

# Clean Agent Suppression Systems



## **What is the Importance of Fire Extinguishing Systems?**

Fire extinguishing systems are systems that undertake a vital function in case of fire, which is always a threat factor in daily life and requires to be always alert due to its unpredictability. Detailed exploration, correct engineering, appropriate equipment and routine control at the required intervals in fire extinguishing systems are a necessity to prevent material and moral losses caused by fire.

## **What are Automatic Fire Extinguishing Systems?**

An automatic fire extinguishing system basically extinguishes flames or smoke

It refers to systems that detect and start to extinguish quickly.

There are watery, foamy and gaseous types according to the suitability of its use in the space.

## **How Should We Choose Automatic Fire Extinguishing Systems?**

Automatic fire extinguishing systems require no intervention.

They are the systems that realize firefighting in the fastest way without staying.

Like all fire extinguishing systems, it is used to protect volumes and equipment in buildings and spaces.

In addition, it is preferred to work in integration with other detection and warning systems.

It can be installed in any region or the whole area decided by making feasibility.

Automatic fire extinguishing systems are available in water, foam and gas types.

Each place needs to design a fire safety system that will be unique to it.

For example, fire safety of an archive is also possible with water extinguishing, in a possible fire, fire will be prevented with a water extinguishing system, but the documents in the archive will also become unusable.

Or a fire can be extinguished with CO<sub>2</sub> in an office environment, but human life will be endangered by the harmful gas.

Likewise, in areas such as tank areas, airplane and helicopter hangars where some flammable and explosive liquids that cannot be extinguished with water, foam extinguishing systems should be preferred rather than water extinguishing systems.

The reason for this is that water extinguishing systems are insufficient for extinguishing in these areas and do not meet the needs.

As always, the correct engineering and exploration work will be decisive in the installation of the most suitable automatic fire extinguishing system for the location in question.

### **How Does an Automatic Fire Extinguishing System Work?**

Automatic fire extinguishers available in watery, foamy, gaseous varieties

The working principle of extinguishing systems is different from each other as well as the area of use.

The water extinguishing system works by bursting the sprinklers in that area due to the heat generated by the fire in any area and pressing the water absorbed from the tank.

Foam fire extinguishing systems, which are preferred in areas containing flammable and explosive liquids and carrying special risks, work by cutting the contact of air and fuel vapor, separating the fuel surface and the flame, preventing evaporation on the surface or cooling the metal around the fuel surface.

Gas extinguishing systems are preferred in enclosed areas where foam extinguishing is harmful or dangerous, or in cases where there is a risk of fire damage from water, or a fire that cannot be extinguished with water, or that could spread to a wider area with water. Gas extinguishing systems extinguish the fire by lowering the ambient temperature and reducing the oxygen level below the combustion limit.

### **Where are Automatic Fire Extinguishing Systems Used?**

The decision of where automatic fire extinguishing systems will be used is determined by engineering studies.

Automatic fire extinguishing systems are especially preferred in museums with historical artifacts, archives with valuable documents, security rooms and telephone exchanges; factories

or other larger businesses containing valuable materials; and in oil refineries, aircraft and helicopter hangars, shipyards, docks, fuel loading and storage facilities.

Clean gases are defined as electrically non-conductive gases that do not have a negative impact on human health.

Clean gas extinguishing systems lower the temperature of the environment, reduce the amount of oxygen below the combustion limit and extinguish the fire.

Clean gases provide highly effective results when used with early warning fire detection systems.

### **What are Gas Fire Suppression Systems?**

**Gas extinguishing systems** is constantly updated in the light of new generation technologies, allowing different arrangements day by day.

In a fire that occurs in an area protected by these systems, electronic equipment that is not directly exposed to fire is not damaged.

For this reason, solutions offered by these systems are used in rooms with important electronic equipment.

According to the working principle of the system, after the gas is evacuated and the fire is extinguished, the gas in the environment is cleaned with the ventilation of the area and there is no waste material around.

Since the electronic equipment is not damaged, there is no disruption in the use of the room and equipment.

