

Piston Seal OA Profile

Catalog EPS 5370/USA



OA Profile, Compact PTFE Piston Cap Seal

The Parker OA profile is a bi-directional piston seal for use in pneumatic and low to medium duty hydraulic applications. The OA profile is a two piece design utilizing a rectangular PTFE cap and standard size O-ring. The OA profile is an excellent choice for applications requiring a compact design. The unique properties of the modified PTFE provide added wear resistance for improved cycle life. Parker's OA profile will retrofit non-Parker seals of similar design.

The OA profile may be ordered without the energizer by omitting the energizer code. See part number nomenclature.

Technical Data

Standard Materials*	Temperature Range	Pressure Range†	Surface Speed
Cap 0102 Modified PTFE	-320°F to 450°F (-195°C to 282°C)	1,500 psi (103 bar)	< 13 ft/s (4 m/sec)
Energizer A 70A Nitrile	-30°F to 250°F (-34°C to 121°C)		

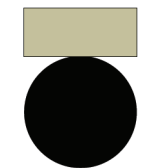
***Alternate Materials:** For applications that may require an alternate material, please see Section 3 for alternate PTFE and energizer materials.

†**Pressure Range** without wear rings (see Table 2-4, page 2-5).

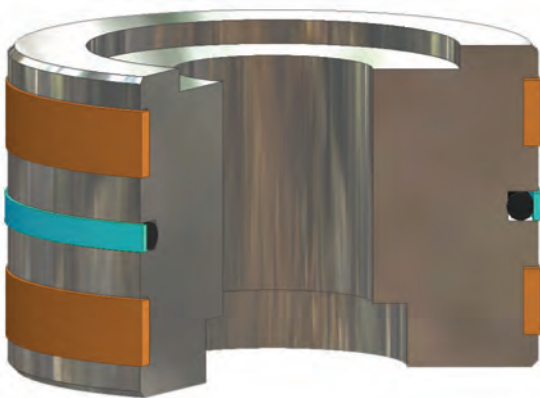
Options

Notched side walls: Notches can be added to the side walls of the PTFE cap. This can help to optimize the seal's response to fluid pressure. Notched side walls help ensure that fluid pressure fills the cavity between the side face of the seal and the side face of the seal gland. Consult your local Parker Seal representative for the availability and cost to add side notches to the OA profile.

