



## Ultra Fog Nozzle Test Tool

High-pressure water mist  
fire protection

[www.ultrafog.com](http://www.ultrafog.com)

## About **Ultra Fog**

For more than 25 years, Ultra Fog has been developing their high-pressure sprinkler system for fighting fires with water mist.

Our high-pressure water mist system is powerful, fast-acting and fully approved by IMO, FM, UL and recognized by major State Fire Services. We have a unique range of fog nozzles developed for a variety of applications. A simple design with few components in the nozzle ensures high operational reliability and minimizes the cost of maintaining the system.

We make the nozzles, and we also supply all the parts needed for installation, using and maintenance of the system, including Pump Units, Section Valves, and Accumulators.

In 2017 Ultra Fog also developed a Nozzle Test Tool which facilitates and encourages our clients to ensure that their Water mist system remains fully functional throughout its lifetime. The Nozzle Tool is an easy to use fail-safe system that enables the testing of every single nozzle without the need to dismount the nozzle from the ceiling or to break the temperature sensing bulb.

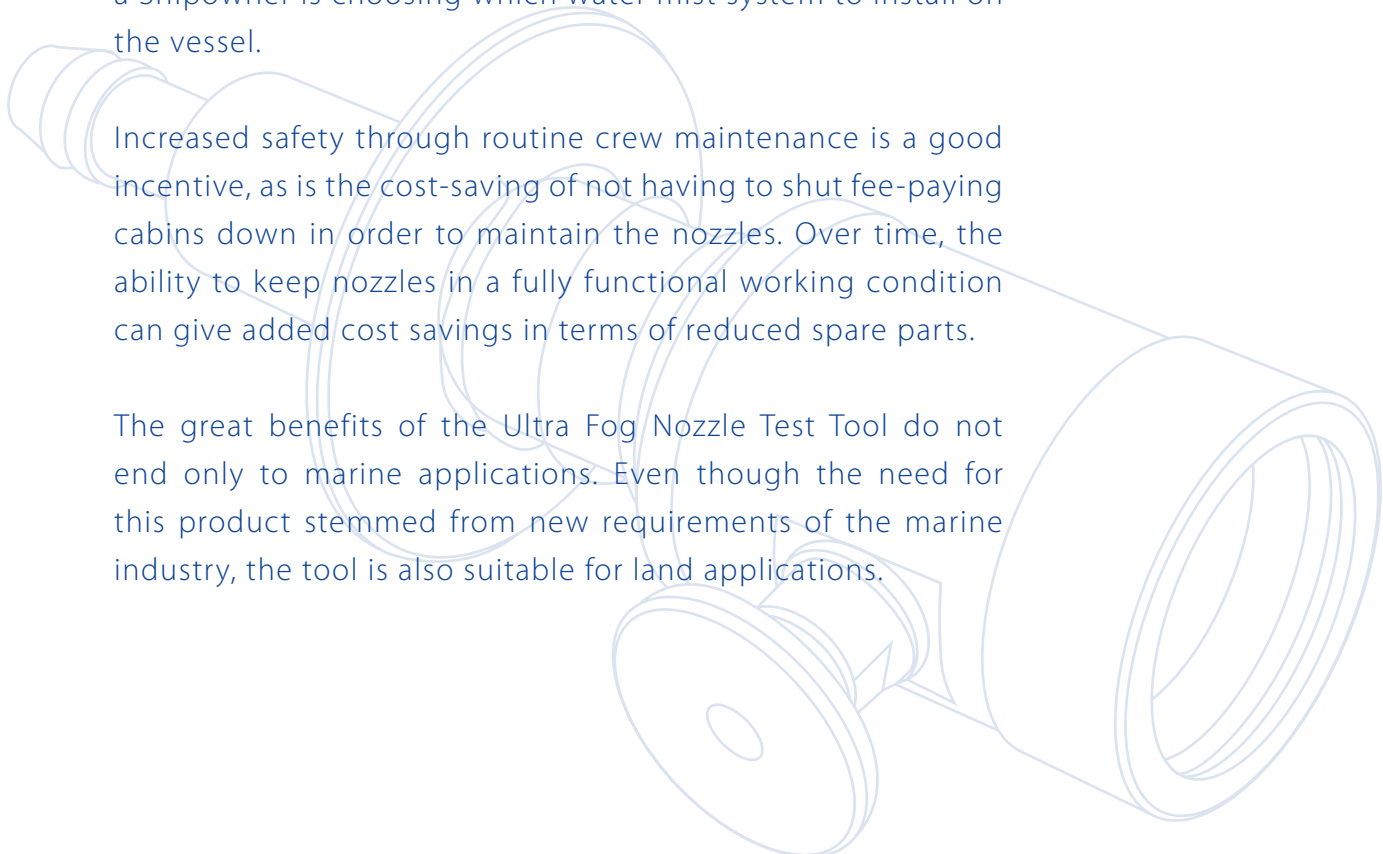
# About **Ultra Fog** Nozzle Test Tool

Ultra Fog Patented Nozzle Test Tool was introduced to the market in 2017 and has been tested and endorsed by Class Surveyors. It was recently brought to the attention of Class & Flag Surveyors that overtime water mist nozzles may become clogged or corroded due to sediment build-up behind the nozzle, where water can sit in the distribution lines for several years without moving. It was discovered that up to 80% of nozzles could be influenced by clogging, resulting in an inoperative fire extinguishing system, creating an unacceptable risk to life and property.

It is undeniable that the Nozzle Tool is a deciding factor when a Shipowner is choosing which water mist system to install on the vessel.

Increased safety through routine crew maintenance is a good incentive, as is the cost-saving of not having to shut fee-paying cabins down in order to maintain the nozzles. Over time, the ability to keep nozzles in a fully functional working condition can give added cost savings in terms of reduced spare parts.

The great benefits of the Ultra Fog Nozzle Test Tool do not end only to marine applications. Even though the need for this product stemmed from new requirements of the marine industry, the tool is also suitable for land applications.





