

## Design

The Hallite 601 is a high performance general purpose seal suitable for rod and piston use.

Manufactured in Hythane® 181 – Hallite’s 601 is engineered to effect a good seal in most industrial cylinder applications.

The sealing lips are accurately machine trimmed to ensure good low pressure sealing while the material resists extrusion at high pressures.

**NB:** Hallite 606 is a preferred option for back to back piston applications.

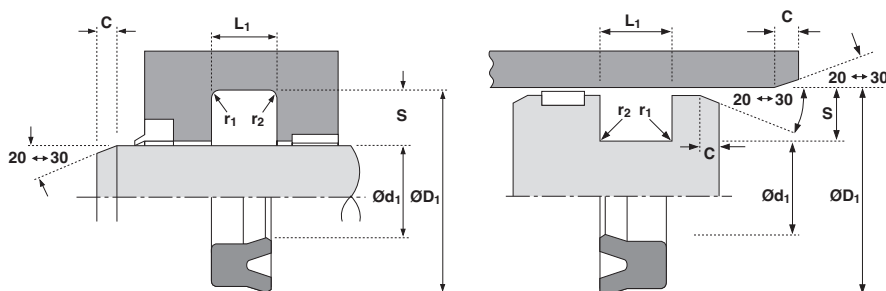
Part numbers commencing 46 . . . . . are designed to suit popular Asian housings.

Part numbers suffixed by “#” indicate housing sizes to meet ISO5597.

Size lists give “on line” tolerances for rod applications.

### Features

- General purpose seal
- Excellent temperature resistance
- Easy to install



### Technical details

#### Operating conditions

Maximum Speed	1.0 m/sec
Temperature Range	-45°C +110°C
Maximum Pressure	400 bar*

3.0 ft/sec
-50°F +230°F
6,000 p.s.i.*

#### Maximum extrusion gap

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.

Pressure bar	160	250	400
Maximum Gap mm	0.6	0.5	0.4
Pressure p.s.i.	2400	3750	6000
Maximum Gap in	0.024	0.020	0.016

#### Surface roughness

	$\mu\text{mRa}$	$\mu\text{mRt}$	$\mu\text{inCLA}$	$\mu\text{inRMS}$
Dynamic Sealing Face – Rod $\varnothing d_1$	0.1 < > 0.4	4 max	4 < > 16	5 < > 18
Static Sealing Face – Rod $\varnothing D_1$	1.6 max	10 max	63 max	70 max
Dynamic Sealing Face – Piston $\varnothing D_1$	0.1 < > 0.4	4 max	4 $\div$ 16	5 < > 18
Static Sealing Face – Piston $\varnothing d_1$	1.6 max	10 max	63 max	70 max
Static Housing Faces $L_1$	3.2 max	16 max	125 max	140 max

#### Chamfers & Radii

	4.0	5.0	7.5	10.0	12.5	15.0	20.0
Groove Section < S mm	4.0	5.0	7.5	10.0	12.5	15.0	20.0
Min Chamfer C mm	3.0	3.5	5.0	6.5	7.0	8.0	10.0
Max Fillet Rad $r_1$ mm	0.2	0.4	0.8	0.8	1.2	1.6	1.6
Max Fillet Rad $r_2$ mm	0.4	0.8	1.2	1.2	1.6	2.4	2.4
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	0.217	
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

Rod	$\varnothing d_1$	$\varnothing D_1$	$L_1$ mm	$L_1$ in
Piston	f9	Js11	+0.25 -0	+0.010 -0
	js11	H9	+0.25 -0	+0.010 -0

\* Pressure rating of seal can be extended to 700 bar /10,000p.s.i. with the use of a back up ring. If this option is required seek advice from your local Hallite Seals sales office.

