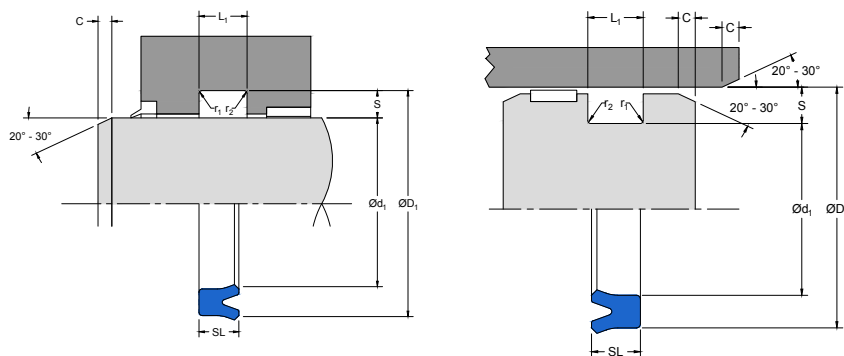




601

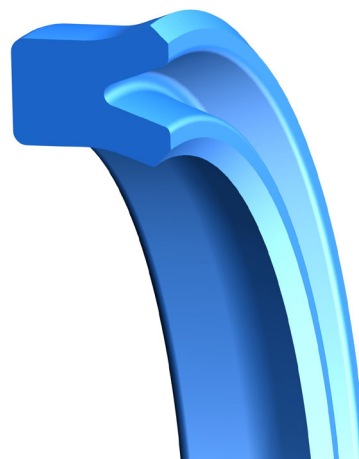
ROD/PISTON SEAL

*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.



F E A T U R E S

- 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	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 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

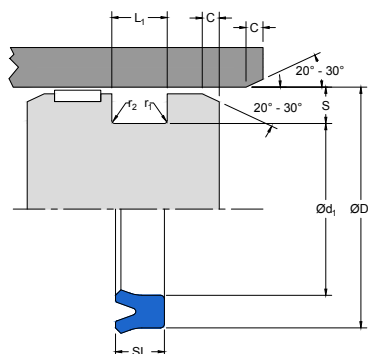
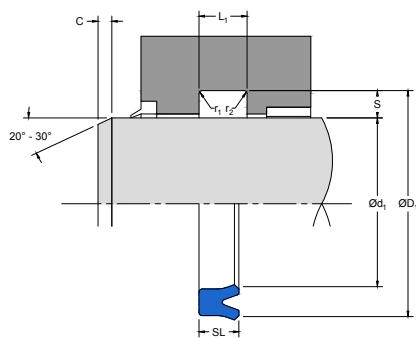
Figures show the maximum permissible gap all on one side, for rod seals using minimum rod $\varnothing$ and maximum clearance $\varnothing$ and for piston seals using the minimum clearance $\varnothing$ and maximum bore $\varnothing$. Refer to Housing Design section.

SURFACE ROUGHNESS	μmRa	μmRz	μmRt	μinRa	μinRz	μinRt
Dynamic Sealing Face $\varnothing d_1$ - Rod	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing D_1$ - Rod	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Dynamic Sealing Face $\varnothing D_1$ - Piston	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing d_1$ - 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 $\leq S$ 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	$\varnothing d_1$	$\varnothing D_1$	L_1 mm	L_1 in
Rod	f9	Js11	+0.25 -0	+0.010 -0
Piston	js11	H9	+0.25 -0	+0.010 -0





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ROD/PISTON SEAL

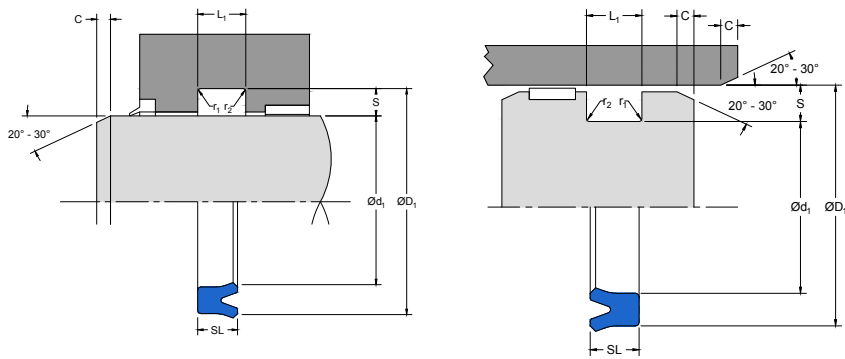
Single-Acting
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.25-0	PART No.
4.50	-0.01 -0.04	12.50	+0.06 -0.06	4.40	5.00	4506701
5.00	-0.01 -0.04	12.00	+0.06 -0.06	5.50	6.50	4508601
6.00	-0.01 -0.04	13.00	+0.06 -0.06	8.00	9.00	4460300
10.00	-0.01 -0.05	18.00	+0.06 -0.06	6.00	6.60	4299900
10.00	-0.01 -0.05	20.00	+0.07 -0.07	8.00	9.00	4600000
12.00	-0.02 -0.06	18.00	+0.06 -0.06	6.00	7.00	4621300
12.00	-0.02 -0.06	20.00	+0.07 -0.07	4.40	5.00	4182501‡
12.00	-0.02 -0.06	25.00	+0.07 -0.07	8.00	9.00	4600100
14.00	-0.02 -0.06	22.00	+0.07 -0.07	4.40	5.00	4182601‡
14.00	-0.02 -0.06	22.00	+0.07 -0.07	5.00	5.70	4604000
14.00	-0.02 -0.06	24.00	+0.07 -0.07	8.00	9.00	4600200
15.00	-0.02 -0.06	25.00	+0.07 -0.07	8.00	9.00	4600300
16.00	-0.02 -0.06	24.00	+0.07 -0.07	4.40	5.00	4182701‡
16.00	-0.02 -0.06	24.00	+0.07 -0.07	5.00	5.70	4604100
16.00	-0.02 -0.06	26.00	+0.07 -0.07	8.00	9.00	4600400
18.00	-0.02 -0.06	26.00	+0.07 -0.07	4.40	5.00	4182901‡
18.00	-0.02 -0.06	26.00	+0.07 -0.07	5.00	5.70	4604200

