

## ASSESSMENT REPORT

*Title:* Assessment of fire resistance of Fire Proofing Services Ltd. access panels.

*Client:* Fire Proofing Services Ltd.,  
13 Shilton Road,  
Barwell,  
Leicestershire,  
LE9 8NB.

*Date:* 16 January 2001

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## **1 INTRODUCTION**

Fire Proofing Services Ltd. access panels are designed to provide a fire resistance of up to two hours when installed in separating partitions. This report describes the assessment, which has been carried out of the fire resistance of Fire Proofing Services Ltd. access panels for three and four door access panels to provide a fire resistance of one hour.

## **2 SCOPE**

This assessment report covers the fire resistance of three and four door Fire Proofing Services access panels mounted in a partition, in terms of the integrity criterion of B.S. 476 : Part 22 : 1987, for fire exposures of up to 60min from either face.

## **3 SUPPORTING DATA**

### LPC (FIRTO) test report TE 94530

A fire resistance test in accordance with B.S. 476 : Part 22 : 1987 was carried out for you on your double-leaf access panel for a heating period of 135min. The actual overall panel dimensions not including the picture frame surround were 2000mm high x 2000mm wide, with a 25mm-wide picture frame surround mitred at each corner. The three-point lock hole in the left hand door leaf was fitted with a plastic dome plug and collar. Plastic spacer plugs were also fitted in the edge of the door leaves, two at the top and bottom of each door with two on the opening side.

Each door leaf was constructed from a door tray consisting of a 1.0mm-thick Zintec steel skin, which was polyester powder-coated in Ral9010 20% gloss with pre-formed 1.2mm-thick top-hat section stiffeners welded to the sides and middle section of the door tray. The voids within the door leaves were filled with a Rockwool insulation (type and density not stated by the sponsor). A 12.5mm-thick sheet of Lafarge Megadeco wallboard formed the rear face of each door leaf, being attached to the door tray stiffeners using 32mm drywall screws. The access panel had a fire retardant smoke seal attached to the frame perimeter and each door was fitted with a continuous steel hinge welded to the door tray and fixed to the frame using nuts and washers to M6 bolts welded to the frame at 150mm in from the edges and 300mm centres thereafter. The right hand door leaf (as viewed from the exposed face) was fitted with a 1mm-thick back plate and was locked top and bottom from the opposite side by a budget lock. The left-hand door leaf was locked using a three-point locking system. Both door leaves were nominally 60mm thick.

The panel frame consisted of a 1.2mm-thick Zintec steel section with M6 bolts welded to the hinge side. The 25mm-wide front picture frame flange was mitred at each corner. The frame was polyester powder-coated to Ral9010 20% gloss.

The access panel was mounted in a plasterboard-clad, steel stud partition with both panel leaves opening towards the furnace.

The access panel satisfied the integrity and insulation criteria of the standard for 135min, and 16min respectively. See LPC test report TE 94530 for full details.

#### **4 DESCRIPTION OF PROPOSALS**

One proposal is to be considered:

Increasing the size of the access panels up to 2210mm high including three and four leaf units, the three and four leaf units incorporating a supporting mullion.

The proposed mullion is formed from two pieces of 1.5mm-thick Zintec steel. A flanged channel (36mm-wide x 54mm deep with a 42mm flange each side) is tack-welded to a 120mm-wide flat plate over the height of the mullion. The access panel frames are bolted to the mullion with four M6 bolts at the top and bottom of the mullion. Increasing the height of the access panels has already been the subject of a previous assessment (ref. CC 201168) where the panels were assessed to a height of 2500mm to provide a fire resistance of up to two hours by fire attack from either face. Details of the mullion and proposed constructions are given in Figures 1 to 7. Any details of the construction of the access panels not described in this assessment report are assumed to be the same as on the tested specimen.

#### **5 ASSESSMENT**

The 2m-high x 2m-wide double-leaf access panel tested satisfied the integrity criteria of B.S. 476 : Part 22 : 1987 for the duration of the fire resistance test TE94530 (135min). Although the complete partition/access panel specimen tested deflected towards the furnace by 104mm, there was very little deflection of the access panel relative to the supporting partition. During the fire test, there was no failure under the gap criteria for integrity with no evidence of any significant gap formation between the leaf tray and access panel frame.

