

Office, Control Room, Server Room, Data Centre Transformers... Any area where heavy-duty electronics, computers, etc, are stored tend to be prone to fire, Not only does the presence of electric equipment, wiring and complicated circuitry leave the area vulnerable to fire , an overload or system shutdown could cause energy imbalance that result in a sudden blaze. Malfunctioning wiring or devices could emit sparks, which can start a fire, adding to that danger, what happens if the fire is left undiscovered ??



A fire in areas where electronics are present could not only spell a serious delay for your operations, it can also result in huge financial losses. And putting out the fire doesn't necessarily spell the end of your troubles either. The reality is, in a fire situation many fire suppression systems cause major damage and even destroy the very things they are supposed to protect. The need of the hour is a system that works swiftly to contain the fire and extinguish it, ensuring minimal damage. That's where the ETI FM-200 gas based flooding system comes in.



Introducing the ETI FM-200 a revolutionary firefighting system like no other. Brought to you by the only company in the Southern Hemisphere manufacturing this fully engineered system. This automated gas flooding system is designed and built to initiate a firefighting response within ten seconds of the fire being detected. Safeguarding valuable life and equipment.

The ETI FM-200 clean gas flooding system protects the entire area. What's more since FM-200 is not harmful (green) in nature, this gas-based extinguishing agent ensures the fire is put out without causing any collateral damage to the premises, expensive equipment and the environment!

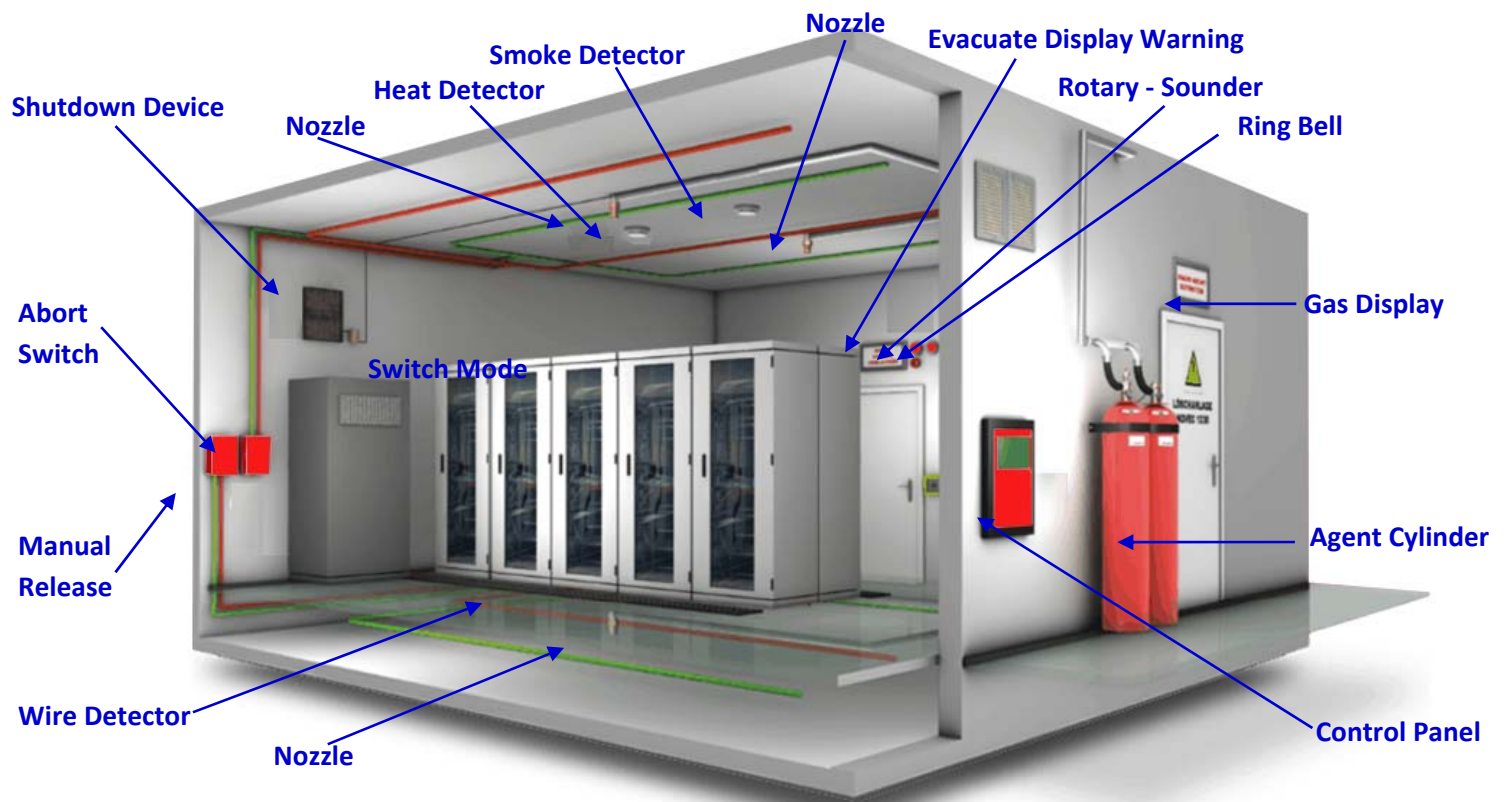
Introducing of **ETI FM-200** Gas Fire Suppression System

