FLAME SHUTTER

Description

The product is an electrically operated, automatic, vertical, fire shutter, consisting of a steel slatted curtain and galvanised steel box assembly and guide rails. The box, curtain, guide rails and bottom rail can be powder coated as an optional extra.

The product is powered by a 240v AC motor.

This product is designed to be a security barrier during normal use and to be closed automatically during a test or an emergency situation. In the event of receiving a fire alarm signal the barrier will perform a controlled descent to create a fire resistant barrier.

Approved standards

The fire resistance performance of curtains to BS 476: Part 22: 1987
The fire resistance performance of curtains to BS EN 1634-1: 2008

The product was tested and approved by Exova Warringtonfire, report no. 312862

Product performance

This product is capable of providing up to 60, 120 or 240 minutes integrity performance if subjected to a fire resistance test in accordance with the standards mentioned above.

Size limitations

Minimum width:	800mm
Minimum height:	800mm
Maximum width:	7000mm*
Maximum height:	4600mm*

*Max width 5000mm and max height 4400mm without barrel support.

All sizes are overall sizes

Construction

Curtain

A single skin 75mm scrolled or 50mm flat galvanised steel slat

Weight: 50mm flat slat 5.3 kg/m2 depending upon the type of slat used.
75mm scrolled slat 10 – 16.5kg/m2 dependent upon the size of the curtain.

This product is available galvanised as standard or powder coated to RAL or BS colour at extra cost.

Bottom rail

‘T’ sectioned steel bottom slat 49mm high x 74mm deep

Guide rails
3mm thick galvanised steel channels 50mm or 65mm deep, depending upon shutter width mounted on steel angles for fixing.

Shutter Box
Galvanised steel endplates welded to the top of the Guides in a flag arrangement with a two piece box assembly. Boxes are supplied in sleeved sections to allow for expansion in 250mm, 300mm and 350mm sizes depending upon shutter height.

Axles
101.6mm (1.6mm), 101.6mm (3.2mm) 5", 5½" or 6 5/8" round steel barrels are used depending on the products size.

Finish
Galvanised as standard or powder coated to RAL or BS colour at extra cost.

Motors & control options
The fire curtain is powered using a 240V AC tubular motor which is supplied as standard with a 2.5m 4 core cable.

The standard Flame Shutter Control options are:

- Control Panel with separate Battery Backup allowing delayed or staged closing.
- Fire alarm interface relay with separate Battery Backup.

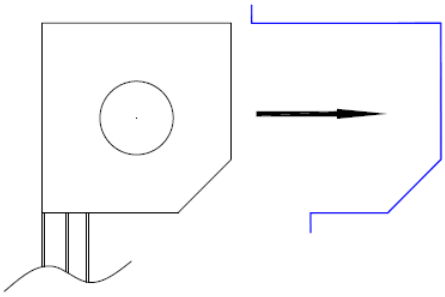
Optional extras:
Localised sensors such as smoke and heat detectors, a range of audio visual devices and emergency retract switches can be connected to the panels using a 24v DC supply from the panel.
Key switch
Manual over ride

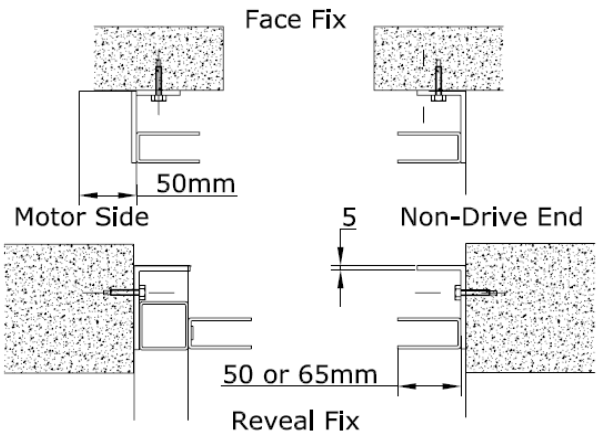
Installation options
The curtains must be fixed to appropriate masonry/concrete, wood or steel supporting constructions that have a fire resistance of at least that specified for the fire curtain and are capable of maintaining adequate support for the required periods of up to 240 minutes.

The box and the guide rails are face fix as standard or reveal fitted at extra cost.

Guides

Fixing method to masonry/concrete surround	M10 Fischer FSA sleeve anchors with steel and nylon washers at a maximum spacing of 650mm along the full height of the Guide Angle.100mm long fixings would cover all conditions, however as a minimum for a rating up to 2 hours they should be 70mm long, and 85mm for up to 4 hours.
Timber	Due to the variability in timber quality and how well it is protected from the fire it is recommended that a steel supporting framework should be fitted.





Warranty

The operation of the fire curtain along with the finish of the curtain, guide rails and box is guaranteed for a period of 12 months. The tubular motor is guaranteed for a period of 2 years against faulty materials and workmanship.

Maintenance

There is a requirement under The Regulatory Reform (Fire Safety) Order 2005 for the buildings responsible person to ensure all fire safety equipment is maintained.

Maintenance and testing of the product

The period between checks is at the discretion of the customer however we recommend the following:

Weekly	Check all the system for correct operation. Test operation of systems, self contained detectors and check the integrity of the curtain.
3 – 6 months	Inspection and test of the system by a competent engineer.
Annually	Full inspection and test of the system by a competent engineer, clean self contained detectors. Replace the two 12v lead acid batteries in the control panel*.