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

ACP Series - Crimped Piston Accumulators

0.02 to 8 Litres, up to 275 bar

hefel technik
sehen & bewegen

Parker OLAER

ENGINEERING YOUR SUCCESS.

Description

Piston Accumulator designed for Mobile applications up to 38 litres, 150mm bore and 275 bar. The ACP piston accumulator offers long, reliable service life and due to its compact & cost effective design it is ideally suited for the mobile market.

The ACP piston accumulators incorporate a patented crimped design that provides high-strength coupling of caps to steel tube plus superior fatigue life. High grade carbon steel tube and end cap material allows heat to dissipate effectively and is micro-finished for extended seal life. The ACP series is a good alternative to a diaphragm accumulator as it is can provide enhanced nitrogen gas retention and has a compact and lightweight design.

Although these accumulators are offered in standard capacities, the steel shell design affords an easy way to “custom” manufacture an accumulator to meet the exact capacity for any customer application.

ACP piston accumulators are available in two versions; Rechargeable or Tamperproof. Rechargeable models allow the user to monitor and regulate the gas pre-charge to suit different operating conditions. Tamperproof, sealed-for-life versions of the ACP are pre-charged on assembly to customer specification and are completely maintenance free.

Parker Olaer have developed very sophisticated simulation software to optimize sizing recommendations for hydraulic accumulators. You can download the accumulator sizing software from www.Parker.com/acde.

Features/Benefits

- **The ACP piston accumulator is manufactured to EU Pressure Equipment Directive 2014/68/EU – and can be used in any European Union or EEA country without additional certification.**
- **The high-strength crimped construction provides long, reliable service life and its small piston seal area minimizes permeability. The piston design also prevents sudden accumulator failure.**
- **The ACP piston accumulator is available in a wide range of lengths and bore sizes and allows installation to be adapted to available space. Custom sizes are available for unique applications. Rechargeable and ‘tamperproof’ versions are available with (for customer charging) or without the gas valve.**
- **A wide range of port types and sizes are available. SAE straight thread are fitted as standard. BSPP is a standard option.**
- **The lightweight piston design allows fast response to reduce shock in rapid cycling applications.**
- **Parker’s piston accumulators 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 -40°C to 160°C.**
- **High burst test safety factor.**

Markets

- **Mobile**
- **Construction Equipment**
- **Material Handling Equipment**
- **Renewable Energy**
- **Agricultural Machinery**

Applications

Ideal for mobile and construction equipment

Fork lifts and cherry pickers

- pressure spike damping

Transportation vehicles

- suspension and braking systems

Construction and Mining

- suspension and load stabilising systems, emergency back-up steering, braking and pilot circuits

Turbine Engines

- maintaining oil pressure for lubrication

Machine Tools

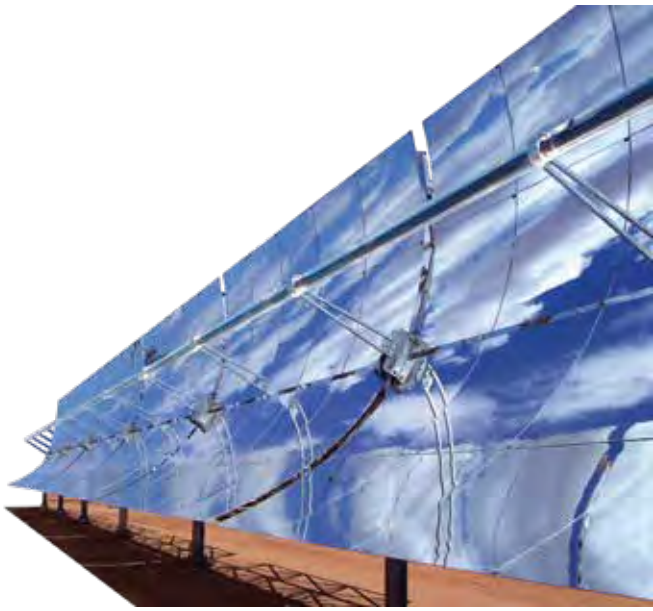
- energy saving

Hydrostatic Drives

- shock absorption when changing direction

Assembly Automation

- reducing noise and smoothing pump pulsations



Renewable Energy (Wind and Solar)

- Braking systems for wind turbines

Main Features

Actual Bore Sizes & Maximum Flow Rates

Bore Size	Actual Bore Size		Max. Recommended Flow Rate*
mm	in	mm	l/m
40	1.50	38.20	209
50	2.02	51.44	380
80	3.00	76.20	834
100	4.03	102.4	1504

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

Bore Size, Pressures & Temperature Range

Bore Size (mm)	Max. Working Pressure (bar)	Volume (Litres)		*Maximum Working Temperature Range °C
		Min	Max	
40	260	0.02	0.75	-20°C to +150°C
50	275	0.08	2	-20°C to +150°C Material to -40°C available on request
80	275	0.25	8	
100	275	0.7	12	

*Maximum working temperature range could be limited to sealing system used (see temperature range below)

Materials

- Shell - Carbon Steel
- Caps - Carbon Steel
- Pistons - Aluminium
- Gas Valve Body - Carbon Steel
- Gas Valve Cap - Carbon Steel
- Piston Glide Rings - PTFE
- Piston & End Seals - Various polymers
- Piston Seal Backups - PTFE

Rechargeable or 'Tamperproof' Designs

ACP Series accumulators are available in two versions. Rechargeable models allow the user to monitor and regulate the gas pre-charge to suit different operating conditions, and feature a Schrader-type gas valve cartridge to ISO 4570 8V1. Tamperproof, sealed-for-life versions of the ACP are pre-charged on assembly to customer specification and are completely maintenance-free.

Seals, Fluids and Temperature Ranges

Code	ACP Seals	"Min Temp"	"Max Temp"	"Fluid Classification"	"Fluid Type"	Maximum Velocity (m/s)
K	"NBR (Nitrile)"	-29°C	74°C	"HFB-HFC HM-HV"	"Mineral Oils & Water Glycols"	4 m/s
H	"HNBR (Hydrogenated Nitrile)"	-32°C	150°C	"HFB-HFC HM-HV"	"Mineral Oils & Water Glycols"	4 m/s
E	"FPM (Fluorocarbon elastomer)"	-23°C	121°C	"HFB HM-HV"	"Synthetic Oils"	4 m/s
D	"EPDM (Ethylene Propylene)"	-40°C	121°C	HFD	"Ester Fluids"	4 m/s
Q	"LT-NBR (Low Temperature Nitrile)"	-45°C	71°C	HM-HV	"Mineral Oils"	4 m/s
X	"Low Friction T Seal Consult Parker ACDE"	-43°C	121°C	HM-HV	"Mineral Oils & Water Glycols"	4 m/s
S	"Special Consult Parker ACDE"			TBA	TBA	4 m/s

Features and Benefits

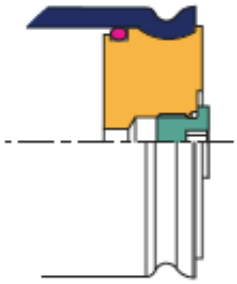
Lightweight Piston

The ACP Series feature a dished, lightweight aluminium piston deep-walled for stability in the bore.

- High efficiency - fast response times
- Reduced system shock in rapid cycling applications
- Extra gas capacity

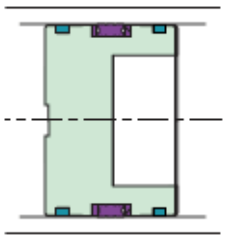
Rugged Construction

ACP Series accumulators feature high strength, compact, steel shell and caps, permanently joined and sealed by a revolutionary crimping process.



- Effective heat dissipation prevents fluid and seal degradation
- Superior fatigue life
- Micro-finished for extended seal life

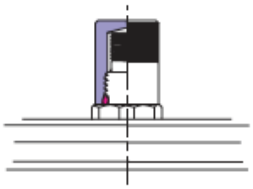
Effective, Durable Sealing



50mm bore models feature Parker's unique, patented five bladed V-O-ring piston seal. The 40mm model combines an elastomeric seal with a low friction PTFE piston ring. All models employ PTFE bearing rings to eliminate metal-to-metal contact between the tube and piston.

- Dependable, full pressure storage of hydraulic energy
- Effective separation of fluid and gas for long service intervals
- Reduced wear for extended service life
- Safe in operation - cannot suffer catastrophic failure

Protective Steel Gas Cap

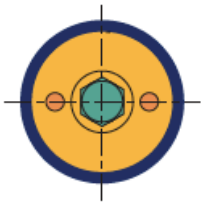


Models fitted with a gas valve are supplied with a protective steel cap. Tamperproof versions are fitted with a threaded plug which provides progressive release of pre-charge pressure prior to safe disposal.

- Steel cap reduces the risk of damage from external impact
- Security - cap provides a secondary seal

Spanner Holes

To permit easy installation on hydraulic manifolds, or in areas where mounting space is restricted, spanner holes are provided on all models.



External Coasting

- Standard Black Paint according to AES-20
- Optional Nickel-plating
- Other options available upon request

Cleanliness & Flushing

- Maximum ISO Code Cleanliness Acceptable
- ISO 4406 18/16/13
- Customised flushing is available upon request

Approvals

Approvals	ACP04*	ACP05	ACP08	ACP10
PED 2014/68/EU		•	•	•
CRN		•	•	•
AS 1210		•	•	•

* ACP04 is manufactured in accordance with article 3.3 of PED

Capacity

ACP04

Code	Model	Volume (Litres)
002	04	0.02
008	04	0.08
016	04	0.16
050	04	0.5
075	04	0.75

ACP05

008	05	0.08
016	05	0.16
032	05	0.32
050	05	0.50
075	05	0.75
100	05	0.95
125	05	1.25
150	05	1.50
175	05	1.75
200	05	2.00

ACP08

Code	Model	Volume (Litres)
025	08	0.25
050	08	0.50
100	08	1.00
150	08	1.50
200	08	2.00
250	08	2.50
300	08	3.00
400	08	4.00
500	08	5.00
600	08	6.00
700	08	7.00
800	08	8.00

ACP10

070	10	0.70
100	10	1.00
150	10	1.50
200	10	2.00
300	10	3.00
400	10	4.00
500	10	5.00
1000	10	10.00
1100	10	11.00
1200	10	12.00

ACP15

Code	Model	Volume (Litres)
300	15	3.00
400	15	4.00
500	15	5.00
600	15	6.00
700	15	7.00
800	15	8.00
4000	15	40.00

Fluid Ports

Port Type	Code	ACP04	ACP05	ACP08	ACP10	ACP15
SAE6 Female	TB	•	•	•	•	•
SAE8 Female	TC		•	•	•	•
SAE10 Female	TI		•	•	•	•
SAE12 Female	TD			·	·	·
SAE16 Female	TE			•	•	•
SAE12 Male	AD	•	•	•	•	•
SAE16 Male	AE		•	•	•	•
G1/4	RH	•	•	•	•	•
G3/8	RA	•	•	•	•	•
G1/2	RB	•	•	•	•	•
G3/4	RC		•	•	•	•
G 1	RD		•	•	•	•
G 1 1/2	RE					•
G3/4 Male	LC			•	•	•
G 1 Male	LD			•	•	•
G 1 1/2 Male	LE					•
M14 x 1.5 Female	GA	•	•	•	•	•
M18 x 1.5 Female	GB	•	•	•	•	•
M22 x 1.5 Female	GC		•	•	•	•
M18 x 1.5 Male	HB	•	•	•	•	•
M22 x 1.5 Male	HC	•	•	•	•	•

ACP Series: How to order

Series	Type	Model	Type of Construction	Options	Capacity	Working Pressure	Design Number	Seal Type	Port Size	Pre-Charge
AC	P	04	E	A	008	R	2	K	RA	/ 010

AC Series Accumulator

Code	Type
P	Piston
G	Gas bottle

Code	Bore Size (nominal)
04	40 mm
05	50 mm
08	80 mm
10	100 mm
15	150 mm

Code	Approval Type
E	To PED 2014/68/EU- For use in Europe
A	No approvals - not for European use

Code	Valve Options
A	Gas valve - Standard
D	Steel plug - Sealed unit
M	Gas Valve - Mil Spec SS
	Leave blank if no gas valve required

Please see Capacity table on page 114

Code	Maximum Working Pressure
R	260 bar (40 mm bore only)
E	275 bar (50, 80 and 100 mm bore only)

Code	Port
1	SAE port
2	BSPP port
3	Special
4	Metric port

Code	Service/Fluid
D	Phosphate-esters Low temperatures
E	Fluoreslatomer High Temperatures
K	Nitrile Standard
H	Hydrogenated nitrile xtended temperature range
S	Special

Please see Fluid Port table on page 114

Code	Pre-Charge (for example)
010	10 bar
020	20 bar
030	30 bar

ACP Series 275 bar(260 bar), 0.02 to 40 Litres

ACP - Crimped Piston Accumulators **with Gas Valve (code A)**

Standard version (Carbon Steel shell/seal NBR) compatible with mineral oils (2).

According to PED 2014/68/EU, EN 14359, Fluid Group 2 (3).

Product , Part numbers, Accessories

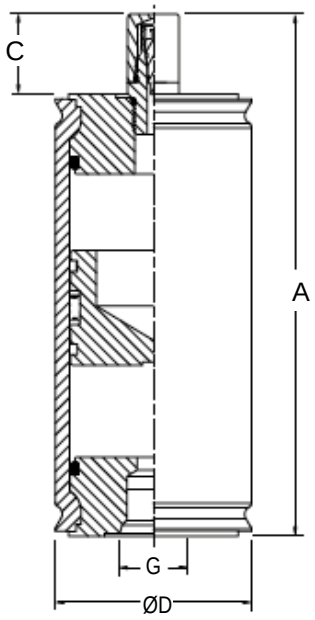
Part number	Effective gas Volume (Litres)	Max. Working Pressure (PS)bar	Max Flow Rate l/mn***	Weight (Kg)	A	C	øD	ø Bore (Nominal)	G (BSPP) Female	G (BSPP) Male
ACP04AA002R2K*	0.02	260	209	0.6	104	25.4	44.5	40	G3/8	G3/4
ACP04AA008R2K*	0.08	260	209	0.7	157	25.4	44.5	40	G3/8	G3/4
ACP04AA016R2K*	0.16	260	209	1	227	25.4	44.5	40	G3/8	G3/4
ACP04AA032R2K*	0.32	260	209	1.4	367	25.4	44.5	40	G3/8	G3/4
ACP04AA050R2KRB*	0.50	260	209	1.9	525	25.4	44.5	40	G3/8	G3/4
ACP04AA075R2K*	0.75	260	209	2.5	743	25.4	44.5	40	G3/8	G3/4
ACP05EA008E2K**	0.08	275	380	1.5	140	25.4	60.5	50	G3/4	G1
ACP05EA016E2K**	0.16	275	380	1.8	179	25.4	60.5	50	G3/4	G1
ACP05EA032E2K**	0.32	275	380	2.3	256	25.4	60.5	50	G3/4	G1
ACP05EA050E2K**	0.50	275	380	2.8	343	25.4	60.5	50	G3/4	G1
ACP05EA075E2K**	0.75	275	380	3.5	463	25.4	60.5	50	G3/4	G1
ACP05EA100E2K**	0.95	275	380	4.1	583	25.4	60.5	50	G3/4	G1
ACP05EA125E2K	1.25	275	380	5	704	25.4	60.5	50	G3/4	G1
ACP05EA150E2K	1.50	275	380	5.7	824	25.4	60.5	50	G3/4	G1
ACP05EA175E2K	1.75	275	380	6.5	944	25.4	60.5	50	G3/4	G1
ACP05EA200E2K	2.00	275	380	7.2	1065	25.4	60.5	50	G3/4	G1
ACP08EA025E2K	0.25	275	834	4.8	183	25.4	90.4	80	G3/4	G1
ACP08EA032E2K	0.32	275	834	5	198	25.4	90.4	80	G3/4	G1
ACP08EA050E2K	0.50	275	834	5.6	238	25.4	90.4	80	G3/4	G1
ACP08EA100E2K	0.95	275	834	7	336	25.4	90.4	80	G3/4	G1
ACP08EA150E2K	1.50	275	834	8.8	457	25.4	90.4	80	G3/4	G1
ACP08EA200E2K	2.00	275	834	10.4	566	25.4	90.4	80	G3/4	G1
ACP08EA250E2K	2.50	275	834	12	676	25.4	90.4	80	G3/4	G1
ACP08EA300E2K	3.00	275	834	13.6	786	25.4	90.4	80	G3/4	G1
ACP08EA400E2K	4.00	275	834	16.8	1005	25.4	90.4	80	G3/4	G1
ACP08EA500E2K	5.00	275	834	20	1225	25.4	90.4	80	G3/4	G1
ACP08EA600E2K	6.00	275	834	23.2	1445	25.4	90.4	80	G3/4	G1
ACP08EA700E2K	7.00	275	834	26.4	1664	25.4	90.4	80	G3/4	G1
ACP08EA800E2K	8.00	275	834	29.5	1883	25.4	90.4	80	G3/4	G1

Part number	**Effective gas Volume** (Litres)	**Max. Working Pressure** (PS) bar	**Max Flow Rate** l/mn***	**Weight (Kg)**	A	C	øD	ø Bore (Nominal)	G (BSPP) Female	G (BSPP) Male
ACP10EA075E2K	0.70	275	1504	10.8	236	25.4	120.9	100	G1	G1
ACP10EA100E2K	0.95	275	1504	11.6	266	25.4	120.9	100	G1	G1
ACP10EA150E2K	1.50	275	1504	13.3	356	25.4	120.9	100	G1	G1
ACP10EA200E2K	2.00	275	1504	14.8	394	25.4	120.9	100	G1	G1
ACP10EA300E2K	3.00	275	1504	17.9	538	25.4	120.9	100	G1	G1
ACP10EA400E2K	4.00	275	1504	21	637	25.4	120.9	100	G1	G1
ACP10EA500E2K	5.00	275	1504	24.1	758	25.4	120.9	100	G1	G1
ACP10EA600E2K	6.00	275	1504	27.1	880	25.4	120.9	100	G1	G1
ACP10EA800E2K	8.00	275	1504	33.3	1123	25.4	120.9	100	G1	G1
ACP10EA1000E2K	10.00	275	1504	39.5	1365	25.4	120.9	100	G1	G1
ACP10EA1100E2K	11.00	275	1504	42.5	1488	25.4	120.9	100	G1	G1
ACP10EA1200E2K	12.00	275	1504	45.6	1633	25.4	120.9	100	G1	G1
ACP15EA300E1	3.00	275	3100	25.9	371	28.6	174.6	150	G1	G1
ACP15EA400E1	4.00	275	3100	29.2	430	28.6	174.6	150	G1	G1
ACP15EA500E1	5.00	275	3100	32.4	489	28.6	174.6	150	G1	G1
ACP15EA600E1	6.00	275	3100	35.7	548	28.6	174.6	150	G1	G1
ACP15EA700E1	7.00	275	3100	38.9	607	28.6	174.6	150	G1	G1
ACP15EA800E1	8.00	275	3100	42.2	665	28.6	174.6	150	G1	G1
ACP15EA4000E1	40.00	275	3100	146.1	2437	28.6	174.6	150	G1	G1

* No approvals - not for European use

** According PED 2014/68/EU Article 4.3

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



ACP Series 275 bar(260 bar) , 0.02 to 40 Litres

ACP - Crimped Piston Accumulators without Gas Valve (code D) and Seals nitrile

Standard version (Carbon Steel shell/seal NBR) compatible with mineral oils (2).

According to PED 2014/68/EU, EN 14359, Fluid Group 2 (3).

