

# Fenwal Engineered Fire Suppression System

Effective March 2005

F-44.1225.1

Designed for use with 3M™ Novec™ 1230 Fire Protection Fluid

## Floor Mounted Spherical Agent Storage Container

# FENWAL®

P/N: 44-11020X-001

### FEATURES

- Designed for Under Floor Installation
- Contains 10 to 15 lbs. of 3M™ Novec™ 1230 Fire Protection Fluid
- UL Listed/FM Approved
- DOT Shipping Container

### DESCRIPTION

This Fenwal Engineered Fire Suppression System spherical agent storage container designed for use with 3M™ Novec™ 1230 Fire Protection Fluid, is less than 10 inches in height to fit under most raised floors and contains from 10 to 15 pounds of Novec 1230 fluid superpressurized to 360 psig with dry nitrogen.

Each assembly is equipped with pressure gauge, burst disc type discharge valve, replaceable initiator well, safety plug, screen assembly, cable assembly and mounting brackets. Each ASC has a boss-mounted check valve which accepts and optional Pressure Switch (see Fenwal Data Sheet 44.3119.0) and is used for recharging the container.

Initiator assemblies must be ordered for each container. See Fenwal Data Sheet 44.1932.0 for ordering information

### OPERATION

The container must be securely mounted to a rigid surface with the valve horizontal/parallel to floor or down. Four holes in the mounting brackets are drilled to accept 5/16 inch mounting bolts. The centers of the mounting holes are located at the corners of a rectangle 6.38 inches wide by 8.38 inches.

### MAINTENANCE

The following inspection and/or maintenance procedures must be scheduled as listed below or performed upon occurrence of any event which might affect the reliability of a system.

#### A. QUARTERLY INSPECTION

1. Check the pressure gauges of each container. If the pressure is less than 325 psig at 70°F (22.9 Kg/CM<sup>2</sup> at 21°C), the container should be removed by qualified personnel and carefully inspected, then reconditioned, recharged or replaced as its condition warrants. Pressure will vary with temperature. In the range of from 55 to 85°F (12 to 29°C) this change is approximately 3 psi per degree F (.38 kg/cm<sup>2</sup>/°C).
2. Check all component supporting hardware and tighten or repair as required.
3. Visually check all components for evidence of physical abuse and take whatever action is indicated. Replace the component if at all in doubt of its ability to perform properly.



#### B. SEMI-ANNUAL INSPECTION

Qualified personnel are to remove and weight all agent storage containers. Losses in net weight of agent must not exceed 5 percent. Loss in pressure (adjusted for temperature) must not exceed 10 percent. Container and agent weight are marked on the inspection tag.

All outlet piping must be cleaned and free of dirt, chips, filings and other foreign material that may become hazardous projectiles or cause the system to become inoperative or ineffective at the time of discharge.

**NOTE:** The safety plug shipped with this container should be retained and secured to the container whenever the piping is removed from a charge container. Charged containers must have safety plug installed when removed from system for shipment. Observe proper handling procedures when installing or removing the initiator.

#### RECONDITIONING

After a system has been actuated, it is recommended that the local authorized Fenwal Distributor be contacted for reconditioning the system. Refer to, "Filling and Reconditioning Fenwal's Engineered System Storage Containers."

The Reconditioning Kit for this unit is P/N 31-193005-001. This kit does not contain the initiator, which must be ordered separately.

## SPECIFICATIONS

Diameter: 9-3/8" (239mm)  
Overall Height: 9-7/8" (251mm)  
Overall Length: 19-7/8" (495mm)  
Empty Weight: 24 lbs. (10.8 Kg) Approx.

## ARCHITECT/ENGINEER SPECIFICATIONS

The agent storage container shall be a Fenwal cylindrical (refillable) Novec 1230 fluid container constructed of high strength low HSLA alloy steel. It shall consist of: Fill Valve, burst disc valve assembly, initiator, safety plug, screen assembly, cable assembly, integral supporting flanges, 0-700 psig pressure gauge and pressure switch assembly (optional). The containers shall hold from 10 to 15 lbs. of Novec 1230 agent.

Container shall conform to all applicable specifications of Department of Transportation, Underwriters Laboratories, Inc., and the Factory Mutual System.

The burst disc valve assembly shall be an integral part of the agent storage container and shall be operated by applying electrical current to an initiator assembly which has an electro-explosive device that provides, on demand, and instantaneous full bore release and discharge of the agent.

The releasing mechanism shall contain no moving parts.

Filled containers shall be super-pressurized with dry nitrogen to 360 psig at 70°F to aid in rapid agent distribution, particularly at lower temperatures. It shall automatically relieve between 850 to 100 psig in event of excessive pressure build up.

Releasing devices and connecting leads shall be completely supervised.

The container design shall permit on-site reconditioning and refilling.

The integral assembly shall provide a means of mounting to a solid vertical or horizontal surface and shall withstand a thrust of 1000 lbs. for 5 seconds in any direction. Tank construction per DOT-4BA-500.

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