

Flame Curtain

Installation Instructions



General safety advice

This document is intended for use by a qualified, trained installation engineer and should not be given to the owner of the product but should be kept by the installer.

Please read all safety advice and relevant instructions carefully.

Installation, initial operation, servicing, repairs and dismantling of this product should only be carried out by a qualified and trained installation engineer.

When installing an electrically operated product ensure the mains power supply to the product is disconnected before any electrical connections are attempted.

Upon completion of the installation the owner of the fire curtain must be trained how to operate the product safely paying special attention to the following points:

- Where possible the fire curtain should be operated when in view
- The owner should ensure that no objects are left in the opening which would prevent the curtain from closing fully.
- The end user must read and follow the advice given in the operating and maintenance instructions.
- In the event of a malfunction the end user should follow the advice given in the operating and maintenance instructions and if applicable contact the installer.

During the installation of the shutter you should follow safe working practices. Further advice is available from the Health and Safety Executive (HSE).

Warranty

The warranty for this product is only granted if:

- The installation is carried out by a competent installation engineer following these instructions.
- Only original parts are used.
- No additional objects are attached to the product.
- Regular maintenance checks are performed.

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.

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*.

Always isolate the mains power before attempting any maintenance or repairs.
When repairing or maintaining a fire curtain you should keep the opening and the surrounding area clear to prevent risk of injury to yourself and others.

Maintenance check list:

- Curtain free running, clean and no sign of damage
- No debris in the guide rails or across the opening
- Guide rails and box are securely fastened in place
- The motor cable is correctly retained, has not been damaged or in danger of being damaged
- *The control panel incorporates two 12v lead acid batteries which are maintenance free. However it is recommended that the battery condition is monitored on a regular basis and that they are exchanged as necessary and at least every 12 months.

Tools fixings required

This list of tools and fixings is a minimum guide, to be adapted for each installation.

- Drill with pneumatic/hammer action to take the drill bits used below
- 10mm & 5mm masonry bits up to 400mm long (or wall thickness)
- 3, 4.2, 5, 10 & 13mm metal drill bits
- Countersunk posidrive type fixings or similar, with appropriate masonry drill bits for guide rails and shutter box
- Guide rails and end plates require at least Multi Monti flange head screws 6 x 50mm
- To secure the shutter box to the wall use at least Multi Monti flange head screws 6 x 50mm
- 250mm long masonry drill bit
- Screw drivers and wire strippers
- 4mm Allen key
- Pliers
- Metal files - round, half round and flat
- Spirit level
- Straight edge (square)
- Plastic hammer
- Tape measure
- Marker pen
- 3 core cable
- Junction box
- 3 amp plug
- Surface trunking
- Hacksaw
- Pop riveter
- Dust sheets
- Step ladders
- Workmate bench (optional)
- Silicone gun with fire rated sealant (shown by test to be suitable for the fire resistance period required)

Preparation for the installation

The structure of the opening must be adequate to take the weight of the fire curtain and suitable to take the appropriate fixings. This product is suitable for fixing to masonry or a steel structure.

If the curtain assembly is supported by structural steel members, then those members must be clad with a proprietary fire protection system such that they have a fire resistance of at least that specified for the fire curtain and are capable of providing adequate support to the curtain assembly for the required period.

