



RCC-M



# Regulations and Protections

EBV and EHV series



ENGINEERING YOUR SUCCESS.

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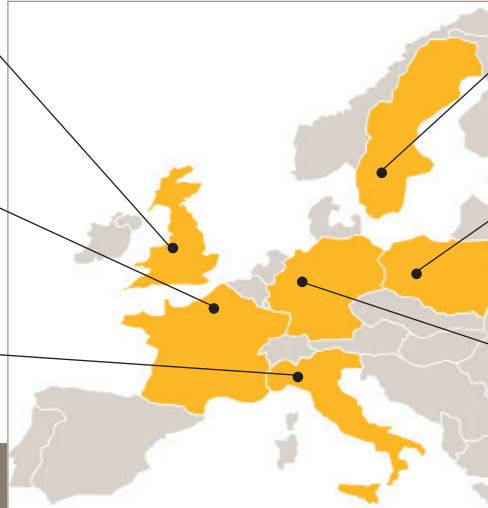
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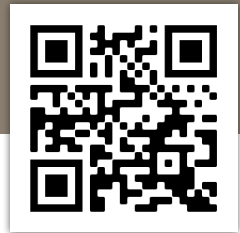
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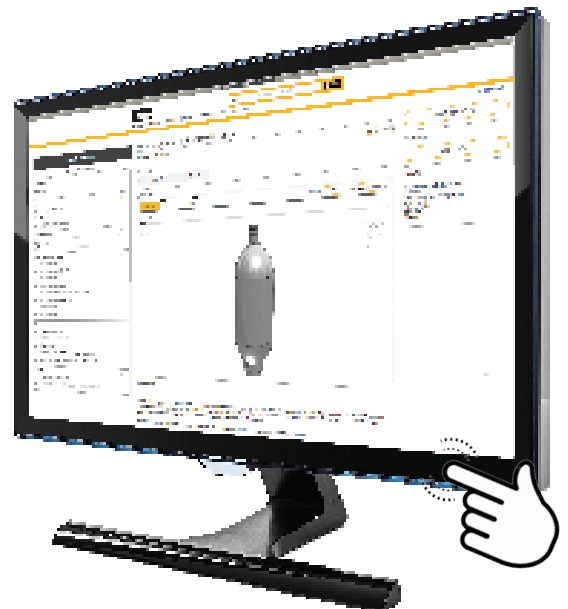
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## Additional Regulations

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

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

Destination	Regulation	Regulation code		Comments
EUROPE	PED	90		Approval is based on the directive PED 2014/68/EU requirements. The CE marking will be apposed on the product for Pressure Vessel category >= I. Notified body must be engaged for PED conformity assessment for pressure vessel category >= II.
	PED	00		Product is compliance with directive PED 2014/68/EU and classified as art 4.3 (Sound Engineering Practice). No CE marking is stamped on product.
USA	ASME	48 or 51	Base ASME VIII div 1 with or without appendix 22	This regulation is based on the design code ASME VIII div 1 with or without appendix 22. Appendix 22 is only applicable for forged shells (under some conditions). To be conform to this regulation, products must be followed all the rules defined in this code. The U-stamp apposed on pressure equipment attest ASME compliance.
CHINA	SELO	88	Base PED	SELO regulation is only applicable for pressure vessels where : maximum working pressure $\geq 0.1$ Mpa internal volume $\geq 30$ L and inner diameter $\geq 150$ mm Refer to „AQSIQ Announcement No. 114, 2014 on the Revision of Special Equipment Catalogue“, code 2000 for pressure vessel definition.
CANADA	CRN	92	$\geq 152,4$ mm, Based on ASME	Approval is based on ASME VIII div 1 design code. Others countries as example Alaska require a CRN registration. Also, each province and territory of Canada has its own CRN rules, so, please indicate the concerned province for quotation.
	CRN		$< 152,4$ mm, based on PED	Pressure equipment, where internal diameter $< 6$ inch, could be registered as fitting under CRN consideration.
AUSTRALIA	AS1210	83 or 91	Base PED or ASME	Australian regulation is applicable for pressure vessels which maximum working pressure (MPa) X volume (internal volume in L) is higher than 30 MpaL in size.
JAPAN	JIS	95		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 (152,4 mm).
BRASIL	NR13	AA AM AE	Base PED Based on Art 4.3 acc. To PED Based on ASME VIII div 1	NR 13 regulation is only applicable for pressure vessels which maximum working pressure in KPa x V (internal volume in m3) is higher than 8. Also, technical documentation packaging must be established and joined to the equipment. Special marking has to be done on the pressure vessel according to NR13 requirements.
RUSSIA, KAZAKHSTAN BELARUS	CUTR 032/2013	71	Based on PED	CUTR DoC or CoC must be established and joined to the equipment for delivery depending on risk category for pressure vessel. Technical passport could be established if customer requires it. Special nameplate (@ minima English and Russian languages) must be put on the pressure equipment to be compliance with this certification.

