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



Bladder Accumulators

EHV from 250 to 690 bar

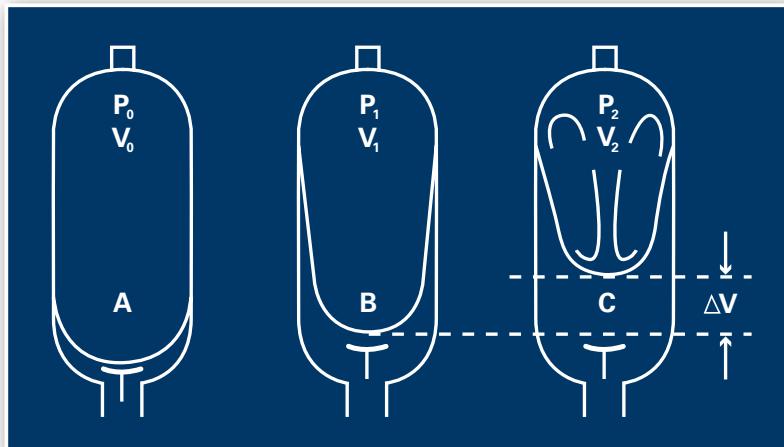


ENGINEERING YOUR SUCCESS.

Main Features

Operation principle

Operation of the Parker 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 = Nitrogen capacity 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 & 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 precharge position, which means that it is only filled with nitrogen. The anti-extrusion system closes the hydraulic orifice and prevents the destruction of the bladder.

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. Thus, P₀ must always be < P₁.

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

Your Benefits

- To increase your production rates thanks to large instantaneous flow rates that only accumulators can provide.
- Some spare power available at any time.
Example : EHV 50-330/90 Average flow : 650 L/min
- Maximum pressure available: 320 Bar
Minimum pressure available: 250 Bar
Average power = Average flow x Average pressure/600 = 308 kW
- The accumulator's ability to run independently reduces the installation cost while reducing your equipment running cost.
- With an accumulator in compliance with the European Standard, your Parker Olaer accumulator is suitable for use in more than 35 countries making it boundary friendly.

- 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.

Technical Characteristics

The accumulator comprises a pressure vessel including a valve steme device, a rubber bladder and a fluid port assembly.

- Shell material options include alloyed steel, stainless steel, aluminium, titanium and composites.

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. 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 precharge **P0 = 0,9 P1**.

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

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

P2 : Maximum available pressure : 210 Bar

P1 : Minimum working pressure : 100 Bar

P0 : Nitrogen precharge : 90 Bar

ΔV : Volume to be stored : 14L

Condition : Isothermal (No temperature variation)



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

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

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



Calculation of the volume drawn off from an accumulator.

Accumulator size = 12 L

P2 = 185 Bar; P1 = 100 Bar;

P0 = 90 Bar; Adiabatic condition

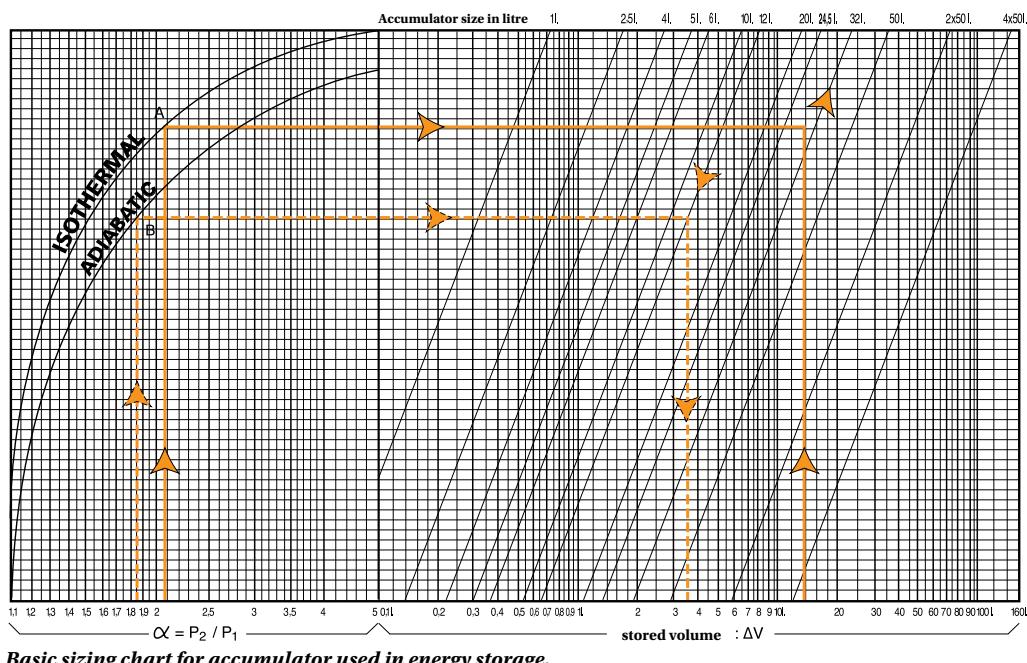
$\infty = P_2/P_1 = 185/100 = 1,85$

ΔV : 3,5 litres

*Reminder

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

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



Technical Characteristics

EHV Range from 0.2 to 10 Litres

Range 350 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Dimensions in mm													
			Max Flow Rate l/min	Weight in kg	Clamps x (quantity)	O-ring + anti-extrusion ring	Support bracket	Fixation assembly	A max height	B	C	øD max	ød	øE	F on flats	G connection
EHV 0,2 - 350/00*	0.17	350	120	2.5	A 56x1	consult page 10	-	-	268	38	24	58	16	39	24	G 1/2"
EHV 0,5 - 350/00*	0.60	350	240	3	E 95x1		-	-	259	54	28	91	16	50	32	G 3/4"
EHV 1 - 350/00*	1	350	240	6	E 114x1		CE 89	-	330	54	66	116	22.5	50	32	G 3/4"
EHV 1,6 - 350/90	1.6	350	240	8	E 114x1		CE 89	-	442	54	66	116	22.5	50	32	G 3/4"
EHV 2,5 - 350/90	2.4	350	450	11	E 114x2		CE 89	-	549	66	66	116	22.5	68	50	G 1 1/4"
EHV 4 - 350/90	3.7	350	450	15	E 168x1		CE 108	EF1	434	65	66	170	22.5	68	50	G 1 1/4"
EHV 5 - 350/90	5	350	450	17	E 114x2		CE 89	-	898	66	66	115	22.5	68	50	G 1 1/4"
EHV 6 - 350/90	6	350	450	20	E 168x1		CE 108	EF1	560	65	66	170	22.5	68	50	G 1 1/4"
EHV 10 - 350/90	10	350	450	31	E 168x2		CE 108	EF1	825	65	66	170	22.5	68	50	G 1 1/4"

