



Global Fire Control Solution

Fire and Smoke Curtain Barriers Protecting people, building contents and escape routes

Web : www.firecurtains.in



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Orient Firecurtains India Pvt. Ltd

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Orient Fire curtains is a subsidiary and licensee manufacturer of :

Smoke & Fire Curtains Ltd, UK 9 Brook Street

Syston Leicester LE71GD, (UK)

Web : www.firecurtainsltd.com









Welcome

To the Fire Curtains Group Ltd.

Fire Curtains Group Ltd. specialises in the design, manufacture, installation and servicing of bespoke, certified fire and smoke barrier systems, available for domestic, commercial and industrial use.

Founded by Arthur Calow in 2005, the company began with only eight employees distributing mainly within the UK but with plans to expand its export markets.

The Fire Curtains Group over the past years have expanded into a network of companies employing a group total of over 65 employees, with manufacturing facilities in both UK and India supplying and installing fire curtains globally. We pride ourselves on being one of the top globa companies for manufacturing operable fire and smoke curtain barriers with our clients ranging from international organisations from multiplesectors to industry and domestic UK customers.

All our products are made to the highest quality in our UK & India manufacturing plant Smoke & Fire Curtains Ltd based in Leicestershire. We are continuously testing to meet with British and European Regulations and standards.

Over the past number of years Fire Curtains Ltd. have invested heavily in new production techniques and innovative developments. Although the development work and fire testing certification can be a very long and very expensive process, we continue to develop new fire curtain systems in order to improve and develop further our own systems in design. In 2019 we were recognised for our innovation and became "Winners" of the Leicester Mercury Business Awards. Collecting the, Freeth's Award for Excellence in Science and Technology.

Smoke and Fire Curtains Ltd. liaises with all those responsible for the protection of life against the effects of smoke and fire in both public and private sectors; from main contractors, Building Control bodies, Fire & Rescue Services through to architects and individuals purchasing for their domestic properties.





Smoke Safe D120

Product Reference: Smoke Safe D120 ASB Automatic Smoke Curtain SSB Static Smoke Barrier

Approved Standards: EN12101-1:2005 & A1:2006 Annex D - Fire test Annex B - Cycle test Annex C - Smoke Leakage to Fabric.



Certified Performance

Smoke Safe D120 curtain material achieves a resistance to smoke at 600°C for a minimum of 120 minutes, achieving a DA classification as detailed in EN12101-1:2005 & A1:2006.

Description:

The Smoke Safe D120 is an electrically operated automatic smoke barrier, t o be used to form a continuous barrier against smoke produced in a fire. It is the most discreet automatic curtain available; designed to be installed in commercial properties, such as shopping centers, airports, and positioned to push smoke towards a ventilation system.

Product Performance:

Complete product tested to (BS) EN12101-1:2005 and achieved a rating of DA (600°C, above 120 minutes) and is ASB 1 and ASB 3 classified.

Designed to operate for 2000 cycles at normal ambient temperatures in the range of 0°C to 60°C and to withstand hot air and smoke at temperatures up to 600°C for over 120 minutes once only.



General Description:

The curtain head box is manufactured from 1.2mm zintec steel, the enclosure is rated at the same temperature as the curtain fabric. Removable cover plates are incorporated to allow access to the curtain rollers. Standard head box sizes are 200mm x 200mm larger head boxes may be required where the curtain drop is in excess of 3m. A suitably weighted bottom bar is provide d to prevent deflection and ensure correct operation under gravity.

The roller is constructed from tube, each of which incorporates a 24volt D.C motor. The fabric curtain is medium weight fibre glass fabric, with a specially formulated aluminium pigmented and fire retardant polyurethane, which provides a heat reflecting surface. The fabric has a nominal weight of 455g/m² and is tested to withstand temperatures of up to 600°C for a period of 120 minutes.

