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

EHV Series
Bladder Accumulators

High Pressure, 250 to 690 bar

Parker OLAER

ENGINEERING YOUR SUCCESS.

Description

Designed for high pressure hydraulic systems the EHV bladder accumulator is available in carbon & stainless steel, (70 to 690 bar, 0.2 to 57 Litres). Options with a flanged SAE fluid port and for high flow rates are also available.

The EHV bladder accumulator offers a reliable and efficient solution for storing energy under pressure. Utilizing comprehensive tools and resources including an applications database, CAD/CAM, finite element analysis, reliability studies and simulation we have optimized the design and performance of the accumulator. Parker Olaer bladder accumulators are suitable for use in more than 35 countries (all hydraulic accumulators for Europe are CE marked) and they can meet an extensive range of international and industry approvals.

The EHV Series bladder accumulator comes with an O-ring seal fluid port and 7/8" UNF gas connection as standard however other options are available.

Rigorous product testing and continuous product development help to ensure our hydraulic accumulators operate at optimum efficiency and can perform in the most demanding environments. Parker accumulator accessories such as Safety Blocks, Burst Discs and Permanent Charging Sets, can aid the safe installation and operation of the accumulators in any hydraulic system.

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

- **Extensive range of international and industry approvals (PED 2014/68/EU, EN 14359, ATEX, ASME VIII div 1, SELO, CRN, AS1210, NR13, CUTR, DNV, BV Marine, ABS and GL)**
- **Rigorous product testing and continuous product development**
- **Large selection of materials and fittings to suit every hydraulic system.**
- **Parker Olaer offers a wealth of product knowledge and experience thus enabling us to provide first class technical support and customer service.**

Markets

- **Industrial**
- **Defense**
- **Renewable Energy**
- **Marine**
- **Mining**
- **Mobile**
- **Oil and Gas**
- **Processing**
- **Rail**

Applications

- **Hydraulic Power Units**
- **Ship Cranes**
- **Wind Turbines**
- **Plastic Presses**
- **Tooling Machines**
- **Construction/Mobile Vehicles**
- **Machine Tools**

Technical Specifications

The accumulator comprises a forged or welded steel shell, a rubber bladder and anti-extrusion system.

Volume: 0.2 to 200 Litres

Pressure: 70 to 690 bar

Shell Material: Options include; alloyed steel, stainless steel, aluminium, titanium and composites.

Bladder Materials: Various bladder materials available which are compatible with a wide range of fluids and temperatures.

Anti-extrusion System: Fluid port

Approvals: PED 2014/68/EU, ATEX, ASME VIII div 1, SELO, CUTR, DNV, BUREAU VERITAS MARINE, ABS, Germanischer Lloyd's.

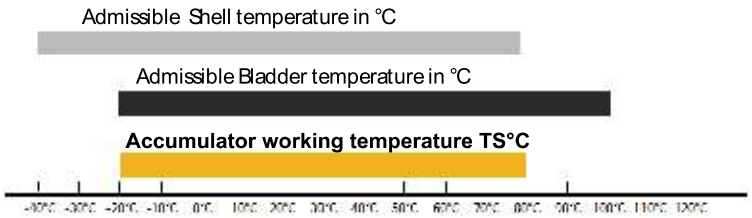
Specials: - For special constructions please consult Parker.

Maximum pressure differential (P2/P0): 4:1

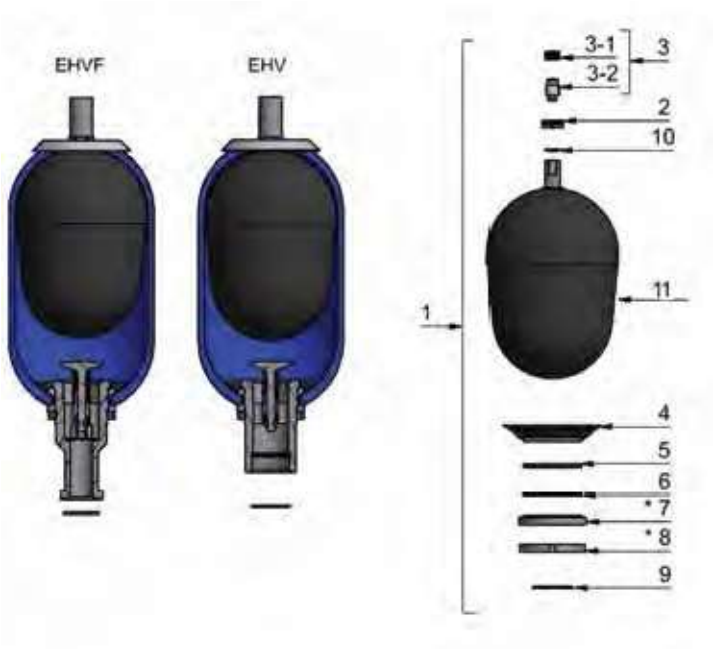
Nitrogen gas pressure : The maximum pressure (PS) with nitrogen purity > 99.8% N2 class 2.8, is indicated on the accumulator.