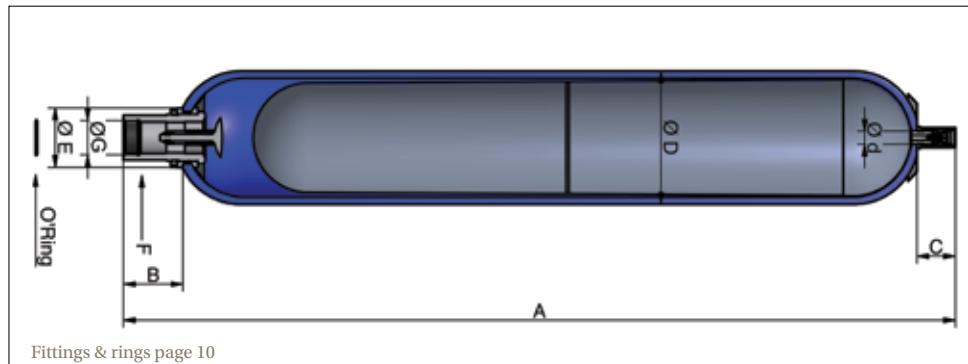
* According to the PED, article 3.3

Range 690 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Dimensions in mm												
			Max Flow Rate l/min	Weight in kg	Clamps x (quantity)	O-ring + anti-extrusion ring	Support bracket	A max height	B	C	øD max	ød	øE	F on flats	G connection**
EHV 1 - 690/90*	1.1	690	360	8.9	E 114x1	consult page 10	CE 89	376	68	69	122	22.5	68	45	G 1"
EHV 2,5 - 690/90	2.4	690	360	15	E 114x2		CE 89	551	68	69	122	22.5	68	45	G 1"
EHV 5 - 690/90	5	690	360	29	E 114x2		CE 89	900	68	69	122	22.5	68	45	G 1"

* According to the PED, article 3.3

**With the special adaptor



For alternative gas valves, see page 8.

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

EHV Range from 10 to 50 Litres

Range 330 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Max Flow Rate l/min	Weight in kg	Clamps x (quantity)	O-ring + anti-extrusion ring	Support bracket	Fixation assembly	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	D 226x2	consult page 10	CE 159A	EF2	587	103	66	226	22.5	101	70	G 2"
EHV 12 - 330/90	11	330	900	36	D 226x2		CE 159A	EF2	687	103	66	226	22.5	101	70	G 2"
EHV 20 - 330/90	17.8	330	900	49	D 226x2		CE 159A	EF2	897	103	66	226	22.5	101	70	G 2"
EHV 24.5 - 330/90	22.5	330	900	56	D 226x2		CE 159A	EF2	1032	103	66	226	22.5	101	70	G 2"
EHV 32 - 330/90	32	330	900	81	D 226x2		CE 159A	EF3	1420	103	66	226	22.5	101	70	G 2"
EHV 42 - 330/90	42	330	900	87	D 226x2		CE 159A	EF3	1562	103	66	226	22.5	101	70	G 2"
EHV 50 - 330/90	48.5	330	900	110	D 226x2		CE 159A	EF3	1936	103	66	226	22.5	101	70	G 2"
EHV 57 - 330/90	53	330	900	116	D 226x2		CE 159A	EF3	1936	103	66	226	50	101	70	G 2"

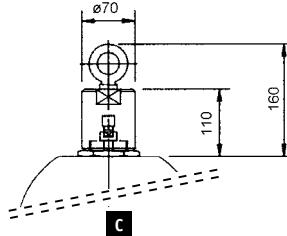
Range 480 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Max Flow Rate l/min	Weight in kg	Clamps x (quantity)	O-ring + anti-extrusion ring	Support bracket	Fixation assembly	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	D 226x2	consult page 10	CE 159A	EF2	593	103	74	228	22.5	101	70	G 2"
EHV 12 - 480/90	11	480	900	43	D 226x2		CE 159A	EF2	693	103	74	228	22.5	101	70	G 2"
EHV 20 - 480/90	17.8	480	900	63	D 226x2		CE 159A	EF2	903	103	74	228	22.5	101	70	G 2"
EHV 32 - 480/90	32	480	900	97	D 226x2		CE 159A	EF3	1428	103	74	228	22.5	101	70	G 2"
EHV 50 - 480/90	48.5	480	900	132	D 226x2		CE 159A	EF3	1967	103	99	228	51	101	70	G 2"

Range 690 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Max Flow Rate l/min	Weight in kg	Clamps x (quantity)	O-ring + anti-extrusion ring	Support bracket	Dimensions in mm							
								A max height	B	øD max	ød stem	øE	F on flats	G connection *	
EHV 12 - 690/90	11	690	900	97	11060x2	consult page 10	11061	682	84	267	50	110	77		G 2"
EHV 20 - 690/90	16.5	690	900	134	11060x2		11061	872	84	267	50	110	77		G 2"
EHV 37 - 690/90	33.4	690	900	227	11060x2		11061	1417	84	267	50	110	77		G 2"
EHV 54 - 690/90	53	690	900	318	11060x2		11061	1932	84	267	50	110	77		G 2"