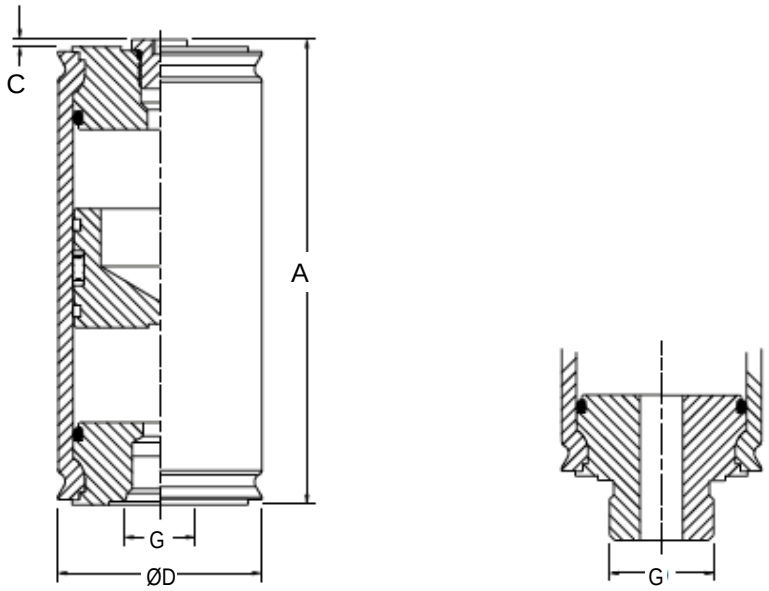
Product , Part numbers, Accessories

Part number	Effective gas Volume (Litres)	Max. Working Pressure (PS) bar	Max Flow Rate l/mn	Weight (Kg)	A	C	øD	ø Bore	G (BSPP) Female	G (BSPP) Male
ACP04AD002R2K*	0.02	260	209	0.5	79	2.0	44.5	40	G3/8	G3/4
ACP04AD008R2K*	0.08	260	209	0.6	132	2.0	44.5	40	G3/8	G3/4
ACP04AD016R2K*	0.16	260	209	0.9	202	2.0	44.5	40	G3/8	G3/4
ACP04AD032R2K*	0.32	260	209	1.3	342	2.0	44.5	40	G3/8	G3/4
ACP04AD050R2K*	0.50	260	209	1.8	500	2.0	44.5	40	G3/8	G3/4
ACP04AD075R2K*	0.75	260	209	2.4	718	2.0	44.5	40	G3/8	G3/4
ACP05ED008E2K**	0.08	275	380	1.4	115	2.0	60.5	50	G3/4	G1
ACP05ED016E2K**	0.16	275	380	1.7	154	2.0	60.5	50	G3/4	G1
ACP05ED032E2K**	0.32	275	380	2.2	231	2.0	60.5	50	G3/4	G1
ACP05ED050E2K**	0.50	275	380	2.7	318	2.0	60.5	50	G3/4	G1
ACP05ED075E2K**	0.75	275	380	3.4	438	2.0	60.5	50	G3/4	G1
ACP05ED100E2K**	0.95	275	380	4	558	2.0	60.5	50	G3/4	G1
ACP05ED125E2K	1.25	275	380	4.9	679	2.0	60.5	50	G3/4	G1
ACP05ED150E2K	1.50	275	380	5.6	799	2.0	60.5	50	G3/4	G1
ACP05ED175E2K	1.75	275	380	6.4	919	2.0	60.5	50	G3/4	G1
ACP05ED200E2K	2.00	275	380	7.1	1040	2.0	60.5	50	G3/4	G1
ACP08ED025E2K	0.25	275	834	4.7	158	2.0	90.4	80	G3/4	G1
ACP08ED032E2K	0.32	275	834	4.9	173	2.0	90.4	80	G3/4	G1
ACP08ED050E2K	0.50	275	834	5.5	213	2.0	90.4	80	G3/4	G1
ACP08ED100E2K	0.95	275	834	6.9	311	2.0	90.4	80	G3/4	G1
ACP08ED150E2K	1.50	275	834	8.7	432	2.0	90.4	80	G3/4	G1
ACP08ED200E2K	2.00	275	834	10.3	541	2.0	90.4	80	G3/4	G1
ACP08ED250E2K	2.50	275	834	11.9	651	2.0	90.4	80	G3/4	G1
ACP08ED300E2K	3.00	275	834	13.5	761	2.0	90.4	80	G3/4	G1
ACP08ED400E2K	4.00	275	834	16.8	980	2.0	90.4	80	G3/4	G1
ACP08ED500E2K	5.00	275	834	19.9	1200	2.0	90.4	80	G3/4	G1
ACP08ED600E2K	6.00	275	834	23.1	1420	2.0	90.4	80	G3/4	G1
ACP08ED700E2K	7.00	275	834	26.3	1639	2.0	90.4	80	G3/4	G1
ACP08ED800E2K	8.00	275	834	29.4	1858	2.0	90.4	80	G3/4	G1

Part number	Effective gas Volume (Litres)	Max. Working Pressure (PS) bar	Max Flow Rate l/ mn	Weight (Kg)	A	C	øD	ø Bore	G (BSPP) Female	G (BSPP) Male
ACP10ED075E2K	0.70	275	1504	10.7	211	2.0	120.9	100	G1	G1
ACP10ED100E2K	0.95	275	1504	11.5	241	2.0	120.9	100	G1	G1
ACP10ED150E2K	1.50	275	1504	13.2	331	2.0	120.9	100	G1	G1
ACP10ED200E2K	2.00	275	1504	14.7	369	2.0	120.9	100	G1	G1
ACP10ED300E2K	3.00	275	1504	17.8	513	2.0	120.9	100	G1	G1
ACP10ED400E2K	4.00	275	1504	20.9	612	2.0	120.9	100	G1	G1
ACP10ED500E2K	5.00	275	1504	24	733	2.0	120.9	100	G1	G1
ACP10ED600E2K	6.00	275	1504	27	855	2.0	120.9	100	G1	G1
ACP10ED800E2K	8.00	275	1504	33.2	1098	2.0	120.9	100	G1	G1
ACP10ED1000E2K	10.00	275	1504	39.4	1340	2.0	120.9	100	G1	G1
ACP10ED1100E2K	11.00	275	1504	42.4	1463	2.0	120.9	100	G1	G1
ACP10ED1200E2K	12.00	275	1504	45.5	1608	2.0	120.9	100	G1	G1
ACP15ED300E1	3.00	275	3100	25.7	350	28.6	174.6	150	G1	G1
ACP15ED400E1	4.00	275	3100	29	409	28.6	174.6	150	G1	G1
ACP15ED500E1	5.00	275	3100	32.2	468	28.6	174.6	150	G1	G1
ACP15ED600E1	6.00	275	3100	35.4	527	28.6	174.6	150	G1	G1
ACP15ED700E1	7.00	275	3100	38.7	586	28.6	174.6	150	G1	G1
ACP15ED800E1	8.00	275	3100	42	645	28.6	174.6	150	G1	G1
ACP15ED4000E1	40.00	275	3100	145.9	2534	28.6	174.6	150	G1	G1

* No approvals - not for European use

** According PED 2014/68/EU Article 4.3



Notes

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

A Series
Piston Accumulators

0.5 to 300 Litres, 250 and 350 bar

hefel technik
sehen & bewegen

Parker

OLAER

ENGINEERING YOUR SUCCESS.

Description

Piston Accumulators up to 80 Litres volume, 200mm Bore, 250 Bar & 350 Bar.Parker A series piston accumulators offer quality design and premium technical features which guarantee optimum performance life.

Premium quality design and technical features guarantee optimum performance and service life from every model, while differing wall thicknesses to suit 250 or 350 bar working pressures allow the designer to specify precisely the right performance envelope for the application.

Parker Olaer have developed very sophisticated simulation software to optimize sizing recommendations for hydraulic accumulators. You can download the accumulator sizing software from www.Parker.com/acde.

Features/Benefits

- **Effective heat dissipation is vital for long seal life. Compact, rugged steel shell and end caps allow heat to dissipate efficiently, while the bore of the accumulator is micro-finished to maximise seal life.**
- **Rapid response in high cycling applications is assured by Parker's lightweight piston design. The dished profile of the aluminium piston gives extra gas capacity while maintaining stability in the bore, and permits a greater usable volume of fluid. Piston position sensors, available as an optional feature, enable the condition of the accumulator's precharge to be monitored.**
- **Long service intervals are made possible by total separation of oil and gas, even under the most severe operating conditions. Downtime is minimised by the use of threaded caps to simplify maintenance of the accumulator, permitting quick and easy installation of seals.**
- **Parker's A series piston accumulators feature a wide piston seal assembly comprising a unique five-bladed V-profile O-ring with back-up washers, which eliminates seal roll-over even in high speed applications. The V-O-ring holds full pressure throughout long idle periods between cycles, providing dependable, full pressure storage of hydraulic energy.**
- **Enhanced nitrogen gas retention.**
- **High cycle rates and high flow rates.**
- **Designed for long life – non sudden failure.**

Markets

- **Industrial**
- **Oil & Gas**
- **Energy**

Applications

- **Die casting**
- **Industrial Hydraulic Power Units**
- **Machine Tools**
- **Automotive**
- **Marine & Offshore**
- **Wind Energy**
- **Transport Rail & Truck**
- **Mobile Construction & Agriculture**
- **Construction Equipment**

Main Features

Actual Bore Sizes & Maximum Flow Rates

Model	Pressure	Nominal Bore ø	Actual Bore ø	Max. Recommended Flow Rate*
	bar	mm	mm	l/m
A2	250/350	50	51.4	380
A3	250/350	75	76.2	825
A4	250/350	100	102.4	1500
A5	250	125	127	2200
A6	250/350	150	146.9	3100
A8	250	200	200	5700

*Note: Based on 4m/sec maximum piston speed, port & fitting size will become limiting factors for most applications.

250 and 350 Bar Pressure Ranges

A Series accumulators are available to suit maximum working pressures of 250 and 350 bar. The same premium quality design and technical features guarantee optimum performance and service life from every model, while differing wall thicknesses to suit 250 or 350 bar working pressures allow the designer to specify precisely the right performance envelope for the application.

Materials

- Shell – high strength steel
- End caps – steel
- Pistons – lightweight aluminium alloy
- Cast iron low temperature Arctic piston available upon request
- Piston and end cap seals – NBR (standard): other compounds to suit application
- Piston seal backup washers – PTFE
- Piston bearing rings – PTFE
- Gas valve assembly – stainless steel
- Gas valve protector – steel
- Paint finish – black primer (standard – others on request)

Custom Designs

For unique applications and hostile environments, different designs, materials and coatings can be supplied. Please contact our engineering department to discuss custom solutions to individual application requirements.

Available Options

A wide variety of options are available for A Series accumulators, including:

- Threaded and manifold port styles and sizes
- Seal compounds
- Metric and inch mounting styles
- High flow gas ports for use with remote gas storage bottles
- Water service versions
- Gas valves
- Safety fuses
- Accumulator mounting systems
- Precharge monitors and piston position sensors
- Certifications to suit different market requirements

Water Service

A Series piston accumulators are available for use with water as the fluid medium. Modifications include plating of all working surfaces. Please consult Parker for details.

Operating Temperatures, Seals and Fluids

A Series piston accumulators are fitted as standard with nitrile (NBR) seals. A range of alternative seal materials is available for use at higher or lower temperatures, or with synthetic or high water content fluids, as shown in the table. Other seals are also available for use in exceptional conditions – please consult the factory with details of the application. The shells of Parker's A series accumulators are CE approved for operation at temperatures between -40°C and +150°C.

Filtration

For maximum component life, the system should be protected from contamination by effective filtration. Fluid cleanliness should be in accordance with ISO 4406. The quality of filters should be in accordance with the appropriate ISO standards. The rating of the filter media depends on the system components and the application. The minimum required for hydraulic systems should be class 19/15 to ISO 4406, which equates to 25µ (ß10≥75) to ISO 4572.

Safety

Charging must be carried out by qualified personnel. Before taking any readings or pressurizing with nitrogen, the accumulator must be isolated from the hydraulic system and the fluid side discharged in order to depressurize it. Use only nitrogen (N_2) to pressurize the accumulator.

Danger of Explosion – Never Charge with Oxygen

The types of nitrogen permitted are: type S (99.8% pure); type R (99.99% pure); type U (99.993% pure).

Approvals

Approvals	A2	A3	A4	A5	A6	A8
PED 2014/68/EU	•	•	•	•	•	•
CRN	•	•	•	•	•	•

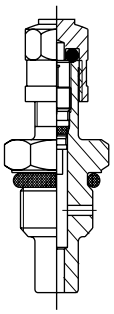
Other approvals available upon request.

Mounting

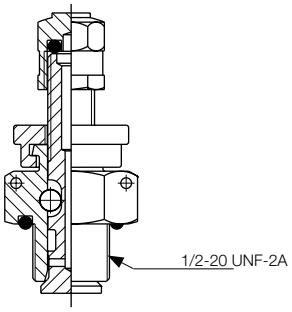
The optimum mounting orientation is vertical however angled and horizontal mountings are permissible if the hydraulic fluid is kept clean; high levels of contaminants in the fluid can result in uneven or accelerated seal wear.

Gas Valves

The standard gas charging valve fitted to A Series 250 and 350 bar piston accumulators is a cored-type gas valve, rated at 350 bar. A mechanically opened and closed poppet-type gas valve cartridge, also rated at 350 bar, is available as an option.



Standard Cored-Type Gas Valve



Optional Poppet-Type Gas Valve

Both types of charging valve may be used with the Charging and Gauging Kit.

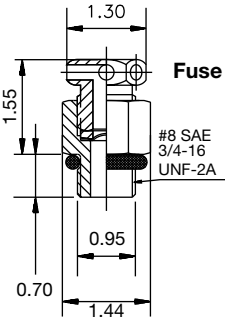
Safety Fuses (Burst Discs)

Safety fuses are available on A Series accumulators to prevent over-pressurization of gas due to external heat or excess hydraulic pressure. They comprise a housing incorporating a disc which is calibrated to rupture at a pre-determined pressure, to be specific by the customer at the time of ordering. Please contact the factory for further information.

Available Options

If your application requires a piston accumulator, gas bottle, or special option that falls outside of Parker's broad offering, consult your local distributor, Parker representative, or the factory with your specific requirements. Parker has the manufacturing and engineering expertise to design and build piston accumulators to your exacting requirements, from simple modifications of standard units to complete designs. Some example of Parker's past special designs include:

- High Pressures
- Special and Stainless Steel Materials
- Piston Position and Velocity Sensors and Switches
- Water Service
- Non-Standard Capacities
- Extreme Temperatures



Bore Size, Pressures & Temperature Range

Bore Size (mm)	Max. Working Pressure (bar)	Volume (Litres)	
		Min	Max
A2	250/350	0.08	2
A3	250/350	0.25	8
A4	250/350	0.7	12
A5	250	2	14
A6	250/350	3.8	38
A8	250	9.5	76

Piston Accumulator Seal Kits

Seal kits are available for all A Series accumulator models however it is recommended to buy a piston assembly with seal already assembled.

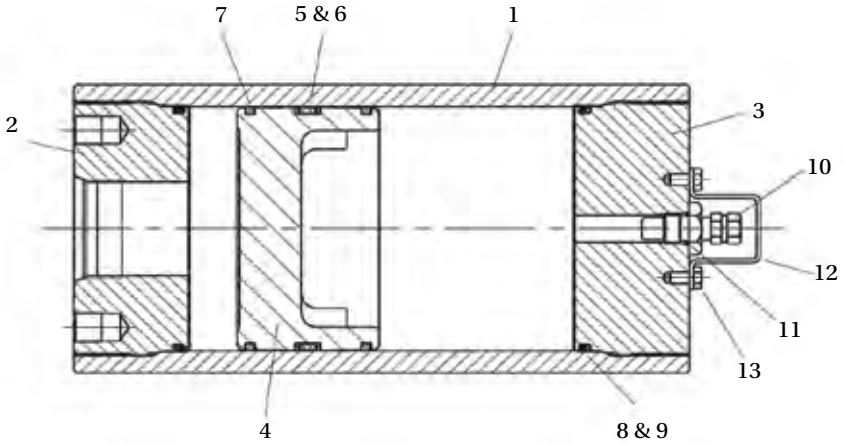
When ordering seal kits, please supply the complete model number from the identification plate and specify the fluid type and the temperature at which the accumulator is to be used.

Seal Kit Numbers

The seal kits listed contain items 5, 6, 7, 8, 9 and 11.

Parts List

1. Shell
2. Hydraulic cap
3. Gas cap
4. Piston
5. V-O-ring
6. V-O-ring back-up washers
7. PTFE bearing ring (piston)
8. O-ring
9. O-ring back-up washer
10. Gas valve
11. Gas valve O-ring
12. Gas valve protector
13. Gas valve protector screw



Seal Kit Part Numbers with piston seals assembled

Model	Nitrile NBR Code K	Fluorocarbon Elasto-mer FPM Code E	Ethylene Propylene EPR Code D	Hydrogenated Nitrile HNBR Code H	Carboxilated Nitrile XNBR Code J	Low Temp. Nitrile NBR CODE Q
Model	Part Number	Part Number	Part Number	Part Number	Part Number	Part Number
A2	RK0200K000	RK0200E000	RK0200D000	RK0200H000	RK0200J000	RK0200Q000
A3	RK0300K000	RK0300E000	RK0300D000	RK0300H000	RK0300J000	RK0300Q000
A4	RK0400K000	RK0400E000	RK0400D000	RK0400H000	RK0400J000	RK0400Q000
A5	RK0500K000	RK0500E000	RK0500D000	RK0500H000	RK0500J000	RK0500Q000
A6	RK0600K000	RK0600E000	RK0600D000	RK0600H000	RK0600J000	RK0600Q000
A8	RK0800K000	RK0800E000	RK0800D000	RK0800H000	RK0800J000	RK0800Q000

A Series: How to order

Series	Model	Type of Construction	Options	Volume Capacity	Working Pressure	Design Number	Seal Type	Port Size	Gas Port	Pre-Charge
A	4	E	S	0005	L	2	K	RF	S	/ 010

A	Series Accumulator
B	Bottle

Code	Bore Size (nominal)
2	50 A Series
3	75 A Series
4	100 A Series
5	127 A Series
6	150 A Series
8	200 A Series

Code	Approval Type
E	CE approved1

Code	Valve Options
S	Cored-type gas valve (standard) [2]
W	Cored-type gas valve + water service
F	Cored-type gas valve + safety fuse
G	Cored-type gas valve + water service + safety fuse
M	Poppet-type gas valve
L	Poppet-type gas valve + water service
P	Poppet-type gas valve + safety fuse
R	Poppet-type gas valve + water service + safety fuse

Please see Dimensions table on page 128

Code	Maximum Working Pressure [3]
L	250 bar (A2, A3, A4, A5, A6 & A8)
H	350 bar (A2, A3, A4, A6)

Code	Port
1	Inch mounting + SAE port
2	Metric mounting + BSPP port (standard)
3	Special ports
###	Specials (Parker assigned number)

Code	Service/Fluid
K	Nitrile (NBR)
E	Fluorocarbon Elastomer (FPM)
H	Hydrogenated nitrile (HNBR)
D	Ethylene Propylene (EPR)

Code	Service/Fluid
J	Carboxilated nitrile (XNBR)
Q	Low temperature nitrile
S	Special – please specify

Please see Fluid Port tables on page 127 (leave blank if standard)

Gas Port
Specification (where no valve supplied)

[1] Other approvals are available to order – please consult the factory.
[2] Where a gas port is specified, no gas valve will be supplied.
[3] For other pressure ratings, please consult the factory.

Hydraulic and Gas Port Modifications

For accumulators with non-standard ports, specify special gas and/or hydraulic ports and use the appropriate port code from page 127. A typical model number for an accumulator with ISO 6149 hydraulic and gas ports would be: A - 3 - T - M - 0090 - D - 2 - K - YE/YE

Code	Pre-Charge (for example)	Code	Pre-Charge (for example)
010	10 bar	020	20 bar

Port Options

Fluid Ports - Standard

Port Type	Code	A2		A3		A4		A5	A6		A8
		250 bar	350 bar	250 bar	350 bar	250 bar	350 bar	250 bar	250 bar	350 bar	250 bar
G 3/4 BSPP	**Leave Blank**	•	•	•	•						
G 1 BSPP	**Leave Blank**					•	•	•		•	
G 1 1/2 BSPP	**Leave Blank**								•		
G 2 BSPP	**Leave Blank**										•

Optional Threaded Ports

BSPP [1]			Metric to DIN 3852-1			Metric to ISO 6149-1			SAE Thread		
Thread Size	From Model	Code	Thread Size	From Model	Code	Thread Size	From Model	Code	Thread Size	From Model	Code
G 3/4	A2	**RC**	M14	A2	**GA**	M14	A2	**YA**	#5	A2	**TA**
G 1	A3	**RD**	M18	A2	**GB**	M18	A2	**YB**	#6	A2	**TB**
G 1 1/4	A3	**RE**	M22	A2	**GC**	M22	A2	**YC**	#8	A2	**TC**
G 1 1/2	A4	**RF**	M27	A2	**GD**	M27	A2	**YD**	#10	A2	**TI**
G 2	A4	**RG**	M33	A3	**GE**	M33	A3	**YE**	#12	A2	**TD**
-	-	-	M42	A3	**GF**	M42	A3	**YF**	#16	A3	**TE**
-	-	-	-	-	-	-	-	-	#20	A3	**TF**
-	-	-	-	-	-	-	-	-	#24	A3	**TG**

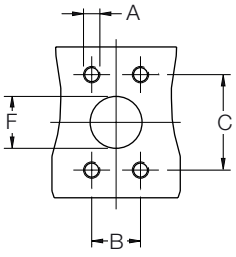
[1] Where the required fluid port is the standard BSPP size for the accumulator bore diameter chosen (see dimension D, page 128), the fluid port field in the order code on page 126 should be left blank.

Optional Flanged Ports

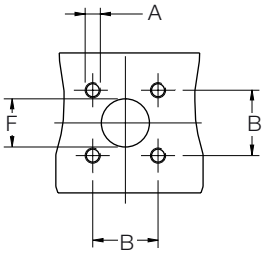
A Series Piston Accumulators are available with metric flange ports to ISO 6162/3000 psi and ISO 6164/6000 psi as shown in the tables. Inch pattern flange ports and flange ports for higher pressure operation are also available, please consult the factory for details.

Flange Ports to ISO 6162/3000 psi						
Flange Size	From Model	A *	B ± 0.25	C ± 0.25	F	Code
DN13	A3	M8	17.5	38.1	13	**MT**
DN19	A3	M10	22.3	47.6	19	**MU**
DN25	A3	M10	26.2	52.4	25	**MV**
DN32	A3	M10	30.2	58.7	32	**MW**
DN38	A4	M12	35.7	69.9	38	**MJ**
DN51	A4	M12	42.9	77.8	51	**ML**
DN64	A6	M12	50.8	88.9	64	**MM**
DN76	A8	M16	61.9	106.4	76	**MN**

ISO 6162 Flanged Port Dimensions



ISO 6164 Flanged Port Dimensions



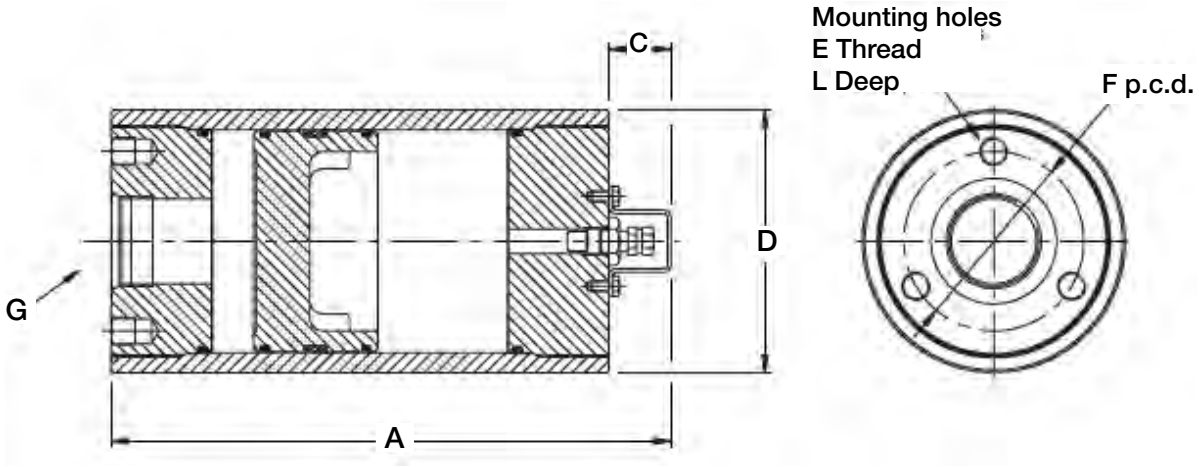
Flange Ports to ISO 6164/6000 psi					
Flange Size	From Model	A	B ± 0.25	F +0.0 -1.5	Code
DN10	A2	M6 x 1	24.7	10.0	**SD**
DN13	A2	M8 x 1.25	29.7	13.0	**SE**
DN19	A3	M8 x 1.25	35.4	19.0	**SF**
DN25	A3	M10 x 1.5	43.8	25.0	**SG**
DN32	A3	M12 x 1.75	51.6	32.0	**SH**
DN38	A4	M16 x 2	60.1	38.0	**SP**
DN51	A6	M16 x 2	69.3	51.0	**SQ**
DN56	A6	M20 x 2.5	83.4	56.0	**SX**

A Series 250 bar, Volume 0.5 to 300 Litres

Standard version (Carbon Steel shell/seal NBR) compatible with mineral oils (2).
According to PED 2014/68/EU, EN 14359, Fluid Group 2 (3).

