# Kidde ECS Fire Suppression System Component Description

## 900 lb. Agent Cylinder

**P/Ns 90-100900-001 and 90-100901-001**

Effective: June 2014

**K-90-9044**

### *FEATURES*

- ***Large Capacity Agent Cylinder***
- ***3-Inch Discharge Valve***
- ***Optional Liquid Level Indicator***
- ***Optional Low-Level Switch (P/N 06-118263-001)***
- ***FM Approved***
- ***UL Listed***
- ***TC Approved***
- ***RoHS Compliant***

### *DESCRIPTION*

Kidde ECS System 900 lb. Agent Cylinders store suppression agent super-pressurized with dry nitrogen to 360 PSIG at 70°F (2.48 Mpa at 21°C). The cylinders are painted red and are equipped with a 3-inch pressure differential valve, pressure gauge, optional liquid level indicator and optional low-pressure switch assembly. The safety burst disc is also located on the cylinder shoulder.

### *OPERATION*

The agent storage container discharges when the actuation assembly operates, causing the pressure differential valve to open. All of the Kidde actuators may be used to actuate the 900 lb. cylinder. The only exception is the 48650001, which is not compatible with this cylinder valve.

### *INSTALLATION*

The container is installed in a vertical position with the valve assembly pointing up. Interconnection to discharge piping is 3-inch NPT. Interconnection can be via a 3-inch flex hose (P/N 06-118225-001) or via a suitably pressure rated groove style fitting.

The container is secured in place by a mounting bracket (P/N 236125), which must be fixed to a solid wall or strut assembly. After the container is securely mounted, it is connected to discharge piping per the directions in the Design, Installation, Operation and Maintenance Manual (P/N 06-236115-001).

An optional cylinder supervisory pressure switch (P/N 06-118263-001) can be installed on the cylinder valve in the field if required. This cylinder supervisory pressure switch has a 1/8-inch NPT connection, which is used on the 3-inch valve only.

### *ORDERING INFORMATION*

The part number for ordering the 900 lb. agent cylinder without the liquid level indicator is 90-100900-001. The part number for ordering the 900 lb. agent cylinder with liquid level indicator is 90-100901-001.

## *MAINTENANCE*

According to NFPA standards, the following inspection and/or maintenance procedure must be scheduled as listed below and performed upon the occurrence of any event which might affect the reliability of the system.

### QUARTERLY INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure of 10% or more, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge. In the range of 55°F to 85°F (13°C to 29°C) the change is approximately 3 PSI per degree F (0.2 bar per degree C).
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly.

### SEMI-ANNUAL INSPECTION

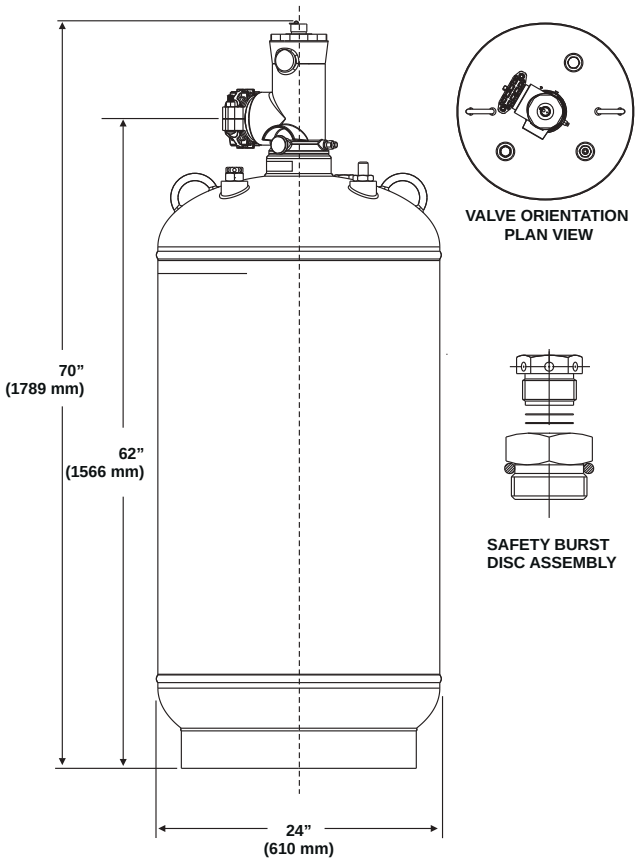
Qualified personnel should determine the amount of agent in all containers. The optional liquid level indicator may be used to measure agent supply and compare it to the original net weight which is marked on the container label. If the measured net weight is less than 95% of the original charged weight the container should be recharged or replaced.

Inspect all piping, fittings and nozzles for looseness, dirt or other damage. All outlet piping must be clean and free of dirt, chips, fillings and other foreign material that may cause the system to become inoperative or ineffective at the time of discharge.

## *SPECIFICATIONS*

| Part Number | 90-100900-001<br>90-100901-001 | |
|---|---|---|
| | imperial | metric |
| Fill range | 390-900 lb. | 178-408 kg |
| Height | 70 in. | 1789 mm |
| Diameter | 24 in. | 610 mm |
| Internal Volume | 13.0 cu. ft. | 0.368 cu. m |
| Empty Weight | 505 lb. | 229 kg |
| Temperature Range | 32oF to 130oF | 0oC to 54oC |
| Safety Relief | | |
| Burst Range | 800 to 975 PSIG | 5.5 to 6.7 Mpa |
| Construction Specification | DOT 4BW-500 | DOT 4BW-50 |

## *DIMENSIONS*




## *ACCESSORIES*

| Part Number | Description |
|---|---|
| 06-118225-001 | 3-inch stainless steel flexible hose |
| 06-118058-001 | 3-inch swing check valve |
| 06-236125-001 | Cylinder bracket |
| 06-118263-001 | Cylinder supervisory pressure switc |

## *COMPATIBILITY*

| Series | For Use With |
|---|---|
| Kidde ECS HFC-227ea | X |

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Kidde Fire Systems
400 Main Street
Ashland, MA 01721
Ph: 508.881.2000
Fax: 508.881.8920
www.kiddefiresystems.com



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