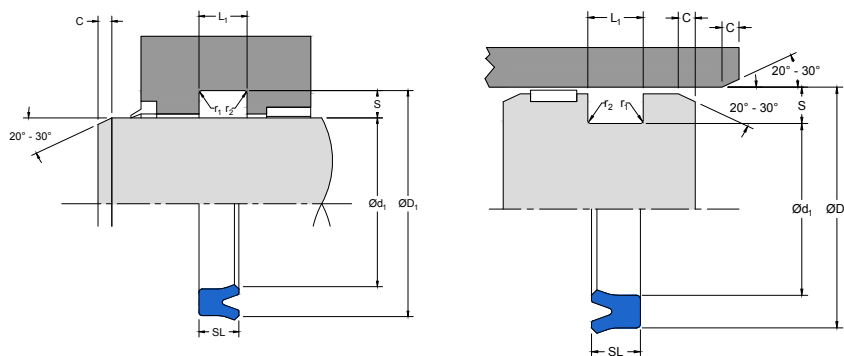




# 601

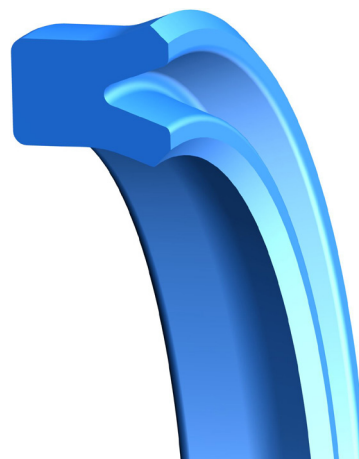
## ROD/PISTON SEAL

*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 |

### NOTE

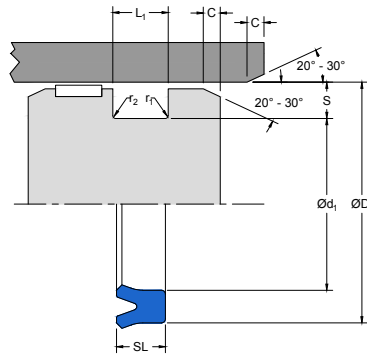
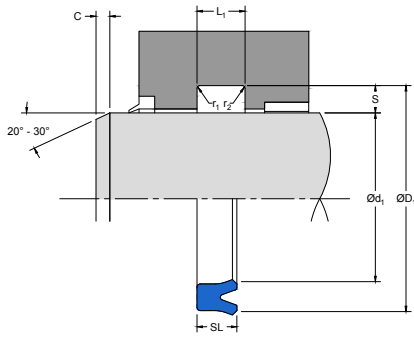
Figures show the maximum permissible gap all on one side, for rod seals using minimum rod  $\varnothing$  and maximum clearance  $\varnothing$  and for piston seals using the minimum clearance  $\varnothing$  and maximum bore  $\varnothing$ . Refer to Housing Design section.

| SURFACE ROUGHNESS                               | $\mu\text{mRa}$ | $\mu\text{mRz}$ | $\mu\text{mRt}$ | $\mu\text{inRa}$ | $\mu\text{inRz}$ | $\mu\text{inRt}$ |
|-------------------------------------------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| 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  |

