Technical details

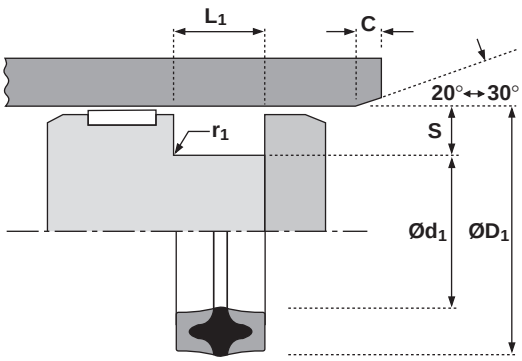
	Metric				Inch
Operating conditions					
Maximum Speed	0.5 m/sec				1.5 ft/sec
Temperature Range	-30°C +100°C				-22°F +212°F
Maximum Pressure	500 bar				7500 p.s.i.

Maximum extrusion gap	**Figures show the maximum permissible gap all on one side using minimum rod Ø and maximum clearance Ø.**			
Pressure bar	160	250	400	500
Maximum Gap mm	0.35	0.3	0.2	0.1
Pressure p.s.i.	2400	3750	6000	7500
Maximum Gap in	0.016	0.012	0.008	0.004

Surface roughness	µmRa	µmRt	µinCLA	µinRMS
Dynamic Sealing Face $ØD_1$	0.1 <> 0.4	4 max	4 <> 16	5 <> 18
Static Sealing Face $Ød_1$	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	5.0	7.5	8.0	10.0	12.5
Min Chamfer C mm	2.4	4.0	5.0	5.0	6.5
Max Fillet Rad r_1 mm	0.4	0.8	0.8	1.2	1.6
Groove Section ≤ S in	0.250	0.312	0.375	0.500	0.625
Min Chamfer C in	0.125	0.156	0.187	0.217	0.250
Max Fillet Rad r_1 in	0.016	0.016	0.032	0.032	0.047

Tolerances	$ØD_1$	$Ød_1$	L_1
mm	H11	js11	+0.25 +0
in	H11	js11	+0.030 +0.020



Features

- **Well proven design**
- **Tolerant to contamination**
- **Wide range of non standard sizes**

Design

A medium to heavy duty double acting seal, the Hallite 56 has shown itself over many years to be an effective and robust piston seal in a wide variety of applications. Designed for split pistons it offers the benefits in terms of sealing efficiency and low friction gained from rubber/fabric and a specific proportion of rubber in contact with the cylinder surface.

The centre of the seal is rubber which is bonded to two 'U' section bases of rubberised fabric, and is compressed by the housing to obtain an effective low pressure seal. When the pressure increases the rubber energises the 'U' section and deforms it to the housing, increasing the sealing area and improving the seal.

Rubberised fabric is used to protect the rubber because it has strength and durability which combines with its ability to retain lubricant, to help keep friction low and reduce wear.

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.

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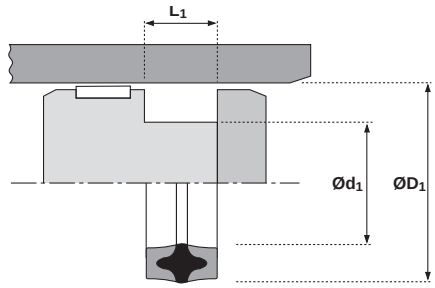
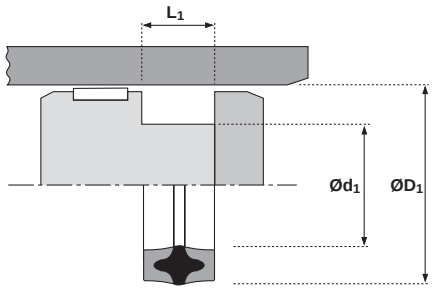


