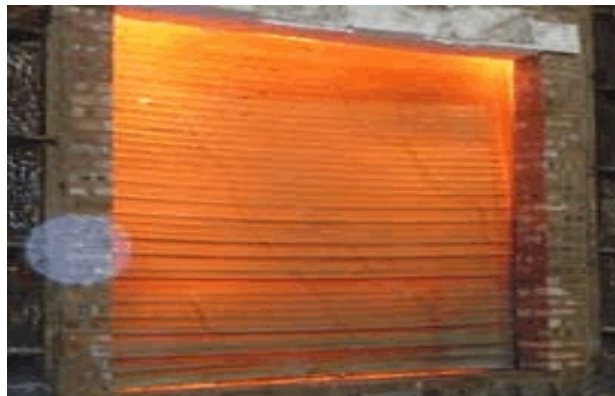


*Decor-Grille
Security*

RS50FIRE 120

TUBE MOTOR

FIRE SHUTTER



SPECIFICATION

FIRE ROLLING SHUTTERS TUBE MOTOR (1HR, 2HR)

FIRE RATED ROLLER SHUTTERS

All our fire shutters are manufactured and produced in accordance with the parameters and technical respects indicated within the specification, which was submitted to the Warrington Fire Research Establishment. The shutters are constructed to Warrington Fire Research Centre WARRES No 145904, the test is in accordance with clause 8 of BS476 part 22:1987.

Curtains constructed from a 50mm flat / 76mm curved steel scroll laths interlocked with steel end locks and galvanised t section bottom rail.

Barrel manufactured from mild steel tube, tube size varies based on the overall width and height of the curtain and the gauge of laths. The tube wall thickness varies dependant on the width of the shutter, the barrels are mounted on bright steel shafts varying from 18mm to 30mm dependant on the overall size of the shutter, the shafts have mild steel bearing blocks at non geared end and tubular motor at the geared end.

Guides constructed from 50mm straight channel galvanised guide mounted on 50mm x 50mm mild steel angle(minimum).

Hood formed from 20sg steel sheet, with the top leg slotted for expansion. Dependant on the fire rating of the shutter (i.e 1HR, 2HR) and the size of the opening, the shutter could require a hood support bracket.

Finishes the curtain and guides are galvanised, angles, barrel and end plates are painted.

A paint finish using a polyester powder coating system is available, the colour to a BS 4800 or RAL number subject to availability.

Operation - Electrically operated 1PH

Release Mechanisms - Fire relay & key switch (requires maintained supply, battery back up needed if no maintained supply)
Fire relay, key switch & fusible link (requires maintained supply, battery back up needed if no maintained supply), fusible link if no fire alarm.

FIRE SHUTTERS

MODES OF ACTIVATION

FIRE RELAY

Principally the commonly used means of release, the characteristics mimic the use of the solenoid on the conventional fire shutter, again linked to the fire alarm, the shutter rather than closing manually through the gearbox will of course be powered down. The unit will require a maintained supply; if this is not possible a separate battery back up unit can be provided. 200mm long x 130mm wide x 70mm deep



FUSIBLE LINK RELEASE

On activation the link, which is a soldered link, separates and releases at 64 degrees centigrade, in effect the temperature release of the link creates a signal to the relay which in turn powers the door down.

Again if there is no facility for a maintained supply the battery back up unit must be used.

AUDIO VISUAL WARNING (FDI)

Principally this unit is designed to delay the closing of the fire shutter; generally the fire alarm is linked to the audio visual unit and from the audio visual unit straight into the key switch. There is no need for a separate relay; there is already a relay in the FDI.

On activation from the fire alarm the unit starts to “flash & sound”, this unit contains a programmable timer which effectively delays the signal to the relay in the panel to close the door. 230mm wide x 240mm long x 120mm deep

A technical sheet giving features and benefits is enclosed with this manual.



FIRE SHUTTERS

SIZE PARAMETERS

The shutter test relates to 1HR / 2HR fire resistance.

Effectively the shutters are generally intended for protection of a range of openings in masonry / concrete, steel, steel stud or timber partitions.

The maximum clear openings are for 4000mm wide x 2500mm high, or in a partition system for 1 hour up to an area of 10sq mtrs, principally this incorporates the BRE test FG 7941N which relates to a tested fire shutter in a stud partition, the opening must be fire rated to suit and be capable of carrying the weight of the shutter. Consideration must be given to the additional weight of the shutters over 3.5m w x 3.0 h, the configuration / strength of the partition must be increased accordingly.

Where the shutters are used to protect serveries it is assumed that the counter is composed of non-combustible material and the counter is of sufficient width to ensure that the bottom rail movement under heating cannot result in the rail overhanging the counter.

Initially the intended maximum width for the **flat lath** will be 3500mm.

Shutters over 3500mm up to 5500mm will be traditional curved lath tube motor construction, based on a maximum area of 10sq mtrs.

Shutters under 4000mm clear width will have 50mm guides and shutters over this width will have the traditional 65mm guides.

