

DUPONT™ FM-200® OR HFC-227ea AGENT STORAGE CONTAINERS

DESCRIPTION

Fike 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 an Impulse 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.

Fike Clean Agent Containers have passed extensive testing by Factory Mutual and Underwriters Laboratory and are used in installations where 17.0 to 162 kg of HFC-227ea agent is required. Clean Agent containers can be filled in 0.5 kg increments to their maximum capacity.

Each container for HFC-227ea Clean Agent Systems is super pressurized with dry nitrogen to 25 bar at 21°C to provide a quick and effective discharge in 10 seconds or less.

Fike Clean Agent Containers are supplied with a mounting bracket and pressure gauge that permits a quick visual inspection of container pressure. Low Pressure Supervisory Switch is available to provide constant monitoring of the internal pressure of the container. In the event of a decrease in container pressure below 18.0 bar, the Supervisory Switch will change states, causing a supervisory trouble at the control panel.

Fike Clean Agent Containers are available for installation in the upright position only. The mounting location of the container is flexible. It can be mounted at the point of discharge or at a remote location by adding distribution piping.

RELIABILITY

Fike Clean Agent Containers are manufactured in strict accordance with European TPED regulations. The Fike 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. The containers are constructed from carbon steel alloys and painted with a durable, baked enamel finish.

SPECIFICATIONS

| | |
|---|--|
| Container Super - Pressurization Level: | 24.8 bar at 21°C after filling with dry nitrogen |
| Container Storage - Temperature Limitation: | 0°C - minimum / 54.4°C - maximum |
| Container Rating: | EN13322-1 |
| Container Actuation Methods: | Electric / Pneumatic / Manual |
| Color Options: | Red |
| Fill Increments: | 0.5 kg |
| Fill Range: | 630 to 1121 kg/m ³ |

CONTAINER/ORDERING INFORMATION

| Container | | Fill range | | Valve Size | Tare Weight | Dimensions (approximate) | | Mounting Position |
|-----------|--------|------------|---------|------------|-------------|--------------------------|--------|--------------------|
| Size | P/N | Minimum | Maximum | | | Diameter | Height | |
| L | | kg | kg | mm | kg | mm | mm | |
| 26 | 70-278 | 17 | 28 | 25 | 23 | 229 | 972 | Upright (Valve Up) |
| 45 | 70-255 | 29 | 48.5 | 25 | 35 | 279 | 1050 | Upright (Valve Up) |
| 83 | 70-256 | 53.5 | 89.5 | 75 | 62 | 330 | 1312.4 | Upright (Valve Up) |
| 150 | 70-247 | 96.5 | 162 | 75 | 82 | 376 | 1682.5 | Upright (Valve Up) |



Impulse Container

APPROVALS:

- UL Listed - GAQF.EX4623
- FM Approved - 3038632



ORDERING INFORMATION FOR RELOAD KIT

| Fike P/N | Description |
|----------|---|
| 85-047 | 25 mm Recharge Kit* (used on 26 & 45 L containers) |
| 85-048 | 80 mm Recharge Kit* (used on 83 & 150 L containers) |

* Both kits include the friction ring, disc assembly, o-ring and valve core-fill part. (Valve core-fill part is not shown in illustration.)

Note:
For a detailed procedure on recharging a Fike container w/ an Impulse Valve refer to Fike's Recharge Manual (P/N 06-540-3).

ITEMS SUPPLIED WITH CONTAINER

Along with a name plate and siphon tube, all Fike clean agent containers are supplied with the following:

Impulse Valve

This valve is a rupture disc (metal diaphragm), pressure operated device that allows the agent to be released from the container and into the protected via the associated piping network and discharge nozzle(s). (refer to Illustration 1)

Victaulic Nipple and Coupling

Used to connect container to the discharge piping network. (refer to Illustration 2)

For shipping purposes, a baffle plate is inserted into the Grooved Coupling as a safety device.



Illustration 1: Impulse Valve Assembly

| Discharge Valve Size | Replacement P/N | Description |
|-----------------------|-----------------|---|
| 25 mm Discharge Valve | 02-9964 | 25 mm diameter Victaulic Coupling |
| | 02-10042 | 25 mm diameter x 76 mm long Nipple (1" NPT) |
| | 70-1870 | 1" BSPT Female |
| 80 mm Discharge Valve | 02-1987 | 80 mm diameter Victaulic Coupling |
| | 02-2106 | 80 mm diameter x 114 mm long Nipple (NPT) |
| | 1-1350 | 2" BSPT Female |



Illustration 2: Victaulic Nipple and Coupling

ARCHITECT AND ENGINEERING SPECIFICATIONS

The Clean Agent shall be stored in Fike Clean Agent Storage Containers. The containers shall be capable of being filled, in 0.5 kg 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 13 barg at 25°C. To aid in discharge, the container shall be super-pressurized to 25 bar at 21°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 0° to 54°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 24.8 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 an optional mounting bracket that is designed for the most effective and versatile installation of each container.