* Requires a special adaptor



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

Flanged Connection

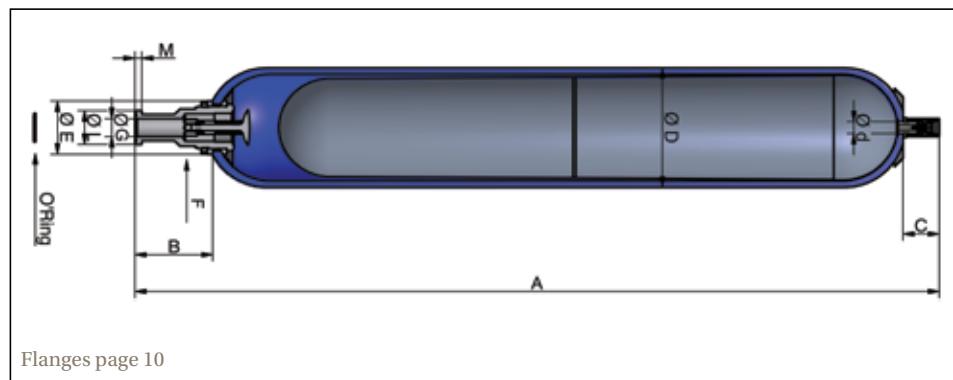
EHVF Range from 2.5 to 10 Litres

Range 350 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Max Flow Rate l/min	Max Weight in kg	Clamps x (quantity)	Connection (norme ISO 6162)	Dimensions in mm												
							Support bracket	Fixation assembly	Kit of flange (page 10)	A max height	B	C	øD max	ød	øE	F on flats	øG	øL	M
EHVF 2.5 - 350/90	2.4	350	450	11	E 114x2	1" SAE 6000 PSI	CE 89	EF4	BR 400-25	595	111	66	116	22.5	68	50	22	47.9	9.5
EHVF 4 - 350/90	3.7	350	450	15	E 168x2		CE 108	EF1	BR 400-25	480	110	66	170	22.5	68	50	22	47.9	9.5
EHVF 5 - 350/90	5	350	450	17	E 114x2		CE 89	EF4	BR 400-25	944	111	66	116	22.5	68	50	22	47.9	9.5
EHVF 6 - 350/90	6	350	450	20	E 168x2		CE 108	EF1	BR 400-25	606	110	66	170	22.5	68	50	22	47.9	9.5
EHVF 10 - 350/90	10	350	450	31	E 168x2		CE 108	EF1	BR 400-25	871	110	66	170	22.5	68	50	22	47.9	9.5

Range 330 bar

Type	Effective Gas vol. Litres	Work pressure (PS) bar	Max Flow Rate l/min	Max Weight in kg	Clamps x (quantity)	Connection (norme ISO 6162)	Support bracket	Fixation assembly	Kit of flange (page 10)	Dimensions in mm									
										A max height	B	C	øD max	ød	øE	F on flats	øG	øL	M
EHVF 10 - 330/90	9.2	330	900	31	D 226x2	1 ½" SAE 6000 PSI	CE 159A	EF2	BR 400-38	627	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 12 - 330/90	11	330	900	36	D 226x2		CE 159A	EF2	BR 400-38	727	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 20 - 330/90	17.8	330	900	49	D 226x2		CE 159A	EF2	BR 400-38	937	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 24.5 - 330/90	22.5	330	900	56	D 226x2		CE 159A	EF2	BR 400-38	1072	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 32 - 330/90	32	330	900	81	D 226x2		CE 159A	EF3	BR 400-38	1460	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 42 - 330/90	42	330	900	87	D 226x2		CE 159A	EF3	BR 400-38	1602	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 50 - 330/90	48.5	330	900	110	D 226x2		CE 159A	EF3	BR 400-38	1976	143	66	226	22.5	101	70	34	63.8	12.5
EHVF 57 - 330/90	53	330	900	116	D 226x2		CE 159A	EF3	BR 400-38	2072	143	66	226	22.5	101	70	34	63.8	12.5



For alternative gas valves, see page 8.

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

How to order?

Series	Volume	Max. working pressure	Regulation code	Construction	Nitrogen gas precharge	Adaptor to be specified
EHV	50	330	/90	01125	Po=90b	G1" cyl.

EHV: High pressure bladder accumulator
EHVF: EHV with Flange

in Litres

in Bar

00 : According to the PED, article 3.3
90 : According to the PED for all other the types
Others regulations : consult pages 14 & 15

to be specified as per following recommendations table

Fluid	Working Temperature °C	Construction*
Mineral oils	-20 + 80	01125*
Water	0 + 50	01025
Water	0 + 80	01225
Ester phosphate	- 15 + 80	01140
Other fluids	Other temperatures	Please contact Olaer

* standard construction

in Bar at 20 °C (please refer to the predetermination curves table on page 3 or consult Parker Olaer technical departments)

blind: with blank adaptor or without adaptor (refer to dimension I in table on page 10 and specify reduction size).

Ordering an accumulator

Please indicate type for accessories as per tables on page 4 to 7, and for peripheral materials as per table on pages 8 and 9.

Safety Blocks

Are designed to incorporate in a single compact block a variety of functions necessary for the correct operation of a hydraulic system fitted with accumulators. This includes manual and/or electrical drain, isolation, flow control and pressure relief.

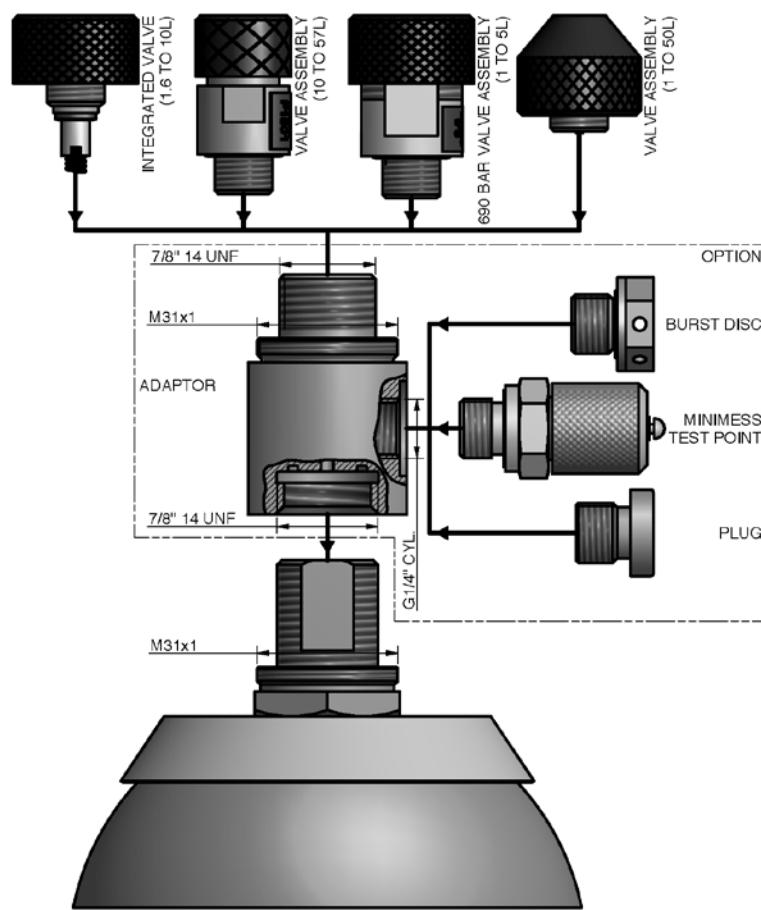
Channel cross section : 10 mm (DI 10 block), 16 mm (DI 16 block), 20 mm (DI 20 block), 24 mm (DI 24 block), 32 mm (DI 32 block), 50 mm (DI 50 block). Maximum working pressure : 330 to 690 Bar depending on models. According with the fluids of group II (PED). Options for ATEX compliant blocks construction carbon steel or stainless steel.

