



EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No.1025), did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Fire protection equipment requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission Implementing Regulation (EU) 2018/773 indicating design, construction and performance requirements and testing standards for marine equipment, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer (Applicant)	Dafo Fomtec AB
Address	P.O. Box 683 SE - 13526 Tyresö Sweden
Reference	Regulation (EU) 2018/773
Regulation Item (No & Item designation)	MED/3.58 FIXED LOW EXPANSION FOAM FIRE EXTINGUISHING SYSTEMS COMPONENTS FOR MACHINERY SPACES AND TANKER DECK PROTECTION
Product Type	FOAM CONCENTRATE
Product Description	Fire Extinguishing Low Expansion Foam Concentrate – Types: "Fomtec AFFF 3% Ultra LT" Synthetic Foam Concentrate, for use on hydrocarbon fires only
Specified Standard	IMO MSC.1/Circular 1312 IMO MSC.1/Circ.1312/Corr.1

The attached Design Appraisal Document (schedule) forms part of this certificate.
This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue 27 March 2019 Expiry date 26 March 2024

Certificate No. MED 1950083 Signed 

Sheet No. 1 of 3 Name S. Abraham
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038

Note:

This certificate is issued under the authority of the MCA.
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 the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.

Lloyd's Register Verification Limited (Reg. no. 4929226) is a limited company registered in England and Wales. Registered office: 71 Fenchurch Street, London, EC3M 4BS, UK. A subsidiary of Lloyd's Register Group Limited.

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.



Page 2 of 3
Document number MED 1950083
Issue number 1

DESIGN APPRAISAL DOCUMENT

Date 30 May 2019	Quote this reference on all future communications UKITSO/FIRE/TA/JE/SA/WP34769649
---------------------	--

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1950083

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

This Certificate is a renewal of Certificate No. MED 1450073

APPROVAL DOCUMENTATION

Lloyds Register Helsingborg Office witness certificate HBG 1310107/1, dated 22 October 2013 for testing conducted at the Falck Nutek Test Facility, Esbjerg, Denmark.

CONDITIONS OF CERTIFICATION

1. Foam concentrate type "AFFF 3% Ultra LT": When used in 3% concentration and an as-tested foam expansion ratio of 7:1, in suitable equipment for Class B hydrocarbon fires in machinery spaces and tanker deck protection
2. The foam concentrates should be stored above their freezing temperature as per the below Table

Foam Type	Foam Concentrate	Freezing Temperature (°C)	Storage Temperature Range (°C)
Fomtec AFFF 3% Ultra LT	Synthetic Film Forming Foam	-20	-18 to 55

3. To be used with separately approved fixed or mobile low expansion foam fire extinguishing systems
4. It is to be confirmed that the IMO MSC.1/Circ.1312 test standard is acceptable for the project and applications envisaged
5. This certificate only approves the fire performance characteristics of the foam concentrate in accordance with IMO MSC.1/Circ.1312. The use of certain foam concentrates may also be subject to additional requirements, including environmental regulations, depending on the projects where they are to be used. Therefore, the suitability of the foam concentrate for each application must also be confirmed at the design stage by the Project Plan Approval authority
6. The storage container should be compatible with the foam concentrates throughout the service life of the foam and should be marked with complete information required for product identification in accordance with IMO MSC.1/Circ.1312 Annex Paragraph 3.13
7. Periodical testing of foam concentrates for hydrocarbon fires should be carried out not more than 3 years after being supplied to the ship and after that, every year, by independent laboratories or authorised service suppliers acceptable to the Administration
8. Each product is to be supplied with its manual for application, use, transport, storage and maintenance
9. A Batch Certificate should be provided with each delivery, with a declaration of the main characteristics of Sedimentation, pH Value, Expansion Ratio, Drainage Time and Volumic Mass, by the manufacturer and will be the basis for the periodical testing
10. Composition of individual components to be maintained in production in accordance with originally tested composition formula
11. 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



Lloyd's
Register

Lloyd's Register Verification Limited

71 Fenchurch Street, London, EC3M 4BS

Telephone 020 7423 2416 Fax 020 7423 2053

Email med@lr.org

Page 3 of 3
Document number MED 1950083
Issue number 1

DESIGN APPRAISAL DOCUMENT

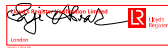
Date 30 May 2019	Quote this reference on all future communications UKITSO/FIRE/TA/JE/SA/WP34769649
---------------------	--

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1950083

12. The certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products, whether manufactured by themselves or their licensee manufacturers agreed by Lloyd's Register, are fully compliant with the applicable statutory regulations and designed and manufactured to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties
13. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place
14. Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place

PLACE OF PRODUCTION

Dafo Fomtec AB
Garnisonsgatan 47A
SE-254 66 Helsingborg
Sweden



Saji Abraham
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038

NOTIFIED BODY CERTIFICATE TRANSFER OF RESPONSIBILITY



Certificate No: 0525-MED-DE-MED 1950083

This certificate transfers Lloyd's Register Verification Ltd. (0038)

Certificate No: MED 1950083

Issued on: 27 March 2019

to the responsibility of EU Notified Body No. 0525
(Lloyd's Register Deutschland GmbH)

Date of Original Certificate: 27 March 2019

Date of Current Certificate: 31 December 2020

Date of Certificate Expiry: 26 March 2024

Antje Herms-Bondzio
Lloyd's Register Deutschland GmbH
Überseeallee 10, 20457 Hamburg/Germany
T +49 40 349 700 101 44

LR2020.D.2020.11