



aerospace
 climate control
 electromechanical
 filtration
 fluid & gas handling
hydraulics
 pneumatics
 process control
 sealing & shielding



ACP Series Piston Accumulators

With Working Pressures up to 5000 PSI



ENGINEERING YOUR SUCCESS.

Parker's ACP Series is Rated, Tested and Proven to Deliver Optimum Performance and Value.



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 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. ACP Series accumulators are available either with the industry-standard gas valve or with a “no gas valve” option for further system reliability and savings.

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

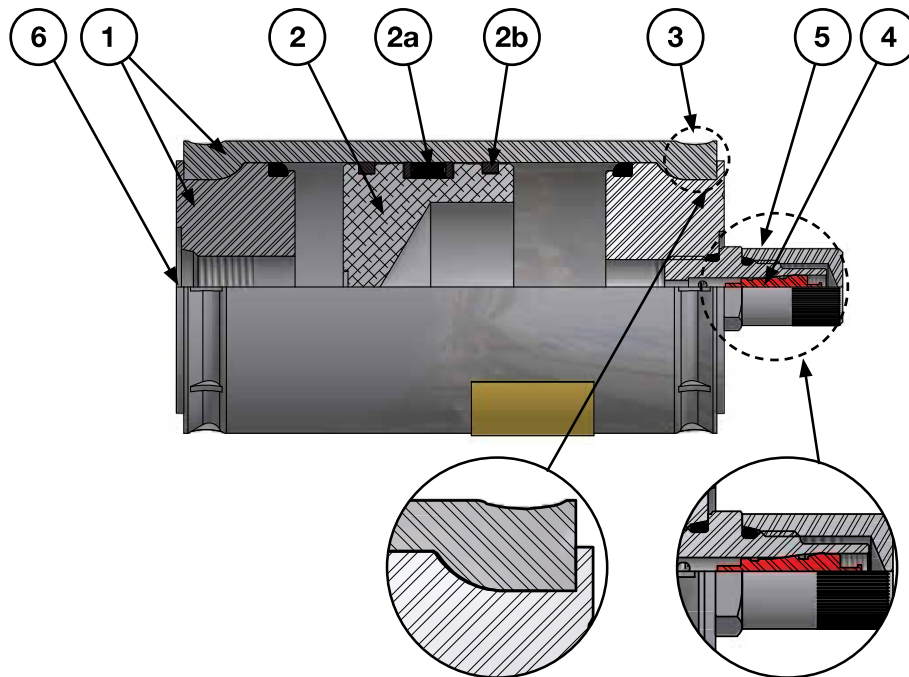
Parker's seal compounds are compatible with a wide variety of fluids. Standard accumulators (with nitrile seals) may be used with petroleum-based industrial oils or water-based, flame-resistant fluids. Optional seals compatible with most industrial fluids are available with temperature ranges from -45°F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

Seals				
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 185°F -43°C to 85°C	200°F 93°C	Compatible with most mineral oil-based fluids and maintains sealing effectiveness at low temperatures

* Note: Consult local distributor or factory for fluid compatibility information.

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

ACP Series Features



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, patented five-bladed V-O-ring with back-up washers eliminates seal roll-over and ensures total separation of fluid and gas (40mm size incorporates a T-seal with energized PTFE piston ring).

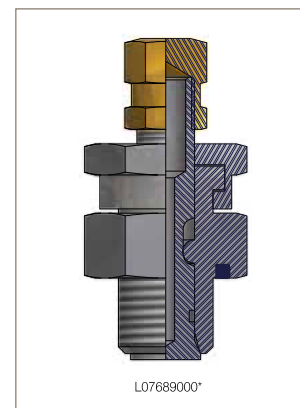
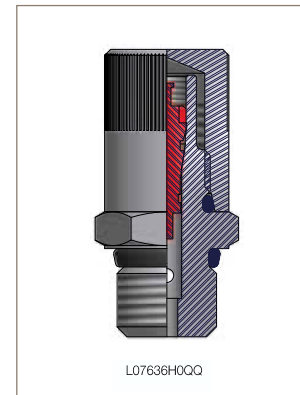
2b PTFE glide rings eliminate metal-to-metal contact between tube and piston, reducing wear and extending service life.