The smoke curtain has fixing options to suit all types of ceiling configurations and can be integrated into either a suspended or a solid ceiling. It remains hidden until required. Upon receiving a signal from the fire detection system or on loss of power with the gravity fail safe system, the curtain automa tically unwinds to its operational position

Control System:

The panel model number is FC– 01 GFS and is classified within the following EU Directives: Low Voltage Directive 2006/95/EC and Electromagnetic Compatibility Directive 2004/108/EC. Under normal operating conditions the curtains would be held in the retracted position via the motors operating at low voltage. Upon activation of the fire alarm the control panel will remove the supply voltage and the curtain will descend under the power of gravity in a controlled manner. A dynamic braking system housed in the motor control circuit controls the speed of descent of the curtain, this is electronically synchronised on overlapping curtains with a common bottom bar.

To retract the curtain the control panel supplies 24v to the motor and the motors drive the curtains to the upper position. As the bottom bar hits the curtain head box the limits setting holds the bottom bar in the retracted position.

Should the mains power fail to the group control panel the supply is automatically switched to the integral standby battery. The curtain remains in the retracted position for 24hrs. The curtain will remain fully operational until the battery low voltage cut off facility reads a voltage of 21v, the curtains will then safely descend under the power of gravity to the operational position.



Optional Extra's – SmokeSafe D120

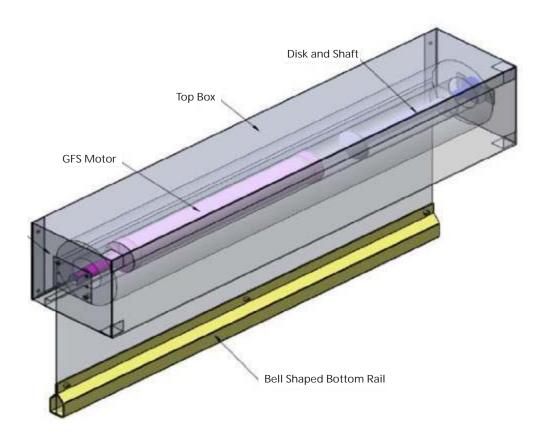
Side Guides Smoke Safe D120 is also available with side guides where a high degree of deflection is likely.

Split Drop Delay:

An optional braking system is available to allow a two-stage descent during gravity deployment. Partial descent to a predetermined level to permit preliminary escape and initial smoke containment, after delay the barrier descends to full operational position.

Visual Alert System: Standard localised light or strobe light.

SmokeSafe D120 – Single Curtain Drawing





FireSafe 60

Product Reference: FireSafe 60 Automatic Fire Barriers

Approved Standards: BS 476: Part 22: 1987 BS 476: Part 20: 1987 BS EN 12101 Annex B EN13501-2:2007 + A1:2009



Description:

The FireSafe 60 is an electrically operated automatic Fire Barrier, to be used to form a continuous barrier against fire.

Product Performance:

Complete product tested to BS 476: Part 22: 1987 Clause 8 and achieved a rating of 1000°C, above 60 minutes.

When tested to BS 476 Part 22: 1987 the FireSafe 60 product achieved Integrity performance of 60minutes.

Classifications as detailed within EN 13501 - 2:2007 + A1: 2009 therefore detailed as E60 Integrity.

Designed to operate for 2000 cycles at normal ambient temperatures in the range of 0°C to 60°C and to withstand hot air and smoke at temperatures up to 1000°C for over 240 minutes once only.

The FireSafe 60 can be provided to protect openings widths of up to 7m and heights up to 6.6m.



General Description:

The curtain head box is manufactured from 1.2mm zintec steel, the enclosure is rated at the same temperature as the curtain fabric. Removable cover plates are incorporated to allow access to the curtain rollers. Standard head box sizes are 200mm x 200mm larger head boxes may be required where the curtain drop is in excess of 3m. A suitably weighted bottom bar is provided to prevent deflection and en sure correct operation under gravity.

The roller is constructed from tube, each of which incorporates a 24volt D.C motor. The curtain fabric is made from filament glass fibre, treated with proprietary finish to enhance temperatures resistance. Both sides of the fabric is coated with a flame retardant silver grey aluminium filled polymer. The weight is approx. 450 g/m2 in its finished form. Fabric thickness is 0.4mm and the weave is 4 end satin and is tested to withstand temperatures of up to 1000°C for a period of 60minutes.

Side guide with a fabric retaining system shall be installed either side to provide a seal between the curtain fabric and the surroundings.

