



MARINE DIVISION

Certificate number: 16331/B0 BV

File number: ACI5000/025/001

Product code: 5705H

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 APPLICATORS

Foam / water monitor Type MX2000
DN65-150

Requirements:

BV rules, Pt E Ch.7 & Ch. 16 - IBC code 11.3 - SOLAS 1974 as amended (FSS code Ch 14)

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 13 Dec 2015

For BUREAU VERITAS,

At BV HAMBURG, on 13 Dec 2010,

Udo Storm



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. 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 Division 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 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Foam / Water Monitor Type MX 2000

Monitor MX 2000 can be used with following accessories:

- Foam/Water jet pipe SWR (DN 65, DN 80, DN 100 and DN 150)
- Water jet pipe WR (DN 65, DN 80, DN 100 and DN 150)
- Multi-purpose nozzle MZ 2800, MZ 3000, MZ 4000

Horizontal rotation: 360°

Working pressure: 5 - 8 bar

2. DOCUMENTS AND DRAWINGS:

- DN65 - dig n° 898340 rev. 5
- DN80 - dig n° 879864 rev. 5
- DN100 - dig n° 879669 rev.5
- DN150 - dig n° 841062 rev. 4

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.

- Tested with water only :

	Water flow (l/min)		Length of throw (m)	
	5 bar	8 bar	5 bar	8 bar
Foam water pipe SWR				
DN65	1070	1360	38	48
DN80	1800	2300	45	50
DN100	3850	4740 (at 7.5bar)	50	65 (at 7.5bar)
DN150	7540	9100 (at 7.5bar)	55	65 (at 7.5bar)
Water pipe WR				
DN80	1850	2370	42	50
DN100	3810	4720 (at 7.5bar)	52	59 (at 7.5bar)
DN150	3780	4830	45	60
Nozzle MZ 2800	2180	2790	43	48
Nozzle MZ 3000	2800	3480	54	64
Nozzle MZ 4000	2940	3750	50	62

- Tested with foam :

	Foam flow (l/min)		Length of throw (m)	
	5 bar	8 bar	5 bar	8 bar
Foam water pipe SWR				
DN65	1070	1360	40	47
Nozzle MZ 2800	2180		42	

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.
- 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.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - The above product is to be manufactured, examined and tested by **GOEPFERT AG Armaturenfabrik und Metallgiesserei, Weddingstedt - Germany** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.
- 5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **GOEPFERT AG Armaturenfabrik und Metallgiesserei, Weddingstedt - Germany** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.
- 5.3 - **GOEPFERT AG Armaturenfabrik und Metallgiesserei, Weddingstedt - Germany** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

**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 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that the applicant will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.
- 7.2 - This Certificate supersedes the Type Approval Certificate n° 16331/B0 BV issued on 17/01/2006 by the Society.

*** END OF CERTIFICATE ***