

AQUAMIST Red-E Mist Supply Skid

Table of Contents

Sections

General Description	1
Training	1
Technical Data	3
Skid Operation	3
System Components	6
Planning	6
Installation	7
Setting the Skid for Service	7
Skid Reset after Discharge	8
Care and Maintenance	9
Limited Warranty	10
Ordering Procedure	10

Figures

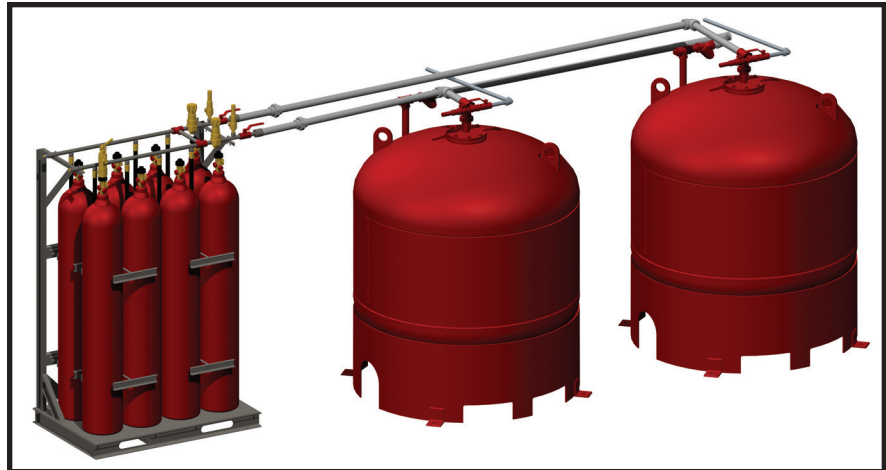
FIGURE 1 AQUAMIST Red-E Mist Supply Skid Replacement Parts, Accessories and Typical Installation Piping	2
FIGURE 2 Water Supply Tank Assembly 600 Gallon (2271 Liter)	3
FIGURE 3 ASME/DOT Nitrogen Supply Skid 600 Model	4
FIGURE 4 ASME/DOT Nitrogen Supply Skid 1200 Model	4
FIGURE 5 TPED/CE Nitrogen Supply Skid 600 Model	5
FIGURE 6 TPED/CE Nitrogen Supply Skid 1200 Model	5
FIGURE 7 Nitrogen Cylinder with CV-98 Valve and Actuation Stack	6

Graphs

GRAPH A Nitrogen Cylinder Temperature vs. Pressure	9
---	---

Tables

TABLE A AQUAMIST Red-E Mist Supply Skid Part Number Selection	10
--	----



General Description

The TYCO AQUAMIST Red-E Mist Supply Skid is a tank-based nitrogen-propelled water supply unit for the Ultra Low Flow AQUAMIST System. The Red-E Mist Supply Skid consists of a bank of nitrogen supply cylinders and one or two water supply tanks. The nitrogen is regulated to pressurize the head space inside the tank, pressurizing the water used to supply the Ultra Low Flow AQUAMIST System.

The Red-E Mist Supply Skid is available in two sizes. The Model 600 skid consists of one 600 gallon (2271 liter) water supply tank with four nitrogen supply cylinders. The Model 1200 skid consists of two 600 gallon (2271 liter) water supply tanks with eight nitrogen supply cylinders. Refer to Table A for the maximum capacity and pressure of each skid arrangement. The skids can be ordered in configurations conforming to either ASME/DOT or TPED/CE.

Training

Training provided by Tyco Fire Protection Products (TFPP) is mandatory prior to bidding, designing, procurement of components, installation, and maintenance of the TYCO AQUAMIST Red-E Mist Supply Skid. These systems are unique in their intent and design. Anyone involved at any level must thoroughly understand the limitations and capabilities of such systems.

Item	Description	Part Number	Item	Description	Part Number	
1	Nitrogen Cylinder with CV-98 Valve	DOT 3AAA3000	437166	10	Flexible Discharge Bend	427082
		EN1964-2	26701	11	Header Safety Burst Disk	437218
2	Bleed-Down Device	426028	12	Header Vent Plug	40309	
3	Pressure Test Assembly	428953	13	Nitrogen Regulator	478330	
4	HF Electric Actuator	73327	14	Nitrogen Relief Valve	436956	
5	HF Electric Actuator Inline Resistor	73606	15	Nitrogen Shutoff Valve	478431	
6	HF Electric Actuator Arming Tool	75433	16	Water Discharge Shutoff Valve	478432	
7	Booster Actuator	428949	17	Water Discharge Y-strainer	478331	
8	Booster Actuator Reset Tool	429847	18	Water Tank Nitrogen Relief Valve	478413	
9	Lever Release Actuator	70846	19	Water Tank Nitrogen Drain Valve	478431	

