

Rod seals

# Hallite

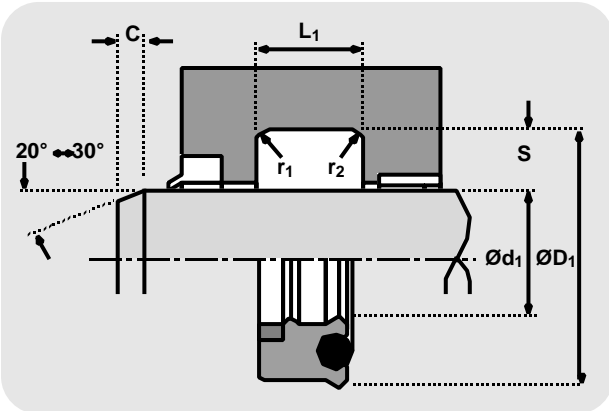


# 631

TECHNICAL DETAILS		METRIC	INCH			
<b>OPERATING CONDITIONS</b>						
MAXIMUM SPEED	0.5 m/sec	1.5 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	
<b>SURFACE ROUGHNESS</b>						
DYNAMIC SEALING FACE $\varnothing d_1$	$0.1 \leftrightarrow 0.4$	$4 \text{ max}$	$4 \leftrightarrow 16$	$5 \leftrightarrow 18$		
STATIC SEALING FACE $\varnothing D_1$	1.6 max	10 max	63 max	70 max		
STATIC HOUSING FACES $L_1$	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	
MIN CHAMFER C mm	3.0	3.5	5.0	6.5	7.0	
MAX FILLET RAD $r_1$ mm	0.2	0.4	0.8	0.8	1.2	
MAX FILLET RAD $r_2$ mm	0.4	0.8	1.2	1.2	1.6	
<b>TOLERANCES</b>						
$\varnothing d_1$	$\varnothing D_1$	$L_1$ mm				
f9	Js11	+0.25 -0				

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

$\mu\text{mRa}$	$\mu\text{mRt}$	$\mu\text{inCLA}$	$\mu\text{inRMS}$
0.1 $\leftrightarrow$ 0.4	4 max	4 $\leftrightarrow$ 16	5 $\leftrightarrow$ 18
1.6 max	10 max	63 max	70 max
3.2 max	16 max	125 max	140 max



## DESIGN

The Hallite 631 is a high pressure rod seal. The thermoplastic polyester elastomer seal generally has an O ring energiser to ensure complete lip actuation under all pressure conditions and to cushion the seal against shock loadings. The Hallite 631 is also available without an anti extrusion ring (Hallite 630). The operating conditions given are for general use with hydraulic mineral oil.

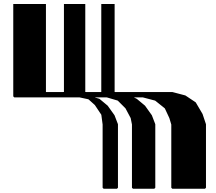
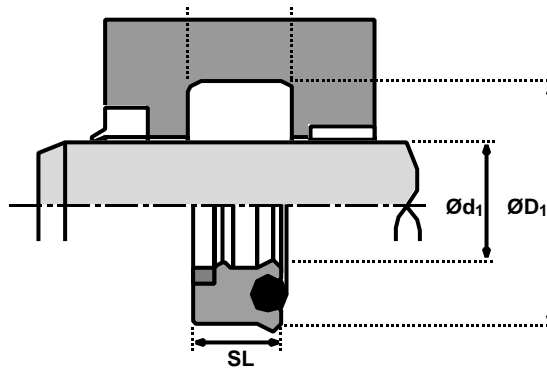
## FEATURES:

