

LOW PRESSURE BLADDER ACCUMULATORS
HIGH PRESSURE BLADDER ACCUMULATORS
REGULATIONS
ANTI-CORROSION
BLADDER MATERIALS AND TYPES
PISTON ACCUMULATORS
ATTENUATORS
PULSATION DAMPERS
DIAPHRAGM ACCUMULATORS
CLAMPS
SUPPORT BRACKETS
MOUNTING FRAMES
CHARGING SET VGU
SAFETY BLOCKS
GAS BOTTLES



Accumulators, Accessories and Spares Catalogue

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process control
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Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

Introduction

Solutions developed by Parker Olaer are used in a large number of industrial sectors: aeronautics, chemistry, defence, mining, railway construction, Formula 1, machine tools, agriculture, oil and gas, metallurgy, renewable energies, etc.

This variety of applications requires extensive knowledge of the products and their major components, particularly the bladder. For either a standard application or design solutions for a specific requirement, Parker ACDE engineers have the experience in sizing and design.



We provide cost effective solutions based upon our customer's needs. Parker ACDE utilizes comprehensive tools and resources including an applications database, CAD/CAM, finite element analysis, reliability studies and sizing simulation software which enable us to optimize design and performance.

Parker ACDE Paris (Colombes, France)

Manufacture:

- Bladder Accumulators
 - EBV Series (Low pressure) up to 80 bar
 - EHV Series (High Pressure) up to 690 bar
- Diaphragm accumulators (ELM Series)
- Attenuators
- Accumulators for Aerospace and Motor Sport
- Accessories
- Accumulator Systems

Focus on: Industrial, Wind Power, Aerospace, Motor Sport
Approvals: CE Approval (Europe), SELO approval (China) others under development.



Parker ACDE Hellaby (Rotherham, UK)

Manufacture:

- Crimped Piston Accumulators - ACP Series (275 bar < 20 Litres)
- Piston Accumulators
 - A Series (up to 350 bar)
 - AP Series (up to 350 bar)
 - EHP Series (up to 250 bar)
- Safety blocks
- Accessories

Focus on: Industrial & Mobile
Approvals: CE Approval – others under development.



Parker ACDE Sandycroft (Chester, UK)

Manufacture:

- Bladder Accumulators
 - UK Series (up to 420 bar)
 - Oil & Gas Series (up to 760 bar)
- Piston Accumulators (up to 3000 bar)
- Pulsation Dampers
- Pressure Compensators
- Safety Blocks – Carbon Steel and Stainless Steel
- Accumulator Accessories & Systems

Focus on: Oil & Gas and bespoke Bladder & Piston Accumulators

Approvals: Large variety of approvals. Special pressure vessel approvals available.



Parker ACDE Leini (Turin, Italy)

Manufacture:

- Bladder Accumulators
 - EBV Series (Low pressure) up to 35 bar
 - EHV Series (High Pressure) up to 110 bar
- Piston Accumulators
- Piston / Bladder accumulator systems.
- Gas bottles

Focus on: Oil & Gas, Industrial, Special welded pressure vessels/tanks

Approvals: Large variety of approvals (PED & ASME most requested)

General Information Accumulators

Olaer, pioneer of high pressure equipment, was founded in 1938 by Jean Mercier. Using his experience, passion for research and extensive knowledge of hydraulics in the demanding field of aeronautics, Mr. Mercier engineered the first gas loaded bladder accumulator. This has led to Olaer becoming the indisputable international leader in this field.

This variety of applications requires extensive knowledge of the products and their major components, particularly the bladder. In order to reinforce its position, Olaer is the co-owner of its main bladder supplier. For either a standard application or designing solutions for a specific requirement, Parker ACDE engineers have the experience in elastomers and knowledge of the latest technological developments in metal and composite shells. This allows Parker ACDE to propose reduced weight accumulators and other design innovations.



We provide cost effective solutions based upon our customer's needs. Parker ACDE utilizes comprehensive tools and resources including an applications database, CAD/CAM, finite element analysis, reliability studies and simulation software which enable us to optimize design and performance.

Applications

The Parker ACDE gas loaded accumulator is an essential component for the optimum operation of a hydraulic circuit. In hydraulic circuits, the accumulator enables:

- **Energy Storage:** saves energy without loss and redistributes when required therefore reducing installed power.
- **Pressure compensation:** absorbs pressure spikes from pumps or other components to control pressure and flow-rates in a hydraulic circuit.
- **Volume Control:** absorbs fluid volume variations induced by temperature changes in a closed hydraulic circuit and maintains a rated pressure.
- **Maintains Fluid Flow Rate:** an accumulator can maintain the fluid flow rate in case of pump failure and can also be used as a mobile fluid reserve under pressure.
- **Emergency Energy Storage:** in case of failure of the main energy source, an accumulator can provide sufficient energy to complete an operation or to realize a full hydraulic cycle.
- **Prevents mixing of fluids:** Transfer of energy from a fluid to another fluid without any risk of mixing
- **Shock absorber:** suppresses shocks and vibrations in hydraulic systems of lifting vehicles (e.g. Forklift trucks) and maintains real suspension of the load on a gas spring.

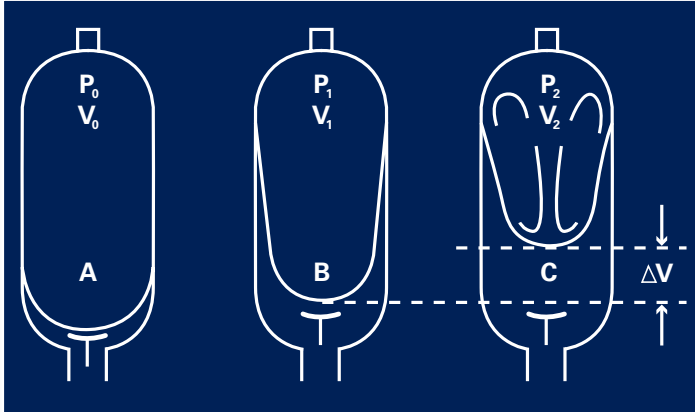
Advantages/Your benefits

- **Reduction in working costs**
 - Energy reserve
 - Reduces installed electrical power
- **Increase lifetime of equipment**
 - Reduces pulsations
 - Protects against pressure peaks
- **Reduction in maintenance cost**
 - Reduces wear of hydraulic components
 - Requires minimum maintenance of the installation
- **Emergency Energy Back-up**
 - Energy reserve

Operating Principle

Operation of the gas loaded bladder accumulator is based on the considerable difference in compressibility between a gas and a liquid, enabling a large quantity of energy to be stored in an extremely compact form. This enables a liquid under pressure to be accumulated, stored and recovered at any time.

Bladder Accumulator



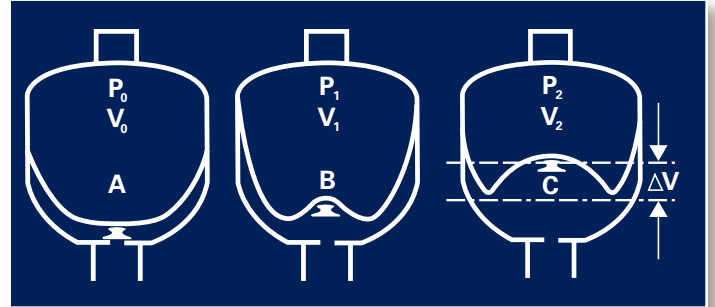
A - Bladder in the Pre-charge position, which means that the accumulator only contains nitrogen. The anti-extrusion system closes the hydraulic orifice which prevents the destruction of the bladder. In low pressure accumulators the bladder rests against the grid.

Maximum pressure differential (P_2/P_0): 4:1

B - Position at the minimum operating pressure. There must be a certain amount of fluid between the bladder and the hydraulic orifice, such that the anti-extrusion system does not close the hydraulic orifice.

C - Position at the maximum operating pressure. The volume difference between the minimum and maximum positions of the operating pressures represents the working fluid quantity.

Diaphragm Accumulator

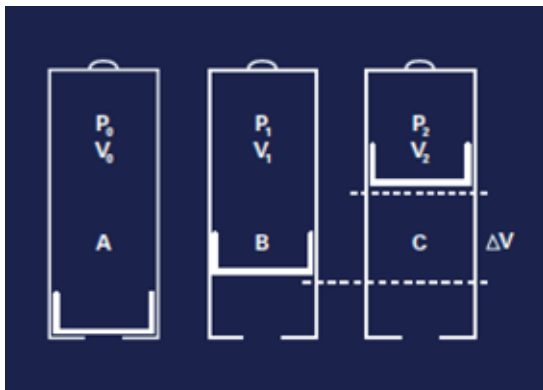


A - The diaphragm is in the Pre-charge position, which means that it is only filled with nitrogen. The knob closes the hydraulic orifice and prevents the destruction of the diaphragm.

B - Position at the minimum operating pressure : there must be a certain amount of fluid between the diaphragm and the hydraulic orifice, such that the knob does not close the hydraulic orifice. Thus, P_0 must always be $< P_1$.

C - Position at the maximum operating pressure: the volume change ΔV between the minimum and maximum positions of the operating pressures represents the fluid quantity stored.

Piston Accumulator



When fluid under pressure enters the fluid side of the accumulator, the piston is pushed towards the gas side and the Nitrogen gas is compressed.

- V0** = Capacity in nitrogen of the accumulator
- V1** = Gas volume at the minimum hydraulic pressure
- V2** = Gas volume at the maximum hydraulic pressure
- ΔV** = Returned and/or stored volume of working fluid between P_1 and P_2
- P0** = Initial preload of the accumulator
- P1** = Gas pressure at the minimum hydraulic pressure
- P2** = Gas pressure at the maximum hydraulic pressure

Technical Characteristics

Parker can offer a wide range of options for the 3 key accumulator technologies (bladder, piston and diaphragm) depending on the application where the product is used. Two of the most important parameters for selecting an accumulator are:

- The application
- The minimum and maximum operating temperature of the system.
- The fluid type in the system.

Shell material options include standard carbon steel, alloyed steel, stainless steel, aluminium, titanium and composites. The main requirement is that the material is suitable and approved for use in pressure vessels.

The elastomers used are the key working components, and also where we have focused resources selecting the correct type and material.

Depending on the customer application, our engineers will choose the most optimum solution.

Taking into account the different needs of various applications Parker proposes different corrosion protections external or internal: bare metal, electroless nickel plating, standard primer, epoxy, paint, Rilsan.

Regulations & Approvals

Parker designs and manufactures gas loaded accumulators for use in all countries, as well as other industry specific approvals including Oil & Gas, Naval and Nuclear. The main regulations in force are PED for European market, ASME for US market and SELO for Chinese market.

As a service, Parker Olaer can recommend the appropriate regulations applicable if customers know the country where the accumulator will be installed. When operating in dangerous and explosive environments, Parker has developed high-tech solutions. Some of these regulations call for the use of safety devices to protect the accumulator against over pressure. Solutions may include hydraulic safety blocks, relief valves or gas side safety devices such as burst discs and fuse plugs. Parker has designed and proposed a complete range of safety devices suitable for the applicable regulations.

To meet the needs of our customers, Parker can supply accumulators with multiple approvals. With regard to environmental concerns Parker's product range complies with REACH regulations. Each accumulator is delivered with the certificate of conformity. The website portal has been created and permits to find in any time these documents <http://www.parkeracde-certificatesportal.com>.



How to size?

Accumulator Sizing Software

Parker Olaer has developed very sophisticated simulation software to optimise accumulator sizing recommendations. The behaviour of accumulators used in applications such as pulsation dampening, surge arrestor, thermal expansion and energy storage can be simulated. Our software can be downloaded from our website www.parker.com/ACDE.



You may also contact your local Parker Sales Company for sizing assistance.

The graph below is useful to estimate the size of an accumulator used to store or deliver a specific volume of liquid within a given pressure range. These curves are the graphic representation of an adiabatic cycle (fast cycling rate - $N = 1.4$ perfect gas assumption) or isothermal cycle for an accumulator working at 20°C with a Pre-charge $P_0 = 0,9 P_1$.

They do not take into consideration the real gas compression correction factor, the real adiabatic coefficient and the polytropic rate of the application. Depending on the application data, the influence of these factors may be significant, and require that some calculations adjustments be made. The Parker Olaer simulation software takes all these factors into account.

Sizing of an accumulator to be installed in the following example conditions:

- P2 : Maximum available pressure : 210 Bar
- P1 : Minimum working pressure : 100 Bar
- P0 : Nitrogen Pre-charge : 90 Bar
- ΔV : Volume to be stored : 14L
- Condition : Isothermal (No temperature variation)

A/Compression ratio $\infty = P_2/P_1 = 210/100 = 2,1$

B/From the value 2,1 on the ∞ axis, draw a vertical line that intersects the isothermal reference curve in A.

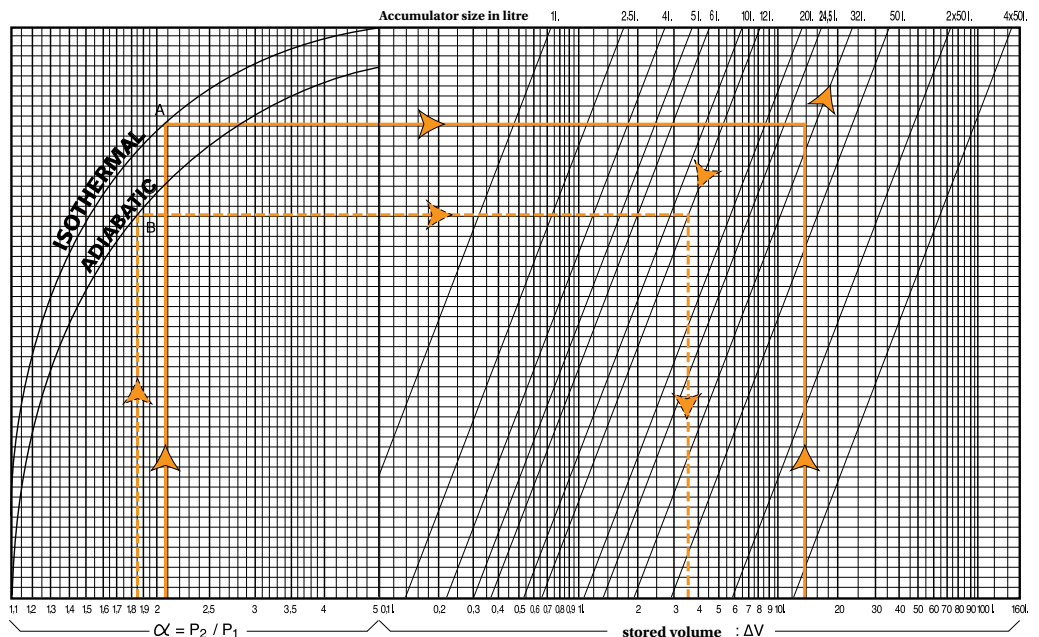
C/From the value 14 on the ΔV axis, draw a vertical line. The intersection point of this line with the horizontal line meeting A indicates a required accumulator size of 32 L.

Calculation of the volume drawn off from an accumulator.
 Accumulator size = 12 L
 P2 = 185 Bar; P1 = 100 Bar;
 P0 = 90 Bar; Adiabatic condition
 $\infty = P_2/P_1 = 185/100 = 1,85$
 ΔV : 3,5 litres

***Reminder**

Isothermal: The transformation is said to be isothermal when the compression or expansion of the gas occurs at a rate slow enough to allow a good thermal exchange, allowing the gas to remain at constant temperature.

Adiabatic: The transformation is said to be adiabatic when the cycle is quick and does not allow a temperature exchange with the ambient media.



Basic sizing chart for accumulator used in energy storage.

Top Repairable Accumulators

This accumulator type can be serviced from both the fluid side or the gas side. The design utilizes many standard accumulator parts, but is unique in that it does not have to be removed from the system in order to change the bladder. This can in many applications be a great advantage. The gas end adaptor mechanically locks to prevent disassembly under pressure.



High Flow Bladder Accumulators

Parker Olaer has several versions of bladder accumulators for high flow applications, depending on how high the flow requirements will be. The first step up from our standard is a high flow version with a 2" fluid port, where the internal geometrics of the port body and poppet valve are specifically designed for that purpose. The next step is a 2 1/2" fluid port which will provide even higher flows. For ultimate demands a 4" fluid port can also be provided. Please note that the last two solutions require shells with larger openings, and are not always available in all shell sizes. Parker Olaer can tailor-make the different parts to suit your technical needs.



Transfer Barrier Accumulators

This range is a special adaptation of the bladder accumulator, with a pipe connected to the gas side of the accumulator. The most common application is to use the transfer accumulator in energy storage applications. The accumulator is connected to an additional volume of nitrogen, for example a gas cylinder. This increases the total volume of the system. Such systems are often mounted together in a battery or rack type installation.

A Transfer Barrier Accumulator can also be used to separate two liquids or a gas and liquid. It is usually a question of separating two liquids, one of which is aggressive or contaminated. To limit the number of parts in contact with the aggressive liquid, it is common practice to put the aggressive fluid inside the bladder and therefore connect on what is normally the gas side.

Dependant upon the accumulator volume, the displaced volume must not exceed 80% of the volume of the transfer accumulator.

EBV Series Bladder Accumulators

EBV - ELG Series, up to 80 bar

IN THIS SECTION

Low Pressure - Carbon Steel

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EBV Series 100 to 575 Litres, 20 bar	16
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Low Pressure - Stainless Steel

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Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

EBV Series

Technical Characteristics

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

- Shell material options include alloyed steel, stainless steel, aluminium, titanium and composites.
- Various bladder materials available which are compatible with a wide range of fluids and temperatures.
- Anti-extrusion system: perforated bushing.

In standard versions : steel shell, bladder and rings in nitrile for operation with mineral oils.

Operating temperature : - 40°C + 140°C

Special constructions : consult Parker Olaer

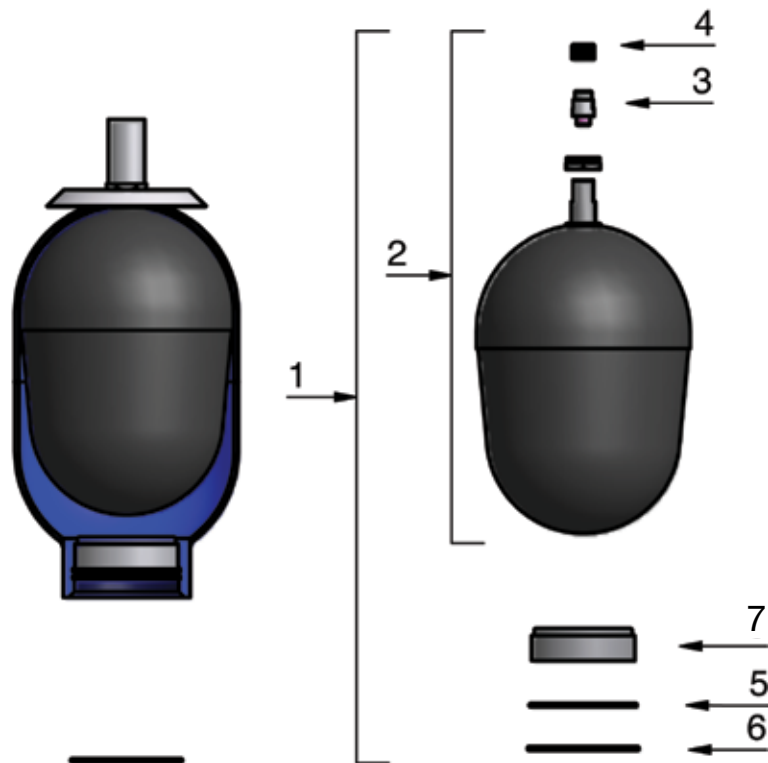
Volume: from 0.5 to 575 Litres

Pressure: from 14 to 80 Bar

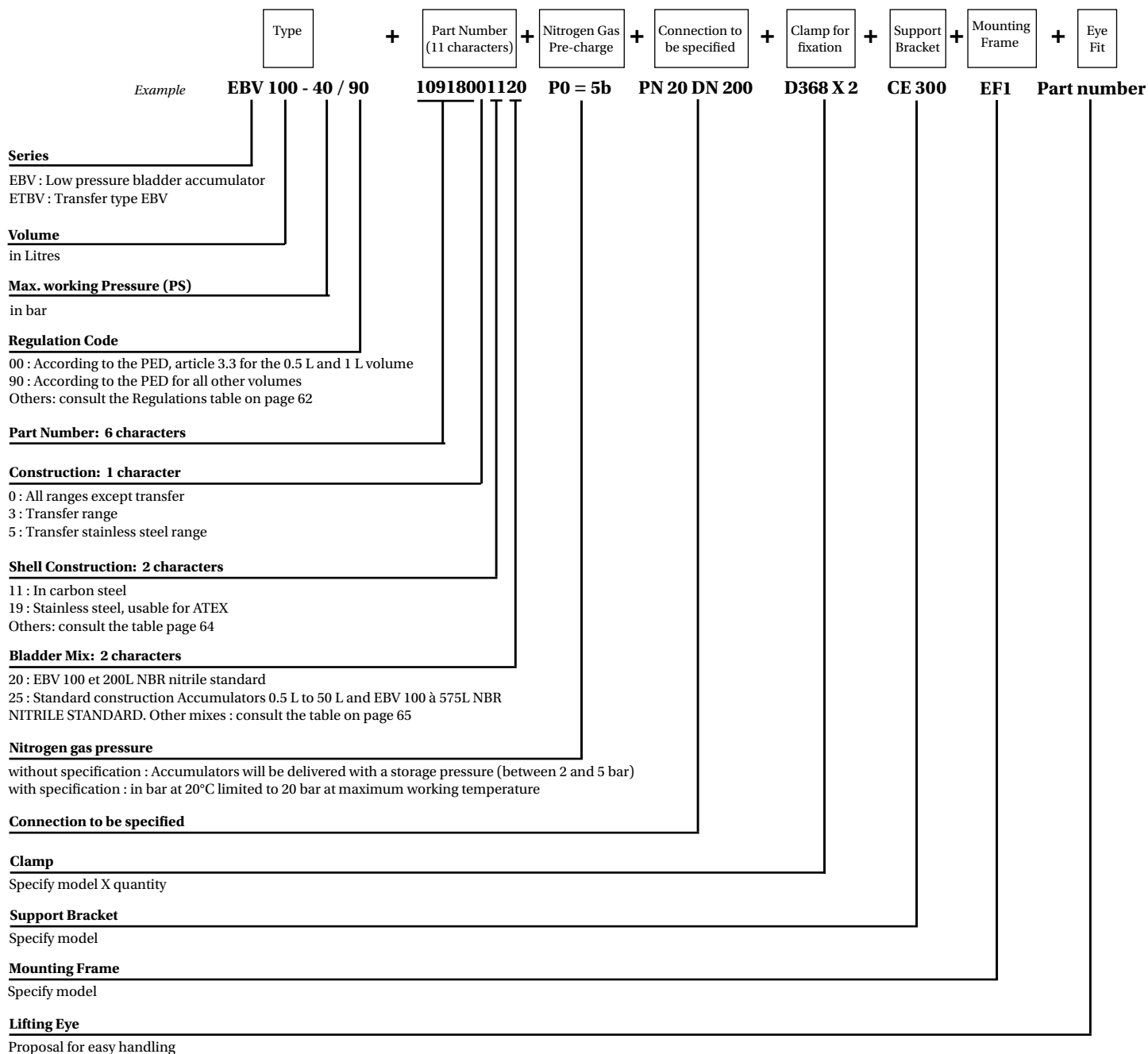
Nitrogen gas pressure : Never precharge accumulator at a pressure exceeding 20 bar at maximum working temperature

Item	Spare parts
1	Spare Parts Kit
2*	Bladder Assembly
3*	Valve nut
4*	Gas valve Assembly
5*	Snap ring
6*	Sealing ring
7*	Brushing assembly

* These parts are delivered in the spare parts kit (complete repair kit)



EBV Series: How to order a low pressure accumulator



EBV Series 40, 50 & 80 bar, 0.5 to 200 Litres

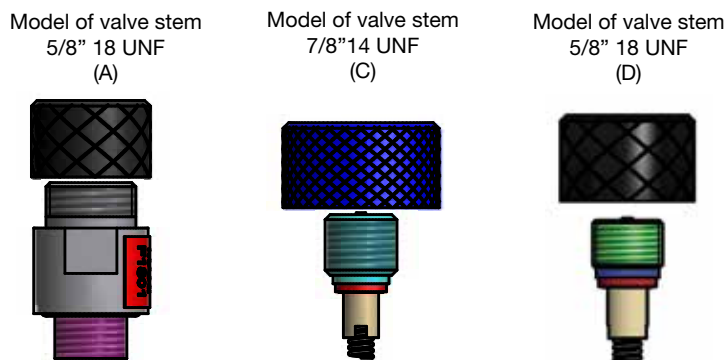
Standard version (**Carbon Steel** shell/NBR mix) for mineral oils

According to PED 97/23/EC, Fluid Group 2

Part numbers, Accessories, Dimensions

Type	Valve model see drawing	Pre-charge 1 - 20 bar	Adaptor Threaded Part number	Flange		Clamps Model (quantity) Part number	Support Bracket Model Part number	Lifting Eye on gas side Model Part number	Complete Repair Kit Model Part number
				Model Part number	Model Part number				
EBV 0.5-50/00* 10383101125	D	751052	G 1" cyl 04557000223	-	-	E95 (1) 20250803648	-	-	KIT EBV 0.5-50/00 19002900225
EBV 1-80/00* 10909801125	C	751053	G 1" cyl 04557000223	1½" ANSI 150 lbs 04542000123	1½" ANSI 300 lbs 04524100123	E114 (1) 20251003648	CE 89 20151903620	-	KIT EBV 1-80/00 19044300225
EBV 2.5-80/90 10909901125	C	751054	G 1" cyl 04557000223	1½" ANSI 150 lbs 04542000123	1½" ANSI 300 lbs 04524100123	E114 (2) 20251003648	CE 89 20151903620	-	KIT EBV 2.5-80/90 19044400225
EBV 5-80/90 10910001125	C	751056	G 1" cyl 04557000223	1½" ANSI 150 lbs 04542000123	1½" ANSI 300 lbs 04524100123	E114 (2) 20251003648	CE 89 20151903620	-	KIT EBV 5-80/90 19044500225
EBV 10-40/90 10910401125	A	751057	G 2" cyl 04570300223	4" ANSI 150 lbs 04500300123	4" ANSI 300 lbs 04520800123	D215 (2) 20251403648	CE 159A 20109003620	10912700200	KIT EBV 10-40/90 19043900225
EBV 20-40/90 10910501125	A	751058	G 2" cyl 04570300223	4" ANSI 150 lbs 04500300123	4" ANSI 300 lbs 04520800123	D215 (2) 20251403648	CE 159A 20109003620	10912700200	KIT EBV 20-40/90 19044000225
EBV 32-40/90 10910601125	A	751059	G 2" cyl 04570300223	4" ANSI 150 lbs 04500300123	4" ANSI 300 lbs 04520800123	D215 (2) 20251403648	CE 159A 20109003620	10912700200	KIT EBV 32-40/90 19044100225
EBV 50-40/90 11077501125	A	751060	G 2" cyl 04570300223	4" ANSI 150 lbs 04500300123	4" ANSI 300 lbs 04520800123	D215 (2) 20251403648	CE 159A 20109003620	10912700200	KIT EBV 50-40/90 19054700225
EBV 100-40/90 10918001120	A	751061	-	8" ANSI 150 lbs 04500800123	8" ANSI 300 lbs 04500900123	D368 (2) 20127403625	CE 300 20150800100	-	KIT EBV 100-40/90 19044600220
EBV 200-40/90 10918101120	A	751062	-	8" ANSI 150 lbs 04500800123	8" ANSI 300 lbs 04500900123	D368 (2) 20127403625	CE 300 20150800100	-	KIT EBV 200-40/90 19044700220

* according to the PED, article 3.3

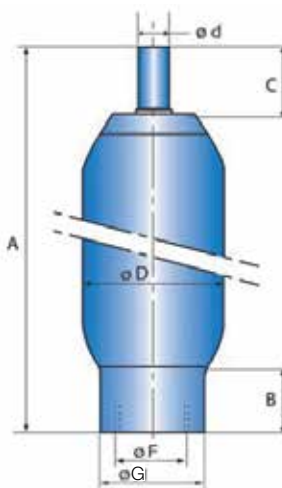


Accumulators are delivered with the nitrogen pre-charge 3 bar.

The charging pressure for low pressure accumulators must never exceed 20 bar at the maximum operating temperature.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max. Flow Rate l/min	Temp. Range min/max °C	Max Weight kg	Dimensions in mm							
						A max height	B	C	øD max	ød	ØF	ØG	
EBV 0.5-50/00*	0.5	50	450	- 20/106	3	245	52	28	90	16	G2"	68	
EBV 1-80/00*	1	80	267	- 40/+150	5	310	47	66	116	22.5	G2"	68	
EBV 2.5-80/90	2.3	80	267	- 40/+150	10	484	47	66	116	22.5	G2"	68	
EBV 5-80/90	5	80	267	- 40/+150	17	867	47	66	116	22.5	G2"	68	
EBV 10-40/90	10	40	900	- 20/+130	13	454	51	75	212	22.5	G3½"	120	
EBV 20-40/90	18	40	900	- 20/+130	22	776	51	75	212	22.5	G3½"	120	
EBV 32-40/90	34	40	900	- 20/+130	37	1309	51	75	212	22.5	G3½"	120	
EBV 50-40/90	50	40	900	- 20/+130	51	1824	51	75	212	22.5	G3½"	120	
EBV 100-40/90	90	40	3000	- 20/+130	124	1318	158	93	371	80	M205x3	224	
EBV 200-40/90	202	40	3000	- 20/+130	215	2529	158	93	371	80	M205x3	224	

Temperature range can be narrowed depending on elastomer.
 Please see Bladder Materials and Type (page 65).



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

EBV Series 20 bar, 100 to 575 Litres

Standard Version (**Carbon Steel** shell/Mix NBR) according to PED 97/23/CE compliant
 Fluid Group 2

Part numbers, Accessories, Dimensions

Type Part number	Pre-charge	Adaptor	Flange		Clamps	Support Bracket	Lifting Eye on gas side	Complete Repair Kit
	1 - 20 bar	Threaded Part number	Model Part number	Model Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number
EBV 100-20/90 10962101120								KIT EBV 100-20/90 19050400225
EBV 150-20/90 10962202020								KIT EBV 150-20/90 19050500225
EBV 200-20/90 10962302020								KIT EBV 200-20/90 19050600225
EBV 300-20/90 10962401125								KIT EBV 300-20/90 19050700225
EBV 375-20/90 10962501125								KIT EBV 375-20/90 19050800225
EBV 475-20/90 10962601125								KIT EBV 475-20/90 19050900225
EBV 530-20/90 10962701120								KIT EBV 530-20/90 19051000225
EBV 575-20/90 10962801120								KIT EBV 575-20/90 19051100225

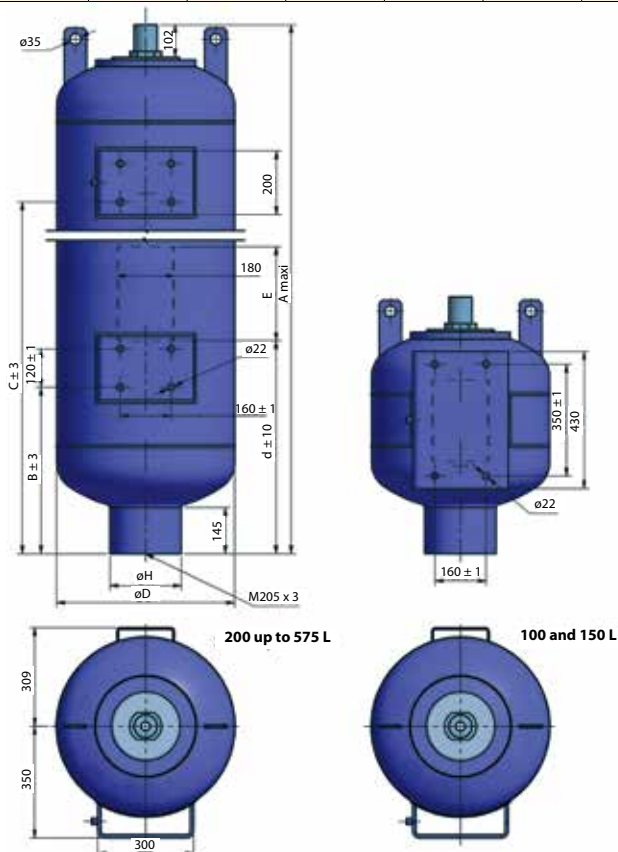
Model of valve stem
 5/8" 18 UNF
 (A)



Accumulators are delivered with the nitrogen pre-charge 3 bar.
 The charging pressure for low pressure accumulators must never exceed 20 bar at the maximum operating temperature.

Type	Effective Gas vol. Litres	Max.Working pressure (PS) bar	Max. Flow rate (l/mn)	Temp. min/ max (°C) (1)	Max Weight kg	Dimensions in mm						
						A max height	B	C	øD max	ød	øE	øH
EBV 100-20/90	93	20	3000	- 20/80	145	824	244	-	561	291.5	255	224
EBV 150-20/90	139	20	3000	- 20/80	170	1027	345,5	-	561	373	295	224
EBV 200-20/90	207	20	3000	- 20/80	208	1326	465	752	561	600	295	224
EBV 300-20/90	293	20	3000	- 20/80	253	1702	522	1128	561	668	295	224
EBV 375-20/90	379	20	3000	- 20/80	300	2083	522	1509	561	1049	295	224
EBV 475-20/90	473	20	3000	- 20/80	350	2497	522	1923	561	1463	295	224
EBV 530-20/90	532	20	3000	- 20/80	380	2756	522	2182	561	1722	295	224
EBV 575-20/90	565	20	3000	- 20/80	400	2905	522	2231	561	1871	295	224

Temperature range can be narrowed depending on elastomer. Please see Bladder Materials and Type (page 65).



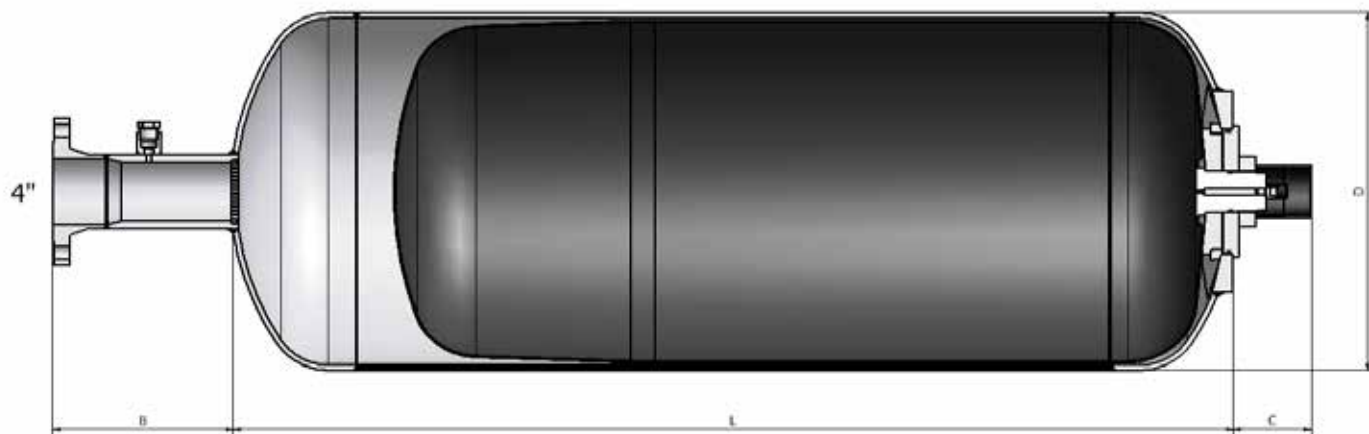
Above dimensions are in mm and are subject to manufacturing tolerances.

EBV Series 35 bar, 100 to 575 Litres

Standard version (**Carbon Steel** shell/bladder for mineral oils) temperature from - 20° up to 100°C
 According to PED 97/23/EC, Fluid Group 1/2
Part numbers, Accessories, Dimensions

Type Part number	Flange	Complete Repair Kit	
		Part number	
EBV 100.35/90 J41000355419R25	Welded flange 4" #150RF other available upon request.	8590009-xyyy	
EBV 150.35/90 J41500355419R25		8590010-xyyy	
EBV 200.35/90 J42000355419R25		8590011-xyyy	
EBV 300.35/90 J43000355419R25		8590013-xyyy	
EBV 375.35/90 J43750355419R25		8590014-xyyy	
EBV 475.35/90 J44750355419R25		8590015-xyyy	
EBV 575.35/90 J45750355419R25		8590017-xyyy	

Type	Effective Gas vol. Litres	Design P bar	Max Weight kg	L (mm)	øD max (mm)	B	C
EBV 100.35/90	103	35	188	556	560	260	175
EBV 150.35/90	154	35	220	759	560	260	175
EBV 200.35/90	205	35	271	1058	560	260	175
EBV 300.35/90	303	35	339	1448	560	260	175
EBV 375.35/90	377	35	397	1815	560	260	175
EBV 475.35/90	478	35	463	2230	560	260	175
EBV 575.35/90	579	35	525	2638	560	260	175



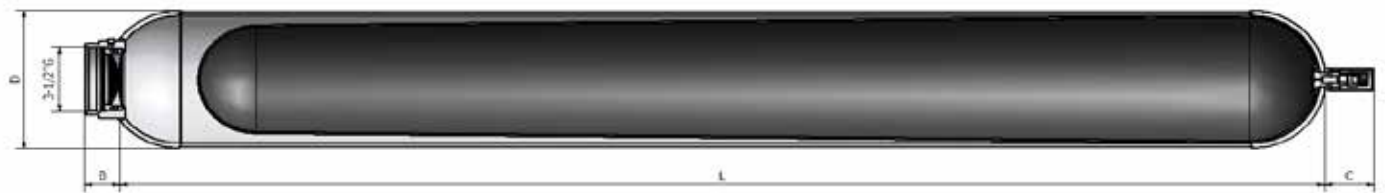
EBV Series 14 bar, 10 to 50 Litres

Standard version (**Stainless Steel** shell/bladder for mineral oils) temperature from - 20° up to 100°C
 According to PED 97/23/EC, Fluid Group 1/2
Part numbers, Accessories, Dimensions

Type Part number	Adaptor	Flange	Clamps	Support Bracket	Complete Repair Kit
			Model (quantity) Part number	Model Part number	Part number
EBV 10.14/90 J4010014500XR25	Various adaptors and flanges available		D215 (2) 20251403648	CE 159A 20109003620	8590001-xyyy
EBV 12.14/90 J4012014500XR25			D215 (2) 20251403648	CE 159A 20109003620	8590002-xyyy
EBV 20.14/90 J4020014500XR25			D215 (2) 20251403648	CE 159A 20109003620	8590003-xyyy
EBV 24,5.14/90 J4245014500XR25			D215 (2) 20251403648	CE 159A 20109003620	8590004-xyyy
EBV 32.14/90 J4032014500XR25			D215 (2) 20251403648	CE 159A 20109003620	8590005-xyyy
EBV 50.14/90 J4050014500XR25			D215 (2) 20251403648	CE 159A 20109003620	8590006-xyyy

Type	Effective Gas vol. Litres	Design P bar	Max Weight kg	L (mm)	øD max (mm)	B	C	Or Fluid side*
EBV 10.14/90	9	14	16	324	215	57	66	96 x 3
EBV 12.14/90	11	14	20	435	215	57	66	96 x 3
EBV 20.14/90	18	14	27	645	215	57	66	96 x 3
EBV 24,5.14/90	22.5	14	32	815	215	57	66	96 x 3
EBV 32.14/90	32	14	44	1180	215	57	66	96 x 3
EBV 50.14/90	48.5	14	62	1695	215	57	66	96 x 3

* Supplied if adaptor/flange is assembled.



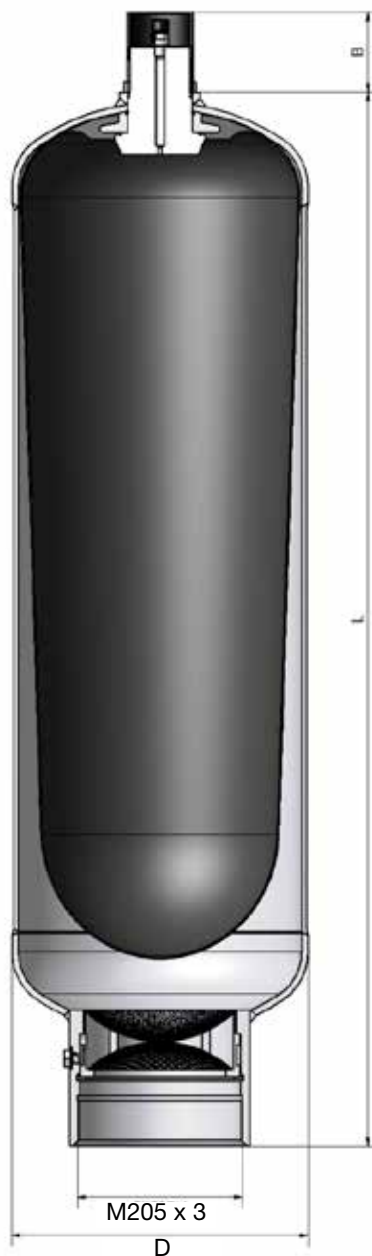
EBV Series 14 bar, 100 and 200 Litres

Standard version (**Stainless Steel** shell/bladder for mineral oils) temperature range from 6°C to 100°C
 According to PED 97/23/EC, Fluid Group 1/2
Part numbers, Accessories, Dimensions

Type	Adaptor	Flange	Clamps	Support Bracket	Complete Repair Kit
Part number			Model (quantity) Part number	Model Part number	Part number
EBV 100.14/90 J4100014500XR25	Various adaptors and flanges available		D368 (2) 20127403625	CE 300 20150800100	8590007-xyyy
EBV 200.14/90 J4200014500XR25			D368 (2) 20127403625	CE 300 20150800100	8590008-xyyy

Type	Effective Gas vol. Litres	Design P bar	Max Weight kg	L (mm)	øD max (mm)	C	Or Fluid side*
EBV 100.14/90	97	14	85	1215	368	95	196 x 3
EBV 200.14/90	196.5	14	154	2427	368	95	196 x 3

* Supplied if adaptor/flange is assembled.



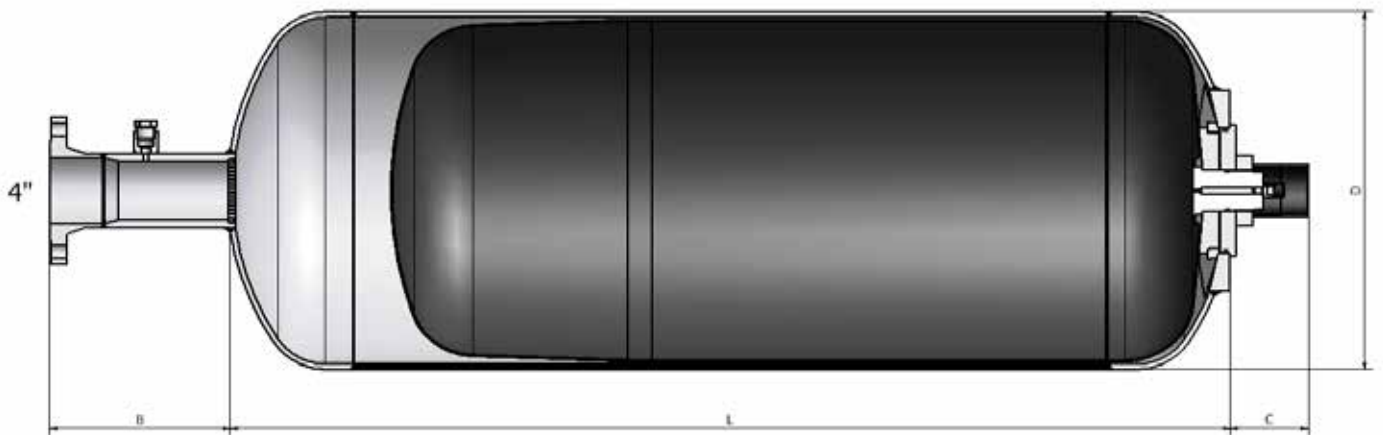
EBV Series 14 bar, 100 to 575 Litres

Standard version (**Stainless Steel** shell/bladder for mineral oils) temperature from 20°C up to 100°C
 According to PED 97/23/EC, Fluid Group 1/2
Part numbers, Accessories, Dimensions

Type Part number	Flange	Complete Repair Kit	
		Part number	
EBV 100.14/90 J41000145419R25	Welded flange 4" #150RF other available upon request.	8590009-xyyy	
EBV 150.14/90 J41500145419R25		8590010-xyyy	
EBV 200.14/90 J42000145419R25		8590011-xyyy	
EBV 300.14/90 J43000145419R25		8590013-xyyy	
EBV 375.14/90 J43750145419R25		8590014-xyyy	
EBV 475.14/90 J44750145419R25		8590015-xyyy	
EBV 575.14/90 J45750145419R25		8590017-xyyy	

Accumulators shall be provided with Welded brackets or legs.

Type	Effective Gas vol. Litres	Design P bar	Max Weight kg	L (mm)	øD max (mm)	B	C
EBV 100.14/90	103	14	129	556	560	260	175
EBV 150.14/90	154	14	153	759	560	260	175
EBV 200.14/90	205	14	187	1058	560	260	175
EBV 300.14/90	303	14	234	1448	560	260	175
EBV 375.14/90	377	14	274	1815	560	260	175
EBV 475.14/90	478	14	320	2230	560	260	175
EBV 575.14/90	579	14	365	2638	560	260	175



EBV Series 20 & 40 bar, 0,5 to 200 Litres

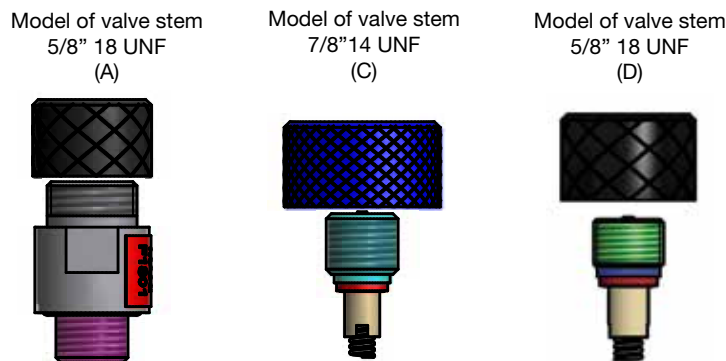
Standard Version (**Stainless Steel/NBR Mix**) according to PED 97/23/CE compliant

Fluid Group 2

Part numbers, Accessories, Dimensions

Type Part number	Valve model see drawing	Pre-charge 1 - 20 bar	Adaptor Threaded Part number	Flange		Clamps Model Part number	Support Bracket Model Part number	Lifting Eye on gas side Model Part number	Complete Repair Kit Model Part number
				Model Part number	Model Part number				
EBV 0,5-40/00* 10929001925	D	751052	G 1" cyl 04557001423	-	-	Consult page 152	-	-	KIT EBV 0,5-40/00 19010401725
EBV 1-40/00* 10929101925	C	751052	G 1" cyl 04557001423	1½" ANSI 150 lbs 04542001423	1½" ANSI 300 lbs 04524101423		CE 89 20151901220	-	KIT EBV 1-40/00 19044301720
EBV 2,5-40/90 10929201925	C	751052	G 1" cyl 04557001423	1½" ANSI 150 lbs 04542001423	1½" ANSI 300 lbs 04524101423		CE 89 20151901220	-	KIT EBV 2,5-40/90 19044401720
EBV 5-40/90 10929301925	C	751052	G 1" cyl 04557001423	1½" ANSI 150 lbs 04542001423	1½" ANSI 300 lbs 04524101423		CE 89 20151901220	-	KIT EBV 5-40/90 19044501725
EBV 10-40/90 10910401925	A	751057	G 2" cyl 04570301423	4" ANSI 150 lbs 04500301423	4" ANSI 300 lbs 04520801423		CE 159A 20109001220	10912701200	KIT EBV 10-40/90 19043901725
EBV 20-40/90 10910501925	A	751058	G 2" cyl 04570301423	4" ANSI 150 lbs 04500301423	4" ANSI 300 lbs 04520801423		CE 159A 20109001220	10912701200	KIT EBV 20-40/90 19044001725
EBV 32-40/90 10910601925	A	751059	G 2" cyl 04570301423	4" ANSI 150 lbs 04500301423	4" ANSI 300 lbs 04520801423		CE 159A 20109001220	10912701200	KIT EBV 32-40/90 19044101725
EBV 50-40/90 11077501925	A	751060	G 2" cyl 04570301423	4" ANSI 150 lbs 04500301423	4" ANSI 300 lbs 04520801423		CE 159A 20109001220	10912701200	KIT EBV 50-40/90 19054701725
EBV 100-20/90 10951901920	A	751061	-	8" ANSI 150 lbs 04500801423	8" ANSI 300 lbs 04500901423		CE 300	-	KIT EBV 100-20/90 19044601220
EBV 200-20/90 10952001920	A	751062	-	8" ANSI 150 lbs 04500801423	8" ANSI 300 lbs 04500901423		CE 300	-	KIT EBV 200-20/90 19044701220

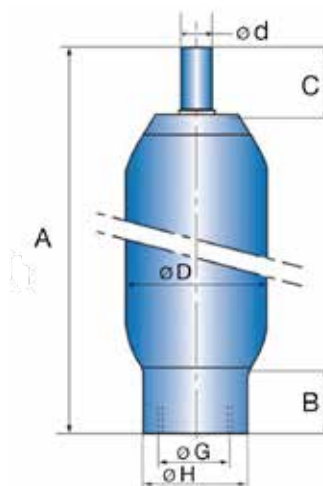
* according to the PED, article 3.3



Accumulators are delivered with a nitrogen pre-charge of 3 bar.
 The charging pressure for low pressure accumulators must never exceed 20 bar at the maximum operating pressure

Type	Effective Gas vol. Litres	Max.Working pressure (PS) bar	Max. Flow rate (l/mn)	Temp. min/max (°C) (1)	Max Weight kg	Dimensions in mm							
						A max height	B	C	øD max	ød	G connection	øH	
EBV 0,5-40/00*	0,5	40	450	- 40/+130	1.20	246	52	30	91	16	G2"	70	
EBV 1-40/00*	1	40	450	- 40/+130	1.70	312	52	75	110	22.5	G2"	70	
EBV 2,5-40/90	2,5	40	450	- 40/+130	3.50	486	51	75	109.5	22.5	G2"	70	
EBV 5-40/90	5	40	450	- 40/+130	6.50	869	51	75	109.5	22.5	G2"	70	
EBV 10-40/90	10	40	900	- 40/+80	13	454	51	75	212	22.5	G3½"	120	
EBV 20-40/90	18	40	900	- 40/+80	22	776	51	75	212	22.5	G3½"	120	
EBV 32-40/90	34	40	900	- 40/+80	37	1309	51	75	212	22.5	G3½"	120	
EBV 50-40/90	50	40	900	- 40/+80	51	1829	51	75	212	22.5	G3½"	120	
EBV 100-20/90	90	20	3000	- 20/+80	92	1317	158	93	371	80	M205 x 3	224	
EBV 200-20/90	202	20	3000	- 20/+80	171	2528	158	93	371	80	M205 x 3	224	

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



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

Adaptors EBV Carbon Steel

Accumulator model	Connection of accumulator ø F	Connection ø I	Part Number
EBV 0,5 to 5 Litres 50 & 80 Bar	G 2"	G1"	04557000223
		Blind	04502400223
EBV 10 to 50 Litres 40 Bar	G 3 1/2"	G2"	04570300223
		Blind	04500500223
EBV 100 to 200 Litres 40 Bar	M205 x 3	G2"	04565600223
		Blind	04500600223

(1) 2 holes dia 8,5 x 10

Adaptors EBV Stainless Steel

Accumulator model	Connection of accumulator ø F	Connection ø I	Part Number
EBV 0,5 to 5 Litres 50 & 80 Bar	G 2"	G1"	04557001423
		Blind	04502401423
EBV 10 to 50 Litres 40 Bar	G 3 1/2"	G2"	04570301423
		Blind	04500501423
EBV 100 to 200 Litres 20 Bar	M205 x 3	G2"	04565601423
		Blind	04500601423

(1) 2 holes dia 8,5 x 10

Flanges EBV Carbon Steel

Accumulator model	Connection of accumulator ø G	Flange Model	Part Number	K
EBV 1 to 5 Litres 40 Bar	G 2"	1 1/2" ANSI 150 lbs	04542000123	22
		1 1/2" ANSI 300 lbs	04524100123	25
EBV 10 to 50 Litres 40 Bar	G 3 1/2"	4" ANSI 150 lbs	04500300123	28
		4" ANSI 300 lbs	04520800123	37
EBV 100 to 575 Litres 40 Bar	M205 x 3	8" ANSI 150 lbs	04500800123	142
		8" ANSI 300 lbs	04500900123	151

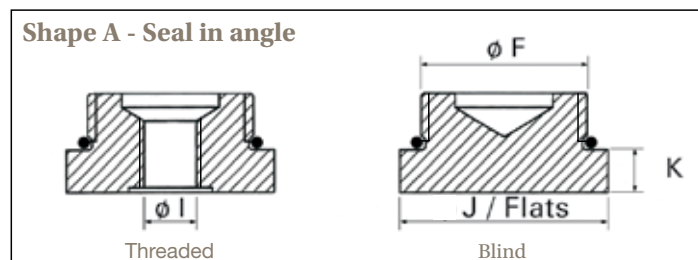
Flanges EBV Stainless Steel

Accumulator model	Connection of accumulator ø G	Flange Model	Part Number	K
EBV 1 to 5 Litres 80 Bar	G 2"	1 1/2" ANSI 150 lbs	04542001423	22
		1 1/2" ANSI 300 lbs	04524101423	25
EBV 10 to 50 Litres 40 Bar	G 3 1/2"	4" ANSI 150 lbs	04500301423	28
		4" ANSI 300 lbs	04520801423	37

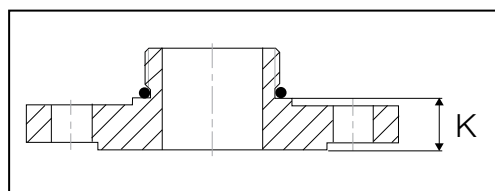
Shape	J/Flats	K	O-ring & Back-up Ring
A	65	13	A. O-Ring 54 x 3
A	65	13	O-Ring 54 x 3
A	112	20	O-Ring 96 x 4
A	112	20	O-Ring 96 x 4
A	2x Ø8,5x10	20	O-Ring 196,21 x 5,33
A	2x Ø8,5x10	20	O-Ring 196,21 x 5,33

Shape	J/Flats	K	O-ring & Back-up Ring
A	-	13	A. O-Ring 54 x 3
A	65	13	O-Ring 54 x 3
A	112	20	O-Ring 96 x 4
A	112	20	O-Ring 96 x 4
A	-	20	O-Ring 196,21 x 5,33
A	-	20	O-Ring 196,21 x 5,33

Adaptors EBV



Flanges EBV



These accessories are designed to perfectly fit Parker ACDE accumulators. They meet the latest regulations and are compliant with the CETOP standard.

