



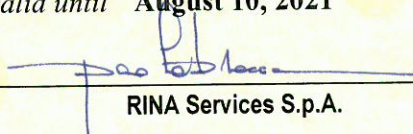
**TYPE APPROVAL CERTIFICATE**  
No. FPE069916CS

**This is to certify that the product identified below satisfies the requirements of the standard quoted under "Reference standard"**

<i>Description</i>	<b>FIXED AEROSOL FIRE-EXTINGUISHING SYSTEM</b>
<i>Type</i>	<b>DYNAMECO (mod 200/300/2000) - (Firefighter Typhoon)</b>
<i>Applicant</i>	<b>FIREFIGHTER TYPHOON di Bertossi Roberto LUNGADIGE CAMPAGNOLA 2 37100 VERONA (VR) ITALY</b>
<i>Manufacturer</i>	<b>DYNAMIT NOBEL DEFENCE GMBH</b>
<i>Place of manufacture</i>	<b>DR HERMANN FLECK ALLEE 8 BURBACH GERMANY</b>
<i>Reference standards</i>	<b>ISO 9094:2015</b>
<i>Reference documents</i>	<b>Rules for the Type Approval of Fixed Aerosol Fire-Extinguishing Systems in Machinery Spaces</b>

Issued in **Genoa** on **August 11, 2016**. This Certificate is valid until **August 10, 2021**



  
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RINA Services S.p.A.

This certificate consists of this page and 1 enclosure

**TYPE APPROVAL CERTIFICATE**  
**No. FPE069916CS**  
**Enclosure - Page 1 of 2**  
**DYNAMECO (mod 200/300/2000) - (Firefighter Typhoon)**

**Product description**

Aerosol generating pre-engineered fire-extinguishing system with dry condensed extinguishing agent constituted of a self-standing modules having the followings main characteristics:

	<b>DYNAMECO 200-E02</b>	<b>DYNAMECO 300-E02</b>	<b>DYNAMECO 2000-E02</b>
<b>Dimension</b>	(113 x 82) mm	(193 x 82) mm	(250 x 200) mm
<b>Total weight</b>	890 g	1280 g	7530 g
<b>Temperature range</b>	-40 °C to +85°C		
<b>Discharge time</b>	about 5 s	about 8 s	about 15 s
<b>Protected volume</b>	2 m <sup>3</sup>	3 m <sup>3</sup>	20 m <sup>3</sup>

**Field of application**

A and B Class fires in unmanned machinery spaces of pleasure yacht having a length not exceeding 24m and machinery spaces with a net volume not exceeding 35 m<sup>3</sup>, to which Directive 96/98/EC as amended is not applicable.

Maximum volume protected: 35 m<sup>3</sup> covered with n° 1 DYNAMECO 2000-E02 and n° 4 DYNAMECO 300-E02

**Reference documents**

- Technical Information - Aerosol Extinguisher Dynameco issued by Dynamit Nobel Defence GmbH and filed by RINA with n° CSST 14151;
- Technical Data Sheet - Aerosol Fire Extinguishing Generator Dynameco 200-E02 / 300-E02 / 2000-E02 issued by Dynameco Dynamit Nobel Defence GmbH and approved by RINA with n° CSST 14152;
- Instruction for use of Dynameco-E02 electrically actuated aerosol fire extinguishing generators, issued by Dynameco Dynamit Nobel Defence GmbH and filed by RINA with n° CSST 14153;

**Test report**

Test report n° 16VE112201 witnessed and filed by RINA with n° CSST 14150.



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**DYNAMECO (mod 200/300/2000) - (Firefighter Typhoon)**

**Remarks**

- In case of vessels certified according to Directive 94/25/CE as amended (CE marked), reference is to be made to ISO 9094:2015;
- In case of vessels classed by RINA:
  1. The release device shall be readily accessible and labelled with a means of preventing accidental discharge;
  2. A visual indication of discharge shall be provide outside the protected space.
  3. Means shall be provided for automatically giving audible and visual warning of the release of fire-extinguishng medium.
  4. Prior to or during system discharge, the manual and/or automatic shutdown of engines, generators, forced ventilation or other permanently installed equipment which could compromise the levels of extinguishing medium in the protected area, shall be provided. Shut-off dampers, where required shall be capable of being closed, before the discharge or the activation of the system.
  5. Numbers and types of extinguishing components are to be determined in conformity with guidelines and calculation methods issued by manufacturer.
  6. Prior to fitting the relevant system on board, the following details shall be submitted to RINA Head Office for approval:
    1. Schematic arrangement of the system including type, number and location of each device;
    2. Wiring diagrams and cable specifications;
    3. Testing/approval documentation of system components (alarm and activation device);
    4. The approval of the system is subjected to the acceptance of the extinguishing agent by the flag Administration.

Mass produced articles of the aforesaid material are to be marked or labelled with the trade name and the data of the Company to whom this Certificate is addressed. The validity of this Certificate is dependent on the compliance of each manufactured product with the prototype which underwent the type approval tests and such compliance shall be stated by the manufacturer. Moreover, the Company is fully responsible for ensuring compliance by performing all the necessary checks also in respect of its sub-suppliers. Notwithstanding the above, RINA reserves the right to make any checks it deems appropriate during production. The validity of this Certificate ceases in the case of amendments to the rules on the basis of which the Certificate was issued.

**Genoa August 11, 2016**

