

# **AUTOMATIC FIRE CURTAINS**





#### GENERAL

ASB Fire Curtain is an electrically operated automatic fire curtain used to seal off an area to contain the fire and smoke, prevent it from spreading to other areas.

To ensure that the fire integrity of the fire curtain is maintained, all critical components such as the head boxes, bearings, bottom bar and roller are manufactured of steel.

The curtain head box is manufactured from 1.2mm galvanised steel, with a standard size of 216mm x 350mm for single or multiple rollers (over 5m wide). This enclosure is rated at the same temperature as the curtain fabric.

A steel bottom bar is provided to prevent deflection and it is weighted to ensure correct operation under gravity.

Metal side guides with a fabric retaining system provide a seal between the curtain fabric and the building. Due to the immense positive or negative pressures created by the fire, it is imperative that this seal remains in place at all times.



A 24 volt AC motor, a gear box and a sealed heavy duty ball bearing assembly is incorporated in to the steel roller. A motor control unit housed in a steel enclosure is mounted onto the motor end of the head box.

## FABRIC

The V4A stainless steel (Inox) wire reinforced glass fibre fabric has a nominal weight of 0.7Kg/m<sup>2</sup> and is fire tested in accordance to BS476: Part 20 for 240 minutes integrity.



Automatic fire curtain

## CONTROL SYSTEM

In normal operating conditions the curtain would be held by the motors in the retracted position operating at low voltage.

Upon receipt of a signal from the fire-alarm panel, the control panel will remove the supply voltage and the curtain will descend under the power of gravity in a controlled manner. The system must fail safe to the operational position on total loss of primary and auxiliary power.

A dynamic braking system housed in the motor control circuit controls the speed of descent of the curtain, this is to retract the curtain, the motors drive the curtains to the up position. As the bottom bar hits the curtain head box, a current limiting circuit steps back the voltage and current and holds the bottom bar in the retracted position. Limit switches are not to be used to control the upper position of the curtain.

Upon the mains supply failure, the supply is automatically switched to the integral standby battery. The curtain shall remain in the retracted position for 1 hour (fully loaded system).



## INSTALLATION

Fire curtains require side guides to provide a seal between the curtain fabric and the structure of the building. A fire will cause either positive or negative pressures, these pressures can cause a curtain to act like a sail and pull the curtain fabric out of the side guides.



Fire curtain testing facility

A unique fabric retaining system prevents the seals from parting with the side guide.

The side guide is manufactured from 18 s.w.g galvanised steel and can be powder coated as an extra option.



Galvanised steel side guide

## **CONTROL UNITS**

Operation of the curtains is from the Fire Curtain Control Panel, which can either be mounted adjacent to the fire curtain head boxes, within the ceiling void or mounted in a remote position from the curtains. The panel requires a local 230V AC supply.

## FIRE CURTAIN CONTROL PANEL

Dimension of the enclosure	430 x 300 x 235 mm
Colour	White
Power Supply	230V AC 50Hz 5A
Max. Load	6 rollers
Output	24V ~ 38 V AC, 1.5A
Fire Alarm	Fail safe to open
Standby battery	2 x 12V 7Ah rechargeable
Operation upon mains failure	20 cycles
Operation upon total failure	Controlled gravity fail safe.



Double roller fire curtain housing



- Glass Solar Shading Systems
- Single Bank Ventilation Louvres
- Double Bank Rainproof Ventilation Louvres
- Triple Bank Stormproof Ventilation Louvres
- Structural Glazing
- Curtain Wall
- Skylight
- Canopies

- Streetlights
- Projection Lights
- Flood Lights
- Highbay Industrial Lights
- High Performance Industrial Lights
- Wallwasher Industrial Lights
- T8 and T5 LED Tube Lights
- Classic Bulbs
- Reflector Bulbs
- Par Bulbs
- RGB Bulbs
- Corn Bulbs
- Soft Panel LED Lights
- Light Fittings

- Fixed / Controllable Solar Shading System with Photovoltaic Cells
- Solar Powered LED Lighting Systems
- Solar Cell Roofing Systems

- Automatic Smoke Curtains
- Automatic Fire Curtains
- Fixed Smoke Barriers
- Fire Rated Glass Doors
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