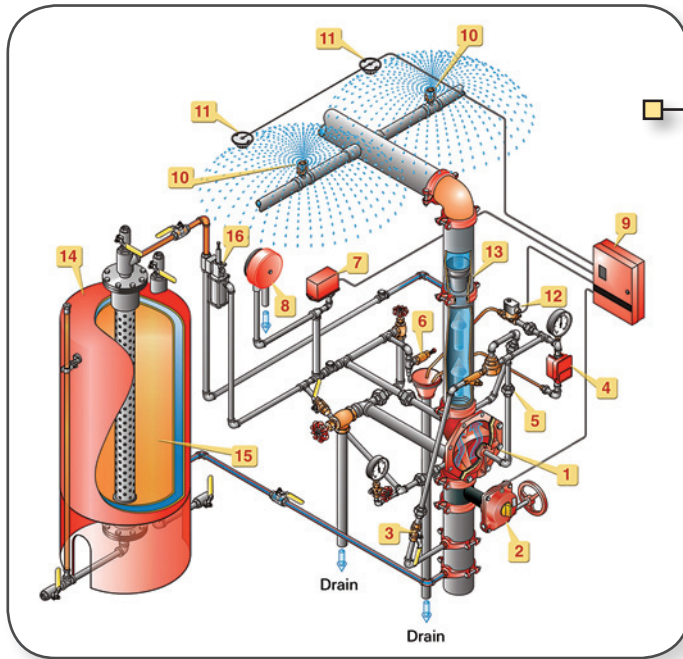


SPECIALTY SYSTEMS

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

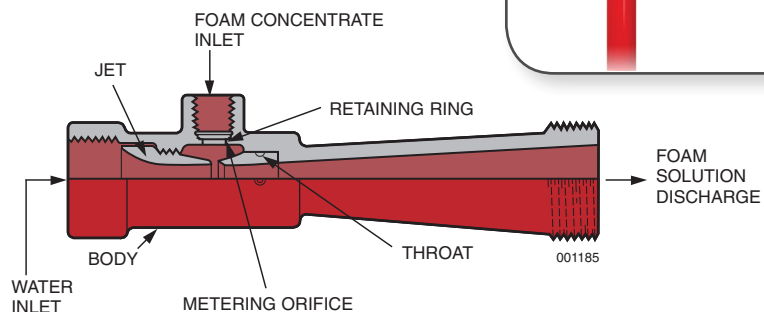
- Elastomeric bladder stores foam liquid concentrate discharged by incoming water applying pressure to the bladder
- Both vertical and horizontal models are available
- Internal tank perforated center tube provides improved agent discharge
- Foam concentrate capacities from 50 to 1500 gal (190 to 5678 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



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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SPECIALTY SYSTEMS

FOAM SYSTEMS

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 hazard. 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 ¾% 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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SPECIALTY SYSTEMS

FOAM SYSTEMS

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

ADDITIONAL INFO Page 48

B-1

1/2" Foam-Water Sprinkler

TECH DATA TFP840

ADDITIONAL INFO Page 49

EA-1

Automatic Protectospray™ Nozzle

TECH DATA TFP800

ADDITIONAL INFO Page 48

TY-B

Upright & Pendent

TECH DATA TFP151

ADDITIONAL INFO Page 8

TY-FRB

Upright & Pendent

TECH DATA TFP171

ADDITIONAL INFO Page 9

ELO-231B

Pendent & Upright

TECH DATA TFP342

ADDITIONAL INFO Page 22

ELO-231 FRB

Pendent & Upright

TECH DATA TFP344

ADDITIONAL INFO Page 23

ELO-231

Pendent & Upright

TECH DATA TFP340

ADDITIONAL INFO Page 23

TY-FRL

Upright & Pendent

TECH DATA TFP130

ADDITIONAL INFO Page 11

AQUAMIST SYSTEMS



AquaMist

AQUAMIST Systems utilize the newest and most unique nozzles developed and approved for fire protection. They offer an alternative to gaseous, foam, and heavy density sprinkler systems. By utilizing a higher pressure than a normal sprinkler system, but a 50-80% lower water flow, the AQUAMIST Systems use less water more effectively, reduce pipe sizes and labor costs, and minimize cleanup and water damage.

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.

