

Experts in fire protection

**MINIMAX**

## Kitchen protection system KS 2000-8 marine Fire prevention for galleys



SPECIAL SOLUTION

KS 2000-8 MARINE

## Risk – deep fat fryer fire

Safety requirements for passengers and crew are especially high at sea. If a fire occurs, rapid external help cannot be sought. Fire prevention tailored to a ship's conditions is therefore indispensable. Many different foods are prepared in galleys. High volumes of hot fat and oil are used in the preparation; these constitute a high fire risk.

The most frequent cause of a fat fire is a defective overheating prevention switch for fryers, frying pans and grill pans or misoperation of the equipment by temporary employees. Fat self-ignites at a temperature of 350 °C. This temperature is quickly reached with defective overheating protection. Fires quickly spread into the exhaust air duct via residues on the fat filters where they can spread to other areas. Galleys therefore require solutions which quickly detect and reliably extinguish fires without disrupting normal operations. The compact KS 2000-8 marine extinguishing system offers such a solution. The compact KS 2000-8 marine extinguishing system is an economic and dependable solution for galleys. The compact design saves space and the appealing design ensures subtle safety in the background.

The KS 2000-8 marine is quick and simple to operate. According to the requirements of the galley to be protected, the system is triggered manually, electrically or mechanically. The integrated emergency off function ensures that the equipment is switched off and reignition is prevented. The compact extinguishing system can be retro-fitted at any time for automatic deep fat fryers. The housing, the pipes and the nozzles are made of stainless steel and thus comply with hygiene regulations.

The compact KS 2000-8 marine extinguishing system is certified according to ISO 15731:2015. The fire detection elements of the system react dependably when the response temperature is reached. The extinguishing agent is released immediately and is accurately dispensed through the extinguishing nozzles onto the objects to be protected. The finely sprayed extinguishing agent forms a foam blocking layer over the oil or fat so that the fire is starved of oxygen. Simultaneously, the fat is cooled down to below the self-ignition temperature, preventing reignition. The Febramax-RC extinguishing agent has been tested and certified by the accredited test center for extinguishing agents and equipment.



## Design and function

The KS 2000-8 marine compact extinguishing system has been specifically designed for the protection of galleys. Dependent on the design, the extinguishing system can be controlled manually, electrically or mechanically.

### Manual release

In the event of fire, the extinguishing process is manually released directly to the extinguishing system by a push button for manual release. The propellant of the integrated CO<sub>2</sub> propellant cartridge propels the extinguishing agent out of the extinguishing agent container and onto the extinguishing nozzles. The limit switch of the KS 2000-8 marine system provides a contact for the shutdown of the protected equipment and the supply air to the ventilation system.

### Electrical release

A central fire detection and suppression control panel (not part of the KS 2000-8 marine system) triggers the release unit or by pushing a local release button and the extinguishing agent is applied to the protected kitchen equipment via the nozzles.

### Mechanical release

In case of fire, due to the increasing combustion gases, the glass bulb (release temperature 93°C) of a fusible link bursts. This unlatches a spring-loaded bolt that opens the integrated CO<sub>2</sub> propellant cartridge of the extinguishing agent container. The contact for switching off the protected equipment and the supply air of the aeration and ventilation system switches. The compact extinguishing system can also be activated manually via the manual release button.

### Fire detection elements

For automatically triggered systems, dependent on the system type, mechanical (fusible link) or electrical (heat detectors) detect the fire. The fire detection elements are installed in front of the fat filters approximately 1.5 meters above the kitchen equipment and thus detect the fire considerably earlier than systems with detectors behind the fat filters. The extinguishing process is triggered in seconds and fights the fire before damage occurs. The mechanical fire detection elements reliably react at a response temperature of approximately 93°C.



## Benefits

- Quick and easy installation
- Compact, space-saving and appealing design
- Ideally suited to retrofitting
- Hygienic extinguishing solution (Febramax-RC)
- Immediate and practically residue-free extinguishing process
- Minimum outage times for kitchen operation



### Photos

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