Certificate No:
TAP000026U

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Pressure-Vacuum Relief Valve

with type designation(s)
BVI-4, BVI-6, BVI-8, BVI-10 and BVI-12

Issued to
Prosave Co.,Ltd.
Gimhae-si, Gyeongsangnam-do, Korea, Republic of

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 vessels classed by DNV.
Design: **In-line breather valves**
Sizes: **See page 2**

Issued at **Høvik** on **2021-11-16**
This Certificate is valid until **2026-11-15**.
DNV local station: **Gimhae Station**

Approval Engineer: **Andreas Hansen**

for **DNV**

Zeinab Sharifi
Head of Section

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.

Product description

In-line pressure/vacuum breather valves in one compact body, designed and tested according to ISO 15364:2021 with the following material of construction:

Body	:	FCD450 – JIS G5502
Pressure disc	:	SS400 – KS D 3503
Vacuum weight	:	A276-316 – ASTM A276/A276M
Vacuum seat	:	A351-CF8M

Application/Limitation

Breather valves covered by this certificate may be used as in-line devices to protect cargo tanks from overpressure and vacuum.

Sizes and setting pressure:

Type designation	Nominal flange size [mm]	Outlet Ø [mm]	Set Pressure		Max ice thickness [mm]
			Pressure [kPa]	Vacuum [kPa]	
BVI-J104	DN100	100	16-19	3.5	5
BVI-J106	DN150	150	10	3.5	5
BVI-J108	DN 200	200	12	3.0	5
BVI-J110	DN250	250	21	5.0	5
BVI-J112	DN300	300	16	4.5	5

To prevent the passage of flame, cargo tanks shall have flame arresting elements tested and approved according to IMO MSC/Circ.677 as amended by MSC.1/Circ. 1324. See DNV-RU-SHIP Pt.5 Ch.5 Sec.5 [2.2.12] and DNV-RU-SHIP Pt.5 Ch.6 Sec.9 [2.3.9].

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.

Products covered by this certificate shall not be used as an end-of-line device.

Cargo tanks connected to the combined pressure-vacuum main vent line must carry the same type of cargo.

Materials and material protection chosen for the specific system shall be suitable for the intended medium and environmental conditions.

A copy of the instruction manual shall be kept on board, and is to include:

- installation instructions;
- operating instructions;
- maintenance requirements, including cleaning;
- copy of the laboratory report;
- flow test data, including flow rates under both positive and negative pressures, operating sensitivity, flow resistance and velocity should be provided.

Production testing

Each finished device shall be visually and dimensionally checked as well as pneumatically leakage tested at 75% of the nominal setting according to ISO 15364:2021 [6.1] & [10]. Acceptance criteria for leakage rate shall be as specified in page 2.

Type Approval documentation

Tests carried out

Corrosion test, ice test, hydraulic test and flow test.

Marking of product

Minimum marking requirements shall be as outlined in the design standard ISO 15364:2021 [12].

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNVGL-CP-0338.