

Argonite Fixed Fire Suppression Systems

Fire Systems

Prevent Fire | Detect Fire | Contain Fire | Escape Fire

Product

Argonite is an excellent fast acting fire extinguishing agent that is environmentally neutral, safe for occupied areas and leaves no residue.



System Benefits

The Argonite System

Argonite systems have been developed as a viable and environmentally friendly alternative for Halon. Tested and approved by regulatory bodies throughout the world, Argonite is effective against fires involving almost all combustible materials and flammable liquids and is particularly suitable for use in areas where the use of water, foam or powder would be unacceptable.

Applications

Argonite systems are ideally suited to the protection of fixed equipment and plant. They are particularly applicable for high value risks where fires can have devastating consequences way beyond the cost of damage and lost production.

Applications include:

- Computer suites
- Telecommunications facilities
- Archive stores
- Petrochemical plants
- Offshore oil and gas installations
- Gas turbines
- Control centres

Advantages

- Fast acting and effective against nearly all fire hazards
- Environmentally neutral – zero Ozone Depleting Potential and zero Global Warming Potential
- No post-fire residues or damage to protected equipment
- Electrically non-conductive
- Safe for occupied areas
- Can be integrated with existing detection and alarm systems
- Automatic or manual release
- Minimum downtime after a fire

Argonite Fixed Fire Suppression Systems

Technical Data

■ Chemical formula	blend of 50% Nitrogen and 50% Argon
■ Weight	Varies according to design concentration
■ Volume	Varies according to design concentration
■ Operating pressure	150, 200 and 300 bar
■ Minimum design concentration	approx. 37.5%
■ Minimum discharge time	<60 seconds
■ Extinguishing mechanism	Oxygen depletion
■ NOAEL	43% (12% Oxygen)
■ LOAEL	52% (10% Oxygen)
■ Ozone Depleting Potential	0
■ Global Warming Potential	N/A
■ Atmospheric Lifetime	Inert gas
■ Approvals	Argonite has been approved and/or verified by major international authorities and classification bodies. These include the LPCB (Loss Prevention Certification Board), FM/UL, NFPA, Bureau Veritas, DNV, CNPP and the Environmental Protection Agency.

System design

In a closed space almost all fires are extinguished in less than 60 seconds when the oxygen concentration falls below 15%. The Argonite fire extinguishing system, based on a mixture of 50% Argon and 50% Nitrogen, reduces the oxygen concentration to 12.5% – a level acceptable to human exposure over short periods – thus eliminating the fire quickly and effectively without affecting personnel. Knowing the size and complexity of the area to be protected, the fire hazard present and the requirements of the local approving authority, a dedicated computer program is used to specify the size and geometry of the Argonite system hardware. Argonite is available in storage pressures up to 300 Bar, thus providing 30 per cent less storage space than any equivalent 200 Bar system.

Argonite systems

Argonite systems consist of one or more cylinders connected via a common manifold. System actuation can be manual or automatic and the gas is dispersed through a pipe network and enters the protected area via nozzles. Valve design, the size and pressure of the cylinders used together with computer calculated pipe and nozzle dimensions ensure that the correct amount of Argonite is released effectively. Argonite's inerting and extinguishing properties act quickly to eliminate the fire.

Where multiple area protection is required, and provided there is suitable fire separation, a central bank 'multi-way' system can be used. This provides a cost-effective solution by further reducing the overall cylinder quantity.

Argonite cylinders

A range of cylinders is available offering a choice of fill and pressures to meet your specific needs and to ensure maximum cost effectiveness of the installation. Each cylinder is manufactured from high strength alloy steel and is supplied in accordance with the requirements of the various national authorities – inclusive of stamping and certification. They are mounted in rows and may be installed in any suitable location.

Argonite valves

Made of corrosion resistant brass, Argonite discharge valves are designed to ensure optimum system performance, reduced pipe sizes and low installation costs. They can be actuated by one of the following methods:

- Electrical
- Pneumatic
- Manual

The valve design allows a worldwide network of distributors to recharge the cylinders without the need for replacement parts. An easy-to-read gauge enables convenient inspection of the agent pressure and a pressure switch is fitted as standard to allow remote monitoring of the system's integrity.

Chubb Fire, helping you to:
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call **0800 32 1666** or visit **www.chubb.co.uk**

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