



Certificate no.:
TAP000034S

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Pressure Relief Valve with Integrated Flame Arrester**

with type designation(s)
5910C-S

issued to

Fisher Jeon Gas Equipment (Chengdu) Co., Ltd.
Chengdu,, Sichuan Province,, China

is found to comply with

DNV rules for classification – Ships Pt.5 Ch.5 Oil tankers

DNV rules for classification – Ships Pt.5 Ch.6 Chemical tankers

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Type:	Design:	Sizes:
5910C-S	see certificate	3" x 4"
5910C-S	see certificate	4" x 6"

Issued at **Hamburg** on **2026-02-05**

This Certificate is valid until **2031-02-04**.

for **DNV**

DNV local unit: **Wuhan NB & CMC**

Approval Engineer: **Ana Cristina Do Carmo Insfran**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

The 5910C-S series pressure-vacuum relief valve with integrated flame arrestor is designed to protect low-pressure storage tanks from excessive pressure and/or vacuum.

The flame arrestor serves to prevent the spread of flames from external sources into the tank. The combination of valve and flame arrestor is installed vertically on top of low-pressure storage tanks.

Specification:

Sizes: DN80x DN100, DN 100xDN150 (3"x4", 4"x6")

Maximum Working pressure: 103 kPa (15 psig)

Temperature Range: -20°C to 60°C (-4°F to 140°F)

Gas Groups according to IEC/ISO 80079-49: Classification IIA and IIB3

Materials:

Part name	Material
Body	ASME SA351 CF8M SST
Adapter	ASME SA351 CF8M SST
Seat ring (vacuum side)	ASME SA240 S31600 OR S31603
Seat ring (pressure side)	ASME SA351 CF8M SST
Pallet assembly (pressure side)	ASME SA351 CF8M SST/ ASME SA240 S31600/S31603
Cover	ASME SA351 CF8M SST
Upper body (4")	ASME SA351 CF8M SST
Pallet (Vacuum side)	ASME SA240 S31600
Element assembly (3")	ASME SA351 CF3M & CF8M ASME SA240 S31600/S31603
Spring cover	ASME SA240 S31603 (316L)
Spring base assembly	ASME SA240 S31603 (316L)

Application/ Limitation

Flame proof vacuum relief valve in cargo tank and fuel venting systems on tankers for products of explosion group IIA with MESG $\geq$ 0.9 mm and IIB3 $\geq$ 0.65 mm.

Flame Arrestor shall not be used in mixtures of air with hydrogen, acetylene oxide or carbon disulphide.

Pressure Vacuum Relief Valves are not approved for cryogenic service conditions and installation on cargo tanks of liquefied gas tankers.

Installation on board of vessels with class notation of "Tanker for oil" or "Tanker for oil Products" is to comply with DNV-RU-SHIP Pt.5 Ch.5 Sec.5.

Installation on board of vessels with class notation of "Tanker for Chemicals" is to comply with DNV-RU-SHIP Pt.5 Ch.6 Sec.9.

Gas outlets and air inlets for cargo tanks shall have flame arresting elements tested and approved according to IMO MSC/Circ.677 as amended by MSC/Circ.1009.

For the corresponding application and appropriate installation shall be in accordance with the instructions of the manufacturer.

Tests carried out

API 2000 7th version 2014- Venting Atmospheric and Low-pressure storage
 ISO 15364:2021 - Ships and marine technology Pressure-vacuum valves for cargo tanks and devices to prevent the passage of flames into cargo tanks
 IMO MSC/Circ.677- Revised standards for the design, testing and locating of devices to prevent the passage of flames into cargo tanks in tankers as amended by MSC/Circ.1009
 IEC/ISO 80079-49-2024 – Explosive Atmospheres Part 49 – Flame arresters – Performance requirements, test methods and limits for use

Type Approval documentation

Marking of product

Each 5910C-S Series Pressure Vacuum Relief Valve with Flame Arrester housing is to be provided with a name plate with at least following minimum data:

ANDERSON GREENWOOD™		FISHER JEON Gas Equipment(Chengdu) Co., Ltd. LOC477		D.O.M.	
MODEL		SIZE			
S/N		STANDARD			
SETTING		AIR FLOW RATE			
PRESS					
VAC					
2460		ExVeritas 21ATEX1081X			

Production Place

Fischer Jeon Gas Equipment (Chengdu) jCo., Ltd.
 No.9, Wukedong 2nd Road, Wuhou Science Technic Park, Chengdu, 610045, China

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV-CP-0338, Sec.4.

To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

End of certificate