

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.

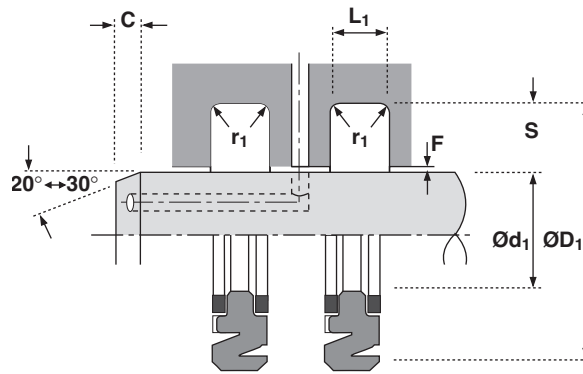
Optional anti-extrusion rings made from acetal are allowing larger extrusion gaps. The seal without anti-extrusion rings are made for applications with a very good guidance or low working pressure. Therefore please contact our technical service.

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	0.2 m/sec
Temperature Range	-30°C + 80°C
Maximum Pressure	350 bar
Limiting PV Value Lubricated	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	100	200	350
Housing Length L ₁ 4.2 mm	0.20	0.10	H7/f7 fit
Housing Length L ₁ 6.3 mm	0.30	0.25	H7/f7 fit
Pressure p.s.i.	1500	3000	5000

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

Surface roughness

	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face Ød ₁	0.1 < > 0.3	2.5 max	4 < > 12	5 < > 13
Static Sealing Face ØD 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

Groove Section ≤ S mm	5.5	7.75
Min Chamfer C mm	3.0	5.0
Max Fillet Rad r ₁ mm	0.8	1.2

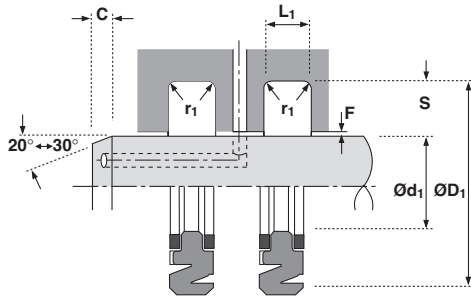
Tolerances

	Ød ₁	ØD ₁	L ₁
Rod mm	f9	H11	+0.2 -0
Piston mm	h9	H9	+0.2 -0





Ro800



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

swivel seals - metric

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