

Design

A patented seal designed specifically for hydraulic swivels. Manufactured in the high grade Hythane® 181, Hallite's Ro800 is engineered as a one piece seal. No relative motion between the seal and the energiser can effect the lifetime of this seal, which is often mainly the problem of two piece swivel seals.

The special design of the Ro800 is minimizing the friction.

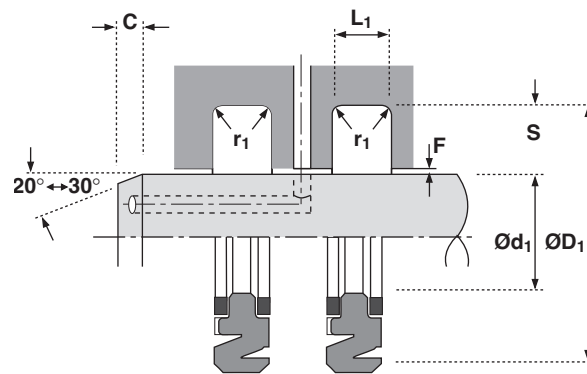
Optional anti-extrusion rings made from acetal are allowing larger extrusion gaps. The seal without anti-extrusion rings are made for applications with a very good guidance or low working pressure. Therefore please contact our technical service.

Ro800 is designed for double acting conditions. Designs are available for piston or rod applications.

The seal is easy to install in one piece housings.

Features

- One piece seal
- No rotation within the groove
- Available for both Rod and Piston
- Very low friction
- Easy to install
- Low abrasion and good wear resistance
- Simple and small seal grooves



Technical details

Operating conditions

Maximum Rotational Speed
Temperature Range
Maximum Pressure
Limiting PV Value Lubricated

Metric

0.2 m/sec
-30°C + 80°C
350 bar
25 bar m/sec

Inch

0.6 ft/sec
-22°F + 176°F
5000 p.s.i.
1200 p.s.i ft/sec

Maximum extrusion gap

Pressure bar
Housing Length L_1 4.2 mm
Housing Length L_1 6.3 mm
Pressure p.s.i.

Figures show the maximum permissible gap all on one side using minimum rod \varnothing and maximum clearance \varnothing . Refer to Housing Design section.

100	200	350
0.20	0.10	H7/f7 fit
0.30	0.25	H7/f7 fit
1500	3000	5000

Surface roughness

Dynamic Sealing Face $\varnothing d_1$
Static Sealing Face $\varnothing D_1$
Static Housing Faces L_1

μmRa	μmRt	$\mu inCLA$	$\mu inRMS$
0.1 < > 0.3	2.5 max	4 < > 12	5 < > 13
1.6 max	10 max	63 max	70 max
3.2 max	16 max	125 max	140 max

Chamfers & Radii

Groove Section $\leq S$ mm
Min Chamfer C mm
Max Fillet Rad r_1 mm

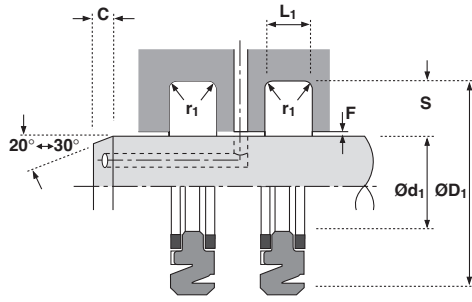
5.5	7.75
3.0	5.0
0.8	1.2

Tolerances

Rod mm
Piston mm

$\varnothing d_1$	$\varnothing D_1$	L_1
f9	H11	+0.2 -0
h9	H9	+0.2 -0





Rod Sealing

Ød ₁	ØD ₁	L ₁	PART No.
25.0	32.5	3.2	4763300*
32.0	39.5	3.2	4761300*
36.0	43.5	3.2	4770600*
40.0	51.0	4.2	4754400*
45.0	56.0	4.2	4743400*
70.0	80.0	5.0	4727800*
100.0	111.0	4.2	4777810
100.0	115.5	6.3	4762810
130.0	145.5	6.3	4720610

Bore Sealing

Ød ₁	ØD ₁	L ₁	PART No.
80.0	69.3	4.2	4748100*
90.0	79.3	4.2	4771300*
145.0	129.5	6.3	4712710
160.0	144.5	6.3	4712810
180.0	164.5	6.3	4720710

* without anti-extrusion rings