| 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

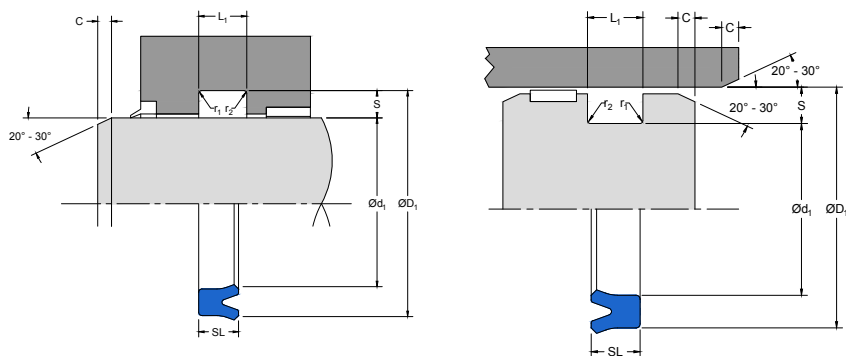
### PART NUMBER RANGE

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

#### NOTE

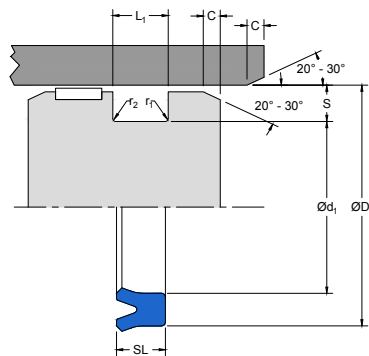
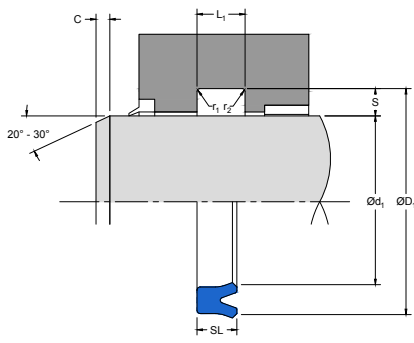
For piston sealing tolerances refer to technical details. Part numbers commencing "46 . . . ." are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.





## PART NUMBER RANGE

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

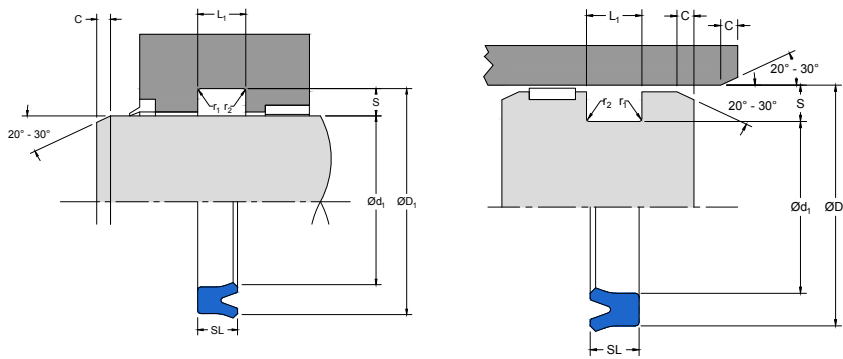
Single-Acting  
Polyurethane

### PART NUMBER RANGE

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

#### NOTE

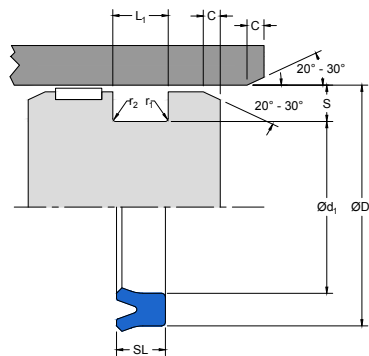
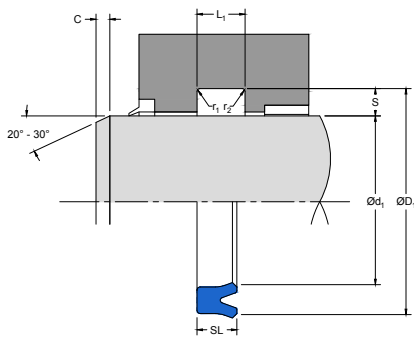
For piston sealing tolerances refer to technical details. Part numbers commencing "46 . . . ." are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