As the proposed construction for the three and four door systems is of a similar design to the specimens tested, we are satisfied that the proposed mullion will provide sufficient restraint and support to the door leaves, allowing a similar deflection to that recorded in the fire test. Therefore the three and four door systems proposed will satisfy integrity criteria for 60min.

The continuous hinges and 3-point locking system retain the door leaves closely within the door frame.

This assessment assumes that the steel stud and plasterboard partition system in which the access panel is mounted has a fire resistance of at least that specified for the access panel.

#### **6 CONCLUSIONS**

Therefore it is our opinion that your access panels, as described in Section 4 of this report, are suitable for installations where a fire resistance of up to one hour is specified in terms of the integrity criterion of B.S. 476 : Part 22 : 1987 for fire attack from either face.

7 VALIDITY

7.1 Declaration by applicant

- We the undersigned confirm that we have read and complied with the obligations placed on us by the UK Fire Test Study Group Resolution No. 64A: 1993.
- We confirm that the component or element of structure, which is the subject of this assessment, has not to our knowledge been subjected to a fire test to the Standard against which this assessment is being made.
- We agree to withdraw this assessment from circulation should the component or element of structure be the subject of a fire test to the Standard against which this assessment is being made.
- We are not aware of any information that could adversely affect the conclusions of this assessment.
- If we subsequently become aware of any such information we agree to cease using the assessment and ask BRE to withdraw the assessment.

Signed: .....

For and on behalf of: .....

7.2 BRE Signatories

This assessment is based on test data, experience and the information supplied. If contradictory evidence becomes available to the BRE the assessment will be unconditionally withdrawn and the applicant will be notified in writing. Similarly the assessment is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence over an expressed opinion. The assessment is valid for a period of two years after which it should be returned for review to consider any additional data which has become available or any changes in the fire test procedures. Any changes in the specification of the product will invalidate this assessment.

This assessment has been carried out in accordance with Fire Test Study Group Resolution No. 64A. It relates to the fire performance of the product and does not cover aspects of quality, durability, maintenance nor service requirements. This assessment relates only to the specimen(s) assessed and does not by itself infer that the product is approved under any Loss Prevention Certification Board approval or certification scheme or any other endorsements, approval or certification scheme.

Next review date: 16 January 2003

**Assessment by:**

Signature

*K.D. Fardell*

Name

K.D. Fardell

Position

Consultant

**Checked by:**

Signature

*Richard Earle*

Name

R.H. Earle

Position

Section Manger, Building Products Assessments

**Approved by:**

Signature

*R.A. Jones*

Name

R.A. Jones

Position

Centre Head

This assessment report is not valid unless it incorporates the declaration duly signed by the applicant.