ELG and OLG Series, 20 & 50 bar

Standard Version (Steel shell or **Stainless steel**/ NBR mix) for mineral oils temperature from - 15° up to 100°C
 According to PED 97/23/EC, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

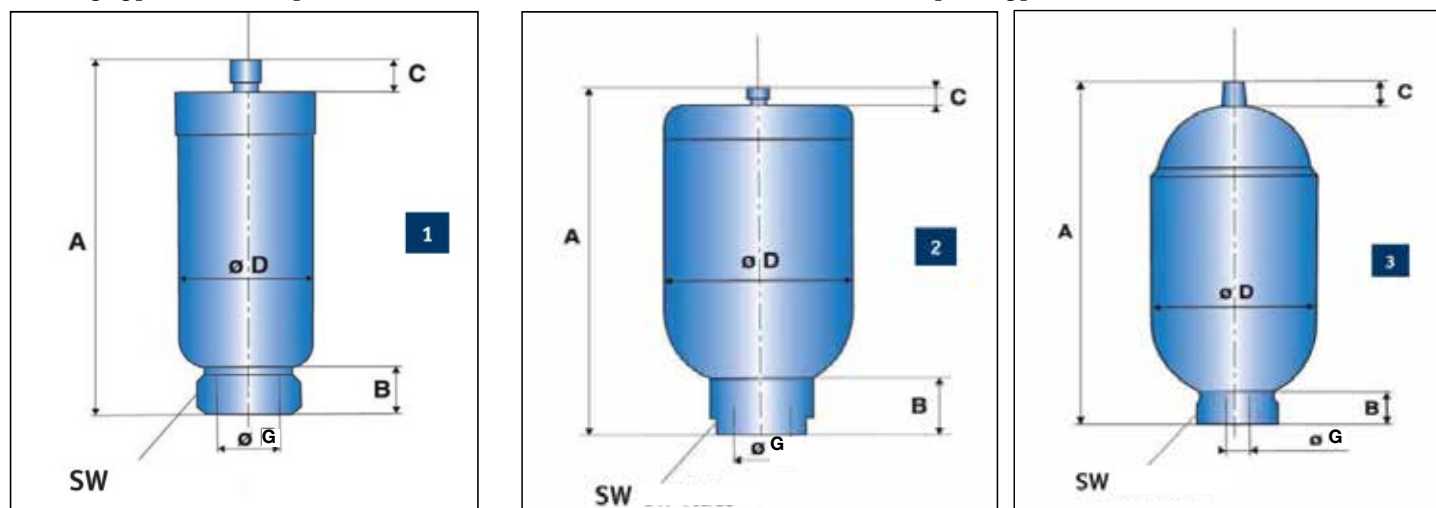
Type Part number	Pre-charge	Clamps
	1 - 20 bar	Model (quantity) Part number
OLG 0.13-50/00 (1) 10268401925	751011	-
OLG 1-20/00 (2) 10411901125	751053	E106 (1) 20250903648
ELG 4-20/90 3/4" (3) 10931201925	751055	E155 (1) 20251203648
ELG 4-20/90 2" (3) 10931301925	751055	E155 (1) 20251203648

- (1) according to the PED, article 3.3 stainless steel
- (2) according to the PED, article 3.3
- (3) according to the PED stainless steel
- (4) suitable with connection 3/4" gas cylinder.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Weight kg	Gas Connection	Dimensions in mm						
					A max height	B	C	øD max	ø Spot facing x depth	SW	G connection
OLG 0.13-50/00 (1)	0.1	50	0.3	8V1	136	16	13	50	33 x 0.5	6 flats 36 A/F	G 3/4" (4)
OLG 1-20/00 (2)	1	20	1.6	8V1	210	31	11	107	-	2 flats 46 A/F	G 1" (4)
ELG 4-20/90 3/4" (3)	3.8	20	3.5	8V1	337	28	16	155	73 x 1.5	2 flats 82 A/F	G 3/4" (4)
ELG 4-20/90 2" (3)	3.8	20	3.7	8V1	340	40	16	155	73 x 1.5	2 flats 82 A/F	G 2" (4)

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

The charging pressure for low pressure accumulators must never exceed 20 bar at the maximum operating pressure



EHV Series Bladder Accumulators

High Pressure, 250 to 690 bar

IN THIS SECTION

High Pressure - Carbon Steel

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High Pressure - Stainless Steel

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Bladder	EBV
	EHV
	Regulations
Pistons	O&G
	EHP
	ACP
	AP
Pulsation Dampers	A
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

EHV Series: General Information Bladder Accumulators

Technical Characteristics

The accumulator comprises a forged steel shell, a rubber bladder and a fluid port assembly.

- Shell material options include alloyed steel, stainless steel, aluminium, titanium and composites.
- Various bladder materials available which are compatible with a range of fluids and temperatures.
- Anti-extrusion system: fluid port assembly for high pressure.

In standard versions : shell in steel, bladder and rings in nitrile for functioning with mineral oils.

Operating temperature : - 20°C + 80°

Special constructions : following others volumes, fluids, temperatures, regulations. Consult Parker Olaer

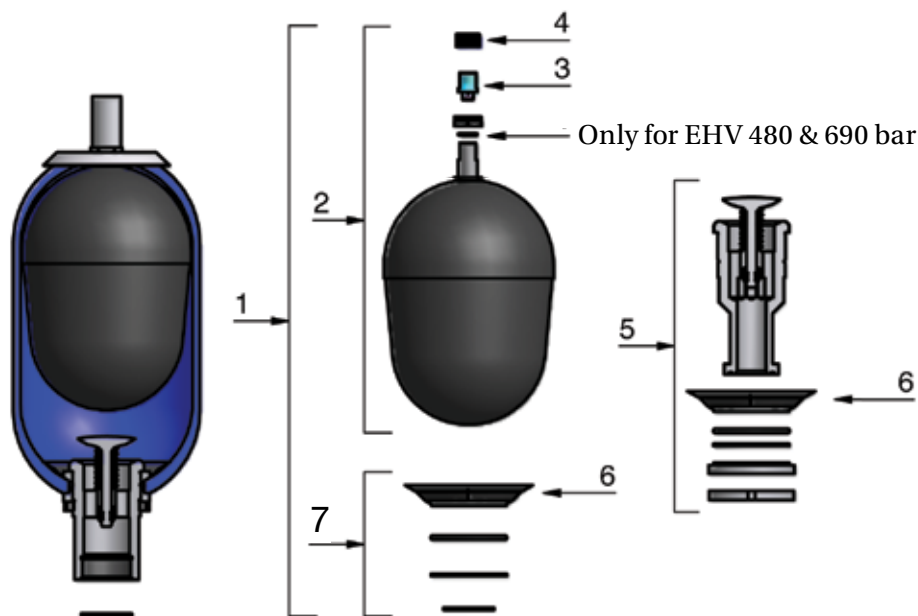
Volume: from 0.2 to 57 Litres

Pressure: from 70 to 690 Bars

Nitrogen gas pressure : The maximum pressure (PS) is indicated on the accumulator. Check that the maximum allowable pressure is greater than that of the hydraulic system.

Item	Spare parts
1	Spare Parts Kit
2*	Bladder assembly
3*	Gas valve
4*	Valve cap
5	Fluid port assembly
6*	Anti extrusion ring
7*	Seal kit

* These parts are supplied as a kit with instructions.



EHV Series: How to order a high pressure accumulator

Type	+	Part Number (11 characters)	+	Nitrogen Gas Pre-charge	+	Connection to be specified	+	Clamp for fixation	+	Support Bracket	+	Mounting Frame	+	Eye Fit	Part number
<i>Example</i> EHV 32 - 330 / 90		10837301125		P0 = 200b		G 1"		D226 X 2		CE 300		EF1			
Series EHV: High pressure bladder accumulator EHVF: EHV with Flange EHVDA: High Flow EHV ETHV: Transfer type EHV															
Volume in Litres															
Max. working Pressure (PS) in bar															
Regulation Code 00 : According to the PED article 3.3 for the volumes from 0.2 to 1L , Fluid Group 2 90 : According to the PED Others: consult the table pages 62 & 63															
Part Number: 6 characters															
Construction: 1 character 0 : All ranges except transfer 3 : Transfer range 5 : Transfer stainless steel range															
Shell Construction: 2 characters 11 : In carbon steel 19 : Stainless steel, usable for ATEX Others: consult the table page 64															
Bladder Mix: 2 characters 20 : Accumulators 0.2L NBR NITRILE STANDARD 25 : Standard construction NBR NITRILE STANDARD Other mixes: Consult the table page 65															
Nitrogen gas Pressure Without specification: Accumulators will be delivered with a storage pressure between 2 and 5 bar. With specification: in specified bar at 20 °C															
Connection to be specified															
Clamp Specify model X quantity															
Support Bracket Specify model															
Mounting Frame Specify model															
Lifting Eye Proposal for easy handling															

EHV Series 330 bar, 10 to 57 Litres

Standard version (**Carbon Steel** shell/NBR mix) for mineral oils
 According to PED 97/23/EC, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

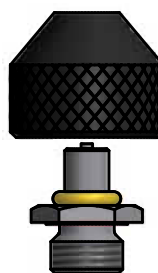
Type Part number	Valve model see drawing	Pre-charge			Adaptor*	Clamps	Support Bracket	Mounting Frame	Lifting Eye on gas side	Complete Repair Kit
		1 - 109 bar	110 - 209 bar	210 - 300 bar						
EHV 10-330/90 10837001125	A	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	10912700200	KIT EHV 10-330/90 19028900225
10865401125	B									19035800225
EHV 12-330/90 10867101125	A	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	10912700200	KIT EHV 12-330/90 19032100225
10867401125	B									19035900225
EHV 20-330/90 10837101125	A	751005	751024	751039	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	10912700200	KIT EHV 20-330/90 19029000225
10865501125	B									19036000225
EHV24.5-330/90 10837201125	A	751017	751025	751040	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	10912700200	KIT EHV 24.5-330/90 19029400225
10865601125	B									19036300225
EHV 32-330/90 10837301125	A	751006	751026	751041	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF3 20217700125	10912700200	KIT EHV 32-330/90 19029100225
10865701125	B									19036100225
EHV 42-330/90 11112301125	A	751212	751213	751214	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF3 20217700125	10912700200	KIT EHV 42-330/90 19060800225
11123601125	B									19061100225
EHV 50-330/90 11076701125	A	751007	751027	751042	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF3 20217700125	10912700200	KIT EHV 50-330/90 19054100225
11076801125	B									19054200225
EHV 57-330/90 11112401125	A	751215	751216	751217	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF3 20217700125	10912700200	KIT EHV 57-330/90 19060900225
11123801125	B									19061200225

* For more adaptor options see page 58.

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

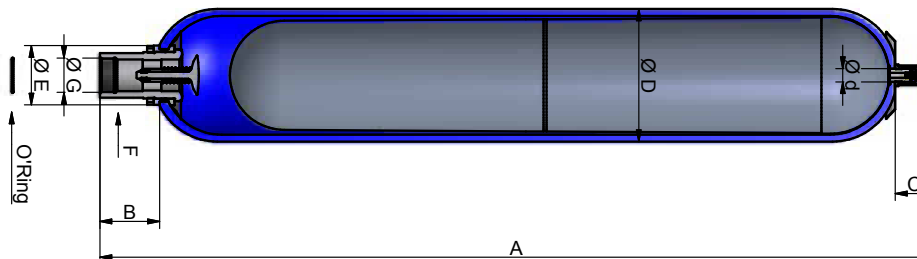


Model of valve stem
 7/8" 14 UNF
 (B)



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/max (°C) (1)	Weight kg	Gas connection	Dimensions in mm							
							A max height	B	C	øD max	ød	øE	F on flats	G connection
EHV 10-330/90	9.2	330	900	- 40/+80	31	5/8" 18 UNF	587	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV 12-330/90	11	330	900	- 40/+80	36	5/8" 18 UNF	687	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV 20-330/90	17.8	330	900	- 40/+80	49	5/8" 18 UNF	897	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV24.5-330/90	22.5	330	900	- 40/+80	56	5/8" 18 UNF	1032	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV 32-330/90	32	330	900	- 40/+80	81	5/8" 18 UNF	1420	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV 42-330/90	42	330	900	- 40/+80	87	5/8" 18 UNF	1562	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV 50-330/90	48.5	330	900	- 40/+80	110	5/8" 18 UNF	1936	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								
EHV 57-330/90	51	330	900	- 40/+80	116	5/8" 18 UNF	2032	103	66	226	22.5	101	70	G 2"
						7/8" 14 UNF								

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



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

EHV Series 350 bar, 0.2 to 10 Litres

Standard Version (**Carbon Steel** shell/NBR mix) for mineral oils
 According to PED 97/23/EC, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

Type Part number	Valve model see drawing	Pre-charge			Adaptor** Threaded Part number	Clamps Model (quantity) Part number	Support Bracket Model Part number	Mounting Frame Model Part number	Lifting Eye on gas side Model Part number	Complete Repair Kit Model Part number
		1 - 109 bar	110 - 209 bar	210 - 300 bar						
EHV 0.2-350/00* 10876301120	D	751013	751028	751043	G 1/4" cyl 04556500223	A56 (1) 20149203625	-	-	-	KIT EHV 0.2-350/00 19001000220
EHV 0.5-350/00* 10876401125	D	751000	751029	751044	G 3/8" cyl 04556400223	E95 (1) 20250803648	-	-	-	KIT EHV 0.5-350/00 19001100225
EHV 1-350/00* 10845601125	C	751001	751030	751045	G 3/8" cyl 04556400223	E114 (1) 20251003648	CE 89 20151903620	-	-	KIT EHV 1-350/00 19029700225
10866901125	B									19036400225
EHV 1.6-350/90 10998301125	C	751014	751019	751034	G 3/8" cyl 04556400223	E114 (1) 20251003648	CE 89 20151903620	-	-	KIT EHV 1.6-350/90 19060700225
11123501125	B									19061000225
EHV 2.5-350/90 10854701125	C	751002	751031	751046	G 3/4" cyl 04555200223	E114 (2) 20251003648	CE 89 20151903620	-	-	KIT EHV 2.5-350/90 19029800225
10866601125	B									19036500225
EHV 4-350/90 10845401125	C	751012	751020	751035	G 3/4" cyl 04555200223	E168 (1) 20251303648	CE108 20118703620	EF1 20217500125	-	KIT EHV 4-350/90 19029900225
10866101125	B									19036600225
EHV 5-350/90 10861201125	C	751003	751032	751047	G 3/4" cyl 04555200223	E114 (2) 20251003648	CE 89 20151903620	-	-	KIT EHV 5-350/90 19030000225
10866701125	B									19036700225
EHV 6-350/90 10857401125	C	751015	751021	751036	G 3/4" cyl 04555200223	E168 (2) 20251303648	CE108 20118703620	EF1 20217500125	-	KIT EHV 6-350/90 19030100225
10866201125	B									19036800225
EHV 10-350/90 10859701125	C	751004	751022	751037	G 3/4" cyl 04555200223	E168 (2) 20251303648	CE108 20118703620	EF1 20217500125	10912700200	KIT EHV 10-350/90 19030200225
10866301125	B									19036900225

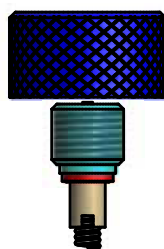
* according to the PED, article 3.3

** For more adaptor options see page 58.

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



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

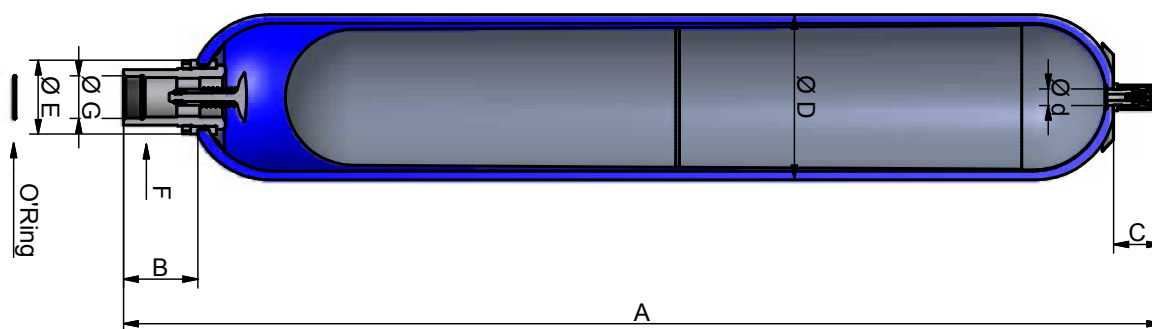


Model of valve stem
5/8" 18 UNF
(D)



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/ max (°C) (1)	Weight kg	Gas connection	Dimensions in mm							G connection
							A max height	B	C	øD max	ød	øE	F on flats	
EHV 0.2-350/00	0.17	350	120	- 20/+80	2.5	5/8" 18 UNF	268	38	27	58	16	39	24	G 1/2"
EHV 0.5-350/00	0.6	350	240	- 40/+80	3	5/8" 18 UNF	260	54	27	91	16	50	32	G 3/4"
EHV 1-350/00	1	350	240	- 40/+80	6	7/8" 14 UNF	330	54	66	116	22.5	50	32	G 3/4"
						7/8" 14 UNF								
EHV 1.6-350/90	1.6	350	240	- 40/+80	8	7/8" 14 UNF	442	54	66	116	22.5	50	32	G 3/4"
						7/8" 14 UNF								
EHV 2.5-350/90	2.4	350	450	- 40/+80	11	7/8" 14 UNF	549	66	66	116	22.5	68	50	G 1 1/4"
						7/8" 14 UNF								
EHV 4-350/90	3.7	350	450	- 40/+80	15	7/8" 14 UNF	434	65	66	170	22.5	68	50	G 1 1/4"
						7/8" 14 UNF								
EHV 5-350/90	5	350	450	- 40/+80	17	7/8" 14 UNF	898	66	66	116	22.5	68	50	G 1 1/4"
						7/8" 14 UNF								
EHV 6-350/90	6	350	450	- 40/+80	20	7/8" 14 UNF	560	65	66	170	22.5	68	50	G 1 1/4"
						7/8" 14 UNF								
EHV 10-350/90	10	350	450	- 40/+80	31	7/8" 14 UNF	825	65	66	170	22.5	68	50	G 1 1/4"
						7/8" 14 UNF								

(1) Temperature range can be narrowed depending on elastomer
Please see Bladder Materials and Type (page 65).



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

EHV Series 480 bar, 10 to 50 Litres

Standard Version (**Carbon Steel** shell/NBR mix) for mineral oils

According to PED 97/23/EC, Fluid Group 2

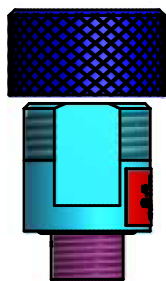
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge			Adaptor*	Clamps	Support Bracket	Mounting Frame	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar					
EHV 10-480/90 10949901125	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	KIT EHV 10-480/90 19055702525
EHV 12-480/90 10950001125	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	KIT EHV 12-480/90 19063002525
EHV 20-480/90 10950101125	751005	751024	751039	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	KIT EHV 20-480/90 19050002525
EHV 32-480/90 10950201125	751006	751026	751041	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF3 20217700125	KIT EHV 32-480/90 19051302525
EHV 50-480/90 10950301125	751007	751027	751042	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF3 20217700125	KIT EHV 50-480/90 19050302525

For pre-charge over 300 bar please consult Division

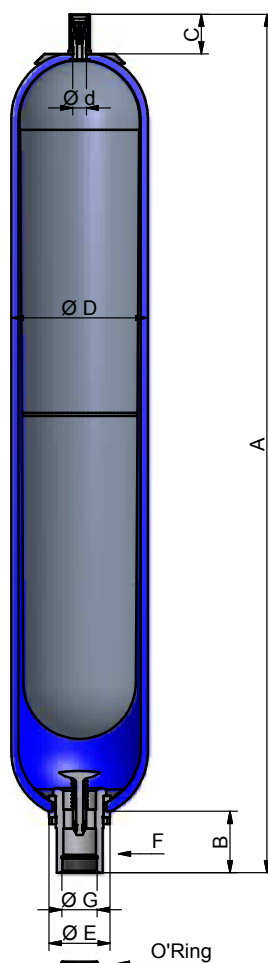
* For more adaptor options see page 58.

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



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/max (°C) (1)	Weight kg	Gas connection	Dimensions in mm							
							A max height	B	C	ØD max	ød	øE	F on flats	G connection
EHV 10-480/90	9.2	480	900	- 40/+80	33	7/8" 14 UNF	593	103	74	228	22.5	101	70	G 2"
EHV 12-480/90	11	480	900	- 40/+80	43	7/8" 14 UNF	693	103	74	228	22.5	101	70	G 2"
EHV 20-480/90	17.8	480	900	- 40/+80	63	7/8" 14 UNF	903	103	74	228	22.5	101	70	G 2"
EHV 32-480/90	32	480	900	- 40/+80	97	7/8" 14 UNF	1428	103	74	228	22.5	101	70	G 2"
EHV 50-480/90	48.5	480	900	- 40/+80	132	7/8" 14 UNF	1968	103	99	228	50	101	70	G 2"

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



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

EHV Series 690 bar, 1 to 54 Litres

Standard Version (**Carbon Steel** shell/NBR mix) for mineral oils

According to PED 97/23, EN 14359 Fluid Group 2

Part numbers, Accessories, Dimensions

Type Part number	Pre-charge			Adaptor** Threaded Part number	Clamps Model (quantity) Part number	Support Bracket Model Part number	Lifting Eye on gas side Model Part number	Complete Repair Kit Model Part number
	1 - 109 bar	110 - 209 bar	210 - 300 bar					
EHV 1-690/00* 10910101125	751001	751030	751045	G 1/2" cyl 04570400223	E114 (1) 20251003648	CE89 20151903620	10912700200	KIT EHV 1- 690/00 19043500225
EHV 2.5-690/90 10910201125	751002	751031	751046	G 1/2" cyl 04570400223	E114 (2) 20251003648	CE89 20151903620	10912700200	KIT EHV 2.5-690/90 19043600225
EHV 5-690/90 10910301125	751003	751032	751047	G 1/2" cyl 04570400223	E114 (2) 20251003648	CE89 20151903620	10912700200	KIT EHV 5-690/90 19043700225

For pre-charge over 300 bar please consult Division

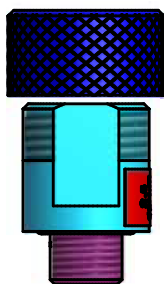
* according to the PED, article 3.3

** For more adaptor options see page 58

EHV 690 bar

Type Part number	Pre-charge			Adaptor Threaded Part number	Clamps Model (quantity) Part number	Support Bracket Model Part number	Complete Repair Kit Model Part number
	1 - 109 bar	110 - 209 bar	210 - 300 bar				
EHV 12-690/90 1203V-DC-691	751016	751023	751038				KIT EHV 12-690/90
EHV 20-690/90 2003V-DC-691	751005	751024	751039				KIT EHV 20-690/90
EHV 37-690/90 3703V-DC-691	751006	751026	751041				KIT EHV 32-690/90
EHV 54-690/90 5403V-DC-691	751007	751027	751042				KIT EHV 54-690/90

Model of valve stem
 7/8" 14 UNF
 (E)
 For models 1 to 5 Litres



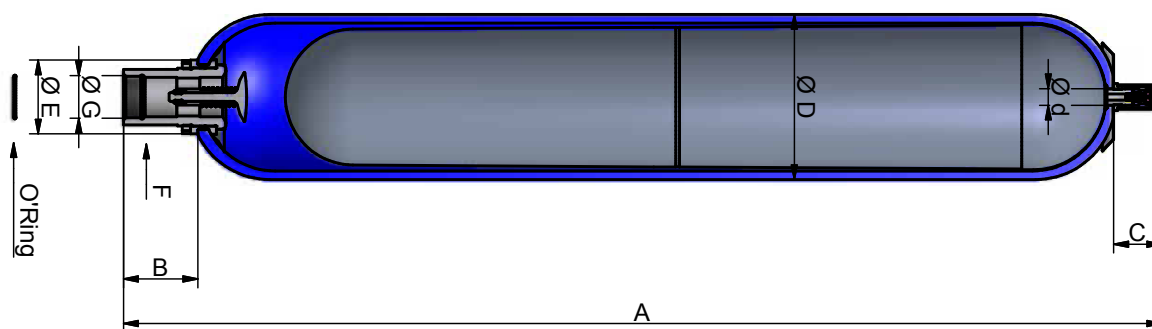
Accumulators are delivered with the nitrogen Pre-charge 3 bar.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/max (°C) (1)	Weight kg	Dimensions in mm							
						A max height	B	C	øD max	ød	øE	F on flats	G connection**
EHV 1-690/00*	1.1	690	360	- 40/+80	9	376	68	69	122	22.5	68	45	G 1"
EHV 2.5-690/90	2.4	690	360	- 40/+80	15	551	68	69	122	22.5	68	45	G 1"
EHV 5-690/90	5	690	360	- 40/+80	29	900	68	69	122	22.5	68	45	G 1"

** Requires a special adaptor

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/max (°C) (1)	Weight kg	Dimensions in mm							
						A max height	B	C	øD max	ød	øE	F on flats	G connection**
EHV 12-690/90	11	690	900	- 40/+80	97	682	84	166	267	50	110	77	G 2"
EHV 20-690/90	16.5	690	900	- 40/+80	134	892	84	166	267	50	110	77	G 2"
EHV 37-690/90	33.4	690	900	- 40/+80	227	1417	84	166	267	50	110	77	G 2"
EHV 54-690/90	48	690	900	- 40/+80	318	1932	84	166	267	50	110	77	G 2"

** Requires a special adaptor



(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).

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

EHVF Series 330 bar, 10 to 57 Litres Flanged Fluid Port

Standard Version (**Carbon Steel** shell/NBR mix) for mineral oils
 According to PED 97/23/EC, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge			Flange* Type Part number	Clamps Model (quantity) Part number	Support Bracket Model Part number	Mounting Frame Model Part number	Lifting Eye on gas side Model Part number	Complete Repair Kit Model Part number
	1 - 109 bar	110 - 209 bar	210 - 300 bar						
EHVF 10-330/90 10844901125	751016	751023	751038	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHVF 10-330/90 19034600225
EHVF 12-330/90 10867301125	751016	751023	751038	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHVF 12-330/90 19034700225
EHVF 20-330/90 10845001125	751005	751024	751039	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHVF 20-330/90 19034800225
EHVF24.5-330/90 10845101125	751017	751025	751040	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHVF 24.5-330/90 19035100225
EHVF 32-330/90 10845201125	751006	751026	751041	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHVF 32-330/90 19034900225
EHVF 42-330/90 11132501125	751212	751213	751214	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHVF 50-330/90 19062200225
EHVF 50-330/90 11077001125	751007	751027	751042	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHVF 50-330/90 19054400225
EHVF 57-330/90 11132601125	751215	751216	751217	BR 400-38 35132400123	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHVF 57-330/90 19062300225

* see page 60

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

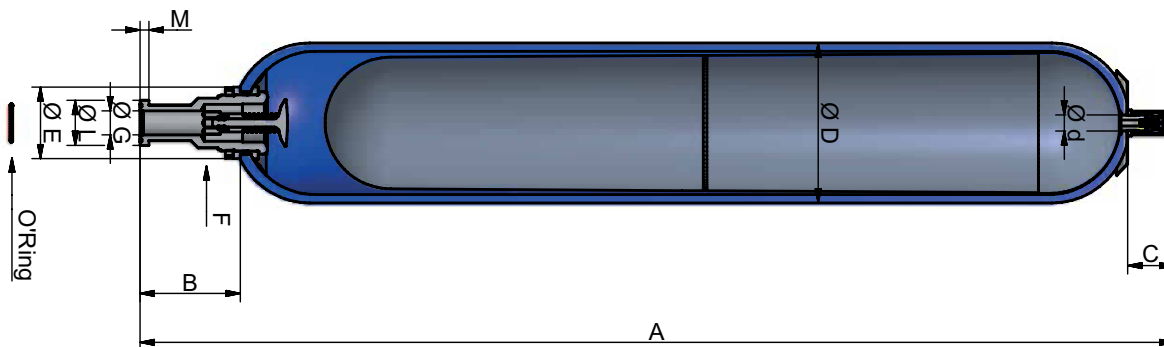


Accumulators are delivered with the nitrogen Pre-charge 3 bar.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/ max (°C) (1)	Weight kg	Gas connection	Dimensions in mm									
							A max height	B	C	øD max	ød	øE	øG connection	F on flats	øL	M
EHVF 10-330/90	9.2	330	900	- 40/80	31	5/8"18 UNF	627	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 12-330/90	11	330	900	- 40/80	36	5/8"18 UNF	727	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 20-330/90	17.8	330	900	- 40/80	49	5/8"18 UNF	937	143	66	226	22.5	101	34	70	63.8	12.5
EHVF24.5-330/90	22.5	330	900	- 40/80	56	5/8"18 UNF	1072	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 32-330/90	32	330	900	- 40/80	81	5/8"18 UNF	1460	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 42-330/90	42	330	900	- 40/80	87	5/8"18 UNF	1602	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 50-330/90	48.5	330	900	- 40/80	110	5/8"18 UNF	1976	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 57-330/90	51	330	900	- 40/80	116	5/8"18 UNF	2072	143	66	226	22.5	101	34	70	63.8	12.5

Note: Connection (norme ISO 6162): 1 1/2" SAE 6000 PSI
 PN400 DN38.

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



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

EHV Series 350 bar, 2.5 to 10 Litres Flanged Fluid Port

Standard Version (**Carbon Steel** shell/NBR mix) for mineral oils
 According to PED 97/23/EC, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge			Flange* Type Part number	Clamps Model (quantity) Part number	Support Bracket Model Part number	Mounting Frame Model Part number	Lifting Eye on gas side Model Part number	Complete Repair Kit Model Part number
	1 - 109 bar	110 - 209 bar	210 - 300 bar						
EHVF 2.5-350/90 10861501125	751002	751031	751046	BR 400-25 35132600123	E114 (2) 20251003648	CE89 20151903620	-	10912700200	KIT EHV 2.5-350/90 19035300225
EHVF 4-350/90 10857601125	751012	751020	751035	BR 400-25 35132600123	E168 (1) 20251303648	CE108 20118703620	EF1 20217500125	10912700200	KIT EHV 4-350/90 19035400225
EHVF 5-350/90 10861601125	751003	751032	751047	BR 400-25 35132600123	E114 (2) 20251003648	CE89 20151903620	-	10912700200	KIT EHV 5-350/90 19035500225
EHVF 6-350/90 10857701125	751015	751021	751036	BR 400-25 35132600123	E168 (1) 20251303648	CE108 20118703620	EF1 20217500125	10912700200	KIT EHV 6-350/90 19035600225
EHVF 10-350/90 10859901125	751004	751022	751037	BR 400-25 35132600123	E168 (2) 20251303648	CE108 20118703620	EF1 20217500125	10912700200	KIT EHV 10-350/90 19035700225

* see page 60

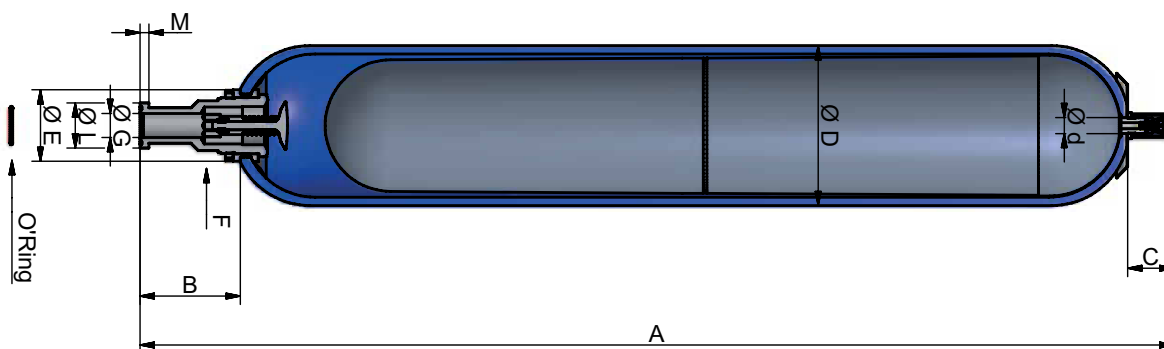
Model of valve stem
 7/8"14 UNF
 (C)



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/ max (°C) (1)	Weight kg	Gas connection	Dimensions in mm									
							A max height	B	C	øD max	ød	øE	F on flats	øG	øL Max	M
EHVF 2.5-350/90	2.4	350	450	- 40/80	11	7/8" 14 UNF	595	111	66	116	22.5	68	50	22	47.9	9.5
EHVF 4-350/90	3.7	350	450	- 40/80	15	7/8" 14 UNF	480	110	66	170	22.5	68	50	22	47.9	9.5
EHVF 5-350/90	5	350	450	- 40/80	17	7/8" 14 UNF	944	111	66	116	22.5	68	50	22	47.9	9.5
EHVF 6-350/90	6	350	450	- 40/80	20	7/8" 14 UNF	606	110	66	170	22.5	68	50	22	47.9	9.5
EHVF 10-350/90	10	350	450	- 40/80	31	7/8" 14 UNF	871	110	66	170	22.5	68	50	22	47.9	9.5

Note: Connection (norme ISO 6162): 1" SAE 6000 PSL PN400 DN25

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



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

EHV-DA Series 330 bar, 10 to 57 Litres

High Flow fluid port, 1200 l/min

Standard version (**Carbon Steel** shell/NBR mix) for mineral oils
 For high flow (up to 1200 Litres/min), According to PED 97/23/EC, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge			Adaptor*	Clamps	Support Bracket	Mounting Frame	Lifting Eye on gas side	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar						
EHV 10-330/90/DA 10874801125	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHV 10-330/90 19028900225
EHV 12-330/90/DA 10874901125	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHV 12- 330/90 19032100225
EHV 20-330/90/DA 10846301125	751005	751024	751039	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHV 20- 330/90 19029000225
EHV 24.5-330/90/DA 10875001125	751017	751025	751040	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF2 20217600125	10912700200	KIT EHV 24.5-330/90 19029400225
EHV 32-330/90/DA 10846501125	751006	751026	751041	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHV 32-330/90 19029100225
EHV 42-330/90/DA 11145201125	751212	751213	751214	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHV 42-330/90 19060800225
EHV 50-330/90/DA 11091501125	751007	751027	751042	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHV 50-330/90 19054100225
EHV 57-330/90/DA 11145401125	751215	751216	751217	G 1" cyl 04557000223	D226 (2) 20251503648	CE 159A 20109003620	EF3 20217700125	10912700200	KIT EHV 57-330/90 19060900225

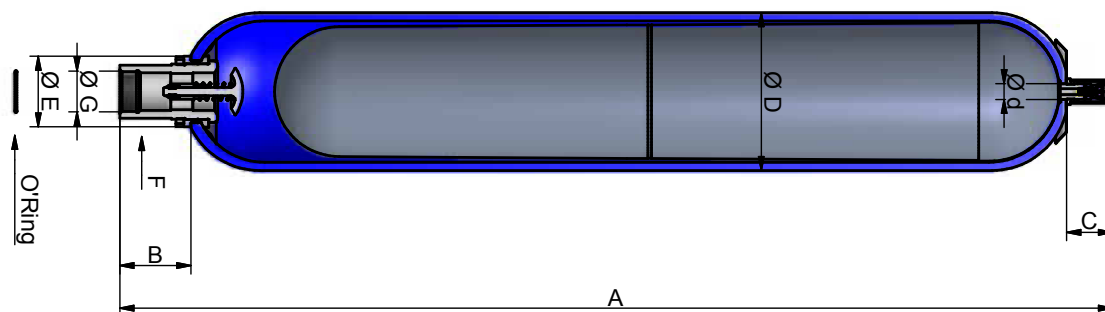
* For more adaptor options see pages 58 & 59.

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



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	Temp. min/ max (°C) (1)	Max Weight kg	Gas Connection	Dimensions in mm							
							A max height	B	C	øD max	ød	øE	øG connection	F on flats
EHV 10-330/90/DA	9.2	330	1200	- 40/80	31	5/8"18 UNF	587	103	66	226	22.5	101	G 2"	70
EHV 12-330/90/DA	11	330	1200	- 40/80	36	5/8"18 UNF	687	103	66	226	22.5	101	G 2"	70
EHV 20-330/90/DA	17.8	330	1200	- 40/80	49	5/8"18 UNF	897	103	66	226	22.5	101	G 2"	70
EHV 24.5-330/90/DA	22.5	330	1200	- 40/80	56	5/8"18 UNF	1032	103	66	226	22.5	101	G 2"	70
EHV 32-330/90/DA	32	330	1200	- 40/80	81	5/8"18 UNF	1420	103	66	226	22.5	101	G 2"	70
EHV 42-330/90/DA	42	330	1200	- 40/80	87	5/8"18 UNF	1562	103	66	226	22.5	101	G 2"	70
EHV 50-330/90/DA	48.5	330	1200	- 40/80	110	5/8"18 UNF	1936	103	66	226	22.5	101	G 2"	70
EHV 57-330/90/DA	51	330	1200	- 40/80	116	5/8"18 UNF	2032	103	66	226	22.5	101	G 2"	70

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



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

EHV-DA Series 350 bar, 2.5 to 10 Litres

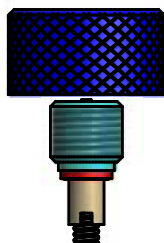
High Flow fluid port, 570 l/min

Standard Version (**Carbon Steel** shell/NBR mix) for mineral oils
 For high flow (up to 570 Litres/min), According to PED 97/23/CE, EN 14359 Fluid Group 2
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge			Adaptor*	Clamps	Support Bracket	Mounting Frame	Lifting Eye	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar						
EHV 2.5-350/90/DA 10846101125	751002	751031	751046	G 3/4" cyl 04555200223	E114 (2) 20251003648	CE 89 20151903620	-	-	KIT EHV 2.5-350/90 19029800225
EHV 4-350/90/DA 10846701125	751012	751020	751035	G 3/4" cyl 04555200223	E168 (2) 20251303648	CE108 20118703620	EF1 20217500125	-	KIT EHV 4-350/90 19029900225
EHV 5-350/90/DA 10874601125	751003	751032	751047	G 3/4" cyl 04555200223	E114 (2) 20251003648	CE 89 20151903620	-	-	KIT EHV 5-350/90 19030000225
EHV 6-350/90/DA 10874701125	751015	751021	751036	G 3/4" cyl 04555200223	E168 (2) 20251303648	CE108 20118703620	EF1 20217500125	-	KIT EHV 6-350/90 19030100225
EHV 10-350/90/DA 10845901125	751004	751022	751037	G 3/4" cyl 04555200223	E168 (2) 20251303648	CE108 20118703620	EF1 20217500125	10912700200	KIT EHV 10- 350/90 19030200225

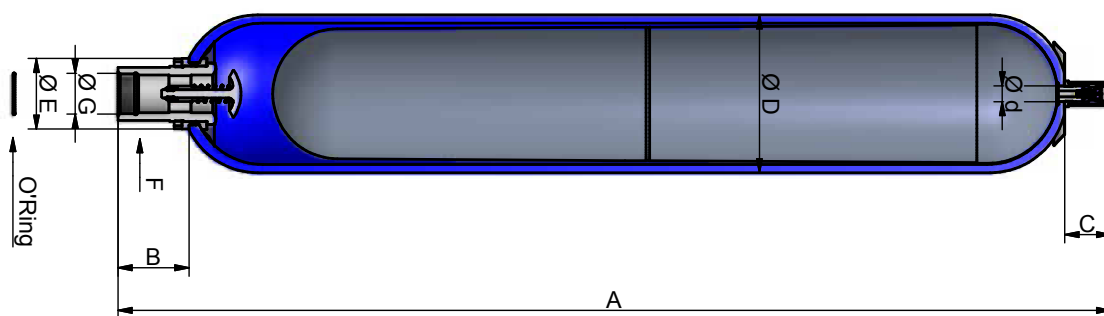
* For more adaptor options see pages 58 & 59.

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



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate lt/min	Temp. min/max (°C) (1)	Max Weight kg	Gas connection	Dimensions in mm							
							A max height	B	C	øD max	ød	øE	øG connection	F on flats
EHV 2.5-350/90/DA	2.4	350	570	- 20/+80	11	7/8" 14 UNF	549	66	66	116	22.5	68	G 1¼"	50
EHV 4-350/90/DA	3.7	350	570	- 40/+80	15	7/8" 14 UNF	434	65	66	170	22.5	68	G 1¼"	50
EHV 5-350/90/DA	5	350	570	- 40/+80	17	7/8" 14 UNF	898	66	66	116	22.5	68	G 1¼"	50
EHV 6-350/90/DA	6	350	570	- 40/+80	20	7/8" 14 UNF	560	65	66	170	22.5	68	G 1¼"	50
EHV 10-350/90/DA	10	350	570	- 40/+80	31	7/8" 14 UNF	825	65	66	170	22.5	68	G 1¼"	50

(1) Temperature range can be narrowed depending on elastomer
 Please see Bladder Materials and Type (page 65).



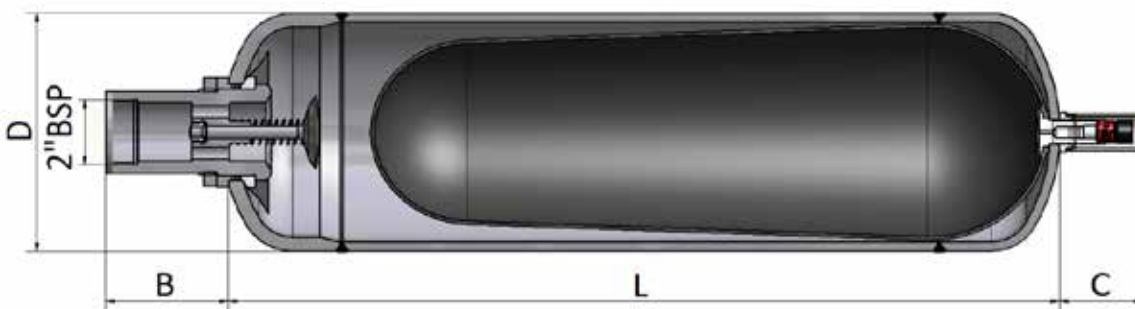
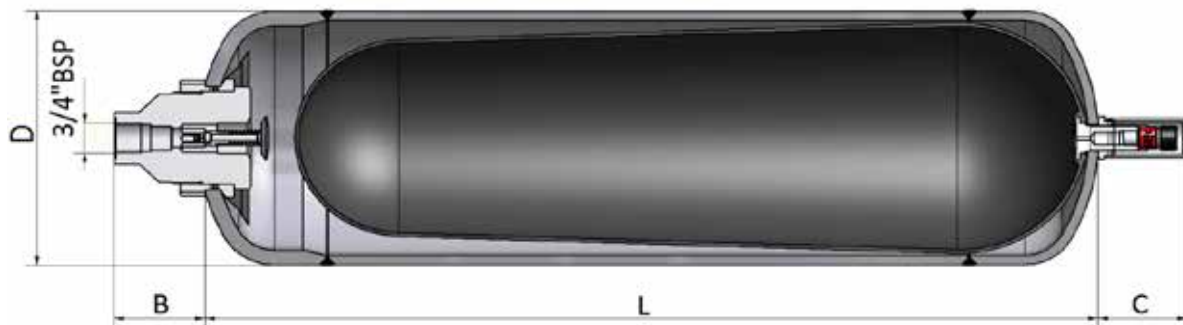
Above dimensions are in mm and are subject to manufacturing tolerances.

EHV Series 70 bar, 10 to 50 Litres

Standard version (**Stainless Steel** shell/bladder for mineral oils) temperature from - 20° up to 100°C
 According to PED 97/23/EC, Fluid Group 1/2
Part numbers, Accessories, Dimensions

Type	Part number	Adaptor	Flanges	Clamps	Support Bracket	Complete Repair Kit
				Model (quantity) Part number	Model Part number	Part number
EHV 10.70/90	JN301007052CXR25	Various adaptors and flanges available		D226 (2) 20251503648	CE159A 20109003620	8590018-xyyy
	JN30100705CCXR25					8590019-xyyy
EHV 12.70/90	JN301207052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590020-xyyy
	JN30100705CCXR25					8590021-xyyy
EHV 20.70/90	JN302007052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590022-xyyy
	JN30100705CCXR25					8590023-xyyy
EHV 24,5.70/90	JN302407052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590024-xyyy
	JN30100705CCXR25					8590025-xyyy
EHV 32.70/90	JN303207052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590026-xyyy
	JN30100705CCXR25					8590027-xyyy
EHV 50.70/90	JN305007052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590028-xyyy
	JN30500705CCXR25					8590029-xyyy

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L (mm)	D (mm)	B (G2")	B (3/4" BSP)	C
EHV 10.70/90	11.5	70	27	394	220	103	-	66
						-	68	
EHV 12.70/90	14.5	70	32	493	220	103	-	66
						-	68	
EHV 20.70/90	21.2	70	41	703	220	103	-	66
						-	68	
EHV 24,5.70/90	25.5	70	50	851	220	103	-	66
						-	68	
EHV 32.70/90	38	70	65	1225	220	103	-	66
						-	68	
EHV 50.70/90	54.5	70	87	1740	220	103	-	66
						-	68	



EHV Series 110 bar, 10 to 50 Litres

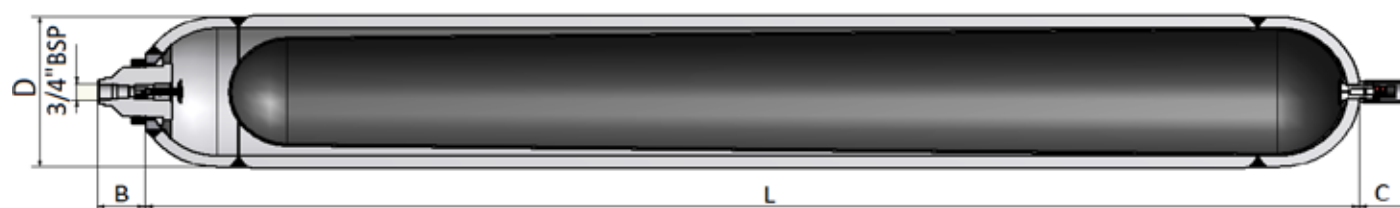
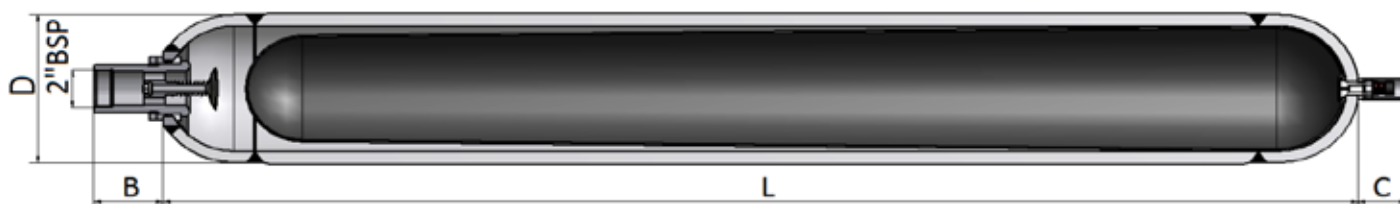
Standard version (**Stainless Steel** shell/bladder for mineral oils) temperature from - 20° up to 100°C

According to PED 97/23/EC, Fluid Group 1/2

Part numbers, Accessories, Dimensions

Type	Part number	Adaptor	Flanges	Clamps	Support Bracket	Complete Repair Kit
				Model (quantity) Part number	Model Part number	Part number
EHV 10.110/90	JL301011052CXR25	Various adaptors and flanges available		D226 (2) 20251503648	CE159A 20109003620	8590018-xxyy
	JL30101105CCXR25					8590019-xxyy
EHV 12.110/90	JL301211052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590020-xxyy
	JL30121105CCXR25					8590021-xxyy
EHV 20.110/90	JL302011052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590022-xxyy
	JL30201105CCXR25					8590023-xxyy
EHV 24,5.110/90	JL302411052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590024-xxyy
	JL30241105CCXR25					8590025-xxyy
EHV 32.110/90	JL303211052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590026-xxyy
	JL30321105CCXR25					8590027-xxyy
EHV 50.110/90	JL305011052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590028-xxyy
	JL30501105CCXR25					8590029-xxyy

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L (mm)	D (mm)	B (G2")	B (3/4" BSP)	C
EHV 10.110/90	10.3	110	48	405	226	103	-	66
						-	68	
EHV 12.110/90	13.1	110	59	504	226	103	-	66
						-	68	
EHV 20.110/90	19.7	110	82	714	226	103	-	66
						-	68	
EHV 24,5.110/90	23.9	110	90	862	226	103	-	66
						-	68	
EHV 32.110/90	36.1	110	123	1233	226	103	-	66
						-	68	
EHV 50.110/90	52.2	110	157	1752	226	103	-	66
						-	68	



EHV Series 110 bar, 10 to 50 Litres

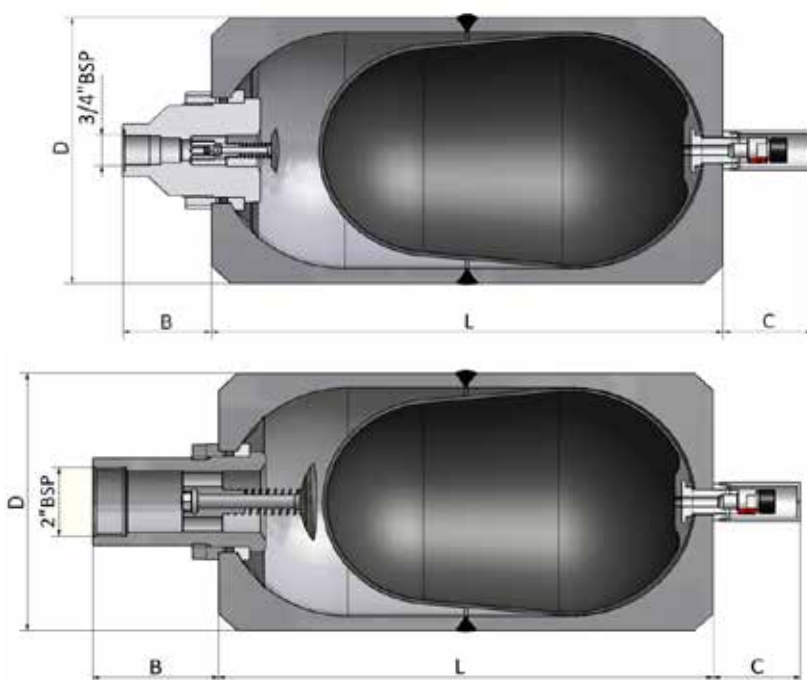
Standard version (**Stainless Steel** shell/bladder for mineral oils) temperature from - 20° up to 100°C

According to PED 97/23/EC, Fluid Group 1/2

Part numbers, Accessories, Dimensions

Type	Part number	Adaptor	Flanges	Clamps	Support Bracket	Complete Repair Kit
				Model (quantity) Part number	Model Part number	Part number
EHV 10.110/90	JS301011052CXR25	Various adaptors and flanges available		D226 (2) 20251503648	CE159A 20109003620	8590018-xyyy
	JS30101105CCXR25					8590019-xyyy
EHV 12.110/90	JS301211052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590020-xyyy
	JS30121105CCXR25					8590021-xyyy
EHV 20.110/90	JS302011052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590022-xyyy
	JS30201105CCXR25					8590023-xyyy
EHV 24,5.110/90	JS302411052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590024-xyyy
	JS30241105CCXR25					8590025-xyyy
EHV 32.110/90	JS303211052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590026-xyyy
	JS30321105CCXR25					8590027-xyyy
EHV 50.110/90	JS305011052CXR25			D226 (2) 20251503648	CE159A 20109003620	8590028-xyyy
	JS30501105CCXR25					8590029-xyyy

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L (mm)	D (mm)	B (G2")	B (3/4" BSP)	C
EHV 10.110/90	10.3	110	46	400	226	103	68	66
EHV 12.110/90	13.1	110	58	498	226	103	68	66
EHV 20.110/90	19.7	110	70	708	226	103	68	66
EHV 24,5.110/90	23.9	110	80	856	226	103	68	66
EHV 32.110/90	36.1	110	105	1227	226	103	68	66
EHV 50.110/90	52.2	110	138	1745	226	103	68	66



EHV Series 120 bar, 1 to 5 Litres

Stainless Version (**Stainless Steel** shell/NBR mix) for mineral oils
 According to PED 97/23/EC, EN 14359 Fluid Group 1/2
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge		Adaptor	Clamps	Support Bracket	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	Threaded Part number	Model Part number	Model Part number	Model Part number
EHV 1-120/00* 10953701925	751001	751030	G 3/4" cyl 04555201723	Consult Page 116	CE 89 20151901220	KIT EHV 1-120/00 19039501725
EHV 2.5-120/90 10953401925	751002	751031	G 3/4" cyl 04555201723		CE 89 20151901220	KIT EHV 2.5-120/90 19029801725
EHV 5-120/90 10953501925	751003	751032	G 3/4" cyl 04555201723		CE 89 20151901220	KIT EHV 5-120/90 19030001725

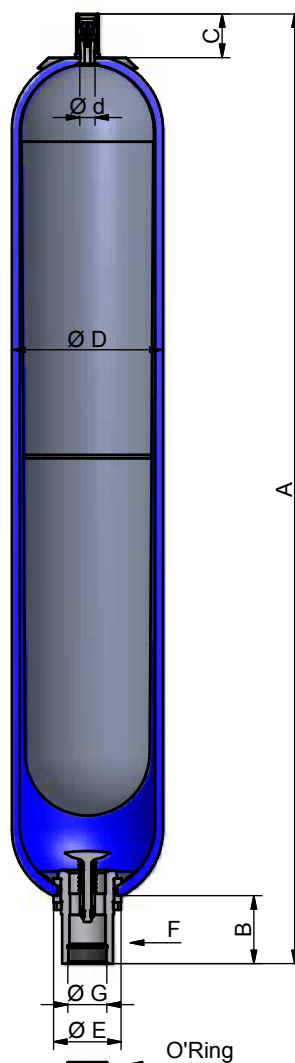
* According to the PED, article 3.3
 For more adaptor options see pages 58 & 59.

