



Marine & Offshore

Certificate number: 64633/A0 BV

File number: .

Product code: 5710H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Unifire AB

KUNGÄLV - SWEDEN

for the type of product

DUAL JET/SPRAY WATER NOZZLES

Fire Hose Nozzles, Type V12, V16 and V20

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 06 May 2026

For Bureau Veritas Marine & Offshore,

At BV GOTHENBURG, on 06 May 2021,

Torbjorn Ygesjö



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Type	Designation
VMU12120	UNIFIRE V12 2" BSP Nozzle
VMU16120	UNIFIRE V16 2" BSP Nozzle
VMU20120	UNIFIRE V20 2" BSP Nozzle

General Dimension

Type	Length	Nozzle Diameter	Weight with a2" male BSP
VMU12120	330 mm	80 mm	1,7 Kg
VMU16120			
VMU20120			

Operating Pressure

Type	Recommended operating pressure	Max. operating pressure
VMU12120	2-8 Bar	10 Bar
VMU16120		
VMU20120		

Rating

	Pressure (Bar)	Jet - Flow (L/min)	Jet - Reach (meter)	Fog 90° - Flow (L/min)	Fog 90° - Reach (meter)
VMU12120	2	134	22	195	10
	6	233	32	325	13
	10	302	37	400	14
VMU16120	2	205	26	240	10
	6	356	34	405	13
	10	462	40	550	14
VMU20120	2	252	27	288	11
	6	442	37	480	13
	10	576	43	650	16

As indicated in the technical documentation submitted by the Applicant.

Construction

Materials used	Chrome plated brass, Rubber bumper head
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When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

Technical Specification

Type	Issue	Date	Description
VMU12120	---	---	UNIFIRE V12 2" BSP Nozzle Technical Datasheet
VMU16120	---	---	UNIFIRE V16 2" BSP Nozzle Technical Datasheet
VMU20120	---	---	UNIFIRE V20 2" BSP Nozzle Technical Datasheet

No departure from the above documents shall be made without the prior consent of the Society. The manufacturer must inform the Society of any modification or changes to these documents and drawings.

Drawings & Materials

Type	Date	Description	Pages
20210302-2	2021-02-08	V12, V16, V20 parts list	13

Markings and Manuals

Type	Date	Description	Pages
20210302-1	2021-02-27	Operating Instruction UNIFIRE V-Nozzles	3

3. TEST REPORTS

Test Report	Date	Description
7813,511	1979-08-15	Initial Test Report

4. APPLICATION / LIMITATION

4.1 To be used as spray/jet nozzles for fire fighting systems on board ships having to comply with SOLAS 74 Convention as amended and for units having to comply with MODU Code.

4.2 The supplier supplying the ship/unit will have to comply with the Rules and the applicable regulations acceptable by the National Authorities of the country in which the ship/unit is registered with respect to the standard to be applied and the assembly couplings. The supplier shall make available its instruction manual for installation, use and maintenance.

4.3 To be used and maintained in accordance with the manufacturer's recommendations.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The products are to be supplied by **Unifire AB** in compliance with the type described in this certificate.

5.2 This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 **Unifire AB** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 For information, **Unifire AB** has declared to Bureau Veritas the following production site:

ISIFLO AB
Stenblocksvägen 1
335 32 GNOSJÖ
SWEDEN

6. MARKING OF PRODUCT

The product is to be marked with:

- Manufacturer name or logo
- Type designation

7. OTHERS

It is **Unifire AB** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

*** END OF CERTIFICATE ***