Check that the maximum allowable pressure is greater than that of the hydraulic

Accumulator working temperature determination example :



Spare Parts



Item	Spare parts
1	Spare Parts Kit
2	Valve nut
3	Gas valve Assembly
3.1	Gas valve
3.2	Gas valve plug
4	Anti-extrusion ring
5	Fluid port seal
6	Back up seal ring
7*	Spacer
8*	Locking nut
9	O-ring fluid port
10	Back up ring (depending on the model)
11	Bladder

* These parts are not delivered in the spare parts kit (complete repair kit)

EHV Series: How to order a high pressure accumulator

EHV 24,5- **330** /90-**A**25**G**A-**2**00/**100**

Product Type

EHV High pressure bladder
ETHV High pressure transfer bladder
EHVF High pressure bladder flange

Volume in L (up to 4 Characters)

0,2 for 0,2 Liter
20 for 20 Liters
24,5 for 24.5 Liters

Maximum Working Pressure

120 for 120 bar max working pressure (stainless steel range)
330 for 330 bar max working pressure
350 for 350 bar max working pressure
690 for 690 bar max working pressure

*If the product is not CE, use highest MWP according to regulation relevant to the product (see Approvals PAGES 84&85)

Approvals* According to:-

00 PED2014/68/EU, article 4.3
11 PED2014/68/EU + BV Marine
13 PED2014/68/EU, article 4.3 + BV Marine
23 PED2014/68/EU, article 4.3 + ABS
24 PED2014/68/EU + DNVGL
41 PED2014/68/EU + ABS
43 PED2014/68/EU, article 4.3 + ABS
48 ASME VIII div 1 app 22
71 CUTR 032/2013
83 PED2014/68/EU + AS1210
85 PED2014/68/EU, article 4.3 + SELO
86 PED2014/68/EU + ASME VIII div 1 app 22 + SELO
88 PED2014/68/EU + SELO
90 PED2014/68/EU
91 ASME VIII div 1 app 22 + AS1210
92 ASME VIII div 1 app 22 + CRN
94 PED2014/68/EU + ASME VIII div 1 app 22
AA PED2014/68/EU + NR13
AE ASME VIII div 1 + NR13
AU ASME VIII div 1 + CUTR 032/2013

Material (Shell and Fluid Port)

A All parts in carbon steel with Epoxy paint for shell only [-40°C;+80°C]
B Carbon Steel shell + Internal Protection Epoxy 80 µm + stainless steel fluid port and valve
C Carbon Steel shell + Int- Ext Protection Kanigen 50 µm + stainless steel fluid port and valve
D Carbon Steel shell + Int- Ext Protection Blue Rilsan 200-300 µm + carbon steel fluid port and valve
E Carbon Steel shell + stainless steel fluid port and valve
F Carbon steel shell + Internal Protection Teflon 40-50 µm
I All parts in stainless steel [-40°C;+80°C]
R Carbon Steel shell + Int- Ext Protection Blue Rilsan 200-300 µ + stainless steel fluid port and valve
Z Special

