

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Equipment for Fire Protection**with type designation(s)
Stainless steel pipes Minifog Marine XP System

Issued to

Minimax GmbH & Co. KG
Bad Oldesloe, Schleswig-Holstein, Germanyis found to comply with
DNV GL rules for classification – Ships
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Hamburg** on **2018-08-15**This Certificate is valid until **2023-08-14**.DNV GL local station: **Hamburg**for **DNV GL**Approval Engineer: **Sven Jahnke**

Olaf Drews
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

Welded stainless steel pipes and pipe clamps in fixed fire extinguishing systems on board ships subject to the 'safe return to port' requirements according to SOLAS II-2/21.

The stainless steel pipes are made of stainless steel tubes according to EN 10217-7, material 1.4404 or 1.4571. Sizes and wall thickness of stainless steel tubes:

Nominal diameter	External diameter [mm]	Wall thickness [mm]
10	12	1.2
13	16	1.5
16	20	2.0
25	30	2.5
32	38	3.0
50	60.3	4.0

Pipe clamp bodies are made of Polypropylene, material of other accessories as per Minimax technical datasheet S4-60-04 part 1

Application/Limitation

The stainless steel pipes have been tested in accordance with the requirements of IMO Res. A.753(18), Level 1, as referred to in IMO MSC.1/Circ.1369, interpretation 12. The stainless steel pipes of normal thickness and pipe clamps may be used in fixed fire extinguishing systems on board ships subject to the 'safe return to port' requirements defined in SOLAS II-2, Regulation 21.

Type Approval documentation

Tests carried out

- IMO MSC.1/Circ.1369 (Interpretation 12)
- IMO Res. A.753(18), Level 1

Marking of product

The stainless steel pipes and pipe clamps are to be marked with the name of the manufacturer and type designation.

Periodical assessment

The DNVGL surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with the procedure described in the Class Programme DNVGL-CP-0338, Section 4.