3 Patent-pending 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.)

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

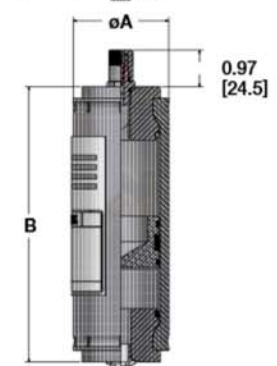
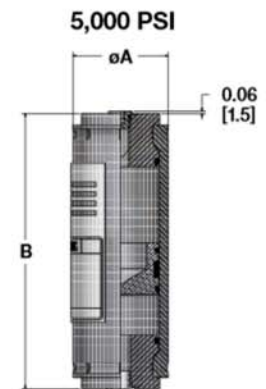
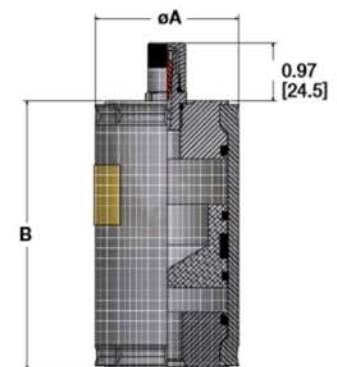
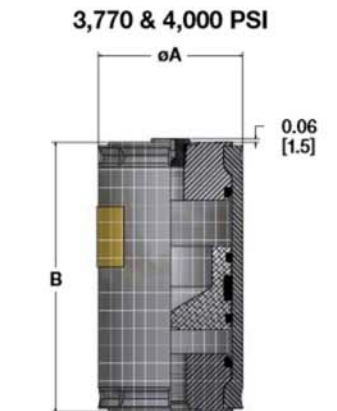
6 Port types are available in a wide range of female sizes in both SAE and BSPP styles.



ACP Series Accumulator Dimensions

Crimped Piston Accumulator – 260 BAR [3,770 PSI] & 275 BAR [4,000 PSI]					
Model Number	Gas Volume		Diameter	Estimated Length	Estimated Dry Weight
	Liters	Cu. In.	øA In [mm]	B In [mm]	LBS [Kg]
40mm BORE					
ACP04AA002R1KTB	0.02	1.2	1.74 [44.1]	3.02 [76.6]	1.28 [0.6]
ACP04AA008R1KTB	0.08	4.9		5.08 [129.2]	1.63 [0.7]
ACP04AA016R1KTB	0.16	9.8		7.84 [199.2]	2.10 [1.0]
ACP04AA032R1KTB	0.32	19.5		13.36 [339.3]	3.05 [1.4]
50mm BORE					
ACP05AA008E1KTC	0.08	4.9	2.38 [60.3]	4.47 [113.5]	3.41 [1.5]
ACP05AA016E1KTC	0.16	9.8		5.98 [151.9]	3.93 [1.8]
ACP05AA032E1KTC	0.32	19.5		9.01 [228.9]	4.97 [2.3]
ACP05AA050E1KTC	0.50	30.5		12.43 [315.7]	6.14 [2.8]
ACP05AA075E1KTC	0.75	45.8		17.16 [435.9]	7.75 [3.5]
ACP05AA100E1KTC	0.95	58.0		20.95 [532.1]	9.05 [4.1]
80mm BORE					
ACP08AA032E1KTI	0.32	19.5	3.56 [90.4]	6.73 [171.0]	11.07 [5.0]
ACP08AA050E1KTI	0.50	30.5		8.29 [210.5]	12.34 [5.6]
ACP08AA075E1KTI	0.75	45.8		10.45 [265.4]	14.10 [6.4]
ACP08AA100E1KTI	0.95	58.0		12.18 [309.3]	15.51 [7.0]
ACP08AA150E1KTI	1.50	91.5		16.93 [430.0]	19.38 [8.8]
ACP08AA200E1KTI	2.00	122.1		21.25 [539.7]	22.90 [10.4]
ACP08AA300E1KTI	3.00	183.1		29.89 [759.2]	29.95 [13.6]
100mm BORE					
ACP10AA075E1KTD	0.75	45.8	4.76 [120.9]	8.47 [215.2]	24.19 [11.0]
ACP10AA100E1KTD	0.95	58.0		9.43 [239.5]	25.55 [11.6]
ACP10AA150E1KTD	1.50	91.5		12.06 [306.4]	29.29 [13.3]
ACP10AA200E1KTD	2.00	122.1		14.46 [367.2]	32.67 [14.8]
ACP10AA300E1KTD	3.00	183.1		19.24 [488.7]	39.46 [17.9]
ACP10AA400E1KTD	4.00	244.1		24.03 [310.3]	46.25 [21.0]
ACP10AA600E1KTD	6.00	366.1		33.60 [853.4]	59.83 [27.2]
ACP10AA800E1KTD	8.00	488.2		43.17 [1096.6]	73.41 [33.3]