**Bursting Discs**

Parker Olaer bursting discs are available for most accumulators. For the EHV range of accumulators, we use a specially designed adaptor, available in carbon steel or stainless steel.

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

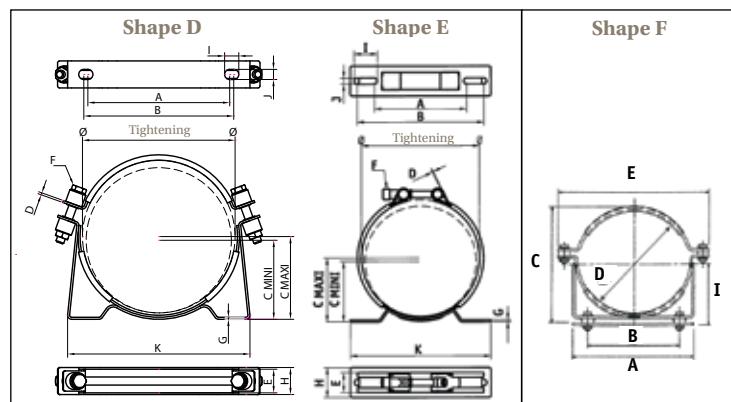
This is a secondary safety device, and it should be set higher than the normal hydraulic safety devices in the system.



Accessories

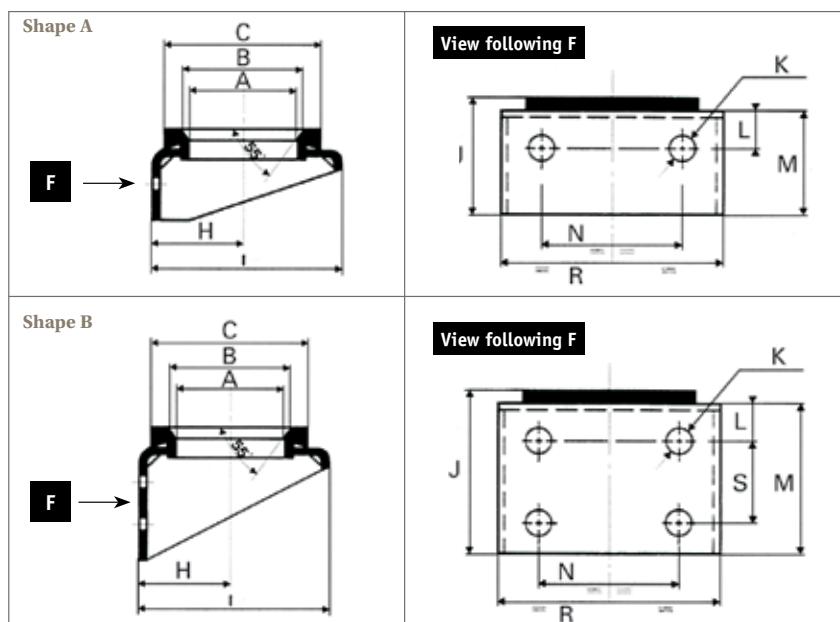
Clamps

Type	Shape	Recommended tightening min/max mm diameter	Dimensions in mm												Recommended tightening torque N.m.
			C		A	B	Min	Max	D	E	F	G	H	I	J
A 56	E	54/56	92	102	36	36	3	37	M10x80	3	31	14	9	134	7
E 95	E	87/97	88	140	61.5	66.5	1.5	28	M8x75	3	40	35	9	155	7
E 114	E	112/124	88	140	73	78	1.5	28	M8x75	3	40	35	9	155	7
E 168	E	166/176	137	189	92	96	1.7	30	M10x80	3	45	35	9	210	10.5
D226	D	219/226	210	222	119	122.5	3	35	M12x80	3	40	21	15	270	11
F260	F	260	260	195	263	-	260	295	-	-	-	-	-	295	-



Support Brackets

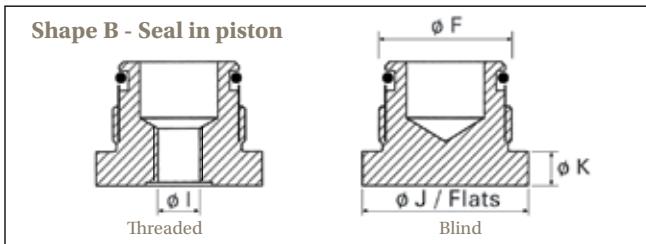
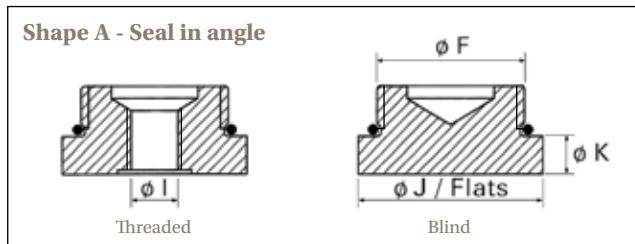
Type	Shape	A	B	C	H	I	J	K	L	M	N	R	S	Weight
CE 89	A	89	101	125	73	140	75	13	25	60	75	130	-	0.8
CE 108	A	108	120	150	92	175	95	17	25	80	160	210	-	1.5
CE 159A	B	159	170	200	123	235	115	17	25	100	200	260	40	2.9
CE 11061	B	-	-	-	137	250	206	17	45	191	108	216	111	6



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

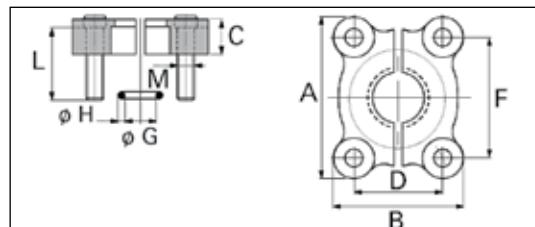
Fittings EHV

Accumulator model	Connection of accumulator ø F gas cyl.	Connection of fitting ø I gas cyl.	Shape	J/Flats	K	O-Ring & Back-up ring
EHV 0.5 & 1 & 1.6 Litres 350 Bar	3/4"	3/8" Blind	A/B A/B	- 32	8	A. O-Ring 21.3 x 2.4 B. O-Ring 16.9 x 2.7
EHV 2.5 to 10 Litres 350 Bar	1 1/4"	3/4" Blind	A/B A/B	50	10	A. O-Ring 36.2 x 3 B. O-Ring 30 x 3
EHV 0.2 Litres 350 Bar	1/2"	1/4" Blind	A A	27	8	O-Ring 18 x 2
EHV 1 to 5 Litres 690 Bar	1"	1/2" Blind	B B	41	10	A. BU R 22 x 28 x 0.69 x 2 B. O-Ring 21.3 x 3.6
EHV 10 to 50 Litres 330/480 Bar	2"	1" Blind	A/B A/B	65	13	A. O-Ring 54 x 3 B. O-Ring 48 x 3
EHV 10 to 50 Litres 690 Bar	2"	1" Blind	B B	65	15	O-Ring 43.82 x 5.33 BU R 45 x 54 x 0.85 x 2



