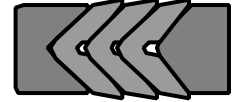
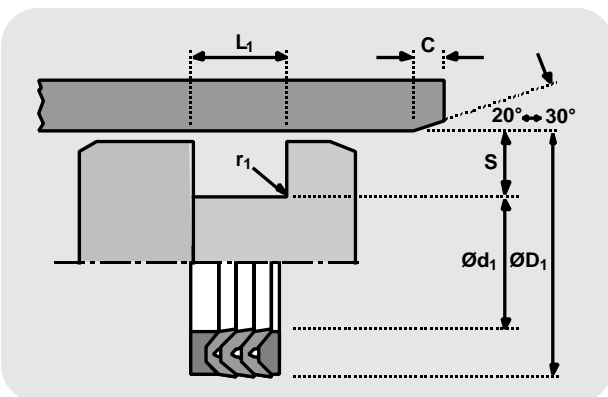
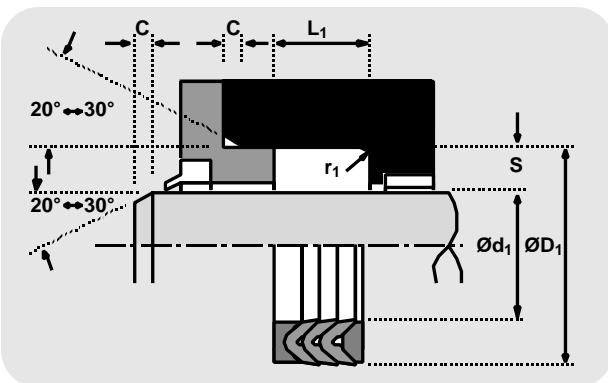
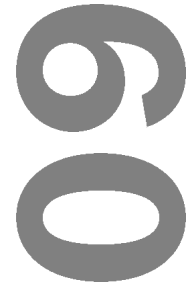


## Vee pack sets

# Hallite



TECHNICAL DETAILS		METRIC	INCH			
<b>OPERATING CONDITIONS</b>						
MAXIMUM SPEED		0.5 m/sec	1.5 ft/sec			
TEMPERATURE RANGE		-30°C + 100°C	-22°F + 212°F			
MAXIMUM PRESSURE		400 bar	6000 p.s.i.			
<b>MAXIMUM EXTRUSION GAP</b>						
PRESSURE bar		100	175	250	400	
MAXIMUM GAP mm		0.45	0.4	0.3	0.2	
PRESSURE p.s.i.		1500	2250	3500	6000	
MAXIMUM GAP in		0.018	0.015	0.010	0.007	
<b>SURFACE ROUGHNESS</b>						
DYNAMIC SEALING FACE - ROD $\varnothing d_1$		$\mu\text{mRa}$ 0.1 ↔ 0.4	$\mu\text{mRt}$ 4 max	$\mu\text{in CLA}$ 4 ↔ 16	$\mu\text{inRMS}$ 5 ↔ 18	
STATIC SEALING FACE - ROD $\varnothing D_1$		1.6 max	10 max	63 max	70 max	
DYNAMIC SEALING FACE - PISTON $\varnothing d_1$		0.1 ↔ 0.4	4 max	4 ↔ 16	5 ↔ 18	
STATIC SEALING FACE - PISTON $\varnothing D_1$		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		5.0	7.5	10.0	12.5	15.0
MIN CHAMFER C mm		3.0	5.0	6.5	7.0	7.5
MAX FILLET RAD $r_1$ mm		0.5	0.8	0.8	0.8	0.8
GROOVE SECTION S in		0.187	0.250	0.312	0.375	0.500
MIN CHAMFER C in		0.093	0.125	0.156	0.187	0.250
MAX FILLET RAD $r_1$ in		0.020	0.031	0.031	0.031	0.031
<b>TOLERANCES</b>						
ROD		$\varnothing d_1$ f9	$\varnothing D_1$ Js11	$L_1$ mm +0.75 -0.0	$L_1$ in +0.030 -0	
PISTON		js11	H9	+0.75 -0.0	+0.030 -0	



### DESIGN

Hallite 09 vee packings incorporate the Hallite 08 vee ring manufactured from fabric reinforced high grade nitrile rubber, which is normally used in multiples in a set with a male and female adaptor. The parts are "stacked" together and must be lubricated liberally with clean operating fluid prior to assembly.