The FireSafe 60 curtain has fixing options to suit all types of ceiling configurations and can be integrated into either a suspended or a solid ceiling. It remains hidden until required. Upon receiving a signal from the fire detection system or on loss of power with the gravity fail safe system, the curtain automatically unwinds to its operational position

Control System:

The panel model number is FC– 01 GFS and is classified within the following EU Directives: Low Voltage Directive 2006/95/EC and Electromagnetic Compatibility Directive 2004/108/EC.

Under normal operating conditions the curtains would be held in the retracted position via the motors operating at low voltage. Upon activation of the fire alarm the control panel will remove the supply voltage and the curtain will descend under the power of gravity in a controlled manner. A dynamic br aking system housed in the motor control circuit controls the speed of descent of the curtain, with a common bottom bar.

To retract the curtain the control panel supplies 24v to the motor and the motors drive the curtains to the upper position. As the bot tom bar hits the curtain head box the limits setting holds the bottom bar in the retracted position.

Should the mains power fail to the group control panel the supply is automatically switched to the integral standby battery. The curtain remains in the retracted position for 24hrs. The curtain will remain fully operational until the battery low voltage cut off facility reads a voltage of 21v, the curtains will then safely descend under the power of gravity to the operational position.



Optional Extra's – FireSafe 60

Split Drop:

An optional braking system is available to allow a stage descent during gravity deployment. Partial descent to a predetermined level to permit preliminary escape and initial smoke containment, after delay the barrier descends to full operational position.

Delay on Alarm:

The system control can be programmed to allow a time delay on the alarm for a number of minutes before the barrier descend to its fire operational position.

Beam Sensor

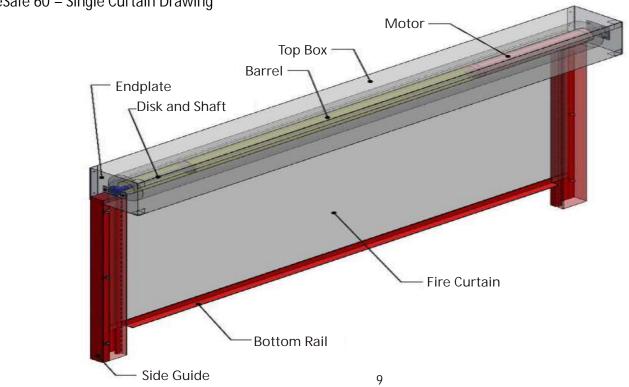
! beam sensor by itself can be used as either a block sensor or an override; when the fire alarm goes off and someone passes through the curtain the beam sensor can be wired to either stop the curtain in its tracks or to retract the curtain. Please note that when used in isolation thebeam sensor does not trigger a sound.

Emergency Over Ride Switches:

Hold on retract facility for escape and emergency service access.

Visual Alert System:

Flashing light and sirens are connected to the control panel and provide a warning when the curtain is about to descend. When the fire alarm is triggered and the fire curtain deploys the beacon will flash and a sounder alert until the signal from the alarmis lost. Please note that when used in isolation the audio visual unit does not stop the fire curtain descending or retract the curtain.



FireSafe 60 – Single Curtain Drawing



FireSafe 240

Product Reference: Firesafe 240 **Automatic Fire Barriers**

Approved Standards: BS EN 1634-1:2008 BS EN 1363-1:1999 BS EN 1363-2:1999 BS EN 12101 Annex B EN13501-2:2007 + A1:2009



Description:

The FireSafe 240 is an electrically operated automatic Fire Barrier, to be used to form a continuous barrier against fire.

Product Performance: Complete product tested to (BS) EN1634 - 1 and achieved a rating of DH (1000°C, above 240 minutes).

When tested to EN1634-1 the FireSafe 240 product achieved Integrity performance of 264 minutes and irradiance (W) of 30 minutes.

Classifications as detailed within EN 13501 – 2:2007 + A1: 2009 therefore detailed as E240 EW30.

Designed to operate for 2000 cycles at normal ambient temperatures in the range of 0°C to 60°C and to withstand hot air and smoke at temperatures up to 1000°C for over 240 minutes once only.

The Firesafe 240 can be provided to protect openings widths of up to 30m on an over lapping system and heights up to 6.6m.



