
Title

Field of Application for:
The Panel Technologies Limited
FlipFix range of steel access hatch
designs.

For 60 minutes Fire Resistance
(integrity only)

Report No.:

WF429533 Revision A

Issue Date:

20th September 2024

Valid Until:

20th September 2029

Job Reference:

WF546471

Prepared for:

Panel Technologies Limited

49-61 Jordell Street

Nuneaton

Warwickshire

CV11 5EG

United Kingdom

	Page No.
Contents	
Contents	2
1 Foreword	3
2 Proposal	4
3 Test Data.....	5
4 Technical Specification	7
5 General Description of Leaf Construction	10
6 Frame Construction	13
7 Perimeter Intumescent & Sealing Materials	14
8 Hardware.....	15
9 Installation	24
10 Insulation Performance.....	28
11 Conclusion	28
12 Declaration by the Applicant	29
13 Limitations	30
14 Validity.....	31
Appendix A: Revisions	32

1 Foreword

This Field of Application report has been commissioned by Panel Technologies Limited and relates to the fire resistance of 60 minute integrity only fire resisting steel access hatches.

The report is for national application and has been written in accordance with the general principles outlined in BS EN 15725.

This Field of Application (scope) uses established empirical methods of extrapolation and experience of fire testing similar steel access hatches, in order to extend the scope of application by determining the limits for the designs based on the tested constructions and performances obtained. The scope is an evaluation of the potential fire resistance performance, if the variations specified herein were to be tested in accordance with BSEN 1634-1: 2014 +A1: 2018 (when fitted vertically) or BS EN 1364-2: 2018 (when fitted horizontally as part of a proven suspended ceiling system).

This scope document cannot be used as supporting documentation for either a UKCA or CE marking application, nor can the conclusion be used to establish a formal classification against EN13501-2.

This Field of Application has been written using appropriate test evidence generated at UKAS accredited laboratories, to the relevant test standard. The supporting test evidence has been deemed appropriate to support the manufacturers stated steel access hatch design and is summarised in section 3.

The scope presented in this report relates to the behaviour of the proposed steel access hatch design variations under the particular conditions of the test; they are not intended to be the sole criterion for considering the potential fire hazard of the door assembly in use.

This Field of Application has been prepared and checked by product assessors with the necessary competence, who subscribe to the principles outlined in the Passive Fire Protection Forum (PFPF) '*Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence*'. The aim of the PFPF guidelines is to give confidence to end-users that assessments that exist in the UK are of a satisfactory standard to be used for building control and other purposes.

The drawings provided in this report are for guidance and illustrative purposes only. Please note that the written scope of application takes precedence.

2 Proposal

It is proposed to consider the fire resistance performance of the steel access hatch designs, for 60 minutes fire resistance integrity performance, if the steel access hatch designs were to be tested as follows:

- Panel Technologies Limited FlipFix steel access hatch design, installed vertically as part of a proven non-loadbearing partition system (see section 9.3.2) to the requirements of EN 1634-1:2014 +A1: 2018, *Fire resistance test for door and shutter assemblies and openable windows*.
- Panel Technologies Limited FlipFix steel access hatch design, installed horizontally as part of a proven non-loadbearing suspended ceiling system (see section 9.3.1) to the requirements of BS EN 1364-2: 2018, *Fire resistance tests for non-loadbearing elements. Ceilings*.

The field of application defined in this report is based on the fire resistance test evidence for the steel access hatch design, which is summarised in section 3. Analysis of specific construction details that require assessment are given within this report against the relevant element of construction, as appropriate.

Whilst specific items are included within this Field of Application report that may be used to provide additional performance characteristics (such as acoustic or smoke control for example), it is beyond the remit of this Field of Application report to provide scope for performance characteristics other than fire resistance integrity performance. Any other performance requirement for the door designs contained herein is to be subject to a separate analysis.

2.1 Assumptions

- It is assumed that unless otherwise documented in the field of application sections of this report, the steel access hatch subject to this report will be constructed in accordance with the test evidence referred to herein.
- Where steel is referred to within this document it is assumed that the steel element is made from a continuous piece, unless specifically detailed otherwise.
- All dimensions detailed herein may be varied by $\pm 2\%$ except where minimum, maximum or a range of dimensions are given.

3 Test Data

The test evidence summarised below has been generated to support the fire resistance performance of the steel access hatch designs that are the subject of this field of application. The summary details are considered to be the key aspects of the design tested. These test summaries are not intended to be a definitive guide to constructing a steel access hatch. The details for the construction of a steel access hatch must be taken from other sections within this Field of Application.

Note:

- Dimensions are in mm unless otherwise stated.
- Abbreviations: (h) = height; (w) = width; (t) = thickness; (d) = deep; (l) = long.