MANCHESTER SQUARE, LONDON  
WALL ACCESS PANELS TYPE EX / WD / SB / F

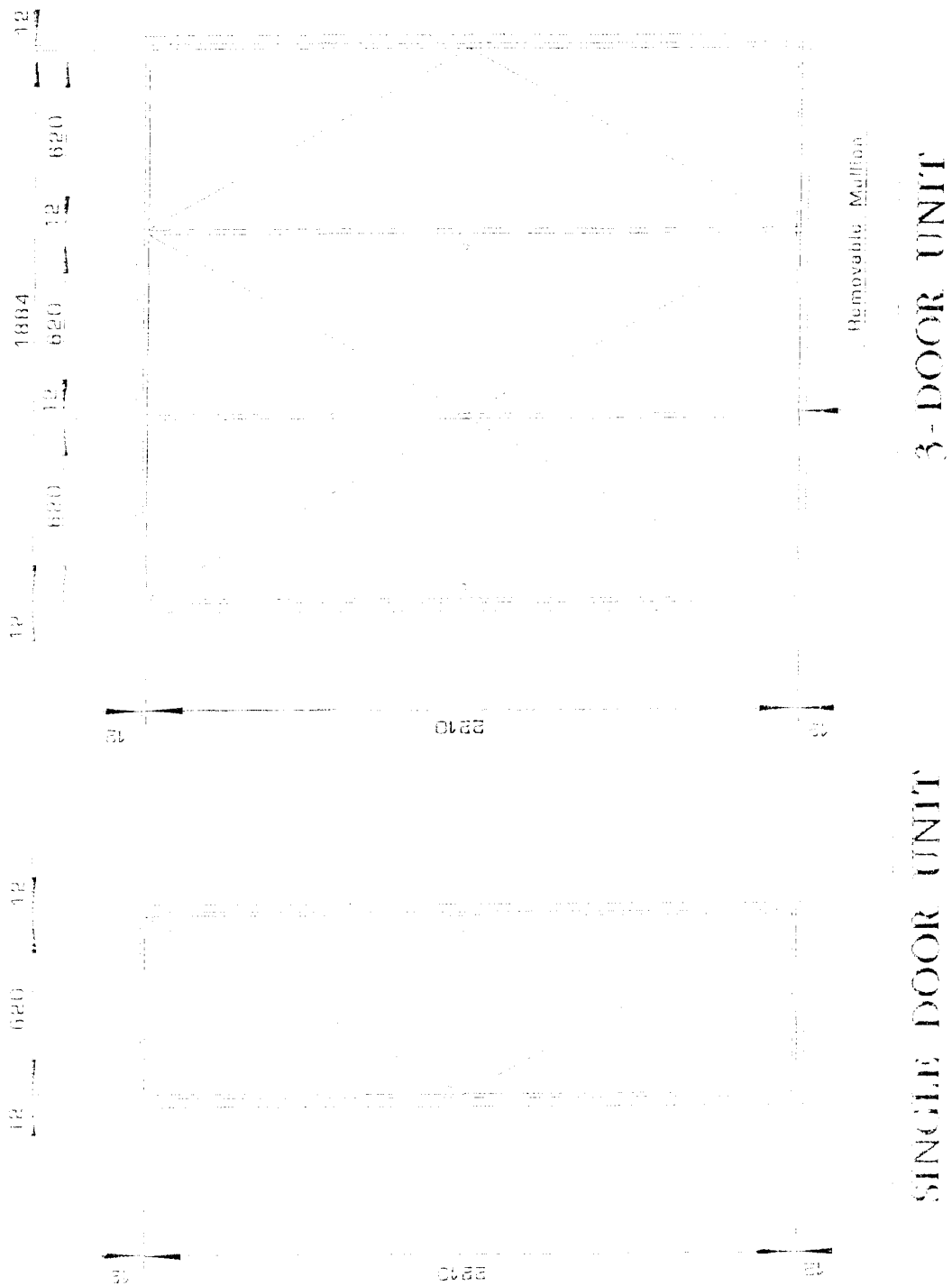