## PART NUMBER RANGE

| METRIC          |                       |                                                                                                                                                                                                                  |                         |       |                           |             |
|-----------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|---------------------------|-------------|
| Ød <sub>1</sub> | TOL<br>f <sub>9</sub> | ØD <sub>1</sub>                                                                                                                                                                                                  | TOL<br>Js <sub>11</sub> | SL    | L <sub>1</sub><br>+0.25-0 | PART<br>No. |
| 32.00           | -0.03<br>-0.09        | 42.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 5.60  | 6.30                      | 4183601‡    |
| 32.00           | -0.03<br>-0.09        | 42.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 6.00  | 7.00                      | 4604900     |
| 32.00           | -0.03<br>-0.09        | 42.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 10.00 | 11.00                     | 4362800     |
| 32.00           | -0.03<br>-0.09        | 47.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 10.00 | 11.00                     | 4621200     |
| 35.00           | -0.03<br>-0.09        | 45.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 6.00  | 7.00                      | 4605000     |
| 35.00           | -0.03<br>-0.09        | 45.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 7.00  | 8.00                      | 4496000     |
| 35.00           | -0.03<br>-0.09        | 48.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 10.00 | 11.00                     | 4360300     |
| 35.00           | -0.03<br>-0.09        | 50.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 10.00 | 11.00                     | 4601500     |
| 35.50           | -0.03<br>-0.09        | 45.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 6.00  | 7.00                      | 4605100     |
| 35.50           | -0.03<br>-0.09        | 50.50                                                                                                                                                                                                            | +0.10<br>-0.10          | 10.00 | 11.00                     | 4621100     |
| 36.00           | -0.03<br>-0.09        | 46.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 5.60  | 6.30                      | 4183701‡    |
| 38.00           | -0.03<br>-0.09        | 48.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 6.00  | 7.00                      | 4605200     |
| 38.00           | -0.03<br>-0.09        | 50.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 9.00  | 10.00                     | 4709400     |
| 38.00           | -0.03<br>-0.09        | 55.00                                                                                                                                                                                                            | +0.10<br>-0.10          | 9.70  | 11.00                     | 4366000     |
| 38.00           | -0.03<br>-0.09        | 58.00                                                                                                                                                                                                            | +0.10<br>-0.10          | 9.70  | 11.00                     | 4560100     |
| 40.00           | -0.03<br>-0.09        | 50.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 5.60  | 6.30                      | 4183801‡    |
| 40.00           | -0.03<br>-0.09        | 50.00                                                                                                                                                                                                            | +0.08<br>-0.08          | 6.00  | 7.00                      | 4605300     |
| <b>NOTE</b>     |                       | 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