### **What are the types of Gas Fire Extinguishing Systems?**

Gas fire extinguishing system types are as follows:

- FM 200 Gas Fire Extinguishing System
- Novec1230 Gas Fire Extinguishing System
- CO2 (Carbon Dioxide) Gas Fire Extinguishing System
- Intergen Gas Extinguishing System

### **How Do Clean Gas Extinguishing Systems Work?**

**Automatic gas extinguishing systems** Thanks to the clean gas systems among them, fires are extinguished much more quickly and practically and possible disasters are intervened early. The systems used to maximize and overcome the fire extinguishing process must be installed individually in the area to be protected.

In addition to the extinguishing system, an extinguishing control panel should be placed in each area.

Thus, the control of that area becomes easy.

Detection detectors are placed accurately with the cross zone method and automatically intervene in the fire.

Double detector **gas fire extinguishing systems** When the fire is first detected, the siren sounds intermittently, and after two detectors detect the fire, the siren starts to sound continuously. Exactly 30 seconds after the siren, the gases are discharged onto the flames and the risk of fire is eliminated.

If necessary, fire brigades can come and carry out cooling works.

At the last stage, experts determine whether the materials in the environment are damaged.

### **What are the Characteristics of a Clean Gas Extinguishing System?**

Gas fire extinguishing systems have various features.

These can be listed as follows:

- The fire extinguishing capability of such gases is quite high.
- It does not leave any waste in the environment after discharge.
- Clean gases have no electrical conductivity.
- The cost of refilling gases is affordable.

### **Which Gases are Used in Extinguishing Systems?**

The following gases are used for extinguishing systems:

#### **Chemical Gases**

- Novec 1230
- FM200

#### **Inert Gases**

- Inergen (IG-541)
- Argon (IG-01)
- Argonite (IG-55)
- Nitrogen (IG-100)

In addition to these gases, a new generation product **aerosol gas fire extinguisher** is also an effective agent.

Aerosol, a category of dry powder, is placed in portable extinguishers.

This system, consisting of solid or liquid particles suspended in the air, intervenes in the chain reaction by removing free radicals through chemical processes and extinguishes the fire. Solid and liquid flammable materials, low-voltage power plants and environments with electronic devices are suitable areas for this device.

### **Where are Gas Extinguishing Systems Used?**

Clean gas extinguishing systems are used in rooms and areas where sensitive materials and equipment are located.

Especially museums with historical artifacts, archives with valuable documents, security rooms and telephone switchboards are the main areas where these systems are used.

### **What are the Usage Areas of Clean Gas Fire Extinguishing Systems?**

Clean gas fire extinguishing systems can be used in the following areas:

- Data processing centers
- System and server rooms
- Exhibition halls
- Museums
- UPS rooms
- Electricity distribution panels
- Archive rooms
- Chemistry laboratories
- Flammable liquid storage areas

### **What is a Server Room Fire Suppression System?**

Halon gas, which was used in system room fire extinguishing systems in previous years, created equipment and cleaning problems in the areas despite its effective performance in fire extinguishing activities.

For this reason, FM200 gas, which is a cleaner extinguishing element, is preferred for such extinguishing interventions in recent years.

This gas does not leave any residue in fire areas and does not require cleaning after the process.

FM200, one of the most non-toxic gas types, is easily preferred in fully automatic extinguishing processes due to its safe usage features. The gas, which does not harm the ozone layer, is one of the most suitable firefighting agents. Offering superior fire extinguishing performance where

electronic equipment is located, the gas type is highly capable of extinguishing flammable and explosive liquids.

### **What is Server Room Fire Extinguishing System?**

FM200 gas is preferred in server room fire extinguishing processes, just like in system rooms.

This colorless and odorless gas is ideal for use in server rooms where important equipment is located, as it does not leave physical damage on the surface to which it is applied.

In the system where the liquid gas is applied to the surface by spraying, a layer is formed on the surface.

FM200, which does not contain chemical properties like its biggest competitor halon gas, is a completely physical extinguishing agent.

Thanks to this gas, which can intervene in the fire in a short time, heavy losses that may occur during the fire are prevented.

FM200 gas extinguishing systems are installed in the environment after a detailed risk analysis by experts. In this system, the cylinders are filled with 25 bar / 42 bar / 50 bar pressure, and when the gas protected in liquid form in the tube is sprayed, it reaches the surface as foam. Thanks to the system that covers the burning surface like a blanket, the fire is extinguished by suffocating.

You can take precautions against possible fire disasters by determining the solution that your business needs from the gas extinguishing systems in Tekniku' product range with experts, and you can benefit from the technical support and services offered to you.

