



ACTIVE FIRE PROTECTION-EQUIPMENT LISTING SCHEME

Commonwealth Scientific and Industrial Research Organisation, Australia
Ph.: +61 (0)3 9252 6000 Fax: +61 (0)3 9252 6011
Web site: <http://www.activfire.gov.au> E-mail: info@activfire.gov.au

LISTING NUMBER

afp - 2284

Dates: Registration: 16-Dec-2008 Page 1 of 3
Version: 2.... 1-Aug-2009
Valid until*: 31-Jul-2010

PRODUCT LISTING DATA SHEET (Active Fire Protection Equipment)

Product designation

Stat-X®, aerosol generating fire extinguishing system units

(Refer to the Technical Specification section of this document for further specific detail)

Supplier

Chubb Fire Safety Limited

120 Silverwater Road, SILVERWATER, NSW, AUSTRALIA, 2128

Manufacturer

Fireaway LLC

11503 K-Tel Drive, MINNETONKA, MINNESOTA, UNITED STATES, 55343-8845

Supplier's description

Stat-X®, aerosol generating fire extinguishing system units are pre-engineered compact, non-stored pressure, electrically-actuated or heat-actuated fixed fire protection system which extinguishes fire by using an extremely fine low settling-rate chemical particulate plus inert gases. The particulate particles are induced into the fire and quickly cause complete chemical inhibition of the fire's radical-forming chain reactions. This rapidly extinguishes the flaming combustion of most fuels. The chemical particulate and inert gases are produced by a rapid but non-explosive exothermic reaction, of a patented "aerosol-forming substance", which commences within the shell of each Stat-X®, aerosol generating fire extinguishing system units immediately after electric initiation. During the reaction, and "micron-sized" particles of particulate chemical extinguishant as well as inert gases are forcefully ejected from the nozzle holes of the generator and thereby thoroughly mixed with the atmosphere within the protected area. The inert gases emitted by the generator are predominantly nitrogen, carbon dioxide, and water vapour, At a specified minimum clearance from a nozzle opening the aerosol temperature shall not exceed 200°C (CEN, ISO) when in contact with combustible materials and 400°C (CEN, ISO) when in contact with non-combustible materials.

The electrical initiation of the Stat-X®, aerosol generating fire extinguishing system units is by means of an electrically actuation ignition device located inside the generator. Any extinguishing system control panel is likely to be capable of actuating one or several Stat-X® units simultaneously.

The heat actuation of the Stat-X®, aerosol generating fire extinguishing system units is by means of the integrated heat detector which may also be manually actuated. Once temperature reaches the set temperature of the detector, Stat-X®, aerosol generating fire extinguishing system units are actuated generating aerosol. Alternatively, the detector may be actuated manually by means of a cable pull.

The supplied equipment of Stat-X®, aerosol generating fire extinguishing system units includes, mounting brackets, and all necessary fasteners to attach these to the generator.

The Stat-X®, aerosol generating fire extinguishing system units are suitable for use in marine or tropical environments, as evidenced by results of its testing for resistance to vibration, salt-spray corrosion, and moisture ingress. Accidental and deliberate releases of aerosol do not contribute to global atmospheric warming or ozone depletion.



This product listing data sheet should be read in conjunction with the general requirements of the terms and conditions of listing under the ActivFire Scheme.

© CSIRO Australia, 2009

Executive Officer

Conformance criteria and evaluation

The Stat-X®, aerosol generating fire extinguishing system units have been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian/New Zealand Standard AS/NZS 4487:1997, 'Pyrogen fire extinguishing aerosol systems'.
2. NFPA Standard NFPA 2010-2006, 'Aerosol Fire Extinguishing Systems'.
3. CEN prCEN/TR 15276-1, 'Fixed firefighting systems - Condensed aerosol extinguishing systems - Part 1: Requirements and test methods for components (00191148)'.
4. CEN prCEN/TR 15276-2, 'Fixed firefighting systems - Condensed aerosol extinguishing systems - Part 2: Design, installation and maintenance (00191149)'.
5. International Standard ISO 9227:1990, 'Corrosion test in artificial atmospheres - salt spray tests'.
6. Underwriters Laboratories Standard UL 2127 1st Edition, 'Standard for Inert Gas Clean Agent Extinguishing System Units'.
7. Underwriters Laboratories Standard UL 33 Edition 7, 'Standard for Heat Responsive Links for Fire-Protection Service'.
8. Australian Standard AS 1851-2005, 'Maintenance of fire protection systems and equipment' incl. Amdt 1 (26 July 2006).