## Nozzle **clogging problem**

The corrosion of steel is an electrochemical process that requires the simultaneous presence of moisture and oxygen. Essentially, the iron in the steel is oxidised to produce rust, which occupies approximately six times the volume of the original material.

Due to the discovery of the “nozzle clogging problem” by a Bahamas Flag Surveyor was concluded that up to 80% of water mist nozzles installed on passenger’s vessels could be clogged and dysfunctional. This led to the revision of IMO rules in order to improve the maintenance of water mist systems in the marine industry. Carnival Cruise Lines and many other fleet operators have introduced new measures to respond to IMO standards in order to increase the safety of passengers and crew. The Nozzle Tool is a testament to Ultra Fogs ability to respond and stay ahead of market needs and regulations.

Ultra Fog has developed a Nozzle Tool which facilitates and encourages onboard crew to ensure that their Watermist system remains fully functional throughout its lifetime. The Nozzle Tool is a failsafe system which enables the testing of every single nozzle without the need to dismount the nozzle from the ceiling or to break the temperature sensing bulb.

## Ultra Fog Nozzle Test Tool for Marine Applications

All marine fire suppression systems are rigorously tested and approved according to IMO rules. They follow a Class Register annual maintenance program to satisfy legal demands. In response to increased stringency in Class requirements, Ultra Fog has developed a Nozzle Tool. The device facilitates and encourages the onboard crew to ensure that their water mist system remains fully functional throughout its lifetime.

For marine applications, Ultra Fog Nozzle Test Tool helps with the maintenance of sprinkler system in vessels, ships, yachts and ferries.

## Ultra Fog Nozzle Test Tool for Land Applications

Ultra Fog Nozzle Test Tool in land applications helps to prevent microbiologically influenced corrosion and keeps nozzles in a fully functional working condition. The Test Tool may be used for all types of land structures and buildings where the Ultra Fog water mist system is installed.



Rolling Stock



Marine



Land



Offshore



## Ultra Fog Test Tool prevents pipes from clogging

The Ultra Fog Nozzle Test Tool releases the piston and allows water to flow through the nozzles without breaking the glass bulb. The idea is to check whether the piston is working correctly. This enables flushing of the ends of the distribution pipes, displacing and siphoning away any sediment which might have built up. A flow monitor can verify that the correct water flow can spring from the nozzle when the system is activated.

