

## **CLEAN AGENT FIRE EXTINGUISHING SYSTEMS AS PER NFPA - 2001**



**Designed & Integrated Solutions  
For Any Kind of Gas Based  
Fire Suppression System**



## 3M™ Novec 1230 BASED FIRE SUPPRESSION SYSTEM

Novec 1230 is one of the safest Gas, which do not reduce oxygen. Novec 1230 is a synthetic / chemical fire suppression gas and extinguishes fire by removing free radicals or heat element from the fire triangle (Heat - Oxygen - Fuel). The concentration of Novec 1230 is typically between 5.3% to 5.6% of the room volume Novec 1230 can be used in total / partial / localised flooding and directional spray type applications. Novec 1230 is trade mark of 3M Corporation.

When you specify a fire protection system, your choice can determine whether persons, valuable asset or even an entire business survives a fire, when that system uses Novec 1230 fluid, you may remain confident of the system.

### FEATURES & BENEFITS:

- Extinguishes fire in seconds, before it event starts and long before water based system discharges.
- Helps protect irreplaceable important paper documents and electronics because Novec 1230 fluid is a waterless fire suppression solution. It leaves no residue and it is Non-conducting.
- Provides highest margin of safety for Human occupancy of any Clean Agent Solution.
- Comes with the global environmental warranty - the 3M™ Blue Sky™ warranty designed to provide additional peace of mind.
- It is stored as liquid and discharged as gas.
- It is applicable for A, B & C Class Fire.



### APPLICATIONS:

- FM 200 is immediately available for protecting most hazards
- Telecommunication and Electronic Equipments etc.

## FM-200 (HFC-227ea) BASED FIRE SUPPRESSION SYSTEM

**FM-200 (HFC-227ea)** Heptafluoropropane is a colourless, odourless, gaseous Halocarbon, commonly used as gaseous fire suppression agent. FM200 Fire Suppression falls under the category of Clean Agent and it is governed by NFPA 2001. Effective Fire Suppression requires introducing a concentration of HFC-227ea agent between 6.25% - 9% depending on hazard being suppressed. FM-200 (HFC-227ea) fire suppression agent was the first non-ozone depleting agent for replacing in addition to above, FM-200 leaves no residue on valuable equipment after discharge. It is particularly useful where an environmentally acceptable agent is essential, where clean-up of other media presents a problem, where weight versus suppression potential is a factor, where an electrically non-conductive medium is needed, and where people compatibility is an overriding factor.

### FEATURES & BENEFITS

- Zero ozone depletion potential.
- Safe for occupied areas & minimal storage space required.
- Suitable for protection on a range of high value risk.
- Existing Halon / CO<sub>2</sub> System can be adapted with the use of FM 200
- Like Halon no Cleaning required after discharge.
- Low pressure System.
- NFPA-2001 Listed.
- Listed in US Environmental protection.





## INERT GAS BASED FIRE SUPPRESSION SYSTEM

Inert Gas based Suppression systems are made up of gases found in the atmosphere and are therefore completely environmentally friendly. IG-55 (50% Argon and 50% Nitrogen), IG-100 (100% Nitrogen) and IG-541 (52% Nitrogen + 40% Argon + 8% CO<sub>2</sub>) are the compositions of the three Inert Gases. They work by completely flooding the room, reducing the oxygen content necessary for combustion, but at the same time ensuring adequate oxygen concentrations for use in occupied areas.

The system is available with a working pressures of 200/300 bar and the calculation is based on the volume of the hazard area considering the design concentration as per NFPA 2001. The conventional schedule pipes can be used. This system is specifically designed for installations with longer distance pipe runs.



### FEATURES & BENEFITS:

- Zero ozone depletion potential (ODP) and greenhouse effect.
- Allows for longer pipe runs.
- Suitable for occupied areas.
- Excellent post-discharge visibility.
- Very low refill cost.
- Cost savings using selector valves

## Co2 GAS BASED FIRE SUPPRESSION SYSTEM

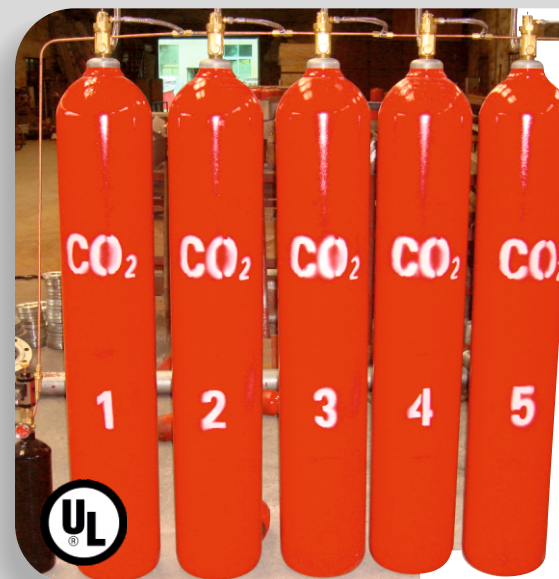
Out of all the Gases, one of the oldest and the most widely used Gas Based Fire Suppression today in the world is CO<sub>2</sub> Gas Based Fire Suppression System. CO<sub>2</sub> fire protection systems use intelligent, reliable and fast-acting control panels to sense a fire at an incipient stage before it can cause damage to guarded property.

This system is unique. It is different from other fixed gaseous agent systems because it allows local application. CO<sub>2</sub> fire suppression system is extremely versatile and effective on a wide range of flammable and combustible materials and approved for Class A, B and C hazards.

The amount of agent is calculated according to the size of the hazard. Its extinguishing mechanisms are due to the reduction of the oxygen concentration to below 15% and the cooling and absorption of the heat from the flame. We are the system integrator for Design, supply, Installation and commissioning the CO<sub>2</sub> system as per NFPA-12. This agent is intended for normally unoccupied areas.

### FEATURES & BENEFITS:

- Odourless, colourless, electrically non-conductive, non-corrosive, and non-deteriorating agent.
- Total Flooding System both surface and deep seated fires by discharging gas onto the enclosed space
- Suitable for both, the protection of rooms and freely standing objects
- Carbon dioxide is a readily available gas
- No Residue or any affect on the objects
- Chemically inert gas, no reaction of the gas
- Electrically non-conductive, suitable for protecting electrical units
- Multi-Zone set-up possible
- Less re-commissioning cost
- Not for Human occupied areas
- The extinguishing effect is ensured even at low ambient temperatures





## **VIMAL FIRE CONTROLS PRIVATE LIMITED**

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