## In-Panel Fire Extinguishing System



In-panel fire extinguishing systems, which provide fire protection in all areas of the same size, especially electrical panels, are also called micro extinguishing systems.

All of the equipment required for these systems, which have small-scale structures, is imported from abroad with Tekniku privilege.

The devices, which must be maintained by experts in their field, maintain their active features for a long time thanks to routine maintenance procedures.

### **What Do In-Panel Micro Extinguishing Systems Do?**

The micro extinguishing system, which provides extinguishing and protection functions in electrical-electronic panels, helps to extinguish fires that start in the blind spots of small panels without damaging the entire panel.

Thanks to the in-panel fire extinguishing system that can extinguish fires quickly, electrical equipment is also secured.

The panel extinguishing system, which is the only effective system for protecting the area in question from fire, can be installed as direct and indirect working principle. In-panel fire extinguishing system, which can use various gases as extinguishing gas, can be installed in the form of pipes or tubing.

### **How to Design an In-Panel Micro Extinguishing System?**

In the design of micro extinguishing systems, polymer pipes are laid where the cables pass.

These pipes, consisting of many melting sections, offer the chance to intervene instantly from whichever side the fire starts, as they are laid in such a way that there is no blind spot.

In this system, the weak points of the polymer pipes are planned to work like an extinguishing nozzle with the heat that may occur during the fire.

In panel extinguishing system design, the tube should be positioned close to the panel. The polymer pipe, which is automatically punctured with the increase in heat, intervenes in the fire by discharging the fire extinguishing agent into the heat emitting area. The system, which functions on the principle of spreading the extinguishing gas before the heat reaches a dangerous level, aims to protect a high-cost unit in a healthy way. The cylinder sizes used in the system vary between 1, 2, 4 and 6 liters. All of the gas and materials preferred in the system are of first class quality and have UL, GOST, FM and VdS approval certificates.

### **How Does In-Panel Gas Extinguishing Work?**

In-panel gas extinguishing system, HFC 23, FM 200, HFC 125 and HFC 236ea gas types are used. In this process, which is carried out in a way that does not damage the color of the electrical cables, it is important that the assembly is carried out by safe experts. The panel extinguishing system, which works successfully with dry chemical extinguishing systems, has a defense function as well as an extinguishing function. You can protect your machines, equipment and systems with high material value with the panel extinguishing system.

The systems preferred by companies providing services in the field of information technology start intervention in case of danger with the activation of sensors and quickly inform the personnel about the situation. After the first intervention, the personnel arriving at the scene can notify the fire brigade teams to prevent greater risks after conducting an investigation.

### **How to Choose an In-Panel Fire Extinguishing System?**

When choosing an in-panel fire extinguishing system, it should be taken into consideration that these systems will be effective in rooms with large square meters and in areas with small panels.

These systems, which are financially advantageous in such areas, exhibit user-friendly features with their gas structure that does not harm human health.

If the area is small, it would be wiser to turn to solutions that completely protect the area, as the systems will be more costly.

Electrical panels, small transformers, battery panels, static panels, UPS panels and weak current panels are among the areas of use of fire extinguishing systems.

### **What are the Types of Electrical Panel Fire Extinguisher Tubes?**

Dry chemical powder extinguishing systems or carbon dioxide-based extinguishing systems are preferred in electrical fires.

Chemical fire extinguisher tubes are effective in class A, B and C fires.

Devices that successfully extinguish electrical fires are often preferred because they are ideal in terms of price/performance.

Carbon dioxide fire extinguishers, on the other hand, show ideal usage features in class B and C fires.

Dry metal powder fire extinguishers are preferred in parts of factories where there are no important devices and equipment.

Tubes that extinguish the fire in a short time are frequently used in fires that start in flammable materials.

### **What are the Types of Electrical Panel Fire Extinguishing Systems?**

Electrical panel fire extinguishing system types can be in the form of 1, 2, 4, 6 and 12 kilos according to their weight.

These systems, which are especially vital in huge factories with large construction machinery, are equipment that should not be neglected in these facilities.

Today, the majority of fires are caused by electricity.

Electric panel extinguishing system is used in these types of fires.

Systems that prevent unexpected disasters prevent many material and moral losses.

