



## Technical Specification / Data Sheet

### Product: LBS FireSafe 120

#### Supplier

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#### Specification

IN ACCORDANCE WITH:

BS EN 1634-1:2014 Fire (Single barrel arrangement) resistance & smoke control tests for door, shutter and openable window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and openable windows  
BS EN 1634-1:2024 Fire (Multiple barrel arrangement) resistance & smoke control tests for door, shutter and openable window assemblies and elements of building hardware. Fire resistance tests for doors, shutters and openable windows  
BS EN 1634-3:2004 Fire resistance & smoke control tests for door and shutter assemblies, openable windows and elements of building hardware. Smoke control test for door and shutter assemblies  
BS EN 1363-1:2012 Fire resistance tests. Part 1: General requirements  
BS EN 1363-2:1999 Fire resistance tests. Part 2: Alternative & additional procedures  
BS476-6:1989+A1:2009 Fire tests on building materials and structures. Method of test for fire propagation for products  
BS476-7:1997 Fire tests on building materials and structures. Method of test to determine the classification of surface spread of flame of products  
BS EN 14600:2005 Door sets & openable windows with fire resisting and / or smoke control characteristics. Requirements & Classification. Cold formed welded structural sections of non-alloy and fine grain steels  
BS EN ISO 9001:2008 Quality Management system  
UL 10D Fire protective curtain classification (For single and multiple arrangements)  
UL 10D S Fire protective curtains classification, smoke designation (For single and multiple roller arrangements)  
UL 1784:2009 Air leakage tests of door assemblies  
GB14102 Integrity test of a Fire Curtain Assembly

#### Period of Fire Resistance – Integrity (E)

Up to a period of 120 minutes integrity up to 1000°C (1832°F)  
Approved for spans unlimited in width and heights up to 8m minimum fabric overlap 500mm

#### Period of Radiation – Irradiance (EW)

Up to a period of 30 minutes <15kW/m<sup>2</sup> (Subject to material type)

#### Classification

E120W30 Class “O” (Subject to material type)  
UL10D Listed and classified

#### Compliance Parameters

- Tested for fire resistance to BS EN 1634-1
- Tested for smoke leakage to BS EN 1634-3
- Provides gravity fail safe operation
- Tested to UL10D (60- and 120-minutes integrity)
- UL Listed, Labelled and Classified
- UL oversize certification
- Conforms to NFPA105:2007
- Conforms to NFPA80
- Fabric tested to BS476-6+A1
- Fabric tested to BS476-7

#### Product Performance

Complete product tested to BS EN1634-1:2008 and BS EN1634-3:2004 and achieved up to 1000°C for 120 minutes (subject to system type)  
The fabric has a Class 0 surface spread of flame when tested to BS 476: Part 7 and a fire propagation index 1=1.1 when tested to BS 476: Part 6. The results of the tests demonstrate that the product complies with the requirements for Class 0, as defined in paragraph A13(b) of Approved Document B, ‘Fire Safety’ to the Building Regulations 2000 edition consolidated with 2000 and 2002 amendments.

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#### General Description

The active fire curtain barrier consists of a woven glass fibre fabric. The fabric is tested to withstand temperatures of up to 1000°C + for a period of up to 120 minutes & an irradiance protection of up to 30 minutes, this is wound onto a steel tube, each of which will incorporate a 24v DC motor, a sealed heavy-duty ball bearing assembly and an electronic control circuit. The active roller assembly, incorporating the fabric, is housed in galvanised mild-steel box which is normally bolted to the fabric of the building.

Standard head box sizes are 180mm x 180mm. Larger head boxes may be required where the curtain drop is in excess of 3 metres. The lower edge of the curtain incorporates a twin inverted mild steel angle and /or LBS steel profile which acts as a weight bar to enable the curtain to unwind upon receipt of a signal from the fire alarm panel or total mains and battery failure.

Metal side guides with a fabric holding system shall be installed to provide a seal between the curtain fabric and the building construction

#### Finish

Standard finish is galvanised steel bottom rail, guides and head box - These can be supplied with Polyester powder coat stock RAL or BS colour  
Curtain – Self finish only

#### Control system

Operation of the curtain(s) is via the LGC (LBS Group Controller) which can either be mounted adjacent to the fire curtain head box within the ceiling void, allowing access for maintenance, or mounted in a remote position from the curtain.

The controller requires a local 240v AC supply rated at 3 amps via an un-switched fused spur on a maintained supply installed by others. For operational purposes the LGC must be connected to a normally closed volt-free contact within the fire alarm control panel configured to open on fire and fail safe. Each LGC can operate up to six 20w motors or three 40w motors (subject to design standards) and includes battery back-up which will maintain the curtains in their retracted position for up to a period of two hours during a mains failure. It is also possible to manually deploy the curtains during this period.

Should the battery voltage fall below a predetermined limit, a low voltage cut off circuit will activate the curtain which will descend in a controlled manner under the force of gravity.

The roller motors. Which are 24v DC must be wired from the LGC in a ring main using suitably sized cable to ensure a voltage of 24v DC-10%

The curtains descend upon receipt of a signal from the fire-alarm panel and retract when the signal is removed. During ascent the motors are controlled via a synchronised speed circuit to ensure all curtains are raised at similar rates. In the event of mains and battery back-up failure, the curtains descend under the force of gravity.

Limit switches are not used to control the upper and lower positions of the curtain. There is a manual key operation from the LGC to facilitate over ride and testing.

#### OPTIONAL EXTRAS

- **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 timer delay on the alarm for several minutes before the barrier descends to its fire operations position.
- **Beam Sensor**  
A 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 Override 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.
- **Decal Stencil / Label**  
Giving occupants clear indication confirming the location of the push-through overlap

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#### SITE INSTALLATION

LPS 1056: Issue 5 (Requirements and tests for fire doors, lift landing doors and shutters.)  
Test closing and reset leaving in working order  
Provide Certificate of Conformity

#### WARRANTY

The manufacturer will provide a 12-month warranty excluding damage caused by impact, vandalism or misuse  
(Exclusions may apply if any element is sublet to an unauthorised party)

#### MAINTENANCE

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

Work to certified in accordance with Loss Prevention Certification Board (LPCB) in respect to LPS 1197: Issue2 (Requirements for LPCB certification of firms undertaking the maintenance and repair of doors, shutters, smoke /fire barriers) providing confirmation that the product has passed inspection and compliant with current statutory requirements

The frequency of this maintenance is determined by the use and occupancy of the building.

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