General Description:

The curtain head box is manufactured from 1.2mm zintec steel, the enclosure is rated at the same temperature as the curtain fabric. Removable cover plates are incorporated to allow access to the curtain rollers. Standard head box sizes are 200mm x 200mm I arger head boxes may be required where the curtain drop is in excess of 3m. A suitably weighted bottom bar is provided to prevent deflection and ensure correct operation under gravity.

The roller is constructed from tube, each of which incorporates a 24vol t D.C motor. The fabric curtain is manufactured from stainless steel reinforced glass fibre fabric. The fabric weight is approximately 690g/m2 in its finished form. Fabric thickness is 0.54mm and the weave is 8 shaft satin and is tested to withstand temperatures of up to 1000°C for a period of 264 minutes.

Side guide with a fabric retaining system shall be installed either side to provide a seal between the curtain fabric and the surroundings.

The Firesafe 240 curtain has fixing options to suit all types of ceiling configurations and can be integrated into either a suspended or a solid ceiling. It remains hidden until required. Upon receiving a signal from the fire detection system or on loss of power with the gravity fail safe system, the curtain automati cally unwinds to its operational position

Control System:

The panel model number is FC– 01 GFS and is classified within the following EU Directives: Low Voltage Directive 2006/95/EC and Electromagnetic Compatibility Directive 2004/108/EC.

Under normal operating conditions the curtains would be held in the retracted position via the motors operating at low voltage. Upon activation of the fire alarm the control panel will remove the supply voltage and the curtain will descend under the power of gravity in a controlled manner. A dynamic braking system housed in the motor control circuit controls the speed of descent of the curtain, this is electronically synchronised on overlapping curtains with a common bottom bar.

To retract the curtain the control panel supplies 24v to the motor and the motors drive the curtains to the upper position. As the bottom bar hits the curtain head box the limits setting holds the bottom bar in the retracted position.

Should the mains power fail to the group control panel the s upply is automatically switched to the integral standby battery. The curtain remains in the retracted position for 24hrs. The curtain will remain fully operational until the battery low voltage cut off facility reads a voltage of 21v, the curtains will the n safely descend under the power of gravity to the operational position.



Optional Extra's - FireSafe 240

Split Drop:

An optional braking system is available to allow a stage descent during gravity deployment. Partial descent to a predetermined level to permit preliminary escape and initial smoke containment, after delay the barrier descends to full operational position.

Delay on Alarm:

The system control can be programmed to allow a time delay on the alarm for a number of minutes before the barrier descend to its fire operational position.

Beam Sensor

! beam sensor by itself can be used as either a block sensor or an override; when the fire alarm goes off and someone passes through the curtain the beam sensor can be wired to either stop the curtain in its tracks or to retract the curtain. Please note that when used in isolation the beam sensor does not trigger a sound.

Emergency Over Ride Switches:

Hold on retract facility for escape and emergency service access.

Visual Alert System:

Flashing light and sirens are connected to the control panel and provide a warning when the curtain is about to descend. When the fire alarm is triggered and the fire curtain deploys the beacon will flash and a sounder alert until the signal from the alarm is lost. Please note that when used in isolation the audio visual unit does not stop the fire curtain descending or retract the curtain.



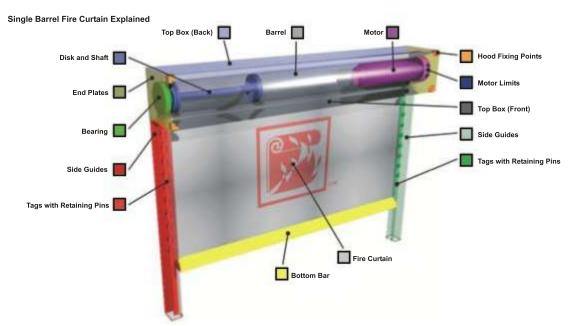
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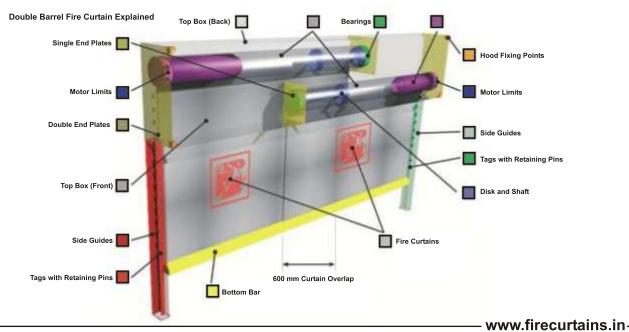
Benefits of all of our specially made smoke & fire curtains:

- Made to measure, all non-standard sizes made to within 5mm of your specifications.
- Safer than heavy and dangerous steel roller shutters.
- Visually more attractive as they blend into the building structure.
- Offers far better conductive properties than steel roller shutters.
- Fail safe option available, unlike steel roller shutters.
- Can be lowered daily to conform to local Fire Officer Requirements.
- Slim, lightweight and easy to install.

Single Barrel Curtain



Double Barrel Curtain

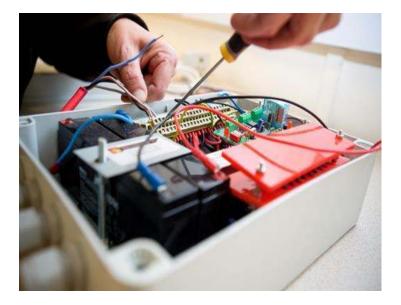




Pre-Planned & Reactive Services

Why should I have a maintenance package?

- To comply with regulatory Safety Standards
- To comply with the terms of your insurance
- To ensure the safety of your premises, home, staff, customers and visitors
- To minimise reputational risk
- To provide peace of mind and security
- This is a life protecting product which needs to continually be kept in working order.



What maintenance services will I receive?

- ✓ Annual checks conforming to British Standards
- \checkmark All regulatory requirements complied with
- \checkmark Fire curtain maintenance certificate
- ✓ Battery replacement at recommended intervals
- ✓ Services by fully trained and qualified personnel
- ✓ Full history of work maintained
- ✓ 24 hour emergency service
- ✓ Access to technical support

Why Chose Our Services?

Smoke & Fire Curtains Ltd will provide you with a comprehensive service and package, providing you with the reassurance that your equipment is fully serviced and maintained ensuring you comply with all of your legal obligations.

It is a legal requirement to regularly maintain all fire rated equipment. Under the Regulatory Reform (Fire Safety) BS9999:2008 Code of practice for fire safety in the design, construction and use of buildings





Cavity Fire Protection

Cavity Barriers have been developed to provide compartmentation of structures, typically within roof voids and above suspended ceilings.

Designed to specifically to halt the passage of smoke and flame and to insulate the cold face of the barrier from rapid temperature rises in a fire situation.



Products within the Cavity Fire Barrier Range:

VULCAN	60 minutes integrity / 20minutes insulation Meets minimum requirements of Building Regulations
PLUS30	30 minutes integrity / 30minutes insulation Exceeds buildings regulations
PLUS60	120 minutes integrity / 30minutes insulation Exceeds buildings regulations
TITAN	120 minutes integrity / 60minutes insulation Exceeds buildings regulations

Cavity Fire Barriers Typically provides:

- ✓ Testing to All BS476 Parts 20/22
- ✓ Tested Penetration Management
- \checkmark Lightweight, clean, easy fixing methods
- ✓ Manufactured from non respirable materials
- ✓ Positive Fixing to perimeters
- ✓ All products suitable for use horizontally
- ✓ PLUS provides 3rd Party Certification





Application Types

Smoke Curtain Barrier Application Types

- Shop Unit Containment
- Stairwell Containment
- Smoke Reservoir Boundaries
- Void Edge Screens

- Escalator Containment
- Elevator Wells Containment
- Channelling Screens
- Void Edge Sealing

Operable Fabric Barrier (Fire Curtain) Application Types

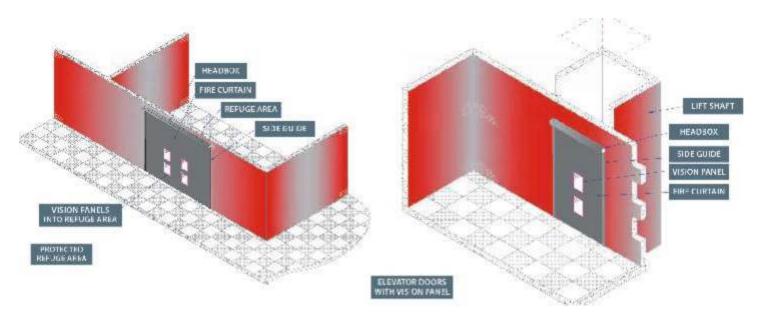
- Protected Main routes of Escape
- Elevator Doors
- Fire Compartmentatjon
- Smoke Compartmentation
- Escalators and Stair Protection
- Protection of Elevator Lobbies
- External Fire Protection
- Smoke Channelling





