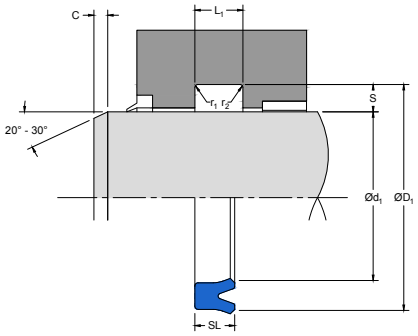
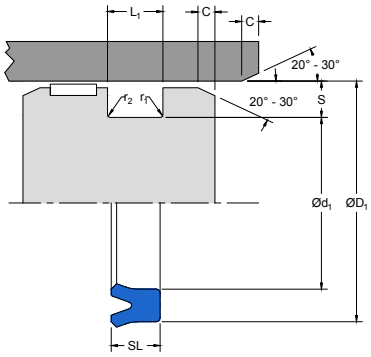




601

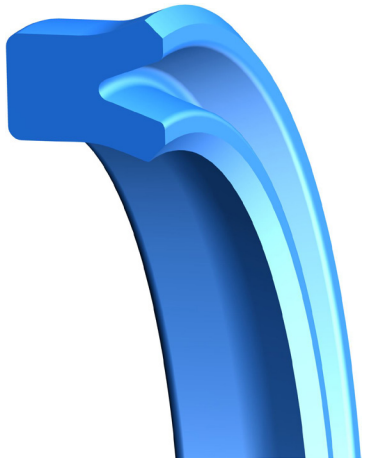
ROD/PISTON SEAL

Single-Acting
Polyurethane

DESIGN

The Hallite 601 high-performance, general purpose, single-acting U-ring rod or piston seal is designed to provide a dry sealing solution in light and medium-duty applications and manufactured in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance. The seal can be considered for use in heavy-duty applications when used with a suitable full depth back-up ring. The sealing lips are trimmed at an angle to give optimal sealing performance.

The symmetry of the Hallite 601 makes it ideally suited for single-acting rod or piston applications. The Hallite 601 can also be fitted back-to-back for use in double-acting applications, but the Hallite 606 single-acting piston seal is the preferred option.



FEATURES

- General purpose seal
- Excellent resistance to abrasion
- Positive lip actuation
- Excellent temperature resistance
- Precision trimmed lips
- Easy to install

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	Color
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	400 bar	6000 psi
Maximum Pressure with Backup Ring	700 bar	10000 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.

NOTE

Pressure Rating: Can be extended with use of backup ring. Seek technical advice from local Hallite office.

MAXIMUM EXTRUSION GAP			
Pressure bar	160	250	400
Maximum Gap mm	0.60	0.50	0.40
Pressure psi	2400	3750	6000
Maximum Gap in	0.024	0.020	0.016

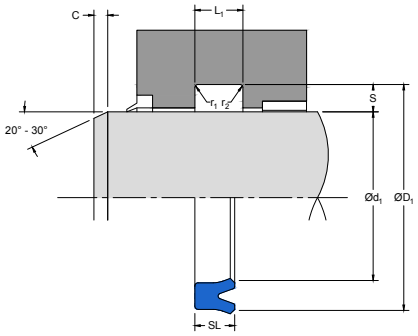
NOTE

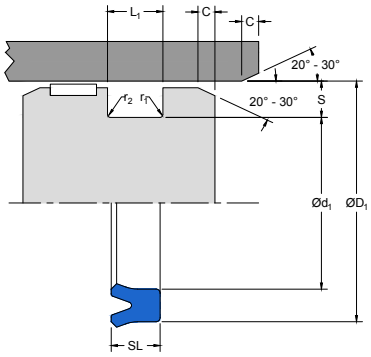
Figures show the maximum permissible gap all on one side, for rod seals using minimum rod Ø and maximum clearance Ø and for piston seals using the minimum clearance Ø and maximum bore Ø. Refer to Housing Design section.