Bladder Mix

02 Mix 02 [-32°C;+115°C] Hydrin C
10 Mix 10 [-30°C;+80°C] Nitrile Low Temperature
20 Mix 20 [-6°C;+100°C] Nitrile Heavy Duty
25 Mix 25 [-20°C;+100°C] Nitrile standard
30 Mix 30 [-5°C;+115°C] Nitrile Low Permeability
35 Mix 35 [0°C;+130°C] Nitrile high temperature
37 For Mix 37 [-59°C;+110°C] Nitrile Extreme Low Temp
40 For Mix 40 [-15°C;+120°C] Butyl
47 For Mix 47 [-40°C;+120°C] EPDM
80 For Mix 80 [-20°C;+140°C] Viton
E2 For Mix E2 [-15°C;+100°C] Nitrile
XL For Mix XL [-10°C;+100°C] Nitrile very low permeation

Fluid Port Configuration

A Gas cyl. 1/2" (max flow rate: 120L/min
B Gas cyl. 3/4" (max flow rate: 240L/min
C Gas cyl. 1" (max flow rate: 360L/min
D Gas cyl. 1"1/4" (max flow rate: 450L/min
E Gas cyl. 1"1/4" DA (max flow rate: 570L/min
G Gas cyl. 2" (max flow rate: 900L/min)
H Gas cyl.2" DA (max flow rate: 1200L/min)
J Gas cyl.2"1/2 GD (max flow rate 1800 L/min)
M Metric M40 x1.5
N Metric M50 x1.5
R Flange BR 400-38 (max flow rate: 900L/min, EHV 10L to 57L)
S Flange BR 400-25 (max flow rate: 450L/min, EHV 2,5L to 10L)
Z Special

Gas Valve Configuration

0 No gas valve
A Gas Valve Type - 5/8"- 18 UNF
B Gas Valve Type - 7/8"- 14 UNF
C Gas Valve Type- 7/8" -14 UNF integrated
D Gas Valve Type - 5/8"- 18 UNF integrated
E Gas Valve Type- 7/8" -14 UNF high pressure
F Gas Valve Type - 5/8"- 18 UNF + Burst disc
G Gas Valve Type - 7/8"- 14 UNF + Burst disc
H Gas Valve Type- 7/8" -14 UNF integrated + Burst disc
I Gas Valve Type - 5/8"- 18 UNF integrated + Burst disc
J Gas Valve Type- 7/8" -14 UNF high pressure + Burst disc
Z Special

Fluid Type

0 Not applicable
1 Fluid Type 1 CE Fluid Group 1
2 Fluid Type 2 - CE Fluid Group 2

Special

00 No Special features or configuration
EX ATEX
EZ ATEX with other special configuration
EU All components sourced in EU
SP Special painting
D1 Standard documentation + Leak test report
D2 Standard documentation + Descriptive statement + Design calculation note
ZZ Special configuration or several options

ASME certified accumulator according to ASME VIII Div.1 :
30 MWP = 3000 psi (207 bar)
36 MWP = 3600 psi (248 bar)
40 MWP = 4000 psi (276 bar)
50 MWP = 5000 psi (345 bar)

Precharge @ 20°C in Bar

When at storage pressure (Keep empty)*

*Parker precharge accumulator with 2 Bar for storage

100 When at storage (keep empty) example for 100 Bar precharge

EHV Series 330 bar, 10 to 57 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 Prices, Part numbers, Accessories

