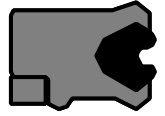


Rod seals

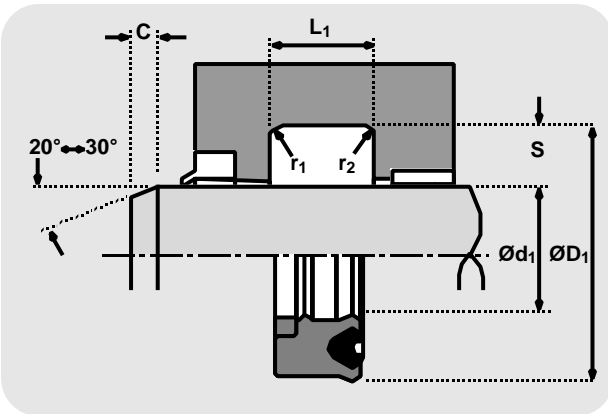
# Hallite



# 621

TECHNICAL DETAILS		METRIC	INCH				
<b>OPERATING CONDITIONS</b>							
MAXIMUM SPEED		1.0 m/sec	3.0 ft/sec				
TEMPERATURE RANGE		-45°C + 110°C	-50°F + 230°F				
MAXIMUM PRESSURE		700 bar	10,000 p.s.i.				
<b>MAXIMUM EXTRUSION GAP</b>							
PRESSURE bar		160	250	400	500	700	
MAXIMUM GAP mm		1.0	0.8	0.6	0.4	0.25	
PRESSURE p.s.i.		2400	3750	6000	7500	10,000	
MAXIMUM GAP in		0.040	0.032	0.024	0.016	0.010	
<b>SURFACE ROUGHNESS</b>							
DYNAMIC SEALING FACE $\varnothing d_1$		$\mu\text{mRa}$	$\mu\text{mRt}$	$\mu\text{inCLA}$	$\mu\text{inRMS}$		
STATIC SEALING FACE $\varnothing D_1$		0.1 ↔ 0.4	4 max	4 ↔ 16	5 ↔ 18		
STATIC HOUSING FACES $L_1$		1.6 max	10 max	63 max	70 max		
		3.2 max	16 max	125 max	140 max		
<b>CHAMFERS &amp; RADII</b>							
GROOVE SECTION	S mm	4.0	5.0	7.5	10.0	12.5	15.0
MIN CHAMFER	C mm	3.0	3.5	5.0	6.5	7.0	8.0
MAX FILLET RAD	$r_1$ mm	0.2	0.4	0.8	0.8	1.2	1.6
MAX FILLET RAD	$r_2$ mm	0.4	0.8	1.2	1.2	1.6	2.4
GROOVE SECTION	S in	0.125	0.187	0.250	0.312	0.375	0.500
MIN CHAMFER	C in	0.093	0.093	0.125	0.156	0.187	0.217
MAX FILLET RAD	$r_1$ in	0.008	0.008	0.016	0.016	0.032	0.032
MAX FILLET RAD	$r_2$ in	0.016	0.016	0.032	0.032	0.047	0.047
<b>TOLERANCES</b>							
$\varnothing d_1$	$\varnothing D_1$	$L_1$ mm	$L_1$ in				
f9	Js11	+0.25 -0	+0.010 -0				

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



## DESIGN

The Hallite 621 is a top of the range high pressure rod seal. The design of the seal incorporates a unique profiled NBR energiser to ensure complete lip actuation under all pressure conditions and to cushion the seal against shock loadings.

The shell is moulded in Hallite's high performance polyurethane Hythane 181, ensuring flexibility for installation and performance at low temperatures. The Hallite 621 also benefits from Hallite's twin lip profile for dry rod sealing.

## FEATURES

- HIGH PRESSURE/SHOCK LOAD CAPABILITY
- TWIN LIP DESIGN OFFERING:
  - LOWER FRICTION
  - IMPROVED SEALING
  - PRIMARY LIP PROTECTION
  - INCREASED SEAL STABILITY
- POLYACETAL ANTI-EXTRUSION RING.

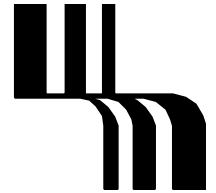
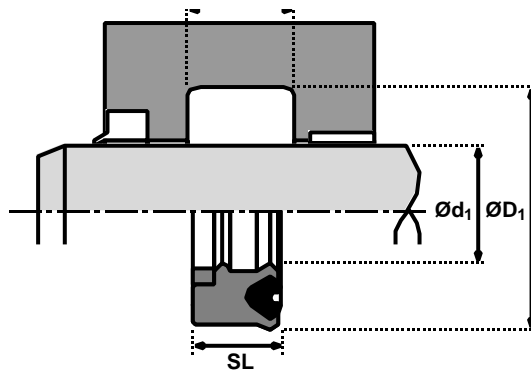
NB: Part numbers suffixed by "+” are designed to suit popular Asian housings.

