

800

SWIVEL SEAL

*Double-Acting
Polyurethane with AE Ring Option
for Rotary Pressure Applications*

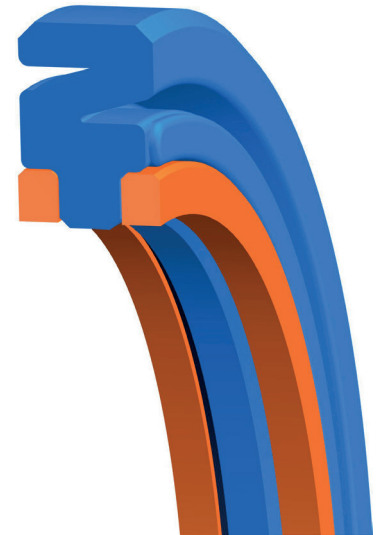
DESIGN

The Hallite 800 double-acting swivel seal, or rotary pressure seal, is designed specifically for use in hydraulic swivel joints for either rod or bore sealing applications. The Hallite 800's patented design minimises friction between the seal and the rod or bore mating surface.

Depending on size, the seal is either a one-piece design or has two acetal anti-extrusion rings which allows for larger extrusion gaps. Both of these configurations can replace the two part seals typically used in this application. Hallite recommends replacing the two part seals with the Hallite 800 to eliminate the possibility of relative movement between the face seal and the energiser. Contact your local Hallite technical team to determine which configuration is best suited for your application.

Special pressure activation grooves are incorporated into the design of the seal to enable an immediate seal of the joint.

The Hallite 800 is manufactured in Hythane® 181, Hallite's high-performance polyurethane, for easy installation, excellent low temperature performance, and long service life.



FEATURES

- For rod or piston applications
- Replaces two-part seals
- No relative rotation of the seal parts in the groove
- Low friction, low abrasion
- Hard wearing
- Instant sealing
- Excellent service range
- 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	0.2 m/sec	0.6 ft/sec
Temperature Range	-30°C + 80°C	-22°F + 76°F
Maximum Pressure	350 bar	5000 psi
Limiting PV Value Lubricated	25 bar m/sec	1200 psi ft/sec

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.

MAXIMUM EXTRUSION GAP			
Pressure bar	100	200	350
Housing Length ($L_1 \leq 5$ mm)	0.20	0.10	H7/f7 fit
Housing Length ($L_1 > 5$ mm)	0.30	0.25	H7/f7 fit
Pressure psi	1500	3000	5000

NOTE

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

SURFACE ROUGHNESS	μmRa	μmRz	μmRt	μinRa	μinRz	μinRt
Dynamic Sealing Face $\varnothing d_1, \varnothing D_1$	0.1 - 0.3	1.0 max	2.5 max	4 - 12	40 max	100 max
Static Sealing Face $\varnothing D_1, \varnothing d_1$	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 $\leq S$ mm	5.50	7.75
Min Chamfer C mm	3.00	5.00
Max Fillet Rad r_1 mm	0.80	1.20

TOLERANCES	$\varnothing d_1$	$\varnothing D_1$	L_1
Rod mm	f9	H11	+0.20 -0
Piston mm	h9	H9	+0.20 -0