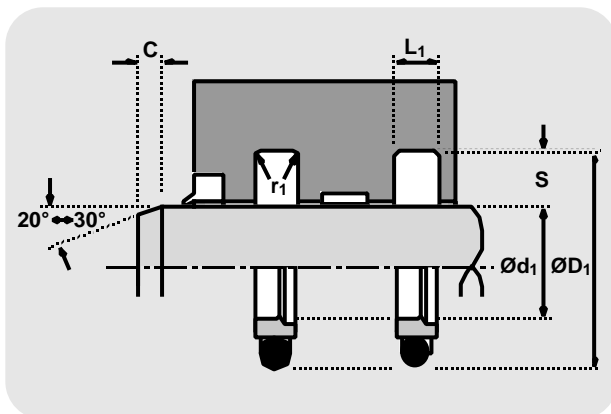


Rod Seals

Hallite



TECHNICAL DETAILS		METRIC	INCH	
OPERATING CONDITIONS				
MAXIMUM SPEED	4.0 m/sec	12.0 ft/sec		
TEMPERATURE RANGE	-30°C + 100°C	-22°F + 212°F		
MAXIMUM PRESSURE	300 bar	4500 p.s.i.		
MAXIMUM EXTRUSION GAP				
PRESSURE bar	100	150	250	300
MAXIMUM GAP mm	0.6	0.5	0.45	0.4
PRESSURE p.s.i.	1500	2400	3750	4500
SURFACE ROUGHNESS				
DYNAMIC SEALING FACE $\varnothing d_1$	$0.1 \leftrightarrow 0.4$	4 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
CHAMFERS & RADII				
GROOVE SECTION S mm	3.75	5.50	7.75	10.50 12.25
MIN CHAMFER C mm	2.00	3.00	5.00	7.50 8.00
MAX FILLET RAD r_1 mm	0.40	0.80	1.20	1.50 1.50
TOLERANCES				
$\varnothing d_1$	$\varnothing D_1$	L_1 mm		
f9	H11	+0.2 -0		



FEATURES

- ULTRA LOW FRICTION
- COMPACT HOUSING
- INCH SIZES AVAILABLE ON REQUEST
- THE SEAL RING COMPONENT IS MACHINED BY HALLITE, THEREFORE ANY SIZE CAN BE CATERED FOR

MATERIALS

Face material - O-Ring	last two digits of part number
Standard material	
15% Glass/PTFE - NBR	----- 10
Material options:	
15% Glass/PTFE - FKM	----- 11
Bronze/PTFE - NBR	----- 20
Bronze/PTFE - FKM	----- 21

Technical details shown are for 15% Glass/PTFE and NBR energiser. Technical details for material options should be requested from Hallite Seals.

DESIGN

Used in tandem, the Hallite 16 rod seal provides the designer with a compact low friction seal for light to medium duty hydraulic cylinders.

It has a special filled PTFE ring with a pre-loaded lip energised by an O ring. The lip is designed to have a contact area with the rod adequate to retain the media at low pressure. As high pressure acts on the O ring it compresses the lip against the rod increasing the contact area and the effectiveness of the seal.

The special PTFE ring has the low frictional properties normally associated with this material but is strengthened by additives to reduce creep. It has a low breakout friction so stick-slip is eliminated.

Standard seals are supplied with a nitrile O ring but other materials can be provided.

For the best results it is recommended two seals are fitted. The PTFE ring should always be mounted with the sealing lip on the pressure side. Sizes above 30mm are easily installed by deforming the PTFE ring into a kidney shape, sizes under 30mm are best installed using a tool, details of which can be provided.