Destination	Regulation	Regulation code		Comments
MARINE - OFFSHORE	DNV GL Det Norske Veritas and Germanischer Lloyd's	24, 43	Based on PED and design code EN 14359	Off-shore Standard DNVGL OS-D101 is often required for accumulators on off-shore oil and gas applications, particularly in the North Sea. EHV accumulators are also certified DNV GL through Type Approval based on "EN 14359" standard. Through final inspection conducting by surveyor, a product certificate is delivered with the accumulator.
	BV BUREAU VERITAS MARINE	11, 13	Based on PED and design code EN 14359	BV Rules for the classification of Steel Ships NR 467 is often required for accumulators on offshore applications. Also, EHV accumulators are certified BV Marine through Type Approval based on "EN 14359" standard. A product certificate is delivered with the accumulator.
	ABS AMERICAN BUREAU OF SHIPPING	41, 23	Based on PED and design code EN 14359	ABS certification is required for accumulators installed on shipping vessels and oil rigs. To be added to a Product Design Assessment Certificate (PDA), accumulators must meet generally ABS steel vessel rules. Also, EHV accumulators are ABS certified based on "EN 14359" standard. All ABS approved accumulators must be witness tested at Parker by an ABS inspector
MARINE - OFFSHORE	RINA	26		To check in details if the scope of this marine approval is compatible with your application, please contact PARKER for feasibility.
France	NUCLEAR	90	Classified as NPE (Nuclear Pressure Equipment)	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.
	NUCLEAR	BN	Non-Classified as NPE (Nuclear Pressure Equipment)	
EUROPE & USA	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 pressure equipment designated to countries other than France.

### How to include the right regulation in your order?

Example:

<b>EHV</b>	<b>20</b>	<b>330</b>	<b>xx</b>	<b>A</b>	<b>25</b>	<b>G</b>	<b>C</b>	<b>2</b>	<b>00</b>	<b>/</b>	<b>100</b>
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↑  
Regulation Code

Code	Regulations
<b>90 EX</b>	PED + ATEX
<b>94</b>	PED + ASME
<b>88</b>	PED + SELO
<b>86</b>	PED + ASME + SELO

For any other regulations, please contact PARKER.

## Regulations by Country

Country	Regulation or Multi-approval	Code <sup>1</sup>	PARKER
			General Information
<b>Algeria</b>	ARH	74	Hydrocarbon Regulatory Authority Based on CE or ASME Approval ARH dossier must be established and approved by the competent authorities
<b>Argentina</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Australia</b>	AS1210	83 91	CE + AS 1210 ASME VIII Div.1 App.22 + AS 1210
<b>Austria</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Bahamas</b>	CE OR ASME VIII Div 1	90 94 48 51	CE : PED 2014/68/EU CE + ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1, more dedicated to welded shells
<b>Barbados</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Belarus</b>	CUTR 032/2013 + technical passport	71	CUTR 032/2013 regulation applicable for Custom Union countries Russia, Kazakhstan, Belorussia – See PARKER
<b>Belgium</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Bermuda</b>	CE OR ASME VIII Div 1	90 94 48 51	CE : PED 2014/68/EU CE + ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1, more dedicated to welded shells
<b>Bolivia</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Brazil</b>	CE+NR13 CE+AS-ME+NR13	AA AB	Brazilian Regulation, based on CE or ASME approval, Technical dossier must be established, special marking and nameplate acc.to NR13 regulation
<b>Bulgaria</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Canada</b>	CRN (base ASME)	31 92 97	ASME VIII Div.1 + CRN (all provinces) ASME VIII Div.1 App.22 + CRN (all provinces), only applicable for forged shells CE + ASME VIII div. 1 App 22 + SELO + CRN (all provinces), only applicable for forged shells