ØD1	TOL H11	Ød1	TOL js11	L1 + 0.030 + 0.020	PART No.
1.250	+0.006 +0.000	0.750	+0.003 -0.003	0.625	0403740
1.500	+0.006 +0.000	1.000	+0.003 -0.003	0.625	0422440
1.750	+0.006 +0.000	1.125	+0.003 -0.003	0.750	0778240
2.000	+0.007 +0.000	1.375	+0.003 -0.003	0.750	0778440
2.250	+0.007 +0.000	1.625	+0.003 -0.003	0.750	1432640
2.375	+0.007 +0.000	1.750	+0.003 -0.003	0.750	0939840
2.500	+0.007 +0.000	1.875	+0.003 -0.003	0.750	0867240
2.750	+0.007 +0.000	2.000	+0.004 -0.004	0.937	1369140
2.875	+0.007 +0.000	2.125	+0.004 -0.004	0.937	0779640
3.000	+0.007 +0.000	2.250	+0.004 -0.004	0.937	1098440
3.250	+0.009 +0.000	2.500	+0.004 -0.004	0.937	0782440
3.500	+0.009 +0.000	2.750	+0.004 -0.004	0.937	0437840
3.750	+0.009 +0.000	3.000	+0.004 -0.004	0.937	0410540
4.000	+0.009 +0.000	3.250	+0.004 -0.004	0.719	6504740
4.000	+0.009 +0.000	3.250	+0.004 -0.004	0.937	1407740
4.250	+0.009 +0.000	3.500	+0.004 -0.004	0.937	1128840
4.500	+0.009 +0.000	3.500	+0.004 -0.004	1.250	0448840
4.625	+0.009 +0.000	3.625	+0.004 -0.004	1.250	0449040
4.750	+0.010 +0.000	3.750	+0.004 -0.004	1.250	1007040
5.000	+0.010 +0.000	4.000	+0.004 -0.004	1.250	0443040

ØD1	TOL H11	Ød1	TOL js11	L1 + 0.030 + 0.020	PART No.
5.250	+0.010 +0.000	4.250	+0.004 -0.004	1.250	0892240
5.500	+0.010 +0.000	4.500	+0.004 -0.004	1.250	0133240
6.000	+0.010 +0.000	5.000	+0.005 -0.005	1.250	1367040
6.500	+0.010 +0.000	5.500	+0.005 -0.005	1.250	1164140
7.000	+0.010 +0.000	6.000	+0.005 -0.005	1.250	1188840
7.250	+0.011 +0.000	6.000	+0.005 -0.005	1.625	0424140
7.500	+0.011 +0.000	6.250	+0.005 -0.005	1.625	1255240
8.000	+0.011 +0.000	6.750	+0.005 -0.005	1.625	0426540
8.000	+0.011 +0.000	7.000	+0.005 -0.005	1.000	0224340
8.250	+0.011 +0.000	7.000	+0.005 -0.005	1.625	1219240
8.500	+0.011 +0.000	7.250	+0.005 -0.005	1.625	1286440
9.000	+0.011 +0.000	7.750	+0.006 -0.006	1.625	1266640
9.250	+0.011 +0.000	8.000	+0.006 -0.006	1.625	0455740
9.500	+0.011 +0.000	8.250	+0.006 -0.006	1.625	1332240
9.750	+0.011 +0.000	8.500	+0.006 -0.006	1.625	1332340
10.000	+0.013 +0.000	8.750	+0.006 -0.006	1.625	0436140
10.500	+0.013 +0.000	9.250	+0.006 -0.006	1.625	1331940
10.750	+0.013 +0.000	9.500	+0.006 -0.006	1.625	1320440
11.000	+0.013 +0.000	9.750	+0.006 -0.006	1.625	0433940
11.500	+0.013 +0.000	10.250	+0.006 -0.006	1.625	1331640



ØD1	TOL H11	Ød1	TOL js11	L1 + 0.030 + 0.020	PART No.
12.000	+0.013 +0.000	10.750	+0.006 -0.006	1.625	1331440
13.250	+0.013 +0.000	12.000	+0.006 -0.006	1.625	1329140
14.500	+0.013 +0.000	13.000	+0.006 -0.006	1.500	0270940
15.000	+0.013 +0.000	13.750	+0.007 -0.007	1.500	0787040

