



Marine & Offshore

Certificate number: 16331/D0 BV

File number: ACI5000/025/001

Product code: 5701H

This certificate is not valid when presented without the full attached schedule
composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

GOEPFERT AG Armaturenfabrik und Metallgiesserei

Weddingstedt - GERMANY

for the type of product

FOAM MONITORS

Foam / water monitor Type MX2000

DN65-150

Requirements:

SOLAS 74, as amended, Chapter II-2

Bureau Veritas Rules for the Classification of Steel Ships

IMO IBC Code

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 16331/C0 BV expiring on 14/12/2020

This certificate will expire on: 14 Dec 2025

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 24 Nov 2020,

Jens Bauermeister

Jens Bauermeister



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Foam / Water Monitor Type MX 2000

Features	DN65/G2.1/2	DN80/G3	DN100/G4	DN150/4kant
Inside body diameter (mm)	65	80	100	150
Design pressure (bar)	16	16	16	16
Rotation (°)	360	360	360	360
Elevation (°)	-90 +75	-90 +75	-80 +75	-90 +75
Material	Bronze	Bronze	Bronze	Bronze

Nozzle types (including tested performance with water (1))

Foam water pipe type SWR	Material	Flow rate at 5 bar (L/min)	Flow rate at 8 bar (L/min)	Maximum throw length (m) at 5 bar with an elevation of 32°	Maximum tested throw length (m) at 8 bar with an elevation of 32°
DN65	Bronze	1070	1360	38	48
DN80	Bronze	1800	2300	45	50
DN100	Bronze	3850	4740 at 7.5 bar	50	65 at 7.5 bar
DN150	Bronze	7540	9100 at 7.5 bar	55	65 at 7.5 bar

Water jet pipe type WR	Material	Flow rate at 5 bar (L/min)	Flow rate at 8 bar (L/min)	Maximum throw length (m) at 5 bar with an elevation of 32°	Maximum tested throw length (m) at 8 bar with an elevation of 32°
DN80	Bronze	1850	2370	42	50
DN100	Bronze	3810	4720 at 7.5 bar	52	59 at 7.5 bar
DN150	Bronze	3780	4830	45	60

Multipurpose nozzle	Material	Flow rate at 5 bar (L/min)	Flow rate at 8 bar (L/min)	Maximum throw length (m) at 5 bar with an elevation of 32°	Maximum tested throw length (m) at 8 bar with an elevation of 32°
MZ 2800	Bronze	2180	2790	43	48
MZ 3000	Bronze	2800	3480	54	64
MZ 4000	Bronze	2940	3750	50	62

Nozzle (tested performance with foam (1)):

Nozzle type	Flow rate at 5 bar (L/min)	Flow rate at 8 bar (L/min)	Maximum throw length (m) at 5 bar with an elevation of 32°	Maximum tested throw length (m) at 8 bar with an elevation of 32°
SWR DN65	1070	1360	40	47
MZ 2800	2180	/	42	/

Note:

(1) The flow rate and throw length values are the values recorded during the test mentioned in schedule 3.1 of this certificate.

2. DOCUMENTS AND DRAWINGS:

2.1 - As per manufacturer's drawings:

Name	Reference	Dated
DN65/G2.1/2	- dig n° 898340 rev. 5	06/03/2002
DN80/G3	- dig n° 879864 rev. 5	06/03/2002
DN80/G4	- dig n° 879669 rev.5	06/03/2002
DN150/4kant	- dig n° 841062 rev. 4	24/06/2003

2.2 - As per nozzle technical sheets included in the test report mentioned in schedule 3.1 of this certificate.

3. TEST REPORTS:

Test report "Use of foam components on Ships - Acceptance test" dated 2 December 2003, witnessed by surveyors from Bureau Veritas, China Classification Society and Lloyd's Register EMEA.

4. APPLICATION / LIMITATION:

- 4.1 - When use for a tanker deck foam system the capacity of the monitor shall not be less than 1250 l/min and 1000L/min for ships less than 4000 tonnes deadweight.
 4.2 - The device is to be installed according to the instruction manual, and to the requirements of Regulations stated in front of this page of this certificate.
 4.3 - The device should be maintained and operated according to the instruction manual.
 4.4 - The foam concentrate to be used shall be type approved by the Society.
 4.5 - Reaction forces of the water / foam jet are to be taken into account for the structural arrangement of the monitors on board the ship.
 4.6 - Not approved for BV service notation **fire-fighting ship 1, fire-fighting ship 2 or fire fire-fighting 3.**

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The **Foam / Water Monitor Type MX 2000** are to be supplied by **GOEPFERT AG Armaturenfabrik und Metallgiesserei** in compliance with the type described in this certificate.
 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
 5.3 - **GOEPFERT AG Armaturenfabrik und Metallgiesserei** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **GOEPFERT AG Armaturenfabrik und Metallgiesserei** has declared to Bureau Veritas the following production site(s):

GOEPFERT AG Armaturenfabrik und Metallgiesserei
Industriestrasse
25795 Weddingstedt
GERMANY

6. MARKING OF PRODUCT:

The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

7. OTHERS:

- 7.1 - It is **GOEPFERT AG Armaturenfabrik und Metallgiesserei's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
 7.2 - This Certificate supersedes the Type Approval Certificate n° 16331/C0 BV issued on the 15/12/2015 by the Society.

*** END OF CERTIFICATE ***