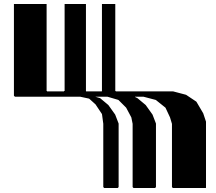
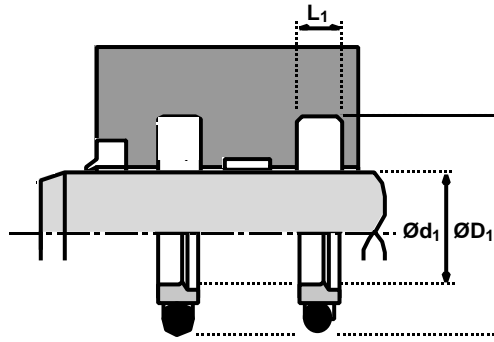
A number of material options can be provided to extend operating conditions. Please ensure that the correct part number is specified for the material option as indicated.

NB: Part numbers suffixed by “†” indicate housing sizes to meet ISO7425-2.

Part numbers suffixed by “+” are designed to suit popular Asian housings.

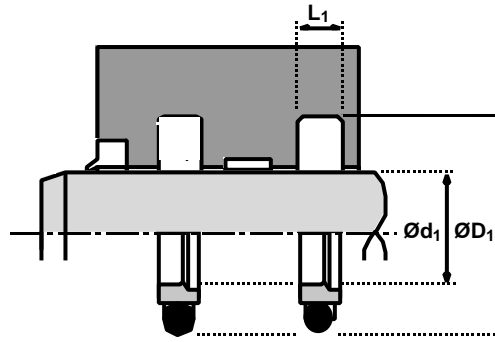
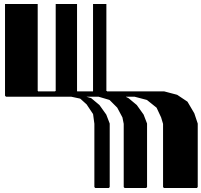
Hallite 16

metric



Ød ₁	TOL f ₉	ØD ₁	TOL H11	L ₁ +0.2-0	PART No.
12	-0.016 -0.059	19.5	+0.13 +0.00	3.2	86106_ _ ‡
14	-0.016 -0.059	21.5	+0.13 +0.00	3.2	86098_ _ ‡
15	-0.016 -0.059	22.5	+0.13 +0.00	3.2	86179_ _
16	-0.016 -0.059	23.5	+0.13 +0.00	3.2	66225_ _ ‡
18	-0.016 -0.059	25.5	+0.13 +0.00	3.2	66226_ _ ‡
20	-0.020 -0.072	31.0	+0.16 +0.00	4.2	65948_ _ ‡
22	-0.020 -0.072	29.5	+0.16 +0.00	3.2	862310
22	-0.020 -0.072	33.0	+0.16 +0.00	4.2	65949_ _ ‡
25	-0.020 -0.072	36.0	+0.16 +0.00	4.2	65950_ _ ‡
28	-0.020 -0.072	39.0	+0.16 +0.00	4.2	66227_ _ ‡
30	-0.020 -0.072	41.0	+0.16 +0.00	4.2	65951_ _
32	-0.025 -0.087	43.0	+0.16 +0.00	4.2	65952_ _ ‡
35	-0.025 -0.087	46.0	+0.16 +0.00	4.2	66228_ _
36	-0.025 -0.087	47.0	+0.16 +0.00	4.2	65953_ _ ‡
40	-0.025 -0.087	55.5	+0.19 +0.00	6.3	65954_ _
43	-0.025 -0.087	58.5	+0.19 +0.00	6.3	86075_ _
45	-0.025 -0.087	60.5	+0.19 +0.00	6.3	65955_ _
50	-0.025 -0.087	65.5	+0.19 +0.00	6.3	65956_ _
56	-0.030 -0.104	71.5	+0.19 +0.00	6.3	65957_ _
60	-0.030 -0.104	75.5	+0.19 +0.00	6.3	65958_ _
63	-0.030 -0.104	78.5	+0.19 +0.00	6.3	65959_ _ ‡
65	-0.030 -0.104	80.5	+0.22 +0.00	6.3	65960_ _
70	-0.030 -0.104	85.5	+0.22 +0.00	6.3	65961_ _ ‡

