

Marine application | SEM-SAFE® high-pressure water mist system

Local application system for fire fighting

Danfoss Fire Safety A/S



The SEM-SAFE® high-pressure local application system for engine rooms is a well-proven, highly efficient and easy to install high-pressure water mist system that complies with IMO resolution MSC/circ. 1387.

Thanks to its flexibility, the standard system – which includes a detection and release system – is easy to set up to suit almost any requirement. The total cost of the system is low due to the small pipe dimensions, small number of nozzles, large coverage, very low water consumption, compact skid and the simple design.

In case of release, the SEM-SAFE® high-pressure water mist is extremely efficient in fire fighting and, in addition, is documented to be harmless to electrical installations with protection IP 23. The water mist itself is pure, fresh water under a minimum pressure of 100 bars at the nozzle heads.



SEM-SAFE® high-pressure water mist system

The SEM-SAFE® high-pressure water mist system for local application is a fire fighting system for hazardous areas as described in IMO resolution MSC/Circ. 1387, main and auxiliary engines, boiler fronts, oil separators and incinerators.

For unattended engine rooms, an addressable detection, alarm and release system should be installed. The system must be assessed in conjunction with the total protection system for the engine room, whether this is a gas, foam, or water mist system for total flooding.

The system consists of a pump unit skid with an electrical panel, ready for connection to the power and water supply. Section valves are remotely operated for each object that requires protection. The system comes with all nozzles, pipes and fittings, main lines, detection heads and alarm units for each section.

Approval levels and experience

The system is approved by all major classification bodies. The SEM-SAFE® high-pressure water mist local application system was one of the first systems on the market, even before the IMO 913 was defined. Consequently, it has a proven service record. In addition, the system was not designed just to comply with the test criteria of 913, but on the basis of real life experience, with a proven record of stopping one fire incident on a passenger ferry in a surprisingly short time with remarkably little damage to the engines and electrical installations.

Another advantage of the high pressure water mist system is that damage by shock cooling of, for example, cast parts is avoided.