ETI FM-200 (HFC 227-) is a colourless, odorless clean gas that is liquefied under pressure for storage. It is thermally and chemically stable, but without the extremely long atmospheric lifetime associated with other proposed Halon gas replacements. ETI FM-200 has been specially created to suppress fire by reaching extinguishing levels in seconds, reducing the oxygen supply to below combustion levels and stopping ordinary, electrical, and flammable liquid fires before they can cause significant damage. It is the fastest fire protection available, period!

This also means less damage, less downtime and an extra margin of safety. Not only does ETI FM-200 put out fires in a very short period of time, it leaves no residue or oily deposits on delicate electronic equipment, and can be removed from the protected space by ventilation.

The ETI FM-200 gas flooding system is a fire suppression system that achieves extensive coverage. This self-activated system uses advanced technology to achieve maximum extinguishing efficiency

Here's how it works. When the detectors sense a rise in temperature above normal levels, particles of smoke or a change in the quality of air, they alert the Control Panel. The Control Panel, in turn, activates the System. Once activated, the impulse triggers a high-pressure solenoid valve that releases the ETI FM-200 gas from the cylinders to the nozzle via a flexible piping network. At the same time, a warning klaxon goes off, warning personnel to clear the area while the extinguishing agent is dispersed in the room.



80% of the ETI FM-200 gas firefighting effectiveness is achieved through heat absorption and 20% through direct chemical means. Harnessing the latest in cutting-edge firefighting technology, this system has been designed for commercial enterprises and industries, electrical control panels/rooms of large mining machines, in fact anywhere that a water based solution may be deemed inappropriate. This system requires no monitoring whatsoever, activating instantly in the event of a fire. The ETI FM-200 gas flooding system can be manually activated. When fire is detected, the system will actuate and large quantities of extinguishing agent are released. Wide aperture nozzles that enable the gas agent more reach. This gas effectively 'floods' the area, reducing the concentration of oxygen in the air and efficiently putting out the fire. Being fully automatically self-activated, the system offers nonstop protection from fire 24 Hours a day!

Components of the **ETI FM-200** Gas Fire Suppression System

Agent Cylinders

An essential component of the system, these high-pressure cylinders are available in 5 different cylinder configurations, namely 40, 70, 90, 120 and 150Kg. Depending upon the requirement, single or multiple cylinders are installed. All cylinders are available with a range of manifolds - creating a common outlet for the extinguishing agent to escape from multiple cylinders



Control Panel

Designed and manufactured by ETI to the highest standards in a quality-controlled environment, the FM-200 control panel offers outstanding value and performance. With three detection zones, the release of the extinguishing agent can be activated from any combination of the detection zones. The panel contains a large LED display. With all the electronics mounted on a single, easily removable, steel plate, the panel is both robust and easy to install. The display is to enable easy configuration and control.



Expellent & Electric Valves

The ETI FM-200 system valves have a maximum working pressure of 60bar N₂ – Nitrogen. Since it's already integrated, no additional pneumatic actuator is required. Manual and electrical activations are available.



Nozzles

The extinguishing agent is dispersed through brass discharge nozzles. The nozzles needed are designed by the ETI Technical Staff after surveying the area. From the size of the nozzle orifices, to the dispensing technique — single cut or cross cut — the nozzles are created specially for your requirements. The nozzles are available in various sizes, from 1", 1¼", 1½" and 2".



Display

For user convenience, the ETI FM-200 is also equipped with an LED display for user awareness during activation. Displays in the form of information showing Gas Release or the Exit Sign.



Components of the **ETI FM-200** Gas Fire Suppression System

Detection Devices

Depending upon the requirements of the area being protected, the system integrates different types of detectors, such as smoke detectors, heat detectors, and wire detectors. In addition, an audible alarm alerts personnel in the area to the danger.



