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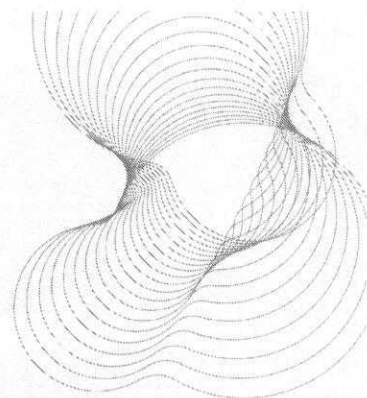
**An assessment of the  
fire resistance of a  
ceiling access hatch**

Prepared for:  
Fire Proofing Services Ltd.  
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30 November 2010

**Assessment report number  
CC 265574**

Protecting People, Property and the Planet



**Prepared on behalf of BRE Testing by**

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**Date of this report** 30 November 2010

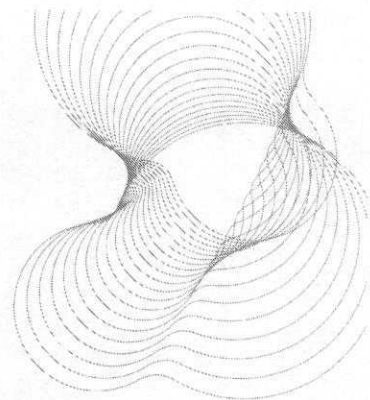
**Date of next review** 30 November 2015

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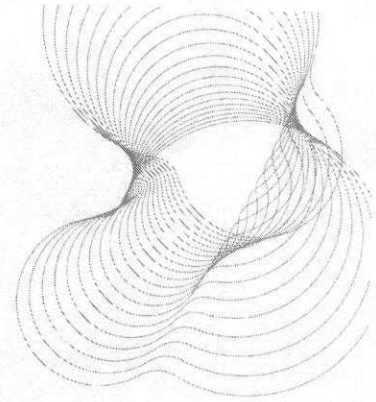
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## Contents

1	Introduction	4
2	Scope	4
3	Supporting Data	4
3.1	BRE Test Report 265024	4
4	Description of the Proposed System	4
5	Assessment	5
6	Conclusion	5
7	Validity of the Assessment	6
7.1	Declaration by applicant	6
7.2	BRE Testing declaration	6



## 1 Introduction

A fire resistance test has been carried out on an access hatch mounted in a membrane ceiling system. The test specimen did not satisfy the performance criteria of the standard for 120 minutes due to the fire performance of the ceiling. This report considers the fire resistance of the access hatch if the ceiling had satisfied the performance criteria of the standard for the required period.

## 2 Scope

This report considers the fire resistance of a single-leaf access hatch when mounted in a non-loadbearing membrane ceiling and tested to BS 476: Parts 20 & 22: 1987 with fire from below.

## 3 Supporting Data

### 3.1 BRE Test Report 265024

A ceiling membrane constructed from a steel framework, with three layers of 15mm thick Knauf Fireshield plasterboard fixed on the underside, incorporating a Fire Proofing Services Ltd. single-leaf access panel, was submitted to a fire resistance test in accordance with B.S. 476 : Part 22 : 1987 (Method 9 for ceiling membranes) on 24<sup>th</sup> August 2010. The ceiling membrane was of overall dimensions 3.5m x 4.15m with the access panels installed in a structural opening, nominally 1010mm x 1010mm.

The ceiling, incorporating the access panel (opening towards the furnace) achieved the following fire resistance:

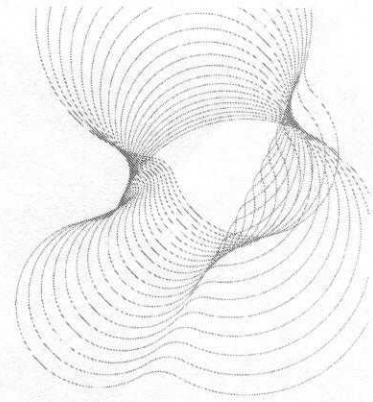
Integrity: 106 minutes

Insulation: 13 minutes

The test was terminated after 122 minutes.

