Ginge-Kerr

Argonite®

Inert gas fire suppression system

A Kidde Company

The Argonite system was developed by Ginge-Kerr over 10 years ago as a viable, environmentally friendly alternative to Halon. Tested and approved by regulatory bodies throughout the world, Argonite is effective against fires in 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.

The original and trusted solution

Argonite is an inert gas that extinguishes fire based on the principle of oxygen depletion. In an enclosed space almost all fires are extinguished in less than 60 seconds when the oxygen concentration falls below 15%. Argonite reduces the oxygen concentration to approximately 12.5%, an acceptable level for human exposure over short periods.

Argonite is an inert gas blend consisting of a 50:50 mixture of two gases found naturally in the atmosphere: Argon (Ar) and Nitrogen (N_2). An Argonite discharge results in a gas mixture with a density similar to that of air. Therefore:

- Extinguishant hold times are greatly increased.
- The need for room sealing is reduced.

Argonite extinguishes fire by physically removing oxygen from the atmosphere. In occupied areas, people can breathe safely for short periods of time at design concentrations. There are no toxicological factors associated with the use of Argonite and it will not decompose or produce any by-products when exposed to a flame.

An Argonite discharge will not create a fogging effect and so there is no effect on visibility. Most Argonite systems are designed to extinguish fires with a concentration of approximately 40% and extinguishment is achieved within 1 minute. When Argonite is released into an enclosed space, an inactive atmosphere is established in which the oxygen concentration is decreased from a normal 21% to 12-13% by volume. At this concentration, fires will be effectively extinguished.

Argonite is a colourless, odourless gas. It is environmentally neutral, having zero ozone depletion potential (ODP) and zero global warming potential (GWP).

Low Space Requirement

A range of cylinders is available offering a choice of fills and pressures. The latest LPCB approved 300 Bar system offers significant space saving over an equivalent 200 Bar system. 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. The cylinders are mounted in rows and may be installed in any suitable location, even in excess of 100 metres away from the protected areas.

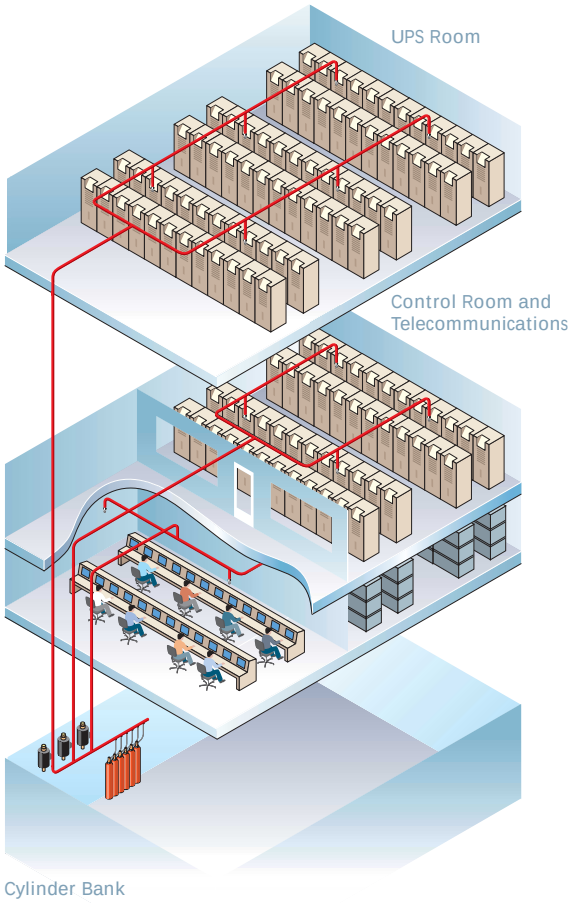
Cylinder Valves

Manufactured from corrosion-resistant brass, Argonite discharge valves are designed to ensure optimum system performance, reduced pipe sizes and low installation costs. They can be actuated either electrically, pnuematically or manually. The valve design allows a worldwide network of distributors to recharge the cylinders easily 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.

Multi-area Protection

Argonite systems consist of one or more cylinders, usually at 300 Bar pressure, connected via a common manifold. System actuation can be manual or automatic and the gas is discharged through a pipe network and enters the protected area via nozzles. System design, the quantity of gas 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 extinguish the fire. If more than one area within a building needs to be protected, a single Argonite system, designed to extinguish a fire in the largest room, can be used, with automatic valves directing the Argonite into the required protected space. Provided that there is low risk of more than one fire within the facility at any one time, this can provide significant cost and space savings.



Typical Argonite system protecting separate spaces from the same cylinder bank.



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 far 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
- Switchgear rooms
- Laboratories
- Art galleries

Benefits of the Argonite System

- More than 10 years design and installation experience
- Wide customer base
- LPCB approval for 300 Bar system - 30% space saving over previous 200 Bar systems
- Flexible design package for most cost-effective solution
- Low installation, recharge and maintenance costs
- Can be integrated with existing detection and alarm systems
- Can reuse existing extinguishing system pipework
- Minimum downtime after a fire
- No post fire residues to clean up
- Safe to use where people are present
- Available worldwide
- Discharge testing available for client confidence

Approvals

Argonite has been approved and/or complies with major international authorities and classification bodies.

- LPCB - UK
- FM - USA
- NFPA - USA
- DNV - Denmark
- VdS - Germany*
- C.N.P.P. - France
- Bureau Veritas
- Danish Maritime Authority
- Environmental Protection Agency (EPA) - USA
- German Hygiene Institute
- TDO Voding - Netherlands

* Pending

Ginge-Kerr

526 Fleet Lane
St Helens
Merseyside
WA9 2NB

Telephone: +44 (0)1744 28671
Fax: +44 (0)1744 20174
Email: sales@ginge-kerr.co.uk
Web: www.ginge-kerr.com