

Engineered in  
Massachusetts, USA 

# FireSci™

FIRE SUPPRESSION



# Advanced **Fire** Protection

## Our Mission

Our core mission is driven by a deep commitment to assist companies in safeguarding their assets through the provision of high quality micro-suppression fire equipment and associated services. We approach this mission with humility and a profound sense of responsibility, understanding the critical role fire safety plays in protecting lives and property.

At FireSci, we bring together a team of seasoned experts with an impressive combined experience of over 100 years in the fire suppression industry. Our unwavering commitment to excellence drives everything we do.

At the heart of our mission is a client-centric approach. We understand that each client is unique, with distinct needs and circumstances. Our mission involves tailoring our products and services to address these specific requirements, fostering trust-based, long-term relationships.



# Micro-Suppression Systems

## Smart Solutions for Safer Tomorrows

In the realm of risk management, every decision counts. FireSci's micro-suppression fire system doesn't just mitigate potential losses; it transforms fire protection into a strategic advantage. Our system's sleek and compact installation design minimizes disruption, making it an ideal solution for businesses seeking to fortify their fire safety measures without undergoing extensive structural modifications. The ease of integration into your existing infrastructure further streamlines the installation process, saving you valuable time and resources.

## FireSci Benefits



**RESISTANT TO HARSH,  
EXTREME ENVIRONMENTS**



**MULTIPLE CYLINDER SIZES  
FOR DIFFERENT NEEDS**



**24/7 UNINTERRUPTED PROTECTION  
ALL YEAR AROUND**



**LITTLE TO NO  
MAINTENANCE NEEDED**



**AFFORDABLE & COST  
EFFECTIVE SOLUTIONS**



**IMMEDIATE DETECTION  
AND SUPPRESSION**

## Applications

- ELECTRIC CABINETS
- DATA CENTERS
- SERVER ROOMS
- NETWORKING CABINETS
- RENEWABLE ENERGY SOURCES
- TELECOMMUNICATIONS
- PORTABLE ENCLOSURES
- CNC MACHINERY
- CONTROL ROOMS
- INDUSTRIAL AUTOMATION



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Fire Safety Science LLC

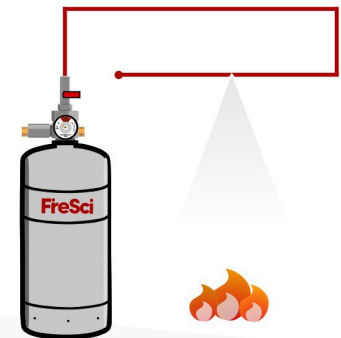
# How It Works

## 24/7 Protection

### **DARSYS™** Direct Agent Release System

DARSYS™ is fully autonomous and requires no power to operate. The core of our direct agent release system is the stainless steel cylinder gate, ideal for harsh environments where a strong and durable system is needed. The high flow rate of our cylinder allows for precise and efficient agent discharge, directly onto the incipient flame, through our Heat Detection Tube. The tube is pre-filled with clean agent and strategically positioned within the protected area. When the surrounding temperature reaches a predetermined threshold, the tube ruptures at the specific location of overheating. This rupture creates an opening, allowing the clean agent to discharge directly onto the flames, effectively suppressing the fire at its source. FireSci's operating pressure is 195psi (13BAR) and is capable of discharging FK5-1-12, HFC227ea, and ECO-7 extinguishing agents.

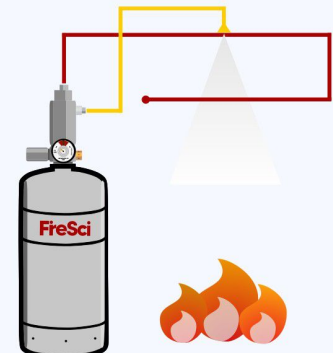
*Cylinders come in 3lb, 6lb, 12lb, and 18lb.*



### **INDIREL™** Indirect Agent Release System

Upon actuation, the high flow rate INDIREL™ valve will efficiently release suppression agent through a specialized nozzle, built for the dedicated application. The INDIREL valve operating pressure is 195psi (13BAR) and is capable of discharging FK5-1-12, HFC227ea, and ECO-7 extinguishing agent. INDIREL is fully autonomous and requires no power to operate. The Heat Sensing Tube acts as a detection system. Additionally, INDIREL can be operated by an electric latching solenoid to allow seamless integration to detection / suppression panels.

*Cylinders come in 3lb, 6lb, 12lb, and 18lb.*



# Features & Characteristics

## Streamlined Protection

While traditional fire suppression methods can be effective, they often come with drawbacks like water damage and safety concerns in enclosed spaces. Clean agent micro-suppression systems offer a more sophisticated solution, particularly for Class C electrical fires.

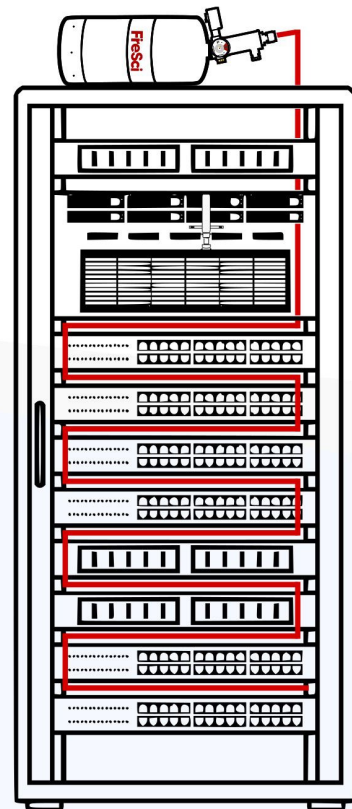
These systems utilize targeted bursts of non-conductive clean agents to rapidly extinguish fires, minimizing collateral damage to sensitive electronics and machinery via a residue-free discharge. Additionally, the safety of clean agents makes them ideal for occupied spaces, unlike some traditional methods that displace oxygen or create hazardous fumes. This combination of efficacy, safety, and reduced cleanup time makes clean agent micro-suppression systems a compelling choice for safeguarding electrical equipment from the unique fire hazards they encounter.

