



## Accumulators, Accessories and Spares

HY10-4004/UK - Effective June 1st, 2013

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



ENGINEERING YOUR SUCCESS.

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# Introduction

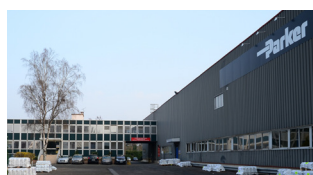
Solutions developed by Parker Olaer are used in a large number of industrial sectors: aeronautics, chemistry, defence, mining, railway construction, Formula 1, machine tools, agriculture, oil and gas, metallurgy, renewable energies, etc.

This variety of applications requires extensive knowledge of the products and their major components, particularly the bladder. In order to reinforce its position, Parker Olaer is the co-owner of its main bladder supplier. For either a standard application or designing solutions for a specific requirement, Parker Olaer engineers have the experience in elastomers and knowledge of the latest technological

developments in metal and composite shells. This allows Parker Olaer to propose reduced weight accumulators and other design innovations.

We provide cost effective solutions based upon our customer's needs. Parker Olaer 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.

## Parker ACDE Colombes (Paris, France)



The historical cradle of Olaer Industries, which is now Parker ACDE Paris

### Manufacture:

- Bladder Accumulators
- Diaphragm Accumulators
- Piston Accumulators up to 320 bar
- Low Pressure Bladder Accumulators up to 575 litres
- Piston Accumulators for wind and mobile applications
- Attenuators
- Special Accumulators for aerospace and racing
- Accessories
- Accumulator Systems

Paris, France Piston accumulators for wind and some mobile CE approval (Europe), SELO approval (China) others under development. Diameters 80, 100 & 140 mm and pressures  $\leq$  320 bar.

## Parker ACDE Hellaby (Bramley, UK)



Historically a part of Cylinder Division, then the Global Accumulator Division.

### Manufacture:

- Piston accumulators up to  $\varnothing$  360 mm / 350 bar
- Crimped piston technology
- Bladder accumulators
- Diaphragm accumulators
- Safety blocks
- Accessories

Parker Hellaby, UK (Parker GAD) Focus on piston accumulators industry & mobile CE Approval - others under development. Diameters  $\leq$  360 mm and pressures  $\leq$  350 bar. Crimped piston accumulators 275 bar < 20 Litres

## Parker ACDE Sandycroft (Chester, UK)



250 year history as a company.  
Focus on: Oil & Gas markets globally + UK market with their own gas valves and fluid ports.

### Manufacture:

- Bladder Accumulators - forged, welded and machined
- Piston Accumulators in various materials and pressures
- Pulsation Dampers
- Pressure Compensators
- Safety Blocks - Carbon Steel and Stainless Steel
- Various other accessories & Accumulator Systems
- Large variety of approvals

Parker ACDE Sandycroft, UK Focus on Oil & Gas + specials. Special materials, diameters > 250 - 600 mm for any pressures Any diameter at pressures > 400 bar. Pressure up to 3000 bar available. Special pressure vessel approvals available.

## Parker ACDE Leini (Turin, Italy)



47 year history

### Manufacture:

- Welded Bladder Accumulators low pressure up to 35 bar CS/SS
- Welded Bladder Accumulators high pressure (up to 200 bar) CS/SS
- Piston Accumulators CS and SS, up to 350 bar / up to 540 mm bore
- Pulsation Dampers
- Piston / Bladder accumulator systems.
- Gas bottle systems
- Large variety of approvals (PED & ASME most requested)

Parker ACDE Leini Focus on Oil & Gas, Industrial, Special welded pressure vessels/tanks on customer needs Racks.

How to size

# How to size?

Parker Olaer has developed very sophisticated simulation software to optimize accumulator sizing recommendations. The behaviour of accumulators used in applications such as pulsation dampening, surge alleviation, thermal expansion and energy storage can be simulated. Our software can be downloaded from our website [www.parker.com/ACDE](http://www.parker.com/ACDE). You may also contact your local Parker Olaer office for sizing assistance.

The graph 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.

**\*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.

**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

$\Delta V$  : Volume to be stored : 14L

Condition : Isothermal (No temperature variation)

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

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

**C/From the value 14** on the  $\Delta V$  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.**

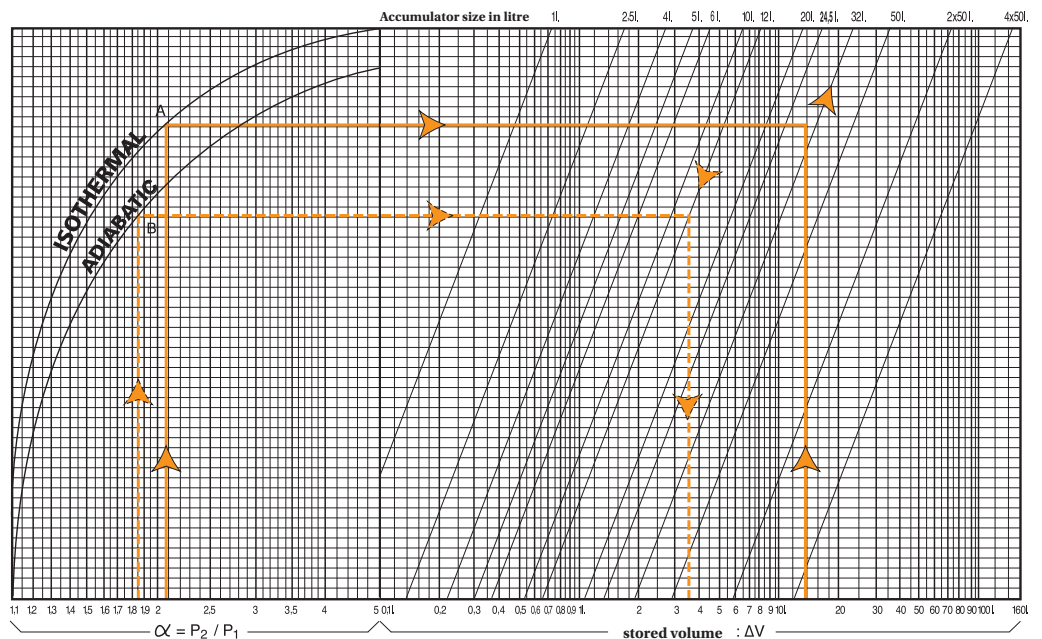
Accumulator size = 12 L

P2 = 185 Bar; P1 = 100 Bar;

P0 = 90 Bar; Adiabatic condition

$\alpha = P_2/P_1 = 185/100 = 1,85$

$\Delta V$  : 3,5 litres



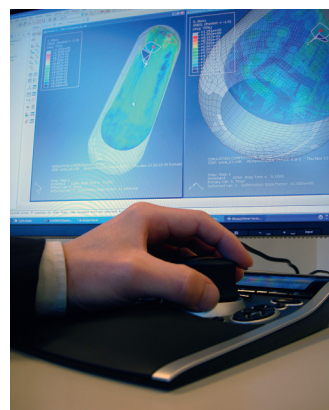
Basic sizing chart for accumulator used in energy storage.

# 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 Olaer engineers have the experience in elastomers and knowledge of the latest technological developments in metal and composite shells. This allows Parker Olaer to propose reduced weight accumulators and other design innovations.

We provide cost effective solutions based upon our customer's needs. Parker Olaer 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.



## Operation

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

- An energy reserve which is instantaneously available to the system
- Compensation of pressure fluctuations and spikes.
- Pump pulsation dampening

## Advantages/Your benefits

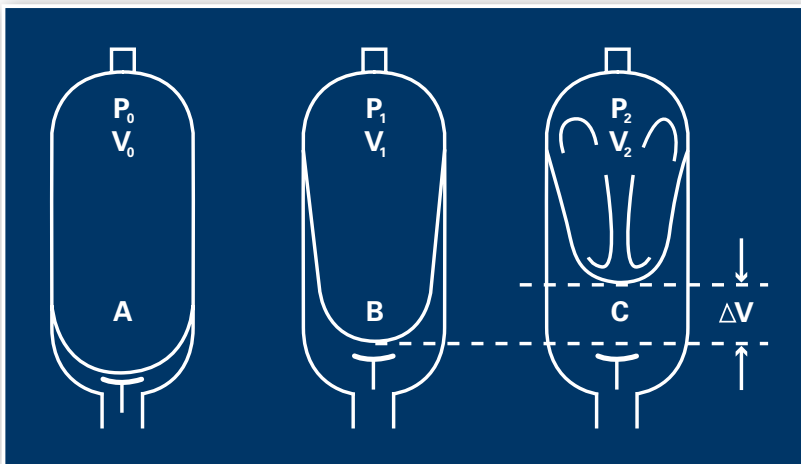
The gas loaded bladder accumulators provide major advantages in terms of the energy output of the device and maintenance of the installation:

- **Reduction in working costs**
  - Reduces installed electrical power
  - Significant energy saving
- **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

### Operating principle

Operation of the Olaer 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.

Its special design allows the bladder (the strategic component) to compress the gas and usually form into three lobes in order for the accumulator to store, then to deliver the fluid under pressure, as required.



- 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 P1 and P2
- P0** = Initial preload of the accumulator
- P1** = Gas pressure at the minimum hydraulic pressure
- P2** = Gas pressure at the maximum hydraulic pressure

**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 (P2/P0): 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.

### Technical Characteristics

The accumulator comprises of a pressure vessel including valve stem device, a rubber bladder and an anti-extrusion system.

- 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.
- Different anti-extrusion systems can be used for specific applications (fluidport assembly for high pressure, grid for low pressure, or button).

Taking into account the different needs of various applications, Parker Olaer proposes different protections external and/or internal: Bare metal, nickel plating, epoxy paint, PTFE, Rilsan® and phenolic coating. This extensive range enables us to offer accumulators operating from - 50 to +150°C with pressures of up to 1500 Bar and capacities of up to 575 litres.

As the market leader in bladder type accumulators, Parker Olaer has participated in the development of the EN 14359:2006 standard, which specifies the material, design, manufacturing, fatigue tests, safety devices and documentation (including the instruction manual), for pressure accumulators and gas bottles for hydraulic applications.



**General Information Accumulators**

**Different elastomer options**

Parker Olaer can offer many different elastomer options depending on the application where the product is used. Two of the most important parameters for deciding the rubber compound to be used is:

1. The minimum and maximum operating temperature of the system.
2. The fluid type in the system.

The most common bladder for hydraulic systems with mineral oil is Nitrile (also called NBR or Buna). A host of other rubbers such as Butyl, Hydrin®, Viton® or EPDM and more are available. Please contact your local Parker Olaer office for your specific application.

Also, be sure to note that even if you change the bladder to one with particularly high or low temperature characteristics, the pressure vessel temperature range (TS) does not change. Check that the operating temperature range of the new chosen bladder is included in the temperature range of the pressure vessel.

**Regulations and Approvals**

Parker Olaer 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 Olaer has designed an ATEX Group II cat. 2 and 3 range of accumulators.

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 Olaer has designed and proposed a complete range of safety devices suitable for the applicable regulations.

To meet the needs of our customers, Parker Olaer can supply accumulators with multiple approvals.

With regard to environmental concerns Parker Olaer's product range complies with REACH regulations.



### 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

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: How to order a low pressure accumulator

## Technical Characteristics

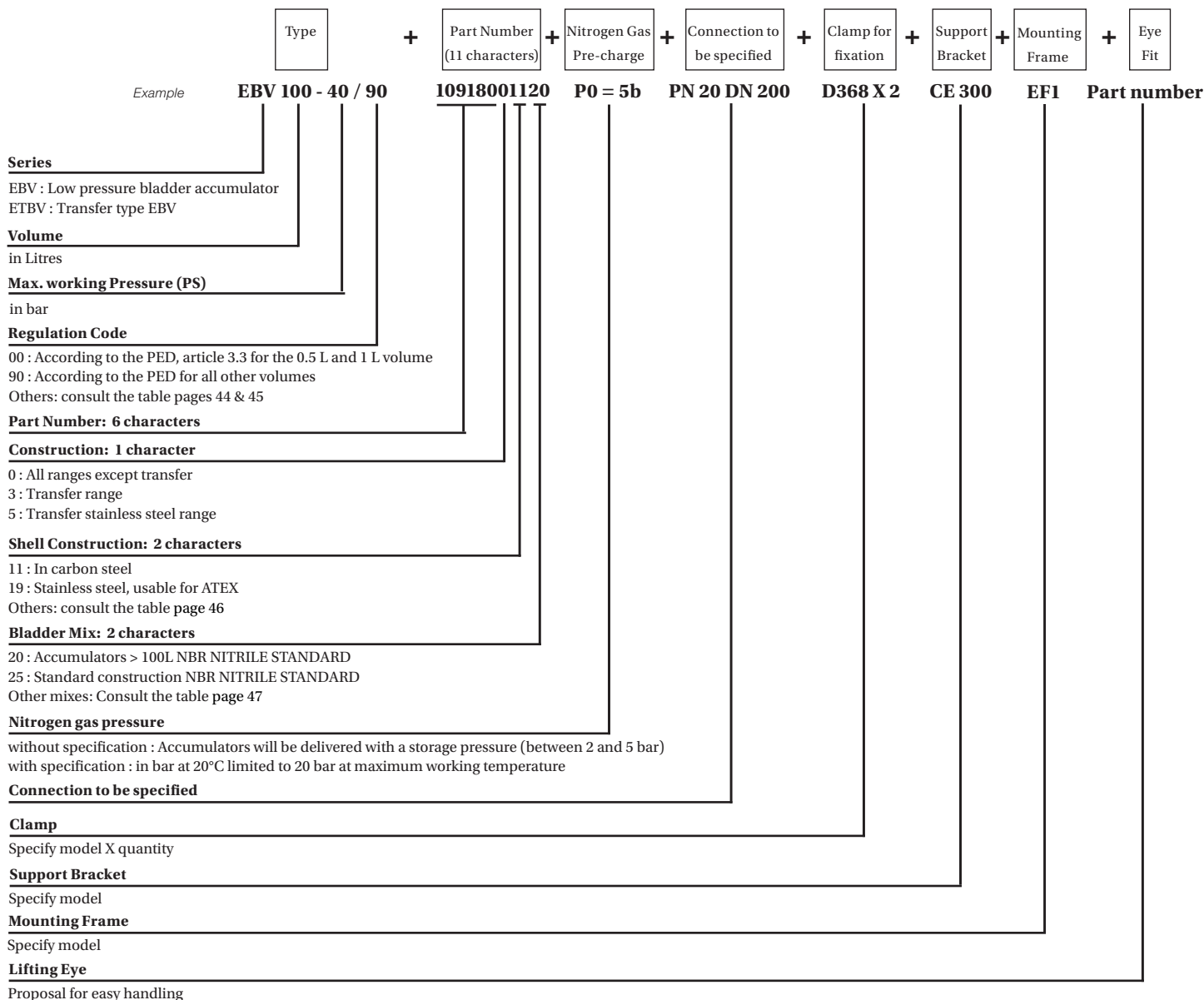
The accumulator comprises a forged or welded steel shell, a rubber bladder and anti-extrusion system.

