



## HFC-227<sub>EA</sub> AGENT STORAGE CONTAINERS

### DESCRIPTION

Fike Series 70 Clean Agent Containers are used in fire extinguishing systems to store the Clean Agent until a fire develops and the agent must be released. The Clean Agent is retained in the container by a valve assembly which contains a fast-acting rupture disc. The disc will be ruptured, and the Clean Agent released, through the operation of an actuator by an electric signal that is automatically or manually controlled. The valve is available in three sizes: 1" (25mm), 2 1/2" (65mm) and 3" (80mm). The 1" (25mm) valve is used on the 10 (4), 20 (8), 35 (15), 60 (27), and 100 pound (44 L) containers; the 2 1/2" (65mm) valve is used on the 125i (51 L) and 215i pound (90 L) containers; the 3" (80mm) valve is used on the 215 (87), 375 (153), 650 (267) and 1000 pound (423 L) containers. After a discharge, the valve is field reconditioned by simply replacing three components.

Fike Series 70 Clean Agent Containers have passed extensive testing by Underwriters Laboratories and Factory Mutual and are used in installations where 8 to 1045 pounds (3.5 to 474 kg) of HFC-227<sub>ea</sub> is required. To eliminate the need for multiple containers, or using more Clean Agent than necessary, these containers can be filled in 1 pound (0.5 kg) increments to their maximum capacity.

Each container for HFC-227<sub>ea</sub> Clean Agent Systems is super pressurized with dry nitrogen to 360 psig (25 bar), at 70° F (21° C), to provide a quick and effective discharge in 10 seconds or less.

Fike Series 70 Clean Agent Containers are supplied with a pressure gauge that permits a quick, visual, inspection of container pressure. Optional items include a Liquid Level Indicator, and a Low Pressure Supervisory Switch. The Liquid Level indicator provides the convenience of determining the container's agent weight without removing it from its installed location. The Low Pressure Supervisory Switch provides constant monitoring of the container's internal pressure and can be wired either normally opened or normally closed. In the event of a decrease in container internal pressure from 360 psig to 288 psig (24.8 bar to 18.8 bar), the Supervisory Switch normally opened/closed contacts will close/open. This will cause a supervisory trouble alarm at the system control panel.

Fike Series 70 Clean Agent Containers are available for installation in the upright, inverted or horizontal positions, depending upon the user's particular needs and the type and size container specified. The mounting location of the container is quite flexible. It can be mounted at the exact point of discharge or at a remote location by adding distribution piping from the container to the nozzle system. (Refer to the Fike Design, Installation and Maintenance Manual - P/N 06-215).

The operating temperature range is +32 to +130°F (0 to 54.4°C) in any installation. If the Clean Agent reaches an internal temperature range of 160° to 187° F (71.1° to 86.1°C), it will create a sufficient internal pressure to burst the rupture disc and release the Clean Agent through the piping network.



*Series 70 Clean Agent Containers*

### APPROVALS

- UL Listed, Ex4623
- FM Approved 0Y4AB.AF (HFC-227<sub>ea</sub>)

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DESCRIPTION (cont.)

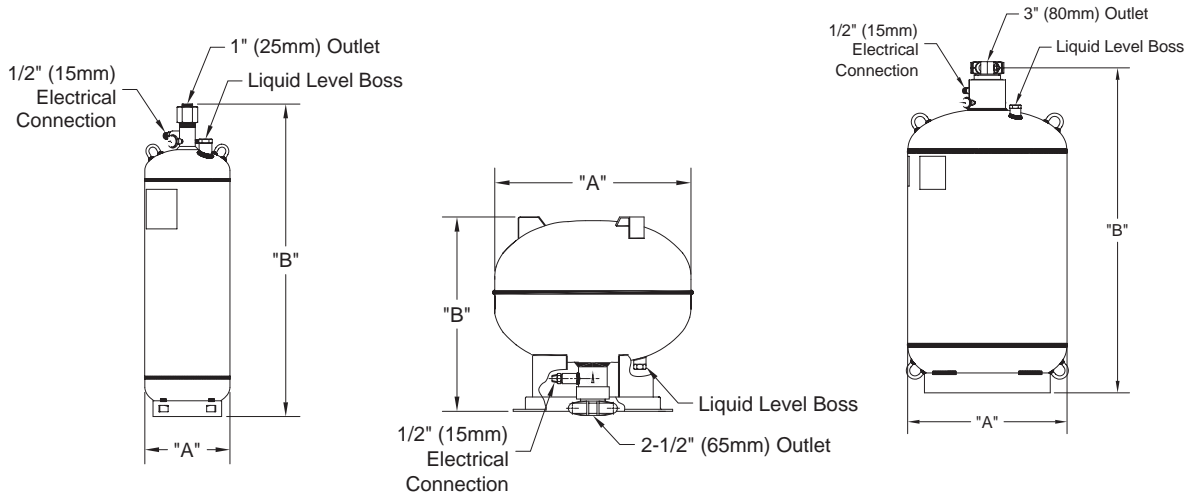
**Reliability**

Fike Series 70 Clean Agent Containers are manufactured in strict accordance with Department of Transportation (DOT) regulations. The Fike Series 70 Clean Agent Containers have successfully passed testing by Factory Mutual and Underwriters Laboratories, Inc. Before leaving the factory, each container must pass extensive leakage testing, and pressure testing to 1000 psig (69 bar). The containers are constructed from carbon steel alloys and painted with a durable, baked enamel finish.

