

Marine Suppression Systems



DESCRIPTION

Fike Series N70 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 two methods: (1) Operation of a mechanical manual actuator; (2) When the contained Clean Agent reaches an internal temperature range of 160°F to 187°F (71.1°C to 86.1°C), it will create sufficient internal pressure to burst the rupture disc and release the Clean Agent.

Fike Series N70 Clean Agent Containers have passed extensive testing by Factory Mutual and are used in installations where 123 to 1002 pounds (55.5 to 454.5 kg) of Clean Agent are required. To eliminate the need of multiple containers, or using more Clean Agent than necessary, these containers can be filled in 1 pound (.5kg) increments to their maximum capacity. The Clean Agent used in these containers has a natural vapor pressure of 66.4 psig (458 kPa) at 77°F (25°C) and is super-pressurized with dry nitrogen to 360 psig (2482 kPa), at 70°F (21°C), to provide a quick and effective discharge in 10 seconds, or less.

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USCG - 162.161/2/0

Fike Series N70 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. It is available in two styles; normally opened and normally closed contacts. In the event of a decrease in container internal pressure from 360 psig to 272 psig (2482.1kPa to 1875.4kPa), the Supervisory Switch normally opened/closed contacts will close/open. This will cause a supervisory trouble alarm at the system control panel.

Fike Series N70 Clean Agent Containers must be installed in the upright positions. 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 & Maintenance Manual - P/N 06-210). The operating temperature range is +32°F to +130°F (0°C to 54.4°C) in any installation.

The Fike Series N70 Clean Agent Containers can be used in a pre-engineered system, utilizing a balanced piping configuration(s); an engineered system, utilizing unbalanced piping configurations, or a combination of both designs. For assistance, consult your local Fike Distributor or Fike Protection Systems.

RELIABILITY

Fike Series N70 Clean Agent Containers are manufactured in strict accordance with Department of Transportation (D.O.T.) regulations. The Fike Series 70 Clean Agent Containers have successfully passed testing by Factory Mutual. Before leaving the factory, each container must pass extensive leakage testing, and pressure testing to 1000 psig (6895kPa). The containers are constructed from carbon steel alloys and painted with a durable, baked enamel finish.

INSTALLATION

Fike Series N70 Clean Agent Containers are supplied with a mounting bracket and saddle that are designed to provide the most effective and rigid installation for that particular container. The 215 pound (97.5kg) through 1000 pound (454kg) containers are supplied with one or two U-shaped mounting brackets and saddles, depending upon container size, for mounting to a wall or other secure surface.

ARCHITECT SPECIFICATIONS

The Clean Agent shall be stored in Fike Series N70 Clean Agent Storage Containers. The containers shall be capable of being filled, in one pound (.5kg) increments, to their listed maximum capacity. The Clean Agent container shall be activated by manual activation only. The valve shall contain a scored, non-fragmenting, rupture disc to provide an immediate, total discharge of all the agent. The Clean Agent is stored in the container as a liquid, having a natural vapor pressure of 66.4 psig at 77°F (457.8kPa at 25°C). To aid in discharge, the container shall be super-pressurized to 360 psig at 70°F (2482.1kPa 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 either a manual actuation station, or an increase in internal pressure due to heating the Clean Agent to approximately 160°F (71.1°C). At this temperature, internal pressure will be adequate to burst the rupture disc, discharging the contents of the container. Normal operating temperature shall be +32°F to +130°F (0°C 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 272 psig (2482.1kPa to 1875.4kPa) shall cause the normally opened/closed Supervisory Switch contacts to close/open, indicating a trouble or supervisory condition, at the control panel.

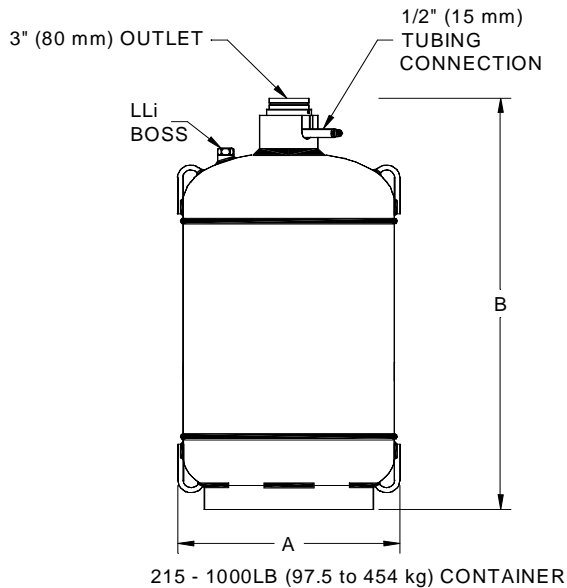
Clean Agent Storage Containers shall be fastened to a wall, or other secure surface, using a saddle and U-shaped bracket.

Marine Clean Agent Storage Container Data - U.S. Standard

FIKE P/N	SIZE (LB)	VALVE (IN)	EMPTY WT (LB)	AGENT FILL RANGE (LBS)	VALVE POSITION
N70-087	215	3	285	123-215	Upright
N70-086	375	3	375	215-375	Upright
N70-083a	650	3	455	372-650	Upright
N70-090	1000	3	673	573-1002	Upright

Marine Clean Agent Storage Container Data - Metric

FIKE P/N	SIZE (KG)	VALVE (MM)	EMPTY WT (KG)	AGENT FILL RANGE (KG)	VALVE POSITION
N70-087	97.5	80	129.3	55.8-97.5	Upright
N70-086	170	80	170.1	97.5-170.1	Upright
N70-083a	295	80	206.4	168.7-294.8	Upright
N70-090	454	80	305.8	259.9-454.5	Upright



U.S. SIZES & DIMENSIONS				
SIZE-LB	215	375	650a	1000
A (in.)	20.00	20.00	24.00	24.00
B (in.)	28.87	42.50	48.69	70.00
METRIC SIZES & DIMENSIONS				
SIZE-KG	97.5	170	295a	454
A (MM)	508	508	610	610
B (MM)	733.3	1079.5	1237.0	1778.0

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