EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001H6
Revision No:
5

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

That the Helicopter facility foam fire-fighting appliances

with type designation(s)
Portable foam applicator type UFA and UFA-S

Issued to
SURVITEC Fire Solution Poland Sp. z o.o.
Doluje, Poland

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
item No. MED/3.67. SOLAS 74 as amended, Regulation II-2/18 and IMO MSC.1/Circ.1431

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2027-05-17**.

Issued at **Høvik** on **2022-05-18**

DNV local station:
Szczecin CMC

Approval Engineer:
Tessa Biever

Notified Body
No.: **0575**

for **DNV AS**

Digitally Signed By:
Øyvind Hoff
Location: DNV Høvik, Norway
on behalf of

Sverre Olav Bergli
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

Product description

'Portable foam applicator type UFA and UFA-S'
are foam-making branch pipes/foam applicators available in several models as specified in table 1 below. The portable foam applicators are composed of stainless-steel pipe, brass valve, stainless steel nozzle and inductor (UFA-S type).

The system shall be designed according to the principal requirements of IMO MSC.1/Circ.1431.

Only the foam-making branch pipe/foam applicator is approved by this certificate. Other systems components are subject to case-by-case approval.

For further details, see drawings listed under Type Examination documentation below.

Application/Limitation

The specific arrangement of the foam-making branch pipe /foam applicator is subject to approval in each case.

Each foam-making branch pipe/ foam applicator shall be supplied with its manual for installation, operation and maintenance

The foam-making branch pipe/foam applicator comes in several versions: with self-inductor (S) and without self-inductor. S1 is 1% induction, S3 is 3% induction, S6 is 6% induction.

Table 1:

Foam-making branch pipe / foam applicator type	UFA-200/3 UFA-200/6	UFA-200/6-S3 UFA-200/6-S6	UFA-400/3 UFA-400/6	UFA-400/6-S3 UFA-400/6-S6
Capacity [lpm] at 6 bar	200 (UFA-200/6)	200	400 (UFA-400/6)	400
Capacity [lpm] at 3 bar	200 (UFA-200/3)	-	400 (UFA-400/3)	-
K-factor [lpm/bar^{0,5}]	115 (UFA-200/3) 82 (UFA-200/6)	82	231 (UFA-400/3) 163 (UFA-400/6)	163
Nominal pressure [bar]	3 (UFA-200/3) 6 (UFA-200/6)	6	3 (UFA-400/3) 6 (UFA-400/6)	6
Max. working pressure [bar]	16	16	16	16
Max. throw length (still air) [m]	18 (UFA-200/3) 22 (UFA-200/6)	24 (UFA-200/6-S3) 22 (UFA-200/6-S6)	19 (UFA-400/3) 23 (UFA-400/6)	23 (UFA-400/6-S3) 21 (UFA-400/6-S6)
Foam admixture	NA	3 % (UFA-200/6-S3) 6 % (UFA-200/6-S6)	NA	3 % (UFA-400/6-S3) 6 % (UFA-400/6-S6)
Foam-making branch pipe / foam applicator type	UFA-500/5-S1	UFA-500/5-S3	UFA-400/3-S1	UFA-400/3-S3
Capacity [lpm] at 5 bar	500	500	-	-
Capacity [lpm] at 3 bar	-	-	400	400
K-factor [lpm/bar0,5]	233	233	233	233
Nominal pressure [bar]	5	5	3	3
Max. working pressure [bar]	16	16	16	16
Max. throw length (still air) [m]	22	22	19	19
Foam admixture	1%	3%	1%	3%
Foam-making branch pipe / foam applicator type	UFA-250/5-S1	UFA-250/5-S3	UFA-200/3-S1	UFA-200/3-S3
Capacity [lpm] at 5 bar	250	250	-	-
Capacity [lpm] at 3 bar	-	-	200	200
K-factor [lpm/bar0,5]	114	114	119	119
Nominal pressure [bar]	5	5	3	3
Max. working pressure [bar]	16	16	16	16
Max. throw length (still air) [m]	21	21	19	19
Foam admixture	1%	3%	1%	3%

Foam-making branch pipe / foam applicator type	UFA-400/5
Capacity [lpm] at 5 bar	400
K-factor [lpm/bar^{0,5}]	180
Nominal pressure [bar]	5
Max. working pressure [bar]	16
Max. throw length (still air) [m]	28
Foam admixture	NA

Type Examination documentation

This certificate replaces MEDB00001H6 Rev.3.

Operating Instruction No. 53-14-027-7-E Rev. 0 dated 24 April 2008 from manufacturer.

Component Test reports:

- TJIN1507007346MR dated 25 August 2015 from SGS-CSTC Standards Technical Service (Tianjin) Co., Ltd. (neutral salt spray test)
- Leak and mechanical test for water/foam monitor & foam applicators dated 2015-10-20 witnessed by DNVGL
- Unitor 000108 dated March 2008 from Wilhelmsen Ships Equipment
- Doc. No. 53-12-001-UFA_TEST, dated 2020-09-24, Function and performance testing of Survitec self-inducting and standard UFA range foam applicators, witnessed by DNVGL surveyor.

Assembly drawing

- 53-14-050 Rev. 5 dated 16 September 2020 (UFA) from Survitec Fire Solutions
- 53-14-051 Rev. 6 dated 16 September 2020 (UFA-S) from Survitec Fire Solutions

Tests carried out

The foam-making branch pipe is tested as branch pipe according to EN 13565:2019.

Marking of product

The product is to be marked with name of manufacturer, type designation according to EN 13565:2019 Section 7 and the MED Mark of Conformity.