



# SAPPHIRE 25/42 BAR

## Gaseous Fire Suppression Systems Delivering 3M™ Novec™ 1230 Fire Protection Fluid

- Environmentally Friendly
- Safe for People
- Fast Acting
- Compact Storage
- Easy to Refill
- International Approvals

### Overview

LPG SAPPHIRE Fire Suppression Systems delivering 3M™ Novec™ 1230 Fire Protection Fluid is a safe, environmentally friendly clean agent system, that has a proven track record for protecting people and high value assets.

### Protecting our world

LPG SAPPHIRE systems provide a proven and reliable fast acting, clean agent solution that is safe for use in occupied spaces. The system is environmentally friendly with zero ozone depletion potential (ODP) and negligible global warming potential (GWP). The atmospheric lifetime is between three and five days making LPG SAPPHIRE an ideal solution without compromising the environment. Every LPG SAPPHIRE installation carries a 20 year environmental warranty covering both the agent and the system hardware. See table overleaf for a comparison of the environmental credentials of common halocarbon clean agent systems

### Playing safe

LPG SAPPHIRE systems are ideal for use in occupied areas. Independent toxicity studies have established that the agent is low in both acute and chronic toxicity with high safety margins between its normal use concentrations and the No Observable Adverse Effect Level (NOAEL).

### Fast acting suppression

LPG SAPPHIRE systems work fast and are designed to rapidly absorb heat to the point where combustion ceases. Once actuated, LPG SAPPHIRE systems deliver the extinguishant within 10 seconds, suppressing fires before they have the chance to spread. Most importantly when a fire is suppressed quickly, the result is less damage, lower refurbishment costs and reduced downtime.



**SAPPHIRE 25/42 BAR applications**

- Data Centres
- Machinery Spaces
- Engine Rooms
- Medical Facilities
- Heritage Sites
- Air Traffic Control
- Oil and Gas Facilities

**Compact low pressure technology**

LPG SAPPHIRE systems are compact and operate at both 25 and 42 bar and have been designed and developed based on independently witnessed fire tests. It has been proven to achieve homogeneous distribution of agent at these pressures complying with international standards and meeting the requirements of approval agencies worldwide.

**System recharging**

As the Novec 1230 Fluid is stored as a liquid at room temperature the agent may be transported in lightweight drums or plastic totes, enabling the agent to be made available quickly at a conveniently located recharge station.

**25 and 42 bar options**

The LPG SAPPHIRE System is available in both 25 and 42 bar pressures. The 25 bar system is suitable for the majority of hazards whilst the 42 bar offers additional flexibility in the design of systems, protecting larger or more complex hazards, including those incorporating selector valves for multi-zone protection and where system containers are to be located further from the protected hazard.

**Agent comparison**

| Properties                      | Novec 1230 | HFC-125 | HFC-23 | HFC-227ea |
|---------------------------------|------------|---------|--------|-----------|
| Ozone depletion potential (ODP) | 0          | 0       | 0      | 0         |
| Global warming potential (GWP)  | 1          | 3,500   | 14,800 | 3,220     |
| Atmospheric lifetime (ATL)      | 0.014      | 29      | 270    | 34.2      |

Environmental data from 4th Assessment report of IPCC 2007 and EPA's tables of ozone depleting substances