

**I wish** I could protect  
my business with  
the most suitable  
Water Mist solution  
to fit my needs.

# Wish granted!

AquaMist helps to keep people, property and the environment safe with high performance fire protection products.



**I wish I could choose from the broadest industry approved range**

When designing a fire protection system, the challenge is to select the right solution to match the risk. Johnson Controls has the broadest range of fire protection products on the market, including sprinklers, clean agent systems, Water Mist and others.

The AquaMist product range includes globally approved Water Mist solutions backed by over 100 years of expertise in fire protection. AquaMist offers a broad range of systems to help you find the most suitable fire suppression solution for a wide variety of fire risks.

The fine water mist generated is designed to extinguish fires, or limit fire growth at an early stage, depending on the asset being protected. AquaMist provides effective cooling and fire control on solid, deep-seated fires such as furniture, paper and cables (Class A). On fires such as lubricants or fuels (Class B) or cooking oils (Class F) AquaMist provides complete extinguishment and prevention of re-ignition. In all cases, AquaMist cools the surrounding area, limiting the spread of fire.

The AquaMist system benefits include a reduction of up to five times in the water required (when compared to standard sprinkler systems), while providing a superior firefighting capability on applicable Class A, B and F fires.



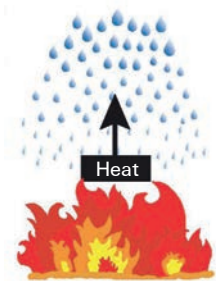
AquaMist systems are a versatile and highly efficient fire-fighting resource, featuring unique nozzles, which have been designed and rigorously tested to protect against a wide range of fire risks.



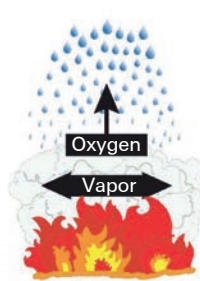
AquaMist systems offer an innovative and easy to use water-based fire suppression solution which is dependable, safe and carries comprehensive industry approvals. All AquaMist solutions have been tested by an independent third party.

Selecting the most appropriate Water Mist solution is not only about extinguishing the fire, it is about protecting the contents of the building and minimizing water damage. It is also about optimizing budgets and protecting the reputation of the specifier.

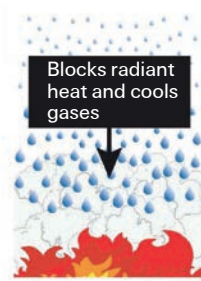
## AquaMist Systems at Work



- Evaporation (heat extraction) is a function of surface area of droplets
- Reducing droplet size increases surface area
- Increase in surface area allows for larger cooling effect for a given flow



- Water converts to Vapor expanding by a factor of 1650 times
- Oxygen is displaced and diluted, thereby blocking it from the fuel source
- Higher heat level causes a faster vaporization































- Fire extinguishment is improved with direct contact of water droplets
- This type of extinguishment is normally associated with standard sprinklers
- Important part of operation if ventilation is a factor and Class A combustibles are present



- Small water droplets tend to remain suspended
- The expanding mist will expand and cool the gases and other fuels in the area
- Blocks the transfer of radiant heat to the adjacent combustibles and pre-wets them

# Applications Overview

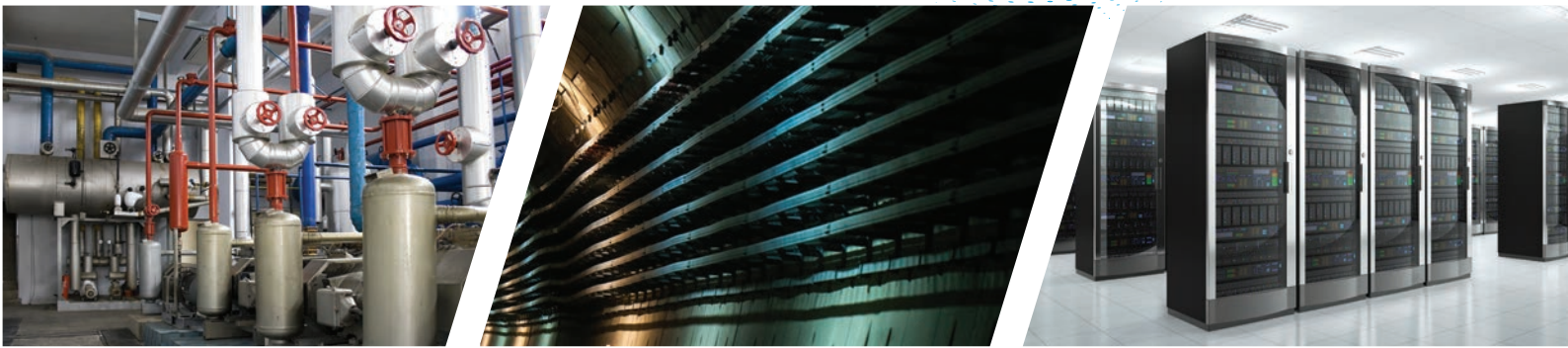
As part of your fire protection toolbox, the AquaMist portfolio of products allows you to select the most suitable solution for your needs and requirements without compromising on performance or protection.

