

# MISTNOZZLE

## FIREBUG TECHNOLOGY

An evolution in research and development, enhancing fire fighter safety through science and technology.











# THE MISTNOZZLE IS A LEADING PRODUCT IN THE REVOLUTION OF

FIRE FIGHTING TECHNOLOGY.

The launch of the WaterMist nozzle introduces a new dimension in fire fighter safety and efficiency. Designed, developed and manufactured in the UK, using tried and tested micron technology, the nozzle encapsulates science in order to provide ultimate cooling with unrivalled levels of fire fighter safety. Not only does this WaterMist nozzle provide safety, rapid cooling and extinguishing it is also the most water efficient nozzle on the world market today, approximately 65% more efficient than other comparative nozzles.

Designed to be intuitive, the nozzle has one-click switch-function technology, allowing the transition between Jet Mode and Watermist Mode to be instantaneous and easy minimising room for error and ensuring safe mode selection.





The plug-and-go functionality of the fire fighting nozzle works with most existing hose reels and has been specifically designed to be quick and easy to use; simply attach the hose, selecting the correct mode and open the nozzle - so instinctive that little or no training is required.

With water being a valuable resource the world over, the Maxi and Mini misting nozzle deliberately uses less water during operation. Studies have shown a significantly increased efficiency in water usage during like-for-like product trials; a product that protects the environment makes fire fighters safer and reduces operations costs. The WaterMist absorbs 2257kj per litre.

Using the powerful combination of science, design and technology this nozzle completently combats the effects of smoke within the fire environment, providing an impressive and unique solution to combat the effects of smoke scrubbing.



### Standard Hose Reel connectors to retrofit with all existing hose reels

- One-Click intuitive Jet/Mist mode rotation switch for simple mode change
- Hard wearing externally mounted Anodised Aluminium Nozzle
- Traditional, ergonomic, easy grip handle
- WaterMist mode for rapid cooling, smoke scrubbing and water saving
- Jet Mode for initial suppression from a distance
- Anodised aluminium branch with protective rubber sleeve

### **WATER SAVING ADVANTAGES**

- Reduced operational costs
- Improved turn around times
- Less water damage to property
- Reduced run off / Environmental



PRODUCT OVERVIEW



By applying low pressure fine water droplets, known as "WaterMist" over, around and into the flame, our WaterMist technology suffocates the fire. As the mist converts to steam it reduces the oxygen, simultaneously reducing the temperature at the source of the fire, therefore eliminating the production of flammable gases (free radicals). Having reduced the oxygen and cooled the fire, the flames are extinguished.

The WaterMist technology generates a consistent droplet size of around 50 – 75 microns, which equates to an excess of 1,910,828,025 droplets from 1L of water giving a surface area of 120 sqm.

This provides a large surface area for the successful exchange of energy, approximately 2592 kJ/kg, which is responsible for the rapid cooling of the fire

# WATERMIST EXPLAINED





## **The Fire Triangle**



3 elements that are required for a fire to ignite.

Remove any 1 of these elements and the fire will be extinguished.



 Heat is applied to a combustible material, the temperature of the material rises and free radicals begin to form



The gases burn, generating heat and forming more free radicals



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5. The fire is extinguished. Steam (inert) formed by the mist during extinguishing continues to evaporate, dissipating the heat and oxygen from the fire source, cooling the material to prevent re-ignition



 Free radicals and gases become airborne, and begin to bond with oxygen in the air. Once there is sufficient amount of gas formed, it ignites (Pyrolysis)



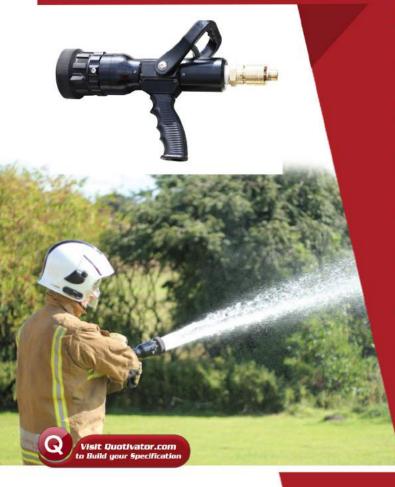


 The system activates, removing 2 of the 3 Fire Triangle Elements. Heat is removed via the mist droplets and the oxygen particle via the stream.





# MISTNOZZLE MAXI



Agent: Water

Operating Pressure: 20 bars

Material: Body: Aluminium (6082 t6)

Nozzle: HE15 (2014 t6)

**Dimensions:** L: 240mm H: 265mm

W(handle): 215mm W(rubber outer): 90mm

Weight: 2.75kg

Branch / Nozzle: Ball valve operated, Mist or jet mode

Inlet Size: 3/4"BSP

Spray Type: Mist/Jet

Flow Rate: Mist Mode: 45L/min at 20bar

Jet Mode: 150L/min at 20bar



"MODERN FIRE FIGHTING IN THE COMFORT OF TRADITIONAL DESIGN. 65%\* MORE EFFICIENT WATER CONSUMPTION WITH IMPROVED FIRE FIGHTING.