The test evidence has been generated from a latched single leaf configuration, tested in the horizontal orientation.

The test evidence used in the evaluation is over 5 years old. In accordance with industry guidance, the evidence has been reviewed to consider its suitability. Warringtonfire are satisfied that there have been no significant revisions to the relevant test standards which would render the evidence irrelevant.

3.1 Primary Test Evidence

The following summary is provided to give the key details relevant to the tested specimen. Throughout this assessment report, relevant sections will reference the test where it has been used to provide the scope of application.

3.1.1 Test Report WF393967 Issue 2 – Specimen A

The tested specimens comprised of four horizontally mounted, steel access hatches. Only specimen A is relevant to this scope of application report.

Test Date	18 th March 2019
Test body	Warringtonfire Testing & Certification, UKAS ref: 1762
Test Sponsor	Panel Technologies Ltd, 49-61 Jodrell Street Nuneaton, Warwickshire, CV11 5EG
Summary of test constructions (mm)	Specimen A Hatch Overall dimensions: 1250mm (l) x 640mm (w) The hatch leaf comprised of a 0.9mm thick Zintec, powder coated mild steel folded tray, welded at the corners. Leaf was hung in 0.9mm thick Zintec, powder coated mild steel frame which was fixed within the ceiling structure with 4No. 'FlipFix' devices. Leaf was mounted on bolts to act as pivot hinges and with budget locks to retain in the closed position The hatches were installed horizontally and they opened down towards the furnace heating conditions. The supporting construction comprised a British Gypsum suspended ceiling ref: G100038 of overall dimensions 4000mm long x 3000mm wide, comprised of 0.6mm thick mild steel perimeter channels and support sections with 2No layers of 10mm thick Saint Gobain Glasroc F Multiboard plasterboard sheets.
Sampling information:	None stated in test report
Test Standard	Principles of BSEN 1634-1: 2014 & EN1363-1: 2012
Test Results (minutes)	Integrity: Sustained Flaming: 103 minutes Gap Gauges: 80 minutes Cotton Pad: 24 minutes Insulation: n/a

4 Technical Specification

4.1 General

The technical specification for the proposed steel access hatch assembly is given in the following sections and is based on the test evidence for the hatch designs, summarised in section 3.

4.2 Intended Use

The intended use of the access hatch assembly is summarised below:

A pedestrian doorset (steel access hatch) including any frame, door leaf or leaves which is provided to give a fire resisting capability when used for the closing of permanent openings in fire resisting separating elements, which together with the building hardware and any seals (whether provided for the purpose of fire resistance or smoke control or for other purposes such as draught or acoustics) form the assembly.

4.3 Hatch Leaf

There is one type of leaf design, referred to as Leaf 1 in subsequent sections, which can include:

1. Specific hardware
2. Signage
3. Decorative finishes
4. Alternative galvanisation processes

Specific sections within this assessment must be referred to for design limitations and construction requirements.

Section 5 gives the description of leaf type in terms of composition and density etc.

4.4 Door Frames

There is one type of frame design, referred to as Frame 1 in subsequent sections. For further information on the specification and construction of the door frames see section 6.

Specific sections within this assessment must be referred to for design limitations and construction requirements, where applicable.

4.5 Orientation, Configuration & Leaf Sizes

4.5.1 General

The evaluation of the leaf size and steel access hatch configuration is based on the test listed in Section 3 and takes into account:

1. The margin of over performance above 60 minutes integrity for the design
2. The characteristics exhibited during test and
3. The steel access hatch configuration tested

Steel access hatches with reduced height and width dimensions from those tested are deemed to be less onerous, within limitations due to the steel construction of the design. Therefore, steel access hatch of the assessed design, with dimensions as shown in section 4.5.4, are covered and may be manufactured.

4.5.2 Configuration

The table below shows the permitted configurations for the steel access hatch design, with the abbreviation and full description of the configuration.

Steel Access Hatch Configurations		
Depiction	Abbreviation	Description
	LSASD	Latched, Single Acting, Single Door Leaf Doorset (access hatch)

4.5.3 Orientation

The fire resistance test for this design was conducted with the steel access hatch fitted in the horizontal orientation, such that the leaf opened towards the fire conditions.

For steel, access hatches installed in a horizontal orientation, fire resistance may only be claimed for fire risk from below with the steel access hatch pivoted such that it opens towards the fire risk side.

Based on the testing, assessment is made that steel access hatch to these designs may be hung in a vertical orientation. The rationale behind this being that when tested in the horizontal orientation the leaf would drop, sag and bow, and thus be likely to separate between leaf and frame. When hung in a vertical orientation the leaf would not have the weight effect causing the door to sag so much compared to when in the horizontal orientation, so would be expected to be less likely to separate between leaf and frame. For steel access hatches installed in a vertical orientation, fire resistance may only be claimed for fire risk with the leaf hinged such that it opens towards the fire risk face.

