

# 003

## STATIC SEAL

Polyurethane O-ring

For static piston and gland applications

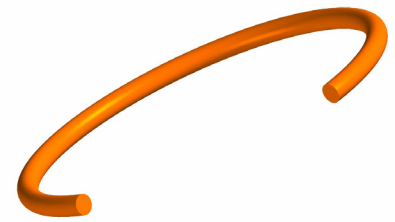
### DESIGN

Engineered for static sealing purposes, the Hallite 003 Polyurethane O-ring typically provides sealing between a gland and a cylinder bore, a rod and a piston, or in high-performance hydraulic valves. This seal stands out as an efficient alternative to the traditional elastomer O-ring and backup combinations, particularly in medium and heavy-duty technical applications.

Its Hythane material offers both resilience and extrusion resistance, eliminating the need for additional anti-extrusion back-up rings. This reduces the complexity associated with multiple components, which can cause assembly concerns and risk, if incorrectly orientated.

The Hallite 003 O-ring, crafted from Hythane 591 high-performance polyurethane, ensures effortless installation and reliable high pressure sealing. For more demanding low-temperature conditions, alternative material options, such as Hythane 181, are available.

The O-rings fit traditional and industry normal O-ring grooves, reducing the overall sizing of the glands and pistons, when compared to extended grooves to accommodate anti extrusion rings.



### FEATURES

- Improved anti-extrusion capabilities
- High-pressure sealing capabilities when compared to elastomer O-rings
- High groove stability to eliminate fluid transfer
- Suitable for static rod or bore sealing

### 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	Designator
Standard	Hythane® 591	TPU-AU	Orange	8
Option	Hythane® 181	TPU-EU	Blue	0

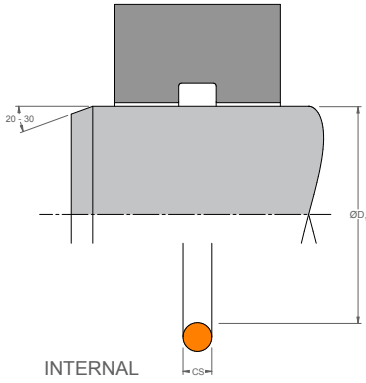
## TECHNICAL DETAILS

OPERATING CONDITIONS	METRIC	INCH
Temperature Range	-45°C + 110°C	-50°F + 230°F
Maximum Pressure	500 bar	7500 psi

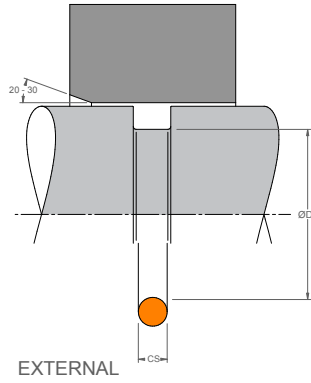
### NOTE

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.

SURFACE ROUGHNESS	µmRa	µmRz	µmRt	µinRa	µinRz	µinRt
Static Sealing Face ØD <sub>1</sub>	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Sealing Face Ød <sub>1</sub>	1.6 max	6.3 max	10 max	63 max	250 max	394 max
Static Housing Faces L <sub>1</sub>	3.2 max	10 max	16 max	125 max	394 max	630 max



INTERNAL



EXTERNAL

# 003

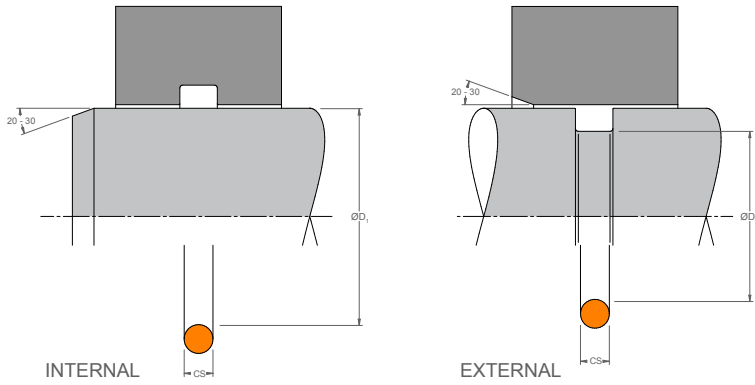
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### PART NUMBER RANGE

METRIC		
ØD1	C/S	Part No. No.
25.00	2.00	4960808
30.00	2.00	4826508
35.00	2.00	4826608
35.00	3.00	4834408
37.60	2.40	4573400
40.00	2.00	4826708
40.00	3.00	4823008
42.52	2.62	4903308
44.00	3.00	4826808
44.00	3.10	4873608
45.00	3.00	4823108
50.00	3.00	4823208
54.00	3.00	4826908
55.00	3.00	4913406
55.00	5.00	4844008
59.40	3.10	4832208
60.00	5.00	4810008
64.00	3.00	4821508
64.40	3.10	4873508
65.00	5.00	4823308
70.00	5.00	4821608
74.00	3.00	4962308
74.40	3.10	4821408
75.00	5.00	4827008
79.40	3.10	4973608
80.00	5.00	4823408
84.40	3.10	4817308
85.00	5.00	4911708
89.60	5.70	4873408
90.00	5.00	4820308
99.60	5.70	4873708
99.40	3.10	4973708



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## PART NUMBER RANGE

METRIC		
ØD1	C/S	Part No. No.
100.00	5.00	4823508
104.40	3.10	4832908
104.60	5.70	4817406
109.60	5.70	4873808
110.00	5.00	4823608
114.40	3.10	4833008
115.00	5.00	4849908
120.00	5.00	4823708
120.50	8.00	4895408
124.40	3.10	4872808
130.00	5.00	4821708
140.00	5.00	4834508
144.40	3.10	4875808
150.00	5.00	4827108
150.00	8.00	4911008

