

PAFSS[®]

PNEUMATICALLY
ACTUATED FIRE SUPPRESSION
SYSTEMS



PAFSS[®] Fire Suppression Systems from Jactone

Automatic Fixed
Fire Suppression Systems



PAFSS® Fire Suppression Systems

There are many situations where dealing with a fire at source will both minimise the damage of valuable assets and enable a quicker recovery of operations.

PAFSS (Pneumatically Actuated Fire Suppression Systems) detect automatically at the source of a fire and extinguish it early and before it more fully develops, minimising the damage of valuable assets and enabling a quicker recovery of operations.

The range of PAFSS builds on years of experience and technical knowledge acquired in the fire industry.

PAFSS fire suppression systems offer peace of mind for businesses looking to protect their assets and personnel from the risk of fire.

On guard 24 hours a day, 365 days a year



Why choose PAFSS®

» THE PROBLEM

There are many situations where assets and property are under threat from the risk of fire, either because of the unattended nature of their operations or simply their remote location. Unattended risks can be present in for example : laboratory fume cupboards, automatic machinery, engines and offshore wind turbines (which are characterised by their remote locations).

All of these applications, along with many others, are a challenge due to the fact that human intervention in the event of a real fire situation is highly unlikely or just not possible. In addition to this the fire could be difficult to identify, for example smouldering, damaged or poorly installed wiring inside an electrical cabinet which could present a real problem.

The unattended nature of these operations means that if a fire was to develop it would be very likely that by the time external flame, heat or smoke detecting devices became aware of the situation the fire may have spread to surrounding equipment and assets.

» THE PAFSS SOLUTION

PAFSS fire suppression systems require no power for detection or to operate making them ideal for unmanned or unsupervised applications. PAFSS detection tubing is installed throughout and very close to the risk areas in the protected application, providing fast and effective detection. Upon flame impingement or high ambient temperature the pressurised detection tube ruptures with a burst at the hottest point. Depending on the system type, the pre-selected extinguishing agent is then discharged from the connected cylinder through either the burst hole directly at the heart of the fire or via separate pipework and nozzles.

The simplicity of PAFSS systems and the nature of the linear pressurised detection tubing means that it is possible to protect some very challenging applications with a fire suppression solution. The detection tubing is very flexible which means it can be installed in tight spaces such as electrical panels, harsh environments such as engine compartments and recycling machines with relative ease.

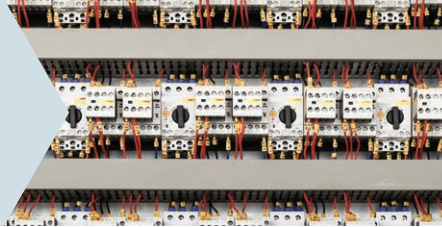
Dealing with the fire situation at source in this manner means that the fire is extinguished extremely quickly and prevents the fire from spreading to neighbouring enclosures, equipment and the wider building, significantly reducing the risk of injury to personnel and losses caused by equipment down time and operational disruption.



Applications for PAFSS®

› Electrical Enclosures

Electrical distribution cabinets, process control cabinets, communication racks.



› Material Storage

Fume cupboards, chemical stores, flammable material stores.



› Industrial Equipment

Fork lifts, plant / machinery engine protection, industrial process equipment.



› CNC Machines

Machining centres, injection moulding machines, robotic welding machines.



› Power Generation

Mobile electrical generators, wind turbines.



› Transport

Buses, boats, trains - engine compartments.



How PAFSS® works

PAFSS FEATURES

Choosing PAFSS has many advantages, including :

- › Simple to install and maintain. Easily fitted to new or existing equipment.
- › Fast, automatic detection and extinguishing.
- › Linear heat and flame detection tube, allowing for an unlimited number of detection points.
- › Highly reliable PAFSS detection tubing. Remains unaffected by dirt, dust, debris and oil. Resistant to many chemicals.
- › Flexible detection tubing can be located adjacent to the identified risk areas, providing fast effective detection.
- › Stainless steel discharge pipework and nozzles. Vital in potentially corrosive environments.
- › Requires no power supply for detection or actuation, remaining operational during power interruption.
- › Superbly engineered specialist valves and pressure vessels.

PRINCIPLES OF OPERATION

At the heart of any PAFSS system is the special detection tubing which acts as a linear heat and flame detector. PAFSS detection tubing is completely flexible and is installed throughout the risk areas of the enclosure, providing fast and effective detection.

Upon flame impingement or high ambient temperature, the pressurised detection tube ruptures with a burst at the hottest point and by depressurisation the cylinder valve is activated. The extinguishing agent is then discharged from the connected cylinder through either the burst hole (Direct) or pipework (Indirect) at the heart of the fire.



System Selection

› DIRECT SYSTEMS

Direct PAFSS are efficient and simple self-activating systems for small enclosed hazard areas. They are failsafe against malfunction.

Upon flame impingement or heat, the pressurised detection tube (which is connected to a cylinder containing the suppression agent) ruptures with a burst at the hottest point. The agent is then discharged through the burst hole directly at the heart of the fire.

Direct systems are available in both low pressure and high pressure formats, depending on the most appropriate extinguishant selected.



› INDIRECT SYSTEMS

Indirect PAFSS are efficient and simple self-activating systems for larger enclosed and even open hazard areas.

Upon flame impingement or heat, the pressurised detection tube will burst and by depressurisation will activate the cylinder valve to open. The agent is then released through separate pipework and nozzles which are aiming at the hazard area.

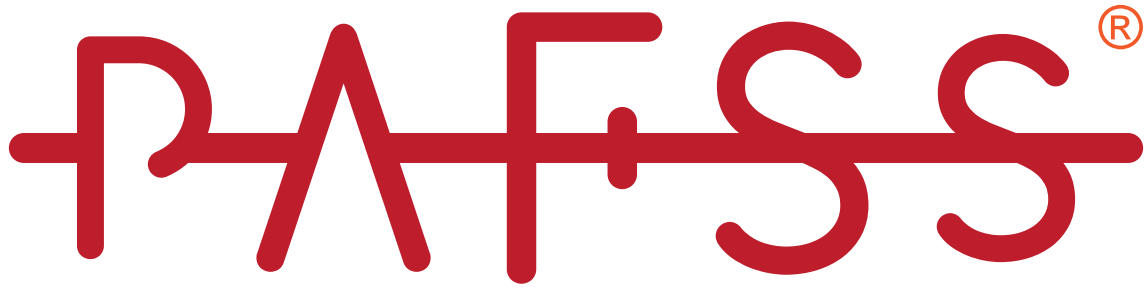
Indirect systems are available in both low pressure and high pressure formats, depending on the most appropriate extinguishant selected.



› EXTINGUISHANTS

Specific risks require specific extinguishing materials. Extinguishants that can be used in PAFSS include :

- › Novec 1230
- › BC Powder
- › CO2
- › AFFF (Foam)
- › ABC Powder
- › Other extinguishants available on request



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UK manufacturing and assembly



On guard 24 hours a day, 365 days a year



Simple to install and maintain



Technical expertise, training and support



Fully certified systems