ØD1	TOL H11	Ød1	TOL js11	L1 + 0.030 + 0.020	PART No.
16.000	+0.016 +0.000	14.750	+0.007 -0.007	1.800	2117440
19.500	+0.016 +0.000	18.000	+0.008 -0.008	2.500	2108240
20.000	+0.017 +0.000	18.500	+0.009 -0.009	1.750	2111240

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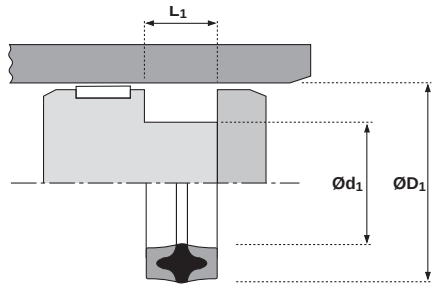

ØD1	TOL H11	Ød1	TOL js11	L1 + 0.25 - 0	PART No.
30	+0.13 +0.00	20	+0.07 -0.07	12.5	0200540
40	+0.16 +0.00	25	+0.07 -0.07	19.0	0472840
50	+0.16 +0.00	35	+0.08 -0.08	19.0	0474640
55	+0.19 +0.00	40	+0.08 -0.08	19.0	0475040
60	+0.19 +0.00	40	+0.08 -0.08	25.0	0282040
60	+0.19 +0.00	45	+0.08 -0.08	19.0	0979440
63	+0.19 +0.00	43	+0.08 -0.08	25.0	0646740
65	+0.19 +0.00	50	+0.08 -0.08	19.0	0383840
70	+0.19 +0.00	50	+0.08 -0.08	25.0	0294640
75	+0.19 +0.00	55	+0.10 -0.10	25.0	0818640
80	+0.19 +0.00	60	+0.10 -0.10	25.0	0294940
85	+0.22 +0.00	65	+0.10 -0.10	25.0	0388640
90	+0.22 +0.00	70	+0.10 -0.10	25.0	0296040
100	+0.22 +0.00	80	+0.10 -0.10	25.0	0295140
110	+0.22 +0.00	90	+0.11 -0.11	25.0	0712440
120	+0.22 +0.00	100	+0.11 -0.11	25.0	0296140
125	+0.25 +0.00	100	+0.11 -0.11	19.0	1007440
125	+0.25 +0.00	100	+0.11 -0.11	32.0	0418640
140	+0.25 +0.00	120	+0.11 -0.11	25.0	0250540
150	+0.25 +0.00	120	+0.11 -0.11	38.0	1289540

ØD1	TOL H11	Ød1	TOL js11	L1 + 0.25 - 0	PART No.
160	+0.25 +0.00	135	+0.13 -0.13	32.0	0080440
170	+0.25 +0.00	150	+0.13 -0.13	25.0	0303340
180	+0.25 +0.00	160	+0.13 -0.13	25.0	1283140
190	+0.29 +0.00	160	+0.13 -0.13	38.0	0838440
200	+0.29 +0.00	170	+0.13 -0.13	38.0	0087140
220	+0.29 +0.00	190	+0.15 -0.15	38.0	0087340
230	+0.29 +0.00	200	+0.15 -0.15	38.0	2010040
240	+0.29 +0.00	210	+0.15 -0.15	38.0	0094340
250	+0.29 +0.00	220	+0.15 -0.15	38.0	1056340
260	+0.32 +0.00	230	+0.15 -0.15	38.0	0094540
300	+0.32 +0.00	270	+0.16 -0.16	38.0	0094840
330	+0.36 +0.00	300	+0.16 -0.16	38.0	0095040
360	+0.36 +0.00	320	+0.18 -0.18	45.0	1054040
400	+0.36 +0.00	360	+0.18 -0.18	45.0	1054340
420	+0.40 +0.00	380	+0.20 -0.20	45.0	0095140
460	+0.40 +0.00	420	+0.20 -0.20	45.0	0095340
480	+0.40 +0.00	440	+0.20 -0.20	45.0	0095440
500	+0.40 +0.00	460	+0.20 -0.20	45.0	0134740
540	+0.44 +0.00	500	+0.20 -0.20	45.0	2018240
580	+0.44 +0.00	540	+0.22 -0.22	50.0	2020940