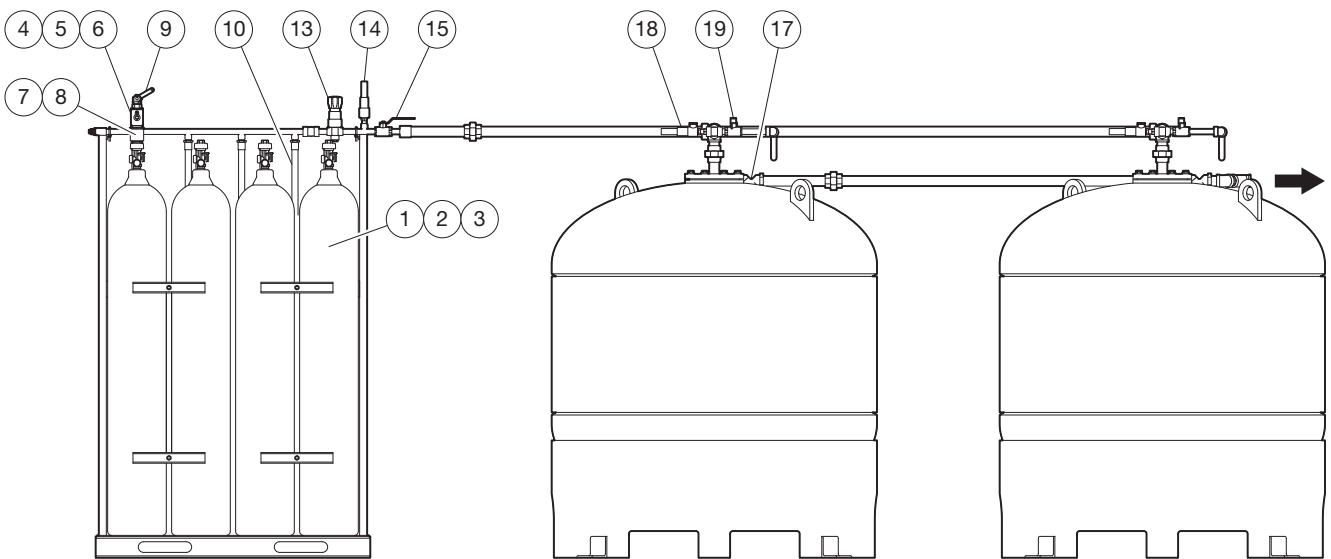
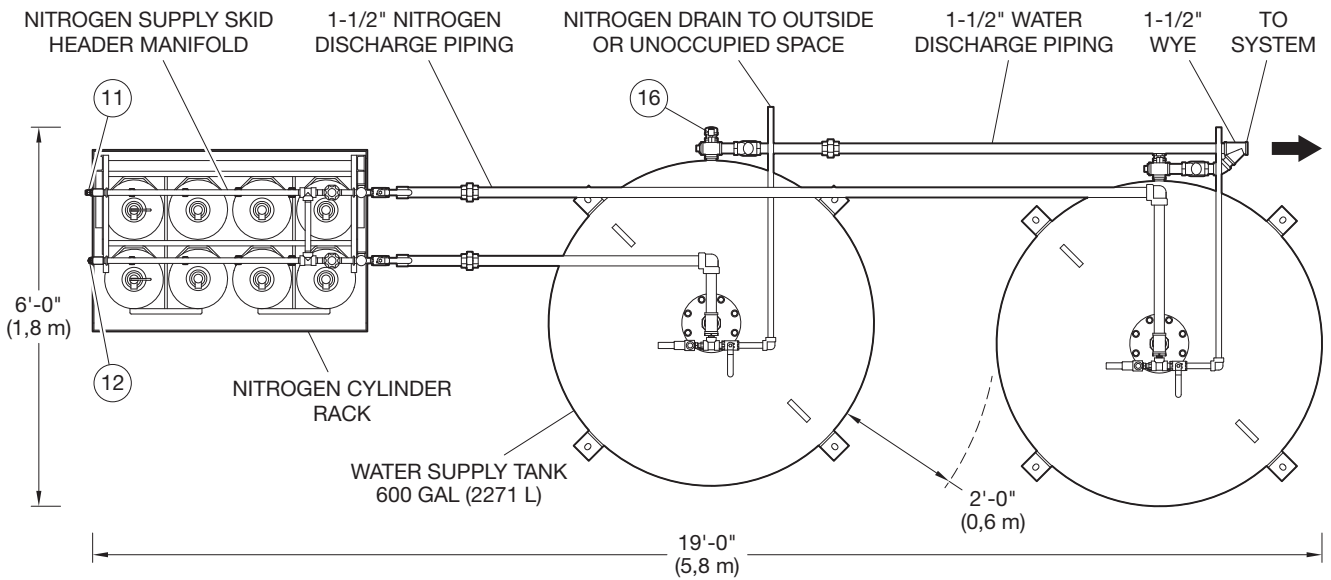
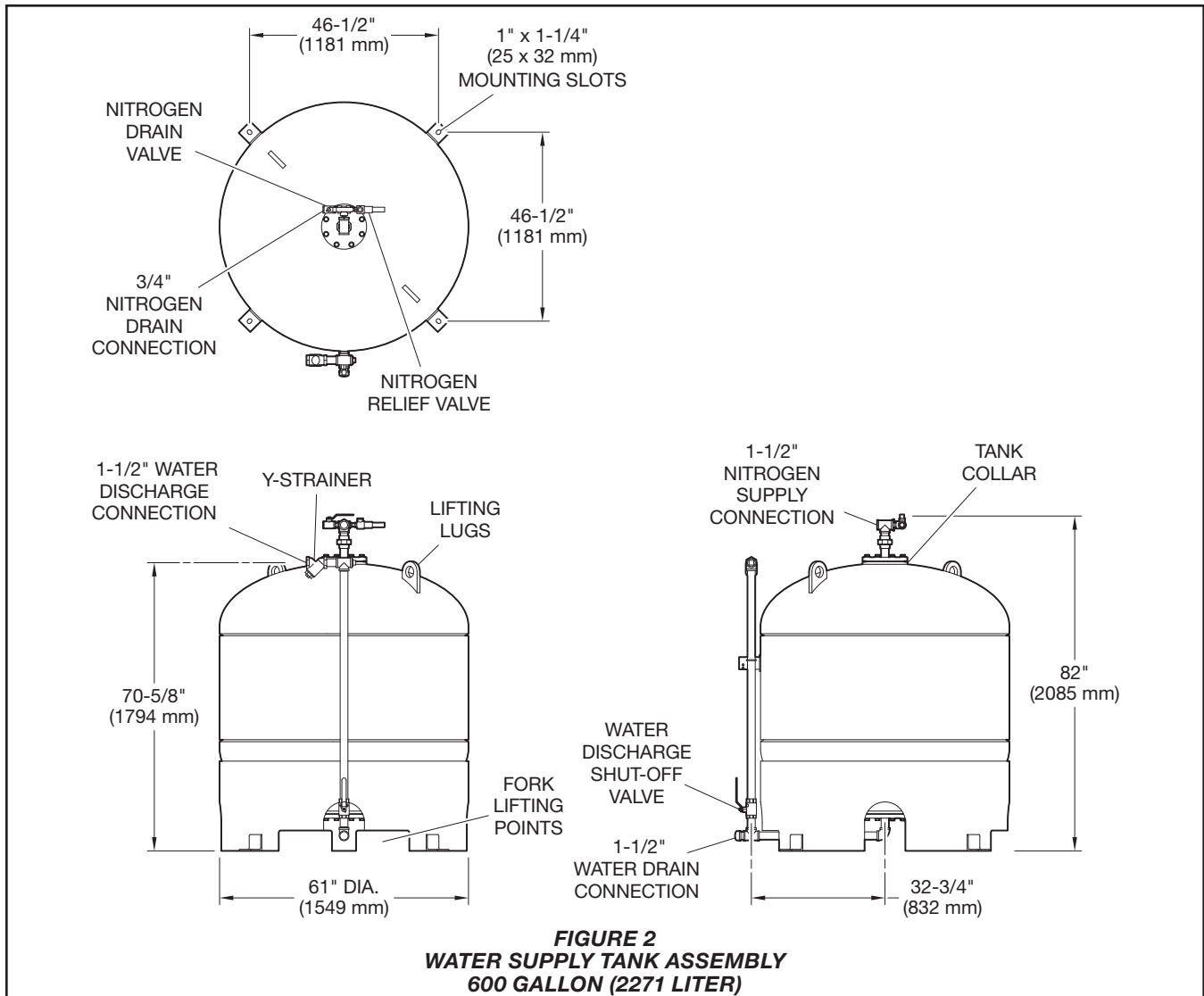


