

IMPULSE VALVE STORAGE CONTAINERS FOR SYSTEMS USING 3M™ NOVEC™ 1230 FIRE PROTECTION FLUID



Description

Fike's clean agent containers are painted steel containers available in various sizes and varying fill densities. Each container is fitted with an internal siphon tube, Fike Impulse Valve assembly, pressure gauge, container nameplate and applicable mounting hardware. Refer to page 3 for illustration of items supplied with the container.

The Impulse Valve contains a fast-acting rupture disc that retains the agent within the container until the disc is ruptured by an Impulse Valve Actuator (ordered separately) allowing the agent to be released from the container.

Each container is factory filled with 3M™ Novec™ 1230 fire protection fluid in 1 lb. (0.5 kg) increments up to their required capacity and is then super-pressurized with dry nitrogen to 500 psig at 70° F (34.5 bar at 21°C). Fill density must be specified when ordering. Containers sharing the same manifold must be equal in size and fill density.

Specifications

Fill Range	30 to 70 lbs/ft ³ (481 to 1121 kg/m ³)
Fill Increments	1.0 lbs (0.5 kg)
Super Pressurization Level	500 psig at 70°F (34.5 bar at 21°C) after filling with dry nitrogen
Storage Temp Limits*	32°F (0°C) minimum 130°F (54.4°C) maximum
Construction	Carbon steel alloys
Rating	DOT 4BW500 TC 4BWM534
Color Options	Baked enamel finish, white (default) or red**
Actuation Methods	Electric/Pneumatic/Manual

* If container pressure reaches 720 to 800 psi (49.6 to 55 bar), valve will open automatically. This also fulfills the pressure relief valve requirements in accordance with DOT regulations.

**5 lb. (2 L) and 10 lb. (4 L) containers are white only.

Reliability

Each container is manufactured in strict accordance with U.S. Department of Transportation (DOT) regulations and has successfully passed testing by Factory Mutual (FM) and Underwriters Laboratories, Inc. (UL). Each container is leak tested and pressure tested to 1000 psig (69 bar) prior to shipment.

Approvals

Underwriters Laboratories (UL)
Underwriters Laboratories of Canada (ULC)
Factory Mutual (FM)

For exact certification listings, please reference the respective agency web site.

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Container Data

Container		Fill Range		Tare Weight	Dimensions (approximate)		Valve Size
Size	P/N	Minimum	Maximum		Diameter	Height	
lb. (L)			lbs. (kg)	lbs. (kg)	lbs. (kg)	in. (mm)	in. (mm)
5 (2)	70-357	3 (1.0)	5 (2.0)	6.20 (2.8)	4.15 (105.4)	12.59 (320)	1 (25)
10 (4)	70-358	5 (2.5)	10 (4.5)	12.50 (5.7)	4.15 (105.4)	23.63 (600)	1 (25)
20 (8.5)	70-359	9 (4.5)	21 (9.5)	20.90 (9.5)	7.00 (178)	21.50 (457)	1 (25)
35 (15)	70-360	17 (7.5)	38 (17.0)	31.10 (14.1)	7.00 (178)	32.50 (826)	1 (25)
60 (27)	70-361	30 (13.5)	68 (30.5)	52.00 (23.6)	10.75 (273)	27.00 (686)	1 (25)
100 (44)	70-362	47 (21.5)	108 (49.0)	74.10 (33.6)	10.75 (273)	38.75 (984)	1 (25)
150 (61)	70-363	65 (29.5)	150 (68.0)	130.10 (59.0)	20.00 (508)	18.75 (476)	3 (80)
215 (88)	70-364	93 (42.5)	216 (98.0)	157.00 (71.2)	20.00 (508)	28.56 (725)	3 (80)
375 (153)	70-365	163 (74.0)	378 (171.5)	224.00 (101.6)	20.00 (508)	42.50 (1080)	3 (80)
650 (267)	70-366	283 (128.5)	660 (299.0)	384.90 (174.6)	24.00 (610)	48.69 (1237)	3 (80)
1000 (423)	70-367	449 (203.5)	1045 (474.0)	539.90 (244.9)	24.00 (610)	70.00 (1778)	3 (80)