\* Based on 14 minutes continuous fire fighting time on Mist mode



- Developed in collaboration with UK Fire & Rescue Services
- Perfectly created droplet size for superior cooling and safer fire fighting
- Effective smoke scrubbing for improved fire fighting conditions
- Flexibility to cool / fight from the outside
- Simple to operate with no additional training requirement
- 65%\* less water used
- Heavy duty anodised aluminium branch with protective rubber sleeve
- One-Click intuitive Jet/Mist mode rotation switch for simple mode change
- Smooth 2 direction Start/Stop Handle for on/off and pulsation fire fighting functionality
- Conforms to the requirements of NFPA 1964



"A fire fighting nozzle, designed to protect fire fighters, the community and the environment."













# MISTNOZZLE MINI

Item Description Water Agent Dimensions 205 x 197 x 93 Weight 2.34 Kg Ball Valve Operated, Mist/Jet rotation selection Branch/Nozzle Hard Anodized Aluminium (6082 t6) and SS316 Material **Operating Pressure** 20 bar Inlet Size 1/2" BSP (Female) Mist/Jet Spray Type Flow Rate 48l/min 26l/min

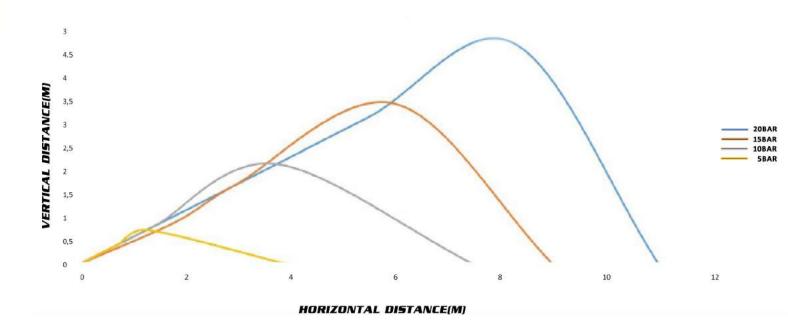
The powerful mini mist nozzle is precision manufactured from stainless steel to provide the most robust strength for the harshest environment. The technology on this nozzle maximises water consumption and increases fire fighting performance by using science to extinguish the flames with extreme cooling, rapid oxygen depletion inside the fire only and reducing the speed at which the free radicals are forming, eliminating the fuel simultaneously.

This little nozzle not only provides a very high and powerful level of fire fighting it also allows you to have extended use of your water tank. Consuming 25& per minute in mist mode and 48& per minute in Jet mode. This minimal water usage and enhancement to fire fighting is a unique feature.

The nozzle offers 2 settings mist and jet. The mistmode is used for 90% of extinguishing and cooling with the jet mode for those far to reach places or damping down if required.

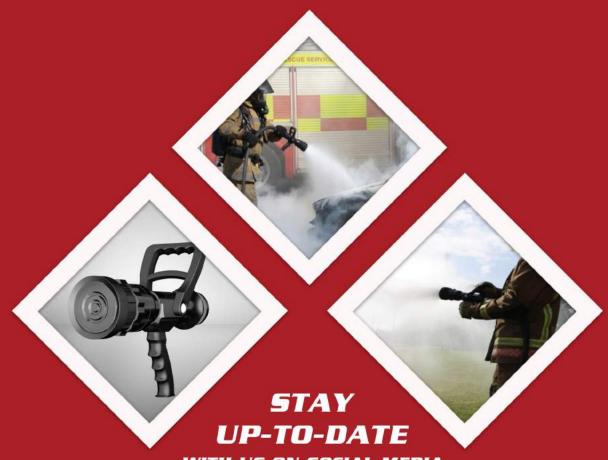


#### DISCHARGE CHART









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Firebuggroup Sales@Firebuggroup.com Firebuggroup Firebuggroup

**VISIT @ FIREBUGGROUP.COM** INFO@FIREBUGGROUP.COM



#### **U.A.E. OFFICE**

UAE Office: Info@firebuggroup.com AWZ Building Warehouse 4, Ras Al Khor Industrial Area No.2. PO Box 252234 Dubai, U.A.E. Tel: +971 434 53452

#### FB FIRE TECHNOLOGIES LTD.

UK Office: Matrix@Dinnington Business Centre, Nobel Way Dinnington, Sheffield S25 3QB, United Kingdom Tel: +44 1909 547070 Fax: +44 8453 884115