The size of the endplates will be 305mm square

BATTERY BACK UP UNIT

Principally the tube motor fire shutter requires a maintained supply, if this cannot be achieved then effectively the shutter will require a battery back up unit.

Fundamentally if under fire conditions there is a power failure the shutter must have a means of ensuring closure, the unit provided will give the facility for at least one operation under fire conditions.

The unit must remain plugged into the mains at all times, or alternatively you can wire this into a fused spur.

In effect the shutter should always receive a signal from the fire alarm, under British Standards the fire alarm must have a battery back up, in the unlikely event of a power failure under fire conditions i.e. alarm has been triggered and the door is closing, if there is a power failure at that particular time the battery pack provided will continue to close the door.

When using the shutter under normal conditions, if there is a power failure the unit can be used again for at least one operation to open or close the shutter manually via the key switch, please bear in mind the unit will require a recharging period of up to 8 hours.

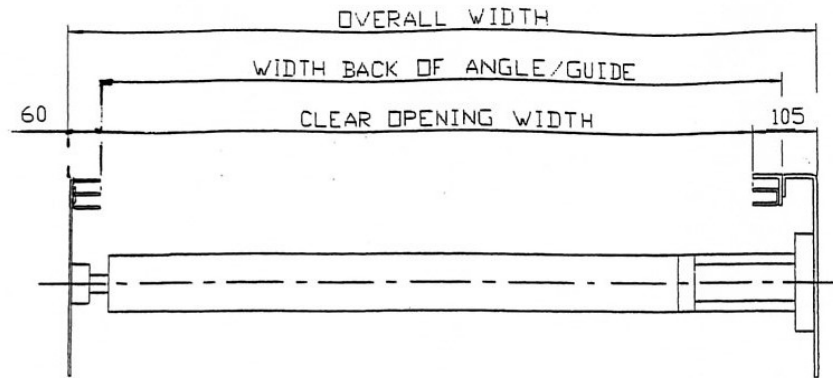
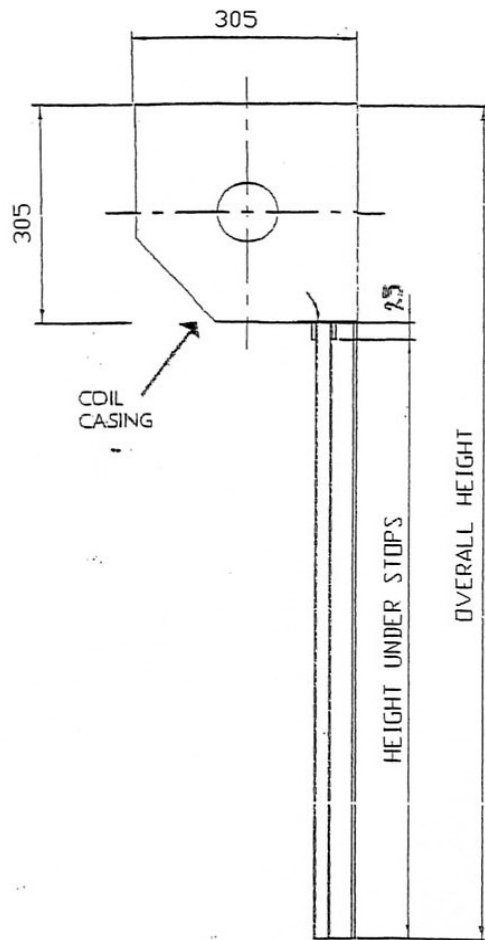
The maximum stand by period for this unit is 4 hours.

It is recommended that you only use the modified battery back up unit provided by A1 shutters, the use of any other unit would be problematic and could nullify the warranty.

The unit comes complete with a wall mounting bracket, the unit must be mounted at high level next to the motor (see layout drawing for dimensions etc.,).

The physical dimensions of the unit are 280mm long x 170mm high x 90mm high. The typical battery lifetime is 3-6 years depending on the number of cycles and operating temperature, replacement batteries can be ordered when required.





PLAN VIEW

FIXING ANGLE	75mm x 50mm x 5mm
GUIDES -	50mm / 63mm
BOTTOM RAIL DOUBLE-FORMED	
KEY	SWITCH AS STANDARD

CLEAR OPENING WIDTH	
WIDTH BACK OF ANGLE/GUIDE	
OVERALL WIDTH	
OVERALL HEIGHT	
HEIGHT UNDER STOPS	

FINISH REQUIRED

ALL DIMENSIONS IN MILLIMETRES

HARDWARE REQUIRED	
LATH - 50mm	SOLID GALV.
LATH - 75mm	SOLID GALV.
NORMAL COIL / REVERSE	
KEY SWITCH	
PUSH BUTTON STATION	
KS02 FIRE RELAY	
FUSEABLE LINK SWITCH	
AUDIO VISUAL UNIT	
BATTERY BACK-UP UNIT	

CONTRACT No.	
CHECKED BY:	DESCRIPTION:
PROJECTION	CLIENT/SITE
FIRST ANGLE	DOOR NUMBER () OF ()
DWG. No.	STD-57 DO NOT SCALE