N = Notched walls 



OA Cross-Section

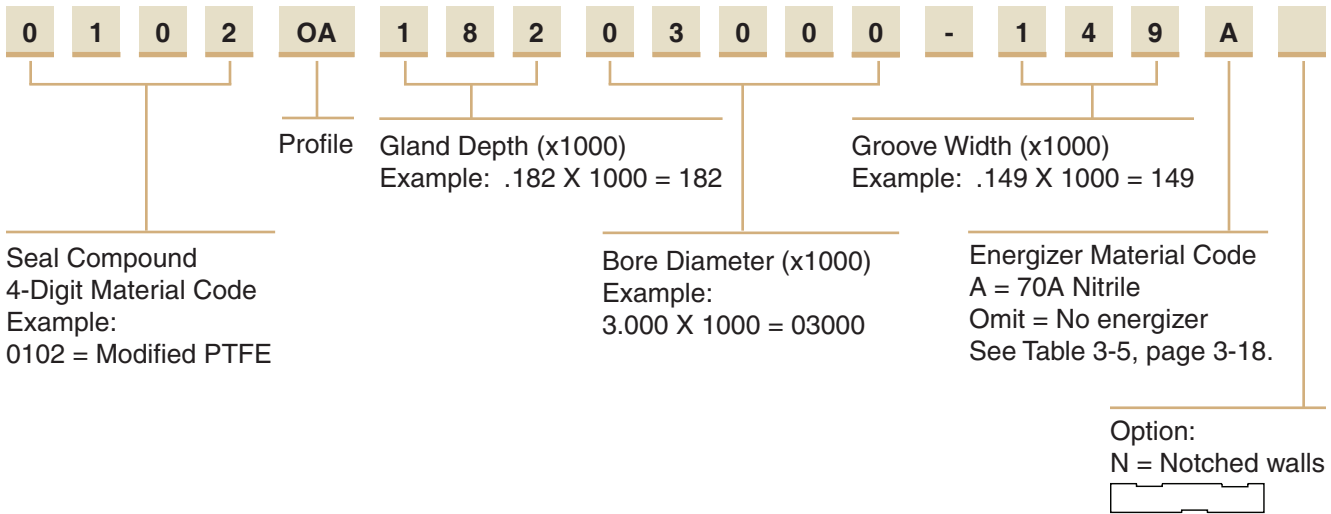


OA Installed in Piston Gland

09/01/07

Part Number Nomenclature —OA Profile

Table 7-52. OA Profile — Inch



Gland Dimensions — OA Profile

Please refer to Engineering Section 2, Page 2-8 for surface finish and additional hardware considerations.

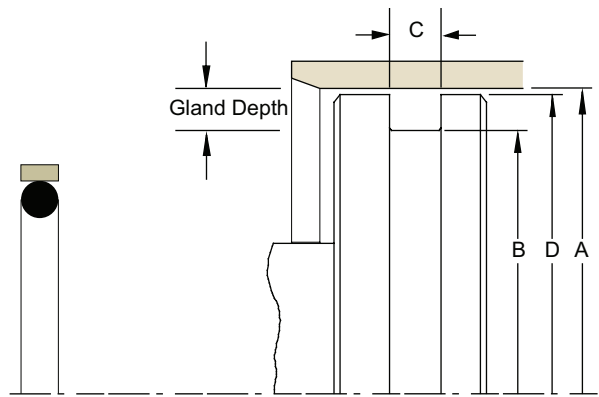


Table 7-53. OA Profile — Inch

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Max Radius	O-ring Dash Number	Part Number
+.001/-.000	+.000/-.001	+.005/-.000	+.000/-.001			
0.281	0.139	0.079	0.277	0.020	006	0102OA07200281-079A
0.312	0.169	0.079	0.308	0.020	007	0102OA07200312-079A
0.344	0.200	0.079	0.340	0.020	008	0102OA07200344-079A
0.375	0.231	0.079	0.371	0.020	009	0102OA07200375-079A
0.437	0.263	0.079	0.433	0.020	010	0102OA08700437-079A
0.500	0.326	0.079	0.496	0.020	011	0102OA08700500-079A
+.002/-.000	+.000/-.002	+.005/-.000	+.000/-.001			
0.562	0.388	0.079	0.557	0.020	012	0102OA08700562-079A
0.625	0.452	0.079	0.620	0.020	013	0102OA08700625-079A
0.687	0.515	0.079	0.682	0.020	014	0102OA08700687-079A
0.750	0.577	0.079	0.745	0.020	015	0102OA08700750-079A
0.812	0.640	0.079	0.807	0.020	016	0102OA08700812-079A
0.875	0.702	0.079	0.870	0.020	017	0102OA08700875-079A
0.937	0.765	0.079	0.932	0.020	018	0102OA08700937-079A
1.000	0.827	0.079	0.995	0.020	019	0102OA08701000-079A

*If used with wear rings, refer to wear ring piston diameter, see Section 9.

Table 7-53. OA Gland Dimensions — Inch (Continued)

