

APPLICATIONS

BANKING & FINANCE



MicroDrop®

"Protecting banking & finance assets from the threat of fire and business disruption"

The Challenge

The protection of data centre suites and generators from the threat of fire is vital to the "day to day" business activities of the leading banks and financial institutions. However, in some cases, the sheer size of these suites and the high cost of conventional protection needs to be balanced against the organisation's overall building management and financial resources.

Working in close partnership with some of Europe's major banking groups and independent insurance risk advisors, Tyco Fire & Integrated Solutions developed a High Pressure Water Mist Pre-action System providing a number of individual zones of protection to overcome this problem.

The system design and its functional efficiency witnessed during simulated fire tests, provided the banking and finance sector and their insurance providers with a truly viable and economical solution to the protection of very large data centre suites and generators from the threat of fire.

Today, following continual product development, the MicroDrop® system has set the benchmark for High Pressure Water Mist protection for large "Business Critical Areas".



The intelligent use of water...

tyco

Fire & Integrated Solutions

MicroDrop®

MicroDrop® Bank & Finance “Fast Facts”

- No “Post Fire” contamination or environmental issues. MicroDrop® does not use or require performance enhancing additives (foam etc. to fight fires).
- Specially designed MicroDrop® water mist sprinkler nozzles use less water and requires fewer nozzles than any other HPWM system. This ensures cost efficient system design and reduced installation time.
- MicroDrop’s minimal use of water results in less clean up time and faster re-instatement of the working environment.
- No moving parts in the MicroDrop® nozzles ensure cheaper life cycle maintenance costs and higher reliability.
- MicroDrop® Pump systems have a smaller footprint than other conventionally designed HPWM pumps and a large tank is not required maximising the efficient use of floor space.
- The design efficiency of the MicroDrop® Pump system is more economical to maintain than other conventionally designed HPWM pumps and therefore reduces life cycle maintenance costs.

The MicroDrop® nozzles are fitted into a distribution network of stainless steel pipework. In the event of a fire, only the nozzle closest to the seat of the fire operates to discharge high pressure water mist into the fire in a pre-determined spray pattern.

The water supply to the nozzles is fed from either a high pressure 100-120 bar pump and small water storage tank or a bank of cylinders.



In some cases, MicroDrop® systems may be required to be integrated into either an addressable/anologue fire detection system or a VESDA early warning detection system or even both. This highly sophisticated system will not discharge high pressure water mist into the distribution pipework in readiness for a fire situation, unless two or more detector devices detect a fire in it’s very early incipient stages and send a fire alarm signal to the main control panel.

The intelligent use of water...

This provides IT staff with sufficient time to investigate the cause of the initiated VESDA fire alarm and probably prevent a small fire from becoming a large one in the first place.



MicroDrop® high pressure water mist has a dramatic effect on fire. As the size of the water droplets are so small, they are lighter and remain airborne longer than conventional water based systems.

The micro droplets also provide a much larger surface area that enables the discharged water to more effectively cool and knock down the fire to a controllable size.

A very important aspect of data centres and emergency power generator protection is the ability of MicroDrop® to provide a level of smoke scrubbing removing some of the toxic substances from the combustion of fire. This feature helps to protect personnel and sensitive equipment close to the fire from contamination.

MicroDrop® Bank & Finance Applications at a glance

- Data centre suites
- Public access areas
- Kitchens & cafeterias
- Generators, boiler rooms and UPS (Un-interrupted Power Supply) areas.

For further information contact your local Tyco Fire & Integrated Solutions office on: tfis.microdrop.uk@tycoint.com or visit our website at www.tycofis.co.uk

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