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



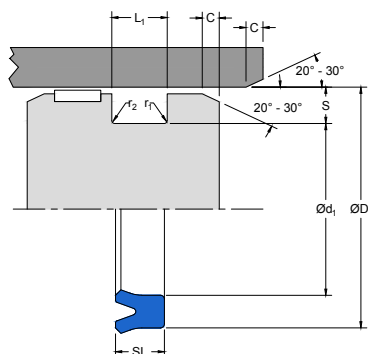
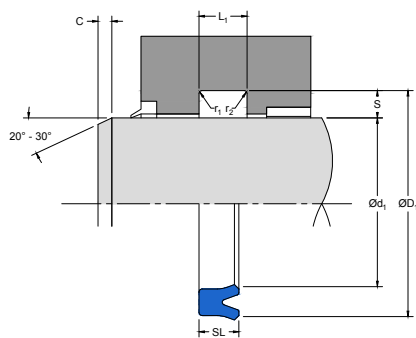
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.25-0	PART No.
18.00	-0.02 -0.06	28.00	+0.07 -0.07	7.30	8.00	4547900
18.00	-0.02 -0.06	28.00	+0.07 -0.07	8.00	9.00	4600500
20.00	-0.02 -0.07	28.00	+0.07 -0.07	4.40	5.00	4183001‡
20.00	-0.02 -0.07	28.00	+0.07 -0.07	5.00	5.70	4604300
20.00	-0.02 -0.07	30.00	+0.07 -0.07	8.00	9.00	4600600
20.00	-0.02 -0.07	40.00	+0.08 -0.08	12.00	13.00	4621900
22.00	-0.02 -0.07	30.00	+0.07 -0.07	4.40	5.00	4183101‡
22.00	-0.02 -0.07	35.00	+0.08 -0.08	10.00	11.00	4600700
22.00	-0.02 -0.07	40.00	+0.08 -0.08	10.00	11.00	4572900
22.40	-0.02 -0.07	30.00	+0.07 -0.07	5.00	5.70	4604400
22.40	-0.02 -0.07	32.40	+0.08 -0.08	8.00	9.00	4600800
23.50	-0.02 -0.07	31.50	+0.08 -0.08	5.00	5.70	4621500
25.00	-0.02 -0.07	33.00	+0.08 -0.08	4.40	5.00	4183301‡
25.00	-0.02 -0.07	33.00	+0.08 -0.08	5.00	5.70	4604500
25.00	-0.02 -0.07	35.00	+0.08 -0.08	8.00	9.00	4600900
25.00	-0.02 -0.07	35.00	+0.08 -0.08	10.00	11.00	4362600
25.00	-0.02 -0.07	38.00	+0.08 -0.08	8.00	9.00	4601000

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.





