



Marine & Offshore

Certificate number: 07958/E0 BV

File number: ACI 2200/006/001

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

RAUPLAN OY

TURKU - FINLAND

for the type of product

DUAL JET/SPRAY WATER NOZZLES

Rauplan Multifire Branchpipes

12A, 16A, 12B, 16B, 19B, 12L, 16L, 19L, 12S, 16S, 19S

Requirements:

- BUREAU VERITAS Rules for the Classification of Steel Ships
- BUREAU VERITAS Rules for the Classification of Offshore Units

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: 25 Jun 2023

For Bureau Veritas Marine & Offshore,

At BV TURKU (ABO), on 25 Jun 2018,

Roger Robertsson



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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

Rauplan Multifire Branchpipes 12A, 16A, 12B, 16B, 19B, 12L, 16L, 19L, 12S, 16S and 19S

1.1 Design

- Rauplan Multifire Branchpipes are combinaison branchpipes, which spray can be regulated with one hand gesture for fog, direct jet or it can be broken entirely.
- There are three different sizes of branchpipes nozzles with diameter: 12, 16 and 19 mm free aperture.
- Short branchpipes S can be equipped with extension arm and normal ball valve A.
- Long branchpipes L can be equipped with big handle ball valve B.
- Branchpipes are available without coupling or with required coupling.

1.2 Rating

Working pressure (MPa): 0.2-1.0

Nozzle bore (mm): 12, 16 and 19

1.3 Performance data according to test report and data sheet

JET		Diameter 12 mm		Diameter 16 mm		Diameter 19 mm			
Working Pressure (MPa)	Flow Rate (m³/hr)	(dm³/min)	Jet length (m)	Flow rate (m³/hr)	(dm³/min)	Jet length (m)	Flow rate (m³/hr)	(dm³/min)	Jet length (m)
0.2	2	30	14	2	30	12	4	70	16
0.4	8	130	24	13	220	29	12	200	25
0.6	10	170	33	10	170	29	13	220	29
0.8	12	200	33	11	180	30	14	230	28
1.0	14	230	32	23	380	36	18	300	29

FOG		Diameter 12 mm		Diameter 16 mm		Diameter 19 mm				
Working Pressure (MPa)	Flow Rate (m³/hr)	(dm³/min)	Jet length (m)	Flow Rate (m³/hr)	(dm³/min)	Jet length (m)	Flow Rate (m³/hr)	(dm³/min)	Jet length (m)	Degree (°)
0.2	7	120	14	11	180	14	14	230	12	30
	8	130	17	11	180	13	16	270	9	60
	10	170	12	12	200	12	18	300	7	90
	14	230	9	18	300	7	22	370	3	120
0.4	9	150	15	14	230	19	19	320	17	30
	11	180	19	16	270	17	20	330	12	60
	13	220	18	18	300	14	24	400	9	90
	24	400	11	27	450	9	31	520	4	120
0.6	11	180	17	18	300	22	24	400	23	30
	14	230	19	20	330	20	27	450	15	60
	19	320	17	24	400	16	31	520	11	90
	28	470	12	34	570	11	36	600	7	120
0.8	13	220	20	21	350	20	28	470	23	30
	15	250	23	24	400	17	31	520	15	60
	19	320	22	28	470	16	35	580	13	90
	34	570	15	39	650	11	40	670	8	120
1.0	15	250	22	24	400	20	32	530	25	30
	18	300	23	28	470	19	36	600	21	60
	21	350	21	30	500	18	40	670	15	90
	38	630	11	40	670	9	46	770	9	120

1.4 Material

Chromium-plated brass, stainless steel and EPDM or silicon rubber

When other choices of materials are used per manufacturer's recommendations, the BV agreement is to be obtained.

2. DOCUMENTS AND DRAWINGS

Drawings:

- N° 010997 Type A - Combination nozzle with applicator 12A and 16A dated 03/07/1997
- N° 271097 Type B - Long combination hose nozzle for jet and diffuser spray with shutoff dated 26/08/1997
- N° 070797 Type L - Long combination hose nozzle for jet and diffuser spray dated 08/07/1997
- N° 020997 Type S - Short combination hose nozzle for jet and diffuser spray dated 08/07/1997

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.

3. TEST REPORTS

Not required.

4. APPLICATION / LIMITATION

4.1 To be used as spray/jet nozzles for fire fighting equipment 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 **Rauplan Oy (Finland)** in compliance with the type described in this certificate and in compliance with the requirements stated on the front page of 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 **Rauplan Oy (Finland)** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR 320 for HBV products.

For information, **Rauplan Oy (Finland)** has declared to Bureau Veritas the following production site:

Rauplan Oy (Finland): Salvumiehenkatu 10, PO Box 67, FIN-20321 TURKU, FINLAND

6. MARKING OF PRODUCT

The product is to be marked with:

- Manufacturer name or logo
- Type designation

7. OTHERS

It is **Rauplan Oy (Finland)**'s 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.

This certificate supersedes the Type Approval Certificate N° 07958/D0 BV issued by the Society.

*** END OF CERTIFICATE ***