

Kidde Fire Systems ECS-500™ Cylinder Component Datasheet



Cylinder and Valve Assemblies, 450 lb. (182 L) Capacity, with Fluoro-K™ Fire Suppression Clean Agent

Effective: September 2025
K-45-0945 Rev. AC

FEATURES

- Well Suited for Complicated Pipe Networks and Large Area Coverage with Minimal Room for Cylinder Storage
- 260 lb. to 450 lb. Fill Capacity
- Agent Cylinder Liquid Level Indicator
- UL Listed, File Number 4674
- FM Approved
- For RoHS Compliance, See the Individual Component Datasheets

DESCRIPTION

Kidde Fire Systems ECS-500™ psi Fire Suppression System 450 lb. (182 L) cylinders store the suppression Fluoro-K™ Fire Suppression Clean Agent (here-in referred to as “agent”) super-pressurized with dry nitrogen to 500 psig at 70°F (34.5 bar at 21°C). The cylinders are painted red and are equipped with a 2-inch pressure differential valve, pressure gauge, liquid level indicator and Schrader connection for a pressure supervisory switch. The safety burst disc is located on the cylinder head.

OPERATION

The agent storage container discharges when the actuation assembly operates, causing the pressure differential valve to open.

INSTALLATION

The container is installed in a vertical position with the valve assembly pointing up. Interconnection to discharge piping is 2-inch NPT. Interconnection can be via a 2-inch flex hose (P/N WK-283899-000) or via a valve outlet adapter (P/N WK-283905-000).

The container is secured in place by two mounting straps (P/N WK-281866-000), 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).

For marine applications, 2 straps may be required, consult the corresponding manual and the local authority having jurisdiction. For 450 lb. (182 L) agent cylinders in marine applications, a cradle is required between the cylinder and the unistrut or bulkhead for support.

An optional cylinder supervisory pressure switch P/N 45-118500-001 or 45-500537-001 (ATEX Approved) 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.



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

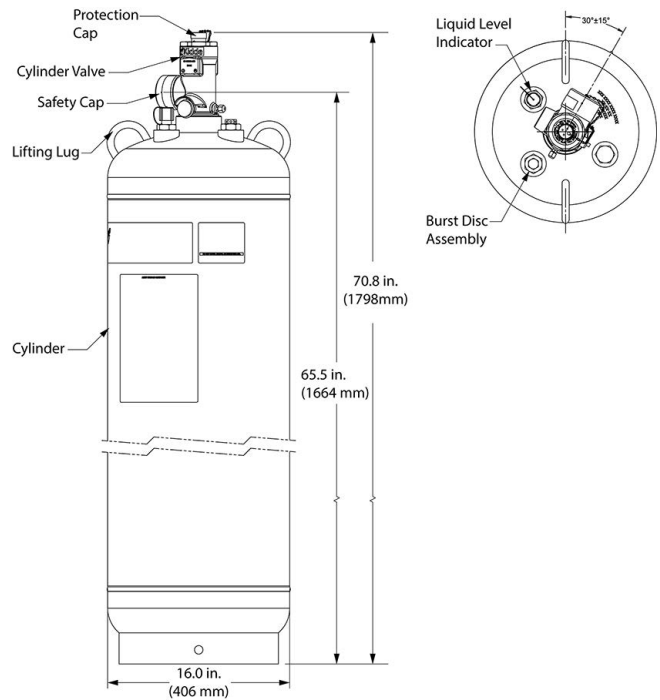
Qualified personnel are to determine the amount of agent in all containers. The liquid level indicator may be used to measure agent supply and compare it to the original net weight which is marked on the container label. If the measured net weight is less than 95% of the original charged weight the container 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	260-450 lb. (117.9-204.1 kg)
Height	70.8 in (1798 mm)
Diameter	16 in (406 mm)
Internal Volume	6.43 ft ³ (.182 m ³)
Empty Weight	269 lb (122 kg)
Temperature Range	32 to 130°F (0 to 54°C)
Safety Relief Burst Range	800 to 975 psi (5.5 to 6.7 MPa)
Construction Specification	DOT 4BW-500

DIMENSIONS



ORDER INFORMATION

The part number for ordering the ECS-500™ System 450 lb. (182 L) cylinder with liquid level indicator is 45-550451-901.

ACCESSORIES

Description	Part Number
2-inch stainless steel flexible hose	WK-283899-000
2-inch EI-check valve	WK-877690-000
Cylinder mounting strap*	WK-281866-000
Cylinder supervisory pressure switch	45-118500-001
Cylinder supervisory pressure switch (ATEX)	45-500537-001
* Two straps are require for each 450 lb. (182 L) agent cylinder.	

EXPORT INFORMATION (USA)

Jurisdiction: EAR

Classification: EAR99

This document contains technical data subject to the EAR.

This literature is provided for informational purposes only. Kidde-Fenwal, LLC believes this data to be accurate, but it is published and presented without any guarantee or warranty whatsoever. Kidde-Fenwal, LLC assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to work correctly. If you need more information on this product, or if you have a particular problem or question, contact KIDDE-FENWAL, LLC, Ashland, MA 01721.

kiddefiresystems.com
508.881.2000

Kidde Fire Systems, Kidde Fire Protection and Fenwal Controls branded products are created exclusively by Kidde-Fenwal, LLC.

All trademarks are the property of their respective owners. All products are the property of their respective owners.

 **KiddeFenwal**

400 Main Street, Ashland, MA 01721
P/N: K-45-0945 Rev. AC | kiddefenwal.com | 508-881-2000
2025© Kidde-Fenwal, LLC | All Rights Reserved