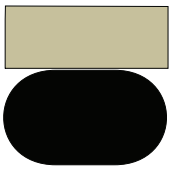
CC Profile, High Pressure Split Cap Piston Seal

Parker's CC profile, also known as the ChemCast® seal, is a bi-directional piston seal designed for heavy duty applications. The CC profile design consists of a self-lubricated, glass reinforced, heat-stabilized, thermoplastic O.D. sealing ring that is energized by a flexible, oval shape, energizer. When installed in the bore, the precision step cut ring is aligned and compressed to provide drift free operation that can withstand pressure exceeding 50,000 psi. The hard thermoplastic cap allows the CC profile to work effectively in substandard, rough-surfaced cylinders with much lower tolerances. The CC is an excellent choice for mobile equipment experiencing shock loads. The CC profile can pass over ports, resist cold flow and protect against metal-to-metal contact.

The CC profile is sold only as an assembly (seal and energizer). See part number nomenclature.



CC Cross-Section

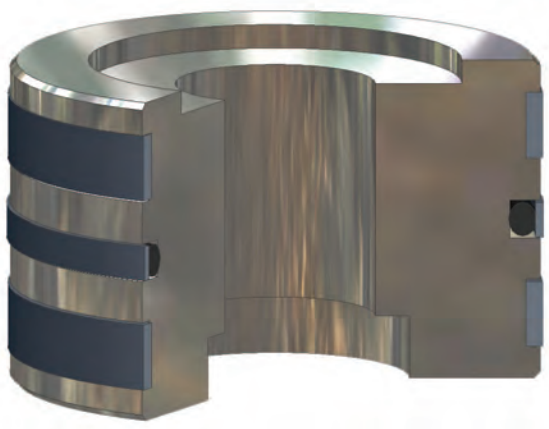
Technical Data

Standard Materials		Temperature Range	Pressure Range†	Surface Speed
Cap				
W4650NHH		-65°F to 300°F (-54°C to 149°C)	50,000 psi (3,447 bar)	< 3.3 ft/s (1.0 m/sec)
Energizer				
A	80A Nitrile	-40°F to 250°F (-40°C to 121°C)		

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

Part Number Nomenclature — CC Profile

Part numbers are provided in Table 7-8, page 7-12.



CC installed in Piston Gland

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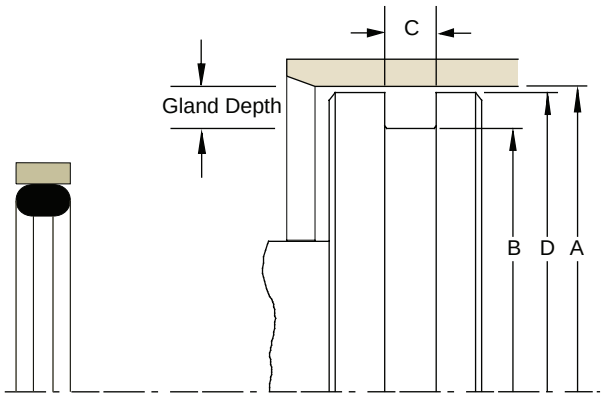
09/01/07

Parker Hannifin Corporation
Engineered Polymer Systems Division
Phone: 801 972 3000

Gland Dimensions — CC Profile — Inch



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

Table 7-8. CC Gland Dimensions — Inch

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Custom Part Number
+.005/-.000	+.000/-.005	+.005/-.000	+.000/-.005	
1.500	1.042	0.252	1.448	**090150011**
1.750	1.292	0.252	1.698	**090175012**
2.000	1.462	0.282	1.935	**090200011**
2.000	1.408	0.312	1.935	**090200021**
2.250	1.712	0.282	2.185	**090225011**
2.500	1.962	0.282	2.435	**090250011**
2.500	1.908	0.312	2.435	**090250021**
2.750	2.212	0.282	2.685	**090275011**
3.000	2.442	0.282	2.920	**090300011**
3.000	2.408	0.312	2.920	**090300021**
3.025	2.467	0.282	2.945	**090302511**
3.250	2.692	0.282	3.170	**090325011**
3.500	2.942	0.282	3.420	**090350011**
3.500	2.908	0.312	3.420	**090350021**
4.000	3.408	0.312	3.920	**090400021**
4.000	3.442	0.282	3.920	**090400011**
4.250	3.692	0.282	4.170	**090425011**
4.500	3.942	0.375	4.420	**090450051**
4.500	3.908	0.312	4.420	**090450021**
4.525	3.967	0.282	4.445	**090452251**
5.000	4.442	0.282	4.920	**090500011**
5.000	4.226	0.375	4.920	**090500051**
5.025	4.467	0.282	4.945	**090502511**
5.025	4.4251	0.375	4.945	**090502521**
6.000	5.240	0.375	5.900	**090600011**

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

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Custom Part Number
+.005/-.000	+.000/-.005	+.005/-.000	+.000/-.005	
6.025	5.265	0.375	5.925	**090602511**
6.500	5.740	0.375	6.400	**090650011**
7.000	6.240	0.375	6.900	**090700011**
7.015	6.255	0.375	6.915	**090701511**
7.500	6.740	0.375	7.400	**090750011**
8.000	7.240	0.375	7.900	**090800011**
8.025	7.265	0.375	7.925	**090802511**
8.500	7.740	0.375	8.400	**090850011**
8.500	7.610	0.375	8.400	**090850021**
9.000	8.124	0.375	8.890	**090900011**
9.025	8.149	0.375	8.915	**090902511**
9.500	8.624	0.375	9.390	**090950011**
10.000	9.124	0.375	9.890	**091000011**
10.023	9.147	0.375	9.913	**091002311**
12.000	11.124	0.375	11.890	**091200011**
12.500	11.624	0.375	12.390	**091250011**
13.000	12.124	0.375	12.890	**091300011**
13.500	12.624	0.375	13.390	**091350011**
14.000	13.124	0.375	13.870	**091400011**
15.000	14.124	0.375	14.870	**091500011****
15.500	14.624	0.375	15.370	**091550011****
17.000	16.124	0.375	16.870	**091700011****
18.000	17.124	0.375	17.870	**091800011****
22.000	21.124	0.375	21.870	**092200011****
26.000	25.124	0.375	25.870	**092600011****
36.000	35.124	0.375	35.870	**093600011****

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

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

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