

Piston Seal CT Profile

Catalog EPS 5370/USA



CT Profile, Premium PTFE Cap Seal with Anti-Extrusion Technology

The Parker CT Profile is a robust design for heavy duty hydraulic applications. The CT Profile is an excellent choice for sealing mobile hydraulic applications that experience shock loads. The CT profile is a four piece assembly made up of a rubber energizer, PTFE cap and two back-up rings. In application, fluid pressure forces the rubber energizer to apply increased load against the PTFE cap and back-up rings. This results in increased sealing force against the bore and allows the back-up rings to close off the extrusion gap between the piston and the bore. Once activated by pressure, the back-up rings protect the seal from extruding and keep internal contamination away from the PTFE cap. Parker's CT profile will retrofit non-Parker seals of similar design.

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

Technical Data

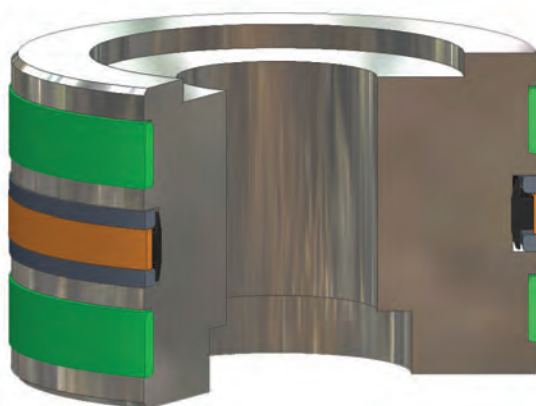
Standard Materials*	Temperature Range**	Surface Speed
Cap		
0401 40% bronze filled PTFE	-200°F to 575°F (-129°C to 302°C)	< 5 ft/s (1.5 m/sec)
Energizer		
A 70A Nitrile	-30°F to 250°F (-34°C to 121°C)	

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

****The temperature range of the CT profile is limited to the energizer.** A wider temperature range can be achieved by using alternate energizer and back-up ring compounds.



CT Cross-Section Standard



CT installed in Piston Gland

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09/01/07

CT Profile

Technical Data (Continued)

Standard Materials*

Back-up Rings	Temperature Range	Pressure Range†
B001 Nylatron	-65°F to 250°F (-44°C to 121°C)	7,500 psi (500 bar)

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

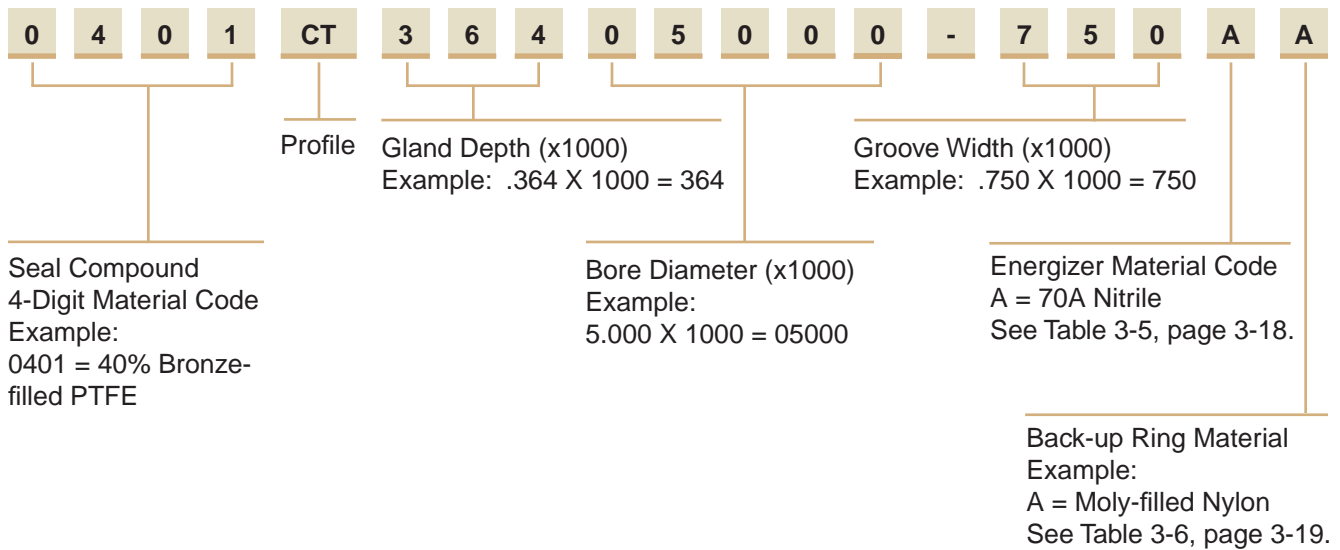
†**Pressure Range** without wear rings (see Table 2-4, page 2-5).