- HIGH PRESSURE/SHOCK LOAD CAPABILITY
- POLYACETAL ANTI-EXTRUSION RING

Rod seals

# Hallite 631

metric



Ød <sub>1</sub>	TOL f <sub>9</sub>	ØD <sub>1</sub>	TOL Js11	SL	L <sub>1</sub> +0.25 -0	PART No.
32.0	-0.025 -0.087	44.0	+0.08 -0.08	8.1	9.6	4344110
40.0	-0.025 -0.087	52.0	+0.10 -0.10	8.7	9.6	4326310
50.0	-0.025 -0.087	62.0	+0.10 -0.10	8.7	9.6	4326410
60.0	-0.030 -0.104	72.0	+0.10 -0.10	8.7	9.6	4344210*
60.0	-0.030 -0.104	75.0	+0.10 -0.10	11.8	13.0	4451210
63.0	-0.030 -0.104	75.0	+0.10 -0.10	8.7	9.6	4326510*
70.0	-0.030 -0.104	82.0	+0.11 -0.11	8.7	9.6	4344310*
80.0	-0.030 -0.104	95.0	+0.11 -0.11	14.5	16.0	4446510
85.0	-0.036 -0.123	97.0	+0.11 -0.11	8.7	9.6	4344510*
90.0	-0.036 -0.123	105.0	+0.11 -0.11	14.5	16.0	4428010
100.0	-0.036 -0.123	115.0	+0.11 -0.11	14.5	16.0	4397610*
110.0	-0.036 -0.123	125.0	+0.13 -0.13	14.5	16.0	4445610
115.0	-0.036 -0.123	130.0	+0.13 -0.13	14.5	16.0	4455410
120.0	-0.036 -0.123	135.0	+0.13 -0.13	14.5	16.0	4452010
125.0	-0.043 -0.143	140.0	+0.13 -0.13	14.5	16.0	4446910
128.0	-0.043 -0.143	143.0	+0.13 -0.13	14.5	16.0	4581610
150.0	-0.043 -0.143	165.0	+0.13 -0.13	14.5	16.0	4389110*
160.0	-0.043 -0.143	175.0	+0.13 -0.13	14.5	16.0	4405010*
160.0	-0.043 -0.143	185.0	+0.13 -0.13	18.8	20.0	4401710*
165.0	-0.043 -0.143	182.0	+0.15 -0.15	14.5	16.0	4537410
177.0	-0.043 -0.143	192.0	+0.15 -0.15	14.5	16.0	4445710

Ød <sub>1</sub>	TOL f <sub>9</sub>	ØD <sub>1</sub>	TOL Js11	SL	L <sub>1</sub> +0.25 -0	PART No.
185.0	-0.050 -0.165	210.0	+0.15 -0.15	18.2	20.0	4546610
190.0	-0.050 -0.165	205.0	+0.15 -0.15	14.5	16.0	4430810
195.0	-0.050 -0.165	210.0	+0.15 -0.15	14.5	16.0	4459310
195.0	-0.050 -0.165	215.0	+0.15 -0.15	14.5	16.0	4550510
200.0	-0.050 -0.165	220.0	+0.15 -0.15	14.5	16.0	4387610*
210.0	-0.050 -0.165	230.0	+0.15 -0.15	14.5	16.0	4472910
225.0	-0.050 -0.165	240.0	+0.15 -0.15	14.5	16.0	4445810
225.0	-0.050 -0.165	250.0	+0.15 -0.15	18.2	20.0	4537510
230.0	-0.050 -0.165	249.3	+0.15 -0.15	14.5	16.0	4439410
230.0	-0.050 -0.165	255.0	+0.16 -0.16	22.8	25.0	4555510
240.0	-0.050 -0.165	260.0	+0.16 -0.16	14.5	16.0	4496510
245.0	-0.050 -0.165	270.0	+0.16 -0.16	18.2	20.0	4546710
260.0	-0.056 -0.186	280.0	+0.16 -0.16	16.4	18.0	4499010
285.0	-0.056 -0.186	310.0	+0.16 -0.16	18.2	20.0	4537610
290.0	-0.056 -0.186	310.0	+0.16 -0.16	16.4	18.0	4475110
305.0	-0.056 -0.186	325.0	+0.18 -0.18	16.4	18.0	4473010
305.0	-0.056 -0.186	330.0	+0.18 -0.18	18.2	20.0	4546810
325.0	-0.062 -0.212	355.0	+0.18 -0.18	18.2	20.0	4555710
335.0	-0.062 -0.212	355.0	+0.18 -0.18	16.4	18.0	4496610

\* Supplied with profiled energiser - see Hallite 621