DNV·GL

Certificate No:
MEDB000029H

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 Fixed water-based fire-fighting systems for ro-ro spaces, vehicle spaces and special category spaces: Prescriptive-based systems as per Circ. 1430 Clause 4

with type designation(s)
VID FireKill HS 56-90

Issued to
Vid Fire-Kill ApS
Svendborg, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.49a and Annex B, Module B in Directive. SOLAS 74 as amended Regulation II-2/19, II-2/20 & X/3, 2000 HSC Code 7 and FSS Code 7, IMO Circ.1430 Clause 4

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

This Certificate is valid until **2022-05-10**.

Issued at **Høvik** on **2017-05-11**

DNV GL local station:
Fredericia

Approval Engineer:
Synnøve Bolstad Eri

Notified Body
No.: **0575**

for **DNV GL AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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Product description

"VID FireKill HS 56-90",
is a nozzle for deluge type fire-extinguishing system.

The system consists of nozzles and section valves in addition to pump unit(s), steel piping, control system as associated equipment.

The system is to be designed in accordance with the "Principal Requirements" of IMO MSC.1/Circ.1430 for prescriptive-based systems.

Only the nozzles are type approved by this certificate. Pumps, pipes, couplings, valves and other systems components are subject to case by case approval.

The nozzles are manufactured by Vid Fire-Kill ApS.

Application/Limitation

Approved for use as a water-based fixed fire-fighting systems for ro-ro spaces, vehicle spaces and special category spaces (prescriptive-based system).

System design and installation shall be in accordance with principal requirements and prescriptive-based system requirements of IMO MSC.1/Circ.1430 Ch.3 and 4. In addition, uniform distribution of nozzles inside protected space as well as overlap of the spray pattern shall be ensured.

Spray head information

Nozzle type	k-factor (lpm/bar$^{1/2}$)	Flow (lpm)	Min. pressure at nozzle (bar)	Data Sheet
HS 56-90	56	79.2	2.0	Ref. type examination documentation
Rated working pressure - 6 bar. Spray heads are made of naval brass. The spray heads are to be installed in a pendant (downward) position.				

For all applications

A. The pumps shall be delivered with product certificate, whereas other system components are to be inspected in accordance with DNV GL Rules (or equivalent standard as specified by the Flag Administration);
B. Redundant pump arrangement is to be approved on a case by case basis.
C. Restrictions apply to use of this system on open ro-ro and open special category spaces (see IMO MSC.1/Circ.1430).
D. The pump unit and section valves shall be installed in a room having ambient temperature between +4ºC and +45ºC
E. Pipes, couplings and other components are regarded as "Class III" piping.

The following items are to be submitted for approval for each project:

i. System arrangement plans including routing of pipes, location of nozzles, sections valves, release stations and pump unit.
ii. Documentation of power supply and control system.
iii. Specification of pipes, section valves, pumps, including drivers and associated components.
iv. Pressure drop calculations and water spray capacity calculations.
v. Design, installation, operation and maintenance manual.

Installation testing:

a. The system is to be cleaned in accordance with routines outlined in maker's system description manual.
b. In case of deluge systems, at least 2 sections should be tested with full flow through the nozzles. Manual release of all section valves (without water accepted) shall be carried out.

c. Manual start of pumps shall be carried out.
d. Alarms at the manned control stations shall be tested.
e. Other tests as required by DNV GL Rules (pressure testing of piping, etc.) or a similar standard acceptable to the Flag Administration and according to maker's manual shall be carried out.

Periodical testing:

- Periodical control and inspection shall be carried out in accordance with maker's system description manual.
- At least one section should each year be tested with full flow through the spray heads.

Type Examination documentation

Component test:
Test Report No. 161006-185 dated 15 November 2016 from Danish Fire Laboratories, Denmark.

Clogging test:
Test Report No. 160823-182 dated 7 September 2016 from Danish Fire Laboratories, Denmark.

Datasheet No. 160905-01-03 v.3 dated 2 December 2016 from the manufactuerer.

Tests carried out

Tested according to IMO MSC.1/Circ.1165 (component test).

Marking of product

The nozzles are to be marked with manufacturer name and address, type designation and Mark of Conformity (see first page) whereas other main components are to be marked with name of manufacturer.