



CERTIFICATE OF FIRE APPROVAL


This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	Göpfert AG
Address	Industriestraße 25795 Weddingstedt Germany
Type	FIRE FIGHTING FOAM MONITOR
Description	Fire Fighting Foam Monitors – Type: “MX 2000, DN 65, DN 80, DN 100 and DN 150”
Specified Standard	SOLAS 1974 as amended and IMO Fire Safety Systems Code, Chapter 14, Performance Testing

The attached Design Appraisal Document forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Date of issue	19 November 2015	Expiry date	18 November 2020
Certificate No.	SAS F150330	Signed	
Sheet No	1 of 3	Name	B. Geary Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



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Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 17 December 2015	Quote this reference on all future communications MTES/SFS/TA/BG/WP24062231
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS F150330

This Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Minimax, Fire Protection Research Centre, Bad Oldesloe, Germany, Acceptance Test Report, Version 1, dated 12 December 2003. Tests witnessed by surveyors from Lloyd's Register EMEA, Hamburg, China Classification Society and Bureau Veritas, Hamburg.

Minimax Drawing Nos. 89 8340, Rev. 5; 89 8351, Rev. 5; 84 2348, Rev. 0; 84 2349, Rev. 0; 87 9864, Rev. 5; 87 8976, Rev. 5; 84 2350, Rev. 0; 84 2351, Rev 0; 87 9669, Rev. 5; 87 9670, Rev. 5; 89 8983, Rev. 5; 89 8995, Rev. 5; 89 9008, Rev. 5; 89 9914, Rev. 5; 84 1062, Rev. 4 and 84 1061, Rev. 3.

CONDITIONS OF CERTIFICATION

1. Materials of construction to be of an approved type
2. When used for a tanker deck foam system the capacity of the monitor discharge shall not be less than 1250 l/min
3. When used with the following accessories: Foam/Water jet pipe SWR DN 65, 80, 100 and 150; Water jet pipe WR DN 65, 80, 100 and 150; Multi-purpose nozzle MZ 2800, MZ 3000, MZ 4000, DN 65, 80 and 100. Sample performance test results were as follows:

Foam water pipe SWR	Water Flow (l/min)	Water Throw (m)	Foam Flow (l/m)	Foam Throw (m)
DN 65 (5 bar)	1070	38	1070	40
DN 65 (8 bar)	1360	48	1360	47
DN 80 (5 bar)	1800	45		
DN 80 (8 bar)	2300	50		
DN 100 (5 bar)	3850	50		
DN 100 (7.5 bar)	4740	65		
DN 150 (5 bar)	7540	55		
DN 150 (7.5 bar)	9100	65		
<u>Water pipe WR</u>				
DN 80 (5 bar)	1850	42		
DN 80 (8 bar)	2370	50		
DN 100 (5 bar)	3810	52		
DN 100 (7.5 bar)	4720	59		
DN 150 (5 bar)	3780	45		
DN 150 (8 bar)	4830	60		
<u>Nozzle MZ 2800</u>				
5 bar	2180	43	2180	42
8 bar	2790	48		
<u>Nozzle MZ 3000</u>				
5 bar	2800	54		
8 bar	3480	64		



Lloyd's
Register

Lloyd's Register EMEA

71 Fenchurch Street, London, EC3M 4BS
Telephone 020 7423 2416 Fax 020 7423 2053
Email med@lr.org

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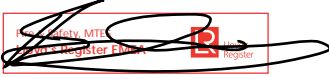
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Nozzle MZ 4000				
5 bar	2940	50		
8 bar	3750	62		

4. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype

PLACE OF PRODUCTION

Göpfert AG
Industriestraße
25795 Weddingstedt
Germany



Ben Geary
Technical Manager
Statutory Fire & Safety
Marine Technology and Engineering Services
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).