

PyroStorm™

Impulse powder modules for
Automatic fire suppression systems



Product Brochure

Introduction to PyroStorm

PyroStorm is a new generation in impulse (very fast acting) dry powder, modular type fire suppression units and systems.

PyroStorm modules are non pressurized vessels that can be fitted in any application. They are light weight and easy to install and transport, with no pipe work required, and in normal applications are maintenance free for 10 years.

PyroStorm modules are the most cost effective powder-type automatic fire extinguisher available on the market. PyroStorm modules are hermetically sealed thus preventing any contamination, by dust or water, of the FUREX ABC extinguishing powder contained within the unit.

PyroStorm modules are activated electrically, from a conventional fire panel, or from thermal sensors, when attached to the module. When activated during a fire situation, there is a chemical reaction within the PyroStorm module creating a positive pressure.

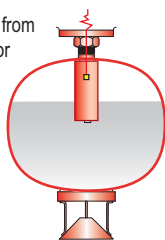
The discharge diaphragm then expands, ruptures and expels the extinguishing powder at a rate of up to 35 m/s. This occurs in less than 0.5 seconds from initial activation. Large volumes of powder begin to be discharged in less than a second putting out the fire rapidly and effectively.

The dry powder expelled from the PyroStorm module attacks the fire in a combination of two fire extinguishing mechanisms. Chemically, by the removal of the fire propagating "chain carriers" and Physically, via four processes.

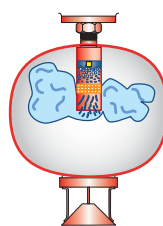
Firstly, by the removal of heat via endothermic processes of powder particle heat absorption, particle evaporation and decomposition. Secondly, via the dilution of the flame zone with a powder cloud and its subsequent decomposition products. Thirdly, there is the creation of physical fire barriers in the fire zone and finally, via the creation of a "fire blanket" on the surface of the burning materials, which 'smothers' the fire.

Physical reaction within the canister

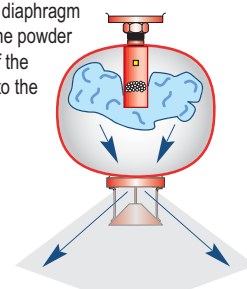
Electrical signal from a control panel or from a thermal detector.



Pressure generator activates and produces positive pressure inside the module



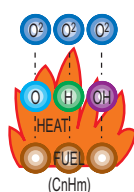
The discharge diaphragm ruptures and the powder is forced out of the module and into the protected area



Principles of extinguishing action

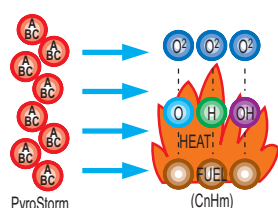
Stage 1

Fire consists of four elements - oxygen, flame chain carriers, heat and fuel



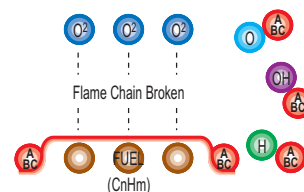
Stage 2

The PyroStorm ABC Dry Powder is introduced to the flame/fire and attacks all four elements



Stage 3

The ABC powder particles attach themselves to O, H & OH radicals and remove them from the flame chain *without* depleting Oxygen. The ABC Powder also makes a blanket over the fuel





PyroStorm PYST0.3

Up to 1.2m³ Coverage
Electrical cabinets
Switchboards
Small equipment enclosures



PyroStorm PYST8

Up to 42.0m³ Coverage
Industrial sites
Available for medium (M) or
High spaces (H) up to 6m
Wall mounted & Vehicle version
available



PyroStorm PYST1C/2C

Up to 4m³ Coverage
Electrical cabinets
Control cabinets
Rail, Marine & Road
Engine and Motor bays

PyroStorm PYST15

Up to 70m³ Coverage
Large Industrial spaces
Local protection or remote
via pipework



PyroStorm PYST0.5

Up to 2m³ Coverage
Electrical cabinets
Ceiling & Floor Voids
Mobile equipment
Engine and Motor bays



PyroStorm PYST2.5

Up to 18m³ Coverage
Aesthetic design
Commercial, Industrial sites,
Garages office and residential
areas

PyroStorm PYST50

Up to 150m³ Coverage
Larger Industrial sites
Local protection or remote
via pipework



PyroStorm PYST2.0

Up to 12m³ Coverage
Vehicle Systems
Engine and Motor bays
Control Cabinets
Industrial, Mining, Military
& Marine



Impulse discharge - less than 1 second delivery into a fire zone

Advantages

High extinguishing performance

- Operation within seconds after detection of fire
- Delivery of agent within milliseconds after operation
- Instantaneous extinguishment of fire
- Low agent consumption
- Minimal agent losses

Safety

- No toxic ingredients
- No ozone depletion
- No pressure cylinders

Versatility

- Class A, B, C fires and fires involving energised electrical equipment total flooding & local applications
- Can be installed in almost any industrial or residential risk area
- Wide temperature operation range

Cost savings

- High extinguishing efficiency at low powder consumption
- Simple installation
- Minimal maintenance

Maintenance

- Standard service life is 10 years.
- Modules do not require special maintenance.
- Monthly visual observation on mechanical damage.
- Supervision of the electrical circuitry integrity for electrically operated modules.
- Following system discharge the area should be cleaned by a non-wet method of dry-wiping, brushing off or vacuuming.

Health & Safety

- Modules are non-pressurised – no explosion hazard if heated and no leakage.
- Modules use Standard ABC powders (ammonium phosphate based).
- Powders are non-abrasive, chemically inert, non aggressive and non-toxic.
- Powders are environmentally friendly –post-discharge powder residue could be added to the industrial organic fertilisers.



For further information on PyroStorm, or any other product within the Pyrogen range, please contact:

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