Maxi MistNozzle
Lay Flat Version

FireBug™

Maxi MistNozzle: Overview

Product Overview

- 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

Maxi MistNozzle: Applications

Fire extinguishing solutions for many industries and applications including but not limited to:

- Education – school, universities, colleges
- Facilities Management
- Fire & Rescue
- Food – industrial catering, food processing plants
- Health Care – hospitals, nursing homes, elderly homes
- Heavy industry
- Industrial – manufacturing, engineering
- Mining
- Laboratories
- Offshore & Marine
- Public Venues – stadiums, shopping centres
- Civil Protection – military, police, navy
- Transport – airports, ports , rail
- Petrochem – oil & gas

Maxi MistNozzle: Specifications

- **Item Description:** Maxi Nozzle for Lay Flat Hose
- **Agent:** Water or Foam, CAFS
- **Dimensions:** L : 240mm H: 265mm W(handle): 215mm W(rubber outer): 90mm
- **Weight:** 2.75kg
- **Branch / Nozzle:** Ball valve operated, Mist or Jet mode
- **Material Body:** Aluminium (6082 t6) Nozzle: HE15 (2014 t6)
- **Operating Pressure:** 6-20 bars (optimal working pressure with lay flat hose: 7 bars)
- **Inlet Size:** 2 ½ inch instantaneous coupling
- **Spray Type:** Mist/Jet
- **Mist mode flow rate:** 45 l/min at 7 bar
- **Jet mode flow rate:** 200 l/min at 7 bar

Conforms to the requirements of NFPA 1964

***Conforms to* EN15182 (2010) Handheld Branchpipes for Fire Service Use**

Maxi MistNozzle for Lay Flat: Couplings

The Maxi MistNozzle Lay Flat version is suitable for use with **lay flat hose at an optimal working pressure of 7 bar with a 2 ½ inch instantaneous coupling supplied as standard** (other coupling options such as **NH Coupling** also available on request).

2 ½ inch Male instantaneous coupling

Minimum Requirements for Fire Fighting with Maxi MistNozzle (Lay flat version):

- Firefighter with Protective clothing & Breathing protective devices (respirator or BA set)
- Operational Pump set attached to water supply
- Pump capable of maintaining 7-10 Bar when used with lay flat hose
- Depending on fire variables, 200-500 Litres of water should be sufficient when using water mist mode (when used as or with a Rapid/First response fire fighting solution)
- Water tank/Supply should be filtered with standard filtration/sieve etc. (to ensure as clean water as possible)
- Lay flat hose connected to Maxi MistNozzle (Nozzle is a 2 ½ instantaneous male)
- Thermal imaging Equipment will be useful to confirm cooling effect of water mist
- Other agents such as foam/CAFS can be used but must be tested prior to use
- Always flush and rinse the nozzle after use with clean water, especially once other agents such as foam have been used
- Ensure all filters within nozzle are free from blockage which will restrict flow

Maxi MistNozzle (Lay flat version): Operating Instructions

- Ensure all Standard Operating Procedures for Fire Fighting are being adhered to prior to and whilst the Maxi MistNozzle is in use
- Set pump to 7-10 Bar and ensure optimal water mist discharge
- Fire fighter/s to open nozzle and begin moving forward from a safe distance towards flame with nozzle in Mist Mode (Jet mode can be used on approach if required dependent on class of fire and fire size/type/scenario)
- Nozzle to be pointed into and around the flame which will allow the water mist droplets to suffocate the fire
- Once fire is extinguished, close the nozzle
- If further dousing down is required to prevent re-ignition then switch to jet mode and douse area down

Two position nozzle allows for simple switching between mist mode and jet mode in high pressure situations

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Maxi MistNozzle: Water Mist Explained

D = 100 µm

Dense Mist

D = 100 µm

Flame Cooling

Process for Mist <100 micron:

- Mist Enters flame
- Blocks radiant heat
- Converts to steam 1620:1 expansion & rises
- Does NOT wet surface
- Steam Inert Vapor (gas)
- Steam removes oxygen
- Cooling stops production of free radicals
- 100% of mist is utilized to extinguish and cool

Mist

Conventional

D = 1mm

Surface Wetting

Surface/Free Radicals

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Water Mist: Droplet Size vs. Surface Area

FireBug Maxi MistNozzle

Most competitors (High Pressure Mist/Fog or Spray Solutions)

WaterMist

diameter of droplet	# of droplets in 1 litre of water	total cross section in 1m³ [m²]	total surface area in 1m³ [2]
0.12 (12 cm)	1	0.0125	0.05
0.0006 (600 microns)	8 841 941	2.5	10
0.001 (100 microns)	1 909 859 317	15	60
0.00005 (50 microns)	15 278 874 537	30	120
0.000025 (25 microns)	122 230 996 295	60	240
0.00001 (15 microns)	1 909 859 317 103	150	600

Superior Water Mist = Small Droplets with correct kinetic energy

FireBug MistNozzle Innovation

Staffordshire Fire and Rescue scooped the IESE Technology Innovation Award in 2015 for their Introduction of the FireBug ST15 (Maxi) MistNozzle to enable safer and more efficient fire fighting

FireBug Innovation

The Maxi MistNozzle is an efficient rapid intervention fire fighting nozzle which has been used to save lives and protect property globally

ST15

was on hand with the Cape Town Fire fighters assisting them in extinguishing the #CapeTownFire

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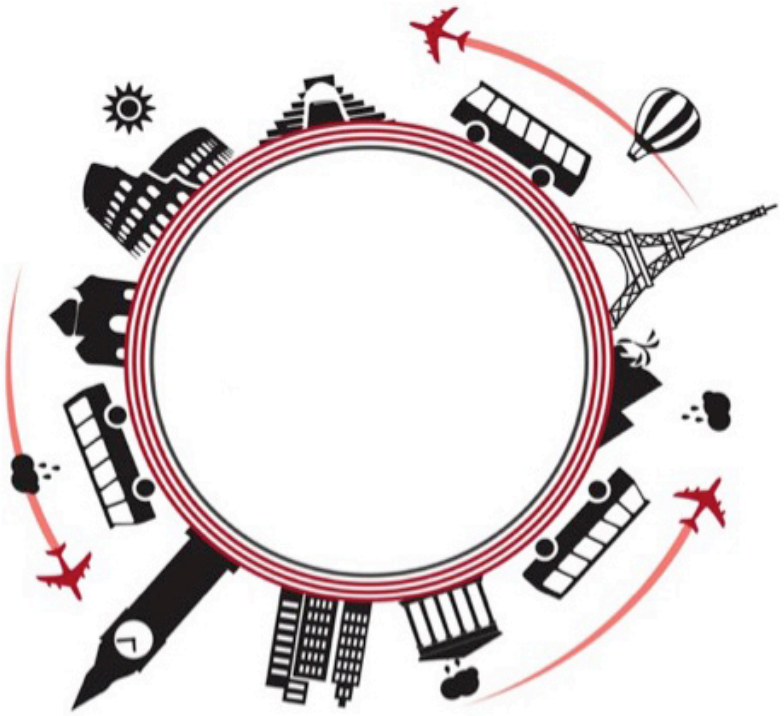

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