

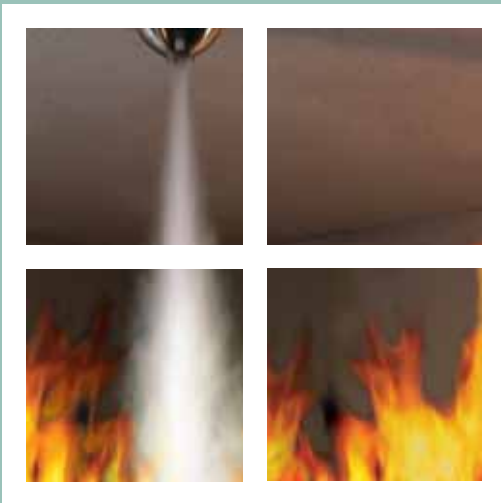
# **FIRE PROTECTION, NATURALLY**

AQUASONIC™ Water-Atomizing Fire Suppression System



# A LOOK INSIDE THE INNOVATION

The ANSUL® AQUASONIC™ Water-Atomizing Fire Suppression System is a revolution in Class B fire protection. Compared to typical water mist systems, the AQUASONIC system produces a higher volume of smaller water droplets and projects them further. The high-performance fire suppression system is specifically engineered to cover a wide range of industrial, commercial, and institutional special hazard applications.



The AQUASONIC Fire Suppression System utilizes non-toxic and readily available extinguishing media (water and nitrogen). AQUASONIC twin-fluid technology is safe for people, environment friendly, and inexpensive to recharge. The dependable system has few moving parts and uses tested technology with decades of proven service. Plus, there's no need for enclosure integrity tests, because the AQUASONIC system has been tested and approved with the door open.

**FM APPROVED ■ ENVIRONMENTALLY SAFE ■ FULLY SELF-CONTAINED**

**MINIMAL WATER DISCHARGE ■ EFFECTIVE ON CLASS B FIRES**

**FLEXIBLE SYSTEM PIPING AND ATOMIZER LOCATION**

**OPTIMIZED, PROTECTED VOLUME WITH MINIMAL PIPING AND SYSTEM DISCHARGE DEVICES**

# YOU'VE NEVER SEEN WATER DO THIS

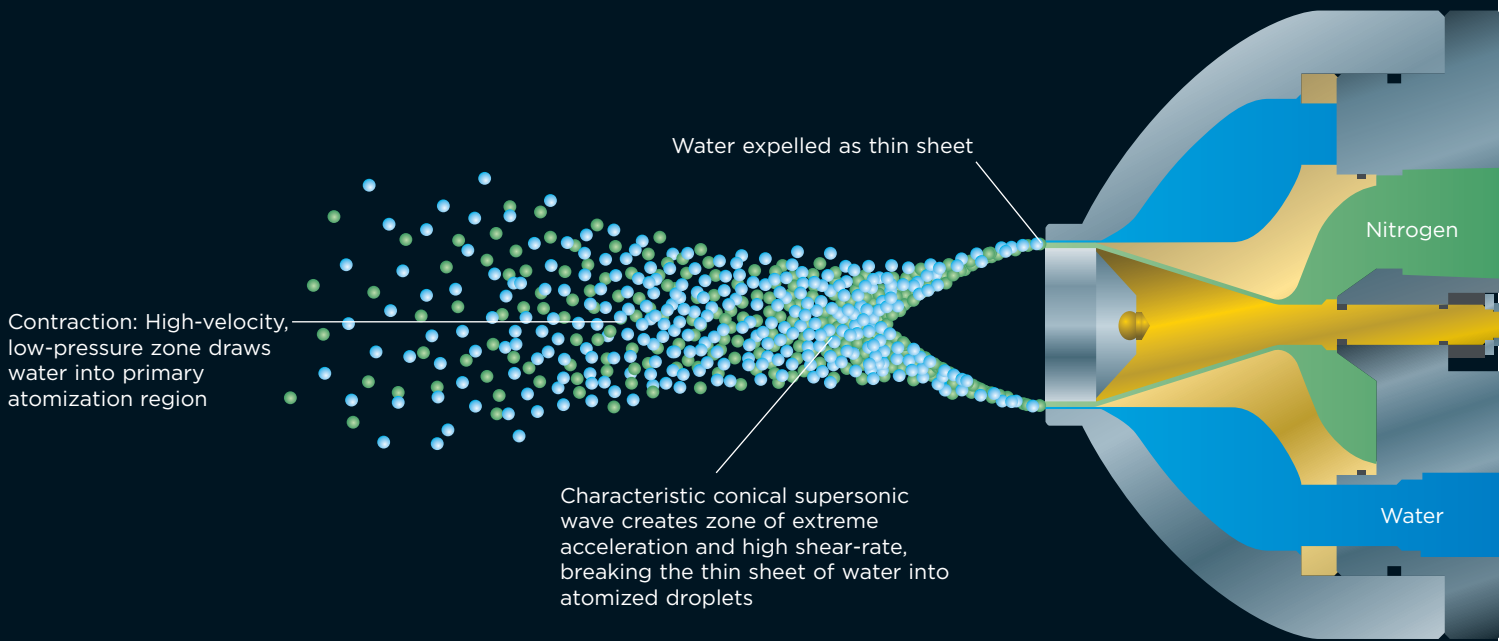
Class B flammable liquid hazards can be protected by the total flooding abilities of the AQUASONIC system. Two supersonic atomizers create 1.5 trillion superfine water droplets per second, producing a combined surface area of 1302 ft<sup>2</sup> (121 m<sup>2</sup>) per second. This is equivalent to the surface of an Olympic-size soccer field in one minute. Plus, the atomizers propel the droplets at high velocity throughout the combustion zone.