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



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate lt/min	Temp. min/max (°C) (1)	Max Weight kg	Gas connection	Dimensions in mm							
							A max height	B	C	øD max	ød	øE	øG connection	F on flats
EHV 1-120/00*	1	120	450	- 40/+80	6	7/8" 14 UNF	345	67	66	116	22.5	68	G 1¼"	50
EHV 2.5-120/90	2.4	120	450	- 40/+80	11	7/8" 14 UNF	542	67	66	116	22.5	68	G 1¼"	50
EHV 5-120/90	5	120	450	- 40/+80	17	7/8" 14 UNF	891	67	66	116	22.5	68	G 1¼"	50

(1) Temperature range can be narrowed depending on elastomer

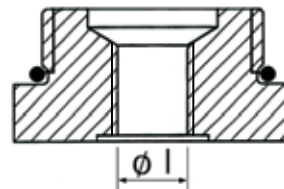


Adaptors EHV Carbon Steel

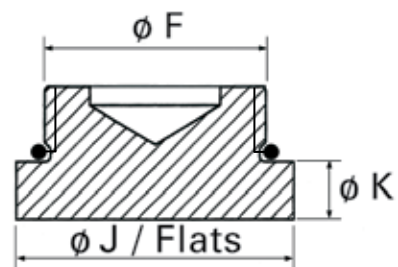
Accumulator model	Connection ØF gas cylinder	Connection ØI gas cylinder	P/N
EHV 0,2 Litre 350 bar	G 1/2"	G 1/4"	04556500223
		Blind	04501800223
EHV 0,5 & 1 & 1,6 Litres 350 bar	G 3/4"	G 3/8"	04556400223
			04556100223
		Blind	04502000223
			04558200223
EHV 1 to 5 Litres 690 bar	G1"	G 1/2"	04579500223
		Blind	04579600223
EHV 2,5 to 10 Litres 350 bar	G1"1/4	G 1/2"	04555100223
			04555800223
		G 3/4"	04555200223
			04555900223
		G 1"	04583100223
			Blind
			04558300223
EHV 10 to 57 Litres 330 bar	G2"	G 1/2"	04556800223
			04557700223
		G 3/4"	04556900223
			04557800223
		G 1"	04557000223
			04557900223
		G 1"1/4	04557100223
			04558000223
Blind	04502400223		
	04558400223		
EHV 10 to 50 Litres 480 bar	G2"	G 1/2"	04556802523
			04557702523
		G 3/4"	04556902523
			04557802523
		G 1"	04557002523
			04557902523
		G 1"1/4	04557102523
			04558002523
Blind	04502402523		
	04558402523		
EHV 12 to 54 Litres 690 bar	G2"	G 1"	04579002523
		Blind	04579202523

Shape	J/Flats	K	O-Ring / Back-up ring
A	27	8	O-ring 18x2
A	27	8	O-ring 18x2
A	32	8	O-ring 21,3x2,4
B	32	8	O-ring 16,9x2,7
A	32	8	O-ring 21,3x2,4
B	32	8	O-ring 16,9x2,7
B	41	10	O-ring 21,3x3,6 / BUR 22x28x0,69*2
B	41	10	O-ring 21,3x3,6 / BUR 22x28x0,69*2
A	50	10	O-ring 36,2x3
B	50	10	O-ring 30x3
A	50	10	O-ring 36,2x3
B	50	10	O-ring 30x3
A	50	40	O-ring 36,2x3
A	50	10	O-ring 36,2x3
B	50	10	O-ring 30x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
A	65	13	O-ring 54x3
B	65	13	O-ring 48x3
B	65	15	O-ring 43,82x5,33 / BUR 45x54x0,85*2
B	65	15	O-ring 43,82x5,33 / BUR 45x54x0,85*2

Shape A - Seal in angle

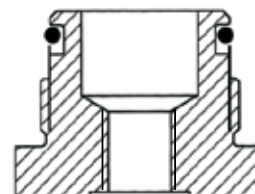


Threaded

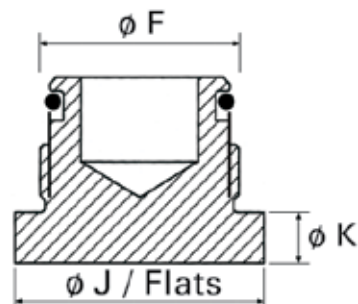


Blind

Shape B - Seal in piston

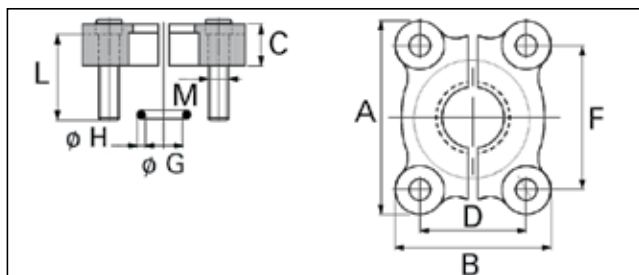


Threaded



Blind

Flanges EHV_F Carbon Steel



Accumulator model	Type	Part Number
EHVF 2,5 to 10 Litres	BR 400-25	35132600123
EHVF 10 to 57 Litres	BR 400-38	35132400123

Regulations & Protections

IN THIS SECTION

Regulations & Protections

Regulation Table EBV and EHV	62
Corrosion Protection	64
Bladder Materials & Types	65

Due to our vast experience in demanding markets such as aerospace, military, nuclear, renewable energies and formula one racing, we are offering an unmatched range of rubber compounds to meet the most difficult applications.

Parker Olaer products are supported all over the globe, and we will meet customer requirements wherever needed. We therefore offer the complete range of approvals, such as all key Marine approvals (BV, DNV, ABS, LR, ...), over and above all country specific approvals (PED, ASME, SELO, CRN, ARH, CUTR, ...).



Bladder	EBV
	EHV
	Regulations
Pistons	O&G
	EHP
	ACP
	AP
Pulsation Dampers	A
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

Regulations for EBV and EHV Bladder Accumulators Carbon Steel

Regulations available from Parker Olaer.

Designation	EUROPE				USA		CHINA		CANADA		AUSTRALIA	
	/90	/90	/90	Max. Working Pressure bar	/15 /48	Max. Working Pressure Psi (bar)	/85	Max. Working Pressure bar	/92	Max. Working Pressure Psi (bar)	/83 /91	Max. Working Pressure bar
Approvals	CE Fluid Group 2 EN 14359	CE Fluid Group 1 EN 14359	ATEX EX		ASME VIII div 1		SELO		CRN		AS1210	
Models												
EBV 0.5 L	•	•	•	40								
EBV 0.5 L	•	•	•	50								
EBV 1 to 5 L	•	•	•	40			•	40				
EBV 1 to 5 L	•	•	•	80			•	80				
EBV 10 to 50 L	•	•		16								
EBV 10 to 50 L	•	•	•	40	•	580 (40 Bar)						
EBV 100 to 200 L	•	•		16								
EBV 100 to 200 L	•	•	•	20	•	290 (20 Bar)	•	20				
EBV 100 to 200 L	•	•	•	40			•	40				
EBV 100 to 200 L	•	•		50								
EBV 100 to 575 L	•	•	•	8	•	290 (20 bar)						
EBV 100 to 575 L	•	•	•	16								
EBV 100 to 575 L	•	•	•	20								
EBV 100 to 575 L	•	•	•	40								
EHV 0,5L	•	•	•	350			•	350				
EHV 1 to 5 L	•	•	•	300			•	300				
EHV 1 to 5 L	•	•	•	350			•	350			•	350
EHV 1 to 5 L	•	•	•	690			•	690				
EHV 2.5L to 5 L	•	•	•	120			•	120				
EHV 4 - 6 - 10 L	•	•	•	210			•	210				
EHV 4 - 6 - 10 L	•	•	•	350	•	4000 (276 Bar)	•	350			•	320
EHV 4 to 60 L					•	5000 (345 bar)						
EHV 4 to 60 L					•	6000 (413 Bar)						
EHV 10 to 42 L		•		300	•	3000 (207 Bar)			•	3000 (207 Bar)		
EHV 10 to 42 L		•		330	•	3600 (248 Bar)			•	3600 (248 Bar)		
EHV 10 to 42 L		•		380	•	4000 (276 Bar)			•	4000 (276 Bar)		
EHV 10 to 50 L	•	•	•	690			•	690				
EHV 10 to 57 L					•	3600 (248 Bar)					•	248
EHV 10 to 57 L					•	4000 (276 Bar)					•	276
EHV 10 to 57 L	•	•		480			•	480			•	400
EHV 10 to 60 L	•	•	•	300	•	3000 (207 Bar)	•	300				
EHV 10 to 60 L	•	•	•	330	•	3600 (248 Bar)	•	330				
EHV 10 to 60 L	•	•	•	480			•	480				
EHV 50 to 57L		•		300	•	3000 (207 Bar)			•	3000 (207 Bar)		
EHV 50 to 57 L		•		330	•	3600 (248 Bar)			•	3600 (248 Bar)		
EHV 50 to 57 L		•		380	•	4000 (276 Bar)			•	4000 (276 Bar)		
EHVF 2.5 to 10 L	•	•		350			•	350				
EHVF 10 to 50 L	•	•		330			•	330				

Multi Approvals are possible

Code	Regulation
90 EX	CE+ATEX
94	CE+ASME
88	CE+SELO
86	CE+ASME+SELO

Stainless Steel

Other regulations available on request (ARH, DOSH, MOM, RI.N.A., RT)

BRASIL		RUSSIA, KAZAKHSTAN, BELARUS			MARINE - OFFSHORE				Designation	
/AA /AE /AM	Max. Working Pressure bar	CUTR 0.32/2013 Max. Working Pressure bar	/71	/AU	/24	/11	/41	BE	Max. Working Pressure bar	Approvals* Models*
NR13			Maximum Working Pressure Psi (Bar)	DNV MOBILE SHIPS	BUREAU VERITAS MARINE	ABS AMERICAN BUREAU OF SHIPPING	GL GERMANISCHER LLOYD'S			
		N/A								EBV 0.5 L
		N/A								EBV 0.5 L
		•	80							EBV 1 to 5 L
•	80	•	40							EBV 1 to 5 L
•	16	•	16							EBV 10 to 50 L
•	40	•	40	580 (40 Bar)						EBV 10 to 50 L
•	16	•	16							EBV 100 to 200 L
•	20	•	20	290 (20 Bar)						EBV 100 to 200 L
•	40	•	40							EBV 100 to 200 L
•	50	•	50							EBV 100 to 200 L
•	8	•	8	290 (20 bar)						EBV 100 to 575 L
•	16	•	16							EBV 100 to 575 L
•	20	•	20							EBV 100 to 575 L
•	40	•	40							EBV 100 to 575 L
•	350	N/A			•		•	•	300	EHV 0,5L
•	300	•	350							EHV 1 to 5 L
•	350	•	690		•	•	•	•	296	EHV 1 to 5 L
•	690	•	300							EHV 1 to 5 L
•	120	•	120							EHV 2.5L to 5 L
•	210	•	350	4000 (276 Bar)						EHV 4 - 6 - 10 L
•	350	•	210		•	•	•	•	278	EHV 4 - 6 - 10 L
•	345	•		5000 (345 bar)						EHV 4 to 60 L
•	413	•		6000 (413 Bar)						EHV 4 to 60 L
•	207	•	300	3000 (207 Bar)						EHV 10 to 42 L
•	248	•	330	3600 (248 Bar)						EHV 10 to 42 L
•	276	•	380	4000 (276 Bar)						EHV 10 to 42 L
•	690	•	690							EHV 10 to 50 L
•	248	•		4000 (276 Bar)						EHV 10 to 57 L
•	276	•		3600 (248 Bar)						EHV 10 to 57 L
•	480	•	480					•	352	EHV 10 to 57 L
•	300	•	330	3600 (248 Bar)						EHV 10 to 60 L
•	330	•	300	3000 (207 Bar)	•	•	•	•	232	EHV 10 to 60 L
•	480	•	480							EHV 10 to 60 L
•	207	•	300	3000 (207 Bar)						EHV 50 to 57L
•	248	•	330	3600 (248 Bar)						EHV 50 to 57 L
•	276	•	380	4000 (276 Bar)						EHV 50 to 57 L
•	350	•	350							EHVF 2.5 to 10 L
•	330	•	330							EHVF 10 to 50 L

This table gives 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.

Anti-Corrosion Materials

Protections available from Parker Olaer.

Please see the dimensions table for the temperatures for each model.

	EPOXY 80 microns Internal	NICKEL PLATING 50 microns Internal/External	RILSAN® 200-300 microns Internal/External		Marine Painting C3 170 microns External
Valve Stem, Fluid port, and Protection Cap	Stainless Steel	Stainless Steel	Stainless Steel	Standard Steel	Standard Steel
Codes	20	50	84	85	xx
Volume					
0,2	•	•	•	•	•
0,5	•	•	•	•	•
1	•	•	•	•	•
1,6	•	•	•	•	•
2,5	•	•	•	•	•
4	•	•	•	•	•
5	•	•	•	•	•
6	•	•	•	•	•
10 (DIA 170)	•	•	•	•	•
10 (DIA 226)	•	•	•	•	•
12	•	•	•	•	•
20	•	•	•	•	•
24,5	•	•	•	•	•
32	•	•	•	•	•
42	•	•	•	•	•
50	•	•	•	•	•
57	•	•	•	•	•
100	•	•	•	•	•
200	•	•	•	•	•

Depending on your application, fluid and the environment in which you install your systems/equipment, Parker can offer a variety of internal and external shell coatings for your bladder accumulator. Please contact our technical support or your local accumulator expert if you are uncertain what you may require or for more details on the various coatings.

Bladder Materials and Types

Bladder mixes available from Parker Olaer.

	Standard Bladder									
Mix Number	Mix 25	Mix 02	Mix 10	Mix 20	Mix 30	Mix 35	Mix 37	Mix 40	Mix 47	Mix 80
Mix Name	Standard NBR (Nitrile)	Hydrin C	Low Temp Nitrile	Heavy Duty Nitrile	Low Nitrile Permeability	High Temp Nitrile	Extreme Low Temp Nitrile	Butyl	EPDM	Viton
Max Temp °C	100	115	70	110	115	130	110	120	120	140
Min Temp °C	- 20	- 32	- 30	- 6	- 5	0	- 59	- 15	- 40	-20
Typical Fluid	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil + Special fuels (not unleaded gasoline)	Mineral Oil	Consult Parker Olaer regarding fluid and application	Water based fluids	Phosphate esters	Aggressive fluids
Volume										
0,2	•	•	•		•	•	on request	•	•	•
0,5	•	•	•	•	•	•	on request	•	•	•
1	•	•	•	•	•	•	on request	•	•	•
1,6	•	•	•	•	•	•	on request	•	•	•
2,5	•	•	•	•	•	•	on request	•	•	•
4	•	•	•	•	•	•	on request	•	•	•
5	•	•	•	•	•	•	on request	•	•	•
6	•	•	•	•	•	•	on request	•	•	•
10 (DIA 170)	•	•	•	•	•	•	on request	•	•	•
10 (DIA 226)	•	•	•	•	•	•	on request	•	•	•
12	•	•	•	•	•	•	on request	•	•	•
20	•	•	•	•	•	•	on request	•	•	•
24,5	•	•	•	•	•	•	on request	•	•	•
32	•	•	•	•	•	•	on request	•	•	•
42	•	•	•	•	•	•	on request	•	•	•
50	•	•	•	•	•	•	on request	•	•	•
57	•	•	•	•	•	•	on request	•	•	•
100*	•	•	•		•	•	on request	•	•	•
200*	•	•	•		•	•	on request	•	•	•

For the EBV range concerning 100 to 575 L pages 14 to 18, 22 and 23: please consult your local contact.

This list is not exhaustive. Parker can propose other mixes suitable for your application. Consult your local contact for more information

O&G Series Bladder Accumulators

High Pressure, 207 to 760 bar

IN THIS SECTION

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O&G series 207 to 420 bar	69
O&G series 480 & 517 bar	72
O&G series 690 to 760 bar	75

This range has been specially developed for the Oil & Gas industry however it is also ideally suited for other highly demanding markets.

Applications utilising Parker ACDE products include wellhead control systems, pressure compensation, temperature compensation, emergency shutdown actuation and blow-out prevention.



Bladder	EBV
	EHV
	Regulations
Pistons	O&G
	EHP
	ACP
	AP
A	
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

O&G Series: General Information

Technical Characteristics

The accumulator comprises of:

Shell

Forged seamless chrome molybdenum steel, designed and manufactured to PED 97/23/EEC and CE marked.

Label

With assembly specification and installation details.

Material Certification

Available on request for all major pressure loaded parts to EN 10204 3.1

Finish

One coat primer paint as standard. Special paints available.

Bladder

Totally enclosed construction with an extensive range of elastomers available.

Fluid Port Assembly

Integral high-flow port and poppet valve assembly with an anti-extrusion ring.

Safety

All gas-loaded accumulators are pressurised vessels and it is recommended that safety consideration be given to the application in which they are used. A relief valve should always be fitted to the hydraulic system with the option of a burst disc to protect the accumulator. See Installation and Servicing data sheet for information regarding installation of accumulators.

Pressure Testing

A hydro static pressure test is carried out on all our accumulator shells during the manufacturing process. We can carry out additional pressure testing witnessed by a specified Inspection Authority and/or customer as an optional extra if required.

We can also carry out a hydro-pneumatic pressure test on the complete assembly as an optional extra if required. Again this can be witnessed by a specified inspection authority and/or customer.

Accessories

A complete range of accumulator accessories are available from Parker.

Spare Parts

Available on request.

Operating Temperature

Shell operating temperature range is from -40°C to +80°C as standard.

Bladder Details

Parker offer a wide range of bladder materials to suit most applications.

Table 1 - Material according to temperature range.

Range of bladder materials available with their corresponding working temperature range when handling non-aggressive fluids.

Material Code	Bladder Material	Temperature Range (Deg. C)			
		Static		Dynamic	
0	Nitrile	-20	100	-15	100
1	Butyl	-15	120	-15	120
2	Low Temp Nitrile	-40	70	-25	70
3	Low Permeability Nitrile	0	105		
6	Fluorocarbon (Viton)	-20	130		
7	High Aromatic Nitrile	0	105		
8	High Temp Nitrile	0	150		
9	EPI - Chlorohydin 100	-20	120		
A	Ethylene Propylene (EP)	-20	120		
B	EPI - Chlorohydin 200	-40	120		
K	Special Low Temp Nitrile	-79	100	-59	100
L	Peroxide Cured EPDM	please contact us for details			
M	High Temperature Fluoro-carbon	-10	200		
N	Low Temp Nitrile	-45	70		

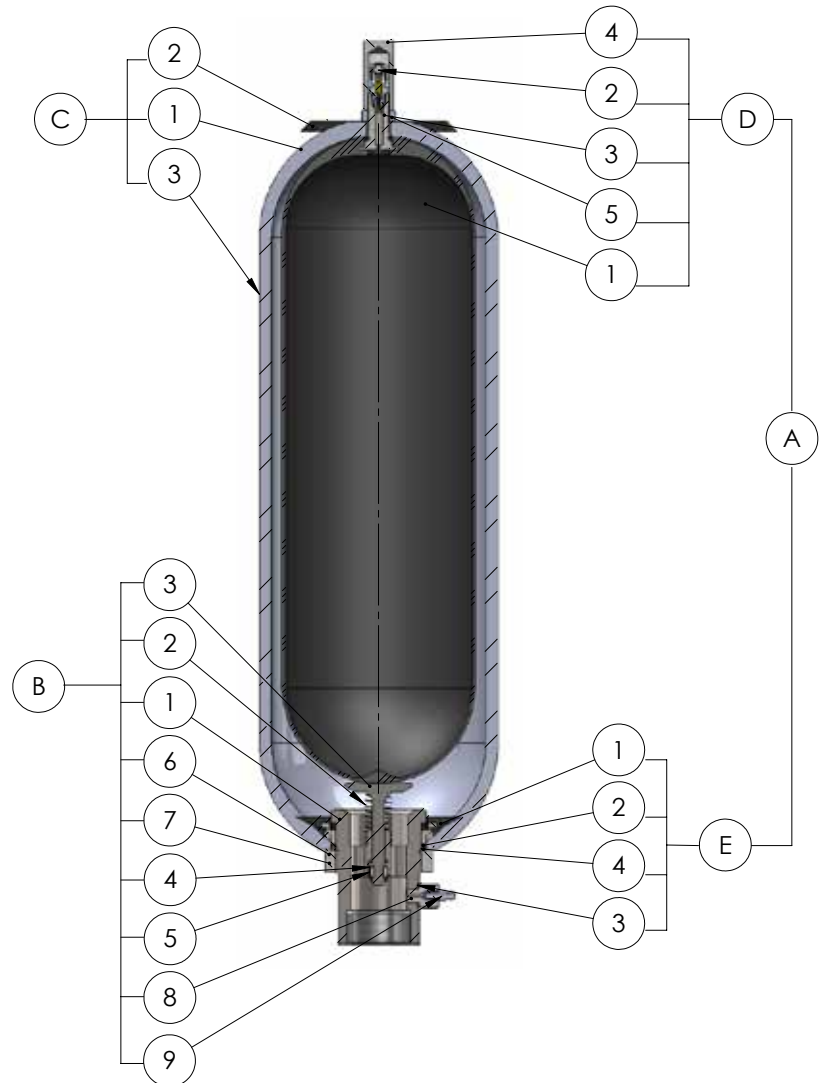
Table 2 - Bladder capacity / overall dimensions

Accumulator Capacity (Litres) Nominal	Dimension		Stem Diameters		
	"H"	"D"	5/8" (16mm)	7/8" (22mm)	2" (50mm)
0.16	154	41	*		
0.6	132	73	*		
1.15 (1.25)	147	91	*	*	
3	335	100	*	*	
4	203	142		*	
5	680	100		*	
6	305	142		*	
9 (10)	570	142		*	
12.5	655	142		*	
10	283	198		*	*
12	406	198			*
20	610	198		*	*
24.5	719	198			*
28	880	198		*	
37	1128	198		*	*
42	1280	198		*	
54	1603	198		*	*

O&G Series, 207 to 420 bar

A	Bladder Kit comprising:
D	Bladder assembly
D1	Bladder
D2	Gas valve assembly
D3	Locknut
D4	Protective cap
D5	'O' ring stem
E	Anti extrusion ring assembly
E1	Anti extrusion ring
E2	'O' ring fluid port
E3	Bonded seal*
E4	Back-up ring
B	Fluid port assembly comprising
B1	Fluid port body
B2	Spring
B3	Poppet valve
B4	Collett
B5	Piston
B6	Flanged washer
B7	Locking ring
B8	Bleed adaptor*
B9	Bleed valve*
C	Shell assembly comprising:
C1	Shell
C2	Label
C3	Label warning

Note: Models 1/54 litres detailed above. Models 0.6 litres have Gas Valve assembly integral with bladder stem without protective cap fitted. * Not fitted on all models



O&G Series 207 to 420 bar: How to order

Litres	Bladder Material	Bladder Stem Gas Valve	Shell and fluid port	Maximum working pressure	Design Number/ Approval
04	0	0A	00	34	1

Code	Volume	Code	Volume
OB	0.16	10	10
OF	0.6	20	20
011	1	28	28
03	2.5	37	37
04	4	54	54

Code	Bladder material
0	Nitrile standard
1	Butyl
2	Low temperature nitrile
3	Low permeability nitrile
6	Viton
8	High temperature nitrile

See Bladder Stem/Gas Valve table below

Code	Shell and Fluid Port
00	Oil service
02	Low/medium corrosive service (lined shell)
W6	Stainless steel externals, unlined shell
CZ	Stainless steel externals, unlined shell 1/2"NPT connection (10-54 litres only)
DW	Stainless steel externals, unlined shell 3/4"NPT connection (10-54 litres only)
DU	Stainless steel externals, unlined shell 1"NPT connection (10-54 litres only)
DL	Stainless steel externals, unlined shell 1/2"BSP connection (10-54 litres only)
EZ	Stainless steel externals, unlined shell 3/4"BSP "necked" connection (10-54 litres only)
13	Oil service (NPT connection)
14	Low/ medium corrosive service (lined shell, NPT connection)

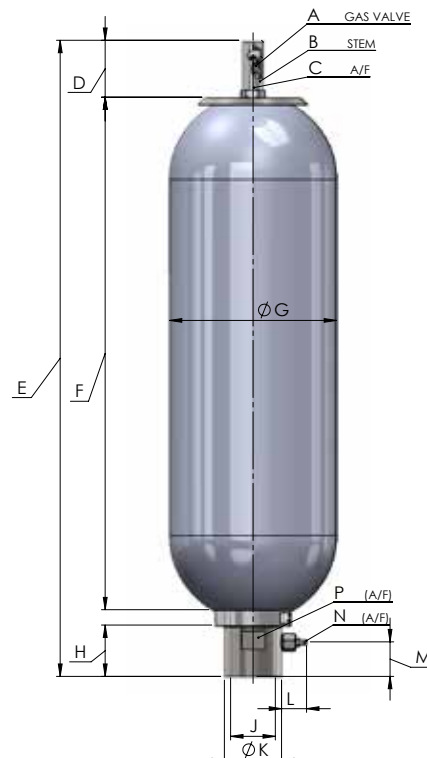
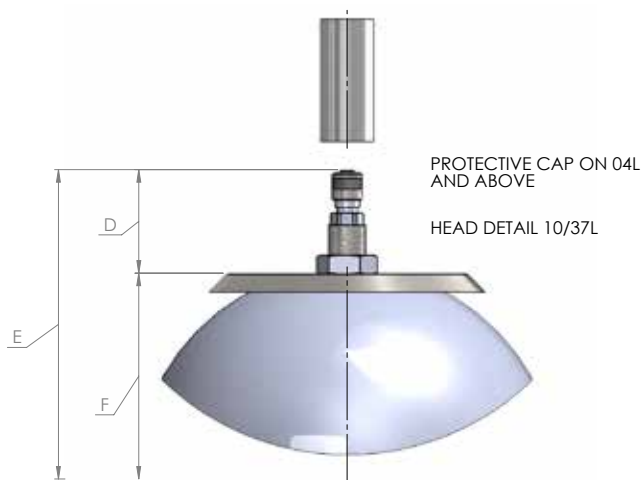
Code	Maximum Working Pressure
20	207 bar
31	310 bar
34	345 bar
35	350 bar
42	420 bar (10 - 54L only)

Code	Design Number/ Approval
1	Lloyds /CE

Code	Bladder Stem/ Gas Valve		
	0.16 - 3 Litres	4 - 37 Litres	54 Litres
0A	5/8"UNF CS Stem/ 1/4"BSP Brass Gas Valve	7/8"UNF CS Stem/ 1/4"BSP Brass Gas Valve	M50x1.5P CS Stem/ 1/4"BSP Brass Gas Valve
SA	5/8"UNF SS Stem/ 1/4"BSP SS Gas Valve	7/8"UNF SS Stem/ 1/4"BSP Brass Gas Valve	M50x1.5P SS Stem/ 1/4"BSP Brass Gas Valve
3F	n/a	7/8"UNF SS Stem/ 1/4"BSP SS Gas Valve	M50x1.5P SS Stem/ 1/4"BSP SS Gas Valve
9A	5/8"UNF CS Stem/ 0.302"-32 Brass Gas Valve	n/a	n/a
4A	n/a	7/8"UNF CS Stem/ 0.302"-32 Brass Gas Valve	7/8"UNF CS Stem/ 0.302"-32 Brass Gas Valve
6A	n/a	n/a	M50x1.5P CS Stem/ 0.302"-32 Brass Gas Valve

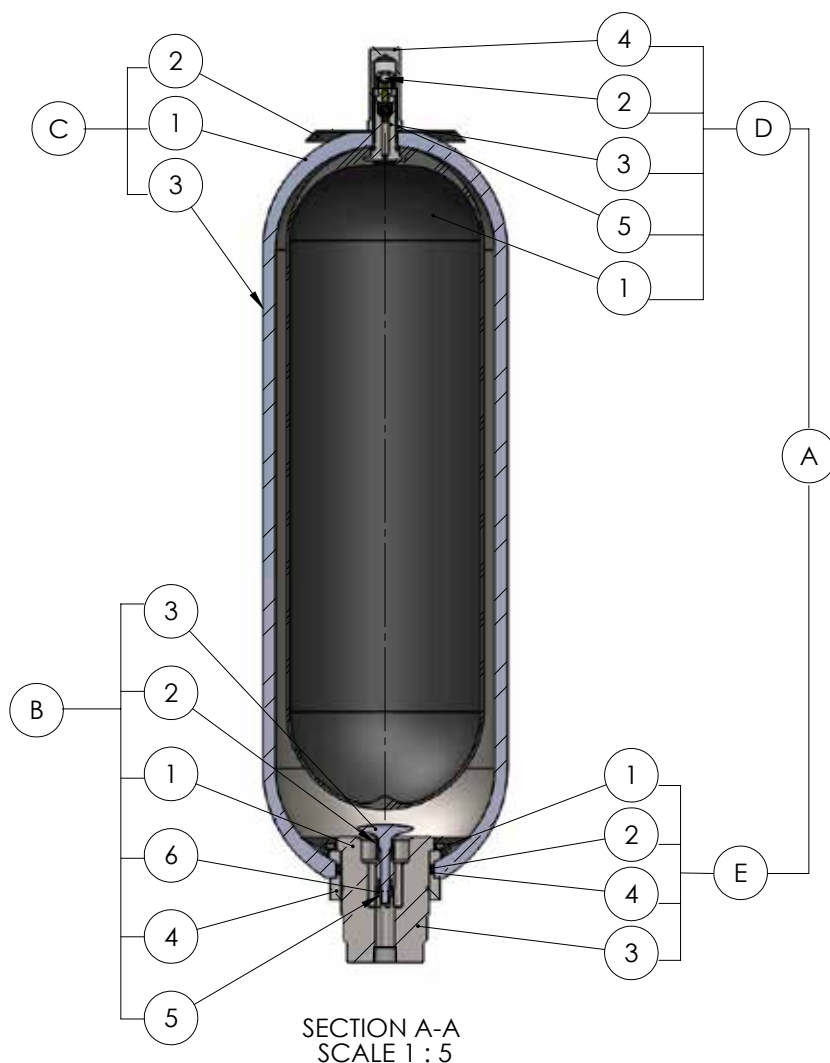
O&G Series 207 to 420 bar: Dimensions

Nominal Capacity Litres	Effective Gas vol. Litres	Work press. bar	Max Flow Rate lt/min	Weight Dry Kilo	Dimensions in mm unless stated otherwise and subject to manufacturer's tolerances													
					A Inches	B Inches	C	D	E	F	G	H	J Inches	K	L	M	N	P
OB	0.16	345	27	2.00	¼ BSP	5/8 UNF	24	40	292	205	55	36	½ BSPF	26	-	-	-	23
OF	0.60	345	109	2.70	¼ BSP	5/8 UNF	24	40	266	175	90	37	¾ BSPF	35	-	-	-	32
011	1.15	207	109	5.4	¼ BSP	5/8 UNF	24	40	292	200	115	37	¾ BSPF	35	-	-	-	32
011	1.15	345	109	5.7	¼ BSP	5/8 UNF	23	40	292	200	115	37	¾ BSPF	35	-	-	-	32
03	2.5	345	215	10.00	¼ BSP	5/8 UNF	23	40	506	402	115	49	1 BSPF	44	5	32	15	41
04	3.8	207	477	15.20	¼ BSP	7/8 UNF	33	78	455	289	169	74	1 ¼ BSPF	60	36	39	9	55
04	3.8	345	477	15.20	¼ BSP	7/8 UNF	33	78	455	289	169	74	1 ¼ BSPF	60	36	39	9	55
10	9.4	207	749	35.00	¼ BSP	7/8 UNF	33	78	575	407	219	70	2 BSPF	76	36	46	9	69
10	9.4	310	749	35.00	¼ BSP	7/8 UNF	33	78	575	407	219	70	2 BSPF	76	36	46	9	69
10	9.4	345	749	35.00	¼ BSP	7/8 UNF	33	78	575	407	221	70	2 BSPF	76	36	46	9	69
10	9.4	420	749	34.00	¼ BSP	7/8 UNF	33	78	575	407	229	70	2 BSPF	76	36	46	9	69
20	18.8	207	749	55.00	¼ BSP	7/8 UNF	33	78	886	718	219	70	2 BSPF	76	36	46	9	69
20	18.8	310	749	55.00	¼ BSP	7/8 UNF	33	78	886	718	219	70	2 BSPF	76	36	46	9	69
20	18.8	345	749	55.00	¼ BSP	7/8 UNF	33	78	886	718	221	70	2 BSPF	76	36	46	9	69
20	18.8	420	749	54.00	¼ BSP	7/8 UNF	33	78	886	718	229	70	2 BSPF	76	36	46	9	69
28	25.8	207	749	61.00	¼ BSP	7/8 UNF	33	78	1158	990	221	70	2 BSPF	76	36	46	9	69
28	25.8	345	749	61.00	¼ BSP	7/8 UNF	33	78	1158	990	221	70	2 BSPF	76	36	46	9	69
37	35.2	207	749	91.00	¼ BSP	7/8 UNF	33	78	1407	1239	219	70	2 BSPF	76	36	46	9	69
37	35.2	310	749	91.00	¼ BSP	7/8 UNF	33	78	1407	1239	219	70	2 BSPF	76	36	46	9	69
37	35.2	345	749	91.00	¼ BSP	7/8 UNF	33	78	1407	1239	221	70	2 BSPF	76	36	46	9	69
37	35.2	420	749	86.00	¼ BSP	7/8 UNF	33	78	1407	1239	229	70	2 BSPF	76	36	46	9	69
54	49.2	207	749	130.00	¼ BSP	M50x 1.5	69	66	1922	1766	219	70	2 BSPF	76	36	46	9	69
54	49.2	310	749	130.00	¼ BSP	M50x 1.5	69	66	1922	1766	219	70	2 BSPF	76	36	46	9	69
54	49.2	345	749	130.00	¼ BSP	M50x 1.5	69	66	1922	1766	221	70	2 BSPF	76	36	46	9	69
54	49.2	420	749	119.00	¼ BSP	M50x 1.5	69	66	1922	1766	229	70	2 BSPF	76	36	46	9	69



O&G Series, 480 & 517 bar

A	Bladder Kit comprising:
D	Bladder assembly
D1	Bladder
D2	Gas valve assembly
D3	Locknut
D4	Protective cap
D5	'O' ring stem
E	Anti extrusion ring assembly
E1	Anti extrusion ring
E2	'O' ring fluid port*
E3	Bonded seal
E4	Back-up ring
B	Fluid port assembly comprising
B1	Fluid port body
B2	Spring
B3	Poppet valve
B4	Collett
B5	Piston
B6	Flanged washer
C	Shell assembly comprising:
C1	Shell
C2	Label
C3	Label warning



O&G Series 480 and 517 bar: Dimensions

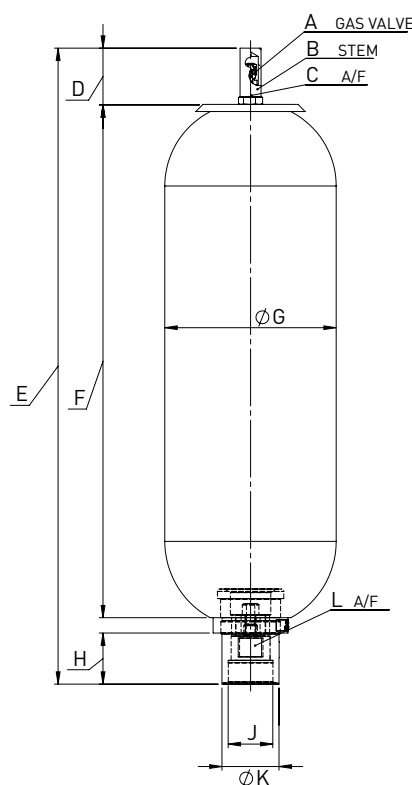
Nominal Capacity Litres	Effective Gas vol. Litres	Work press. bar	Max Flow Rate lt/min	Weight Dry Kilo	Dimensions in mm unless stated otherwise and subject to manufacturer's tolerances										
					A Inches	B Inches	C	D	E	F	G	H	J Inches	K	L
10	9.4	480	215	34	¼ BSP	7/8 UNF	33	78	575	407	229	70	see table	76	69
10	9.4	517	215	54	¼ BSP	7/8 UNF	33	78	575	407	243	70		76	69
20	18.8	480	215	54	¼ BSP	7/8 UNF	33	78	886	718	229	70		76	69
20	18.8	517	215	100	¼ BSP	7/8 UNF	33	78	886	718	243	70		76	69
37	35.2	480	215	86	¼ BSP	7/8 UNF	33	78	1407	1239	229	70		76	69
37	35.2	517	215	152	¼ BSP	7/8 UNF	33	78	1407	1239	243	70		76	69
54	49.2	480	215	119	¼ BSP	M50x 1.5P	69	66	1922	1766	229	70		76	69
57	54.5	517	215	220	¼ BSP	M50x 1.5P	69	66	1980	1824	243	70		76	69

Dimension J

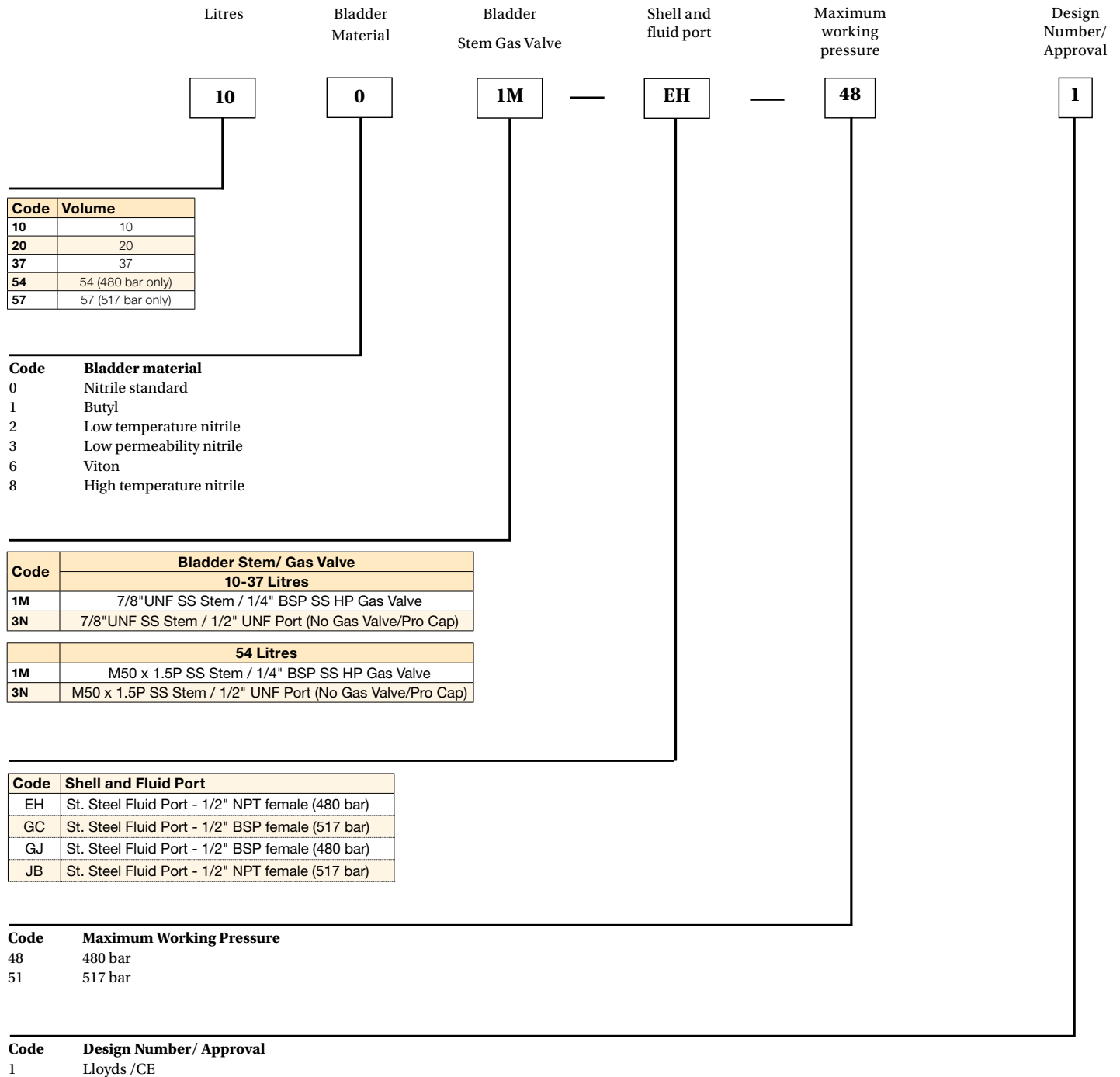
Code	Shell and Fluid Port
EH	Stainless Steel - 1/2" NPT female (480 bar)
GC	Stainless Steel - 1/2" BSP female (517 bar)
GJ	Stainless Steel - 1/2" BSP female (480 bar)
JB	Stainless Steel - 1/2" NPT female (517 bar)

Note: Dimensions are based on current stock and are subject to change without prior notice.

Other available on request.

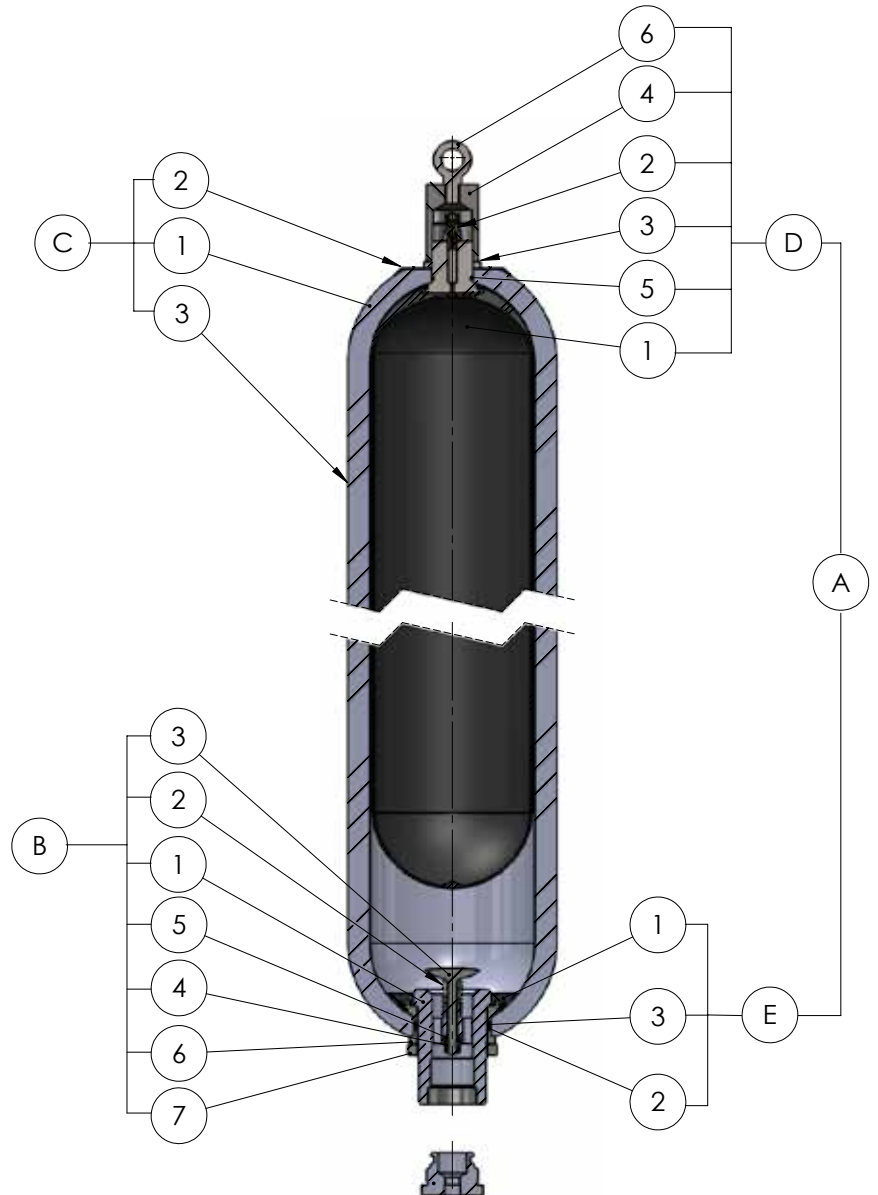


O&G Series 480 & 517 bar: How to order



O&G Series, 690 to 760 bar

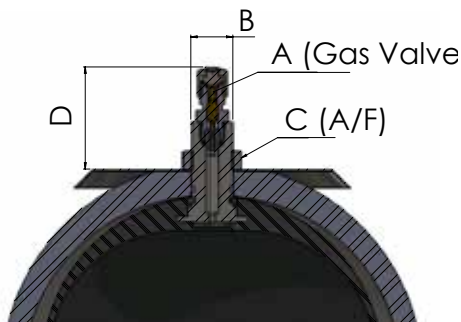
A	Bladder Kit comprising:
D	Bladder assembly
D1	Bladder
D2	Gas valve assembly
D3	Locknut
D4	Protective cap
D5	'O' ring stem
E	Anti extrusion ring assembly
E1	Anti extrusion ring
E2	'O' ring fluid port*
E3	Back-up ring
B	Fluid port assembly comprising
B1	Fluid port body
B2	Spring
B3	Poppet valve
B4	Collett
B5	Piston
B6	Flanged washer
B7	Lock ring
C	Shell assembly comprising:
C1	Shell
C2	Label
C3	Label warning



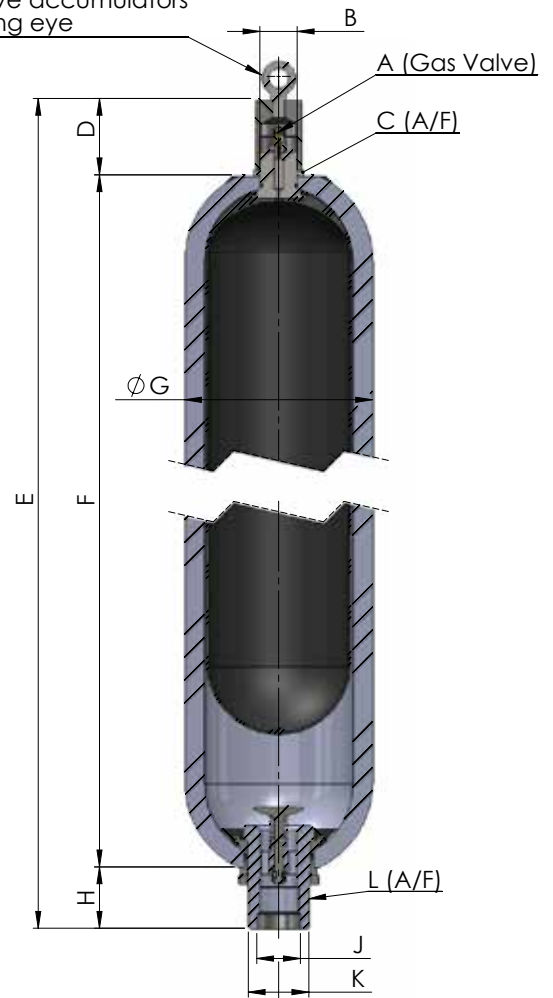
O&G Series 690 to 760 bar: Dimensions

Nominal Capacity Litres	Effective Gas vol. Litres	Work press. bar	Q Max (l/min)	Weight Dry Kilo	Dimensions in mm unless stated otherwise and subject to manufacturer's tolerances										
					A Inches	B Inches	C	D	E	F	G	H	J	K	L
1	1.1	690	240	9	See Below	7/8"UNF	33	69	376	239	122	68	See Page 5	48	45
3	2.4	690	240	15		7/8" UNF	33	69	551	414	122	68		48	45
5	5	690	240	29		7/8" UNF	33	69	900	763	122	68		48	45
12	9.4	690	749	97		M50x1.5P	69	166	768	518	261	84		82	77
12	9.4	760	749	97		M50x1.5P	69	166	768	518	261	84		82	77
20	18.8	690	749	134		M50x1.5P	69	166	978	728	261	84		82	77
20	18.8	760	749	134		M50x1.5P	69	166	978	728	261	84		82	77
37	35.2	690	749	227		M50x1.5P	69	166	1500	1250	261	84		82	77
37	35.2	760	749	227		M50x1.5P	69	166	1500	1250	261	84		82	77
54	49.2	690	749	318		M50x1.5P	69	166	2015	1765	261	84		82	77
54	49.2	760	749	318		M50x1.5P	69	166	2015	1765	261	84		82	77

1 - 5 Litre



12L and above accumulators include a lifting eye



Dimension A - Bladder Stem/Gas Valve

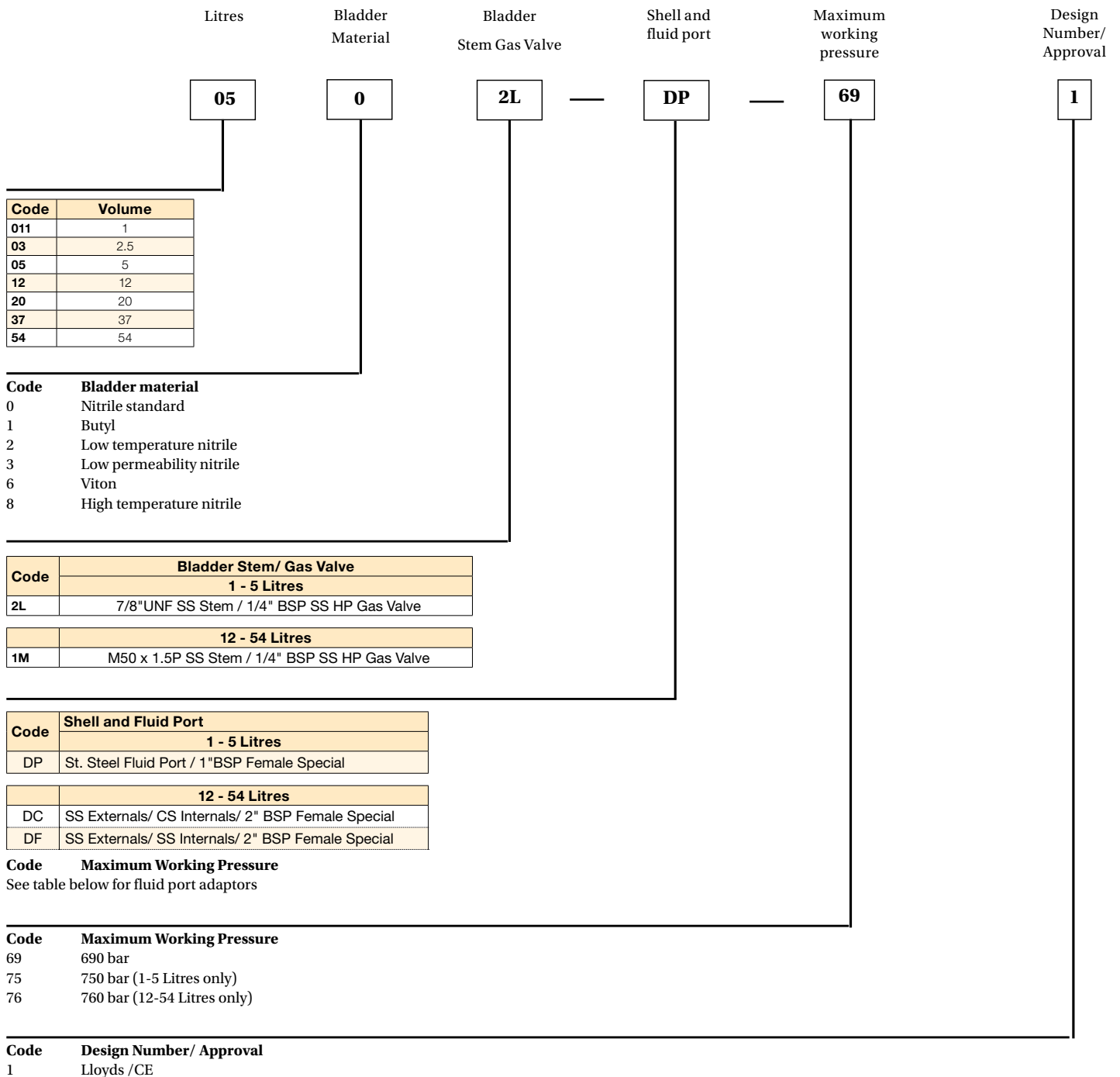
Code	1 - 5 Litre
2L	7/8"UNF SS Stem / 1/4"BSP SS HP Gas Valve
12 - 54 Litre	
5K	M50x1.5P SS Stem / 1/4"BSP SS HP Gas Valve

Dimension J - Shell and Fluid Port

Code	12 - 54 Litre
DP	Stainless Steel / 1"BSP Female Special
12 - 54 Litre	
DC	SS Externals/CS Internals / 2"BSP Female Special
DF	SS Externals/SS Internals / 2"BSP Female Special

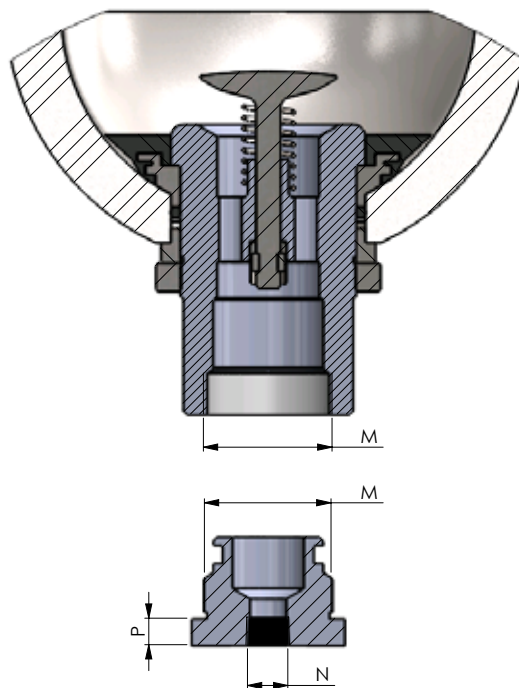
Note: Dimensions are based on current stock and are subject to change without prior notice.

