

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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 GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Helicopter facility foam fire-fighting appliances

with type designation(s)

UFA Applicator UFA-200 and UFA-400

Issued to

**Wilhelmsen Technical Solutions China Co., Ltd.
Shanghai, China**

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2015/559,**

item No. MED/3.67. SOLAS 74 as amended, Regulation II-2/18 and IMO MSC.1/Circ.1431

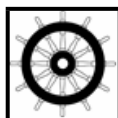
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-03-09**.

Issued at **Høvik** on **2017-03-10**

DNV GL local station:
Tianjin

Approval Engineer:
Piotr Orzechowski



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body



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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

"UFA Applicator UFA-200 and UFA-400"

are foam-making branch pipes. The pipes consist of stainless steel tube, air-aspirating nozzles and a foam tank.

The foam-making branch pipe comes in two versions; with self-inductor and without self-inductor

Foam-making branch pipe type	UFA-200	UFA-200-S	UFA-400	UFA-400-S
Capacity [lpm] at 6 bar	200	200	400	400
k-factor [lpm/bar ^{0.5}]	115	82	231	163
Nominal pressure [bar]	3	6	3	6
Max. working pressure [bar]	6	6	6	6
Max. throw length (still air) [m]	17	22	19	21
Expansion ratio	9-10	9-10	9-10	9-10
Foam admixture	NA	3 % and 6 %	NA	3 % and 6 %

Application/Limitation

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

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

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

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

Type Examination documentation

Tests carried out

The foam-making branch pipe is tested as branchpipe according to EN 13565-1 (2003) including A1 (2007).

Marking of product

The product or packing is to be marked according to EN 13565 (2003) + A.1 (2007) Section 11 and the MED Mark of Conformity.