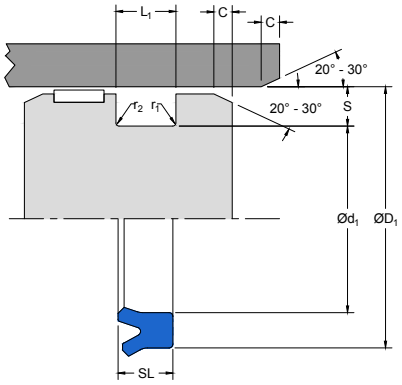
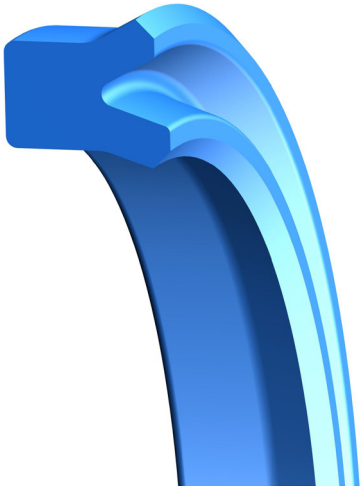


606

PISTON SEAL

Single-Acting
Polyurethane, Single Lip

DESIGN



The Hallite 606 single-acting, single lip asymmetric piston seal is designed with precision trimmed sealing lips to provide effective bore sealing in light and medium-duty applications. 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 rod sealing performance.

The range covers most standard housings used in Europe, North America and Asia.

The Hallite 606 is designed to have an interference in the seal housing groove. The outer dynamic lip is shorter and more robust to improve sealing and compression set characteristics over conventional, symmetrical U-rings.

The seal is recommended for use in single-acting piston seal applications. It can also be fitted back-to-back in separate grooves for use in double-acting applications.

The Hallite 606 is moulded in Hythane® 181, Hallite's high-performance polyurethane, for easy installation and excellent low temperature performance.

FEATURES

- General purpose seal
- Robust design
- Excellent wear resistance
- Performs well over wide temperature range and is extremely effective in low temperatures
- 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	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	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 back-up 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

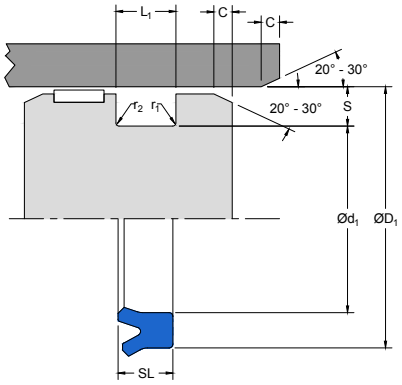
NOTE

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 $ØD_1$	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	4.00	5.00	7.50	10.00	12.50	15.00
Min Chamfer C mm	3.00	3.50	5.00	6.50	7.00	8.00
Max Fillet Rad r_1 mm	0.20	0.40	0.80	0.80	1.20	1.60
Max Fillet Rad r_2 mm	0.40	0.80	1.20	1.20	1.60	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	H9	js11	+0.25 -0
in	H9	js11	+0.010 -0



606

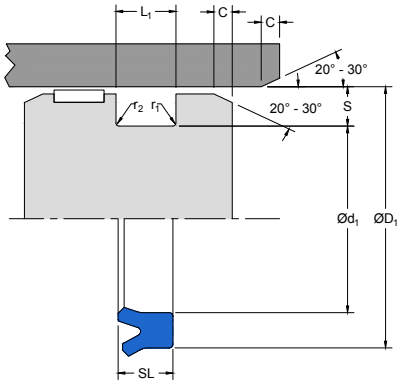
PISTON SEAL

Single-Acting
Polyurethane, Single Lip

PART NUMBER RANGE

METRIC						
$ØD_1$	TOL H9	$Ød_1$	TOL js11	SL	L_1 +0.25-0	PART No.
16.00	+0.04 0.00	10.00	+0.04 -0.04	5.70	6.30	4830500
25.00	+0.05 0.00	15.00	+0.06 -0.06	8.20	9.00	4390100
25.00	+0.05 0.00	17.00	+0.06 -0.06	5.70	6.30	4418000‡
30.00	+0.05 0.00	20.00	+0.07 -0.07	8.00	9.00	4354200
32.00	+0.06 0.00	24.00	+0.07 -0.07	5.70	6.30	4351900‡
35.00	+0.06 0.00	25.00	+0.07 -0.07	7.30	8.00	4365700
37.00	+0.06 0.00	21.00	+0.07 -0.07	11.80	13.00	4354100
38.00	+0.06 0.00	31.00	+0.08 -0.08	5.20	6.00	4728000
40.00	+0.06 0.00	28.00	+0.07 -0.07	9.00	10.00	4826200
40.00	+0.06 0.00	30.00	+0.07 -0.07	7.30	8.00	4299500‡
40.00	+0.06 0.00	30.00	+0.07 -0.07	10.00	11.00	4400900
45.00	+0.06 0.00	35.00	+0.08 -0.08	7.30	8.00	4315700
50.00	+0.06 0.00	35.00	+0.08 -0.08	9.00	10.00	4649300
50.00	+0.06 0.00	39.00	+0.08 -0.08	3.80	4.20	4460700
50.00	+0.06 0.00	40.00	+0.08 -0.08	7.80	8.00	4319500‡
55.00	+0.07 0.00	45.00	+0.08 -0.08	7.30	8.00	4380000
56.00	+0.07 0.00	45.00	+0.08 -0.08	7.00	8.00	4644200

NOTE Part numbers suffixed by "‡" indicate housing sizes to meet ISO 5597.



