

# 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 Nozzles for deep fat cooking equipment fire extinguishing systems (automatic or manual type)**

with type designation(s)  
**Vesuvius N-pipe Type 2V-BM1**

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

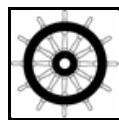
is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2017/306**,  
**item No. MED/3.43. SOLAS 74 as amended, Regulation II-2/1, II-2/10 & X/3, 2000 HSC Code 7, MSC.1/Circ.1433 and ISO 15371:2015**

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

This Certificate is valid until **2022-06-14**.

Issued at **Høvik** on **2017-06-15**

DNV GL local station:  
**Fredericia**



for **DNV GL AS**

Approval Engineer:  
**Piotr Orzechowski**

Notified Body  
No.: **0575**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"Vesuvius N-pipe Type 2V-BM1"

is a low pressure water mist system, composed of spray heads, stainless steel piping, section valves and supply component(s).

The galley protection system should be designed according to new SOLAS Ch. II-2, Reg.10, 6.4.1-5. This certificate addresses only item 6.4.1.

The spray heads are manufactured by the VID Fire-Kill ApS, Svendborg, Denmark.

Only the spray heads 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 fire extinguishing system for galley deep-fat cooking equipment.

The spray heads are to be installed in according to the following specifications:

<b>Fat fryer protection</b>	
Distance above fryer:	1 m – 1.5 m
Number of spray heads:	Six per 1.8 m pipe (3 pairs each 600 mm)
Position of spray head (pairs):	Two centrally over the protected area with approx. spreading angel of 60 degrees between nozzles and distance of 50 mm nozzle to nozzle
Maximum size of vats:	0.45 x 0.48 (W x H)
Maximum volume of vats:	30 l
Operating pressure:	7 bar – 9 bar
Spray heads type:	Vesuvius N-pipe Type 2V-BM1

<b>Spray head information</b>			
Spray head	k-factor ( $Q = k \times p^{1/2}$ )	Flow rate	Drawing no.
Vesuvius N-pipe Type 2V-BM1 (per 1.8 m N-pipe)	16.8 lpm/bar <sup>1/2</sup>	44.4 lpm at 7 bar	80704-557A
Vesuvius N-pipe Type 2V-BM1 (per micro nozzle)	2.8 lpm/bar <sup>1/2</sup>	7.4 lpm at 7 bar	80704-557A
The spray heads are made of stainless steel "SS AISI 316L" and have a maximum rated pressure of 9 bar.			

### For all systems:

1. The pump(s) unit shall be delivered with product certificate, whereas other system components are to be inspected in accordance with Class Rules (or equivalent standard as specified by the Flag Administration).
2. Only stainless steel piping is to be applied and a system filter shall be provided for each pump unit (to avoid clogging of spray heads)
3. Pipes, couplings and other components are regarded as "Class III" piping.
4. Ambient room temperature for pump unit should be between +4 °C and +45 °C

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

- System arrangement plans including location of spray heads, section valves, release stations and supply component(s).
- Specification of pipes, supply component(s), and associated components;
- Shut down of function defined by SOLAS II-2/10.6.4.2-5.
- Manual containing operating and maintenance instructions.

Job Id: **344.1-003201-7**  
Certificate No: **MEDB00002RY**

Installation testing:

- Pressure testing of water pipe system to at least 1,5 times maximum working pressure;
- Function testing of the system.
- Other tests according to makers manual.

Periodical testing:

- Periodical control and inspection to be in accordance with makers manual.

**Type Examination documentation**

Component Test Report No. 110914-6, both dated 28 October 2011 from Danish Fire Laboratories.

Fire Test Report No. 120321-66, dated 5 July 2012 from Danish Fire Laboratories.

Drawings No. 80704-557A from manufacturer.

Design, Installation and Service Manual No. 120829-01-01, dated 29 August 2012 from manufacturer.

**Tests carried out**

Fire tested according to ISO 15371:2009, component test of spray heads according to IMO MSC/Circ.1165.

**Marking of product**

The spray heads are to be marked with type designation and MED Mark of Conformity (see page 1).