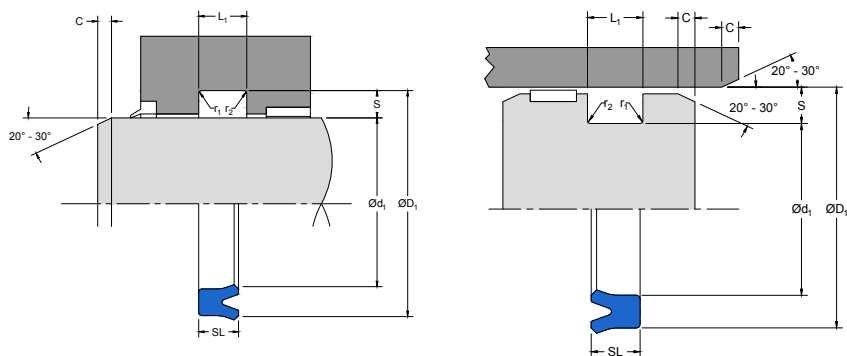
Single-Acting  
Polyurethane

### PART NUMBER RANGE

| METRIC          |                       |                 |                |       |                           |             |
|-----------------|-----------------------|-----------------|----------------|-------|---------------------------|-------------|
| Ød <sub>1</sub> | TOL<br>f <sub>9</sub> | ØD <sub>1</sub> | TOL<br>Js11    | SL    | L <sub>1</sub><br>+0.25-0 | PART<br>No. |
| 40.00           | -0.03<br>-0.09        | 50.00           | +0.08<br>-0.08 | 10.00 | 11.00                     | 4362900     |
| 40.00           | -0.03<br>-0.09        | 55.00           | +0.10<br>-0.10 | 9.90  | 11.00                     | 4388500     |
| 40.00           | -0.03<br>-0.09        | 55.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4601600     |
| 40.00           | -0.03<br>-0.09        | 60.00           | +0.10<br>-0.10 | 12.00 | 13.00                     | 4601700     |
| 45.00           | -0.03<br>-0.09        | 53.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4867800     |
| 45.00           | -0.03<br>-0.09        | 55.00           | +0.10<br>-0.10 | 5.60  | 6.30                      | 4183901‡    |
| 45.00           | -0.03<br>-0.09        | 55.00           | +0.10<br>-0.10 | 6.00  | 7.00                      | 4605400     |
| 45.00           | -0.03<br>-0.09        | 55.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4363000     |
| 45.00           | -0.03<br>-0.09        | 56.00           | +0.10<br>-0.10 | 7.00  | 8.00                      | 4605500     |
| 45.00           | -0.03<br>-0.09        | 60.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4601800     |
| 45.00           | -0.03<br>-0.09        | 65.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4575000     |
| 46.00           | -0.03<br>-0.09        | 56.00           | +0.10<br>-0.10 | 6.00  | 7.00                      | 4543900     |
| 48.00           | -0.03<br>-0.09        | 63.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4601900     |
| 50.00           | -0.03<br>-0.09        | 60.00           | +0.10<br>-0.10 | 5.60  | 6.30                      | 4184001‡    |
| 50.00           | -0.03<br>-0.09        | 60.00           | +0.10<br>-0.10 | 6.00  | 7.00                      | 4605600     |
| 50.00           | -0.03<br>-0.09        | 60.00           | +0.10<br>-0.10 | 10.00 | 11.00                     | 4363100     |
| 50.00           | -0.03<br>-0.09        | 65.00           | +0.10<br>-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

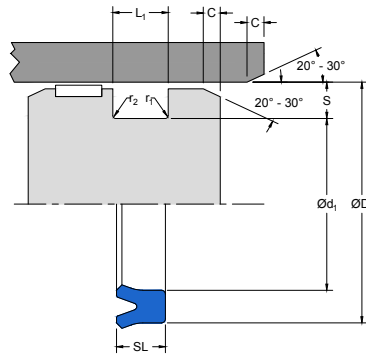
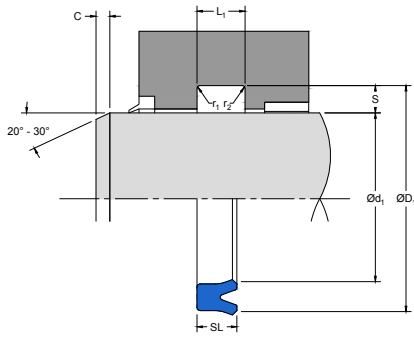
| METRIC          |                       |                 |                         |       |                           |             |
|-----------------|-----------------------|-----------------|-------------------------|-------|---------------------------|-------------|
| Ød <sub>1</sub> | TOL<br>f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







