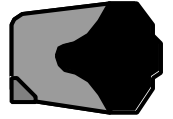


Rod seals

Hallite



21

TECHNICAL DETAILS

METRIC

INCH

OPERATING CONDITIONS

MAXIMUM SPEED
TEMPERATURE RANGE
MAXIMUM PRESSURE

0.5 m/sec
-30°C + 100°C
400 bar

1.5 ft/sec
-22°F + 212°F
6000 p.s.i.

MAXIMUM EXTRUSION GAP

PRESSURE bar
MAXIMUM GAP mm
PRESSURE p.s.i.
MAXIMUM GAP in

Figures show the maximum permissible gap all on one side using minimum rod \varnothing and maximum clearance \varnothing .

100	160	250	400
1.0	0.9	0.8	0.6
1500	2400	3750	6000
0.040	0.036	0.032	0.024

SURFACE ROUGHNESS

DYNAMIC SEALING FACE $\varnothing d_1$
STATIC SEALING FACE $\varnothing D_1$
STATIC HOUSING FACES L_1

μmRa	μmRt	μinCLA	μinRMS
0.1 ↔ 0.4	4 max	4 ↔ 16	5 ↔ 18
1.6 max	10 max	63 max	70 max
3.2 max	16 max	125 max	140 max

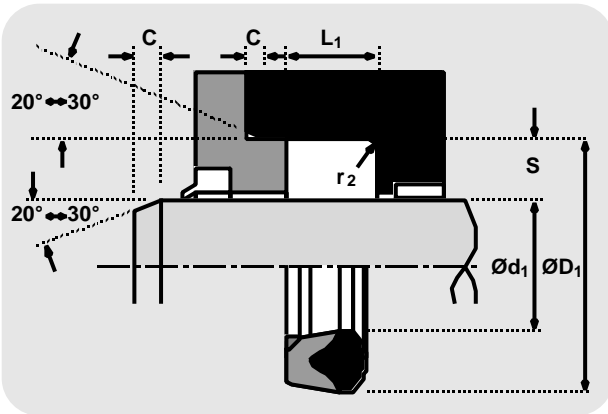
CHAMFERS & RADII

GROOVE SECTION S mm
MIN CHAMFER C mm
MAX FILLET RAD r_2 mm
GROOVE SECTION S in
MIN CHAMFER C in
MAX FILLET RAD r_2 in

4.0	5.0	7.5	10.0	12.5	15.0
2.0	2.5	4.0	5.0	6.5	7.5
0.2	0.4	0.8	0.8	1.2	1.6
0.187	0.250	0.312	0.375		
0.093	0.125	0.156	0.187		
0.008	0.016	0.032	0.032		

TOLERANCES

$\varnothing d_1$	$\varnothing D_1$	L_1 mm	L_1 in
f9	Js11	+0.25 -0	+0.010 -0



FEATURES

- HIGH PRESSURE CAPABILITY
- CONTAMINATION RESISTANT
- GENERAL PURPOSE SEAL
- LONG LIFE

NB: Part numbers suffixed by “ \ddagger ” indicate housing sizes to meet ISO5597.

DESIGN

The Hallite 21 is a compact, low friction seal with the advantage of an internal anti-extrusion ring.

A rubberised fabric U ring, which gives strength and durability, and a rubber header are moulded together forming the seal. It is designed to have a controlled pre-load across the angled rubber lips, which are accurately machine trimmed, to ensure a good seal at low pressure. The seal becomes more effective as the pressure increases and the rubberised fabric deforms to the housing, increasing the seal contact area. The surface of the fabric has pockets which retain lubrication to reduce friction and wear.

The range has a reinforced plastic anti-extrusion ring at the internal heel of the seal, to protect it against damage by extrusion, which enables the designer to use a large clearance. Where possible, triangular anti-extrusion rings are used, but in some cases a rectangular section may be supplied. Certain sizes are designed to suit housing requirements of ISO 5597.