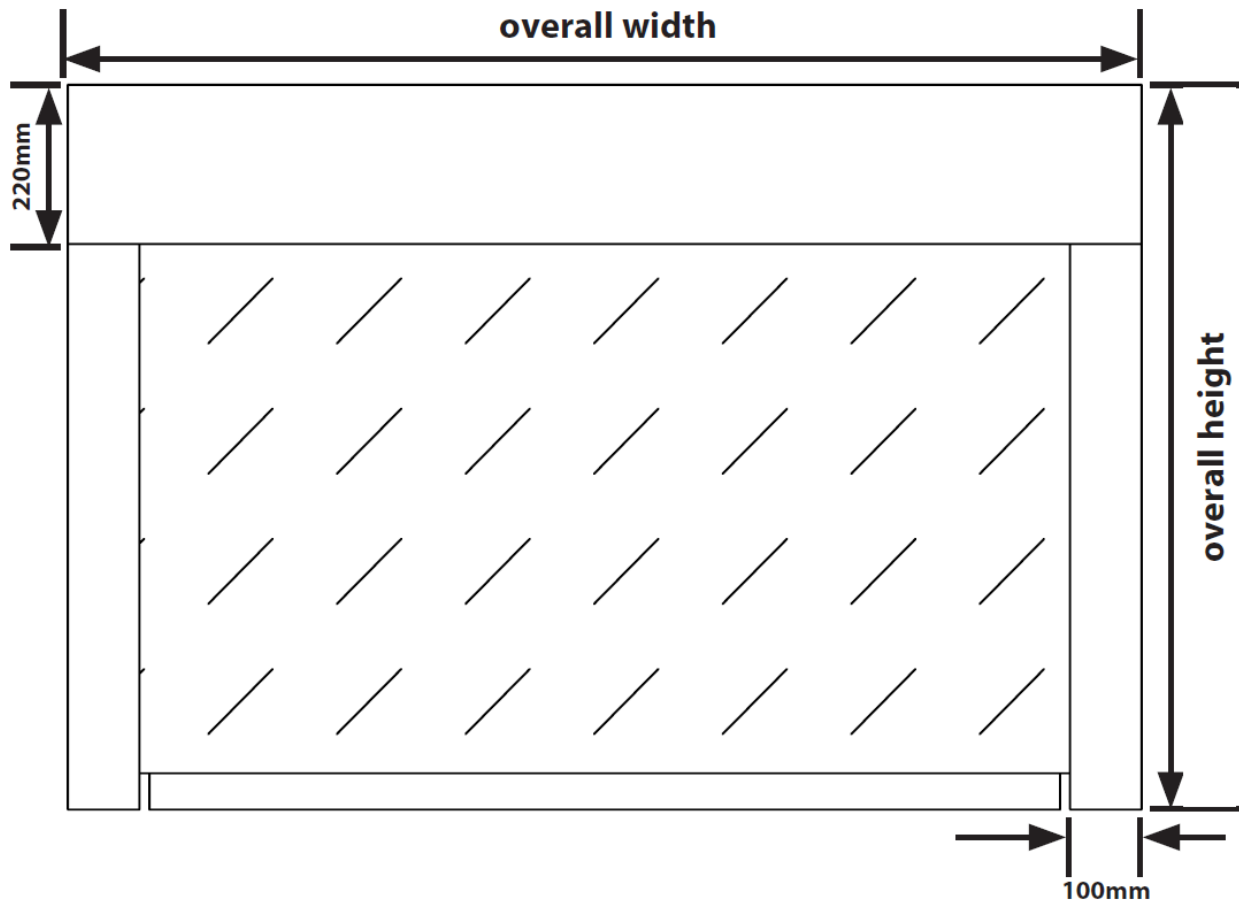
Check that the opening is ready for installation. Surfaces should be flat and vertical to guarantee a parallel alignment of the guide rails. It is important that you check that the lintel does not bow inwards or have any projections that may catch on the curtain or could push the box back towards the curtain.

To avoid damages to the box and the curtain unpack the components very carefully. We recommend using the packaging supplied as a protective mat.

Check the packages you have received to ensure you have received all the parts you require and they are in a satisfactory condition before you begin installation of the fire curtain.

Dimension checks

Check the dimensions of the opening to ensure that the product supplied is the correct size to suit the opening. This must be done before removing any existing products and before you begin installation of the fire curtain.



Installation instructions

Remove the box lid from the box, it will be held in place with two screws. The fascia will have been riveted to the end plates and should not be removed.

Before attempting to install the box it is recommended that the exit is prepared in the box for the motor cable.

Drill a 13mm hole in the end plate or box as required to enable the cable to pass through. It is recommended that a grommet (not supplied) is used to protect the cable.

The next stage of the installation will be to fit the guide rails and box. There are two methods you can use to install the guides and box.

Option 1 – reveal or face fit situations

This method forms a goal post arrangement from the guides and shutter box which will then be offered up into the opening and fastened in place.

Separate the two sections of the guide rails, removing the cover section. Then attach the back section of the guide rails (contain fixing slots) to the U channel lug protruding from the box. This is done using the bolt supplied fastened to the top of the guide rail.



Pass the bolt through the hole in the guide and locate it in the bottom of the slot (viewed in its final upright position).