Crimped Piston Accumulator – 345 BAR [5,000 PSI]					
Model Number	Gas Volume		Diameter	Estimated Length	Estimated Dry Weight
	Liters	Cu. In.	øA In [mm]	B In [mm]	LBS [Kg]
50mm BORE					
ACP05AA008C1KTC	0.08	4.9	2.50 [63.5]	5.71 [145.1]	5.11 [2.3]
ACP05AA016C1KTC	0.16	9.8		7.23 [183.6]	5.83 [2.6]
ACP05AA032C1KTC	0.32	19.5		10.26 [260.6]	7.28 [3.3]
ACP05AA050C1KTC	0.50	30.5		13.67 [347.3]	8.91 [4.0]
ACP05AA075C1KTC	0.75	45.8		18.41 [467.6]	11.11 [5.0]
ACP05AA100C1KTC	0.95	58.0		22.20 [563.8]	12.98 [5.9]



How To Order ACP Series Piston Accumulators

Piston accumulators 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.

AC Series	Piston Type	Model	Type of Construction	Options	Capacity	Working Pressure	Design Number	Seal Compound	Port Size
AC	P	05	A	A	075	E	1	K	TC

Piston Type

P Piston Accumulator
G Gas Bottle/Attenuator

Model

04 40mm (1.5") Bore
05 50mm (2") Bore
08 80mm (3") Bore
10 100mm (4") Bore

Type of Construction

A Standard
E European

Options

A Gas Valve (Standard)
D No Gas Valve

Model/Capacity

Model	Capacity (liter)	Capacity (cu. in.)
008	0.08	5
016 04	0.16	10
032	0.32	20
016	0.16	10
032	0.32	20
050 05	0.50	31
075	0.75	46
100	0.95	58
032	0.32	20
050	0.50	31
075	0.75	46
100 08	0.95	58
150	1.50	92
200	2.00	122
300	3.00	183
075	0.75	46
100	0.95	58
150	1.50	92
200 10	2.00	122
300	3.00	183
400	4.00	244
600	6.00	366
800	8.00	488

Design Number

1 Standard

Working Pressure

E 275 Bar (4000 PSI)
R 260 Bar (3770 PSI) 40mm only
C 345 Bar (5000 PSI) 50mm only

Seal Compounds

K Nitrile (Std)
H Hydrogenated Nitrile
E Fluoroelastomer
S Special

Ports (see Availability Table)

TB Female SAE #6
TC Female SAE #8
TI Female SAE #10
TD Female SAE #12
TE Female SAE #16
AD Male SAE #12
RA Female BSPP 3/8-19
RB Female BSPP 1/2-14
RC Female BSPP 3/4-14
RD Female BSPP 1-11
LC Male BSPP 3/4-14

Port Availability

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

• = Standard ★ = Optional

⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

Offer of Sale

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the full "Offer of Sale".

