Hallite

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.

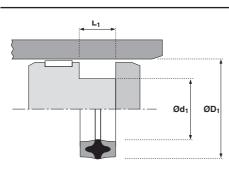
Rubberised fabric is used to protect the rubber because it has strength and durability which combines with its ability to retain lubricant, to help keep friction low and reduce wear.

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.

Features • Well proven design • Tolerant to contamination • Wide range of non standard sizes	$ \begin{array}{c} $						
Technical details	Metric			Inch			
Operating conditions							
Aaximum Speed	0.5 m/sec			1.5 ft/sec			
emperature Range	-30°C +100°C			-22°F +212°F			
			7500 p.s.i.				
Aaximum Pressure	500 bar			7500 p.s.i.			
Maximum Pressure Maximum extrusion gap	Figures show t		-	7500 p.s.i. ap all on one side us Housing Design sect	-		
Maximum extrusion gap	Figures show th rod Ø and maxi	mum clearance Ø	-	ap all on one side us Housing Design sect	ion.		
Naximum extrusion gap Pressure bar	Figures show th rod Ø and maxi	mum clearance Ø 250	-	ap all on one side us Housing Design sect 400	ion. 500		
faximum extrusion gap Pressure bar faximum Gap mm	Figures show th rod Ø and maxi 160 0.35	mum clearance Ø 250 0.3	-	ap all on one side us Housing Design sect 400 0.2	500 0.1		
Maximum extrusion gap Pressure bar Maximum Gap mm Pressure p.s.i.	Figures show th rod Ø and maxi	mum clearance Ø 250	-	ap all on one side us Housing Design sect 400	ion. 500		
Maximum extrusion gap Pressure bar Maximum Gap mm Pressure p.s.i. Maximum Gap in	Figures show th rod Ø and maxi 160 0.35 2400	mum clearance Ø 250 0.3 3750 0.012	-	ap all on one side us Housing Design sect 400 0.2 6000	500 0.1 7500		
Maximum extrusion gap Pressure bar Maximum Gap mm Pressure p.s.i. Maximum Gap in Gurface roughness	Figures show th rod Ø and maxi 160 0.35 2400 0.016 µmRa	mum clearance Ø 250 0.3 3750 0.012 μmRt	-	ap all on one side us Housing Design sect 400 0.2 6000 0.008 µinCLA	ion. 500 0.1 7500 0.004 μinRMS		
Maximum extrusion gap Pressure bar Maximum Gap mm Pressure p.s.i. Maximum Gap in Gurface roughness Dynamic Sealing Face ØD ₁	Figures show th rod Ø and maxi 160 0.35 2400 0.016 µmRa 0.1 < > 0.4	mum clearance Ø 250 0.3 3750 0.012 μmRt 4 max	-	ap all on one side us Housing Design sect 400 0.2 6000 0.008 µinCLA 4 < > 16	ion. 500 0.1 7500 0.004 μinRMS 5 < > 18		
laximum extrusion gap ressure bar laximum Gap mm ressure p.s.i. laximum Gap in urface roughness lynamic Sealing Face ØD ₁ tatic Sealing Face Ød ₁	Figures show th rod Ø and maxi 160 0.35 2400 0.016 µmRa 0.1 < > 0.4 1.6 max	mum clearance Ø 250 0.3 3750 0.012 µmRt 4 max 10 max	-	ap all on one side us Housing Design sect 400 0.2 6000 0.008 µinCLA 4 < > 16 63 max	ion. 500 0.1 7500 0.004 μinRMS 5 < > 18 70 max		
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faximum extrusion gap Pressure bar Maximum Gap mm ressure p.s.i. Maximum Gap in Aurface roughness Dynamic Sealing Face ØD ₁ Itatic Sealing Face Ød ₁ Itatic Housing Faces L ₁	Figures show th rod Ø and maxi 160 0.35 2400 0.016 µmRa 0.1 <> 0.4 1.6 max 3.2 max	mum clearance Ø 250 0.3 3750 0.012 µmRt 4 max 10 max 16 max	. Refer to	ap all on one side us Housing Design sect 400 0.2 6000 0.008 µinCLA 4 <> 16 63 max 125 max	ion. 500 0.1 7500 0.004 µinRMS 5 < > 18 70 max 140 max		
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Maximum extrusion gap Pressure bar Maximum Gap mm Pressure p.s.i. Maximum Gap in Gurface roughness	Figures show th rod Ø and maxi 160 0.35 2400 0.016 µmRa 0.1 <> 0.4 1.6 max 3.2 max	mum clearance Ø 250 0.3 3750 0.012 µmRt 4 max 10 max 16 max	. Refer to	ap all on one side us Housing Design sect 400 0.2 6000 0.008 µinCLA 4 <> 16 63 max 125 max	ion. 500 0.1 7500 0.004 µinRMS 5 < > 18 70 max 140 max		
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Maximum extrusion gap Iressure bar Maximum Gap mm Iressure p.s.i. Maximum Gap in Murface roughness Dynamic Sealing Face $ØD_1$ Static Sealing Face $Ød_1$ Static Housing Faces L_1 Schamfers & Radii Groove Section ≤ S mm	Figures show th rod Ø and maxi 160 0.35 2400 0.016 µmRa 0.1 <> 0.4 1.6 max 3.2 max 5.0 2.4	mum clearance Ø 250 0.3 3750 0.012 µmRt 4 max 10 max 16 max 7.5 4.0	8.0 5.0	ap all on one side us Housing Design sect 400 0.2 6000 0.008 µinCLA 4 <> 16 63 max 125 max 10.0 5.0	ion. 500 0.1 7500 0.004 µinRMS 5 < > 18 70 max 140 max 12.5 6.5		