WWW.TYCO-FIRE.COM

APPLICATIONS:

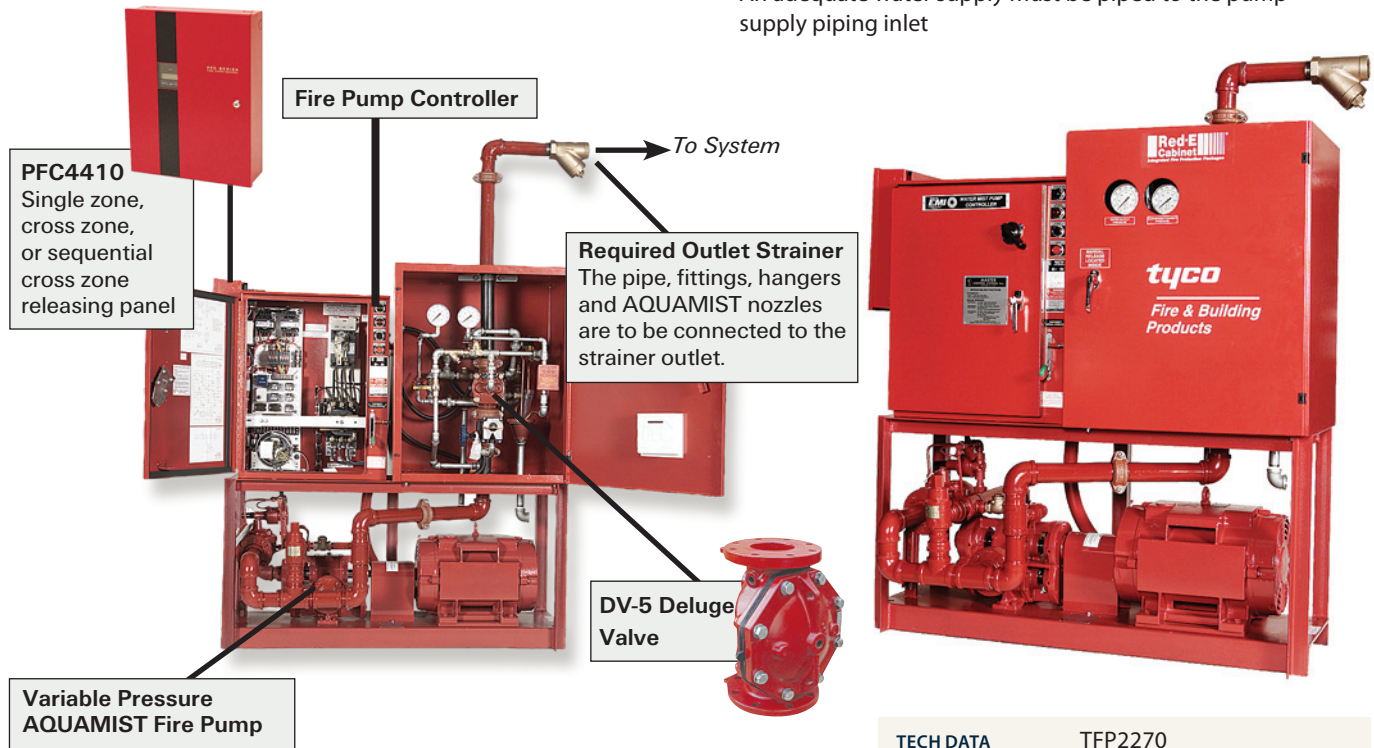
- *Cable Trays*
- *Clean Rooms*
- *Computer Rooms*
- *Conveyors*
- *Cut-Off Rooms*
- *Engine Test Cells*
- *Flammable Liquid Storage*
- *Food Processing*
- *Fuel Storage*
- *Gas Turbines*
- *Historic Sites & Museums*
- *Industrial Process Equipment*
- *Machining Centers*
- *Ferries*
- *Offshore Platforms*
- *Telecommunications*
- *Transformers*
- *Vapor Suppression*

"MCC" MIST CONTROL CENTER WITH RED-E CABINET®

Pre-Assembled Fire Pump, Controller, Deluge Valve Cabinet & Releasing Panel

The "MCC" Pump Skid Package is the self-contained control center of the AQUAMIST System. The compact skid unit has been professionally designed and assembled to ease system installation and to meet the most stringent project requirements.