FIGURE 1
AQUAMIST RED-E MIST SUPPLY SKID
REPLACEMENT PARTS, ACCESSORIES AND
TYPICAL INSTALLATION PIPING



Technical Data

The TYCO AQUAMIST Red-E Mist Supply Skid is FM Approved as a component of an FM Approved TYCO AQUAMIST Red-E Mist Supply Skid Fire Suppression System for Industrial Fryer Protection (Refer to Technical Data Sheet TFP2241) and as a component of an FM Approved TYCO AQUAMIST total compartment deluge system using AM4 AQUAMIST Nozzles for the Protection of Machinery Spaces & Combustion Turbine Enclosures (Refer to Technical Data Sheet TFP2234).

Skid Operation

The TYCO AQUAMIST Red-E Mist Supply Skid is actuated when a signal is sent to the HF Electric Actuator opening the first CV-98 Valve. This allows pressurized nitrogen to flow into the High-Pressure Nitrogen Manifold. The increased pressure to the manifold opens all the CV-98 Valves that are piped into the manifold. The pressurized nitrogen is then regulated and sent into the water storage tanks where the water is pressurized and sent to the entire system for discharge.

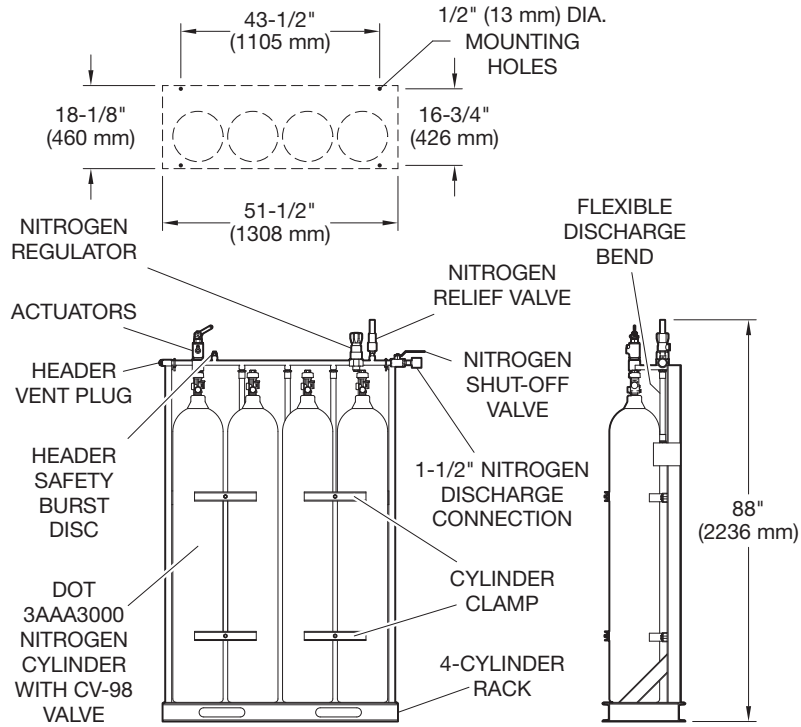


FIGURE 3
ASME/DOT NITROGEN SUPPLY SKID
600 MODEL

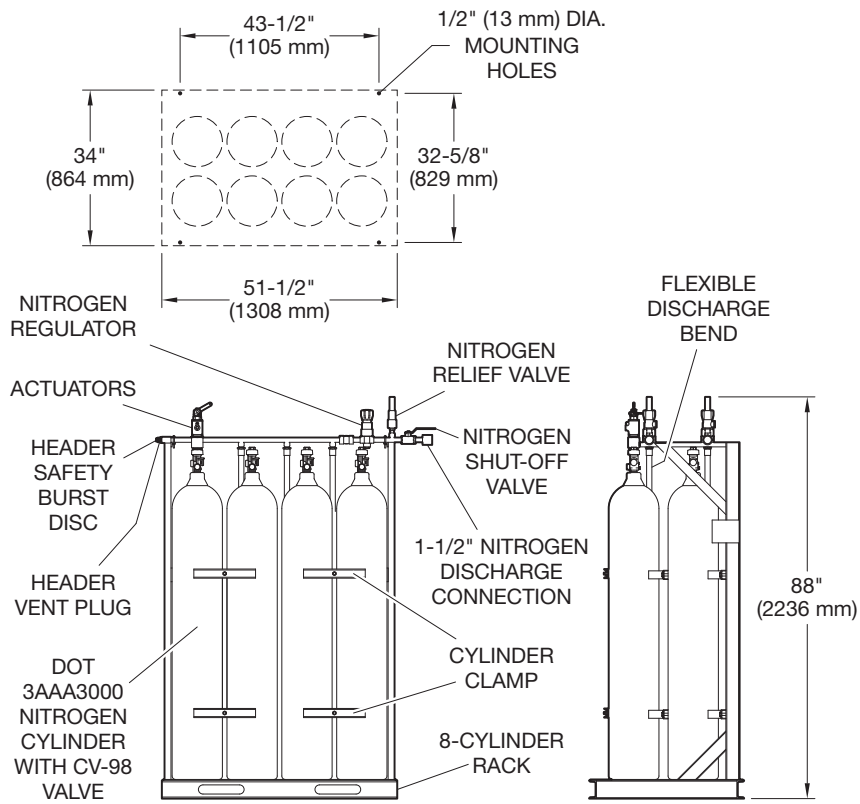


FIGURE 4
ASME/DOT NITROGEN SUPPLY SKID
1200 MODEL

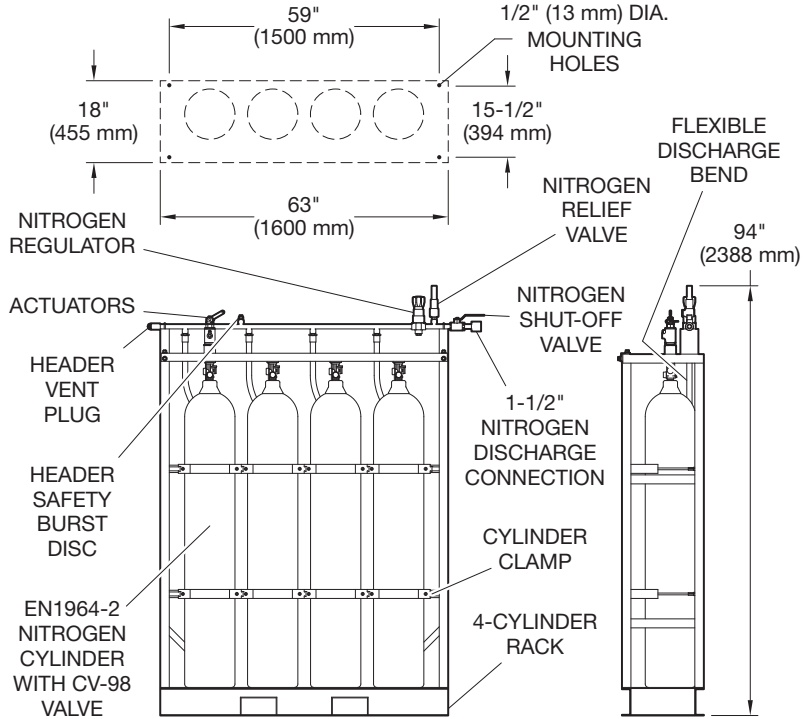


FIGURE 5
TPED/CE NITROGEN SUPPLY SKID
600 MODEL

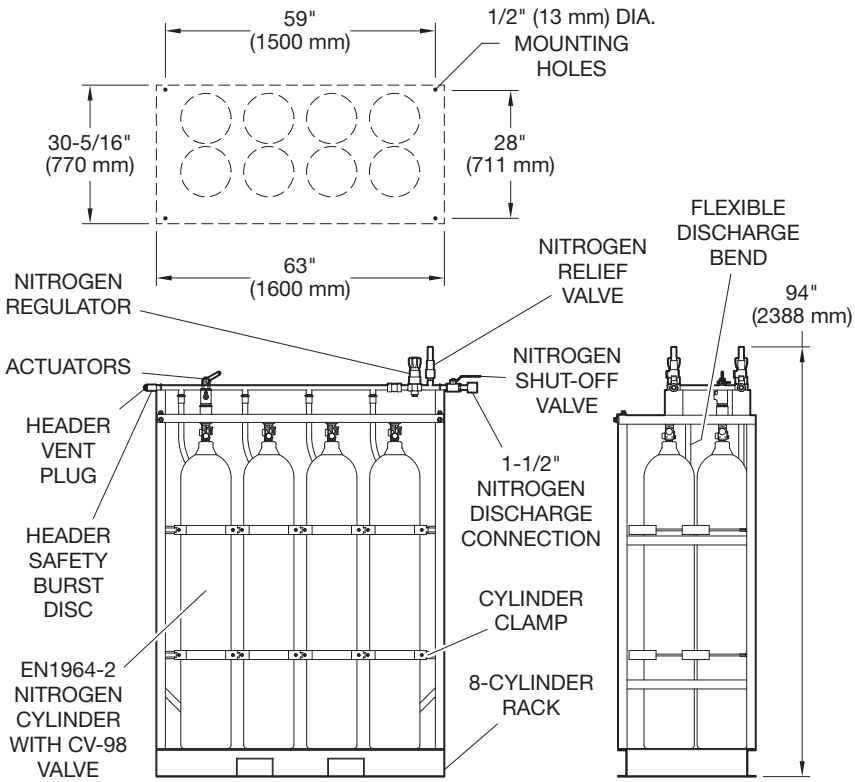


FIGURE 6
TPED/CE NITROGEN SUPPLY SKID
1200 MODEL

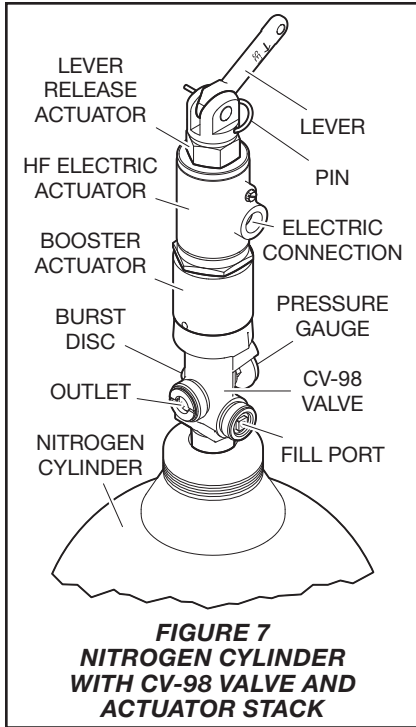


FIGURE 7
NITROGEN CYLINDER
WITH CV-98 VALVE AND
ACTUATOR STACK

System Components

The TYCO AQUAMIST Red-E Mist Supply Skid is composed of two assemblies: the Nitrogen Supply Skid and the Water Supply Tank Assembly. (Ref. Figure 1) The Nitrogen Supply Skid stores and regulates high pressure nitrogen. The Water Supply Tank Assembly(ies) is where water is stored and discharged to the system.