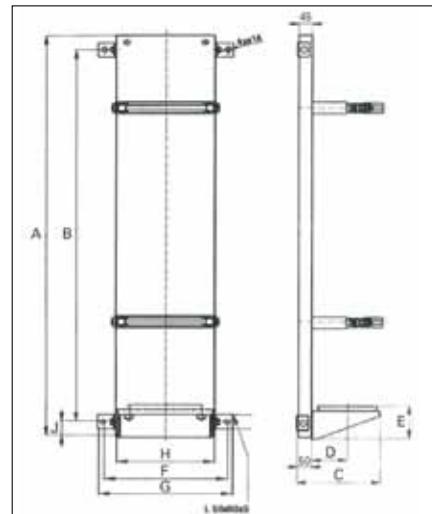
These accessories are designed to perfectly fit Parker Olaer accumulators. They meet the latest regulations and are compliant with the CETOP standard.

Flanges Kits EHVF



Type	A	B	C	D	F	ø G	ø H	L	M
BR 400-25	81	70	24	27.75	57.15	32.92	3.53	40	M12
BR 400-38	113	95	30	36.5	79.4	47.22	3.53	50	M16

These flanges are conforming following to ISO 6162.



Fixation Mounting Frames

Type	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

* For Accumulators Volume 4 & 6 & 10L ** For Accumulators Volume 10 UP TO 24.5L

*** For Accumulators Volume 32 UP TO 57L

Installed accumulator rack

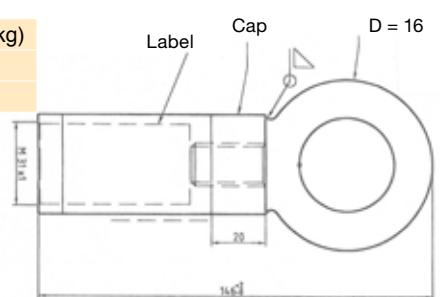
Parker Olaer design and manufacture modular compact assemblies. For any request, please refer to Parker Olaer technical services.

Lifting Eye

Following EC regulation for Parker Olaer accumulators (Directive Machine 2006/42/CE)

Type	Volume Accumulators	ø D	Mounting	A	Weight (kg)
109127	1 to 60 Litres	22	Nut of protection cap M31 x 1	146	0.65
090988	10 to 54 Litres	50	On valve stem M50 x 1.5		2.05

*Maximum load following the drawing see the sticker



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

Accessories

The charging sets are an indispensable instrument for the verification, pressurization and nitrogen bleeding of most of the hydraulic accumulators available on the market. To use this unit, it is screwed on the gas charging valve of the accumulator and connected via a high pressure hose to the nitrogen source, equipped with a pressure regulator. If only the nitrogen pressure is to be controlled or reduced, this hose is not necessary.

An Olaer pressure regulator – sold separately. It is mandatory to install a pressure regulator between the bottle or any nitrogen source and the charging set.



Model VG3

The standard set is delivered in a storage case containing the following:

- pressure gauge with standardized graduations in bar
- vent valve
- 3 connection adaptors 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 adaptor 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 minimess connection. To scale divisions 0-10,0-60,0-100,0-400, with accuracy class 1.6%.
- High pressure hose of different length with adaptors for nitrogen bottles from various countries are available (specify country)

Maximum working pressure: limited by the maximum operating pressure of the accumulator charging set pressure. Pressure limited of the installed hydraulic system to 400 bar in any case.



Model VGU

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 adaptors 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 Minimess connection. Scale divisions 0-10, 0-60, 0-100, 0-400, with accuracy class 1.6%.
- High pressure hose of different length with adaptors 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 limited to 400 bar in any case.



Installation

Position: Preferably vertical (liquid connection downwards) to horizontal, depending upon application. If the accumulator is installed in any position other than vertical with fluid port down, contact Parker Olaer. The accumulator could have reduced volumetric efficiency and Parker Olaer can help you to take these factors into account.

Mounting: A 200mm clearance is required above the accumulator to allow for gas charging. Each accumulator is delivered with a user instructions leaflet. Ensure that the pipes connected directly or indirectly to the accumulator are not subjected to any abnormal force. Ensure that the accumulator cannot move, or minimize any movement that may occur as a result of broken connections. Parker Olaer clamps and brackets are designed for this purpose (and can be supplied as optional extras). The accumulator must not be subjected to any stress or load, in particular from the structure with which it is associated. Contact Parker Olaer in case of mounting on the movable structures.

IT IS STRICTLY FORBIDDEN TO

- Weld, screw or rivet anything onto the accumulator body.
- Operate in any way that may alter the mechanical properties of the accumulator.
- Use the accumulator for construction purposes. (No stress or loading)
- To modify the accumulator without prior approval from the manufacturer.

GAS FILLING

For safety reasons, use only pure nitrogen, minimum 99.8% volume. In most of the cases the pre-charge pressure is between 0,9 P1 and 0,25 P2. Your local Parker Olaer office can calculate the correct pre-charge pressure for your application. Parker Olaer offers a range of devices for checking nitrogen pressure as well as pre-charging accumulators. Please note that various adaptors are required to interface with different accumulator filling valves and nitrogen (N2) cylinder connections throughout the world.

The part number defines the accumulator and the material construction. Information contained on the labeling/manufacturer's plate:

- Olaer logo
- Product description

- Date or year of manufacture
- Reference information of the accumulator
- Allowable temperature range of the accumulator

Additional information on certain models:

- Warning messages and safety instructions ("Danger", "Use nitrogen only" or similar message)
- Maximum inflation pressure P0 max in bar
- Allowable pressure amplitude P max in bar
- Fluid group (1 or 2 according to the Directive 97/23/EC)
- Total dry mass in kilogram

Maximum allowable operating pressure

The maximum pressure (PS) is indicated on the accumulator. Check that the maximum allowable pressure is greater than that of the hydraulic system. For any other pressure, you will have to contact Parker Olaer.

