

Kidde ECS Fire Suppression System Component Description



Effective: June 2014

K-90-9043

600 lb. Agent Cylinder
P/Ns 90-100600-100 and 90-100601-100

FEATURES

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

DESCRIPTION

Kidde ECS System 600 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 600 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 294651), 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 manual.

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 600 lb. agent cylinder without liquid level indicator is 90-100600-100. The part number for ordering the 600 lb. agent cylinder with liquid level indicator is 90-100601-100.

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.
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

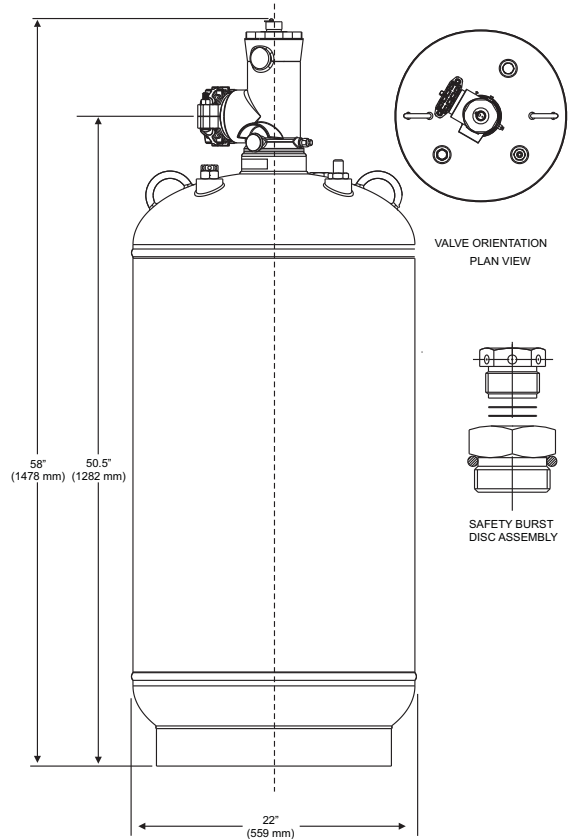
Qualified personnel are to determine the amount of agent in all containers. The optional liquid level indicator may be used to measure agent supply and compare it to the original net weight which is marked on the container label. If the measured net weight is less than 95% of the original charged weight 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	90-100600-100 90-100601-100		90-100600-100 90-100601-100
Fill range (lb.)	258-600	Fill range (kg)	117-272
Height (in.)	58	Height (mm)	1478
Diameter (in.)	22	Diameter (mm)	559
Internal volume (cu. ft.)	8.68	Internal volume (cu m)	0.246
Empty weight (lb.)	362	Empty weight (kg)	164
Temperature range	32°F to 130°F	Temperature range	0°C to 54°C
Safety relief burst range	800 to 975 psig	Safety relief burst range	5.5 to 6.7 Mpa
Construction specification	DOT 4BW-500	Construction specification	OT 4BW-500

DIMENSIONS



ACCESSORIES

Description	Part Number
3-inch Stainless steel flexible hose	06-118225-001
3-inch Swing check valve	06-118058-001
Cylinder bracket	294651
Cylinder supervisory pressure switch	06-118263-001

COMPATIBILITY

Series	For Use With
Kidde ECS HFC-227ea	X

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