# 601

## ROD/PISTON SEAL

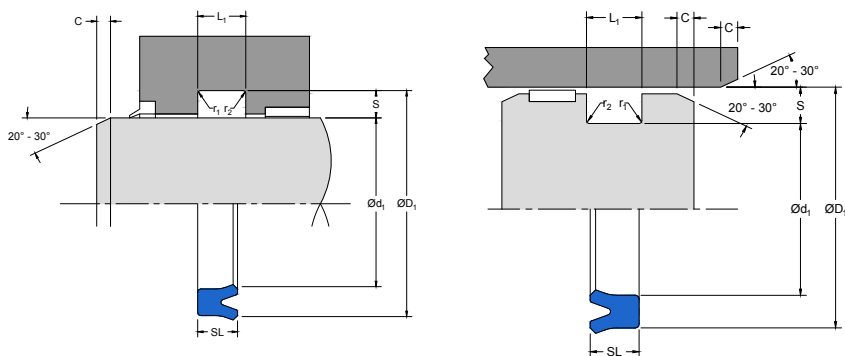
Single-Acting  
Polyurethane

### PART NUMBER RANGE

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

#### NOTE

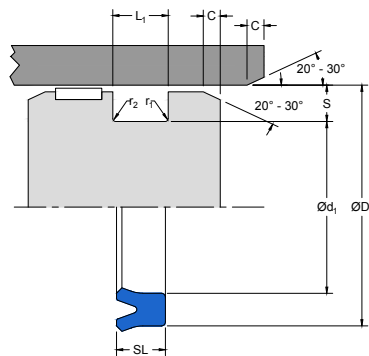
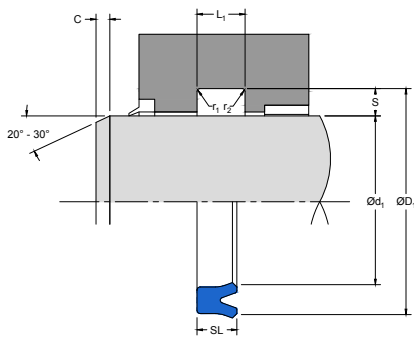
For piston sealing tolerances refer to technical details. Part numbers commencing "46 . . . ." are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