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

Taking into account the different needs of various applications, Parker Olaer offers different protections external and/or internal: Bare metal, nickel plating, epoxy paint, PTFE, Rilsan® and phenolic

coating. This extensive range enables us to offer accumulators operating from - 40 to +130°C with pressures of up to 80 Bar and capacities of up to 575 litres. ATEX versions are also available for some accumulators in fluid groups 1 or 2 as per Article 9 section 2.1 and 2.2 of PED.

As the market leader in bladder type accumulators, Parker Olaer has participated in the development of the EN 14359:2006 standard, which specifies the material, design, manufacturing, fatigue tests, safety devices and documentation (including the instruction manual), for pressure accumulators and gas bottles for hydraulic applications.



# EBV Series 50 & 80 BAR, Volume 0.5 to 5 Litres

Standard version (Carbon Steel shell/NBR mix) for mineral oils temperature from - 15° up to 100°C

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

*Part numbers, Accessories Dimensions*

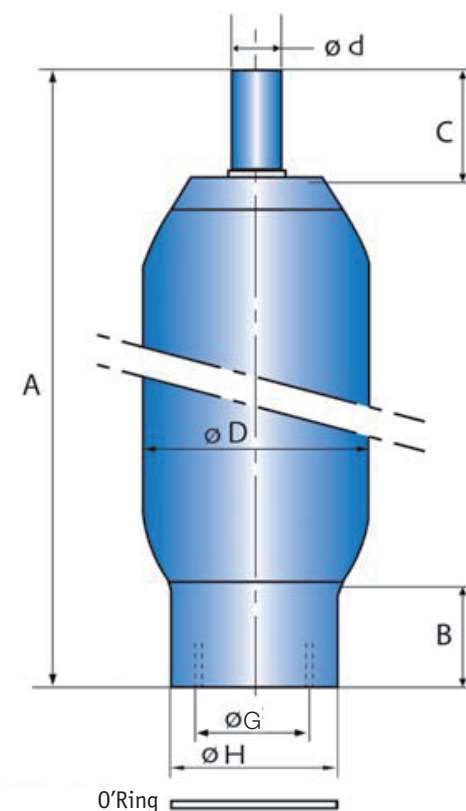
Type	Pre-charge	Adaptor	Flange		Clamps	Support Bracket	Complete Repair Kit
	1 - 20 bar		Model	Model			
Part number		Threaded Part number	Part number	Part number	Part number	Part number	Part number
EBV 0.5-50/00*		G 1" cyl	-	-	E95 (1)	-	KIT EBV 0.5-50/00
10383101125	751052	04557000223			20250803648		19002900225
EBV 1-80/00*		G 1" cyl	1½" ANSI 150 lbs	1½" ANSI 300 lbs	E114 (1)	CE 89	KIT EBV 1-80/00
10909801125	751053	04557000223	04542000123	04524100123	20251003648	20151903620	19044300225
EBV 2.5-80/90		G 1" cyl	1½" ANSI 150 lbs	1½" ANSI 300 lbs	E114 (2)	CE 89	KIT EBV 2.5-80/90
10909901125	751054	04557000223	04542000123	04524100123	20251003648	20151903620	19044400225
EBV 5-80/90		G 1" cyl	1½" ANSI 150 lbs	1½" ANSI 300 lbs	E114 (2)	CE 89	KIT EBV 5-80/90
10910001125	751056	04557000223	04542000123	04524100123	20251003648	20151903620	19044500225

\* 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 Weight kg	O-ring $\phi$ int x $\phi$ tore	Dimensions in mm							
					A max height	B	C	$\phi D$ max	$\phi d$	$\phi H$	G connection	
EBV 0.5-50/00*	0.5	50	3	54x3	245	52	28	90	16	68	G2" cyl.	
EBV 1-80/00*	1	80	5	54x3	310	47	66	116	22.5	68	G2" cyl.	
EBV 2.5-80/90	2.3	80	10	54x3	484	47	66	116	22.5	68	G2" cyl.	
EBV 5-80/90	5	80	17	54x3	867	47	66	116	22.5	68	G2" cyl.	



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

# EBV Series 40 BAR, Volume 10 to 200 Litres

Standard Version (Carbon Steel shell/NBR mix) for mineral oils temperature from - 15° up to 100°C

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

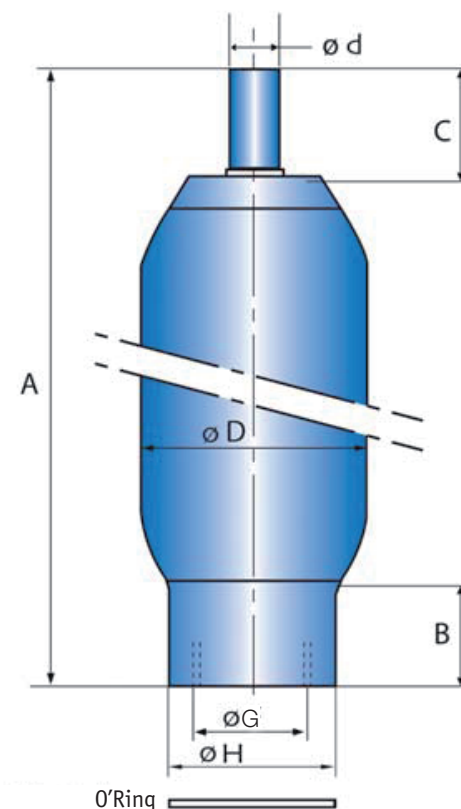
Part numbers, Accessories Dimensions

Type	Pre-charge	Adaptor	Flange		Clamps	Support Bracket	Lifting Eye	Complete Repair Kit
	1 - 20 bar		Model	Model				
Part number		Threaded Part number	Part number	Part number	Part number	Part number	Part number	Part number
EBV 10-40/90		G 2" cyl	4" ANSI 150 lbs	4" ANSI 300 lbs	D215 (2)	CE 159A		KIT EBV 10-40/90
10910401125	751057	04570300223	04500300123	04520800123	20251403648	20109003620	10912700200	19043900225
EBV 20-40/90		G 2" cyl	4" ANSI 150 lbs	4" ANSI 300 lbs	D215 (2)	CE 159A		KIT EBV 20-40/90
10910501125	751058	04570300223	04500300123	04520800123	20251403648	20109003620	10912700200	19044000225
EBV 32-40/90		G 2" cyl	4" ANSI 150 lbs	4" ANSI 300 lbs	D215 (2)	CE 159A		KIT EBV 32-40/90
10910601125	751059	04570300223	04500300123	04520800123	20251403648	20109003620	10912700200	19044100225
EBV 50-40/90		G 2" cyl	4" ANSI 150 lbs	4" ANSI 300 lbs	D215 (2)	CE 159A		KIT EBV 50-40/90
11077501125	751060	04570300223	04500300123	04520800123	20251403648	20109003620	10912700200	19054700225
EBV 100-40/90		-	8" ANSI 150 lbs	8" ANSI 300 lbs	D368 (2)	CE 300		KIT EBV 100-40/90
10918001120	751061	-	04500800123	04500900123	20127403625	20150800100	-	19044600220
EBV 200-40/90		-	8" ANSI 150 lbs	8" ANSI 300 lbs	D368 (2)	CE 300		KIT EBV 200-40/90
10918101120	751062	-	04500800123	04500900123	20127403625	20150800100	-	19044700220

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 Weight kg	O-ring $\varnothing$ int x $\varnothing$ tore	Dimensions in mm							
					A max height	B	C	$\varnothing D$ max	$\varnothing d$	G connection	$\varnothing H$	
EBV 10-40/90	10	40	13	96x4	454	51	75	212	22.5	G3½" cyl.	120	
EBV 20-40/90	18	40	22	96x4	776	51	75	212	22.5	G3½" cyl.	120	
EBV 32-40/90	34	40	37	96x4	1307	51	75	212	22.5	G3½" cyl.	120	
EBV 50-40/90	50	40	51	96x4	1829	51	75	212	22.5	G3½" cyl.	120	
EBV 100-40/90	90	40	124	196.21x5.33	1317	158	93	371	80	M205x3	224	
EBV 200-40/90	207	40	215	196.21x5.33	2529	158	93	371	80	M205x3	224	



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

# 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

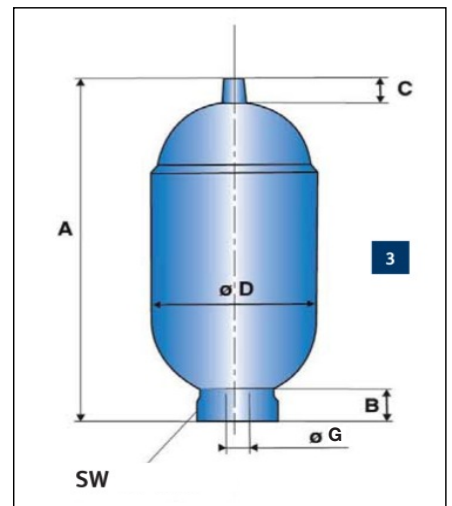
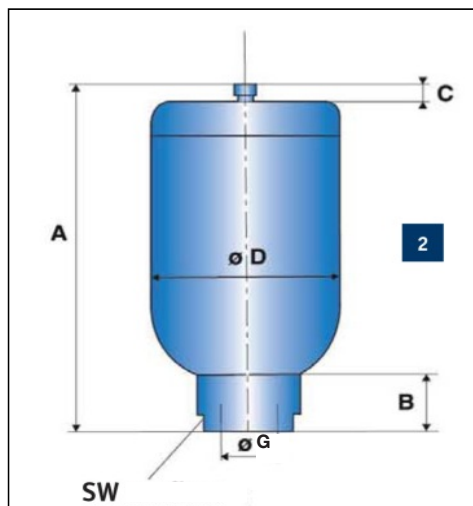
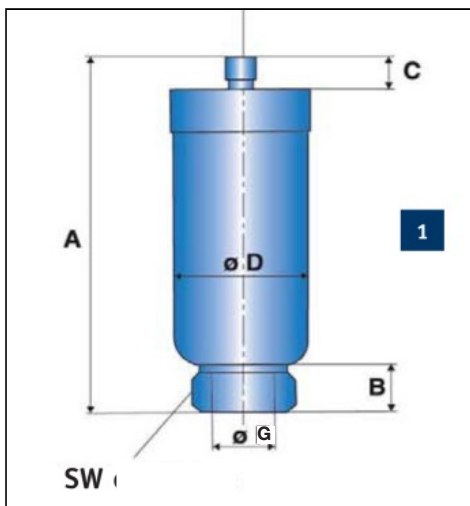
Type Part number	Pre-charge	Clamps
	1 - 20 bar	Model (quantity) Part number
OLG 0.13-50/00 (1) 10268401925	751011	-
OLG 1-20/00 (2) 10411901125	751053	E106 (1) 20250903648
ELG 4-20/90 3/4" (3) 10931201925	751055	E155 (1) 20251203648
ELG 4-20/90 2" (3) 10931301925	751055	E155 (1) 20251203648

(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

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 ¼" cyl.	
OLG 1-20/00 (2)	1	20	1.6	8V1	210	31	11	107	-	2 flats 46 A/F	G 1" cyl.	
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 ¾" cyl.	
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" cyl.	



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

# EHV Series: General Information Bladder Accumulators

Operation of the OLAER 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.

Its special design allows the bladder (the strategic component) to compress the gas and usually form into three lobes in order for the accumulator to store, then to deliver the fluid under pressure, as required.