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ROD/PISTON SEAL

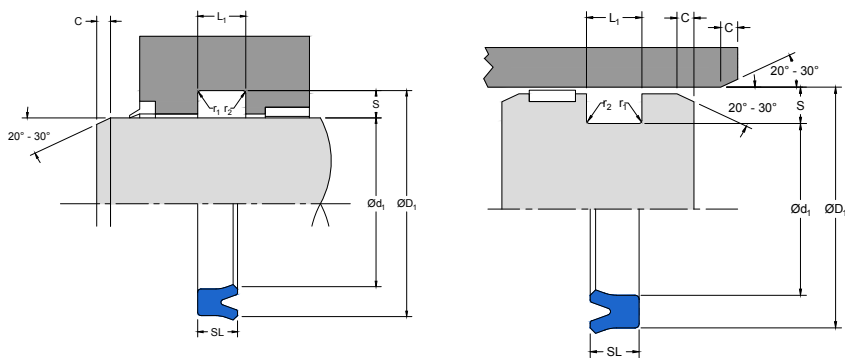
Single-Acting
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
25.00	-0.02 -0.07	38.00	+0.08 -0.08	10.00	11.00	4621400
25.00	-0.02 -0.07	40.00	+0.08 -0.08	10.00	11.00	4601100
26.00	-0.02 -0.07	40.00	+0.08 -0.08	9.00	10.00	4584900
28.00	-0.02 -0.07	35.50	+0.08 -0.08	5.00	5.70	4604600
28.00	-0.02 -0.07	36.00	+0.08 -0.08	6.50	7.10	4506201
28.00	-0.02 -0.07	38.00	+0.08 -0.08	5.60	6.30	4183401‡
28.00	-0.02 -0.07	38.00	+0.08 -0.08	8.00	9.00	4867600
28.00	-0.02 -0.07	40.00	+0.08 -0.08	10.00	11.00	4601200
28.00	-0.02 -0.07	43.00	+0.08 -0.08	10.00	11.00	4601300
30.00	-0.02 -0.07	37.00	+0.08 -0.08	6.00	7.00	4596800
30.00	-0.02 -0.07	40.00	+0.08 -0.08	5.60	6.30	4183501
30.00	-0.02 -0.07	40.00	+0.08 -0.08	6.00	7.00	4604700
30.00	-0.02 -0.07	40.00	+0.08 -0.08	8.00	9.00	4596900
30.00	-0.02 -0.07	40.00	+0.08 -0.08	10.00	11.00	4362700
30.00	-0.02 -0.07	45.00	+0.08 -0.08	10.00	11.00	4601400
31.50	-0.03 -0.09	41.50	+0.08 -0.08	6.00	7.00	4604800
32.00	-0.03 -0.09	40.00	+0.08 -0.08	8.00	9.00	4867700

NOTE

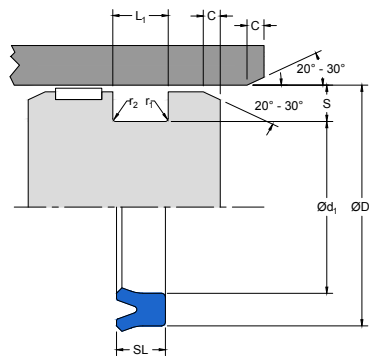
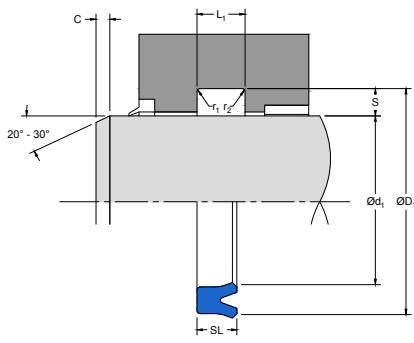
For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.25-0	PART No.
32.00	-0.03 -0.09	42.00	+0.08 -0.08	5.60	6.30	4183601‡
32.00	-0.03 -0.09	42.00	+0.08 -0.08	6.00	7.00	4604900
32.00	-0.03 -0.09	42.00	+0.08 -0.08	10.00	11.00	4362800
32.00	-0.03 -0.09	47.00	+0.08 -0.08	10.00	11.00	4621200
35.00	-0.03 -0.09	45.00	+0.08 -0.08	6.00	7.00	4605000
35.00	-0.03 -0.09	45.00	+0.08 -0.08	7.00	8.00	4496000
35.00	-0.03 -0.09	48.00	+0.08 -0.08	10.00	11.00	4360300
35.00	-0.03 -0.09	50.00	+0.08 -0.08	10.00	11.00	4601500
35.50	-0.03 -0.09	45.00	+0.08 -0.08	6.00	7.00	4605100
35.50	-0.03 -0.09	50.50	+0.10 -0.10	10.00	11.00	4621100
36.00	-0.03 -0.09	46.00	+0.08 -0.08	5.60	6.30	4183701‡
38.00	-0.03 -0.09	48.00	+0.08 -0.08	6.00	7.00	4605200
38.00	-0.03 -0.09	50.00	+0.08 -0.08	9.00	10.00	4709400
38.00	-0.03 -0.09	55.00	+0.10 -0.10	9.70	11.00	4366000
38.00	-0.03 -0.09	58.00	+0.10 -0.10	9.70	11.00	4560100
40.00	-0.03 -0.09	50.00	+0.08 -0.08	5.60	6.30	4183801‡
40.00	-0.03 -0.09	50.00	+0.08 -0.08	6.00	7.00	4605300
NOTE		For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.				