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Max Radius	O-ring Dash Number	Part Number
+0.002/-0.000	+0.000/-0.002	+0.005/-0.000	+0.000/-0.001			
1.062	0.890	0.079	1.057	0.020	020	0102OA08701062-079A
1.125	0.952	0.079	1.120	0.020	021	0102OA08701125-079A
1.187	1.015	0.079	1.182	0.020	022	0102OA08701187-079A
1.250	1.078	0.079	1.245	0.020	023	0102OA08701250-079A
1.312	1.140	0.079	1.307	0.020	024	0102OA08701312-079A
1.375	1.202	0.079	1.370	0.020	025	0102OA08701375-079A
1.437	1.265	0.079	1.432	0.020	026	0102OA08701437-079A
1.500	1.327	0.079	1.495	0.020	027	0102OA08701500-079A
+0.003/-0.000	+0.000/-0.003	+0.005/-0.000	+0.000/-0.002			
0.625	0.388	0.112	0.620	0.020	110	0102OA11800625-112A
0.687	0.451	0.112	0.682	0.020	111	0102OA11800687-112A
0.750	0.513	0.112	0.745	0.020	112	0102OA11800750-112A
0.812	0.576	0.112	0.807	0.020	113	0102OA11800812-112A
0.875	0.638	0.112	0.870	0.020	114	0102OA11800875-112A
0.937	0.701	0.112	0.932	0.020	115	0102OA11800937-112A
1.000	0.763	0.112	0.995	0.020	116	0102OA11801000-112A
1.062	0.826	0.112	1.057	0.020	117	0102OA11801062-112A
1.125	0.888	0.112	1.120	0.020	118	0102OA11801125-112A
1.187	0.951	0.112	1.182	0.020	119	0102OA11801187-112A
1.250	1.013	0.112	1.245	0.020	120	0102OA11801250-112A
1.312	1.076	0.112	1.307	0.020	121	0102OA11801312-112A
1.375	1.138	0.112	1.370	0.020	122	0102OA11801375-112A
1.437	1.201	0.112	1.432	0.020	123	0102OA11801437-112A
1.500	1.263	0.112	1.495	0.020	124	0102OA11801500-112A
1.562	1.326	0.112	1.557	0.020	125	0102OA11801562-112A
1.625	1.388	0.112	1.620	0.020	126	0102OA11801625-112A
1.687	1.451	0.112	1.682	0.020	127	0102OA11801687-112A
1.750	1.513	0.112	1.745	0.020	128	0102OA11801750-112A
1.812	1.576	0.112	1.807	0.020	129	0102OA11801812-112A
1.875	1.638	0.112	1.870	0.020	130	0102OA11801875-112A
1.937	1.701	0.112	1.932	0.020	131	0102OA11801937-112A
2.000	1.763	0.112	1.995	0.020	132	0102OA11802000-112A
2.062	1.826	0.112	2.057	0.020	133	0102OA11802062-112A
2.125	1.888	0.112	2.120	0.020	134	0102OA11802125-112A
2.187	1.951	0.112	2.182	0.020	135	0102OA11802187-112A
2.250	2.013	0.112	2.245	0.020	136	0102OA11802250-112A
2.312	2.076	0.112	2.307	0.020	137	0102OA11802312-112A
2.375	2.138	0.112	2.370	0.020	138	0102OA11802375-112A
2.437	2.201	0.112	2.432	0.020	139	0102OA11802437-112A
2.500	2.263	0.112	2.495	0.020	140	0102OA11802500-112A
2.562	2.326	0.112	2.557	0.020	141	0102OA11802562-112A
2.625	2.388	0.112	2.620	0.020	142	0102OA11802625-112A
2.687	2.451	0.112	2.682	0.020	143	0102OA11802687-112A
2.750	2.513	0.112	2.745	0.020	144	0102OA11802750-112A
2.812	2.576	0.112	2.807	0.020	145	0102OA11802812-112A
2.875	2.638	0.112	2.870	0.020	146	0102OA11802875-112A
2.937	2.701	0.112	2.932	0.020	147	0102OA11802937-112A
3.000	2.763	0.112	2.995	0.020	148	0102OA11803000-112A

*If used with wear rings, refer to wear ring piston diameter, see Section 9.

Table 7-53. OA Gland Dimensions — Inch (Continued)