Nitrogen Supply Skid

Nitrogen Cylinder with CV-98 Valve
Cylinders are equipped with CV-98 Valves, meet either DOT 3AAA3000 or EN1964-2 specifications and are factory filled with nitrogen to a nominal pressure of 2900 psi (200 bar). Cylinders are shipped with protective caps over the CV-98 Valves.

Nitrogen Cylinder Rack

The Nitrogen Cylinder Rack is designed to rigidly support the Nitrogen Cylinders used for the system. The skid is designed to allow easy removal and installation of the Nitrogen Cylinders.

HF Electric Actuator/Booster Actuator/Lever Release Actuator

Electric actuation is completed with the HF Electric Actuator. When utilizing only one HF Electric Actuator, an In-line Resistor is required in the supervised release circuit. The nominal voltage of the actuator is 12 VDC at 0.57 amps with a range of 12 VDC – 14 VDC. An in-line resistor must also be used to

reduce actuation voltage from a 24 VDC actuation line down to 12 VDC. An Arming Tool, supplied with the system, is required to reset the actuator. A Booster Actuator is required on the HF Electric Actuator when installed on a CV-98 Valve. The Booster Actuator requires resetting after actuation. Its Reset Tool is supplied with the system. A Lever Release Actuator is installed on top of the HF Electric Actuator to provide a manual means of actuating the system.

Flexible Discharge Bend

The Flexible Discharge Bend is a 5/8 inch (1,59 cm) I.D. extra-heavy flexible hose that connects the valve discharge outlet to the header manifold.

Header Vent Plug

The Header Vent Plug releases low pressure build-up that may occur in a closed system.

Header Safety Burst Disk

The Header Safety Burst Disk releases high pressure build-up that may occur in a closed system. The internal safety disc will rupture between 4000-4480 psi (276-309 bar).

Nitrogen Regulator

The Nitrogen Regulator is factory set to provide the proper water delivery pressure as listed in Table A.

Nitrogen Relief Valve

The Nitrogen Relief Valve is a high flow relief valve that protects the regulator from pressure spikes if the nitrogen shutoff valve is closed. Relief pressure is 300 psi (20,7 bar).

Nitrogen Shutoff Valve

The Nitrogen Shutoff Valve is a 3/4 inch (1,905 cm) stainless steel ball valve installed downstream of the Nitrogen Regulator. It provides for safe inspection and system maintenance by allowing the nitrogen flow to the water tank to be shut off. This valve must be locked open when system is in service.

Water Supply Tank Assembly

Water Shutoff Valve

The Water Shutoff Valve (Ref. Figure 2) is a 1-1/2 inch (3,81 cm) stainless steel ball valve installed in the water tank discharge piping. It provides for safe inspection and system maintenance by allowing the water flow to be shut off. This valve must be locked open when the system is in service.

Water Tank Nitrogen Drain Valve

The Water Tank Nitrogen Drain Valve is a 3/4 inch (1,91 cm) stainless steel ball valve located on top of the tank. It is used to release built up nitrogen left in the water tank after the system is discharged and the Water Shutoff Valve is closed.

CAUTION

This valve is used to release pressurized nitrogen from the water tank without discharging it throughout the system which creates significantly loud and potentially dangerous sound. It is recommended to pipe the nitrogen discharge to an area where this sound is acceptable or wear proper PPE to protect the operator from the sound created. This valve must be locked in the closed position when the system is in service.

Water Tank Nitrogen Relief Valve

The Water Tank Nitrogen Relief Valve is a high-flow relief valve that protects the water tank(s) from over-pressurizations. Relief pressure is 260 psi (17,9 bar).

600 US Gallon (2271 Liter)

Water Supply Tank Assembly

The water tank is a 600 gallon (2271 liter) capacity epoxy-coated carbon steel water tank. The tank is ASME certified up to 260 psi (17,92 bar) and 97/23/EC (PED) CE Marked. The tank features a 1-1/2 inch (3,1 cm) fill opening. The assembly features pipe and fittings which position the discharge outlet for optimal flow. A Y-strainer reduces the number of foreign particles in the water stream.

Planning

Skid Sizing and Capacity

The TYCO AQUAMIST Red-E Mist Supply Skid size will be determined by the demand of the system as well as the required discharge time. To select proper size:

1. Determine the total number of nozzles required to protect the hazard.

Note: *The Red-E Mist Supply Skid cannot be used to supply zoned systems.*

2. Determine the basic piping system design (routing, sizing, etc.) from all of the nozzles all the way back to the skid installation location.

3. Perform preliminary hydraulic calculations to determine the required demand at the skid outlet.

4. Utilize Table A to determine which size skid is needed.

Note: *The AQUAMIST Red-E Mist Supply Skid can supply systems with a capacity and pressure demand less than or equal to the values in Table A.*

Installation

The TYCO AQUAMIST Red-E Mist Supply Skid must be installed in accordance with this section. For successful performance, the entire Red-E Mist Supply Skid must be installed in a location within a temperature range of 40°F to 130°F (4°C to 54°C).

NOTE: The following items are not included when purchasing the AQUAMIST Red-E Mist Supply Skid and must be purchased separately:

- 1-1/2 Inch Nitrogen Discharge Piping
- 1-1/2 Inch Water Discharge Piping
- Nitrogen Drain
- 1-1/2 Inch Wye connector (required in 1200 Gallon (4542 Liter) systems)

Nitrogen Supply Skid

The Nitrogen Supply Skid should be located in an area with adequate space to ensure access to all serviceable components. The skid must be securely mounted or otherwise fastened on a smooth, level, hard surface capable of supporting the full weight of the unit.

