

Piston Seals

Technical details

Metric

Inch

Operating conditions

Maximum Speed	0.3 m/sec
Temperature Range	-40°C +110°C
Maximum Pressure	700 bar

1.0 ft/sec
-40°F + 230°F
10,000 p.s.i.



Maximum extrusion gap

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

Pressure bar	160	250	500	700
Maximum Gap mm	1.00	0.80	0.40	0.25
Pressure p.s.i.	2400	3750	7500	10,000

Surface roughness

	μmRa	μmRt	μinCLA	μinRMS
Dynamic Sealing Face $\varnothing D_1$	0.1 <> 0.4	4 max	4 <> 16	5 <> 18
Static Sealing Face $\varnothing d_1$ $\varnothing d_2$	1.6 max	10 max	63 max	70 max
Static Housing Faces L_1	3.2 max	16 max	125 max	140 max

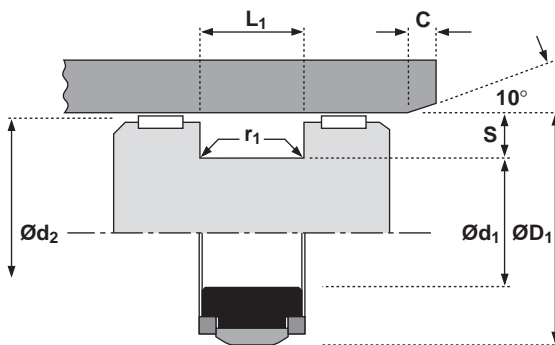
Chamfers & Radii

Groove Section $\leq S$ mm	7.5	10.0	12.5	15.0
Min Chamfer C mm	8.0	10.0	13.0	15.0
Max Fillet Rad r_1 mm	0.2	0.4	0.8	0.8

Tolerances

$\varnothing D_1$	$\varnothing d_1$	L_1
H10	h9	+0.2 -0

730



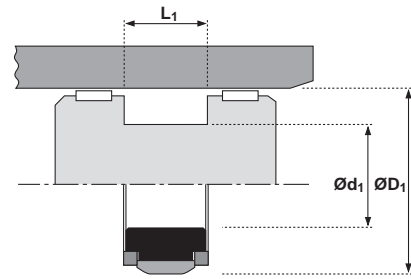
Design

The Hallite 730 is a top of the range double acting piston seal. It is constructed with a tough wear resistant thermoplastic polyester elastomer (TPE) face, which is loaded by a profiled nitrile energiser. Material options can be provided for the sealing face, including lubricated polyester and PTFE. All designs have rectangular polyacetal anti-extrusion rings. The TPE face material is suitable for both roller-burnished and honed tubing.

Features

- High shock load capability
- High pressure capability
- Proven on both roller-burnished and honed tubing

730



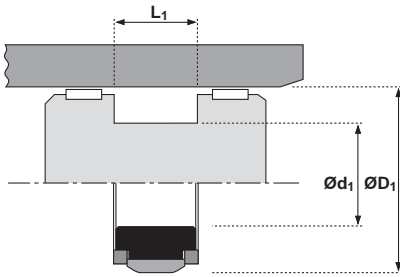
$\varnothing D_1$	TOL H10	$\varnothing d_1$	TOL h9	L_1 +0.2 -0	PART No.
50	+0.10 +0.00	38	+0.00 -0.06	11.5	2335410
60	+0.12 +0.00	44	+0.00 -0.06	20.5	2356710
63	+0.12 +0.00	50	+0.00 -0.06	14.5	2331210
75	+0.12 +0.00	55	+0.00 -0.07	23.0	2346420
80	+0.12 +0.00	66	+0.00 -0.07	17.0	2330310
90	+0.14 +0.00	75	+0.00 -0.07	13.5	2331310
90	+0.14 +0.00	76	+0.00 -0.07	16.0	2364810
100	+0.14 +0.00	82	+0.00 -0.09	22.5	2331410
100	+0.14 +0.00	85	+0.00 -0.09	12.5	2342910*
100	+0.14 +0.00	85	+0.00 -0.09	13.5	2335010
100	+0.14 +0.00	86	+0.00 -0.09	22.5	2359710
105	+0.14 +0.00	80	+0.00 -0.09	22.5	2346710
105	+0.14 +0.00	91	+0.00 -0.09	16.5	2348210
110	+0.14 +0.00	95	+0.00 -0.09	12.5	2343010*
110	+0.14 +0.00	95	+0.00 -0.09	16.0	2331610
115	+0.14 +0.00	90	+0.00 -0.09	21.0	2329110
115	+0.14 +0.00	97	+0.00 -0.09	22.5	2356110
115	+0.14 +0.00	100	+0.00 -0.09	16.0	2329210
120	+0.14 +0.00	105	+0.00 -0.09	16.0	2337410
125	+0.16 +0.00	110	+0.00 -0.09	15.8	2331510