## 4 Description of the Proposed System

The ceiling access hatch measures up to 1m x 1m and is the same as tested in BRE test 265024. It is described in Figures 1 and 2. The access hatch can be mounted in any non-loadbearing, horizontal membrane ceiling system that has already been successfully tested to BS 476: Parts 20 & 22: 1987 for at least 120 minutes. All-steel hangers must be fitted at each corner of the access hatch to ensure that no



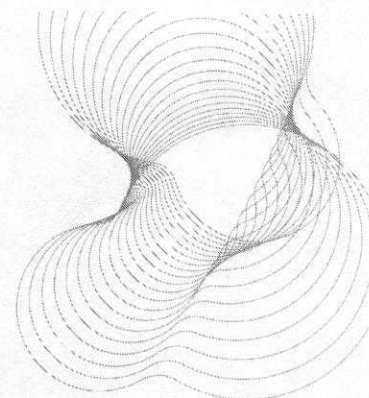
load from the access hatch is applied to the ceiling system. We understand that that ceiling access hatch will be known as the Fire Proofing Services 2hr ceiling access panel.

## 5 Assessment

The proposed ceiling access hatch is the same as tested as described in this report and in BRE test report 265024. The test specimen failed the integrity performance criterion after 106 minutes in an area of the ceiling remote from the access hatch. The access hatch and the ceiling in the immediate vicinity of the hatch satisfied the integrity performance criterion of the standard for the duration of the 122-minute test. Therefore we are satisfied that if the ceiling had performed as expected the test specimen would have satisfied the integrity performance criterion of BS 476: Parts 20 & 22: 1987 for at least 120 minutes.

## 6 Conclusion

We have considered the observations taken during the fire test of the ceiling access hatch as described in BRE test report 265024 and have concluded that the failure of the test specimen was unrelated to the access hatch. Therefore, if the tested access hatch is mounted in a membrane ceiling system that has already been successfully tested to BS476: Parts 20 & 22: 1987 for 120 minutes, with all-steel hangers at each corner of the access hatch, then the access hatch will also have a fire resistance of at least 120 minutes (integrity only) when exposed to fire from below. We understand that that ceiling access hatch will be known as the Fire Proofing Services 2hr ceiling access panel.



## 7 Validity of the Assessment

### 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. 82 : 2001.
- 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 Testing to withdraw the assessment.

Signed:

For and on behalf of:

**FIRE PROOFING SERVICES**

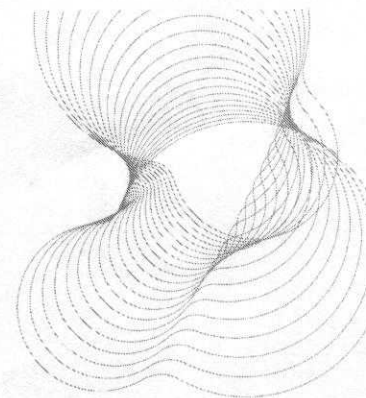
*This assessment report is not valid unless it incorporates the declaration duly signed by the applicant.*

### 7.2 BRE Testing declaration

This assessment is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to BRE Testing 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 five 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. 82. 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 imply 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: 30 November 2015



Key to Figure 1

1. 13mmx100mmx0.9mm thick rear protection plates running the perimeter of the GTEC Megadeco board.
2. LSP90 6mmx8mm Poly Urethane polyester air seal to all closing sides of frame and mullion.
3. 1000X1000x1.2mm thick Zintec frame 65mm deep with 20mm closing edge for mounting air seal. Frame fixed through to ceiling perimeter framing at maximum 300mm centres.
4. 996x996x49mm deep x 0.9mm thick door leaf.
5. 16mm plastic bung to close lock hole off.
6. 20x48x100x48mm 0.9mm thick top hats in rear of door tray to support board.
7. 12.5mm thick GTEC Megadeco screw fixed to rear of door tray painted with Lafarge drywall sealer /10l ref 2760736 BS476 Part 4 1968
8. 1.5mm thick Gold and Wassell 1628S piano hinge bolted to access panel frame with M6 bolts, nuts and penny washers
9. 3 way locking system on door engaging through the frame sides.