Part number	Model	Code	Bore ø	Fluid Volume	Gas Volume Litres	250 bar Maxi Weight Kg	350 bar Maxi Weight Kg	250 bar			350 bar			C mm	E2	F mm	L mm
								øD mm	A mm	G BSPP	øD mm	A mm	G BSPP				
A2ES0045L2K*	A2	0005	51.4	0.10	0.10	18	27	61	172	G 3/4	64	172	G 3/4	27 (1)	-	-	-
A2ES0010L2K*		0010		0.15	0.20	2	3		211			211					
A2ES0015L2K*		0015		0.25	0.25	25	33		250			250					
A2ES0029L2K*		0029		0.50	0.50	3	43		360			360					
A2ES0058L2K*		0058		1.00	1.00	44	62		590			590					
A3ES0029L2K*	A3	0029	76.2	0.50	0.55	9	9	91	260	G 3/4	96	260	G 3/4	29 (1)	M10	60	15
A3ES0058L2K*		0058		1.00	1.00	11	11		364			364					
A3ES0090L2K		0090		1.50	1.50	13	13		481			481					
A3ES0116L2K		0116		2.00	2.00	14	15		573			573					
A3ES0183L2K		0183		3.00	3.00	16	20		814			814					
A4ES0058L2K	A4	0058	102.4	1.00	1.10	15	18	121	295	G 1	127	306	G 1	29 (1)	M12	82	18
A4ES0116L2K		0116		2.00	2.00	18	22		411			422					
A4ES0231L2K		0231		3.80	4.00	23	30		640			651					
A4ES0347L2K		0347		5.70	5.90	29	38		872			883					
A4ES0578L2K		0578		9.50	9.60	41	54		1330			1341					
A5ES0058L2K	A5	0058	127.0	1.00	1.30	22	-	153	272	G 1	-	-	-	29 (1)	M12	100	18
A5ES0116L2K		0116		2.00	2.20	26			346								
A5ES0231L2K		0231		3.80	4.10	32			496								
A5ES0347L2K		0347		5.70	6.00	39			645								
A5ES0578L2K		0578		9.50	9.80	52			943								
A6ES0231L2K	A6	0231	146.9	3.80	4.30	35	53	175	442	G 1 1/2	180	487	G 1	29 (1)	M12	110	18
A6ES0347L2K		0347		5.70	6.20	42	60		554			600					
A6ES0578L2K		0578		9.50	10.00	54	74		778			824					
A6ES0924L2K		0924		15.00	15.70	73	96		1113			1159					
A6ES1155L2K		1155		19.00	19.40	85	110		1337			1383					
A6ES1733L2K		1733		28.50	28.90	112	148		1896			1941					
A6ES2310L2K		2310		38.00	38.40	147	183		2454			2500					
A8ES0578L2K	A8	0578	200.0	9.50	10.70	98	-	230	629	G 2	-	-	-	42	M16	170	24
A8ES1155L2K		1155		19.00	20.20	122			931								
A8ES1733L2K		1733		28.50	29.70	146			1232								
A8ES2310L2K		2310		38.00	39.10	170			1532								
A8ES2772L2K		2772		45.00	46.20	189			1774								
A8ES2888L2K		2888		47.00	48.20	194			1834								
A8ES3465L2K		3465		57.00	58.00	217			2136								
A8ES4620L2K		4620		76.00	77.20	266			2738								

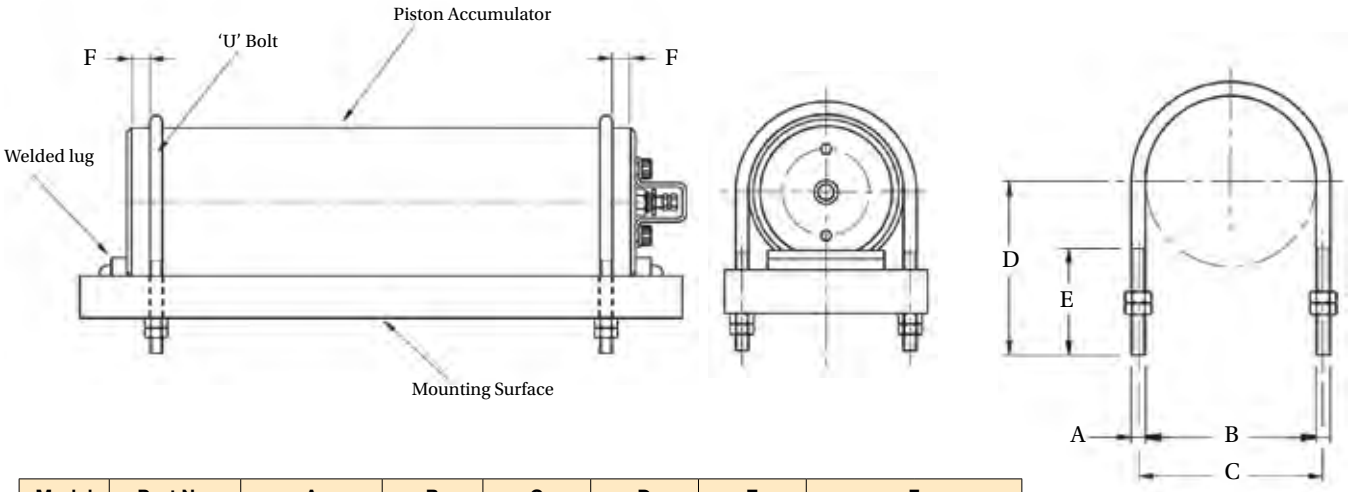
* According PED 2014/68/EU Article 4.3
(1) Where the optional poppet-type gas valve is fitted, dimension C should be increased by 13 mm
A Series Piston accumulator are supplied as standard with the metric threaded mounting holes shown in the table. They are also available with inch pattern mounting holes, indicated by the design number in the model code
Volumes are nominal
ΔP type includes Heavy duty Gas valve
(2) For other fluids consult Parker (3) For Fluid group 1 consideration : consult Parker



Seals, Fluids and Temperature Ranges

Code	Seal Type	"Min Temp"	"Max Temp"	"Fluid Classification"	"Fluid Type"	Maximum Velocity (m/s)
K	"NBR (Nitrile)"	-29°C	74°C	"HFB-HFC HM-HV"	"Mineral Oils & Water Glycols"	4 m/s
H	"HNBR (Hydrogenated Nitrile)"	-32°C	150°C	"HFB-HFC HM-HV"	"Mineral Oils & Water Glycols"	4 m/s
E	"FPM (Fluorocarbon elastomer)"	-23°C	121°C	"HFB HM-HV"	"Synthetic Oils"	4 m/s
D	"EPDM (Ethylene Propylene)"	-40°C	121°C	HFD	"Ester Fluids"	4 m/s
Q	"LT-NBR (Low Temperature Nitrile)"	-45°C	71°C	HM-HV	"Mineral Oils"	4 m/s
X	"Low Friction T Seal Consult Parker ACDE"	-43°C	121°C	HM-HV	"Mineral Oils & Water Glycols"	4 m/s
S	"Special Consult Parker ACDE"					4 m/s

'U' Bolts for Piston Accumulators

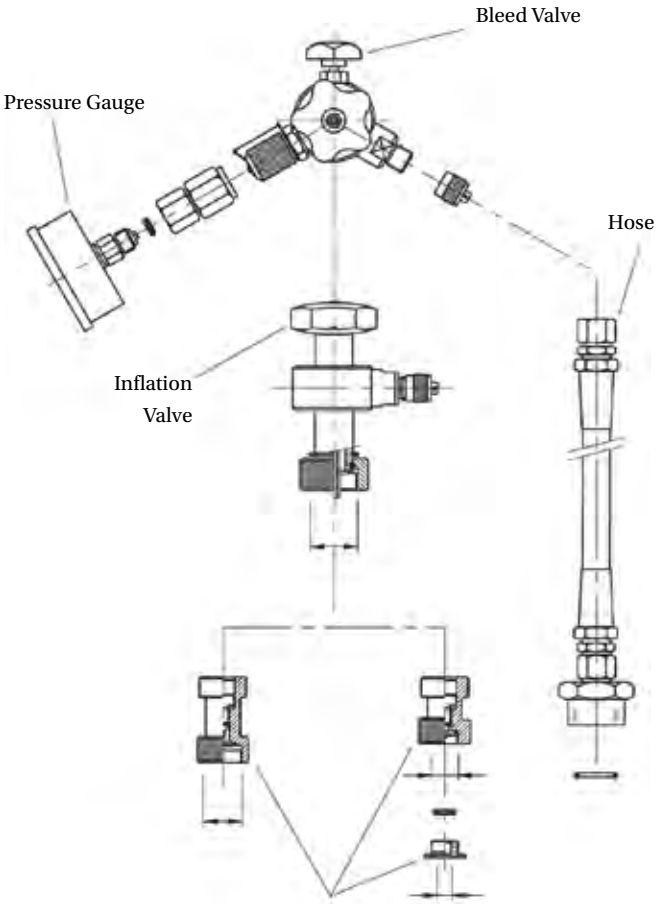


Model	Part No.	A	B	C	D	E	F	
							Min	Max
A2	PE1093-4	M6 x 1	62	68	70	45	10	25
A3	PE1093-1	M8 x 1.25	96	104	92	60	10	25
A4	PE1093-2	M12 x 1.75	128	140	114	76	10	30
A5	PE1093-12	M12 x 1.75	158	170	140	76	15	40
A6	PE1093-3	M16 x 2	180	196	155	95	20	45
A8	PE1093-13	M16 x 2	234	250	200	95	20	50

Note: 'U' bolts should be mounted within the distances shown from the end of the accumulator, to avoid deformation of the shell.

Charging and Gauging

The charging and gauging assemblies listed in the table are suitable for use with both the standard cored-type gas valve and the optional poppet type. Each kit contains a UCA assembly incorporating a gas valve, bleed valve and gas chuck, and a 3m long charging hose with standard nitrogen bottle fittings. The kit includes 25 bar and 250 bar pressure gauges, to permit easy monitoring of the gas precharge.



Territory	Gas Bottle Fitting	Part No.
UK	5/8 BSP (male)	UCA 02
France	W 21.7 x 1/14" (female)	UCA 04
Germany	W 24.32 x 1/14" (female)	UCA 01
Italy	W 21.7 x 1/14" (male)	UCA 05
US	0.960 x 1/14" (male)	UCA 03
Universal	All available fittings (includes all fittings above)	UCA UNI

All dimensions are in millimetres unless otherwise stated.

Please note:
Resistant parts cannot be supplied as spares (tubes/ end caps)

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

AP Series
Piston Accumulators

6 to 300 Litres, 250 & 350 Bar

hefel technik
sehen & bewegen

Parker

OLAER

ENGINEERING YOUR SUCCESS.

Description

Piston Accumulators up to 300 Litres volume, 360mm Bore, 250 Bar & 350 Bar.Parker AP piston accumulators offer quality design and premium technical features which guarantee optimum performance life.

Parker's AP piston accumulators are a premium specification product designed for use in high performance applications such as industrial press, die casting and plastic injection moulding, where large volumes of fluid have to be displaced at high speed (250 & 350 bar).

A wide range of bore/stroke combinations enables the piston accumulator with the required volume to be selected in a size that will optimise the use of available space, while metric mountings and a choice of port styles simplify connection. Parker offers a full range of clamps to provide secure mounting.

Parker Olaer have developed very sophisticated simulation software to optimize sizing recommendations for hydraulic accumulators. You can download the accumulator sizing software from www.Parker.com/acde.

Features/Benefits

- **Special multi-element sealing systems have been developed to combine good servo application and load holding properties with the wear characteristics required to withstand continuous use at piston speeds of up to 8m/s.**
- **For unique applications and hostile environments, different designs, materials and coatings can be supplied. Please contact your local Parker sales company to discuss custom solutions to individual application requirements.**
- **180mm and 250mm bore accumulators feature threaded caps to minimize downtime and simplify maintenance of the accumulator, permitting quick and easy installation of seals. 360mm bore units use a screwed ring to retain the gas and oil caps, reducing the mass of parts handled during maintenance and providing additional protection for the gas valve.**
- **Carbon steel body and Aluminium piston design.**
- **High burst test safety factor.**

Markets

- **Industrial**
- **Oil & Gas**
- **Energy**

Applications

- **Die casting**
- **Plastic injection moulding**
- **Presses**
- **Machine tools**
- **Renewable energy**

Applications

Ideal for die casting and plastic injection moulding

AP Series Piston Accumulators

Parker's AP Series accumulators are a premium specification product designed for use in high performance applications such as die casting and plastic injection moulding, where large volumes of fluid have to be displaced at high speed. Special multi-element sealing systems have been developed to combine good servo application and load holding properties with the wear characteristics required to withstand continuous use at piston speeds of up to 8m/s.

A wide range of bore/stroke combinations enables an accumulator with the required volume to be selected in a size that will optimise the use of available space, while metric mountings and a choice of port styles simplify connection. Parker offers a full range of clamps to provide secure mounting.

Main Features

Actual Bore Sizes & Maximum Flow Rates

Model	Actual Bore ø	Max. Recommended Flow Rate*
	mm	l/m
AP180	180	12,000
AP250	250	23,000
AP360	360	45,000

Materials

- Shell – high strength steel
- End caps – steel
- Pistons – lightweight aluminium alloy
- Cap end seals – NBR (standard): other compounds to suit application
- Piston bearing rings – filled PTFE
- Piston seals – filled PTFE (standard): other compounds to suit application
- Gas valve assembly – stainless steel
- Gas valve protector – steel
- Paint finish – black primer, suitable for epoxy paint finishes (standard) – other finishes on request

Custom Designs

For unique applications and hostile environments, different designs, materials and coatings can be supplied. Please contact our engineering department to discuss custom solutions to individual application requirements.

AP Series: How to order

Series	Model	Type of Construction	Options	Capacity	Working Pressure	Design Number	Seal Type	Port Size	Gas Port	Pre-Charge
AP	250	E	M	080	L	2	K	RF	S	/ 010

AP Series Accumulator
B Bottle

Code	Bore Size (nominal)
180	180 mm bore
250	250 mm bore
360	360 mm bore

Code	Approval Type
E	According to PED 2014/68/EU (From 07/2016 PED 97/23/EC becomes PED 2014/68/EU)

Code	Valve Options
M	Poppet-type gas valve
L	Poppet-type gas valve + water service
P	Poppet-type gas valve + safety fuse
R	Poppet-type gas valve + water service + safety fuse

Code	Capacity	Model
006	6.0	AP180 only
008	8.0	AP180 only
010	10	AP180 only
015	15	AP180 only
020	20	AP180 only
025	25	AP180 only
030	30	AP180 & AP250
040	40	AP180 & AP250

Code	Capacity	Model
050	50	AP180 & AP250
060	60	AP180 & AP250
080	80	AP180 & AP250
100	100	AP250 & AP360
150	150	AP250 & AP360
200	200	AP360 only
250	250	AP360 only
300	300	AP360 only

Code	Maximum Working Pressure [3]
L	250 bar
H	350 bar

Code	Port
2	Metric mounting + BSPP port (standard)
###	Specials (Parker assigned number)

Please see Seals table on page 137

Please see Fluid Port tables on page 135

Gas Port
Specification (where no valve supplied)

[1] Other approvals are available to order – please consult the factory.
[2] Where a gas port is specified, no gas valve will be supplied.
[3] For other pressure ratings, please consult the factory.

Hydraulic and Gas Port Modifications

For accumulators with non-standard ports, specify special gas and/or hydraulic ports and use the appropriate port code from page 135. A typical model number for an accumulator with ISO 6149 hydraulic and gas ports would be: A - 3 - T - M - 0090 - D - 2 - K - YE/YE

Code	Pre-Charge (for example)
010	10 bar
020	20 bar

Hydraulic and Gas Ports

The BSPP ports shown are supplied as standard at the fluid ends of AP Series 250 bar accumulators, and at the gas ends of these accumulators when ordered for use with gas bottles. A range of optional threaded and flanged ports is also available, as shown below. All ports are specified by adding the relevant code to the accumulator model number.

BSPP Threaded Ports

Thread Size	From Model	Code
G1	All models	**RD**
G1 1/4		**RE**
G1 1/2 (standard)		**RF**
G2		**RG**

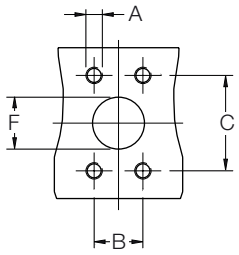
Optional Flanged Ports

Bore Ø	ISO Port Style	DN10	DN13	DN19	DN25	DN32	DN38	DN51	DN56	DN63	DN70	DN80
180	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•		
250	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•	•	•
360	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•	•	•

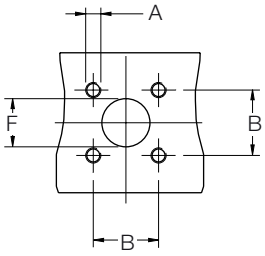
Optional Flanged Ports

AP Series Piston Accumulators are available with metric flange ports to ISO 6162/3000 psi and ISO 6164/6000 psi as shown in the tables. Inch pattern flange ports and flange ports for higher pressure operation are also available, please consult the factory for details.

ISO 6162 Flanged Port Dimensions



ISO 6164 Flanged Port Dimensions



Flange Ports to ISO 6162/3000 psi						
Flange Size	**From Model**	**A ***	**B ± 0.25**	**C ± 0.25**	**F**	**Code**
DN13	180	M8	17.5	38.1	13	**MT**
DN19	180	M10	22.3	47.6	19	**MU**
DN25	180	M10	26.2	52.4	25	**MV**
DN32	180	M10	30.2	58.7	32	**MW**
DN38	180	M12	35.7	69.9	38	**MJ**
DN51	180	M12	42.9	77.8	51	**ML**
DN64	180	M12	50.8	88.9	64	**MM**
DN76	180	M16	61.9	106.4	76	**MN**

Flange Ports to ISO 6164/6000 psi					
Flange Size	**From Model**	**A**	**B ± 0.25**	**F +0.0 -1.5**	**Code**
DN10	180	M6 x 1	24.7	10.0	**SD**
DN13	180	M8 x 1.25	29.7	13.0	**SE**
DN19	180	M8 x 1.25	35.4	19.0	**SF**
DN25	180	M10 x 1.5	43.8	25.0	**SG**
DN32	180	M12 x 1.75	51.6	32.0	**SH**
DN38	180	M16 x 2	60.1	38.0	**SP**
DN51	180	M16 x 2	69.3	51.0	**SQ**
DN56	180	M20 x 2.5	83.4	56.0	**SX**
DN63	180	M24 x 3	102.5	63.0	**SR**
DN70	250	M24 x 3	113.1	70.0	**SY**
DN80	250	M30 x 3.5	123.7	80.0	**SZ**

AP Series 250 & 350 bar, Volume 6 to 300 Litres

Standard version (Carbon Steel shell/seal NBR) compatible with mineral oils (2).
According to PED 2014/68/EU, EN 14359, Fluid Group 2 (3).
Product , Part numbers, Accessories

Technical characteristics									Serie 250 Bar			Serie 350 Bar		
Model	**Bore** (mm)	**Nominal Volume** (Litres)	**A**	**C**	**E**	**G" Port BSPP**	**F**	**L**	**Part number**	**Weight** (KG)	**ø D** (mm)	**Part number**	**Weight** (KG)	**ø D** (mm)
AP180	180	6	591	42	M16x2	G1.1/2	140	20	AP180EM006L2K	83	207	AP180EM006H2K	102	220
	180	8	669			G1.1/2			AP180EM008L2K	88		AP180EM008H2K	109	
	180	10	748			G1.1/2			AP180EM010L2K	93		AP180EM010H2K	117	
	180	15	944			G1.1/2			AP180EM015L2K	106		AP180EM015H2K	136	
	180	20	1141			G1.1/2			AP180EM020L2K	118		AP180EM020H2K	155	
	180	25	1337			G1.1/2			AP180EM025L2K	131		AP180EM025H2K	175	
	180	30	1534			G1.1/2			AP180EM030L2K	143		AP180EM030H2K	194	
	180	40	1927			G1.1/2			AP180EM040L2K	168		AP180EM040H2K	232	
	180	50	2320			G1.1/2			AP180EM050L2K	193		AP180EM050H2K	270	
	180	60	2713			G1.1/2			AP180EM060L2K	218		AP180EM060H2K	309	
	180	80	3499			G1.1/2			AP180EM080L2K	268		AP180EM080H2K	385	
AP250	250	30	1041	42	M22x2.5	G1.1/2	170	30	AP250EM030L2K	245	290	AP250EM030H2K	317	310
	250	40	1245			G1.1/2			AP250EM040L2K	271		AP250EM040H2K	359	
	250	50	1449			G1.1/2			AP250EM050L2K	298		AP250EM050H2K	401	
	250	60	1652			G1.1/2			AP250EM060L2K	325		AP250EM060H2K	442	
	250	80	2060			G1.1/2			AP250EM080L2K	379		AP250EM080H2K	526	
	250	100	2467			G1.1/2			AP250EM100L2K	432		AP250EM100H2K	609	
	250	150	3486			G1.1/2			AP250EM150L2K	566		AP250EM150H2K	817	
AP360	360	100	1657 (1)	N/A	M22x2.5	G1.1/2	304	45	AP360EM100L2K	639	407	AP360EM100H2K	903	436
	360	150	2149 (1)			G1.1/2			AP360EM150L2K	742		AP360EM150H2K	1083	
	360	200	2640 (1)			G1.1/2			AP360EM200L2K	845		AP360EM200H2K	1264	
	360	250	3131 (1)			G1.1/2			AP360EM250L2K	948		AP360EM250H2K	1445	
	360	300	3622 (1)			G1.1/2			AP360EM300L2K	1051		AP360EM300H2K	1626	

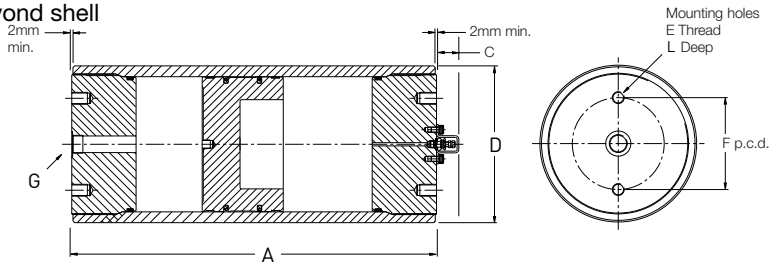
AP type includes Heavy duty Gas Valve

Flange mounting surface on AP360 series extends 2 mm beyond shell

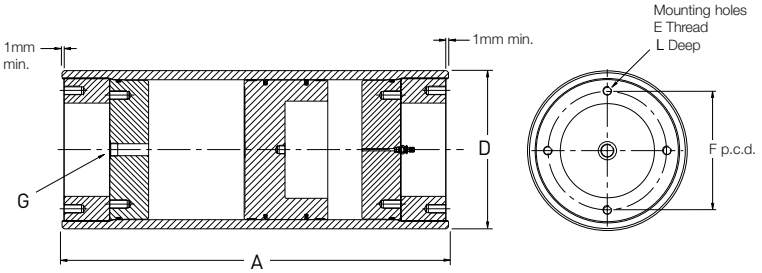
(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker

250 Bar and 350 Bar
AP Series
180mm and 250mm Bore
with CE Approval



250 Bar and 350 Bar
AP Series
250mm and 360mm Bore
with CE Approval



250 and 350 Bar Pressure Ranges

AP Series industrial accumulators are available in two different pressure ratings, to suit maximum working pressures of 250 and 350 bar. The same premium quality design and technical features guarantee optimum performance and service life from every AP Series accumulator model, while differing wall thicknesses allow the designer to specify precisely the right performance envelope for the application.

