

How does Water Mist work?



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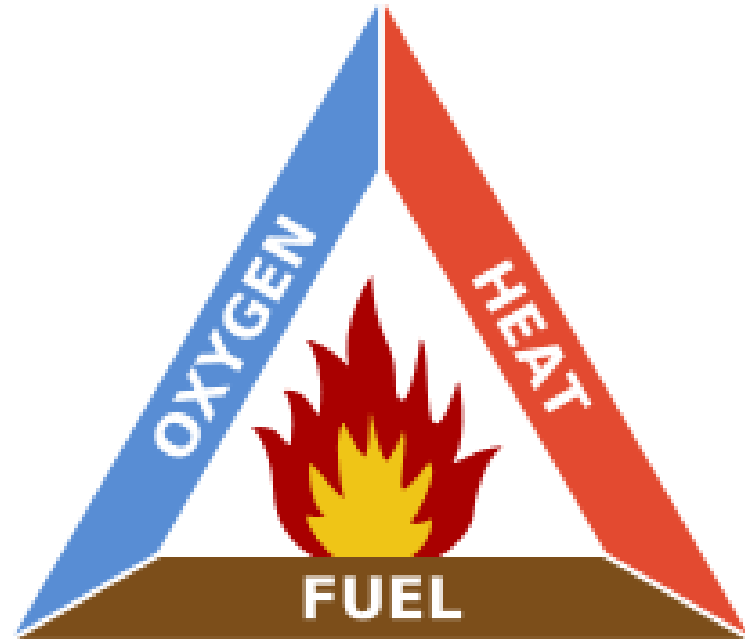
Content ...

- How does water mist work?
- Benefits of Water Mist
- Applications
- The History of Water Mist

The Fire Triangle

A fire triangle consists of three elements:

- Combustible material / fuel
- Heat
- Oxygen



© Wikipedia.com

How does Water Mist work?

Water mist reduces two of these elements:

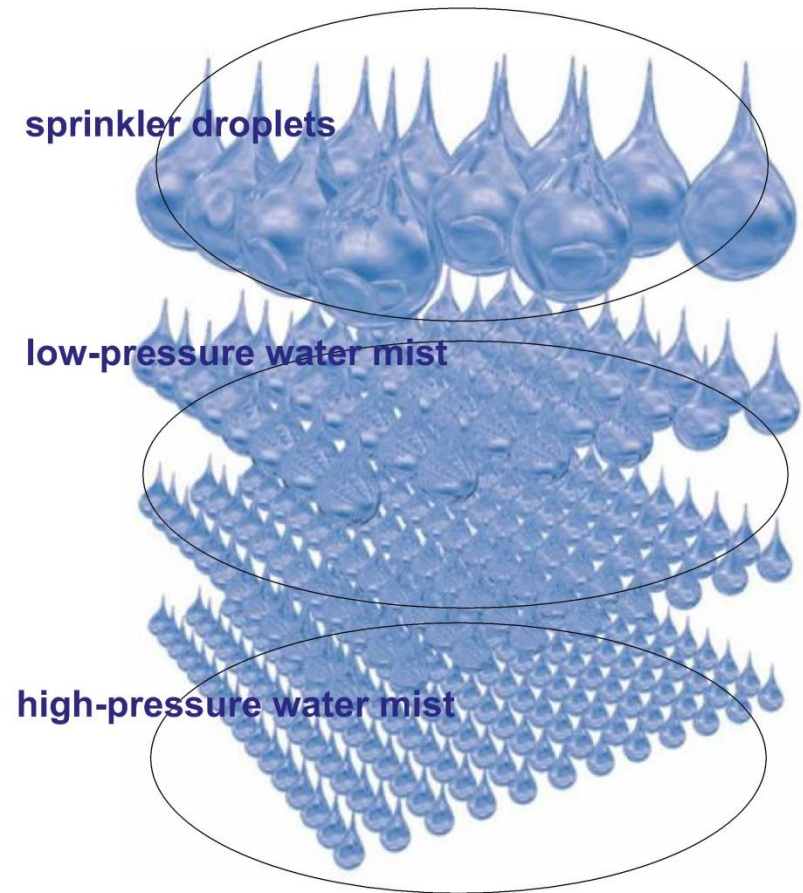
- **Heat**
 - **Oxygen**
 - Traditional sprinklers only reduce the heat ...
 - **Water mist is a performance-based technology!!!**
- Low pressure water mist: less than 12.5 bar (181 psi)
 - Intermediate pressure water mist: between 12.5 and 35 bar (507 psi)
 - High pressure water mist: up to 200 bar (2900 psi)

How does Water Mist work?