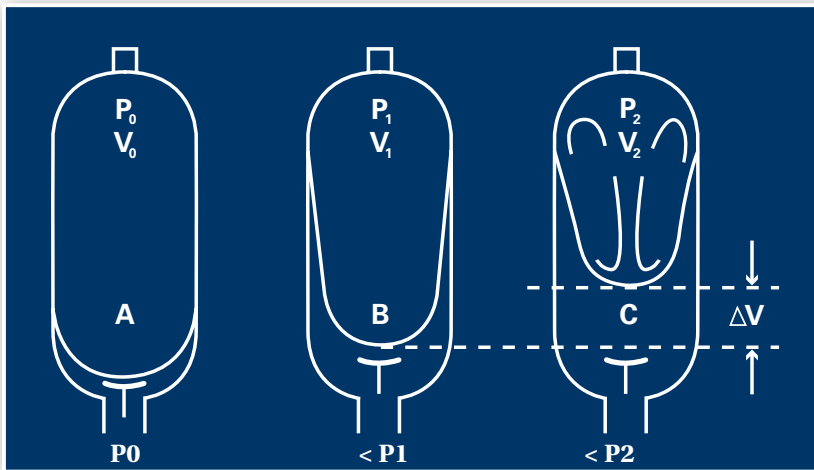
The OLAER gas loaded accumulator is an essential component for the optimum operation of a hydraulic circuit. In hydraulic circuits, the accumulator enables:

- An energy reserve which is instantaneously available to the system
- Compensation of pressure fluctuations and spikes.
- Pump pulsation dampening

The accumulator comprises of a pressure vessel, a rubber bladder and an anti-extrusion system. 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. Different anti-extrusion systems can be used for specific applications (fluidport assembly for high pressure, grid for low pressure, or button).

Taking into account the different needs of various applications, Olaer proposes different protections external and/or internal: Bare metal, nickel plating, epoxy paint, PTFE, Rilsan® and phenolic coating. This extensive range enables us to offer accumulators operating from - 50 to +150°C with pressures of up to 1500 Bar and capacities of up to 575 litres.

As the market leader in bladder type accumulators, Olaer has participated in the development of the EN 14359:2006 standard, which specifies the material, design, manufacturing, tests, safety devices and documentation (including the instruction manual), for pressure accumulators and gas bottles for hydraulic applications.



**V0** = Capacity in nitrogen of the accumulator  
**V1** = Gas volume at the minimum hydraulic pressure  
**V2** = Gas volume at the maximum hydraulic pressure  
 $\Delta V$  = 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

**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.

**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.

# EHV Series: How to order a high pressure accumulator

## 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; fluidport assembly for high pressure.

Taking into account the different needs of various applications, Parker Olaer offers different protections external and/or internal:

Bare metal, nickel plating, epoxy paint, PTFE, Rilsan® and phenolic coating. This extensive range enables us to offer accumulators operating from - 50 to +150°C with pressures of up to 690 Bar and capacities of up to 57 litres.

As the market leader in bladder type accumulators, Parker Olaer has participated in the development of the EN 14359:2006 standard, which specifies the material, design, manufacturing, fatigue tests, safety devices and documentation (including the instruction manual), for pressure accumulators and gas bottles for hydraulic applications.

	Type	+	Part Number (11 characters)	+	Nitrogen Gas Pre-charge	+	Connection to be specified	+	Clamp for fixation	+	Support Bracket	+	Mounting Frame	+	Eye Fit
<i>Example</i>	<b>EHV 32 - 330 / 90</b>		<b>10837301125</b>		<b>P0 = 200b</b>		<b>G 1"</b>		<b>D226 X 2</b>		<b>CE 300</b>		<b>EF1</b>		<b>Part number</b>
<b>Series</b>	EHV: High pressure bladder accumulator EHVF: EHV with Flange EHVDA: High Flow EHV ETHV: Transfer type EHV														
<b>Volume</b> in Litres	330														
<b>Max. working Pressure (PS)</b> in bar	90														
<b>Regulation Code</b>	90 : According to the PED 00 : According to the PED article 3.3 for the volumes from 0.2 to 1L, Fluid Group 2 Others: consult the table pages 44 & 45														
<b>Part Number: 6 characters</b>	10837301														
<b>Construction: 1 character</b>	25														
0 : All ranges except transfer 3 : Transfer range 5 : Transfer stainless steel range															
<b>Shell Construction: 2 characters</b>	11														
11 : In carbon steel 19 : Stainless steel, usable for ATEX Others: consult the table page 46															
<b>Bladder Mix: 2 characters</b>	25														
20 : Accumulators > 100L NBR NITRILE STANDARD 25 : Standard construction NBR NITRILE STANDARD Other mixes: Consult the table page 47															
<b>Nitrogen gas Pressure</b>	200														
Without specification: Accumulators will be delivered with a storage pressure between 2 and 5 bar. With specification: in specified bar at 20 °C															
<b>Connection to be specified</b>	G 1"														
<b>Clamp</b> Specify model X quantity	D226 X 2														
<b>Support Bracket</b> Specify model	CE 300														
<b>Mounting Frame</b> Specify model	EF1														
<b>Lifting Eye</b> Proposal for easy handling															

# EHV Series 330 BAR, 10 to 57 Litres

Standard version (Carbon Steel shell/NBR mix) for mineral oils temperature from - 20° up to 80°C

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

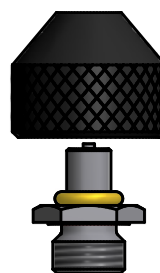
Part numbers, Accessories Dimensions

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

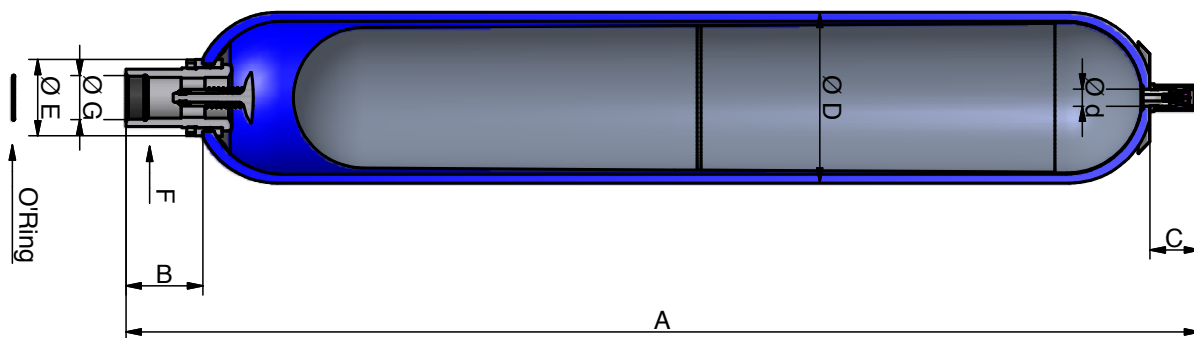
Model of valve stem  
5/8" 18 UNF  
(A)



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



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	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	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	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	49	5/8" 18 UNF	897	103	66	226	22.5	101	70	G 2"
					7/8" 14 UNF								
EHV 24.5-330/90	22.5	330	900	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	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	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	110	5/8" 18 UNF	1936	103	66	226	22.5	101	70	G 2"
					7/8" 14 UNF								
EHV 57-330/90	53	330	900	116	5/8" 18 UNF	2032	103	66	226	22.5	101	70	G 2"
					7/8" 14 UNF								



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 temperature from - 20° up to 80°C

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

Part numbers, Accessories Dimensions

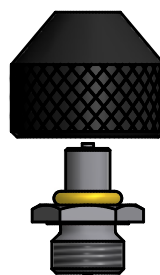
Type Part number	Valve model see drawing	Pre-charge			Adaptor	Clamps	Support Bracket	Mounting Frame	Lifting Eye	Complete Repair Kit
		1 - 109 bar	110 - 209 bar	210 - 300 bar	Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
EHV 0.2-350/00* 10876301120	A	751013	751028	751043	G 1/4" cyl 04556500223	A56 (1) 20149203625	-	-	-	KIT EHV 0.2-350/00 19001000220
EHV 0.5-350/00* 10876401125	A	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

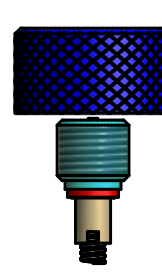
Model of valve stem  
5/8" 18 UNF 1A  
(A)



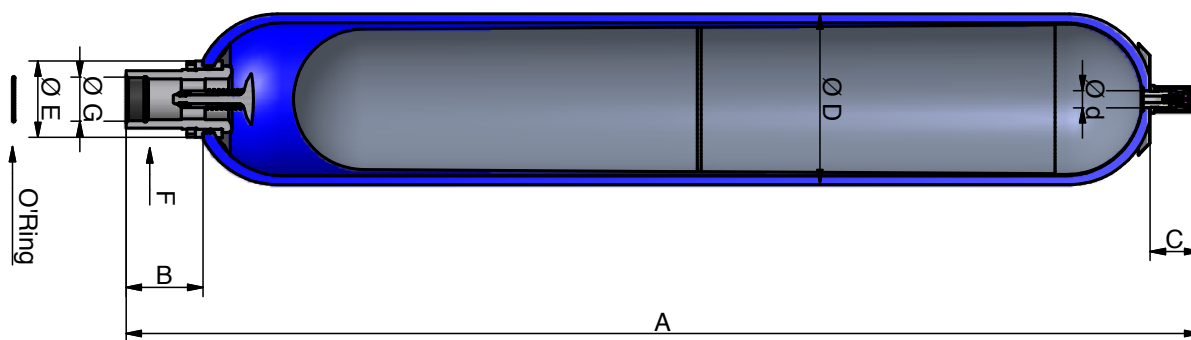
Model of valve stem  
7/8" 14 UNF  
(B)



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



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	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*	0.2	350	120	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	2.7	5/8" 18 UNF	259	54	28	91	16	50	32	G 3/4"
EHV 1-350/00*	1	350	240	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	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	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	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	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	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	31	7/8" 14 UNF	825	65	66	170	22.5	68	50	G 1 1/4"
					7/8" 14 UNF								



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

# EHV Series 480 BAR, 10 to 50 Litres

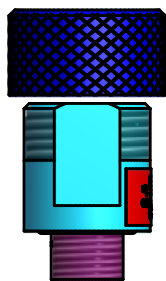
Standard Version (Steel shell/NBR mix) for mineral oils temperature from - 20° up to 80°C

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

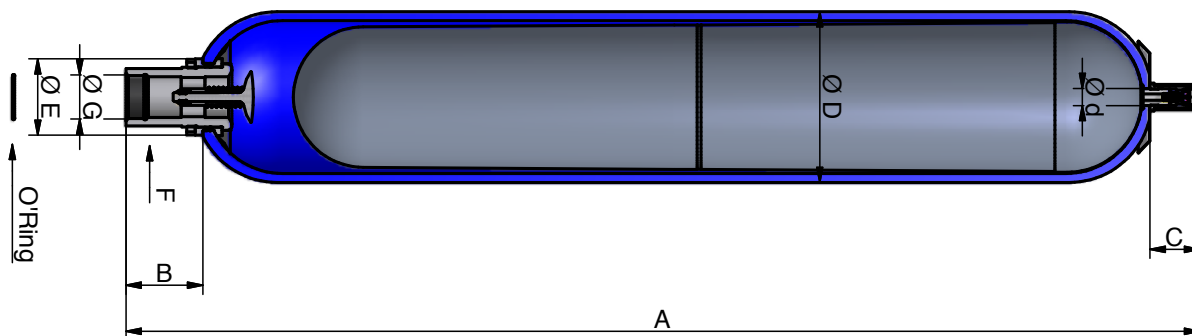
Part numbers, Accessories Dimensions

Type	Pre-charge			Adaptor	Clamps	Support Bracket	Mounting Frame	Lifting Eye	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar						
Part number				Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
EHV 10-480/90 10949901125	751016	751023	751038	G 1" cyl 04557000223	D226 (2) 20251503648	CE159A 20109003620	EF2 20217600125	10912700200	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	10912700200	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	10912700200	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	10912700200	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	09098800200	KIT EHV 50-480/90 19050302525

Model of valve stem  
7/8" 14 UNF



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	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	33	7/8" 14 UNF	593	103	74	228	22.5	101	70	G 2"
EHV 12-480/90	11	480	900	43	7/8" 14 UNF	693	103	74	228	22.5	101	70	G 2"
EHV 20-480/90	17.8	480	900	63	7/8" 14 UNF	903	103	74	228	22.5	101	70	G 2"
EHV 32-480/90	32	480	900	97	7/8" 14 UNF	1428	103	74	228	22.5	101	70	G 2"
EHV 50-480/90	48.5	480	900	132	7/8" 14 UNF	1968	103	99	228	50	101	70	G 2"



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 temperature from - 20° up to 80°C

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

Part numbers, Accessories Dimensions

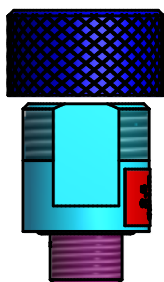
Type	Pre-charge			Adaptor	Clamps	Support Bracket	Lifting Eye	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar					
Part number				Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number
EHV 1-690/00*				G 1/2" cyl 04570400223	E114 (1) 20251003648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

\* according to the PED, article 3.3

## EHV 690 bar

Type	Pre-charge			Adaptor	Clamps	Support Bracket	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar				
Part number				Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number
EHV 12-690/90							KIT EHV 12-690/90
1203V-DC-691	751016	751023	751038				
EHV 20-690/90							KIT EHV 20-690/90
2003V-DC-691	751005	751024	751039				
EHV 37-690/90							KIT EHV 32-690/90
3703V-DC-691	751006	751026	751041				
EHV 54-690/90							KIT EHV 54-690/90
5003V-DC-691	751007	751027	751042				

Model of valve stem  
7/8" 14 UNF



Model of valve stem  
5/8" 18 UNF



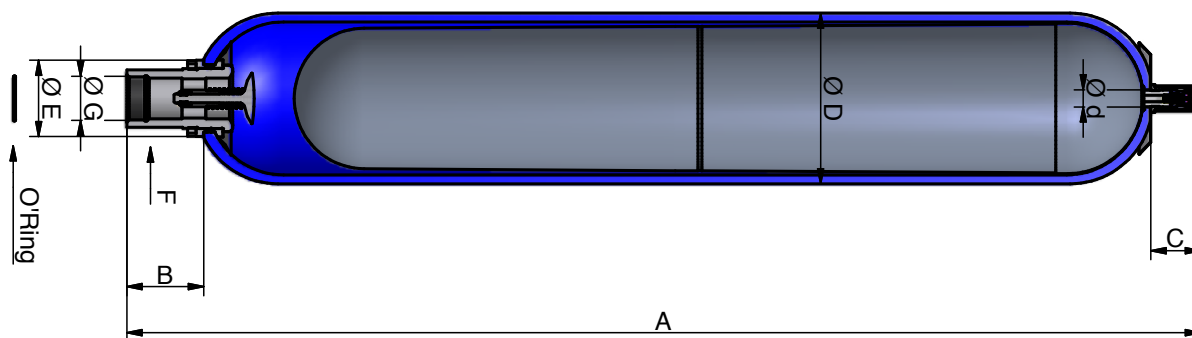
Accumulators are delivered with the nitrogen Pre-charge 3 bar.

Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	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	8.9	376	68	69	122	22.5	68	45	G 1"	
EHV 2.5-690/90	2.4	690	360	15	551	68	69	122	22.5	68	45	G 1"	
EHV 5-690/90	5	690	360	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	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	97	682	84	166	267	50	110	77	2"	
EHV 20-690/90	16.5	690	900	134	892	84	166	267	50	110	77	2"	
EHV 37-690/90	33.4	690	900	227	1417	84	166	267	50	110	77	2"	
EHV 54-690/90	48	690	900	318	1932	84	166	267	50	110	77	2"	

\*\* Requires a special adaptor



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

# EHVF Series 330 BAR, 10 to 57 Litres Flanged Fluid Port

Standard Version (Steel shell/NBR mix) for mineral oils temperature from - 20° up to 80°C

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

Part numbers, Accessories Dimensions

Type Part number	Pre-charge			Flange	Clamps	Support Bracket	Mounting Frame	Lifting Eye	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar	Type Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
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

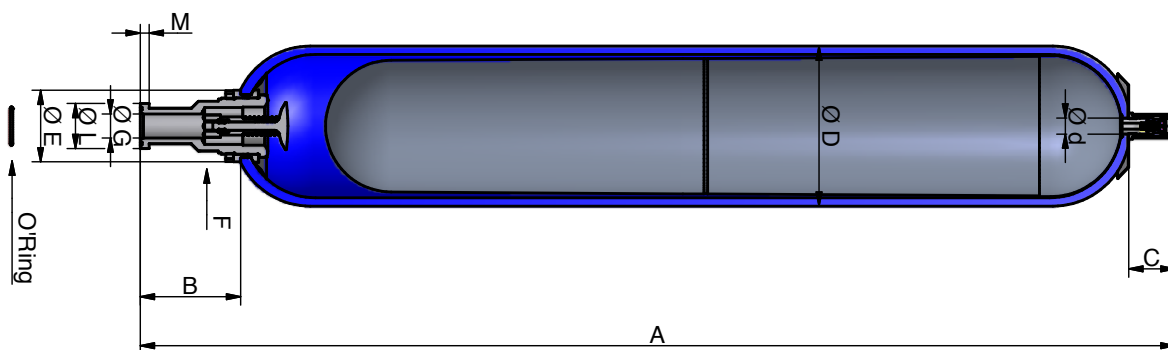
Model of valve stem  
5/8" 18 UNF



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	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	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	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	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	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	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	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	110	5/8"18 UNF	1976	143	66	226	22.5	101	34	70	63.8	12.5
EHVF 57-330/90	53	330	900	116	5/8"18 UNF	2072	143	66	226	22.5	101	34	70	63.8	12.5

Note: Connection (norme ISO 6162): 1" SAE 6000 PSI.



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

# EHVF Series 350 BAR, 2.5 to 10 Litres Flanged Fluid Port

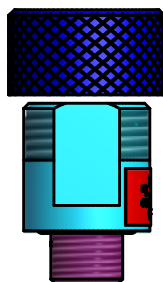
Standard Version (Steel shell/NBR mix) for mineral oils temperature from - 20° up to 80°C

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

Part numbers, Accessories Dimensions

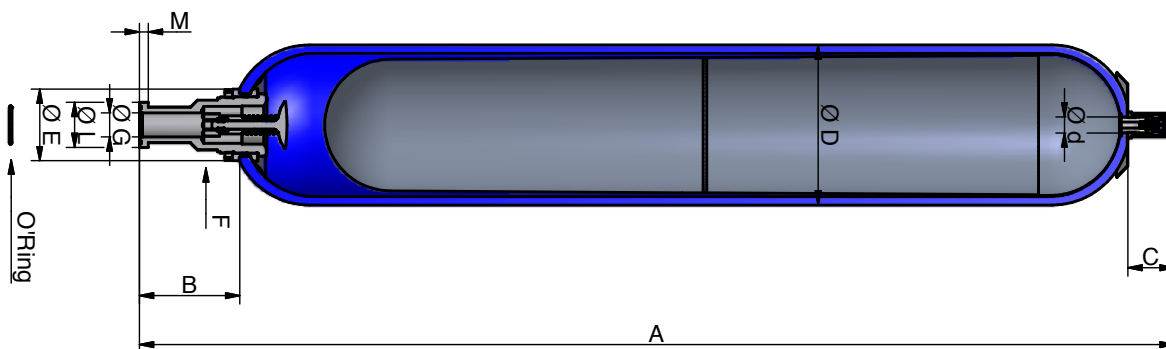
Type Part number	Pre-charge			Flange	Clamps	Support Bracket	Mounting Frame	Lifting Eye	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar	Type Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
EHVF 2.5-350/90 10861501125	751002	751031	751046	BR 400-25 35132600123	E114 (2) 20251003648	CE89 20151903620	-	10912700200	KIT EHVF 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 EHVF 4-350/90 19035400225
EHVF 5-350/90 10861601125	751003	751032	751047	BR 400-25 35132600123	E114 (2) 20251003648	CE89 20151903620	-	10912700200	KIT EHVF 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 EHVF 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 EHVF 10-350/90 19035700225

Model of valve stem  
7/8" 14 UNF



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	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	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	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	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	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	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 PSI.



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

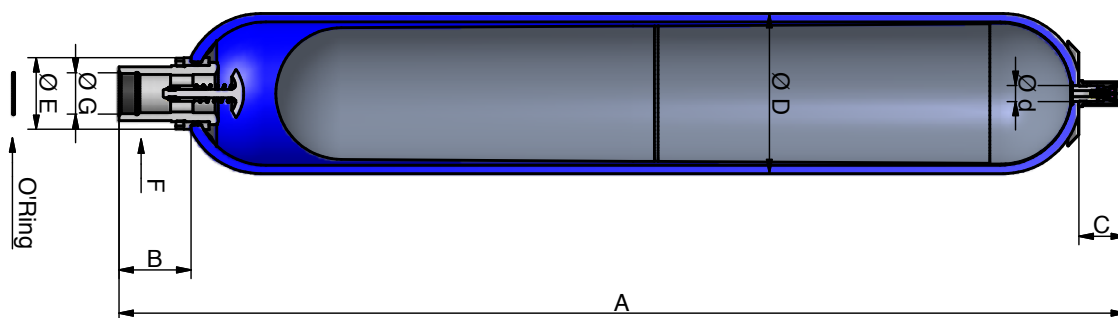
Standard version (Steel shell/NBR mix) for mineral oils temperature from - 20° up to 80°C  
 For high flow (up to 1200 Litres/min), According to PED 97/23/EC, EN 14359 Fluid Group 2  
*Part numbers, Accessories Dimensions*

Type Part number	Pre-charge			Adaptor	Clamps	Support Bracket	Mounting Frame	Lifting Eye	Complete Repair Kit
	1 - 109 bar	110 - 209 bar	210 - 300 bar	Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
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

Model of valve stem  
5/8" 18 UNF



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate l/min	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	31	5/8"18 UNF	587	103	66	226	22.5	101	G 2"	70
EHV 12-330/90/DA	11	330	1200	36	5/8"18 UNF	687	103	66	226	22.5	101	G 2"	70
EHV 20-330/90/DA	17.8	330	1200	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	56	5/8"18 UNF	1032	103	66	226	22.5	101	G 2"	70
EHV 32-330/90/DA	32	330	1200	81	5/8"18 UNF	1420	103	66	226	22.5	101	G 2"	70
EHV 42-330/90/DA	42	330	1200	87	5/8"18 UNF	1562	103	66	226	22.5	101	G 2"	70
EHV 50-330/90/DA	48.5	330	1200	110	5/8"18 UNF	1936	103	66	226	22.5	101	G 2"	70
EHV 57-330/90/DA	53	330	1200	116	5/8"18 UNF	2032	103	66	226	22.5	101	G 2"	70



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

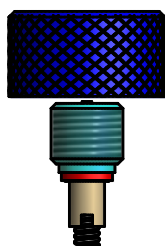
# EHV-DA Series 350 BAR, 2.5 to 10 Litres

## High Flow fluid port, 570 l/min

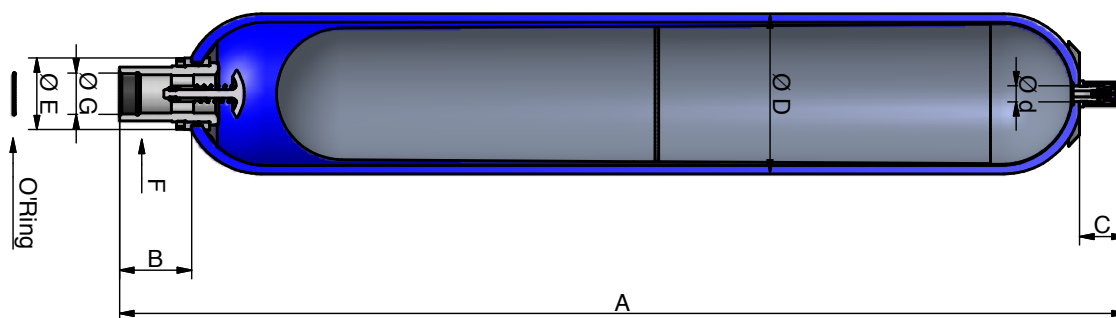
Standard Version (Steel shell/NBR mix) for mineral oils temperature from - 20° up to 80°C  
 For high flow (up to 570 Litres/min), According to PED 97/23/CE, EN 14359 Fluid Group 2  
*Part numbers, Accessories Dimensions*

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	Threaded Part number	Model (quantity) Part number	Model Part number	Model Part number	Model Part number	Model Part number
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

Model of valve stem  
7/8"14 UNF



Type	Effective Gas vol. Litres	Max. Working pressure (PS) bar	Max Flow Rate lt/min	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	11	7/8" 14 UNF	548	66	66	115	22.5	68	G 1¼"	50
EHV 4-350/90/DA	3.7	350	570	15	7/8" 14 UNF	433	65	66	170	22.5	68	G 1¼"	50
EHV 5-350/90/DA	5	350	570	17	7/8" 14 UNF	897	66	66	115	22.5	68	G 1¼"	50
EHV 6-350/90/DA	6	350	570	20	7/8" 14 UNF	559	65	66	170	22.5	68	G 1¼"	50
EHV 10-350/90/DA	10	350	570	31	7/8" 14 UNF	824	65	66	170	22.5	68	G 1¼"	50



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

# General Information Diaphragm Accumulator

Operation of the Olaer gas loaded diaphragm 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.

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.

0 < speed < 50 kph

3.5 < load variation < 100%

Identical flexibility depending on your use.

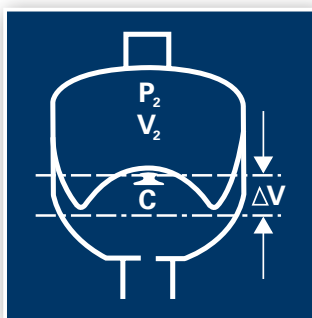
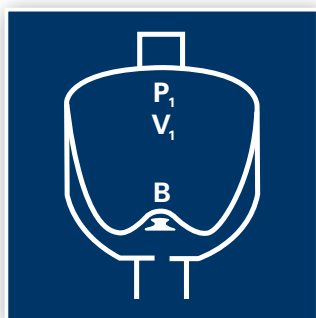
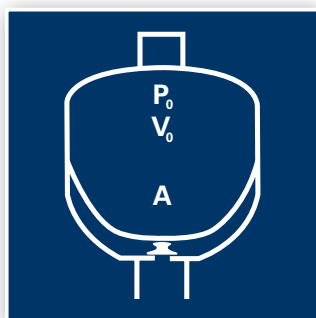
The same EC pressure directive (PED) compliant accumulator can be used in over 35 destination countries, thus facilitating their free movement.