O&G Series 690 to 760 bar: How to order



O&G Series 690 to 760 bar: Fluid Port Adaptors

Nominal Capacity (Litres)	Dimensions			Part Number
	J	N	P (mm)	
1 - 5 litres	1" BSP	1/4" BSP	10	52799-XXX
	1" BSP	3/8" BSP	10	55456-XXX
	1" BSP	1/2" BSP	30	54260-XXX
	1" BSP	3/4" BSP	30	52762-XXX
	1" BSP	1/4" NPT	30	55712-XXX
	1" BSP	1/2" NPT	30	51059-XXX
	1" BSP	3/4" NPT	30	52113-XXX
	1" BSP	3/8" MP Autoclave	30	56002-XXX
	1" BSP	9/6" MP Autoclave	30	52722-XXX
12 - 54 litres	2" BSP	1/4" BSP	13	55374-XXX
	2" BSP	3/8" BSP	13	55375-XXX
	2" BSP	1/2" BSP	13	55376-XXX
	2" BSP	3/4" BSP	13	55377-XXX
	2" BSP	1/4" NPT	13	55369-XXX
	2" BSP	3/8" NPT	13	55370-XXX
	2" BSP	1/2" NPT	13	55371-XXX
	2" BSP	3/4" NPT	13	55372-XXX
	2" BSP	1/4" MP Autoclave	38	54116-XXX
	2" BSP	3/8" MP Autoclave	38	55873-XXX



EHP Series Piston Accumulators

up to 350 bar

IN THIS SECTION

Piston Accumulators

General Information EHP Piston Accumulators	80
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EHP Series 4 to 20 Litres, 250 bar, Dia bore 140	90
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EHP Series 10 to 150 Litres, 250 bar, ø 195	94
EHP Series 10 to 150 Litres, 250 bar, ø 200	96
EHP Series 25 to 200 Litres, 250 bar, ø 250	98
EHP Series 30 to 500 Litres, 250 bar, ø 350	100
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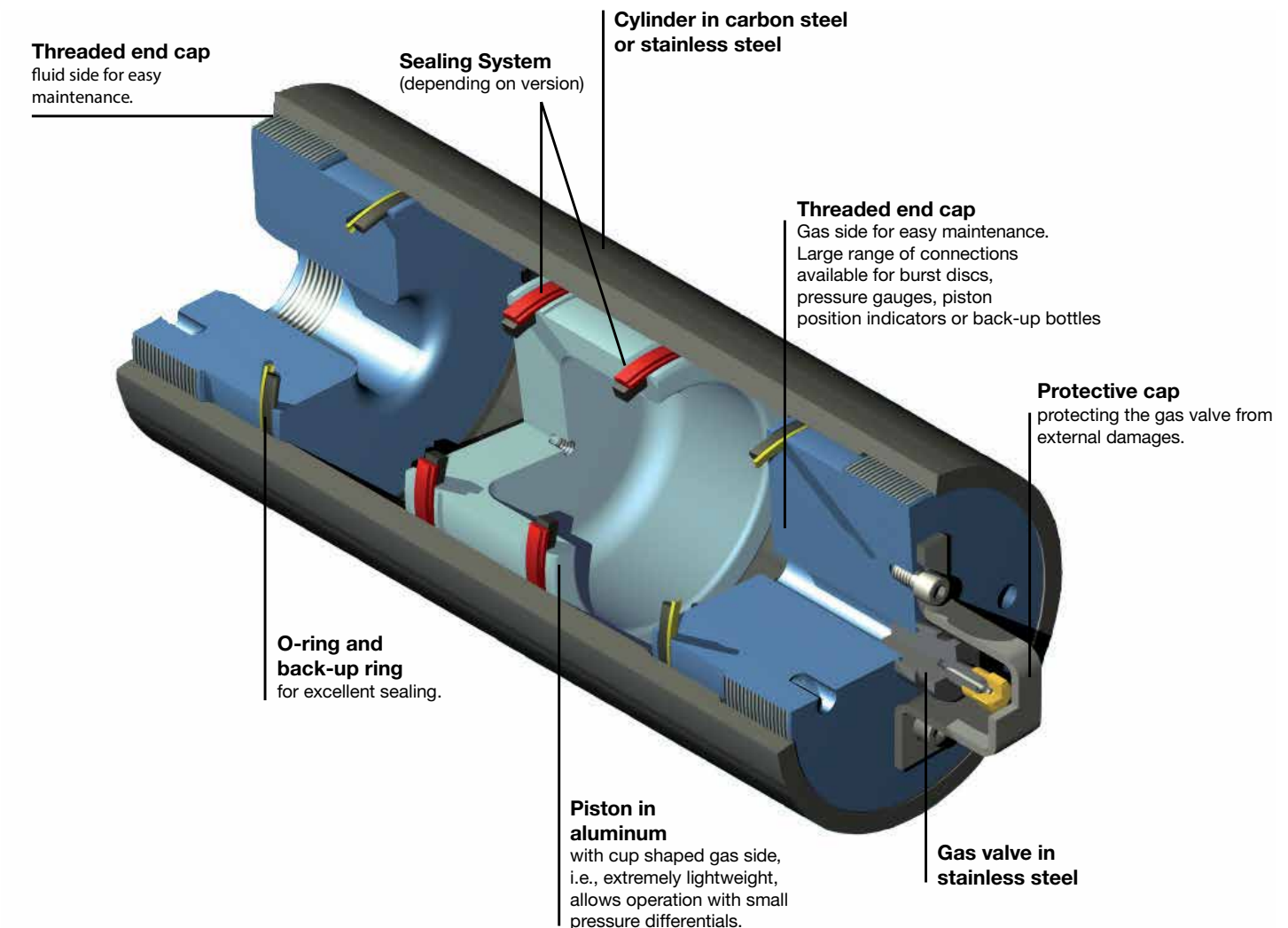
Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

General Information EHP Piston Accumulators

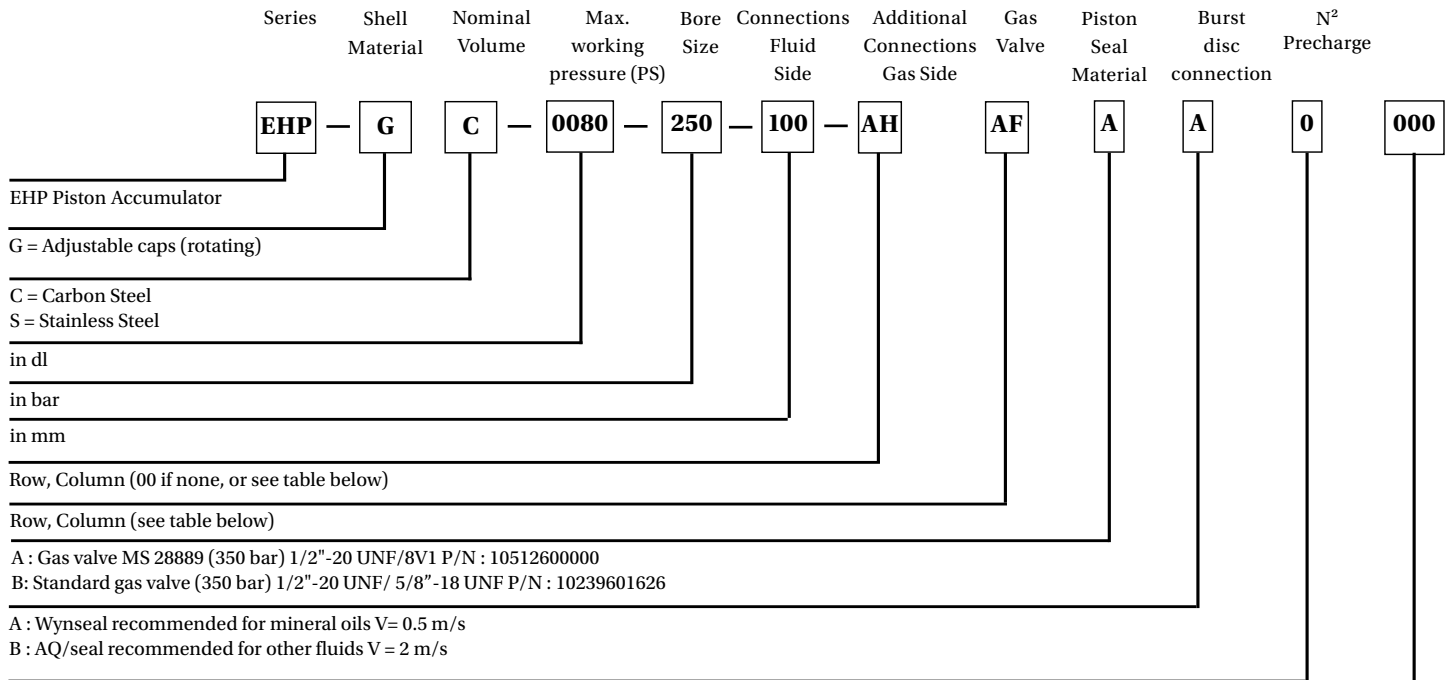
Technical Characteristics

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



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	

N² preload in bar (example 010 = 10 bar, 000 N² 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				

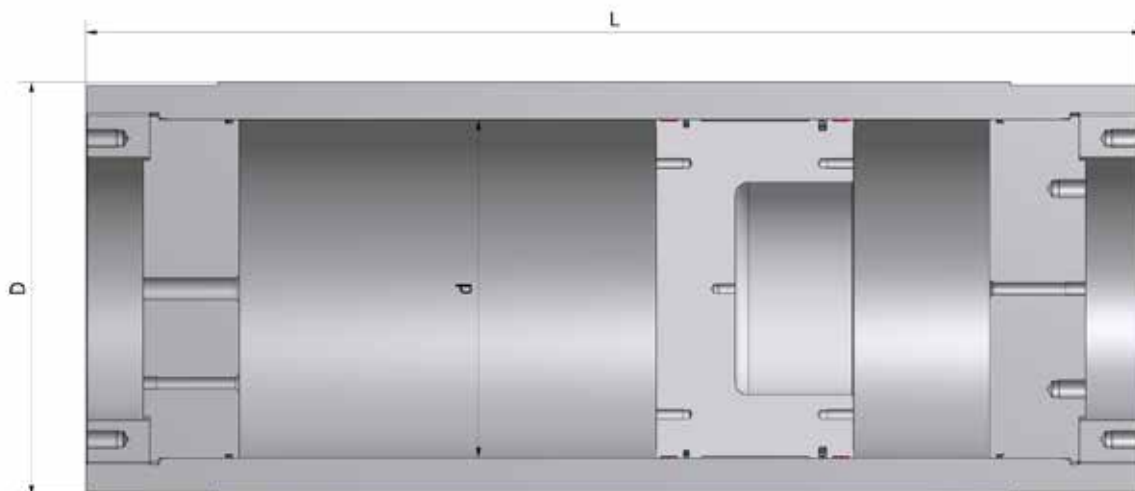
EHP Series 207 bar, 60 to 400 Litres, Ø 360

Standard version (**Stainless Steel** shell/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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number	
EHP(G) S 0600-207-360	815EHPGS0602036	
EHP(G) S 0700-207-360	815EHPGS0702036	
EHP(G) S 0800-207-360	815EHPGS0802036	
EHP(G) S 0900-207-360	815EHPGS0902036	
EHP(G) S 1000-207-360	815EHPGS1002036	
EHP(G) S 1500-207-360	815EHPGS1502036	
EHP(G) S 2000-207-360	815EHPGS2002036	
EHP(G) S 2500-207-360	815EHPGS2502036	
EHP(G) S 3000-207-360	815EHPGS3002036	
EHP(G) S 3500-207-360	Piston Accumulators	
EHP(G) S 4000-207-360	Piston Accumulators	

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Std Fluid opening	A mm	Seal Kit
EHP(G) S 0600-207-360	60	207	446	1106	408	360	G2"	45	8220000000016
EHP(G) S 0700-207-360	70	207	467	1204	408	360	G2"	45	8220000000016
EHP(G) S 0800-207-360	80	207	488	1303	408	360	G2"	45	8220000000016
EHP(G) S 0900-207-360	90	207	509	1401	408	360	G2"	45	8220000000016
EHP(G) S 1000-207-360	100	207	530	1500	408	360	G2"	45	8220000000016
EHP(G) S 1500-207-360	150	207	635	1990	408	360	G2"	45	8220000000016
EHP(G) S 2000-207-360	200	207	740	2481	408	360	G2"	45	8220000000016
EHP(G) S 2500-207-360	250	207	845	2973	408	360	G2"	45	8220000000016
EHP(G) S 3000-207-360	300	207	950	3464	408	360	G2"	45	8220000000016
EHP(G) S 3500-207-360	350	207	1055	3955	408	360	G2"	45	8220000000016
EHP(G) S 4000-207-360	400	207	1160	4426	408	360	G2"	45	8220000000016



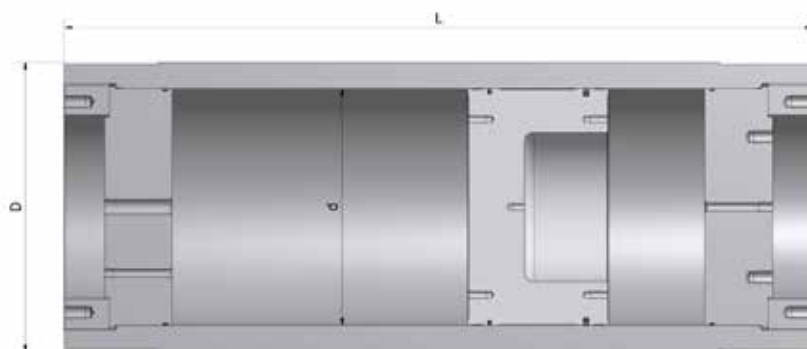
EHP Series 220 bar, 150 to 650 Litres, Ø 540

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2

Part numbers, Dimensions

Type	Part number	
EHP(G) C 1500-220-540	815EHPGC15002254	
EHP(G) C 2000-220-540	815EHPGC20002254	
EHP(G) C 2500-220-540	815EHPGC25002254	
EHP(G) C 3000-220-540	815EHPGC30002254	
EHP(G) C 3200-220-540	815EHPGC32002254	
EHP(G) C 3400-220-540	815EHPGC34002254	
EHP(G) C 3600-220-540	815EHPGC36002254	
EHP(G) C 3800-220-540	815EHPGC38002254	
EHP(G) C 4000-220-540	815EHPGC40002254	
EHP(G) C 4500-220-540	815EHPGC45002254	
EHP(G) C 5000-220-540	815EHPGC50002254	
EHP(G) C 5500-220-540	815EHPGC55002254	
EHP(G) C 6000-220-540	815EHPGC60002254	
EHP(G) C 6500-220-540	815EHPGC65002254	

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Max Fluid opening	Seal Kit
EHP(G) C 1500-220-540	150	220	2147	1415	630	540	G3"	8220000000018
EHP(G) C 2000-220-540	200	220	2280	1633	630	540	G3"	8220000000018
EHP(G) C 2500-220-540	250	220	2413	1851	630	540	G3"	8220000000018
EHP(G) C 3000-220-540	300	220	2546	2068	630	540	G3"	8220000000018
EHP(G) C 3200-220-540	320	220	2625	2156	630	540	G3"	8220000000018
EHP(G) C 3400-220-540	340	220	2702	2243	630	540	G3"	8220000000018
EHP(G) C 3600-220-540	360	220	2780	2331	630	540	G3"	8220000000018
EHP(G) C 3800-220-540	380	220	2857	2418	630	540	G3"	8220000000018
EHP(G) C 4000-220-540	400	220	3004	2505	630	540	G3"	8220000000018
EHP(G) C 4500-220-540	450	220	3128	2723	630	540	G3"	8220000000018
EHP(G) C 5000-220-540	500	220	3322	2942	630	540	G3"	8220000000018
EHP(G) C 5500-220-540	550	220	3516	3160	630	540	G3"	8220000000018
EHP(G) C 6000-220-540	600	220	3711	3379	630	540	G3"	8220000000018
EHP(G) C 6500-220-540	650	220	3904	3597	630	540	G3"	8220000000018



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

Standard version (Carbon steel/Wynseal) for mineral oils, According to PED 97/23/EC, EN14359-2006

Part numbers, Dimensions

Most common configurations

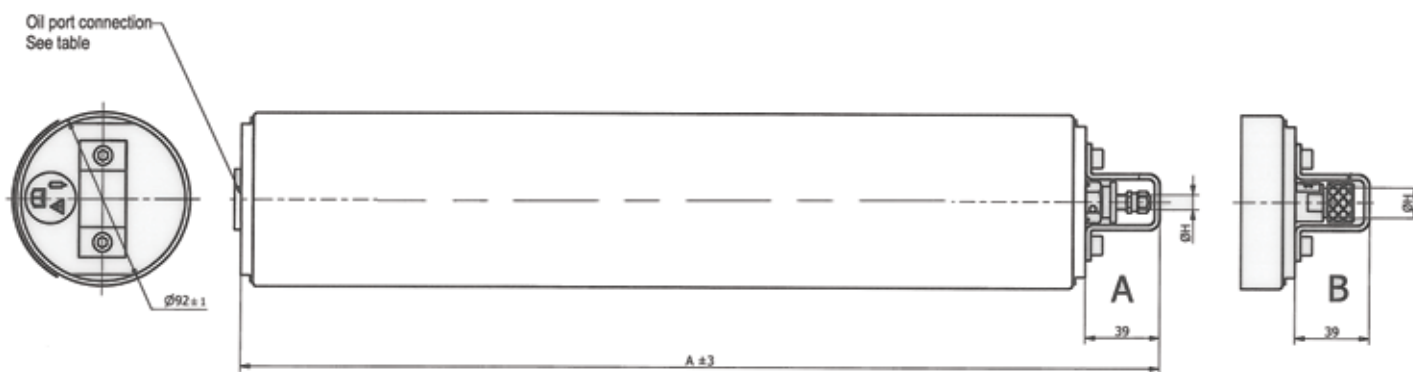
Type Part number	Pre-charge			Wynseal Piston Kit	Without burst disc. Plugged connection
	1 - 109 bar	110 - 209 bar	210 - 300 bar	Part number	Model Part number
EHP-C-0010-250-080-AF00AA0000 (1) 9000-0701-AF00AA0000	751001	751030	751045	9782-080-000	-
EHP-C-0010-250-080-AF00AAP000 (1) 9000-0701-AF00AAP000	751001	751030	751045	9782-080-000	
EHP-C-0020-250-080-AB00AA0000 (2) 9098-1001-AB00AA0000	751002	751031	751046	9782-080-000	-
EHP-C-0020-250-080-AF00AA0000 (2) 9098-1001-AF00AA0000	751002	751031	751046	9782-080-000	-
EHP-C-0020-250-080-AF00AAP000 (2) 9098-1001-AF00AAP000	751002	751031	751046	9782-080-000	
EHP-C-0030-250-080-AF00AA0000 (2) 9098-1301-AF00AA0000	751002	751031	751046	9782-080-000	-
EHP-C-0040-250-080-AF00AA0000 (2) 9098-1601-AF00AA0000	751012	751020	751035	9782-080-000	-

CE Marked complies with group fluid 2 according to the PED 97/23/EC

(1) according to the PED, article 3.3

(2) Category II

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Dia Bore	Max Flow Rate lt/min	Allowable Temperature °C	Weight kg	A max height	External øD	Oil port connection	V m/s
EHP-C-0010-250-080-AF00AA0000 (1)	1	250	80	151	-20/+80	9.7	387	92	G 3/4"	0,5
EHP-C-0010-250-080-AF00AAP000 (1)	1	250	80	151	-20/+80	9.7	387	92	G 3/4"	0,5
EHP-C-0020-250-080-AB00AA0000 (2)	2	250	80	151	-20/+80	12.2	586	92	G 1/4"	0,5
EHP-C-0020-250-080-AF00AA0000 (2)	2	250	80	151	-20/+80	12.2	586	92	G 3/4"	0,5
EHP-C-0020-250-080-AF00AAP000 (2)	2	250	80	151	-20/+80	12.2	586	92	G 3/4"	0,5
EHP-C-0030-250-080-AF00AA0000 (2)	3	250	80	151	-20/+80	14.7	785	92	G 3/4"	0,5
EHP-C-0040-250-080-AF00AA0000 (2)	4	250	80	151	-20/+80	17.2	984	92	G 3/4"	0,5



GAS CONNECTIONS

Model Valve A 8V1
Model Valve B 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, According to PED 97/23/EC, EN14359-2006

Part numbers, Dimensions

Most common configurations

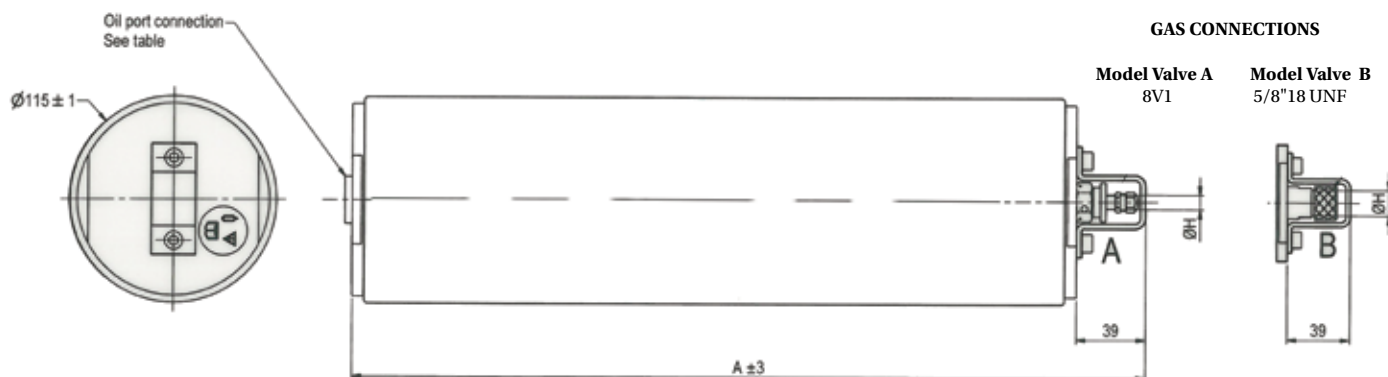
Type Part number	Pre-charge			Wynseal Piston Kit	Without burst disc. Plugged connection
	1 - 109 bar	110 - 209 bar	210 - 300 bar	Part number	Model Part number
EHP-C-0020-250-100-AD00AA0000(1) 9098-1002-AD00AA0000	751002	751031	751046	9782-100-000	-
EHP-C-0020-250-100-AF00AA0000 (1) 9098-1002-AF00AA0000	751002	751031	751046	9782-100-000	-
EHP-C-0040-250-100-AD00AA0000(1) 9098-1602-AD00AA0000	751012	751020	751035	9782-100-000	-
EHP-C-0040-250-100-AF00AA0000(1) 9098-1602-AF00-AA0000	751012	751020	751035	9782-100-000	-
EHP-C-0040-250-100-DF00AA0000 (1) 9098-1602-DF00AA0000	751015	751020	751035	9782-100-000	-
EHP-C-0060-250-100-AF00AA0000 (2) 9098-1902-AF00AA0000	751015	751021	751036	9782-100-000	-
EHP-C-0060-250-100-AH00AA0000(2) 9098-1902-AH00AA0000	751015	751021	751036	9782-100-000	-
EHP-C-0080-250-100-AF00AA0000 (2) 9098-2002-AF00AA0000	751004	751022	751037	9782-100-000	-
EHP-C-0080-250-100-AH00AAP000(2) Consult Division 9098-2002-AH00-AAP000	751004	751022	751037	9782-100-000	
EHP-C-0100-250-100-AH00AA0000(2) 9098-2102-AH00AA0000	751004	751022	751037	9782-100-000	-
EHP-C-0100-250-100-AH00AAP000(2) 9098-2102-AH00AAP000	751004	751022	751037	9782-100-000	

CE Marked complies with group fluid 2 according to the PED 97/23/EC

(1) Category II

(2) Category III

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Dia Bore	Max Flow Rate lt/min	Allowable Temperature °C	Weight kg	A height	External øD	Oil port connection	V m/s
EHP-C-0020-250-100-AD00AA0000(1)	2	250	100	236	-20/+80	16.4	441	115	G 1/2"	0,5
EHP-C-0020-250-100-AF00AA0000(1)	2	250	100	236	-20/+80	16.4	441	115	G 3/4"	0,5
EHP-C-0040-250-100-AD00AA0000(1)	4	250	100	236	-20/+80	21.5	696	115	G 1/2"	0,5
EHP-C-0040-250-100-AF00AA0000(1)	4	250	100	236	-20/+80	21.5	696	115	G 3/4"	0,5
EHP-C-0040-250-100-DF00AA0000(1)	4	250	100	236	-20/+80	21.5	696	115	#16 1 5/16"	0,5
EHP-C-0060-250-100-AF00AA0000(2)	6	250	100	236	-20/+80	26.5	951	115	G 3/4"	0,5
EHP-C-0060-250-100-AH00AA0000(2)	6	250	100	236	-20/+80	26.5	951	115	G 1"	0,5
EHP-C-0800-250-100-AF00AA0000(2)	8	250	100	236	-20/+80	31.5	1205	115	G 3/4"	0,5
EHP-C-0800-250-100-AH00AAP000(2)	8	250	100	236	-20/+80	31.5	1205	115	G 1"	0,5
EHP-C-0100-250-100-AH00AA0000(2)	10	250	100	236	-20/+80	36.6	1460	115	G 1"	0,5
EHP-C-0100-250-100-AH00AAP000(2)	10	250	100	236	-20/+80	36.6	1460	115	G 1"	0,5



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

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, According to PED 97/23/EC, EN14359-2006

Part numbers, Dimensions

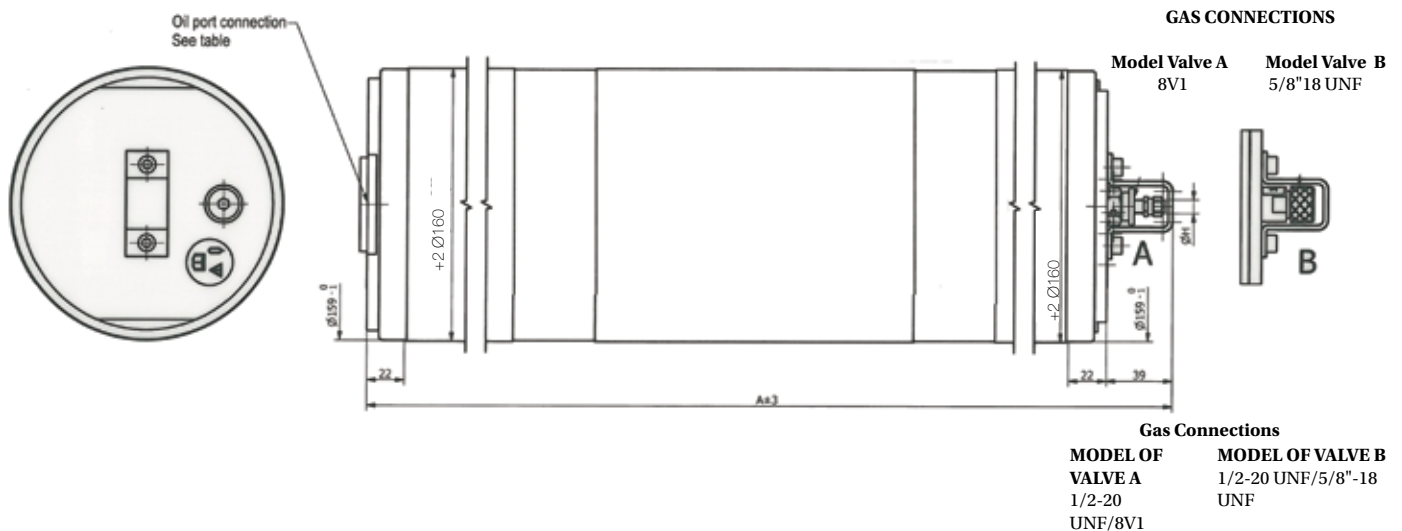
Most common configurations

Type Part number	Pre-charge			Wynseal or AQ Seal Piston Kit	Without burst disc. Plugged connection
	1 - 109 bar	110 - 209 bar	210 - 300 bar	Part number	Model Part number
EHP-C-0040-250-140-AKAFABP000(1) 9098-1604-AKAFABP000	751012	751020	751036	AQ seal 001185-00000.	
EHP-C-0060-250-140-AKAFABP000(2) 9098-1904-AKAFABP000	751015	751020	751036	AQ seal 001185-00000.	
EHP-C-0060-250-140-AKAFAP000(2) 9098-1904-AKAFAP000	751015	751020	751036	Wynseal 9782-140-000	
EHP-C-0080-250-140-AKAFABP000(2) 9098-2004-AKAFABP000	751004	751022	751037	AQ seal 001185-00000.	
EHP-C-0080-250-140-AKAFAP000(2) 9098-2004-AKAFAP000	751004	751022	751037	Wynseal 9782-140-000	
EHP-C-0100-250-140-AKAFAP000(2) 9098-2104-AKAFAP000	751004	751022	751037	Wynseal 9782-140-000	
EHP-C-0150-250-140-AKAFAP000(3) 9098-2304-AKAFAP000	751004	751022	751037	Wynseal 9782-140-000	
EHP-C-0150-250-140-AF00AA0000(3) 9098-2304-AF00AA0000	751004	751022	751037	Wynseal 9782-140-000	-
EHP-C-0200-250-140-AKAFAP000(3) 9098-2604-AKAFAP000	751004	751022	751037	Wynseal 9782-140-000	

CE Marked complies with group fluid 2 according to the PED 97/23/EC

- (1) Category II
- (2) Category III
- (3) Category IV

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Dia Bore	Max Flow Rate lt/min	Allowable Temperature °C	Weight kg	A height	External øD	Oil port connection	V m/s
EHP-C-0040-250-140-AKAFABP000(1)	4	250	140	1846	-20/+150	34.1	470	160	G 1 1/2"	2
EHP-C-0060-250-140-AKAFABP000(2)	6	250	140	1846	-20/+150	38.9	600	160	G 1 1/2"	2
EHP-C-0060-250-140-AKAFAAP000(2)	6	250	140	462	-20/+80	43.7	600	160	G 1 1/2"	0.5
EHP-C-0080-250-140-AKAFABP000(2)	8	250	140	1846	-20/+150	38.9	730	160	G 1 1/2"	2
EHP-C-0080-250-140-AKAFAAP000(2)	8	250	140	462	-20/+80	43.7	730	160	G 1 1/2"	0.5
EHP-C-0100-250-140-AKAFAAP000(2)	10	250	140	462	-20/+80	48.5	860	160	G 1 1/2"	0.5
EHP-C-0150-250-140-AKAFAAP000(3)	15	250	140	462	-20/+80	60	1185	160	G 1 1/2"	0.5
EHP-C-0150-250-140-AF00AA0000(3)	15	250	140	462	-20/+80	71.5	1185	160	G 3/4"	0.5
EHP-C-0200-250-140-AKAFAAP000(3)	20	250	140	462	-20/+80	60	1509	160	G 1 1/2"	0.5



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

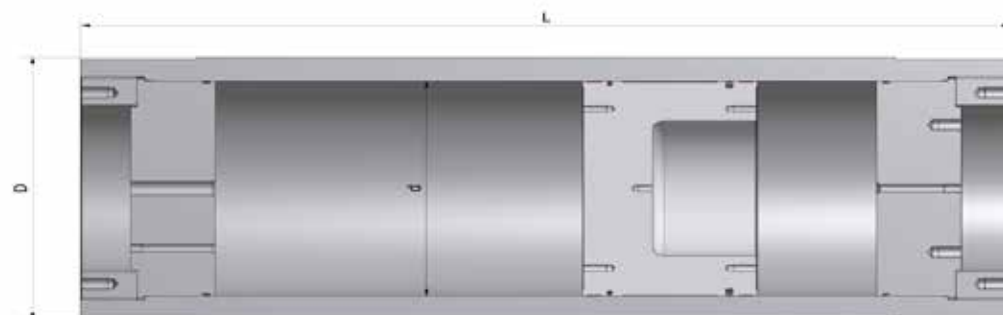
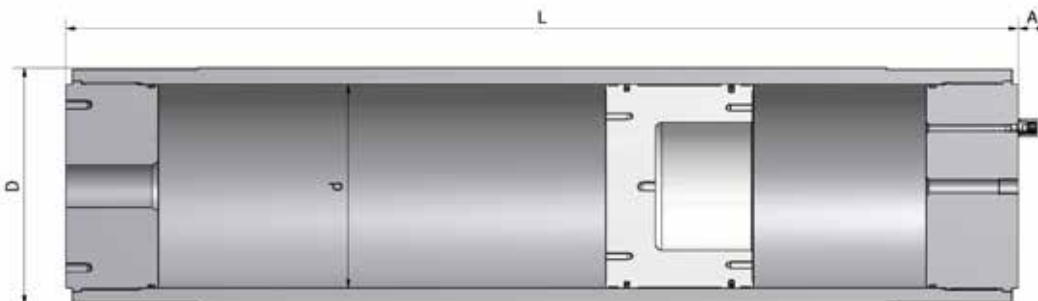
EHP Series 250 bar, 8 to 50 Litres, Ø 180

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2

Part numbers, Dimensions

Type	Part number
EHP C 0080/250/180	815EHP0C00802518
EHP C 0100/250/180	815EHP0C01002518
EHP C 0150/250/180	815EHP0C01502518
EHP C 0200/250/180	815EHP0C02002518
EHP C 0300/250/180	815EHP0C03002518
EHP C 0400/250/180	815EHP0C04002518
EHP C 0500/250/180	815EHP0C05002518

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Max Fluid opening	Seal Kit
EHP C 0080/250/180	8	250	110	622	219.1	180	G1"	8220000000011
EHP C 0100/250/180	10	250	120	700	219.1	180	G1"	8220000000011
EHP C 0150/250/180	15	250	135	896	219.1	180	G1"	8220000000011
EHP C 0200/250/180	20	250	160	1095	219.1	180	G1"	8220000000011
EHP C 0300/250/180	30	250	190	1485	219.1	180	G1"	8220000000011
EHP C 0400/250/180	40	250	230	1880	219.1	180	G1"	8220000000011
EHP C 0500/250/180	50	250	270	2275	219.1	180	G1"	8220000000011



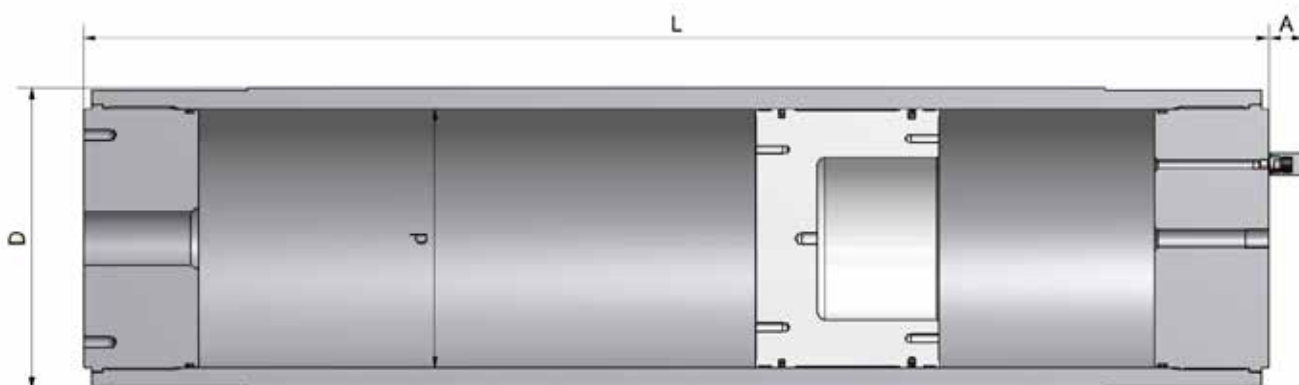
EHP Series 250 bar, 10 to 150 Litres, Ø 195

Standard version (**Stainless 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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number
EHP S 0100-250-195	815EHP0S0102519
EHP S 0200-250-195	815EHP0S0202519
EHP S 0300-250-195	815EHP0S0302519
EHP S 0400-250-195	815EHP0S0402519
EHP S 0500-250-195	815EHP0S0502519
EHP S 0600-250-195	815EHP0S0602519
EHP S 0700-250-195	815EHP0S0702519
EHP S 0800-250-195	815EHP0S0802519
EHP S 0900-250-195	815EHP0S0902519
EHP S 1000-250-195	815EHP0S1002519
EHP S 1500-250-195	815EHP0S1502519

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Std Fluid opening	A mm	Seal Kit
EHP S 0100-250-195	10	250	150	645	243	195	G2"	45	8220000000020
EHP S 0200-250-195	20	250	199	980	243	195	G2"	45	8220000000020
EHP S 0300-250-195	30	250	249	1315	243	195	G2"	45	8220000000020
EHP S 0400-250-195	40	250	299	1650	243	195	G2"	45	8220000000020
EHP S 0500-250-195	50	250	348	1985	243	195	G2"	45	8220000000020
EHP S 0600-250-195	60	250	398	2320	243	195	G2"	45	8220000000020
EHP S 0700-250-195	70	250	447	2654	243	195	G2"	45	8220000000020
EHP S 0800-250-195	80	250	497	2989	243	195	G2"	45	8220000000020
EHP S 0900-250-195	90	250	546	3324	243	195	G2"	45	8220000000020
EHP S 1000-250-195	100	250	596	3659	243	195	G2"	45	8220000000020
EHP S 1500-250-195	150	250	844	5333	243	195	G2"	45	8220000000020



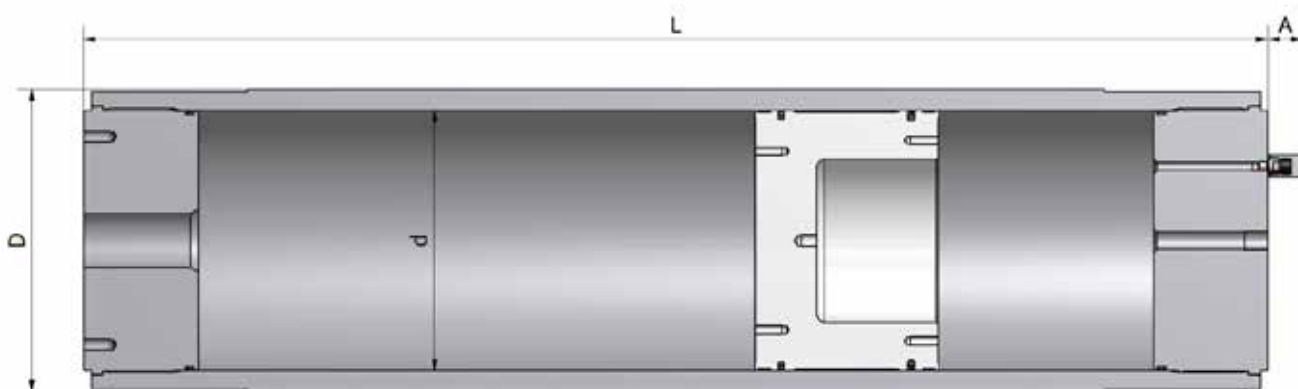
EHP Series 250 bar, 10 to 150 Litres, Ø 200

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number
EHP C 0100-250-200	815EHP0C0102520
EHP C 0200-250-200	815EHP0C0202520
EHP C 0300-250-200	815EHP0C0302520
EHP C 0350-250-200	815EHP0C0352520
EHP C 0400-250-200	815EHP0C0402520
EHP C 0500-250-200	815EHP0C0502520
EHP C 0750-250-200	815EHP0C0752520
EHP C 0800-250-200	815EHP0C0802520
EHP C 0900-250-200	815EHP0C0902520
EHP C 1000-250-200	815EHP0C1002520
EHP C 1500-250-200	815EHP0C1502520

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Std Fluid opening	A mm	Seal Kit
EHP C 0100-250-200	10	250	87	585	230	200	G2"	45	8220000000023
EHP C 0200-250-200	20	250	110	903	230	200	G2"	45	8220000000023
EHP C 0300-250-200	30	250	133	1221	230	200	G2"	45	8220000000023
EHP C 0350-250-200	35	250	144	1321	230	200	G2"	45	8220000000023
EHP C 0400-250-200	40	250	156	1540	230	200	G2"	45	8220000000023
EHP C 0500-250-200	50	250	178	1858	230	200	G2"	45	8220000000023
EHP C 0750-250-200	75	250	236	2654	230	200	G2"	45	8220000000023
EHP C 0800-250-200	80	250	247	2813	230	200	G2"	45	8220000000023
EHP C 0900-250-200	90	250	270	3131	230	200	G2"	45	8220000000023
EHP C 1000-250-200	100	250	293	3450	230	200	G2"	45	8220000000023
EHP C 1500-250-200	150	250	407	5041	230	200	G2"	45	8220000000023



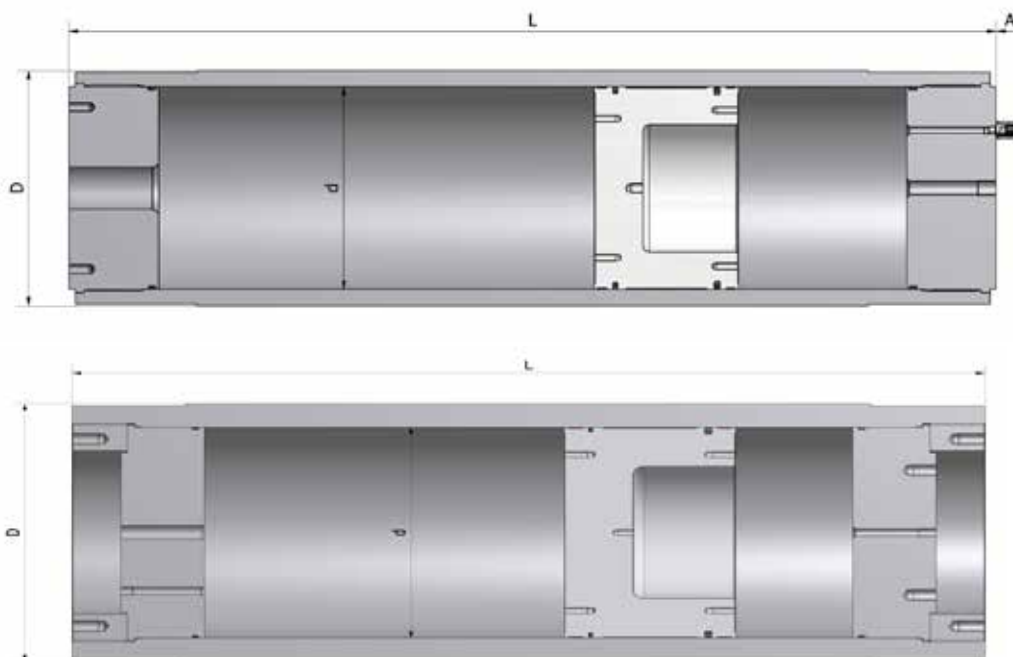
EHP Series 250 bar, 25 to 200 Litres, Ø 250

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number
EHP C 0250-250-250	815EHP0C0252525
EHP C 0300-250-250	815EHP0C0302525
EHP C 0400-250-250	815EHP0C0402525
EHP C 0500-250-250	815EHP0C0502525
EHP C 0600-250-250	815EHP0C0602525
EHP C 0700-250-250	815EHP0C0702525
EHP C 0800-250-250	815EHP0C0802525
EHP C 0900-250-250	815EHP0C0902525
EHP C 1000-250-250	815EHP0C1002525
EHP C 2000-250-250	815EHP0C2002525

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Std Fluid opening	A mm	Seal Kit
EHP C 0250-250-250	25	250	260	891	298.5	250	G2"	45	8220000000003
EHP C 0300-250-250	30	250	275	992	298.5	250	G2"	45	8220000000003
EHP C 0400-250-250	40	250	310	1196	298.5	250	G2"	45	8220000000003
EHP C 0500-250-250	50	250	345	1401	298.5	250	G2"	45	8220000000003
EHP C 0600-250-250	60	250	375	1606	298.5	250	G2"	45	8220000000003
EHP C 0700-250-250	70	250	410	1811	298.5	250	G2"	45	8220000000003
EHP C 0800-250-250	80	250	445	2011	298.5	250	G2"	45	8220000000003
EHP C 0900-250-250	90	250	475	2216	298.5	250	G2"	45	8220000000003
EHP C 1000-250-250	100	250	510	2421	298.5	250	G2"	45	8220000000003
EHP C 2000-250-250	200	250	660	4458	298.5	250	G2"	45	8220000000003



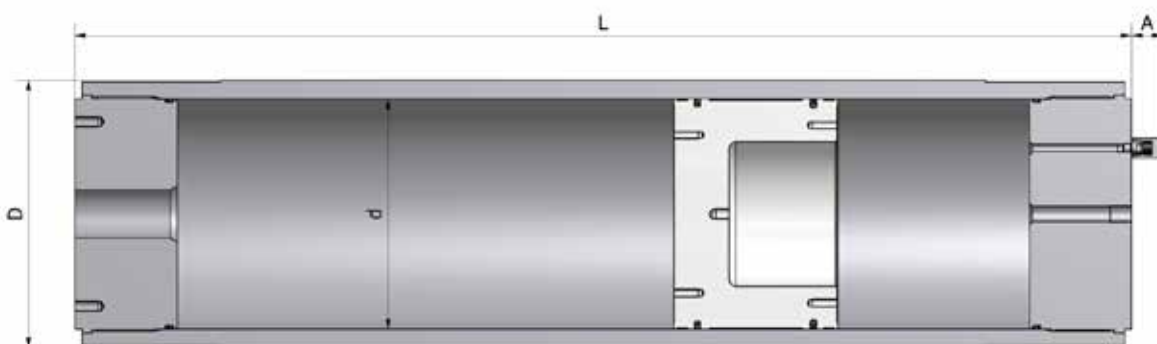
EHP Series 250 bar, 30 to 500 Litres, Ø 350

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number
EHP C 0300-250-350	815EHP0C0302535
EHP C 0400-250-350	815EHP0C0402535
EHP C 0500-250-350	815EHP0C0502535
EHP C 1000-250-350	815EHP0C1002535
EHP C 1500-250-350	815EHP0C1502535
EHP C 2000-250-350	815EHP0C2002535
EHP C 2500-250-350	815EHP0C2502535
EHP C 3000-250-350	815EHP0C3002535
EHP C 3500-250-350	815EHP0C3502535
EHP C 4000-250-350	815EHP0C4002535
EHP C 4500-250-350	815EHP0C4502535
EHP C 5000-250-350	815EHP0C5002535

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Std Fluid opening	A mm	Seal Kit
EHP C 0300-250-350	30	250	445	818	406.4	350	G2"	45	8220000000003
EHP C 0400-250-350	40	250	472	922	406.4	350	G2"	45	8220000000003
EHP C 0500-250-350	50	250	500	1026	406.4	350	G2"	45	8220000000003
EHP C 1000-250-350	100	250	637	1546	406.4	350	G2"	45	8220000000003
EHP C 1500-250-350	150	250	772	2066	406.4	350	G2"	45	8220000000003
EHP C 2000-250-350	200	250	912	2586	406.4	350	G2"	45	8220000000003
EHP C 2500-250-350	250	250	1048	3106	406.4	350	G2"	45	8220000000003
EHP C 3000-250-350	300	250	1185	3626	406.4	350	G2"	45	8220000000003
EHP C 3500-250-350	350	250	1322	4146	406.4	350	G2"	45	8220000000003
EHP C 4000-250-350	400	250	1429	4664	406.4	350	G2"	45	8220000000003
EHP C 4500-250-350	450	250	1565	5183	406.4	350	G2"	45	
EHP C 5000-250-350	500	250	1702	5703	406.4	350	G2"	45	



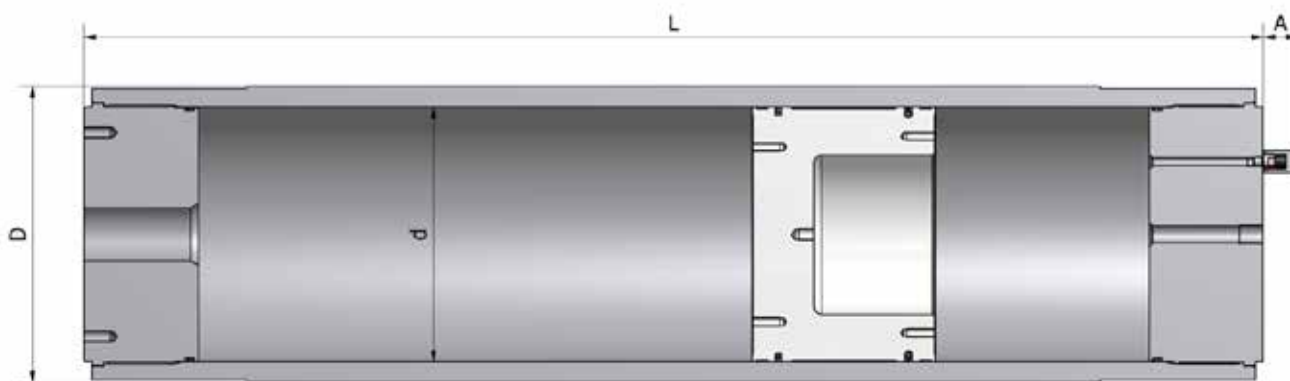
EHP Series 350 bar, 2 to 10 Litres, Ø 100

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, ASME VIII Div.1 Design, Fluid Group 1/2

Part numbers, Dimensions

Type	Part number
EHP C 0020-350-100	815EHP0C00023510
EHP C 0030-350-100	815EHP0C00033510
EHP C 0040-350-100	815EHP0C00043510
EHP C 0050-350-100	815EHP0C00053510
EHP C 0060-350-100	815EHP0C00063510
EHP C 0070-350-100	815EHP0C00073510
EHP C 0080-350-100	815EHP0C00083510
EHP C 0090-350-100	815EHP0C00093510
EHP C 0100-350-100	815EHP0C00103510

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Max Fluid opening	Seal Kit
EHP C 0020-350-100	2	350	37	475	140	100	G1"	8220000000024
EHP C 0030-350-100	3	350	45	602	140	100	G1"	8220000000024
EHP C 0040-350-100	4	350	52	729	140	100	G1"	8220000000024
EHP C 0050-350-100	5	350	60	857	140	100	G1"	8220000000024
EHP C 0060-350-100	6	350	67	984	140	100	G1"	8220000000024
EHP C 0070-350-100	7	350	75	1111	140	100	G1"	8220000000024
EHP C 0080-350-100	8	350	83	1239	140	100	G1"	8220000000024
EHP C 0090-350-100	9	350	90	1366	140	100	G1"	8220000000024
EHP C 0100-350-100	10	350	98	1493	140	100	G1"	8220000000024



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

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. For other fluids please contact Parker Olaer According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number	
EHP C 0080-350-180	815EHP0C0083518	
EHP C 0100-350-180	815EHP0C0103518	
EHP C 0150-350-180	815EHP0C0153518	
EHP C 0200-350-180	815EHP0C0203518	
EHP C 0300-350-180	815EHP0C0303518	
EHP C 0400-350-180	815EHP0C0403518	
EHP C 0500-350-180	815EHP0C0503518	

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Max Fluid opening	Seal Kit
EHP C 0080-350-180	8	350	130	646	229	180	G2"	8220000000011
EHP C 0100-350-180	10	350	140	724	229	180	G2"	8220000000011
EHP C 0150-350-180	15	350	165	920	229	180	G2"	8220000000011
EHP C 0200-350-180	20	350	185	1116	229	180	G2"	8220000000011
EHP C 0300-350-180	30	350	235	1510	229	180	G2"	8220000000011
EHP C 0400-350-180	40	350	285	1902	229	180	G2"	8220000000011
EHP C 0500-350-180	50	350	335	2295	229	180	G2"	8220000000011



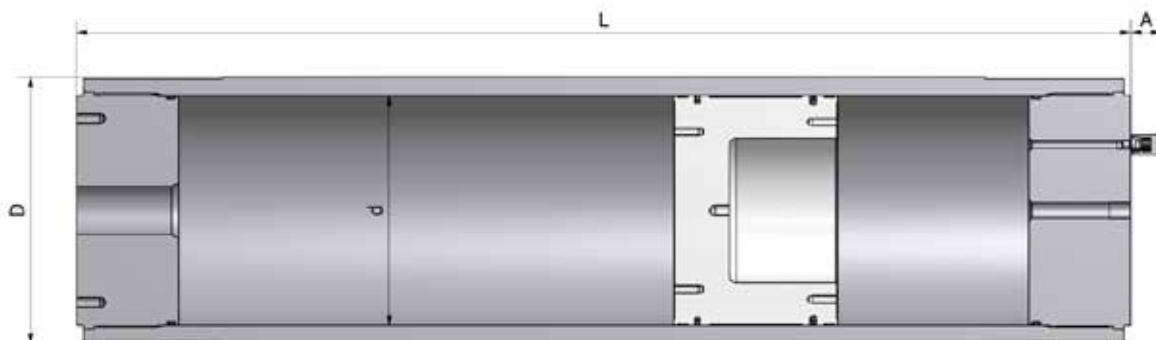
EHP Series 350 bar, 25 to 200 Litres, Ø 250

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2.

Part numbers, Dimensions

Type	Part number
EHP C 0250-350-250	815EHP0C0253525
EHP C 0300-350-250	815EHP0C0303525
EHP C 0400-350-250	815EHP0C0403525
EHP C 0500-350-250	815EHP0C0503525
EHP C 0600-350-250	815EHP0C0603525
EHP C 0700-350-250	815EHP0C0703525
EHP C 0800-350-250	815EHP0C0803525
EHP C 0900-350-250	815EHP0C0903525
EHP C 0950-350-250	815EHP0C0953525
EHP C 1000-350-250	815EHP0C1003525

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Std Fluid opening	A mm	Seal Kit
EHP C 0250-350-250	25	350	355	914	323.8	250	G2"	45	8220000000003
EHP C 0300-350-250	30	350	380	1016	323.8	250	G2"	45	8220000000003
EHP C 0400-350-250	40	350	435	1220	323.8	250	G2"	45	8220000000003
EHP C 0500-350-250	50	350	485	1423	323.8	250	G2"	45	8220000000003
EHP C 0600-350-250	60	350	510	1627	323.8	250	G2"	45	8220000000003
EHP C 0700-350-250	70	350	595	1830	323.8	250	G2"	45	8220000000003
EHP C 0800-350-250	80	350	645	2035	323.8	250	G2"	45	8220000000003
EHP C 0900-350-250	90	350	700	2238	323.8	250	G2"	45	8220000000003
EHP C 0950-350-250	95	350	725	2340	323.8	250	G2"	45	8220000000003
EHP C 1000-350-250	100	350	750	2442	323.8	250	G2"	45	8220000000003



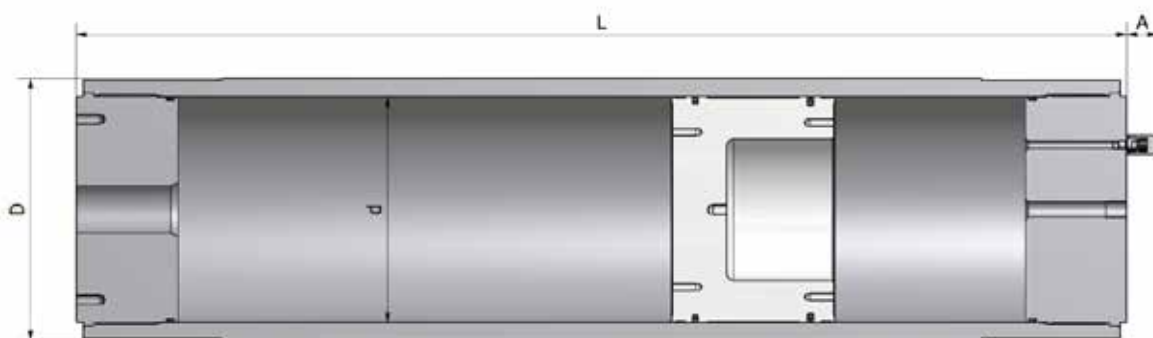
EHP Series 350 bar, 30 to 350 Litres, Ø 350

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. For other fluids please contact Parker Olaer. According to PED 97/23/EC, Fluid Group 1/2

Part numbers, Dimensions

Type	Part number
EHP C 0300/350/350	815EHP0C03003535
EHP C 0400/350/350	815EHP0C04003535
EHP C 0500/350/350	815EHP0C05003535
EHP C 0600/350/350	815EHP0C06003535
EHP C 0700/350/350	815EHP0C07003535
EHP C 0800/350/350	815EHP0C08003535
EHP C 0900/350/350	815EHP0C09003535
EHP C 1000/350/350	815EHP0C10003535
EHP C 1500/350/350	815EHP0C15003535
EHP C 2000/350/350	815EHP0C20003535
EHP C 2500/350/350	815EHP0C25003535
EHP C 3000/350/350	815EHP0C30003535
EHP C 3500/350/350	815EHP0C35003535

Type	Effective Gas vol. Litres	Design P bar	Weight kg	L mm	D mm	d mm	Max Fluid opening	Seal Kit
EHP C 0300/350/350	30	350	775	842	457.2	350	G5"	8220000000002
EHP C 0400/350/350	40	350	830	946	457.2	350	G5"	8220000000002
EHP C 0500/350/350	50	350	885	1050	457.2	350	G5"	8220000000002
EHP C 0600/350/350	60	350	940	1154	457.2	350	G5"	8220000000002
EHP C 0700/350/350	70	350	995	1259	457.2	350	G5"	8220000000002
EHP C 0800/350/350	80	350	1050	1362	457.2	350	G5"	8220000000002
EHP C 0900/350/350	90	350	1110	1466	457.2	350	G5"	8220000000002
EHP C 1000/350/350	100	350	1165	1570	457.2	350	G5"	8220000000002
EHP C 1500/350/350	150	350	1440	2090	457.2	350	G5"	8220000000002
EHP C 2000/350/350	200	350	1720	2610	457.2	350	G5"	8220000000002
EHP C 2500/350/350	250	350	1995	3130	457.2	350	G5"	8220000000002
EHP C 3000/350/350	300	350	2275	3650	457.2	350	G5"	8220000000002
EHP C 3500/350/350	350	350	2550	4170	457.2	350	G5"	8220000000002



Regulations for EHP Piston Accumulators

- Available
 - Available on request
 - Not Available
- (*) Design P could change according Certification/Design Code

		Data			Certification (*)								
		ø mm	Material	Design P bar	PED 97/23/EC	ASME VIII Div.1	CRN (Canada)	AS 1210 (Australia)	SELO (Cina)	NR13 (Brasile)	ARH (Algeria)	DOSH (Malesia)	MOM (Singapore)
Piston Accumulators EHP / IHP	EHP / IHP C xxxx-350-100	100	CS	350	●	●	○	○	-	○	○	○	○
	EHP / IHP C xxxx-250-180	180	CS	250	●	●	○	○	○	○	○	○	○
	EHP / IHP C xxxx-350-180	180	CS	350	●	●	○	○	○	○	○	○	○
	EHP / IHP S xxxx-250-195	195	SS	250	●	●	○	○	-	○	○	○	○
	EHP / IHP C xxxx-250-200	200	CS	250	●	●	○	○	-	○	○	○	○
	EHP / IHP C xxxx-250-250	250	CS	250	●	●	○	○	○	○	○	○	○
	EHP / IHP C xxxx-350-250	250	CS	350	●	●	○	○	○	○	○	○	○
	EHP / IHP C xxxx-220-350	350	CS	220	●	●	○	○	○	○	○	○	○
	EHP / IHP C xxxx-250-350	350	CS	250	●	●	○	○	-	○	○	○	○
	EHP / IHP C xxxx-350-350	350	CS	350	●	●	○	○	○	○	○	○	○
	EHP(G) / IHP(G) S xxxx-207-360	360	SS	207	●	●	○	○	-	○	○	○	○
	EHP(G) / IHP(G) C xxxx-220-540	540	CS	220	●	●	○	○	-	○	○	○	○
	EHP C xxxx 250-80	80	CS	250	●	-	-	-	●	○	○	○	○
	EHP C xxxx 250-100	100	CS	250	●	-	-	-	●	○	○	○	○
	EHP C xxxx 250-140	140	CS	250	●	-	-	-	●	○	○	○	○

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.