Options

Metric: To configure metric part numbering, see Table 7-41 on page 7-47, and call your local Parker Seal representative for availability.

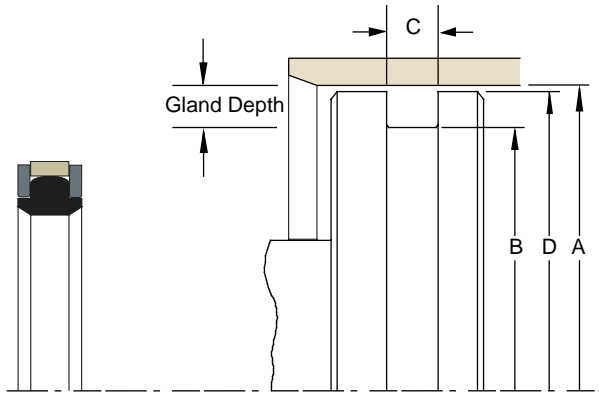
Part Number Nomenclature — CT Profile

Table 7-38. CT Profile — Inch



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Gland Dimensions — CT Profile



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

Table 7-39. CT Gland Dimensions (Narrow Style) — Inch

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Part Number (Narrow Style)
+ .002/- .000	+ .000/- .002	+ .010/- .000	+ .000/- .002	
1.500	0.942	0.295	1.499	0401CT27901500-295AA
2.000	1.442	0.295	1.999	0401CT27902000-295AA
2.250	1.692	0.295	2.249	0401CT27902250-295AA
2.500	1.942	0.295	2.499	0401CT27902500-295AA
2.750	2.192	0.295	2.749	0401CT27902750-295AA
+ .003/- .000	+ .000/- .002	+ .010/- .000	+ .000/- .002	
3.000	2.442	0.420	2.998	0401CT27903000-420AA
3.250	2.692	0.420	3.248	0401CT27903250-420AA
3.500	2.942	0.420	3.498	0401CT27903500-420AA
3.750	3.192	0.420	3.748	0401CT27903750-420AA
4.000	3.442	0.420	3.998	0401CT27904000-420AA
4.250	3.692	0.420	4.248	0401CT27904250-420AA
4.500	3.942	0.420	4.498	0401CT27904500-420AA
4.750	4.192	0.420	4.748	0401CT27904750-420AA
5.000	4.442	0.420	4.998	0401CT27905000-420AA

*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.

Table 7-40. CT Gland Dimensions (Standard Style) — Inch

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Part Number (Standard Style)
+ .002/- .000	+ .000/- .002	+ .010/- .000	+ .000/- .002	
1.000	0.628	0.424	0.999	0401CT18601000-424AA
1.063	0.691	0.424	1.062	0401CT18601063-424AA
1.125	0.753	0.424	1.124	0401CT18601125-424AA
1.188	0.816	0.424	1.187	0401CT18601188-424AA
1.250	0.878	0.424	1.249	0401CT18601250-424AA
1.313	0.941	0.424	1.312	0401CT18601313-424AA
1.375	1.003	0.424	1.374	0401CT18601375-424AA
1.438	1.066	0.424	1.437	0401CT18601438-424AA
1.500	1.128	0.424	1.499	0401CT18601500-424AA
1.563	1.191	0.424	1.562	0401CT18601563-424AA
1.625	1.253	0.424	1.624	0401CT18601625-424AA
1.688	1.316	0.424	1.687	0401CT18601688-424AA
1.750	1.378	0.424	1.749	0401CT18601750-424AA
1.875	1.503	0.424	1.874	0401CT18601875-424AA

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



Table 7-40. CT Gland Dimensions (Standard Style) — Inch (Continued)