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Max Radius	O-ring Dash Number	Part Number
+ .004/- .000	+ .000/- .004	+ .005/- .000	+ .000/- .002			
1.062	0.762	0.149	1.056	0.030	210	0102OA15001062-149A
1.125	0.824	0.149	1.119	0.030	211	0102OA15001125-149A
1.187	0.887	0.149	1.181	0.030	212	0102OA15001187-149A
1.250	0.950	0.149	1.244	0.030	213	0102OA15001250-149A
1.312	1.012	0.149	1.306	0.030	214	0102OA15001312-149A
1.375	1.074	0.149	1.369	0.030	215	0102OA15001375-149A
1.437	1.137	0.149	1.431	0.030	216	0102OA15001437-149A
1.500	1.199	0.149	1.494	0.030	217	0102OA15001500-149A
1.562	1.262	0.149	1.556	0.030	218	0102OA15001562-149A
1.625	1.324	0.149	1.619	0.030	219	0102OA15001625-149A
1.687	1.387	0.149	1.681	0.030	220	0102OA15001687-149A
1.750	1.450	0.149	1.744	0.030	221	0102OA15001750-149A
1.875	1.512	0.149	1.869	0.030	222	0102OA18201875-149A
2.000	1.637	0.149	1.994	0.030	223	0102OA18202000-149A
2.125	1.762	0.149	2.119	0.030	224	0102OA18202125-149A
2.250	1.887	0.149	2.244	0.030	225	0102OA18202250-149A
2.375	2.012	0.149	2.369	0.030	226	0102OA18202375-149A
2.500	2.137	0.149	2.494	0.030	227	0102OA18202500-149A
2.625	2.262	0.149	2.619	0.030	228	0102OA18202625-149A
2.750	2.387	0.149	2.744	0.030	229	0102OA18202750-149A
2.875	2.512	0.149	2.869	0.030	230	0102OA18202875-149A
3.000	2.637	0.149	2.994	0.030	231	0102OA18203000-149A
3.125	2.762	0.149	3.119	0.030	232	0102OA18203125-149A
3.250	2.887	0.149	3.244	0.030	233	0102OA18203250-149A
3.375	3.012	0.149	3.369	0.030	234	0102OA18203375-149A
3.500	3.137	0.149	3.494	0.030	235	0102OA18203500-149A
3.625	3.262	0.149	3.619	0.030	236	0102OA18203625-149A
3.750	3.387	0.149	3.744	0.030	237	0102OA18203750-149A
3.875	3.512	0.149	3.869	0.030	238	0102OA18203875-149A
4.000	3.637	0.149	3.994	0.030	239	0102OA18204000-149A
4.125	3.762	0.149	4.119	0.030	240	0102OA18204125-149A
4.250	3.887	0.149	4.244	0.030	241	0102OA18204250-149A
4.375	4.012	0.149	4.369	0.030	242	0102OA18204375-149A
4.500	4.137	0.149	4.494	0.030	243	0102OA18204500-149A
4.625	4.262	0.149	4.619	0.030	244	0102OA18204625-149A
4.750	4.387	0.149	4.744	0.030	245	0102OA18204750-149A
4.875	4.512	0.149	4.869	0.030	246	0102OA18204875-149A
5.000	4.637	0.149	4.994	0.030	247	0102OA18205000-149A
+ .005/- .000	+ .000/- .005	+ .005/- .000	+ .000/- .002			
2.000	1.509	0.221	1.993	0.050	325	0102OA24602000-221A
2.125	1.634	0.221	2.118	0.050	326	0102OA24602125-221A
2.250	1.759	0.221	2.243	0.050	327	0102OA24602250-221A
2.375	1.884	0.221	2.368	0.050	328	0102OA24602375-221A
2.500	2.009	0.221	2.493	0.050	329	0102OA24602500-221A
2.625	2.134	0.221	2.618	0.050	330	0102OA24602625-221A
2.750	2.259	0.221	2.743	0.050	331	0102OA24602750-221A
2.875	2.384	0.221	2.868	0.050	332	0102OA24602875-221A
3.000	2.509	0.221	2.993	0.050	333	0102OA24603000-221A

*If used with wear rings, refer to wear ring piston diameter, see Section 9.

Table 7-53. OA Gland Dimensions — Inch (Continued)

