

Commercial Kitchen Fire Protection

Automatic Fixed
Fire Suppression Systems
for Commercial Kitchens



LPS1223
Cert/LPCB ref. 783c

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Protect your assets from fire with **PAFSS KitchenGuard®**





PAFSS KitchenGuard® 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



*UL Listing for
PAFSS detection tubing



Why choose PAFSS KitchenGuard®

THE PROBLEM

Fires in the foodservice industry account for 10% of overall fires in non-dwelling buildings and 17% of non-fatal casualties (Source : Home Office Incident Recording System. 2014/15 Statistics). Food and drink premises are regarded as one of the more high risk categories because of the hazards associated with kitchens.

Fires here can arise in numerous ways, including : defective or damaged heating controls, unattended devices, burners overheating and grease / dirt residue buildup.

With this specific, very problematic risk in mind we have developed and certified the PAFSS KitchenGuard system.

THE PAFSS SOLUTION

Our system offers peace of mind for customers looking to specify a fully tested, approved and certified solution for fire protection of their kitchen and catering equipment. It incorporates many innovative features, to bring ground breaking characteristics and reliability to anyone with responsibility for kitchen fire suppression.

With kitchen fires being difficult to contain and control, KitchenGuard has been specifically designed to protect catering equipment in accordance with LPS1223 :

“Requirements and testing procedures for the LPCB certification and listing of fixed fire extinguishing systems for catering equipment”.

Investment in a KitchenGuard system can help safeguard your valuable assets and staff against the risk and impact of fire at your premises.



*UL Listing for
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KitchenGuard[®] Principles

► RESPONSIVE

Like any fire scenario, kitchen fires need to be dealt with quickly before they can develop and cause further, more significant damage. KitchenGuard is fast acting both in detection and system actuation.

Linear pressurised detection tubing detects the fire, which melts and bursts when exposed to prolonged flame or heat to activate the system. This drop in pressure opens the cylinder valve, releasing the extinguishing agent through stainless steel pipework and nozzles onto the hazard areas.



► RELIABLE

Reliability is key. You want a system you can trust to work when you need it to. KitchenGuard detection tubing is unaffected by oil, dirt and kitchen grease which can cause delay in activation on other systems. All discharge pipework, fittings and nozzles are stainless steel, vital in potentially corrosive environments as well as complementing the kitchen environment.

KitchenGuard does not require any mechanical movement or electrical signal to detect and activate.



► READY

On guard 24 hours a day, 365 days a year, PAFSS KitchenGuard will be ready if and when it is needed. KitchenGuard is a self contained system that requires no power supply for the detection of fire and for the activation of the system.

In case of any power outage to the building KitchenGuard will remain operational at all times. The health of the system is easy to check with simple visible pressure gauge monitoring.



How PAFSS KitchenGuard® works

PAFSS FEATURES

Choosing KitchenGuard has many advantages, including :

- › Simple, high quality and well engineered system, which is quick and unobtrusive to install.
- › Fast, automatic actuation.
- › Stainless steel pipework, fittings and nozzles to suit kitchen environments.
- › Highly reliable detection tube. Remains unaffected by oil, dirt and kitchen grease.
- › Requires no mechanical movement or power supply for detection and activation, remaining operational during power interruption.
- › Linear heat and flame detection, allowing for an unlimited number of detection points.
- › Flexible detection tubing can be located adjacent to the identified risk areas, providing fast effective detection.
- › Low whole life costs of system ownership from initial installation, planned system service and maintenance.
- › 99% biodegradable wet chemical extinguishing agent.