4.5.4 Single Leaf Sizes

The following sections detail the permitted leaf sizes.

A table of essential hardware is given in section 8.3, as a minimum requirement for the steel access hatch design described.

4.5.4.1 Leaf 1 – 60 Minutes Integrity Performance – Horizontal and Vertical orientation

The permitted leaf sizes are based on 80 minutes integrity fire resistance performance obtained in the successful tested specimen in test report reference WF393967 Issue 2 Specimen A, where a leaf size of 1194mm x 594mm was tested horizontally.

It is assessed, that on the basis of the methodology adopted within BS EN 15269-2: 2012 (Annex A section A.2.1 to A.2.4), leaf size reduction and increase from that tested are permitted as follows:

Leaf size reduction has been assessed as permitted (using the direct field principles of Annex B, Table B.1 of BS EN 1634-1: 2014+A1: 2018) to apply an unlimited reduction in width and height of the tested dimensions based on the steel access hatch being non-insulating. The minimum leaf size must be practicable for use and comply with the limitations of hardware locations given in this document.

Based on the tested specimen achieving Category B overrun, the leaf size increase is assessed as permitted (using the direct field principles of Annex B, Table B.1 of BS EN 1634-1: 2014+A1: 2018) to apply up to a 15% increase in height and width, with a maximum area increase of 20%.

Leaf size may be varied within the following range as specified in the table below, for square or rectangular leaves.

Leaf Dimensions	Height (mm) (length of hinged and lock edge)	Width (mm) (length of other edges)
Minimum	No limit	No limit
Maximum	1373	683

Note:

- 1) In all cases the maximum permitted area of the leaf is 0.85m².
- 2) It is required that for rectangular access hatches the longer leaf edges are fitted with the hinge and lock. Which when in a vertical arrangement must be fitted in the vertical orientation.

5 General Description of Leaf Construction

5.1 Tested Leaf Construction

The steel access hatch leaf design detailed below is approved by this assessment.

Fabrication of the leaf must be as tested in WF393967 Issue 2 Specimen A. The table in the following section summarises the main components of the tested leaf design. For full construction details, reference should be made to the full test report which is summarised in section 3.