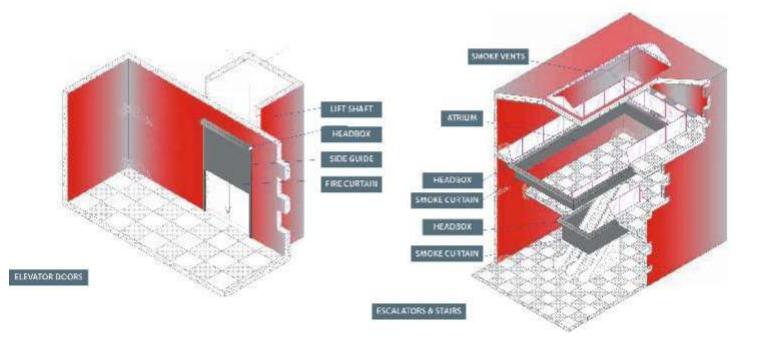
Application Types

Refuge Area with Vision Panel Elevator Doors with Vision Panel

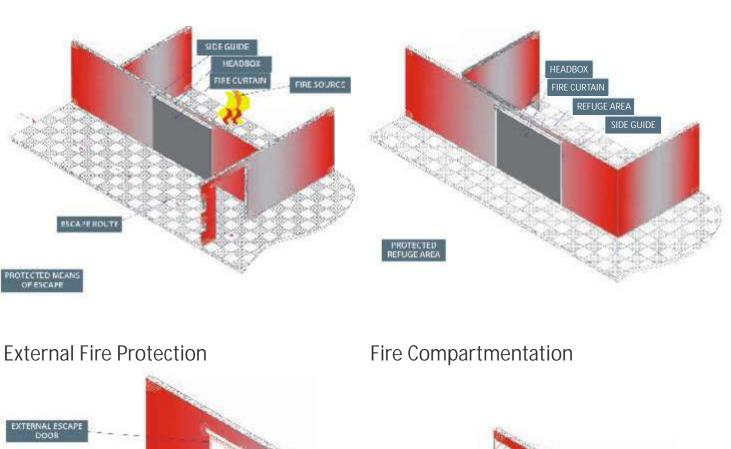


Elevator Protection

Escalator and Stair Protection

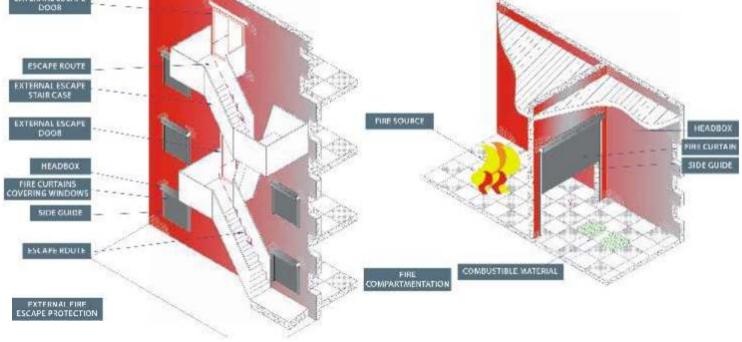






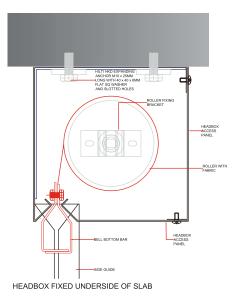
Protected Means of Escape

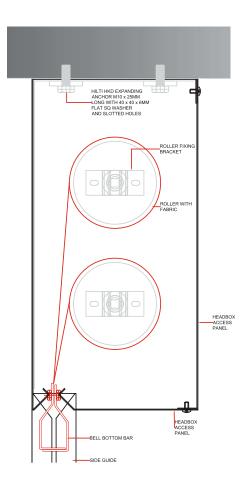
Protected Refuge Area

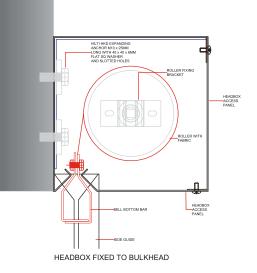


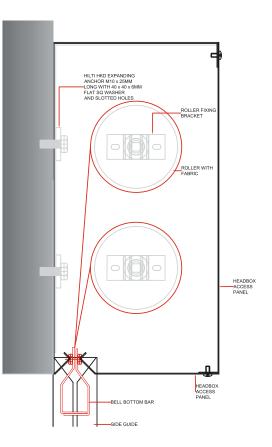


Headbox Design and Fixings



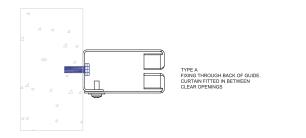


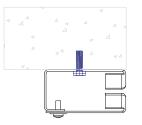




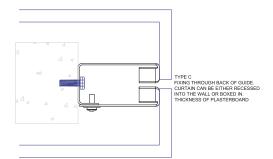


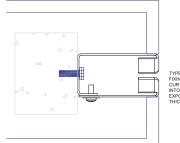
Side Guide Fixing Options for Operable Fabric Barriers





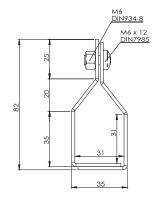
TYPE B FIXING THROUGH SIDE OF GUIDE. CURTAIN FIXED AROUND OPENINGS

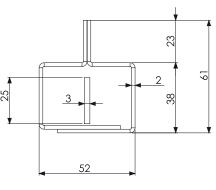


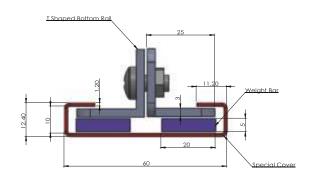


TYPE D FIXING THROUGH BACK OF GUIDE. CURTAIN CAN BE EITHER RECESSED INTO THE WALL OR BOXED IN EXPOSING FACE. THICKNESS OF PLASTERBOARD

Bottom Rail Options









Monument to the Great Fire of London

Perimeter Fire Protection

Setting new occupational standards in terms of design and sustainability, this stunning building started its construction phase in December 2013. The Monument Building will provide high quality office space in the heart of the City with 85,000m2 of commercial office space and 3,000m2 of ground floor retail premises.