Ød ₁	TOL f ₉	ØD ₁	TOL H11	L ₁ +0.2-0	PART No.
75	-0.030 -0.104	90.5	+0.22 +0.00	6.3	65962_ _
78	-0.030 -0.104	93.5	+0.22 +0.00	6.3	86112_ _
80	-0.030 -0.104	95.5	+0.22 +0.00	6.3	65963_ _ ‡
85	-0.036 -0.123	100.5	+0.22 +0.00	6.3	65964_ _
90	-0.036 -0.123	105.5	+0.22 +0.00	6.3	65965_ _ ‡
95	-0.036 -0.123	110.5	+0.22 +0.00	6.3	65966_ _
97	-0.036 -0.123	112.5	+0.22 +0.00	6.3	86113_ _
100	-0.036 -0.123	115.5	+0.22 +0.00	6.3	65967_ _ ‡
105	-0.036 -0.123	120.5	+0.25 +0.00	6.3	86478_ _ †
110	-0.036 -0.123	125.5	+0.25 +0.00	6.3	66229_ _ ‡
115	-0.036 -0.123	130.5	+0.25 +0.00	6.3	66391_ _
120	-0.043 -0.143	135.5	+0.25 +0.00	6.3	86099_ _ †
125	-0.043 -0.143	140.5	+0.25 +0.00	6.3	66392_ _ ‡
130	-0.043 -0.143	145.5	+0.25 +0.00	6.3	86102_ _
135	-0.043 -0.143	150.5	+0.25 +0.00	6.3	86103_ _
140	-0.043 -0.143	155.5	+0.25 +0.00	6.3	66393_ _ ‡
145	-0.043 -0.143	160.5	+0.25 +0.00	6.3	86156_ _
150	-0.043 -0.143	165.5	+0.25 +0.00	6.3	86157_ _
160	-0.043 -0.143	175.5	+0.25 +0.00	6.3	66394_ _ ‡
170	-0.043 -0.143	185.5	+0.25 +0.00	6.3	86083_ _
180	-0.043 -0.143	195.5	+0.29 +0.00	6.3	66395_ _ ‡
190	-0.050 -0.165	205.5	+0.29 +0.00	6.3	86074_ _
200	-0.050 -0.165	221.0	+0.29 +0.00	8.1	66396_ _ ‡



Rod Seals

Hallite

16

metric

Ød ₁	TOL f9	ØD ₁	TOL H11	L ₁ +0.2-0	PART No.
210	-0.050 -0.165	231.0	+0.29 +0.00	8.1	86094__
220	-0.050 -0.165	241.0	+0.29 +0.00	8.1	66397__‡
240	-0.050 -0.165	261.0	+0.29 +0.00	8.1	86159__
250	-0.050 -0.165	271.0	+0.32 +0.00	8.1	66398__‡
270	-0.056 -0.186	294.5	+0.32 +0.00	8.1	86069__
280	-0.056 -0.186	304.5	+0.32 +0.00	8.1	66399__‡
290	-0.056 -0.186	314.5	+0.32 +0.00	8.1	86173__
300	-0.056 -0.186	324.5	+0.36 +0.00	8.1	66400__
320	-0.062 -0.211	344.5	+0.36 +0.00	8.1	86082__‡

Ød ₁	TOL f9	ØD ₁	TOL H11	L ₁ +0.2-0	PART No.
330	-0.062 -0.211	354.5	+0.36 +0.00	8.1	86196__
340	-0.062 -0.211	364.5	+0.36 +0.00	8.1	86197__
350	-0.062 -0.211	374.5	+0.36 +0.00	8.1	86198__
360	-0.062 -0.211	384.5	+0.36 +0.00	8.1	86199__‡
370	-0.062 -0.211	394.5	+0.36 +0.00	8.1	86200__
380	-0.062 -0.211	404.5	+0.40 +0.00	8.1	86201__
390	-0.062 -0.211	414.5	+0.40 +0.00	8.1	86202__
400	-0.062 -0.211	424.5	+0.40 +0.00	8.1	86203__

Notes