- Power must be provided for the control cabinet and pump controller
- Detection circuits must be installed and wired to the control cabinet
- An adequate water supply must be piped to the pump supply piping inlet



TECH DATA TFP2270

How the AQUAMIST System Works

1

- Evaporation (heat extraction) is a function of surface area of droplets
- Reducing droplet size increases surface area
- Increase in surface area allows for larger cooling effect for a given flow

2

- Water converts to vapor expanding by a factor of 1650 times
- Oxygen is displaced and diluted, thereby blocking it from the fuel source
- Higher heat level causes a faster vaporization

3

- Fire extinguishment is improved with direct contact of water droplets
- This type of extinguishment is normally associated with standard sprinklers
- Important part of operation if ventilation is a factor and Class A combustibles are present

4

- Small water droplets tend to remain suspended
- The expanding mist will expand and cool the gases and other fuels in the area
- Blocks the transfer of radiant heat to the adjacent combustibles and pre-wets them

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.

AquaMist

AM4 AQUAMIST NOZZLE

Non-Automatic (Open)

- Intended for use with total compartment, engineered, watermist deluge systems.
- They are intermediate pressure nozzles which produce a spray having a range of water droplet sizes suitable for the extinguishment of Class B fires, as well as incidental Class A fires.

K FACTOR	K=0.24 (3,5)
THREAD SIZE	1/2" NPT
FINISH	Stainless Steel
TECH DATA	TFP2204



Sprinkler Wrench



AM10 & AM10B AQUAMIST NOZZLES

Non-Automatic (Open)

- Intended for use with total compartment, engineered, watermist deluge systems.
- They are intermediate pressure nozzles which produce a spray having a range of water droplet sizes suitable for the extinguishment of Class B fires, as well as incidental Class A fires.
- For applications where the continuous ambient temperature is greater than 392°F (200°C), the AM10B Nozzle should be utilized.

K FACTOR	K=0.24 (3,5)
THREAD SIZE	1/2" NPT
FINISH	Stainless Steel
TECH DATA	TFP2210

- The AM10 may be installed in recessed pendent applications using a unique threaded or socket-weld fitting with integrated tethered cap assembly. (see page 94 or TFP2242)



Sprinkler Wrench



AM24 AQUAMIST NOZZLE

Automatic Type Mist Nozzle

- Intended applications – IMO mandated local application system for protection of class a machinery spaces

K FACTOR	0.33 Gpm/psi ^{0.5} , (4,71 Lpm/bar ^{1/2})
THREAD SIZE	1/2" NPT
APPROVALS	UL
FINISH	Stainless Steel
TECH DATA	Contact Tyco



Sprinkler Wrench



AM31 AQUAMIST NOZZLE

Non-Automatic (Open)

- Intended for use with engineered, watermist deluge systems.
- Produces a spray suitable for the extinguishment of Class K fires within industrial frying equipment.
- They may be installed in recessed pendent applications using a unique threaded or socket-weld fitting with integrated tethered cap assembly. (see TFP2242)

K FACTOR	0.30 Gpm/psi ^{1/2} , (4,3 Lpm/bar ^{1/2})
THREAD SIZE	1/2" NPT
FINISH	Stainless Steel
TECH DATA	TFP2202



Sprinkler Wrench



TYPE IFP AQUAMIST FITTINGS

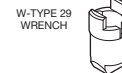
Recessed Nozzle Fittings

- These fittings are designed to accommodate the Type AM10 and AM31 nozzles for industrial fryer primary cooking area applications.
- The cap conceals the nozzle which separates from the fitting during system discharge but remains attached by a length of chain.

THREAD SIZE	1/2" NPT
FINISH	Stainless Steel
TECH DATA	TFP2242



Sprinkler Wrench



TYPE IFP AQUAMIST CONTROL CABINET

Zone Control Valve Cabinet

- Utilized in the IFP Intermediate Pressure Water Mist system designed to protect industrial fryer hazards.
- The Zone Control Valve Cabinet receives an alarm signal from the Fire Protection Releasing Panel allowing water flow to the areas of protection based on the incoming electrical signals.
- The Zone Control Valve Cabinet consists of two zone control valves. The first Zone Control Valve is a 1-1/2" TYCO Model DV-5 body with a specific trim configuration designed for the IFP application, and the other is the 3/4" Fines Box solenoid valve.

TECH DATA	TFP2250
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- Listings and Approvals:
FM (as part of a FM Approved IFP System)



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