



Potvrda br.  
Certificate No.

01-014224/0110676

## POTVRDA O TIPNOM ODOBRENJU TYPE APPROVAL CERTIFICATE

Potvrđuje se da ovaj proizvod udovoljava Pravilima za klasifikaciju brodova, Dio 1. - Opći propisi, Odjeljak 3. - Tipno odobrenje proizvoda.  
*This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.*

**TIP I OPIS PROIZVODA:**  
*TYPE AND DESCRIPTION OF PRODUCT:*

**STAT-X FIKSNI SUSTAV ZA GAŠENJE POŽARA AEROSOLOM**  
*STAT-X AEROSOL FIXED FIRE EXTINGUISHING SYSTEM*

**PROIZVOĐAČ:**  
*MANUFACTURER:*

**Fireaway Inc.**  
5852 Baker Road  
MINNETONKA, MN 55345  
USA

**PROIZVOD UDOVOLJAVA SLJEDEĆIM PRAVILIMA/PROPISIMA:**  
*THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:*

**Pravila za klasifikaciju brodova, Dio 17 – Protupožarna zaštita; Pravila za statutarnu certifikaciju putničkih brodova u nacionalnoj plovidbi; Pravila za tehnički nadzor brodova od drva, aluminijskih slitina i plastičnih materijala; Pravila za statutarnu certifikaciju ribarskih brodova; Pravila za statutarnu certifikaciju brodice i jahti.**

*Rules for the Classification of Ships, Part 17 – Fire protection; Rules for the Statutory Certification of Passenger Ships Navigating in National Waters; Rules for the Technical Supervision of Ships with Wooden, Aluminium Alloy or Glass Reinforced Plastic Hull; Rules for the Statutory Certification of Fishing Vessels; Rules for the Statutory Certification of Boats and Yachts..*

**DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEĐINI.**  
*FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.*

**ODOBRENJE VRIJEDI DO:** 2024-08-27  
*APPROVAL IS VALID UNTIL:*

**Mjesto i datum:** Split, 2020-08-27  
*Place and date:*

**M.P.**  
*(Seal)*

**Marinko Popović, dipl.ing.**

**NAPOMENA:** Ova potvrda nije valjana ako se proizvod ili način njegove proizvodnje promijenio u odnosu na tipno ispitani proizvod. Proizvođač treba obavijestiti Hrvatski registar brodova o bilo kojoj izmjeni na proizvodu kako bi ishodio valjanu potvrdu.  
*NOTE: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.*

**PODROBNIJI OPIS PROIZVODA:**  
*DETAILED PRODUCT DESCRIPTION:*

**STAT-X sustav za gašenje požara aerosolom sa suhim kondenziranim sredstvom za gašenje sastoji se od:**

- generatora aerosola (nepropusni spremnik izrađen od prokronskog lima u kojem se nalaze krutom smjesa aerosola i kemijsko hladilo)
- sredstvo za električnu aktivaciju ili sredstvo za termičku aktivaciju
- kontrolna ploča (samo generatori s električnom aktivacijom)

**Modeli generatora aerosola: 30E, 60E, 100E, 250E, 500E, 1000E, 1500E, 2500E, 30T, 60T, 100T, 250T, 500T i 1000T.**

**Način aktivacije i masa krute tvari za gašenje požara pojedinog generatora navedeni su u oznaci modela.**

*STAT-X aerosol fire extinguishing system with dry condensed extinguishing agent consist of:*

- aerosol generator ( stainless steel housing foiled with solid aerosol generating compound and chemical coolant)
- an electric ignition device or an thermal initiator device
- a control panel (only generators with electric ignition device)

*Aerosol generator's models: 30E, 60E, 100E, 250E, 500E, 1000E, 1500E, 2500E, 30T, 60T, 100T, 250T, 500T and 1000T.*

*Activation type and mass of extinguishing agent of each model are indicated in the model designation.*

**PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:**  
*APPLICATION / LIMITATIONS:*

**1. Gašenje požara na jahtama, brodicama i brodovima duljine manje od 24m u prostorijama strojeva i pumpnim stanicama u kojima osoblje uobičajeno boravi i onima u kojima uobičajeno ne boravi visine najviše 4 metra ili maksimalne površine 64 m<sup>2</sup>. Maksimalni volumen šticeenog prostora je 35 m<sup>3</sup>.**

**2. Masa tvari za gašenje požara  $M = K1 \times K2 \times V \times q$**

gdje je:

- **M:** masa tvari za gašenje potrebna (g)
- **K1:** faktor zasnovan na neravnomjernosti raspodjele aerosola prema visini šticeenog volumena
- **K2:** faktor zasnovan na propusnosti i raspodjeli istjecanja za šticeeni volumen
- **V:** ukupna zapremina zašticeenog (m<sup>3</sup>)
- **q:** projektna gustoća aerosola (g/m<sup>3</sup>) - za požare B klase najmanje 62 g/m<sup>3</sup>, a za požare A klase 97 g/m<sup>3</sup>

