



Technical Details

Metric

Inch

DESIGN

Operating conditions		
Maximum speed	0.5m/sec	1.5 ft/sec
Temperature range	-30°C + 100°C	-22°F + 212°F
Maximum pressure	300 Bar	4,500 p.s.i

HR9 is a rotary pressure seal that is designed specifically for use in hydraulic swivel joints. The design of the seal, provides high abrasion resistance and low friction to allow running at low rotational speeds with minimal stick - slip.

Maximum extrusion gap

Pressure bar	100	200	350
Maximum gap L_1	0.20	0.10	H7/ f7 fit

The low friction is helped by the groove in the sliding face, which provides an oil reservoir. The groove also reduces the contact area with the rotating counterface and allows a higher contact pressure.

Surface roughness

	μmRa	μmRt	μinCLA	μinRMS
Dynamic sealing surface ϕd	0.5 - 0.2	2.5	2-8	2-9
Static sealing face ϕD_1	1.6 max	10 max	63 max	70 max
Static Housing faces L_1	2.5 max	16 max	100 max	110 max

The circular recess in the outer diameter increases the contact of the face with the O ring and minimises the possibility of the sealing components rotating relative to each other.

FEATURES

- Flexible for easy installation
- Minimal stick slip
- High temperature capability
- Good extrusion resistance
- Very low friction
- Comes in a wide range of sizes

Chamfers & Radii

Seal diameter $\leq S$ mm	5.5	7.75
Min chamfer C mm	3.0	5.0
Max fillet rad r_1 mm	0.8	1.2

MATERIAL

Seal design comes in a variety of materials and sizes. For more information, please refer to MSDS data-sheet.

Tolerances

ϕd_1	ϕD_1	L_1 mm
f9	H11	+0.2 - 0