

Stat-X[®] Aerosol Fire Suppression

Your Choice for Special Hazard Fire Protection



Traditional Special Hazard Fire Protection

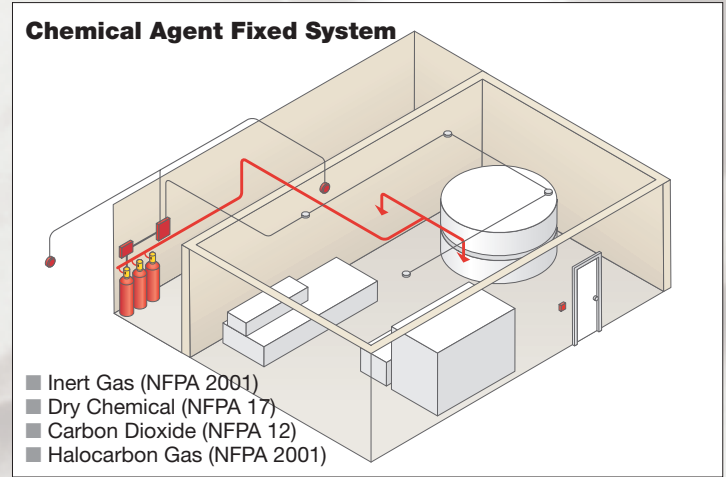
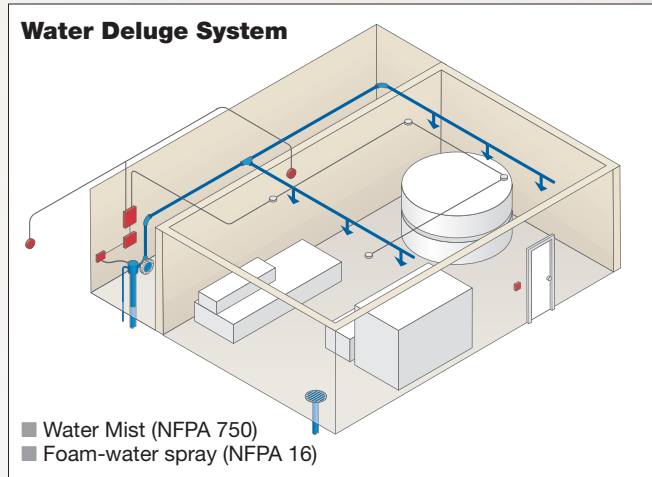
Centers Around Two Technologies

Water deluge and chemical agent fixed systems protect high value assets and processes not possible with sprinkler-based fire protection.

But this technology remains basically unchanged over the years; a supply of agent is stored under pressure, released through a piping distribution network, floods the space, and suppresses the fire.

Traditional piped systems require costly installation adaptations like:

- Extra space for agent containers and piping
- Robust fixtures to handle weight and discharge
- System isn't easily reconfigured if space changes
- Extensive and frequent maintenance burden
- Special measures for recharging at remote sites