A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Part Number (Standard Style)
+0.003/-0.000	+0.000/-0.003	+0.010/-0.000	+0.000/-0.003	
2.000	1.628	0.424	1.999	0401CT18602000-424AA
2.125	1.753	0.424	2.124	0401CT18602125-424AA
2.250	1.878	0.424	2.249	0401CT18602250-424AA
2.375	2.003	0.424	2.374	0401CT18602375-424AA
2.500	2.128	0.424	2.499	0401CT18602500-424AA
2.625	2.253	0.424	2.624	0401CT18602625-424AA
2.750	2.378	0.424	2.749	0401CT18602750-424AA
2.875	2.503	0.424	2.874	0401CT18602875-424AA
+0.004/-0.000	+0.000/-0.003	+0.010/-0.000	+0.000/-0.003	
3.000	2.522	0.579	2.998	0401CT23903000-579AA
3.125	2.647	0.579	3.123	0401CT23903125-579AA
3.250	2.772	0.579	3.248	0401CT23903250-579AA
3.375	2.897	0.579	3.373	0401CT23903375-579AA
3.500	3.022	0.579	3.498	0401CT23903500-579AA
3.625	3.147	0.579	3.623	0401CT23903625-579AA
3.750	3.272	0.579	3.748	0401CT23903750-579AA
3.875	3.397	0.579	3.873	0401CT23903875-579AA
4.000	3.522	0.579	3.998	0401CT23904000-579AA
4.125	3.647	0.579	4.123	0401CT23904125-579AA
4.250	3.772	0.579	4.248	0401CT23904250-579AA
4.375	3.897	0.579	4.373	0401CT23904375-579AA
4.500	4.022	0.579	4.498	0401CT23904500-579AA
4.625	4.147	0.579	4.623	0401CT23904625-579AA
4.750	4.272	0.579	4.748	0401CT23904750-579AA
4.875	4.397	0.579	4.873	0401CT23904875-579AA
5.000	4.272	0.750	4.998	0401CT36405000-750AA
5.125	4.397	0.750	5.123	0401CT36405125-750AA
5.250	4.522	0.750	5.248	0401CT36405250-750AA
5.375	4.647	0.750	5.373	0401CT36405375-750AA
+0.004/-0.000	+0.000/-0.004	+0.010/-0.000	+0.000/-0.004	
5.500	4.772	0.750	5.497	0401CT36405500-750AA
5.625	4.897	0.750	5.622	0401CT36405625-750AA
5.750	5.022	0.750	5.747	0401CT36405750-750AA
5.875	5.147	0.750	5.872	0401CT36405875-750AA
6.000	5.272	0.750	5.997	0401CT36406000-750AA
6.125	5.397	0.750	6.122	0401CT36406125-750AA
6.250	5.522	0.750	6.247	0401CT36406250-750AA
6.375	5.647	0.750	6.372	0401CT36406375-750AA
6.500	5.772	0.750	6.497	0401CT36406500-750AA
6.750	6.022	0.750	6.747	0401CT36406750-750AA
7.000	6.272	0.750	6.997	0401CT36407000-750AA
+0.005/-0.000	+0.000/-0.004	+0.010/-0.000	+0.000/-0.004	
7.250	6.522	0.750	7.247	0401CT36407250-750AA
7.500	6.772	0.750	7.497	0401CT36407500-750AA
7.750	7.022	0.750	7.747	0401CT36407750-750AA
+0.005/-0.000	+0.000/-0.005	+0.010/-0.000	+0.000/-0.005	
8.000	7.272	0.750	7.996	0401CT36408000-750AA
8.250	7.522	0.750	8.246	0401CT36408250-750AA
8.500	7.772	0.750	8.496	0401CT36408500-750AA

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



Table 7-40. CT Gland Dimensions (Standard Style) — Inch (Continued)