The insulating properties of the extinguishing system and the HFC gases used make it easier to extinguish fires before they grow.

Electrical panel fire extinguishing systems can be classified as in-cabinet and in-cabinet automatic fire extinguishing systems.

### **In-Cabin Fire Extinguishing Systems**

For large public buildings and businesses, the biggest source of sudden fires is electrical panels. In-cabinet fire extinguishing systems specially designed for this purpose are cylinders containing different gases thanks to improved technologies.

In case of a possible fire hazard, the equipment consisting of a chemical cylinder, valve and sensor is activated within seconds and intervenes immediately.

Offering a low-cost and effective solution, the devices protect storage areas, machinery and various vehicles.

### **In-Cabin Automatic Fire Extinguishing Systems**

Many of the in-cab systems are automatic and minimize dangerous situations that may occur in large areas.

The system, which is activated without damaging the electrical cables, also prevents problems such as electric shock.

These systems can be direct and indirect.

Thanks to the automatic system, fires that cannot be recognized immediately are prevented and the chance of delay in intervention is eliminated.

The gases used in the system are harmless to air and nature and do not contain any unhealthy substances.

These devices are used effectively in the electrical panel room fire extinguishing process.

You can choose Tekniku brand fire extinguishing systems to take effective measures against fire hazards and secure your business against unexpected fires.

Tekniku has a wide range of products that best suits the needs of your business. system and benefit from after-sales technical support.

### **Frequently Asked Questions**

#### **How to Extinguish an Electric Fire? / Which Extinguisher is Used in Electrical Fires?**

Dry chemical powder and carbon dioxide fire extinguishers are used in electrical fires. Before the fire brigade arrives, fires should be intervened with these fire extinguishers to prevent the spread of fire. Otherwise, the fire can spread to much larger areas.

#### **How to Extinguish an Electric Fire?**

When extinguishing electrical fires, the fire extinguisher should be used calmly and without panic.

It should be consciously intervened by spraying on the fire.

In such cases, it is important to take people out of the environment to prevent possible accidents.

If the area where the fire occurs is small, cutting off contact with the air is also an effective method of extinguishing the fire.

#### **How to Extinguish a Fire in an Electrical Panel?**

Different types of fire extinguishing systems, categorized by weight, are used to extinguish fires in electrical panels. Systems designed with insulating elements and containing HFC gases are effective in electrical fires and prevent their spread. Carbon dioxide extinguishing systems can also be used for fire extinguishing in electrical panels.

#### **Which one is not used in electrical fires?**

Due to the high number of conductive products in electrical fires intervention with water should not be done. The use of water in this type of fire can lead to many disasters, the risk of electric shock being one of the main ones.

## Inert (Argon) Gas Fire Extinguishing Systems



### What are the Types of Inert Gas Extinguishing Systems?

Argon gas fire suppression systems are available in many different options. Each type is known for its different fire extinguishing concentrations and physical properties. At this stage, engineers determine the most ideal one among inert gas fire extinguishing systems according to the location to be applied and apply the most accurate design accordingly. All calculations and designs must be carried out with approved hydraulic calculation programs. Since alternatives can be provided according to the application area, choices should be made according to where the system will be used and the systems should be installed correctly.

Inert gas extinguishing system types are as follows:

- IG – 01: 100% Argon
- IG – 100: 100% Nitrogen
- IG – 55: 50% Nitrogen + 50% Argon (Argonite)
- IG – 541: 52% Nitrogen + 40% Argon + 8% Carbon dioxide (Inergen)

Expert and competent engineers decide which of these system types to use in line with their calculations.

### How is Inert Gas Extinguishing System Design?

There are many processes that need to be done in inert gas extinguishing system design. The first of these processes is to determine the hazard class. Determination of the correct design concentration by the designer and the amount of agent depends on knowing the hazard class. There are three different classes in TS EN 15004-7, 8, 9, 10 standards. These are; B class, surface A class and high hazard A class.

The minimum design concentration of the hazard classes is used. Then the amount of extinguishing gas required for a certain volume is calculated. Then the minimum design percentages are determined according to the system types and hazard classes with four different types of argon-containing gases.

### **What Should Be Considered When Using Argon Gas Extinguishing Systems?**

These systems, which use argon and nitrogen gases as extinguishers, reduce the oxygen concentration.