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP

Country	Regulation or Multi-approval	Code <sup>1</sup>	PARKER
			General Information
<b>Chile</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>China</b>	CE	90	PED 2014/68/EU for pressure vessels where volume <= 30L or internal Ø <= 150mm
	SELO	85	SELO only : Chinese regulation, SELO applicable if volume > 30L and internal Ø > 150mm
		88 86	CE + SELO CE + SELO + ASME VIII DIV.1 App.22, only applicable for forged shells
<b>Costa Rica</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Czech Republic</b>	CE + Technical passport	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Denmark</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Ecuador</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Egypt</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Estonia</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Finland</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>France</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Germany</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Hong Kong</b>	SELO	85	SELO only : Chinese regulation, SELO applicable if volume > 30L and internal Ø > 150mm
		88 86	CE + SELO CE + SELO + ASME VIII DIV.1 App.22, only applicable for forged shells
<b>Hungary</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Iceland</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>India</b>	CE OR ASME VIII Div 1 (no U-stamp)	90	CE : PED 2014/68/EU
		94	CE + ASME VIII Div.1 App.22, only applicable for forged shells
		48	ASME VIII Div.1 App.22, only applicable for forged shells
		51	ASME VIII Div.1, more dedicated to welded shells

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP

			PARKER
Country	Regulation or Multi-approval	Code <sup>1</sup>	General Information
<b>Indonesia</b>	No specific regulation	90	CE : PED 2014/68/EU CE + ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1, more dedicated to welded shells
		94	
		48	
		51	
<b>Iraq</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Ireland</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Israel</b>	CE or ASME	90 94	CE : PED 2014/68/EU CE + ASME VIII Div. 1 App.22, only applicable for forged shells
<b>Italy</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Japan</b>	JIS	95	JIS + ASME VIII DIV. 1 App.22 : Japanese industrial regulation (Japanese Industry Standard) + ASME VIII div. 1 applicable if internal Ø > 6", Only applicable for forged shell
<b>Jordan</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Korea</b>	CE or ASME	90	CE : PED 2014/68/EU CE + ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1, more dedicated to welded shells
		94	
		48	
		51	
<b>Kuwait</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Latvia</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Lebanon</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Libya</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Lithuania</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Luxembourg</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Malaysia</b>	DOSH Malaysia	AV	ASME VIII Div. 1 App 22 + DOSH, only applicable for forged shells CE + DOSH CE + ASME VIII Div. 1 App.22 + DOSH, only applicable for forged shells
		BB BJ	

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP

			PARKER
Country	Regulation or Multi-approval	Code <sup>1</sup>	General Information
<b>Malta</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Mexico</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Netherlands</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>New Zealand</b>	AS1210	83 91	CE + AS 1210 ASME VIII Div. 1 App.22 + AS 1210
<b>Nigeria</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Norway</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Pakistan</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Peru</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Philippines</b>	CE or ASME	90	CE : PED 2014/68/EU CE + ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1, more dedicated to welded shells
		94	
		48	
		51	
<b>Poland</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Portugal</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Puerto Rico</b>	CE or ASME	90	CE : PED 2014/68/EU CE + ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1, more dedicated to welded shells
		94	
		48	
		51	
<b>Romania</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Russia</b>	CUTR 032/2013 + technical passport	71	CUTR 032/2013 regulation applicable for Custom Union countries Russia, Kazakhstan, Belorussia – See PARKER ITALY
<b>Saudi Arabia</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Singapore</b>	CE or ASME	90	CE : PED 2014/68/EU CE + ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1 App.22, only applicable for forged shells ASME VIII Div. 1, more dedicated to welded shells
		94	
		48	
		51	
<b>Slovakia</b>	CE + Technical passport	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Slovenia</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)

<b>PARKER</b>			
<b>Country</b>	<b>Regulation or Multi-approval</b>	<b>Code<sup>1</sup></b>	<b>General Information</b>
<b>South Africa</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Spain</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Sweden</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Switzerland</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Taiwan</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Thailand</b>	CE or ASME	90	CE : PED 2014/68/EU CE + ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1, more dedicated to welded shells
		94	
		48	
		51	
<b>Tunisia</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Turkey</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>United Kingdom</b>	CE, Pressure Systems Safety Regulations (PSSR)	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>USA</b>	CE if internal Ø < 6" ASME VIII Div 1 (U-stamp) if internal Ø > 6"	90	CE : PED 2014/68/EU CE + ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1 App.22, only applicable for forged shells ASME VIII Div.1, more dedicated to welded shells
		94	
		48	
		51	
<b>Venezuela</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)
<b>Yugoslavia (Serbia Montenegro)</b>	CE	90	PED 2014/68/EU Fluid Group 1 (and/or 2)