Available Options

A wide variety of options are available for AP Series accumulators, including:

- Port styles and sizes
- Seal compounds
- High flow gas ports for use with remote gas storage bottles
- Water service versions
- Safety fuses
- Mounting systems
- Precharge/piston position sensors
- Certifications to suit different market requirements

Water Service

AP Series piston accumulators are available for use with water as the fluid medium. Modifications include plating of all working surfaces. Please consult the factory for details.

Operating Temperatures, Seals and Fluids

Standard and optional seal combinations for AP Series accumulators are shown below. Other seals are also available for use in exceptional conditions – please consult the factory with details of the application.

Filtration

For maximum component life, the system should be protected from contamination by effective filtration. Fluid cleanliness should be in accordance with ISO 4406. The quality of filters should be in accordance with the appropriate ISO standards.

The rating of the filter media depends on the system components and the application. The minimum required for hydraulic systems should be class 19/15 to ISO 4406, which equates to 25µ (ß10≥75) to ISO 4572.

Safety

Charging must be carried out by qualified personnel. Before taking any readings or pressurizing with nitrogen, the accumulator must be isolated from the hydraulic system and the fluid side discharged in order to depressurize it. Use only nitrogen (N_2) to pressurize the accumulator.

Danger of Explosion – Never Charge with Oxygen

The types of nitrogen permitted are: type S (99.8% pure); type R (99.99% pure); type U (99.993% pure).

Approvals

Approvals	AP180	AP250	AP360
PED2014/68/EU	•	•	•

Mounting

The optimum mounting orientation is vertical however angled and horizontal mountings are permissible if the hydraulic fluid is kept clean; high levels of contaminants in the fluid can result in uneven or accelerated seal wear.

Bore Size, Pressures & Temperature Range

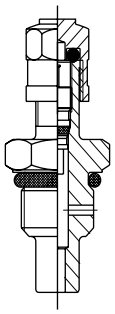
Bore Size (mm)	Max. Working Pressure (bar)	Volume (Litres)	
		Min	Max
AP180	250/350	6	80
AP250	250/350	30	150
AP360	250/350	100	300

Seals, Fluids and Temperature Ranges

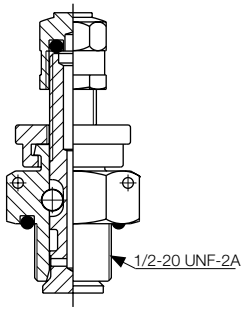
Code	Seal Type	"Min Temp"	"Max Temp"	"Fluid Type"
K	"NBR (Nitrile)"	-30°C	75°C	General purpose, petroleum-based fluids
E	"FPM (Fluorocarbon elastomer)"	-25°C	150°C	High temperature and/or synthetic fluids
D	"EPDM (Ethylene Propylene)"	-25°C	120°C	Phosphate-esters
H	"HNBR (Hydrogenated Nitrile)"	-30°C	130°C	Most oil-based and biodegradable fluids
J	"NBR "Nitrile and filled PTFE"	-30°C	75°C	Water glycol, high water content fluids
Q	"LT-NBR (Low Temperature Nitrile)"	-45°C	71°C	General purpose fluids at low temperatures

Gas Valves

The standard gas charging valve fitted to AP Series 250 and 350 bar piston accumulators is a cored-type gas valve, rated at 350 bar. A mechanically opened and closed poppet-type gas valve cartridge, also rated at 350 bar, is available as an option.



Standard Cored-Type Gas Valve



Optional Poppet-Type Gas Valve

Both types of charging valve may be used with the Charging and Gauging Kit.

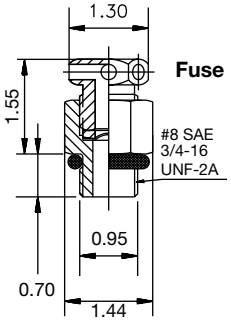
Piston Accumulator Seal Kits

Seal kits are available for all AP Series accumulator models. When ordering seal kits, please supply the complete model number from the identification plate and specify the fluid type and the temperature at which the accumulator is to be used. Installation and maintenance are described in Bulletin 1240-M1.

The seal kits listed below contain a piston with the appropriate seals ready fitted, to minimize the risk of damage during assembly. Seal kits contain items 5, 6, 7, 8, 9, 10 and 12.

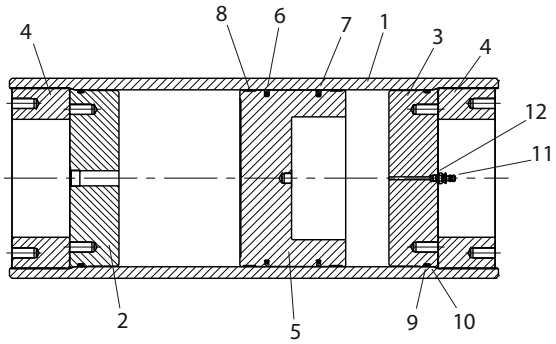
Safety Fuses (Burst Discs)

Safety fuses are available on AP Series accumulators to prevent over-pressurization of gas due to external heat or excess hydraulic pressure. They comprise a housing incorporating a disc which is calibrated to rupture at a pre-determined pressure, to be specific by the customer at the time of ordering. Please contact the factory for further information.

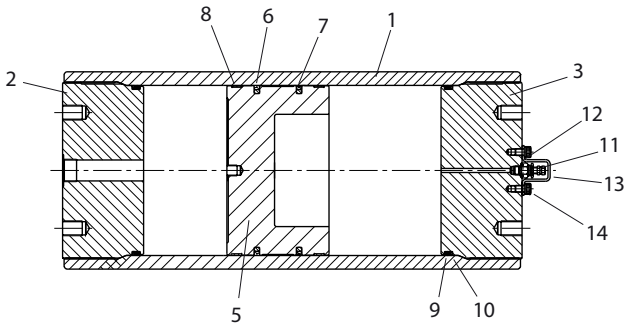


Parts List

1. Shell
2. Hydraulic cap
3. Gas cap
4. Retaining ring (AP360 only)
5. Piston
6. Piston oil seal assembly
7. Piston gas seal assembly
8. Piston bearing ring
9. Cap O-ring
10. Cap O-ring back-up washer
11. Gas valve
12. Gas valve O-ring
13. Gas valve protector (not AP360)
14. Gas valve protector screw (not AP360)



360mm Bore Piston Accumulator

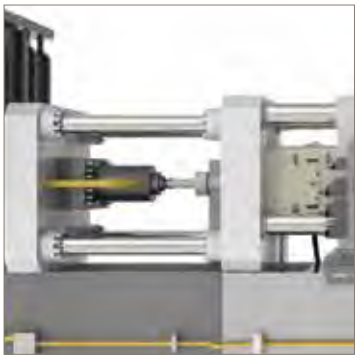


180mm and 250mm Bore Piston Accumulators

Seal Kits

Seal Kit Part Numbers with piston seals assembled (remove the WP for a Seal Kit without piston seal assembled)

Model	Seal Material + Filled PTFE					
	Nitrile NBR	Fluorocarbon Elastomer FPM	Ethylene Propylene EPR	Hydrogenated Nitrile HNBR	Nitrile (HWBF) NBR	Low Temp. Nitrile NBR
AP180	PK180APKWP	PK180APEWP	PK180APDWP	PK180APHWP	PK180APJWP	PK180APQWP
AP250	PK250APKWP	PK250APEWP	PK250APDWP	PK250APHWP	PK250APJWP	PK250APQWP
AP360	PK360APKWP	PK360APEWP	PK360APDWP	PK360APHWP	PK360APJWP	PK360APQWP



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

DC Series - Die Casting Piston Accumulators

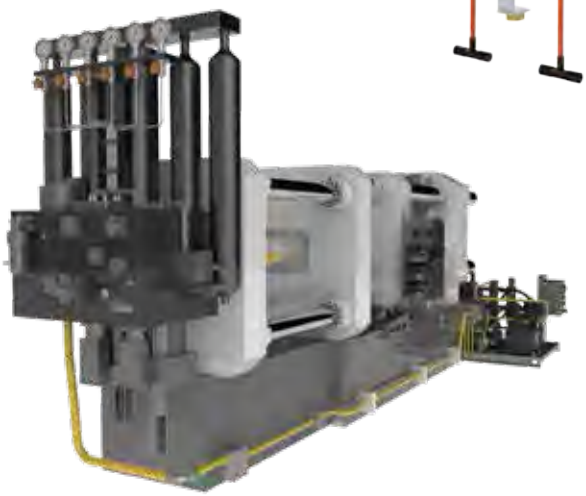
6 to 80 Litres, 250 & 350 bar

hefel technik
sehen & bewegen

Parker OLAER

ENGINEERING YOUR SUCCESS.

Parker presents the new DC Series of high speed piston accumulators specially designed for DieCasting and Press applications. A wide range of bladder accumulators, gas bottles and accessories complete the Parker offering.



Safety

- **High Test Pressures**
  - High Grade Carbon Steel Tube and End Caps
  - 4:1 Maximum Pressure Safety Factor
  - CE / Pressure Equipment Directive Approved
- **Qualified for High Stress and Fatigue**
- **Proven Reliability - over 10 years in Die Casting**
- **Additional Safety Fuse / Burst Disc Available**

Efficiency

- **High Speed, High Flow, High Cycle Rate**
  - 6 - 8 Metres Per Second Piston Velocity
  - Low Friction Piston Seal System
  - Precise Engineering Design to close tolerances
  - Low Friction Tube Surface Finish
  - Fluid Compatibility Water Glycol or Mineral Oil
  - Flange & Port options for High Flow rates

Flexibility

- **Interchange Capability**
  - Complete Range of Flange or Port Sizes
  - Mounting Interface to customer requirement
  - One Piece or Two Piece Hydraulic & Nitrogen End Cap
  - Port Orientation 45° or full 360° increments
  - Suitable for Retrofit

Reliability

- **Proven Application Performance and Reliability**
  - The range has been utilised in high speed Die Casting Applications for over 10 Years and the new wider range of DC piston accumulators offer additional product features and technical benefits to meet customer requirements.

DC Series: How to order

Series	Model	Type of Construction	Options	Capacity	Working Pressure	Design Number	Seal Type	Port Size	Gas Port	Pre-Charge
DC	250	E	M	080	L	2	K	RF	S	/ 010

DC	Series Accumulator
B	Bottle

Code	**Bore Size (nominal)**
180	180 mm bore
250	250 mm bore

Code	**Approval Type**
E	According to PED 2014/68/EU

Code	**Valve Options**
O	No gas valve
M	Poppet-type gas valve
L	Poppet-type gas valve + water service
P	Poppet-type gas valve + safety fuse
R	Poppet-type gas valve + water service + safety fuse

Code	Capacity	Model
006	6.0	DC180 only
008	8.0	DC180 only
010	10	DC180 only
015	15	DC180 only
020	20	DC180 only
025	25	DC180 only

Code	Capacity	Model
030	30	DC180 & DC250
040	40	DC180 & DC250
050	50	DC180 & DC250
060	60	DC180 & DC250
080	80	DC180 & DC250

Code	**Maximum Working Pressure** [3]
L	250 bar
H	350 bar

Code	**Port**
[2]	Metric mounting + BSPP port (standard)
###	Specials (Parker assigned number)

Please see Seals table on page 137

Please see Fluid Port tables on page 143

Gas Port
Specification (where no valve supplied)

[1] Other approvals are available to order – please consult the factory.
[2] Where a gas port is specified, no gas valve will be supplied.
[3] For other pressure ratings, please consult the factory.

Hydraulic and Gas Port Modifications

For accumulators with non-standard ports, specify special gas and/or hydraulic ports and use the appropriate port code from page 135. A typical model number for an accumulator with ISO 6149 hydraulic and gas ports would be: A - 3 - T - M - 0090 - D - 2 - K - YE/YE

Code	**Pre-Charge (for example)**
100	100 bar
200	200 bar

DC Series 250&350 bar, 10 to 80 Litres

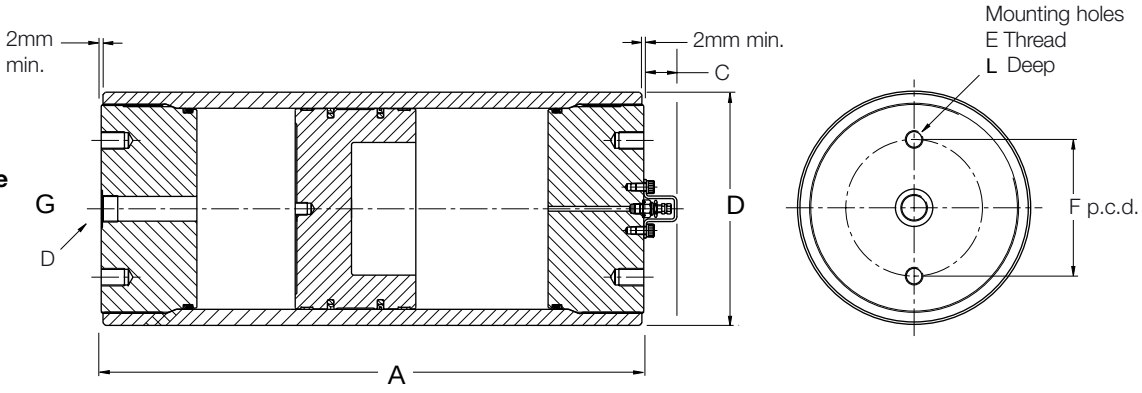
Standard version (Carbon Steel shell/NBR mix) compatible with mineral oils (2).
According to PED 2014/68/EU, EN 14359, Fluid Group 2 (3).
Product, Part numbers, Accessories

Technical characteristics										Serie 250 Bar			Serie 350 Bar		
Model	**Bore**	Nominal **Volume** (Litres)	**Max Flow Rate** l/min	**A**	**C**	**E**	**F**	**L**	**G" Port BSPP**	**Part number**	**Weight** (KG)	**øD**	**Part number**	**Weight** (KG)	**øD**
DC 180	180	10	12,000	748	42	M16x2	140	20	G1.1/2	DC180E0010L2K**	93	207	DC180E0010H2K**	117	220
	180	15	12,000	944	42	M16x2	140	20	G1.1/2	DC180E0015L2K**	106	207	DC180E0015H2K**	136	220
	180	20	12,000	1141	42	M16x2	140	20	G1.1/2	DC180E0020L2K**	118	207	DC180E0020H2K**	155	220
	180	25	12,000	1337	42	M16x2	140	20	G1.1/2	DC180E0025L2K**	131	207	DC180E0025H2K**	175	220
	180	30	12,000	1534	42	M16x2	140	20	G1.1/2	DC180E0030L2K**	143	207	DC180E0030H2K**	194	220
	180	40	12,000	1927	42	M16x2	140	20	G1.1/2	DC180E0040L2K**	168	207	DC180E0040H2K**	232	220
DC 250	250	30	23,000	1041	42	M22x2.5	170	30	G1.1/2	DC250E0030L2K**	245	290	DC250E0030H2K**	317	310
	250	40	23,000	1245	42	M22x2.5	170	30	G1.1/2	DC250E0040L2K**	271	290	DC250E0040H2K**	359	310
	250	50	23,000	1449	42	M22x2.5	170	30	G1.1/2	DC250E0050L2K**	298	290	DC250E0050H2K**	401	310
	250	60	23,000	1652	42	M22x2.5	170	30	G1.1/2	DC250E0060L2K**	325	290	DC250E0060H2K**	442	310
	250	80	23,000	2060	42	M22x2.5	170	30	G1.1/2	DC250E0080L2K**	379	290	DC250E0080H2K**	526	310

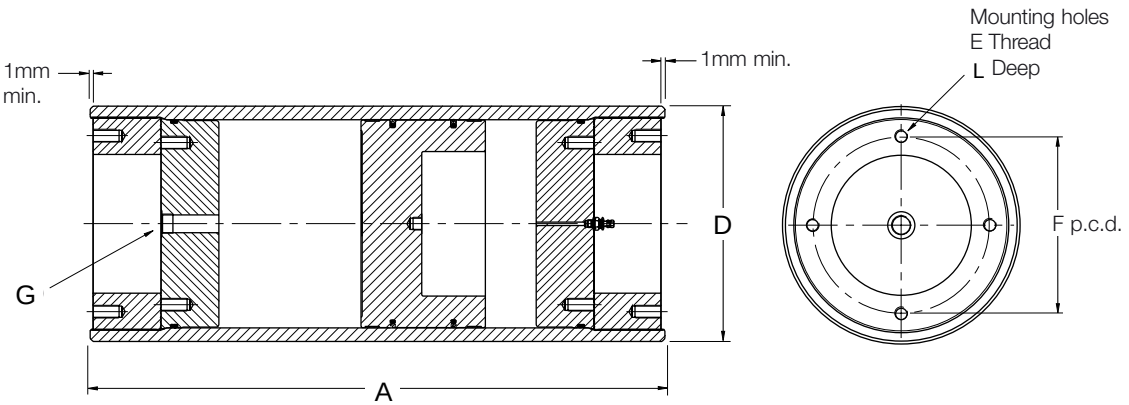
(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker

250 Bar and 350 Bar
DC Series
180mm and 250mm Bore
with CE Approval



250 Bar and 350 Bar
DC Series
250mm and 360mm Bore
with CE Approval



Hydraulic and Gas Ports

The BSPP ports shown are supplied as standard at the fluid ends of DC Series 250 bar accumulators, and at the gas ends of these accumulators when ordered for use with gas bottles. A range of optional threaded and flanged ports is also available, as shown below. All ports are specified by adding the relevant code to the accumulator model number.

BSPP Threaded Ports

Thread Size	From Model	Code
G1	All models	RD
G1 1/4		RE
G1 1/2 (standard)		RF
G2		RG

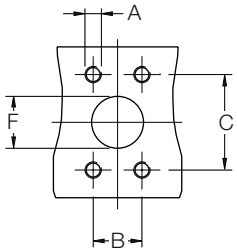
Optional Flanged Ports

Bore Ø	ISO Port	DN10	DN13	DN19	DN25	DN32	DN38	DN51	DN56	DN63	DN70	DN80
180	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•		
250	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•	•	•

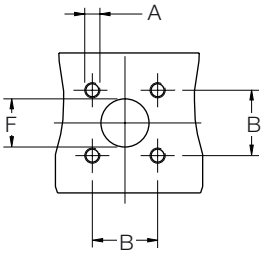
Optional Flanged Ports

DC Series Piston Accumulators are available with metric flange ports to ISO 6162/3000 psi and ISO 6164/6000 psi as shown in the tables. Inch pattern flange ports and flange ports for higher pressure operation are also available, please consult the factory for details.

ISO 6162 Flanged Port Dimensions



ISO 6164 Flanged Port Dimensions



Flange Ports to ISO 6162/3000 psi						
Flange Size	From Model	A *	B ± 0.25	C ± 0.25	F	Code
DN13	180	M8	17.5	38.1	13	MT
DN19	180	M10	22.3	47.6	19	MU
DN25	180	M10	26.2	52.4	25	MV
DN32	180	M10	30.2	58.7	32	MW
DN38	180	M12	35.7	69.9	38	MJ
DN51	180	M12	42.9	77.8	51	ML
DN64	180	M12	50.8	88.9	64	MM
DN76	180	M16	61.9	106.4	76	MN

Flange Ports to ISO 6164/6000 psi					
Flange Size	From Model	A	B ± 0.25	F +0.0 -1.5	Code
DN10	180	M6 x 1	24.7	10.0	SD
DN13	180	M8 x 1.25	29.7	13.0	SE
DN19	180	M8 x 1.25	35.4	19.0	SF
DN25	180	M10 x 1.5	43.8	25.0	SG
DN32	180	M12 x 1.75	51.6	32.0	SH
DN38	180	M16 x 2	60.1	38.0	SP
DN51	180	M16 x 2	69.3	51.0	SQ
DN56	180	M20 x 2.5	83.4	56.0	SX
DN63	180	M24 x 3	102.5	63.0	SR
DN70	250	M24 x 3	113.1	70.0	SY
DN80	250	M30 x 3.5	123.7	80.0	SZ

Additional threaded and flanged port options are available

Accessories

Burst Disc (Safety Fuse)

The burst discs (safety fuses) are a safety device which release the gas pressure independent of the pressure being caused by a fire or a failure of other safety equipment in the system. They are available in carbon steel or stainless steel.

