

ACP Series Piston Accumulators

With Working Pressures of 3,770, 4000 and 5000 PSI

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ACP Series Crimped Piston Accumulators are ideal for mobile and construction equipment applications in climates as rugged as those of northern Canada and Siberia. Rated at 3770, 4000 and 5000 PSI with a design factor of four to one or greater, these accumulators have been tested and proven at -40°F/C or below, and meet or exceed CSA/CE/ASME standards.

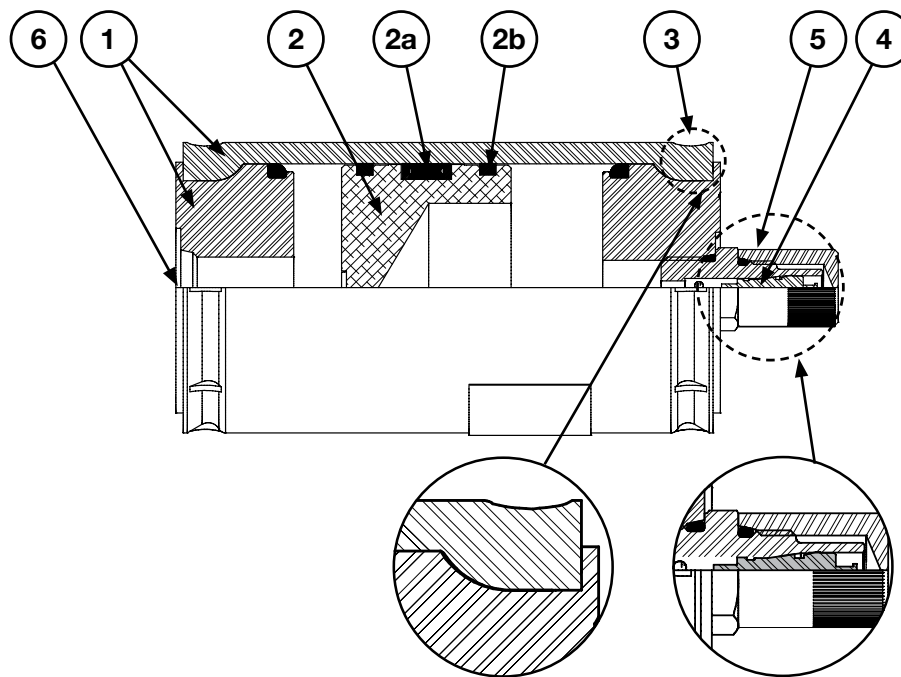


Key advantages of the ACP Series:

- Higher working-pressure ratings (3770/4000/5000 PSI) meet more applications with fewer sizes needed.
- Use of standard components promotes faster delivery of proven designs and lower product cost.
- Piston design prevents sudden accumulator failure and is customized to fit the application.
- Four bore sizes available for more capacity and price options.
- Patented crimped end cap connections provide superior fatigue life compared with welded designs.
- “Schrader” style gas valve (industry standard) fits existing charging equipment; “no gas valve” option also available.
- Multiple hydraulic port sizes accommodate a wider range of fittings and mounting options.
- All standard product is CRN/CSA to -40°C/F.

Fluids compatibility

Parker’s seal compounds are compatible with a wide variety of fluids. Standard accumulators (with nitrile seals) may be used with petroleum-based industrial oils or water-based, flame-resistant fluids. Optional seals compatible with most industrial fluids are available with temperature ranges from -45°F to 320°F (-43°C to 160°C).

**1 High-strength, compact steel shell and cap material.**

Steel shell allows heat to dissipate effectively and is micro-finished for extended seal life.

2 Lightweight piston design allows for fast response to reduce system shock in rapid cycling applications.

2a Piston seal’s unique, five-bladed V-O-ring with back-up washers eliminates seal roll-over and ensures total separation of fluid and gas (40 mm size incorporates a T-seal with energized PTFE piston ring).

2b PTFE glide rings eliminate metal-to-metal contact between tube and piston, reducing wear and extending service life.

3 Patented crimped design provides high-strength coupling of caps to steel tube plus superior fatigue life versus welded type connections.