The technical characteristics are as follows:

Minimum/maximum temperature allowable (° Celsius) :

- 20/+80 for standard nitrile elastomers for models 0.075 ≥ 1.4 Litre
- 10/+80 for standard nitrile elastomers for models ≥ 2 Litres
- 35/+80 for hydrin elastomers

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



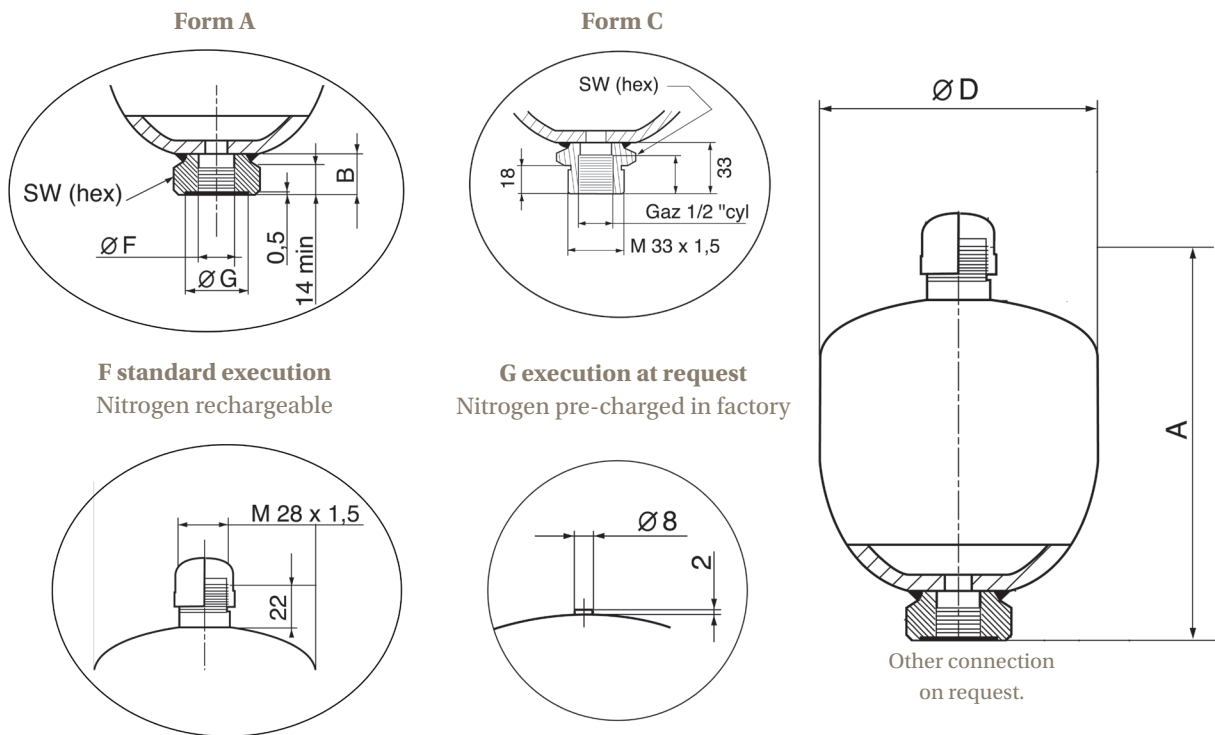
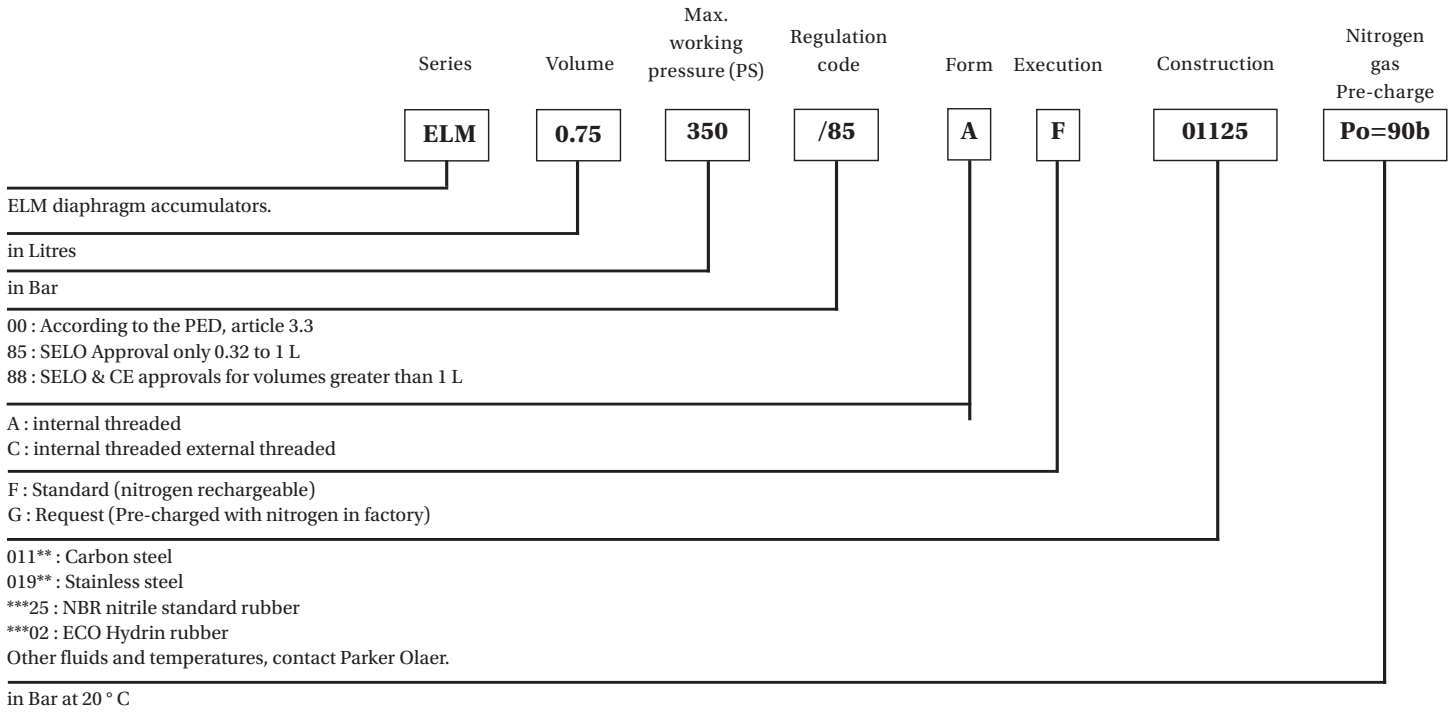
- V0** = Capacity in nitrogen of the accumulator
- V1** = Gas volume at the minimum hydraulic pressure
- V2** = Gas volume at the maximum hydraulic pressure
- ΔV** = Returned and/or stored volume of working fluid between P1 and P2
- P0** = Initial preload of the accumulator
- P1** = Gas pressure at the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

**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, P0 must always be < P1.

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

# ELM Series: How to order a Diaphragm accumulator



# ELM Series 140 - 350 BAR, 0.075 to 1.4 Litres

Standard Version (steel casing/mix NBR) for mineral oils temperature from - 20° up to 80°C

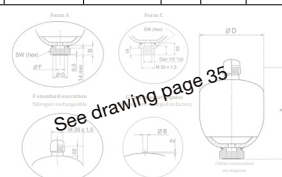
According to PED 97/23/EC, Fluid Group 2 and SELO

Part numbers, Accessories Dimensions

Type Part number	Pre-charge	Clamps
	1 - 130 bar	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
ELM 0.75-210/85/AF* 10849701125	751010	E114 (1) 20251003648
ELM 0.75-210/85/CF* 10849801125	751010	E114 (1) 20251003648
ELM 0.75-350/85/AF* 10931801125	751010	E136 (1) 20251103648
ELM 0.75-350/85/CF* 10931901125	751010	E136 (1) 20251303648
ELM 1 - 210/85/AF* 10984701125	751001	E136 (1) 20251103648
ELM 1 - 210/85/CF* 10984801125	751001	E136 (1) 20251103648
ELM 1.4 - 140/88/AF 10850201125	751014	E155 (1) 20251203648
ELM 1.4 - 140/88/CF 10850301125	751014	E155 (1) 20251203648
ELM 1.4 - 210/88/AF 10996501125	751014	E155 (1) 20251203648
ELM 1.4 - 210/88/CF 10996601125	751014	E155 (1) 20251203648

\* 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		Lock Nut type
								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	22	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	134	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	163	22	41	106	-	G½	M33x1.5	M33
ELM 0.75-210/85/AF*	0.75	210	AF	130	8	175	2.6	166	22	41	122	34	G½	-	-
ELM 0.75-210/85/CF*	0.75	210	CF	130	8	175	2.6	177	33	41	122	-	G½	M33x1.5	M33
ELM 0.75-350/85/AF*	0.75	350	AF	130	8	150	4	168	18	41	133	34	G½	-	-
ELM 0.75-350/85/CF*	0.75	350	CF	130	8	150	4	184	18	41	133	-	G½	M33x1.5	M33
ELM 1-210/85/AF*	1	210	AF	130	8	170	3.5	180	22	41	136	34	G½	-	-
ELM 1-210/85/CF*	1	210	CF	130	8	170	3.5	191	33	41	136	-	G½	M33x1.5	M33
ELM 1.4-140/88/AF	1.40	140	AF	130	8	120	4.1	191	22	41	148	34	G½	-	-
ELM 1.4-140/88/CF	1.40	140	CF	130	8	120	4.1	202	33	41	148	-	G½	M33x1.5	M33
ELM 1.4-210/88/AF	1.40	210	AF	130	8	120	4.2	191	22	41	148	34	G½	-	-
ELM 1.4-210/88/CF	1.40	210	CF	130	8	120	4.2	202	33	41	148	-	G½	M33x1.5	M33



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

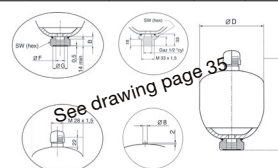
# ELM Series 160 - 350 BAR, 0.75 to 3.5 Litres

Standard Version (steel casing mix NBR) for mineral oils and for volume 1.4 L temperature from - 20° up to 80°C for volume ≥ 2 L temperature from - 10°C up to 80°C. According to PED 97/23/CE, Fluid Group 2 and SELO  
*Part numbers, Accessories Dimensions*

Type Part number	Pre-charge	Clamps
	1 to 109 bar	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
ELM 1.4 - 350/88/AF 10932101125	751014	E155 (1) 20251203648
ELM 1.4 - 350/88/CF 10932201125	751014	E155 (1) 20251203648
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	E180 (1) 20243203625
ELM 2 - 350/88/CF 11006101125	751014	E180 (1) 20243203625
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
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
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	Execution form	Max. Pre-charge bar	Max compression in bar ratio P2/P0	Max Pressure amplitude P2/P1	Weight kg	Dimensions in mm					Oilport		Lock Nut type
								A max Height	B	SW	D	G	F	H	
ELM 1.4-250/88/AF	1.40	250	AF	130	8	140	5.5	199	22	41	155	34	G½	-	-
ELM 1.4-250/88/CF	1.40	250	CF	130	8	140	5.5	209	33	41	155	-	G½	M33x1.5	M33
ELM 1.4-350/88/AF	1.40	350	AF	130	8	150	7	199	20	41	160	34	G½	-	-
ELM 1.4-350/88/CF	1.40	350	CF	130	8	150	7	220	20	41	160	-	G½	M33x1.5	M33
ELM 2-100/88/AF	2	100	AF	130	8	80	3.5	240	22	41	144	34	G½	-	-
ELM 2-250/88/AF	2	250	AF	130	8	140	9.5	251	22	41	155	33	G¾	-	-
ELM 2-350/88/AF	2	350	AF	130	8	200	9.5	219	22	55	180	34	G¾	-	-
ELM 2-350/88/CF	2	350	CF	130	8	200	9.5	240	22	55	180	-	G¾	M45x1.5	M45
ELM 2.8-250/88/AF	2.80	250	AF	130	6	140	10	268	21	41	174	34	G¾	-	-
ELM 2.8-350/88/AF	2.80	350	AF	130	6	200	14.3	264	21	55	180	34	G¾	-	-
ELM 2.8-350/88/CF	2.80	350	CF	130	6	200	14.3	285	21	55	180	-	G¾	M45x1.5	M45
ELM 3.5-250/88/AF	3.50	250	AF	130	4	140	11	307	21	41	174	33	G¾	-	-
ELM 3.5-350/88/AF	3.50	350	AF	130	4	200	16	304	21	55	180	34	G¾	-	-
ELM 3.5-350/88/CF	3.50	350	CF	130	4	200	16	325	21	55	180	-	G¾	M45x1.5	M45
ELM 0.75-160/88/CF**	0.75	160	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 3.5 Litres

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

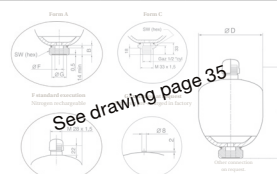
According to PED 97/23/EC, Fluid Group 2 and SELO