Figure 1 Single- and three-door access panels

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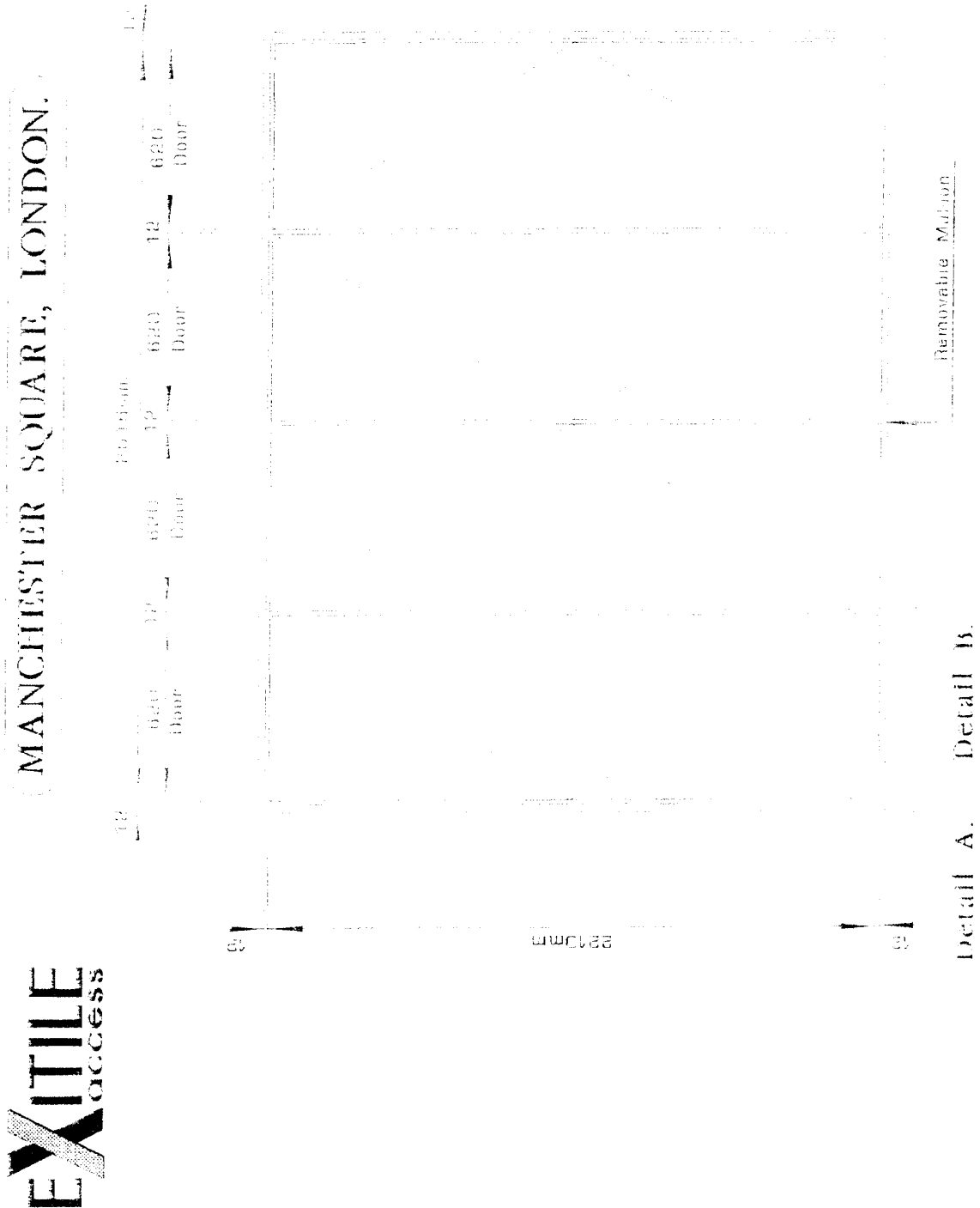
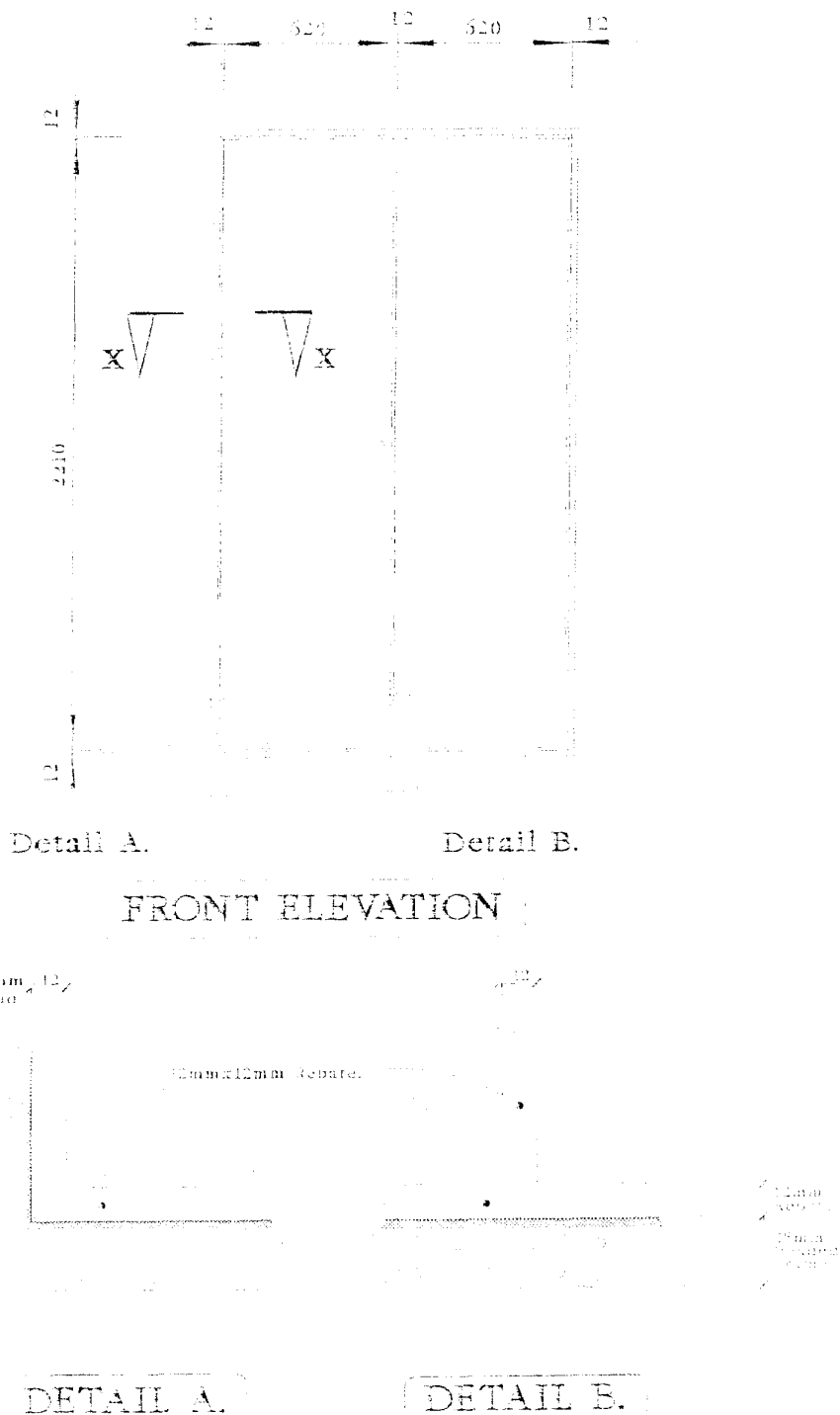
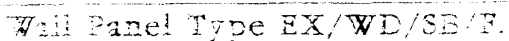