4 “Schrader” style gas valve is standard on all ACP accumulators for ease of precharging. (Pre-charged accumulators are available featuring specially designed threaded plug and no gas valve option.)

5 Gas valve cap protects valve and serves as secondary seal. Knurled cap design allows easy installation without tools.

6 Port types are available in a wide range of female sizes in both SAE and BSPP styles.

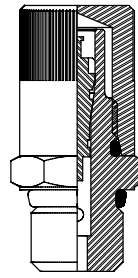
Actual Bore Sizes & Maximum Flow Rates

Nominal Bore Size (mm)	Actual Bore Size		Max. Recommended Flow*	
	(in)	(mm)	GPM	LPM
40	1.50	38.20	55	209
50	2.02	51.44	100	380
80	3.00	76.20	220	834
100	4.03	102.4	397	1504

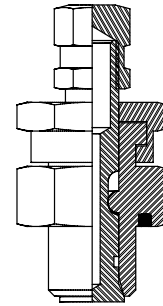
*Note: Based on 120 in/sec maximum piston speed, port & fitting size will become limiting factors for most applications.

Gas Valves Options

ACP Series accumulators are available either with the industry-standard “Shrader” style gas valve for ease of precharging or poppet style valve (L07689000*).



870636H0QQ



L07689000*

Seal Material Options

Seal Code	Polymer	**Recommended Operating Temperature Range	Maximum Temperature with Reduced Life	General Application and Compatibility*
K	Buna-Nitrile	-20°F to 165°F -29°C to 74°C	200°F 93°C	Parker's Standard Compound – Compatible with most mineral oil-based fluids
E	Fluorocarbon Elastomer	-10°F to 250°F -23°C to 121°C	400°F 204°C	Compatible with most mineral oil-based fluids at higher temperatures and some exotic fluids
H	Hydrogenated Nitrile	-25°F to 320°F -32°C to 160°C	350°F 177°C	Compatible with most oil-based and biodegradable fluids, maintains sealing effectiveness at a wide range of temperatures
Q	Low Temp. Nitrile	-45°F to 160°F -43°C to 71°C	200°F 93°C	Compatible with most mineral oil-based fluids and maintains sealing effectiveness at low temperatures

*Consult local distributor or factory for fluid compatibility information.

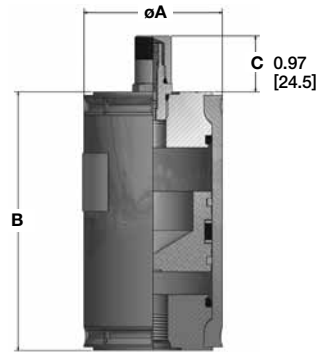
**The temperatures listed indicate the operating temperature range of the seals, not the accumulator.

Mounting, Charging & Gauging Accessories

Parker offers a wide variety of mounting, charging and gauging accessories. See “Accumulator Accessories.”

