

Carbon Dioxide (CO₂) Fire Suppression System



45Kg CO2 Fire Suppression System



CO₂ Cylinder 68L



Fire Suppression Control Panel



Pilot Cylinder

CARBON DIOXIDE (CO₂)

Carbon Dioxide (CO₂) is a colourless, odourless, non-corrosive, electrically non-conductive gas that's highly efficient as a fire suppression agent that can be used on many types of fire. It is also effective on flammable liquids and most combustible material. CO₂-related fire extinguishant was one of the first gaseous agent used and it has been used for more than 80 years. CO₂ system shall be the most cost saving fire suppression system.

CO₂ acts as a heavy blanket of gas that reduces the oxygen level to a point where combustions cannot occur when applied to fire.

Carbon dioxide has a high rate of expansion, which allows CO₂ fire protection system to work fast in a closed area.

Clean-up associated with CO₂ fire suppression system will be minimal as it is in gaseous form of extinguishant.

DESCRIPTION

DEMCO 45Kg CO₂ Fire Suppression agent is pressurized to 58.6 Bar at 21°C (850 psi at 70°F) and stored in 68L of seamless cylinder with each containing 45kg of liquefied CO₂ agent. The element of CO₂ is colourless, odourless, non-corrosive, non-conductive to electricity and work fast to vanish fire by decreasing the oxygen level that does not harm any property in the area.

This system can be engineered to suit specific customer requirements. The indicators of audio and visual can be integrated into the control system that facilitates automatic trigger of fire doors, dampers and shutter.

DEMCO 45Kg CO₂ Fire Suppression System is designed in accordance with National Fire Protection Association (NFPA 12), are available for use in total flooding (unmanned area) or local fire protection applications.

The cylinder shall be located in an environment protected from the weather and where the in a room temperature that does not exceed 54°C (130°F) nor fall below 0°C (32°F). The cylinders are tested to 250 bars and conform to ISO 9809, DOT-3AA, BS5045 PART 1 & NFPA 12.

ADVANTAGES

- Eco-Friendly and Cost Effective
- Protection Effective
- Non-damaging to property
- Automatic Actuation
- Remote Manual Actuation
- Direct Manual Release

SYSTEM APPLICATION (UNOCCUPIED)

- Switch Room
- Power Generation Facilities
- Engine Room
- Electrical Room



SOLENOID PILOT CYLINDER

For each system, when there is one or more CO2 cylinders, they will be configured as pilot cylinders. The rest of the cylinders will receive pneumatic pressure from the pilot cylinder to open their own valves.

The solenoid valve opens upon the supply of 24VDC from the CO2 control panel that allowing gas to flow from cylinder onto the manual/pneumatic actuator fitted to the pilot valve.

The pilot valve opens, releasing gas onto the CO2 pneumatic valve. Solenoid Pilot Cylinder may also be operated manually, either locally at the pilot cylinder or remotely by stainless steel cable from the Manual Pull Station or manually pull the lever at the pilot cylinder.



SPECIFICATIONS

Model	D-612
Component	Pilot Cylinder
Gas	CO ₂
Voltage	24VDC



Pilot Cylinder



Cylinder Valve

Model	D-617
Material	Brass
Working Pressure	150 bar
Type	Manual/Pneumatic

SPECIFICATIONS



Pilot Loop Hose

Model	D-618
Size	6mm (1/4")
Length	330mm (13")
Type	High Pressure Hose

SPECIFICATIONS



Manual Pull Station

Model	D-619
Dimensions	104mm x 183mm x 75mm
Painting	Powder Coated
Material	Steel Metal Box