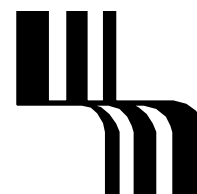
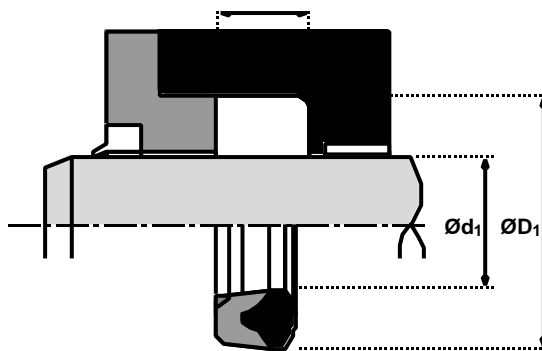
The proportions of the range have been determined to give a satisfactory performance when used with the recommended operating conditions.

Many other sizes are available outside this range, please contact your local Hallite sales office for additional information.

Rod seals

Hallite 21

metric



Ød ₁	TOL f9	ØD ₁	TOL Js11	L ₁ +0.25-0	PART No.
20	-0.020 -0.072	30	+0.08 -0.08	8.0	2176120‡
28	-0.020 -0.072	38	+0.08 -0.08	8.0	6583220‡
30	-0.020 -0.072	45	+0.08 -0.08	9.0	2176420
32	-0.025 -0.087	42	+0.08 -0.08	8.0	6583320‡
36	-0.025 -0.087	46	+0.08 -0.08	8.0	6583420‡
40	-0.025 -0.087	50	+0.08 -0.08	8.0	6583520‡
40	-0.025 -0.087	55	+0.10 -0.10	10.5	2176920
45	-0.025 -0.087	55	+0.10 -0.10	8.0	6583620‡
50	-0.025 -0.087	60	+0.10 -0.10	8.0	2192722‡
55	-0.030 -0.104	65	+0.10 -0.10	10.5	2177320
56	-0.030 -0.104	71	+0.10 -0.10	12.5	6583720‡
63	-0.030 -0.104	78	+0.10 -0.10	12.5	2192822‡
70	-0.030 -0.104	85	+0.11 -0.11	12.5	6583820‡

Ød ₁	TOL f9	ØD ₁	TOL Js11	L ₁ +0.25-0	PART No.
75	-0.030 -0.104	95	+0.11 -0.11	14.0	0896220
80	-0.030 -0.104	95	+0.11 -0.11	12.5	2192922‡
90	-0.036 -0.123	105	+0.11 -0.11	12.5	6583920‡
100	-0.036 -0.123	120	+0.11 -0.11	14.0	2178720
100	-0.036 -0.123	120	+0.11 -0.11	16.0	6581720‡
110	-0.036 -0.123	130	+0.13 -0.13	16.0	2193022‡
125	-0.043 -0.143	145	+0.13 -0.13	16.0	6581820‡
140	-0.043 -0.143	160	+0.13 -0.13	16.0	2193122‡
160	-0.043 -0.143	176	+0.13 -0.13	12.0	2120120
160	-0.043 -0.143	185	+0.15 -0.15	20.0	6581920‡
180	-0.043 -0.143	205	+0.15 -0.15	20.0	6582020‡
200	-0.050 -0.165	225	+0.15 -0.15	20.0	6582220‡
220	-0.050 -0.165	250	+0.15 -0.15	25.0	6592120‡

inch

Ød ₁	TOL f9	ØD ₁	TOL Js11	L ₁ +0.010 -0	PART No.
1.250	-0.020 -0.072	1.750	+0.08 -0.08	0.375	2187920
1.500	-0.020 -0.072	2.000	+0.08 -0.08	0.470	2186720
1.750	-0.020 -0.072	2.125	+0.08 -0.08	0.276	0064620
2.000	-0.020 -0.072	2.500	+0.08 -0.08	0.375	2187020

Ød ₁	TOL f9	ØD ₁	TOL Js11	L ₁ +0.010 -0	PART No.
2.000	-0.020 -0.072	2.750	+0.08 -0.08	0.625	2186820
2.250	-0.020 -0.072	2.750	+0.08 -0.08	0.375	2163820
2.500	-0.020 -0.072	3.000	+0.08 -0.08	0.312	2187120
2.625	-0.020 -0.072	3.375	+0.08 -0.08	0.562	2186920