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ROD/PISTON SEAL

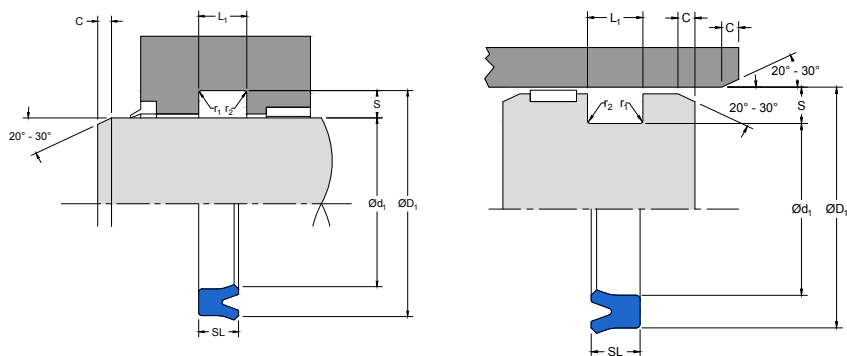
Single-Acting
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
40.00	-0.03 -0.09	50.00	+0.08 -0.08	10.00	11.00	4362900
40.00	-0.03 -0.09	55.00	+0.10 -0.10	9.90	11.00	4388500
40.00	-0.03 -0.09	55.00	+0.10 -0.10	10.00	11.00	4601600
40.00	-0.03 -0.09	60.00	+0.10 -0.10	12.00	13.00	4601700
45.00	-0.03 -0.09	53.00	+0.10 -0.10	10.00	11.00	4867800
45.00	-0.03 -0.09	55.00	+0.10 -0.10	5.60	6.30	4183901‡
45.00	-0.03 -0.09	55.00	+0.10 -0.10	6.00	7.00	4605400
45.00	-0.03 -0.09	55.00	+0.10 -0.10	10.00	11.00	4363000
45.00	-0.03 -0.09	56.00	+0.10 -0.10	7.00	8.00	4605500
45.00	-0.03 -0.09	60.00	+0.10 -0.10	10.00	11.00	4601800
45.00	-0.03 -0.09	65.00	+0.10 -0.10	10.00	11.00	4575000
46.00	-0.03 -0.09	56.00	+0.10 -0.10	6.00	7.00	4543900
48.00	-0.03 -0.09	63.00	+0.10 -0.10	10.00	11.00	4601900
50.00	-0.03 -0.09	60.00	+0.10 -0.10	5.60	6.30	4184001‡
50.00	-0.03 -0.09	60.00	+0.10 -0.10	6.00	7.00	4605600
50.00	-0.03 -0.09	60.00	+0.10 -0.10	10.00	11.00	4363100
50.00	-0.03 -0.09	65.00	+0.10 -0.10	10.00	11.00	4602000

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



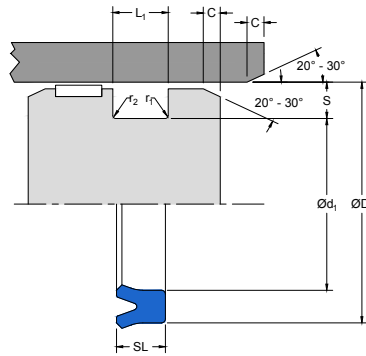
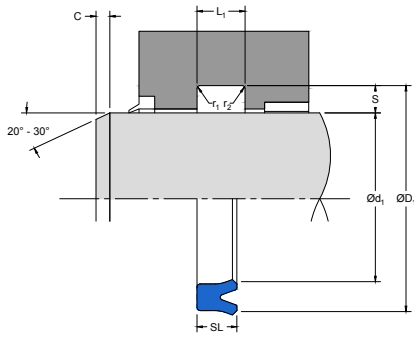
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.25-0	PART No.
50.00	-0.03 -0.09	70.00	+0.10 -0.10	12.00	13.00	4602100
52.00	-0.03 -0.10	62.00	+0.10 -0.10	10.00	11.00	4559000
53.00	-0.03 -0.10	63.00	+0.10 -0.10	6.00	7.00	4605700
55.00	-0.03 -0.10	65.00	+0.10 -0.10	6.00	7.00	4605800
55.00	-0.03 -0.10	75.00	+0.10 -0.10	12.00	13.00	4602200
56.00	-0.03 -0.10	66.00	+0.10 -0.10	6.00	7.00	4605900
56.00	-0.03 -0.10	71.00	+0.10 -0.10	8.40	9.50	4184201‡
56.00	-0.03 -0.10	76.00	+0.10 -0.10	12.00	13.00	4622000
60.00	-0.03 -0.10	70.00	+0.10 -0.10	6.00	7.00	4606000
60.00	-0.03 -0.10	70.00	+0.10 -0.10	10.00	11.00	4363200
60.00	-0.03 -0.10	71.00	+0.10 -0.10	7.00	8.00	4606100
60.00	-0.03 -0.10	76.00	+0.10 -0.10	12.00	13.00	4608000
60.00	-0.03 -0.10	80.00	+0.10 -0.10	12.00	13.00	4602300
63.00	-0.03 -0.10	73.00	+0.10 -0.10	6.00	7.00	4606200
63.00	-0.03 -0.10	73.00	+0.10 -0.10	11.80	13.00	4363300
63.00	-0.03 -0.10	78.00	+0.10 -0.10	8.40	9.50	4184301‡
65.00	-0.03 -0.10	75.00	+0.10 -0.10	6.00	7.00	4606300

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.