Stat-X® Aerosol Technology

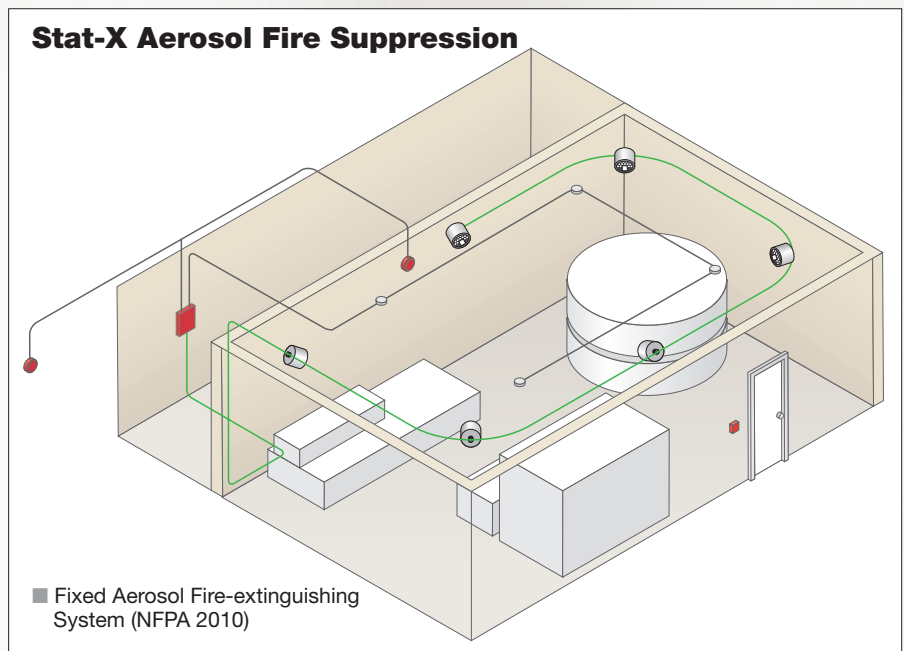
An Effective and Economical Alternative

For safety professionals who need effective and economical special hazard fire protection, Stat-X aerosol technology delivers up to 35% savings

in equipment and lifecycle costs compared to traditional systems. This is due to lower initial expense plus minimal ongoing service costs.

Stat-X aerosol technology is different:

- NO distribution piping, manifold, or nozzles
- NO floor space requirement or shoring up for weight
- NO special handling for compressed gas cylinders
- NO venting or ceiling tile clips for discharge forces
- NO solenoid actuators, control heads, or hoses
- NO water drains or pipe freeze protection
- NO system pressurization or room integrity tests



How it Works

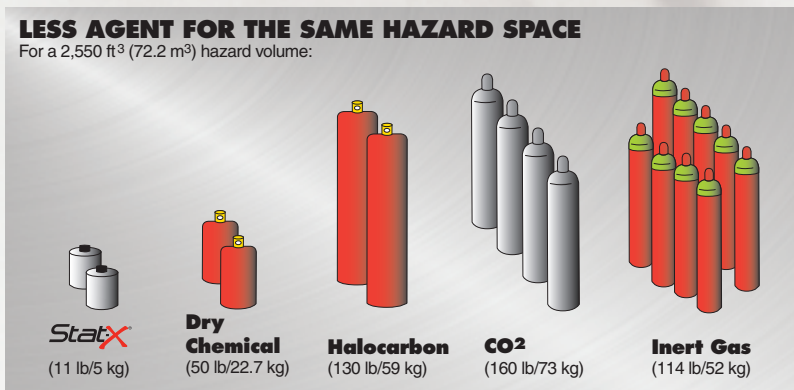
Stat-X devices are termed condensed aerosol agent generators because they generate an ultra-fine suspension of highly ionized potassium fire-fighting particles upon actuation.

The key elements in the generation process are:

- Device is sealed and stable until actuated
- Actuator at top energizes proprietary compound, creating aerosol agent by exothermic oxidation
- Build-up of ultra-fine particles and nitrogen gas breaks membrane seal and exits through ports
- Discharge fills protected area with a soft suspension of Stat-X agent without “super-pressurizing” space
- Potassium ions combine with fragments of combustion, inhibiting the fire chain reaction
- Agent particles also absorb heat from the fire and form inert gases upon decomposition
- Minute Stat-X agent particles ($\leq 2 \mu\text{m}$) remain in suspension afterwards, helping check re-ignition
- Post-fire area can be vented, with no harmful byproducts generated



The superior effectiveness of condensed aerosols is due to a unique set of characteristics unmatched by other special hazard agents. This is why it is by far the most efficient fire suppression agent by weight.



- **Most efficient fire suppression by weight**
- **Effective on A (surface), B, and C Class fires**
- **Non-toxic, EPA listed halon substitute**

Key Approvals Worldwide

Aerosol fire suppression technology is well-known throughout Europe and Asia. In the past few years, more fire protection engineers in the Americas are recognizing its worth for protecting special hazards.

Norms such as NFPA 2010: Standard for Fixed Aerosol Fire Extinguishing Systems and UL 2775: Fixed Aerosol Extinguishing Systems Units now govern its use in a wide variety of applications.

