

Foam Extinguishing Systems

A foam installation consists of either (1) a foam generator attached to a permanently piped system which discharges through nozzles or (2) a very high-expansive type foam generator arranged to discharge directly into a protected space. Either operates automatically or manually.

Contracts for fixed-foam protection should be let subject to FM Global acceptance obtained by the manufacturer prior to installation. Drawings showing the installation details and a complete description of the hazard should be submitted to FM Global for review, as well as information regarding auxiliary features which may affect the operation of the system.

Low Expansion Foam Systems

Low expansion foam agents are an aggregate of gas-filled bubbles, made by mixing air into a water solution containing a foam concentrate. Foam agents are of lower density than flammable and combustible liquids, which allows the foam to float over a burning liquid surface and form a continuous blanket that seals volatile combustible vapors from access to air. Low expansion foam agents have expansion ratios up to 20:1.

Low Expansion Foam Systems

Foam Concentrates. Used as a component of foam systems. Concentrates are only Approved for use with the specific proportioning, bladder tank, and discharge devices listed below. Use of a concentrate with other devices or outside the listed ranges may result in solutions too lean or rich or may produce foam unable to provide the required extinguishing or sealing performance.

3% AFFF C302 concentrate

Ultraguard 3% AR-AFFF concentrate

Bladder tank type proportioners with ratio flow controllers for use with 3% AFFF C302 foam concentrate.

Horizontal tank sizes: 25 to 4500 gal (95 to 17030 L).

Vertical tank sizes: 25 to 4500 gal (95 to 17030 L).

<i>Proportioner Size in.</i>	<i>Orifice Size in. (mm)</i>	<i>Min Flow gal/min (L/min)</i>	<i>Max Flow gal/min (L/min)</i>
2 1/2	0.252 (6.40)	40 (150)	400 (1515)
3	0.365 (9.27)	70 (265)	750 (2840)
4	0.485 (12.32)	200 (755)	1600 (6055)
6	0.700 (17.78)	300 (1135)	3020 (11,430)
8	0.975 (24.77)	500 (1890)	4250 (16,085)

Bladder tank type proportioners with ratio flow controllers for use with Ultraguard 3% AR-AFFF concentrate.

Horizontal tank sizes: 25 to 4500 gal (95 to 17030 L)

Vertical tank sizes: 25 to 4500 gal (95 to 17030 L).

<i>Proportioner Size in.</i>	<i>Orifice Size in. (mm)</i>	<i>Min Flow gal/min (L/min)</i>	<i>Max Flow gal/min (L/min)</i>
2 1/2	0.277 (7.04)	150 (570)	250 (945)
	0.252 (6.40)	260 (985)	400 (1515)
3	0.398 (10.11)	250 (945)	400 (1515)
	0.365 (9.27)	500 (1890)	800 (3030)

4	0.522 (13.26)	490 (1855)	560 (2120)
	0.485 (12.32)	630 (2385)	1500 (5680)
6	0.755 (19.18)	1000 (3785)	1500 (5680)
	0.700 (17.78)	1560 (5905)	3000 (11,355)
8	1.052 (26.72)	1500 (5680)	2000 (7570)
	0.975 (24.77)	2075 (7855)	4375 (16,560)

Model Ultra-Wide proportioner (CDP2500) to proportion Chemguard 3% AFFF 302 and Ultraguard 3% AR-AFFF concentrates at 25 to 2500 gal/min (95 to 9465 L/min), at pressures between 58 psi (0.399 MPa) and 130 psi (0.896 MPa), from Approved bladder tanks.

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Listing Country:	United States of America
Certification Type:	FM Approved