

Case story | SEM-SAFE® high-pressure water mist system

# Ten Trinity Square in UK

Hotel, residential space and heritage building  
– all protected with SEM-SAFE® high-pressure water mist

Danfoss Fire Safety A/S



Ten Trinity Square is truly one of London's landmark buildings, overlooking the river Thames at Tower Hill. It is a Grade II listed building, meaning it has been placed on the Statutory List of Buildings of Special Architecture or Historic Interest. It was designed by the famous Sir Edwin Cooper almost a century ago and it was originally the headquarters of the Port of London Authority.

After being a witness to historical moments throughout the decades (hosted the General Assembly of the United Nations) the building entered a new chapter and was developed into a modern hotel and luxurious private residential area. In 2012, the building was used as a set for the famous James Bond film: Skyfall.

## Building description

Ten Trinity Square has a total of 100 hotel bedrooms, 41 private residences, a spa, restaurants, bars and a club. The building restoration has been a meticulous process where the main purpose was to preserve the details of the original building. Installing a fire fighting system in the building had to be done in line with the preservation philosophy. Danfoss is extremely proud of being selected the fire fighting supplier for Ten Trinity Square. The entire building is protected with SEM-SAFE® high-pressure water mist.



**SEM-SAFE® high-pressure water mist system**

Danfoss and Fireworks Fire Protection Ltd (the Danfoss business partner in the United Kingdom) have worked closely to provide the prestigious Ten Trinity Square project with the right fire fighting solution for the OH1 hazards. It uses a wet system (12 wet section valves), pre-action system (2 pre-action section valves), and deluge system (2 deluge section valves).

The technology behind SEM-SAFE® is genius. It uses water, which is completely safe for people. Water is released at high-pressure through nozzles, creating a super-fine mist that will cool and starve the fire of oxygen. It is activated immediately, only in the areas where the fire is detected, ensuring best possible fire protection.



*The design of the SEM-SAFE® high-pressure water mist nozzle blends perfectly with the beautiful interior of Ten Trinity Square.*

**The benefits of SEM-SAFE®**

The building has been installed with more than 3,000 SEM-SAFE® high-pressure water mist nozzles. With minimum water consumption, SEM-SAFE® has proven to be the optimal solution for fire fighting in the Trinity building. In case of activation, the system will cause no water damage. The post clean-up is minimal in comparison with traditional sprinkler fire fighting technologies, where due to the large amount of water used, the damage in case of discharge can be far greater. With SEM-SAFE® high-pressure water mist, downtime is significantly reduced.

The aesthetic design of the SEM-SAFE® high-pressure water mist nozzles integrates perfectly with the elegant architectural style of the Trinity building.

The SEM-SAFE® high-pressure water mist system uses very small pipes in comparison with other fire fighting technologies. This allowed for fast and flexible installation and had no impact on the structural integrity of the building. This was a crucial factor for the historical preservation of the beautiful Trinity building.

In addition, the SEM-SAFE® pump unit itself does not take up much room, allowing valuable space to be used for other revenue-generating activities.



*One of London's architectural icons is completely protected with SEM-SAFE® high-pressure water mist for fire fighting from Danfoss Fire Safety.*

**SEM-SAFE®**

Danfoss Fire Safety A/S · Middelfartvej 9 · DK-5000 Odense · Denmark  
Tel. +45 7488 7800 · E-mail firesafety@danfoss.com · www.semsafe.danfoss.com

Danfoss Fire Safety A/S can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss Fire Safety A/S reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specification already agreed. All trademarks in this material are property of the respective companies. SEM-SAFE® logotype is trademark of Danfoss Fire Safety A/S. Danfoss logotype is trademark of Danfoss A/S. All rights reserved.