

## Ultra Low Flow AQUAMIST Nozzle Type ULF AM15 Non-Automatic (Open)

### General Description

The TYCO Ultra Low Flow AQUAMIST Nozzle Type ULF AM15 is an upright, stainless steel, open (non-automatic) intermediate pressure nozzle which utilizes a single fluid jet impinging on a diffuser to produce a spray having a range of water droplet sizes. It is intended for use in engineered, water mist deluge systems in marine applications under the Guidelines for Approval of Fixed Water-Based Local Application Fire – Fighting Systems for Use in Category A Machinery Spaces, MSC/Circ. 913 (4 June 1999).

It is recommended that the end user be consulted with respect to the suitability of the materials of construction and finish for any given corrosive environment. The effects of ambient temperature, concentration of chemicals, and gas/chemical velocity, should be considered, at a minimum, along with the corrosive nature to which the nozzles may be exposed.

#### NOTICE

The Type ULF AM15 AQUAMIST Nozzles described herein must be installed and maintained in compliance with this document, as well as with the applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), in addition to the standards of

#### IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Always refer to Technical Data Sheet TFP700 for the "INSTALLER WARNING" that provides cautions with respect to handling and installation of sprinkler systems and components. Improper handling and installation can permanently damage a sprinkler system or its components and cause the sprinkler to fail to operate in a fire situation or cause it to operate prematurely.

any other authorities having jurisdiction. Failure to do so may impair the performance of these devices.

The design of individual watermist systems can vary considerably, depending on the characteristics and nature of the hazard and the basic purpose of the watermist system. Because of these variations, the design of watermist systems for fire protection must only be performed by experienced designers who thoroughly understand the limitations as well as capabilities of such systems.

The owner is responsible for maintaining their fire protection system and devices in proper operating condition. Contact the installing contractor or product manufacturer with any questions.

### Technical Data

#### Approvals

UL Certified  
Tested to IMO MSC/Circ. 913 (4 June 1999)

#### Minimum Working Pressure

175 psi (12 bar)

#### Maximum Working Pressure

250 psi (17,2 bar)

#### Discharge Coefficient

$K = 0.33 \text{ GPM/psi}^{1/2}$  ( $K = 4,7 \text{ LPM/bar}^{1/2}$ )

#### Thread Connection

1/2 in. NPT

#### Physical Characteristics

|                      |                 |
|----------------------|-----------------|
| Frame .....          | Stainless Steel |
| Strainer .....       | Stainless Steel |
| Orifice Insert ..... | Stainless Steel |
| Diffuser .....       | Stainless Steel |
| Shield .....         | Stainless Steel |

The smallest waterway (orifice) diameter of the Orifice Insert is nominally 0.106 in. (2,69 mm), and the diameter of the Inlet Strainer perforations are nominally 0.060 in. (1,52 mm).



### Design Criteria

Obtain guidance for the design of a watermist system that utilizes the TYCO Type ULF AM15 AQUAMIST Nozzles from the Technical Services Department.

### Installation

The TYCO Type ULF AM15 AQUAMIST Nozzles must be installed in accordance with this section:

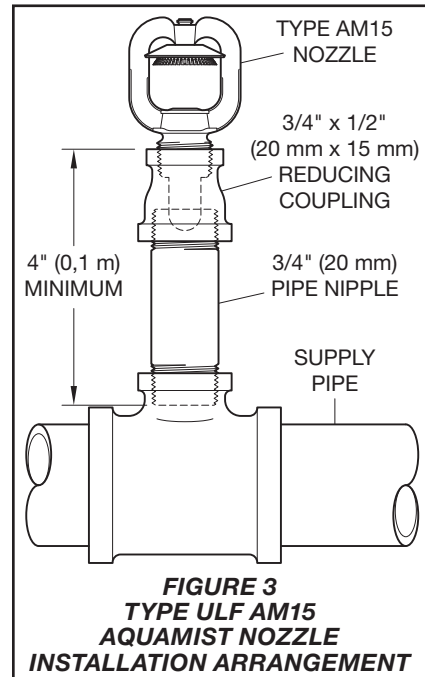
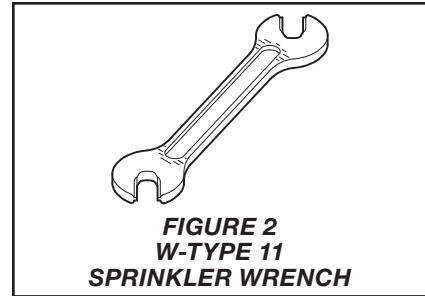
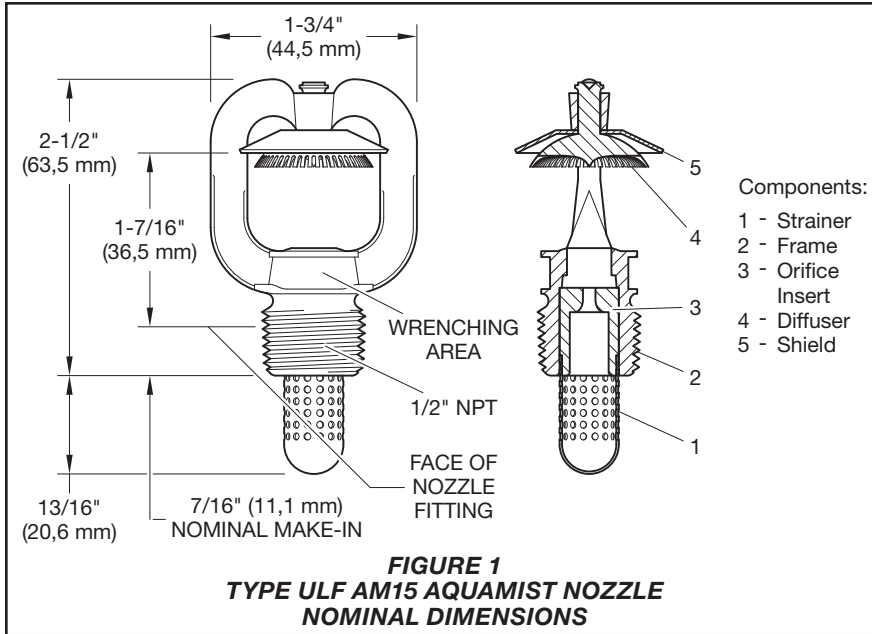
#### General Instructions

A leak tight 1/2 in. NPT nozzle joint should be obtained with a torque of 7 to 14 lb-ft (9,5 to 19,0 N·m). Higher levels of torque may distort the nozzle inlet and cause leakage or impairment of the nozzle.

Nozzles must be installed using 0.1 m minimum length pipe extensions as illustrated in Figure 3.

**Step 1.** With pipe thread sealant applied to the pipe threads, hand tighten the nozzle into the nozzle fitting.

**Step 2.** Tighten the nozzle into the nozzle fitting using only the W-Type 11 Sprinkler Wrench (Ref. Figure 2). With reference to Figure 1, the W-Type 11 Sprinkler Wrench is to be applied to the wrenching area.



## Care and Maintenance

The TYCO Type ULF AM15 AQUAMIST Nozzles must be maintained and serviced in accordance with this section.

Before closing a fire protection system main control valve for maintenance work on the fire protection system that it controls, permission to shut down the affected fire protection system must be obtained from the proper authorities and all personnel who may be affected by this action must be notified.

Non-automatic nozzles must never be painted, plated, coated or otherwise altered after leaving the factory; otherwise, the spray performance may be impaired. Modified nozzles must be replaced if they cannot be completely cleaned by wiping the nozzle with a cloth or by brushing it with a soft bristle brush.

Care must be exercised to avoid damage to the nozzles before, during, and after installation. Nozzles damaged by dropping, striking, wrench twist/slip-page, or the like, must be replaced.

Frequent visual inspections are recommended to be initially performed for nozzles installed in potentially corrosive atmospheres to verify the integrity of the materials of construction and finish as they may be affected by the corrosive conditions present for a given installation. Thereafter, annual inspections per NFPA 25 are required.

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 applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION, for example, NFPA 25, in addition to the standards of any authority having jurisdiction. Contact the installing contractor or product manufacturer with any questions.

Water mist systems should be inspected, tested, and maintained by a qualified Inspection Service in accordance with local requirements and/or national codes.

## Limited Warranty

For warranty terms and conditions, visit [www.tyco-fire.com](http://www.tyco-fire.com).

## Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number.

**Type AM15 AQUAMIST Nozzle**  
 Specify: Type ULF AM15 AQUAMIST Nozzle, Stainless Steel, P/N 49-215-0-001

**Sprinkler Wrench**  
 Specify: W-Type 11 Sprinkler Wrench, P/N 56-452-1-001