## PART NUMBER RANGE

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

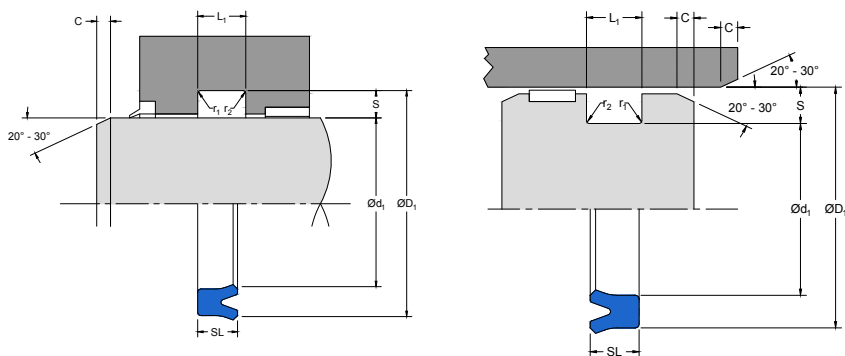
Single-Acting  
Polyurethane

### PART NUMBER RANGE

| METRIC          |                       |                 |                         |       |                           |             |
|-----------------|-----------------------|-----------------|-------------------------|-------|---------------------------|-------------|
| Ød <sub>1</sub> | TOL<br>f <sub>9</sub> | ØD <sub>1</sub> | TOL<br>Js <sub>11</sub> | SL    | L <sub>1</sub><br>+0.25-0 | PART<br>No. |
| 100.00          | -0.04<br>-0.12        | 115.00          | +0.11<br>-0.11          | 12.00 | 13.00                     | 4868400     |
| 100.00          | -0.04<br>-0.12        | 120.00          | +0.11<br>-0.11          | 11.00 | 12.50                     | 4184901‡    |
| 100.00          | -0.04<br>-0.12        | 120.00          | +0.11<br>-0.11          | 12.00 | 13.00                     | 4603200     |
| 105.00          | -0.04<br>-0.12        | 125.00          | +0.13<br>-0.13          | 11.40 | 12.50                     | 4185001‡    |
| 105.00          | -0.04<br>-0.12        | 125.00          | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603300     |
| 110.00          | -0.04<br>-0.12        | 130.00          | +0.13<br>-0.13          | 11.00 | 12.50                     | 4185101‡    |
| 110.00          | -0.04<br>-0.12        | 130.00          | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603400     |
| 112.00          | -0.04<br>-0.12        | 125.00          | +0.13<br>-0.13          | 8.90  | 10.00                     | 4607200     |
| 115.00          | -0.04<br>-0.12        | 130.00          | +0.13<br>-0.13          | 8.90  | 10.00                     | 4621600     |
| 115.00          | -0.04<br>-0.12        | 135.00          | +0.13<br>-0.13          | 15.00 | 17.00                     | 4608100     |
| 118.00          | -0.04<br>-0.12        | 130.00          | +0.13<br>-0.13          | 7.30  | 8.00                      | 4878700     |
| 120.00          | -0.04<br>-0.12        | 140.00          | +0.13<br>-0.13          | 14.50 | 16.00                     | 4319600     |
| 120.00          | -0.04<br>-0.12        | 140.00          | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603500     |
| 125.00          | -0.04<br>-0.14        | 140.00          | +0.13<br>-0.13          | 8.90  | 10.00                     | 4607300     |
| 125.00          | -0.04<br>-0.14        | 145.00          | +0.13<br>-0.13          | 11.40 | 12.50                     | 4185201‡    |
| 125.00          | -0.04<br>-0.14        | 145.00          | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603600     |
| 130.00          | -0.04<br>-0.14        | 150.00          | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603700     |

#### NOTE

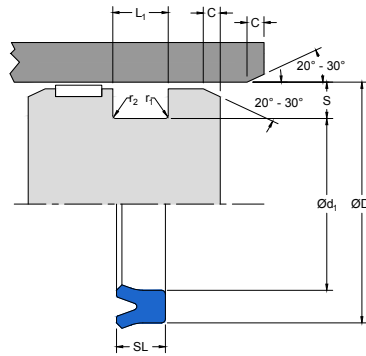
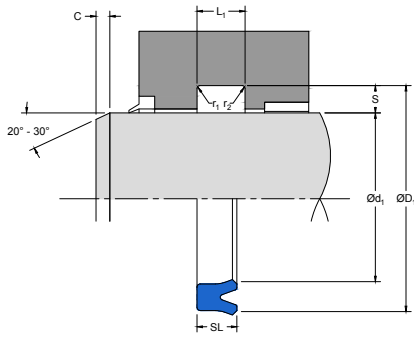
For piston sealing tolerances refer to technical details. Part numbers commencing "46 . . . ." are designed to suit popular Asian housings. Part numbers suffixed by "‡" indicate housing sizes to meet ISO5597.