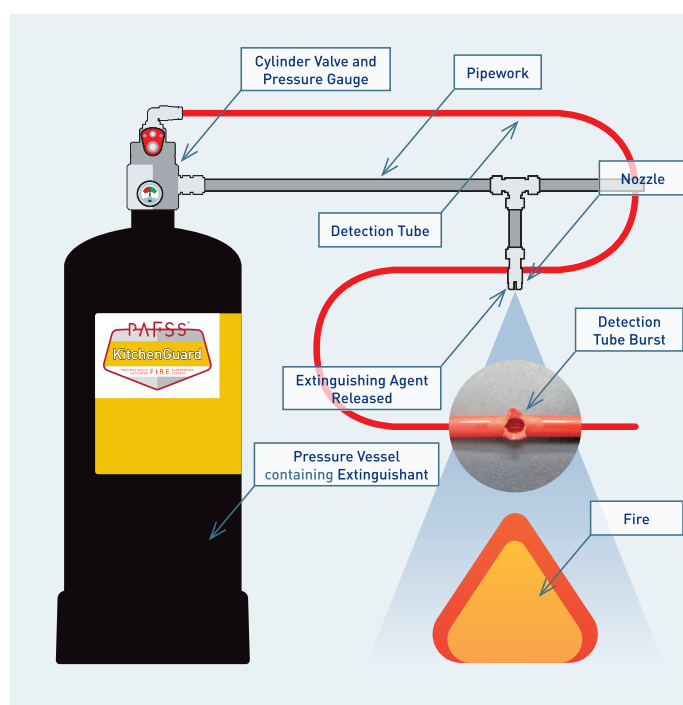
Front of Filter Detection Tube

Cooking Appliance Nozzles

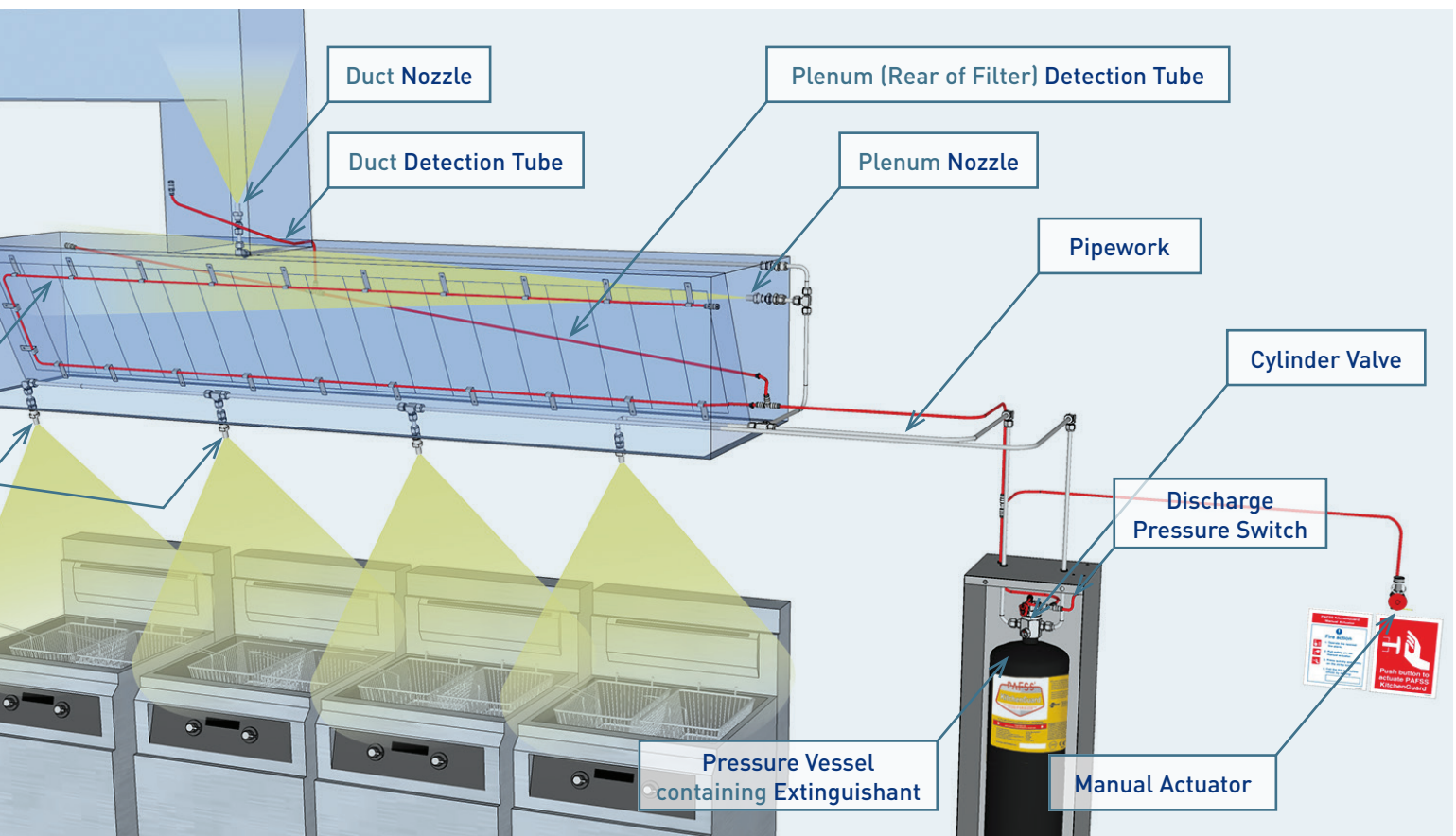
PRINCIPLES OF OPERATION

PAFSS KitchenGuard will operate automatically upon prolonged flame impingement or heat.

- › **Detection Tube** detects fire **EARLY** by bursting anywhere along its length - acts as **LINEAR DETECTION**, **NOT POINT DETECTION**.
- › Depressurisation of the **Detection Tube** opens the **Cylinder Valve**.
- › **Extinguishant** is then discharged through separate stainless steel **Pipework** and **Nozzles**.
- › **Nozzles** are installed to protect **COOKING APPLIANCES**, **PLENUMS** and **DUCT INLETS**.
- › PAFSS KitchenGuard systems can also be operated via the **Manual Actuator**.
- › As required by LPS1223, the system includes a **Discharge Pressure Switch** used to shutdown power / gas to the kitchen appliances.



Straightforward Design



MODULE CONCEPT

Designing a PAFSS KitchenGuard system will depend on the catering equipment being protected. PAFSS KitchenGuard is available in 2 pre-engineered system modules:

- › 8 litre module, 4 nozzles.
- › 12 litre module, 6 nozzles.

Up to THREE modules can be connected together by the 'PAFSS Pneumatic Link' to act together as part of a larger system. Fire detection by one module leads to simultaneous discharge of all modules.

Zone protection and individual appliance protection is available.

Kitchen alterations and upgrades can be easily accommodated by the modular approach.

EXTINGUISHANT

PAFSS KitchenGuard utilises a sophisticated wet chemical agent. This extinguishing medium is more than 99% biodegradable and is therefore not a hazardous waste.

It can also be used as a cleaning agent, since it has excellent cleaning and fat-dissolving properties. This agent uses an extinguishing mechanism called saponification. Saponification helps to turn cooking fat into a soapy substance, smothering / cooling the fire and preventing re-ignition.



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 system, recognised by leading insurance companies

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