Stat-X technology is also listed by the USA Environmental Protection Agency as a total flooding system for use in normally occupied and unoccupied areas under its Significant New Alternatives Policy (SNAP) program.

It has no Ozone Depletion Potential (ODP) and zero effective Global Warming Potential (GWP) meaning Stat-X agent is not prone to future bans like many halocarbon agents.

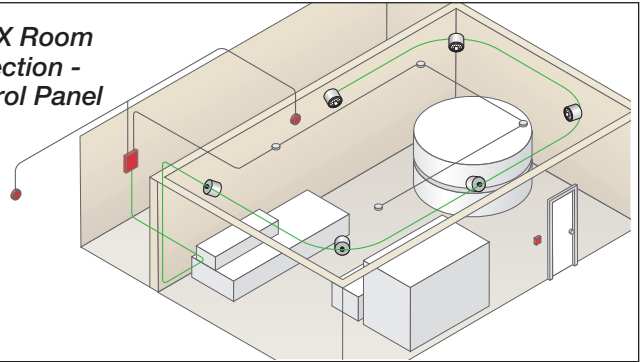
Wide Range of Solutions

By Size and Activation Type

Electrical Series



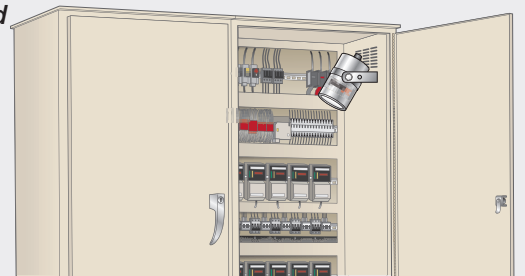
Stat-X Room Protection - Control Panel



Electrical Series for Classified Hazardous Areas



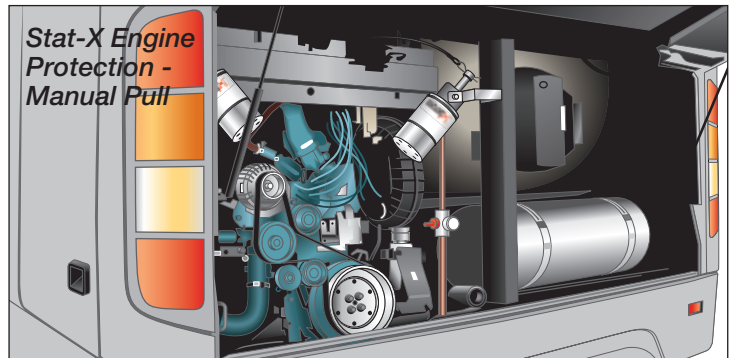
Stat-X Cabinet Protection - Thermal Head



Thermal/Manual Series



Stat-X Engine Protection - Manual Pull



Stat-X First Responder®



Stat-X Confined Space Protection - Hand-deployed



Compatible With Popular Control Panels

Stat-X aerosol generators use the same actuation methods as other special hazard fire systems:

- simple manual release,
- automatic thermal release, or
- sophisticated electronic detection and control

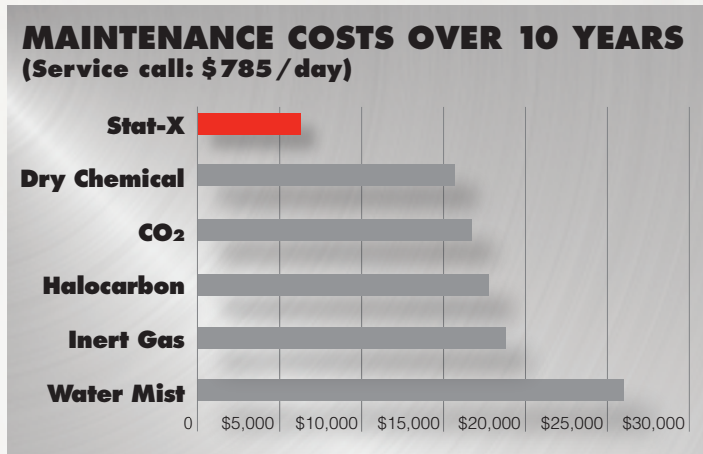
Compatibility with many manufacturers' UL listed agent release panels means Stat-X fire suppression can integrate into networks for central reporting or to mass notification systems per NFPA 72 National Fire Alarm and Signaling Code.