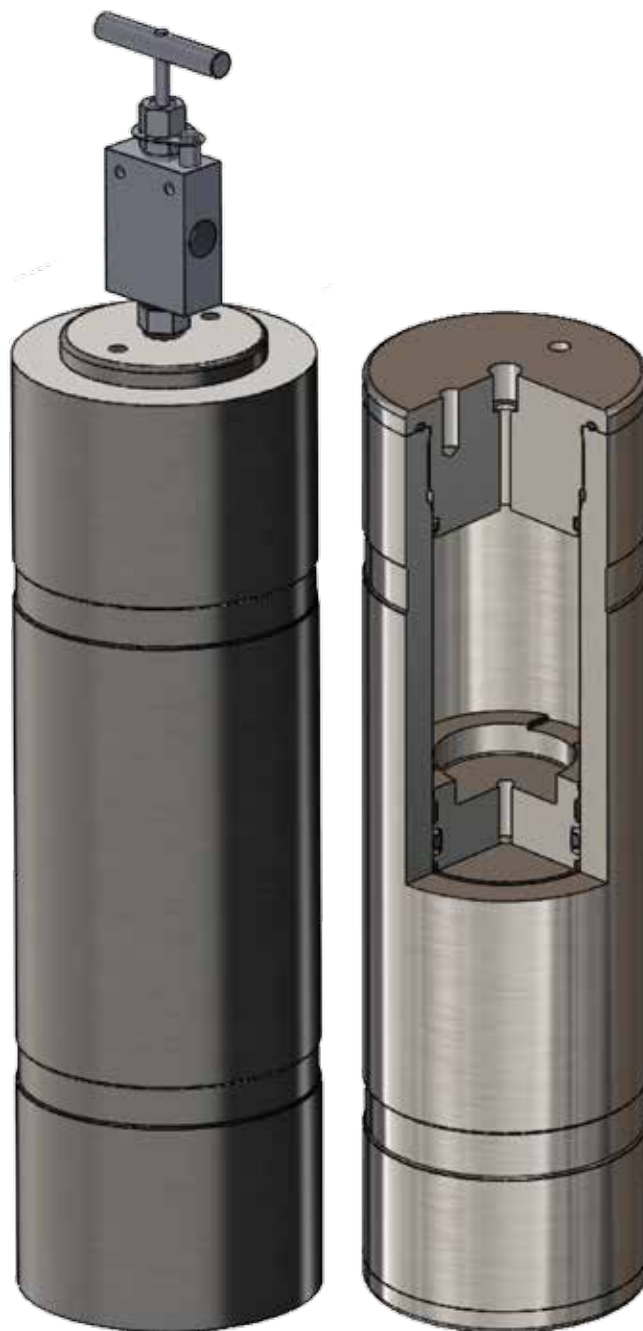
		Certification (*)							Design Code (*)		
		R.I.N.A.	ABS	DNV	Bureau Veritas	Lloyd's Register	RT (Russia-Bielorusia-Kazakhstan)	EN 14359 EN 13445	ASME VIII Div.1	AD Merkblatt	AS 1210
Piston Accumulators EHP / IHP	EHP / IHP C xxxx-350-100	○	○	○	○	○	●	●	●	○	○
	EHP / IHP C xxxx-250-180	●	○	○	○	○	●	○	○	●	○
	EHP / IHP C xxxx-350-180	○	○	○	○	○	●	○	○	●	○
	EHP / IHP S xxxx-250-195	○	○	○	○	○	●	●	○	○	○
	EHP / IHP C xxxx-250-200	○	○	○	○	○	●	●	○	○	○
	EHP / IHP C xxxx-250-250	●	○	○	○	○	●	○	○	●	○
	EHP / IHP C xxxx-350-250	○	○	○	○	○	●	○	○	●	○
	EHP / IHP C xxxx-220-350	●	○	○	○	○	●	○	○	●	○
	EHP / IHP C xxxx-250-350	○	○	○	○	○	●	●	○	○	○
	EHP / IHP C xxxx-350-350	○	○	○	○	○	●	○	○	●	○
	EHP(G) / IHP(G) S xxxx-207-360	○	○	○	○	○	●	○	●	○	○
	EHP(G) / IHP(G) C xxxx-220-540	○	○	○	○	○	●	●	○	○	○
	EHP C xxxx 250-80	-	●	●	○	○	●	●	-	-	-
	EHP C xxxx 250-100	-	●	●	○	○	●	●	-	-	-
	EHP C xxxx 250-140	-	●	●	○	○	●	●	-	-	-

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:

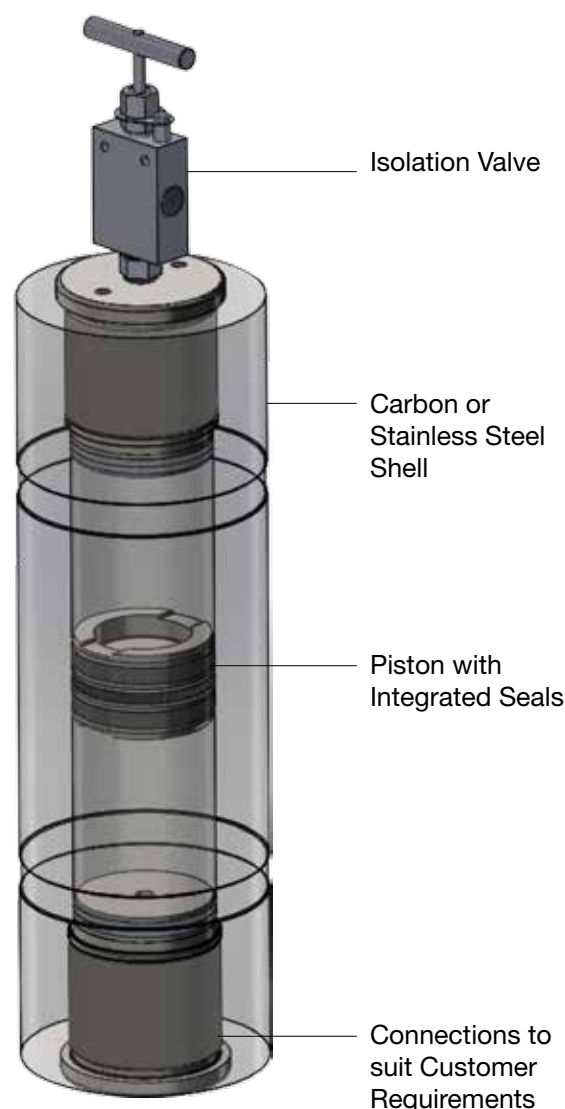
- Tailrod – magnetic operation with visual flapper or magnetic indicator switch.
- Bent tube Indicator - magnetic operation with visual flapper or magnetic indicator switch.
- Tailrod – operating a cam/switch.
- Proximity switch

Stainless Steel Options:

- Piston Magnet - magnetic operation with visual flapper or magnetic indicator switch
- Proximity switches

Carbon Steel Units

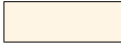

Wide range of product sizes we are available. For further information please contact a member of our sales team.



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												
1500												
1750												
2000												
2250												
2500												

Contact
Parker Olaer

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												
1500												
1750												
2000												
2250												
2500												

Contact
Parker Olaer

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												
1250												
1400												

Contact
Parker Olaer

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

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												
1250												

Contact
Parker Olaer

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



ACP Series Piston Accumulators

0.08 to 8 Litres, up to 275 bar

IN THIS SECTION

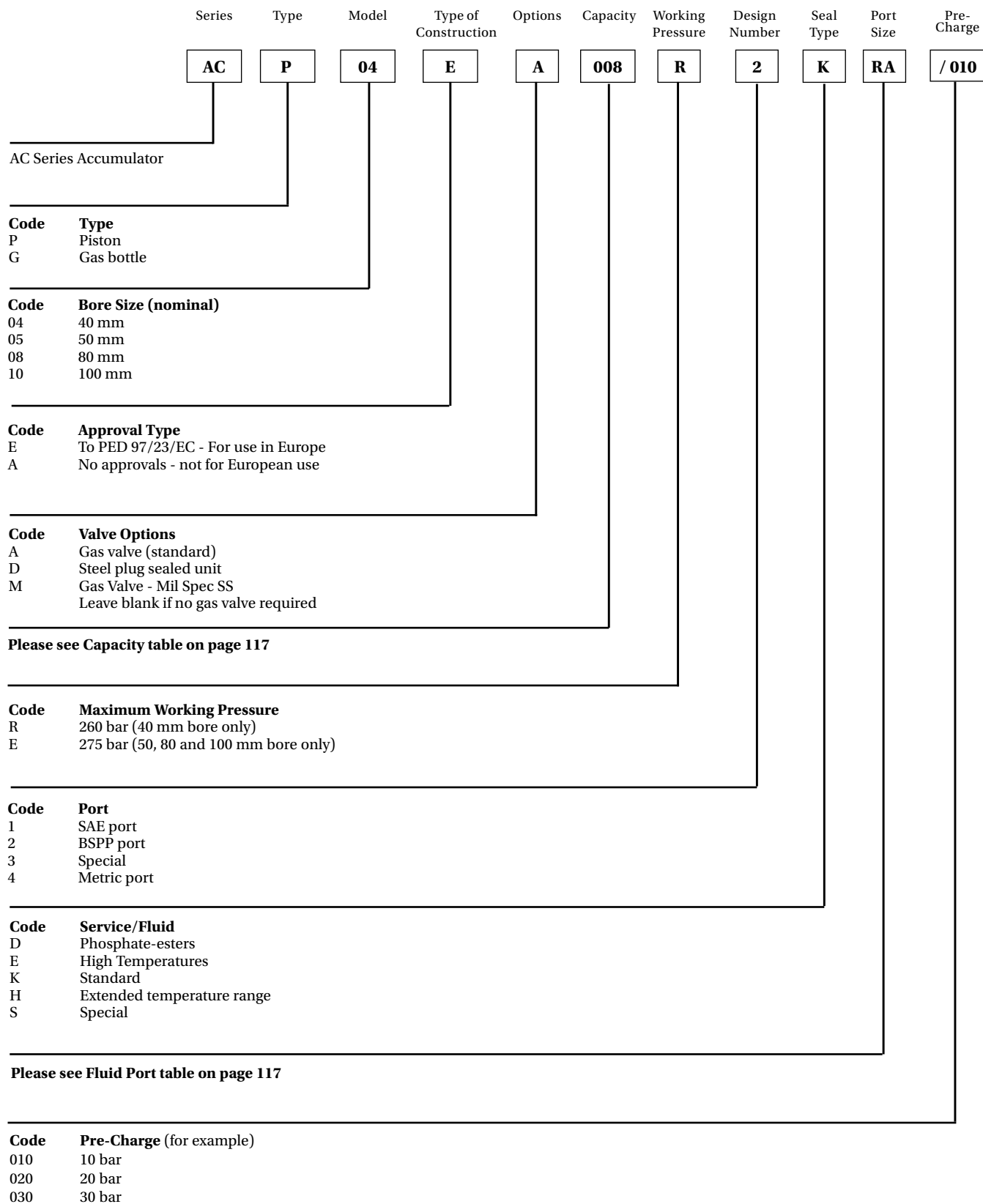
ACP Series Piston Accumulators

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Dimensions	118



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
A	
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

ACP Series: How to order a Piston Accumulator



ACP Series 275 bar (260 bar), 0.02 to 12 Litres

Standard version, Nitrile Seals, CE
Part numbers

Bore	Volume (Litres)	Port	Part number
38	0.08	G3/8	ACP04AA008R2K
38	0.16	G3/8	ACP04AA016R2K
38	0.32	G3/8	ACP04AA032R2K
50	0.16	G3/4	ACP05EA016E2K
50	0.32	G3/4	ACP05EA032E2K
50	0.50	G3/4	ACP05EA050E2K
50	0.75	G3/4	ACP05EA075E2K
50	0.95	G3/4	ACP05EA100E2K
80	0.32	G3/4	ACP08EA032E2K
80	0.95	G3/4	ACP08EA100E2K
80	1.50	G3/4	ACP08EA150E2K
80	2.00	G3/4	ACP08EA200E2K
80	3.00	G3/4	ACP08EA300E2K
100	0.95	G1	ACP10EA100E2K
100	1.50	G1	ACP10EA150E2K
100	2.00	G1	ACP10EA200E2K
100	3.00	G1	ACP10EA300E2K
100	4.00	G1	ACP10EA400E2K
100	6.00	G1	ACP10EA600E2K
100	8.00	G1	ACP10EA800E2K

Please consult Division for more options.

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
095	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

ACP08 (continued)

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

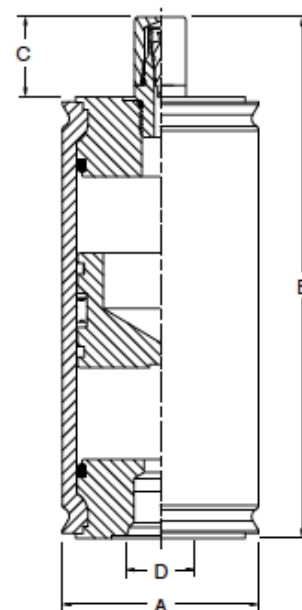
Fluid Ports

Port Type	Code	ACP04	ACP05	ACP08	ACP10
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		•	•	•
G3/4 Male	LC			•	•
G 1 Male	LD			•	•
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	•	•	•	•

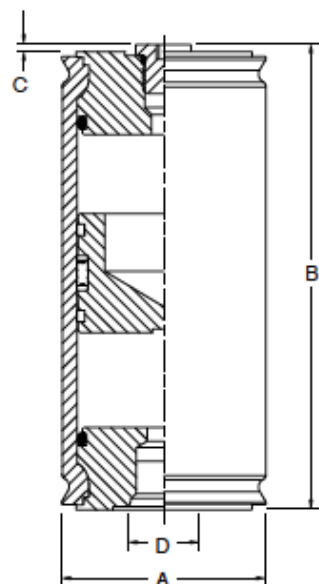
ACP Series: Dimensions

Dimensions - ACP with Gas Valve (Code A)

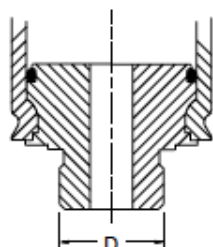
Model	Code	Bore ø	Volume Litres	A	B	C	D (BSPP)	
							Female	Male
ACP04EA	008	40	0.08	44.5	155	25.4	G 3/8	G 3/4
	016		0.16		225			
	032		0.32		365			
	050		0.50		523			
ACP05EA	016	50	0.16	60.5	177	25.4	G 3/4	G1
	032		0.32		254			
	050		0.50		341			
	075		0.75		461			
	100		0.95		558			
ACP08EA	032	80	0.32	90.4	196.4	25.4	G 3/4	G1
	100		0.95		334.7			
	400		4.00		1004			
	600		6.00		1443			
	800		8.00		1883			
ACP10EA	075	100	0.75	120.9	240.6	25.4	G1	G1
	200		2.00		392.6			
	600		6.00		878.8			
	800		8.00		1122			
	1200		12.00		1606			



Dimensions - ACP without Gas Valve (Code D)



Model	Code	Bore ø	Volume Litres	A	B	C	D (BSPP)	
							Female	Male
ACP04ED	008	40	0.08	44.5	132	2	G 3/8	G 3/4
	016		0.16		202			
	032		0.32		342			
	050		0.50		500			
ACP05ED	016	50	0.16	60.5	154	2	G 3/4	G1
	032		0.32		231			
	050		0.50		318			
	075		0.75		438			
ACP08ED	032	80	0.32	90.4	171	2	G 3/4	G1
	100		0.95		309.3			
	400		4.00		978.7			
	600		6.00		1418			
ACP10ED	075	100	0.75	120.9	215.2	2	G1	G1
	200		2.00		367.2			
	600		6.00		853.4			
	800		8.00		1096.6			
	1200		12.00		1581			



Male Port - All models

AP Series Piston Accumulators

250 & 350 bar

IN THIS SECTION

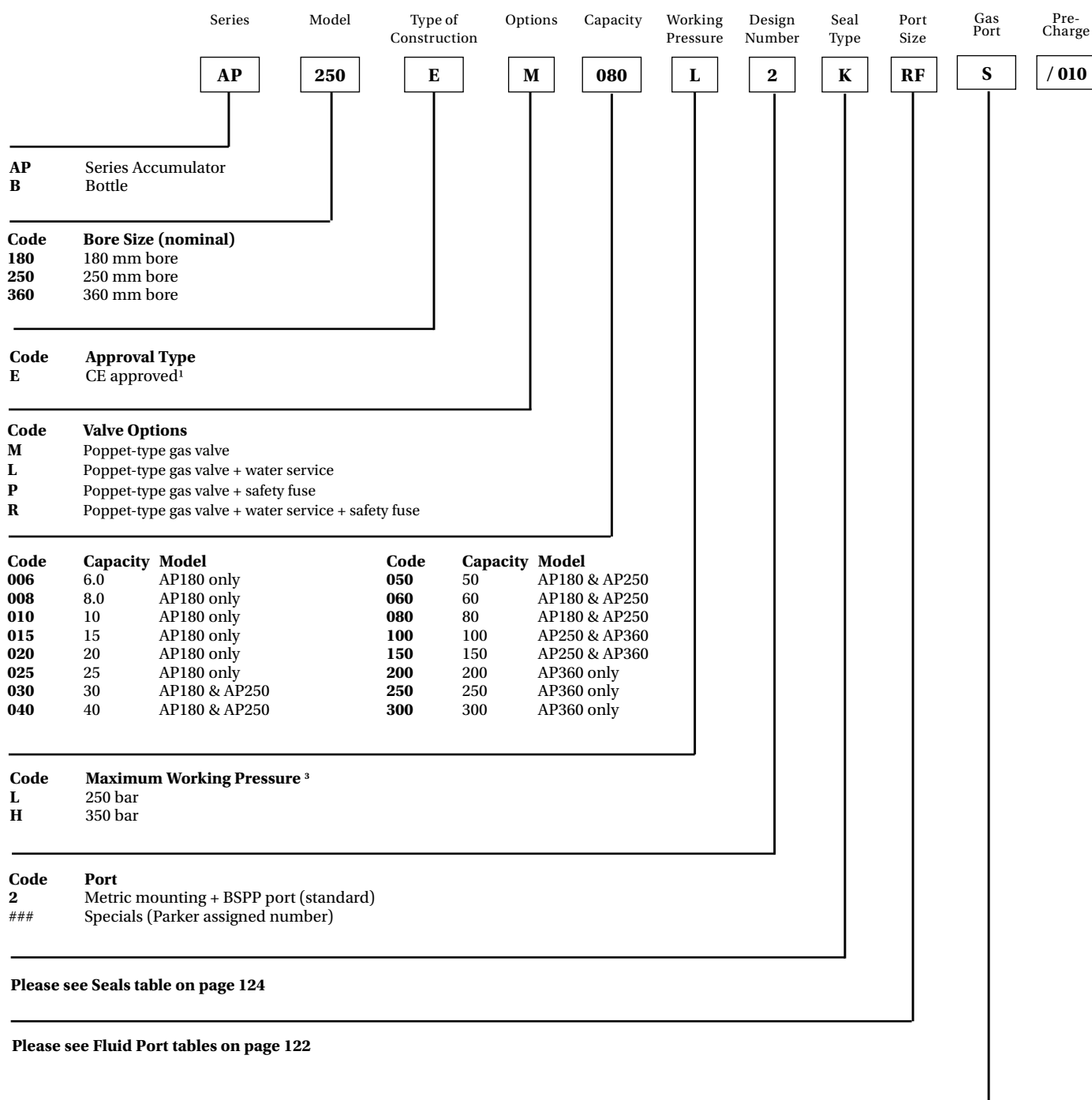
AP Series Piston Accumulators

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Dimensions	121
Part Numbers	123



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

AP Series: How to order



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.

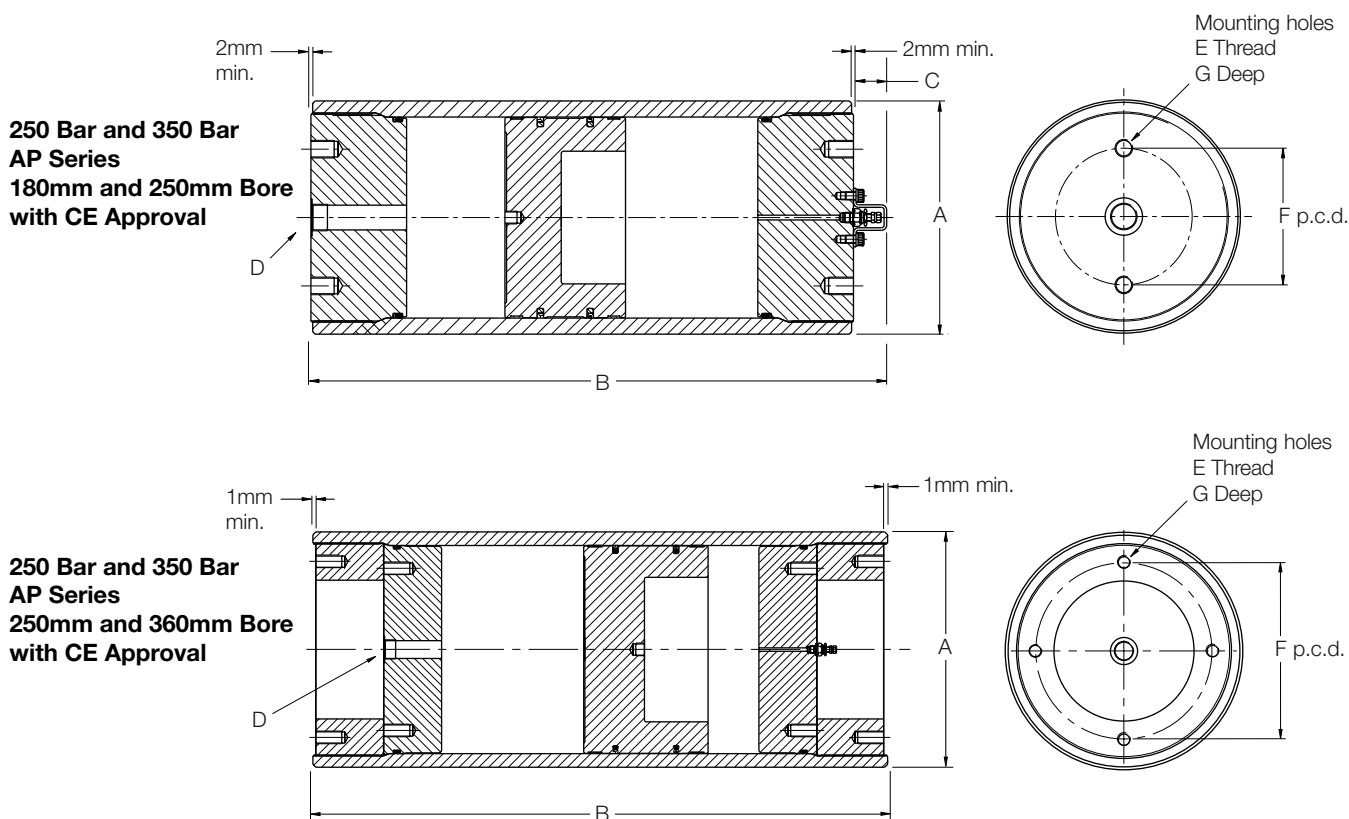
³ For other pressure ratings, please consult the factory.

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 8. 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

AP Series 250 & 350 bar: Dimensions



250 and 350 Bar Models, Capacities and Dimensions

Model	Code	Bore Ø	Fluid Volume Litres	A mm		B mm	C mm	D BSPP	E m	F mm	G mm	Weight Kg	
				250 bar	350 bar							250 bar	350 bar
AP180	006	180	6	207.0	220.0	591	42	G1½	M16 x 2	140	20	83	102
	008		8			669						88	109
	010		10			748						93	117
	015		15			944						106	136
	020		20			1141						118	155
	025		25			1337						131	175
	030		30			1534						143	194
	040		40			1927						168	232
	050		50			2320						193	270
	060		60			2713						218	309
080	80	3499	268	385									
AP250	030	250	30	290.0	310.0	1041	42	G1½	M22 x 2.5	170	30	245	317
	040		40			1245						271	359
	050		50			1449						298	401
	060		60			1652						325	442
	080		80			2060						379	526
	100		100			2467						432	609
	150		150			3486						566	817
AP360	100	360	100	407.0	436.0	1657 ¹	N/A	G1½	M22 x 2.5	304	45	639	903
	150		150			2149 ¹						742	1083
	200		200			2640 ¹						845	1264
	250		250			3131 ¹						948	1445
	300		300			3622 ¹						1051	1626

¹ Flange mounting surface on AP360 Series extends 2mm beyond shell.

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

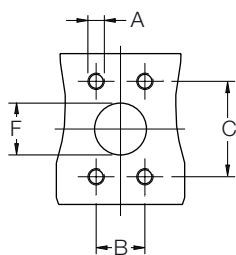
Bore Ø	ISO Port Style	DN10	DN13	DN19	DN25	DN32	DN38	DN51	DN56	DN63	DN70	DN80
180	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•		
250	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•	•	•
360	ISO 6162		•	•	•	•	•	•				
	ISO 6164	•	•	•	•	•	•	•	•	•	•	•

Optional Flanged Ports

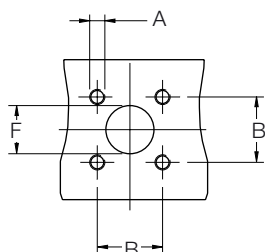
AP Series Piston Accumulators are available with metric flange ports to ISO 6162/3000 psi and ISO 6164/6000 psi as shown in the tables. Inch pattern flange ports and flange ports for higher pressure operation are also available, please consult the factory for details.

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

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	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 350 bar, 0.1 to 150 Litres

Standard version, Nitrile Seals, CE
Part numbers

Bore	Volume (Litres)	Port	Part number
50	0.62	G3/4	A2ES0038H2K
50	0.75	G3/4	A2ES0045H2K
50.8	0.10	G3/4	A2ES0005H2K
50.8	0.15	G3/4	A2ES0010H2K
50.8	0.25	G3/4	A2ES0015H2K
50.8	0.50	G3/4	A2ES0029H2K
50.8	1.00	G3/4	A2ES0058H2K
75	2.00	G3/4	A3ES0116H2H
76.2	0.50	G3/4	A3ES0029H2K
76.2	1.00	G3/4	A3ES0058H2K
76.2	1.50	G3/4	A3ES0090H2K
76.2	2.00	G3/4	A3ES0116H2K
76.2	3.00	G3/4	A3ES0183H2K
100	2.00	G1	A4ES0116H2H
100	8.00	G1	A4ES0488H2K
101.6	1.00	G1	A4ES0058H2K
101.6	2.00	G1	A4ES0116H2K
101.6	3.80	G1	A4ES0231H2K
101.6	5.70	G1	A4ES0347H2K
101.6	9.50	G1	A4ES0578H2K
150	8.00	G1.1/2	A6ES0488H2K
152.4	3.80	G1	A6ES0231H2K
152.4	5.70	G1	A6ES0347H2K
152.4	9.50	G1	A6ES0578H2K
152.4	15.00	G1	A6ES0924H2K
152.4	19.00	G1	A6ES1155H2K
152.4	28.50	G1	A6ES1733H2K
152.4	38.00	G1	A6ES2310H2K
180	6.00	G1.1/2	AP180EM006H2K
180	8.00	G1.1/2	AP180EM008H2K
180	10.00	G1.1/2	AP180EM010H2K
180	15.00	G1.1/2	AP180EM015H2K
180	20.00	G1.1/2	AP180EM020H2K
180	25.00	G1.1/2	AP180EM025H2K
180	30.00	G1.1/2	AP180EM030H2K
180	40.00	G1.1/2	AP180EM040H2K
180	50.00	G1.1/2	AP180EM050H2K
180	60.00	G1.1/2	AP180EM060H2K
180	80.00	G1.1/2	AP180EM080H2K
250	30.00	G1.1/2	AP250EM030H2K
250	40.00	G1.1/2	AP250EM040H2K
250	50.00	G1.1/2	AP250EM050H2K
250	60.00	G1.1/2	AP250EM060H2K
250	80.00	G1.1/2	AP250EM080H2K
250	100.00	G1.1/2	AP250EM100H2K
250	150.00	G1.1/2	AP250EM150H2K
360	100.00	G1.1/2	AP360EM100H2K
360	150.00	G1.1/2	AP360EM150H2K
360	200.00	G1.1/2	AP360EM200H2K
360	250.00	G1.1/2	AP360EM250H2K
360	300.00	G1.1/2	AP360EM300H2K

Volumes are nominal

AP type includes Heavy duty Gas Valve



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.

The shells of Parker’s AP Series accumulators are CE approved for operation at temperatures between -25°C and +150°C.

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

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 (β10≥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 (N₂) 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
PED 97/23/EC	•	•	•

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.

A Series Piston Accumulators

0.5 to 300 Litres, 250 and 350 bar

IN THIS SECTION

A Series Piston Accumulators

How to order	126
Dimensions	128



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

A Series: How to order a Piston Accumulator

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 approved ¹										
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 8. 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		Code Pre-Charge (for example) 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

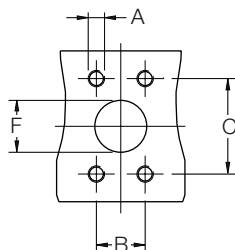
¹ Where the required fluid port is the standard BSPP size for the accumulator bore diameter chosen (see dimension D, page 102), the fluid port field in the order code on page 100 should be left blank.

Optional Flanged Ports

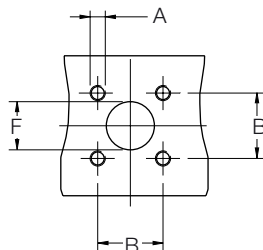
A Series Piston Accumulators are available with metric flange ports to ISO 6162/3000 psi and ISO 6164/6000 psi as shown in the tables. Inch pattern flange ports and flange ports for higher pressure operation are also available, please consult the factory for details.

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

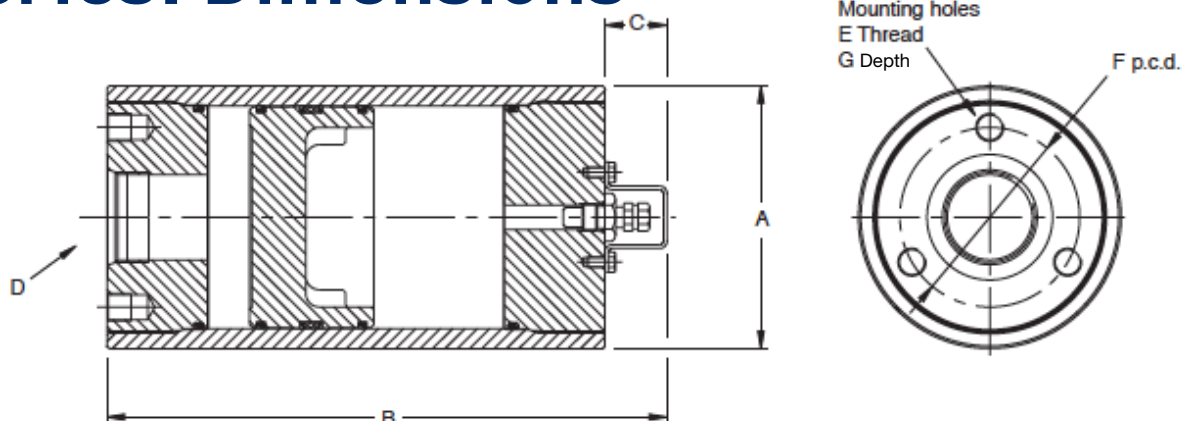


ISO 6164 Flanged Port Dimensions



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	A4	M16 x 2	69.3	51.0	SQ
DN56	A6	M20 x 2.5	83.4	56.0	SX
DN63	A6	M24 x 3	102.5	63.0	SR
DN70	A6	M24 x 3	113.1	70.0	SY
DN80	A8	M30 x 3.5	123.7	80.0	SZ

A Series: Dimensions



250 and 350 Bar Models, Capacities and Dimensions

Model	Code	Bore ø	Fluid Volume Litres	Gas Volume Litres	250 bar			350 bar			C mm	E ²	F mm	G mm	250 bar Weight Kg	350 bar Weight Kg	
					A mm	B mm	D BSPP	A mm	B mm	D BSPP							
A2	0005	51.4	0.1	0.1	61	172	G 3/4	64	172	G 3/4	27 ¹	-	-	-	1.8	2.7	
	0010		0.15	0.2		211			211						2	3	
	0015		0.25	0.25		250			250						2.5	3.3	
	0029		0.5	0.5		360			360						3	4.3	
	0058		1	1		590			590						4.4	6.2	
A3	0029	76.2	0.5	0.55	91	260	G 3/4	96	260	G 3/4	29 ¹	M10	60	15	9	9	
	0058		1	1		364			364						11	11	
	0090		1.5	1.5		481			481						13	13	
	0116		2	2		573			573						14	15	
	0183		3	3		814			814						16	20	
A4	0058	102.4	1	1.1	121	295	G 1	127	306	G 1	29 ¹	M12	82	18	15	18	
	0116		2	2		411			422						18	22	
	0231		3.8	4		640			651						23	30	
	0347		5.7	5.9		872			883						29	38	
	0578		9.5	9.6		1330			1341						41	54	
A5	0058	127	1	1.3	153	272	G 1	-	-	-	29 ¹	M12	100	18	22	-	
	0116		2	2.2		346									346		26
	0231		3.8	4.1		496									496		32
	0347		5.7	6		645									645		39
	0578		9.5	9.8		943									943		52
A6	0231	146.9	3.8	4.3	175	442	G 1 1/2	180	487	G 1	29 ¹	M12	110	18	35	53	
	0347		5.7	6.2		554			600						42	60	
	0578		9.5	10		778			824						54	74	
	0924		15	15.7		1113			1159						73	96	
	1155		19	19.4		1337			1383						85	110	
	1733		28.5	28.9		1896			1941						112	148	
	2310		38	38.4		2454			2500						147	183	
A8	0578	200	9.5	10.7	230	629	G 2	-	-	-	42	M16	170	24	98	-	
	1155		19	20.2		931									931		122
	1733		28.5	29.7		1232									1232		146
	2310		38	39.1		1532									1532		170
	2772		45	46.2		1774									1774		189
	2888		47	48.2		1834									1834		194
	3465		57	58		2136									2136		217
	4620		76	77.2		2738									2738		266

¹ Where the optional poppet-type gas valve is fitted (see page 104), dimension C should be increased by 13mm.

² A Series piston accumulators 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 – see page 100.

A Series 250 bar, Volume 0.5 to 300 Litres

Standard version, Nitrile Seals, CE
 Part numbers

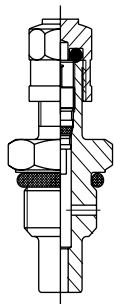
Bore	Volume (Litres)	Port	Part number
50	0.75	SAE#12	A2ES0045L1H
50	0.75	G3/4	A2ES0045L2K
50.8	0.15	G3/4	A2ES0010L2K
50.8	0.25	G3/4	A2ES0015L2K
50.8	0.50	G3/4	A2ES0029L2K
50.8	1.00	G3/4	A2ES0058L2K
75	1.00	G3/4	A3ES0058L2H
76.2	0.50	G3/4	A3ES0029L2K
76.2	1.00	G3/4	A3ES0058L2K
76.2	1.50	G3/4	A3ES0090L2K
76.2	2.00	G3/4	A3ES0116L2K
76.2	3.00	G3/4	A3ES0183L2K
100	2.00	G1	A4ES0116L2H
100	3.00	G1	A4ES0183L2K
100	6.00	SAE#20	A4ES0347L1K
100	8.00	G1	A4ES0488L2K
101.6	1.00	G1	A4ES0058L2K
101.6	2.00	G1	A4ES0116L2K
101.6	3.80	G1	A4ES0231L2K
101.6	5.70	G1	A4ES0347L2K
101.6	9.50	G1	A4ES0578L2K
127	1.00	G1	A5ES0058L2K
127	2.00	G1	A5ES0116L2K
127	3.80	G1	A5ES0231L2K
125	4.00	G1	A5ES0231L2H
127	5.70	G1	A5ES0347L2K
127	9.50	G1	A5ES0578L2K
150	8.00	G1.1/2	A6ES0488L2K
150	10.00	G1.1/2	A6ES0578L1K
150	40.00	G1.1/2	A6ES2310L2H
152.4	3.80	G1.1/2	A6ES0231L2K
152.4	5.70	G1.1/2	A6ES0347L2K
152.4	9.50	G1.1/2	A6ES0578L2K
152.4	15.00	G1.1/2	A6ES0924L2K
152.4	19.00	G1.1/2	A6ES1155L2K
152.4	28.50	G1.1/2	A6ES1733L2K
152.4	38.00	G1.1/2	A6ES2310L2K
200	9.50	G2	A8ES0578L2K
200	19.00	G2	A8ES1155L2K
200	28.50	G2	A8ES1733L2K
200	38.00	G2	A8ES2310L2K
200	45.00	G2	A8ES2772L2K
200	47.00	G2	A8ES2888L2K
200	57.00	G2	A8ES3465L2K
200	76.00	G2	A8ES4620L2K

Bore	Volume (Litres)	Port	Part number
180	6.00	G1.1/2	AP180EM006L2K
180	8.00	G1.1/2	AP180EM008L2K
180	10.00	G1.1/2	AP180EM010L2K
180	15.00	G1.1/2	AP180EM015L2K
180	20.00	G1.1/2	AP180EM020L2K
180	25.00	G1.1/2	AP180EM025L2K
180	30.00	G1.1/2	AP180EM030L2K
180	40.00	G1.1/2	AP180EM040L2K
180	50.00	G1.1/2	AP180EM050L2K
180	60.00	G1.1/2	AP180EM060L2K
180	80.00	G1.1/2	AP180EM080L2K
250	30.00	G1.1/2	AP250EM030L2K
250	40.00	G1.1/2	AP250EM040L2K
250	50.00	G1.1/2	AP250EM050L2K
250	60.00	G1.1/2	AP250EM060L2K
250	80.00	G1.1/2	AP250EM080L2K
250	100.00	G1.1/2	AP250EM100L2K
250	150.00	G1.1/2	AP250EM150L2K
360	100.00	G1.1/2	AP360EM100L2K
360	150.00	G1.1/2	AP360EM150L2K
360	200.00	G1.1/2	AP360EM200L2K
360	250.00	G1.1/2	AP360EM250L2K
360	300.00	G1.1/2	AP360EM300L2K

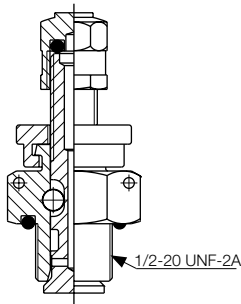
Volumes are nominal
 AP type includes Heavy duty Gas Valve

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

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.

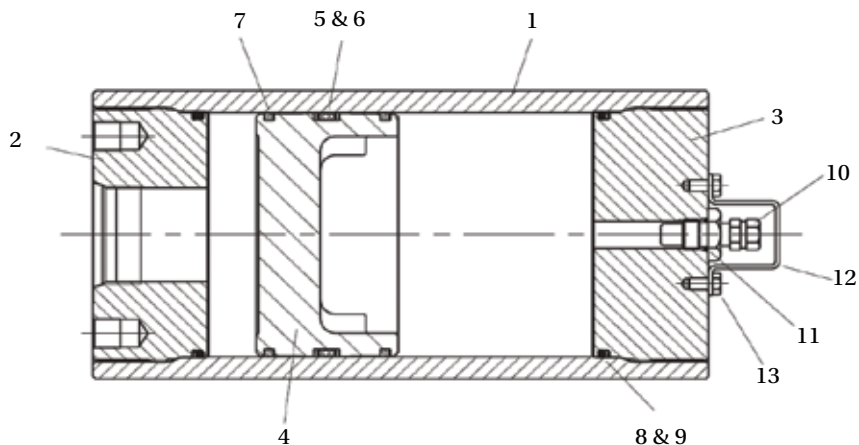
When ordering seal kits, please supply the complete model number from the identification plate and specify the fluid type and the temperature at which the accumulator is to be used.

Seal Kit Numbers

The seal kits listed contain items 4 (including 5,6 & 7) 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



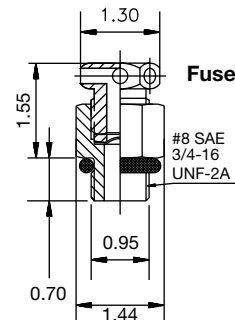
Seal Kits

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

Model	Nitrile NBR	Fluorocarbon Elastomer FPM	Ethylene Propylene EPR	Hydrogenated Nitrile HNBR	Carboxylated Nitrile XNBR	Low Temp. Nitrile NBR
A2	RK0200K000P	RK0200E000P	RK0200D000P	RK0200H000P	RK0200J000P	RK0200Q000P
A3	RK0300K000P	RK0300E000P	RK0300D000P	RK0300H000P	RK0300J000P	RK0300Q000P
A4	RK0400K000P	RK0400E000P	RK0400D000P	RK0400H000P	RK0400J000P	RK0400Q000P
A5	RK0500K000P	RK0500E000P	RK0500D000P	RK0500H000P	RK0500J000P	RK0500Q000P
A6	RK0600K000P	RK0600E000P	RK0600D000P	RK0600H000P	RK0600J000P	RK0600Q000P
A8	RK0800K000P	RK0800E000P	RK0800D000P	RK0800H000P	RK0800J000P	RK0800Q000P

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

Pulsation Dampers

Stainless Steel, up to 690 bar

IN THIS SECTION

Pulsation Dampers

Benefits	132
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Capacities and Dimensions	134



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

Pulsation Dampers: Benefits

1 Shell

CE certified in accordance with the PED (97/23/EC) where applicable. Manufactured from high grade 316 Stainless Steel, other materials available.

- Nominal capacities 0.1 litre to 5 litres.
- Working pressures of up to 690 bar, higher pressures available on request.
- Wide range of separator materials available
- Designed to PD5500 or ASME VIII Div 1.
- U Stamp is available as an option.

2 Label

Vessel information is stamped directly on shell. Stainless Steel nameplates are available at an extra cost.

3 Material Certification

Material certifications are available to EN10204 3.1
NACE MR0175 compliance is available on request.

4 Finish

Natural finish, unpainted as standard. Special paints available.

5 Fluid Port

A large variation of threaded or flanged options are available. For connection options please see page 134.

6 Safety

All gas-loaded pulsation dampers are pressurised vessels and it is recommended that safety consideration be given to the application in which they are used. A relief valve should always be fitted to the hydraulic system with the option of a burst disc to protect the pulsation damper. See Installation and Servicing data sheet for information regarding installation of pulsation damper.

7 Pressure Testing

A hydrostatic pressure test is carried out on all our pulsation dampers shells during the manufacturing process. We can carry out additional pressure testing witnessed by a specified Inspection Authority and/or customer as an optional extra if required.

We can also carry out a hydro-pneumatic pressure test on the complete assembly as an optional extra if required. Again this can be witnessed by a specified inspection authority and/or customer.

8 Accessories

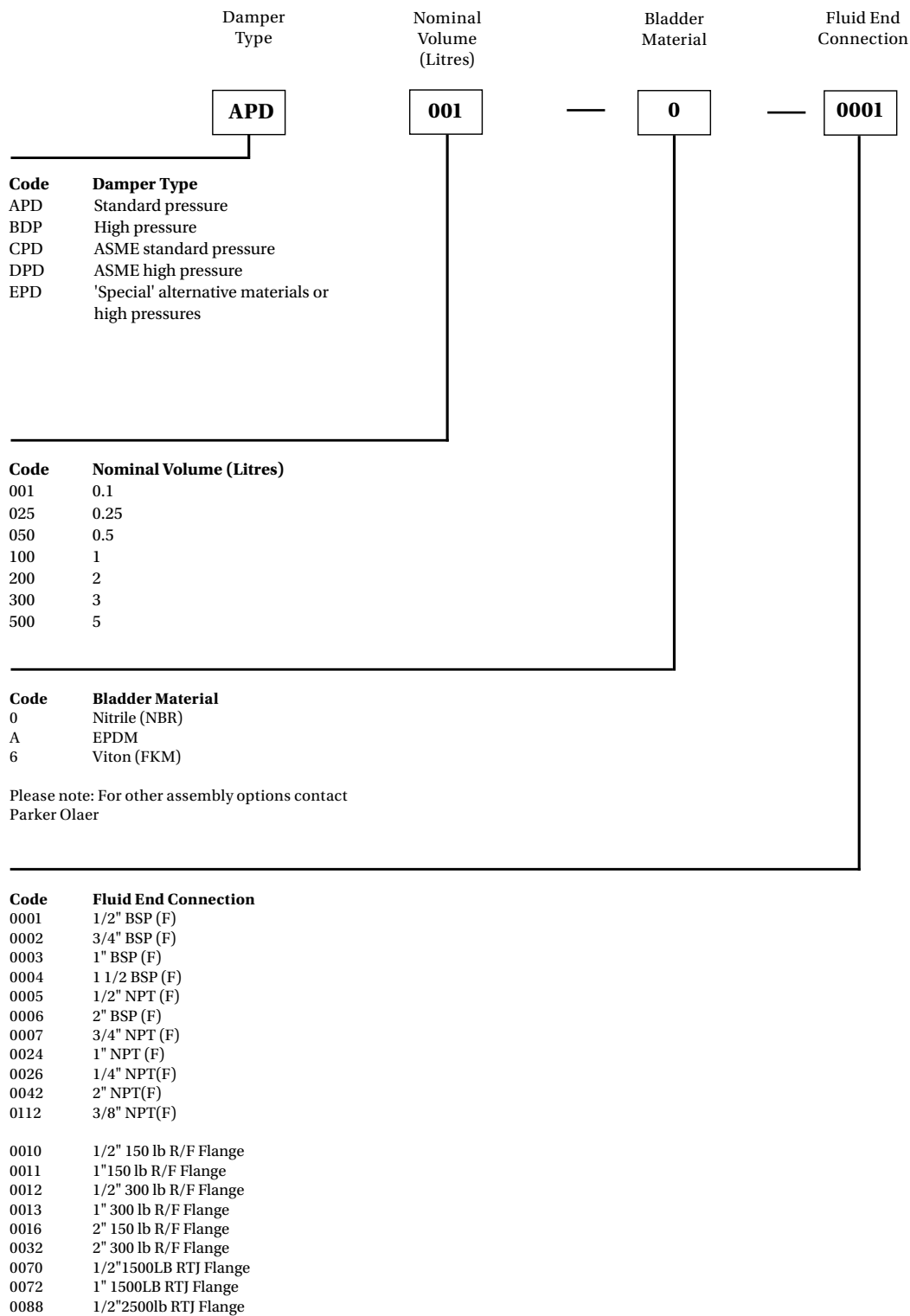
A complete range of damper charging equipment is available from Parker Olaer.

9 Spare Parts

Available on request.



Pulsation Dampers: How to order



Pulsation Dampers: Capacities and Dimensions

APD Range (PD5500)	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	200	220	242	270	405	425	437
Outside Diameter (mm)	60	76	94	127	127	153	170
Weight (kg)	2.7	4.5	7.4	15	20	31	33
Design Pressure (bar)	350	300	250	180	180	250	120

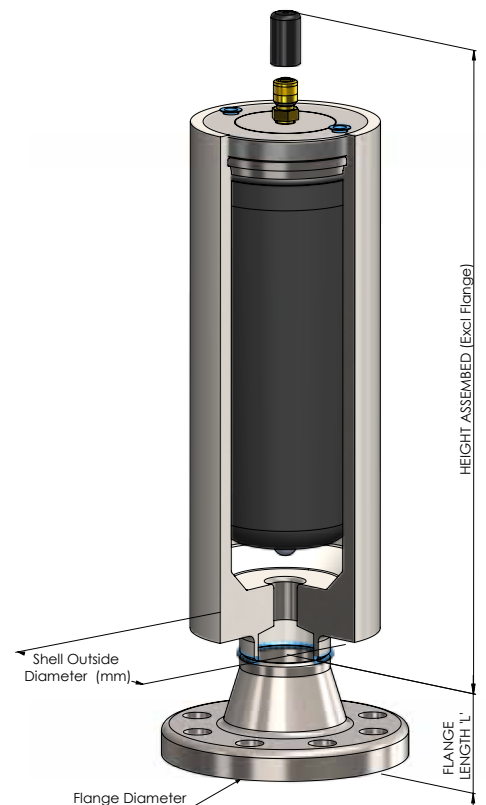
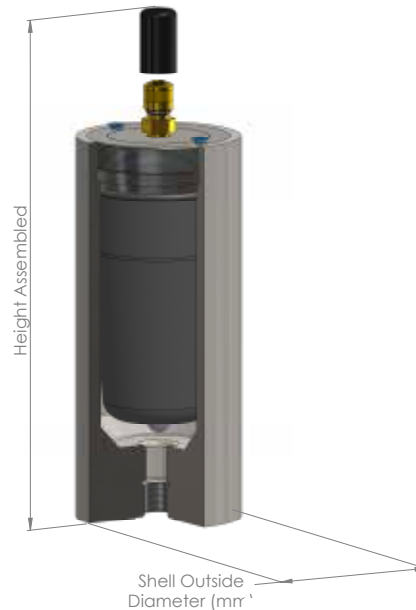
BPD Range (PD5500)	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	215	236	272	290	426	448	472
Outside Diameter (mm)	76	102	127	146	146	170	190
Weight (kg)	5.4	12	21	27	37	52	55
Design Pressure (bar)	690	690	690	450	450	430	300

CPD Range (ASME VIII Div 1)*	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	200	220	242	270	405	425	437
Outside Diameter (mm)	60	76	94	127	127	153	170
Weight (kg)	2.7	4.5	7.4	15	20	31	33
Design Pressure (bar)	300	250	170	140	140	120	95

DPD Range (ASME VIII Div 1)*	Volume (litres)						
	0.1	0.25	0.5	1	2	3	5
Height (mm)	215	236	272	290	426	448	472
Outside Diameter (mm)	76	102	127	146	146	170	190
Weight (kg)	5.4	12	21	27	37	52	55
Design Pressure (bar)	460	420	400	350	350	300	207

- '*U' Stamp options are also available at extra cost.
- APD/CPD models have brass gas valves
- BPD/DPD models have stainless steel gas valves

Dimensions (mm)		Nominal Flange Sizes					
		½"	¾"	1"	1 ¼"	1 ½"	2
150lb	Diameter	88.9	98.4	107.9	117.5	127	152.4
	Length "L"	47.6	52.4	55.6	57.1	61.9	63.5
	Weight (kg)	0.5	0.7	1.1	1.5	1.8	2.7
300lb	Diameter	95.2	117.5	123.8	133.4	155.6	165.1
	Length "L"	52.4	57.1	61.9	65.1	68.3	69.8
	Weight (kg)	0.8	1.3	1.7	2.2	3.2	3.6
600lb	Diameter	95.2	117.5	123.8	133.4	155.6	165.1
	Length "L"	52.4	57.1	61.9	66.7	69.8	73
	Weight (kg)	0.9	1.5	1.9	2.6	3.3	4.7
900lb	Diameter	120.6	130.2	149.2	158.7	177.8	215.9
	Length "L"	60.3	69.8	73	73	82.5	101.6
	Weight (kg)	1.9	2.6	3.8	4.4	6.1	11.1
1500lb	Diameter	120.6	130.2	149.2	158.7	177.8	215.9
	Length "L"	60.3	69.8	73	73	82.5	101.6
	Weight (kg)	1.9	2.6	3.8	4.4	6.1	11.1
2500lb	Diameter	133.3	139.7	158.8	184.2	203.2	235
	Length "L"	73	79	89	95	111	127
	Weight (kg)	3.6	4.1	5.9	9	13	19



Note: In most cases the fitting of a flange will de-rate the design pressure of the damper if in any doubt please refer to flange specification ANSI B16.5 for the maximum working pressures.

These dimensions and weights are to be added to the damper dimensions if a flange is required.

Note: Dimensions are based on current stock and are subject to change without prior notice.

Attenuators

350 bar

IN THIS SECTION

ATTENUATORS

SH Series: 350 bar	136
General Information SH Series Attenuators	138
SH Series: How to order	138

Reducing noise in hydraulic systems

To attenuate the pressure pulses by at least 20 dB over a wide frequency range, Parker Olaer produces high-frequency hydraulic attenuators with models ranging from 100 to 1000 Hz, in addition to its range of accumulators (up to 300 Hz).