Part numbers, Accessories Dimensions

Type Part number	Pre-charge	Clamps
	1 - 109 bar	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
ELM 0.75-210/85/AF* 10849701102	751010	E114 (1) 20251003648
ELM 0.75-210/85/CF* 10849801102	751010	E114 (1) 20251003648
ELM 0.75-350/85/AF* 10931801102	751010	E114 (1) 20251003648
ELM 0.75-350/85/CF* 10931901102	751010	E114 (1) 20251003648
ELM 1-210/85/AF* 10984701102	751001	E136 (1) 20251103648
ELM 1-210/85/CF* 10984801102	751001	E136 (1) 20251103648
ELM 1.4-140/88/AF 10850201102	751014	E155 (1) 20251203648
ELM 1.4-140/88/CF 10850301102	751014	E155 (1) 20251203648
ELM 1.4-210/88/AF 10996501102	751014	E155 (1) 20251203648
ELM 1.4-210/88/CF 10996601102	751014	E155 (1) 20251203648

\* 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		Lock Nut type
								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	22	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	134	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	163	22	41	106	-	G½	M33x1.5	M33
ELM 0.75-210/85/AF*	0.75	210	AF	130	8	175	2.6	166	22	41	122	34	G½	-	-
ELM 0.75-210/85/CF*	0.75	210	CF	130	8	175	2.6	177	33	41	122	-	G½	M33x1.5	M33
ELM 0.75-350/85/AF*	0.75	350	AF	130	8	150	4	168	18	41	133	34	G½	-	-
ELM 0.75-350/85/CF*	0.75	350	CF	130	8	150	4	184	18	41	133	-	G½	M33x1.5	M33
ELM 1-210/85/AF*	1	210	AF	130	8	170	3.5	180	22	41	136	34	G½	-	-
ELM 1-210/85/CF*	1	210	CF	130	8	170	3.5	191	33	41	136	-	G½	M33x1.5	M33
ELM 1.4-140/88/AF	1.40	140	AF	130	8	120	4.1	191	22	41	148	34	G½	-	-
ELM 1.4-140/88/CF	1.40	140	CF	130	8	120	4.1	202	33	41	148	-	G½	M33x1.5	M33
ELM 1.4-210/88/AF	1.40	210	AF	130	8	120	4.2	191	22	41	148	34	G½	-	-
ELM 1.4-210/88/CF	1.40	210	CF	130	8	120	4.2	202	33	41	148	-	G½	M33x1.5	M33



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

# ELM Series 250 - 350 BAR, 1.4 to 3.5 Litres

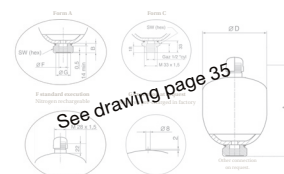
ECO Version (steel casing/mix ECO) for mineral oils temperature from - 35°C up to 80°C

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

Part numbers, Accessories Dimensions

Type Part number	Pre-charge	Clamps
	1 to 109 bar	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
ELM 1.4-350/88/AF 10932101102	751014	E155 (1) 20251203648
ELM 1.4-350/88/CF 10932201102	751014	E155 (1) 20251203648
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	E180 (1) 20243203625
ELM 2-350/88/CF 11006101102	751014	E180 (1) 20243203625
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
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

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		Lock Nut type
								A max Height	B	SW	D	G	F	H	
ELM 1.4-250/88/AF	1.40	250	AF	130	8	140	5.5	199	22	41	155	34	G½	-	-
ELM 1.4-250/88/CF	1.40	250	CF	130	8	140	5.5	209	33	41	155	-	G½	M33x1.5	M33
ELM 1.4-350/88/AF	1.40	350	AF	130	8	150	7	199	20	41	160	34	G½	-	-
ELM 1.4-350/88/CF	1.40	350	CF	130	8	150	7	220	20	41	160	-	G½	M33x1.5	M33
ELM 2-100/88/AF	2	100	AF	130	8	80	3.5	240	22	41	144	34	G½	-	-
ELM 2-250/88/AF	2	250	AF	130	8	140	9.5	251	22	41	155	33	G¾	-	-
ELM 2-350/88/AF	2	350	AF	130	8	200	9.5	219	22	55	180	34	G¾	-	-
ELM 2-350/88/CF	2	350	CF	130	8	200	9.5	240	22	55	180	-	G¾	M45x1.5	M45
ELM 2.8-250/88/AF	2.80	250	AF	130	6	140	10	268	21	41	174	34	G¾	-	-
ELM 2.8-350/88/AF	2.80	350	AF	130	6	200	14.3	264	21	55	180	34	G¾	-	-
ELM 2.8-350/88/CF	2.80	350	CF	130	6	200	14.3	285	21	55	180	-	G¾	M45x1.5	M45
ELM 3.5-250/88/AF	3.50	250	AF	130	4	140	11	307	21	41	174	33	G¾	-	-
ELM 3.5-350/88/AF	3.50	350	AF	130	4	200	16	304	21	55	180	34	G¾	-	-
ELM 3.5-350/88/CF	3.50	350	CF	130	4	200	16	325	21	55	180	-	G¾	M45x1.5	M45



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

**Regulations**

# Regulations for High and Low pressure Bladder Accumulators

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)	/88	Max. Working Pressure bar	/92	Max. Working Pressure Psi (bar)	/83 /91	Max. Working Pressure bar
Approvals*	CE Fluid Group 2	CE Fluid Group 1	ATEX EX		ASME VIII div 1		SELO		CRN		AS1210	
Models*												
EBV 0.5 L	x	x	x	40								
EBV 0.5 L	x	x	x	50								
EBV 1 to 5 L	x	x	x	40			x	40				
EBV 1 to 5 L	x	x	x	80			x	80				
EBV 10 to 50 L	x	x		16								
EBV 10 to 50 L	x	x	x	40	On request	580 (40)						
EBV 100 to 200 L	x	x		16								
EBV 100 to 200 L	x	x	x	20			x	20				
EBV 100 to 200 L	x	x	x	40			x	40				
EBV 100 to 200 L	x	x		50								
EBV 100 to 575 L	x	x	x	8								
EBV 100 to 575 L	x	x		10								
EBV 100 to 575 L	x	x		15								
EBV 100 to 575 L	x	x	x	16								
EBV 100 to 575 L	x	x	x	20								
EBV 100 to 575 L	x	x	x	40								
EHV 0,5L	x	x	x	350			x	350				
EHV 1 to 5 L	x	x	x	300			x	300				
EHV 1 to 5 L	x	x	x	350			x	350			On request	350
EHV 1 to 5 L	x	x	x	690			x	690				
EHV 2.5L to 5 L	x	x	x	120			x	120				
EHV 4 - 6 - 10 L	x	x	x	210			x	210				
EHV 4 - 6 - 10 L	x	x	x	350	On request	4000 (276 Bar)	x	350			On request	320
EHV 4 to 60 L					On request	5000 (345 Bar)						
EHV 4 to 60 L					On request	6000 (413 Bar)						
EHV 10 to 42 L					On request	3000 (207 Bar)			x	3000 (207 Bar)		
EHV 10 to 42 L					On request	3600 (248 Bar)			x	3600 (248 Bar)		
EHV 10 to 42 L					On request	4000 (276 Bar)			x	4000 (276 Bar)		
EHV 10 to 50 L	x	x	x	690			x	690				
EHV 10 to 57 L					On request	3600 (248 Bar)					On request	248
EHV 10 to 57 L					On request	4000 (276 Bar)					On request	276
EHV 10 to 57 L	x	x		480			x	480			On request	480
EHV 10 to 60 L	x	x	x	300	On request	3000 (207 Bar)	x	300				
EHV 10 to 60 L	x	x	x	330	On request	3600 (248 Bar)	x	330				
EHV 10 to 60 L	x	x	x	480			x	480				
EHV 50 to 57L					On request	3000 (207 Bar)			x	3000 (207 Bar)		
EHV 50 to 57 L					On request	3600 (248 Bar)			x	3600 (248 Bar)		
EHV 50 to 57 L					On request	4000 (276 Bar)			x	4000 (276 Bar)		
EHV 100 to 200 L	x	x		300			x	300				
EHVF 2.5 to 10 L	x	x		350			x	350				
EHVF 10 to 50 L	x	x		250			x	250				
EHVF 10 to 50 L	x	x		330			x	330				

Multi Approvals are possible

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

For others regulations contact Parker Olaer.



**Regulations**

BRASIL		RUSSIA		MARINE - OFFSHORE			Designation		
/AA /AE /AM	Max. Working Pressure bar	/71 /AU	Max. Working Pressure bar	/24	/11	/41			
NR13		GOST R		DNV Mobile ships	Bureau Veritas Marine	ABS American Bureau of Shipping	Max. Working Pressure bar	Approvals*  Models*	
x	40	on request	40				EBV 0.5 L		
x	50		50				EBV 0.5 L		
x	40		40				EBV 1 to 5 L		
x	80		80				EBV 1 to 5 L		
x	16		16				EBV 10 to 50 L		
x	40		40				EBV 10 to 50 L		
x	16		16				EBV 100 to 200 L		
x	20		20				EBV 100 to 200 L		
x	40		40				EBV 100 to 200 L		
x	50		50				EBV 100 to 200 L		
x	8		8				EBV 100 to 575 L		
x	10		10				EBV 100 to 575 L		
x	15		15				EBV 100 to 575 L		
x	16		16				EBV 100 to 575 L		
x	20		20				EBV 100 to 575 L		
x	40	40				EBV 100 to 575 L			
x	350	on request	350	x		x	350	EHV 0,5L	
			300					EHV 1 to 5 L	
x	350		350	x		x	x	350	EHV 1 to 5 L
x	690		690						EHV 1 to 5 L
x	120		120						EHV 2.5L to 5 L
x	210		210						EHV 4 - 6 - 10 L
x	350		350	x		x	x	350	EHV 4 - 6 - 10 L
x	345		345						EHV 4 to 60 L
x	413		413						EHV 4 to 60 L
x	207		207						EHV 10 to 42 L
x	248		248						EHV 10 to 42 L
x	276		276						EHV 10 to 42 L
x	690		690						EHV 10 to 50 L
x	248		248						EHV 10 to 57 L
x	276		276						EHV 10 to 57 L
x	480		480						EHV 10 to 57 L
x	300		300						EHV 10 to 60 L
x	330		330	x		x	x	330	EHV 10 to 60 L
x	480		480						EHV 10 to 60 L
x	207		207						EHV 50 to 57L
x	248	248						EHV 50 to 57 L	
x	276	276						EHV 50 to 57 L	
x	300	300						EHV 100 to 200 L	
x	350	on request	350					EHVF 2.5 to 10 L	
x	330		330					EHVF 10 to 50 L	
x	330		330					EHVF 10 to 50 L	

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.

# Internal & External Protections

Protections available from Parker Olaer. Additional options for standard for bladder accumulators.

## Calculation Example

	Base Price	Add for change of protection	Total cost for this special
Complete Accumulator: 4 liter complete accumulator with protection Rilsan 85	x (from page 20)	x	x

Valve Stem, Fluid port, Anti Extrusion Ring and Protection Cap	EPOXY 80 microns	NICKEL PLATING 50 microns	RILSAN® 200-300 microns	
	Internal Stainless Steel	Internal/External Stainless Steel	Internal/External Stainless Steel	Internal/External Standard Steel
Codes	20	50	84	85
Volume	<b>All prices below are in addition (on top of) the standard construction carbon steel 11 on top of the complete base, accumulator cost when ordered complete as a bladder accumulator with special characteristics.</b>			
0,2	x	x	x	x
0,5	x	x	x	x
1	x	x	x	x
1,6	x	x	x	x
2,5	x	x	x	x
4	x	x	x	x
5	x	x	x	x
6	x	x	x	x
DIA 168	x	x	x	x
DIA 221	x	x	x	x
12	x	x	x	x
20	x	x	x	x
24,5	x	x	x	x
32	x	x	x	x
42	x	x	x	x
50	x	x	x	x
57	x	x	x	x
100	x	x	x	x
200	x	x	x	x

*This is showing the options, prices are available on request*

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 Mixes

Bladder mixes available from Parker Olaer. Additional options over standard for bladder accumulators series EHV/EBV.