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ROD/PISTON SEAL

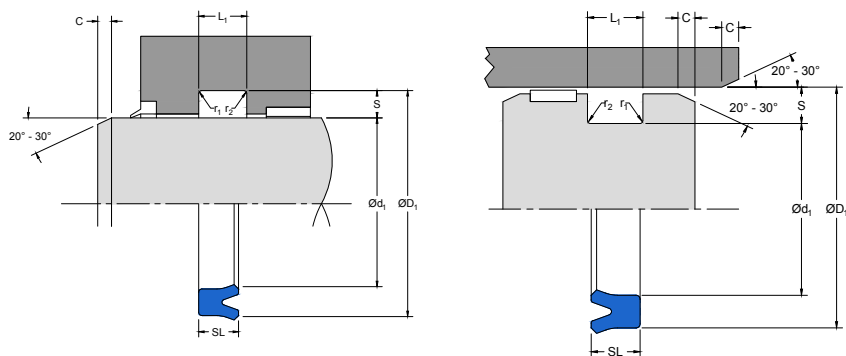
Single-Acting
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
65.00	-0.03 -0.10	80.00	+0.10 -0.10	8.40	9.50	4184401‡
65.00	-0.03 -0.10	80.00	+0.10 -0.10	12.00	13.00	4867900
65.00	-0.03 -0.10	85.00	+0.11 -0.11	12.00	13.00	4602400
70.00	-0.03 -0.10	80.00	+0.10 -0.10	6.00	7.00	4606400
70.00	-0.03 -0.10	80.00	+0.10 -0.10	11.80	13.00	4363400
70.00	-0.03 -0.10	85.00	+0.11 -0.11	8.40	9.50	4184501‡
70.00	-0.03 -0.10	85.00	+0.11 -0.11	12.00	13.00	4868000
70.00	-0.03 -0.10	90.00	+0.11 -0.11	12.00	13.00	4602500
70.00	-0.03 -0.10	92.00	+0.11 -0.11	12.00	13.00	4602600
71.00	-0.03 -0.10	80.00	+0.10 -0.10	6.00	7.00	4606500
75.00	-0.03 -0.10	85.00	+0.11 -0.11	6.00	7.00	4606600
75.00	-0.03 -0.10	85.00	+0.11 -0.11	11.80	13.00	4363500
75.00	-0.03 -0.10	90.00	+0.11 -0.11	12.00	13.00	4868100
75.00	-0.03 -0.10	95.00	+0.11 -0.11	12.00	13.00	4602700
75.00	-0.03 -0.10	100.00	+0.11 -0.11	22.00	24.00	4584700
80.00	-0.03 -0.10	90.00	+0.11 -0.11	6.00	7.00	4606700
80.00	-0.03 -0.10	90.00	+0.11 -0.11	8.00	8.80	4159001

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



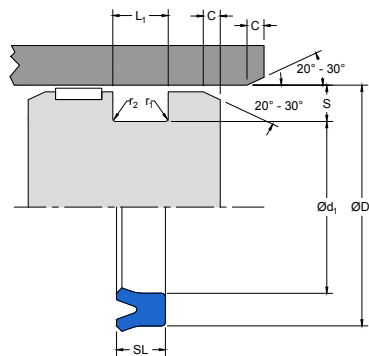
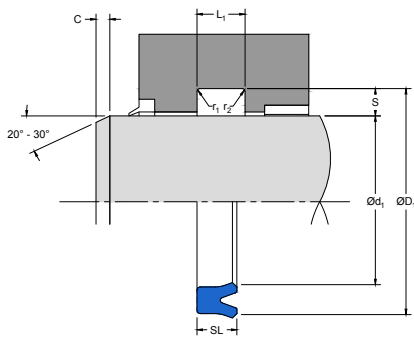
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
80.00	-0.03 -0.10	90.00	+0.11 -0.11	11.80	13.00	4363600
80.00	-0.03 -0.10	95.00	+0.11 -0.11	8.40	9.50	4184601‡
80.00	-0.03 -0.10	100.00	+0.11 -0.11	12.00	13.00	4602800
80.00	-0.03 -0.10	100.00	+0.11 -0.11	13.20	14.50	4857100
85.00	-0.04 -0.12	100.00	+0.11 -0.11	8.40	9.50	4184701‡
85.00	-0.04 -0.12	100.00	+0.11 -0.11	8.90	10.00	4606800
85.00	-0.04 -0.12	100.00	+0.11 -0.11	12.00	13.00	4868200
85.00	-0.04 -0.12	105.00	+0.11 -0.11	12.00	13.00	4602900
90.00	-0.04 -0.12	100.00	+0.11 -0.11	11.80	13.00	4363700
90.00	-0.04 -0.12	105.00	+0.11 -0.11	8.40	9.50	4184801‡
90.00	-0.04 -0.12	105.00	+0.11 -0.11	8.90	10.00	4606900
90.00	-0.04 -0.12	110.00	+0.11 -0.11	12.00	13.00	4603000
95.00	-0.04 -0.12	110.00	+0.11 -0.11	8.90	10.00	4607000
95.00	-0.04 -0.12	110.00	+0.11 -0.11	12.00	13.00	4868300
95.00	-0.04 -0.12	115.00	+0.11 -0.11	12.00	13.00	4603100
100.00	-0.04 -0.12	110.00	+0.11 -0.11	6.40	7.00	4878600
100.00	-0.04 -0.12	115.00	+0.11 -0.11	8.90	10.00	4607100

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.