$\varnothing D_1$	TOL H10	$\varnothing d_1$	TOL h9	L_1 +0.2 -0	PART No.
130	+0.16 +0.00	113	+0.00 -0.09	12.5	2339110*
135	+0.16 +0.00	118	+0.00 -0.09	20.5	2348110
135	+0.16 +0.00	120	+0.00 -0.09	16.0	2334010
140	+0.16 +0.00	123	+0.00 -0.10	16.0	2357910
140	+0.16 +0.00	125	+0.00 -0.10	16.0	2329410
150	+0.16 +0.00	130	+0.00 -0.10	16.0	2339010
150	+0.16 +0.00	133	+0.00 -0.10	20.0	2360510
150	+0.16 +0.00	135	+0.00 -0.10	16.0	2338210
160	+0.16 +0.00	143	+0.00 -0.10	20.0	2365510
160	+0.16 +0.00	145	+0.00 -0.10	16.0	2331910
165	+0.16 +0.00	145	+0.00 -0.10	20.0	2348910
165	+0.16 +0.00	150	+0.00 -0.10	16.0	2332010
170	+0.16 +0.00	145	+0.00 -0.10	25.0	2345510
170	+0.16 +0.00	150	+0.00 -0.10	16.0	2331110
175	+0.16 +0.00	155	+0.00 -0.10	16.0	2335110
180	+0.16 +0.00	160	+0.00 -0.10	16.0	2328510
180	+0.16 +0.00	163	+0.00 -0.10	20.0	2365210
185	+0.19 +0.00	165	+0.00 -0.10	16.0	2328410
185	+0.19 +0.00	165	+0.00 -0.10	20.0	2364010
190	+0.19 +0.00	170	+0.00 -0.10	16.0	2332210

* Uses type 754 face

Piston Seals metric

730



$\varnothing D_1$	TOL H10	$\varnothing d_1$	TOL h9	L_1 +0.2 -0	PART No.
195	+0.19 +0.00	175	+0.00 -0.10	16.0	2334710
200	+0.19 +0.00	180	+0.00 -0.10	16.0	2329310
200	+0.19 +0.00	180	+0.00 -0.10	20.0	2348810
200	+0.19 +0.00	183	+0.00 -0.10	20.0	2365010
210	+0.19 +0.00	190	+0.00 -0.12	16.0	2332410
210	+0.19 +0.00	190	+0.00 -0.12	20.0	2364710
215	+0.19 +0.00	195	+0.00 -0.12	16.0	2332510
215	+0.19 +0.00	195	+0.00 -0.12	20.0	2345110
220	+0.19 +0.00	195	+0.00 -0.12	16.0	2345810
220	+0.19 +0.00	195	+0.00 -0.12	22.0	2333920
220	+0.19 +0.00	195	+0.00 -0.12	25.0	2333910
220	+0.19 +0.00	200	+0.00 -0.12	20.5	2356510
224	+0.19 +0.00	204	+0.00 -0.12	20.5	2348510
225	+0.19 +0.00	205	+0.00 -0.12	16.0	2332610
225	+0.19 +0.00	205	+0.00 -0.12	20.0	2346810
230	+0.19 +0.00	210	+0.00 -0.12	16.0	2332710
230	+0.19 +0.00	210	+0.00 -0.12	20.0	2344510
240	+0.19 +0.00	215	+0.00 -0.12	25.0	2333010
240	+0.19 +0.00	220	+0.00 -0.12	25.0	2364310
245	+0.19 +0.00	220	+0.00 -0.12	25.0	2328810
250	+0.19 +0.00	225	+0.00 -0.12	25.0	2348310

$\varnothing D_1$	TOL H10	$\varnothing d_1$	TOL h9	L_1 +0.2 -0	PART No.
260	+0.21 +0.00	230	+0.00 -0.12	30.0	2347810
260	+0.21 +0.00	235	+0.00 -0.12	25.0	2347910
275	+0.21 +0.00	250	+0.00 -0.12	25.0	2362210
280	+0.21 +0.00	255	+0.00 -0.13	25.0	2333510
285	+0.21 +0.00	260	+0.00 -0.13	25.0	2362410
290	+0.21 +0.00	265	+0.00 -0.13	27.0	2364410
300	+0.21 +0.00	275	+0.00 -0.13	25.0	2333610
305	+0.21 +0.00	280	+0.00 -0.13	25.0	2333630
310	+0.21 +0.00	285	+0.00 -0.13	25.0	2333710
320	+0.23 +0.00	290	+0.00 -0.13	30.0	2348010
340	+0.23 +0.00	310	+0.00 -0.13	30.0	2366010
345	+0.23 +0.00	315	+0.00 -0.13	30.0	2363610
350	+0.23 +0.00	320	+0.00 -0.14	30.0	2345410
360	+0.23 +0.00	330	+0.00 -0.14	30.0	2345430
360	+0.23 +0.00	330	+0.00 -0.14	31.5	2365410
370	+0.23 +0.00	340	+0.00 -0.14	30.0	2362710
380	+0.23 +0.00	350	+0.00 -0.14	32.0	2362110
390	+0.23 +0.00	360	+0.00 -0.14	32.0	2362120
400	+0.23 +0.00	370	+0.00 -0.14	32.0	2359810
440	+0.23 +0.00	410	+0.00 -0.14	32.0	2365910