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

Attenuators SH Series 350 bar

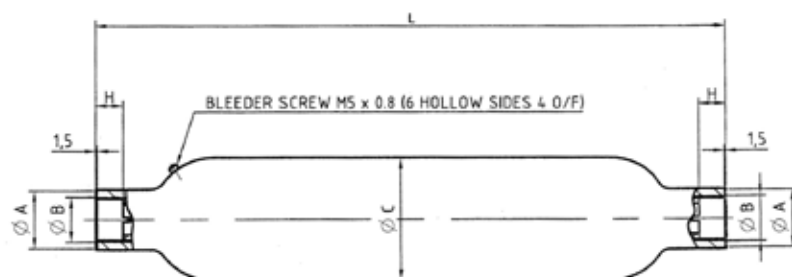
Standard version (Carbon Steel shell) for allowable temperature from - 40° up to 175°C

According to PED 97/23/EC article 9 2.2. Fluid group 2

Part numbers, Accessories, Dimensions

Type	Part number	Clamps
		Model (quantity) Part number
SH 170-25	60045400100	E95 20250803648
SH 170-50	60045500100	E95 20250803648
SH 170-75	60045100100	E114 20251003648
SH 170-100	60044900100	E114 20251003648
SH 170-125	60045000100	E114 20251003648
SH 170-175	60044600100	E114 20251003648
SH 170-275	60045200100	E114 20251003648
SH 220-25	60045300100	E95 20250803648
SH 220-50	60043800100	E95 20250803648
SH 220-75	60045600100	E95 20250803648
SH 220-100	60045700100	E95 20250803648
SH 220-125	60045800100	E95 20250803648
SH 220-175	60044700100	E114 20251003648
SH 220-275	60044500100	E114 20251003648

Type	Volume Litres	Max. Working pressure (PS) bar	Max Flow Rate lt/min	Weight kg	Dimensions in mm				
					L max Height	øA for Bonded Seal	øB Gas Cyl.	øc	H mini
SH 170-25	1.5	350	25	5.8	462	35.3	3/4"	90	18
SH 170-50	2.2	350	50	7.3	590	35.3	3/4"	90	18
SH 170-75	3.4	350	75	12	597	54	1 1/4"	114	22
SH 170-100	3.4	350	100	12	597	54	1 1/4"	114	22
SH 170-125	4.6	350	125	15	749	54	1 1/4"	114	22
SH 170-175	4.6	350	170	15	749	54	1 1/4"	114	22
SH 170-275	4.6	350	275	15	749	54	1 1/4"	114	22
SH 220-25	1.2	350	25	5.2	386	35.3	3/4"	90	18
SH 220-50	1.5	350	50	5.8	462	35.3	3/4"	90	18
SH 220-75	1.5	350	75	5.8	462	35.3	3/4"	90	18
SH 220-100	2.2	350	100	7.4	590	35.3	3/4"	90	18
SH 220-125	2.2	350	125	7.4	590	35.3	3/4"	90	18
SH 220-175	3.4	350	175	12	597	54	1 1/4"	114	22
SH 220-275	3.4	350	275	12	597	54	1 1/4"	114	22



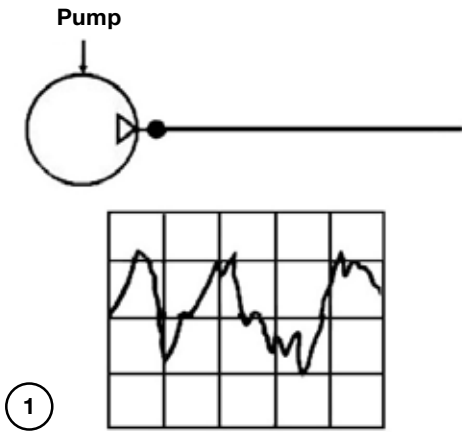
General information Attenuators

The performance obtained with the attenuators substantially reduces the fluctuations of high-frequency hydraulic pressure (see diagrams 1 and 2).

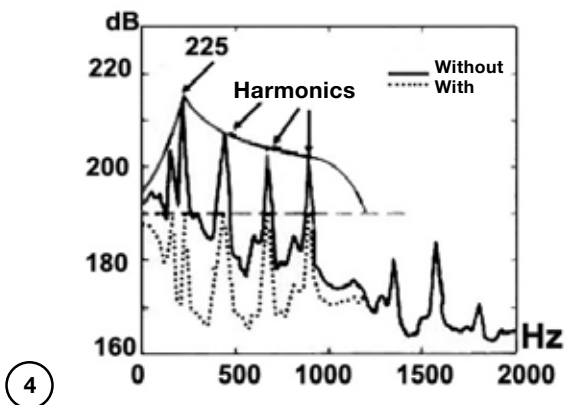
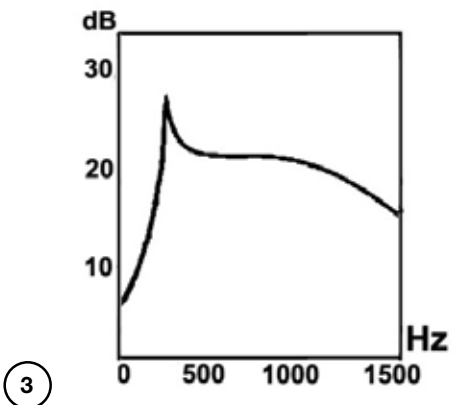
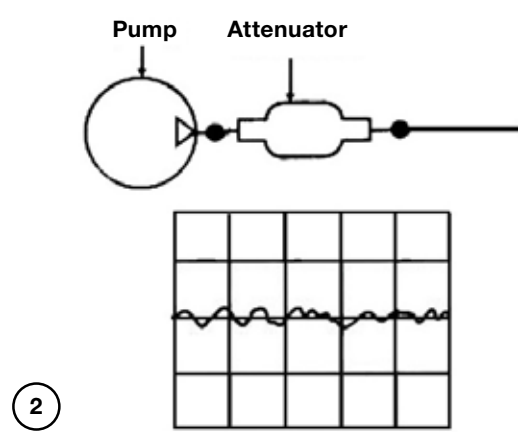
attenuation levels of the pressure pulses as a function of the frequencies to be filtered, and secondly an example of the amplitude spectra of a pump with and without a muffler, which reduces the pulses from 217 dB to 190 dB.

Curves 3 and 4 show firstly a typical attenuation curve (in dB) specific to each model of muffler, indicating the

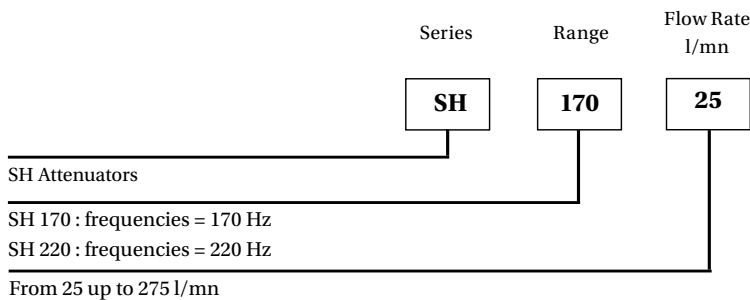
Without Hydraulic Attenuators



With Hydraulic Attenuators



SH Series: How to order an Attenuator



Diaphragm Accumulators

(ELM Series, up to 350 bar)

IN THIS SECTION

Diaphragm Accumulators

ELM Series: Technical Characteristics	140
ELM Series: How to Order	141
ELM Series 0.075 to 1.4 Litres, NBR 140 to 350 bar	142
ELM Series 0.75 to 3.5 Litres, NBR 160 to 350 bar	144
ELM Series 0.075 to 1.4 Litres, ECO 140 to 350 bar	146
ELM Series 1.4 to 3.5 Litres, ECO 250 to 350 bar	148
Lock-nut	150



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

ELM Series Technical Characteristics

The technical characteristics are as follows:

Minimum/maximum temperature allowable (° Celsius) :

- 20/+80 for standard nitrile elastomers for models between 0.5 < V < 1.4 Litre
- 10/+80 for standard nitrile elastomers for models ≥ 2 Litres and < 0.32 Litre
- 35/+80 for hydrin elastomers

Materials : carbon steel or stainless steel, nitrile or hydrin diaphragm, for other constructions: please consult Parker.

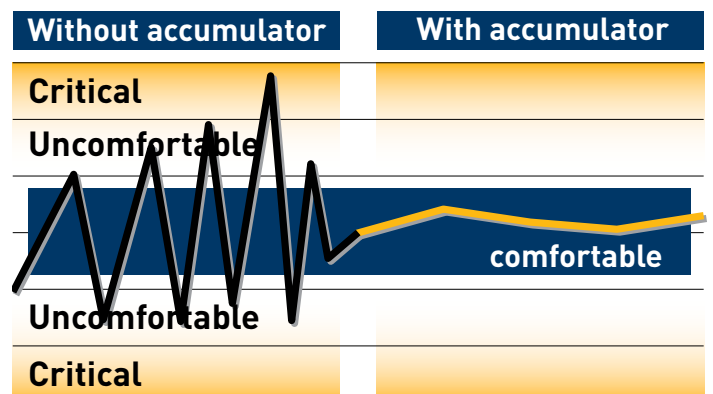
This non-repairable accumulator comprises a shell electron beam welded in carbon steel or stainless steel, nitrile or hydrin diaphragm, for other constructions please consult Parker Olaer.

Your Benefits

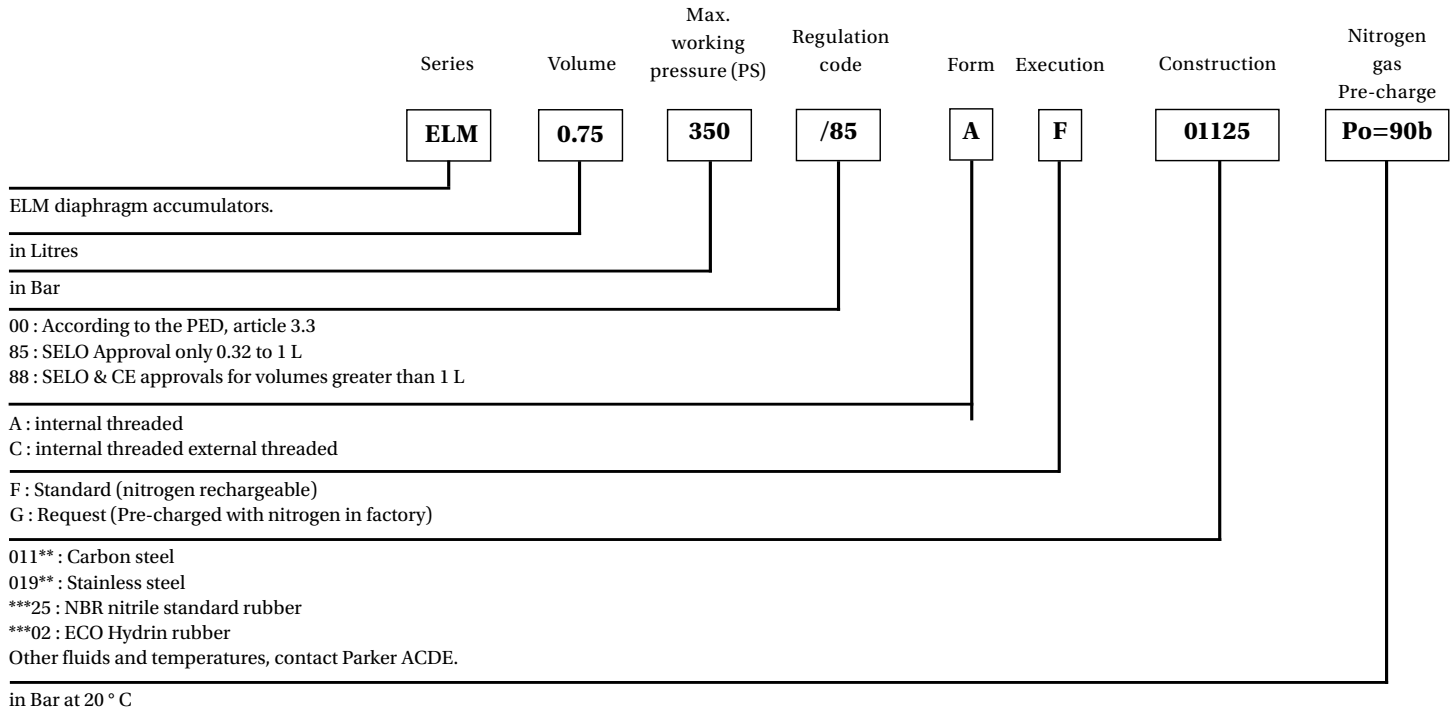
- The adaptation of a hydraulic shock absorber made up of a diaphragm accumulator improves driver comfort and offers immediate response times when driving over obstacles and the same flexibility for variable operating conditions.
- The same EC pressure directive (PED) compliant accumulator can be used in over 35 destination countries, thus facilitating their free movement. In addition all our ELM diaphragm accumulators have SELO approval for China.



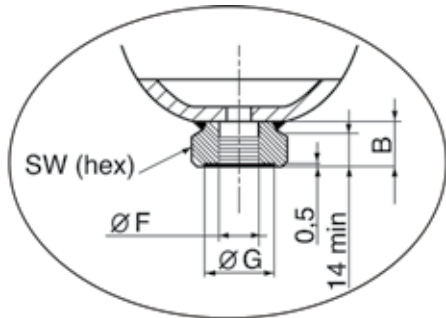
Comparative cycle for a tractor and its accessories in working conditions !



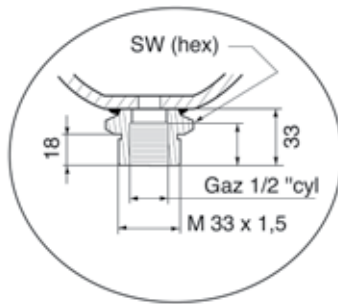
ELM Series: How to order a Diaphragm Accumulator



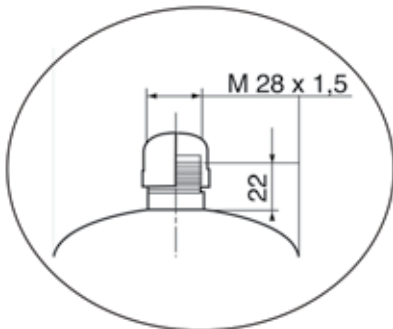
Form A



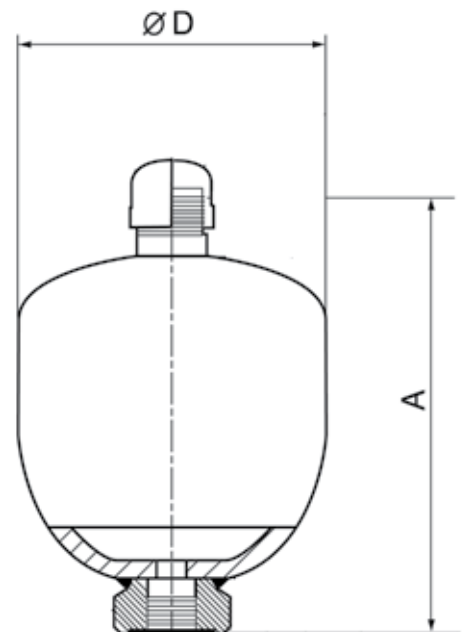
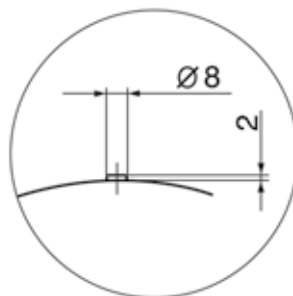
Form C



F standard execution
Nitrogen rechargeable



G execution at request
Nitrogen pre-charged in factory



ELM Series 140 - 350 BAR, 0.075 to 1.4 Litres

Standard Version (Steel casing/mix NBR) for mineral oils temperature from
 According to PED 97/23/EC, Fluid Group 2 and SELO
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge	Clamps	Lock nut
	1 - 130 bar	Model (quantity) Part number	Model (quantity) Part number
ELM 0.075-250/00/AF* 10849201125	751013	-	-
ELM 0.16-250/00/AF* 10849301125	751013	-	-
ELM 0.32-210/85/AF* 10986601125	751000	E95 (1) 20250803648	-
ELM 0.5-210/85/AF* 10849501125	751000	E106 (1) 20250903648	-
ELM 0.5-210/85/CF* 10849601125	751000	E106 (1) 20250903648	M33x1.5 10945700100
ELM 0.75-210/85/AF* 10849701125	751010	E114 (1) 20251003648	-
ELM 0.75-210/85/CF* 10849801125	751010	E114 (1) 20251003648	M33x1.5 10945700100
ELM 0.75-350/85/AF* 10931801125	751010	E136 (1) 20251103648	-
ELM 0.75-350/85/CF* 10931901125	751010	E136 (1) 20251103648	M33x1.5 10945700100
ELM 1 - 210/85/AF* 10984701125	751001	E136 (1) 20251103648	-
ELM 1 - 210/85/CF* 10984801125	751001	E136 (1) 20251103648	M33x1.5 10945700100
ELM 1 - 350/85/AF* 11110901125	751014	E136 (1) 20251103648	-
ELM 1 - 350/85/CF* 11111001125	751001	E136 (1) 20251103648	M33x1.5 10945700100
ELM 1.4 - 140/88/AF 10850201125	751014	E155 (1) 20251203648	-
ELM 1.4 - 140/88/CF 10850301125	751014	E155 (1) 20251203648	M33x1.5 10945700100
ELM 1.4 - 210/88/AF 10996501125	751014	E155 (1) 20251203648	-
ELM 1.4 - 210/88/CF 10996601125	751014	E155 (1) 20251203648	M33x1.5 10945700100

* According to the PED, article 3.3

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Temp. Min/Max (°C) (1)	Execution form	Max. Pre-charge bar	Max compression in bar ratio P2/P0	Max Pressure amplitude P2-P1	Weight kg	Dimensions in mm					Oilport	
									A max Height	B	SW	D	G	F	H
ELM 0.075-250/00/AF*	0.075	250	-10/+80	AF	130	8	210	0.7	112	20	32	64	29	G½	-
ELM 0.16-250/00/AF*	0.16	250	-10/+80	AF	130	6	210	1	120	20	32	75	29	G½	-
ELM 0.32-210/85/AF*	0.32	210	-10/+80	AF	130	8	140	1.4	135	20	32	92	29	G½	-
ELM 0.5-210/85/AF*	0.50	210	-20/+80	AF	130	8	175	2	153	22	41	106	34	G½	-
ELM 0.5-210/85/CF*	0.50	210	-20/+80	CF	130	8	175	2	164	33	41	106	-	G½	M33x1.5
ELM 0.75-210/85/AF*	0.75	210	-20/+80	AF	130	8	175	2.6	167	22	41	122	34	G½	-
ELM 0.75-210/85/CF*	0.75	210	-20/+80	CF	130	8	175	2.6	178	33	41	122	-	G½	M33x1.5
ELM 0.75-350/85/AF*	0.75	350	-20/+80	AF	130	8	150	4	174	22	41	133	34	G½	-
ELM 0.75-350/85/CF*	0.75	350	-20/+80	CF	130	8	150	4	182	33	41	128	-	G½	M33x1.5
ELM 1-210/85/AF*	1	210	-20/+80	AF	130	8	170	3.5	184	22	41	136	34	G½	-
ELM 1-210/85/CF*	1	210	-20/+80	CF	130	8	170	3.5	192	33	41	136	-	G½	M33x1.5
ELM 1 - 350/85/AF*	1	350	-20/+80	AF	130	8	150	5	200	22	41	129	34	G½	-
ELM 1 - 350/85/CF*	1	350	-20/+80	CF	130	8	150	5	211	33	41	129	-	G½	M33x1.5
ELM 1.4-140/88/AF	1.40	140	-20/+80	AF	130	8	120	5	192	22	41	147	34	G½	-
ELM 1.4-140/88/CF	1.40	140	-20/+80	CF	130	8	120	5	203	33	41	147	-	G½	M33x1.5
ELM 1.4-210/88/AF	1.40	210	-20/+80	AF	130	8	120	5	192	22	41	147	34	G½	-
ELM 1.4-210/88/CF	1.40	210	-20/+80	CF	130	8	120	5	203	33	41	147	-	G½	M33x1.5

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

See drawing on page 141



ELM Series 160 - 350 BAR, 0.75 to 3.5 Litres

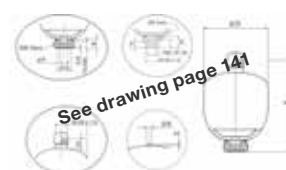
Standard Version (Steel casing mix NBR) for mineral oils
 According to PED 97/23/CE, Fluid Group 2 and SELO
Part numbers, Accessories, Dimensions

Type Part number	Pre-charge	Clamps	Lock nut
	1 to 109 bar	Model (quantity) Part number	Model (quantity) Part number
ELM 1.4 - 250/88/AF 11013201125	751014	E155 (1) 20251203648	-
ELM 1.4 - 250/88/CF 11013301125	751014	E155 (1) 20251203648	M33x1.5 10945700100
ELM 1.4 - 350/88/AF 10932101125	751014	E160 (1) 20259003648	-
ELM 1.4 - 350/88/CF 10932201125	751014	E160 (1) 20259003648	M33x1.5 10945700100
ELM 2 - 100/88/AF 10850401125	751014	E155 (1) 20251203648	-
ELM 2 - 250/88/AF 11013401125	751014	E155 (1) 20251203648	-
ELM 2 - 350/88/AF 11006001125	751014	E160 (1) 20259003648	-
ELM 2 - 350/88/CF 11006101125	751014	E160 (1) 20259003648	M45X1.5
ELM 2.8 - 250/88/AF 10887901125	751002	E168 (1) 20251303648	-
ELM 2.8 - 350/88/AF 10975801125	751002	E180 (1) 20243203625	-
ELM 2.8 - 350/88/CF 10975901125	751002	E180 (1) 20243203625	M45X1.5
ELM 3.5 - 250/88/AF 10850501125	751012	E168 (1) 20251303648	-
ELM 3.5 - 350/88/AF 10984901125	751012	E180 (1) 20243203625	-
ELM 3.5 - 350/88/CF 10985001125	751012	E180 (1) 20243203625	M45X1.5
ELM 0.75-160/88/CF** 10854901925	751010	E136 (1)**	-

** According to PED, article 3.3 and stainless steel construction

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Temp. Min/Max (°C) (1)	Execution form	Max. Pre-charge bar	Max compression in bar ratio P2/P0	Max Pressure amplitude P2-P1	Weight kg	Dimensions in mm						Oilport	
									A max Height	B	SW	D	G	F	H	
ELM 1.4-250/88/AF	1.40	250	-20/+80	AF	130	8	140	5.5	196	22	41	152	34	G½	-	
ELM 1.4-250/88/CF	1.40	250	-20/+80	CF	130	8	140	5.5	207	33	41	152	-	G½	M33x1.5	
ELM 1.4-350/88/AF	1.40	350	-20/+80	AF	130	8	150	7	199	22	41	156	34	G½	-	
ELM 1.4-350/88/CF	1.40	350	-20/+80	CF	130	8	150	7	221	44	44	156	-	G½	M33x1.5	
ELM 2-100/88/AF	2	100	-20/+80	AF	130	8	80	3.5	241	22	41	144	34	G½	-	
ELM 2-250/88/AF	2	250	-20/+80	AF	130	8	150	9.5	252	22	41	156	33	G¾	-	
ELM 2-350/88/AF	2	350	-20/+80	AF	130	8	150	9.5	252	22	41	156	33	G¾	-	
ELM 2-350/88/CF	2	350	-20/+80	CF	130	8	150	9.5	270	40	50	156	-	G¾	M45x1.5	
ELM 2.8-250/88/AF	2.80	250	-20/+80	AF	130	6	140	8.5	269	20	41	168	33	G¾	-	
ELM 2.8-350/88/AF	2.80	350	-20/+80	AF	130	6	200	14.3	265	23	55	180	34	G¾	-	
ELM 2.8-350/88/CF	2.80	350	-20/+80	CF	130	6	200	14.5	286	21	55	180	-	G¾	M45x1.5	
ELM 3.5-250/88/AF	3.50	250	-20/+80	AF	130	4	100	10.2	314	20	41	168	33	G¾	-	
ELM 3.5-350/88/AF	3.50	350	-20/+80	AF	130	4	200	16	305	23	55	180	34	G¾	-	
ELM 3.5-350/88/CF	3.50	350	-10/+80	CF	130	4	200	16.5	326	21	55	180	-	G¾	M45x1.5	
ELM 0.75-160/88/CF**	0.75	160	-10/+80	CF	130	8	120	2.6	176	33	41	121	-	G½	-	

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



ELM Series 140 - 350 BAR, 0.075 to 1.4 Litres

ECO Version (Steel casing/mix ECO) for mineral oils temperature from - 35°C up to 80°C

According to PED 97/23/EC, Fluid Group 2 and SELO

Part numbers, Accessories, Dimensions

Type Part number	Pre-charge	Clamps	Lock nut
	1 - 109 bar	Model (quantity) Part number	Model (quantity) Part number
ELM 0.075-250/00/AF* 10849201102	751013	-	-
ELM 0.16-250/00/AF* 10849301102	751013	-	-
ELM 0.32-210/85/AF* 10986601102	751000	E95 (1) 20250803648	-
ELM 0.5-210/85/AF* 10849501102	751000	E106 (1) 20250903648	-
ELM 0.5-210/85/CF* 10849601102	751000	E106 (1) 20250903648	M33x1.5 10945700100
ELM 0.75-210/85/AF* 10849701102	751010	E114 (1) 20251003648	-
ELM 0.75-210/85/CF* 10849801102	751010	E114 (1) 20251003648	M33x1.5 10945700100
ELM 0.75-350/85/AF* 10931801102	751010	E136 (1) 20251103648	-
ELM 0.75-350/85/CF* 10931901102	751010	E136 (1) 20251103648	M33x1.5 10945700100
ELM 1-210/85/AF* 10984701102	751001	E136 (1) 20251103648	-
ELM 1-210/85/CF* 10984801102	751001	E136 (1) 20251103648	M33x1.5 10945700100
ELM 1-350/85/AF* 10984701102	751001	E136 (1) 20251103648	-
ELM 1-350/85/CF* 1111101102	751001	E136 (1) 20251103648	M33x1.5 10945700100
ELM 1.4-140/88/AF 10850201125	751014	E155 (1) 20251203648	-
ELM 1.4-140/88/CF 10850301102	751014	E155 (1) 20251203648	M33x1.5 10945700100
ELM 1.4-210/88/AF 10996501102	751014	E155 (1) 20251203648	-
ELM 1.4-210/88/CF 10996601102	751014	E155 (1) 20251203648	M33x1.5 10945700100

* according to the PED, article 3.3

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Execution form	Max. Pre-charge bar	Max compression in bar ratio P2/P0	Max Pressure amplitude P2-P1	Weight kg	Dimensions in mm					Oilport	
								A max Height	B	SW	D	G	F	H
ELM 0.075-250/00/AF*	0.075	250	AF	130	8	210	0.7	112	20	32	64	29	G½	-
ELM 0.16-250/00/AF*	0.16	250	AF	130	6	210	1	120	20	32	75	29	G½	-
ELM 0.32-210/85/AF*	0.32	210	AF	130	8	140	1.4	135	20	32	93	29	G½	-
ELM 0.5-210/85/AF*	0.50	210	AF	130	8	175	2	153	22	41	106	34	G½	-
ELM 0.5-210/85/CF*	0.50	210	CF	130	8	175	2	164	22	41	106	-	G½	M33x1.5
ELM 0.75-210/85/AF*	0.75	210	AF	130	8	175	2.6	167	22	41	122	34	G½	-
ELM 0.75-210/85/CF*	0.75	210	CF	130	8	175	2.6	178	33	41	122	-	G½	M33x1.5
ELM 0.75-350/85/AF*	0.75	350	AF	130	8	150	4	174	22	41	128	34	G½	-
ELM 0.75-350/85/CF*	0.75	350	CF	130	8	150	4	182	18	41	133	-	G½	M33x1.5
ELM 1-210/85/AF*	1	210	AF	130	8	170	3.5	187	22	41	136	34	G½	-
ELM 1-210/85/CF*	1	210	CF	130	8	170	3.5	192	33	41	136	-	G½	M33x1.5
ELM 1-350/85/AF*	1	350	AF	130	8	150	5	200	22	41	129	34	G½	-
ELM 1-350/85/CF*	1	350	CF	130	8	150	5	211	33	41	129	-	G½	M33x1.5
ELM 1.4-140/88/AF	1.40	140	AF	130	8	120	4.5	192	22	41	147	34	G½	-
ELM 1.4-140/88/CF	1.40	140	CF	130	8	120	4.5	203	33	41	147	-	G½	M33x1.5
ELM 1.4-210/88/AF	1.40	210	AF	130	8	120	4.5	192	22	41	147	34	G½	-
ELM 1.4-210/88/CF	1.40	210	CF	130	8	120	4.5	207	33	41	147	-	G½	M33x1.5

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

See drawing on page 141



ELM Series 250 - 350 BAR, 1.4 to 3.5 Litres

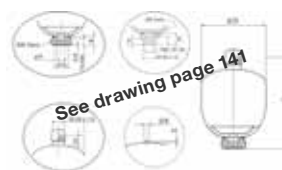
ECO Version (Steel casing/mix ECO) for mineral oils temperature from - 35°C up to 80°C

According to PED 97/23/EC, Fluid Group 2 and SELO

Part numbers, Accessories, Dimensions

Type Part number	Pre-charge	Clamps	Lock nut
	1 to 109 bar	Model (quantity) Part number	Model (quantity) Part number
ELM 1.4-250/88/AF 11013201102	751014	E155 (1) 20251203648	-
ELM 1.4-250/88/CF 11013301102	751014	E155 (1) 20251203648	M33x1.5 10945700100
ELM 1.4-350/88/AF 10932101102	751014	E160 (1) 20251203648	-
ELM 1.4-350/88/CF 10932201102	751014	E160 (1) 20251203648	M33x1.5 10945700100
ELM 2-100/88/AF 10850401102	751014	E155 (1) 20251203648	-
ELM 2-250/88/AF 11013401102	751014	E155 (1) 20251203648	-
ELM 2-350/88/AF 11006001102	751014	E160 (1) 20251203648	-
ELM 2-350/88/CF 11006101102	751014	E160 (1) 20251203648	M45X1.5
ELM 2.8-250/88/AF 10887901102	751002	E168 (1) 20251303648	-
ELM 2.8-350/88/AF 10975801102	751002	E180 (1) 20243203625	-
ELM 2.8-350/88/CF 10975901102	751002	E180 (1) 20243203625	M45X1.5
ELM 3.5-250/88/AF 10850501102	751012	E168 (1) 20251303648	-
ELM 3.5-350/88/AF 10984901102	751012	E180 (1) 20243203625	-
ELM 3.5-350/88/CF 10985001102	751012	E180 (1) 20243203625	M45X1.5

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Execution form	Max. Pre-charge bar	Max compression in bar ratio P2/P0	Max Pressure amplitude P2-P1	Weight kg	Dimensions in mm						Oilport	
								A max Height	B	SW	D	G	F	H	
ELM 1.4-250/88/AF	1.40	250	AF	130	8	140	5.5	196	22	41	152	34	G½	-	
ELM 1.4-250/88/CF	1.40	250	CF	130	8	140	5.5	207	33	41	152	-	G½	M33x1.5	
ELM 1.4-350/88/AF	1.40	350	AF	130	8	150	7	199	20	41	156	34	G½	-	
ELM 1.4-350/88/CF	1.40	350	CF	130	8	150	7	221	20	41	156	-	G½	M33x1.5	
ELM 2-100/88/AF	2	100	AF	130	8	80	3.5	241	22	41	146	34	G½	-	
ELM 2-250/88/AF	2	250	AF	130	8	150	9.5	252	22	41	156	33	G¾	-	
ELM 2-350/88/AF	2	350	AF	130	8	150	9.5	252	22	55	156	34	G¾	-	
ELM 2-350/88/CF	2	350	CF	130	8	150	9.5	270	22	55	156	-	G¾	M45x1.5	
ELM 2.8-250/88/AF	2.80	250	AF	130	6	140	8	269	21	41	168	34	G¾	-	
ELM 2.8-350/88/AF	2.80	350	AF	130	6	200	14.3	265	23	55	180	34	G¾	-	
ELM 2.8-350/88/CF	2.80	350	CF	130	6	200	14.3	286	21	55	180	-	G¾	M45x1.5	
ELM 3.5-250/88/AF	3.50	250	AF	130	4	140	11	314	20	41	174	33	G¾	-	
ELM 3.5-350/88/AF	3.50	350	AF	130	4	200	16	305	23	55	180	34	G¾	-	
ELM 3.5-350/88/CF	3.50	350	CF	130	4	200	16	326	21	55	180	-	G¾	M45x1.5	



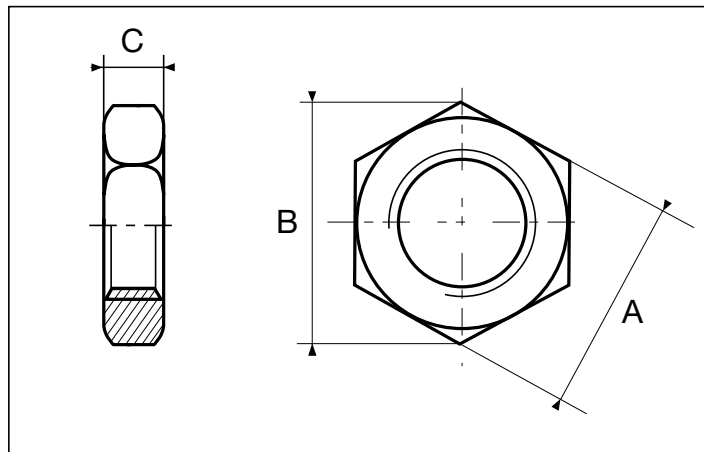
Above dimensions are in mm and are subject to manufacturing tolerances.

Lock-nut

Lock-nut

Type	Pitch	A	B	C
M33	1.5	50	57.5	10
M45	1.5	70	80.8	10

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



Accumulator Accessories

Clamps, Brackets, Charging Sets, Safety Blocks, Burst Discs

IN THIS SECTION

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Burst Discs

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Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

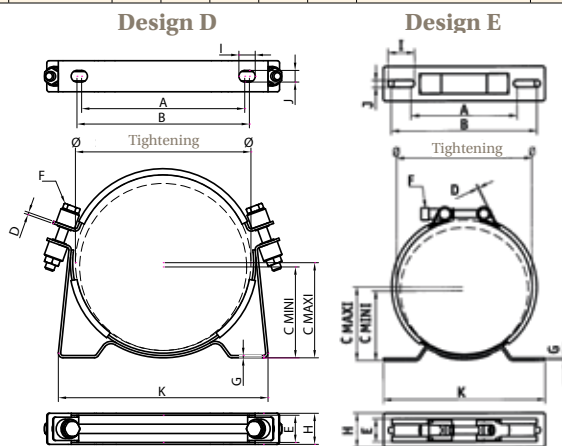
Clamps

Clamps : Steel with zinc plated protection, Rubber EPDM (Version 48), Rubber NBR Nitrile (Version 25)

Part numbers, Dimensions

Type Part number	Design	RECOMMENDED Min to Max TIGHTENING Ø mm
A56 20149203625	E	54 to 56
E95 20250803648	E	87 to 97
E106 20250903648	E	99 to 109
E114 20251003648	E	112 to 124
E136 20251103648	E	128 to 138
E155 20251203648	E	146 to 157
E160 20259003648	E	155 to 165
E168 20251303648	E	166 to 176
E180 20243203625	E	178 to 184
D215 20251403648	D	215 to 219
D226 20251503648	D	215 to 226
D368 20127403625	D	363.5 to 368

Type	Dimensions in mm												Recommended tightening torque N.m	Recommended max allowable weight if vertical equipment kg	Recommended max allowable weight if horizontal equipment kg
	A	B	C		D	E	F	G	H	I	J	K			
			Min	Max											
A56	92	102	36	36	3	37	M10x80	3	31	14	9	134	7	10	30
E95	88	140	61.5	66.5	1.5	28	M8x75	3	40	35	9	155	7	30	90
E106	88	140	68	73	1.5	28	M8x75	3	40	35	9	155	7	30	90
E114	88	140	73	78	1.5	28	M8x75	3	40	35	9	155	7	30	90
E136	88	140	80	85	1.5	28	M8x75	3	40	35	9	155	7	30	90
E155	137	189	81	86.5	1.7	30	M10x80	3	45	35	9	210	10.5	60	60
E160	137	189	86.88	91.88	1.7	32	M10x80	3	45	35	9	210	10.5	60	60
E168	137	189	92	96	1.7	30	M10x80	3	45	35	9	210	10.5	60	60
E180	137	189	97	100	2	35	M10x80	4	65	35	9	210	10.5	60	60
D215	210	222	123	125	3	36	M12x70	3	40	21	15	266	9	65	110
D226	210	222	119	122.5	3	35	M12x80	3	40	21	15	270	11	75	150
D368	334	346	198.5	201	3	36	M12x75	3	50	21	15	420	11	50	80



Clamps

Clamps : **Stainless Steel** with Nitrile rubber mouldings.
Part numbers, Dimensions

Part Number	Diagram	Accumulator Capacity (Litres)	
10957	C	0.6	
10981	C	1 - 3	
10982-DEE	B	4 - 9	
10983	B	10 - 54	
11060-DEE	A	12 - 54 HP200	

Type	Dimensions in mm										Mounting Bolts	Mass kg
	A	B	C	D	E	F	G (ref)	H	I			
10957	143	127	90	96	30	-	60	13	9	M8 x 30	0.59	
10981	137	144	100	111 - 116	30	-	73	13	9	M8 x 80	0.75	
10982	190	186	146	170	30	244	100	13	9	M8 x 80	1.25	
10983	250	267	211	218 - 228	40	306	129	21	15	M12 x 80	1.50	
11060	270	280	220	256 - 261	40	345	140	10.5	10.5	M10 x 50	2	

Diagram A

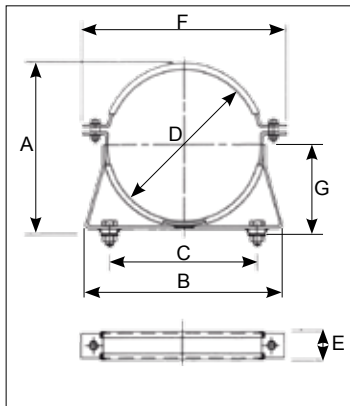


Diagram B

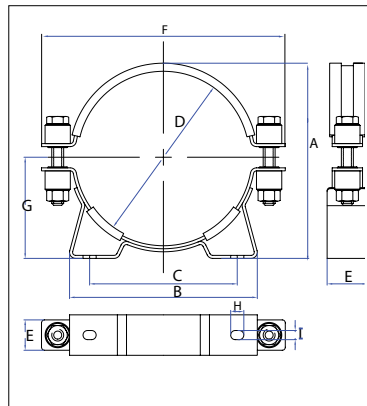
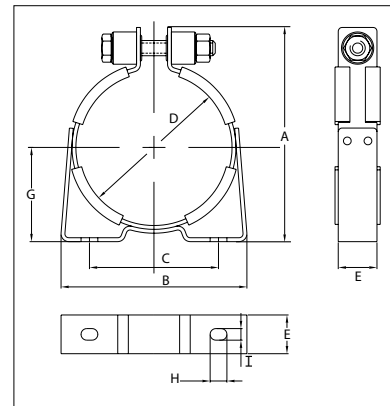


Diagram C



Support Brackets

Type Part number	Models
CE89 20151903620	Accumulators 1 to 5 Litres
CE108 20118703620	EHV 4 & 6 & 10 Litres
CE159A 20109003620	Accumulators 10 to 50 Litres < 550 Bar
CE300 20150800100	Accumulators 100-200 Litres

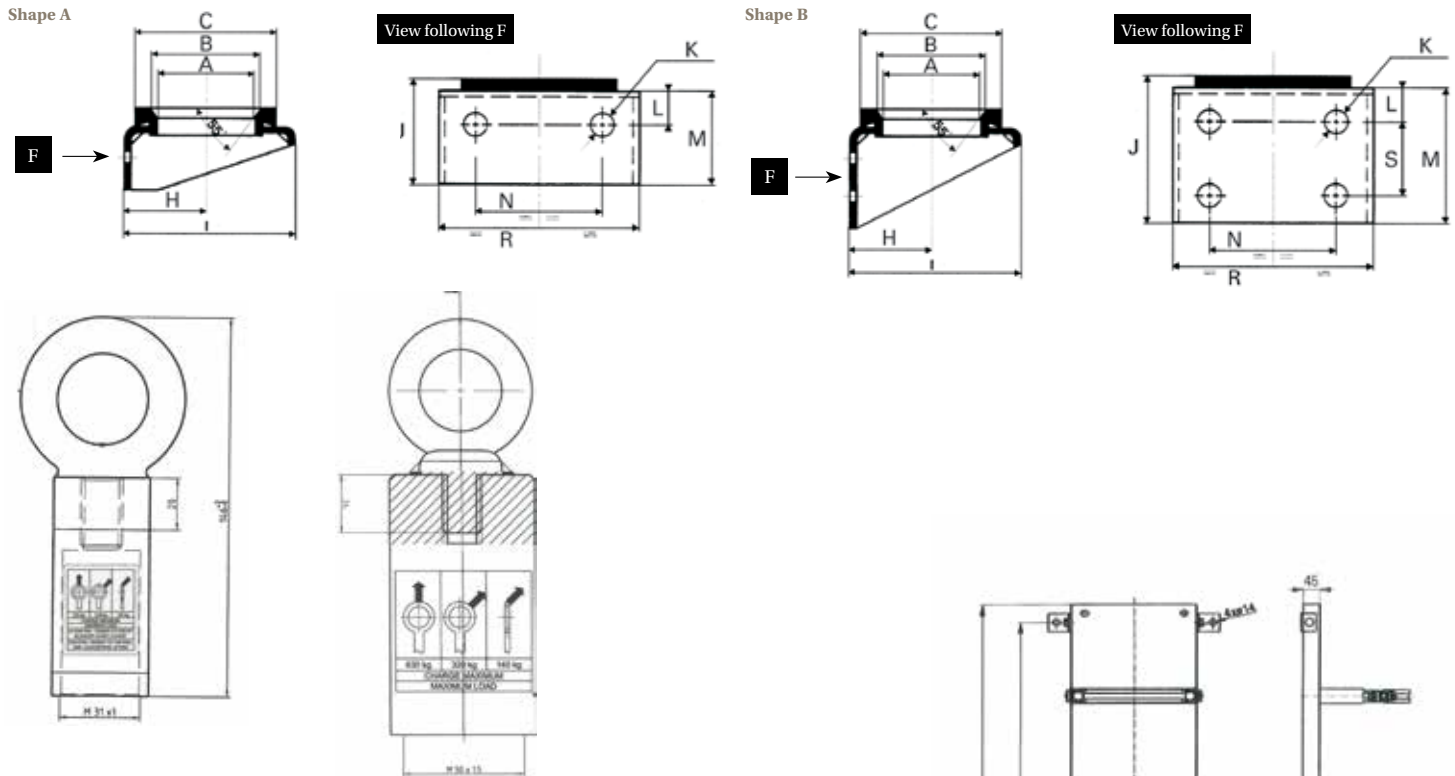
Lifting Eye

Type Part number	Models
LIFTING EYE DIA.22 10912700200	Accumulators equipped of valve stem DIA .22
LIFTING EYE DIA. 50 09098800200	Accumulators equipped of valve stem DIA 50

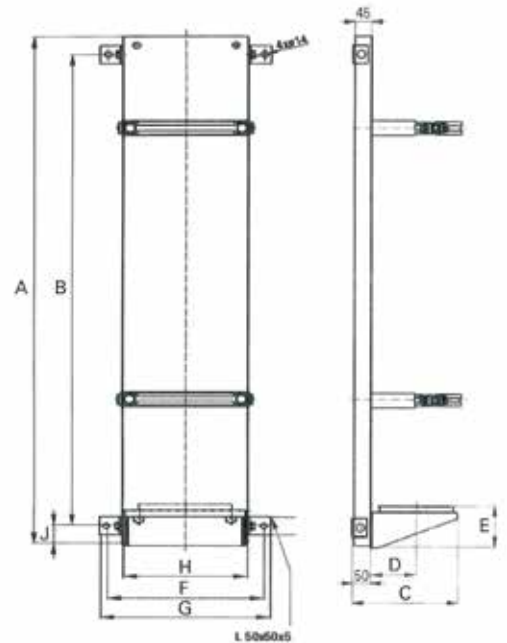
Mounting Frames

Type Part number	For Models EHV
EF1 20217500125	EHV 4 & 6 & 10 Litres
EF2 20217600125	EHV 10 & 12 & 20 & 24.5 Litres
EF3 20217700125	EHV 32 & 50 Litres

Type	Design	Dimensions in mm													Weight kg
		A	B	C	H	I	J	K	L	M	N	R	S		
CE89	A	89	101	125	73	140	75	13	25	60	75	130	-	0.8	
CE108	A	108	120	150	92	175	95	17	25	80	160	210	-	1.5	
CE159A	B	159	170	200	123	235	115	17	25	100	200	260	40	2.9	
CE300	B	300	-	-	200	380	-	20	50	300	375	475	200	30	



Type	Dimensions in mm									
	A	B	C	D	E	F	G	H	J	
EF1	670	570	225	92	96	340	370	270	50	
EF2	670	570	285	123	115	340	370	270	50	
EF3	1405	1300	285	123	115	340	370	270	55	



Charging Set VGU

The charging set VGU is an indispensable instrument for the verification, pressurization and nitrogen bleeding of most of the hydraulic accumulators available on the market. The standard set is delivered in a storage case containing the following:

- VGU universal tester and pressurizer (end M28 x 1.50).
- Pressure gauge kit from 0 to 25 bar.
- Pressure gauge kit from 0 to 250 bar.
- Connection adapters for inflation valves (7/8" - 5/8" - 8V1 - M28 x 1.50 G 1/4").
- High pressure hose, 2.5 m long, for connecting to a nitrogen source.
- Hexagon socket screw key 6mm.
- Spare parts kit including rings
- Operating instruction in French, English, German.

Note: On request, the following options are available:

- Pressure gauge kits with different scale divisions: 63mm with glycerol bath back end G1/4" cyl. equipped with direct gear for Minimess® connection. Scale divisions 0-10, 0-60, 0-100, 0-400, with accuracy class 1.6%.
- High pressure hose of different length with adapters for nitrogen bottles from various countries (specify country), at each end with a female swivel coupling G1/4" for connecting to the inflation port.

Maximum working pressure: limited by the maximum operating pressure of the installed hydraulic system, pressure limited to **400 bar** in any case.

Type Part number	Spare Parts	
	High Pressure Hose	Spare Part Kits
	Type Part number	Type Part number
VGU/F.25/250.8.TS2.3 20214122823	TS2 (France) 20214800000	10774100023
VGU/F.25/250.8.TS3.3 20214122833	TS3 (Germany) 20228000000	10774100023
VGU/F.25/250.8.TS8.3 20214122883	TS8 (Italy) 20217200000	10774100023
VGU/F.25/250.8.TS9.3 20214122893	TS9 (Netherlands) 20227300000	10774100023
VGU/F.25/400.8.TS2.3 20214139823	TS2 (France) 20214800000	10774100023
VGU/F.25/400.8.TS3.3 20214139833	TS3 (Germany) 20228000000	10774100023
VGU/F.25/400.8.TS8.3 20214139883	TS8 (Italy) 20217200000	10774100023
VGU/F.25/400.8.TS9.3 20214139893	TS9 (Netherlands) 20227300000	10774100023

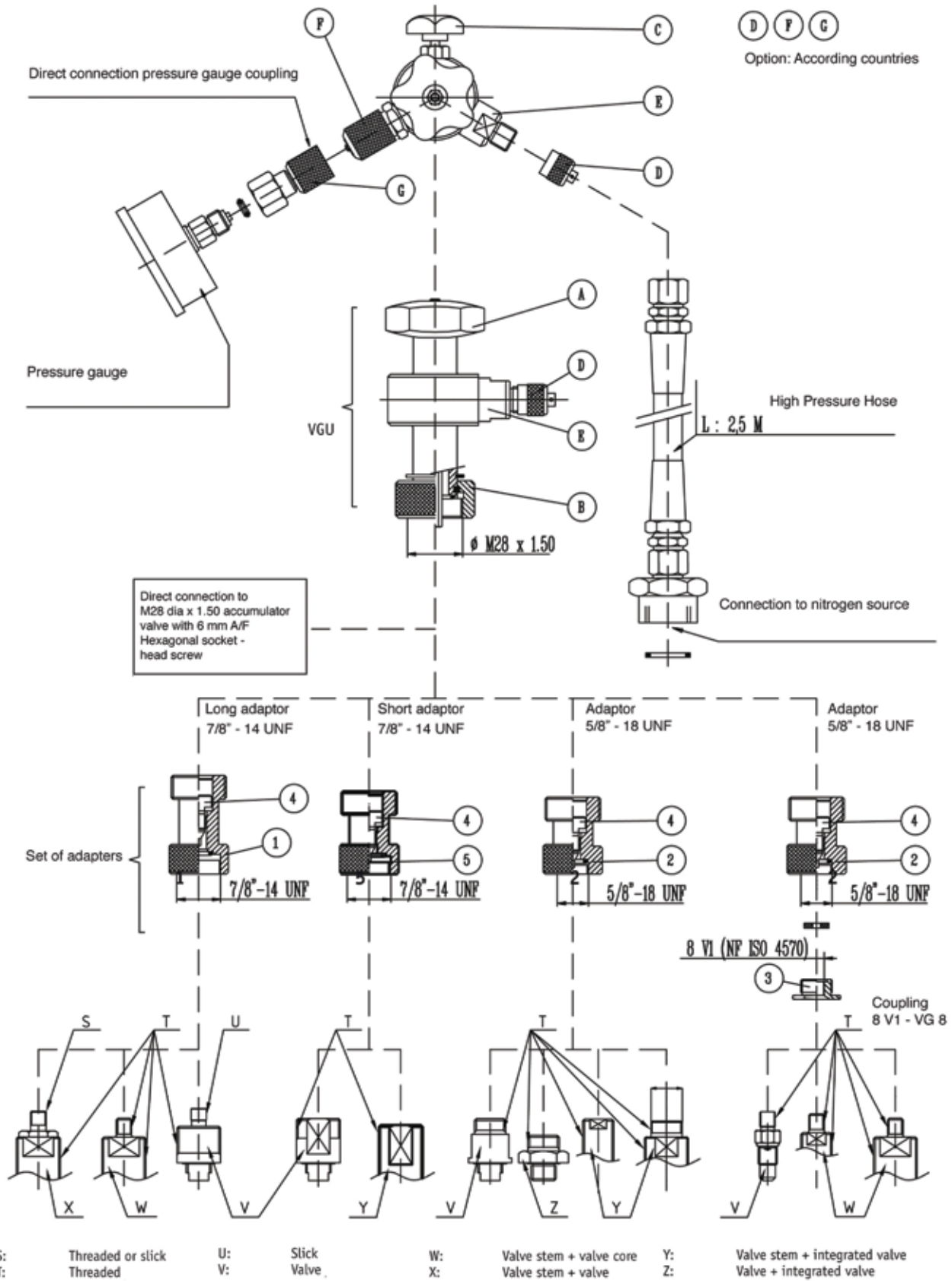
Spare Parts Gauge Kit VGU

Type Part number
0 to 25 bar 00090300000
0 to 250 bar 00090500000
0 to 400 bar 00090600000

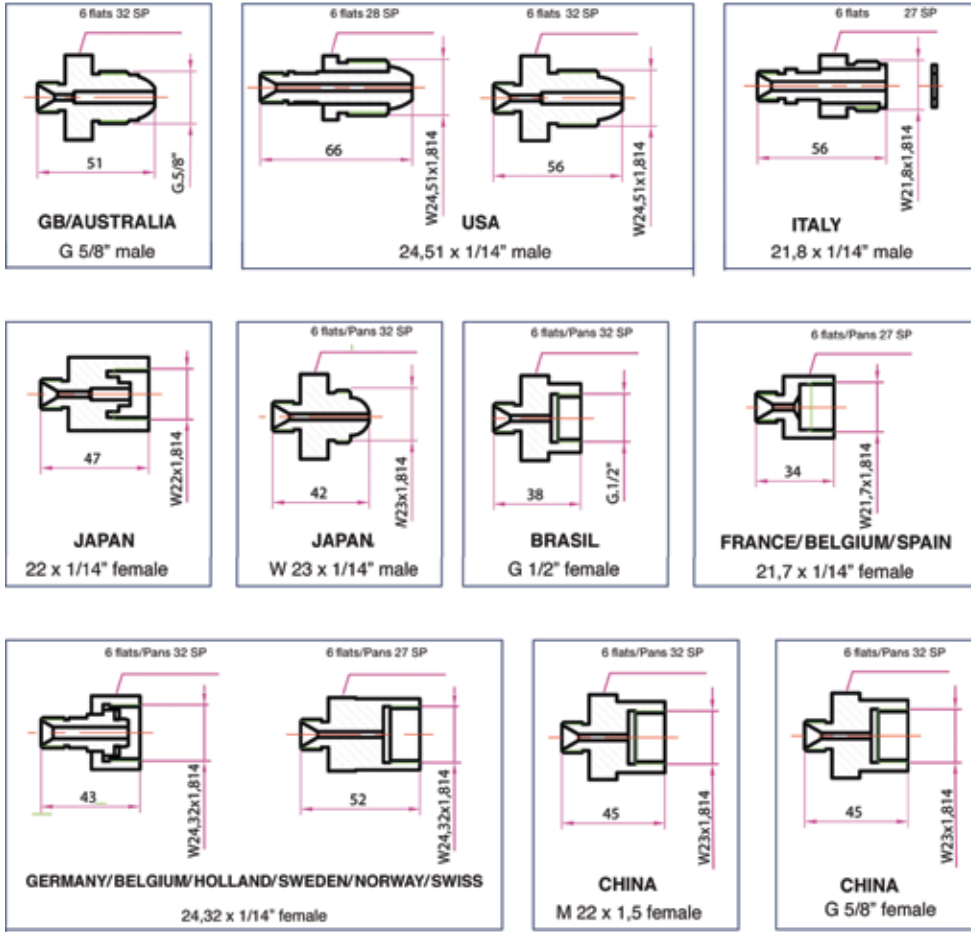
Spare Parts Adaptors VGU

Type Part number
Long Adaptor 7/8" - 14 UNF 20212700223
Short Adaptor 7/8" - 14 UNF 20213500223
Adaptor 5/8" - 18 UNF 20213000223
Adaptor 1/4" cyl 20221100220
Coupling 8 V1 20214000200

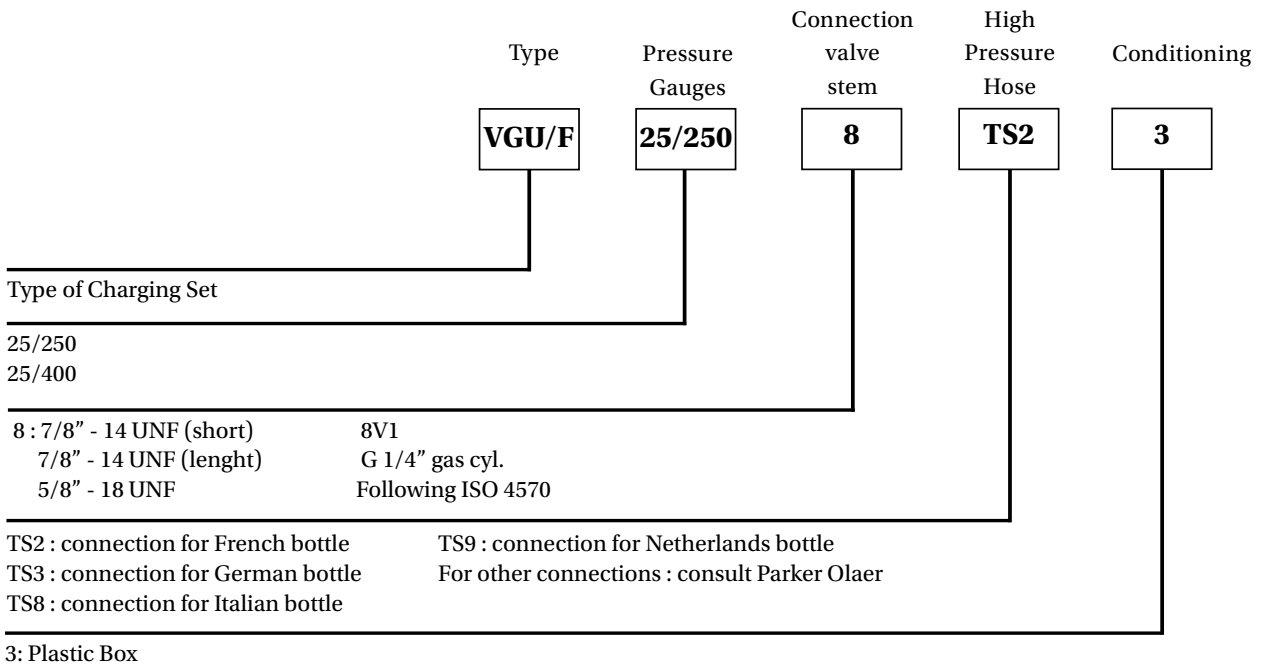




VGU Connections



How to order a VGU Charging Set



Safety Blocks

Parker Olaer has developed a complete range of decompressing and isolating blocks (sizes 10 to 50) to answer all standard and special applications.