## PART NUMBER RANGE

| METRIC          |                       |                                                                                                                                                                                                                  |                         |       |                           |             |
|-----------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|---------------------------|-------------|
| Ød <sub>1</sub> | TOL<br>f <sub>9</sub> | ØD <sub>1</sub>                                                                                                                                                                                                  | TOL<br>Js <sub>11</sub> | SL    | L <sub>1</sub><br>+0.25-0 | PART<br>No. |
| 136.00          | -0.04<br>-0.14        | 150.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 8.50  | 9.50                      | 4607400     |
| 140.00          | -0.04<br>-0.14        | 154.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 9.00  | 10.00                     | 4607900     |
| 140.00          | -0.04<br>-0.14        | 155.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 8.90  | 10.00                     | 4607500     |
| 140.00          | -0.04<br>-0.14        | 160.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603800     |
| 145.00          | -0.04<br>-0.14        | 160.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 8.90  | 10.00                     | 4607600     |
| 145.00          | -0.04<br>-0.14        | 165.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 15.00 | 17.00                     | 4608200     |
| 150.00          | -0.04<br>-0.14        | 165.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 8.90  | 10.00                     | 4607700     |
| 150.00          | -0.04<br>-0.14        | 170.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 15.00 | 17.00                     | 4603900     |
| 153.00          | -0.04<br>-0.14        | 165.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 7.30  | 8.00                      | 4879000     |
| 155.00          | -0.04<br>-0.14        | 170.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 8.90  | 10.00                     | 4621700     |
| 155.00          | -0.04<br>-0.14        | 180.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 15.00 | 17.00                     | 4608300     |
| 160.00          | -0.04<br>-0.14        | 175.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 9.00  | 10.00                     | 4608400     |
| 160.00          | -0.04<br>-0.14        | 180.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 15.00 | 16.00                     | 4868500     |
| 160.00          | -0.04<br>-0.14        | 185.00                                                                                                                                                                                                           | +0.14<br>-0.14          | 15.00 | 17.00                     | 4608500     |
| 165.00          | -0.04<br>-0.14        | 180.00                                                                                                                                                                                                           | +0.13<br>-0.13          | 9.00  | 10.00                     | 4608600     |
| 165.00          | -0.04<br>-0.14        | 183.00                                                                                                                                                                                                           | +0.14<br>-0.14          | 10.00 | 11.00                     | 4607800     |
| 165.00          | -0.04<br>-0.14        | 190.00                                                                                                                                                                                                           | +0.14<br>-0.14          | 15.00 | 17.00                     | 4608700     |
| <b>NOTE</b>     |                       | 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