Definition:

Droplets size less than 1 mm – 1,000 microns

- NFPA say: 99% of the droplets less than 1 mm
- CEN say: 90% of the droplets less than 1 mm



© Fogtec

Benefits of Water Mist

	Colours						
Types		Fires involving wood, paper, textiles etc.	Fires involving flammable liquids, petrols & spirits etc.	Fires involving flammable gases, butane, propane etc.	Fires involving burning metals, e.g. magnesium	Fires involving electrical equipment	fires involving cooking oils and fats
Water Mist							
Water							
Foam							
Dry Powder							
M28 / L2							
Co2							
Wet Chemical							

Benefits of Water Mist

Eco-friendly and sustainable!

...

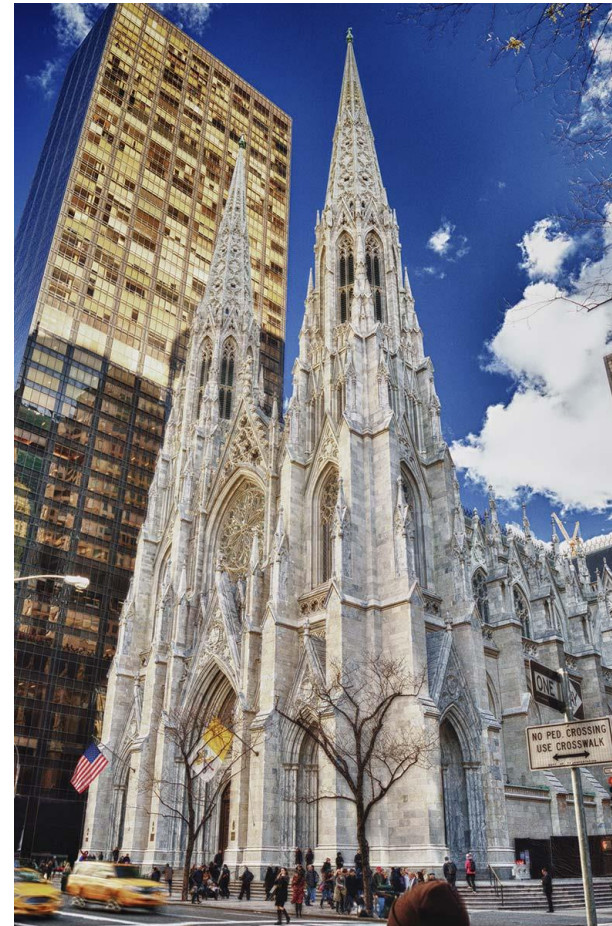


Benefits of Water Mist

- Less water → lower costs
- Less material → lower costs
- Less space → lower costs
- Reduces heat AND oxygen
- Does not harm humans!!!
- Local inerting effect
- Can easily be retrofitted and extended
- Cooling-effect prevents re-ignition
- Proven to international protocols and standards

Applications: The Hall of Fame

- St. Patrick's Church, New York
- La Scala in Milan
- The Clock Tower in Mecca
- The Eurotunnel
- ISS International Space Station (portable water mist fire extinguishers)



© The Jewel Hotel

Land Segments & Key Verticals

Building Segment

- Hotels (hospitality industry)
- Data centres
- Healthcare (hospitals, care homes)
- Cultural heritage
- Educational (universities)
- Institutional (prisons)
- High-rise buildings
- Underground infrastructure
- Tunnels
- Museums
- Airports, etc.

Applications

- Hotel rooms and offices
- Storage areas
- Server halls
- Escalators
- Kitchens
- Restaurants
- Technical spaces
- Laboratories, etc.

Land Segments & Key Verticals

Industrial Segment

- Power generation
- Power distribution
- Automotive industry
- Food industry
- Manufacturing industry
- Petroleum
- Oil & Gas, etc.

Applications

- Gas turbines
- Flammable liquid storage
- Industrial fryers
- Paint booths
- Cable tunnels
- Diesel generators
- Conveyor belts
- Transformers
- Switchgear rooms, etc.

Marine Segment

Key Verticals

- Cruise vessels
- Ferries and RoPax
- Cargo vessels
- Superyachts
- RoRo & car carriers
- Navy
- Service vessels
- Off-shore
- River cruise liners
- Exploration cruise liners, etc.

Applications

- Accommodation
- Public spaces
- Balconies
- Engine rooms
- Bldges
- Storage areas
- Laundry
- Kitchen & fryers, etc.

The History of Water Mist

- 1880: F.E. Myers → water mist back pack system
- 1978: Lecture Book „Fundamentals of Fire“
- Late 1980s: Execution of the Montreal Protocol
- 7th April 1990: fire on the Scandinavian Star



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IWMA Members





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