Figure 2 Four-door wall access panel type EW44/5B/F

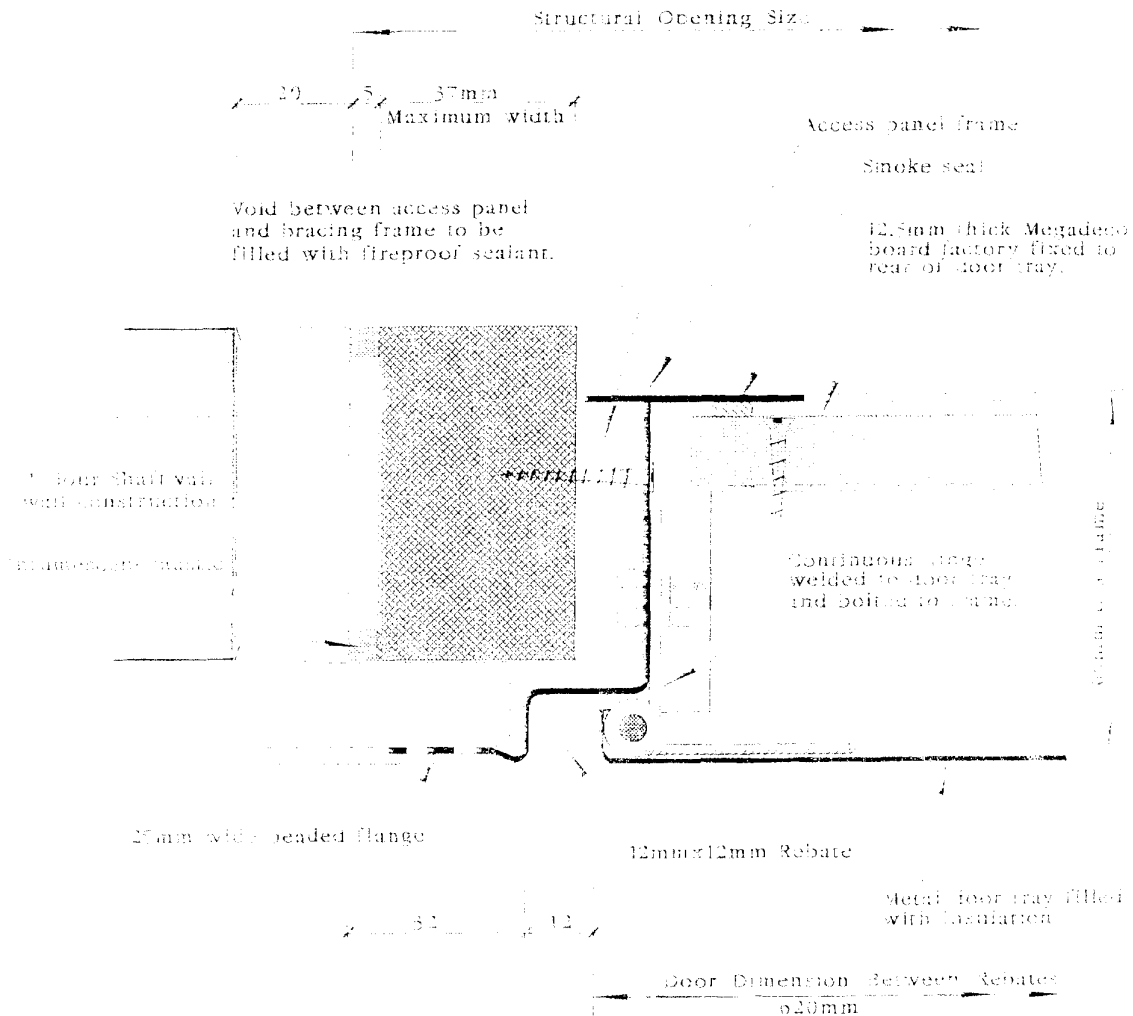


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**EXITILE**  
access

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SECTION X-X.

WALL ACCESS PANEL TYPE EX/WD/SE/F.

Figure 4 Section X-X from Figure 3

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Revision: 01 10/2000

Drwg MS/M1

Access  
Panel Frame

**EXITILE**  
access

4 No. M6 Bolts  
Top & Bottom

4 No. M6 Bolts  
Top & Bottom

120mm wide  
mullion

mullion

### Section 1-1.

Section through panel frame  
with doors removed showing  
method of mullion fixing.

Back of Frame

Mullion

4-DOOR ACCESS PANEL

EQUAL

EQUAL

Figure 5 Rear elevation of access panel showing mullion fixing positions (doors not shown for clarity)

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**EXITILE**  
access

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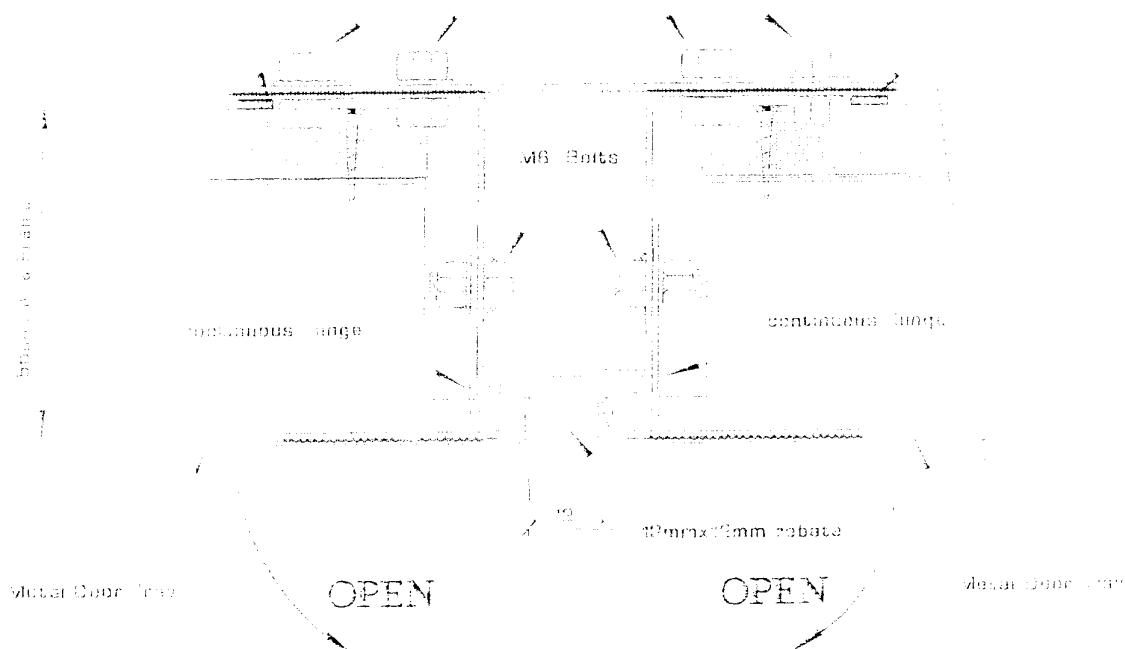
Revised 93 10/2000

120mm o/a width of removable mullion  
made from 1.5mm thick Zintec steel

Removable mullion fixed to access panel frame  
with 4 No. M6 Bolts top and bottom  
See drawing ref. MS/M1 for mullion details.