Maximum allowable operating temperature

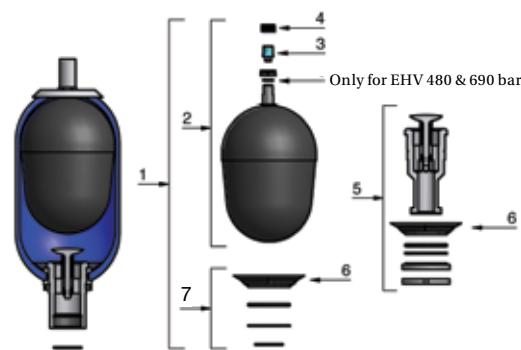
The temperature range (TS) is indicated on the accumulator. Check that the allowable temperature range covers the operating temperatures (environment and hydraulic fluid temperatures). For any other temperature, you will have to contact Parker Olaer.

Maintenance

Any intervention, maintenance, repair must be carried out by a qualified and trained personnel.

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

* These parts are supplied as a kit with instructions.



Regulations

Codification Table

Destination	Regulation	Parker Olaer Regulation Code		Comments
Europe	CE	90	-	Approval is based on the directive PED 97/23/CE rules. The CE marking will be apposed on the product for Pressure Vessel risk category >= I.
USA	ASME	15	Based on ASME VIII div 1 without appendix 22	This regulation is based on the design code ASME VIII div 1. The Appendix 22 defines special requirements for the case of integrally forged pressure vessels.
		48	Based on ASME VIII div 1 with appendix 22	
China	SELO	88	Based on CE	This regulation is only applicable for pressure vessels which maximum working pressure ≥ 0.1 MPa and maximum working pressure (Mpa) X volume (L) ≤ 2.5 MPa.L.
Canada	CRN	92	Based on ASME VIII div 1 app 22	Approval is based on ASME VIII div 1 design code. Others countries as example Alaska require a CRN registration. Also, each province and territorie of Canada has its own CRN rules, So, thank you to indicate the concerned province for quotation.
Australia	AS1210	83	Based on CE	Australian regulation is applicable for pressure vessels which maximum working pressure (MPa) X volume (internal volume in L) ≥ 30 Mpa.L in size.
		91	Based on ASME VIII div 1 app 22	
Japan	JIS	95	Based on ASME VIII div 1 app 22	Approval is based on ASME VIII div 1 design code (version 1998) and taking into account specific corrosion allowance value. JIS is applicable only for pressure vessels which internal diameter is higher than six inches.
Brasil	NR13	AA	Based on CE (AD-2000)	NR13 regulation is only applicable for pressure vessels which maximum working pressure (KPa) x internal volume (m ³) ≥ 8 . Also, technical documentation packaging must be established and joined to the equipment. A special marking has to be done on the pressure vessel according to NR13 requirements.
		AE	Based on ASME VIII div 1 app 22	
		AM	Based on CE (EN14359)	
Russia	GOST R	71	Based on CE	Certificate (CTR) must be established and joined to the equipment for delivery. Technical passport could be established if customer requires it.
		AU	Based on ASME VIII div 1 app 22	
Marine-Offshore	DNV	24	Based on CE	The marine and offshore applications have to respect some kind of classifications associated to third party (Notified body). This classification is often decided by the owner of the installation. All classification companies give almost the same approval process (design and manufacturing assessment). So, to see in details if the scope of these severals marine approvals are compatible with your application, please contact PARKER OLAER for accurate quotation.
	BUREAU VERITAS MARINE	11		
	ABS	41		
	LLOYDS REGISTER SHIPPING	10		
	GERMANISHER LLOYDS	73		
	RINA	26		
	DRILLING SYSTEMS	-		
France	NUCLEAR	90	-	Approval is based on RCCM design code and dedicated only to France market. For other countries out of France, ASME III div 1 is more recognized for nuclear plant activities.
Europe & Asia	NUCLEAR	AZ	Based on ASME III div 1	Approval is based on ASME III division 1, mainly on subsection NC for components class 2.

* For these specific regulations (and/or) if your destination is not mentioned in this table, please contact PARKER OLAER for further information.

Multi-Regulations codification examples*

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

How to include the correct regulation in your order?

Accu denomination example:

EHV 20-330 /XX

* For other regulations, please contact directly PARKER OLAER.



Approvals

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. Other options can be offered on request.

Designation Models	EUROPE				USA		CHINA		CANADA		AUSTRALIA	
	/90 CE Fluid Group 2	/90 CE Fluid Group 1	/90 ATEX EX	Max. Working Pressure (PS) bar	/15 /48 ASME VIII div1	Max. Working Pressure (PS) Psi (bar)	/88 SELO	Max. Working Pressure (PS) bar	/92 CRN	Max. Working Pressure (PS) Psi (bar)	/83 /91 AS1210	Max. Working Pressure (PS) bar
EHV 0,5 L	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 2.5 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	400
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				

NR13	BRASIL		RUSSIA		MARINE - OFFSHORE				Designation
	/AA /AE /AM	Max. Working Pressure (PS) bar	/71 /AU	GOST R	Max. Working Pressure (PS) bar	/24	/11	/41	
x	350	on request	350		x		x		EHV 0,5L
	300		300						EHV 1 to 5 L
x	350		350	x	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	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	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	250		250						EHVF 10 to 50 L
x	330		330						EHVF 10 to 50 L

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MX – Mexico, Apodaca

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EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL,
IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

US Product Information Centre

Toll-free number: 1-800-27 27 537

www.parker.com



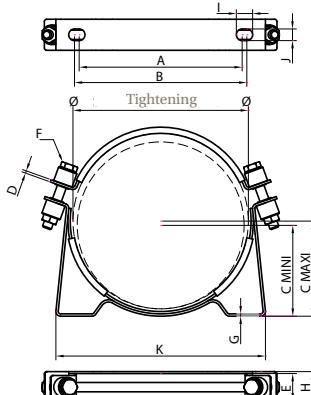
Clamps

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

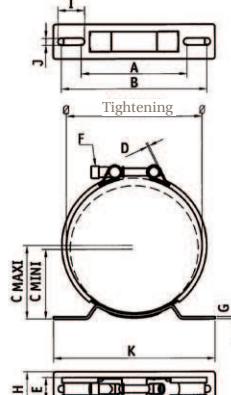
Type Part number	Design	RECOMMENDED Min to Max TIGHTENING ϕ mm
A56 20149203625	E	54 to 56
E95 20250803648	E	87 to 97
E106 20250903648	E	99 to 109
E114 20251003648	E	112 to 124
E136 20251103648	E	128 to 138
E155 20251203648	E	146 to 157
E160 20259003648	E	155 to 165
E168 20251303648	E	166 to 176
E180 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			
	C		D	E	F	G	H	I	J	K								
	A	B																
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			