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ØD ₁	TOL	Ød ₁	TOL	L ₁	PART	ØD ₁	TOL	Ød ₁	TOL	L ₁	PART
	H11		js11	+0.25 -0	No.		H11		js11	+0.25 -0	No.
30	+0.13	20	+0.07	12.5	0200540	160	+0.25	135	+0.13	32.0	0080440
	+0.00		-0.07				+0.00		-0.13		
40	+0.16	25	+0.07	19.0	0472840	170	+0.25	150	+0.13	25.0	0303340
	+0.00		-0.07				+0.00		-0.13		
	+0.16	35	+0.08	19.0	0474640	180	+0.25	160	+0.13	25.0	1283140
	+0.00		-0.08				+0.00		-0.13		
	+0.19	40	+0.08	19.0	0475040	190	+0.29	160	+0.13	38.0	0838440
	+0.00		-0.08				+0.00		-0.13		
60 +	+0.19	40	+0.08	25.0	0282040	200	+0.29	170	+0.13	38.0	0087140
	+0.00		-0.08				+0.00		-0.13		
	+0.19	45	+0.08	19.0	0979440	220	+0.29	190	+0.15	38.0	0087340
	+0.00		-0.08				+0.00		-0.15		
	+0.19	43	+0.08	25.0	0646740	230	+0.29	200	+0.15	38.0	2010040
	+0.00		-0.08				+0.00		-0.15		
	+0.19	50	+0.08	19.0	0383840	240	+0.29	210	+0.15	38.0	0094340
	+0.00		-0.08				+0.00		-0.15		
70	+0.19	50	+0.08	25.0	0294640	250	+0.29	220	+0.15	38.0	1056340
	+0.00		-0.08				+0.00		-0.15		
75	+0.19	55	+0.10	25.0	0818640	260	+0.32	230	+0.15	38.0	0094540
	+0.00		-0.10				+0.00		-0.15		
	+0.19	60	+0.10	25.0	0294940	300	+0.32	270	+0.16	38.0	0094840
	+0.00		-0.10				+0.00		-0.16		
85	+0.22	65	+0.10	25.0	0388640	330	+0.36	300	+0.16	38.0	0095040
	+0.00		-0.10				+0.00		-0.16		
90	+0.22	70	+0.10	25.0	0296040	360	+0.36	320	+0.18	45.0	1054040
	+0.00		-0.10				+0.00		-0.18		
100	+0.22	80	+0.10	25.0	0295140	400	+0.36	360	+0.18	45.0	1054340
	+0.00		-0.10				+0.00		-0.18		
110	+0.22	90	+0.11	25.0	0712440	420	+0.40	380	+0.20	45.0	0095140
	+0.00		-0.11				+0.00		-0.20		
120	+0.22	100	+0.11	25.0	0296140	460	+0.40	420	+0.20	45.0	0095340
	+0.00		-0.11				+0.00		-0.20		
125	+0.25	100	+0.11	19.0	1007440	480	+0.40	440	+0.20	45.0	0095440
	+0.00		-0.11				+0.00		-0.20		
125	+0.25	100	+0.11	32.0	0418640	500	+0.40	460	+0.20	45.0	0134740
	+0.00		-0.11				+0.00		-0.20		
140	+0.25	120	+0.11	25.0	0250540	540	+0.44	500	+0.20	45.0	2018240
	+0.00		-0.11				+0.00		-0.20		
150	+0.25	120	+0.11	38.0	1289540	580	+0.44	540	+0.22	50.0	2020940
150											