In this way, it has the principle of stopping the fire.

The gas mixture or inert gas in the system reduces the oxygen concentration to a level where ignition cannot occur.

In this way, the fire is stopped.

The things to be considered in the use of argon gas extinguishing systems are as follows:

- Sealing the pipeline is of utmost importance.
- The pipeline must be tested with nitrogen gas at a certain pressure value for a certain period of time.
- Piping should be done according to the projects verified in the hydraulic calculation program.
- Installation must be carried out by competent engineers and specialists. Improper installation of any fastener may cause a negative impact on gas distribution.
- Pipes and fittings must be used in accordance with the pressure class.
- The room must be absolutely sealed.
- The amount of gas must be calculated in accordance with the standards.
- Openings at cable and pipe passage points must be closed.
- Grilles and openings to ventilation ducts should be checked and closed with the help of automatic dampers.
- Failure to ensure tightness may cause re-ignition of an extinguished fire.

- Since it is important that the gas remains in the room for 10 minutes, Door-fan Room Tightness Test should be performed.

It is very important that experts play an active role in all these transactions and that experts approve the transactions made.

Tekniku' competent staff You can also benefit from the highest level of security with inert gas extinguishing systems, which are installed and maintained by the company and provide problem-free use with regular customer information.

### **How Do Inert Gas Extinguishing Systems Work?**

Inert gas extinguishing systems, also known as argon gas extinguishing, are known for addressing all basic fire classes and for being safe and clean.

Argon gas is found naturally in nature.

Therefore, it does not have any ozone depleting effect.

Inert gas extinguishing systems that do not harm the environment; Since they are natural, that is, non-chemical gases, they do not have a recycling period in the atmosphere.

The basic principle of these systems in extinguishing the fire is to reduce the amount of oxygen in the environment.

Inert gas extinguishing systems that reduce the extinguishing concentration below 15% end the combustion with oxygen deficiency.

As long as hydraulic calculations allow, inert gas extinguishing systems can protect a large number of rooms in the location.

### **Which Gases Do Inert Gas Extinguishing Systems Consist of?**

Inert gas extinguishing systems consist of argon, argonite, nitrogen and inergene gases.

### **Is There Any Drawback to Using Inert Gas Extinguishing Systems?**

Inert gas extinguishing systems are especially preferred in places with large volumes and are known for their cleanliness, applicability and economy.

Therefore, there are no drawbacks as long as the things to be considered in their use are complied with.

## Novec 1230 Gas Extinguishing System



### Novec1230 Fire Extinguishing System

Novec 1230 is one of the fastest and most accurate fire extinguishing systems for class A, B and C fires. It has a different principle than its varieties.

This system, which can also be used for fires that can be extinguished using foam, stands out with its short piping possibility.

Novec 1230 gas extinguishing system uses a gas that has an extremely low global warming potential and is considered environmentally friendly.

The lifetime of this gas in the atmosphere is only five days.

Novec 1230, which has various pressurization options, does not adversely affect human health.

In this way, it combines wide and reliable usage possibilities.

Novec 1230 with its main areas of use, usage types and features gas extinguishing system is preferred by a wide range of people with all its details.

NOVEC 1230 extinguishing systems, where design, project design, supervision, installation and commissioning as well as maintenance and service operations are carried out by Tekniku

experienced personnel, are one of the most flexible extinguishing systems that can be used most flexibly according to needs today.

### **What are the Features of Novec 1230?**

Novec gas extinguishing system is an alternative to the previously produced Halon 1301 gas. This system, produced by 3M company, is an extinguishing agent that does not adversely affect human health.

It contains a gas that does not harm the ozone layer and is frequently used as a fire extinguishing system.

Novec 1230, which draws attention with its very short ozone residence time, consists of several basic systems.

These systems are extinguishing gas, piping installation, nozzles, detection systems and system cylinders.

Basic systems have the ability to detect fire in the environment.

The general characteristics of Novec 1230 are as follows:

- It is also extremely safe for electronic circuits.  
Therefore, it can be used in all A, B and C class fires.
- It is odorless.
- It is tasteless.
- No ozone depletion potential.
- The close tube room location is another prominent feature.
- It absorbs the heat in the area and thus extinguishes the fire.
- It has a pressurization option in the range of 25-42-50 bar.
- It stands out with the possibility of short piping.
- It provides a fast and effective fire extinguishing potential.

