

# Kidde Fire Systems ECS-500™ System Component Datasheet



Cylinder and Valve Assemblies, 900 lb. Capacity Cylinder

P/N: 45-550901-001

Effective: September 2019

K-45-0506 Rev AC

## FEATURES

- Large Capacity Cylinder
- 3-inch Discharge Valve
- Liquid Level Indicator
- Optional Supervisory Low-Pressure Switch (P/N 45-118500-001 and 45-500537-001)
- DOT and TC Approved
- UL Listed, ULC Listed, and FM Approved for use with Kidde Fire Systems ECS-500™ Systems (DIOM P/N 06-237585-001)
- UL Listed, ULC Listed and USCG Approved for use with Kidde Fire Systems ECS-500™ Marine System (DIOM P/N 06237589-001)

## DESCRIPTION

Kidde Fire Systems ECS-500™ psi Fire Suppression System 900 lb. cylinders store suppression agent super-pressurized with dry nitrogen to 500 PSIG at 70°F (3.45 MPa at 21°C). The cylinders are painted red and are equipped with a 3-inch pressure differential valve, pressure gauge, liquid level indicator and optional low-pressure switch assembly. The safety burst disc is also located on the cylinder head.

## OPERATION

The agent storage container discharges when the actuation assembly operates, causing the pressure differential valve to open. All of the Kidde Fire Systems actuators may be used to actuate the 900 lb. cylinder. The only exception is the P/N 82-486500-010, which is not compatible with the 3" 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 strap (P/N 06-236125-001), 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 06-237585-001).

An optional cylinder supervisory pressure switch (P/N 45-118500-001 or 45-500537-001) can be installed on the cylinder valve in the field if required. This cylinder supervisory pressure switch has a 1/4 inch SAE flared connection.

## ORDER INFORMATION

The part number for ordering the Kidde Fire Systems ECS-500 psi Fire Suppression System 900 lb. cylinder with liquid level indicator is 45-550901-001.



## MANUALS

| Manual                                    | P/N           |
|---|---------------|
| Kidde Fire Systems ECS-500™ System        | 06-237585-001 |
| Kidde Fire Systems ECS-500™ Marine System | 06-237589-001 |

## 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.
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

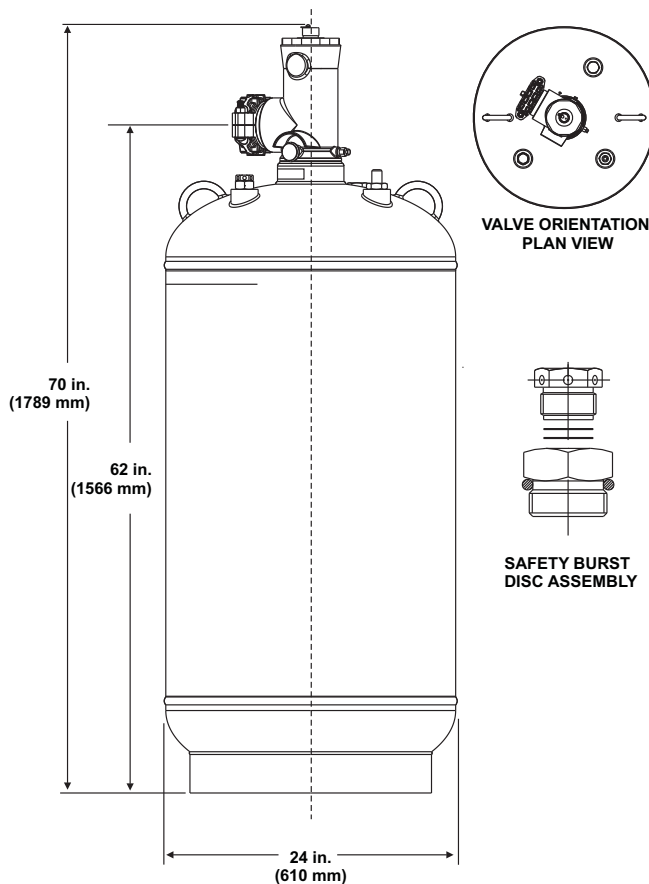
Qualified personnel are to determine the amount of agent in all containers. The optional liquid level indicator may be used to measure agent supply and compare it to the original net weight which is marked on the container label. If the measured net weight is less than 95% of the original charged weight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

|                            |  |
|----------------------------|--|
| Fill Range                 | 455-910 lb.<br>(206.4-412.8 kg)                |
| Height                     | 70 in.<br>(1789 mm)                            |
| Diameter                   | 24 in.<br>(610 mm)                             |
| Internal Volume            | 13 ft. <sup>3</sup><br>(0.368 m <sup>3</sup> ) |
| Empty Weight               | 505 lb.<br>(229 kg)                            |
| Temperature Range          | 0°F to 130°F<br>(-18°C to 54°C)                |
| Safety Relief Burst Range  | 800 to 975 PSIG<br>(5.5 to 6.7 MPa)            |
| Construction Specification | DOT 4BW-500                                    |

## DIMENSIONS



## ACCESSORIES

| Description                          | Part Number                       |
|--------------------------------------|-----------------------------------|
| 3-inch stainless steel flexible hose | 06-118225-001                     |
| 3-inch swing check valve             | 06-118058-001                     |
| 3-inch Discharge Outlet Adapter      | 70400133                          |
| Cylinder strap                       | 06-236125-001                     |
| Cylinder supervisory pressure switch | 45-118500-001 or<br>45-500537-001 |

### EXPORT INFORMATION (USA)

Jurisdiction: EAR  
Classification: EAR99

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