Megaduro board factory fixed  
to rear of access door tray.

Smoke seal



WALL DOOR TYPE EX/WD/SB/F  
1 HOUR FIRE RATED

Figure 6 Section through 3 & 4 door wall access panel showing removable mullion detail

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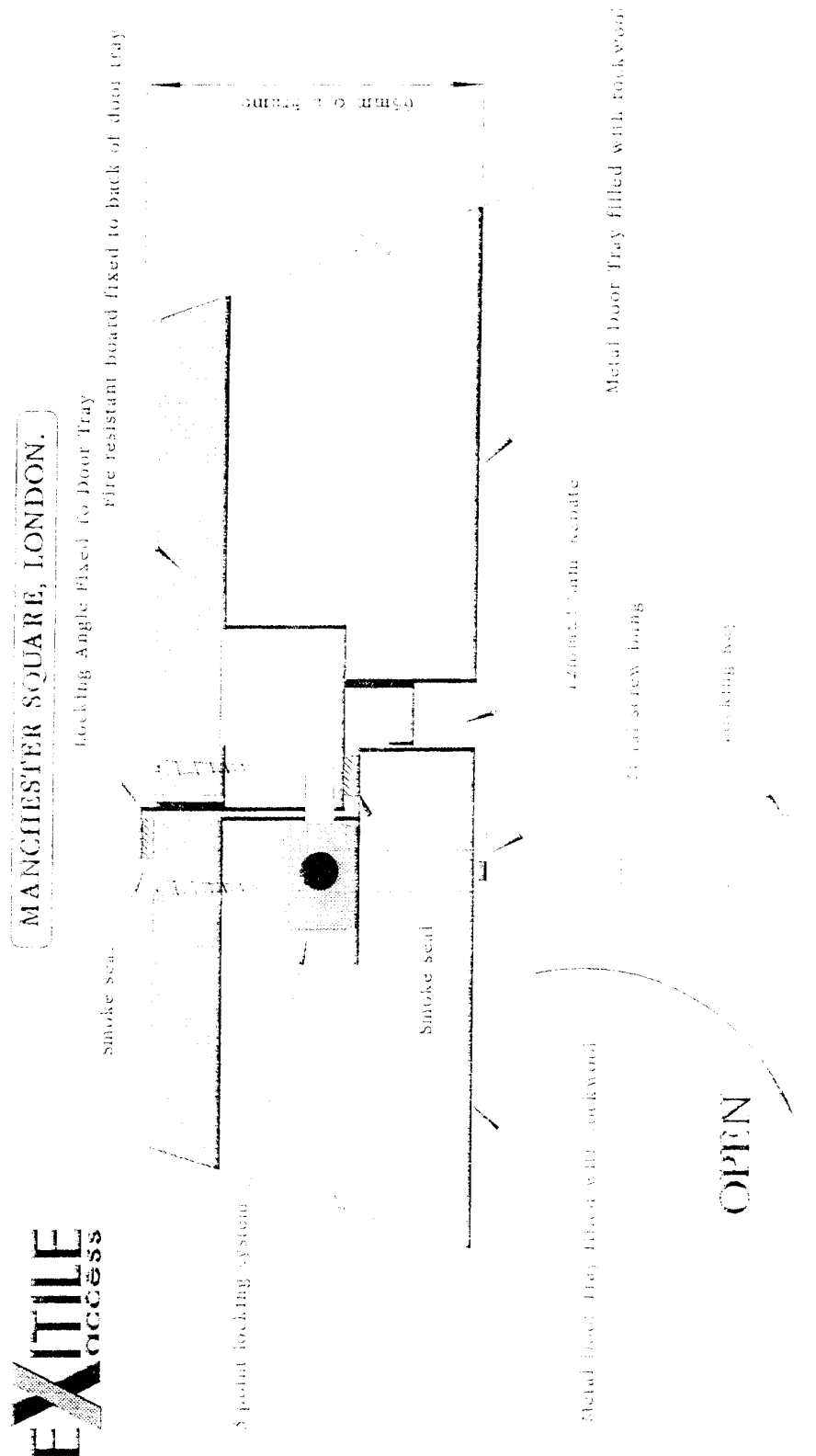


Figure 7 Typical section showing double door connection detail  
Access panel type EX/WD/SB/F