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP



# Regulations for Low Pressure Bladder Accumulators, EBV Series

Carbon Steel & Stainless Steel

Destination	EUROPE				USA		CHINA	RUSSIA, KAZAKHSTAN, BELARUS	
	/90 /00	/90 /00	/90 EX		/15 /48		/85		/71
Models	PED FLUID GROUP 2	PED FLUID GROUP 1	ATEX	Maximum Working Pressure (Bar)	ASME VIII div. 1	Maximum Working Pressure bar (Psi)	SELO	CUTR 032/2013	Maximum Working Pressure (Bar)
EBV 0,5L	•	•	•	50			N/A		
EBV 0,5L	•	•	•	40			N/A		
EBV 1 - 5L	•	•	•	80			N/A	•	80
EBV 1 - 5L	•	•	•	40			N/A	•	40
EBV 10 - 20L	•	•	○	40			N/A	•	40
EBV 10 - 20L	•	•	•	40	•	40 bar (580)	N/A	•	40
EBV 10 - 50L	•	○	○	14 or 20	•	20 bar (290)	⊗	•	20
EBV 32 - 50L	•	•	○	40			•	•	40
EBV 32 - 50L	•	•	•	40	•	40 bar (580)	•	•	40
EBV 100 - 200L	•	•	○	40			•	•	40
EBV 100 - 200L	•	•	•	20	•	20 bar (290)	•	•	20
EBV 100 - 200L	•	•	○	50			•	•	50
EBV 100 - 200L	•	○	○	14 or 20	•	20 bar (290)	⊗	•	20
EBV 100 - 575L	•	•	•	20	•	20 bar (290)	•	•	20
EBV 100 - 575L	•	•	•	8	•	20 bar (290)	•	•	8
EBV 100 - 575L	•	•	•	16			•	•	16
EBV 100 - 575L	•	•	•	20			•	•	20
EBV 100 - 575L	•	•	•	40			•	•	40
EBV 100 - 575L	•	○	○	14 or 18	•	18 bar (261)	⊗	•	18
EBV 100 - 575L	•	○	○	35	•	35 bar (507)	⊗	•	35