The packing must be axially pre-loaded by the housing. This preload works through the male adaptor on the pressure side, exerting a hinging action on the vees, forcing the sealing lips apart to ensure a low pressure seal. As the pressure increases, so the hinging action increases, increasing the effectiveness of the seal even where severe vibration, shock loading and knocking may occur.

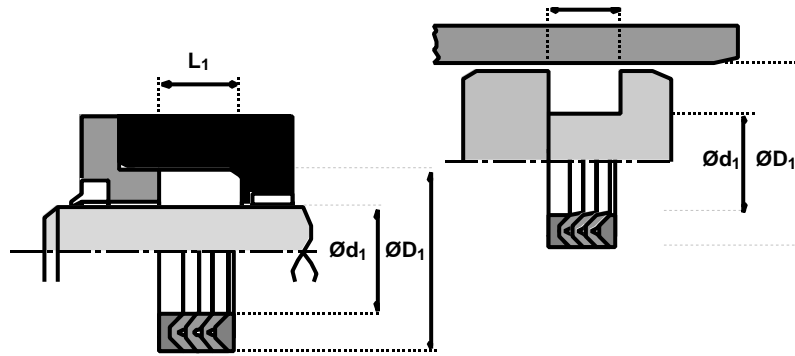
The standard Hallite 09 comprises of three vees and two adaptors, available in metric and imperial inch sizes. In addition to the ranges the Hallite 09 is also available for standard American inch housings. Some adaptors are rubber fabric while others are polyacetal resin. Individual vee rings are stocked to supplement the sets, but it should be noted that individual adaptors are only available in special circumstances.

For sizes not listed or for special requirements, please contact your Hallite sales office.

Vee pack sets

# Hallite 09

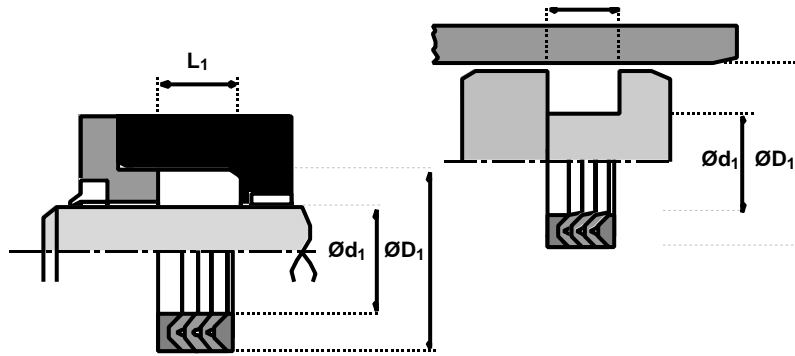
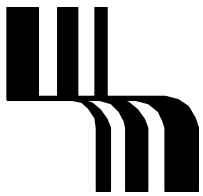
metric



For bore tolerances refer to datasheet.

Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL js11	L <sub>1</sub> tol +0.75 -0.0	PART No.
12.00	-0.016 -0.059	22.00	+0.055 -0.055	16.00	0188730
14.00	-0.016 -0.059	24.00	+0.055 -0.055	16.00	0189030
15.00	-0.016 -0.059	25.00	+0.055 -0.055	16.00	0189530
16.00	-0.016 -0.059	26.00	+0.055 -0.055	16.00	0190130
18.00	-0.016 -0.059	28.00	+0.055 -0.055	16.00	0190530
20.00	-0.020 -0.072	30.00	+0.065 -0.065	16.00	0190930
22.00	-0.020 -0.072	32.00	+0.065 -0.065	16.00	0191730
25.00	-0.020 -0.072	40.00	+0.065 -0.065	22.50	0192630
28.00	-0.020 -0.072	43.00	+0.065 -0.065	22.50	0193430
30.00	-0.020 -0.072	45.00	+0.065 -0.065	22.50	0193930
32.00	-0.025 -0.087	47.00	+0.080 -0.080	22.50	0194330
35.00	-0.025 -0.087	50.00	+0.080 -0.080	22.50	0195130
36.00	-0.025 -0.087	51.00	+0.080 -0.080	22.50	0196030
40.00	-0.025 -0.087	55.00	+0.080 -0.080	22.50	0196530
42.00	-0.025 -0.087	57.00	+0.080 -0.080	22.50	0196830
45.00	-0.025 -0.087	60.00	+0.080 -0.080	22.50	0197430
48.00	-0.025 -0.087	63.00	+0.080 -0.080	22.50	0197730
50.00	-0.025 -0.087	70.00	+0.080 -0.080	30.00	1208430
55.00	-0.030 -0.104	75.00	+0.095 -0.095	30.00	1208230
56.00	-0.030 -0.104	76.00	+0.095 -0.095	32.00	1208630
60.00	-0.030 -0.104	80.00	+0.095 -0.095	32.00	1208930
63.00	-0.030 -0.104	83.00	+0.095 -0.095	32.00	1209130
65.00	-0.030 -0.104	85.00	+0.095 -0.095	30.00	1209230

Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL js11	L <sub>1</sub> tol +0.75 -0.0	PART No.
70.00	-0.030 -0.104	90.00	+0.095 -0.095	30.00	1209330
75.00	-0.030 -0.104	95.00	+0.095 -0.095	30.00	1209530
80.00	-0.030 -0.104	100.00	+0.095 -0.095	30.00	1209630
80.00	-0.030 -0.104	105.00	+0.095 -0.095	44.00	0984230
85.00	-0.036 -0.123	105.00	+0.110 -0.110	30.00	1209830
90.00	-0.036 -0.123	110.00	+0.095 -0.110	30.00	1210630
100.00	-0.036 -0.123	120.00	+0.095 -0.110	30.00	1210730
104.00	-0.036 -0.123	130.00	+0.095 -0.110	36.00	4121230
105.00	-0.036 -0.123	125.00	+0.095 -0.110	30.00	1203130
110.00	-0.036 -0.123	130.00	+0.095 -0.110	30.00	1195030
115.00	-0.036 -0.123	140.00	+0.095 -0.110	34.00	1215030
120.00	-0.036 -0.123	140.00	+0.095 -0.110	30.00	4137830
125.00	-0.43 -0.143	150.00	+0.125 -0.125	34.00	1215330
135.00	-0.043 -0.143	160.00	+0.125 -0.125	34.00	1197630
140.00	-0.043 -0.143	160.00	+0.125 -0.125	33.00	0677130
140.00	-0.043 -0.143	165.00	+0.125 -0.125	35.00	1219930
150.00	-0.043 -0.143	180.00	+0.125 -0.125	45.00	1220130
160.00	-0.043 -0.143	190.00	+0.125 -0.125	45.00	1221230
170.00	-0.043 -0.143	200.00	+0.125 -0.125	45.00	1224930
180.00	-0.043 -0.143	210.00	+0.125 -0.125	45.00	1225230
190.00	-0.050 -0.165	220.00	+0.145 -0.145	45.00	1225530
200.00	+0.050 -0.165	230.00	+0.145 -0.145	45.00	1225830



For bore tolerances refer to datasheet.

Vee pack sets  
**Hallite**  
**09**  
 inch

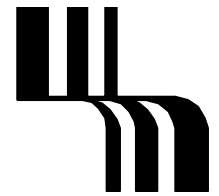
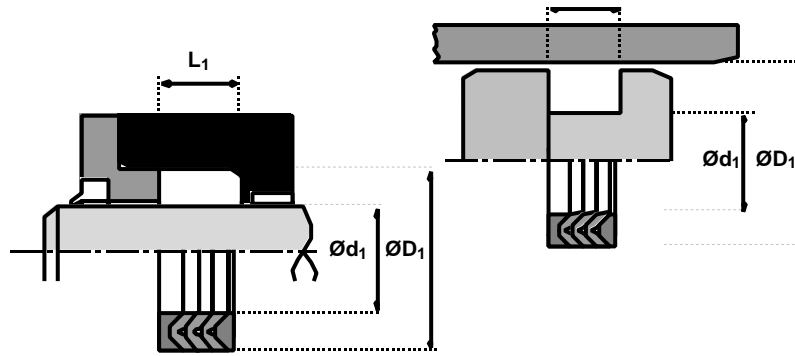
Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL js11	L <sub>1</sub> tol +0.030 -0.0	PART No.
0.500	-0.0006	1.000	+0.003	0.715	6530830
	-0.0023		-0.003		
0.750	-0.0008	1.250	+0.003	0.875	1735140
	-0.0028		-0.003		
0.875	-0.0008	1.375	+0.003	0.825	4135930
	-0.0028		-0.003		
1.000	-0.0008	1.375	+0.003	0.675	4138630
	-0.0028		-0.003		
1.000	-0.0008	1.500	+0.003	0.710	0183330
	-0.0028		-0.003		
1.125	-0.0008	1.625	+0.003	0.755	4136030
	-0.0028		-0.003		
1.125	-0.0010	1.750	+0.003	1.065	4115330
	-0.0034		-0.003		
1.250	-0.0010	1.750	+0.003	0.785	4102530
	-0.0034		-0.003		
1.500	-0.0010	2.000	+0.004	0.710	4007630
	-0.0034		-0.004		
1.500	-0.0010	2.125	+0.004	1.000	4002130
	-0.0034		-0.004		
1.750	-0.0010	2.250	+0.004	0.825	1461530
	-0.0034		-0.004		
1.750	-0.0010	2.375	+0.004	1.000	4135130
	-0.0034		-0.004		
1.875	-0.0010	2.500	+0.004	0.950	4136230
	-0.0034		-0.004		
2.000	-0.0012	2.500	+0.004	0.715	4007430
	-0.0041		-0.004		
2.000	-0.0012	2.625	+0.004	0.898	6557940
	-0.0041		-0.004		
2.000	-0.0012	2.750	+0.004	0.986	6575730
	-0.0041		-0.004		
2.250	-0.0012	2.750	+0.004	0.705	6555230
	-0.0041		-0.004		
2.250	-0.0012	2.875	+0.004	0.937	6530730
	-0.0041		-0.004		
2.250	-0.0012	3.000	+0.004	0.960	4008030
	-0.0041		-0.004		

