

AquaMist® Nozzles Type AM4 Non-Automatic (Open)

General Description

The Tyco® Type AM4 AquaMist Nozzles are stainless steel, open (non-automatic) nozzles intended for use with total compartment, engineered, water mist deluge systems. They are intermediate pressure nozzles which utilize a single fluid jet impinging on a diffuser to 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.

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 AM4 AquaMist Nozzles described herein must be installed and maintained in compliance with this document and with the applicable standards of the National Fire Protection Association, in addition to the standards of 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 water 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. The installing contractor or sprinkler manufacturer should be contacted with any questions.



Physical Characteristics

Frame	Stainless Steel
Strainer	Stainless Steel
Orifice Insert	Stainless Steel
Diffuser	Stainless Steel
Dust Cap	Buna-N

The smallest waterway (orifice) diameter of the Orifice Insert is nominally 0.091 inches (2,31 mm), and the diameter of the Inlet Strainer perforations are nominally 0.060 inches (1,52 mm).

Patent

U.S.A. No. 5,392,993.

Technical Data

Discharge Coefficient

$K = 0.24 \text{ GPM/ft}^{1/2}$
($K = 3,5 \text{ LPM/bar}^{1/2}$)

Thread Connection

1/2 inch NPT

Finish

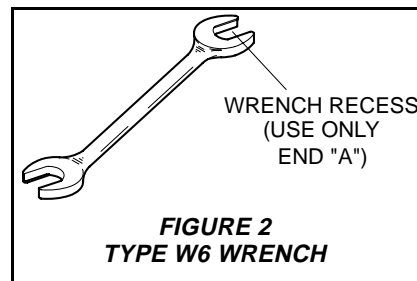
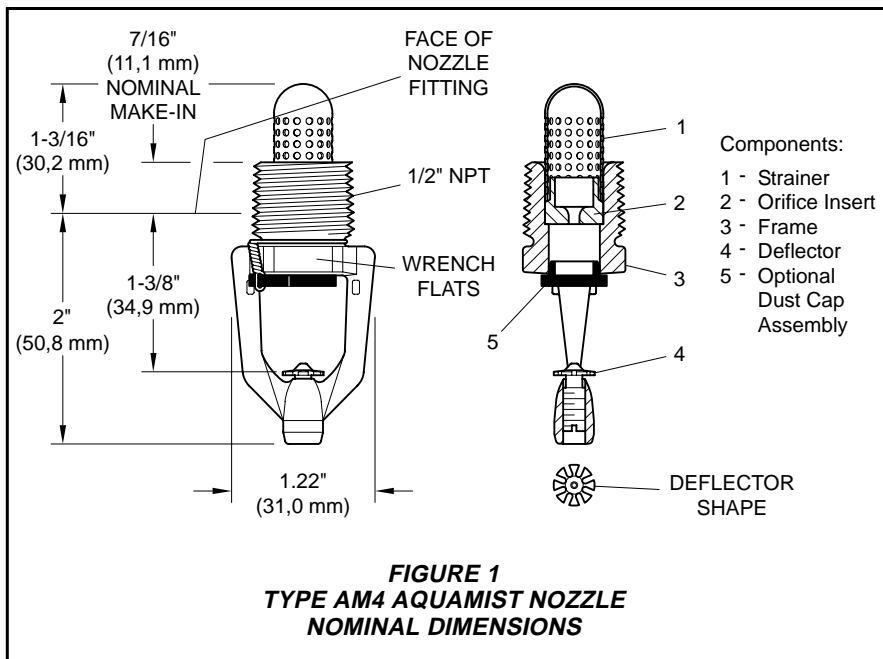
Natural stainless steel

Design Criteria

Guidance for the design of a watermist system that utilizes the Tyco® Type AM4 AquaMist Nozzles is to be obtained from the Technical Data Sheet TFP2234.

IMPORTANT

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 nozzle to fail to operate in a fire situation or cause it to operate prematurely.



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 (e.g., NFPA 25), in addition to the standards of any other authorities having jurisdiction. The installing contractor or sprinkler manufacturer should be contacted relative to any questions.

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

Installation

NOTICE

A 1/2 inch NPT nozzle joint should be obtained with a minimum to maximum torque of 7 to 14 ft.lbs. (9,5 to 19,0 Nm). Higher levels of torque may distort the nozzle inlet and cause leakage or impairment of the nozzle.

The **Type AM4 AquaMist Nozzles** must be installed in accordance with the following instructions.

Step 1. The AM4 is to be installed in the pendent position as shown in Figure 1.

Step 2. With pipe thread sealant applied to the pipe threads, hand tighten the nozzle into the nozzle fitting.

Step 3. Tighten the nozzle into the nozzle fitting using only the W-Type 6 Wrench (Ref. Figure 2). With reference to Figure 1, the W-Type 6 Wrench is to be applied to the wrenching area.

Care and Maintenance

The Tyco® Type AM4 AquaMist Nozzles must be maintained and serviced in accordance with the following instructions:

NOTICE

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.

Type AM4 AquaMist Nozzles must never be painted, plated, coated or altered in any way after leaving the factory; otherwise, the spray performance may be impaired.

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

Limited Warranty

Products manufactured by Tyco Fire Suppression & Building Products (TFSBP) are warranted solely to the original Buyer for ten (10) years against defects in material and workmanship when paid for and properly installed and maintained under normal use and service. This warranty will expire ten (10) years from date of shipment by TFSBP. No warranty is given for products or components manufactured by companies not affiliated by ownership with TFSBP or for products and components which have been subject to misuse, improper installation, corrosion, or which have not been installed, maintained, modified or repaired in accordance with applicable Standards of the National Fire Protection Association, and/or the standards of any other Authorities Having Jurisdiction. Materials found by TFSBP to be defective shall be either repaired or replaced, at TFSBP's sole option. TFSBP neither assumes, nor authorizes any person to assume for it, any other obligation in connection with the sale of products or parts of products. TFSBP shall not be responsible for sprinkler system design errors or inaccurate or incomplete information supplied by Buyer or Buyer's representatives.

In no event shall TFSBP be liable, in contract, tort, strict liability or under any other legal theory, for incidental, indirect, special or consequential damages, including but not limited to labor charges, regardless of whether TFSBP was informed about the possibility of such damages, and in no event shall TFSBP's liability exceed an amount equal to the sales price.

The foregoing warranty is made in lieu of any and all other warranties, express or implied, including warranties of merchantability and fitness for a particular purpose.

This limited warranty sets forth the exclusive remedy for claims based on failure of or defect in products, materials or components, whether the claim is made in contract, tort, strict liability or any other legal theory.

This warranty will apply to the full extent permitted by law. The invalidity, in whole or part, of any portion of this warranty will not affect the remainder.

Ordering Procedure

When placing an order, indicate the full product name and P/N.

Contact your local distributor for availability.

AM4 AquaMist Nozzles:

Specify: Stainless Steel Type AM4 AquaMist Nozzle, PSN 49-204-0-001.

AM4 AquaMist Nozzles with Dust Caps:

Specify: Stainless Steel Type AM4 AquaMist Nozzle with Dust Cap, PSN 49-204-0-011.

Wrench:

Specify: Type W6 Wrench, P/N 56-000-6-387.