Type Part number	Valve	Adaptor*	Clamps	Support Bracket	Mounting Frame	Lifting Eye on gas side	Complete Repair Kit
	see drawing	Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
EHV 10-330/90-A25GA-200 10837001125	A	G 1" cyl	D226 (2)	CE159A	EF2		KIT EHV 10-330/90-A25GA 19028900225
EHV 10-330/90-A25GB-200 10865401125	B	04557000223	20251503648	20109003620	20217600125	10912700200	KIT EHV 10-330/90-A25GB 19035800225
EHV 12-330/90-A25GA-200 10867101125	A	G 1" cyl	D226 (2)	CE159A	EF2		KIT EHV 12-330/90-A25GA 19032100225
EHV 12-330/90-A25GB-200 10867401125	B	04557000223	20251503648	20109003620	20217600125	10912700200	KIT EHV 12-330/90-A25GB 19035900225
EHV 20-330/90-A25GA-200 10837101125	A	G 1" cyl	D226 (2)	CE159A	EF2		KIT EHV 20-330/90-A25GA 19029000225
EHV 20-330/90-A25GB-200 10865501125	B	04557000223	20251503648	20109003620	20217600125	10912700200	KIT EHV 20-330/90-A25GB 19036000225
EHV 24,5-330/90-A25GA-200 10837201125	A	G 1" cyl	D226 (2)	CE159A	EF2		KIT EHV 24.5-330/90-A25GA 19029400225
EHV 24,5-330/90-A25GB-200 10865601125	B	04557000223	20251503648	20109003620	20217600125	10912700200	KIT EHV 24.5-330/90-A25GB 19036300225
EHV 32-330/90-A25GA-200 10837301125	A	G 1" cyl	D226 (2)	CE159A	EF3		KIT EHV 32-330/90-A25GA 19029100225
EHV 32-330/90-A25GB-200 10865701125	B	04557000223	20251503648	20109003620	20217700125	10912700200	KIT EHV 32-330/90-A25GB 19036100225
EHV 42-330/90-A25GA-200 11112301125	A	G 1" cyl	D226 (2)	CE159A	EF3		KIT EHV 42-330/90-A25GA 19060800225
EHV 42-330/90-A25GB-200 11123601125	B	04557000223	20251503648	20109003620	20217700125	10912700200	KIT EHV 42-330/90-A25GB 19061100225
EHV 50-330/90-A25GA-200 11076701125	A	G 1" cyl	D226 (2)	CE159A	EF3		KIT EHV 50-330/90-A25GA 19054100225
EHV 50-330/90-A25GB-200 11076801125	B	04557000223	20251503648	20109003620	20217700125	10912700200	KIT EHV 50-330/90-A25GB 19054200225
EHV 57-330/90-A25GA-200 11112401125	A	G 1" cyl	D226 (2)	CE159A	EF3		KIT EHV 57-330/90-A25GA 19060900225
EHV 57-330/90-A25GB-200 11123801125	B	04557000223	20251503648	20109003620	20217700125	10912700200	KIT EHV 57-330/90-A25GB 19061200225

(2) For other fluids consult Parker

(3) For Fluid group 1 consideration : consult Parker

*For more adaptor options see pages 74 & 75

Model of valve stem
5/8" 18 UNF
(A)

Model of valve stem
7/8" 14 UNF
(B)

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Admissible Accumulator Temperature min/max (°C) (1)	Weight kg	Gas connection	Dimensions in mm							
							A max Height	B	C	øD	ød	øE	F on flats	G connection
EHV 10-330/90-A25GA	9.2	330	900	-20/+80	31	5/8" 18 UNF	587	103	66	226	22.5	101	70	G2"
EHV 10-330/90-A25GB						7/8" 14 UNF								
EHV 12-330/90-A25GA	11	330	900	-20/+80	36	5/8" 18 UNF	687	103	66	226	22.5	101	70	G2"
EHV 12-330/90-A25GB						7/8" 14 UNF								
EHV 20-330/90-A25GA	17.8	330	900	-20/+80	49	5/8" 18 UNF	897	103	66	226	22.5	101	70	G2"
EHV 20-330/90-A25GB						7/8" 14 UNF								
EHV 24.5-330/90-A25GA	22.5	330	900	-20/+80	56	5/8" 18 UNF	1032	103	66	226	22.5	101	70	G2"
EHV 24.5-330/90-A25GB						7/8" 14 UNF								
EHV 32-330/90-A25GA	32	330	900	-20/+80	81	5/8" 18 UNF	1420	103	66	226	22.5	101	70	G2"
EHV 32-330/90-A25GB						7/8" 14 UNF								
EHV 42-330/90-A25GA	42	330	900	-20/+80	87	5/8" 18 UNF	1562	103	66	226	22.5	101	70	G2"
EHV 42-330/90-A25GB						7/8" 14 UNF								
EHV 50-330/90-A25GA	48.5	330	900	-20/+80	110	5/8" 18 UNF	1936	103	66	226	22.5	101	70	G2"
EHV 50-330/90-A25GB						7/8" 14 UNF								
EHV 57-330/90-A25GA	51	330	900	-20/+80	116	5/8" 18 UNF	2032	103	66	226	22.5	101	70	G2"
EHV 57-330/90-A25GB						7/8" 14 UNF								

(1)Temperature range can change depending on shell and elastomer material. Please see bladder materials and Type (page 87)

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