

Smoke and Fire Curtains



Smoke and Fire Curtains

Architectural fire zoning and smoke zoning is one of the most important factors that prevent a fire that occurs around the building from spreading to other parts of the building.

The most aesthetically and architecturally appropriate methods of creating fire and smoke zones are;

- Fire Curtain
- Smoke Curtain their use.

In principle, fire and smoke curtains, which are in the group of passive fire prevention systems, generally move in the vertical plane, but depending on the architectural scheme and building features, there are also types that move horizontally or curvilinearly.

They are used to block heat and smoke and to trap them only in the area of fire.

Fire and smoke curtains supplied by British and Spanish manufacturers distributed by Tekniku Fire Safety Systems are manufactured in accordance with BS and UL test norms up to 240 minutes and have a weight of 450 – 700 gr/m² as fabric.

Curtain fabrics are produced from steel and fiber raw materials and have all international certifications.

Fire and smoke curtains, which are activated by the signal from fire detection systems, are vital in creating fire and smoke zones, but they also eliminate architectural concerns as they are closed and wrapped during normal working times.

They can also be integrated into existing fire alarm and detection systems that already exist in the facilities.

Therefore, thanks to the necessary modules, depending on the fire scenario to be created, smoke and fire curtains will be activated at the desired location, thus maximizing the safety of life and property.

In addition to the detection systems, thanks to the manual buttons mounted on the curtains, they can also be activated manually by users at any time.

They are the best solution for securing escape routes and ensuring life safety, especially during escape and evacuation.

They are widely used in shopping centers, industrial plants, highway tunnels, office buildings, storage areas.

The maintenance and service operations of all fire curtains imported by Tekniku Fire Safety Systems from England and Spain are also carried out and recorded by Tekniku authorized personnel. In addition to these, we guarantee the operability of fire and smoke curtains with the real-time tests we periodically perform.

Smoke Curtain Systems



What Is a Smoke Curtain?

A **smoke curtain** is a system designed to control smoke during a fire and prevent it from spreading to safe zones. Smoke curtain systems help keep smoke contained in designated areas during a fire, ensuring that evacuation routes remain safe and minimizing the risk of casualties. They play a critical role in fire safety, especially in large indoor spaces and high-risk areas.

How Does a Smoke Curtain Work?

Smoke curtain systems are integrated with fire detection systems and operate as follows:

- **Fire Detection:** When smoke is detected by fire sensors or alarm systems, the curtain system is activated.
- **Curtain Deployment:** Motorized or gravity-operated smoke curtains are triggered and begin to descend.
- **Smoke Control:** The system prevents smoke from spreading to other areas, keeping evacuation paths clear and protecting safe zones.

These systems are designed in compliance with fire safety regulations to provide maximum protection.

What Is the Purpose of a Smoke Curtain?

The main function of a smoke curtain is to control smoke during a fire and create a safe environment for evacuation. The answer to the question “**What does a smoke curtain do?**” includes:

- **Smoke Containment:** Prevents smoke from spreading to other areas of the building.
- **Evacuation Safety:** Enables people to evacuate the building safely.
- **Equipment Protection:** Protects critical equipment from smoke damage.

Where Are Smoke Curtains Used?

Smoke curtain systems are widely used across various sectors. Common areas of application include:

- **Shopping Malls:** To control smoke in large open spaces.
- **Hospitals:** To ensure the safety of evacuation routes.
- **Industrial Facilities:** To protect machinery and equipment.
- **Office Buildings:** To enhance fire safety measures.
- **Airports and Hotels:** To ensure safe evacuation in areas with high foot traffic.

The benefits of smoke curtains in these areas include reduced fire risk and improved protection of life and property.

What Are the Benefits of Smoke Curtain Systems?

Fire smoke curtain systems offer several advantages:

- **Ease of Evacuation:** Prevent the spread of smoke to safe zones during a fire, simplifying evacuation.
- **Fire Control:** Help contain the fire and support firefighting efforts.
- **Safer Environments:** Provide a safer environment for people and help reduce panic.
- **Long-Term Solution:** When made with high-quality materials and installed professionally, they can last for many years.

Smoke Curtain Prices

The cost of smoke curtains can vary depending on the size of the system, the quality of the materials used, and the installation requirements. Key factors affecting the pricing include:

- **Area Size:** The dimensions of the curtains have a direct impact on cost.
- **System Features:** There may be a price difference between motorized and manual systems.
- **Installation Challenges:** Physical characteristics of the installation area can affect the overall cost.

Automatic Fire Curtain System



In case of fire, the most important factors to prevent the spread of fire are the creation of fire zones. The creation of fire zones will prevent the growth of the fire and ensure that the fire is confined in the area where it originated. The fire trapped in the area will be destroyed due to lack of oxygen even without extinguishing systems, thus preventing major disasters. Therefore, fire zoning is of vital importance in large structures and buildings in terms of preventing fire spread and extinguishing the fire.

What is a Fire Curtain?

A fire curtain is an essential safety measure designed to prevent the spread of fire and smoke within a building. These barriers are typically made from fire-resistant materials and are deployed automatically in the event of a fire. Fire curtains create a compartmentalized environment, allowing safe evacuation and protecting property.

Where Are Fire Curtains Used?

Fire curtains are utilized in various areas where fire safety is critical, including:

- **Shopping Malls:** Provide safety between floors and stores.
- **Hospitals:** Preferred for protecting patient rooms and corridors.

- **Hotels:** Secure common areas and guest rooms.
- **Industrial Facilities:** Separate production areas, warehouses, and offices.
- **Public Buildings:** Used in high-traffic locations such as airports, universities, and libraries.

By being implemented in compliance with fire safety regulations, fire curtains ensure the safety of occupants while preserving the structural integrity of the building.

What is the Purpose of a Fire Curtain?

The primary purpose of a fire curtain is to enhance fire safety by acting as a physical barrier against flames and smoke. Fire curtains are widely used in commercial, industrial, and residential buildings to comply with fire safety regulations, safeguard lives, and minimize damage.

Tekniku is able to provide fire resistance up to 240 minutes with fire curtains imported from England and Spain and to ensure that fires are confined to the area. Fire curtains consist of a control panel, a headbox, a 24VDC motor, fire resistant fabric and a bottom bar. In normal time, the motor in the headbox is waiting in 24 VDC brake state. The signal from the fire detection system will cut the energy on the motor and disrupt the brake position. Thus, the fire curtain will start to move downwards with the weight energy of the bottom bar and will ensure that a fire zone is created in the desired time and minute in the relevant area.

According to architectural projects and areas, fire curtains can be equipped with more than one motor. Generally, single-motor fire curtains can be used in areas with a width of up to 4 meters. Fire curtains can be integrated with a detection system, that is, they can be integrated with the fire alarm system in the enterprise and receive trigger signals from these detection systems.

Radial fire curtains can also be supplied by Tekniku upon request. All test and quality certificates of the companies we distribute are available. All fire curtains are tested in BS, EN and UL norms and can withstand up to 240 minutes. All quality processes are carried out according to BS EN ISO 9001:1994. The maintenance, testing and service operations of all fire curtains imported, installed and commissioned by Tekniku Fire Safety Systems are also carried out and recorded by Tekniku experienced field team and engineers.

Are Fire Curtains Expensive?

Fire curtain prices may vary depending on the dimensions of the product, the materials used, the automation system, and fire resistance certifications. While standard-sized curtains are generally more affordable, curtains designed for custom projects can reach higher costs.