## Calculation Example EHV

	Base Price	add for change of mix	Total cost for this special
Complete Accumulator: 4 liter complete accumulator with mix 80 (viton) bladder	x (from page 20)	x	x
Spare Bladder Kit: 4 liter spare bladder mix 80 (viton) bladder	x (from page 20)	x	x

	Standard Bladder	For other bladder mixes as spare parts, start with the cost for NBR, Mix 25 and add the adder prices listed below. For complete accumulators with special bladders, start with the base cost of a standard accumulators and then add the additional cost listed below.								
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	Nitrile	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	- 28	- 6	- 5	0	- 59	- 15	- 40	-20
Typical Fluid	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	All prices below are in addition (on top of) the base Mix 25 bladder kit cost(spares) or on top of the complete base, Mix 25 accumulator cost when ordered complete as a bladder accumulator with special bladder mix.									
0,2		x	x		x	x	x	x	x	x
0,5		x	x	x	x	x	x	x	x	x
1		x	x	x	x	x	x	x	x	x
1,6		x	x	x	x	x	x	x	x	x
2,5		x	x	x	x	x	x	x	x	x
4		x	x	x	x	x	x	x	x	x
5		x	x	x	x	x	x	x	x	x
6		x	x	x	x	x	x	x	x	x
DIA 168		x	x	x	x	x	x	x	x	x
DIA 221		x	x	x	x	x	x	x	x	x
12		x	x	x	x	x	x	x	x	x
20		x	x	x	x	x	x	x	x	x
24,5		x	x	x	x	x	x	x	x	x
32		x	x	x	x	x	x	x	x	x
42		x	x	x	x	x	x	x	x	x
50		x	x	x	x	x	x	x	x	x
57		x	x	x	x	x	x	x	x	x
100*		x	x	x	x	x	x	x	x	x
200*		x	x	x	x	x	x	x	x	x

\* Accumulators 100 & 200 Litres Standard Nitrile Mix 20

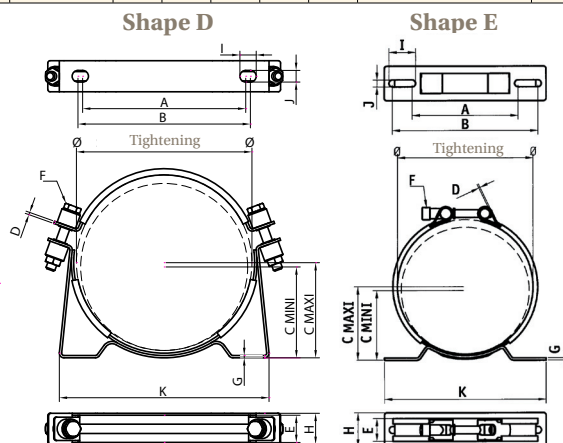
This is showing the options, prices are available on request

# 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 $\phi$ 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	219 to 226
D368 20127403625	D	363 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



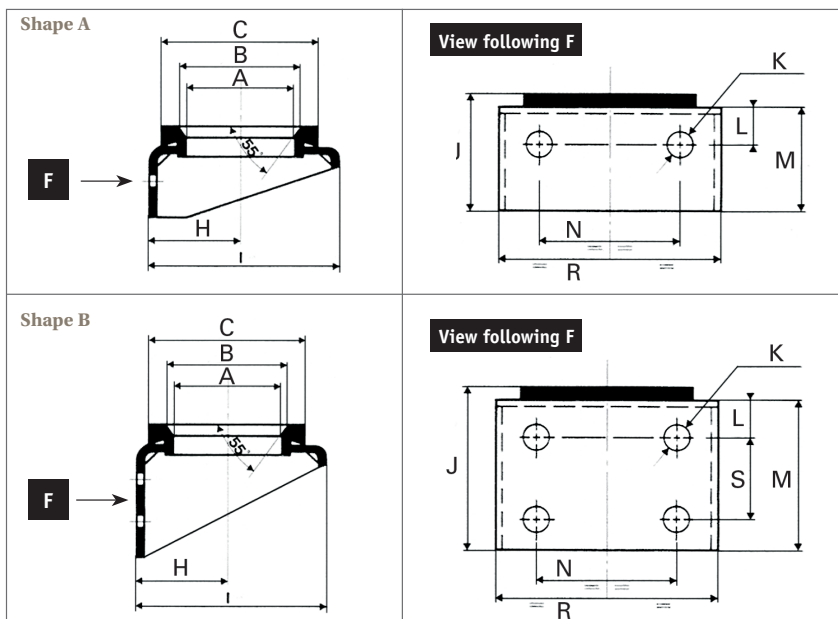
## Support Brackets

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

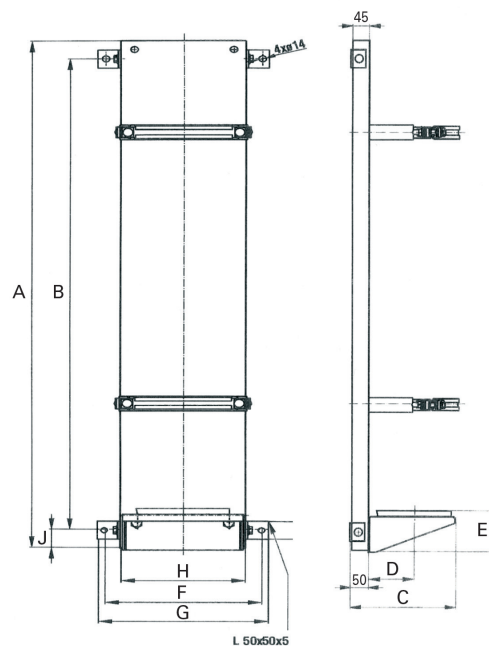
## Mounting Frames

Type	For Models EHV
Part number	
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 in 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	2.5	



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	



Accessories

# 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).
- High pressure hose, 2.5 m long, for connecting to a nitrogen source.
- Hexagon socket screw key 6mm.
- Jackets of replacement joints.
- 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 Minimes® 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	Spare Parts	
	High Pressure Hose	Spare Part Kits
Part number	Type	Type
	Part number	Part number
VGU/F.25/250.8.TS2.3	TS2 (France)	
20214122823	20214800000	10774100023
VGU/F.25/250.8.TS3.3	TS3 (Germany)	
20214122833	20228000000	10774100023
VGU/F.25/250.8.TS8.3	TS8 (Italy)	
20214122883	20217200000	10774100023
VGU/F.25/250.8.TS9.3	TS9 (Netherlands)	
20214122893	20227300000	10774100023
VGU/F.25/400.8.TS2.3	TS2 (France)	
20214139823	20214800000	10774100023
VGU/F.25/400.8.TS3.3	TS3 (Germany)	
20214139833	20228000000	10774100023
VGU/F.25/400.8.TS8.3	TS8 (Italy)	
20214139883	20217200000	10774100023
VGU/F.25/400.8.TS9.3	TS9 (Netherlands)	
20214139893	20227300000	10774100023

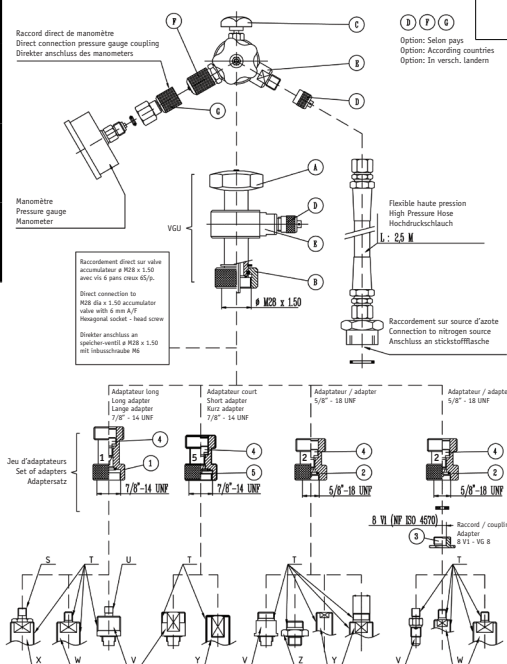
How to order a VGU Charging set: see page 54

### 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
Adaptor 7/8" - 14 UNF
20212700223
Adaptor 5/8" - 18 UNF
20213000223
Coupling 8 V1
20214000200
Adaptor 7/8" - 14 UNF
20213500223
Adaptor 1/4" cyl
20221100220



Accessories

# Charging Set VG3

The charging set VG3 is an indispensable instrument for the verification, pressurization and nitrogen bleeding of the hydraulic accumulators. The standard set is delivered in a storage case containing the following:

- pressure gauge with standardized graduations in bar
- vent valve
- 3 connection adapters for charging valves. (7/8" - 5/8" - 8V1).
- High pressure hose, 2.5 m length, in standard, maximum working pressure 400 Bar. This hose is fitted at each end with a female swivel coupling G 1/4" BSP for connecting to the inflation port. It can be connected to a commercial nitrogen bottles, in this case add an adapter on one end view model in the country. For the other destinations consult Parker Olaer.
- Operating instruction french/english version



**Note:** On request, the following options are available :

- Pressure gauge with different scale divisions : 63 mm with glycerol bath back end G1/4" BSP equipped with direct gear for minimes<sup>®</sup> connection. To 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 are available (specify country)

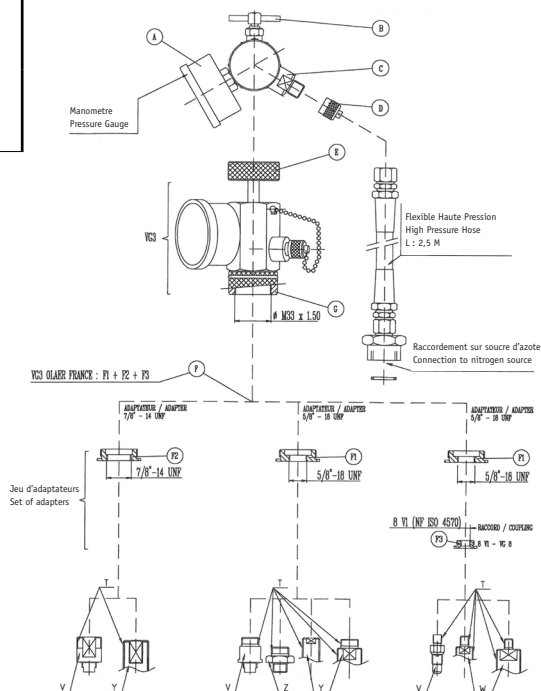
**Maximum working pressure:** limited by the maximum operating pressure of the installed hydraulic system, pressure limited to 400 bar in any case.

Type	Spare Parts		
	Gauge Kit	High Pressure Hose	Spare Part Kits
	Type	Type	Type
Part number	Part number	Part number	Part number
VG3 6 1 TS2 1	0 to 6 bar	20214800000	10529500033
20138101121	00077000000		
VG3 10 1 TS2 1	0 to 10 bar		
20138102121	00077100000		
VG3 25 1 TS3 1	0 to 25 bar		
20138103131	00077200000		
VG3 100 1 TS2 1	0 to 100 bar		
20138104121	00077300000		
VG3 250 1 TS2 1	0 to 250 bar		
20138105121	00077400000		
VG3 400 1 TS2 1	0 to 400 bar		
20138106121	00077500000		

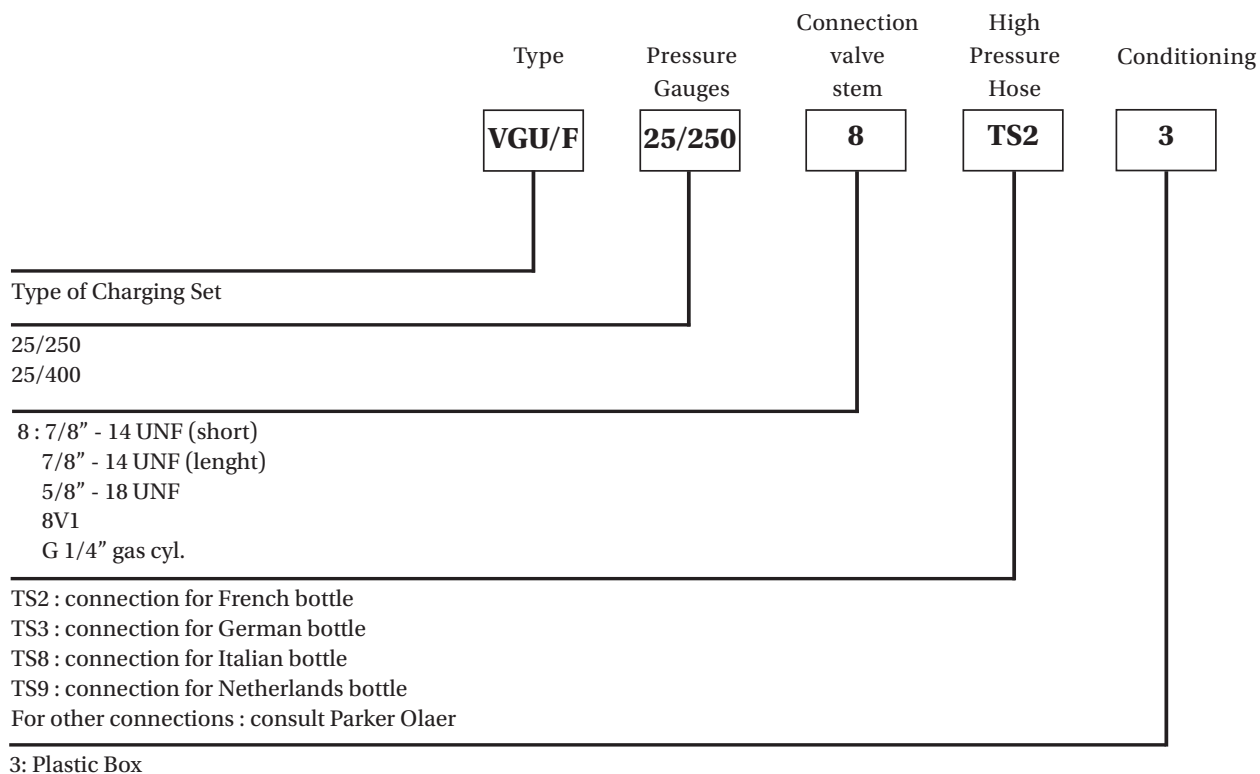
## Spare Parts Adaptors VG3

Type
Part number
Adaptor 5/8" - 18 UNF
20138300200
Adaptor 7/8" - 14 UNF
20202004700
Coupling 8 V1
10232700200