Shape D



Shape E



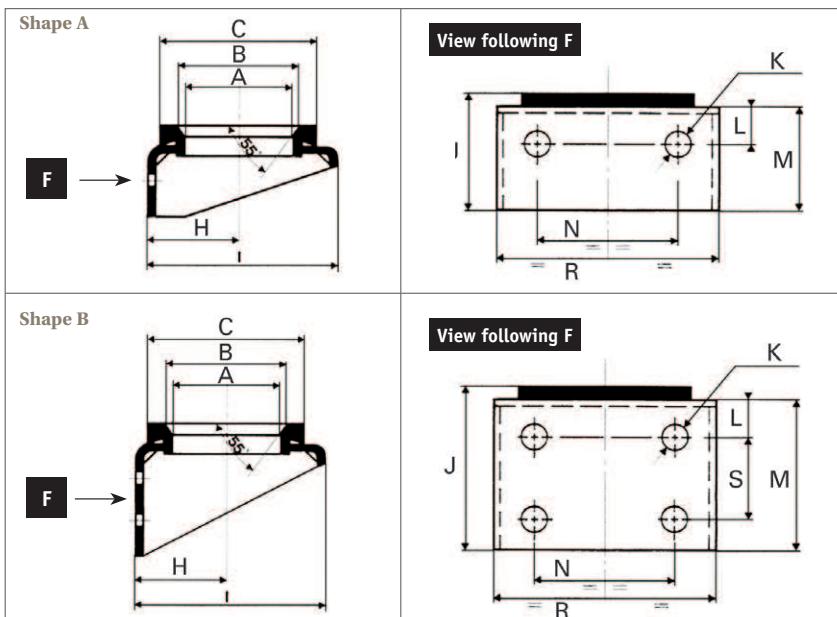
Support Brackets

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

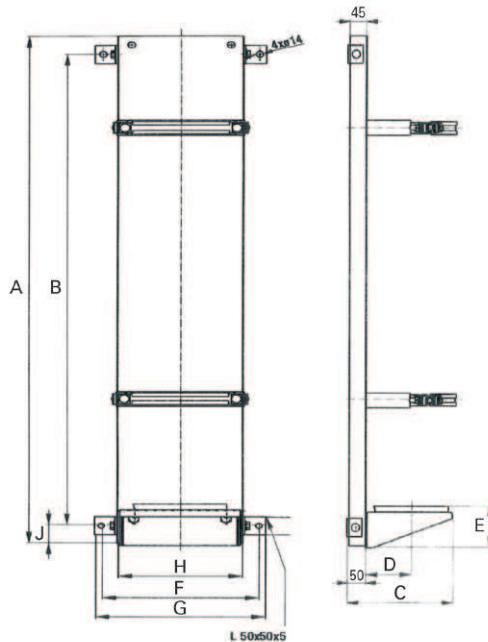
Mounting Frames

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



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 Minimess® connection. Scale divisions 0-10, 0-60, 0-100, 0-400, with accuracy class 1.6%.
- High pressure hose of different length with adapters for nitrogen bottles from various countries (specify country), at each end with a female swivel coupling G1/4" for connecting to the inflation port.

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

Type	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

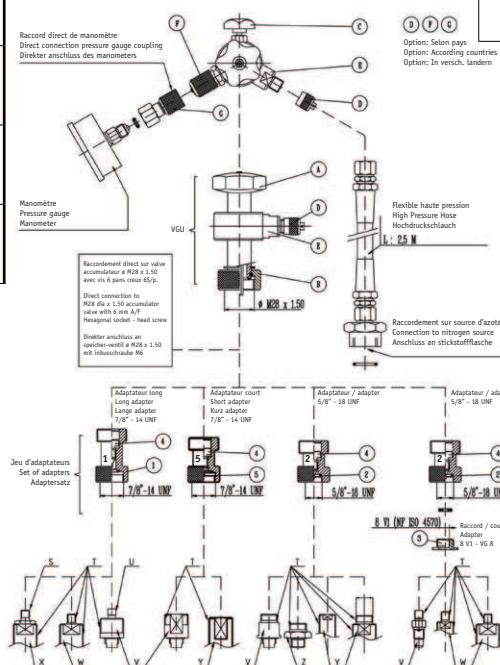
How to order a VGU Charging set: see page 54

Spare Parts Gauge Kit VGU

Type
Part number
0 to 25 bar
00090300000

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



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 :

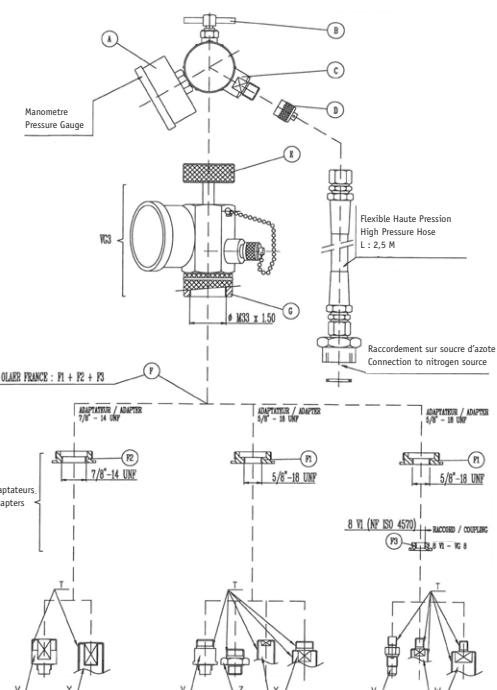
- Pressure gauge with different scale divisions : 63 mm with glycerol bath back end G1/4" BSP equipped with direct gear for minimess® connection. To scale divisions 0-10,0-60,0-100,0-400, with accuracy class 1.6%.
- High pressure hose of different length with adapters for nitrogen bottles from various 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		
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		

