



# TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MERB000020R**  
Revision No:  
**0**

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

## This is to certify:

**That the Fixed water-based fire-fighting systems for ro-ro spaces, vehicle spaces and special category spaces: Performance-based systems as per IMO MSC.1/1430 Rev.1**

with type designation(s)  
"VID FireKill OH-OPX1 Suez", "VID FireKill OH-OPX1 Panama"

Issued to  
**Vid Fire-Kill ApS**  
Svendborg, Denmark

is found to comply with the requirements in the following Regulations/Standards:  
Regulation **MSN 1874 Amendment 7**,  
item No. **UK/3.49b. SOLAS 74 as amended Regulation II-2/19, II-2/20 & X/3, 2000 HSC Code 7 and FSS Code 7, IMO MSC.1/Circ.1430, Rev 2.**

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

This Certificate is valid until **2027-10-30**.

Issued at **London** on **2023-04-14**

DNV local unit:  
**Denmark CMC**



for **DNV UK Ltd.**

Approval Engineer:  
**Tessa Bieber**

Approved Body No.: **0097**

**Christine Mydlak-Roeder**  
**MER Service Responsible**



Maritime &  
Coastguard  
Agency

UK Approved Body Authorised  
by the MCA

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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. The product liability rests with the manufacturer or his representative in accordance with the Merchant Shipping (Marine Equipment) Regulations 2016.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV UK Ltd. of any changes to the approved equipment. 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. This certificate remains valid unless suspended, withdrawn, re-called, or cancelled.

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

“VID FireKill OH-OPX1 Suez”, “VID FireKill OH-OPX1 Panama”, is a water mist system of deluge type. The system consists of nozzles and section valves, in addition to pump unit(s), piping, control system as associated equipment.

The system is to be designed in accordance with the "Principal Requirements" of IMO MSC.1/Circ.1430, Rev.2, for performance-based systems.

Only nozzles are type approved by this certificate. Other components are to be approved and/or certified case by case.

### Application/Limitation

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

System design and installation shall be in accordance with principal requirements and performance-based system requirements of IMO MSC.1/Circ.1430 Ch.3 and 5 and following limitations:

System type	Nozzle	Maximum spacing [m] <sup>1)</sup>	Min. pressure at nozzles [bar]	Min. coverage area [m <sup>2</sup> ]
Deck height up to 5.0 m <sup>2)</sup>				
Deluge	OH-OPX1 Panama	3.5	6.0	See note <sup>3)</sup>
Deck height up to 2.5 m				
Deluge	OH-OPX1 Suez	4.0	6.0	See note <sup>3)</sup>

**Notes:**  
 1) Distance to bulkheads should be half spacing.  
 2) Installations with height above 5.0 will be considered case by case.  
 3) According to Principal Requirements of IMO MSC.1/Circ.1430 for type B or type C systems (as applicable).

### Nozzle information

Nozzle type	k-factor [lpm/bar <sup>1/2</sup> ]	Flow [lpm]	Min. pressure at nozzle [bar]	Drawing
OH-OPX1 Panama	23.0	56.3	6.0	120802-1057
OH-OPX1 Suez	23.0	56.3	6.0	120802-1057

Nozzles are made of brass coated with nickel. Maximum operating pressure is 16 bar.  
 Nozzles are to be installed in a pendant (downward) position.

### For all applications

- Restrictions apply to use of this system on open ro-ro and open special category spaces (see IMO MSC.1/Circ.1430 as amended).
- The pump unit(s) shall be delivered with product certificate. Other system components are to be certified or inspected in accordance with Class Rules (or equivalent standard as specified by the Flag Administration).
- Redundant pump arrangement is to be approved on a case-by-case basis.
- Pipes, couplings and other components are regarded as “Class III” piping.
- The pump unit and section valves shall be installed in a room having ambient temperature between 4 °C and 45 °C.

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

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

### Installation testing:

- The system is to be cleaned in accordance with routines outlined in maker’s system description manual.
- 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.
- Manual start of pumps shall be carried out.
- Alarms at the manned control stations shall be tested.
- Other tests as required by class rules (or equivalent standard as specified by the Flag Administration) (pressure testing of piping, etc.) and according to maker’s manual shall be carried out.

### Periodical testing:

- The periodical testing shall comply with instructions from flag administration, statutory interpretations and maker’s maintenance manual.
- At least one section should each year be tested with full flow through the nozzles (not the same section every year).

## **Type Examination documentation**

Design, Installation and Service Manual No. 120820-02-09 MSC Circ. 1430 DIOM, Rev.09, dated 25 November 2021 from manufacturer.

### Fire test reports:

Test report No.120413-68 dated 21 June 2012 from DFL, Svendborg, Denmark.

Test report No.120413-69 dated 21 June 2012 from DFL, Svendborg, Denmark.

### Component test reports:

Test report No. 110415-5 dated 14 April 2012 from DFL, Svendborg, Denmark.

Letter dated 2 November 2012 from DFL, Svendborg, Denmark.

Statement No. 160129-164 dated 7 March 2016 from DFL, Svendborg, Denmark.

### Drawings of OH-OPX1:

Drawing No. 120802-1057, Rev. C, dated 28 October 2020 from manufacturer.

## **Tests carried out**

Fire performance test in accordance with IMO MSC.1/Circ.1272 and in compliance with IMO MSC.1/Circ.1430.

Component test in accordance with IMO Res. A.800(19) and IMO Res. MSC.265(84), and in compliance with IMO MSC.1/Circ.1430.

## **Marking of product**

The nozzles are to be marked with type designation and MER Mark of Conformity (see first page) whereas the pump unit is to be marked with name of manufacturer and type designation.