601

ROD/PISTON SEAL

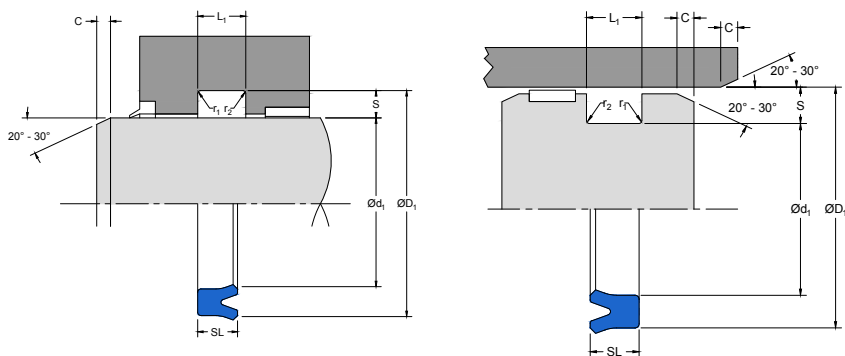
Single-Acting
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
100.00	-0.04 -0.12	115.00	+0.11 -0.11	12.00	13.00	4868400
100.00	-0.04 -0.12	120.00	+0.11 -0.11	11.00	12.50	4184901‡
100.00	-0.04 -0.12	120.00	+0.11 -0.11	12.00	13.00	4603200
105.00	-0.04 -0.12	125.00	+0.13 -0.13	11.40	12.50	4185001‡
105.00	-0.04 -0.12	125.00	+0.13 -0.13	15.00	17.00	4603300
110.00	-0.04 -0.12	130.00	+0.13 -0.13	11.00	12.50	4185101‡
110.00	-0.04 -0.12	130.00	+0.13 -0.13	15.00	17.00	4603400
112.00	-0.04 -0.12	125.00	+0.13 -0.13	8.90	10.00	4607200
115.00	-0.04 -0.12	130.00	+0.13 -0.13	8.90	10.00	4621600
115.00	-0.04 -0.12	135.00	+0.13 -0.13	15.00	17.00	4608100
118.00	-0.04 -0.12	130.00	+0.13 -0.13	7.30	8.00	4878700
120.00	-0.04 -0.12	140.00	+0.13 -0.13	14.50	16.00	4319600
120.00	-0.04 -0.12	140.00	+0.13 -0.13	15.00	17.00	4603500
125.00	-0.04 -0.14	140.00	+0.13 -0.13	8.90	10.00	4607300
125.00	-0.04 -0.14	145.00	+0.13 -0.13	11.40	12.50	4185201‡
125.00	-0.04 -0.14	145.00	+0.13 -0.13	15.00	17.00	4603600
130.00	-0.04 -0.14	150.00	+0.13 -0.13	15.00	17.00	4603700

NOTE

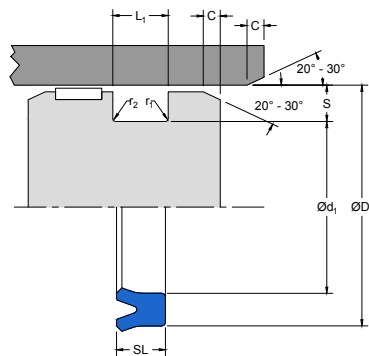
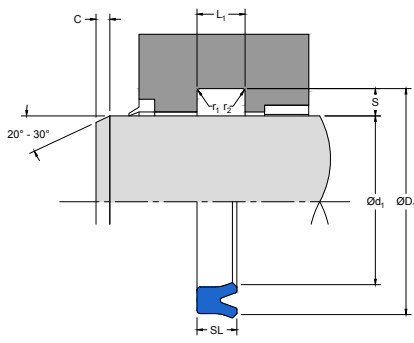
For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.25-0	PART No.
136.00	-0.04 -0.14	150.00	+0.13 -0.13	8.50	9.50	4607400
140.00	-0.04 -0.14	154.00	+0.13 -0.13	9.00	10.00	4607900
140.00	-0.04 -0.14	155.00	+0.13 -0.13	8.90	10.00	4607500
140.00	-0.04 -0.14	160.00	+0.13 -0.13	15.00	17.00	4603800
145.00	-0.04 -0.14	160.00	+0.13 -0.13	8.90	10.00	4607600
145.00	-0.04 -0.14	165.00	+0.13 -0.13	15.00	17.00	4608200
150.00	-0.04 -0.14	165.00	+0.13 -0.13	8.90	10.00	4607700
150.00	-0.04 -0.14	170.00	+0.13 -0.13	15.00	17.00	4603900
153.00	-0.04 -0.14	165.00	+0.13 -0.13	7.30	8.00	4879000
155.00	-0.04 -0.14	170.00	+0.13 -0.13	8.90	10.00	4621700
155.00	-0.04 -0.14	180.00	+0.13 -0.13	15.00	17.00	4608300
160.00	-0.04 -0.14	175.00	+0.13 -0.13	9.00	10.00	4608400
160.00	-0.04 -0.14	180.00	+0.13 -0.13	15.00	16.00	4868500
160.00	-0.04 -0.14	185.00	+0.14 -0.14	15.00	17.00	4608500
165.00	-0.04 -0.14	180.00	+0.13 -0.13	9.00	10.00	4608600
165.00	-0.04 -0.14	183.00	+0.14 -0.14	10.00	11.00	4607800
165.00	-0.04 -0.14	190.00	+0.14 -0.14	15.00	17.00	4608700
NOTE		For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "±" indicate housing sizes to meet ISO5597.				