Situated adjacent to one of London's most iconic landmarks, Wren and Hooke's Monument to the Great Fire of London, it Is a prestigious location.

Designed by Make Architects, and Fire Engineered by ARUP to ensure 21st century fire design is better than that of the 17th century.





Call in the Experts to Secure Compartmentation

Smoke and fire curtains were pleased to be awarded the contract to design, install and commission the active fire protection for the building perimeter.

The Innovative stacked design was to be completely encased within the steel framing to ensure complete compartmentation.

To mitigate the risk of external fire spread it was proposed that fire separation fire curtains were to be provided at the facade line and ensure compliance to the testing parameters of EN1634-1: 2014 and its associated classifications under EN13501-2.

Smoke & Fire worked with their local partners and the main contractor to ensure this compliance and to satisfy the criteria within !rup's detailed fire strategy.



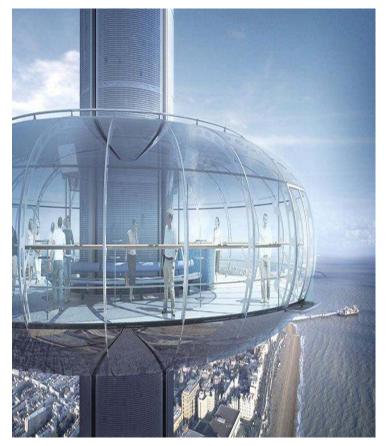
i360 Named World's Most Slender Tower!

Smoke curtain protection for Brighton's newest seafront landmark.

This iconic tower has been erected on Kings Road, Brighton, previously home to the Historic West Pier built in 1866 by the naval architect Eugenius Birch.