Ød <sub>1</sub>	TOL f9	ØD <sub>1</sub>	TOL js11	L <sub>1</sub> tol +0.030 -0.0	PART No.
2.375	-0.0012	3.000	+0.004	0.990	4129530
	-0.0041		-0.004		
2.500	-0.0012	3.000	+0.004	0.777	0334330
	-0.0041		-0.004		
2.500	-0.0012	3.125	+0.005	0.961	4122230
	-0.0041		-0.005		
2.500	-0.0012	3.250	+0.005	1.222	4002530
	-0.0041		-0.005		
2.750	-0.0012	3.250	+0.005	0.795	4182430
	-0.0041		-0.005		
2.750	-0.0012	3.500	+0.005	0.978	4008430
	-0.0041		-0.005		
3.000	-0.0014	3.500	+0.005	0.725	4130730
	-0.0048		-0.005		
3.000	-0.0014	3.625	+0.005	0.918	4001530
	-0.0048		-0.005		
3.000	-0.0014	3.750	+0.005	1.159	0636930*
	-0.0048		-0.005		
3.250	-0.0014	4.000	+0.005	0.960	4008330
	-0.0048		-0.005		
3.375	-0.0014	4.000	+0.005	0.833	4002730
	-0.0048		-0.005		
3.375	-0.0014	4.125	+0.005	1.236	4134030
	-0.0048		-0.005		
3.500	-0.0014	4.000	+0.005	0.825	1461130
	-0.0048		-0.005		
3.500	-0.0014	4.250	+0.005	1.086	4115830
	-0.0048		-0.005		
3.750	-0.0014	4.375	+0.005	0.900	1365330
	-0.0048		-0.005		
3.750	-0.0014	4.500	+0.005	1.090	0755731*
	-0.0048		-0.005		
3.875	-0.0014	4.500	+0.005	0.878	4001930
	-0.0048		-0.005		
4.000	-0.0014	4.500	+0.005	0.775	6565930
	-0.0048		-0.005		
4.000	-0.0014	4.750	+0.005	1.000	6573130
	-0.0048		-0.005		

Vee pack sets

# Hallite 09

inch



For bore tolerances refer to datasheet.

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	$L_1$ tol +0.030 -0.0	PART No.
4.000	-0.0014	5.000	+0.005	1.440	0563630
	-0.0048		-0.005		
4.250	-0.0014	5.000	+0.005	1.090	0299330
	-0.0048		-0.005		
5.000	-0.0016	6.000	+0.005	1.765	0307530*
	-0.0056		-0.005		
5.250	-0.0016	6.000	+0.005	1.055	0411130
	-0.0056		-0.005		

$\varnothing d_1$	TOL f9	$\varnothing D_1$	TOL js11	$L_1$ tol +0.030 -0.0	PART No.
5.500	-0.0016	6.500	+0.005	1.172	0048430
	-0.0056		-0.005		
6.000	-0.0016	6.500	+0.005	0.675	1207030
	-0.0056		-0.005		

\* Supplied with OD anti-extrusion ring.