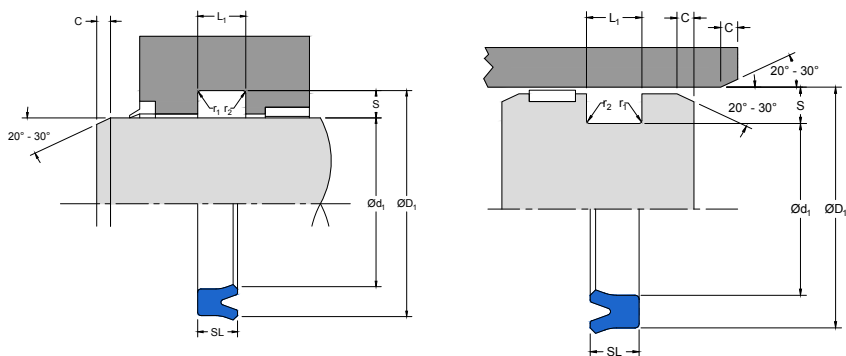
Single-Acting  
Polyurethane

### PART NUMBER RANGE

| METRIC          |                |                 |                |       |                           |             |
|-----------------|----------------|-----------------|----------------|-------|---------------------------|-------------|
| Ød <sub>1</sub> | TOL<br>f9      | ØD <sub>1</sub> | TOL<br>Js11    | SL    | L <sub>1</sub><br>+0.25-0 | PART<br>No. |
| 170.00          | -0.04<br>-0.14 | 195.00          | +0.14<br>-0.14 | 15.00 | 17.00                     | 4608800     |
| 175.00          | -0.04<br>-0.14 | 190.00          | +0.14<br>-0.14 | 8.90  | 10.00                     | 4621800     |
| 175.00          | -0.04<br>-0.14 | 200.00          | +0.14<br>-0.14 | 15.00 | 17.00                     | 4608900     |
| 180.00          | -0.04<br>-0.14 | 200.00          | +0.14<br>-0.14 | 12.00 | 13.00                     | 4609000     |
| 180.00          | -0.04<br>-0.14 | 205.00          | +0.14<br>-0.14 | 15.00 | 17.00                     | 4609100     |
| 190.00          | -0.05<br>-0.17 | 210.00          | +0.14<br>-0.14 | 12.00 | 13.00                     | 4609200     |
| 190.00          | -0.05<br>-0.17 | 215.00          | +0.14<br>-0.14 | 15.00 | 17.00                     | 4609300     |
| 200.00          | -0.05<br>-0.17 | 220.00          | +0.14<br>-0.14 | 12.00 | 13.00                     | 4609400     |
| 200.00          | -0.05<br>-0.17 | 220.00          | +0.14<br>-0.14 | 15.00 | 16.00                     | 4678100     |
| 200.00          | -0.05<br>-0.17 | 225.00          | +0.14<br>-0.14 | 15.00 | 17.00                     | 4609500     |
| 210.00          | -0.05<br>-0.17 | 230.00          | +0.14<br>-0.14 | 15.00 | 16.00                     | 4678200     |
| 210.00          | -0.05<br>-0.17 | 235.00          | +0.14<br>-0.14 | 18.00 | 20.00                     | 4609600     |
| 220.00          | -0.05<br>-0.17 | 240.00          | +0.14<br>-0.14 | 12.00 | 13.00                     | 4609700     |
| 220.00          | -0.05<br>-0.17 | 240.00          | +0.14<br>-0.14 | 15.00 | 16.00                     | 4678300     |
| 220.00          | -0.05<br>-0.17 | 250.00          | +0.14<br>-0.14 | 17.00 | 19.20                     | 4426600     |
| 230.00          | -0.05<br>-0.17 | 250.00          | +0.14<br>-0.14 | 12.00 | 13.00                     | 4609800     |
| 230.00          | -0.05<br>-0.17 | 250.00          | +0.14<br>-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 <sub>1</sub> | TOL<br>f9      | ØD <sub>1</sub> | TOL<br>Js11    | SL    | L <sub>1</sub><br>+0.25-0 | PART<br>No. |
| 240.00          | -0.05<br>-0.17 | 260.00          | +0.16<br>-0.16 | 12.00 | 13.00                     | 4621000     |
| 240.00          | -0.05<br>-0.17 | 260.00          | +0.16<br>-0.16 | 15.00 | 16.00                     | 4678500     |
| 240.00          | -0.05<br>-0.17 | 265.00          | +0.16<br>-0.16 | 18.00 | 20.00                     | 4609900     |
| 250.00          | -0.05<br>-0.17 | 275.00          | +0.16<br>-0.16 | 18.00 | 20.00                     | 4610000     |
| 260.00          | -0.06<br>-0.19 | 280.00          | +0.16<br>-0.16 | 15.00 | 16.00                     | 4678600     |
| 260.00          | -0.06<br>-0.19 | 290.00          | +0.16<br>-0.16 | 18.00 | 20.00                     | 4620100     |
| 265.00          | -0.06<br>-0.19 | 295.00          | +0.16<br>-0.16 | 18.00 | 20.00                     | 4620200     |
| 270.00          | -0.06<br>-0.19 | 290.00          | +0.16<br>-0.16 | 11.00 | 12.00                     | 4879100     |
| 270.00          | -0.06<br>-0.19 | 300.00          | +0.16<br>-0.16 | 18.00 | 20.00                     | 4620300     |
| 280.00          | -0.06<br>-0.19 | 300.00          | +0.16<br>-0.16 | 11.00 | 12.00                     | 4879200     |
| 280.00          | -0.06<br>-0.19 | 310.00          | +0.16<br>-0.16 | 18.00 | 20.00                     | 4620400     |
| 290.00          | -0.06<br>-0.19 | 320.00          | +0.18<br>-0.18 | 18.00 | 20.00                     | 4620500     |
| 300.00          | -0.06<br>-0.19 | 330.00          | +0.18<br>-0.18 | 18.00 | 20.00                     | 4620600     |
| 330.00          | -0.06<br>-0.20 | 350.00          | +0.18<br>-0.18 | 11.00 | 12.00                     | 4879300     |
| 375.00          | -0.06<br>-0.20 | 405.00          | +0.20<br>-0.20 | 22.00 | 24.00                     | 4620700     |
| 400.00          | -0.06<br>-0.20 | 425.00          | +0.20<br>-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.