The Pier has been closed since 1975 and since then has been ravaged by two fires and several storms leaving little of the original pier still standing. It is now one of only two Grade I listed piers in the UK.

The i360 tower reaches a staggering 162m high with a viewing glass pod rising 138m. This is the tallest observation tower outside London and the slenderest in the world. With breath-taking 360 degree views of up to 26 miles from the world's first vertical cable car, conceived and designed by Marks Barfield Architects, the creators of the London Eye.





When It came to choosing a company for the smoke protection strategy as part of a £46m design and improvement programme, Smoke and Fire Curtains were thrilled to get involved and install our SmokeSafe System for protection to the entrance to the pods.

Compliance to the current European Regulations as well as reliability were imperative for this structure as well as a neutral design. Our Smoke Safe CE Marked curtains fitted the bill.

Smoke and Fire Curtains have designed, manufactured and fitted all of the active smoke safety barriers on behalf of a local regional contractor.

The bespoke design was critical in achieving the smooth lines and unobtrusive finish, whilst the installation required our expert teams to install within the polygon shape designed around the pod entrance glass doors.

i360 will follow the same spirit as the West Pier by offering visitors the opportunity to '*Walk on Air*' in the same way as West Pier allowed them to '*Walk on Water*'.



A smarter and faster check-in at Abu Dhabi's International Airport

Checking in at Terminal 1

Abu Dhabi International Airport (AUH) is one of the fastest growing airports in the world. To accommodate its increasing volume of passengers, in 2005 the airport embarked on an ambitious program that will increase capacity to 27 million annual passengers by 2017 and up to 40 million by 2030.

The expansion program was structured to quickly deliver improvements that meet immediate needs while preparing for anticipated growth.

This prompt growth required imaginative and flexible solutions from companies working in partnership with the Airport Authorities and design engineers.

In 2012 it was certified as the first four-star airport in the Middle East and named the "Best Airport in the Middle East."





Smoke Curtains clear for take off

When the time came to choosing the supplier for Abu Dhabi's Smoke Protection, they called in the experts to help. Smoke & Fire Curtains Ltd, were pleased to have been offered the chance to work with one of !bu Dhabi's expert Main Contractors, Al Habtoor Engineering-Murray & Roberts JV (HMR), for the design, specification, delivery and installation of the compliant solution.

Our installations teams were hands on, on site in the dry overwhelming heat helping get the active smoke barriers up in position.

A great engineering team to work for, Smoke & Fire Curtains Ltd were proud to be a part of this stunning development.



300+ Projects & 2500 ++ Fire/ Smoke Curtains

Orient Fire Curtains have done the following project

- **M/S Godrej Infra (Mumbai)**
- ⊗ M/S Duestsche Bank (Mumbai)
- ⊗ M/S UBS (Mumbai)
- **M/S Adani Developers** (Mumbai)
- ⊗ M/S K Raheja (Mumbai)
- ⊗ M/S Reliance (Mumbai)
- ⊗ M/S JPMC (Mumbai)
- ⊗ M/S IBM (PAN India)
- ⊗ M/S KPMG (PAN India)
- **M/S Barclays (Mumbai)**
- **M/S DLF Aralias (Gurgaon)**
- ⊗ M/S Max Estates Delhi One (Noida)
- ⊗ M/S Hyatt Andaz (Delhi)
- ⊗ M/S Novotel (PAN India)
- **M/S CBRE (Gurgaon)**
- **M/S Pullman** (Delhi)
- **M/S Unity Developers (Delhi)**
- **M/S Bharti Realty Worldmark (Delhi)**
- **M/S Radisson Blue (Bangalore)**
- **M/S Synechron (Bangalore)**
- **M/S Legato** (PAN India)
- **M/S KIA Motors (Bangalore)**
- ⊗ M/S Net App (Bangalore)
- **M/S Rolls Royce (Bangalore)**
- M/S AMazon (Hyderabad)
- **M/S Apple (Hyderabad)**
- ⊗ M/S Wells Fargo (Hyderabad)
- **M/S Google (Hyderabad)**
- **M/S Marriot (Kochi)**

Orient Fire Curtains India Pvt. Ltd.

Plot No. 137/1/2, Budhpur, Nearby RG House & Cloud Party Hall, Alipur, Delhi-110036

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