Certification/listing is subject to ActivFire Scheme terms and conditions as applicable to the designated registrant and supplier.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this Product Listing Data Sheet, are derived from qualifications within the report of the testing agency and/or other related technical documentation. It is recommended that all details with respect to design, assembly and installation instructions and restrictions should be checked against the supplier's/maker's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. For use only where the ambient temperature will be between -54°C and +54°C.
- ii. System design and installation shall be done in accordance with the STAT-X® Fire Suppression Systems Design, Installation, Operation & Maintenance Manual, Version 1.2, Issued March 2007 (Part No. 19000) or Automatic Unit Fire Suppression Systems Design, Installation, Operation & Maintenance Manual, Version 1.0, Issued April 2007 (Part No. 19002).
- iii. Intended to be use in un-occupiable or normally unoccupied areas. For occupied areas appropriate and effective instructions for human evacuation shall be incorporated into the design, principally due to the high obscuration caused by the aerosol during and after discharge.
- iv. Not suitable for the following hazards; or, where the following materials may be present.
 - Class A materials that bum with deep-seated characteristics (wood fibre, cotton, etc.).
 - Electrical equipment operating at over 40,000V.
 - Metal Hydrides, Pyrophoric substances, and Chemical substances that smoulder and burn without air.
 - Metal powders (magnesium, titanium, etc.).
- v. Environments rated Hazardous (explosive atmospheres).

Technical specification

The following details are a representative extract of the technical specification for the Stat-X®, aerosol generating fire extinguishing system units and may be subject to change. Complete and current details should be determined from the designated supplier's/manufacturer's technical manual/data sheets.

Electrically actuated Stat-X®, aerosol generating fire extinguishing system units,
nominal 30, 60, 100, 250, 500, 1000, 1500 and 2500 gram sizes.

Model	Part number	Maximum coverage Class B
30E	15100	0.50 m ³
60E	15110	1.00m ³
100E	15120	1.62m ³
250E	15130	4.04m ³
500E	15140	8.08m ³
1000E	15150	16.2m ³
1500E	15160	24.2m ³
2500E	15170	40.4m ³

Heat/manual actuated Stat-X®, aerosol
generating fire extinguishing system units,
nominal 30, 60, 100, 250 and 500 gram sizes

Model	Part number
30T	15300
60T	15310
100T	15410
250T	15510
500T	15610

Heat actuated Stat-X®, aerosol generating fire extinguishing system units have been evaluated to UL-33 testing program for actuation temperatures of 70 and 123°C. (UL Report NC8961 from April 4, 2007).

Mounting Brackets

Size	Part number
30 gram, 60 gram	18000
100 gram	18005
250 gram, 500 gram	18010
1000 gram, 1500 gram, 2500 gram	18015

Classifications:

Suitable for fire: Class A – surface fires
Class B – flammable liquids
Class C – energised electrical equipment with A or B involvement

Handling and transport: In accordance with the requirements for Goods classification as U.N. No. 1325.
Dangerous Goods Class 4.1, Category C, Hazchem Code 2[Y]E

Canister characteristics:

Material: Stainless steel;
Temperature range: -50° to +65°C;
Humidity range of application: 0 - 98%, non-condensing
Corrosion resistance: Exceeds UL 1058 requirements

Aerosol characteristics:

Min particle size: ~ 1 micron
Oxygen level: 19% to 20% (typical)

Supplementary information

Nil supplementary information.