



DURAQUENCH - A NEW ERA IN WATER-BASED FIRE PROTECTION

Fike's DuraQuench pumped water mist system brings the benefits of water mist fire suppression within reach of most budgets and over the widest possible range of applications.

The heart of the DuraQuench system is a skid-mounted pump, electric motor and pump controller that can be directly connected to a building's water supply or to a tank or reservoir. When connected to a building's water supply, DuraQuench can provide an unlimited discharge duration - something not possible with "containerized" water mist systems. The DuraQuench pump can protect nearly unlimited volumes with 75% less water than a conventional sprinkler system and at a much lower cost than other water mist systems.

DuraQuench provides maximum freedom when it comes to pipe, fittings, valves and other accessories. With DuraQuench, there's no such thing as proprietary pipe, fittings, tools and software. You source your own stainless, copper or CPVC pipe and tubing from your existing local suppliers. System design is simple too. You can design your system using standard off-the-shelf hydraulic calculation software.

DuraQuench is FM approved for the protection of light hazard occupancies, machinery spaces and turbine enclosures.

VERSATILE, ECONOMICAL FIRE SUPPRESSION

DuraQuench is an extremely versatile water mist system. With proper zoning, a single DuraQuench system can protect an entire facility, including both machinery and light hazard spaces.



Light Hazard Occupancies

The DuraQuench system is designed for the protection of light hazard occupancies such as offices, classrooms, churches, libraries, hotels and museums and is the ideal solution when the prospect of collateral water damage is a primary concern.



Energy Industry

Utilities, municipalities and independent power producers cannot afford unplanned generator downtime. DuraQuench provides fast-acting, environmentally sound fire suppression for generators, turbines and pump and lubrication rooms.



Manufacturing and Processing

DuraQuench is an ideal system for protecting the wide array of hazards found in a manufacturing or processing plant - everything from transformer rooms and the production floor to office spaces and common areas.



A single DuraQuench system can protect an entire facility, including both machinery and light hazard spaces.



THE DURAQUENCH SYSTEM

DuraQuench™

DuraQuench is highly configurable for both dry and wet-pipe applications, and can be designed and installed by any qualified Fike distributor using locally sourced pipe, fittings and the following components:

Pump Skid

The pump assembly is the heart of the DuraQuench system. DuraQuench operates at lower pressures than other water mist systems (175 psi vs. 2,000 psi), using a lower-cost centrifugal fire pump, and comes pre-plumbed and pre-wired for easy installation.



Pumps/Motors

| | | | | | |
|-----------------------|----------------|--------|---------|----------------|---------|
| Rated Flow (gpm, lpm) | 53/202 | 53/202 | 111/420 | 75/284 | 133/503 |
| Power | 3-Phase, 60 Hz | | | 3-Phase, 50 Hz | |
| Motor HP | 10 | 15 | 25 | 15 | 25 |

Nozzles

Both the K6 nozzle and OH-VSO nozzle provide maximum protection with minimal water usage. The K6 machinery space nozzle is an open-head deluge nozzle used for protecting machinery spaces and turbine enclosures.

The OH-VSO light hazard nozzle is used to protect spaces where collateral water damage is a concern and uses 50% or less water than a conventional sprinkler, greatly reducing the potential for collateral damage.



K6 Machinery Space Nozzle

| | K6 Machinery Space Nozzle | OH-VSO Light Hazard Nozzle |
|--------------------------|--------------------------------------|------------------------------------|
| Min/Max Working Pressure | 112 psi (7.7 bar) / 232 psi (16 bar) | 116 psi (8 bar) / 232 psi (16 bar) |
| K-Factor | 0.387 gal/min/√psi (5.6 l/min/√bar) | 1.2 gal/min/√psi (16.7 l/min/√bar) |
| Droplet Size | DV ₉₀ < 300 μm | DV ₉₀ < 300 μm |
| Max Nozzle Spacing | 9.8' x 9.8' (3 m x 3 m) | 14.8' x 14.8' (4.5 m x 4.5 m) |
| Max Distance to Wall | 4.9' (1.5 m) | 7.4' (2.25 m) |
| Max Height | 39.4' (12 m) | 16.4' (5 m) |



OH-VSO Light Hazard Nozzle

Control Valves

Control valves are used primarily to prevent water from entering the water mist pipe network until triggered to open by a fire event. They are also used in zoned systems where a single pump protects multiple hazards. DuraQuench control valves are made of stainless steel, making them the ideal option for harsh, corrosive environments.



| | DELUGE CONTROL | PRE-ACTION CONTROL | WET ALARM CHECK VALVE |
|--------------------------|------------------------------------|--|----------------------------|
| Working Pressure | 232 psi (16 bar) | | |
| Valve Material | Stainless Steel 316L | | Bronze & Brass |
| Gasket Material | EPDM | | |
| Pressure Gauge Locations | Valve Inlet, Primary Valve Outlet | Valve Inlet, Primary Valve Outlet, Hydraulic Trim, Pre-Action Trim | Valve Inlet & Outlet |
| Activation Options | Manual | | N/A |
| | Electrical (12-24 V DC NC/Impulse) | | N/A |
| Size (Inlet & Outlet) | 2", 3", DN50, DN80 | | 1 1/2" (DN 40), 2" (DN 50) |

Detection and Control

DuraQuench can be used with any compatible detection and control system and is FM approved for use with most Fike releasing panels.