Clamps & Brackets

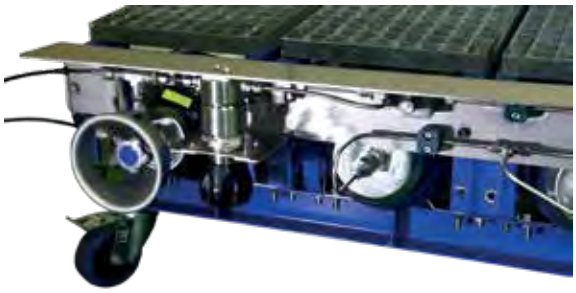
Parker clamps are designed to allow quick and easy installation of accumulators. Manufactured from carbon and stainless steel.

Proportional Relief Valves

An automatic protection mechanism for progress instrumentation systems. When upstream pressure exceeds the closing force exerted by the valve's spring, the lower stem opens and permits flow through the valve's outlet port - which can be ducted to a safe place or released to atmosphere. Flow rate increases proportionately to the increase in upstream pressure.

Automated Charging System

This automated nitrogen top up system for gas charging (CLS) ensures accumulators are precharged to an accurate level and reduces human intervention on site, providing a virtually maintenance free solution. New Patent Applied.



Accumulator & Gas Bottle Racks

Parker can provide an additional service for customers who would like their accumulators and gas backup bottles positioned in racks with connecting pipework, manifolds and valves. The accumulator racks can be load tested and painted according to customer requirements. The Parker technical teams are highly experienced with dedicated team members for this service, which can save you valuable time and resources.

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

EHP Series
Piston Accumulators

0.1 to 1000 Litres, up to 350 bar (as standard)

hefel technik
sehen & bewegen

Parker OLAER

ENGINEERING YOUR SUCCESS.

Description

The EHP piston accumulators are manufactured in Carbon & Stainless Steel and are available with a wide range of bore sizes to PED 2014/68/EU. Suitable for Industrial, Marine, Oil, Gas & Energy applications (250 & 350 bar/ up to 540mm bore as standard).

A more bespoke range of EHP piston accumulators is available offering higher pressures 250 bar to 3,000 bar and any volume capacity up to 1350 litres.

Parker Olaer have developed very sophisticated simulation software to optimize sizing recommendations for hydraulic accumulators. You can download the ccumulator sizing software from www.Parker.com/acde.

Features/Benefits

- **Standard temperatures range from -15°C to 100°C, piston accumulators can also be manufactured to operate in temperatures of -40°C to 150°C. Temperatures outside this range can be met to suit specific applications.**
- **A wide range of international approvals and materials are available to ensure your piston accumulator is suitable for even the harshest environments and powerful applications. Our purpose built production area incorporates; Ultrasonic cleaning of components; tube washing bath with capability of up to 4 metres long x 750mm diameter.**
- **Parker piston accumulators can be designed and built to your specified criteria and can therefore meet any space limitations you may have. For unique applications and hostile environments, different designs, materials and coatings can be supplied. An extensive selection of connection ports can be incorporated to suit your requirements.**
- **A dedicated technical team uses the latest 3D SolidWorks and Autodesk Inventor software driven by calculation programs (linked to EN14359, ASME VIII, Selo, NR13, CUTR, DNV GL, ABS and PD5500) to reduce design times and provide technical customer support.**

Markets

- **Industrial**
- **Mobile**
- **Renewable Energy**
- **Power Generation**
- **Oil & Gas**
- **Marine**

Applications

- **Industrial Machine Tools**
- **Mining**
- **Die casting & Press**
- **Renewable Energy**
- **Wind power**

In-house Facilities

Design, Development and Production Services

Design Facilities

A dedicated technical team uses the latest 3D SolidWorks and Autodesk Inventor software driven by calculation programs (linked to EN14359, PD5500 and ASME VIII) to reduce design times and provide technical customer support.

Assembly

Our purpose built production area incorporates;

- Ultrasonic cleaning of components; tube washing bath with capability of up to 4 metres long x 750mm diameter.
- 40 metre x 5 tonne crane facility throughout the stocking, assembly and testing areas and 15 tonne crane in the Fabrication area.

Hydraulic Testing

The piston testing facility provides:

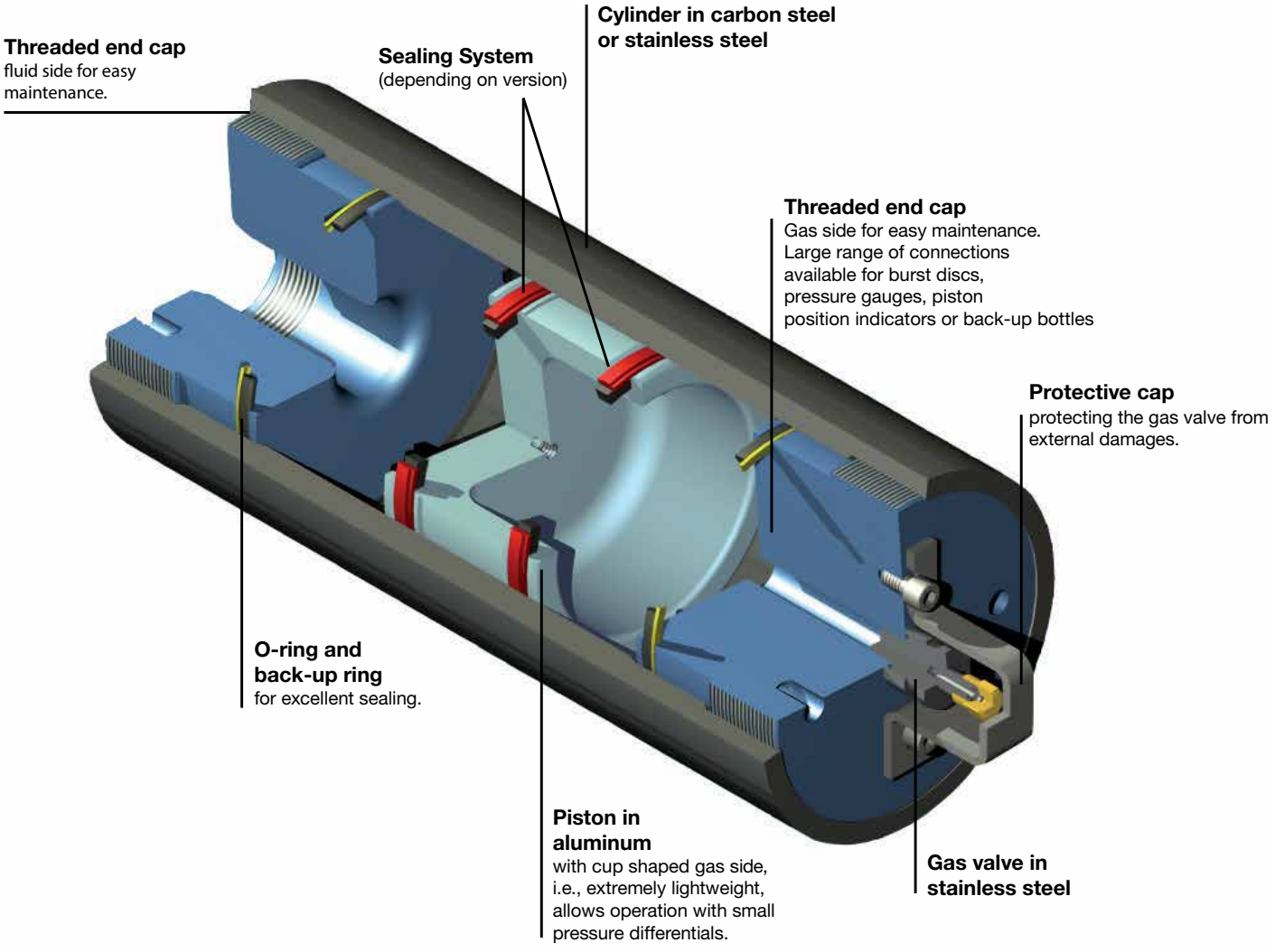
- Data logging of test results for permanent record
- Remote inspection for leaks by CCTV
- Steel self contained high safety cell
- Lift-off roof for large cylinders
- 2 off air-driven test rigs (water/ glycol & mineral oil) high volume, low pressure pre-test filling capable of testing up to 3000 bar

General Information EHP Piston Accumulators

Technical Characteristics

The accumulator comprises of a pressure vessel, a piston and its seals.

- Shell material options include standard carbon steel and stainless steel.
- End caps - steel, pistons lightweight aluminium alloy. Piston and end cap seals in NBR (standard version), other compounds to suit application.
  -
- For unique applications and hostile environments, different designs, materials and coatings can be supplied. Please contact our division
- A wide variety of options is available following of the series, for example
  - Threaded and manifold port styles and sizes
  - Seal compounds
  - High flow gas ports
  - Gas valves, safety fuses....



EHP Series: How to order a Piston Accumulator

Series	Shell Material	Nominal Volume	Max. working pressure (PS)	Bore Size	Connections Fluid Side	Additional Connections Gas Side	Gas Valve	Piston Seal Material	Burst disc connection	N^2 Precharge
EHP	G	C	0080	250	100	AH	AF	A	A	0	000

EHP Piston Accumulator

G = Adjustable caps (rotating)

C = Carbon Steel
S = Stainless Steel

in Litres

in bar

in mm

Row, Column (00 if none, or see table below)

Row, Column (see table below)

A : Gas valve MS 28889 (350 bar) 1/2"-20 UNF/8V1 P/N : 10512600000
B: Standard gas valve (350 bar) 1/2"-20 UNF/ 5/8"-18 UNF P/N : 10239601626

A : Wynseal recommended for mineral oils V= 0.5 m/s
B : AQ/seal recommended for other fluids V = 2 m/s

Code	Burst Disc	Size
0	Without burst disc, no connection	
A	275 Bar/80°C	G 1/4"
B	385 Bar/80°C	G 1/4"
C	230 Bar/80°C	G 1/4"
D	250 Bar/80°C	G 1/4"
E	300 Bar/80°C	G 1/4"
F	420 Bar/80°C	G 1/4"
K	230 Bar/80°C	
L	275 Bar/80°C	
M	385 Bar/80°C	
N	without burst disc. Plugged connection	NPT 1/4"
P	without burst disc. Plugged connection	G 1/4"
R	300 Bar/80°C	
X	Special	

N^2 preload in bar (example 010 = 10 bar, 000 N^2 if no preload)

Fluid side connection/Gas side additional connection

Specification		A	B	C	D	E	F	G	H	I	K	L	M	N
Thread to ISO228-1 (G)	A	G1/8"-28	G1/4"-19	G3/8"-19	G1/2"-14	G5/8"-14	G3/4"-14	G7/8"-14	G1"-11	G 1 1/4"-11	G1 1/2"-11	G2"-11	G2 1/2"-11	G3"-11
SAE Flange (ISO 6162)	B	1/2" 210 Bar	3/4" 210 Bar	1" 210 Bar	1 1/4" 210 Bar	1 1/2" 210 Bar	2" 210 Bar	2"1/2 ca 175 Bar	3" ca 140 Bar					
SAE Flange	C	1/2" 3000 psi	3/4" 3000 psi	1" 3000 psi	1 1/4" 3000 psi	1 1/2" 3000 psi	2" 3000 psi	2"1/2 3000 psi	3" 3000 psi					
SAE Port (UN)	D	#5 1/2"-20	#6 9/16"-18	#8 3/4"-16	#10 7/8"-14	#12 1 1/16"-12	#16 1 5/16"-12	#20 1 5/8"-12	#24 1 7/8"-12	#32 2 1/2"-12				
Metric (ISO 6149-1)	E	M10 x 1	M12 x 1,5	M14 x 1,5	M18 x 1,5	M22 x 1,5	M27 x 2	M33 x 2	M42 x 2	M48 x 2				

EHP Series 207 bar, 60 to 400 Litres, Ø 360

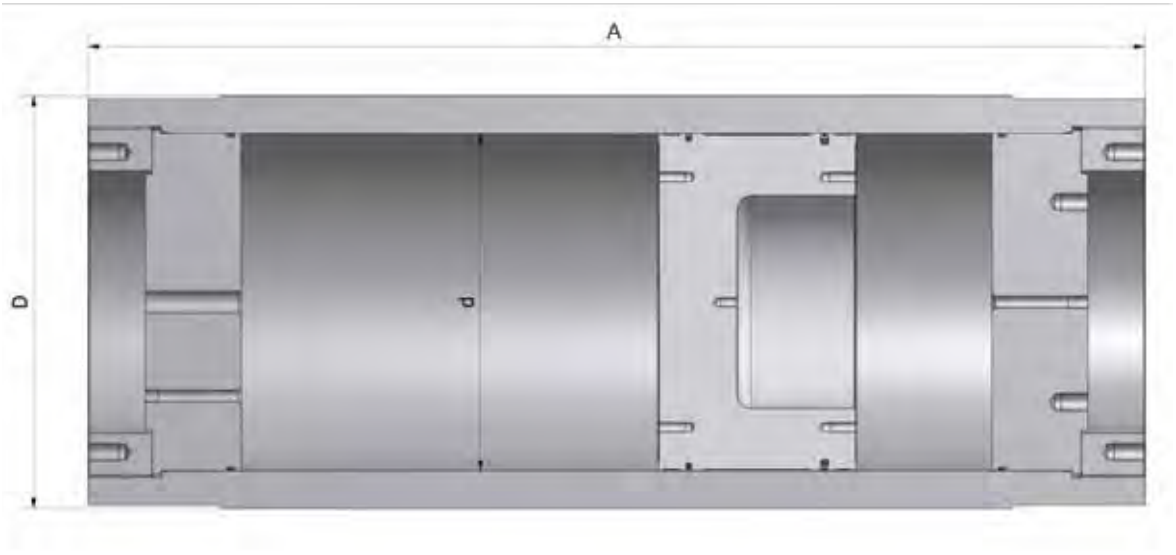
Standard version (Stainless Steel shell/NBR mix) compatible with mineral oils (2).
According to PED 2014/68/EU, EN 14359, Fluid Group 2 (3).

Product, Part numbers, Accessories

Type	Part Number	Seal Kit	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Admissible Accumulator Temperature min/max (°C)	Weight kg	A mm	ø D mm	ø d mm	Std Fluid opening
EHP(G) S 0600-207-360	815EHPGS0602036	8220000000016	60	207	-15/100	446	1106	408	360	G2”
EHP(G) S 0700-207-360	815EHPGS0702036	8220000000016	70	207	-15/100	467	1204	408	360	G2”
EHP(G) S 0800-207-360	815EHPGS0802036	8220000000016	80	207	-15/100	488	1303	408	360	G2”
EHP(G) S 0900-207-360	815EHPGS0902036	8220000000016	90	207	-15/100	509	1401	408	360	G2”
EHP(G) S 1000-207-360	815EHPGS1002036	8220000000016	100	207	-15/100	530	1500	408	360	G2”
EHP(G) S 1500-207-360	815EHPGS1502036	8220000000016	150	207	-15/100	635	1990	408	360	G2”
EHP(G) S 2000-207-360	815EHPGS2002036	8220000000016	200	207	-15/100	740	2481	408	360	G2”
EHP(G) S 2500-207-360	815EHPGS2502036	8220000000016	250	207	-15/100	845	2973	408	360	G2”
EHP(G) S 3000-207-360	815EHPGS3002036	8220000000016	300	207	-15/100	950	3464	408	360	G2”
EHP(G) S 3500-207-360		8220000000016	350	207	-15/100	1055	3955	408	360	G2”
EHP(G) S 4000-207-360		8220000000016	400	207	-15/100	1160	4426	408	360	G2”

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 220 bar, 150 to 650 Litres, Ø 540

Standard version (Carbon Steel shell/seals for mineral oils)(2) temperature from - 15° up to 100°C.
Maximum Piston Speed 2 m/s. According to PED 2014/68/EU, Fluid Group 1 or 2 (3).

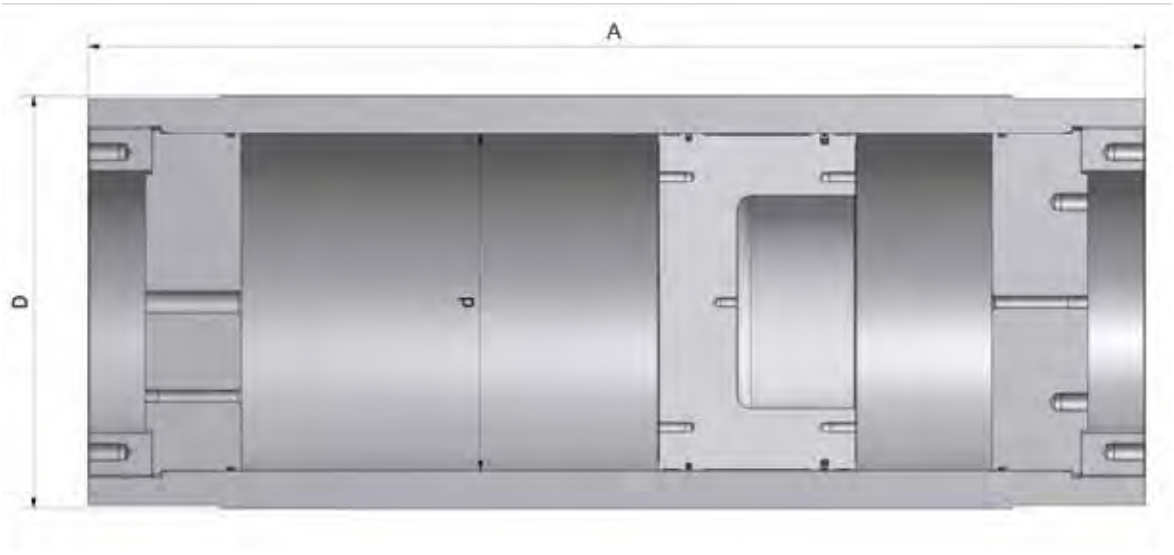
Product, Part numbers, Accessories

Type	Part Number	Seal Kit	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Admissible Accumulator Temperature min/max (°C)	Weight kg	A mm	ø D mm	ø d mm	Std Fluid opening
EHP(G) C 1500-220-540 ALAFBB0000	815EHPGC15002254	8220000000018	150	220	-15/100	2147	1415	630	540	G3”
EHP(G) C 2000-220-540 ALAFBB0000	815EHPGC20002254	8220000000018	200	220	-15/100	2280	1633	630	540	G3”
EHP(G) C 2500-220-540 ALAFBB0000	815EHPGC25002254	8220000000018	250	220	-15/100	2413	1851	630	540	G3”
EHP(G) C 3000-220-540 ALAFBB0000	815EHPGC30002254	8220000000018	300	220	-15/100	2546	2068	630	540	G3”
EHP(G) C 3200-220-540 ALAFBB0000	815EHPGC32002254	8220000000018	320	220	-15/100	2625	2156	630	540	G3”
EHP(G) C 3400-220-540 ALAFBB0000	815EHPGC34002254	8220000000018	340	220	-15/100	2702	2243	630	540	G3”
EHP(G) C 3500-220-540 ALAFBB0000	815EHPGC35002254	8220000000018	350	220	-15/100	2741	2375	630	540	G3”
EHP(G) C 3600-220-540 ALAFBB0000	815EHPGC36002254	8220000000018	360	220	-15/100	2780	2331	630	540	G3”
EHP(G) C 3800-220-540 ALAFBB0000	815EHPGC38002254	8220000000018	380	220	-15/100	2857	2418	630	540	G3”
EHP(G) C 4000-220-540 ALAFBB0000	815EHPGC40002254	8220000000018	400	220	-15/100	3004	2505	630	540	G3”
EHP(G) C 4500-220-540 ALAFBB0000	815EHPGC45002254	8220000000018	450	220	-15/100	3128	2723	630	540	G3”
EHP(G) C 5000-220-540 ALAFBB0000	815EHPGC50002254	8220000000018	500	220	-15/100	3322	2942	630	540	G3”
EHP(G) C 5500-220-540 ALAFBB0000	815EHPGC55002254	8220000000018	550	220	-15/100	3516	3160	630	540	G3”
EHP(G) C 6000-220-540 ALAFBB0000	815EHPGC60002254	8220000000018	600	220	-15/100	3711	3379	630	540	G3”
EHP(G) C 6500-220-540 ALAFBB0000	815EHPGC65002254	8220000000018	650	220	-15/100	3904	3597	630	540	G3”

Available in ASME VIII Division I U STAMPED, in that case EHP (G)C ---> IHP (G)C

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 250 bar, 1 to 4 Litres, Ø 80

Standard version (Carbon steel/Wynseal) for mineral oils (2).
According to PED 2014/68/EU, Fluid Group 2, EN14359,Fluid Group 2 (3)

Product, Part numbers, Accessories

Type Part number	**Pre-charge**			**Wynseal Seal Kit**	**Without burst disc. Plugged connection**	
	1 - 109 bar	**110 - 209 bar**	**210 - 300 bar**	Part number	Model Part number	
EHP-C-0010-250-080-AF00AA0000 * 9000-0701-AF00AA0000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	-	
EHP-C-0010-250-080-AF00AAP000 * 9000-0701-AF00AAP000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	Consult Division	
EHP-C-0020-250-080-AB00AA0000 9098-1001-AB00AA000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	-	
EHP-C-0020-250-080-AF00AA0000 9098-1001-AF00AA0000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	-	
EHP-C-0020-250-080-AF00AAP000 9098-1001-AF00AAP000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	Consult Division	
EHP-C-0030-250-080-AF00AA0000 9098-1301-AF00AA0000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	-	
EHP-C-0040-250-080-AF00AA000 9098-1601-AF00AA0000	Consult Division	Consult Division	Consult Division	Consult Division 9782-080-000	-	

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

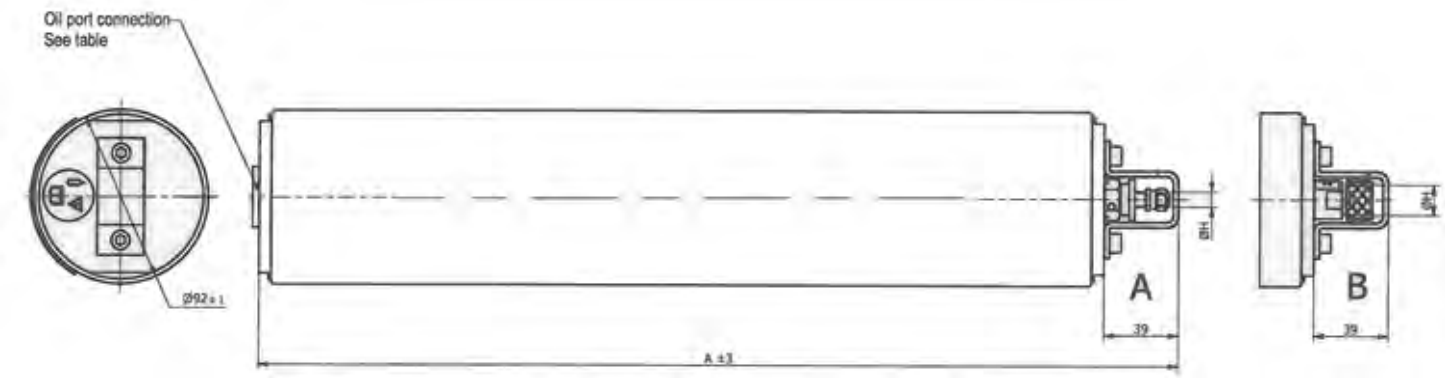
* According PED 2014/68/EU Article 4.3

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker

	Type Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**ø** Bore	**Max Flow Rate** lt/ min	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD** mm	**Oil port connection**	**V** m/s
	EHP-C-0010-250-080-AF00AA0000 * 9000-0701-AF00AA0000	1	250	80	151	-20/+80	9.7	387	92	G 3/4”	0.5
	EHP-C-0010-250-080-AF00AAP000 * 9000-0701-AF00AAP000	1	250	80	151	-20/+80	9.7	387	92	G 3/4”	0.5
	EHP-C-0020-250-080-AB00AA0000 9098-1001-AB00AA000	2	250	80	151	-20/+80	12.2	586	92	G 1/4”	0.5
	EHP-C-0020-250-080-AF00AA0000 9098-1001-AF00AA0000	2	250	80	151	-20/+80	12.2	586	92	G 3/4”	0.5
	EHP-C-0020-250-080-AF00AAP000 9098-1001-AF00AAP000	2	250	80	151	-20/+80	12.2	586	92	G 3/4”	0.5
	EHP-C-0030-250-080-AF00AA0000 9098-1301-AF00AA0000	3	250	80	151	-20/+80	14.7	785	92	G 3/4”	0.5
	EHP-C-0040-250-080-AF00AA000 9098-1601-AF00AA0000	4	250	80	151	-20/+80	17.2	984	92	G 3/4”	0.5

Above dimensions are in mm and are subject to manufacturing tolerances.



