



Fire protection in hotels with the Sinorix™ high-pressure water mist system

[siemens.com/water-mist-fire-suppression](https://www.siemens.com/water-mist-fire-suppression)

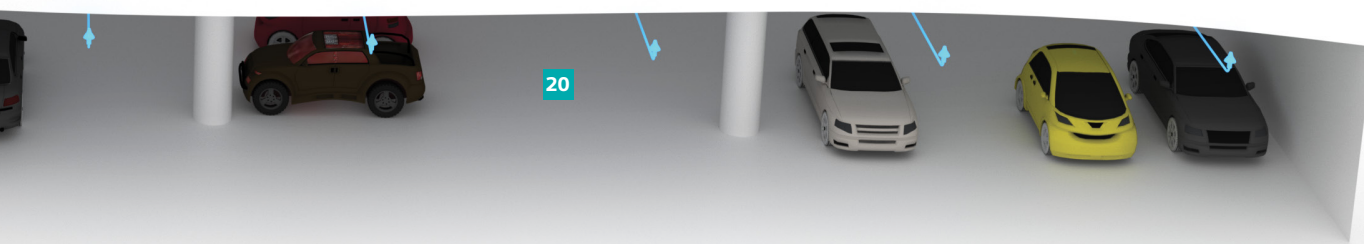
SIEMENS



Sinorix high-pressure water mist system

One fire safety solution to protect all areas of a hotel

- | | | |
|----------------------|---------------------|--|
| 1 Hotel rooms | 8 Shops/boutiques | 15 Kitchens |
| 2 Suspended ceilings | 9 Reception | 16 Technical rooms |
| 3 Theatres | 10 Glass corridors | 17 Generator rooms |
| 4 Archives | 11 Corridors | 18 Storage areas |
| 5 Server rooms | 12 Conference rooms | 19 Laundry rooms |
| 6 Fitness rooms | 13 Bathrooms | 20 Car parks, including parking garages with electric vehicles |
| 7 Offices | 14 Restaurants/bars | |





Advanced fire protection for safety, sustainability, and style

Hotels are places of comfort and memorable experiences, but they also face complex fire safety challenges. Protecting guests, staff and property requires a modern fire suppression system that aligns with the aesthetic, sustainability and design standards of both contemporary and historic buildings.

Why choose Sinorix high-pressure water mist by Siemens?

- Dedicated fire protection for both modern and historic hotel buildings
- Compact, space-saving system with small-diameter piping
- Minimal water use for sustainable and efficient suppression
- Fewer components reduce installation time and complexity
- Ideal for design-sensitive environments
- Helps lower overall project costs without compromising safety or performance

Proven experience across the world

From historic hotels to luxury resorts, our fire suppression systems are trusted by hospitality properties worldwide. We have delivered successful projects in heritage hotels across the United Kingdom, Italy, Hungary, and beyond, discreetly integrating our systems to preserve each building's architectural integrity.

In modern high-rise hotels, wellness resorts, and eco-lodges, our water mist technology supports sustainable design through low water usage and energy-efficient performance. For hotels built with prefabricated pods, our Sinorix system offers a modular piping approach, ensuring fast, flexible, and cost-effective installation tailored to this construction method.

Across all these settings, hotel operators consistently choose our water mist fire suppression systems for their reliability, aesthetics, and ability to meet today's highest standards for safety, sustainability and comfort.

Key benefits of the Sinorix high-pressure water mist system



Sustainable technology

- Uses up to 80% less water than traditional sprinklers
- Harmless to people and the environment
- Stainless-steel components prevent corrosion and discoloration



Minimal business disruption

- Fast, localized suppression limits downtime
- Reduces water damage and cleanup efforts
- Supports continuous operation in unaffected areas



Architectural freedom

- Compact, discreet components preserve design integrity
- Ideal for listed buildings and sensitive interiors
- Enables performance-based fire safety design



Safe evacuation

- Effective smoke capturing and heat reduction, thus creating tenable conditions for people to evacuate
- Activates only in affected zones
- Improved visibility as a result of smooth captured by the fine water droplets



Cost-efficient solution

- Single pump unit and up to 30% fewer components compared to conventional systems
- Compact system with low maintenance requirements
- Reduced water demand lowers supply and reservoir costs