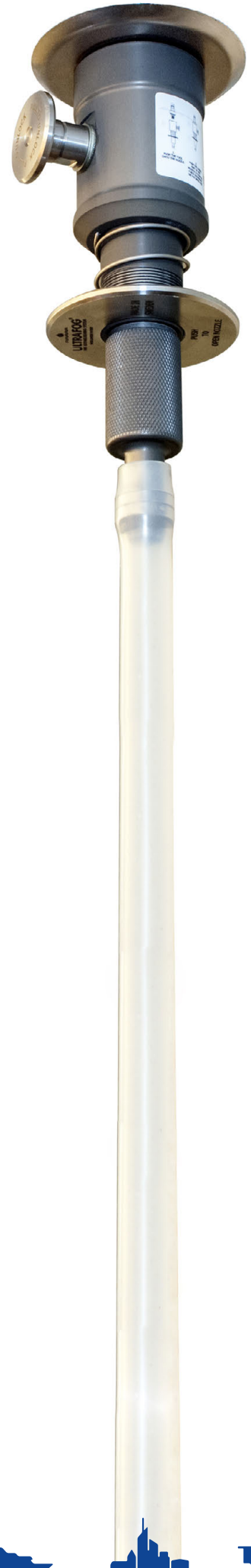
The ability for the crew to use this tool makes the maintenance of the nozzle fast and effective without the need for a specialized technician to come on the vessel. This means that the onboard daily or weekly routine of nozzle verification can be simplified. Using the Ultra Fog Nozzle Test Tool saves time, saves money but, above all, ensures that the safety system is fully functional and active at all times.

## Ultra Fog Nozzle Test Tool protects pipes from corrosion

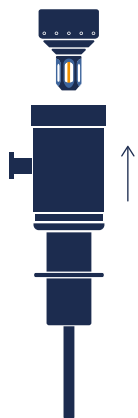
Pipelines are intended to transport the water, but what if at the moment water is not floating? Well, then microorganisms may interact with the pipes, causing microbiologically influenced corrosion (MIC) which may influence flow of the water in case of fire.

Microbiologically influenced corrosion refers to the influence of microorganisms on the corrosion processes of metals. This may sound like a minor issue, but nothing more wrong - it's been counted that MIC related industrial loss in Australia it is estimated to be \$5bln yearly. This example shows how serious the microbiologically influenced corrosion issue is.

However, MIC might be avoided by using the Ultra Fog Nozzle Test Tool, which prevents standing water in pipes and, hence, prevents microbiologically influenced corrosion. Thanks to the tool, standing water together with dangerous microorganisms is removed from the pipes and nozzles.



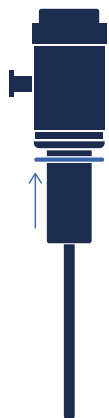
# Ultra Fog Nozzle Test Tool 5 steps manual



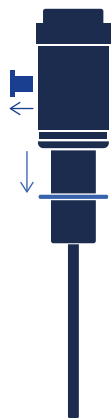
1. Push the tool onto the nozzle.



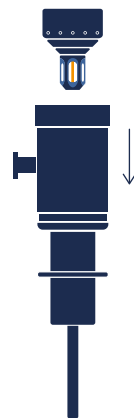
2. Handle will click - this means the tool is applied correctly.



3. Push the lower part up and hold it. When pressed up completely, water will begin to flow.



4. Gently release the lower part to stop the flow of the water and pull the handle.



5. Detach the Test Tool.



## Easy testing

A key advantage of the Ultra Fog Nozzle Tool is that it can be used by a non-specialised crew with minimal instruction (5 minute demonstration or video). It is intended to complement the periodic maintenance programmes provided by Ultra Fog's aftersales and service division. The introduction of the Ultra Fog nozzle tool is gaining worldwide endorsement from Ship Owners and is ensuring that Ultra Fog remains at the technological frontier of the water mist industry.

## No technical knowledge needed to use

The Ultra Fog Nozzle Tool has effectively put the "human" back into water mist system maintenance, ensuring simple, frequent routines which can be carried out by crew without the need for specialized technical knowledge and without the need to shut down entire areas of the ship for maintenance procedures.



Rolling Stock



Marine



Land



Offshore

Since 1990, Ultra Fog has been committed to a continuous programme of product development and fire testing in response to the latest rules, regulations, and worldwide standards. Ultra Fog products are 3rd party tested and approved, in accordance with internationally recognised test protocols.

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