

AUTOMATIC FIREFIGHTING  
SYSTEMS IN  
**HOTELS**





*specific protection for each room*

## Pre-empting the risk

### **MOST AFFECTED AREAS:**

Rooms

Kitchen

Common areas

Laundry

Car parks

Waste rooms

Boiler rooms

Transformer and generator rooms

The main concern for companies in the fire protection industry is the primary protection of persons, property and equipment.

Hotels are places geared mostly to offering clients comfortable spaces. Sometimes, in addition to accommodation, they offer auditoriums, cafeterias, cinemas, and other places where people are expected to gather.

All hotels are vulnerable to fire, whether large or small, regardless of their category. In any case, no hotel is safe from the risk of fire.

The fire safety of the property is an increasingly common factor in selecting a hotel, in addition to quality, cleanliness, location and price considerations. The level of fire protection provides peace of mind and relaxation during our stay.

The main challenge for SIEX is to provide hotels with modern firefighting equipment.

Thanks to our continuous improvement in research and product development, we offer specific fire systems for each hazard. For example, rooms or corridors are not protected the same as kitchens, boiler rooms, etc. As the world's leading manufacturers of fire protection systems, we can claim to have solutions for all possible fire points.

The history of hotel fires is significant, and it has led to a special sensitivity to their safety. That is why we strive to improve every day in offering our customers a wide range of products delivering the best solutions.

# Sources of fire

Many types of activities occur in hotels, including weddings, communions and all kinds of parties. These increase the risk of fire because, although they are programmed and controlled activities, they involve risk elements that can cause fire (candles, flares, fire shows, additional lighting, music equipment, etc.).

Often the owner's or decorator's ignorance of the regulatory requirements, material tests and testing and fireproofing procedures lead them to use materials with high heat load—and therefore high risk of fire—in hotel decoration.

The most frequent causes of fire are often related to incidents in this type of event, but there are many other causes of fires such as fires in kitchens or electrical equipment. Fire can spread by various means:

- Wall and ceilings coverings that promote flames spreading along the surface (furniture, carpets, curtains) without the required fire resistance.
- Ducts which can make the flames and inflammable gases travel to remote locations (AC ducts, lifts, service lifts, etc.).
- Existence of faulty electrical wiring or overload.
- Accumulation of papers or waste or lack of cleanliness in kitchens and stores.
- Vertical gaps and shafts between floors: open stairs and/or atrium, multiple small installation shafts/patios, aircon ducts, laundry chutes, dumbwaiter lifts, etc.
- False ceilings full of pipes and tangled cables.



## *Risk factors*

Other factors that may jeopardize the different hotel areas are as follows:

- Absence or problems with compartmentalization due to propped open fire doors.
- Guest carelessness, most frequently smokers.
- Lack of smoke detectors and alarms.
- Stoves, heaters, air conditioners.
- Industrial equipment
- Obsolete, adjoining or damaged installations.
- Equipment (HVAC, service lifts, etc.)
- Vandalism

# Custom solutions:



Water mist is currently the most effective technology to completely protect hotels. In case of a hotel fire, water mist can provide protection to guests, employees and installations using the minimum amount of water and causing minimum disruption.

Water mist is a high pressure system that delivers specified amounts of to the base of the fire in the form of micro droplets.

The droplet size, coupled with a high rate of penetration into the flames, are important features that allow the system to provide an effective yield of fire suppression and/or extinguishing with much lower water volumes than those normally used with other fire protection systems.

The goal of the fire protection system will be the protection of persons and property, minimizing the interruption of business activity due to damage caused by fire, smoke and water.

**Water mist can protect: Rooms and bathrooms,  
Corridors and Reception, Bar&Restaurant, Gym, Stairs, etc.**

**And increased risk areas such as the following are given special attention:**

#### LAUNDRY

Hazards: High temperature industrial grills, sheets, tablecloths and fabrics, highly flammable cleaning liquids (stain removers, aerosols), etc.