Low Cost of Ownership

NFPA standards and manufacturer guidelines all require regular system maintenance. This is essential to help ensure your suppression system is ready to respond in a fire emergency.

But maintenance costs can be significant over the life of a system and must be considered early on.

Because Stat-X fire suppression has no distribution piping or pressurized agent vessels, maintenance activity is minimized. This dramatically decreases total cost of ownership compared to other systems.



TECHNOLOGY	KEY MAINTENANCE TASKS	INTERVALS
Water Mist	Flow alarm & drain test	Quarterly
	Clean or replace screens	Semi-annual
	Nozzle water test flow	Annual
	Valve tear-down, inspect	5-years
Halocarbon	Test FACP actuation, weigh cylinders	Semi-annual
	Blow out piping	2-years
	Hydrostatic test hose	5-years
Dry Chemical	Test FACP actuation, blow out piping	Semi-annual
	Tear-down & replace agent	6-years
CO ₂	Test FACP actuation, check pressure & agent quantity	Semi-annual
	Hydrostatic test cylinder, refill unrecovered agent	5-years
Inert Gas	Test FACP actuation, check pressure & agent quantity	Semi-annual
	Hydrostatic test cylinders, refill unrecovered agent	5-years
Stat-X	Test FACP actuation, examine Stat-X hardware	Semi-annual

The number of required maintenance tasks, their complexity and frequency determine costs over time. Tasks shown above are taken from UL-listed design, installation, operation and maintenance manuals from various manufacturers.

By comparison, Stat-X system inspection and maintenance has fewer tasks, saving both time and labor.

Fire Professionals Are Switching to Stat-X!

Fire safety professionals who do cost-to-benefit risk analysis quickly realize Stat-X fire suppression is the most economical system, offering the most effective fire protection, for many special hazard applications.

The inherent flexibility of design combined with equipment and labor savings allows them to enhance coverage for currently protected assets and add coverage to previously neglected areas.

What Our Customers Are Saying

“Stat-X protecting one of our CNC machines discharged due to fire, suppressing it. The area was unmanned and the automatic system stopped the fire from spreading. We were up and running again fast!”
- Manufacturer, Geneva, IL

“It works wonders. One Stat-X First Responder® knocked down the fire. They are life savers.”
- Firefighter, Deer Park, NY

“After researching available special hazard systems for the very best protection as well as compliance with safety and environmental issues we found Stat-X technology as the product leader.”
- Engineer, Leicestershire, UK

THE RISK: Fires in Locomotives and Railroad Cars

Fire protection of railroads is critically important as the risk of a catastrophic fire to human life and property continues to be a major concern, both in the public sector and in private operations. Downtime and replacement costs of a damaged locomotive demand that a simple, stable, durable fire suppression solution be implemented. These fires are unpredictable and often difficult to avoid. In recent years, awareness of this issue has grown tremendously, and automatic fire suppression is more and more often required by regulation or strongly recommended as an economical and sensible solution.

Most rail fires occur in electric drives, diesel fuel and electric engine compartments, hybrid battery stations, hydraulics, electric control cabinets and braking mechanisms of the locomotive. Cylinder heads and oil filter chambers are especially at risk.

Fire protection of these areas is complicated by the limited space and the heavy wear and tear of these vehicles. The railroad environment is typically subject to constant vibrations, great changes in humidity and temperature, and dusty and dirt-filled tracks. All of these combine to make Stat-X® an ideal fire suppression solution for the rolling stock industry.