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Max Radius	O-ring Dash Number	Part Number
+0.005/-0.000	+0.000/-0.005	+0.005/-0.000	+0.000/-0.002			
3.125	2.634	0.221	3.118	0.050	334	0102OA24603125-221A
3.250	2.759	0.221	3.243	0.050	335	0102OA24603250-221A
3.375	2.884	0.221	3.368	0.050	336	0102OA24603375-221A
3.500	3.009	0.221	3.493	0.050	337	0102OA24603500-221A
3.625	3.134	0.221	3.618	0.050	338	0102OA24603625-221A
3.750	3.259	0.221	3.743	0.050	339	0102OA24603750-221A
3.875	3.384	0.221	3.868	0.050	340	0102OA24603875-221A
4.000	3.509	0.221	3.993	0.050	341	0102OA24604000-221A
4.125	3.634	0.221	4.118	0.050	342	0102OA24604125-221A
4.250	3.759	0.221	4.243	0.050	343	0102OA24604250-221A
4.375	3.884	0.221	4.368	0.050	344	0102OA24604375-221A
4.500	4.009	0.221	4.493	0.050	345	0102OA24604500-221A
4.625	4.134	0.221	4.618	0.050	346	0102OA24604625-221A
4.750	4.259	0.221	4.743	0.050	347	0102OA24604750-221A
4.875	4.384	0.221	4.868	0.050	348	0102OA24604875-221A
5.000	4.509	0.221	4.993	0.050	349	0102OA24605000-221A
+0.006/-0.000	+0.000/-0.006	+0.005/-0.000	+0.000/-0.002			
5.125	4.532	0.297	5.117	0.060	425	0102OA29705125-297A
5.250	4.657	0.297	5.242	0.060	426	0102OA29705250-297A
5.375	4.782	0.297	5.367	0.060	427	0102OA29705375-297A
5.500	4.907	0.297	5.492	0.060	428	0102OA29705500-297A
5.625	5.032	0.297	5.617	0.060	429	0102OA29705625-297A
5.750	5.157	0.297	5.742	0.060	430	0102OA29705750-297A
5.875	5.282	0.297	5.867	0.060	431	0102OA29705875-297A
6.000	5.407	0.297	5.992	0.060	432	0102OA29706000-297A
6.125	5.532	0.297	6.117	0.060	433	0102OA29706125-297A
6.250	5.657	0.297	6.242	0.060	434	0102OA29706250-297A
6.375	5.782	0.297	6.367	0.060	435	0102OA29706375-297A
6.500	5.907	0.297	6.492	0.060	436	0102OA29706500-297A
6.750	6.032	0.297	6.742	0.060	437	0102OA35906750-297A
7.000	6.282	0.297	6.992	0.060	438	0102OA35907000-297A
7.250	6.532	0.297	7.242	0.060	439	0102OA35907250-297A
7.500	6.782	0.297	7.492	0.060	440	0102OA35907500-297A
7.750	7.032	0.297	7.742	0.060	441	0102OA35907750-297A
8.000	7.282	0.297	7.992	0.060	442	0102OA35908000-297A
8.250	7.532	0.297	8.242	0.060	443	0102OA35908250-297A
8.500	7.782	0.297	8.492	0.060	444	0102OA35908500-297A
9.000	8.032	0.297	8.992	0.060	445	0102OA48409000-297A
9.500	8.532	0.297	9.492	0.060	446	0102OA48409500-297A
10.000	9.032	0.297	9.992	0.060	447	0102OA48410000-297A
+0.003/-0.000	+0.000/-0.003	+0.005/-0.000	+0.000/-0.002			
10.500	9.532	0.297	10.492	0.060	448	0102OA48410500-297A
11.000	10.032	0.297	10.992	0.060	449	0102OA48411000-297A
11.500	10.532	0.297	11.492	0.060	450	0102OA48411500-297A
12.000	11.032	0.297	11.992	0.060	451	0102OA48412000-297A
12.500	11.532	0.297	12.492	0.060	452	0102OA48412500-297A
13.000	12.032	0.297	12.992	0.060	453	0102OA48413000-297A
13.500	12.532	0.297	13.492	0.060	454	0102OA48413500-297A
14.000	13.032	0.297	13.992	0.060	455	0102OA48414000-297A

*If used with wear rings, refer to wear ring piston diameter, see Section 9.

Table 7-53. OA Gland Dimensions — Inch (Continued)

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Max Radius	O-ring Dash Number	Part Number
+ .003/- .000	+ .000/- .003	+ .005/- .000	+ .000/- .002			
14.500	13.532	0.297	14.492	0.060	456	0102OA48414500-297A
15.000	14.032	0.297	14.992	0.060	457	0102OA48415000-297A
15.500	14.532	0.297	15.492	0.060	458	0102OA48415500-297A
16.000	15.032	0.297	15.992	0.060	459	0102OA48416000-297A

*If used with wear rings, refer to wear ring piston diameter, see Section 9.

NOTE: For sizes larger than those shown in the table, please contact your local Parker Seal representative.