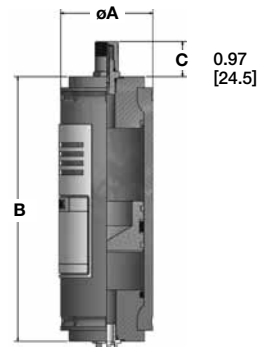


**3,770 PSI (260 Bar Metric) &
 4,000 PSI (275 Bar Metric)
 Crimped Piston Accumulator with Gas Valve**



	Model Number	Fluid Volume		Gas Volume		Diameter	Estimated Length	Estimated Dry Weight	
		Liters	cu. in.	Liters	cu. in.	øA in (mm)	B in (mm)	LBS	(Kg)
3,770 PSI MODELS									
40 mm BORE	ACP04AA002R1KTB	0.92	0.02	0.02	1.2	1.74 (44.1)	3.02 (76.6)	2	0.91
	ACP04AA008R1KTB	4.58	0.08	0.08	4.9		5.08 (129.2)	2	0.91
	ACP04AA016R1KTB	9.46	0.15	0.16	9.8		7.84 (199.2)	2	0.91
	ACP04AA032R1KTB	19.23	0.31	0.32	19.5		13.36 (339.3)	3	1.36
4,000 PSI MODELS									
50 mm BORE	ACP05AA008E1KTC	3.67	0.06	0.08	4.9	2.38 (60.3)	4.47 (113.5)	4	1.81
	ACP05AA016E1KTC	8.55	0.14	0.16	9.8		5.98 (151.9)	4	1.81
	ACP05AA032E1KTC	18.31	0.30	0.32	19.5		9.01 (228.9)	5	2.27
	ACP05AA050E1KTC	29.3	0.48	0.50	30.5		12.43 (315.7)	6	2.72
	ACP05AA075E1KTC	44.55	0.73	0.75	45.8		17.16 (435.9)	5	2.27
	ACP05AA100E1KTC	56.76	0.93	0.95	58.0		20.95 (532.1)	9	4.08
80 mm BORE	ACP08AA032E1KTI	15.44	0.25	0.32	19.5	3.56 (90.4)	6.73 (171.0)	11	4.99
	ACP08AA050E1KTI	26.48	0.43	0.50	30.5		8.29 (210.5)	13	5.90
	ACP08AA075E1KTI	41.73	0.68	0.75	45.8		10.45 (265.4)	14	6.35
	ACP08AA100E1KTI	53.94	0.88	0.95	58.0		12.18 (309.3)	16	7.26
	ACP08AA150E1KTI	87.5	1.43	1.50	91.5		16.93 (430.0)	20	9.07
	ACP08AA200E1KTI	118.01	1.93	2.00	122.1		21.25 (539.7)	23	10.43
	ACP08AA300E1KTI	179.04	2.93	3.00	183.1		29.89 (759.2)	30	13.61
100 mm BORE	ACP10AA075E1KTD	36.16	0.59	0.75	45.8	4.76 (120.9)	8.47 (215.2)	25	11.34
	ACP10AA100E1KTD	48.37	0.79	0.95	58.0		9.43 (239.5)	26	11.79
	ACP10AA150E1KTD	81.83	1.34	1.50	91.5		12.06 (306.4)	30	13.61
	ACP10AA200E1KTD	112.44	1.84	2.00	122.1		14.46 (367.2)	33	14.97
	ACP10AA300E1KTD	173.46	2.84	3.00	183.1		19.24 (488.7)	40	18.14
	ACP10AA400E1KTD	234.49	3.84	4.00	244.1		24.03 (310.3)	47	21.31
	ACP10AA600E1KTD	356.54	5.84	6.00	366.1		33.60 (853.4)	60	27.21
	ACP10AA800E1KTD	478.58	7.84	8.00	488.2		43.17 (1096.6)	74	33.56