GAS CONNECTIONS

Model Valve A	**Model Valve B**
8V1	5/8"18 UNF

Above dimensions are in mm and are subject to manufacturing tolerances.

EHP Series 250 bar, 2 to 10 Litres, Ø 100

Standard version (Carbon steel/Wynseal) for mineral oils (2).
According to PED 2014/68/EU , EN 14359, Fluid Group 2 (3)

Product, Part numbers, Accessories

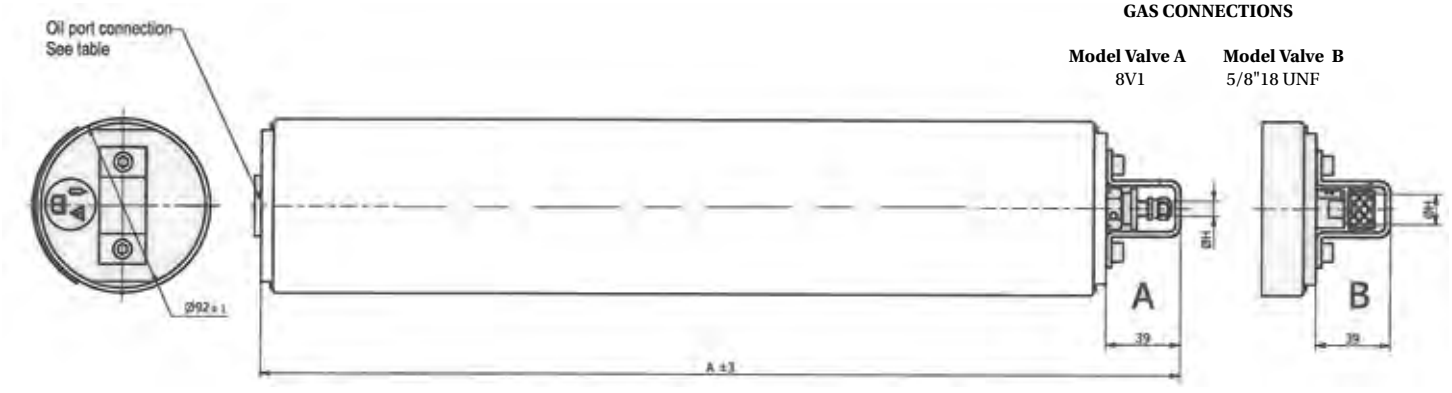
Type Part number	**Pre-charge**			**Wynseal Seal Kit**	**Without burst disc. Plugged connection**	
	1 - 109 bar	**110 - 209 bar**	**210 - 300 bar**	Part number	Model **Price** Part number	
EHP-C-0020-250-100-AD00AA0000 9098-1002-AD00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000		
EHP-C-0020-250-100-AF00AA0000 9098-1002-AF00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	-	
EHP-C-0040-250-100-AD00AA0000 9098-1602-AD00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000		
EHP-C-0040-250-100-AF00AA0000 9098-1602-AF00-AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000		
EHP-C-0040-250-100-DF00AA0000 9098-1602-AD00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000		
EHP-C-0060-250-100-AF00AA000 9098-1902-AF00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	-	
EHP-C-0060-250-100-AH00AA0000 9098-1902-AH00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	-	
EHP-C-0080-250-100-AF00AA0000 9098-2002-AF00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	-	
EHP-C-0080-250-100-AH00AAP000 9098-2002-AH00-AAP000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	**Consult Division**	
EHP-C-0100-250-100-AH00AA0000 9098-2102-AH00AA0000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	-	
EHP-C-0100-250-100-AH00AAP000 9098-2102-AH00AAP000	**Consult Division**	**Consult Division**	**Consult Division**	3782-100-000	**Consult Division**	

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker

	Type Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**ø** Bore	**Max Flow Rate** lt/min	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD** mm	**Oil port connection**	**V** m/s
	EHP-C-0020-250-100-AD00AA0000 9098-1002-AD00AA0000	2	250	100	236	-20/+80	16	441	115	G 1/2”	1
	EHP-C-0020-250-100-AF00AA0000 9098-1002-AF00AA0000	2	250	100	236	-20/+80	16	441	115	G 3/4”	1
	EHP-C-0040-250-100-AD00AA0000 9098-1602-AD00AA0000	4	250	100	236	-20/+80	22	696	115	G 1/2”	1
	EHP-C-0040-250-100-AF00AA0000 9098-1602-AF00-AA0000	4	250	100	236	-20/+80	22	696	115	G 3/4”	1
	EHP-C-0040-250-100-DF00AA0000 9098-1602-AD00AA0000	4	250	100	236	-20/+80	22	696	115	#16 1 5/16”	1
	EHP-C-0060-250-100-AF00AA000 9098-1902-AF00AA0000	6	250	100	236	-20/+80	27	951	115	G 3/4”	1
	EHP-C-0060-250-100-AH00AA0000 9098-1902-AH00AA0000	6	250	100	236	-20/+80	27	951	115	G 1”	1
	EHP-C-0080-250-100-AF00AA0000 9098-2002-AF00AA0000	8	250	100	236	-20/+80	32	1205	115	G 3/4”	1
	EHP-C-0080-250-100-AH00AAP000 9098-2002-AH00-AAP000	8	250	100	236	-20/+80	32	1205	115	G 1”	1
	EHP-C-0100-250-100-AH00AA0000 9098-2102-AH00AA0000	10	250	100	236	-20/+80	37	1460	115	G 1”	1
	EHP-C-0100-250-100-AH00AAP000 9098-2102-AH00AAP000	10	250	100	236	-20/+80	37	1460	115	G 1”	1



EHP Series 250 bar, 4 to 20 Litres, Ø 140

Standard version (Carbon steel/Wynseal for mineral oil, AQseal for other fluids) for mineral oils. (2)
According to PED 2014/68/EU, EN14359 Fluid Group 2 (3)

Product, Part numbers, Accessories

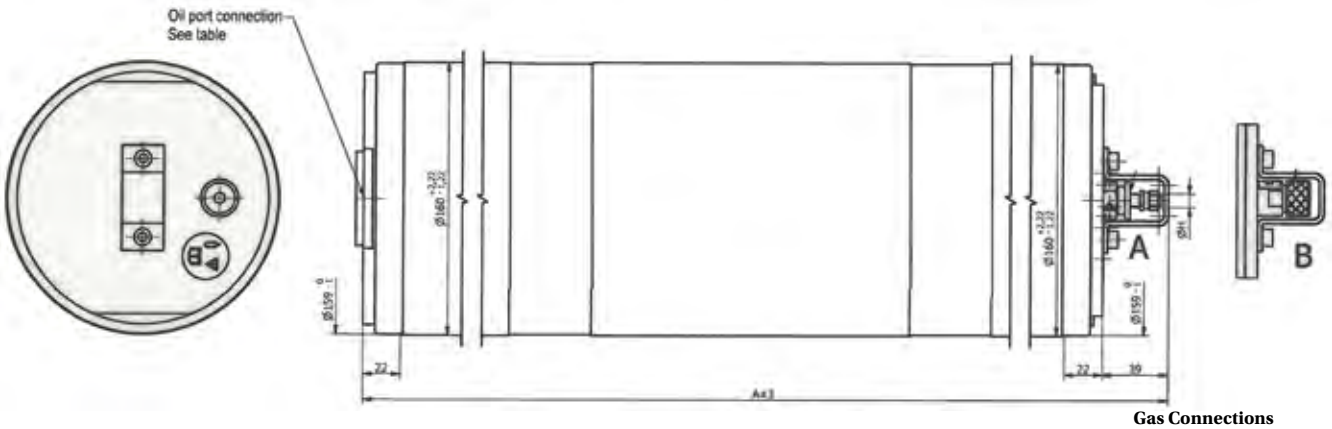
Type Part number	**Pre-charge**			**Wynseal or AQ Seal Seal Kit**	**Without burst disc. Plugged connection**	
	1 - 109 bar	**110 - 209 bar**	**210 - 300 bar**	**Part number**	**Model Price Part number**	
EHP-C-0040-250-140-AKAFABP000 9098-1604-AKAFABP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0060-250-140-AKAFABP000 9098-1904-AKAFABP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0060-250-140-AKAFAAP000 9098-1904-AKAFAAP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0080-250-140-AKAFABP000 9098-2004-AKAFABP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0080-250-140-AKAFAAP000 9098-2004-AKAF-AAP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0100-250-140-AKAFAAP000 9098-2104-AKAFAAP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0150-250-140-AKAFAAP000 9098-2304-AKAFAAP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0150-250-140-AF00AA0000 9098-2304-AF00AA0000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	
EHP-C-0200-250-140-AKAFAAP000 9098-2604-AKAFAAP000	Consult Division	Consult Division	Consult Division	AQ seal 001185-00000.	Consult Division	

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker

	Type Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**ø** Bore	**Max Flow Rate** lt/ min	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**Oil port connection**	**V** m/s
	EHP-C-0040-250-140-AKAFABP000 9098-1604-AKAFABP000	4	250	140	1846	-20/+150	34.1	470	160	G 1 1/2”	2
	EHP-C-0060-250-140-AKAFABP000 9098-1904-AKAFABP000	6	250	140	1846	-20/+150	38.9	600	160	G 1 1/2”	2
	EHP-C-0060-250-140-AKAFAAP000 9098-1904-AKAFAAP000	6	250	140	462	-20/+80	43.7	600	160	G 1 1/2”	0.5
	EHP-C-0080-250-140-AKAFABP000 9098-2004-AKAFABP000	8	250	140	1846	-20/+150	38.9	730	160	G 1 1/2”	2
	EHP-C-0080-250-140-AKAFAAP000 9098-2004-AKAF-AAP000	8	250	140	462	-20/+80	43.7	730	160	G 1 1/2”	0.5
	EHP-C-0100-250-140-AKAFAAP000 9098-2104-AKAFAAP000	10	250	140	462	-20/+80	48.5	860	160	G 1 1/2”	0.5
	EHP-C-0150-250-140-AKAFAAP000 9098-2304-AKAFAAP000	15	250	140	462	-20/+80	60.0	1185	160	G 1 1/2”	0.5
	EHP-C-0150-250-140-AF00AA0000 9098-2304-AF00AA0000	15	250	140	462	-20/+80	71.5	1185	160	G 3/4”	0.5
	EHP-C-0200-250-140-AKAFAAP000 9098-2604-AKAFAAP000	20	250	140	462	-20/+80	60.0	1509	160	G 1 1/2”	0.5



Gas Connections

Model Valve A
1/2-20 UNF/8V1

Model Valve B
1/2-20 UNF/5/8"-18 UNF

EHP Series 250 bar, 8 to 50 Litres, Ø 180

Standard version (Carbon steel/seals for mineral oil). Maximum piston speed 2 m/s.
Suitable for mirneral based hydraulic fluids, Vegetable oils, water glycols. (2)
According to PED 2014/68/EU , Fluid Group 1 or 2 (3) AD2000

Product, Part numbers, Accessories

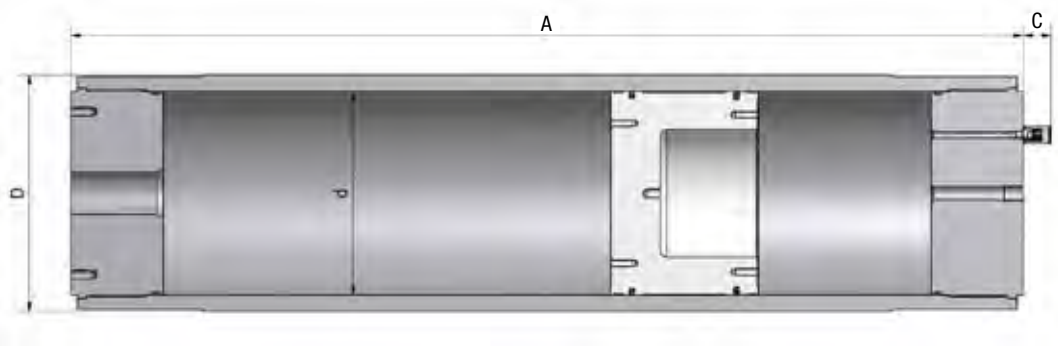
Type	Part number	**Effec-tive Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD** mm	**ød** mm	**Max Fluid open-ing**	**Seal Kit**
EHP C 0080/250/180 AHAFBB000	815EHP0C00802518	8	250	- 15/100	110	622	219.1	180	G1”	8220000000011
EHP C 0090/250/180 AHAFBB000	815EHP0C00902518	9	250	- 15/100	115	660	219.1	180	G1”	8220000000011
EHP C 0100/250/180 AHAFBB000	815EHP0C01002518	10	25	- 15/100	120	700	219.1	180	G1”	8220000000011
EHP C 0150/250/180 AHAFBB000	815EHP0C01502518	15	250	- 15/100	135	896	219.1	180	G1”	8220000000011
EHP C 0180/250/180 AHAFBB000	815EHP0C01802518	18	250	- 15/100	150	1092	219.1	180	G1”	8220000000011
EHP C 0200/250/180 AHAFBB000	815EHP0C02002518	20	250	- 15/100	160	1095	219.1	180	G1”	8220000000011
EHP C 0250/250/180 AHAFBB000	815EHP0C02502518	25	250	- 15/100	175	1288	219.1	180	G1”	8220000000011
EHP C 0320/250/180 AHAFBB000	815EHP0C03202518	32	250	- 15/100	205	1563	219.1	180	G1”	8220000000011
EHP C 0350/250/180 AHAFBB000	815EHP0C03502518	35	250	- 15/100	210	1681	219.1	180	G1”	8220000000011
EHP C 0400/250/180 AHAFBB000	815EHP0C04002518	40	250	- 15/100	230	1880	219.1	180	G1”	8220000000011
EHP C 0500/250/180 AHAFBB000	815EHP0C05002518	50	250	- 15/100	270	2275	219.1	180	G1”	8220000000011

Available in ASME VIII Division I U STAMPED, in that case

EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 250 bar, 10 to 150 Litres, Ø 195

Standard version (Carbon steel/seals for mineral oil). Maximum piston speed 2 m/s.
Suitable for mirneral based hydraulic fluids, Vegetable oils, water glycols (2).
According to PED 2014/68/EU , Fluid Group 1or 2 AD2000 (3)

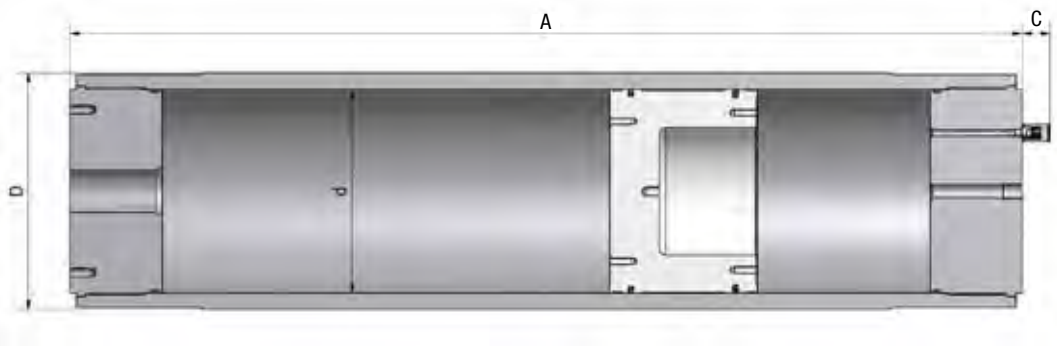
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD** mm	**ød** mm	**Std Fluid port**	**C** mm	**Seal Kit**
EHP S 0100-250-195	815EHP0S0102519	10	250	-15/+100	150	645	243	195	G2”	45	8220000000020
EHP S 0200-250-195	815EHP0S0202519	20	250	-15/+100	199	980	243	195	G2”	45	8220000000020
EHP S 0300-250-195	815EHP0S0302519	30	250	-15/+100	249	1315	243	195	G2”	45	8220000000020
EHP S 0400-250-195	815EHP0S0402519	40	250	-15/+100	299	1650	243	195	G2”	45	8220000000020
EHP S 0500-250-195	815EHP0S0502519	50	250		348	1985	243	195	G2”	45	8220000000020
EHP S 0600-250-195	815EHP0S0602519	60	250		398	2320	243	195	G2”	45	8220000000020
EHP S 0700-250-195	815EHP0S0702519	70	250		447	2654	243	195	G2”	45	8220000000020
EHP S 0800-250-195	815EHP0S0802519	80	250		497	2989	243	195	G2”	45	8220000000020
EHP S 0900-250-195	815EHP0S0902519	90	250		546	3324	243	195	G2”	45	8220000000020
EHP S 1000-250-195	815EHP0S1002519	100	250		596	3659	243	195	G2”	45	8220000000020
EHP S 1500-250-195	815EHP0S1502519	150	250		844	5333	243	195	G2”	45	8220000000020

Available in ASME VIII Division I U STAMPED, in that case EHP (S) ---> IHP (S)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 250 bar, 10 to 150 Litres, Ø 200

Standard version (Carbon steel/seals for mineral oil). Maximum piston speed 2 m/s.
Suitable for mirneral based hydraulic fluids, Vegetable oils, water glycols. (2)
According to PED 2014/68/EU, Fluid Group 1or 2 (3) AD2000

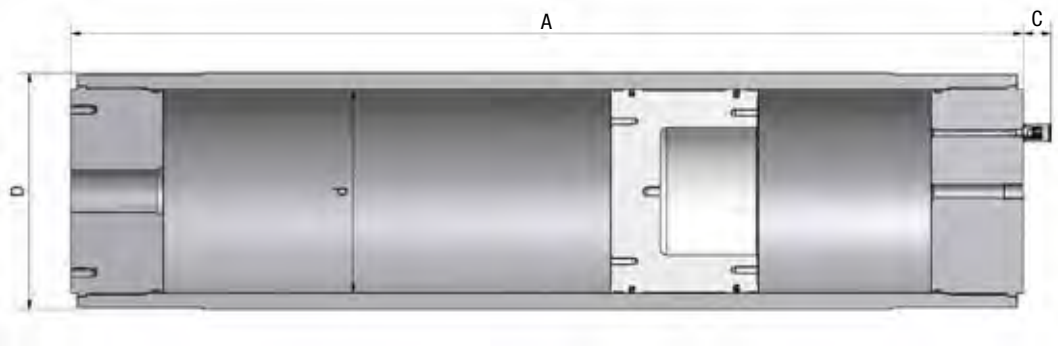
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**ød** mm	**Std Fluid opening**	**C** mm	**Seal Kit**
EHP C 0100-250-200	815EHP0C0102520	10	250	-15/+100	87	585	230	200	G2”	45	8220000000023
EHP C 0200-250-200	815EHP0C0202520	20	250	-15/+100	110	903	230	200	G2”	45	8220000000023
EHP C 0300-250-200	815EHP0C0302520	30	250	-15/+100	133	1221	230	200	G2”	45	8220000000023
EHP C 0350-250-200	815EHP0C0352520	35	250	-15/+100	144	1321	230	200	G2”	45	8220000000023
EHP C 0400-250-200	815EHP0C0402520	40	250	-15/+100	156	1540	230	200	G2”	45	8220000000023
EHP C 0500-250-200	815EH0C0502520	50	250	-15/+100	178	1858	230	200	G2”	45	8220000000023
EHP C 0750-250-200	815EHP0C0752520	75	250	-15/+100	236	2654	230	200	G2”	45	8220000000023
EHP C 0800-250-200	815EHP0C0802520	80	250	-15/+100	247	2813	230	200	G2”	45	8220000000023
EHP C 0900-250-200	815EHP0C0902520	90	250	-15/+100	270	3131	230	200	G2”	45	8220000000023
EHP C 1000-250-200	815EHP0C1002520	100	250	-15/+100	293	3450	230	200	G2”	45	8220000000023
EHP C 1500-250-200	815EHP0C1502520	150	250	-15/+100	407	5041	230	200	G2”	45	8220000000023

