FOAM SYSTEMS

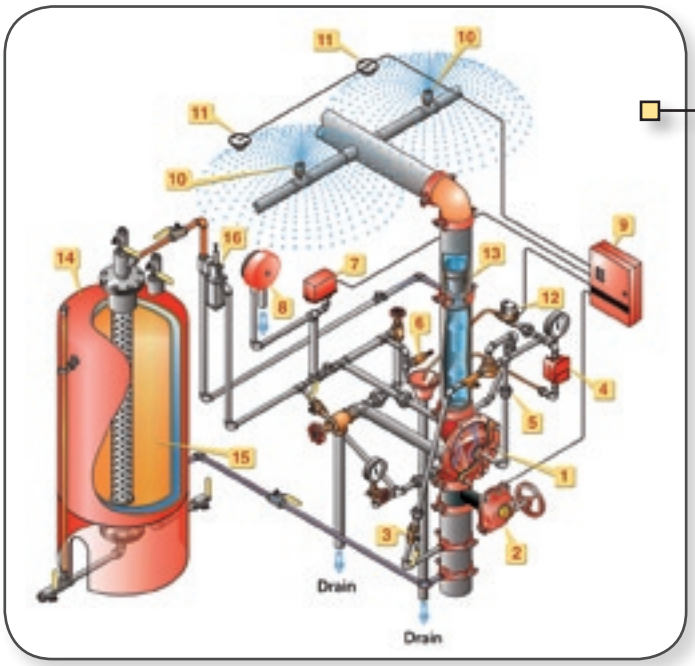


Foam-Water Systems most commonly use the balanced pressure proportioning method for flammable liquid fire protection applications. They are designed to accurately control the flow of a foam liquid concentrate into a water stream over a wide range of flow rates and pressures. Two basic types, bladder tanks and pump systems, require the foam concentrate pressure to be balanced with the water pressure at the proportioner which meters the proper amount of foam concentrate into the water stream. The resulting foam solution is piped to discharge devices protecting the hazard area.

APPLICATIONS:

- *Class B Hydrocarbon Fuel Fires Such as Crude Oils, Gasoline, Diesel Fuels & Aviation Fuels*
- *Class B Polar Solvent Fuel fires such as Methyl Alcohol, Acetone & Ethyl Alcohol*
- *Loading Racks*
- *Aircraft Hangars*
- *Refineries*
- *Marine Vessels*
- *Warehouses*
- *Special Class A Foam Concentrates for Use with Municipal and Forest Firefighting Hardware & Apparatus*

FOAM SYSTEMS



Legend:

1 Deluge Valve (DV-5)
2 Isolation Valve
3 Diaphragm Supply Valve
4 Manual Control Station
5 Automatic Shut-off Valve
6 Automatic Drain Valve
7 Pressure Switch
8 Water Motor Gong
9 Releasing Panel
10 Spray Nozzle
11 Smoke/Heat Detector
12 Solenoid Valve
13 Foam Proportioner
14 Foam Bladder Tank
15 Foam Concentrate
16 Hydraulic Ball Valve

BLADDER TANKS

Foam Bladder Tanks

- Elastomeric bladder stores foam liquid concentrate discharged by incoming water applying pressure to the bladder
- Both vertical and horizontal models are available
- Internal tank perforated center tube provides improved agent discharge
- Foam concentrate capacities from 50 to 1500 gal (190 to 5678 L)
- Red standard system paint or coated with an epoxy "CR" red finish for use in marine or corrosive environments
- Standard or pre-piped tanks with proportioner for ease of installation



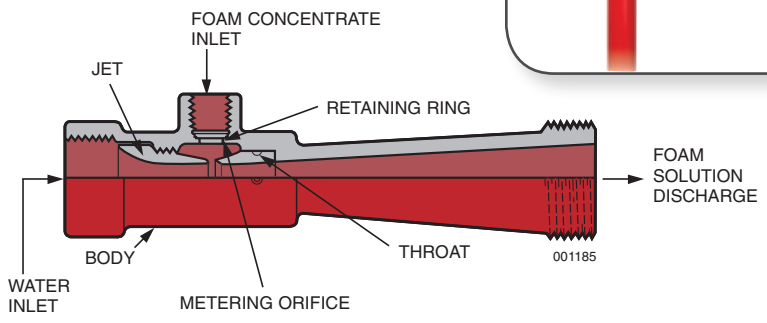
300 gal (1136 L) Horizontal Tank Shown

PROPORTIONER

2" and 2½" In-Line Proportioner

- Each proportioner consists of a body, inlet nozzle, and metering orifice, all of which are corrosion-resistant brass
- The proportioner body is designed with a female NPT threaded inlet and a male NPT threaded outlet in sizes of 2" or 2½"
- Clearly marked on the proportioner body are the flow direction arrow, as well as the type and percentage of concentrate for which the proportioner was designed
- The inlet nozzle is secured by a stainless steel retaining ring
- The metering orifice is sized according to the type and percentage of concentrate used and is also secured with a stainless steel retaining ring)