North America

Industrial

USA

Chicago Region
Naperville, IL
Tel: (630) 964 0796

Eastern Region
Pine Brook, NJ
Tel: (973) 227 2565

Great Lakes Region
Fairlawn, OH
Tel: (330) 670 2680

Gulf Coast Region
Spring, TX
Tel: (832) 717 3094

Pacific Region
Buena Park, CA
Tel: (714) 228 2510

Southern Region
Alpharetta, GA
Tel: (770) 619 9767

Canada

Milton, Ontario
Tel: (905) 693 3000

México

Toluca, Edo. De México
Tel: (52) 72 2275 4200

Mobile & Truck

USA

USA Global Mobile & Truck
Lincolnshire, IL
Tel: (847) 821 1500

Canada

Milton, Ontario
Tel: (905) 693 3000

México

Apodaca, N.L.
Tel: (52) 81 8156 6000

Europe

Austria

Wiener Neustadt
Tel: (43) 262 235 010

Azerbaijan

Baku
Tel: (994) 50 2233 458

Belarus

Minsk
Tel: (375) 17 209 9399

Belgium/Luxemburg

Nivelles
Tel: (32) 67 280 900

Czech Republic & Slovakia

Klecany
Tel: (420) 284 083 111

Denmark

Ballerup
Tel: (45) 43 56 04 00

Finland

Vantaa
Tel: (358) 20 753 2500

France

Contamine-sur-Arve
Tel: (33) 450 25 80 25

Germany

Kaarst
Tel: (49) 2131 4016 0

Greece

Athens
Tel: (30) 210 933 6450

Hungary

Budapest
Tel: (36) 1 220 4155

Ireland

County Dublin, Baldonnell
Tel: (353) 1 466 6370

Italy

Corsico, Milano
Tel: (39) 02 45 19 21

Kazakhstan

Almaty
Tel: (7) 7272 505 800

Latvia

Riga
Tel: (371) 6 745 2601

The Netherlands

Oldenzaal
Tel: (31) 541 585 000

Norway

Ski
Tel: (47) 64 91 10 00

Poland

Warsaw
Tel: (48) 22 573 24 00

Portugal

Leca da Palmeira
Tel: (351) 22 999 7360

Romania

Bucharest
Tel: (40) 21 252 1382

Russia

Moscow
Tel: (7) 495 645 2156

Slovenia

Novo Mesto
Tel: (386) 7 337 6650

Spain

Madrid
Tel: (34) 902 33 00 01

Sweden

Spanga
Tel: (46) 8 59 79 50 00

Switzerland

Etoy
Tel: (41) 21 821 02 30

Turkey

Istanbul
Tel: (90) 216 4997081

Ukraine

Kiev
Tel: (380) 44 494 2731

United Kingdom

Warwick,
Tel: (44) 1926 317 878

Asia Pacific

Australia

Castle Hill
Tel: (61) 2 9634 7777

China

Beijing
Tel: (86) 10 6561 0520 5

Shanghai

Tel: (86) 21 5031 2526

Hong Kong

Cheung Sha Wan
Tel: (852) 2428 8008

India

Mahape, Navi Mumbai
Tel: (91) 22 6513 708185

Japan

Fujisawa Kanagawa
Tel: (81) 4 6635 3050

Korea (South)

Seoul
Tel: (82) 2 559 0400

Malaysia

Shah Alam
Tel: (60) 3 7849 0800

New Zealand

Mt. Wellington, Auckland
Tel: (64) 9 574 1744

Singapore

Jurong Town
Tel: (65) 687 6300

Taiwan

Taipei
Tel: (886) 2 2298 8987

Thailand

Bangkok
Tel: (662) 717 8140

Latin America

Argentina

Buenos Aires
Tel: (54) 3327 44 4129

Brazil

Cachoeirinha RS
Tel: (55) 51 3470 9144

Chile

Santiago
Tel: (56) 2 623 1216

Pan American Division

Miami, FL
Tel: (305) 470 8800

Venezuela

Caracas
Tel: (58) 212 238 5422

Africa

South Africa

Kempton Park
Tel: (27) 11 961 0700

Middle East

United Arab Emirates

Dhabi
Tel: (971) 4 8127100