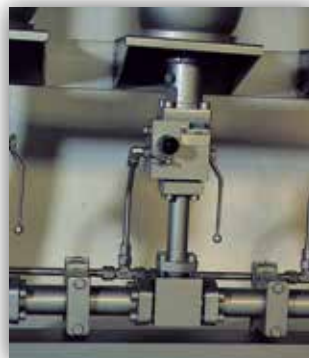
These blocks are in conformity with the European Directive on the equipment under pressure (97/23), these appliances have been designed to group together in a single compact unit all the components necessary for the correct operation of a hydraulic system equipped with hydropneumatic accumulators.

The basic block consists of :

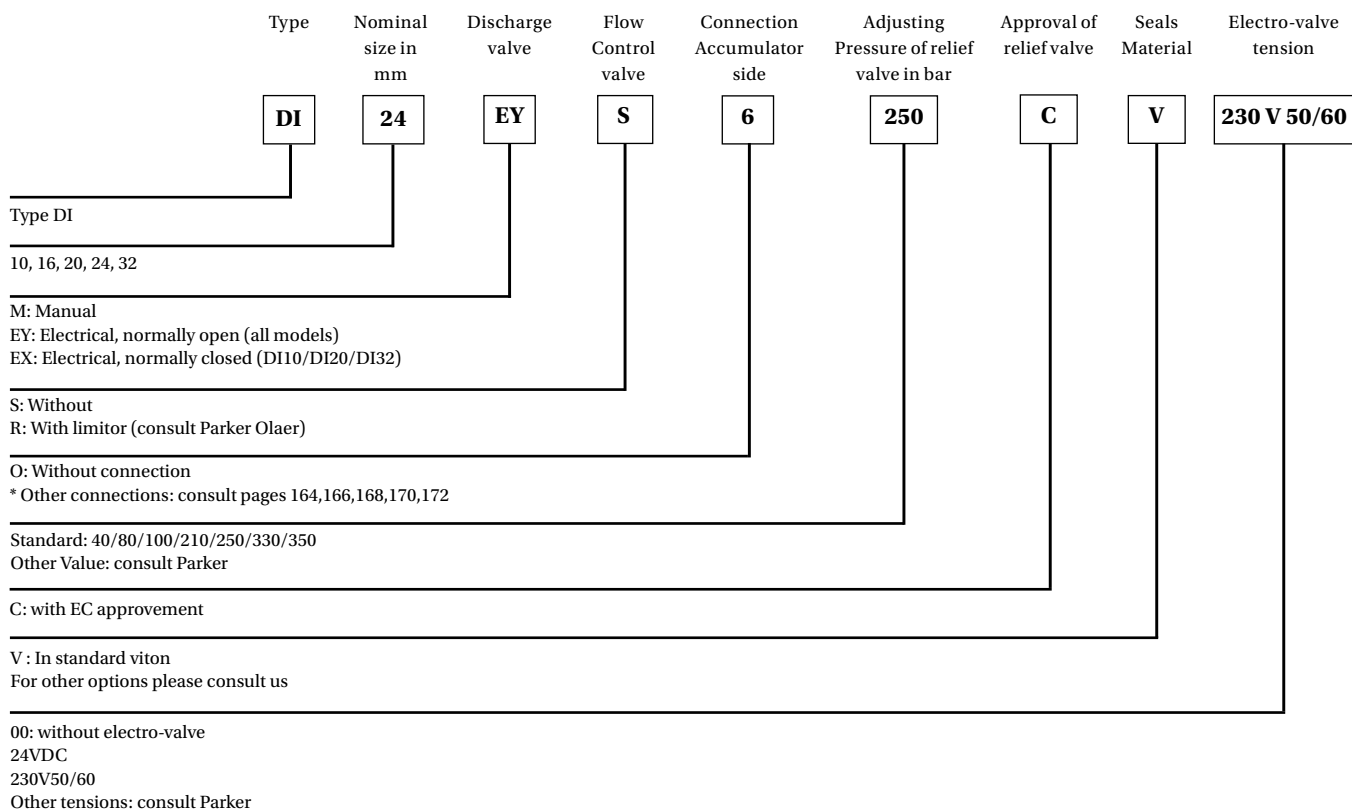
- Isolating valve to isolate the accumulator from the circuit for all the blocks except from model DI 10 where it also ensures the decompression function.
- A drain valve for decompressing the accumulator for all models (except DI 10)
- A pressure relief valve EC with poppet calibrated generally to the maximum service pressure of the accumulator (under no circumstances must this appliance be used to protect the hydraulic pump)
- Pressure tapping port (M)

In the E version, the basic block, to decompress the accumulator, can be equipped with an electro-valve :

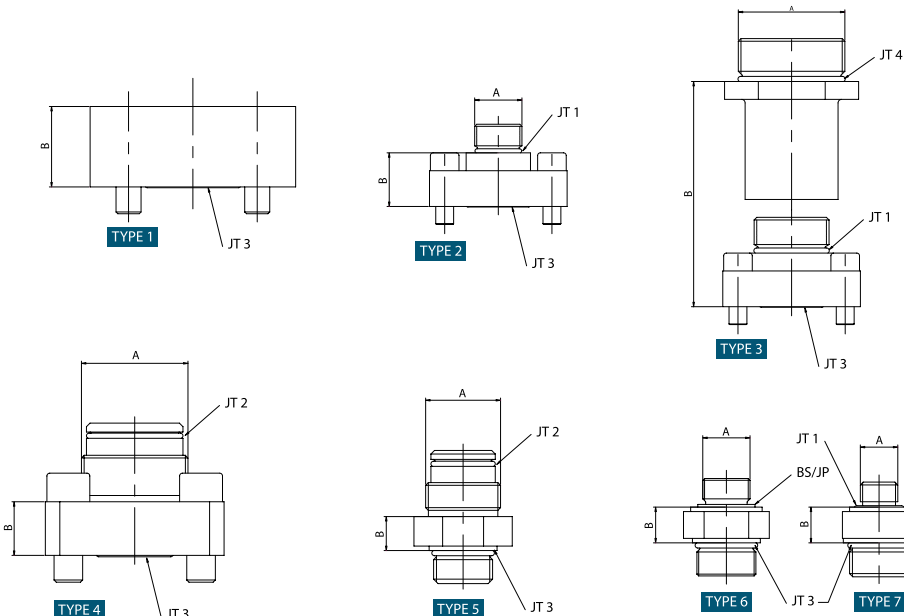
- 2 ways 2 positions (DI 10/DI 20/DI 32) cartridge type.
- 3 ways 2 positions (DI 16/DI 24) with impact of connection according to DIN 24340 Form A, ISO 4401 and CETOP RP 121 H.



DI Series: How to order a Safety Block



Connection accumulator side for block D10 - DI16 - DI20 - DI24 - DI32



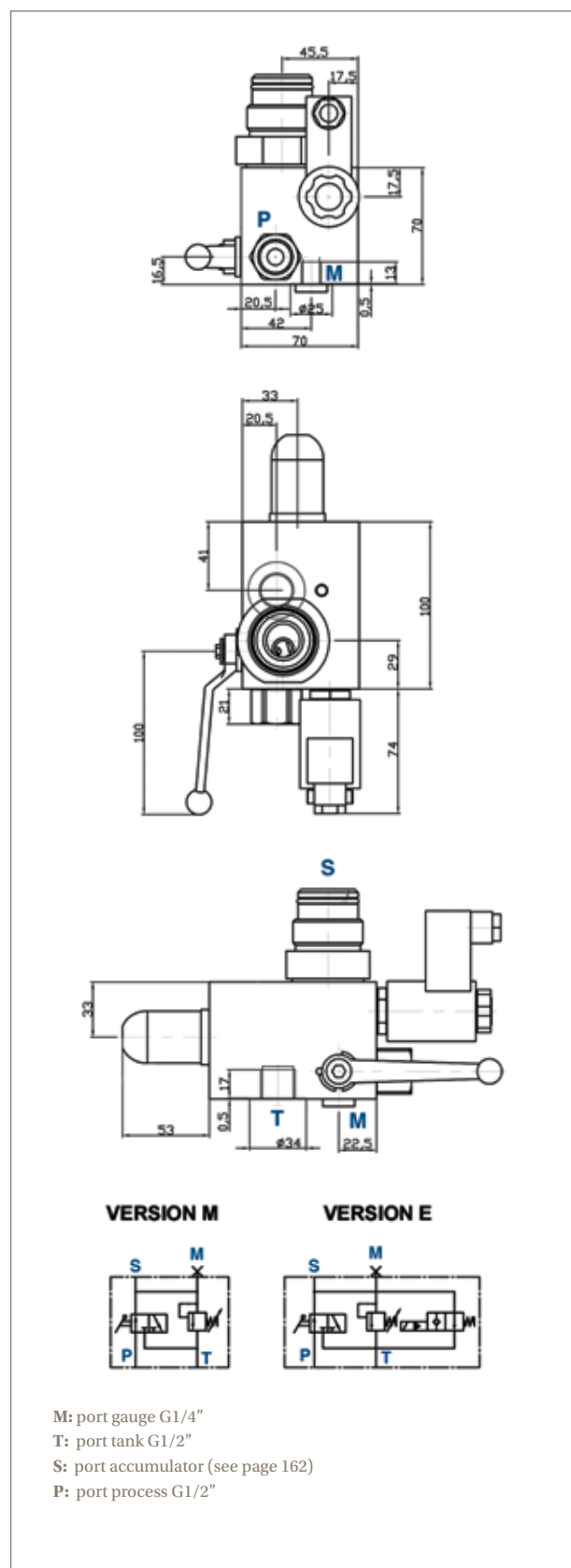
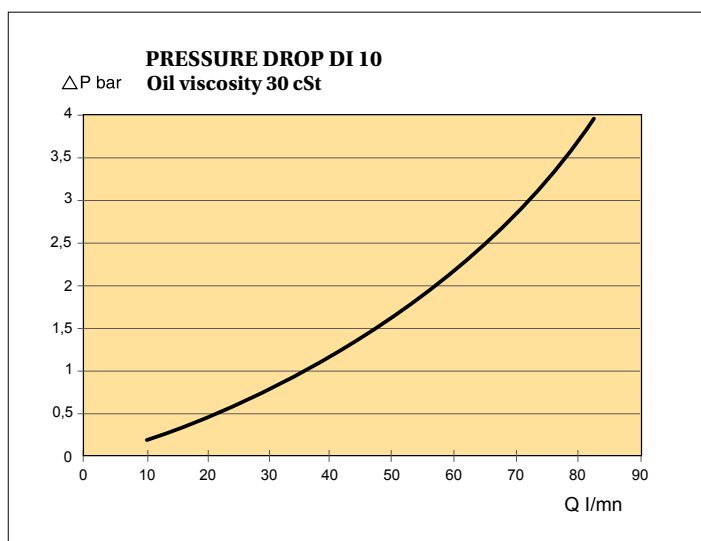
Models	Application	A	B	Sealing						Type	Codif
				JT1 (angle)	JT2 (piston)	JT3	JT4	BS	JP		
DI10 MS/ES	ELM 0.075-250/ 0.16-250/ 0.32-210	G 1/2"	20	-	-	29 x 3	-	28.7 x 21.5 x 2.5	-	6	5
	ELM	G 1/2"	20	22 x 3	-	29 x 3	-	-	-	7	4
	ELM	G 3/4"	20	-	-	29 x 3	-	-	32 x 27 x 1.5	6	6
DI20 MS/ES	EHV 0.5 to 1.6 L	G 3/4"	18	-	17 x 3	29 x 3	-	-	-	5	2
	EHV 2.5 to 10 L (350 bar)	G1 1/4"	19	-	30 x 3	29 x 3	-	-	-	5	1
	EHV 10 to 50 L	G2"	36.5	-	48 x 3	29 x 3	-	-	-	5	3
DI16 MS/ES	EHV 0.5 to 1.6 L	G 3/4"	30	21.3 x 2.5	-	32 x 2	-	-	-	2	2
	EHV 0.5 to 1.6 L	G 3/4"	30	-	16.9 x 2.7	32 x 2	-	-	-	4	F
	EHV 2.5 to 10 L (350 bar)	G1 1/4"	30	36.2 x 3	-	32 x 2	-	-	-	2	1
	EHV 2.5 to 10 L (350 bar)	G1 1/4"	30	-	30 x 3	32 x 2	-	-	-	4	D
	EHV 10 to 50 L	G2"	96	36.2 x 3	-	32 x 2	54 x 3	-	-	3	3
	EHV 10 to 50 L	G2"	116	-	48 x 3	32 x 2	-	-	-	4	7
	EHVF 10 to 50 L	1 1/2"-6000	33	-	-	32 x 2	-	-	-	1	J
	EHVF 2.5 to 10 L (350 bar)	1 1/4"-3000	33	-	-	32 x 2	-	-	-	1	K
DI24 MS/ES	EHV 0.5 to 1.6 L	G 3/4"	35	21.3 x 2.4	-	48 x 3	-	-	-	2	2
	EHV 2.5 to 10 L (350 bar)	G1 1/4"	35	36.2 x 3	-	48 x 3	-	-	-	2	1
	EHV 2.5 to 10 L (350 bar)	G1 1/4"	35	-	30 x 3	48 x 3	-	-	-	4	F
	EHV 10 to 50 L	G2"	35	54 x 3	-	48 x 3	-	-	-	2	3
	EHV 10 to 50 L	G2"	35	-	48 x 3	48 x 3	-	-	-	4	D
	EBV 100 to 200 L + Piston Accumulator	G2"	80	54 x 3	-	48 x 3	54 x 3	-	-	3	7
	EHVF 10 to 50 L	2"-3000	45	-	-	48 x 3	-	-	-	1	J
	EHVF 10 to 50 L	1 1/2"-6000	45	-	-	48 x 3	-	-	-	1	J
	EHVF 2.5 to 10 L (350 bar)	1 1/4"-3000	45	-	-	48 x 3	-	-	-	1	K
	EHVF 2.5 to 10 L (350 bar)	1"-6000	45	-	-	48 x 3	-	-	-	1	K
DI32 MS/ES	EHV 0.5 to 1.6 L	G 3/4"	30	-	17 x 3	37.2 x 3	-	-	-	4	2
	EHV 2.5 to 10 L	G1 1/4"	30	-	30 x 3	37.2 x 3	-	-	-	4	1
	EHV 10 to 50 L	G2"	30	-	48 x 3	37.2 x 3	-	-	-	4	3

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

Safety Block DI 10

TECHNICAL DATA DI 10

- **Size:** Nominal diameter : 10 mm
- **Maxi working pressure:** Manual version : 400 bar
Electrical version : 350 bar
- **Weight without connector:** Manual version : 3,5 kg
Electrical version : 4 kg
- **Materials:** Carbon steel
According with the fluids of group 2 (PED)
- **Temperature:** Manual version : - 10°C à + 70°C
Electrical version : - 10°C à + 60°C (ambient temperature)
- **Electrical data:** DC : 24 V
AC : 230 V-50/60 Hz
Standard protection : IP 65
Standard connector : DIN 43650
- **Connection accumulator side:** See page 162
- **Pressure / return connector of circuit:** See hydraulic drawing
- **Pressure relief valve EC (nominal dia):** 10 mm
- **Flow:** Consult the diagram



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

Safety Block DI 10 Manual Version

Standard version (Carbon steel, rings VITON) temperature -10°C up to 70°C Maximum working pressure : 400 Bar
 According to PED 97/23/CE, EN 14359 Fluid Group 2

Part numbers

Connecting to accumulator	Type	Part number
EHV 0,5 up to 1,6 L G3/4"	DI10MS/2/100CV	35172112D02
EHV 0,5 up to 1,6 L G3/4"	DI10MS/2/210CV	35172112G02
EHV 0,5 up to 1,6 L G3/4"	DI10MS/2/330CV	35172112J02
EHV 0,5 up to 1,6 L G3/4"	DI10MS/2/350CV	35172112Y02
EHV 2,5 up to 10 L 350 B G1"1/4	DI10MS/1/100CV	35172111D02
EHV 2,5 up to 10 L 350 B G1"1/4	DI10MS/1/210CV	35172111G02
EHV 2,5 up to 10 L 350 B G1"1/4	DI10MS/1/250CV	35172111H02
EHV 2,5 up to 10 L 350 B G1"1/4	DI10MS/1/330CV	35172111J02
EHV 2,5 up to 10 L 350 B G1"1/4	DI10MS/1/350CV	35172111Y02
EHV 10 up to 50 L G2"	DI10MS/3/210CV	35172113G02
EHV 10 up to 50 L G2"	DI10MS/3/250CV	35172113H02
EHV 10 up to 50 L G2"	DI10MS/3/330CV	35172113J02
EHV 10 up to 50 L G2"	DI10MS/3/350CV	35172113Y02
ELM G1/2"	DI10MS/4/100CV	35172114D02
ELM G1/2"	DI10MS/4/140CV	35172114Q02
ELM G1/2"	DI10MS/4/210CV	5172114G02

Connecting to accumulator	Type	Part number
ELM G1/2"	DI10MS/4/250CV	35172114H02
ELM G1/2"	DI10MS/4/330CV	35172114J02
ELM G1/2"	DI10MS/4/350CV	35172114Y02
ELM G1/2"	DI10MS/4/400CV	35172114P02
ELM 0,32-210 G1/2"	DI10MS/5/210CV	35172115G02
ELM 0,075-250/0,16-250 G1/2"	DI10MS/5/250CV	35172115H02
ELM 0,075-250/0,16-250 G1/2"	DI10MS/5/330CV	35172115J02
ELM 0,075-250/0,16-250 G1/2"	DI10MS/5/400CV	35172115P02
ELM G3/4"	DI10MS/6/100CV	35172116D02
ELM G3/4"	DI10MS/6/140CV	35172116Q02
ELM G3/4"	DI10MS/6/170CV	35172116F02
ELM G3/4"	DI10MS/6/210CV	35172116G02
ELM G3/4"	DI10MS/6/250CV	35172116H02
ELM G3/4"	DI10MS/6/330CV	35172116J02
ELM G3/4"	DI10MS/6/350CV	35172116Y02
ELM G3/4"	DI10MS/6/400CV	35172116P02

Safety Block DI 10 Electrical Version

Standard version (Carbon steel, rings VITON) temperature -10°C up to 60°C Maximum working pressure : 350 Bar
 Part numbers

Connecting to accumulator	With Electro-valve tension 24VDC		With Electro-valve tension 230V50/60	
	Type	Part number	Type	Part number
EHV 0,5 up to 1,6 L G3/4"	DI10EYS/2/350CV24VCC	35172132Y22	DI10EYS/2/350CV230V50/60	35172132Y62
EHV 2,5 up to 10 L 350 B G1"1/4	DI10EYS/1/350CV24VCC	35172131Y22	DI10EYS/1/350CV230V50/60	35172131Y62
ELM G1/2"	DI10EYS/4/210CV24VCC	35172134G22	DI10EYS/4/210CV230V50/60	35172134G62
ELM G3/4"	DI10EYS/6/210CV24VCC	35172136G22		
ELM G3/4"	DI10EYS/6/250CV24VCC	35172136H22		

Options or Accessories

Type	Characteristics	Part number
RELIEF VALVE CE	100 BAR	35045931002
RELIEF VALVE CE	250 BAR	35045932102
RELIEF VALVE CE	330 BAR	35045932502
RELIEF VALVE CE	210 BAR	35045932102
RELIEF VALVE CE	350 BAR	35045933502

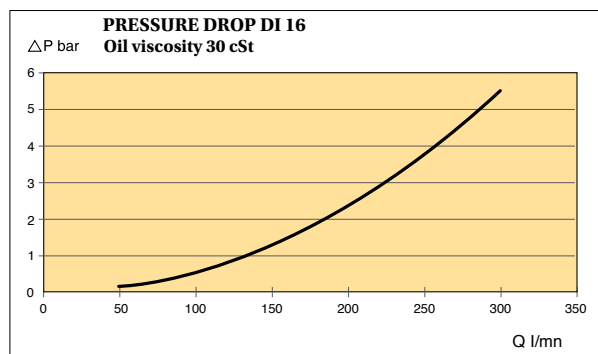


Safety Block DI 16

TECHNICAL DATA DI 16

- **Size:** Nominal diameter : 16 mm
- **Maxi working pressure:** Manual version : 350 bar
Electrical version : 350 bar
- **Weight without connector:** Manual version : 4,3 kg
Electrical version : 5,8 kg
- **Materials:** Carbon steel
According with the fluids of group 2 (PED)
- **Temperature:** Manual version : - 15°C à + 70°C
Electrical version : - 15°C à + 50°C (ambient temperature)
- **Electrical data:** DC : 24 V
AC : 230 V-50/60 Hz
Standard protection : IP 65
Standard connector : DIN 43650
- Power consumption : 30 W
- **Connection accumulator side:** See page 162
- **Pressure / return connector of circuit:** See hydraulic drawing
- **Pressure relief valve EC (nominal dia):** 6 mm
- **Flow:** Consult the diagram

Possibility of assembly of a flow control valve on the block consult us.



Minimess screw coupling
TYPE 1620

VERSION E
View according to F

4 holes M5 - Depth of tapped 12 useful
Front hole depth : 16 on point

VERSION M **VERSION E**

M: screw coupling G 1/4" delivered with Minimess 1620
T: port tank G1/4" flattened dept 1 for bonded seal
A: port accumulator (see page 162)
P: port process G3/4" flattened depth 1.5 for bonded seal

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

Accessories

Safety Block DI 16 Manual Version

Standard version (Carbon steel, rings VITON) temperature -15°C up to 80°C

Maximum working pressure : 350 Bar. According to PED 97/23/CE, EN 14359 Fluid Group 2

Part numbers

Connecting to accumulator	Type	Part number
EHV 0,5 up to 1,6 L G3/4"	DI16MS/2/210 CV	35128812G02
EHV 0,5 up to 1,6 L G3/4"	DI16MS/2/250 CV	35128812H02
EHV 0,5 up to 1,6 L G3/4"	DI16MS/2/330 CV	35128812J02
EHV 0,5 up to 1,6 L G3/4"	DI16MS/2/350 CV	35128812Y02
EHV 2,5 up to 10 L G1"1/4	DI16MS/1/210 CV	35128811G02
EHV 2,5 up to 10 L G1"1/4	DI16MS/1/250 CV	35128811H02
EHV 2,5 up to 10 L G1"1/4	DI16MS/1/330 CV *	35128811J02
EHV 2,5 up to 10 L G1"1/4	DI16MS/1/350 CV *	35128811Y02
EHV 10 up to 50 L G2"	DI16MS/3/210 CV	35128813G02
EHV 10 up to 50 L G2"	DI16MS/3/250 CV	35128813H02
EHV 10 up to 50 L G2"	DI16MS/3/330 CV *	35128813J02
EHV 10 up to 50 L G2"	DI16MS/3/350 CV	35128813Y02

Safety Block DI 16 Electrical Version

Standard version (Carbon steel, rings VITON) temperature -15°C up to 60°C Maximum working pressure : 350 Bar

According to PED 97/23/EC, EN 14359 Fluid Group 2. Pre-machine for Electro-valve installation.

See table below for Electro-valve options and accessories.

Part numbers

Connecting to accumulator	without Electro-valve Tension	
	Type	Part number
EHV 0,5 up to 1,6 L G3/4"	DI16EYS/2/210 CV	35128832G02
EHV 0,5 up to 1,6 L G3/4"	DI16EYS/2/250 CV	35128832H02
EHV 0,5 up to 1,6 L G3/4"	DI16EYS/2/330 CV	35128832J02
EHV 0,5 up to 1,6 L G3/4"	DI16EYS/2/350 CV	35128832Y02
EHV 2,5 up to 10 L G1"1/4	DI16EYS/1/210 CV	35128831G02
EHV 2,5 up to 10 L G1"1/4	DI16EYS/1/250 CV	35128831H02
EHV 2,5 up to 10 L G1"1/4	DI16EYS/1/330 CV	35128831J02
EHV 2,5 up to 10 L G1"1/4	DI16EYS/1/350 CV	35128831Y02
EHV 10 up to 50 L G2"	DI16EYS/3/210 CV	35128833G02
EHV 10 up to 50 L G2"	DI16EYS/3/250 CV	35128833H02
EHV 10 up to 50 L G2"	DI16EYS/3/330 CV	35128833J02
EHV 10 up to 50 L G2"	DI16EYS/3/350 CV	35128833Y02

Options and Accessories

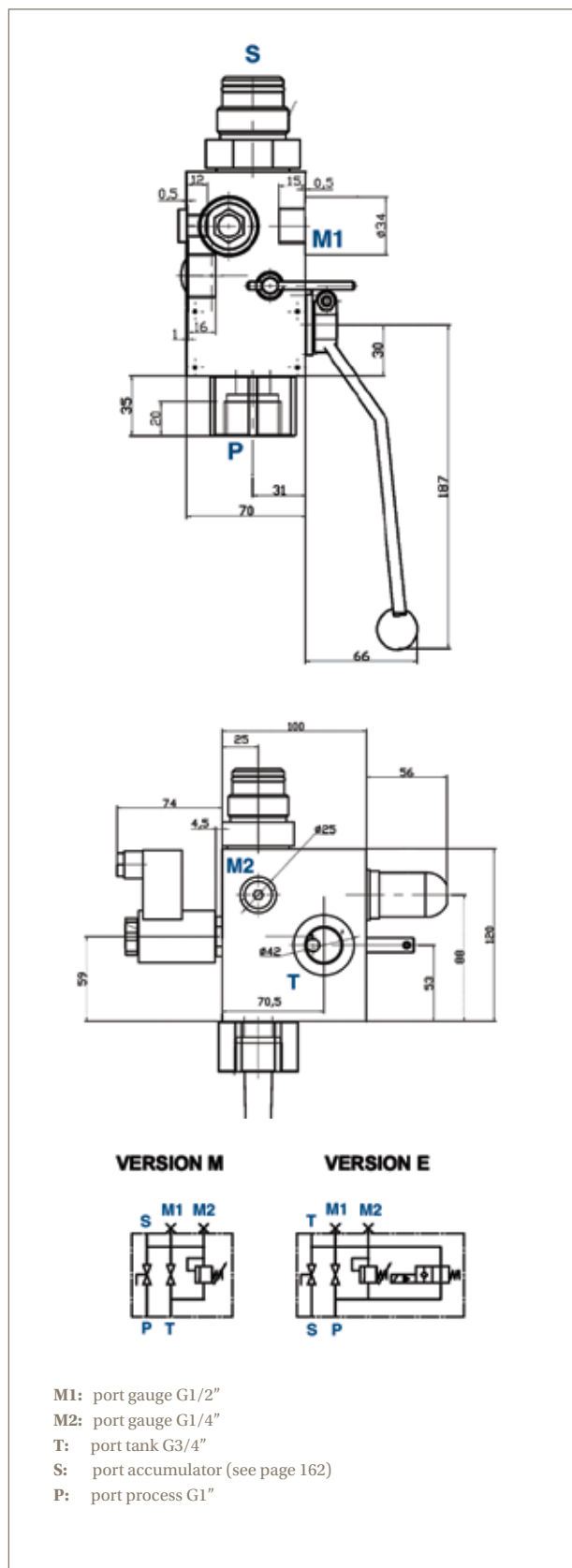
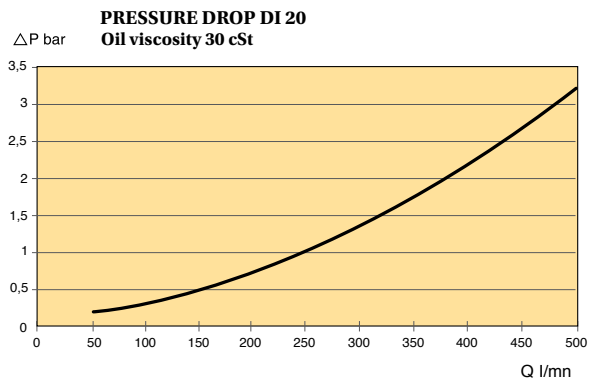
Type	Electro valve tension	Part number
ELECTRO-VALVE T3	24 VCC	35157700281
ELECTRO-VALVE T3	110/120VA 50/60 Hz	35157800281
ELECTRO-VALVE T3	220/230VA 50/60 Hz	35157900281
FLOW CONTROL	R16	35141800281
FLANGE M 3/4" GAS CYL connection accumulator side		35054100281
FLANGE M 1"1/4 GAS CYL connection accumulator side		35054200281
FLANGE M 2" GAS CYL connection accumulator side		35103500281
RELIEF VALVE CE	210	35045732102
RELIEF VALVE CE	250	35045732502
RELIEF VALVE CE	330	35045733302
RELIEF VALVE CE	350	35045733502



Safety Block DI 20

TECHNICAL DATA DI 20

- **Size:** Nominal diameter : 20 mm
- **Maxi working pressure:** Manual version : 400 bar
Electrical version : 350 bar
- **Weight without connector:** Manual version : 6,4 kg
Electrical version : 6,9 kg
- **Materials:** Carbon steel
According with the fluids of group 2 (PED)
- **Temperature:** Manual version : - 15°C à + 70°C
Electrical version : - 15°C à + 60°C (ambient temperature)
- **Electrical data:** DC : 24 V
AC : 230 V-50/60 Hz
Standard protection : IP 65
Standard connector : DIN 43650
- **Connection accumulator side:** See page 162
- **Pressure / return connector of circuit:** See hydraulic drawing
- **Pressure relief valve EC (nominal dia):** 10 mm
- **Flow:** Consult the diagram



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

Safety Block DI 20 Manual Version

Standard version (Carbon steel, rings VITON) temperature -10°C up to 70°C Maximum working pressure: 400 Bar
According to PED 97/23/EC

Part numbers

Connecting to accumulator	With Electro-valve tension 24VDC	
	Type	Part number
EHV 2,5 up to 10 L G1"1/4	DI20MS/1/350CV	35172211Y02
EHV 10 up to 50 L G2"	DI20MS/3/210CV	35172213G02
EHV 10 up to 50 L G2"	DI20MS/3/250CV	35172213H02
EHV 10 up to 50 L G2"	DI20MS/3/330CV	35172213J02
EHV 10 up to 50 L G2"	DI20MS/3/400CV	35172213P02
EHV 0,5 up to 1,6 L G3/4"	DI20MS/2/330CV	35172212J02

Safety Block DI 20 Electrical Version

Standard version (Carbon steel, rings VITON) temperature -10°C up to 60°C Maximum working pressure: 350 Bar
According to PED 97/23/EC

Part numbers

Connecting to accumulator	With Electro-valve tension 24VDC		With Electro-valve tension 230V5/60	
	Type	Part number	Type	Part number
EHV 2,5 up to 10 L G1"1/4	DI20EYS/1/330CV24VCC	35172231J22	DI20EYS/1/330CV230V50/60	35172231J62
EHV 2,5 up to 10 L G1"1/4	DI20EYS/1/350CV24VCC	35172231Y22	DI20EYS/1/350CV230V50/60	35172231Y22
EHV 10 up to 50 L G2"	DI20EYS/3/210CV24VCC	35172233G22	DI20EYS/3/210CV230V50/60	35172231G62
EHV 10 up to 50 L G2"	DI20EYS/3/250CV24VCC	35172233H22	DI20EYS/3/250CV230V50/60	35172233H62
EHV 10 up to 50 L G2"	DI20EYS/3/330CV24VCC	35172233J22	DI20EYS/3/330CV230V50/60	35172233J62

Options or Accessories

Type	Characteristics	Part number
RELIEF VALVE CE	210 BAR	35045932102
RELIEF VALVE CE	250 BAR	35045932502
RELIEF VALVE CE	330 BAR	35045933302
RELIEF VALVE CE	350 BAR	35045933502

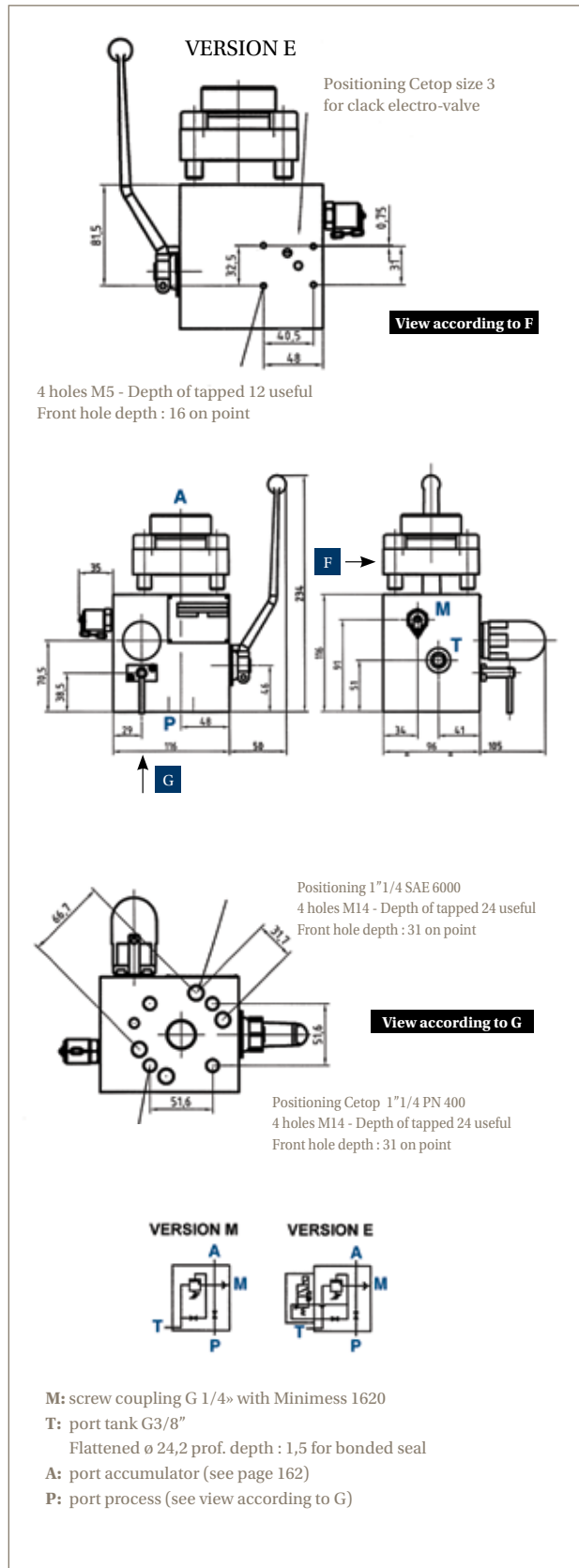
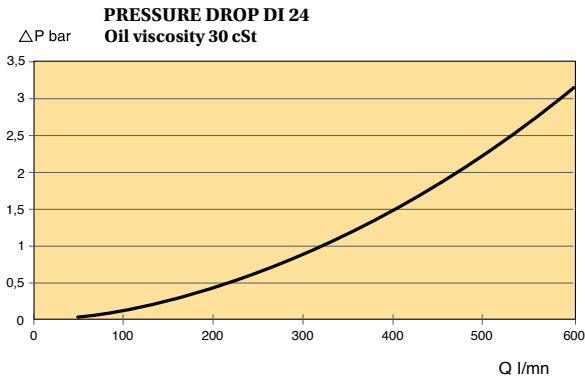


Safety Block DI 24

TECHNICAL DATA DI 24

- **Size:** Nominal diameter : 24 mm
- **Maxi working pressure:** Manual version : 350 bar
Electrical version : 350 bar
- **Weight without connector:** Manual version : 9,5 kg
Electrical version : 11 kg
- **Materials:** Carbon steel
- **Temperature:** Manual version : - 15°C à + 70°C
Electrical version : - 15°C à + 50°C (ambient temperature)
- **Electrical data:** DC : 24 V
AC : 230 V-50/60 Hz
Standard protection : IP 65
Standard connector : DIN 43650
- **Power consumption :** 30 W
- **Connection accumulator side:** See page 162
- **Pressure / return connector of circuit:** See hydraulic drawing
- **Pressure relief valve EC (nominal dia):** 10 mm
- **Flow:** Consult the diagram

Possibility of assembly of a flow control valve on the block consult us.



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

Safety Block DI 24 Manual Version

Standard version (Carbon steel, rings VITON) temperature -15°C up to 80°C

Maximum working pressure : 350 Bar. According to PED 97/23/EC

Part numbers

Connecting to accumulator	Type	Part number
	DI24MS/1/210CV	35129011G02
	DI24MS/1/250CV	35129011H02
EHV 2,5 up to 10 L G1"1/4	DI24MS/1/330CV	35129011J02
EHV 2,5 up to 10 L G1"1/4	DI24MS/1/350CV	35129011Y02
EHV 10 up to 50 L G2"	DI24MS/3/210CV	35129013G02
EHV 10 up to 50 L G2"	DI24MS/3/250CV	35129013H02
EHV 10 up to 50 L G2"	DI24MS/3/330CV	35129013J02
	DI24MS/3/350CV	35129013Y02
ACCU PISTON 10 up to 50 L G2"&EBV 100 and 200 L	Please consult your local contact	

Safety Block DI 24 Electrical Version

Standard version (Carbon steel, rings VITON) temperature -15°C up to 60°C

Maximum working pressure : 350 Bar. According to PED 97/23/EC. Pre-machine for Electro-valve installation.

See table below for Electro-valve options and accessories.

Part numbers

Connecting to accumulator	without the electro-valve tension	
	Type	Part number
EHV 2,5 up to 10 L G1"1/4	DI24EYS/1/210CV	35129031G02
EHV 2,5 up to 10 L G1"1/4	DI24EYS/1/250CV	35129031H02
EHV 2,5 up to 10 L G1"1/4	DI24EYS/1/330CV	35129031J02
EHV 2,5 up to 10 L G1"1/4	DI24EYS/1/350CV	35129031Y02
EHV 10 up to 50 L G2"	DI24EYS/3/210CV	35129033G02
EHV 10 up to 50 L G2"	DI24EYS/3/250CV	35129033H02
EHV 10 up to 50 L G2"	DI24EYS/3/330CV	35129033J02
EHV 10 up to 50 L G2"	DI24EYS/3/350CV	35129033Y02
PISTON ACCUMULATOR 10 up to 50 L G2"& EBV 100 and 200 L	Please consult your local contact	

Options and Accessories

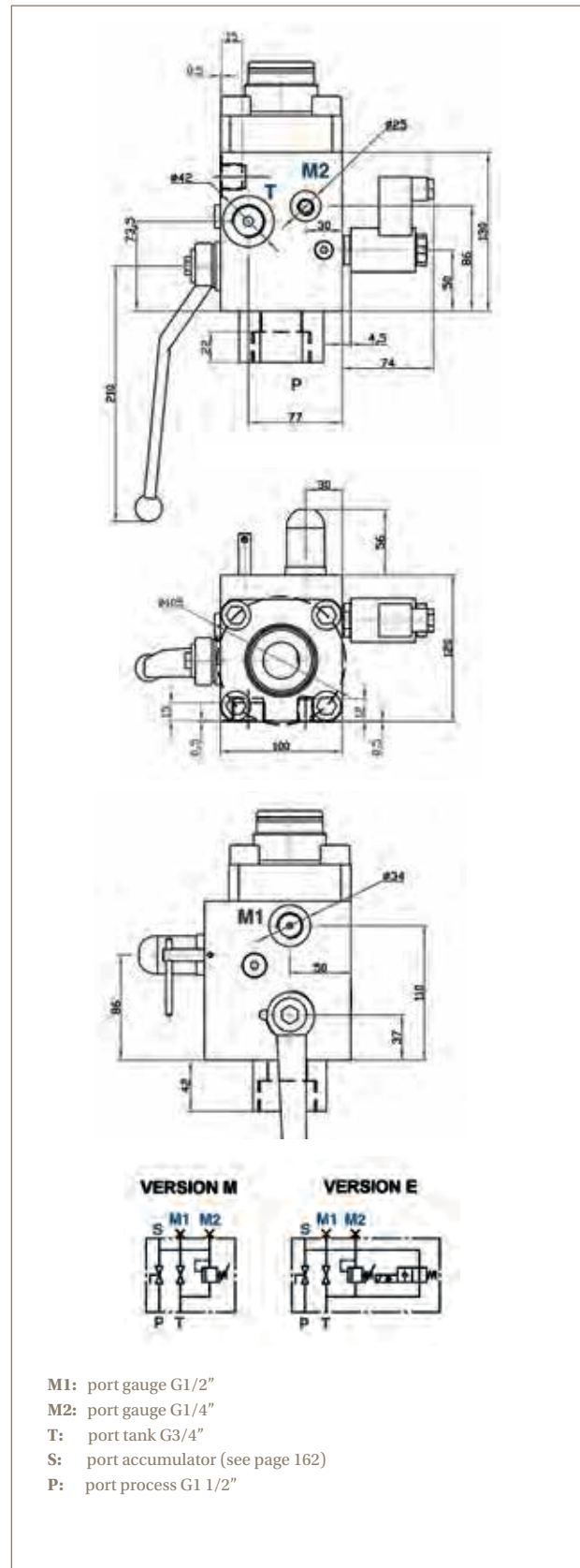
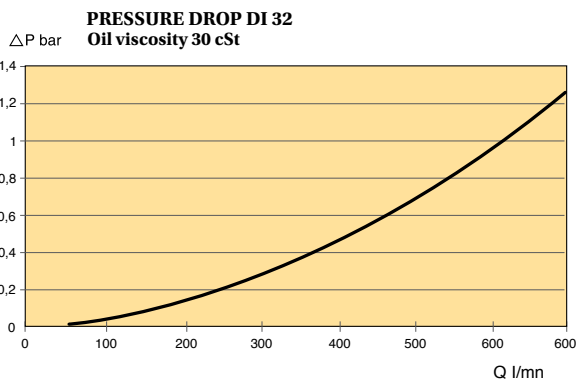
Type	Electro valve tension	Part number
ELECTRO-VALVE T3	24 VCC	35157700281
ELECTRO-VALVE T3	110/120 V 50/60 Hz	35157800281
ELECTRO-VALVE T3	220/230 V 50/60 Hz	35157900281
FLOW CONTROL	R24	35067500281
FLANGE M 1"1/4 GAZ CYL CONNECTION ACCUMULATOR SIDE		10436600281
FLANGE M 2" GAZ CYL CONNECTION ACCUMULATOR SIDE		35037500281
RELIEF VALVE CE	210 BAR	35045932102
RELIEF VALVE CE	250 BAR	35045932502
RELIEF VALVE CE	330 BAR	35045933302
RELIEF VALVE CE	350 BAR	35045933502



Safety Block DI 32

TECHNICAL DATA DI 32

- **Size:** Nominal diameter : 32 mm
- **Maxi working pressure:** Manual version : 400 bar
 Electrical version : 350 bar
 According with the fluids of group 2 (PED)
- **Weight without connector:** Manual version : 11,7 kg
 Electrical version : 12,2 kg
- **Materials:** Carbon steel
- **Temperature:** Manual version : - 10°C à + 70°C
 Electrical version : - 10°C à + 60°C (ambient temperature)
- **Electrical data:** DC : 24 V
 AC : 230 V-50/60 Hz
 Standard protection : IP 65
 Standard connector : DIN 43650
- **Connection accumulator side:** See page 162
- **Pressure / return connector of circuit:** See hydraulic drawing
- **Pressure relief valve EC (nominal dia):** 10 mm
- **Flow:** Consult the diagram



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

Safety Block DI 32 Manual Version

Standard version (Carbon steel, rings VITON) temperature -10°C up to 70°C Maximum working pressure: 400 Bar
According to PED 97/23/CE, EN 14359 Fluid Group 2

Part numbers

Connecting to accumulator	Type	Part number
EHV 2,5 up to 10 L G1"1/4	DI32MS/1/210CV	35172311G02
EHV 2,5 up to 10 L G1"1/4	DI32MS/1/250CV	35172311H02
EHV 2,5 up to 10 L G1"1/4	DI32MS/1/330CV	35172311J02
EHV 2,5 up to 10 L G1"1/4	DI32MS/1/350CV	35172311Y02
EHV 10 up to 50 L G2"	DI32MS/3/210CV	35172313G02
EHV 10 up to 50 L G2"	DI32MS/3/250CV	35172313H02
EHV 10 up to 50 L G2"	DI32MS/3/330CV	35172313J02

Safety Block DI 32 Electrical Version

Standard version (Carbon steel, rings VITON) temperature -10°C up to 60°C Maximum working pressure: 350 Bar
According to PED 97/23/CE, EN 14359 Fluid Group 2

Part numbers

Connecting to accumulator	With Electro-valve tension 24VDC		With Electro-valve other tensions	
	Type	Part number	Type	Part number
EHV 2,5 up to 10 L G1"1/4	DI32EYS/1/210CV24VCC	35172331G222	DI32EYS/1/210CV230V50/60	35172331G62
EHV 2,5 up to 10 L G1"1/4	DI32EYS/1/250CV24VCC	35172331H22	DI32EYS/1/250CV230V50/60	35172331H62
EHV 2,5 up to 10 L G1"1/4	DI32EYS/1/330CV24VCC	35172331J22	DI32EYS/1/330CV230V50/60	35172331J62
EHV 2,5 up to 10 L G1"1/4	DI32EYS/1/350CV24VCC	35172331Y22	DI32EYS/1/350CV230V50/60	35172331Y62
EHV 10 up to 50 L G2"	DI32EYS/3/210CV24VCC	35172333G22	DI32EYS/3/210CV230V50/60	35172333G62
EHV 10 up to 50 L G2"	DI32EYS/3/250CV24VCC	35172333H22	DI32EYS/3/250CV230V50/60	35172333H62
EHV 10 up to 50 L G2"	DI32EYS/3/330CV24VCC	35172333J22	DI32EYS/3/330CV230V50/60	35172333J62

Options or Accessories

Type	Characteristics	Part number
RELIEF VALVE CE	210 BAR	35045932102
RELIEF VALVE CE	250 BAR	35142012502
RELIEF VALVE CE	330 BAR	35142013302
RELIEF VALVE CE	350 BAR	35045933502



SBA Series Safety Block

TECHNICAL DATA SBA SAFETY BLOCK

- Construction**

- shut-off valve: ball valve
- pressure relief: poppet-type valve with damping
- manually-operated discharge valve: poppet-type valve
- electrically-operated discharge valve: poppet-type valve (where fitted)

- Port type**

see table below

- Mounting position**

Accumulator port A facing upwards

- Mounting screws (not supplied)**

M8 to grade 10.9, max. torque 26 + 4Nm

- Ambient temperature**

-30°C to +80°C

- Max. operating pressure**

350 bar

- Relief flow rate G at pnom**

see table below

- Fluid**

Mineral oil according to DIN/ISO. For other fluid types, please contact the Parker.

- Operating temperature**

-15°C to +80°C

- Viscosity**

10 to 800 mm²/s

- Δp-Q-graphs**

see right side of this page

- Electrical discharge**

U=24VDC, 105VDC (for 115V/60 Hz AC supply), P=26W, 100% ED,

IP 65 to DIN 40050, connector to DIN 43650 type A

- Finish**

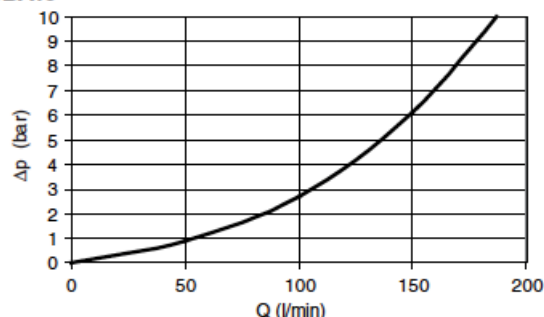
Black zinc phosphated

- Seal material**

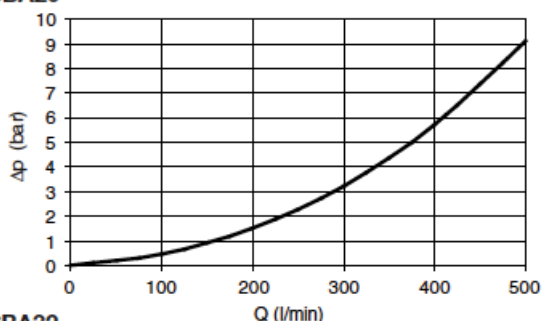
Nitrile

Flow - Accumulator (A) to Pressure Port (P)

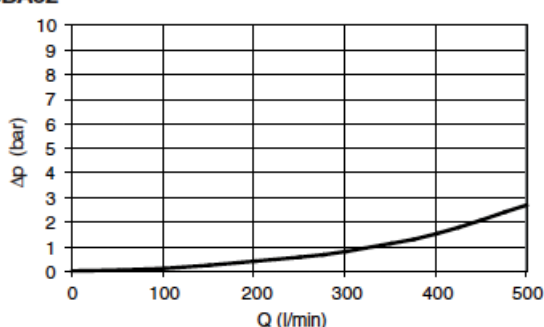
SBA10



SBA20



SBA32



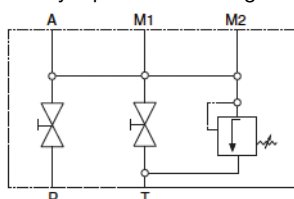
Dimension and Weights

Type	A ¹	P	T	M1	M2	Weight (Kg)	Model Number ²
10M	M33x2	G1/2	G3/8	G1/2	G1/4	4.4	SBA10MT1 - xxx
10E	M33x2	G1/2	G3/8	G1/2	G1/4	4.7	SBA10ET1 - xxx
20M	M33x2	G1	G1/2	G1/2	G1/4	6.0	SBA20MT1 - xxx
20E	M33x2	G1	G1/2	G1/2	G1/4	6.5	SBA20ET1 - xxx
32M	Flange	G1 1/2	G1	G1/2	G1/4	12	SBA32MT1 - xxx
32E	Flange	G1 1/2	G1	G1/2	G1/4	12.6	SBA32ET1 - xxx

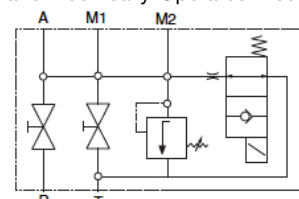
¹ A range of adapters is available for accumulator port A - Consult Division

² xxx = pressure setting of pressure relief valve - Consult Division

SBA Type M
Manually-Operated Discharge Valve



SBA Type E
Manually- and Electrically-Operated Discharge Valves



Accessories

Pressure Relief Valve

The function of the pressure relief valve is to protect the accumulator in service. If pressure exceeds the relief valve setting, the valve lifts off its seat and fluid is discharged to tank, allowing pressure in the system to fall to a safe level.

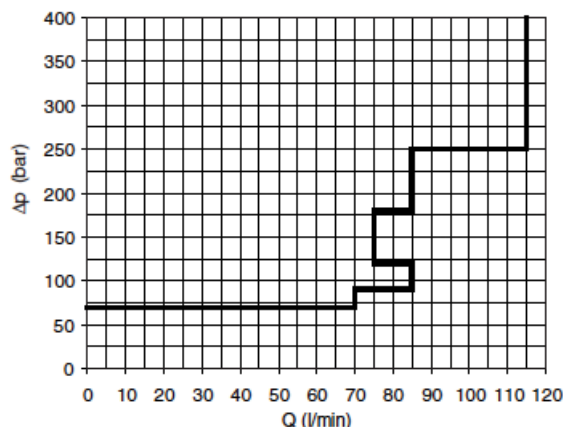
Because of its cartridge design, the pressure relief valve can be readily replaced by a valve with a different pressure setting, selected from the table. A new approval under PED 97/23/EC is not required following this change. The pre-set relief pressure, in bar, is stamped onto the identification plate.

Pressure P (bar)	Item Number
50	SV050
70	SV070
100	SV100
120	SV120
140	SV140
160	SV160
200	SV200
210	SV210
250	SV250
280	SV280
300	SV300
330	SV330

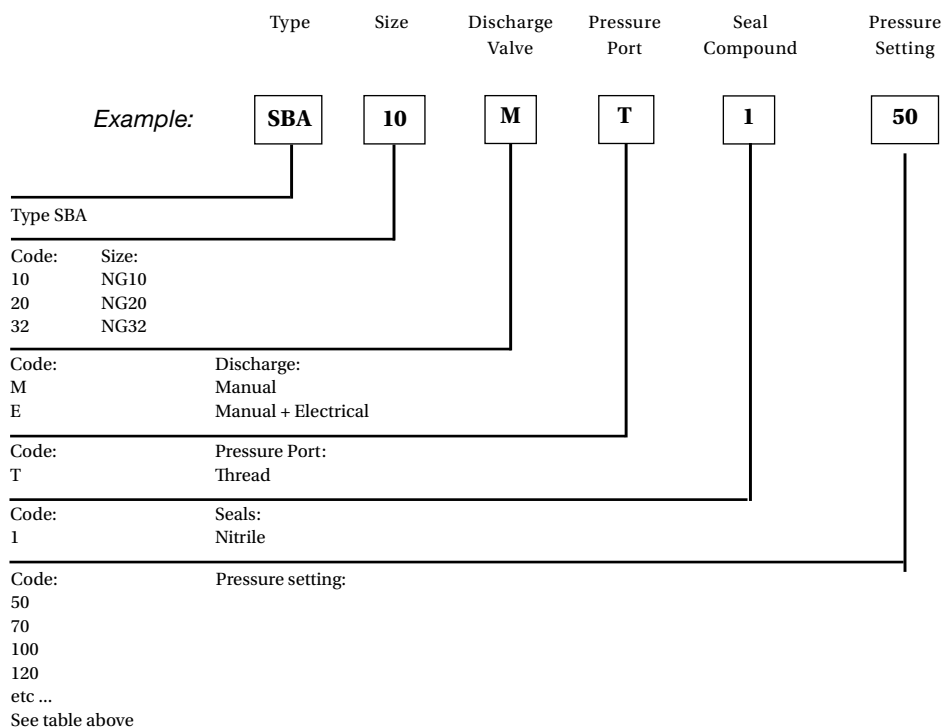
Type Approval

The pressure relief valve is checked and security sealed following approval, according to pressure vessel regulations. It carries a CE mark, type approval number and serial number. All valves are supplied with a certificate showing the pressure setting. The documents supplied with the pressure relief valve must be retained, as they will be required in the event of repeat tests.