**3. Smještaj generatora aerosol mora biti u skladu s uputama u priručniku za instalaciju (izdanje 2018).**

**4. Minimalno vrijeme zadržavanja: 10 min**

**5. Automatsko uključivanje sustava je predmet odobrenja HRB-a za svaki pojedinačni slučaj.**

*1. Fire extinguishing on yachts, boats and ships having a length not exceeding 24 m, in normally occupied and unoccupied machinery spaces and cargo pump rooms with a deck height not exceeding 4m or an area not exceeding 64 m<sup>2</sup>. Maximum volume of the protected space is 35 m<sup>3</sup>.*

*2. Quantity of fire extinguishing agent  $M = K1 \times K2 \times V \times q$*

*where:*

- *M: the total mass of aerosol required to protect the hazard (g)*
- *K1: ratio based on non-uniformity of aerosol distribution according to the height of the protected enclosure*
- *K2: ratio based on the calculated leakage rate and leakage distribution for the protected volume*
- *V: total volume of the protected (m<sup>3</sup>)*
- *q :design density of aerosol required to extinguish the hazard class (g/m<sup>3</sup>)- should be at least 62 g/m<sup>3</sup> for B-class fires and 97 g/m<sup>3</sup> for A-class fires.*

*3. Aerosol arrangement shall be in accordance with Installation Manual (edition 2018).*

*4. Minimum holding time: 10 min*

*5. Automatic release of the system is subject to the approval of the CRS in each particular case.*

**DOKUMENTACIJA ZA TIPNO ODOBRENJE:**  
*TYPE APPROVAL DOCUMENTATION:*

**Tehnička dokumentacija i Izvješća o ispitivanju:**

1. "Stat-X Fire Suppression Systems - Design, Installation, Operation and Maintenance Manual", verzija 1.3.6. izdan od Fireaway Inc u srpnju 2018.
2. "Stat-X Automatic Fire Suppression Systems - Design, Installation. Operation and Maintenance Manual", verzija 1.2. izdana od Fireaway Inc u lipnju 2010.
3. Test report "MCA fire test for condensed aerosol fire extinguishing systems" izdan od Fireaway Inc 27/07/2006. Testu je prisustvovao gosp. J.Pillai iz MCA.
4. Certificate of inspection and tests MSF 1814 rev.0904 izdan od MCA dana 20/11/2006.
5. Pisma FILE EX 15004 from Underwriters Laboratories Inc. od 30/10/2009 i 24/07/2018.
6. Pismo TMN001.99 from Talley Defense Systems od 20/09/1999.
7. "Findings - toxicology and hygiene characteristics of combustion products of stimel extinguishing compound" izdan od Department of Public Health and Medical Industry of the Russian Federation dana 18/11/1998.

*Technical documentation and Test reports:*

1. "Stat-X Fire Suppression Systems - Design, Installation, Operation and Maintenance Manual", version 1.3.6. issued by Fireaway Inc in July 2018.
2. "Stat-X Automatic Fire Suppression Systems - Design, Installation. Operation and Maintenance Manual", version 1.2. issued by Fireaway Inc in June 2010.
3. Test report "MCA fire test for condensed aerosol fire extinguishing systems" issued by Fireaway Inc on 27/07/2006. The tests were attended by Mr J.Pillai from MCA.
4. Certificate of inspection and tests MSF 1814 rev.0904 issued by MCA on 20/11/2006.
5. Letters FILE EX 15004 from Underwriters Laboratories Inc. dated 30/10/2009 and 24/07/2018.
6. Letter TMN001.99 from Talley Defense Systems dated 20/09/1999.
7. "Findings - toxicology and hygiene characteristics of combustion products of stimel extinguishing compound" issued by the Department of Public Health and Medical Industry of the Russian Federation on 18/11/1998.

**OZNAČAVANJE PROIZVODA:**  
*MARKING OF PRODUCT:*

**Proizvod se mora označiti imenom proizvođača, oznakom proizvoda i datumom proizvodnje.**

The product shall be marked with manufacturer name, type designation and date of manufacture.

**UVJETI ZA CERTIFIKACIJU:**  
*CONDITIONS FOR CERTIFICATION:*

**Za svaku pojedinu instalaciju STAT-X sustava za gašenje požara, prije ugradnje na brod mora se HRB-u dostaviti na odobrenje dokumentacija koja uključuje nacрте s rasporedom opreme, proračun aerosola, specifikaciju kabela, te upute za instalaciju, korištenje i održavanje sustava.**

*For each separate installation of the STAT-X fire extinguishing system prior to installation onboard the project documentation including drawings with equipment arrangement, aerosol calculation, cable specification and operation and maintenance manuals shall be submitted to CRS for approval.*