



# U. S. Department of Homeland Security United States Coast Guard Certificate of Approval

Coast Guard Approval Number: 162.017/183/1

Expires: 16 March 2020

PRESSURE-VACUUM RELIEF VALVES FOR TANK VESSELS  
PRES-VAC ENGINEERING ApS  
SVANEVANG 3-5, DK-3450 ALLEROD, DENMARK

**PV-ECO and PV-VOC High velocity pressure relief valve.**

Size	Maximum pipe length [m]	Minimum pipe size [mm]	Outlet Ø [mm]	Minimum setting (kPa)	Apparatus group /MESG(mm)	Max. ice cap thickness [mm]
PV-ECO-53	13 m	DN 50	53	10 kPa	IIB/(MESG ≥ 0,65)	20
	50 m	DN 80				
PV-ECO-66	16 m	DN 80	66			
	50 m	DN 100				
PV-ECO-80	19 m	DN 100	80			
	38 m	DN 125				
PV-ECO-98	17 m	DN 125	98			
	32 m	DN 150				
PV-VOC-106	5 m	DN 125	106			
PV-VOC-122	4 m	DN 150	122			
PV-VOC-150	4 m	DN 200	150			
PV-VOC-174	4 m	DN 250	174			
	4 m	DN 300	204			
PV-VOC-204	4 m	DN 300	204			

**PV-ECO and PV-VOC Vacuum valve.**

Size	Nominal setting (kPa)	Inlet (mm)	Apparatus group/MESG (mm)	Max. ice cap thickness (mm)
PV-ECO-VAC-95	-3,5 kPa	95	IIB/(MESG ≥ 0,65)	0
PV-ECO-VAC-116		116		0
PV-ECO-VAC-150		150		0
PV-VOC-VAC-180		180		0
PV-VOC-VAC-215		215		0
PV-VOC-VAC-248		248		0
PV-VOC-VAC-315		315		0
		315		0

Test report 4100, volumes 1, 2, 3 and 4. Drawing number 4100, certified by FORCE 07 January and November 17, 2014 to meet ISO 15364 and IMO MSC/Circ. 677, as amended by IMO MSC/Circs. 1009 and 1324. Pressure and vacuum valves may be used independently. Pressure-vacuum relief valves for use on U.S. flag vessels shall be marked with this approval number in accordance with 46 CFR 162.017-5. \*\*\* END \*\*\*

THIS IS TO CERTIFY THAT the above named manufacturer has submitted to the undersigned satisfactory evidence that the item specified herein complies with the applicable laws and regulations as outlined on the reverse side of this Certificate, and approval is hereby given. This approval shall be in effect until the expiration date hereon unless sooner canceled or suspended by proper authority.



GIVEN UNDER MY HAND THIS 16<sup>TH</sup> DAY OF  
MARCH, 2015, AT WASHINGTON D.C.

*R. W. Martin*

R. W. MARTIN  
ACTING CHIEF, SYSTEMS ENGINEERING DIVISION  
BY DIRECTION OF THE COMMANDANT

**TERMS:** The approval of the item described on the face of the Certificate has been based upon the submittal of satisfactory evidence that the item complies with the applicable provisions of the navigation and shipping laws and the applicable regulations in Title 33 and/or Title 46 of the Code of Federal Regulations. The approval is subject to any conditions noted on this Certificate and in the applicable laws and regulations governing the use of the item on vessels subject to Coast Guard inspection or on other vessels and boats.

Consideration will be given to an extension of this approval provided application is made 3 months prior to the expiration date of this Certificate.

The approval holder is responsible for making sure that the required inspections or tests of materials or devices covered by this approval are carried out during production as prescribed in the applicable regulations.

The approval of the item covered by this certificate is valid only so long as the item is manufactured in conformance with the details of the approved drawings, specifications, or other data referred to. No modification in the approved design, construction, or materials is to be adopted until the modification has been presented for consideration by the Commandant and confirmation received that the proposed alteration is acceptable.

**NOTICE:** Where a manufacturer of safety-at-sea equipment is offering for sale to the maritime industry, directly or indirectly, equipment represented to be approved, which fails to conform with either the design details or material specifications, or both, as approved by the Coast Guard, immediate action may be taken to invoke the various penalties and sanctions provided by law including prosecution under 46 U.S.C. 3318, which provides:

"A person that knowingly manufactures, sells, offers for sale, or possesses with intent to sell, any equipment subject to this part (*Part B. of Subtitle II of Title 46 U.S.C.*) and the equipment is so defective as to be insufficient to accomplish the purpose for which it is intended, shall be fined not more than \$10,000, imprisoned for not more than 5 years or both."