#### WASTE ROOM

Hazards: Waste not properly separated, for example: organic and chemical materials mixed with packaging, which can ignite easily

#### DISCOTEQUE

Hazards: Spotlights, sound equipment, flammable alcoholic beverages, chairs, tables, lamps, etc.

#### CAR PARK

They are typically located in basements, posing difficult evacuation and poor ventilation conditions. They thus accumulate hot gases that promote the spread of fire and are highly polluting.  
Hazards: Risk of fire in cars, exploding diesel fuel tanks, etc.



Water mist is used as a substitute for conventional sprinklers because often the damage caused by excessive water discharged in rooms (deterioration of furniture, flooring, personal property, etc.) is greater than the damage caused by the fire itself, not to mention business downtime.

Also, in the event of an accidental triggering of the fire protection system, the room would end up slightly moist, as opposed to totally drenched, as would be the case with conventional sprinklers.

Water mist uses 90% less water than conventional sprinklers.

It is also worth mentioning that the piping used in water mist is up to 4 times less than that used in conventional sprinkler systems, which makes installation faster, more comfortable, easier and cheaper, also saving potential space problems in the small installation courtyards.

Other areas require other specific products for the hazards they cover, since they must deal with other substances liable to ignite or because they are non-occupied rooms.



#### KITCHEN PROTECTION

The extinguishing agent used is an aqueous solution stored in a cylinder and pressurized with dry nitrogen to 14 bar. The SIEX-KP™ system can be activated electrically or mechanically, and is simple and quick to install. The extinguishing agent is cleaned easily without posing any risk for the user. Extensive use in professional kitchens.



#### BOILER, GENERATOR AND TRANSFORMER ROOMS.

These rooms usually contain combustible oils and gases that are highly flammable with fast-spreading flames. These areas should be adequately isolated from other parts of the hotel through building elements. All openings connecting these premises with the remainder of the building must be protected by fire doors fitted with self-closing mechanism and adequate fire resistance.

It is recommended to use water mist, CO<sub>2</sub>, halocarbons (HFC-23, HFC-227, HFC-125) and inert gases. If local application is required, the first two should be used.

## Our commitment

### CHOICE OF SYSTEMS

SIEX has the widest range of products and systems to suit different needs, both as regards pressures and extinguishing agents.

### COMPETITIVE PRICE

Optimizing all of our processes make us more and more competitive worldwide.

### SPECIALIZED ENGINEERING

Our highly qualified staff ensure the best service for customers both as regards technical advice on the choice of system, and solving any problems that might arise after installation. Backed up by our extensive experience and a track record of successful projects.

### INNOVATION

At the forefront of innovation in every product we develop, ensuring the technical features offered.

### QUALITY GUARANTEE

All products meet the highest quality requirements and internationally recognised official approvals.



## OTHER SPECIAL HAZARDS PROTECTING BY SIEX:

SERVICE STATIONS

ARCHIVES AND LIBRARIES

DPCs

PAINT SPRAY BOOTHS

ELECTRICAL PANELS

INDUSTRIAL KITCHEN

TURBINES AND GENERATORS

ROAD TUNNELS

NATURAL GAS PLANTS

CLEAN ROOMS

CABLE TUNNELS

TELECOMMUNICATION CENTRES

HOTELS

HOSPITALS

EDUCATIONAL ESTABLISHMENTS

TRAIN AND UNDERGROUND STATIONS

TRAINS

TRANSFORMERS

OFFSHORE PLATFORMS

SOLAR THERMAL PLANTS

MACHINE TOOLS

PRINTING INDUSTRY

HISTORIC BUILDINGS

ROBOTIC PARKINGS

WIND TURBINES

STEEL INDUSTRY

BANKS

OFFICES

LARGE VEHICLES

CONVEYOR BELTS

GAS PUMPS

OIL & GAS

TIMBER INDUSTRY



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