Always refer to the product's Technical Data Sheet for a complete description of all Listing and Approval criteria, design parameters, installation instructions, care and maintenance guidelines, and our limited warranty.

IN-LINE PROPORTIONER

In-Line Proportioner Pump System



- Maintains an equal pressure in the foam concentrate and water inlets to the proportioner. This allows the proportioner to be used over a wide range of flows and pressures. It responds quickly and accurately to changes in the water inlet pressures and flow rates
- Spool valve design ensures accurate pressure regulation and rapid response to changes in flow demand
- Six standard sizes
- Brass foam concentrate piping with stainless steel trim accessories
- Standard for use in marine applications and other corrosive environments
- Nameplates for valve identification
- Choice of unpainted brass or standard red paint finish
- Used with an atmospheric foam concentrate tank and a positive displacement foam concentrate pump

FOAM AGENTS

ANSULITE® 1% AFFF Concentrate



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Aspirated or nonaspirated discharge devices. 1% solution in fresh, salt or hard water. 1% premix in fresh or potable water. UL Listed.

ANSULITE® 1% Freeze-Protected AFFF Concentrate



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Aspirated or nonaspirated discharge devices. 1% solution in fresh, salt or hard water. 1% premix in fresh or potable water. Concentrate is freeze protected to –20 °F (–29 °C). UL Listed.

ANSULITE® 3% AFFF Concentrate (AFC-3-A)



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels, and aviation fuels. Aspirated or nonaspirated discharge devices. 3% solution in fresh, salt or hard water. 3% premix in fresh or potable water. UL Listed.

ANSULITE® PREMIUM 3% AFFF Concentrate MIL SPEC (AFC-5-A)



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Aspirated or nonaspirated discharge devices. 3% solution in fresh, salt or hard water. 3% premix in fresh or potable water. UL Listed. On QPL under U.S. Military Specification MILF- 24385F.

ANSULITE® 3% Freeze-Protected AFFF Concentrate



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Aspirated or nonaspirated discharge devices. 3% solution in fresh, salt or hard water. 3% premix in fresh or potable water. Concentrate is freeze protected to –20 °F (–29 °C). UL Listed.

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FOAM AGENTS (CONT.)

ANSULITE® 6% AFFF Concentrate (AFC-3)



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Aspirated or nonaspirated discharge devices. 6% solution in fresh, salt or hard water. 6% premix in fresh or potable water. UL Listed.

ANSULITE® PREMIUM 6% AFFF Concentrate MIL SPEC (AFC-5)



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Aspirated or nonaspirated discharge devices. 6% solution in fresh, salt or hard water. 6% premix in fresh or potable water. UL Listed. On QPL under U.S. Military Specification MILF- 24385F.

ANSULITE® 3X3 Low Viscosity Alcohol-Resistant AFFF Concentrate



- Superior firefighting performance on Class B fuel fires. Used as 3% concentrate on BOTH hydrocarbon fuels such as gasoline, fuel oil, etc., and polar solvent (water miscible) fuels such as methyl alcohol, acetone, MTBE, etc. Low viscosity formula enhances performance with in-line eductors, balanced pressure systems and built-in systems on firefighting vehicles. Aspirated or nonaspirated discharge devices. 3% solution in fresh, salt or hard water. 3% premix in fresh water. UL Listed, FM and USCG Approved.

ANSULITE® ARC Alcohol-Resistant 3%/6% AFFF Concentrate



- For use on Class B fuel fires: 3% concentrate on hydrocarbon fuels such as gasoline, fuel oil, etc. and 6% on polar solvent (water miscible) fuels such as methyl alcohol, acetone, MTBE, etc. Aspirated or nonaspirated discharge devices. 3%/6% solution in fresh, salt or hard water. 3%/6% premix in fresh or potable water. UL Listed and FM Approved.