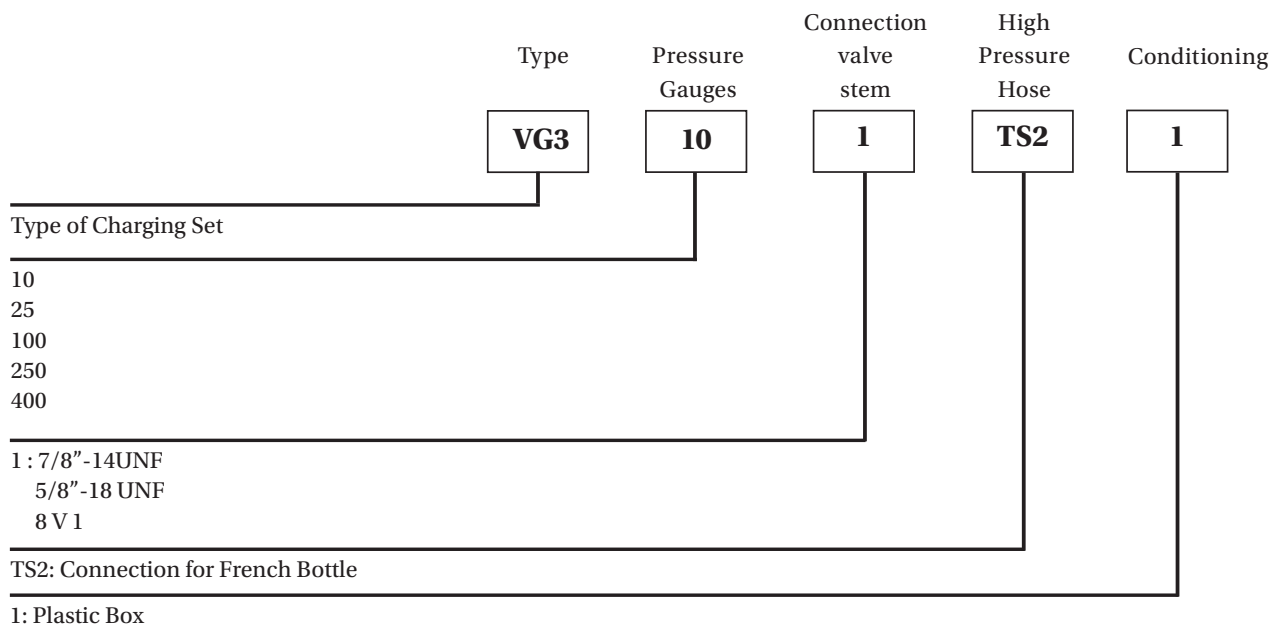
How to order a VG3 Charging set: see page 54



## How to order a VGU Charging Set



## How to order a VG3 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.

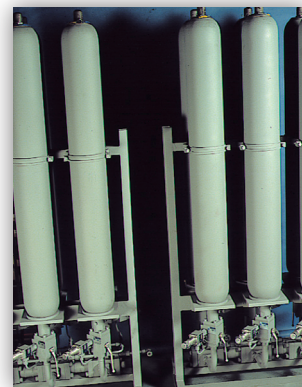
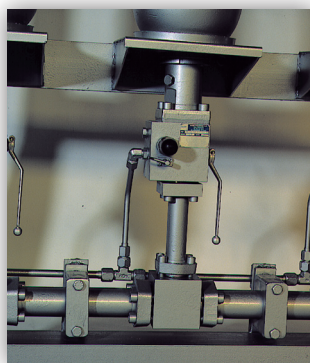
These blocks are in conformity with the European Directive on the equipment under pressure (97/23), these appliances have been designed to group together in a single compact unit all the components necessary for the correct operation of a hydraulic system equipped with hydropneumatic accumulators.

The basic block consists of :

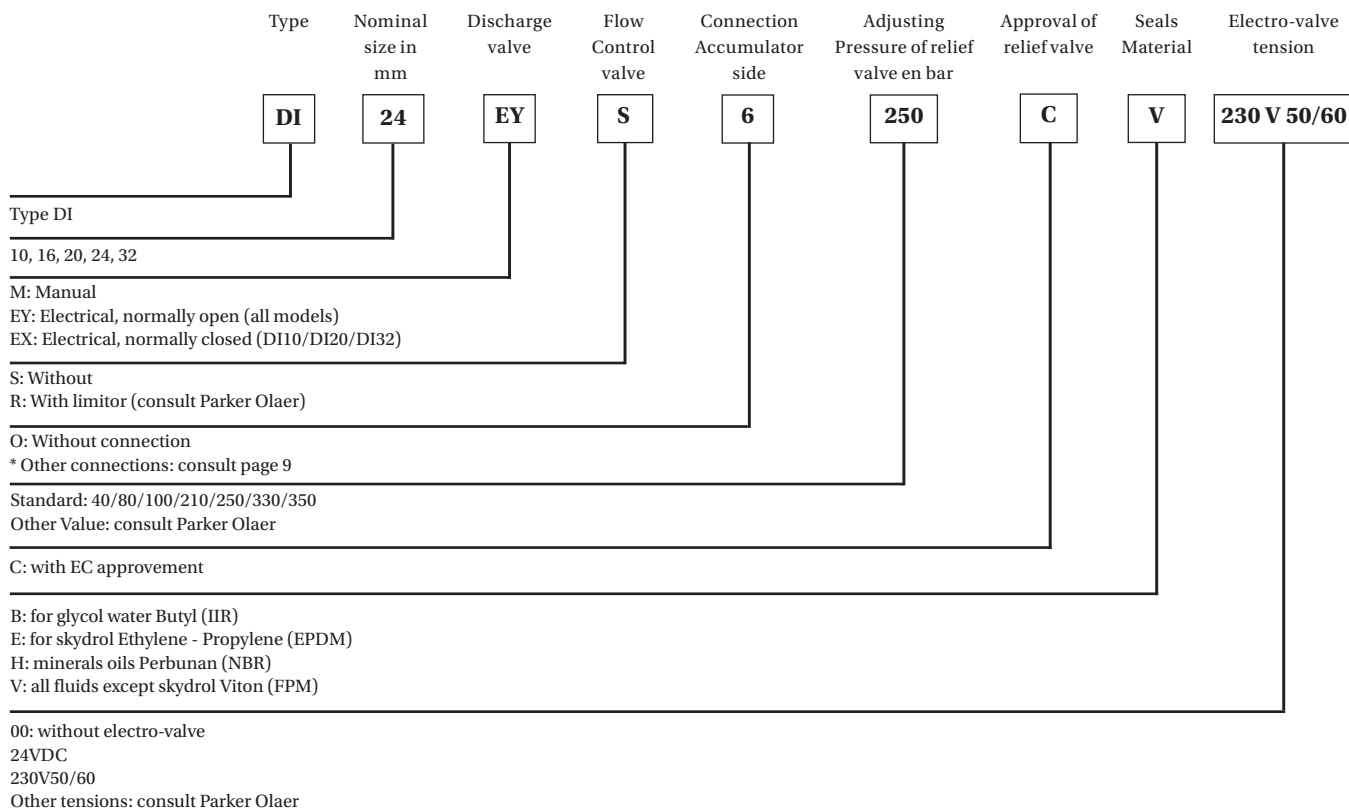
- Isolating valve to isolate the accumulator from the circuit for all the blocks except from model DI 10 where it also ensures the decompression function.
- A drain valve for decompressing the accumulator for all models (except DI 10)
- A pressure limiting valve EC with poppet calibrated generally to 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



# Safety Block DI 10 Manual Version

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

Part numbers

Connecting to accumulator	Type	Part number
EHV 0.5 to 1.6 L G3/4*	DI10MS/2/350CH *	35172112Y01
EHV 10 to 50 L G2"	DI10MS/3/330CH *	35172113J01
ELM G1/2"	DI10MS/4/100CH	35172114D01
ELM G1/2"	DI10MS/4/140CH	35172114Q01
ELM G1/2"	DI10MS/4/210CH	35172114G01
ELM G1/2"	DI10MS/4/250CH	35172114H01
ELM G1/2"	DI10MS/4/330CH	35172114J01
ELM G1/2"	DI10MS/4/350CH	35172114Y01
ELM 0,32-210 G1/2"	DI10MS/5/210CH	35172115G01
ELM 0,075-250/0,16-250 G1/2"	DI10MS/5/250CH	35172115H01
ELM G3/4"	DI10MS/6/100CH	35172116D01
ELM G3/4"	DI10MS/6/140CH	35172116Q01
ELM G3/4"	DI10MS/6/210CH	35172116G01
ELM G3/4"	DI10MS/6/250CH	35172116H01
ELM G3/4"	DI10MS/6/330CH	35172116J01
ELM G3/4"	DI10MS/6/350CH	35172116Y01

\* without electro-valve

# Safety Block DI 10 Electrical Version

Standard version (Carbon steel, rings NBR) 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 230V50/60	
	Type	Part number	Type	Part number
EHV 2.5 to 10 L (long) G1 1/4*	DI10EYS/1/350CH24VCC	35172131Y21	DI10EYS/1/350CH230V50/60	35172131Y61
EHV 0.5 to 1.6 L G3/4*	DI10EYS/2/350CH24VCC	35172132Y21	DI10EYS/2/350CH230V50/60	35172132Y61
ELM G1/2"	DI10EYS/4/100CH24VCC	35172134D21	DI10EYS/4/100CH230V50/60	35172134D61
ELM G1/2"	DI10EYS/4/140CH24VCC	35172134Q21	DI10EYS/4/140CH230V50/60	35172134Q61
ELM G1/2"	DI10EYS/4/210CH24VCC	35172134G21	DI10EYS/4/210CH230V50/60	35172134G61
ELM G1/2"	DI10EYS/4/250CH24VCC	35172134H21	DI10EYS/4/250CH230V50/60	35172134H61
ELM G1/2"	DI10EYS/4/330CH24VCC	35172134J21	DI10EYS/4/330CH230V50/60	35172134J61
ELM G1/2"	DI10EYS/4/350CH24VCC	35172134Y21	DI10EYS/4/350CH230V50/60	35172134Y61
ELM 0.32 to 210 G1/2"	DI10EYS/5/210CH24VCC	35172135G21	DI10EYS/5/210CH230V50/60	35172135G61
ELM 0.075 to 250/0.16 to 250 G1/2"	DI10EYS/5/250CH24VCC	35172135H21	DI10EYS/5/250CH230V50/60	35172135H61
ELM G3/4"	DI10EYS/6/100CH24VCC	35172136D21	DI10EYS/6/100CH230V50/60	35172136D61
ELM G3/4"	DI10EYS/6/140CH24VCC	35172136Q21	DI10EYS/6/140CH230V50/60	35172136Q61
ELM G3/4"	DI10EYS/6/210CH24VCC	35172136G21	DI10EYS/6/210CH230V50/60	35172136G61
ELM G3/4"	DI10EYS/6/250CH24VCC	35172136H21	DI10EYS/6/250CH230V50/60	35172136H61
ELM G3/4"	DI10EYS/6/330CH24VCC	35172136J21	DI10EYS/6/330CH230V50/60	35172136J61
ELM G3/4"	DI10EYS/6/350CH24VCC	35172136Y21	DI10EYS/6/350CH230V50/60	35172136Y61

Options or Accessories

Type	Characteristics	Part number
RELIEF VALVE CE	100 BAR	35045931002
RELIEF VALVE CE	140 BAR	35045931402
RELIEF VALVE CE	210 BAR	35045932102
RELIEF VALVE CE	250 BAR	35045932502
RELIEF VALVE CE	330 BAR	35045933302
RELIEF VALVE CE	350 BAR	35045933502



## Accessories

# Safety Block DI 16 Manual Version

Standard version (Carbon steel, rings NBR) 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
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

\* without electro-valve

# Safety Block DI 16 Electrical Version

Standard version (Carbon steel, rings FKM) temperature -15°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	
	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 or 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
REGULATION BLOCK	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



## Accessories

# Safety Block DI 20 Manual Version

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

Part numbers

Connecting to accumulator	Type	Part number
EHV 2,5 up to 10 L G1"1/4	DI20MS/1/350CH	35172211Y01
EHV 10 up to 50 L G2"	DI20MS/3/330CH	35172213J01

# Safety Block DI 20 Electrical Version

Standard version (Carbon steel, rings NBR) 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/1/350CH24VCC	35172231Y21	DI20EYS/1/350CH230V50/60	35172231Y61
EHV 10 up to 50 L G2"	DI20EYS/3/210CH24VCC	35172233G21	DI20EYS/3/210CH230V50/60	35172233G61
EHV 10 up to 50 L G2"	DI20EYS/3/250CH24VCC	35172233H21	DI20EYS/3/250CH230V50/60	35172233H61
EHV 10 up to 50 L G2"	DI20EYS/3/330CH24VCC	35172233J21	DI20EYS/3/330CH230V50/60	35172233J61
EHV 10 up to 50 L G2"	DI20EYS/3/350CH24VCC	35172233Y21	DI20EYS/3/350CH230V50/60	35172233Y61

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 Manual Version

Standard version (Carbon steel, rings FKM) 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
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
ACCU PISTON 10 up to 50 L G2"&EBV 100 and 200 L	Consult Parker Olaer	

\* without electro-valve

# Safety Block DI 24 Electrical Version

Standard version (Carbon steel, rings FKM) temperature -15°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	
	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
PISTON ACCUMULATOR 10 up to 50 L G2"&EBV 100 and 200 L	Consult Parker Olaer	

Options or 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
REGULATION BLOCK	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



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