.02 -0.07	32.90	+0.16 0.00	2.80	3.20	4469000
28.00	-0.02 -0.07	39.00	+0.16 0.00	3.90	4.20	4367600‡
30.00	-0.02 -0.07	41.00	+0.16 0.00	3.90	4.20	4404500
32.00	-0.03 -0.09	39.50	+0.16 0.00	2.80	3.20	4714800
32.00	-0.03 -0.09	43.00	+0.16 0.00	3.90	4.20	4367700‡
36.00	-0.03 -0.09	47.00	+0.16 0.00	3.90	4.20	4353100‡
40.00	-0.03 -0.09	51.00	+0.19 0.00	3.90	4.20	4722900‡
40.00	-0.03 -0.09	55.50	+0.19 0.00	6.00	6.30	4367800
45.00	-0.03 -0.09	56.00	+0.19 0.00	3.90	4.20	4556300‡
45.00	-0.03 -0.09	60.50	+0.19 0.00	6.00	6.30	4367900

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

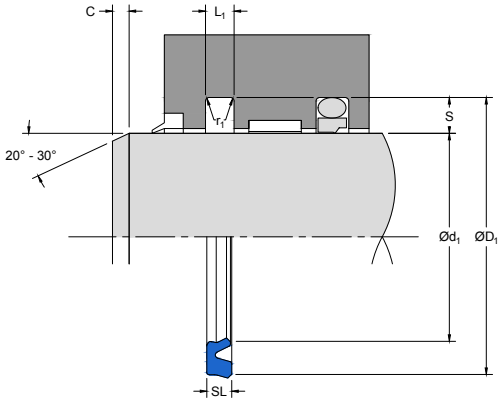


PART NUMBER RANGE

METRIC						
$Ød_1$	TOL f9	$ØD_1$	TOL H11	SL	L_1 +0.25-0	PART No.
50.00	-0.03 -0.09	61.00	+0.19 0.00	3.90	4.20	4723000‡
50.00	-0.03 -0.09	65.50	+0.19 0.00	6.00	6.30	4368000
56.00	-0.03 -0.10	71.50	+0.19 0.00	6.00	6.30	4368100‡
60.00	-0.03 -0.10	70.60	+0.19 0.00	3.90	4.20	4410800
60.00	-0.03 -0.10	75.50	+0.19 0.00	6.00	6.30	4727100
63.00	-0.03 -0.10	78.50	+0.19 0.00	6.00	6.30	4368200‡
65.00	-0.03 -0.10	76.00	+0.19 0.00	3.90	4.20	4853300
65.00	-0.03 -0.10	80.50	+0.22 0.00	6.00	6.30	4548000
70.00	-0.03 -0.10	85.50	+0.22 0.00	6.00	6.30	4368300‡
75.00	-0.03 -0.10	90.50	+0.22 0.00	6.00	6.30	4728200
80.00	-0.03 -0.10	95.50	+0.22 0.00	6.00	6.30	4368400‡
85.00	-0.04 -0.12	100.50	+0.22 0.00	6.00	6.30	4538400
90.00	-0.04 -0.12	105.50	+0.22 0.00	6.00	6.30	4368500‡
95.00	-0.04 -0.12	110.50	+0.22 0.00	6.00	6.30	4538500
100.00	-0.04 -0.12	115.50	+0.22 0.00	6.00	6.30	4368600‡
110.00	-0.04 -0.12	125.50	+0.25 0.00	6.00	6.30	4545400‡
125.00	-0.04 -0.14	140.50	+0.25 0.00	6.00	6.30	4545500‡

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

PART NUMBERS ON THIS PAGE ARE LISTED IN THE STANDARD MATERIAL OPTION. FOR MATERIAL VARIATIONS OR FOR CUSTOM SIZES, MATERIALS, OR SEAL DESIGNS, PLEASE CONTACT YOUR LOCAL HALLITE REPRESENTATIVE.



616

ROD SEAL

Twin Lip
Polyurethane

PART NUMBER RANGE

METRIC						
$Ød_1$	TOL f9	$ØD_1$	TOL H11	SL	L_1 +0.25-0	PART No.
130.00	-0.04 -0.14	145.50	+0.25 0.00	6.00	6.30	4793900
140.00	-0.04 -0.14	155.50	+0.25 0.00	6.00	6.30	4545600‡
160.00	-0.04 -0.14	175.50	+0.25 0.00	6.00	6.30	4548100‡

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