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 250 bar, 25 to 200 Litres, Ø 250

Standard version (Carbon steel/seals for mineral oil). Maximum piston speed 2 m/s.
Suitable for mirneral based hydraulic fluids, Vegetable oils, water glycols (2)
According to PED 2014/68/EU, Fluid Group 1or 2 AD2000 (3)

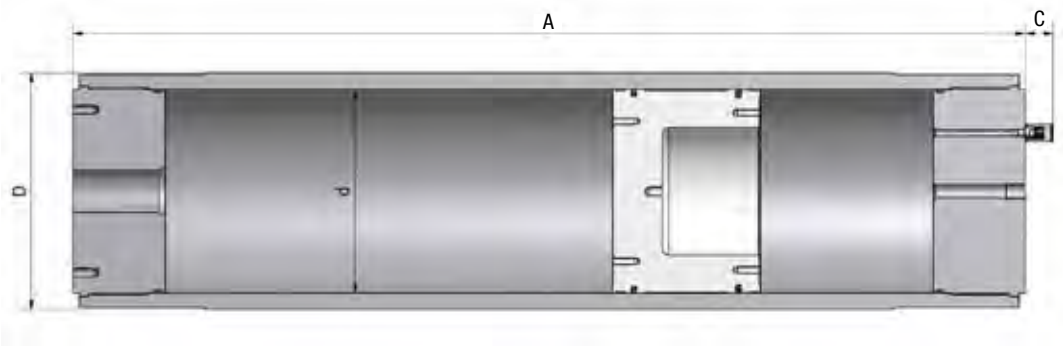
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumu-lator Tempera-ture min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**ød** mm	**Std Fluid port**	**C** mm	**Seal Kit**
EHP C 0250/250/250 ALAFBB0000	815EHP0C02502525	25	250	-15/100	260	891	298.5	250	G2”	45	8220000000003
EHP C 0300/250/250 ALAFBB0000	815EHP0C03002525	30	250	-15/100	275	992	298.5	250	G2”	45	8220000000003
EHP C 0350/250/250 ALAFBB0000	815EHP0C03502525	35	250	-15/100	292	1093	298.5	250	G2”	45	8220000000003
EHP C 0400/250/250 ALAFBB0000	815EHP0C04002525	40	250	-15/100	310	1196	298.5	250	G2”	45	8220000000003
EHP C 0450/250/250 ALAFBB0000	815EHP0C04502525	45	250	-15/100	328	1296	298.5	250	G2”	45	8220000000003
EHP C 0500/250/250 ALAFBB0000	815EHP0C05002525	50	250	-15/100	345	1401	298.5	250	G2”	45	8220000000003
EHP C 0550/250/250 ALAFBB0000	815EHP0C05502525	55	250	-15/100	362	1500	298.5	250	G2”	45	8220000000003
EHP C 0600/250/250 ALAFBB0000	815EHP0C06002525	60	250	-15/100	375	1606	298.5	250	G2”	45	8220000000003
EHP C 0650/250/250 ALAFBB0000	815EHP0C06502525	65	250	-15/100	392	1704	298.5	250	G2”	45	8220000000003
EHP C 0700/250/250 ALAFBB0000	815EHP0C07002525	70	250	-15/100	410	1811	298.5	250	G2”	45	8220000000003
EHP C 0750/250/250 ALAFBB0000	815EHP0C07502525	75	250	-15/100	428	1907	298.5	250	G2”	45	8220000000003
EHP C 0800-250-250	815EHP0C0802525	80	250	-15/100	445	2011	298.5	250	G2”	45	8220000000003
EHP C 0900/250/250 ALAFBB0000	815EHP0C09002525	80	250	-15/100	475	2216	298.5	250	G2”	45	8220000000003
EHP C 1000-250-250	815EHP0C1002525	100	250	-15/100	510	2421	298.5	250	G2”	45	8220000000003

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 250 bar, 30 to 500 Litres, Ø 350

Standard version (Carbon steel/seals for mineral oil). Maximum piston speed 2 m/s.
Suitable for mirneral based hydraulic fluids, Vegetable oils, water glycols. (2)
For other fluids consult Parker. According to PED 2014/68/EU , Fluid Group 1or 2 (3) AD2000

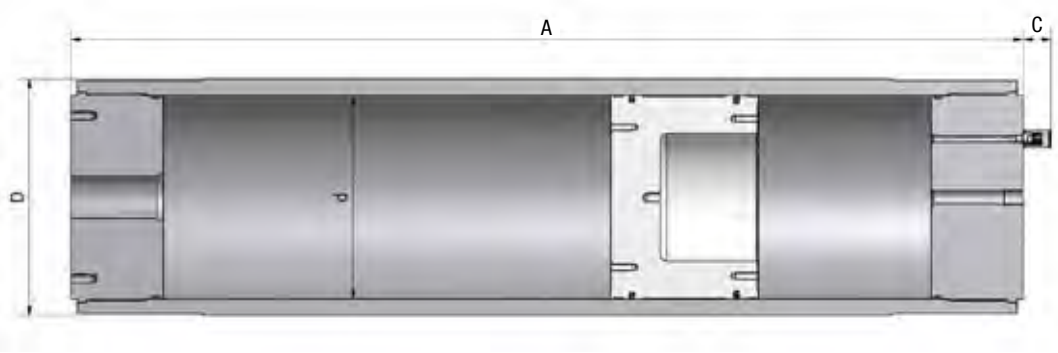
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**ød** mm	**Std Fluid port**	**C** mm	**Seal Kit**
EHP C 0300-250-350	815EHP0C0302535	30	250	-15/100	445	818	406.4	350	G2”	45	8220000000003
EHP C 0400-250-350	815EHP0C0402535	40	250	-15/100	472	922	406.4	350	G2”	45	8220000000003
EHP C 0500-250-350	815EHP0C0502535	50	250	-15/100	500	1026	406.4	350	G2”	45	8220000000003
EHP C 1000-250-350	815EHP0C1002535	100	250	-15/100	637	1546	406.4	350	G2”	45	8220000000003
EHP C 1500-250-350	815EHP0C1502535	150	250	-15/100	772	2066	406.4	350	G2”	45	8220000000003
EHP C 2000-250-350	815EHP0C2002535	200	250	-15/100	912	2586	406.4	350	G2”	45	8220000000003
EHP C 2500-250-350	815EHP0C2502535	250	250	-15/100	1048	3106	406.4	350	G2”	45	8220000000003
EHP C 3000-250-350	815EHP0C3002535	300	250	-15/100	1185	3626	406.4	350	G2”	45	8220000000003
EHP C 3500-250-350	815EHP0C3502535	350	250	-15/100	1322	4146	406.4	350	G2”	45	8220000000003
EHP C 4000-250-350	815EHP0C4002535	400	250	-15/100	1429	4664	406.4	350	G2”	45	8220000000003
EHP C 4500-250-350	815EHP0C4502535	450	250	-15/100	1565	5183	406.4	350	G2”	45	
EHP C 5000-250-350	815EHP0C5002535	500	250	-15/100	1702	5703	406.4	350	G2”	45	

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 250 bar, 125 to 1000 Litres, Ø 540

Standard version (Carbon steel/seals for mineral oil) (2)
According to PED 2014/68/EU (3)

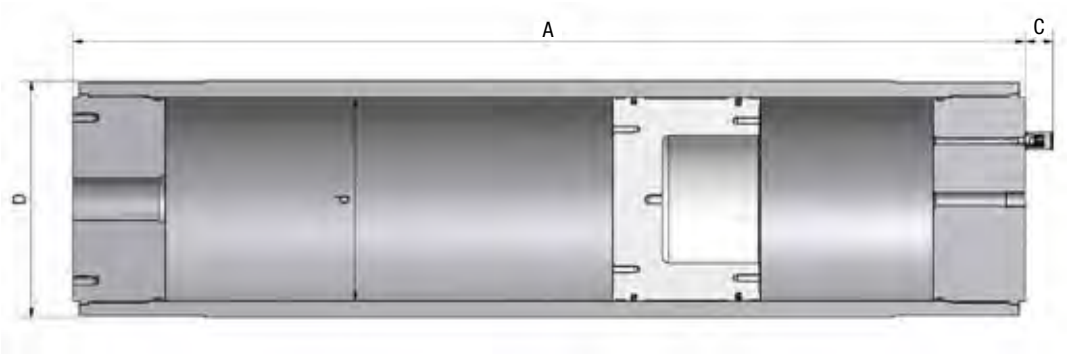
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**ød** mm	**Std Fluid port**	**C** mm	**Seal Kit**
EHP C 1250-250-540	815EHPOC1252554	125	250	-15/100	1546	1530	650	540	G3”	45	8220000000018
EHP C 2500-250-540	815EHPOC2502554	250	250	-15/100	2070	2001	650	540	G3”	45	8220000000018
EHP C 3000-250-540	815EHPOC3002554	300	250	-15/100	2546	2696	650	540	G3”	45	8220000000018
EHP C 4000-250-540	815EHPOC4002554	400	250	-15/100	3000	3154	650	540	G3”	45	8220000000018
EHP C 5000-250-540	815EHPOC5002554	500	250	-15/100	3322	3472	650	540	G3”	45	8220000000018
EHP C 6000-250-540	815EHPOC6002554	600	250	-15/100	3711	3861	650	540	G3”	45	8220000000018
EHP C 7000-250-540	815EHPOC7002554	700	250	-15/100	4099	4249	650	540	G3”	45	8220000000018
EHP C 8000-250-540	815EHPOC8002554	800	250	-15/100	4487	4637	650	540	G3”	45	8220000000018
EHP C 9000-250-540	815EHPOC9002554	900	250	-15/100	4875	5025	650	540	G3”	45	8220000000018
EHP C 10000-250-540	815EHPOC10002554	1000	250	-15/100	5263	5413	650	540	G3”	45	8220000000018

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 350 bar, 2 to 10 Litres, Ø 100

Standard version (Carbon Steel shell/seals for mineral oils) temperature from / 15° up to 100°C.
Maximum Piston Speed 2 m/s. Suitable for Mineral based hydraulic fluids, Vegetable oils, Water Glycols (2).
According to PED 2014/68/EU, ASME VIII Div.1 Design, Fluid Group 1/2 (3)

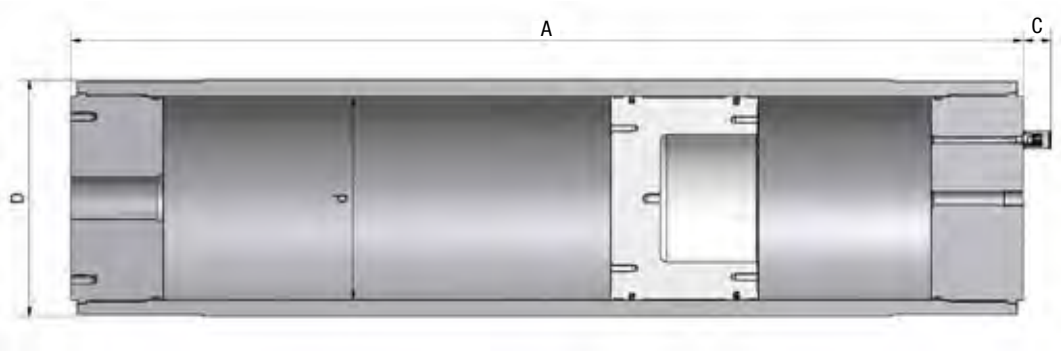
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**ød** mm	**Std Fluid port**	**C** mm	**Seal Kit**
EHP C 0020-350-100	815EHP0C00023510	2	350	-15/100	37	475	140	100	G1”	45	8220000000024
EHP C 0030-350-100	815EHP0C00033510	3	350	-15/100	45	602	140	100	G1”	45	8220000000024
EHP C 0040-350-100	815EHP0C00023510	2	350	-15/100	37	475	140	100	G1”	45	8220000000024
EHP C 0050-350-100	815EHP0C00033510	3	350	-15/100	45	602	140	100	G1”	45	8220000000024
EHP C 0060-350-100	815EHP0C00063510	6	350	-15/100	67	984	140	100	G1”	45	8220000000024
EHP C 0070-350-100	815EHP0C00073510	7	350	-15/100	75	1111	140	100	G1”	45	8220000000024
EHP C 0080-350-100	815EHP0C00083510	8	350	-15/100	83	1239	140	100	G1”	45	8220000000024
EHP C 0090-350-100	815EHP0C00093510	9	350	-15/100	90	1366	140	100	G1”	45	8220000000024
EHP C 0100-350-100	815EHP0C00103510	10	350	-15/100	98	1493	140	100	G1”	45	8220000000024

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 350 bar, 8 to 50 Litres, Ø 180

Standard version (Carbon Steel shell/seals for mineral oils). Maximum Piston Speed 2 m/s. Suitable for Mineral based hydraulic fluids, Vegetable oils, Water Glycols (2).
According to PED 2014/68/EU .Fluid Group 1/2 AD2000 (3)

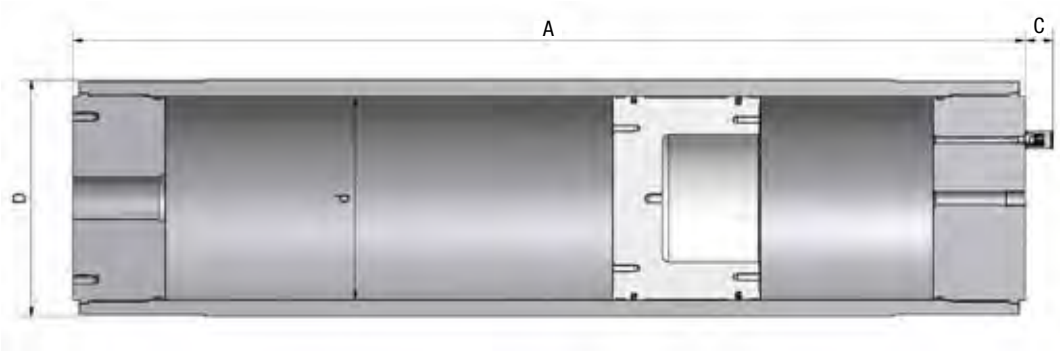
Product, Part numbers, Accessories

Type	Part number	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Admissible Accumulator Temperature min/max (°C)	Weight kg	A max Height mm	External øD	ød mm	Std Fluid port	C mm	Seal Kit
EHP C 0080-350-180	815EHP0C0083518	8	350	-15/100	130	646	229	180	G2”	45	8220000000011
EHP C 0100-350-180	815EHP0C0103518	10	350	-15/100	140	724	229	180	G2”	45	8220000000011
EHP C 0150-350-180	815EHP0C0153518	15	350	-15/100	165	920	229	180	G2”	45	8220000000011
EHP C 0200-350-180	815EHP0C0203518	20	350	-15/100	185	1116	229	180	G2”	45	8220000000011
EHP C 0300-350-180	815EHP0C0303518	30	350	-15/100	235	1510	229	180	G2”	45	8220000000011
EHP C 0400-350-180	815EHP0C0403518	40	350	-15/100	285	1902	229	180	G2”	45	8220000000011
EHP C 0500-350-180	815EHP0C0503518	50	350	-15/100	335	2295	229	180	G2”	45	8220000000011

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 350 bar, 25 to 200 Litres, Ø 250

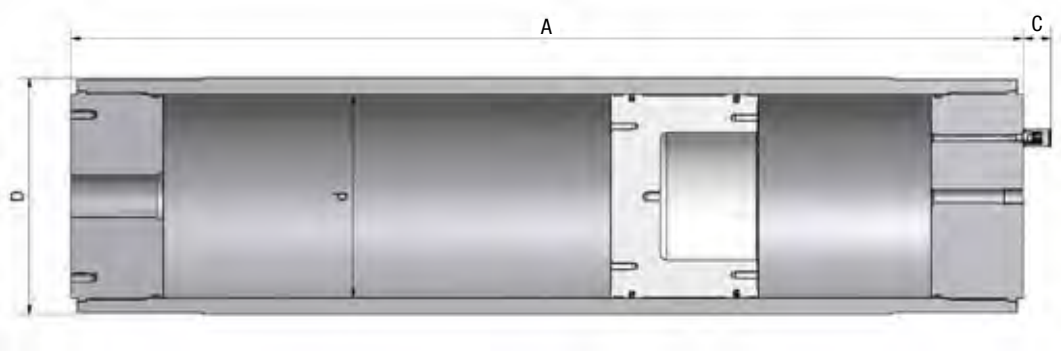
Standard version (Carbon Steel shell/seals for mineral oils). Maximum Piston Speed 2 m/s.
Suitable for Mineral based hydraulic fluids, Vegetable oils, Water Glycols (2).
According to PED 2014/68/EU , Fluid Group 1/2, (3) AD2000.
Product, Part numbers, Accessories

Type	Part number	**Effective Gas vol.** Litres	**Max. Working pressure (PS)** bar	**Admissible Accumulator Temperature min/max** (°C)	**Weight** kg	**A max Height** mm	**External øD**	**ød** mm	**Std Fluid port**	**C** mm	**Seal Kit**
EHP C 0250-350-250	815EHP0C0253525	25	350	-15/100	355	914	323.8	250	G2”	45	8220000000003
EHP C 0300-350-250	815EHP0C0303525	30	350	-15/100	380	1016	323.8	250	G2”	45	8220000000003
EHP C 0400-350-250	815EHP0C0403525	40	350	-15/100	435	1220	323.8	250	G2”	45	8220000000003
EHP C 0500-350-250	815EHP0C0503525	50	350	-15/100	485	1423	323.8	250	G2”	45	8220000000003
EHP C 0600-350-250	815EHP0C0603525	60	350	-15/100	510	1627	323.8	250	G2”	45	8220000000003
EHP C 0700-350-250	815EHP0C0703525	70	350	-15/100	595	1830	323.8	250	G2”	45	8220000000003
EHP C 0800-350-250	815EHP0C0803525	80	350	-15/100	645	2035	323.8	250	G2”	45	8220000000003
EHP C 0900-350-250	815EHP0C0903525	90	350	-15/100	700	2238	323.8	250	G2”	45	8220000000003
EHP C 0950-350-250	815EHP0C0953525	95	350	-15/100	725	2340	323.8	250	G2”	45	8220000000003
EHP C 1000-350-250	815EHP0C1003525	100	350	-15/100	750	2442	323.8	250	G2”	45	8220000000003

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 350 bar, 30 to 350 Litres, Ø 350

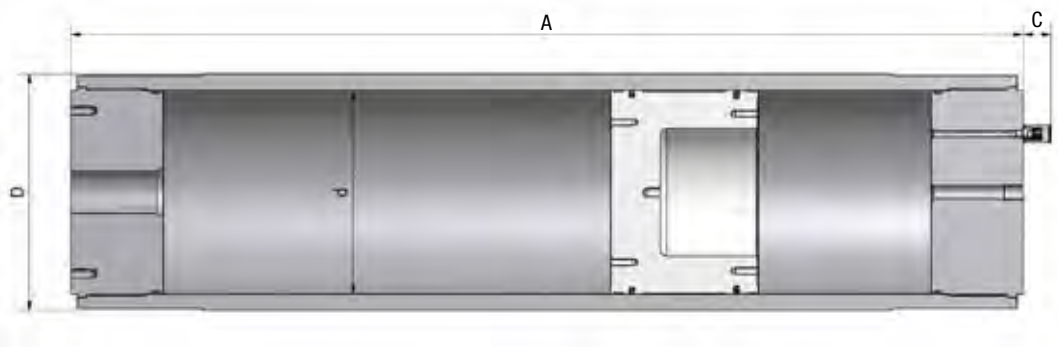
Standard version (**Carbon Steel** shell/seals for mineral oils) temperature from - 15° up to 100°C. Maximum Piston Speed 2 m/s. Suitable for Mineral based hydraulic fluids, Vegetable oils, Water Glycols (2).
According to PED 2014/68/EU Fluid Group 1/2 (3)
Product, Part numbers, Accessories

Type	Part number	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Admissible Accumulator Temperature min/max (°C)	Weight kg	A max Height mm	External øD	ød mm	Std Fluid port	C mm	Seal Kit
EHP C 0300/350/350	815EHP0C03003535	30	350	-15/100	775	842	457.2	350	G5”	45	8220000000002
EHP C 0400/350/350	815EHP0C04003535	40	350	-15/100	830	946	457.2	350	G5”	45	8220000000002
EHP C 0500/350/350	815EHP0C05003535	50	350	-15/100	885	1050	457.2	350	G5”	45	8220000000002
EHP C 0600/350/350	815EHP0C06003535	60	350	-15/100	940	1154	457.2	350	G5”	45	8220000000002
EHP C 0700/350/350	815EHP0C07003535	70	350	-15/100	995	1259	457.2	350	G5”	45	8220000000002
EHP C 0800/350/350	815EHP0C08003535	80	350	-15/100	1050	1362	457.2	350	G5”	45	8220000000002
EHP C 0900/350/350	815EHP0C09003535	90	350	-15/100	1110	1466	457.2	350	G5”	45	8220000000002
EHP C 1000/350/350	815EHP0C10003535	100	350	-15/100	1165	1570	457.2	350	G5”	45	8220000000002
EHP C 1500/350/350	815EHP0C15003535	150	350	-15/100	1440	2090	457.2	350	G5”	45	8220000000002
EHP C 2000/350/350	815EHP0C20003535	200	350	-15/100	1720	2610	457.2	350	G5”	45	8220000000002
EHP C 2500/350/350	815EHP0C25003535	250	350	-15/100	1995	3130	457.2	350	G5”	45	8220000000002
EHP C 3000/350/350	815EHP0C30003535	300	350	-15/100	2275	3650	457.2	350	G5”	45	8220000000002
EHP C 3500/350/350	815EHP0C35003535	350	350	-15/100	2550	4170	457.2	350	G5”	45	8220000000002