An assessment of the fire resistance of a ceiling access hatch

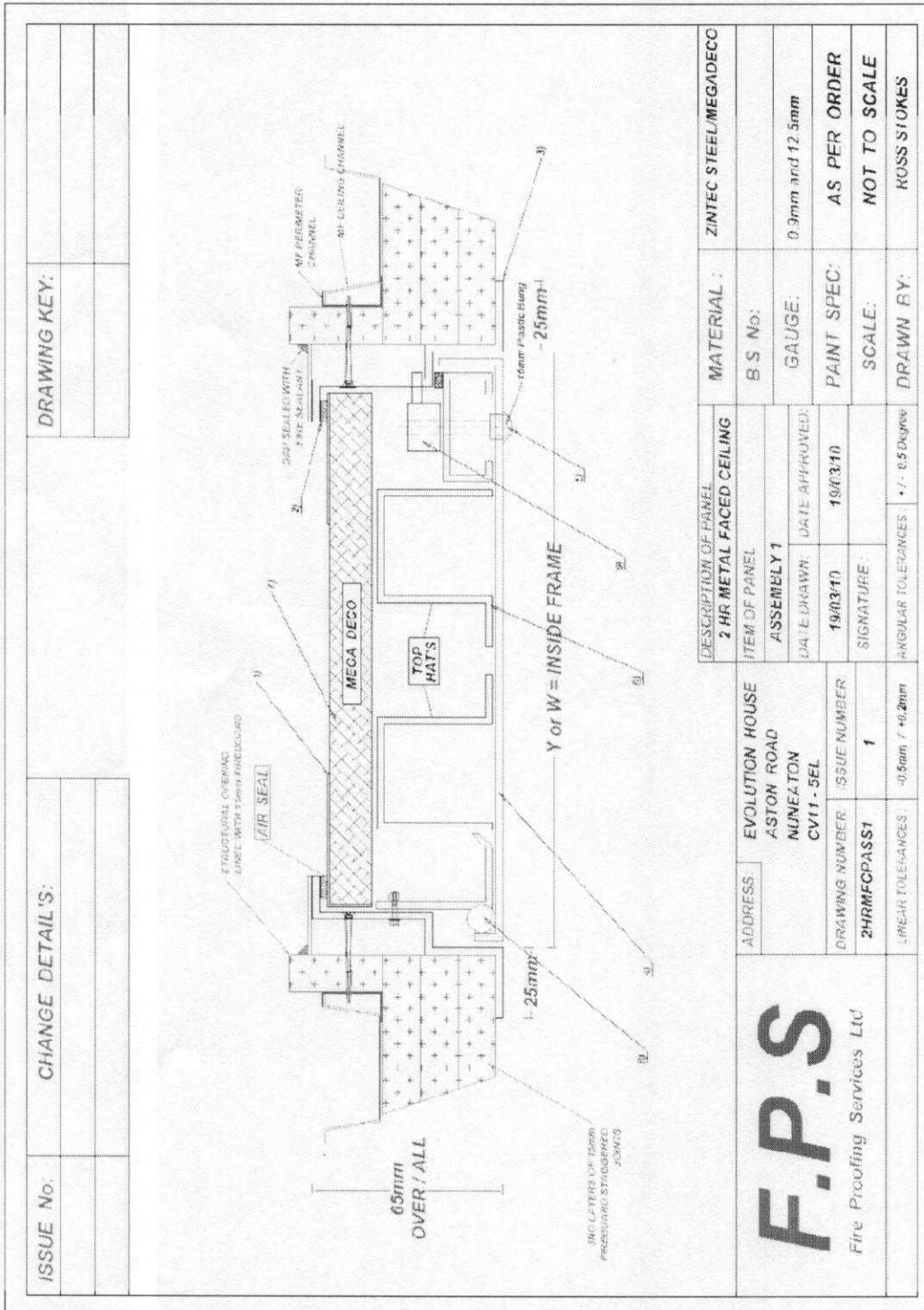
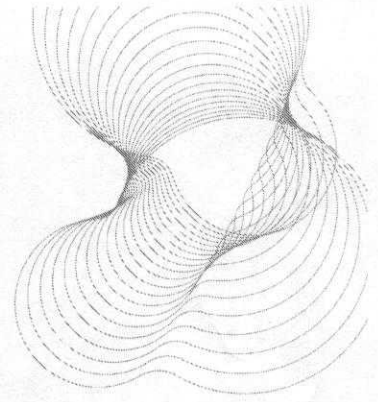