			
 Hotel			
 Data Center		TS14972	
 Heritage		TS14972	
 Hospital			
 Machinery Space	 	 Performance Based Design	
 Turbine	 	 Performance Based Design	
 Cable Tunnel	Performance Based Design		
 Libraries and Archives		Performance Based Design	
 Industrial Fryer Protection (IFP)			
 Offices	 		



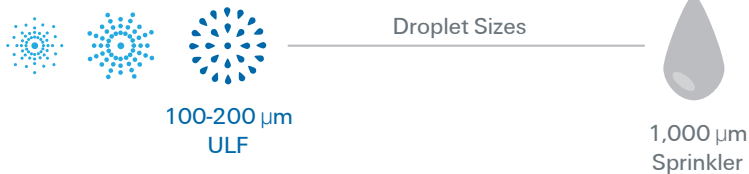
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# AquaMist ULF



A complete engineered solution including pumps, valves, discharge nozzles, pipes and fittings, all designed to function as one dedicated fire protection system.

The system operates at working pressures of 7 to 12 bar, producing droplets of water through a range of nozzles, specifically engineered and approved for a variety of fire hazards. AquaMist ULF systems are supplied through authorized partners.



The ULF system is suitable for a variety of applications, including machinery protection, data centers, cable tunnels, offices, hotels and industrial fryers.

The AquaMist ULF training modules provide complete design, technical, commercial and life cycle knowledge. Authorized partners are fully supported by our technical services team and all fire suppression products are manufactured to the highest quality.

Benefits of a low pressure Water Mist system include lower water demands, translating into lower pressure losses, smaller diameter pipes and lower installation costs when compared to traditional sprinkler systems. As the system uses only water without additives, it produces no adverse environmental impact.

## Benefits:

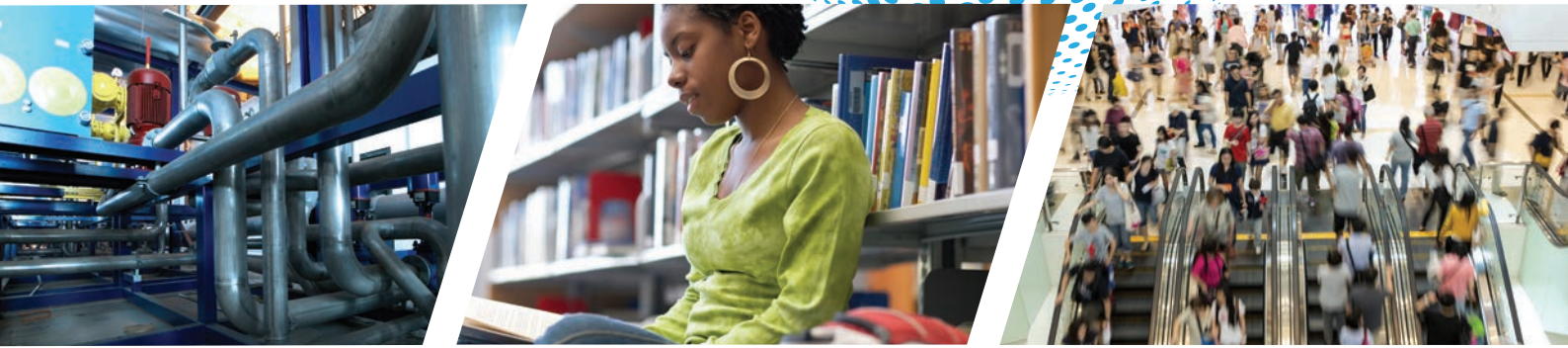
- Equally as effective as high pressure solutions
- Lower electrical requirements
- No high pressure piping and fittings
- Suitable for stand-alone solutions and installations with limited electricity supply





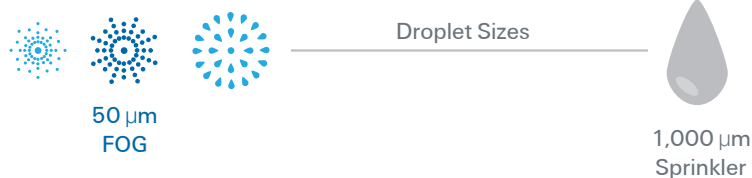
# AquaMist

## FOG



AquaMist FOG systems reduce the consumption of water and pipe diameters required whilst providing a fast and efficient method of fire protection for class A and B fires.

AquaMist FOG provides outstanding fire suppression protection for turbine and transformer rooms, engine test cells, diesel engines and alternators, paint spray booths and mechanical escalators.



