

# AQUASONIC™ WATER ATOMIZER

Data/Specifications



## APPLICATION

The AQUASONIC™ Water-Atomizing Fire Suppression System is a total flood system designed to protect Class B flammable liquid hazards in machinery spaces, both insulated and non-insulated combustion turbine enclosures, generator enclosures, and flammable liquid storage. The AQUASONIC system can protect a potential hazard with a free volume up to 9200 ft<sup>3</sup> (260 m<sup>3</sup>) with two (2) atomizers that use low pressure, dual flow, supersonic atomization technology to create a minimum 10-minute discharge plume of water droplets that are the optimum size to suppress a Class B fire. The AQUASONIC System has been fire tested within compartmentalized areas and found effective for the suppression of a wide variety of exposed and shielded Class B hydrocarbon pool, spray, and cascading pool fires.

## DESCRIPTION

The AQUASONIC Atomizer utilizes patented supersonic technology, combining separate feeds of compressed nitrogen gas and water to generate and uniformly distribute water droplets throughout a protected volume.

Each atomizer is delivered pre-trimmed with the appropriate water flow control orifice, strainer, mounting plate, and dust cap in place. The water supply inlet is 1/2 in. NPT, and the nitrogen supply inlet is 1 in. NPT. The AQUASONIC Atomizer utilizes an in-line restricting orifice to generate the appropriate water flow.

The total AQUASONIC Fire Suppression System, including the Atomizer, is FM approved. The total system requires two (2) atomizers.

### Spray Characteristics

When sprayed into the hazard, the AQUASONIC Atomizer creates a conical spray pattern which has a diameter of approximately 59 in. (1.5 m) at a distance of 39 in. (1.0 m) and greater from the atomizer.

When sprayed within an enclosure, the AQUASONIC Atomizer spray pattern expands slightly and the water droplets are primarily distributed (circulated) around the space via the high velocity atomizing media discharge. As the high velocity discharge plume of water droplets approaches the floor or other horizontal obstruction, a large majority of the plume is diverted laterally, as well as vertically upwards, to fill the spaces between the core spray patterns and above the atomizers. The circulation characteristics of the AQUASONIC Atomizer plume result in rapid, homogenous distribution of water droplets throughout the protected environment.

### Dust Caps

Although not required for all applications, each AQUASONIC Atomizer is provided with a Dust Cap to help keep air-borne debris from accumulating within the nozzle that could prevent proper operation.



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## ORDERING INFORMATION

Part No.	Description	Shipping Weight
435877	Atomizer Shipping Assembly, including Restriction Orifice 0.092 in. (2.34 mm), Pressure Range 66-80 psi (4.6-5.5 bar)	19 lb (8.6 kg)
435878	Atomizer Shipping Assembly, including Restriction Orifice 0.088 in. (2.24 mm), Pressure Range 81-95 psi (5.6-6.6 bar)	19 lb (8.6 kg)
435879	Atomizer Shipping Assembly, including Restriction Orifice 0.084 in. (2.13 mm), Pressure Range 96-115 psi (6.7-7.9 bar)	19 lb (8.6 kg)
435880	Atomizer Shipping Assembly, including Restriction Orifice 0.080 in. (2.03 mm), Pressure Range 116-140 psi (8.0-9.7 bar)	19 lb (8.6 kg)

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