Manual Release

Manual release makes it easy for users to activate the system very quickly without waiting for a response from the sensor or control panel.

Abort

This button is only used for cancellation if it indicates that an automatic system is not required for fire fighting.



Pipes and Fittings

High-quality pipes harness atomisation technology. This pressurises the system, making it a part of the detection mechanism as well as ensuring the extinguishing agent is discharged quickly to the nozzles through the network of pipes.



Alarm Bell

As a warning in the form of a sound with a power of 100 Db so that it will be easily heard for people around the incident.

Strobe Sounder

This sounder will produce a flash light when there is an activation of the system so that anyone can easily see it.



Gas Refilling Service

ETI also provides equipment for refilling, complete with the gas required for the FM-200 system. A convenient service provided is the exchanging an empty cylinders for a fully charged one, for both FM-200 and Nitrogen.



Benefits of the **ETI FM-200** Gas Fire Suppression System



Classification

Works on class A,B,C fires and fires involving electrically-charged devices. Effective on wide range of flammable and combustible materials



Ozone, Environment-Friendly

Being a clean-agent, this is an eco-friendly alternative to chemical and water-based extinguishing systems. As ETI FM-200 already exists as a gas in the Earth's atmosphere and is one of the by-products of combustion, it does not harm the Earth's stratospheric ozone layer. Its atmospheric lifetime is minimal



24-hour Protection

Automatic detection-actuation controls ensure fire protection is always 'on'



Multiple Triggers

The system can be triggered either by the manual actuation system or through the automatic detection system



Speedy Deployment Minimal Downtime

Deploys quickly, reaching extinguishing levels in 10 seconds or less, stopping ordinary combustible, electrical, and flammable liquid fires before they cause significant damage. When a fire is extinguished this quickly, it means less damage, lower repair costs, and an extra margin of safety for people. It also means less downtime and disruption of business



Residue-Free

Being a clean agent, it won't leave behind oily residue, particulate or corrosive material



Highly Flexible

Available in a variety of sizes that can be customised as per the application. Its flexible configuration and design can easily accommodate changes to the layout or expansion of the area



Unobtrusive Design

Flexible piping configurations allow for a streamlined design and convenient installation that will not interfere with office workflow



Electronics-Friendly

Shown to be electrically non-conductive and is safe for electrically charged equipment, it is kinder on electronics than the majority of extinguishing agents available in the market Ozone, Environment-Friendly



Superior To Other Gas Agents

Superior to other gas-based extinguishing agents that have lower boiling points and tend to be corrosive



High-value Risk Protection Suitable for protection on a range of high-value risks as it virtually eliminates damage to high-tech equipment, artwork and other delicate and sensitive objects



No Clean-up Required After Discharge

The extinguishing agent can be removed by simple ventilation



Lower Storage Requirements

In applications where space is at a premium, ETI FM-200 fire suppression systems are the superior choice. Stored in cylinders as a liquid and pressurised with nitrogen, ETI FM-200 systems take up to seven times less storage space than any system based on CO₂ and inert gases



Highly Effective

Not only does ETI FM-200 work in 10 seconds, it prevents re-ignition by rapidly cooling down temperatures in the surrounding area



Globally Utilised

ETI FM-200 is the only globally accepted flooding system gas and is in use in many countries



Highly Reliable

A fully assembled and 100% tested mechanical control head ensures reliable operation. A pressure gauge on the steel cylinders marks the gas levels so maintenance staff can replenish it whenever required. Protective chrome nozzle covers keep nozzles free from contamination and blockages by grease or other by-products that could inhibit the proper discharge of the extinguishing agent



Highly Adaptable

Existing Halon/CO₂ control systems can easily be adapted for use with ETI FM-200

Application area for **ETI FM-200** Gas Fire Suppression System

The ETI FM-200 flooding system is pre-engineered and ready to install. One system covers spaces upto 250 cubic metres. It is an ideal fire safety solution for applications such as :

Offices
Warehouses
Under Ground Parking Lots
Electric Utilities
Marine Vessels
Automotive Factories
Computer and Server Room
Delicate Electrical Equipment
Industrial Control Room
Machinery Spaces

Server Room
Theatres
Air Traffic Management Centre
Financial Networks
Switch Gear Room
Battery Room
High Density Areas
Petroleum Storage
Transportation
Transformer

Data Centre
Storage Areas
Telecommunication Centre
Medical Equipment and Facilities
Museum and Libraries
Military Facilities
Archive Stores
Cell Sites
Flammable Liquid Storage
Train and Air Port



ETI
FIRE & LUBRICATION
EXCELLENCE - ENGINEERED

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