**Installation**

Fike Series 70 Clean Agent Containers are supplied with a mounting bracket that is designed to provide the most effective and versatile installation for that particular container. The 10, 20 and 35 pound (4, 8 and 15 L) container brackets employ two U-bolts for securing the container to the bracket. The 60 pound (27 L) container is secured using two quick connecting, over-center handle clamps. The 125i and 215i pound (51 and 90 L) containers utilize an "L" shaped bracket for direct wall mounting or, with an optional floor mounting kit, can be mounted on a floor in the "valve down" position. The 100 pound (44 L) and 215 pound (87 L) through 1000 pound (423 L) containers are supplied with one or two U-shaped mounting brackets, depending upon container size, for mounting to a wall or other secure surface.

**Container Sizes and Dimensions: U.S. Standard and Metric**



**U.S. SIZES & DIMENSIONS**

<b>Size-lb</b>	10	20	35	60	100	125i	215i	215	375	650	1000
<b>A(in)</b>	7	7.25	7.25	10.75	10.75	20.00	24.00	20.00	20.00	24.00	24.00
<b>B(in)</b>	14.12	21.50	32.50	28.00	38.75	20.25	23.75	28.87	42.50	48.75	70.00

**METRIC SIZES & DIMENSIONS**

<b>Size-L</b>	4	8	15	27	44	51	90	87	153	267	423
<b>A(mm)</b>	178	184	184	273	273	508	610	508	508	610	610
<b>B(mm)</b>	359	546	826	711	984	515	605	733	1080	1237	1778

AVAILABLE MODELS AND SPECIFICATIONS

CLEAN AGENT STORAGE CONTAINER DATA - U.S. STANDARD

FIKE P/N	SIZE (LB)	VALVE (IN)	EMPTY WT (LB)	HFC-227ea AGENT FILL RANGE (LBS)	VALVE POSITION	DOT REGULATION
70-108	10	1	15	8-10	horiz or upright	4BW500
70-098	20	1	21	12-21	horiz or upright	4BW500
70-089	35	1	32	22-38	horiz or upright	4BW500
70-152	60	1	44	39-68	horiz or upright	4BW500
70-153	100	1	61	63-108	upright	4BW500
70-041	125i	2 ½	180	73-126	inverted	4BA500
70-077	215i	2 ½	225	128-223	inverted	4BA500
70-154	215	3	150	124-216	upright	4BW500
70-155	375	3	218	217-378	upright	4BW500
70-156	650	3	350	378-660	upright	4BW500
70-157	1000	3	515	598-1045	upright	4BW500

CLEAN AGENT STORAGE CONTAINER DATA - METRIC

FIKE P/N	SIZE (L)	VALVE (MM)	EMPTY WT (KG)	HFC-227ea AGENT FILL RANGE (KG)	VALVE POSITION	DOT REGULATION
70-108	4	25	7	4.0-4.5	horiz or upright	4BW500
70-098	8	25	10	5.5-9.5	horiz or upright	4BW500
70-089	15	25	15	10.0-17.0	horiz or upright	4BW500
70-152	27	25	20	18.0-30.5	horiz or upright	4BW500
70-153	44	25	28	28.5-48.5	upright	4BW500
70-041	51	65	82	33.5-57.0	inverted	4BA500
70-077	90	65	102	58.5-101.0	inverted	4BA500
70-154	87	80	68	56.5-98.0	upright	4BW500
70-155	153	80	99	98.5-171.5	upright	4BW500
70-156	267	80	159	171.5-299.0	upright	4BW500
70-157	423	80	234	271.5-474.0	upright	4BW500

## ARCHITECT AND ENGINEERING SPECIFICATIONS

The Clean Agent shall be stored in Fike Series 70 Clean Agent Storage Containers. The containers shall be capable of being filled, in one-pound (0.5kg) increments, to their listed maximum capacity. The Clean Agent container shall be activated by a signal from the control panel which is processed by the Agent Release Module. This module shall store the power required to operate the actuator. The valve shall contain a scored, non-fragmenting, rupture disc to provide an immediate, total discharge of all the agent. HFC-227ea Clean Agent is stored in the container as a liquid, having a natural vapor pressure of 66 psig at 77°F (5 barg at 25°C). To aid in discharge, the container shall be super-pressurized to 360 psig at 70°F (25 bar at 21.1°C) with dry nitrogen. Agent discharge shall be completed in 10 seconds or less.

Clean Agent Storage Containers shall be actuated by an electrical signal that is automatically or manually controlled. Normal operating temperature shall be +32 to +130°F (0 to 54.4°C) in any installation.

Clean Agent Storage Containers shall be equipped with a pressure gauge to display internal pressure. This gauge shall be an integral part of the container and color coded for fast referencing of pressure readings. A Low Pressure Supervisory Switch shall be made available as an option. A decrease in internal container pressure from 360 psig to 288 psig (24.8 bar to 18.8 bar) shall cause the normally opened/closed Supervisory Switch contacts to close/open, indicating a trouble or supervisory condition at the control panel.

Clean Agent Storage Containers shall be fastened to a wall, or other secure surface, using a mounting bracket that is designed for the most effective and versatile installation of each container.



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