



Fireworks water mist solutions are ideal to protect communications and data rooms as they are tested and approved

Photo credit: HS2

ENHANCING RAIL INFRASTRUCTURE SECURITY:

Exploring Water Mist Fire Protection Systems for Fast and Eco-Friendly Fire Suppression

Rail travel in the UK experienced a 155% growth in the year-ended March 2022, resulting in nearly one billion passenger rail journeys according to the DfT. As substantial investments continue to pour into rail infrastructures, the pressing question arises: how can we guarantee optimal security for these infrastructures and the passengers they serve?

Addressing this concern, water mist fire protection systems have emerged as a focal point in the rail sector, offering rapid fire suppression, minimal water consumption, and a reduced environmental impact. With cutting-edge advancements in water mist technology, we now have the means to safeguard virtually all areas, from tunnels to storage areas.

MITIGATING FIRE SAFETY RISKS IN RAIL AND UNDERGROUND FACILITIES

Fires within rail and underground facilities present significant challenges to life safety, primarily due to the high volume of passengers, crowded environments, and limited escape routes. Of all the dangers associated with fires, smoke emerges as the leading cause of fatalities, capable of rapidly permeating the network of passenger walkways and stairwells. To ensure the utmost protection, effective measures must be taken to mitigate fire risks and minimize the impact of smoke hazards.

Fireworks water mist fire protection solutions bring significant safety advantages, due to their fast fire suppression and unique ability to reduce smoke spread. Water mist offers the fastest-acting fire suppression and cooling properties, to preserve structural integrity and ensure critical power and communications networks. As water mist only uses small amounts of water when activated, passenger services can normally be rapidly resumed should a fire occur.

WATER MIST FIRE PROTECTION FOR ALL RAIL FACILITY AREAS

Fireworks Fire Protection has designed and installed fire protection at several rail facilities including Woolwich Station, Network Rail archives and Farringdon Station. With new innovations and testing approvals we can now bring the benefits of water mist fire protection to nearly all areas including tunnels, storage areas, control rooms, server rooms, under track areas, catering, retail outlets, glass facades, atriums and more.

Whether to protect complete rail stations, or specific rooms only, the light, compact nature of water mist equipment and smaller pipes which can be formed and fitted into virtually any place, make it much easier to install into difficult-to-access areas.

ECO-FRIENDLY BENEFITS OF FIREWORKS FIRE PROTECTION SOLUTIONS

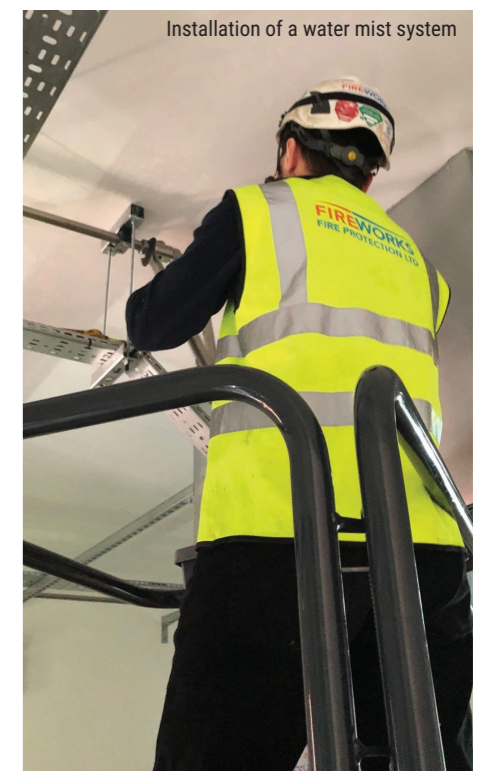
Aligned with the UK construction sector's commitment to reducing its environmental impact, Fireworks Fire Protection plays a vital role in sustainability efforts. Through lower water and energy consumption, durable solutions, non-toxic materials, reduced reliance on metal resources, and dedicated protection for EV parking, our latest tested and proven solutions contribute significantly to eco-friendly practices within the construction supply chain.

Fireworks pioneers the use of eco-friendly water mist fire protection for the rail sector, without using chemicals to operate, only water. Compared to traditional sprinkler systems, our solutions use up to 30% less power and up to 90% less water. This also frees up significant space needed for water storage.



Photo credit: Fireworks Fire Protection

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Installation of a water mist system

Compared to sprinklers, Fireworks water mist solutions use around 30% fewer metal resources, due to much smaller pipe diameters, water tanks and fewer nozzles. Added to this is the major advantage of durability. At Fireworks we have seen well-maintained water mist systems still fully functioning 30 years after installation without the need for pipe and major component replacement.

WATER MIST STANDARDS AND APPROVALS - FIND OUT MORE

For safety and long-term performance, water mist systems should be fitted and maintained by FIRAS-certified companies such as Fireworks, with fully trained, in-house engineers. We can advise you on specific water mist solutions and standards best suited for your project risks and requirements.

Discover the future of sustainable fire protection for rail with Fireworks. Get in touch with us today and explore how together we can optimize fire security and safety for your rail infrastructure.

More information can be found at: www.fireworks-ltd.com. For an online CPD on Water Mist Fire Protection for Rail Infrastructures, or to start a conversation about fire protection for your project, contact us at **0800 975 7462** or email enquires@fireworks-ltd.com.