THE SOLUTION: Stat-X Fire Suppression

Advanced Technology

Stat-X highly-advanced fire suppression technology offers the most compact and economical fire extinguishing solution available for the Rolling Stock industry. A Stat-X unit consists of an extremely rugged, hermetically sealed, stainless steel canister containing a stable, solid compound. The canister is durable and non-pressurized, and is capable of withstanding harsh, corrosive environments. In the event of a fire, Stat-X units automatically release ultra-fine particles and propellant inert gasses which quickly and effectively extinguish fires without depleting oxygen levels and with no negative impact on the environment.



Stat-X® extinguishing units are compact and modular

Versatile Applications

Stat-X units are available either as electrically operated units integrated with a variety of fire detection systems, or as thermally-operated units, requiring no external power source. Stat-X units are modular in size, capable of protecting all high-risk component areas of a locomotive, including engine compartments, oil filter chambers, cylinder heads, hybrid and conventional battery containers, hydraulics, and all electric control cabinets.

Highly Economical

Stat-X units have minimal installation expense as no piping is needed and no pressure-relief systems are involved. The simple and robust design requires virtually no maintenance, thereby reducing ongoing operating costs. Further, discharge of the extinguishing agent causes no damaging or harmful byproducts, so in the event of a fire, downtime is kept to a minimum.



At-risk areas to be protected by Stat-X Fire Suppression Systems

- Engine
- Diesel fuel filter chamber
- Hydraulics
- Hybrid systems
- Electric control cabinets
- Braking mechanisms



Stat-X® fire suppression system protects the engine and alternator cabs and the oil filter compartment.

The Advantages

- Effective agent performance
- 24/7 automatic protection
- Extended service life
- Ideal for harsh environments
- Rugged, sealed stainless steel construction
- Compact modular design
- Many certifications, including MIL-STD-801G, see below
- Easy retrofit option
- No maintenance required
- Low cost
- Environmentally friendly – zero Global Warming Potential (GWP) and zero Ozone Depletion Potential (ODP)

Rolling Stock Stat-X Fire Suppression Applications:

- Tunnel Locomotives
- Standard Gauge Locomotives
- High-speed Trains
- Commuter and Metro Trains
- Subways
- Diesel, Electric, and Hybrid Trains

Stat-X® fire suppression systems are suitable for a wide variety of rolling stock applications including the engine protection of the work trolleys shown here.



Quality You Can Count On

Our high quality aerosol fire suppression generators are built to last and built to be effective. Their outstanding fire suppression performance and long service life is rooted in meticulous manufacturing practices.

- Proprietary fire suppression compound is precisely formulated, milled and blended from the best reagent grade chemicals
- Architectural grade stainless steel and an impervious metallized membrane create a highly corrosion and oxidation resistant housing
- Manufacture to the tightest engineering tolerances and tested to MIL-STD-810 so units resist environmental effects and temperature extremes

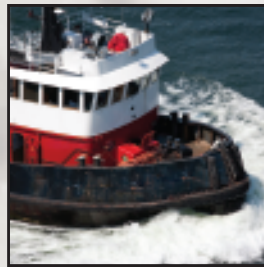
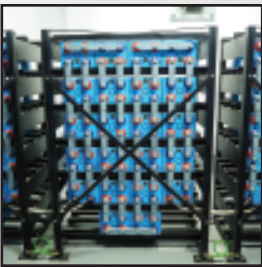
- Partner with leading fire panel makers to ensure full detection and control integration with Stat-X hardware
- State-of-the-art processes are regularly audited and inspected by certified third parties
- American Bureau of Shipping
 - Bureau Veritas
 - Underwriters Laboratories
- Fireaway's Minnetonka facility implements a Management System, certified by QAS according to Standard - ISO 9001:2015. Certificate number: US2635.

Our Mission: Protect Lives and Property

This is what we do.

Our team has decades of experience in special hazard fire protection and is dedicated to finding the most effective and economical ways to apply aerosol fire suppression technology in the widest range of applications.

Contact us. Let's work together to protect lives, property, and fight off the disruptive costs of fire at your business.



Stat-X® Aerosol Fire
Suppression

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NAFEL

FOR A SAFER TOMORROW

Specialized In Fire Protection Systems