

Minifog  
Water mist technology  
for a wide range of applications

*Cool down.  
Fire Protection by*

**mx** BRANDBEVEILIGING

# HIGH EFFICIENCY

Persons, physical assets and the environment are safely protected by Minimax's water mist technology. Minifog fights the fire very effectively – and with a minimum amount of water.



The Minifog extinguishing technology is characterized by an extremely efficient use of the physical properties of water. Minifog nozzles and Minifog sprinklers atomise the water into very small droplets, which go together with a drastic increase in water surface. Thus, the water absorbs the heat more efficiently, the fire and its environment are effectively cooled down. Moreover, as a result of the small water droplets evaporating in the fire, a great amount of heat is absorbed. At the same time the resulting water vapour interrupts oxygen supply to the fire: this reduction of the oxygen concentration around the flame zone means an additional smothering effect.

The nozzle arrangement and the optimal droplet spectrum mean that the water reaches the fire source even if disruptive factors, such as the thermal effects of the fire or air movements are present.

Whether used for the protection of areas or for specific objects, or as a fire extinguishing unit – all the various versions of Minifog offer a high level of customer benefit.

## Minifog EconAqua

With its use of innovative low-pressure water mist technology the Minifog EconAqua water mist sprinkler system offers a particularly effective form of building protection for specific risks in accordance with VdS CEA 4001 or NFPA 13.

Design and function correspond with those of classic sprinkler systems. Water mist sprinklers are installed throughout the areas to be protected. In the event of a fire, only the water mist sprinklers located in the immediate vicinity of the fire source open up. This allows the fire to be fought immediately and using an extremely small amount of finely sprayed water. Minifog EconAqua uses up to 85% less water than a classic sprinkler system.

### Typical applications

- ▶ Office and administration buildings
- ▶ Skyscraper
- ▶ Hotels
- ▶ Hospitals and nursing homes
- ▶ Restaurants
- ▶ Underground garages and multi-storey car parks, etc.



# AND VARIETY

## Minifog ObjectProtect

Minifog ObjectProtect is suitable for the protection of objects where rapid spreading of the fire is to be expected. Normally electronic detectors are used for the rapid and reliable detection of a fire. In order to effectively prevent the fire from spreading, the water is finely sprayed throughout the entire protected zone – e.g. in the area occupied by a production unit – thus suppressing the fire within a few seconds.

### Typical applications

- ▶ Gas and steam turbines
- ▶ Large and industrial fryers
- ▶ Hydraulic units
- ▶ Cable ducts
- ▶ Paint shops
- ▶ Engine test beds
- ▶ Machine tools, etc.

Minifog ObjectProtect is also ideally suited for the preventive cooling of e.g. glass cladding or steel structures.

Impulse nozzle for the target-oriented object protection



Since 1993, Minimax has been installing water mist systems based on its experiences from hundreds of fire tests in Minimax's own research centre.

## Minifog mobile

The Minifog mobile product family is available for manual fire fighting using atomised water. The range includes both the portable fire extinguisher and the high-pressure fire extinguishing unit. The Minifog mobile fire extinguisher is the ideal instrument for fighting initial class A fires and fires involving liquefying plastics. Since atomised water is used, the duration of the spraying process is three times longer than that of classic water extinguishers so that even untrained users are able to put out a fire. The Minifog mobile fire extinguisher is used in pharmacies, hospitals, office and administrative buildings, and in the protection of cultural assets.

The HDL 170 and HDL 250 high-pressure fire extinguishing units are equipped with a mobile high-pressure pump, hose reel and extinguishing gun. They are used to extinguish class A and class B fires. If required the unit can be set to introduce an admixing foaming agent. This makes the Minifog mobile high-pressure fire extinguishing unit also suitable for controlling difficult fire scenarios such as vehicle fires.



Special customer requirements also demand special solutions.

Minimax has therefore developed a series of Minifog protection concepts that are especially tailored to each particular application.

### **Minifog PressProtect**

Increased fire risks are connected with the production of wood fibreboards using continuous presses or multi-opening presses. With Minifog PressProtect, Minimax offers a concept based on modern, low-pressure water mist technology, and one which is presently used to protect almost 170 presses of this type around the world.

Rapid and reliable fire detection is ensured by infrared flame detectors. Because of the high operating temperatures they are partly equipped with fibre optics. In addition, impulse nozzles with their unique spray pattern are an integral part of the protection concept. They are arranged in and around the press so as to ensure extremely effective fire fighting. As small amounts of evenly and finely sprayed water are used, a homogeneous cooling is achieved, thus minimising the risk of thermal distortion of hot machine parts.

### **Minifog marine**

Ships and offshore facilities such as oil platforms require a higher-than-average level of safety due to the special conditions prevailing at sea. Minifog marine takes this into account by providing protection concepts developed and approved in accordance with the safety regulations of national authorities and international classification societies and in compliance with the recommendations of SOLAS and IMO.

A highly efficient type of high-pressure water mist technology has been specially tailored to the protection of cabins and public areas, as well as to the protection of engine rooms, bilges and to the protection of objects. In addition an equally valuable and proven low-pressure system is available for the protection of objects in engine rooms in accordance to current legislation.