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



EHP Series 350 bar, 125 to 1000 Litres, Ø 540

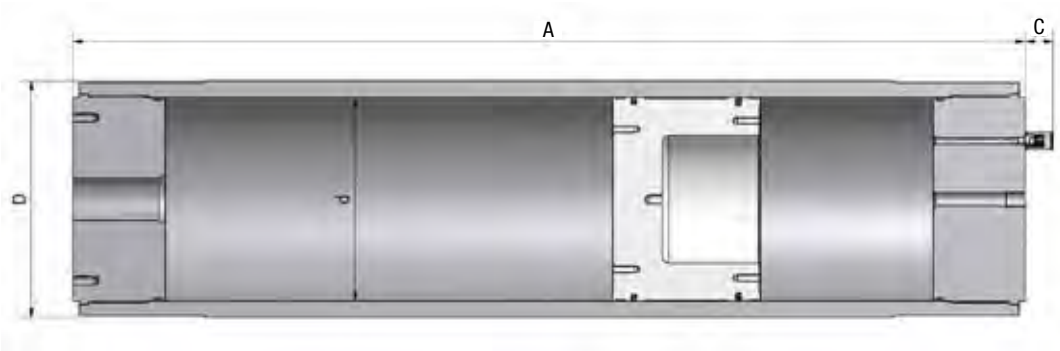
Standard Version (Carbon Steel shell) for mineral oils (2) temperature from - 15° up to 100°C
According to PED 2014/68/EU Fluid Group 1/2 (3)
Product, Part numbers, Accessories

Type	Part number	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Admissible Accumulator Temperature min/max (°C)	Weight kg	A max Height mm	External øD	ød mm	Std Fluid port	C mm	Seal Kit
EHP C 1250-350-540	815EHPOC1253554	125	350	-15/+100	1763	1730	730	540	G 3”	45	8220000000018
EHP C 2500-350-540	815EHPOC2503554	250	350	-15/+100	2366	2201	730	540	G 3”	45	8220000000018
EHP C 3000-350-540	815EHPOC3003554	300	350	-15/+100	2913	2896	730	540	G 3”	45	8220000000018
EHP C 4000-350-540	815EHPOC4003554	400	350	-15/+100	3435	3354	730	540	G 3”	45	8220000000018
EHP C 5000-350-540	815EHPOC5003554	500	350	-15/+100	3805	3672	730	540	G 3”	45	8220000000018
EHP C 6000-350-540	815EHPOC6003554	600	350	-15/+100	4253	4061	730	540	G 3”	45	8220000000018
EHP C 7000-350-540	815EHPOC7003554	700	350	-15/+100	4699	4449	730	540	G 3”	45	8220000000018
EHP C 8000-350-540	815EHPOC8003554	800	350	-15/+100	5145	4837	730	540	G 3”	45	8220000000018
EHP C 9000-350-540	815EHPOC9003554	900	350	-15/+100	5591	5225	730	540	G 3”	45	8220000000018
EHP C 10000-350-540	815EHPOC10003554	1000	350	-15/+100	6037	5613	730	540	G 3”	45	8220000000018

Available in ASME VIII Division I U STAMPED, in that case EHP (C) ---> IHP (C)

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker



Regulations for A/ACP/AP/DC/EHP Piston Accumulators

This table is giving an indication of approval availability for the range of products.
Availability is to be confirmed for each approval, in particular the pressure rating and the allowable working temperatures.

Destination				EUROPE				USA		CHINA		CANADA		
Type *	Volume range (L)	Nominal Internal Ø (mm)	Material (CS or SS)	PED FLUID GROUP 2	PED FLUID GROUP 1	ATEX	Maximum Working Pressure (Bar)	ASME VIII div. 1	Maximum Working Pressure (Psi)	SELO	Maximum Working Pressure (Bar)	CRN	Maximum Working Pressure (Psi)	
A	0,1 to 2 L	50	CS	●	○	○	250 & 350			○		●	207,250,275,345,350 Bar	
A	0,25 to 8 L	75	CS	●	○	○	250 & 350			○		●	207,250,275,345,350 Bar	
A	0,7 to 12 L	100	CS	●	○	○	250 & 350	●	207 Bar	○		●	207,250,275,345,350 Bar	
A	2 to 14 L	125	CS	●	○	○	250 bar			○		●	207,250 Bar	
A	3,8 to 38 L	150	CS	●	○	○	250 & 350			○		●	207,250,275,345,350 Bar	
A	9,5 to 76 L	200	CS	●	○	○	250 bar	●	207 Bar	○		●	207,250,275,345,350 Bar	
ACP	0.02 to 12L	40	CS	●	○	○	260			○		●	260 Bar	
ACP	0.08 to 2 L	50	CS	●	○	○	275			○		●	275 Bar	
ACP	0.25 to 8 L	80	CS	●	○	○	275			○		●	275 Bar	
ACP	0.7 to 12 L	100	CS	●	○	○	275			○		●	275 Bar	
ACP	3 to 40L	150	CS	●	○	○	275			○		●	275 Bar	
AP	6 to 80 L	180	CS	●	○	○	250 & 350			○				
AP	30 to 150L	250	CS	●	○	○	250 & 350			○				
AP	100 to 300L	360	CS	●	○	○	250 & 350			○				
DC	6 to 80 L	180	CS	●	○	○	250 & 350			○				
DC	30 to 150L	250	CS	●	○	○	250 & 350			○				
DC	100 to 300L	360	CS	●	○	○	250 & 350			○				
EHP C	1 to 10 L	100	CS	●	○	○	350 bar	●	(1)	○		●	(2)	
EHP C	8 to 75 L	180	CS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP C	8 to 75 L	180	CS	●	○	○	350 bar	●	(1)	○		●	(2)	
EHP C	10 to 150 L	200	CS	●	○	○	350 bar	●	(1)	○		●	(2)	
EHP C	20 to 200 L	250	CS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP C	20 to 200 L	250	CS	●	○	○	350 bar	●	(1)	○		●	(2)	
EHP C	30 to 500 L	350	CS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP C	30 to 700 L	350	CS	●	○	○	350 bar	●	(1)	○		●	(2)	
EHP C	10 to 150 L	200	CS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP S	1 to 50 L	140	SS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP S	10 to 150 L	195	SS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP(G) C	8 to 75 L	180	CS	●	○	○	250 bar	●	(1)	○		●	(2)	
EHP(G) C	150 to 650 L	540	CS	●	○	○	220 or 250	●	(1)	○		●	(2)	
EHP(G) C	150 to 650 L	540	CS	●	○	○	350 bar	●	(1)	○		●	(2)	
EHP(G) S	60 to 400 L	360	SS	●	○	○	207 bar	●	(1)	○		●	(2)	

● **Available**
○ **Available on request**

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP
(2) Based on ASME Certification, whatever Province CRN could be obtained
(3) Based on ASME Certification, whatever Design Verification could be obtained

	AUSTRALIA			BRAZIL			RUSSIA, KAZAKH-STAN, BELARUS			MARINE - OFFSHORE							
	AS1210	Maximum Working Pressure (Bar)	Maximum Working Pressure (Bar)	NR13	Maximum Working Pressure (Bar)	Maximum Working Pressure (Bar)	CUTR 032/2013	Maximum Working Pressure (Bar)	Maximum Working Pressure Psi (Bar)	DNV MOBILE SHIPS	Maximum Working Pressure (Bar)	BUREAU VERITAS MARINE	Maximum Working Pressure (Bar)	ABS AMERICAN BUREAU OF SHIPPING	Maximum Working Pressure (Bar)	GL GERMANISCHER LLOYD'S	Maximum Working Pressure (Bar)
	●	250															
	●	250															
	●	207,250,275,345,350															
	●	250															
	●	207,250,350															
	●	250															
	●	275															
	●	275															
	●	275															
	○	275															
	●		(3)				●	350	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	350	(1)								
	●		(3)				●	350	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	350	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	350	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	250	(1)								
	●		(3)				●	350	(1)								
	●		(3)				●	207	(1)								

Regulations for EHP/EHP2 Piston Accumulators

This table is giving an indication of approval availability for the range of products.
Availability is to be confirmed for each approval, in particular the pressure rating and the allowable working temperatures.

Destination				EUROPE				USA		CHINA		CANADA		
Type *	Volume range (L)	Nominal Internal Ø (mm)	Material (CS or SS)	PED FLUID GROUP 2	PED FLUID GROUP 1	ATEX	Maximum Working Pressure (Bar)	ASME VIII div. 1	Maximum Working Pressure (Psi)	SELO	Maximum Working Pressure (Bar)	CRN	Maximum Working Pressure (Psi)	
EHP/EHP2	0,15 to 4L	50	CS	●	○	○	360			○				
EHP/EHP2	1,5 to 4L	50	CS	●	○	○	250			○				
EHP/EHP2	1,5L to 4L	80	CS	●	○	○	250			○				
EHP/EHP2	0,8 to 15L	100	CS	●	○	○	250			○				
EHP/EHP2	0,5 to 15L	100	CS	●	○	○	350			○				
EHP/EHP2	3,6L	125	CS	●	○	○	350			○				
EHP/EHP2	4 to 25L	140	CS	●	○	○	250			○				
EHP/EHP2	4 to 25L	140	CS	●	○	○	310			○				
EHP/EHP2	10 to 45L	180	CS	●	○	○	250			○				
EHP/EHP2	10 to 100L	180	CS	●	○	○	350			○				
EHP/EHP2	10 to 55L	200	CS	●	○	○	250			○				
EHP/EHP2	10 to 150L	200	CS	●	○	○	350			○				
EHP/EHP2	50 to 220L	250	CS	●	○	○	250			○				
EHP/EHP2	50 to 220L	250	CS	●	○	○	350			○				
EHP/EHP2	100 to 640L	360	CS	●	○	○	250			○				

- ● **Available**
- ○ **Available on request**

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP
(2) Based on ASME Certification, whatever Province CRN could be obtained
(3) Based on ASME Certification, whatever Design Verification could be obtained

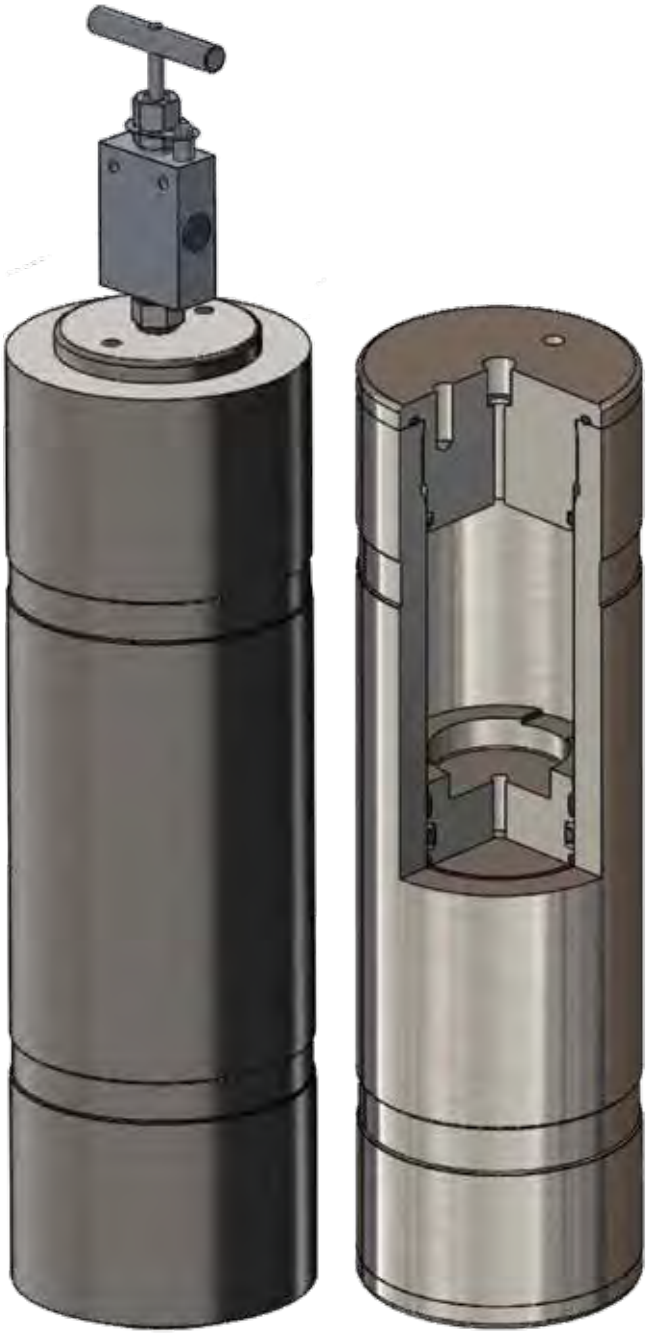
	AUSTRALIA			BRASIL			RUSSIA, KAZAKHSTAN, BELARUSSIA			MARINE - OFFSHORE							
	AS1210	Maximum Working Pressure (Bar)	Maximum Working Pressure (Bar)	NR13	Maximum Working Pressure (Bar)	Maximum Working Pressure (Bar)	CUTR 032/2013	Maximum Working Pressure (Bar)	Maximum Working Pressure Psi (Bar)	DNV MOBILE SHIPS	Maximum Working Pressure (Bar)	BUREAU VERITAS MARINE	Maximum Working Pressure (Bar)	ABS AMERICAN BUREAU OF SHIPPING	Maximum Working Pressure (Bar)	GL GERMANISCHER LLOYD'S	Maximum Working Pressure (Bar)
	○			N/A			○	360		-		○		●	360	-	
	○			N/A			○	250		●	250	○		●	250	●	250
	○			N/A			○	250		●	250	○		●	250	●	250
	○			N/A			○	250		●	250	○		●	250	●	250
	○			N/A			○	350		●	350	○		●	350	●	350
	○			N/A			○	350		○		○		○		○	
	○			N/A			○	250		●	250	○		●	250	●	250
	○			N/A			○	310		-		○		●	310	-	
	○			●		250	○	250		●	250	○		●	250	●	250
	○			●		250	○	350		●	350	○		●	350	●	350
	○			●		250	○	250		●	250	○		●	250	●	250
	○			●		350	○	350		●	350	○		●	350	●	350
	○			●		250	○	250		●	250	○		●	250	●	250
	○			●		250	○	350		●	350	○		●	350	●	350
	○			●		250	○	250		●	250	○		●	250	●	250

up to 3000 bar: EHP Pistons

Carbon and Stainless Steel

Benefits

- **Experienced Technical Support Team** to help develop the most effective and efficient product for your system/application.
- **Materials to suit the most demanding environments.** Parker Olaer offer a choice of materials from metallic and elastomeric components to suit the operating environment e.g. chemical compatibility, environment conditions (topside or subsea) and temperature extremes.
- **International design codes and regulations.**
- **Meeting the highest pressure requirements.** This high pressure piston range can provide pressures of up to 2500 bar (more than 36,000 psi).
- **Bespoke Designs to suit your needs.** Parker Olaer pistons can be designed and built to your specified criteria and can therefore meet any space limitations you may have.



High Pressure, up to 3000 bar: General Information

Technical Characteristics:

Capabilities
Parker ACDE Piston Accumulators are available in any capacity up to 1350 litres. Capacity is only limited by pressure and available materials. Our standard range is 1 litre up-to and including 150 litres. All units are made to order, and can be custom engineered to suit specific space restrictions.

Pressure
Piston Accumulators are available in any pressure between 5 bar and 3000 bar. The pressure rating is dependant on capacity and/or available materials.

Materials
Our units are available in a variety of materials such as Carbon steel, Stainless steel, Duplex or Super Duplex steels and Aluminium. All come with a choice of material certification options.

Design
Vessels will be in accordance with the PED 97/23/EC for use in Europe and designed to PD5500. Optional 3rd party witness (eg. Lloyds) available. Other design codes can be considered for example ASME VIII Div 1.

Fluid End Connections
To suit customer requirements – e.g. NPT, BSP, Autoclave type or SAE/ASME flanged.

Gas End Connections
To suit customer requirements – e.g. NPT, BSP, Autoclave type or SAE/ASME flanged. Transfer barrier ports, Gas Charging valves (brass and stainless) Gas pressure relief devices e.g. Burst discs and Fuse plugs.

Seals
For low or high temperature applications. Materials typically Nitrile, PTFE, Viton, EPDM and others.

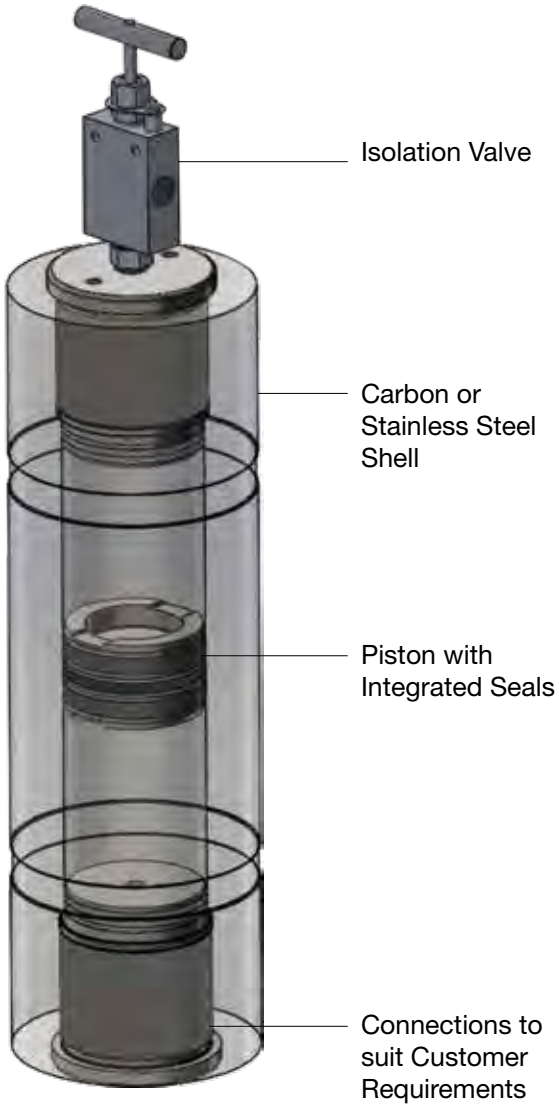
Piston Position Indicators

Carbon Steel Options:
- Tailrod – magnetic operation with visual flapper or magnetic indicator switch.
- Bent tube Indicator - magnetic operation with visual flapper or magnetic indicator switch.
- Tailrod – operating a cam/switch.
- Proximity switch

Stainless Steel Options:
- Piston Magnet - magnetic operation with visual flapper or magnetic indicator switch
- Proximity switches

Carbon Steel Units

Wide range of product sizes we are available. For further information please contact a member of our sales team.



Raising the bar on piston design

Fully flexible design capacity allowing us to design products to suit your applications.

This is a small selection of the pistons we commonly supply however please contact us for other options and prices.

Available on request

Standard product

Carbon Steel Pistons

Bar	Internal Diameter (Ø d)											
	50	80	90	100	115	125	160	180	200	250	360	500
200	■	■	■	■	■	■	■	■	■	■	■	■
350	■	■	■	■	■	■	■	■	■	■	■	
500	■	■	■	■	■	■	■	■	■	■		
750	■	■	■	■	■	■	■	■	■	■		
1000	■	■	■	■	■	■	■	■	■	■		
1250	■	■	■	■	■	■	■	■	■	Contact Parker Olaer		
1500	■	■	■	■	■	■	■	■	■			
1750	■	■	■	■	■	■	■	■	■			
2000	■	■	■	■	■	■	■	■	■			
2250	■	■	■	■	■	■	■	■	■			
2500	■	■	■	■	■	■	■	■	■			

Stainless Steel (17/4) Pistons

Bar	Internal Diameter (Ø d)											
	50	80	90	100	115	125	160	180	200	250	360	500
200	■	■	■	■	■	■	■	■	■	■	■	■
350	■	■	■	■	■	■	■	■	■	■	■	
500	■	■	■	■	■	■	■	■	■	■		
750	■	■	■	■	■	■	■	■	■	■		
1000	■	■	■	■	■	■	■	■	■	■		
1250	■	■	■	■	■	■	■	■	■	Contact Parker Olaer		
1500	■	■	■	■	■	■	■	■	■			
1750	■	■	■	■	■	■	■	■	■			
2000	■	■	■	■	■	■	■	■	■			
2250	■	■	■	■	■	■	■	■	■			
2500	■	■	■	■	■	■	■	■	■			

Stainless Steel (AISI 316) Pistons

Bar	Internal Diameter (Ø d)											
	50	80	90	100	115	125	160	180	200	250	360	500
200	■	■		■		■	■	■	■	■		
350	■	■		■		■	■	■	■	■		
500	■	■		■		■	■	■	■			
750	■	■		■								
1000	■	■		■		Contact Parker Olaer						
1250	■											
1400	■											

Duplex Pistons

Bar	Internal Diameter (Ø d)											
	50	80	90	100	115	125	160	180	200	250	360	500
200		■		■		■	■		■	■		
350		■		■		■	Contact Parker Olaer		■	■		
500				■		■			■	■		
750				■		■			■	■		
1000									■	■		

Super Duplex Pistons

Bar	Internal Diameter (Ø d)											
	50	80	90	100	115	125	160	180	200	250	360	500
200			■	■	■	■	■		■	■		
350			■	■	■	■	■		■	■		
500			■	■	■	■	■		■	■		
750			■	■	■	■	■		■	■		
1000			■	■	Contact Parker Olaer				■	■		
1250				■								

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia
Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Piraeus
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaörs
Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IL – Israel
Tel: +39 02 45 19 21
parker.israel@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland
Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 186 7000

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos
Tel: +55 800 727 5374

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Toluca
Tel: +52 72 2275 4200

© 2018 Parker Hannifin Corporation. All rights reserved.

Catalogue MSG10-4004/UK rev10, 02/2018-ZZ

EMEA Product Information Centre
Free phone: 00 800 27 27 5374
(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre
Toll-free number: 1-800-27 27 537

www.parker.com

hefel technik
sehen & bewegen

Hefel Technik GmbH
Hatlerstrasse 72
6850 Dornbirn / Austria

+43 5572 29696
info@hefel-technik.com
www.hefel-technik.com

Your local authorized Parker distributor