PART NUMBER RANGE

METRIC						
$ØD_1$	TOL H9	$Ød_1$	TOL js11	SL	L_1 +0.25-0	PART No.
60.00	+0.07 0.00	44.90	+0.08 -0.08	5.70	6.30	4739800
60.00	+0.07 0.00	45.00	+0.08 -0.08	10.00	11.00	4407000
60.00	+0.07 0.00	50.00	+0.08 -0.08	9.00	10.00	4762000
63.00	+0.07 0.00	48.00	+0.08 -0.08	9.00	10.00	4649400
63.00	+0.07 0.00	48.00	+0.08 -0.08	11.40	12.50	4383200‡
63.00	+0.07 0.00	53.00	+0.10 -0.10	7.30	8.00	4341500‡
63.00	+0.07 0.00	53.00	+0.10 -0.10	11.80	13.00	4318800
65.00	+0.07 0.00	55.00	+0.10 -0.10	7.30	8.00	4424100
70.00	+0.07 0.00	55.00	+0.10 -0.10	10.00	11.00	4448000
70.00	+0.07 0.00	60.00	+0.10 -0.10	8.00	9.00	4709500
71.00	+0.07 0.00	61.00	+0.10 -0.10	6.00	7.00	4492600
75.00	+0.07 0.00	67.00	+0.10 -0.10	5.70	6.30	4844100
75.00	+0.07 0.00	67.00	+0.10 -0.10	8.80	9.70	4322300
76.20	+0.07 0.00	66.20	+0.10 -0.10	7.30	8.00	4649700
80.00	+0.07 0.00	65.00	+0.10 -0.10	11.40	12.50	4363800‡
80.00	+0.07 0.00	70.00	+0.10 -0.10	6.00	7.00	4644800
80.00	+0.07 0.00	70.00	+0.10 -0.10	6.80	7.50	4370300

NOTE Part numbers suffixed by "‡" indicate housing sizes to meet ISO 5597.

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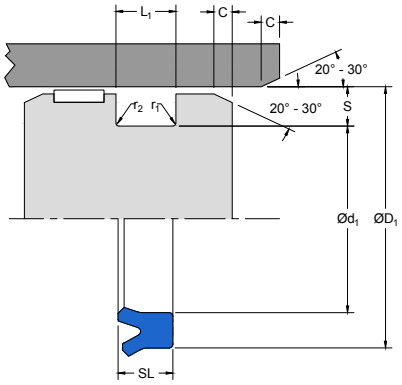

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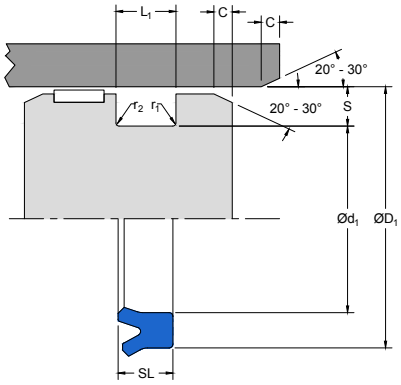
PISTON SEAL

Single-Acting
Polyurethane, Single Lip

PART NUMBER RANGE

METRIC						
$ØD_1$	TOL H9	$Ød_1$	TOL js11	SL	L_1 +0.25-0	PART No.
80.00	+0.07 0.00	70.00	+0.10 -0.10	8.00	9.00	4709600
80.00	+0.07 0.00	70.00	+0.10 -0.10	11.60	12.80	4649000
85.00	+0.09 0.00	75.00	+0.10 -0.10	8.10	9.00	4709700
85.70	+0.09 0.00	70.70	+0.10 -0.10	10.30	11.40	4493400
90.00	+0.09 0.00	80.00	+0.10 -0.10	11.00	12.00	4798800
100.00	+0.09 0.00	80.00	+0.10 -0.10	10.50	11.60	4874000
100.00	+0.09 0.00	85.00	+0.11 -0.11	9.00	10.00	4644600
100.00	+0.09 0.00	85.00	+0.11 -0.11	11.40	12.50	4363900‡
100.00	+0.09 0.00	85.00	+0.11 -0.11	11.80	13.00	4648900
100.00	+0.09 0.00	90.00	+0.11 -0.11	6.80	7.50	4375900
110.00	+0.09 0.00	100.00	+0.11 -0.11	8.00	9.00	4533100
120.00	+0.09 0.00	100.00	+0.11 -0.11	11.80	13.00	4649100
125.00	+0.10 0.00	105.00	+0.11 -0.11	14.50	16.00	4364000‡
150.00	+0.10 0.00	130.00	+0.13 -0.13	14.50	16.00	4390200
150.00	+0.10 0.00	140.00	+0.13 -0.13	13.60	15.00	4390300
160.00	+0.10 0.00	140.00	+0.13 -0.13	14.50	16.00	4642700‡
160.00	+0.10 0.00	140.00	+0.13 -0.13	18.20	20.00	4364100

NOTE Part numbers suffixed by "‡" indicate housing sizes to meet ISO 5597.



PART NUMBER RANGE

METRIC						
$ØD_1$	TOL H9	$Ød_1$	TOL js11	SL	L_1 +0.25-0	PART No.
170.00	+0.10 0.00	150.00	+0.13 -0.13	15.00	16.50	4642800
180.00	+0.10 0.00	160.00	+0.13 -0.13	15.00	16.50	4643100
190.00	+0.12 0.00	170.00	+0.13 -0.13	15.00	16.50	4642900
200.00	+0.12 0.00	180.00	+0.13 -0.13	14.50	16.00	4392300
280.00	+0.13 0.00	260.00	+0.16 -0.16	15.50	17.00	4643000
305.00	+0.13 0.00	275.00	+0.16 -0.16	23.80	25.00	4649500
490.00	+0.16 0.00	470.00	+0.20 -0.20	14.50	16.00	4911400

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