SURFACE ROUGHNESS	µmRa	µmRz	µmRt	µinRa	µinRz	µinRt
Dynamic Sealing Face $Ød_1$ - Rod	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $ØD_1$ - Rod	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Dynamic Sealing Face $ØD_1$ - Piston	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $Ød_1$ - Piston	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	4.00	5.00	7.50	10.00	12.50	15.00	20.00
Min Chamfer C mm	3.00	3.50	5.00	6.50	7.00	8.00	10.00
Max Fillet Rad r_1 mm	0.20	0.40	0.80	0.80	1.20	1.60	1.60
Max Fillet Rad r_2 mm	0.40	0.80	1.20	1.20	1.60	2.40	2.40
Groove Section ≤ S in	0.125	0.187	0.250	0.312	0.375	0.500	
Min Chamfer C in	0.093	0.093	0.125	0.156	0.187	0.187	
Max Fillet Rad r_1 in	0.008	0.008	0.016	0.032	0.032	0.032	
Max Fillet Rad r_2 in	0.016	0.016	0.032	0.047	0.047	0.047	

TOLERANCES	$Ød_1$	$ØD_1$	L_1 mm	L_1 in
Rod	f9	Js11	+0.25 -0	+0.010 -0
Piston	js11	H9	+0.25 -0	+0.010 -0





601

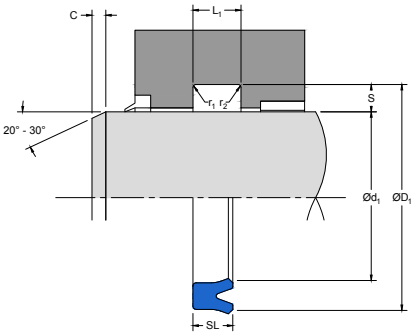
ROD/PISTON SEAL

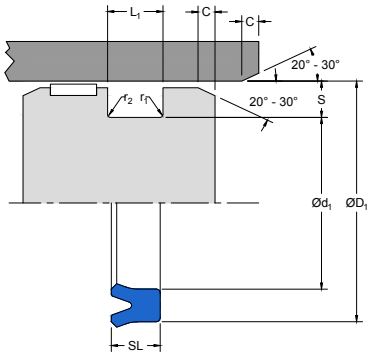
Single-Acting
Polyurethane

PART NUMBER RANGE

INCH						
$Ød_1$	TOL f9	$ØD_1$	TOL Js11	SL	L_1 +0.010-0	PART No.
0.500	-0.001 -0.002	0.750	+0.003 -0.003	0.250	0.275	4566500
0.500	-0.001 -0.002	0.875	+0.003 -0.003	0.197	0.218	4300000
0.500	-0.001 -0.002	1.000	+0.003 -0.003	0.250	0.275	4110201
0.625	-0.001 -0.002	1.000	+0.003 -0.003	0.190	0.218	4298300
0.625	-0.001 -0.002	1.125	+0.003 -0.003	0.250	0.275	4509101
0.750	-0.001 -0.003	1.250	+0.003 -0.003	0.250	0.275	4102901
0.875	-0.001 -0.003	1.375	+0.003 -0.003	0.250	0.275	4507101
1.000	-0.001 -0.003	1.500	+0.003 -0.003	0.250	0.275	4111101
1.250	-0.001 -0.003	1.750	+0.003 -0.003	0.250	0.275	4502701
1.250	-0.001 -0.003	1.750	+0.003 -0.003	0.375	0.413	4107001
1.375	-0.001 -0.003	1.750	+0.003 -0.003	0.375	0.413	4353400
1.375	-0.001 -0.003	2.000	+0.004 -0.004	0.266	0.312	4236201
1.500	-0.001 -0.003	2.000	+0.004 -0.004	0.250	0.275	4111001
1.750	-0.001 -0.003	2.250	+0.004 -0.004	0.250	0.275	4502601
1.750	-0.001 -0.003	2.250	+0.004 -0.004	0.375	0.413	4140901

NOTE For piston sealing tolerances refer to technical details.