ANSULITE® ARC 3 or 6 Freeze Protected



- Freeze Protected ANSULITE® ARC is intended for use as a 3% or 6% proportioned solution, depending on the type of fuel hazad. Fresh or salt water can be used to create the foam water solution. The foam concentrate may be stored at temperatures down to 0 °F (–18 °C) without freezing. If stored below the minimum use temperature, freezing may occur. If freezing does occur, thaw and remix the concentrate prior to use.

3% Regular Protein Foam Concentrate



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Must be used with air aspirating type discharge devices. 3% solution in fresh, salt or hard water. UL Listed.

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FOAM AGENTS (CONT.)

3% Fluoroprotein Foam Concentrate



- For use on Class B hydrocarbon fuel fires such as crude oils, gasoline, diesel fuels and aviation fuels. Must be used with air aspirating type discharge devices. 3% solution in fresh, salt or hard water. UL Listed.

SILV-EX® "Class A" Fire Control Concentrate



- Makes water at least five times more effective on many Class A deep-seated applications including wild fires and fires found in structures, paper, tires, and coal. Proportioned from 0.1% to 1% in fresh brackish or sea water; as a premix in fresh or potable water for long-term storage. Delivered using aspirating and nonaspirating discharge devices, compressed air foam systems or dropped from fixed or rotary wing aircraft. Approved by U.S. Forest Service.

ANSUL-A™ Municipal "Class A" Fire Control Concentrate



- ANSUL-A foam concentrate is formulated using fluorine-free surfactants to perform on Class A combustible materials. ANSUL-A is compatible for use in compressed air foam systems (CAFS) over the use range of 0.1% to 1.0%. The minimum storage temperature for this concentrate is 20 °F (–6.7 °C).

TARGET-7™ Vapor Mitigation & Neutralizing Agent



- For use on highly toxic chemicals like chlorine dioxide and titanium tetrachloride. Mitigates dangerous vapor releases and simultaneously neutralizes (with the addition of an acidic or caustic agent, depending on the application) the spilled material without causing additional vapor release.

HIGH-EXPANSION FOAM PRODUCTS

JET-X® High-Expansion Foam Generators



- Water-powered. Designed to deliver JET-X® high expansion foam with a maximum output capacity of 24,000 cfm (680 cu. m/min.) The generators are of steel construction with a water powered motor and stainless steel foam screen
- No electrical power is required
- The generators come in various sizes and are used for both portable and fixed-system applications

JET-X® 2 ¾% High-Expansion Foam Concentrate



- For use on Class A, B and LNG fires. Capable of total flooding large rooms and enclosures when used with JET-X high expansion generators at 200:1 to 1000:1 expansion ratios (2 3/4% concentration). Also used with medium-expansion equipment at 50:1 to 200:1 expansion ratios (2% concentration). Used only with air aspirating foam discharge devices. UL Listed and FM Approved.

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APPROVED DISCHARGE DEVICES FOR USE WITH FOAM CONCENTRATES

Foam liquid concentrates are suitable for use on fires involving ordinary hydrocarbon petroleum products, and some foam liquid concentrates may also be suitable for use on fires involving polar solvent fuels. The fire protection system designer first identifies the fuel load and selects the foam liquid concentrate according to its ability to be used for a given fuel load. Upon selecting the foam liquid concentrate, the designer then selects equipment, including discharge devices, based on listing/approval compatibility of the equipment with the concentrate.

TECH DATA	TFP2005

Discharge devices fall into one of four categories:

- Foam-water sprinklers
- Foam-water spray nozzles
- Non-aspirating spray nozzles
- Standard sprinklers

D3

Protectospray™ Nozzle

TECH DATA	TFP802
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B-1

½" Foam-Water Sprinkler

TECH DATA	TFP840
ADDITIONAL INFO	Page 40

EA-1

Automatic Protectospray™ Nozzle

TECH DATA	TFP800
ADDITIONAL INFO	Page 40

TY-B

Upright & Pendent

TECH DATA	TFP151
ADDITIONAL INFO	Page 8

TY-FRB

Upright & Pendent

TECH DATA	TFP171
ADDITIONAL INFO	Page 8

ELO-231B

Pendent & Upright

TECH DATA	TFP342
ADDITIONAL INFO	Page 20

ELO-231 FRB

Pendent & Upright

TECH DATA	TFP344
ADDITIONAL INFO	Page 20

ELO-231

Pendent & Upright

TECH DATA	TFP340
ADDITIONAL INFO	Page 20

TY-FRL

Upright & Pendent

TECH DATA	TFP130
ADDITIONAL INFO	Page 10

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