All these features in the Novec 1230 bring efficiency and high speed when it comes to extinguishing fires.

Also beneficial in terms of safety, the Novec 1230 can prevent health and environmental concerns.

### **What are the health effects of Novec 1230?**

Novec 1230 is a healthier alternative to Halon 1301, a gas banned under the Montreal Protocol, which is known to cause serious damage to the ozone layer.

Novec 1230, a colorless and odorless gas, has no electrical conductivity.

Novec 1230 is carbon-based.

This gas, known by the code FK-5-1-12, is stored as a liquid in cylinders.

It is known to be pressurized at 25, 42 and 50 bar.

Novec 1230 is odorless, tasteless and colorless, so it does not cause any adverse health effects.

It is a fire extinguishing system approved by many organizations worldwide.

Its residence time in the ozone layer and atmosphere is maximum five days.

Novec 1230, which does not create a greenhouse effect as it does not harm ozone, can be inhaled at the required design concentrations.

It does not have any negative effects on human health.

Thanks to all these features, it can be used safely in many areas.

### **What are the Uses of Novec 1230?**

Novec 1230 is highly effective in controlling and extinguishing all class A, B and C fires.

Thanks to this feature, it can be used in all fire hazard areas, not in a certain classification.

The general usage areas of Novec 1230 are as follows:

- Data processing rooms
- Museums
- Art galleries
- UPS and battery rooms
- Archives
- Warehouses
- Control rooms
- Electricity rooms
- Laboratories
- Ships' engine rooms
- Data centers
- Camera rooms
- Server rooms
- LV and MV electrical rooms

- Cargo rooms of ships
- Libraries
- Substations
- Chemical warehouses
- Airports control rooms
- Subway, tunnel and train control rooms
- Cable galleries
- Natural gas distribution stations
- ATM systems
- Safe deposit boxes
- Communication systems of military installations
- Tanks and armored vehicles
- Bank money transportation vehicles
- Cabins
- GSM link stations

### **How to Fill Novec 1230 Gas?**

The Novec FK-5-1-12 system is filled with gases that have a water-like appearance at room temperature, but quickly change to a gaseous state.

In this way, in case of fire, it intervenes in the flames in the fastest way and helps to stop the fire in about 10 seconds.

The filling of this easily accessible and budget-friendly gas is carried out in a practical way by experts.

It is extremely important that the filling and installation of the gas is carried out by professional teams.

In short, Novec 1230 is a gas extinguishing system that can be used in all areas where people are concentrated without worrying about health.

Novec 1230 is among chemical extinguishing gases the most environmentally friendly among them.

In this way, it brings along wide usage areas and practicality.

Points such as protecting equipment and ensuring continuity of work are among the advantages of Novec 1230.

You can integrate Novec 1230, which stands out with its wide usage areas, health effects and useful features, into any area you wish with Tekniku infrastructure; you can provide high level fire safety with regular mechanical and electronic maintenance.

### **What is Novec 1230?**

Novec 1230 is a kind of gas that does not have any electrical conductivity, can be used for extinguishing fires of all classes, and does not have any negative effects on human health. It is colorless, odorless and tasteless. It is approved by many standards worldwide.

### **What are the Advantages of Novec 1230 System?**

The advantages of Novec 1230 include its ability to be used in areas where people are present, being an effective and fast solution in fires of all classes, being reliable for electrical circuits, having no ozone penetration potential, short piping possibilities, and close tube room location.

### **How Does the Novec 1230 Extinguishing System Work?**

This system absorbs the heat in the environment.

Novec 1230, which intervenes in the fire with this principle, does not affect the amount of oxygen in the area.

Detection systems detect the heat and ensure that the gas in the cylinder, which is under pressure, is discharged.

As a result of this process, extinguishing is realized.

## FM200 Gas Fire Extinguishing System



### What is FM200?

FM200, also known as heptafluoropropane, HFC-227ea, HFC-227 and apafurane, is a suppressant gas with ideal usage characteristics for fire extinguishing needs.

The compound, which is an odorless and colorless halocarbon, stands out as an affordable choice as well as practical use in fire extinguishing systems.

Compliance with international standards ensures that this suppressant gas is accepted in a wide range of applications. Fire extinguishing systems has led to its widespread use.