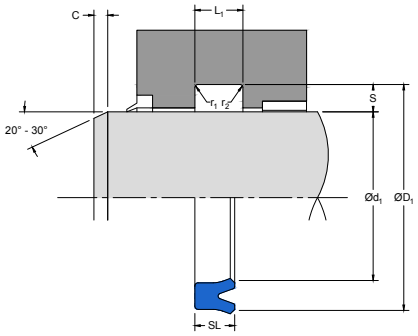


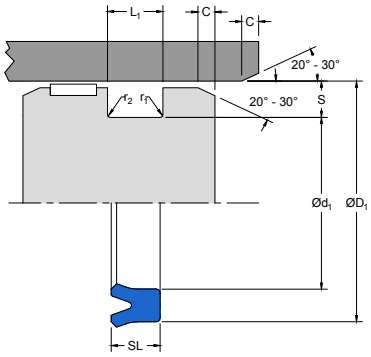
PART NUMBER RANGE

INCH						
$Ød_1$	TOL f9	$ØD_1$	TOL Js11	SL	L_1 +0.010-0	PART No.
1.750	-0.001 -0.003	2.375	+0.004 -0.004	0.266	0.312	4236301
1.750	-0.001 -0.003	2.375	+0.004 -0.004	0.562	0.619	4250901
2.000	-0.001 -0.004	2.375	+0.004 -0.004	0.250	0.275	4508301
2.000	-0.001 -0.004	2.375	+0.004 -0.004	0.312	0.344	4509201
2.000	-0.001 -0.004	2.500	+0.004 -0.004	0.375	0.413	4353500
2.000	-0.001 -0.004	2.625	+0.004 -0.004	0.500	0.550	4225101
2.000	-0.001 -0.004	2.625	+0.004 -0.004	0.562	0.619	4159801
2.125	-0.001 -0.004	2.500	+0.004 -0.004	0.250	0.275	4508201
2.125	-0.001 -0.004	2.625	+0.004 -0.004	0.375	0.413	4156101
2.250	-0.001 -0.004	2.750	+0.004 -0.004	0.375	0.413	4128701
2.375	-0.001 -0.004	3.000	+0.004 -0.004	0.312	0.344	4107201
2.500	-0.001 -0.004	3.000	+0.004 -0.004	0.375	0.413	4119501
2.500	-0.001 -0.004	3.125	+0.004 -0.004	0.312	0.344	4124401
2.625	-0.001 -0.004	3.125	+0.004 -0.004	0.375	0.413	4224701
2.750	-0.001 -0.004	3.375	+0.004 -0.004	0.562	0.619	4250701

NOTE For piston sealing tolerances refer to technical details.

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.





601

ROD/PISTON SEAL

Single-Acting
Polyurethane

PART NUMBER RANGE

INCH						
$Ød_1$	TOL f9	$ØD_1$	TOL Js11	SL	L_1 +0.010-0	PART No.
2.875	-0.001 -0.004	3.500	+0.004 -0.004	0.325	0.360	4129701
3.000	-0.001 -0.004	3.500	+0.004 -0.004	0.375	0.413	4866200
3.000	-0.001 -0.004	3.625	+0.004 -0.004	0.562	0.619	4160001
3.750	-0.001 -0.005	4.500	+0.004 -0.004	0.375	0.413	4119201
4.000	-0.001 -0.005	4.500	+0.004 -0.004	0.511	0.562	4373400
4.000	-0.001 -0.005	4.750	+0.005 -0.005	0.375	0.413	4120501
4.000	-0.001 -0.005	4.750	+0.005 -0.005	0.536	0.600	4422500
4.500	-0.001 -0.005	5.000	+0.005 -0.005	0.375	0.413	4129801
4.750	-0.002 -0.006	5.500	+0.005 -0.005	0.360	0.437	4154701
5.000	-0.002 -0.006	5.750	+0.005 -0.005	0.482	0.539	4224801
5.000	-0.002 -0.006	6.000	+0.005 -0.005	0.750	0.825	8901300
5.500	-0.002 -0.006	6.250	+0.005 -0.005	0.375	0.413	4119301
5.750	-0.002 -0.006	6.500	+0.005 -0.005	0.375	0.413	4135301
7.000	-0.002 -0.006	7.500	+0.006 -0.006	0.250	0.275	4806200
7.750	-0.002 -0.006	8.750	+0.006 -0.006	0.500	0.550	4806100

NOTE For piston sealing tolerances refer to technical details.