

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 Norway.

This is to certify:

That the Helicopter facility foam fire-fighting appliances

with type designation(s)

Foam/Water Monitor Type: UFM-80-SO-SI

Issued to

**Survitec Fire Solutions Poland Sp. z o.o.
Doluje, Poland**

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

Regulation **(EU) 2018/773**,

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

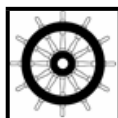
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-07-10**.

Issued at **Høvik** on **2019-07-11**

DNV GL local station:
Szczecin

Approval Engineer:
Tessa Biever



Notified Body
No.: **0575**

for **DNV GL AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"Foam/water monitor type: UFM-80-SO-SI",
is a self-oscillating (SO), self-inducing (SI) water/foam monitor made of stainless steel (AISI 316L). The non air-aspirating nozzle is made of bronze. The fog/jet nozzle is of constant flow type, i.e. flow is the same at both fog and jet settings. The nozzle does not return automatically to maximum spray angle after use.

Foam monitor:	UFM-80-SO-SI
Nozzle capacity [lpm] (@7 bar)	1325* – 1900* – 2850*
k-factor [lpm/bar ^{0,5}]	539 – 750 – 1052
Monitor nominal working pressure [bar]	7.5 **
Rated working pressure [bar]	16
Max. throw length (still air) [m] (@7 bar nozzle pressure)	water: 40 – 45 – 52 foam (1%): 35 – 40 – 47
Foam admixture [%]	1 or 3
Max. elevation	-60° - +80°
Rotation (self-oscillating): Rotation (manual):	30°, 50°, 70°, 100° 260°
Rotation time (SO) (@7.5 bar monitor pressure)	7 sec.

* To maintain this capacity value on nozzle, monitor should be supplied with additional 40lpm for SO function

** incl. pressure drop of 0.5 bar due to SO and SI functions

Application/Limitation

The water/foam monitor is approved for use on helicopter deck.

Only the monitor is type approved by this certificate. Pipes, couplings, valves and other systems components are subject to case by case approval. The system is to be designed in accordance with the "Principal Requirements for the System" in IMO MSC.1/Circ.1431.

Each monitor to be function and pressure tested to 1.5 times max. working pressure (1.5 x 16 bar).

Each monitor shall be supplied with its manual for installation, operation and maintenance.

Type Examination documentation

Test reports:

- No. 53-02-001-UFM-SO-SI_TEST rev.2 dated 28 May 2019 from maker witnessed by DNV GL.
- No. THIN1507007346MR dated 25 August 2015 from SGS-CSTC Standards Technical Service (Tianjin) Co., Ltd., China (UFM-80)
- No. Unitor-20150730 dated 23 October 2015 from Wilhelmsen (UFM-80) witnessed by DNV GL.

Product drawings:

- No. 53-00-110 Rev. 00 dated 17 April 2019 (Main dimensional drawings for UFM-80-SO-SI (standard datasheet drawing))
- No. UFM-80-SO-SI Exploding view

Documents:

- No. 53-00-071-7-E Rev. 00 dated 27 June 2019 (Helideck foam system operating instruction)
- No. 53-D14-03-04 Rev. 03 (6 sheets) dated 27 June 2019 (System design document for helideck)

Tests carried out

The monitor is tested as branchpipe and proportioner 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.



Job Id: **344.1-009499-1**
Certificate No: **MEDB00005K3**