### Features of FM200 Gas Extinguishing Systems

FM200 gas extinguishing systems can control all basic fire types within seconds.

The system, which is suitable for areas of use called sealed rooms, is an ideal choice for areas of use with sensitive materials.

FM200 gas extinguishing, which meets different international standards, can be scaled and designed in accordance with the areas of use.

The FM200 gas extinguishing system must be installed outside the area to be protected.

In addition, the installation must be carried out professionally according to the installation area and the components to be protected.

Tekniku FM200 fire extinguishing systems are installed by performing the necessary tests to meet all standards.

From the planning and projecting stage to routine checks, Tekniku fulfills all needs.

Tekniku for FM200 gas extinguishing systems maintenance and controls support you can get it.

### **How Do FM200 Gas Extinguishing Systems Work?**

FM200 fire extinguishing system basically performs atmospheric arrangements to prevent fire formation in the environment.

It chemically prevents the formation of fire in the protected environment with a specially determined gas concentration.

The system is triggered with the help of sensitive sensors, filling the sealed room with gas within seconds and preventing fire.

Filling the environment with gas is carried out with the help of fixed nozzles and FM200 tanks.

In order to achieve maximum safety and efficiency, the FM200 extinguishing system should be installed by professional engineers in accordance with the ambient conditions.

### **Is FM200 a Gas with Toxic Effects?**

In addition to its superior fire extinguishing performance, FM200 gas is also distinguished by the fact that it does not harm the ozone layer and human health.

Research and tests have shown that people can be in environments with FM200 gas for 5 minutes without being affected.

This helps to gain the necessary time to evacuate the area in case of fire.

FM200 is much safer than other types of gases that have been banned and discontinued around the world.

However, it is also known that FM200 gas remains in the atmosphere for many years and increases the greenhouse effect.

Installing the system professionally and performing the relevant controls by authorized teams minimizes the harmful effects.

### **Which Gas is Used in FM200 Gas Extinguishing Systems?**

Heptafluoropropane is the main component used in FM200 fire extinguishing systems.

The standards developed worldwide in fire extinguishing technologies require that the gases to be used in these systems must also be harmless and effective.

Heptafluoropropane is a fire extinguishing system that meets the standards and finds wide usage thanks to its harmless contents and high performance in fire extinguishing.

### **Where is FM200 Gas Extinguishing System Used?**

The high performance of the FM200 fire suppression system makes it the ideal choice for a wide range of industries and applications.

Suitable for use in so-called sealed rooms, where airflow can be controlled, the system is recognized worldwide as the standard for the protection of sensitive materials.

Tekniku FM200 gas extinguishing systems can be preferred for the following areas of use:

- Bank vaults
- Archives
- Libraries
- Museums
- Test laboratories
- Computer and control rooms
- Data processing rooms
- Record repositories
- Electricity rooms
- Communication centers
- Transformers
- Control rooms
- Military installations

The fact that gas extinguishing systems leave no physical residue after extinguishing makes it possible to establish a much safer and more efficient fire control system in sensitive areas.

Tekniku, with its expert team and vast experience in the sector, provides professional service in all stages from planning and projecting stages to installation and maintenance of gas extinguishing systems needed in all sectors.

### **How Do FM200 Gas Extinguishing Systems Work?**

FM200 systems connected to fixed nozzles work integrated with different sensors. In the event of a fire, the system is activated in the fastest way possible, providing a rapid flow of gas to the environment to be protected. The gas concentration is pre-determined by precise measurements according to the needs of the environment of use. The FM200 gas covering the environment physically suppresses the fire formation and ensures that the fire risk in the environment is terminated. Contrary to popular belief, it does not destroy the oxygen in the

environment. Although many people think that gas extinguishing systems eliminate the oxygen required for the combustion process, the heptafluoropropane compound suppresses free radicals that play a role in the combustion process. As a result of this process, the fire hazard is prevented before it grows and the safety of the environment is ensured.

Tekniku Fire Safety Systems manufactures FM200 automatic fire extinguishing systems in accordance with TSE and international standards.

In addition to the installation of the systems, it also provides periodic controls.

You can easily have an effective fire prevention system by choosing Tekniku for your organization's sensitive fire prevention needs.

You can contact us for more detailed information about FM200 gas fire extinguishing systems.