### **Minifog SpecialSolutions**

Besides the afore mentioned solutions for special customer requirements, Minimax offers further protection concepts – developed on the basis of the Minifog water mist technology and tailored to each particular application. Examples of this include the Minifog systems for automatic parking systems, wind energy converters, railway vehicles and conveyors.



You didn't find an appropriate solution here?

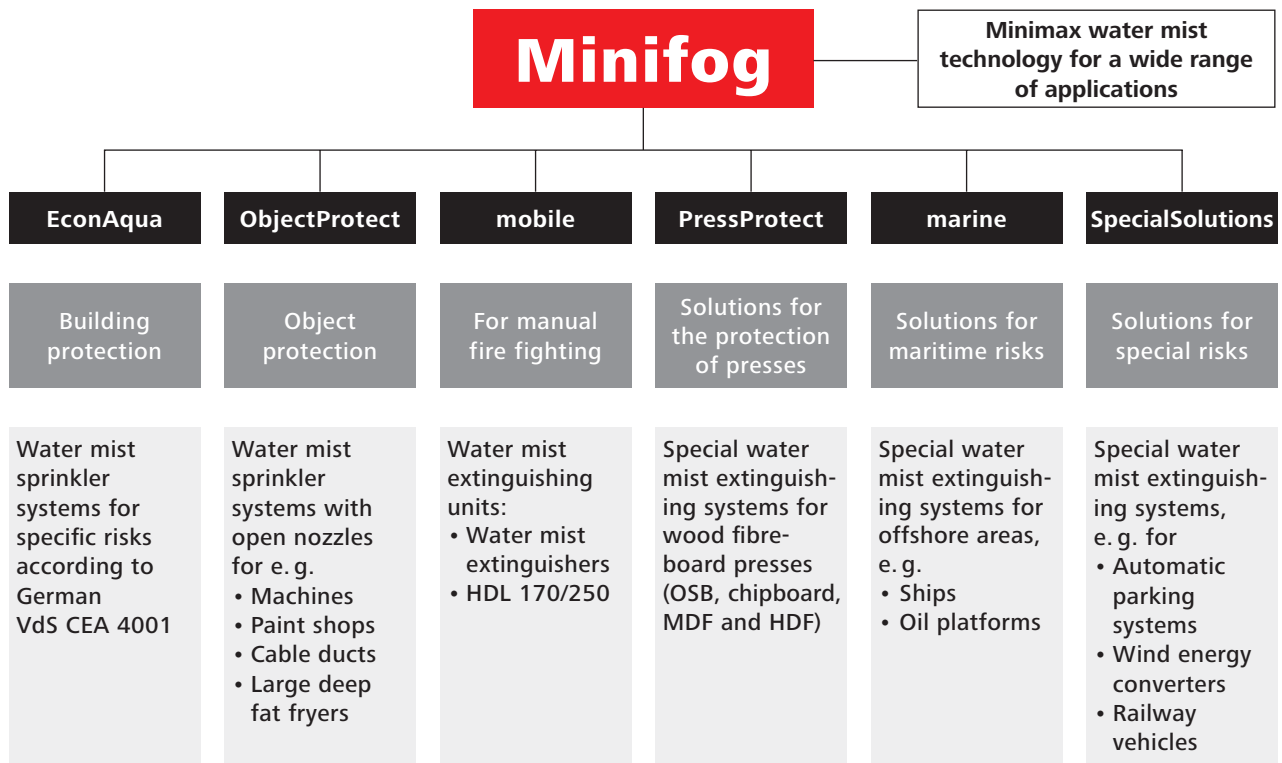
We would be pleased to work with you to develop a Minifog protection concept that best suits your application.

# ADVANTAGES

- ▶ Highly efficient method of fire fighting
- ▶ Uses small amounts of extinguishing water
- ▶ Homogeneous cooling of protected objects
- ▶ Minimised fire and water damage
- ▶ Shorter downtimes of production equipment
- ▶ Effective cooling of the surrounding area
- ▶ High level of personal protection
- ▶ Easier access for rescue teams
- ▶ Minor residues
- ▶ Contributes to the protection of the environment
- ▶ Small nominal pipe diameters
- ▶ Small space required
- ▶ Low weight
- ▶ Reliable technology
- ▶ Easy integration into existing water-based extinguishing systems
- ▶ Low installation expenditure – also ideal for retrofitting
- ▶ Normal water quality is sufficient
- ▶ Over a period of many years, international certification offices have confirmed the effectiveness of our Minifog systems and of their components



# OVERVIEW



MX-Brandbeveiliging B.V.  
Televisieweg 62  
NL-1322 AM Almere  
Tel.: +31 (0) 36 54 61 600  
Fax.: +31 (0) 36 54 61 610  
E-Mail: [info@mx-brandbeveiliging.nl](mailto:info@mx-brandbeveiliging.nl)  
[www.mx-brandbeveiliging.nl](http://www.mx-brandbeveiliging.nl)

