**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 residuals
- 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

**OVERVIEW**

- Minifog water mist technology for a wide range of applications

---

**Minimax GmbH & Co. KG**
Industriestrasse 10/12
23840 Bad Oldesloe
Germany
Phone: +49 (0) 4531/803-0
Fax: +49 (0) 4531/803-248
E-mail: info@minimax.de
www.minimax.de

Minifog
Water mist technology
for a wide range of applications
The Minifog extinguishing technology is characterized by an extremely efficient use of the physical properties of water. Minifog nozzles and Minifog sprinklers atomize the water into very small droplets, which go together with a 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-A01 and 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
- Hotels
- Hospitals and nursing homes
- Restaurants
- Underground garages
- Multi-storey car parks, etc.

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
- Fairly 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.

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 HDS 170 and HDS 210 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.

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

Minifog PresProtect
Increased fire risks are connected with the production of wood fibreboards using continuous press or multi-opening presses. With Minifog PresProtect, Minimax offers a concept based on modern, low-pressure water mist technology, and one which is presently used to protect over 100 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 pairs and are partly integrated into the production 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 and railway vehicles.

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 accommodations and public areas, as well as to the protection of objects in engine rooms on board ships. In addition an equally valuable and proven low-pressure sprinkler system is used in engine rooms in accordance to current legislation.

You didn't find an appropriate solution here?
We would be pleased to work with you to develop a fire protection concept that best suits your application.
PERSONAL, PHYSICAL ASSETS AND THE ENVIRONMENT ARE SAFELY PROTECTED BY MINIMAX'S WATER MIST TECHNOLOGY. MINIFOG FIGHTS THE FIRE QUICKLY AND EFFECTIVELY - AND WITH A MINIMUM AMOUNT OF WATER.

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 6011 and 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 are fired. 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
- Hotels
- Hospitals and nursing homes
- Restaurants
- Underground garages
- Multi-storey car parks, etc.

Minifog ObjectProtect

Minifog ObjectProtect is suitable for the protection of objects where rapid spreading of the fire is to be expected. Formally 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 drops
- Engine test beds
- Machine tools, etc.

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

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 liquefiable fuels. 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, offices 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 foamant. This makes the Minifog mobile high-pressure fire extinguishing unit also suitable for controlling difficult fire scenarios such as vehicle fires.

Minifog PressProtect

Increased fire risks are connected with the production of wood fibreboards using continuous press or multi-opening presses. With Minifog PressProtect, Minimax offers a concept based on modern, low-pressure water mist technology, and one which is proven and used to protect over 100 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 around the press to ensure extremely effective fire fighting. At small amounts of energy and finely sprayed water are used, a homogeneous cooling is achieved, thus minimising the risk of thermal distortion of hot machine parts.

Minifog Special Solutions

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

Minifog PresProtect

Increased fire risks are connected with the production of wood fibreboards using continuous press or multi-opening presses. With Minifog PressProtect, Minimax offers a concept based on modern, low-pressure water mist technology, and one which is proven and used to protect over 100 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 around the press to ensure extremely effective fire fighting. At small amounts of energy and finely sprayed water are used, a homogeneous cooling is achieved, thus minimising the risk of thermal distortion of hot machine parts.

Minifog Special Solutions

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 and railway vehicles.

You didn't find an appropriate solution here?

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

HIGH EFFICIENCY AND VARIETY
PERSONAL AND VERSATILE SOLUTIONS

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 atomize 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.

The Minifog ObjectProtect product family 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:
- Office and administration buildings
- Hotels
- Hospital and nursing homes
- Restaurants
- Underground garages
- Multi-storey car parks, etc.

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

Minifog mobile

The Minifog mobile product family is available for manual fire fighting using atomized 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 fines involving liquefying plastics. Since atomized 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.

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 PresProtect

Increased fire risks are connected with the production of wood fibres aboard using continuous presses or multi-opening presses. With Minifog PresProtect, Minimax offers a concept based on modern, low-pressure water mist technology, and one which is presently used to protect over 100 presses of this type around the world. Rapid and reliable fire detection is ensured through automatic fire 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 such a way that they can ensure extremely effective fire fighting. As small amounts of atomized water are sprayed, the water mist is used as a homogeneous cooling agent, thus minimizing 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 accommodations and public areas, as well as to the protection of objects in engine rooms on board ships. In addition an equally valuable and proven low-pressure water mist technology has been specially tailored to 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 and railway vehicles.
**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**

Minifog

Water mist technology for a wide range of applications

- Minifog solutions for the protection of presses
- Minifog solutions for maritime risks
- Minifog solutions for special risks

**OverView**

- Minifog solutions for building protection
- Minifog solutions for object protection
- Minifog solutions for mobile applications
- Minifog solutions for press protection
- Minifog solutions for marine applications
- Minifog solutions for special solutions

- Water mist sprinkler systems for specific risks according to German VdS CEA 4801
- Water mist sprinkler systems with ignition nozzles for e.g. • Machines • Pass-Hoppe • Large deep fat systems
- Water mist extinguishing units • Water mist extinguishers • LDB, TSB/TSO
- Special water mist extinguishing systems for wood fibre-based presses (DIA, chipboard, MDF and HDF)
- Special water mist extinguishing systems for offshore areas, e.g. • Ships • Oil platforms
- Special water mist extinguishing systems, e.g. for • Automatic parking systems • Wind energy converters • Railway vehicles

**Minimax GmbH & Co. KG**

Industriestrasse 10/12
23840 Bad Oldesloe
Germany

Phone: +49 (0)4531/803-0
Fax: +49 (0)4531/803-248
E-mail: info@minimax.de
www.minimax.de

No. S 89201
Certified according to ISO 9001
ADVANTAGES

Minifog

Minimax water mist technology for a wide range of applications

EconAqua  ObjectProtect  mobile  PressProtect  marine  SpecialSolutions

Building protection  Object protection  For manual fire fighting  Solutions for the protection of presses  Solutions for maritime risks  Solutions for special risks

Water mist sprinkler systems for specific risks according to German VdS CEA 4001

Water mist sprinkler systems with open nozzles for e.g.
- Machines
- Paint shops
- Cable ducts
- Large deep fat fryers

Water mist extinguishing units:
- Water mist extinguishers
- HDL 170/250

Special water mist extinguishing systems for wood fibre-board presses (OSB, chipboard, MDF and HDF)

Special water mist extinguishing systems for offshore areas, e.g.
- Ships
- Oil platforms

Special water mist extinguishing systems, e.g. for
- Automatic parking systems
- Wind energy converters
- Railway vehicles

Minimax USA
240 South Vasco Road, Suite A
Livermore, CA 94551
Phone 925.583.1355
Fax 925.215.2291
Email: rharvey@mxfire.com
www.mxfire.com