



transport catering industrial property data protection maritime

Transport Fire Protection

Reliable and efficient Vehicle Fire Suppression

Nobel Fire Systems has built on over 30 years of reliable, proven technology to develop fire suppression technologies aimed at special risk environments.

Underpinning the product development programme is a certain conviction that early fire detection and fast effective suppression saves lives, assets and the environment. Stat-X has been developed to specifically protect the critical important transport sector and the product is designed for use across all forms of transportation be it passenger or freight. It is a cost effective system that will withstand the rigours demanded by all forms of transport and at the same time meets all strict environmental demands. Stat-X protects assets from the risk of fire and helps alleviate potential resultant passenger injuries and fatalities in the public transport sector. Combining science and economics, it's the advanced method for protecting more challenging applications.

Stat-X

www.nobel-fire-systems.com

What is Stat-X

Next generation Vehicle Fire Suppression Systems

Stat-X is an innovative, cost-effective and ecologically safe solution for rapid fire extinguishing and protection of all high value enclosures. The systems offer advanced methods for protecting more challenging applications and are especially suitable for all vehicle related applications.



As proof of its global acceptance in this critical area of fire suppression, Stat-X has undergone extensive testing with the US military for use on their vehicles, and has been tested to the Swedish Bus fire system standard SBF128:1. Operationally, there are over 1,000 buses protected in New Zealand and Singapore to date.

In addition to these vehicle specific approvals and testing, Stat-X is the only fire system of this type to be tested and approved to UL, the most trusted source across the globe for testing and product compliance.

While the objective must always be to save lives and property, Stat-X is an innovative fire protection system that offers more. It combines science and economics. The result is a superior, environmentally friendly fire suppressant that allows easier and more cost-effective installations that require

no pipework or nozzles – units are simply fixed directly on or in the risk area being protected.

All Stat-X systems offer significant weight and space savings. On an agent weight basis, the systems are ten times more effective than gaseous agent alternatives. Units are environmentally friendly with zero ozone depletion and zero global warming potential.

Specially developed components and highly effective detection devices for rapid agent application combine with the environmental qualities to provide the most effective vehicle fire suppression systems available. Units can be electrically, thermally or manually activated, are extremely compact, and totally eliminate the need for expensive pressure vessels, nozzles and distribution piping or tubing normally associated with other fire suppression systems.





Stat-X

The extinguishing agent

The aerosol produced when Stat-X is activated is composed of ultra-fine particles of potassium salts with secondary inert gases.

Recognised as being one of the most effective fire suppression agents available, potassium salts suppress fire by a combination of chemical and physical mechanisms similar to Halon but without the negative effects on the environment. Because of the aerosol's ultra-fine particle size (S2 micron) there is a dramatic increase in the surface area interaction between the agent and the fire. Potassium based aerosol has proved in numerous tests to be a highly effective alternative to other extinguishing agents. Unlike gaseous agents, the aerosol does not decompose in the presence of fire nor does it extinguish by oxygen deprivation.

The result is an ultra fast fire knock down capacity and due to the potassium aerosol being suspended in the air of the enclosure for up to an hour it possesses long post fire security – reassuring qualities particularly where passenger transport is concerned. While the ultra-fine aerosol discharge remains in suspension for an extended period of time, it can easily be vented by a fan or other air handling system. Any small amounts of aerosol which may have settled on horizontal surfaces can be easily and swiftly removed by vacuum or even by simply wiping over. Any settled particulate is minor and considerably less than the particulate produced by the decomposition products of the fire.

The Stat-X aerosol generator is sealed with a non-permeable membrane and has been evaluated for temperatures down to -40 degrees Centigrade and humidity (up to 95% relative humidity). Accelerated aging tests have shown the generator's charge maintains its viability for 10 years. Stat-X is the only Condensed Aerosol to have undergone and passed stringent US accreditation under UL and is approved to UL2127 for clean agent fire suppression systems. It also holds a wide range of international approvals such as ULC – Activfire Australia and the US Military.

Stat-X[®]

The Stat-X control panel is sited in the drivers cab

Stat-X will extend to cover all areas i.e toilets or luggage compartments

The fire suppression system is housed in the engine bay



Stat-X control panel

A summary of the control panel and system actions



Panel functions

Unlike the majority of systems on the market, Nobel's fire protection system is electrically controlled. This critically enables timed programming of system release to ensure the vehicle is at a stand still before actuation, minimising air-flow disruption of the fire system.

The panel also has a tamper proof manual release button, should the driver need to actuate the system manually and facilitates full fault monitoring on all detector and actuation circuits ensuring any faults with the system are immediately flagged to the driver. There is even an ultra-low power "PARKED" mode function to ensure there is no compromise on the performance of the battery when the vehicle is parked.

Stat-X actions

The system control panel can be configured to meet individual requirements. It can be set as manual only, single stage or two stage alarm levels. This provides the facility of;

1. Raise an alarm on 1st stage detection, alerting the driver to a potential fire situation through visual and audible signals
2. Initiate shut down of fuel, fans and engine (as required) on 1st or 2nd stage of alarm via volt free contacts.
3. Initiate immediate or timed release of Stat-X system on 2nd stage detection (either after 0, 5 or 30 seconds)



Stat-X

Key benefits at a glance

- Significantly more effective than alternative extinguishing agents
- Environmentally friendly, Ozone depletion potential (ODP) = 0
- Zero global warming potential
- Easy installation – no pressure vessels, piping or nozzles required
- Extremely low maintenance
- Provides reliable, cost effective protection for a wide range of transport related fire hazards
- Tested and Listed to UL Standard 2127
- Suitable for enclosed facilities and 'local' applications
- Safe for personnel – non harmful at design application rates
- Will not damage electronic equipment or magnetic media
- Post fire clean up is minimal, aerosol suspends in air for quick and easy venting after discharge
- Compact – up to 90% reduction in space and weight requirement
- No risk of loss of dry chemical powders or loss of expellant gasses
- No guesswork regarding the amount of suppressant medium quantity required. Systems are installed based on established and tested design densities and application rates and are designed specifically to the volume of the compartment being protected
- Tested to the Swedish Bus fire system standard SBF128:1



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