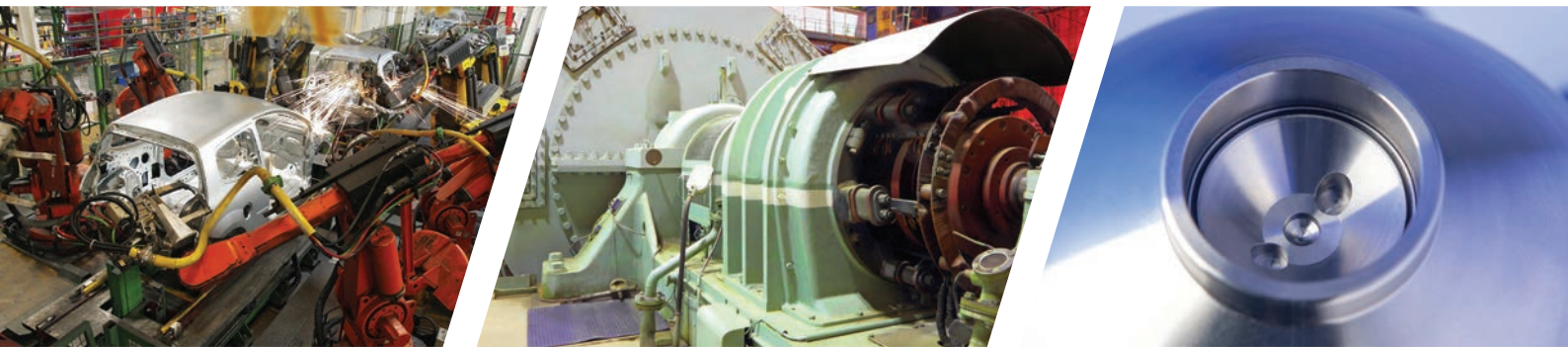
The system operates at working pressures of 70 to 200 bar to produce droplets of water with small diameters, which discharge at high speeds. For each different protected hazard, optimized nozzles have been developed and tested. AquaMist FOG is based on principles of well-established hydraulic technology. Spray heads are designed to discharge water in the form of Water Mist, with tiny droplets creating a large effective cooling surface area of the fire and surrounding volume. The high speed of the droplets allows the mist to penetrate the hot fumes and reach the combustion area quickly. AquaMist FOG systems are available as either a pre-engineered cylinder system or engineered pumped system, and provide a versatile fire protection solution.

AquaMist FOG systems are one of the best options when piping dimensions or pressure losses are critical, for example in applications such as heritage buildings, libraries and archives, where fragile structures require preserving from water damage.

#### Benefits:

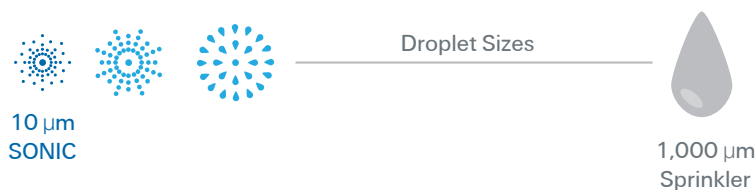
- Ideal when piping dimensions are a problem
- Ideal when pressure losses are critical
- Quick discharge of Water Mist on combustible areas

# AquaMist SONIC



The AquaMist SONIC system is a revolution in Class B fire protection and features 100% machined stainless steel construction for superior strength, no internal moving parts for extreme dependability and multiple mounting options for ease of installation.

The system is fast extinguishing with high-volume, high-velocity discharge which quickly fills spaces. It is also more efficient and uses one-third the water of comparable high pressure systems. As operating pressure is under 8 bar, this proves that one does not need high pressure to generate the smallest droplet sizes. This system is listed and approved for the protection of flammable liquid hazards (FM) and extinguished all fire scenarios in the FM Protocol 5580. It is FM approved for spaces ranging from 4,591 to 36,727 cubic feet (volumes up to 1,040 cubic metres).



## Benefits:

- Provides a solution to ventilation
- Facilitates protection of higher height risks
- Can protect highly-obstructed areas
- Protects volumes without the need for power or pump arrangement

This system utilizes non-toxic and readily available extinguishing media (water and nitrogen). The AquaMist SONIC twin-fluid technology is safe for people and is environmentally friendly.

It is constructed of industry proven, components including an ASME/TPED approved stainless steel water storage tank. Capable of automatic detection and actuation and/or remote manual actuation, the system is installed and serviced by authorized distributors. Just two supersonic atomizers create 1.5 trillion superfine water droplets per second, producing a combined surface area of 121 m<sup>2</sup> (1302 ft<sup>2</sup>). This is equivalent to covering the surface of an Olympic-size soccer field in one minute.

Additionally, the atomizers propel the droplets at high velocity throughout the combustion zone providing rapid fire knock-down. The atomizer is the key to the effectiveness of the AquaMist Sonic system. Supersonic technology generates a high-velocity, low-pressure zone that draws a thin sheet of water into a primary atomization region. A conical supersonic wave then creates a zone of extreme acceleration and high shear-rate, breaking the sheet into atomized droplets.



## Global strength. Local expertise. At your service.

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