



OPERATING & MAINTENANCE MANUALS

1- PHASE ELECTRICALLY OPERATED FIRE RESISTING ROLLER SHUTTERS

- a) OPERATING INSTRUCTIONS
- b) MAINTENANCE INSTRUCTIONS
- c) MATERIAL SPECIFICATION
- d) ELECTRICAL SPECIFICATION

OPERATING INSTRUCTIONS

Opening and closing the shutter is operated by Key Switch fitted inside
The opening at a safe position where the operator can see the shutter throughout its travel.

Before operating the shutter switch the Isolator/Fused spur on

TO OPEN THE SHUTTER

Turn the key in the direction of the arrow. The shutter will be raised until it is
Fully opened where it will stop automatically by means of an open limit switch.

TO CLOSE THE SHUTTER

Turn the key in the direction of the arrow and maintain pressure on the button until the shutter
is fully closed where it will stop automatically by means of a close limit switch.

The control is constant pressure, dead man or hold to run type and if released whilst the
shutter is in downward motion will stop the shutter. Maintain pressure on the button to
continue operation.

If a safety edge or photo electric safety beam is provided to stop the shutter if an obstruction
is encountered then the control is wired similar to the open operation
i.e. when the button is pressed and released the shutter will run to the fully closed position
and stop by means of the closed limit switch.

TO STOP THE SHUTTER

Release pressure on the key switch / Rocker switch

TO OPERATE THE SHUTTER BY HAND IN CASE OF ELECTRICAL FAILURE

Switch OFF at mains isolator / fused spur

MAINTENANCE INSTRUCTIONS

Before carrying out the checks on the points listed, where possible clean off all the old dirt and grease from the shutter.

The checklist gives items, which should be checked at least every six months, or as specified when the shutter is subject to general conditions and use. If the shutter is used more frequently i.e. continuously throughout the working day then we strongly recommend that the maintenance is carried out more often to ensure that the shutter is well maintained and thus reduce unnecessary wear and tear.

When checking the component parts of the shutter and in particular tightening of any relevant nuts or bolts always take care that the component parts are not damaged and that fixing bolts are not sheared.

MAINTENANCE CHECKLIST

Endplates - Every six months check the fixing of the plate to the guide angles. Ensure no movement. Secure bolts as necessary.

Guide Angles – Every six months check the fixings of the angles to the opening Jamb. Ensure no movement. Secure bolts as necessary.

Guides - Every six months look for excessive wear, distortion especially the Curved section at the top of the guide where this could cause damage to the laths as they enter the guide. Check for damage to the mouth of the guide, which could cause the curtain to rub. Apply grease to the inside faces of the guides.

Curtain - Every month, look for damage caused by vehicle impact. An Indentation or damaged laths can cause incorrect operation of the curtain especially when the shutter is being opened and the curtain coils up. It can also cause the endlocks to rub in the Guides creating further damage.

Endlocks - Every six months look for distortion, breakages, loose or missing ones and excessive wear. To inspect may require examination at the Head as the curtain coils round the barrel **(keep hands clear)**

Barrel - Every six months check for wear and security. Tighten fixing bolts.

Bearings - Check for wear in the shafts. Clean off old grease and apply new Coating.

Limit Switch - Every month check that they are secure on their respective shafts. Clean off old oil and dirt. Check teeth and chain for wear and tear.

Motor Brake - Every month check for correct operation. On standard motors the brake is not adjustable.

Major overhaul – carried out every Six Years

Remove curtain from barrel. Remove barrel and inspect complete assembly. Replace any parts as necessary.

This work should only be carried out by competent skilled door fitters

MAINTENANCE INSTRUCTIONS – ELECTRICAL

It is recommended that any electrical checks should only be carried out by qualified electricians who are fully conversant with powder operated shutters, their operation, controls and safety features and you should contact **ARTISAN SECURITY DOORS** to carry out such work.

GENERAL SHUTTER CARE

Keep shutter as clean as possible, wash the shutter with a solution of mild detergent in water, rinse and wipe dry.

Paint the side guides, curtain, bottom rail, endplates and metal work at least every three years paying particular attention to the lower laths and those parts near to the ground.

Keep the shutter well maintained and functioning correctly, replace component parts with bona fide **ARTISAN** spares

SPARES AND REPAIRS

In the event of a breakage or damage to a shutter it may necessitate repair or replacement of parts in either case we recommend that the work be carried out by a competent door fitter.

DO – Keep clear of all moving parts if the shutter is operated with any covers removed.

If the shutter is damaged, keep it closed to protect the opening or, if it cannot be closed, secure it in position with a clamp or prop, ensuring that the prop or clamp cannot be removed or knocked over.

Switch off the power at the isolator, place a warning sign on the starter to deter personnel from using the shutter and report its malfunction so that repairs can be carried out.

Then Contact:-

**ARTISAN SECURITY DOORS
UNIT 5
USHER STREET BUSINESS PARK
USHER STREET
BRADFORD
BD4 7DS**

Tel: 01274 723123 - Fax 01274 727477

TECHNICAL SPECIFICATION

All our 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 11:1987

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 75mm x 50mm mild steel angle (minimum)

Hood formed from 20sg steel sheet, with the top leg slotted for expansion. Dependent 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

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 10 sq mtrs, principally this incorporates the BRE test FG 7941 N 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 3.0h, 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 10 sq. 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.

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. A volt free signal is required from the fire alarm.

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 this 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.

.

.