(2) Based on ASME Certification, whatever Province CRN could be obtained

(3) Based on ASME Certification, whatever Design Verification could be obtained

• available | ○ available on request

# Regulations for High Pressure Bladder Accumulators, EHV Series

## Carbon Steel & Stainless Steel

Destination	EUROPE				USA		CHINA		CANADA		AUSTRALIA		
Regulation codification	/90 /00	/90 /00	/90 EX		/15 /48		/85		/92			/83	/91
Models	PED FLUID GROUP 2	PED FLUID GROUP 1	ATEX	Maxi. Working Pressure (bar)	ASME VIII div. 1	Maximum Working Pressure Psi	SELO	Maxi. Working Pressure (bar)	CRN	Maximum Working Pressure Psi	AS1210	Maxi. Working Pressure (bar)	Maximum Working Pressure Psi (Bar)
EHV (special) 5L	•	◦	◦	330	◦		◦		◦		◦		
EHV 0,2L	•	•	•	350	N/A								
EHV 0,5L	•	•	•	350	N/A		N/A		◦		◦		
EHV 1 to 5L	•	•	•	350	N/A		N/A		◦		•	350	
EHV 1 to 5L	◦	•	•	690	N/A		N/A		◦		◦		
EHV 1 to 5L	•	•	•	300	N/A		N/A		◦		◦		
EHV 1 to 5L	•	•	•	120	◦		N/A		◦		◦		
EHV 10 to 50 L	•	◦	◦	110	•	1595 (110 Bar)	◦		◦	(2) 1595 (110 Bar)	◦		(3) 1595 (110 Bar)
EHV 10 Short to 50 L	•	◦	◦	110	•	1595 (110 Bar)	◦		◦	(2) 1595 (110 Bar)	◦		(3) 1595 (110 Bar)
EHV 10 to 24.5L	◦	•	◦	300	•	3000 (207 Bar)	N/A		•	3000 (207 Bar)	◦		
EHV 10 to 24.5L	•	•	◦	330	•	3600 (248 Bar)	N/A		•	3600 (248 Bar)	•		3600 (248 Bar)
EHV 10 to 24.5L	◦	•	◦	380	•	4000 (276 Bar)	N/A		•	4000 (276 Bar)	•		4000 (276 Bar)
EHV 10 to 24.5L	•	•	•	690	◦		N/A		◦		◦		
EHV 10 to 50 L	•	◦	◦	70	•	1015 (70 Bar)	◦		◦	(2) 1015 (70 Bar)	◦		(3) 1015 (70 Bar)
EHV 10 to 57L	•	•	•	480	◦		•	480	◦		•	400	
EHV 10 to 57L	•	◦	•	480	◦		•	480	◦		◦		
EHV 100 to 200L	•	•	◦	300	◦		•	300	◦		◦		
EHV 12 to 54L	◦	•	•	690					◦				
EHV 32 to 50L	•	•	•	690	◦				◦		◦		
EHV 32 to 57L	◦	•	◦	300	•	3000 (207 Bar)	•	300	•	3000 (207 Bar)	◦		
EHV 32 to 57L	•	•	◦	330	•	3600 (248 Bar)	•	330	•	3600 (248 Bar)	•		3600 (248 Bar)
EHV 32 to 57L	◦	•	◦	380	•	4000 (276 Bar)	•	380	•	4000 (276 Bar)	•		4000 (276 Bar)
EHV 4 to 60L	◦	◦	◦		•	5000 (345 bar)	◦		◦		◦		
EHV 4 to 60L	◦	◦	◦		•	6000 (413 Bar)	◦		◦		◦		
EHV 4L-6L-10L	•	•	•	350	•	4000 (276 Bar)	N/A		◦		•	320	
EHV 4L-6L-10L	•	•	•	210	◦		N/A		◦		◦		
EHVDA 10 to 24,5L	•	•	•	330	•	3600 (248 Bar)	N/A		•	3600 (248 Bar)	•		3600 (248 Bar)
EHVDA 2,5 to 5L	•	•	•	350	N/A		N/A		◦		◦		
EHVDA 32 to 57L	•	•	•	330	•	3600 (248 Bar)	•	330	•	3600 (248 Bar)	•		3600 (248 Bar)
EHVDA 4L-6L-10L	•	•	•	350	•	4000 (276 Bar)	N/A		◦		◦		
EHVF 10 to 24.5L	•	•	◦	330	◦		N/A		◦		◦		
EHVF 2,5 to 10L	•	•	◦	350	◦		N/A		◦		◦		
EHVF 32 to 50L	•	•	◦	330	◦		•	330	◦		◦		

Destination	BRAZIL			RUSSIA, KAZAKHSTAN, BELARUS			MARINE - OFFSHORE							France		
		/AE	/AA		/71	/AU	/43 /24		/13 /11		/23 /41		/ 24			
Regulation codification																
Models	NRL13	Maxi. Working Pressure (bar)	Maximum Working Pressure (Bar)	CUTR 032/2013	Maxi. Working Pressure (bar)	Maximum Working Pressure Psi	DNV MOBILE SHIPS	Maxi. Working Pressure (bar)	BUREAU VERITAS MARINE	Maxi. Working Pressure (bar)	ABS AMERICAN BU - REAU OF SHIPPING	Maxi. Working Pressure (bar)	GL GERMANISCHER LLOYD'S	Maximum Working Pressure (Bar)	NUCLEAR	Maxi. Working Pressure (bar)
EHV (special) 5L	○			○											●	330
EHV 0,2L																
EHV 0,5L	●		350				●	350		350	●	350	●	350		
EHV 1 to 5L	●		350	●	350		●	350	●	350	●	350	●	350		
EHV 1 to 5L	●		690	●	690		○		○		○		○			
EHV 1 to 5L	●		300	●	300		○		○		○		○			
EHV 1 to 5L	●		120	●	120		○		○		○		○			
EHV 10 to 50 L				●	110	1595 (110 Bar)										
EHV 10 Short to 50 L				●	110	1595 (110 Bar)										
EHV 10 to 24.5L	●	3000 (207 )	300	●	300	3000 (207 Bar)	○		○		○		○			
EHV 10 to 24.5L	●	3600 (248 )	330	●	330	3600 (248 Bar)	●	330	●	330	●	330	●	330		
EHV 10 to 24.5L	●	4000 (276 )	380	●	380	4000 (276 Bar)	○		○		○		○			
EHV 10 to 24.5L	●		690	●	690		○		○		○		○			
EHV 10 to 50 L				●	70	1015 (70 Bar)										
EHV 10 to 57L	●		480	●	480		○		○		○		○			
EHV 10 to 57L	●		480	●	480		●	480	○		○		●	480		
EHV 100 to 200L	●		300	●	300		○		○		○		○			
EHV 12 to 54L	●		690	●	690											
EHV 32 to 50L	●		690	●	690		○		○		○		○			
EHV 32 to 57L	●	3000 (207 )	300	●	300	3000 (207 Bar)	○		○		○		○			
EHV 32 to 57L	●	3600 (248 )	330	●	330	3600 (248 Bar)	●	330	●	330	●	330	●	330		
EHV 32 to 57L	●	4000 (276 )	380	●	380	4000 (276 Bar)	○		○		○		○			
EHV 4 to 60L	●	5000 (345 )		●		5000 (345 bar)	○		○		○		○			
EHV 4 to 60L	●	6000 (413 )		●		6000 (413 Bar)	○		○		○		○			
EHV 4L-6L-10L	●	4000 (276 )	350	●	350	4000 (276 Bar)	●	350	●	350	●	350	●	350		
EHV 4L-6L-10L	●		210	●	210		○		○		○		○			
EHVDA 10 to 24,5L	●	3600 (248 )	330	●	330	3600 (248 Bar)	●	330	●	330	●	330	●	330		
EHVDA 2,5 to 5L	●		350	●	350											
EHVDA 32 to 57L	●	3600 (248 )	330	●	330	3600 (248 Bar)	●	330	●	330	●	330	●	330		
EHVDA 4L-6L-10L	●	4000 (276 )	350	●	350	4000 (276 Bar)	●	350	●	350	●	350	●	350		
EHVF 10 to 24.5L	●		330	●	330		○		○		○		○			
EHVF 2,5 to 10L	●		350	●	350		○		○		○		○			
EHVF 32 to 50L	●		330	●	330		○		○		○		○			