Part numbers suffixed by "±” indicate housing sizes to meet ISO5597.

Rod seals

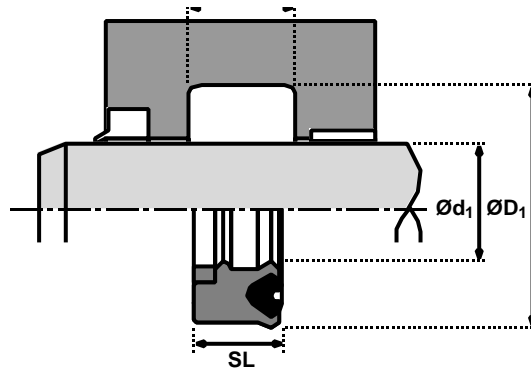
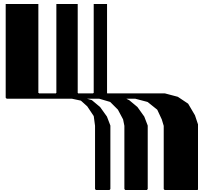
# Hallite 621

metric



Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL Js11	SL	L <sub>1</sub> +0.25-0	PART No.
14	-0.016 -0.059	21.5	+0.13 +0.00	2.8	3.2	4577700‡
18	-0.016 -0.059	25.5	+0.13 +0.00	2.8	3.2	4341800‡
20	-0.016 -0.059	27.5	+0.13 +0.00	2.8	3.2	4721700
20	-0.020 -0.072	31.0	+0.16 +0.00	3.9	4.2	4367400‡
22	-0.020 -0.072	33.0	+0.16 +0.00	3.9	4.2	4341900‡
25	-0.020 -0.072	32.5	+0.16 +0.00	3.9	3.2	4721800
25	-0.020 -0.072	36.0	+0.16 +0.00	3.9	4.2	4367500‡
25.4	-0.020 -0.072	32.9	+0.16 +0.00	2.8	3.2	4469000
28	-0.020 -0.072	39.0	+0.16 +0.00	3.9	4.2	4367600‡
30	-0.020 -0.072	41.0	+0.16 +0.00	3.9	4.2	4404500
32	-0.025 -0.072	39.5	+0.16 +0.00	3.9	3.2	4714800
32	-0.025 -0.087	43.0	+0.16 +0.00	3.9	4.2	4367700‡
36	-0.025 -0.087	47.0	+0.16 +0.00	3.9	4.2	4353100‡
40	-0.025 -0.087	51.0	+0.16 +0.00	3.9	4.2	4722900
40	-0.025 -0.087	55.5	+0.19 +0.00	6.0	6.3	4367800
45	-0.025 -0.087	56.0	+0.19 +0.00	3.9	4.2	4556300‡
45	-0.025 -0.087	60.5	+0.19 +0.00	6.0	6.3	4367900
50	-0.025 -0.087	61.0	+0.19 +0.00	6.0	4.2	4723000

Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL Js11	SL	L <sub>1</sub> +0.25-0	PART No.
50	-0.025 -0.087	65.5	+0.19 +0.00	6.0	6.3	4368000
56	-0.030 -0.104	71.5	+0.19 +0.00	6.0	6.3	4368100‡
60	-0.030 -0.104	70.6	+0.19 +0.00	3.9	4.2	4410800
60	-0.030 -0.104	75.5	+0.19 +0.00	6.0	6.3	4727100
63	-0.030 -0.104	78.5	+0.19 +0.00	6.0	6.3	4368200‡
65	-0.030 -0.104	80.5	+0.19 +0.00	6.0	6.3	4548000
70	-0.030 -0.104	85.5	+0.22 +0.00	6.0	6.3	4368300‡
75	-0.030 -0.104	90.5	+0.22 +0.00	6.0	6.3	4728200
80	-0.030 -0.104	95.5	+0.22 +0.00	6.0	6.3	4368400‡
85	-0.036 -0.123	100.5	+0.22 +0.00	6.0	6.3	4538400
90	-0.036 -0.123	105.5	+0.22 +0.00	6.0	6.3	4368500‡
95	-0.036 -0.123	110.5	+0.22 +0.00	6.0	6.3	4538500
100	-0.036 -0.123	115.5	+0.22 +0.00	6.0	6.3	4368600‡
110	-0.036 -0.123	125.5	+0.25 +0.00	6.0	6.3	4545400‡
125	-0.043 -0.143	140.5	+0.25 +0.00	6.0	6.3	4545500‡
140	-0.043 -0.143	155.5	+0.25 +0.00	6.0	6.3	4545600‡
160	-0.043 -0.143	175.5	+0.25 +0.00	6.0	6.3	4548100‡