The weight of a 4 cylinder Nitrogen Supply Skid is 1360 lbs. (617 kg) and the weight of an 8 cylinder Nitrogen Supply Skid is 2425 lbs. (1100 kg).

In cases where it is necessary to bring the Nitrogen Supply Skid in through openings with limited height, the high pressure nitrogen manifold may be removed. Remove the 1/4 inch (6,35 mm) U-bolts and lift the manifold off the rack. After the Skid is located in its final location, the high pressure manifold must be re-installed in the proper orientation by securing with the original U-bolts with the lock washers and nuts.

Once the Nitrogen Supply Skid is installed, the shipping caps can be removed from the cylinders. Then the Flexible Discharge Bends can be installed onto the discharge port of the CV-98 valve. Hand tighten, then tighten one quarter of a turn with a wrench (Ref. Figure 7 to locate the Outlet).

Water Supply Tank Assembly

The water supply tanks should be installed so that they can be easily refilled after use. Tanks must be installed indoors or inside of a weather-proof enclosure where operation temperature limits are maintained. Secure the tanks to the floor using four fasteners through the mounting feet on the water tank. Tanks should be spaced at least 24 inches (0,61 m) apart to allow for access during installation, operation, and servicing procedures. Ensure that the floor is strong enough to support the weight of the water

tanks. The approximate weight of one 600 gallon (2271 liter) water tank filled is 7500 lbs. (3402 kg), approximate 2500 lbs. (1133 kg) when empty.

Nitrogen Discharge Piping

Each Nitrogen Discharge Connection from the Nitrogen Supply Skid must be piped to the inlet of a Water Tank Nitrogen Supply Connector using 1-1/2 inch (3,81 cm) Schedule 40 Stainless 316 pipe. The connection must be made of less than 19 feet (5,79 m) of pipe with no more than three 90 degree elbows and three unions.

Water Tank Discharge Piping

It is necessary to pipe the discharge of the two water tanks together in a 1200 Gallon (4542 Liter) skid. The piping can be completed using the same pipe as the rest of the system. It is recommended to complete the piping with a Wye connector to reduce the friction loss of the converging flows. (Ref. Figure 1) Regardless of piping configurations, hydraulic calculations must be completed to include all of the pipe and fittings from both tank assemblies.

Water Tank Nitrogen Drain Valve Discharge Piping

The high velocity of nitrogen through the Water Tank Nitrogen Drain Valves when emptying a discharged system can cause damaging levels of sound, and the large volume of nitrogen can deplete the oxygen concentration inside a room where it is being dispensed. It is recommended to pipe the discharge from the Water Tank Nitrogen Drain Valves into an area where high sound levels are acceptable and where the nitrogen can be vented to the outside.

Piping

Pipe, tube, and nipples are to have the burrs and fins removed after cutting. Apply pipe thread sealant to male threads only. When using TEFLON tape or paste sealant, do not apply the tape or sealant any closer than one thread from the inlet of any pipe connection.

Prior to installation, each pipe or tube section is to be swabbed internally by running a clean rag, sponge, or other absorbent material, through the pipe or tube as needed to meet the internal cleanliness requirements of NFPA 750, Standard on Water Mist Fire Protection Systems.

Hangers

Selection and installation of the piping system hangers on all piping added to the TYCO AQUAMIST Red-E Mist Supply Skid must be in accordance with the specifications of NFPA 13, Standard for the Installation of Sprinkler Systems, and NFPA 750, Standard on Water Mist Fire Protection Systems.

Install FM Approved pipe hangers in accordance with good piping practices as well as the following standards:

- Refer to ASME B31.1, "Power Piping Code," and any appropriate local codes and standards
- A hanger should be installed between fittings when the fittings are more than 2 ft. (0,6 m) apart.

Setting the Skid for Service

Use the following procedure when setting the system for service the first time, or after service which involves complete draining of the system:

Step 1. Test HF Electric Actuator and Booster Actuator.

When testing the HF Electric Actuator and Booster Actuator they must not be installed on the CV-98 cylinder valve. If installed, testing the electronic detection system will cause actuation and discharge of the system. In order to properly test the electric detection and actuation, attach the Booster Actuator to the HF Electric Actuator and energize the release circuit.

When the HF Electric Actuator/Booster Actuator is actuated correctly, the piston in the bottom of the actuators will be locked in the down position. Reset the HF Electric Actuator and Booster Actuator by following the instructions in the Skid Reset after Discharge section.

Step 2. Install HF Electric Actuator and Booster Actuator.

The Actuator Stack can be installed on any of the four or eight nitrogen cylinders on the Nitrogen Supply Skid (Ref. Figure 7). To install the actuator stack, make sure that the Booster Actuator is set to the armed position. This can be confirmed by visually checking the position of the top and bottom pins. When in the set position, the top pin will be approximately flush with the top of the actuator. The bottom pin will be flush with the inside surface of the actuator.

If the Booster Actuator requires setting, use the Arming Tool and follow the instructions listed in the Skid Reset after Discharge section. Then, hand-tighten the actuator onto the cylinder valve. Next, make certain that the HF Electric Actuator is in the armed position. When in the set position, the top pin will be flush with the actuator.

If the Electric Actuator requires resetting, use the Arming Tool and follow the instructions listed in the System Reset after Discharge section. Then hand-

tighten the HF Electric Actuator onto the Booster Actuator.

If all other installations are complete, connect electrical power to the HF Electric Actuator. To install wiring for the HF Electric Actuator, refer to the HF Electric Actuator Instruction Sheet. The Lever Actuator can then be installed hand-tight on top of the HF Electric Actuator.

Step 3. Fill water tanks.

In order to fill the water tanks, the Nitrogen Shutoff Valve must first be closed. Then the union on top of the tank can be disassembled and the tank can be filled to the bottom of the collar. The union can be reconnected and tightened securely.

Note: Fill tank with clean, debris-free, potable water; demineralized water is recommended.

Step 4. Set valves.