(1) Pressure rating different from PED, based on ASME material, possibility of U-STAMP

(2) Based on ASME Certification, whatever Province CRN could be obtained

(3) Based on ASME Certification, whatever Design Verification could be obtained

● available | ○ available on request

## Anti-Corrosion Materials

Protections available from Parker  
Example : from EHV 4-350/90 PART NUMBER 1084540XX25

Construction code		11 (standard version)	20	84	85
Accumulator shell	Coating	Primar Coating RAL 5005 External	EPOXY 80 microns Internal	RILSAN® 200-300 microns Internal/External	
	Material	Carbon Steel	Carbon Steel	Carbon Steel	
Valve Stem, Fluid port, and Protection Cap		Zinc plated Carbon Steel	Stainless Steel	Stainless Steel	Zinc plated Carbon Steel
Volume					
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
10 (ø 170)		x	x	x	x
10 ( ø 226)		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

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 at Parker if you are uncertain what you may require or for more details on the various coatings.

## Bladder Materials and Types

Bladder mixes available from Parker Olaer.

Example : from EHV 4-350/90 PART NUMBER 108454011XX

	Standard Bladder	Other mixes										
Mix Code	Mix 25	Mix 02	Mix 10	Mix 20	Mix 30	Mix 35	Mix 37	Mix 40	Mix 47	Mix 80	E2	XL
Mix Name	Standard NBR (Nitrile)	Hydrin C	Low Temp Nitrile	Heavy Duty Nitrile	Low Nitrile Permeability	High Temp Nitrile	Extreme Low Temp Nitrile	Butyl	EPDM	Viton	High performance Nitrile	Very low permeation nitrile
Max Admissible Temp °C	100	115	80	100	115	130	110	120	120	140	100	100
Min Admissible Temp °C	-20	-32	-30	-6	-5	0	-59	-15	-40	-20	-15	-20**
Volume/ Typical Fluid*	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil + Special fuels (not unleaded gasoline)	Mineral Oil	Mineral Oil	Water based fluids	Phosphate esters	Aggressive fluids	Mineral Oil	Mineral Oil
0,2	Standard	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		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		
10 (ø 170)		x	x	x	x	x	x	x	x	x		
10 (ø 226)		x	x	x	x	x	x	x	x	x	x	x
12		x	x	x	x	x	x	x	x	x	x	x
20		x	x	x	x	x	x	x	x	x	x	x
24,5		x	x	x	x	x	x	x	x	x	x	x
32		x	x	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		x	
57	x	x	x	x	x	x	x	x	x			

\*For any other application please consult Parker.

\*\* under slow cycling conditions

**European Headquarters**  
La Tuilière 6, 1163 Etoy,  
Switzerland  
Tel: +41 21 821 85 00