Once both guide rails have been attached to the box this goal post arrangement can then be moved into position for fixing. Ensure that the guides are vertical and that the box is level before fixing.

Fixings for fastening the guides and the box to the structure are not supplied these should be obtained from a specialist fixing supplier who can advise you on suitable fixings.



However washers are supplied with each curtain which the fixings will need to fasten through. A nylon washer and a steel washer must be used with each fixing with the fixing passing through the nylon washer first then the steel washer.

The guide rails need to be fastened in the top of the slots to allow the guides to expand upwards in the event of a fire.



The box should also be fastened using the slots provided. As with the guide rails the fasteners should be in the top of any vertical slots and in the inner side of any horizontal slots. The sections of box need to be able to slide in towards the centre of the fire curtain in the event of a fire.

Option 2 – face fit only

With this method the guide rails and box will be fitted individually. This option is only possible if the product is face fitted but may be more suitable for larger sizes.

Separate the two sections of the guide rails, removing the cover section.

Select one of the back sections of guide rail, with the fixing slots in, and fasten in place ensuring that it is vertical.

Fixings for fastening the guides and the box to the structure are not supplied these should be obtained from a specialist fixing supplier who can advise you on suitable fixings.



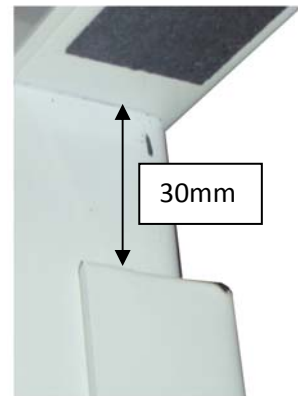
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The guide rails need to be fastened in the top of the slots to allow the guides to expand upwards in the event of a fire.



Next the box can be fastened in place using the slots provided. As with the guide rails the fasteners should be in the top of any vertical slots and in the inner side of any horizontal slots. The sections of box need to be able to slide in towards the centre of the fire curtain in the event of a fire.

Locate the U channel lug protruding from the box in to the top of the guide ensuring that there is a 30mm gap between the top of the guide rail and the bottom of the shutter box. This gap is to enable the guide rail to expand up in the event of a fire.



Once the box is in place the second back section of guide rail can be located and fastened in place.

Installing the axle - common to both methods

The next step will be to insert the axle assembly into the box. Insert the dummy end with the bearing into the support cup first then locate the motor end.

If you have power available on site and the control panel can be located and wired in it is recommended that this is done now to enable the motor limits to be set. The motor, control panel and any optional extras should be wired as per the additional instructions supplied with those items.

If there is no power you will not be able to set the motor limits and once the curtain is attached to the axle it will always want to run to the floor as there is no motor brake without power. If you decide to attach the curtain to the axle and you require it up out of the way rotate the axle by hand and tie the curtain up to prevent it from falling using the belt provided or other suitable.

If you have power use it to drive the motor to its lower limit position (rotate the axle away from you).

Installing the curtain - common to both methods

Now the curtain can be attached to the axle. The curtain will have been provided with the top of the curtain outermost on the roll. Gently unroll the curtain down into the guide rails until the bottom rail is sat on the floor or relevant surface.

The top of the curtain contains a metal strip and this will have been prepared with holes which you will fasten through. Hold the top of the curtain on the axle ensuring that the top and the bottom of the curtain are level and that the curtain overlap in the guide rails is even on both sides. Drill through the prepared holes and rivet the curtain to the axle using the rivets supplied. Be very careful when drilling through the axle in the final 600mm of the motor end to ensure that you do not hit the motor with your drill.



Setting the motor limits - common to both methods

Once the curtain is attached you can now set the top motor limit. Using the switch on the control panel operate the fire curtain so that it travels up. The top limit adjuster on the motor adjusts the top limit of the curtain and the lower limit adjuster adjusts the bottom limit. Turning the limit adjuster in a clockwise direction will make the curtain travel further in that direction. Turning the limit adjuster in an anti-clockwise direction will reduce the travel of the curtain.

**Completing the installation - common to both methods**

The covers for the guide rails and the box lid can now be fastened in place. To complete the installation any gaps between the assembled fire curtain and the structure it has been fastened to should be filled with a fire rated seal system that has been shown by test to be suitable for the application and the fire resistance period required (not included with the product).