- |                              |                                   |
|------------------------------|-----------------------------------|
| Stainless Steel Cylinders    | Versatile and Simple Installation |
| Automated Suppression        | Affordable                        |
| Low Maintenance Required     | Small and Lightweight             |
| Safe For Social Environments | Multi-Purpose Fire Protection     |
| 24/7 Protection              | Space Efficient                   |



## SMARTILT Technology

Our SMARTILT technology offers versatile installation options. Thanks to our uniquely designed tilted valve, our cylinders can be positioned both vertically and horizontally. This design flexibility provides installers with the assurance they need during setup.



# Clean-Agent Suppression

## Ideal For Class C Fires

Chemori 5112, also known as FK-5-1-12, is a clean agent ideal for micro-suppression fire systems in Class C environments. It boasts a strong environmental profile with zero ozone depletion potential and a low global warming impact. Additionally, Chemori 5112 prioritizes safety by being non-toxic and leaving no harmful residues after discharge. This eliminates post-fire cleanup and potential health risks. Its effectiveness against fires is noteworthy, as it rapidly extinguishes flames through a clean and dry discharge, minimizing damage to sensitive electronics and machinery. Furthermore, Chemori 5112's versatility allows its use in various applications, while its compatibility with compact micro-suppression systems makes it suitable for space-saving installations in confined areas.

Overall, Chemori 5112 and Chemori 227 offer a compelling combination of environmental responsibility, safety, and superior fire suppression capabilities, making it a valuable asset for protecting precious assets from fire hazards.

## Chemori5112 Agent



### Zero Ozone Depletion Potential (ODP)

Chemori5112 does not contribute to ozone depletion, a major environmental concern.

### Low Global Warming Impact (GWP)

Chemori5112 has a minimal global warming impact potential compared to other methods.

### Non-Toxic and Residue Free

Chemori5112 is safe for people and leaves no harmful residue after discharge.

### Electrically Non-Conductive

It does not conduct electricity, making it a perfect solution for Class C fires.

### Rapid Fire Suppression

Chemori5112 extinguishes fires by interrupting the chemical reaction of combustion, immediately disrupting the flame.

### Versatility

Chemori5112 is suitable for use in various environments, including server rooms, electrical panels, engine compartments, etc.



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# Active Cabinet Smoke Detection (ACSD)

## Actuation for FireSci Systems

FireSci has innovated its Active Cabinet Smoke Detector (ACSD) tailored for integration with FireSci Cylinder Systems. The ACSD boasts a compact design, enabling seamless installation within individual cabinets to execute air sampling smoke detection. Renowned for its heightened sensitivity (with the utmost sensitivity registering fire 1 at 0.8% obsc/m), it not only ensures remarkably early warning smoke detection but also proficiently discerns cabinets exhibiting fire/smoke irregularities.

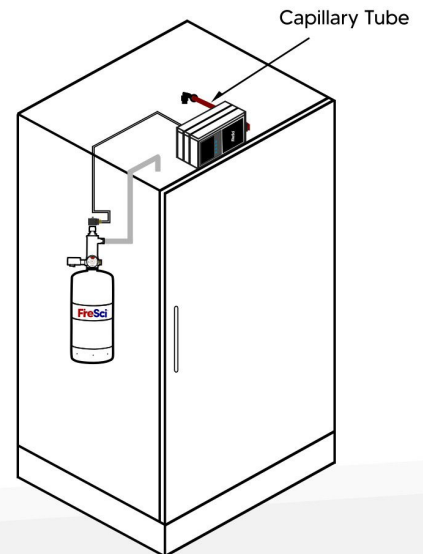
Smoke, Flow, Address, Event/Error Code	Versatile and Simple Installation
20 Segments Smoke Bar Graph	Smoke Detection Range: 0.02 ~ 25% / m
Alarm and Fault Indicators	Optional Temperature / Humidity Sensors
Compact Design	Listings / Approvals
24/7 Protection	4 Alarm Levels

The ACSD sensitivity can be selected from pre-configured settings with the highest sensitivity being 0.8% obsc/m at Fire 1 Level.

The ACSD consists of 1 sampling inlet port with an 8mm tube connection, 1 aspirator with a flow sensor, and 1 high sensitivity smoke detector.

It comes equipped with a front numerical display for real-time smoke and air flow value.

The display allows users to perform function commands such as 'Reset', 'Isolate', 'De-Isolate', 'Silence', and 'Test'.



## Next Generation Active Smoke Detection for Cabinet Monitoring



# FireSci™

Fire Safety Science

**SMART SOLUTIONS FOR  
SAFER TOMORROWS.**



## Fire Safety Science North America

Address: 945 Concorde Street, #1210  
01701, Framingham, MA,  
United States

Phone: +1 (508) 715-3456

E-mail: [sales@firesafetysci.com](mailto:sales@firesafetysci.com)

Web: [www.firesafetysci.com](http://www.firesafetysci.com)



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