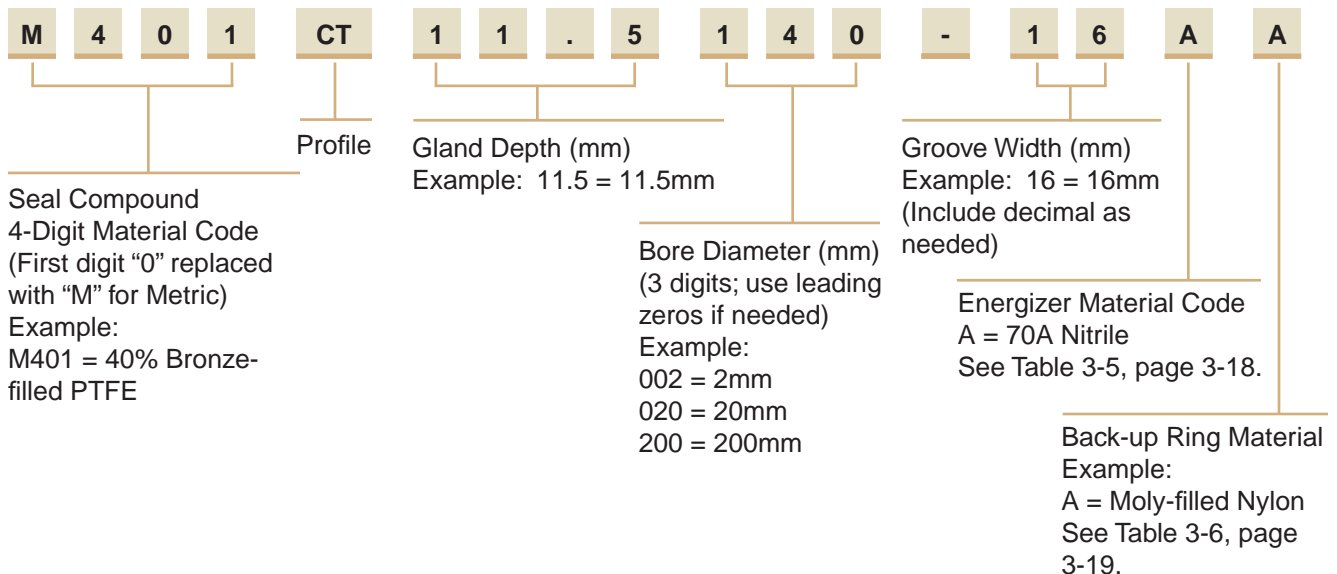
A Bore Diameter	B Groove Diameter	C Groove Width	D Piston Diameter*	Part Number (Standard Style)
+ .005/- .000	+ .000/- .005	+ .010/- .000	+ .000/- .005	
8.750	8.022	0.750	8.746	0401CT36408750-750AA
9.000	8.272	0.750	8.996	0401CT36409000-750AA
9.500	8.772	0.750	9.496	0401CT36409500-750AA
10.000	9.272	0.750	9.996	0401CT36410000-750AA
10.500	9.772	0.750	10.496	0401CT36410500-750AA
11.000	10.272	0.750	10.996	0401CT36411000-750AA
11.500	10.772	0.750	11.496	0401CT36411500-750AA
12.000	11.272	0.750	11.996	0401CT36412000-750AA
+ .006/- .000	+ .000/- .005	+ .010/- .000	+ .000/- .005	
12.500	11.772	0.750	12.496	0401CT36412500-750AA
13.000	12.272	0.750	12.996	0401CT36413000-750AA
+ .006/- .000	+ .000/- .006	+ .010/- .000	+ .000/- .006	
13.500	12.772	0.750	13.495	0401CT36413500-750AA
14.000	13.272	0.750	13.995	0401CT36414000-750AA
14.500	13.772	0.750	14.495	0401CT36414500-750AA
15.000	14.272	0.750	14.995	0401CT36415000-750AA
15.500	14.772	0.750	15.495	0401CT36415500-750AA
16.000	15.272	0.750	15.995	0401CT36416000-750AA
16.500	15.772	0.750	16.495	0401CT36416500-750AA
17.000	16.272	0.750	16.995	0401CT36417000-750AA
17.500	16.772	0.750	17.495	0401CT36417500-750AA
18.000	17.272	0.750	17.995	0401CT36418000-750AA
18.500	17.772	0.750	18.495	0401CT36418500-750AA
19.000	18.272	0.750	18.995	0401CT36419000-750AA
19.500	18.772	0.750	19.495	0401CT36419500-750AA
20.000	19.272	0.750	19.995	0401CT36420000-750AA

*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.

Part Number Nomenclature — CT Profile

Table 7-41. CT Profile — Metric (mm)



02/15/08

