ENGINEERING TOMORROW



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

CitizenM London Shoreditch Hotel

An innovative hotel offering its guests affordable luxury

– all protected with SEM-SAFE® high-pressure water mist for fire fighting

Danfoss Fire Safety A/S



The hotel has a great location in Shoreditch, East London, England, in a lively area that is becoming more and more known for fashion and vibrant cultural events. In line with the transformation of the area, CitizenM London Shoreditch promotes the philosophy of affordable luxury.

The hotel was built on the location of a former railway viaduct. The former steel structure had a significant impact on the hotel's structure. As a result, CitizenM was built to the exact proportions of the old viaduct. The lobby has a unique balcony that overlooks the tube train situated on top of the building from across the street.

Building description

CitizenM London Shoreditch is an 11-storey hotel. The 14,000-square-metre, mixed-use area comprises 216 bedroom pods and 24 ironing/linen rooms that are stacked above a concrete deck and, in themselves, the pods form the main structure of the building. The lobby is created to give the impression of a very open space, with a comfortable lounge area and bar, designed in a modern and colorful fashion. All is protected with SEM-SAFE® high-pressure water mist for fire fighting from Danfoss.







SEM-SAFE® high-pressure water mist system

Danfoss and Fireworks Fire Protection Ltd (official Danfoss business Partner in the UK) have worked closely together to provide the prestigious CitizenM Shoreditch project with the right fire fighting solution for for OH1 hazards. A SEM-SAFE® high-pressure water mist pump unit with CEN approved nozzles was chosen. The CEN nozzle allows for 5.5 metre spacing and can protect rooms with up to 3 meter ceiling height. A total of 441 CEN nozzles were installed. The SEM-SAFE® high-pressure water mist system offered by Fireworks Fire Protection Ltd was approved by MLM building control.

Pods form the main structure of the building and as part of the modular structure and to ease the installation, Fireworks Fire Protection Ltd prefabricated the pipes to be installed in the Pods in Poland. When the pods are then lifted into place, the pipes from the pod ties in with the network of pipes installed throughout all other areas of the hotel and saves valuable time and money.

The SEM-SAFE® high-pressure water mist system offers fast and effective control and suppression of a fire. It offers a quick return to operation in the event of a fire, with minimal post-fire damage and small amounts of water used during operation. The installation by Fireworks is made easy due to the small bore stainless steel grade 316 pipe, which offers superior life over the other pipe materials offered.

The dynamic and strikingly urban lobby area protected with SEM-SAFE® high-pressure water mist system from Danfoss.

The customer chose Danfoss because of its long history of designing and delivering innovative products for this market. Furthermore, our UK partner Fireworks, has 20 years' experience supplying and installing high-pressure water mist in the UK. The customer found that the product was of high quality, with all relevant certification and test data readily available to present to the authorities having jurisdiction.

The main contractor states:

"When looking for fire suppression for the new Citizen M Hotel in Shoreditch, following extensive market research, the Danfoss SEM-SAFE® water mist system was chosen for a number of reasons; the quality of the expertise and installation offered from the UK partner Fireworks Fire Protection Ltd, good coverage from nozzles meaning less nozzles to install, aesthetically pleasing nozzles and only small pumps / tanks required."



The SEM-SAFE® high-pressure water mist nozzles fits perfectly with the modern interior of CitizenM Shoreditch Hotel.



Pod protected with SEM-SAFE® high-pressure water mist.



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