Ensure that the Nitrogen Shutoff Valves and Water Discharge Shutoff Valves on the system are locked in the open position. Also ensure that the Water Tank Nitrogen Drain Valve on top of the water tank is locked in the closed position.

The system is now set for service.

Skid Reset after Discharge

After system operation due to a fire and upon verification that the fire has been extinguished, the TYCO AQUAMIST Red-E Mist Supply Skid must be reset as soon as possible.

Step 1. When water is no longer flowing out of the system, the Water Discharge Shutoff Valve(s) can be shut. Once the Water Discharge Shutoff Valve(s) are shut, the Water Tank Nitrogen Drain Valve on top of the tank(s) can be opened to allow the pressure inside of the water tank(s) and cylinders to be relieved.

CAUTION

Pressurized nitrogen flowing out of the nitrogen drain valve can cause damaging levels of sound. Operators should take precaution and wear proper personal protective equipment to protect themselves from the sound. It is recommended to pipe the nitrogen drain into an area in which the high level of sound is acceptable.

Leave the Water Tank Nitrogen Drain Valve open until all the nitrogen is drained out of the cylinders and the water tank.

Step 2. The nitrogen cylinders can then be removed and refilled. First, remove

the Flexible Discharge Bend from the cylinders' outlets. Then, remove all actuators from the CV-98 Valves. While the cylinders are still in the bracketing, relieve any remaining pressure in the cylinders. This is done by first ensuring that the discharge outlet cap is not installed on the valve outlet. Next, attach the Bleed-down Device to the valve Fill Port.

CAUTION

Attach the Bleed-down Device to the Fill Port of discharged cylinders only. Never attach this device to fully charged cylinders as this will cause high pressure to discharge out of the Fill Port. Only install the device hand-tight. Do not wrench-tighten.

Bleed residual pressure from the cylinder. Make sure the cylinder is completely empty before removing the Bleed-down Device. Once the cylinder is empty, remove the bleed-down device and install the shipping cap. This must be completed on all Discharged cylinders in the system. When all the cylinders are empty, they can be removed from the bracketing. Before refilling cylinders, determine if the cylinder requires hydrostatic testing prior to being recharged. Note last hydrostatic test date on the cylinder collar. If the cylinder does not have a star stamp, it requires testing five years from last test date. If the cylinder has a star stamp, it requires a hydrostatic test ten years from the last test date. For TPED approved cylinders, the hydrostatic testing requirement is every ten years after the date of manufacture.

The cylinders must be recharged to factory specifications: 2900 to 3000 psi (200 to 207 bar) at 70°F (21°C). Nitrogen must be filled at a minimum purity of 99.9% vol. with maximum oxygen content of 10 ppm and maximum moisture content of 4 ppm. The fully charged cylinders can now be secured in the bracketing. The safety shipping cap can be removed from the cylinder and saved for later use.

WARNING

Do not stand in front of the cylinder valve outlet. Accidental operation of the valve may allow nitrogen gas to escape at a high velocity. Failure to do so may result in serious injury.

The Flexible Discharge Bend can now be installed to each Nitrogen Cylinder Valve discharge outlet and wrench-tightened.

Step 3. Drain all water from the system. It may be necessary to open the pipe caps located on the bottom of the water tank piping located near the water shutoff valve on the water tank(s) and

open the water shutoff valve in order to drain the water from the entire system.

Step 4. Clean the system strainer(s).

Step 5. The HF Electric Actuator must be reset after each use. Remove the Lever Release Actuator from the top of the HF Electric Actuator before resetting. Use the Arming Tool to re-arm. First, remove the electrical power to the HF Electric Actuator and then remove the actuator from the CV-98 Valve. Next, use the Arming Tool to push up on the actuator pin located at the bottom of the actuator. The actuator pin will be locked in the armed position when a "click" is heard. Do not reinstall the HF Electric Actuator until the Booster Actuator is installed.

NOTICE

Do not hold the actuator upside-down on a hard surface during the resetting procedure. The stem assembly on the top of the actuator must be able to extend above the top surface to the actuator to reset.

Step 6. The Booster Actuator must also be reset after each use. Do not attempt to reset the Booster Actuator while it is attached to the HF Electric Actuator. A Reset Tool is required.

To reset, first remove the Booster Actuator from the CV-98 Valve. Next, make sure that the internal threaded plug in the Reset Tool is backed out approximately half-way. The Reset Tool can then be hand-tightened to the bottom of the Booster Actuator. Once the tool is installed, the threaded plug of the Reset Tool can be turned clockwise (into the actuator) until a "click" is heard. The threaded plug can then be backed out one or two turns and the Reset Tool can be removed from the Booster Actuator. Finally, confirm that the Booster Actuator is reset properly: the top pin of the Booster Actuator will be approximately flush with the top of the actuator; the bottom pin will be flush with the inside surface of the actuator.

The system may now be set back into service. Refer to the Setting the Skid for Service section.

Care and Maintenance

The TYCO AQUAMIST Red-E Mist Supply Skid must be inspected, tested, maintained and serviced in accordance with this section.

Before closing a fire protection system control valve for inspection, testing, or maintenance work on the fire protection system that it controls, obtain permission to shut down the affected fire protection system from the proper authorities and notify all personnel who may be affected by this action.

After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the requirements of NFPA 750, Standard on Water Mist Fire Protection Systems, NFPA 22, Standard for Water Tanks for Private Fire Protection, and additional standards required by the authority having jurisdiction. Contact the installing contractor or product manufacturer with any questions.