Figure 1 Section through test specimen



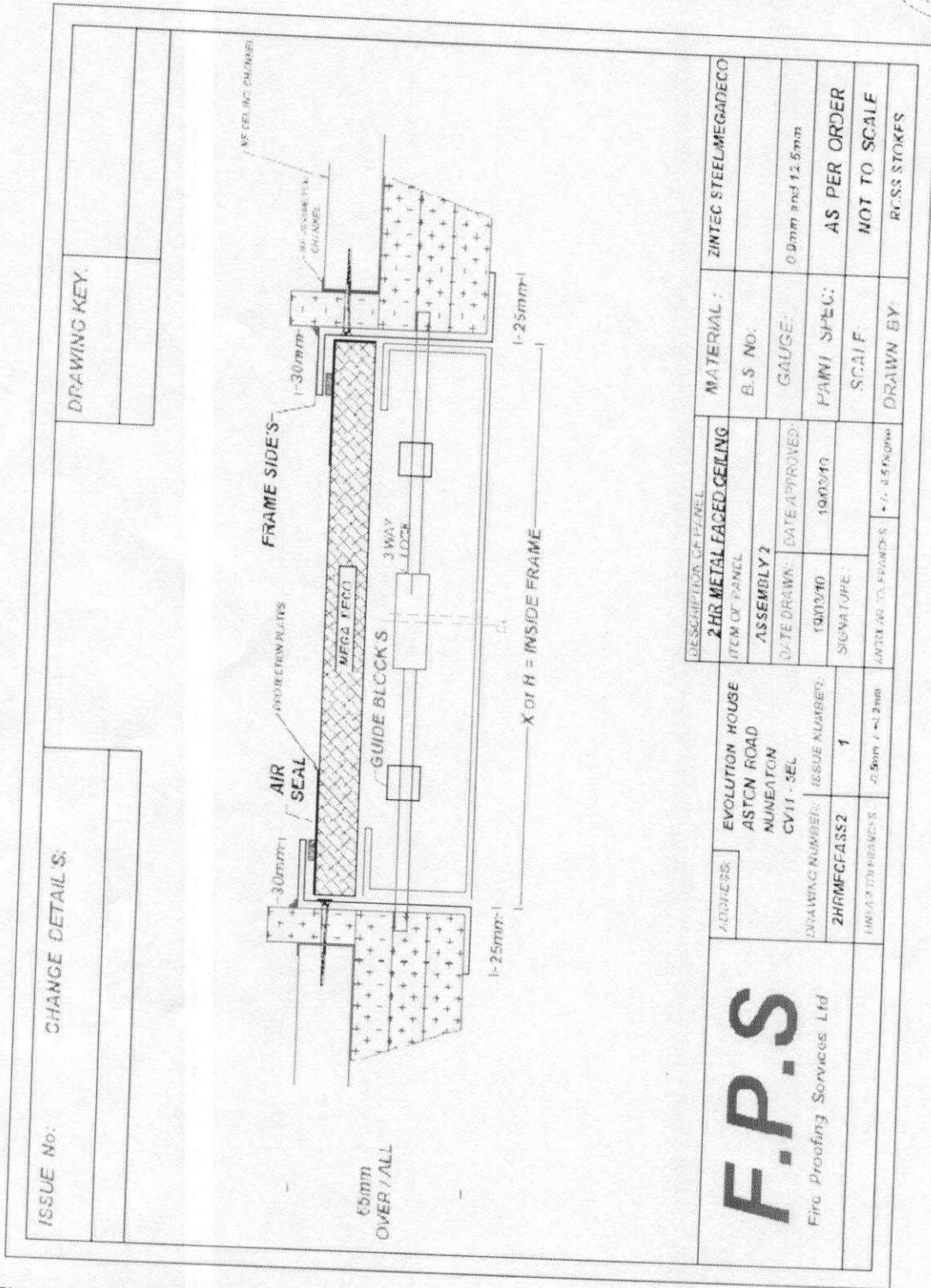
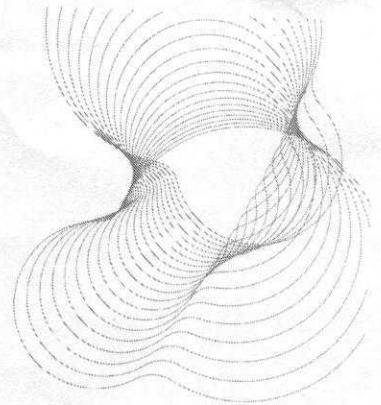


Figure 2 Section through test specimen

=====**REPORT ENDS**=====