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**Certificate No:**  
**MED-MB-3005-11**  
**MED Item No. : MED/3.55**

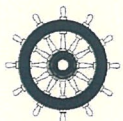
This consists of 4 pages.  
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## **EC CERTIFICATE OF CONFORMITY** **as per Module B** **of European Council Directive 2014/90/EU on Marine Equipment (MED)**

**THIS IS TO CERTIFY** that KR Hellas Ltd., designated by the Hellenic Republic as Notified Body according to Council Directive 2014/90/EU on Marine Equipment, did undertake the EC Type Examination procedures for the equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU:

<b>Manufacturer</b>	<b>Name</b>	: NAVUTEC Co., LTD
	<b>Address</b>	: 91-6 Sandan3-ro, Jeonggan-eup, Gijang-gun, Busan, Korea
<b>Authorised Representative</b>	<b>Name</b>	: COMPODYNAMIC ENGINEERING S.R.L.
	<b>Address</b>	: Corso Matteotti, 30-84015 Nocera Superiore(SA) ITALY
<b>Regulation Item</b> <b>(MED item designation)</b>		: Dual purpose type nozzles (spray/jet type) (Hand-held branchpipes for fire service use - Smooth bore jet and/or one fixed spray jet angle branchpipes PN 16)
<b>Product Types</b>		: NV-12 / NV-16 / NV-19
<b>Specified Standards</b> <b>[(EU) 2019/1397]</b>		: SOLAS 74 Reg. II-2/10, SOLAS 74 Reg. X/3, IMO Res.MSC.36(63)-(1994 HSC Code) 7, IMO Res.MSC.97(73)-(2000 HSC Code) 7, EN 15182-1:2007 incl. A1:2009, EN 15182-3:2007 incl. A1:2009
<b>Date of issue</b>		: 28 <sup>th</sup> March 2016
<b>Date of reissue</b>		: 3 <sup>rd</sup> July 2020
<b>Expiration Date</b>		: 27 <sup>th</sup> March 2021

Issued at Athens, under the authority of the Hellenic Republic by **KR Hellas Ltd.**



Notified Body No.2198



(KRH Endorse)

Dr. Nikos Katiforis

**Quality Manager of KR Hellas Ltd.**

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## Attachment to EC Type Examination Certificate(1/3)

### Type examination documentation:

Drawing No.	Title	Version	Date
304-02-001	NOZZLE DETAIL	3	28.11.2010
304-02-010	BODY DETAIL	1	08.11.2010
304-02-011	NOZZLE HEAD	1	08.11.2010
304-02-012	WINDOW NOZZLE DETAIL	2	17.12.2010
304-02-013	SHAFT DETAIL	1	08.11.2010
304-02-014	NOZZLE TIP DETAIL	1	08.11.2010
304-02-015	O RING DETAIL	1	08.11.2010
304-02-020	Name plate drawing	3	11.03.2011

### Test reports: Tested according to EN 15182-1(2007) and EN 15182-3(2007)

Report No.	Title of Report	Inspection & Test Institutes	Date
KRH-W-0011-2011	Inspection Record for Dual-purpose type nozzles(spray/jet type)	Korean Register of Shipping	29.03.2011
TAU-004331	Heat and Frost	Korea Testing & Research Institute	29.03.2011

### Product particulars:

Working pressure : up to 16 bar

Nozzle tip size & performance(at 6 bar, jet position)

Nozzle type	Size	Flow rate	Effective throw
NV-12	Ø 35.7 x 11 L	222 L/min	30 m
NV-16	Ø 33.8 x 11 L	350 L/min	32 m
NV-19	Ø 32.2 x 11 L	415 L/min	34 m

#### Material

- Nozzle head : NBR
- Window nozzle : C3604BD
- Nozzle body : POM
- Screw : SUS 304
- Nozzle tip : PE
- Shaft : C3604BD
- O-ring : EPDM
- Check nut : SUS 304





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## Attachment to EC Type Examination Certificate(2/3)

### Application/Limitations of Use:

1. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the notified body named on this certificate.
2. Spray/Jet type nozzle should be use only for fire fighting. This unit should not be used for deck washing or other purpose.
3. Remove the seawater from inside and the dirt from outside of the spray/jet type nozzle after use, and keep the jet/spray nozzle in the fire hose box.
4. Installation, operating and maintenance manual to be provided onboard in accordance with the section 8.1 of EN 15182-1 and available in the ship's official language.
5. Hand held branchpipes for fire service use – Smooth bore jet and/or one fixed spray jet angle branchpipes PN 16.

### Marking of product:

1. Marking of product for identification
  - A plate or durable label containing items described in section 8.2 of EN 15182-1 is to be fitted on the products.
2. Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity  according to Chapter 2, Article 9, 10 of the Council Directive 2014/90/EU on marine equipment and issue a Declaration of Conformity, only when the module D or E or F of Annex II of the directive is fully complied with.

### Conditions of the validity:

1. The products are to be manufactured in accordance with the approved production quality assurance system(Module D) or approved product assurance system (Module E), or are to be subjected to product verification (Module F) of the Council Directive 2014/90/EU on Marine Equipment.
2. If the Directive or the applied Standard(s) is amended, the product is to be re-approved in accordance with the amended requirements prior to it being supplied to vessels to which the amended Directive or Standard(s) apply. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this certificate invalid.





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### Attachment to EC Type Examination Certificate(3/3)

#### Conditions of the validity(Continue):

3. The Manufacturer must inform the "Notified Body" of all modifications which may affect compliance with the requirements.
4. The Mark of Conformity may only be affixed to the product and Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

#### Remark:

1. Reissued on 28<sup>th</sup> March 2016.
  - Renewal of existing certificate issued on 20<sup>th</sup> April 2011.
2. Reissued on 3<sup>rd</sup> July 2020.
  - Complied with revised standard according to EN 15182-3(2007) incl. A1(2009).

*End of Certificate*

**KR Hellas**

