

## Dry Chemical Fire Suppression Systems

Dry Chemical Dusty Fixed Extinguishing Systems are used in total flooding-volume protection (closed volume) and the local application-regional (in the open areas) protection methods with A, B and C class fires. System is a preliminary engineering system and has got flexible design and easy installation. Dry chemical extinguishing systems are more effective and cheaper extinguishers than, gas and water extinguishing systems. Design-installation-commissioning and maintenance of the systems are quick and effortless.

### Features

It is very effective with A, B and C class fires. It has got high flow coefficients, does not mix with water and does not occur toxic products during the fire fighting. According to tests extinguisher was found 4 to 5 times more effective than sprinkler systems and 2 times more effective than CO<sub>2</sub> gas extinguishing systems.

### Applications

- Gas Filling Areas,
- Industrial Vehicles,
- Mechanical Rooms,
- Flammable Liquids Store,
- Paint Cabinets,
- Paint-Drying Oven Conveyors - Belt Systems,
- Flammable Manufacturing Areas and Process Lines,
- Some Production Lines in The Field of Refinery,
- Landing Platform of Helicopters (Heliped),
- Pharmaceuticals, Food, Printing and Plastic Industrial Facilities,
- Chemical, Paint, Rubber and Plastic Industry Plants,
- Generator Rooms,
- Pump Rooms,
- Board Rooms,
- Transformer Rooms.



## How Is The System Successful To Knock Down A Fire?

Dry chemical fire fighting system breaks the chain of chemical reactions that occur during the fire and stops fire, in addition, by forming a layer over the burning of materials it cuts off the contact the air with the flames. With total flooding protection dry chemical discharges to all volume and creates an atmosphere in the area so combustion can not continue. Protected by the local application of the liquid fire, the chemical contact with the liquid and constitute a layer of foam by the way prevent relapses. This layer helps to cool the surfaces at the same time.

## How Is The System Activated?

In case of fire, sensing lines from the mechanical or electrical stimulation with a discharge mechanism, by drilling the propellant cartridge mouth membrane, the gas fill in the actuation line and the pressurized gas, opens the pneumatic valve of extinguishing tank. Chemical is stored in pressurized. After the valve opening pressurized chemical discharges to discharge line to the environment out of the nozzles.

System can be activated by automated, pneumatic and / or manually (manual).

When the system is activated, depending on accessories: fan stops, providing prevention of electric contacts of the device with the environment, closures various inputs / outputs, closures of the gas inlet, audible and visual alarms and similar operations can be performed.

### Take Attention !

When we are comparing the system with other systems, the system got very low harmful effects to the people and the environment. These systems related issues must be considered are:

- Systems that can damage the risk of creating chemical components of chemical mixtures should be made in spite of different types.
- Dry chemical itself does not cause corrosion but when used in wet environments, you have to clean very quickly otherwise there could be the effect of corrosion.
- If do not clean in a shot time, there could be corrosive effect on the sensitive surfaces.
- Dry chemical extinguishing systems are not effective with the chemicals includes free oxygen radicals (eg, cellulose nitrate).
- Dry chemical extinguishing systems are effective with the surface fires so It is not capable of extinguishing Deep-Seated Fires.
- Dry chemical extinguishers may not be appropriate to open electrical contacts and devices which can be effect by the dust.

### Cleanning But How?

It is important to determine removal process type and urgency according to property type and its sensitivity. Before starting the cleaning process to make all the electrical switches off, should be sure to cut of electricity. In addition, to ensure proper cleaning of equipment in place should be anticipated and implemented from manufacturers the cleaning criterias.

### Procedures For Cleaning

- After the dry chemical extinguishing specially affected by the electrical contacts should be cleaned with electrical contact cleaners.
- After cleaning for removing the remaining water, spray dry air on the surfaces.
- After mild soap and water cleaning, cleaned with warm water.
- To neutralize and eliminate the corrosive effects of monoamonyum phosphate-based dry chemicals, make a mixture with hot water and soda 1 cup of soda and three gallons of water, wait a few minutes after being sprayed and rinsed with warm water.
- To neutralize and eliminate the corrosive effects of sodium bicarbonate and potassium bicarbonate based dry chemicals, make a mixture with vinegar to 2% - 98% to hot water and spray on the surface, after a few minutes, rinse off with warm water.
- Dry chemical is removed from the atmosphere with vacuum cleaner and clean with a soft cloth surface of the devices.

