



## Deep Fat Fryer Protection

### SEM-SAFE® High-Pressure Water Mist

No chemicals, no additives: just clean, pressurised water.

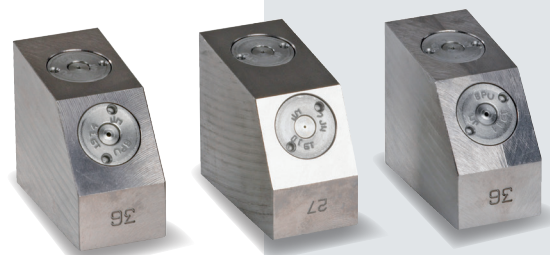
High-pressure water mist has proven itself highly effective in protecting deep fat fryers, and galley ducts against fire.

Traditional thinking says that you do not use water to extinguish fire in oil. However, with the very fine droplets produced by the SEM-SAFE® high-pressure system, water is a very efficient and very clean method for these applications.

The SEM-SAFE® system can be delivered as a cylinder-based system with only 2 x 8-litre cylinders: one filled with nitrogen and one filled with water. Alternatively, if other areas are being protected by SEM-SAFE® high pressure water mist, it can be pump driven. This saves space for cylinders and allows continuous extinguishing without time limit.



SEM-SAFE®  
WATER MIST SYSTEM



## SEM-SAFE® High-Pressure Water Mist System

Water mist is water that, at a high-pressure of 100 bar, creates a fine mist or fog. The fine water mist evaporates very quickly and the resulting steam starves the fire of oxygen, suppressing it. At the same time, the water evaporation creates the most efficient form of cooling. This combination makes the high-pressure water mist unique.

But it is not just extinguishing that is important. It is also important that surroundings and people are not hurt by splashes of boiling oil created when water hits it. For this reason, the high pressure is important for its ability to create smaller droplets, which evaporate before reaching the surface of the oil.

When the system activates, the ventilation as well as the heat element of the deep fat fryer are switched off, and an alarm signal sounds.

### Options

The system can be activated in various ways. It is usually activated manually by pushing a button, but automatic release via a detector is also available. The system can be extended to cover exhaust ducts.

### Approval levels and experience

Danfoss Semco has delivered several systems for deep fat fryers. The system has passed the ISO 15371 test, which imposes high demands on extinguishing. This test also requires that no oil splashing occurs during extinguishing and cooling.

Danfoss Semco also holds DNV MED certificates for this application.

