

Victaulic Vortex™ 500 Modular Fire Suppression System

HYBRID WATER MIST SYSTEMS



Patent 7,686,093 - Dual Extinguishment fire suppression system using high velocity low pressure emitters. Foreign patents also applied for and granted .



Product Overview

The Victaulic Vortex 500 fire suppression system is a modular pre-engineered hybrid system suitable for volumes from 18 - 136m³. Incorporating liquid (water) and inert gas (nitrogen) extinguishing agents discharged together from a single or multiple emitter (discharge nozzle) configuration.

Using proprietary supersonic technology, the system atomizes the water to <10µm forming a dense homogeneous suspension of nitrogen and water. In this manner two extinguishment mechanisms are occurring simultaneously: cooling and oxygen reduction.

Operation

The system is fully compatible with automatic hazard detection systems and is adaptable for remote manual activation if required.

The Victaulic Vortex 500 system is particularly useful for suppressing fires in hazards where an electrically non-conductive medium is essential or desirable, where clean up of other agents present a problem, room integrity is not possible, or where the hazard is normally occupied and requires a nontoxic agent.

The basic system consists of a Vortex fluid panel, stored nitrogen cylinder(s), captive water supply, pre-installed nitrogen and water reticulation to either single or multiple emitters. System emitters are pre-installed in a horizontal configuration and are positioned via straight forward cubic meter coverage volume requirements.

FEATURES & BENEFITS

- Can be effectively used in “leaky” enclosures
- Safe for occupied areas
- No time delay required prior to discharge
- Very small quantities of water discharged
- Safe for energised electrical/computer equipment rooms
- Cost effective and easy to install
- Optional purpose built system enclosure
- Available in 49 litre & 80 litre nitrogen cylinder configurations
- Scalable to various volumetric spaces
- NFPA770 Hybrid Water Mist Compliant

APPLICATIONS

The Victaulic Vortex 500 Fire Suppression System can effectively be applied in total flooding fire suppression applications in the following areas:

- Total flood applications
- Motor Control Centres (MCC)
- Switch rooms
- Server rooms

Regulatory Information

Environmental Impact

Since the Victaulic Vortex 500 system only discharges pure nitrogen and water, there are no environmental or life-safety risks as a result of a system discharge. The Environmental Protection Agency Significant New Alternatives Policy (SNAP) approval recognises the Victaulic Vortex homogenous suspension discharge as a suitable replacement for Halon 1301. The system can be discharged immediately upon fire detection, without a delay for occupant evacuation.

Installation

All system components and accessories must be installed by personnel trained by the manufacturer. All installation must be performed according to the guidelines stated in the manufacturer's design, installation, operation, inspection, recharge and maintenance manual. See publication: I-VORTEX.500.

Typical System



Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions (6965 Vortex 500 DIOM Rev B). Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.