



Industrial Equipment & Machinery Fire Protection

JOMARR TOTAL FLOODING SYSTEMS



Machinery spaces, such as turbine and generator enclosures, require special fire protection. These spaces are very susceptible to fires due to the presence of heat generated by the equipment and highly flammable liquids. A minor malfunction or leak in machinery spaces can quickly turn into a serious fire.

These spaces are also becoming larger in order to accommodate the size and output of bigger machines. The large machinery spaces are particularly difficult to protect because they may be hard to seal off, take more time to evacuate, and can result in more intense fires.



JOMARR AGX SYSTEMS protect many types of hazards:

- Landfill Power Generators
- Transformers
- Rail Signal Shacks
- Industrial Diesel Generators
- Rail Electrical Bungalows
- Compressors
- Industrial Pumps
- Underground Electrical Conduit
- Remote Substation



The Fire Tetrahedron

HOW THE AGX SYSTEM FIGHTS FIRE

The Jomarr AGX Fire Suppression System removes the flame free radicals and extinguishes fire without depleting oxygen. Conventional fire extinguishing agents extinguish fire by one or a combination of the following three methods:

1. Cooling: By absorbing heat from the fire and lowering its temperature
2. Starvation: By reducing or cutting-off the fuel supply
3. Smothering: By removing oxygen or reducing it below a certain level

Jomarr AGX Condensed Aerosol Systems on the other hand, extinguish fire predominantly by inhibiting the chain chemical reactions present in combustion on a molecular level.

Unlike water-based "fog" systems and CO₂, AGX aerosol agent removes the flame free radicals and extinguishes the fire without depleting oxygen and is non-corrosive.

In a typical fire, atoms and fragments of unstable free radicals react between them in the presence of oxygen. This continues until the burning fuel is depleted or the fire is extinguished by other means.

Upon activation of the Jomarr AGX System, its solid compound is transformed into a rapidly expanding, extremely effective and efficient fire extinguishing condensed aerosol. The extinguishing aerosol is

propagated and evenly distributed in the enclosure under protection using the momentum generated during the transformation process. Unlike gaseous agents, the total flooding effect is achieved without increasing the pressure in the protected area/volume. Fire extinguishing is accomplished by the interruption of the chemical chain reactions occurring in the flame and not by the depletion of oxygen and/or cooling as suggested by the traditional triangle of fire.

The gas type 3-D properties of the condensed aerosol particles facilitate their even and fast distribution as well as their flow into the natural convection currents of combustion. The solid particles of potassium salts, a few microns in size, are suspended in an inert gas that displays an extremely high surface to reaction mass ratio – a fact that increases efficiency – which results in less quantities of fire extinguishing agent required.

When the condensed aerosol reaches and reacts with the flame, potassium radicals (K*) are formed mainly from the disassociation of K₂CO₃.

The K*s bind to other flame free radicals (hydroxyls – OH) forming stable products such as KOH. This action extinguishes fire without depleting or absorbing the ambient oxygen content. KOH reacts further in the presence of CO₂ and forms K₂CO₃.



COMMERCIAL - INDUSTRIAL - MUNICIPAL - MILITARY



JOMARR PRODUCTS, INC. MODEL AGX FIRE SUPPRESSION SYSTEMS The State-of-the Art in Total Flood Fire Protection

FEATURES

- No piping, tubing, or nozzles
- No heavy, complicated, dangerous high-pressure extinguisher cylinders
- Clean & Green - Environmentally safe
- Non-Toxic
- Absolute minimum maintenance required
- Minimal installation time via OEM, dealer, or retrofit.
- Outstanding shelf-life - minimum 15 years
- No special tools required
- AGX Systems are fail-safe, autoMatic and with manual override
- Non-corrosive agent – Non-electrically conductive
- Years of hands-off, 24 hour automatic fire suppression protection





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