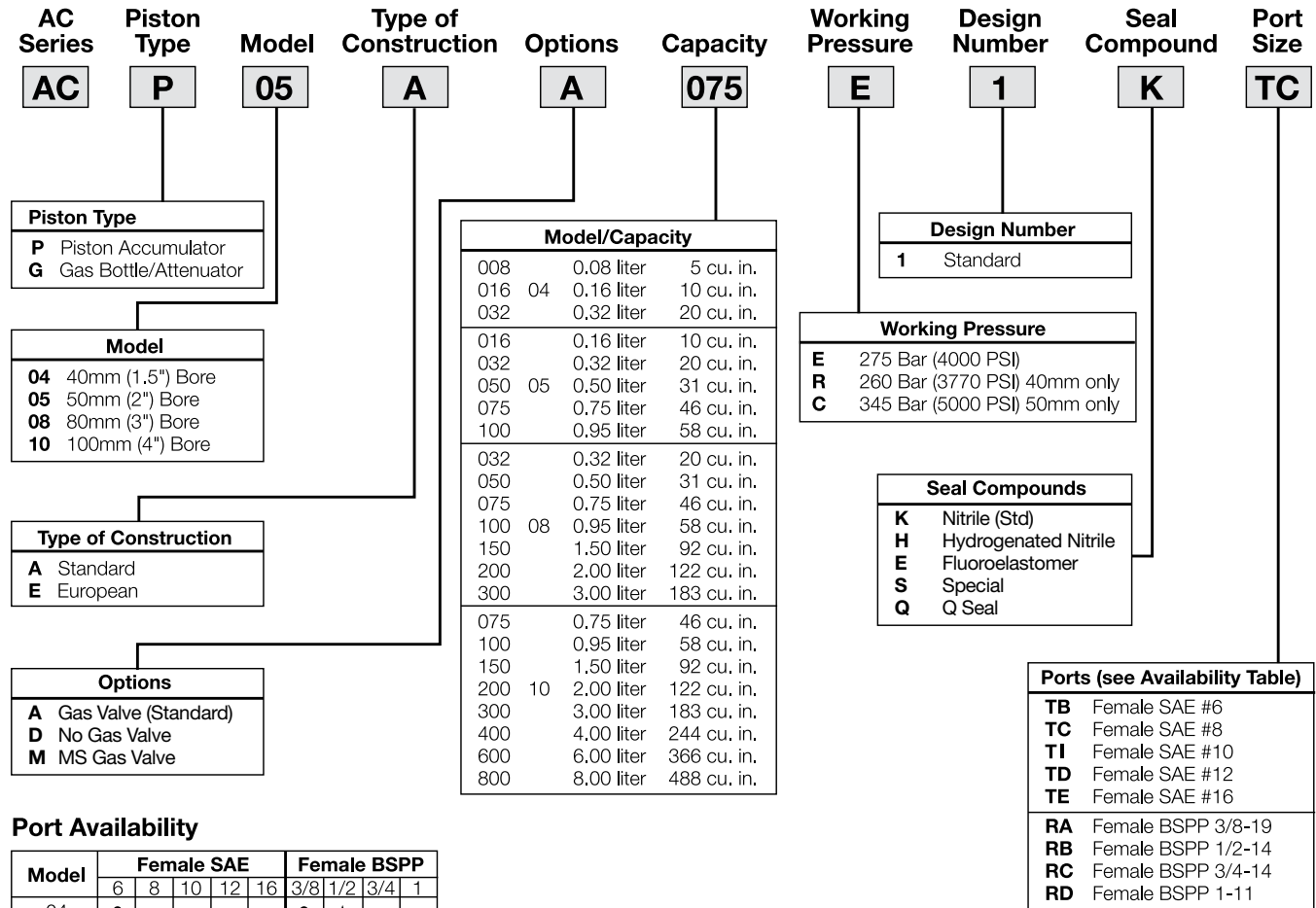
**5,000 PSI (345 Bar Metric)
 Crimped Piston Accumulator with Gas Valve**



	Model Number	Fluid Volume		Gas Volume		Diameter	Estimated Length	Estimated Dry Weight	
		Liters	cu. in.	Liters	cu. in.	øA in (mm)	B in (mm)	LBS	(Kg)
50 mm BORE	ACP05AA008C1KTC	3.67	0.06	0.08	4.9	2.50 (63.5)	5.71 (145.1)	6	2.72
	ACP05AA016C1KTC	8.55	0.14	0.16	9.8		7.23 (183.6)	6	2.72
	ACP05AA032C1KTC	18.31	0.30	0.32	19.5		10.26 (260.6)	8	3.63
	ACP05AA050C1KTC	29.3	0.48	0.50	30.5		13.67 (347.3)	8	3.63
	ACP05AA075C1KTC	44.55	0.73	0.75	45.8		18.41 (467.6)	12	5.44
	ACP05AA100C1KTC	56.76	0.93	0.95	58.0		22.20 (563.8)	13	5.90

How to Order ACP Series Piston Accumulators

Piston accumulators and gas bottles can be specified by using the symbols in the chart below to develop a model number. Select only those symbols that represent the features desired, and place them in the sequence indicated by the example at the top of the chart.



Port Availability

Model	Female SAE					Female BSPP			
	6	8	10	12	16	3/8	1/2	3/4	1
04	•					•	★		
05	★	•	★	★	†	★	★	•	
08	★	★	•	★	★†	★	★	★	•
10	★	★	★	•	★†	★	★	★	•

• = Standard ★ = Optional
 † For SAE 16 and CE together, consult factory

Notes
