

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Gas Freeing Cover**with type designation(s)
Flame Screen Unit 630C

Issued to

Niikura Kogyo Co., Ltd.
Gotenba, Shizuoka Pref., Japan

is found to comply with

DNV GL rules for classification – Ships Pt.5 Ch.5 Oil tankers**DNV GL 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 GL.****Sizes: 150 mm**Issued at **Høvik** on **2020-03-23**This Certificate is valid until **2025-03-22**.for **DNV GL**DNV GL local station: **Yokohama**Approval Engineer: **Adel Samiei**

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.



Job Id: **262.1-000435-8**
Certificate No: **TAP0000227**

Product description

Cylindrical flame screen mounted on a flanged pipe (JIS 5K flange)

Material:

Body, cover, plate and case: SUS304
Screen: SUS316

Designed and tested according to:

- IMO MSC/Circ. 677 (as amended by MSC.1/Circ. 1324) Revised Standards for The Design, Testing and Locating of Devices to Prevent the Passage of Flame into Cargo Tanks in Tankers

Application/Limitation

The flame screen units covered by this certificate are approved as end of line device and may be used as vents on tanks for cargo on board ships having class notation "Tanker for Oil", "Tanker for Oil Products" or "Tanker for Chemicals" for the carriage of products having an MESG of 0.9 mm and greater (apparatus Group IIA).

Products covered by this certificate shall only be used on tankers protected by inert gas system (Reference is made to IMO MSC/Circ.677 [1.2.2]).

Sizing and location to be in accordance with the latest revision of MSC/Circ. 731.

Installation on board of vessels shall comply with the DNV GL Rules Pt.5 Ch.5 & Pt.5 Ch.6, where applicable.

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

- Installation instructions
- Operating instructions
- Maintenance requirements including cleaning
- A copy of the laboratory report
- Flow test data, incl. flow rates under both positive and negative pressures, operating pressures, operating sensitivity, flow resistance and velocity

DNV GL product certificate is not required with reference to DNV GL Ship rules Part 5 Chapter 5 Section 1, Table 7 and DNV GL ship rules Pt.5 ch.6 Sec.1 Table 6.

Type Approval documentation

Tests carried out

Corrosion test, Hydrostatic pressure test, Flow test, Flash-Back test

Marking of product

For traceability to this type approval each device is at least to be marked with:

- Manufacturer's name or trade mark
- Type designation
- Additional marking acc. IMO MSC/Circ. 677 sec. 4.1

Periodical assessment

For retention of the Type Approval, a DNV GL 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.