## PRINCIPLES OF OPERATION

The atomizer is the key to the effectiveness of the AQUASONIC system.\* Patented 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. Fire suppression is achieved once the droplets reach the target, extracting heat from the fire.

\*This system should not be used for direct application to materials that react violently with water or produce hazardous products.

## AQUASONIC PRINCIPLES OF OPERATION



## THIS SYSTEM HAS WHAT IT TAKES

The AQUASONIC atomizer features 100% machined stainless steel construction for superior strength, no internal moving parts for extreme dependability, and multiple mounting options and configurations for ease of installation. The self-contained AQUASONIC system is constructed of industry-recognized, proven ANSUL components. Capable of automatic detection and actuation and/or remote manual actuation, the system is installed and serviced by authorized ANSUL distributors.

## THE AQUASONIC FIRE SUPPRESSION SYSTEM IS:

**Fast** — high-volume, high-velocity discharge quickly fills spaces

**Smart** — uses one-third the water of comparable high-pressure water mist systems

**Lower Pressure** — less than 10% of the pressure required of high-pressure water mist systems

## A SMART ALTERNATIVE

Other fire suppression systems can't do what the AQUASONIC system does. Traditional CO<sub>2</sub> systems haven't proven to be people-friendly and single-fluid water mist systems may have reached the limits of their capabilities. The AQUASONIC system knocks down fires better and is safe for people and the environment.

## FM APPROVED

The AQUASONIC system extinguished all fire scenarios in the FM protocol in less than 5 minutes, including scenarios in which extinguishment was not required in order to pass. Water flow rate through two atomizers was a total of 3 gallons per minute (11.4 liters per minute) with atomizers mounted in the ceiling or on sidewalls.



## THE AQUASONIC FIRE SUPPRESSION SYSTEM GIVES YOU OPTIONS

In terms of placement, AQUASONIC atomizers offer maximum flexibility. A total of two atomizers can be mounted to ...

- **the ceiling** — 4.0 to 11.0 feet (1.2 to 3.4 meters) from adjacent walls and up to 22 feet (6.7 meters) apart
- **the walls** — at least 3.4 feet (1.0 meter) from the nearest corner and 12.5 to 39.3 feet (3.8 to 12.0 meters) from the opposite wall

The supply unit can be placed anywhere with these considerations: water pipe volume less than 13 gallons (50 liters), nitrogen pipe volume less than 7.1 cubic feet (0.201 cubic meters), and relative elevation change between supply unit and atomizers of +105 feet (+32 meters) or -70 feet (-21 meters).

## IF ANYONE WAS GOING TO DEVELOP A NEW WAY TO USE WATER, IT WAS ANSUL

Ansul continues to lead the fire suppression industry with a full range of quality solutions and specialized products backed by a worldwide network of factory-trained distributors — the largest and most qualified in the industry. The AQUASONIC Fire Suppression System is another exclusive innovation in the ANSUL fire protection line. Choose to protect people and assets with the name you know. Ansul.

### APPLICATIONS:

- **MACHINERY AREAS**
- **INSULATED AND NON-INSULATED COMBUSTION TURBINE ENCLOSURES**
- **PUMP ROOMS**
- **FLAMMABLE LIQUID STORAGE**
- **GENERATORS**
- **TRANSFORMER VAULTS**
- **GEAR BOXES**
- **OIL PUMPS AND TANKS**





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