FLOOR LOADING / AREA BY CONTAINER SIZE											
Container Size		Total Container Weight *		Container Floor Area		Container Floor Loading		Container Floor Area w/Plate **		Container Floor Loading w/Plate ***	
lbs	L	lbs.	kg	ft ²	m ²	lbs/ft ²	kg/m ²	ft ²	m ²	lbs/ft ²	kg/m ²
5	2	11	5	0.09	0.009	119	582	4.0	0.36	8	42
10	4	23	10	0.09	0.009	240	1169	4.0	0.36	11	57
20	8.5	42	19	0.27	0.02	157	766	4.0	0.36	16	81
35	15	69	31	0.27	0.02	258	1262	4.0	0.36	23	115
60	27	120	54	0.63	0.06	190	930	4.0	0.36	36	180
100	44	182	83	0.63	0.06	289	1410	4.0	0.36	51	258
150	61	280	127	2.18	0.20	128	627	4.0	0.36	76	381
215	88	373	169	2.18	0.20	171	835	4.0	0.36	99	498
375	153	602	273	2.18	0.20	276	1347	4.0	0.36	156	787
650	267	1045	474	3.14	0.29	333	1624	4.0	0.36	267	1345
1000	423	1585	719	3.14	0.29	504	2463	4.0	0.36	402	2025

Notes:

* Total container weight is based on container tare weight + maximum fill weight

** Plate size = ¼" x 2" x 2" (6.4mm x 0.6m x 0.6m)

*** Total container weight + 22.5 lbs (10.2 kg) added for plate used to calculate container with plate floor loading

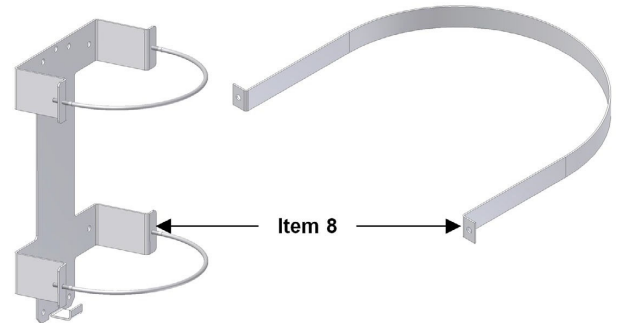
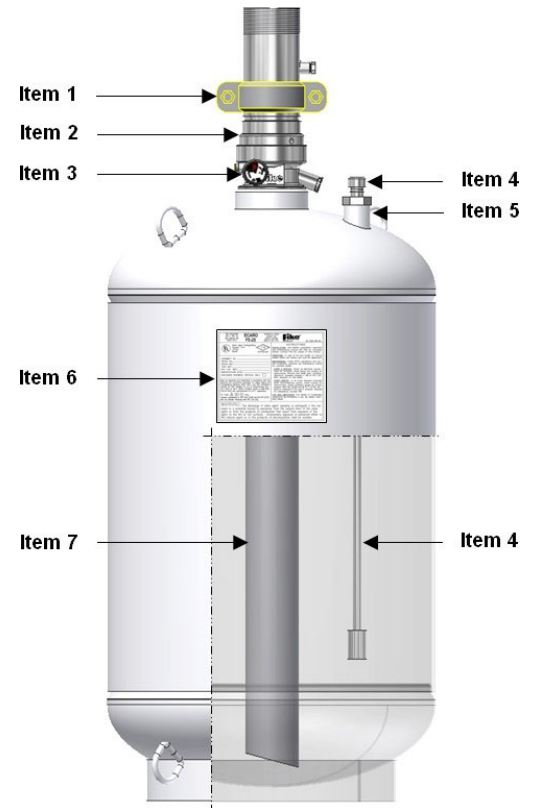
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Items Supplied with Container Assembly

Item No.	Description	Data Sheet
1	Victaulic Coupling & Nipple	n/a
2	Impulse Valve	IV.1.14.01
3	Pressure Gauge	IV.1.40.01
4	Liquid Level Indicator (optional)	IV.1.20.01
5	LLi Boss ¹	n/a
6	Nameplate ²	n/a
7	Siphon Tube ³	n/a
8	Mounting Straps & Brackets	IV.1.18.01

Notes:

- 1) 100 thru 1000 lb. (44 thru 423 L) containers are equipped with an LLi boss that facilitates the installation of an optional Liquid Level Indicator (LLi).
- 2) Fike nameplate provides the information that is specific to each container: Assembly and serial number of the container, weight information: tare, gross and agent and installation, operation and safety information. All containers filled either by the factory or by an Approved Initial Fill Station are provided with a name plate bearing the UL & FM markings.
- 3) All Fike Clean Agent containers are equipped with a siphon tube. All containers must be mounted upright.



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