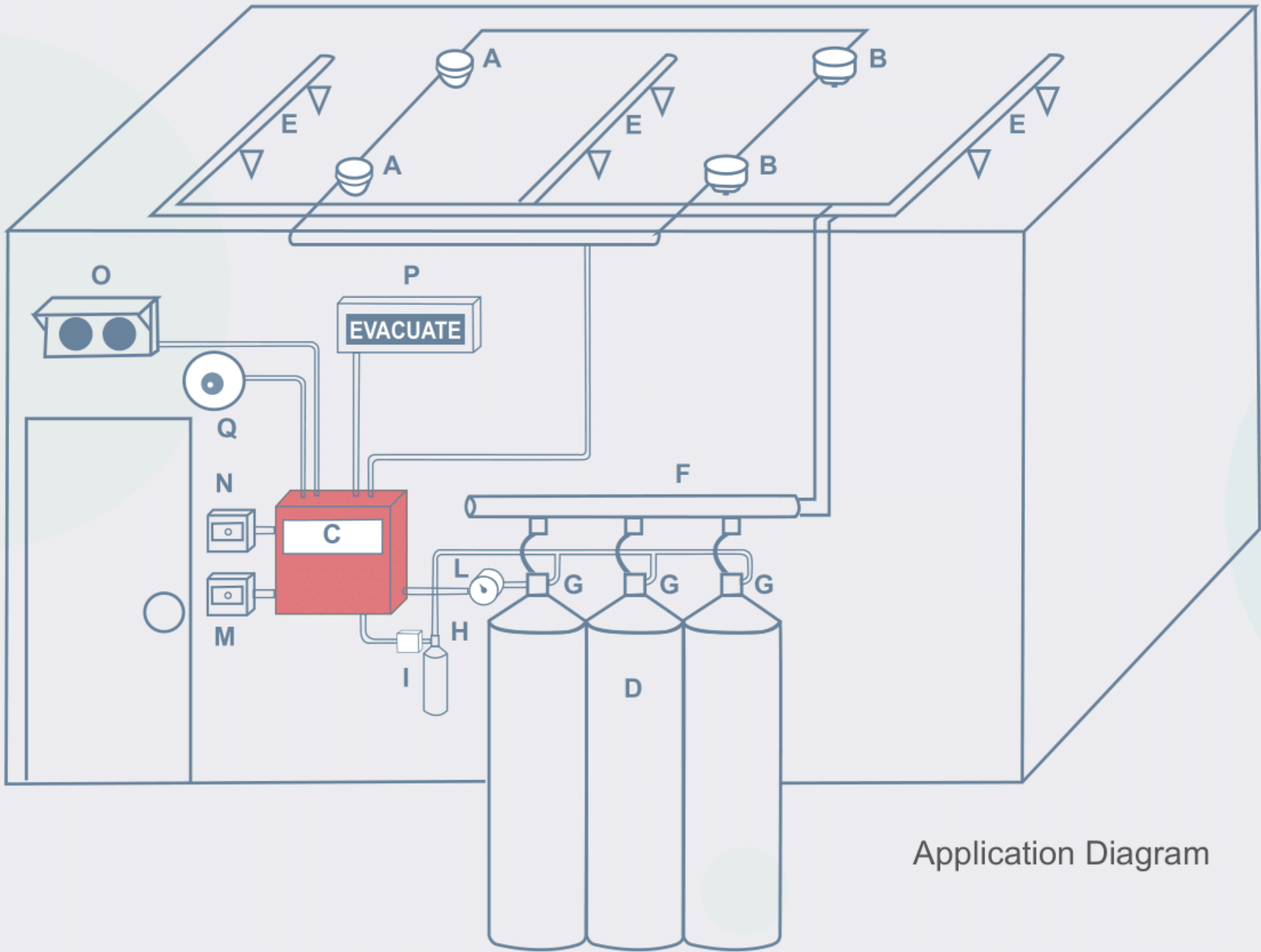
SPECIFICATIONS



Discharge Hose C/W Check Valve

Model	D-619
Size	13mm (1/2")
Length	432mm (17")
Type	High Pressure Hose

*All products ' specifications are subject to change without prior notice.



Application Diagram

Diagram Key

A: Line 1 detectors	I: Solenoid starter
B: Line 2 detectors	L: Pressure switch
C: Fire extinguishant control panel	M: Manual activation release
D: 45kg CO2 Gas Cylinder	N: Stop extinguisher gas button
E: Gas release nozzles	O: Visual gas-release-imminent indicator
G: Pneumatic release valve	P: Audio visual gas-present indicator
H: Pilot cylinder for gas release	Q: Audible warning device



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