High performance, low resource use

- Up to 50% less water than low-pressure water mist systems
- Rapid fire containment protects structures and valuables
- Ideal for sensitive areas like server rooms, spas, and luxury furnishings



Fast and flexible installation

- Small-diameter piping and fewer nozzles
- Compatible with both new builds and retrofits
- Less visual impact and easier integration

Key components of the **Sinorix system**

The Sinorix high-pressure water mist system integrates advanced fire suppression technology through a comprehensive set of components, including a high-pressure modular pump unit, section valves, specialized nozzles, press fittings, and a stainless-steel piping network.

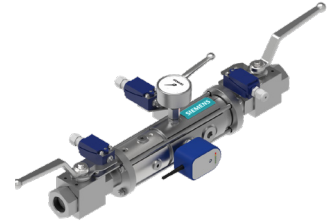
Sinorix high-pressure water mist nozzle

- 100% capacity and spray pattern tested
- High nozzle spacing (5.5m)
- Aesthetic nozzle design



Sinorix high-pressure water mist section valve

- Easy servicing, installation and testing
- Excellent performance
- High-corrosion proof



Sinorix high-pressure water mist pump unit

- Lubricated by water, making the pump maintenance free
- Durable and compact design
- Low energy consumption



Sinorix high-pressure water mist pipes and fittings

- Reduced pipe diameter
- Quick and flexible installation
- Lightweight and space-saving



Sinorix high-pressure water mist fire hose reel cabinet

- an immediate firefighting tool

- Directly integrated into the high-pressure water mist system, thus one system and technology for the entire building
- Small cabinet footprint
- Large coverage: 30m and 50m long fire hose
- Easy to operate

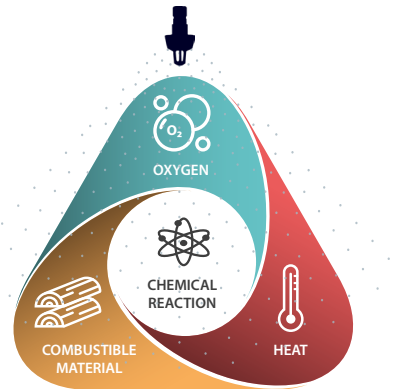


The **intelligent** use of water

How does it work?

Fire needs three elements of the “fire triangle” to ignite and burn: oxygen, heat and combustible material. The removal of any one of these elements will extinguish a fire.

The Sinorix high-pressure water mist system goes further. It attacks two elements of the fire triangle: oxygen and heat. The uniqueness of high-pressure water mist is that it combines the suppression effect of gas and sprinkler systems. In addition to removing oxygen like gas systems, it simultaneously cools the fire like a traditional sprinkler. The cooling effect additionally lowers the risk of re-ignition.



The power behind Sinorix

The system operates with precise technical specifications, delivering water droplets ranging from 10 to 200 microns under working pressures of 60 to 100 bars through a clean water delivery system.

When activated, the system releases micro droplets through specialized nozzles, creating rapid evaporation upon contact with fire. This process expands the water volume up to 1,700 times, simultaneously providing cooling effects and oxygen displacement at the fire source. The system's efficient operation ensures comprehensive fire protection while optimizing water usage.

Engineering excellence

Our fire safety engineering team delivers expert guidance grounded in in-depth knowledge of local regulations and hands-on experience. From initial design and installation to testing, commissioning, and ongoing maintenance, we support our clients at every stage through a global network of specialists. Our water mist systems are engineered to meet the highest standards of sustainability, aesthetics, and performance - while ensuring full compliance with all relevant regulations.

Compliance with ISO standards

Quality, Environment and Health and Safety management systems at Siemens are compliant with corresponding ISO standards and are certified by classification society DNV. Achieving an ISO quality management system proof of our commitment to the environment, quality, safety and productivity, as well as to meeting our customers' needs and providing efficient products, systems and services.

Tested and approved

The design of the Sinorix high-pressure water mist system is based on full-scale fire tests. Approvals are obtained by testing according to specifications from, for example, FM Approvals and VdS, as well as following European guidelines.



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