Rod seals

# Hallite 621

inch

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	$L_1$ +0.010 -0	PART No.
1.375	-0.0010 -0.0034	1.875	+0.003 -0.003	0.375	0.413	4707710
1.500	-0.0010 -0.0034	1.875	+0.003 -0.003	0.250	0.275	4484410
1.500	-0.0010 -0.0034	1.875	+0.003 -0.003	0.312	0.344	4484510
1.500	-0.0010 -0.0034	2.000	+0.004 -0.004	0.375	0.413	4484910
1.750	-0.0010 -0.0034	2.125	+0.004 -0.004	0.250	0.275	4484610
1.750	-0.0010 -0.0034	2.125	+0.004 -0.004	0.375	0.413	4484710
1.750	-0.0010 -0.0034	2.250	+0.004 -0.004	0.375	0.413	4485010
2.000	-0.0012 -0.0041	2.375	+0.004 -0.004	0.375	0.413	4484810
2.000	-0.0012 -0.0041	2.500	+0.004 -0.004	0.375	0.413	4485110
2.125	-0.0012 -0.0041	2.625	+0.004 -0.004	0.375	0.413	4592510
2.250	-0.0012 -0.0041	2.750	+0.004 -0.004	0.375	0.413	4485210
2.375	-0.0012 -0.0041	2.875	+0.004 -0.004	0.375	0.413	4485310
2.500	-0.0012 -0.0041	3.000	+0.004 -0.004	0.375	0.413	4485410
2.750	-0.0012 -0.0041	3.250	+0.004 -0.004	0.375	0.413	4485510
3.000	-0.0012 -0.0041	3.500	+0.004 -0.004	0.375	0.413	4485610
3.000	-0.0012 -0.0041	3.625	+0.004 -0.004	0.500	0.550	4486810
3.000	-0.0012 -0.0041	3.750	+0.004 -0.004	0.625	0.688	4489310
3.250	-0.0014 -0.0048	3.750	+0.004 -0.004	0.375	0.413	4485710
3.500	-0.0014 -0.0048	4.000	+0.004 -0.004	0.375	0.413	4485810

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL Js11	SL	$L_1$ +0.010 -0	PART No.
3.500	-0.0014 -0.0048	4.125	+0.004 -0.004	0.500	0.550	4486910
3.500	-0.0014 -0.0048	4.250	+0.004 -0.004	0.625	0.688	4573610
3.750	-0.0014 -0.0048	4.125	+0.004 -0.004	0.375	0.413	4709310
4.000	-0.0014 -0.0048	4.500	+0.004 -0.004	0.375	0.413	4486010
4.000	-0.0014 -0.0048	4.500	+0.004 -0.004	0.562	0.619	4486110
4.000	-0.0014 -0.0048	4.625	+0.004 -0.004	0.562	0.619	4487010
4.000	-0.0014 -0.0048	4.750	+0.005 -0.005	0.625	0.688	4483310
4.500	-0.0014 -0.0048	5.000	+0.005 -0.005	0.375	0.413	4486210
4.500	-0.0014 -0.0048	5.000	+0.005 -0.005	0.562	0.619	4486310
4.500	-0.0014 -0.0048	5.125	+0.005 -0.005	0.625	0.688	4486410
4.500	-0.0014 -0.0048	5.250	+0.005 -0.005	0.625	0.688	4483410
5.000	-0.0017 -0.0056	5.500	+0.005 -0.005	0.562	0.619	4486510
5.000	-0.0017 -0.0056	5.625	+0.005 -0.005	0.625	0.688	4487110
5.000	-0.0017 -0.0056	5.750	+0.005 -0.005	0.625	0.688	4483510
5.500	-0.0017 -0.0056	6.000	+0.005 -0.005	0.562	0.619	4486610
6.000	-0.0017 -0.0056	6.500	+0.005 -0.005	0.562	0.619	4486710
6.000	-0.0017 -0.0056	6.750	+0.005 -0.005	0.625	0.688	4487210
7.000	-0.0017 -0.0056	7.750	+0.005 -0.005	0.625	0.688	4588210
8.000	-0.0020 -0.0065	8.750	+0.006 -0.006	0.625	0.688	4573210

# Notes