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ROD/PISTON SEAL

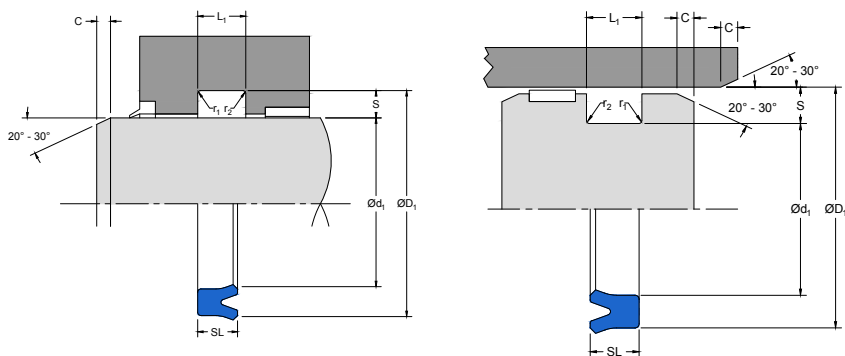
Single-Acting
Polyurethane

PART NUMBER RANGE

METRIC						
Ød ₁	TOL f9	ØD ₁	TOL Js11	SL	L ₁ +0.25-0	PART No.
170.00	-0.04 -0.14	195.00	+0.14 -0.14	15.00	17.00	4608800
175.00	-0.04 -0.14	190.00	+0.14 -0.14	8.90	10.00	4621800
175.00	-0.04 -0.14	200.00	+0.14 -0.14	15.00	17.00	4608900
180.00	-0.04 -0.14	200.00	+0.14 -0.14	12.00	13.00	4609000
180.00	-0.04 -0.14	205.00	+0.14 -0.14	15.00	17.00	4609100
190.00	-0.05 -0.17	210.00	+0.14 -0.14	12.00	13.00	4609200
190.00	-0.05 -0.17	215.00	+0.14 -0.14	15.00	17.00	4609300
200.00	-0.05 -0.17	220.00	+0.14 -0.14	12.00	13.00	4609400
200.00	-0.05 -0.17	220.00	+0.14 -0.14	15.00	16.00	4678100
200.00	-0.05 -0.17	225.00	+0.14 -0.14	15.00	17.00	4609500
210.00	-0.05 -0.17	230.00	+0.14 -0.14	15.00	16.00	4678200
210.00	-0.05 -0.17	235.00	+0.14 -0.14	18.00	20.00	4609600
220.00	-0.05 -0.17	240.00	+0.14 -0.14	12.00	13.00	4609700
220.00	-0.05 -0.17	240.00	+0.14 -0.14	15.00	16.00	4678300
220.00	-0.05 -0.17	250.00	+0.14 -0.14	17.00	19.20	4426600
230.00	-0.05 -0.17	250.00	+0.14 -0.14	12.00	13.00	4609800
230.00	-0.05 -0.17	250.00	+0.14 -0.14	15.00	16.00	4678400

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "£" indicate housing sizes to meet ISO5597.



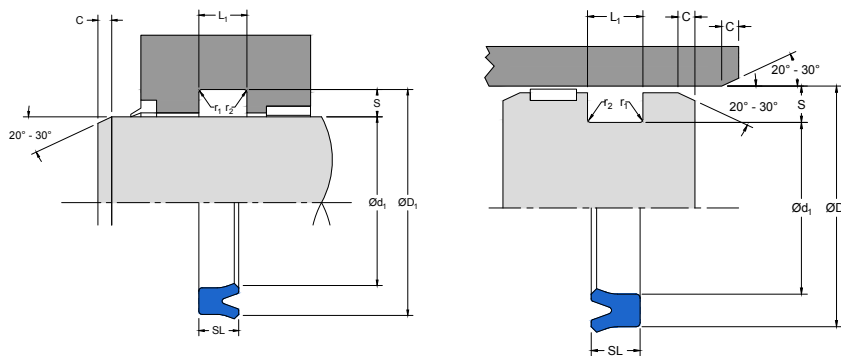
PART NUMBER RANGE

METRIC						
Ød ₁	TOL f ₉	ØD ₁	TOL Js ₁₁	SL	L ₁ +0.25-0	PART No.
240.00	-0.05 -0.17	260.00	+0.16 -0.16	12.00	13.00	4621000
240.00	-0.05 -0.17	260.00	+0.16 -0.16	15.00	16.00	4678500
240.00	-0.05 -0.17	265.00	+0.16 -0.16	18.00	20.00	4609900
250.00	-0.05 -0.17	275.00	+0.16 -0.16	18.00	20.00	4610000
260.00	-0.06 -0.19	280.00	+0.16 -0.16	15.00	16.00	4678600
260.00	-0.06 -0.19	290.00	+0.16 -0.16	18.00	20.00	4620100
265.00	-0.06 -0.19	295.00	+0.16 -0.16	18.00	20.00	4620200
270.00	-0.06 -0.19	290.00	+0.16 -0.16	11.00	12.00	4879100
270.00	-0.06 -0.19	300.00	+0.16 -0.16	18.00	20.00	4620300
280.00	-0.06 -0.19	300.00	+0.16 -0.16	11.00	12.00	4879200
280.00	-0.06 -0.19	310.00	+0.16 -0.16	18.00	20.00	4620400
290.00	-0.06 -0.19	320.00	+0.18 -0.18	18.00	20.00	4620500
300.00	-0.06 -0.19	330.00	+0.18 -0.18	18.00	20.00	4620600
330.00	-0.06 -0.20	350.00	+0.18 -0.18	11.00	12.00	4879300
375.00	-0.06 -0.20	405.00	+0.20 -0.20	22.00	24.00	4620700
400.00	-0.06 -0.20	425.00	+0.20 -0.20	25.00	27.00	4620800