Fixed water mist systems for fire protection should be inspected, tested, and maintained by a qualified Inspection Service in accordance with:

- FM Global Property Loss Prevention Data Sheet 2-81
- FM Global Property Loss Prevention Data Sheet 4-2
- local requirements and/or national codes

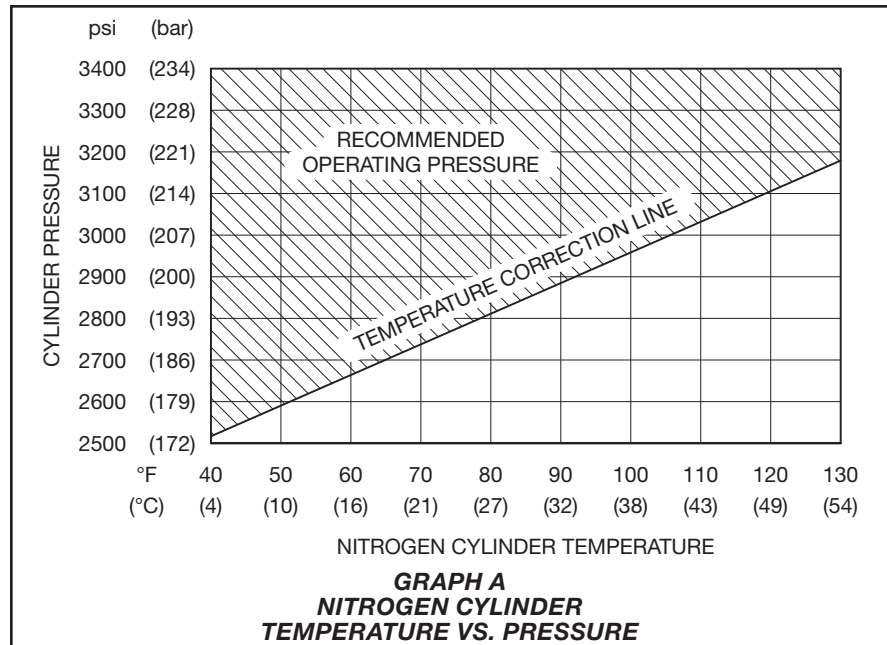
All strainers in the Red-E Mist Supply Skid must be cleaned and inspected after every system operation.

Test Procedure

The system test procedure is to be performed per NFPA 750 and NFPA 25 to verify proper operation of alarms and skid actuation. Refer to NFPA 750, Standard on Water Mist Fire Protection Systems for additional required testing.

Testing the system will result in operation of fire alarms. Before testing a fire protection system that is in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

Step 1. Ensure all Nitrogen Cylinders are properly secured by the brackets in the rack. Check each cylinder assembly for corrosion, damage, missing components, and the last hydrostatic test date.



Step 2. If equipped, remove the Lever Release Actuator, HF Electric Actuator, and Booster Actuator from the CV-98 Valve assembly.

Step 3. Check each cylinder annually with the Pressure Test Assembly to determine if the pressure is within the acceptable range (Ref. Graph A).

To use the pressure test assembly, first make certain the cylinder is properly bracketed. Before attaching the assembly, make certain the stem is completely backed out by turning the hand wheel counterclockwise until it stops. Attach the assembly to the fill port of the Nitrogen Cylinder Valve and wrench-tighten.

To read the cylinder pressure, turn the hand-wheel completely clockwise until it stops, then back off 1/4 turn. This will open the fill port. After pressure has been read, close the fill port by turning the hand wheel completely counterclockwise. Slowly loosen the adapter nut to remove the pressure test assembly from the fill port. A hissing sound may be heard; this is normal and will not last long. The gauge pressure will drop to zero. Record the cylinder pressure for reference on the next pressure test. Visually note the location of the indicator needle on the cylinder valve to determine if it is in close proximity to the actual reading on the test gauge.

Step 4. Check the condition of all Flexible Discharge Bend. Look for signs of structural problems like abrasion or weather checking. Ensure all Flexible Discharge Bends are connected properly.

Note: Flexible Discharge Bends must be hydrostatically tested every five years.

Step 5. Check the condition and operation of all actuators by first removing the Lever Actuator, HF Electric Actuator, and Booster Actuator from the cylinder. Refer to the Setting the Skid for Service section for HF Electric Actuator and Booster Actuator test procedures. Check the condition of the Lever Release Actuator and ensure that it operates freely.

Step 6. Check the water supply tank(s) by first removing the inspection seal from the red Nitrogen Shutoff Valve and black Water Shutoff Valve. Rotate the valve handles to the closed positions. Disconnect the union on the top of the tank(s) and inspect the threads in the union nut and on the union coupling for nicks, burrs, cross threading, and rough or feathered edges. Clean the union if necessary. Ensure that the water supply is filled to the bottom of the collar and then replace the union securely. Finally, re-open the red Nitrogen Shutoff Valve and the black Water Shutoff Valve and seal with visual inspection seals.

Re-install Booster Actuator, HF Electric Actuator, and Lever Actuator on the CV-98 Valve.

Ensure the system is properly returned to service. Refer to the Setting the Skid for Service section.

System Applicability	FM Approvals Required Discharge Time (Minutes)	Red-E Mist Supply Skid Model	Water Supply Volume Gallons (liters)	Maximum Flow Rate gpm (lpm)	Outlet Pressure psi (bar)	Number of Nitrogen Supply Cylinders	Number of Water Supply Tanks	CE Marking	Part Number
TYCO AQUAMIST Red-E Mist Supply Skid Fire Suppression System for Industrial Fryer Protection (Refer to Technical Data Sheet TFP2241)	10	600	600 (2271)	60 (227)	215 (14,8)	4	1	No	478328
								Yes	26703
		1200	1200 (4542)	120 (454)	215 (14,8)	8	2	No	478329
								Yes	26704
Total Compartment Deluge System for the Protection of Machinery Spaces & Combustion Turbine Enclosures (Refer to Technical Data Sheet TFP2234)	40	600	600 (2271)	14 (53)	220 (15,2)	4	1	No	478642
								Yes	26761
		1200	1200 (4542)	28 (106)	220 (15,2)	8	2	No	478643
								Yes	26762
TABLE A AQUAMIST RED-E MIST SUPPLY SKID PART NUMBER SELECTION									

Limited Warranty

For warranty terms and conditions, visit www.tyco-fire.com.

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and part number (P/N).

AQUAMIST Red-E Mist Supply Skid

Specify: AQUAMIST Red-E Mist Supply Skid, Model (specify), P/N (specify per Table A)

Replacement Parts and Accessories

Refer to Figure 1 for list of replacement parts and accessories and part numbers.

Specify: (description), P/N (specify)