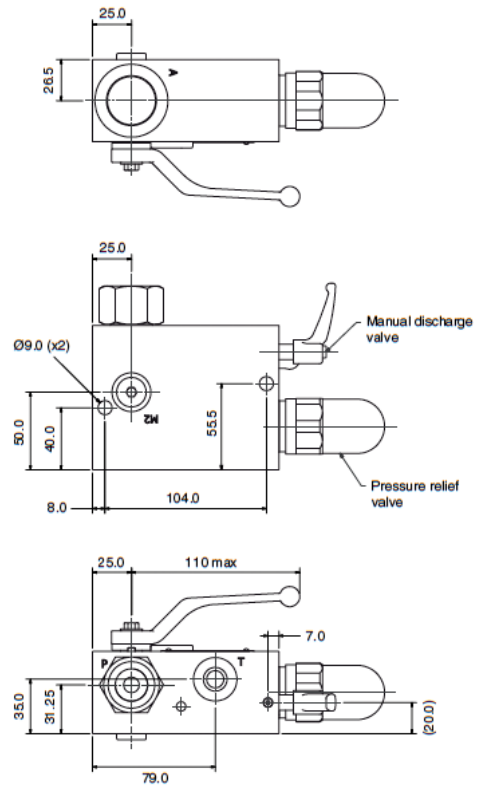
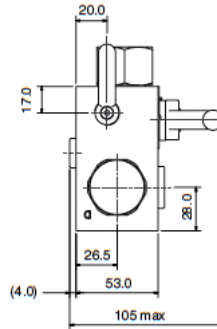
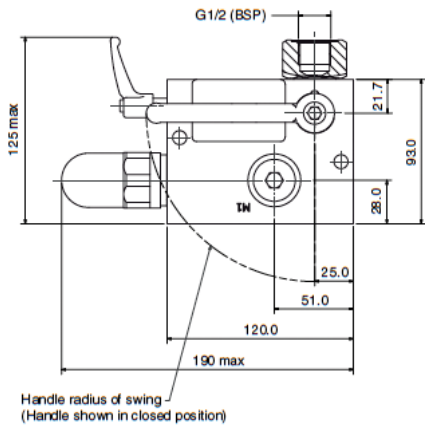
Flow Limits for Safety Valve SV - All Models



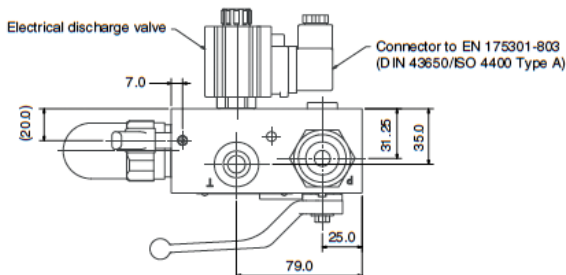
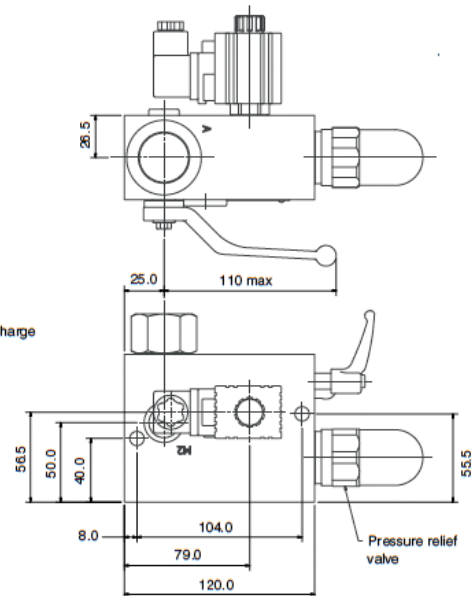
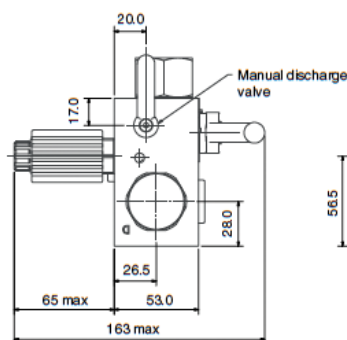
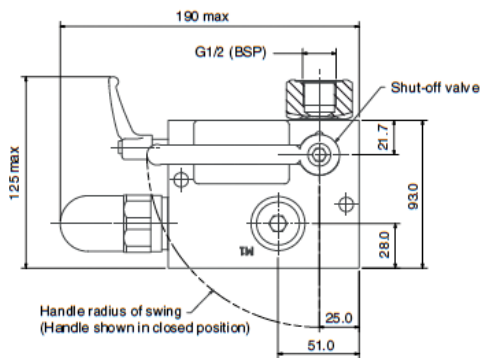
SBA Series: How to order a SBA Safety Block



SBA10MT1

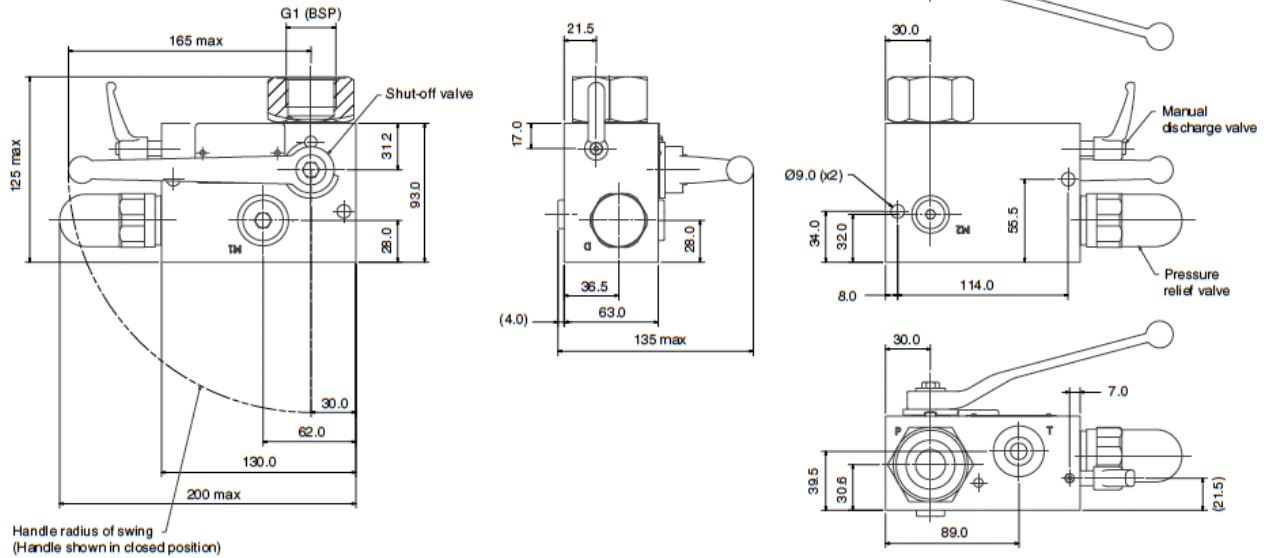


SBA10ET1

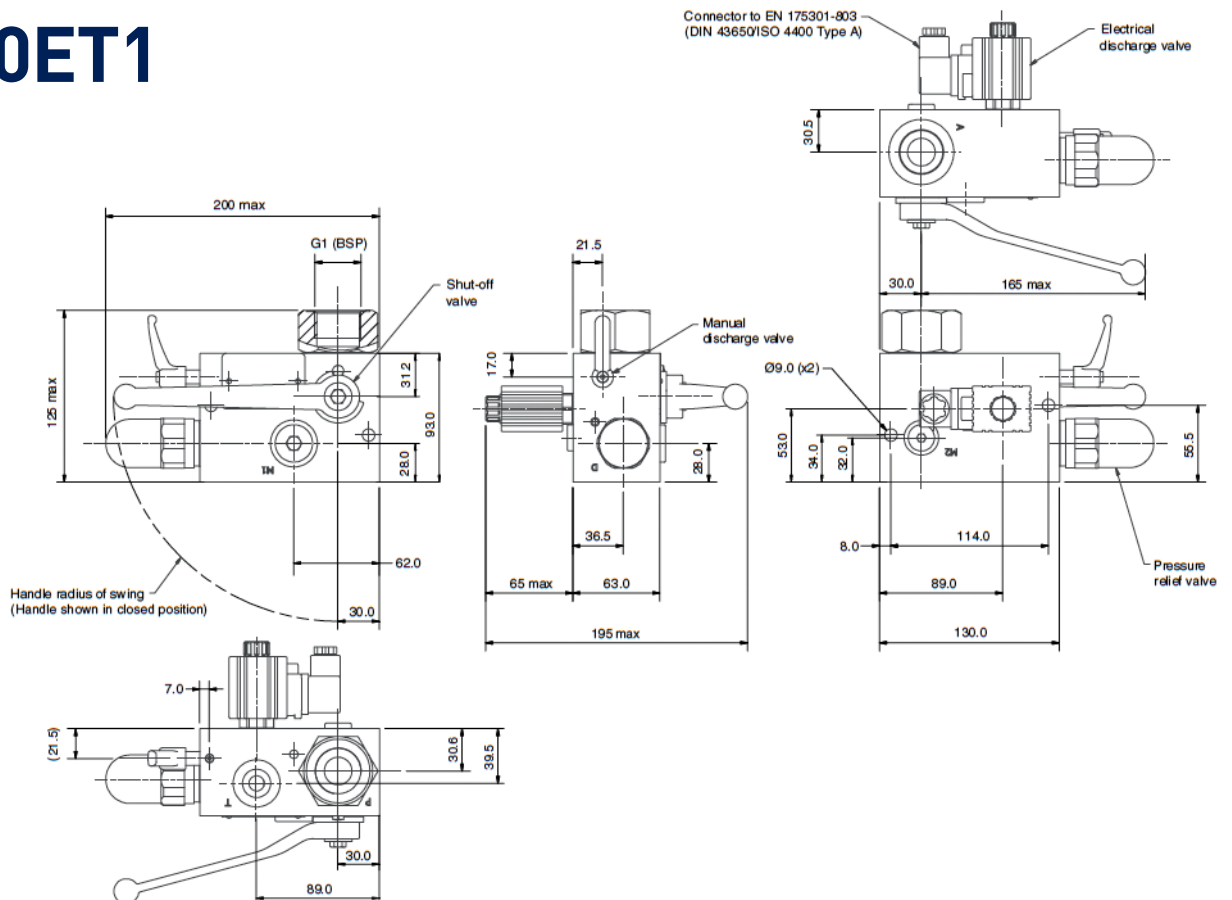


Above dimensions are in mm and are subject to manufacturing tolerances.

SBA20MT1

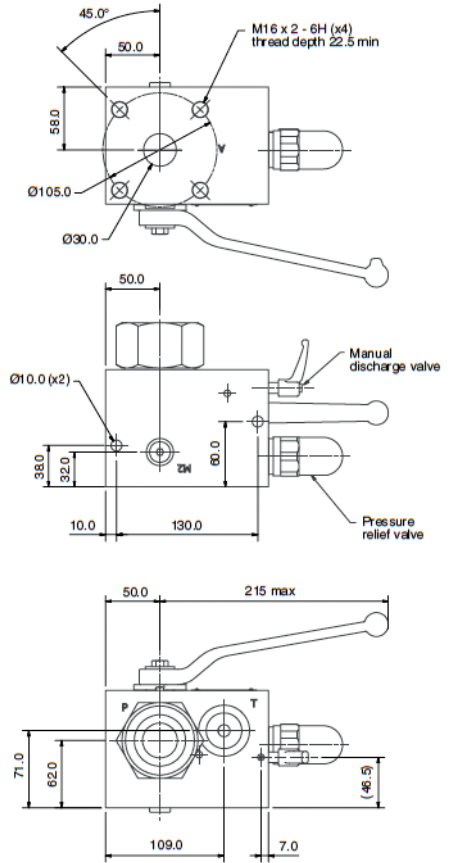
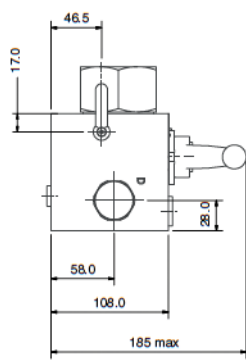
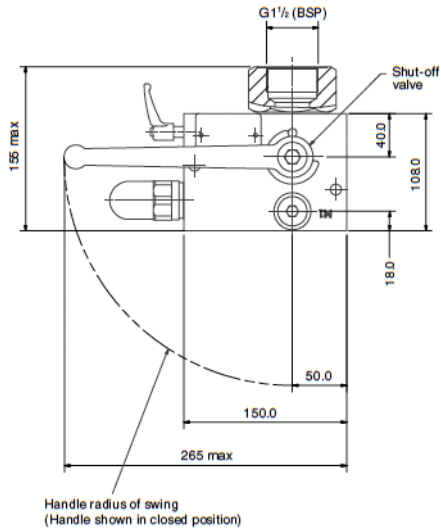


SBA20ET1

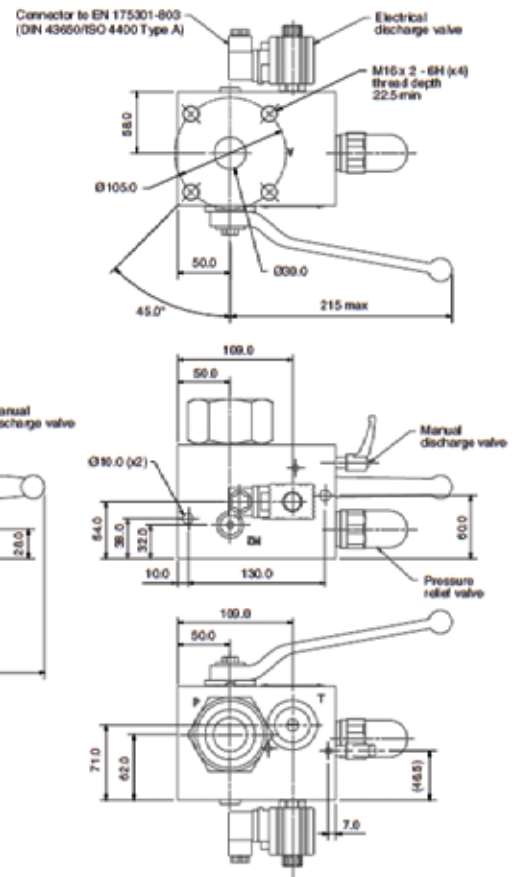
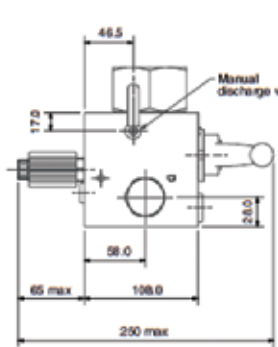
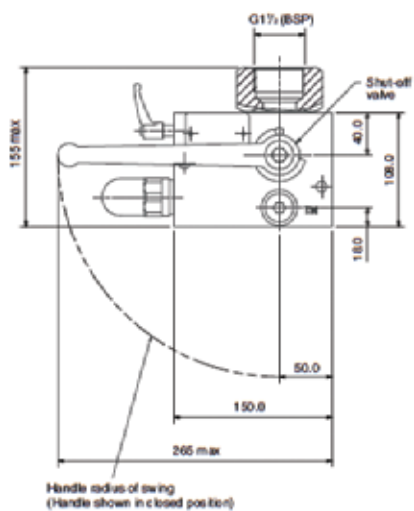


Above dimensions are in mm and are subject to manufacturing tolerances.

SBA32MT1



SBA32ET1

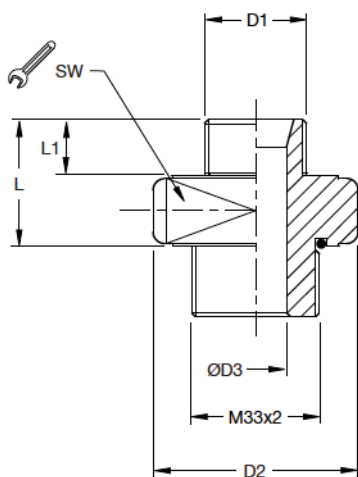


Above dimensions are in mm and are subject to manufacturing tolerances.

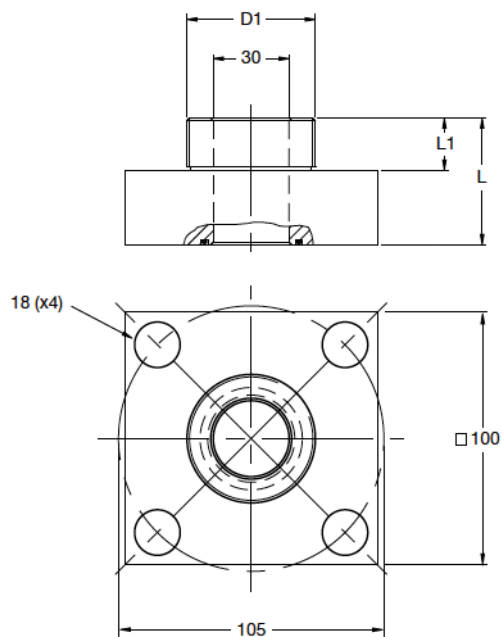
Adapters - Accumulator to SBA Safety Block

Accumulator Fluid Port D1		Safety Block Port A	SW	L	L1	D2	D3	Weight (Kg)	Part Number	Use with SBA	For Accumulator Type		
											Bladder	Diaphragm	Piston
G3/4	ISO 228	M33 x2	46	33	16	53	16	0.4	UEST-T-3/4	10 & 20	x		
G1 1/4	ISO 228	M33 x2	55	41	20	63	20	0.4	UEST-T-1 1/4	10 & 20	x		
G2	ISO 228	M33 x2	80	46	22	90	20	1.5	UEST-T-2	10 & 20	x		
G2	ISO 228	Flange 100	-	50	22	-	30	2.2	UEST-F-2	32	x		
G1/2	ISO 228	M33 x2	46	34	14	53	12	0.4	UEST-T-1/2ED	10 & 20		x	x
G3/4	ISO 228	M33 x2	46	36	16	53	16	0.4	UEST-T-3/4ED	10 & 20		x	x
G1 1/2	ISO 228	Flange 100	-	70	22	-	30	2.3	UEST-F-1 1/2	32			x

Threaded Adapter
UEST-T-xx



Flanged Adapter
UEST-F-xx



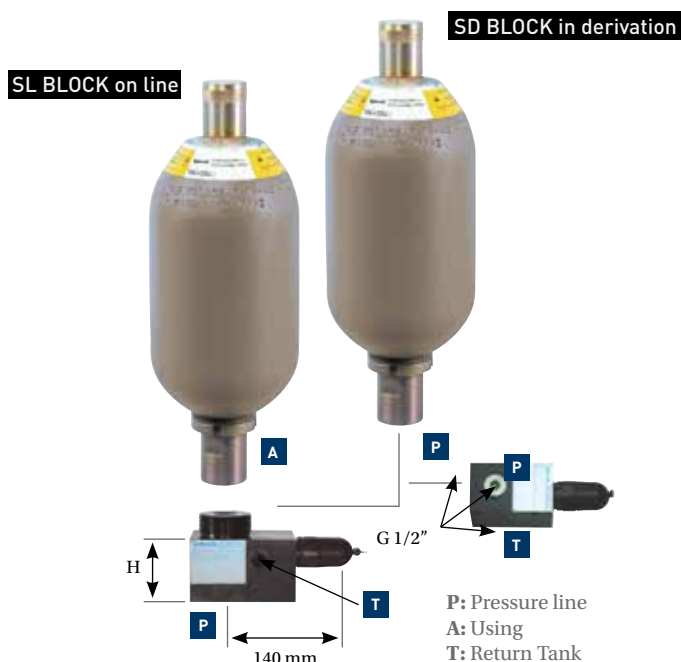
Above dimensions are in mm and are subject to manufacturing tolerances.

Relief Valve Block SD/SL

Safety unit able to limit the pressure to the rating value of the accumulator using for the pressure test

Type	Connection accumulator side	H (mm)	A Using side	P Pressure line	T Return tank
SL 10	8	57	G 1/2"	G 1/2"	G 3/8"
SL 16	2	56	G 3/4"	G 3/4"	G 3/8"
SL 16	1	67	G1 1/4"	G1 1/4"	G 3/8"
SL 16	4	67	M40 x 1.5	M40 x 1.5	G 3/8"
SL 24	3	70	G2"	G2"	G 3/8"
SL 24	5	70	M50 x 150	M50 x 150	G 3/8"

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



Type SL (assembly in line) Type SD (assembly in derivation)

With rings in Viton All Fluids except Skydrol

Type	Connection accumulator side	Part Number
SL BLOCK on line	SL 10/8	3517608XXX2
	SL 16/1	3517091XXX2
	SL 24/3	3517073XXX2
SD BLOCK	SD 24/0	351706XXX2

XXX to be replaced with the relief valve set pressure in bar e.g. 3517608**207**2 for relief valve preset to 207 bar.

ECA & ECSA Series Safety Block

TECHNICAL DATA CARBON STEEL SAFETY BLOCK (345 BAR)

Maximum working pressure: 345 bar

Materials: Carbon steel. All blocks are fully tested.

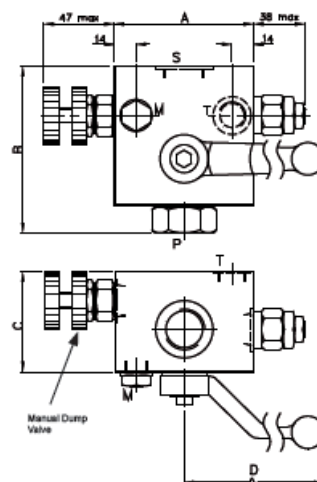
Seals: Nitrile fitted as standard. Viton and other options also available.

Connections :

- Pressure gauge connection (M port).
- Wide range of adaptors for accumulator connection.
- All G threads (BSP) to BS2779 1986. Performance data available.

Other:

- Pressure relief valve for the protection of accumulator.
- Manual dump to tank valve as standard.
- Optional additional electromagnet dump to tank valve.



TECHNICAL DATA STAINLESS STEEL SAFETY BLOCK (345 BAR & 690 BAR)

Materials: 316 Stainless steel. All blocks are fully tested.

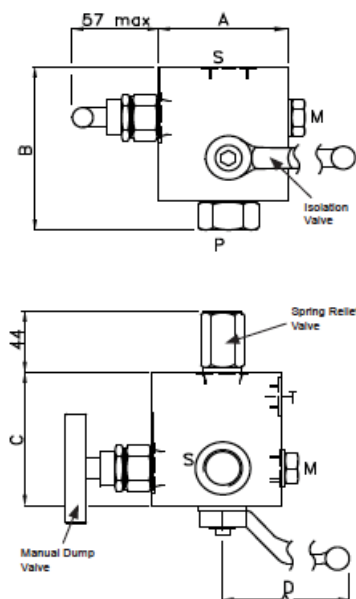
Seals: Nitrile fitted as standard. Viton and other options also available.

Connections :

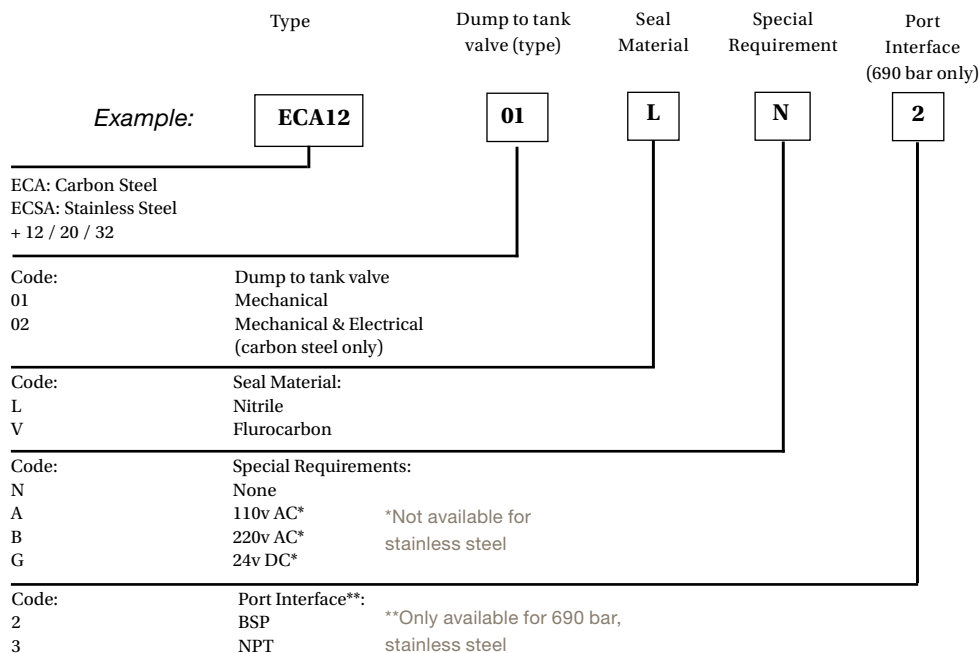
- Pressure gauge connection (M port).
- Wide range of adaptors for accumulator connection.
- All G threads (BSP) to BS2779 1986.
- For 760 bar only - All NPT to ANSI/ASME B.1.20.1 1983
- Performance data available.

Other:

- Pressure relief valve for the protection of accumulator.
- Manual dump to tank valve as standard.



EC(S)A Series: How to order an ECA or ECSA Safety Block



ECA, Carbon Steel, 345 Bar

Part Number	Port Sizes				Dimensions (mm - for standard (01) Safety Block)			
	S port Accumulator	P port process	T port tank	M port Gauge	A	B	C	D Handle Length
ECA12-01-L-N	G 1/2"	G 1/2"	G 1/4"	G 1/4"	76	93	60	115
ECA20-01-L-N	G 3/4"	G 3/4"	G 3/8"	G 1/4"	90	108	70	160
ECA32-01-L-N	G1 1/4"	G1 1/4"	G 3/8"	G 1/4"	90	131	90	300

ECSA, Stainless Steel, 345 Bar

Part Number	Port Sizes				Dimensions (mm - for standard (01) Safety Block)			
	S port Accumulator	P port process	T port tank	M port Gauge	A	B	C	D Handle Length
ECSA12-01-L-N	G 1/2"	G 1/2"	G 1/4"	G 1/4"	65	94	76	115
ECSA20-01-L-N	G 3/4"	G 3/4"	G 3/8"	G 1/4"	70	108	90	160
ECSA32-01-L-N	G1 1/4"	G1 1/4"	G 3/8"	G 1/4"	90	131	105	300

ECSA, Stainless Steel, 690 Bar

Part Number	Port Sizes				Dimensions (mm - for standard (01) Safety Block)			
	S port Accumulator	P port process	T port tank	M port Gauge	A	B	C	D Handle Length
ECSA12-01-L-N-2	G 1/2"	G 1/2"	G 1/4"	G 1/4"	70	94	85	115
ECSA12-01-L-N-3	1/2" NPT	1/2" NPT	1/4" NPT	1/4" NPT	70	94	85	115

• All NPT to ANSI/ASME B.1.20.1. 1983

• All G threads (BSP) to BS2779 1986

Burst Disc Kit

TECHNICAL DATA CARBON STEEL SAFETY BLOCK (345 BAR)

Parker burst discs are available for the EHV range of accumulators, designed adaptor, available in carbon steel or stainless steel.

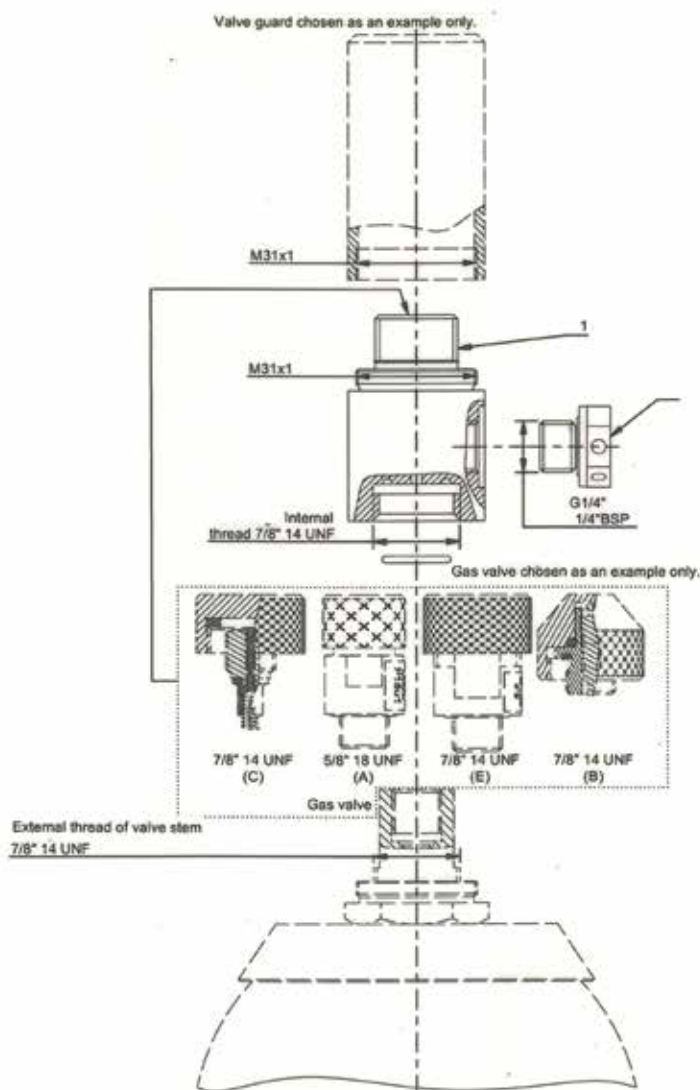
Burst discs are a safety device which release the gas pressure independent of the pressure being caused by a fire or a failure of other safety equipment in the system.

This is a secondary safety device and it should be set higher than the normal hydraulic safety devices in the system.

This material is delivered with the kit including burst disc, o-ring, and label.

PART NUMBER	BURST PRESSURE IN BAR AT 80°C
1117270XX23	230
1117280XX23	250
1117290XX23	275
1117300XX23	290
1117310XX23	300
1117320XX23	360
1117330XX23	385
1117340XX23	420
1117350XX23	480
1117360XX23	650

Type	Part Number
Burst Disc Kit G $\frac{1}{4}$ 300 B	11173100223
Burst Disc Kit G $\frac{1}{4}$ 385 B	11173300223



Gas Bottles

up to 350 bar

IN THIS SECTION

Gas Bottles

BA EHP Series, 250 bar, 25 to 200 Litres, ø250	184
BA EHP Series, 250 bar, 25 to 500 Litres, ø350	186
BA EHB Series, 350 bar, 1.6 to 10 Litres	188
BA EHB Series, 330 bar, 10 to 57 Litres	190
BA Series, 360 bar, 50 Litres	192
EHB Series, 350 bar & 3050 psi (APP22)	193



Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

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

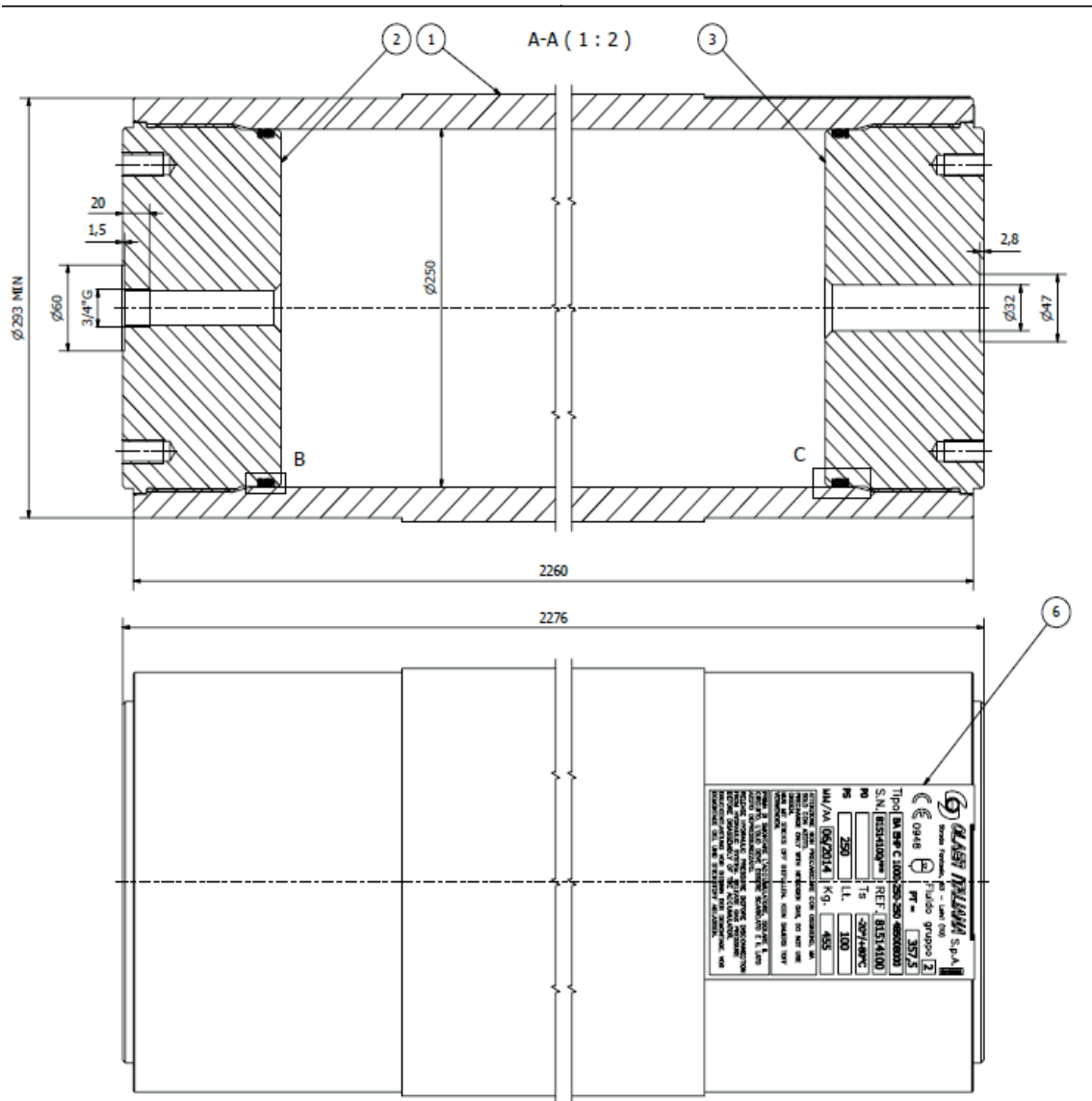
Standard Version (**Carbon Steel** shell) temperature from - 20° up to 80°C

According to PED 97/23/EC

Dimensions

Type	Part number	Effective Gas vol. Litres	Max. Working pressure bar	Max Weight kg	Dimensions in mm					Seal Kit
					A Max. Height	C	øD max	d	øG connection	
BA EHP C 0250-250-250	815EHPOC0252525	25	250	260	891	45	298.50	250	G 2"	8220000000003
BA EHP C 0300-250-250	815EHPOC0302525	30	250	275	992	45	298.50	250	G 2"	8220000000003
BA EHP C 0400-250-250	815EHPOC0402525	40	250	310	1196	45	298.50	250	G 2"	8220000000003
BA EHP C 0500-250-250	815EHPOC0502525	50	250	345	1401	45	298.50	250	G 2"	8220000000003
BA EHP C 0600-250-250	815EHPOC0602525	60	250	375	1606	45	298.50	250	G 2"	8220000000003
BA EHP C 0700-250-250	815EHPOC0702525	70	250	410	1811	45	298.50	250	G 2"	8220000000003
BA EHP C 0800-250-250	815EHPOC0802525	80	250	445	2011	45	298.50	250	G 2"	8220000000003
BA EHP C 0900-250-250	815EHPOC0902525	90	250	475	2216	45	298.50	250	G 2"	8220000000003
BA EHP C 1000-250-250	815EHPOC1002525	100	250	510	2421	45	298.50	250	G 2"	8220000000003
BA EHP C 2000-250-250	815EHPOC2002525	200	250	660	4458	45	298.50	250	G 2"	8220000000003





BA EHP Series 250 bar, 25 to 500 Litres, Ø 350

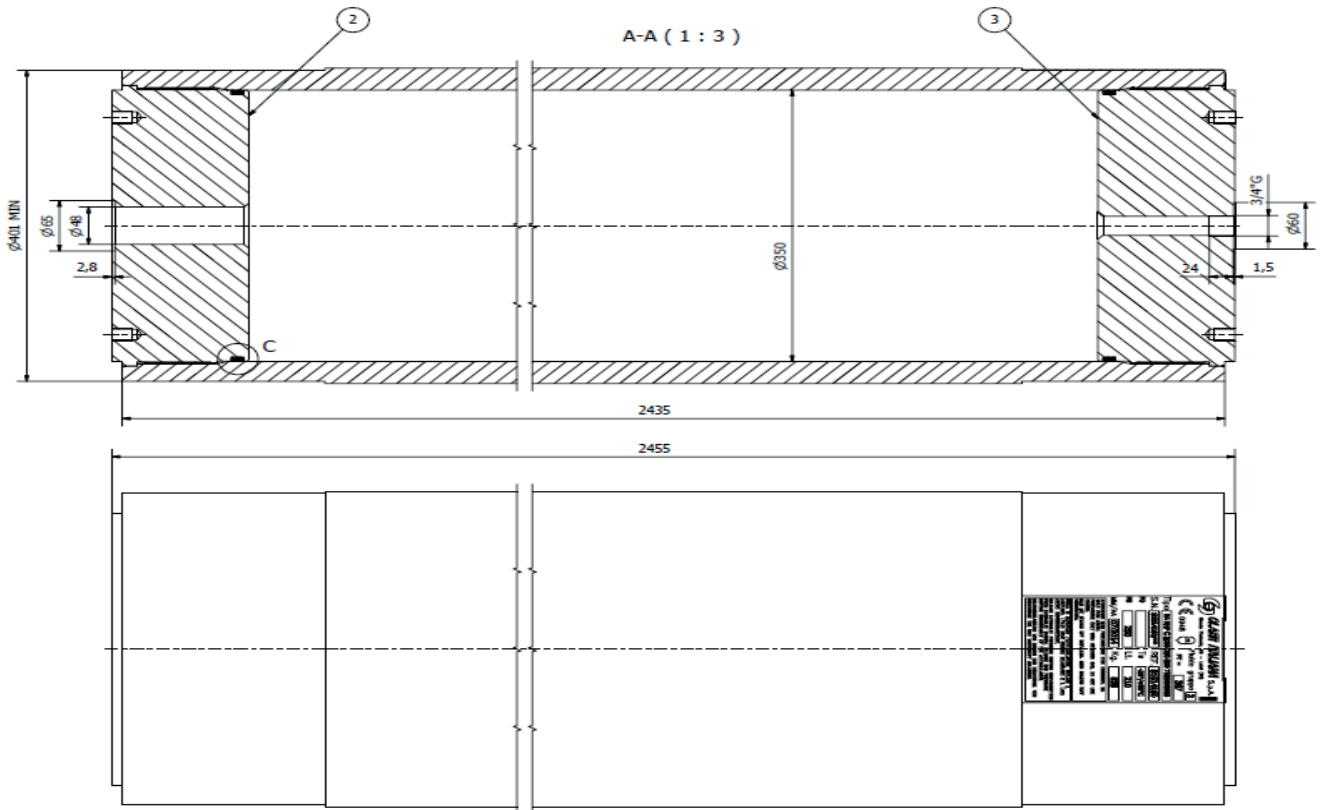
Standard Version (**Carbon Steel** shell) temperature from - 15° up to 100°C

According to PED 97/23/EC

Dimensions

Type	Part number	Effective Gas vol. Litres	Max. Working pressure bar	Max Weight kg	Dimensions in mm					Seal Kit
					A Max. Height	C	øD max	d	øG connection	
BA EHP C 0300-250-350	815EHPOC0302535	30	250	445	818	45	406.40	350	G 2"	8220000000003
BA EHP C 0300-250-350	815EHPOC0402535	40	250	472	922	45	406.40	350	G 2"	8220000000003
BA EHP C 0500-250-350	815EHPOC0502535	50	250	500	1026	45	406.40	350	G 2"	8220000000003
BA EHP C 0500-250-350	815EHPOC1002535	100	250	637	1546	45	406.40	350	G 2"	8220000000003
BA EHP C 1000-250-350	815EHPOC1502535	150	250	772	2066	45	406.40	350	G 2"	8220000000003
BA EHP C 2000-250-350	815EHPOC2002535	200	250	912	2586	45	406.40	350	G 2"	8220000000003
BA EHP C 2500-250-350	815EHPOC2502535	250	250	1048	3106	45	406.40	350	G 2"	8220000000003
BA EHP C 3000-250-350	815EHPOC3002535	300	250	1185	3626	45	406.40	350	G 2"	8220000000003
BA EHP C 3500-250-350	815EHPOC3502535	350	250	1322	4146	45	406.40	350	G 2"	8220000000003
BA EHP C 4000-250-350	815EHPOC4002535	400	250	1429	4664	45	406.40	350	G 2"	8220000000003
BA EHP C 4500-250-350	815EHPOC4502535	450	250	1565	5183	45	406.40	350	G 2"	8220000000003
BA EHP C 5000-250-350	815EHPOC5002535	500	250	1702	5703	45	406.40	350	G 2"	8220000000003





EHB Series, 1.6 to 10 Litres, 350 bar

Standard Version (**Carbon Steel** shell) for mineral oils

According to PED 97/23/EC

Part numbers, Accessories, Dimensions

Type	Part number	Complete Repair Kit
		Model Part number
EHB 1.6-350/90*	11006501125	KIT EHB 1.6-350/90* 19067801125
EHB 2.5-350/90*	10940901125	KIT EHB 2.5-350/90* 19067901125
EHB 5-350/90**	10941001125	KIT EHB 5-350/90 19067901125
EHB 4-350/90**	10987101125	KIT EHB 4-350/90** 19068001125
EHB 6-350/90**	10954101125	KIT EHB 6-350/90** 19068001125
EHB 10-350/90***	10936001125	KIT EHB 10-350/90*** 19068001125

* EN 14359 Fluid Group II

** EN 14359 Fluid Group III

*** EN 14359 Fluid Group IV

¹Temperature range can be narrowed depending on elastomer.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate lt/min	Temp. Range ¹ min/max (°C)	Max Weight kg	Top connection	Dimensions in mm						
							A max height	B	C	øD max	øE	F on flats	øG connection
EHB 1.6-350/90*	1.6	350	240	-40/+80	7	1/2" 20 UNF	414	54	40	116	50	32	G 3/4"
EHB 2.5-350/90*	2.4	350	450	-40/+80	10	1/2" 20 UNF	521	66	40	116	68	50	G 1 1/4"
EHB 5-350/90**	5	350	450	-40/+80	16	1/2" 20 UNF	870	66	40	116	68	50	G 1 1/4"
EHB 4-350/90**	3.7	350	450	-40/+80	14	1/2" 20 UNF	406	65	40	170	68	50	G 1 1/4"
EHB 6-350/90**	6	350	450	-40/+80	19	1/2" 20 UNF	532	65	40	170	68	50	G 1 1/4"
EHB 10-350/90***	10	350	450	-40/+80	29	1/2" 20 UNF	797	65	40	170	68	50	G 1 1/4"



EHB Series, 10 to 57 Litres, 330 bar

Standard Version (**Carbon Steel** shell) for mineral oils

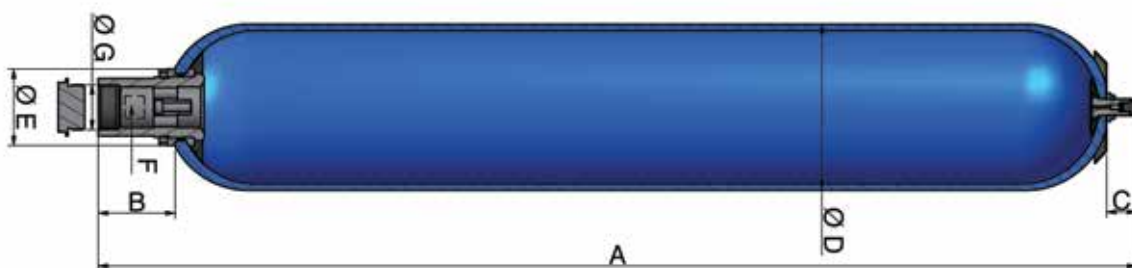
According to PED 97/23/EC, EN1439 Fluid Group IV

Part numbers, Accessories, Dimensions

Type	Part number	Complete Repair Kit	
		Model Part number	
EHB 10-330/90	10949501125	KIT EHB 10-330/90 19060401125	
EHB 12-330/90	10993401125	KIT EHB 12-330/90 19060401125	
EHB 20-330/90	10933901125	KIT EHB 20-330/90 19060401125	
EHB 24.5-330/90	Consult Division	KIT EHB 24.5-330/90 19060401125	
EHB 32-330/90	10935901125	KIT EHB 32-330/90 19060401125	
EHB 42-330/90	11181801125	KIT EHB 42-330/90 19060401125	
EHB 50-330/90	11137501125	KIT EHB 50-330/90 19060401125	
EHB 57-330/90	11181901125	KIT EHB 57-330/90 19060401125	

¹Temperature range can be narrowed depending on elastomer.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate lt/min	Temp. Range ¹ min/max (°C)	Max Weight kg	Top connection	Dimensions in mm						
							A max height	B	C	øD max	øE	F on flats	øG connection
EHB 10-330/90	9.2	330	900	-40/+80	29	1/2" 20 UNF	554	103	40	226	101	70	G 2"
EHB 12-330/90	11	330	900	-40/+80	34	1/2" 20 UNF	654	103	40	226	101	70	G 2"
EHB 20-330/90	17.8	330	900	-40/+80	46	1/2" 20 UNF	864	103	40	226	101	70	G 2"
EHB 24.5-330/90	22.5	330	900	-40/+80	53	1/2" 20 UNF	999	103	40	226	101	70	G 2"
EHB 32-330/90	32	330	900	-40/+80	76	1/2" 20 UNF	1387	103	40	226	101	70	G 2"
EHB 42-330/90	42	330	900	-40/+80	82	1/2" 20 UNF	1529	103	40	226	101	70	G 2"
EHB 50-330/90	48.5	330	900	-40/+80	105	1/2" 20 UNF	1903	103	40	226	101	70	G 2"
EHB 57-330/90	51	330	900	-40/+80	110	1/2" 20 UNF	1999	103	40	226	101	70	G 2"



BA series, 50 Litres, 360 bar

Standard version (**Carbon Steel** shell), temperature from -40° up to 80°C

According to PED 97/23/EC, Fluid Group 2

Part numbers, Dimensions

Type Part number	Effective Gas vol. Litres	Design P bar	Weight kg	L (mm) ± 30	øE max (mm)	Top Connection	Bottom Connection
BA 50-360/90 0957036CE1100H	50	360	95	1800	220	G 1 1/2"	G 3/4"



EHB series, 50 to 100 Litres, 350 bar & 3050 PSI (APP22)

Standard version (**Carbon Steel** shell) temperature from -40° up to 80°C.

According to PED 97/23/EC and ASME CODE SEC VIII DIV.1

Part numbers, Dimensions

Type Part number	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max. Working pressure (PS) psi APP22	Max Weight kg	Top connection	Bottom connection	øE max mm	L mm
EHB 50-350/86 11182901100	49.6	350	2970	94	G1 1/2"	G 3/4"	222	1800
EHB 50-350/90 11183201100	50.7	412	-	100	G1 1/2"	G 3/4"	221	1800
EHB 75-350/86 11183001100	73.2	350	2900	134	G1 1/2"	G 3/4"	275	1720
EHB 100-350/86 11183101100	97.9	350	3050	180	G1 1/2"	G 3/4"	360	1420



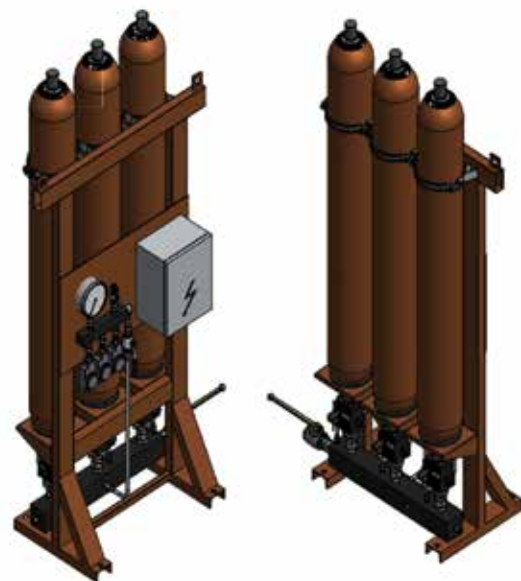
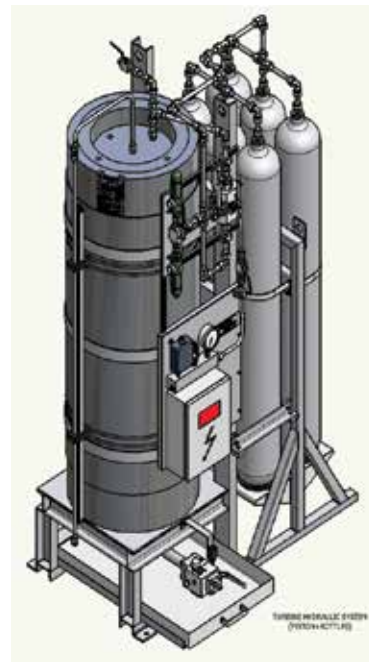
Accumulator Systems

Gas Bottles and Pistons

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Accumulator Systems

Gas Bottles	196
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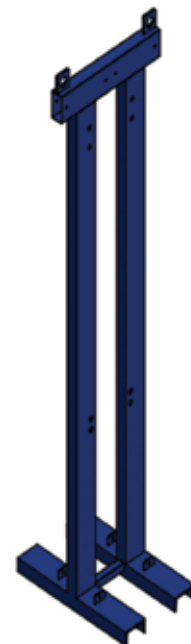


Bladder	EBV
	EHV
	Regulations
	O&G
Pistons	EHP
	ACP
	AP
	A
Pulsation Dampers	
Attenuators	
Diaphragm	
Accessories	
Gas Bottles	
Accumulator Stations	

Accumulator Systems - Gas Bottles

Standard version (**Carbon Steel** shell) also available in Stainless Steel
Part numbers, Dimensions

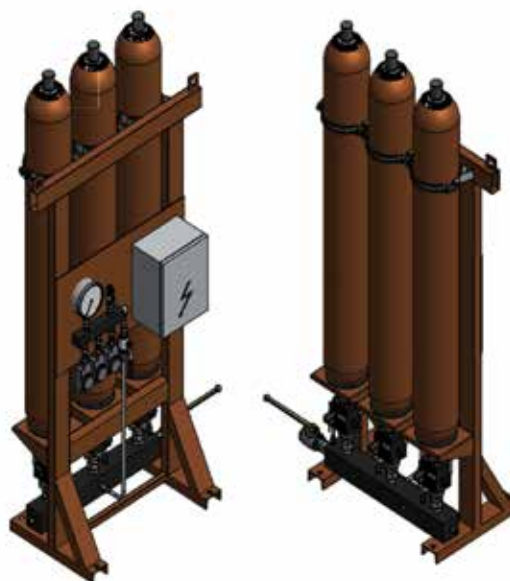
Type Part number	Number of accumulators	Volume Litres	Weight kg	L mm	I mm	H mm	Base accumulator bracket + neck
Skid MNF 2x BA 50 litres	2	100	30	350	550	2000	•
Skid MNF 3x BA 50 litres	3	150	42	550	550	2000	•
Skid MNF 4x BA 50 litres	4	200	30	350	550	2000	•
Skid MNF 6x BA 50 litres	6	300	42	550	550	2000	•



Type	Accumulator Brackets	Painted external RAL 5005	Special painting or external treatments	Hooks for lifting	Forklift bar for lifting	Gas bottle tube connections in CS	Gas bottle tube connections in CS
Skid MNF 2x BA 50 litres	•	•	○	•	○	○	○
Skid MNF 3x BA 50 litres	•	•	○	•	○	○	○
Skid MNF 4x BA 50 litres	•	•	○	•	○	○	○
Skid MNF 6x BA 50 litres	•	•	○	•	○	○	○

- Included
 - Available on request
- Drain for gas bottle not available

Dimensions L, I and D are nominal.
 Other customized version available on request



Accumulator Systems - Gas Bottles

Standard version (**Carbon Steel** shell) also available in Stainless Steel
Part numbers, Dimensions

Type Part number	Number of accumulators	Volume Litres	Weight kg	L mm	I mm	H mm	Base accumulator bracket + neck
Skid STD 4x BA 50 litres	4	200	36	570	680	1630	20109200050
Skid STD 6x BA 50 litres	6	300	39	802	680	1630	20109200050
Skid STD 8x BA 50 litres	8	400	42	1,034	680	1630	20109200050
Skid STD 10x BA 50 litres	10	500	45	1,266	680	1630	20109200050
Skid STD 12x BA 50 litres	12	600	48	1,498	680	1630	20109200050



Type	Accumulator Brackets	Painted external RAL 5005	Special painting or external treatments	Hooks for lifting	Forklift bar for lifting	Gas bottle tube connections in CS	Gas bottle tube connections in CS
Skid STD 4x BA 50 litres	•	•	○	•	○	○	○
Skid STD 6x BA 50 litres	•	•	○	•	○	○	○
Skid STD 8x BA 50 litres	•	•	○	•	○	○	○
Skid STD 10x BA 50 litres	•	•	○	•	○	○	○
Skid STD 12x BA 50 litres	•	•	○	•	○	○	○

Drain for gas bottle not available

- Included
- Available on request

Dimensions L, I and D are nominal.
 Other customized version available on request



Accumulator Systems - Pistons

Standard version (**Carbon Steel** shell) also available in Stainless Steel

According to CE EN 1090-1

Part numbers, Dimensions

Type Part number	Number of accumulators	Volume Litres	Weight kg	L mm	I mm	H mm	Base accumulator bracket + neck
Skid EHP xxx/xx/250	1	250	98	500	450	2000	●
Skid EHP xxx/xx/350	1	350	117	668	500	2100	●
Skid EHP xxx/xx/540	1	540	160	670	550	2300	●

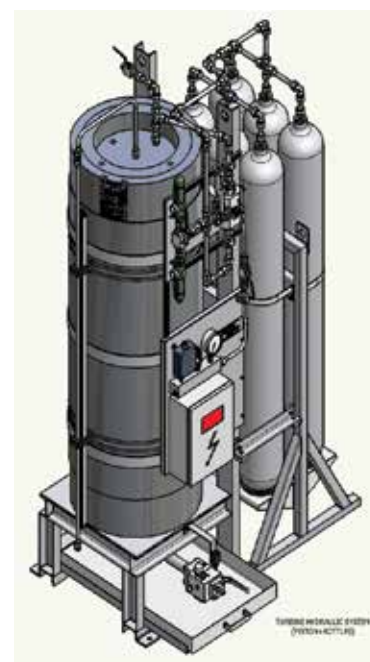


Type	Accumulator Brackets	Painted external RAL 5005	Special painting or external treatments	Hooks for lifting	Forklift bar for lifting	Gas bottle tube connec- tions in CS	Gas bottle tube connections in CS	Control panel plate
Skid EHP xxx/xx/250	●	●	○	●	○	○	○	○
Skid EHP xxx/xx/350	●	●	○	●	○	○	○	○
Skid EHP xxx/xx/540	●	●	○	●	○	○	○	○

Drain for gas bottle not available

- Included
- Available on request

Dimensions L, I and D are nominal.
 Other customized version available on request



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