NOTE

For piston sealing tolerances refer to technical details. Part numbers commencing "46" are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.





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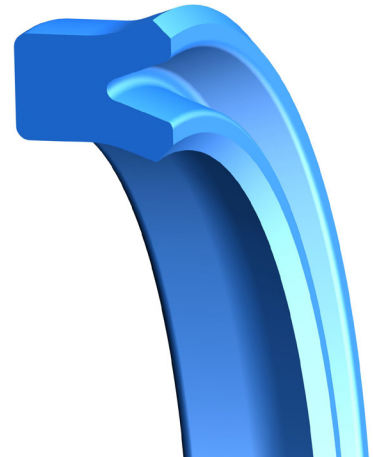
ROD/PISTON SEAL

*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

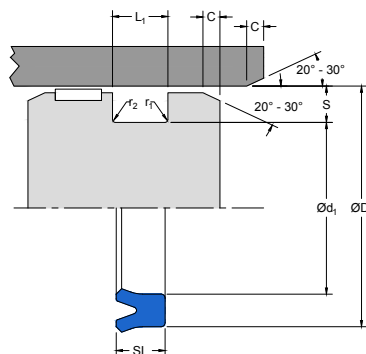
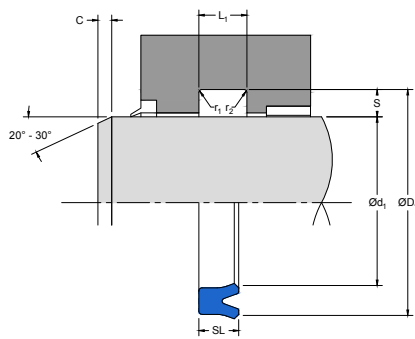
NOTE

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

SURFACE ROUGHNESS	μmRa	μmRz	μmRt	μinRa	μinRz	μinRt
Dynamic Sealing Face $\varnothing d_1$ - Rod	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing D_1$ - Rod	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Dynamic Sealing Face $\varnothing D_1$ - Piston	0.1 - 0.4	1.6 max	4 max	4 - 16	63 max	157 max
Static Sealing Face $\varnothing d_1$ - 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 $\leq S$ 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	$\varnothing d_1$	$\varnothing D_1$	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

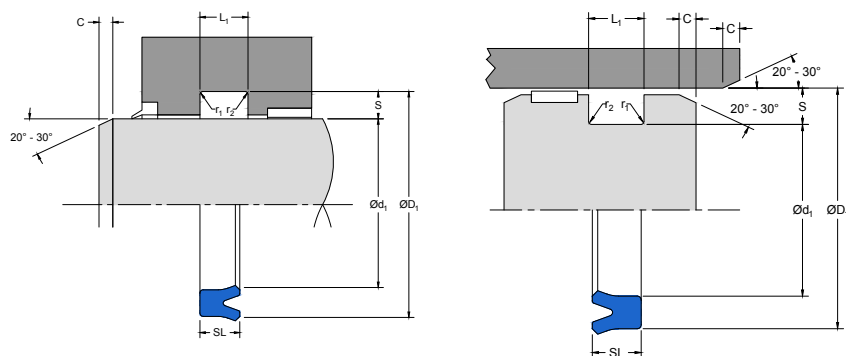
Single-Acting
Polyurethane

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.

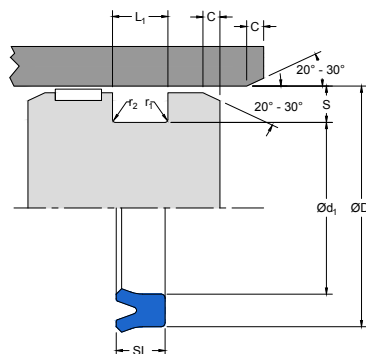
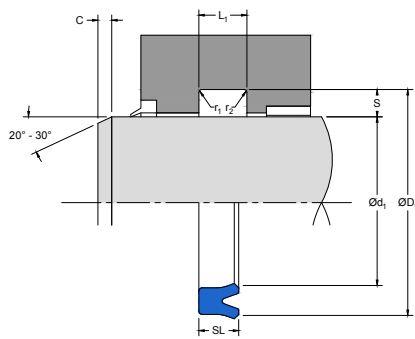


PART NUMBER RANGE

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.



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.