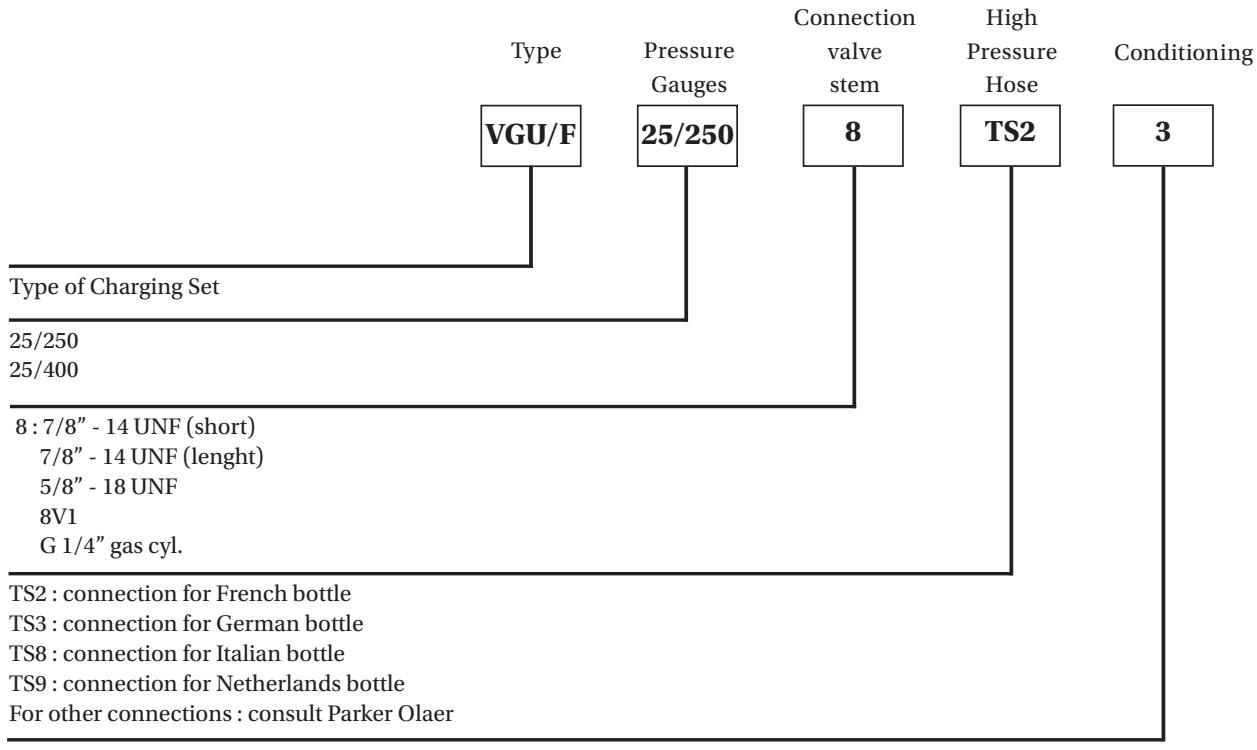
Spare Parts Adaptors VG3

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

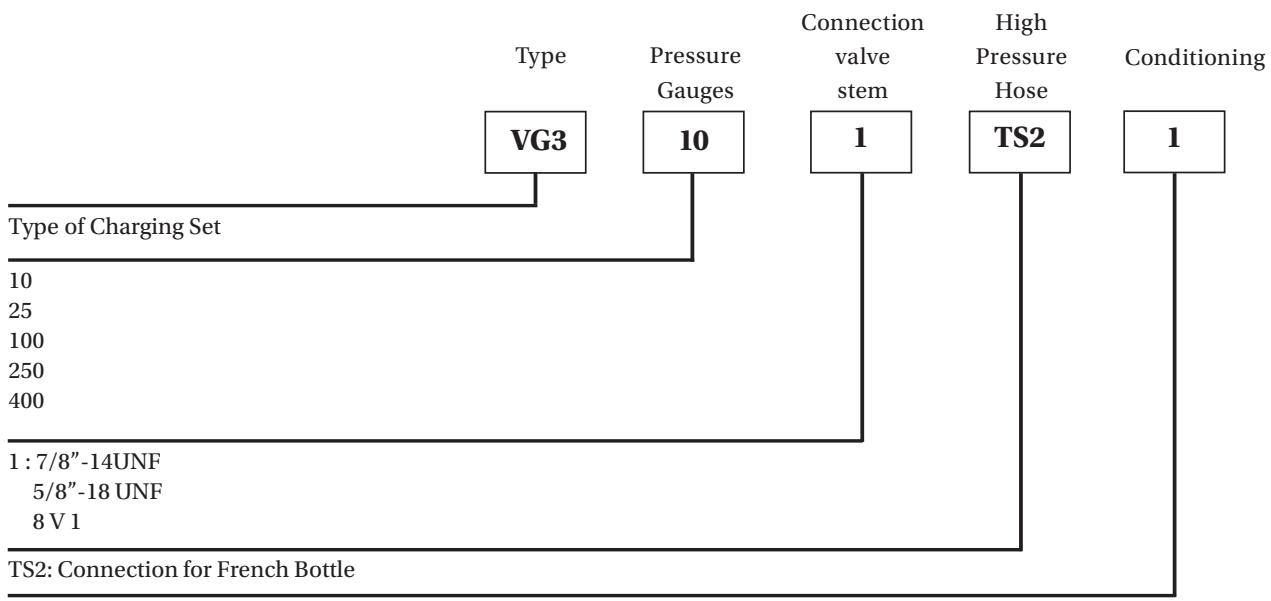


How to order a VG3 Charging set: see page 54

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.

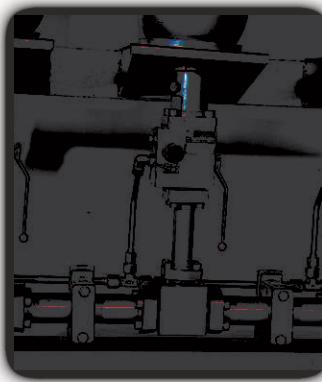
These blocks are in conformity with the European Directive on the equipment under pressure (97/23), these appliances have been designed to group together in a single compact unit all the components necessary for the correct operation of a hydraulic system equipped with hydropneumatic accumulators.

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

Type	Nominal size in mm	Discharge valve	Flow Control valve	Connection Accumulator side	Adjusting Pressure of relief valve en bar	Approval of relief valve	Seals Material	Electro-valve tension
DI	24	EY	S	6	250	C	V	230 V 50/60
<hr/>								
Type DI								
10, 16, 20, 24, 32								
M: Manual								
EY: Electrical, normally open (all models)								
EX: Electrical, normally closed (DI10/DI20/DI32)								
S: Without								
R: With limitor (consult Parker Olaer)								
O: Without connection								
* Other connections: consult page 9								
Standard: 40/80/100/210/250/330/350								
Other Value: consult Parker Olaer								
C: with EC approval								
B: for glycol water Butyl (IIR)								
E: for skydrol Ethylene - Propylene (EPDM)								
H: minerals oils Perbunan (NBR)								
V: all fluids except skydrol Viton (FPM)								
00: without electro-valve								
24VDC								
230V50/60								
Other tensions: consult Parker Olaer								

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



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



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