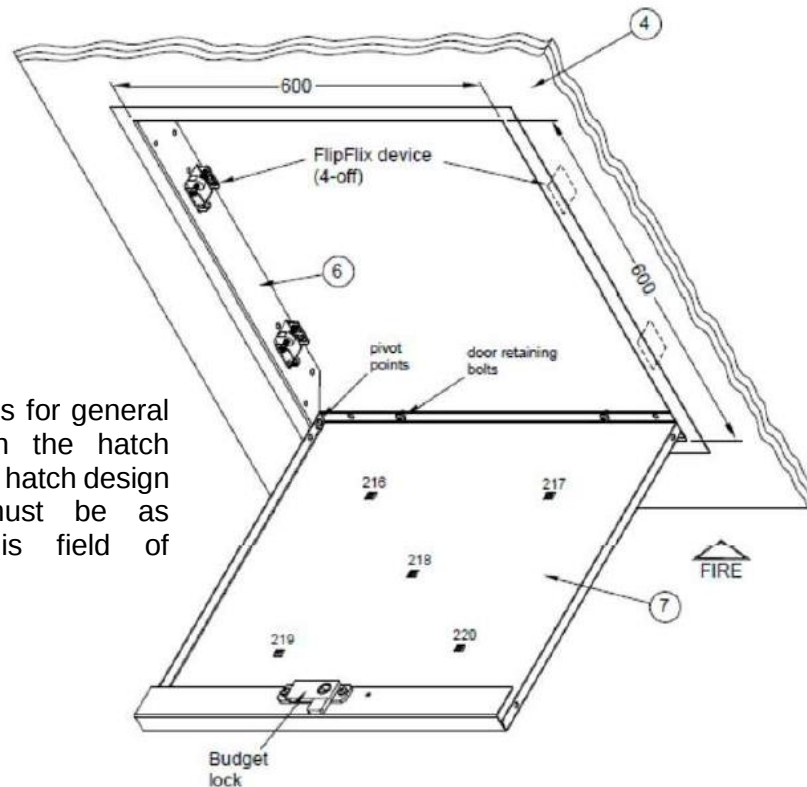
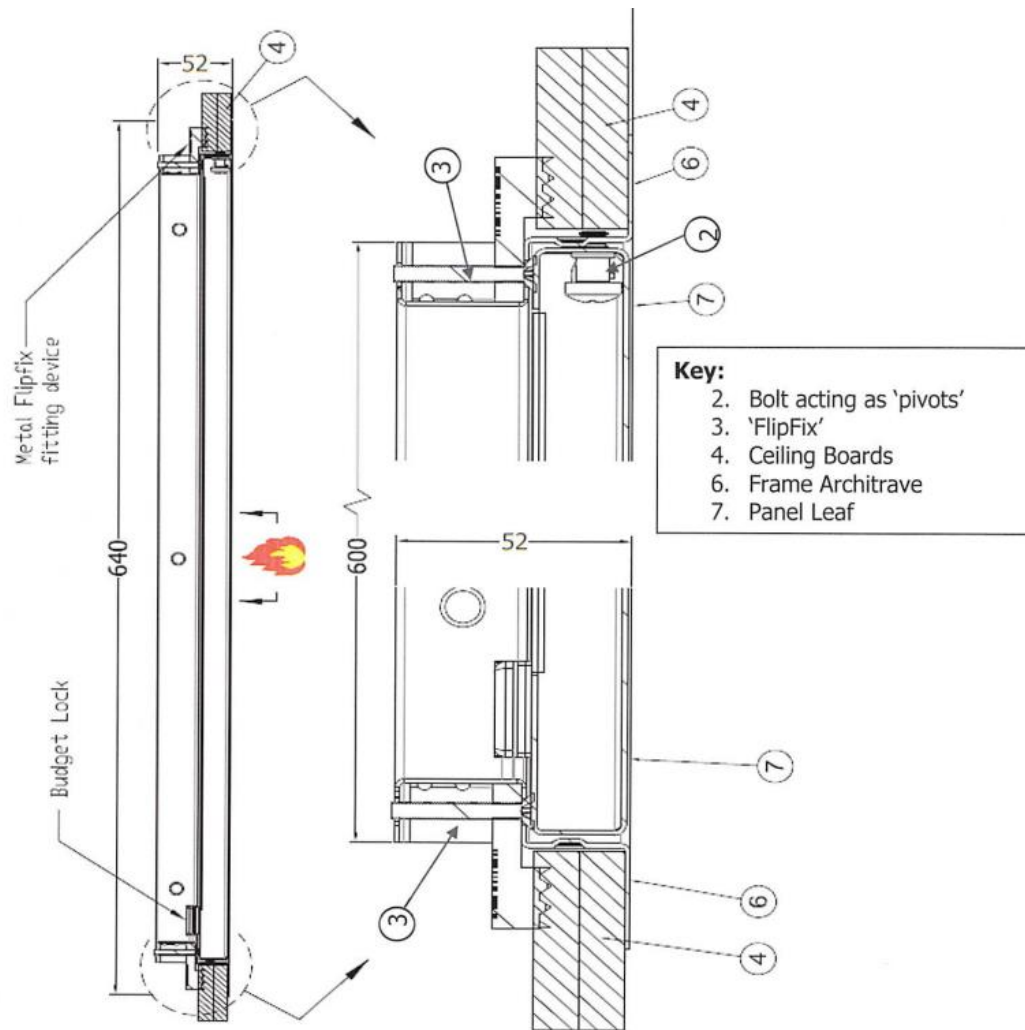
The tested construction is detailed in section 5.1.1. See section 5.2 for assessed variations to the tested leaf construction.

5.1.1 Leaf 1 – FlipFix Range – for 60 minute integrity performance

The basic tested construction of this leaf design has a leaf thickness of 23mm overall, and comprises the following:

Element	Product or Material	Dimensions (mm)
Facing/Skin	Zintec powder coated steel tray profile	0.9 thick steel tray folded and welded at the corners and with no core material or additional leaf stiffeners.
Door Retaining Bolts	Steel	Fitted to the hanging edge as tested. Minimum of 2No. fitted at maximum 600mm centres, with one bolt a maximum of 300mm from the head and threshold of the leaf (location shown on below drawing)





This isometric view is for general information only on the hatch design. Details of the hatch design and installation must be as detailed within this field of application report

5.2 Variations to Tested Leaf Construction

Variations to size or materials of leaf construction are not permitted unless specifically detailed in the following sections.

5.2.1 Decorative and Protective Finishes

The following additional finishes are permitted for the leaf of this steel access hatch design since they would either degrade rapidly or remain inert under test conditions without significant effect to the fire resistance performance of the steel access hatch design.

Facing Material	Maximum Permitted Thickness (mm)
Paint	0.2
Vitreous Enamel	1.0
Stove Enamelling	0.1
Epoxy Powder Coating	0.4

5.2.2 Galvanisation Process

It is the opinion of Warringtonfire, that the effect the use of a particular galvanisation process will have on the steel access hatch design tested, will be insignificant. Therefore, any of the galvanisation processes listed below are acceptable for the leaf:

- Hot dip
- Electro-galvanisation
- Aluzinc.

6 Frame Construction

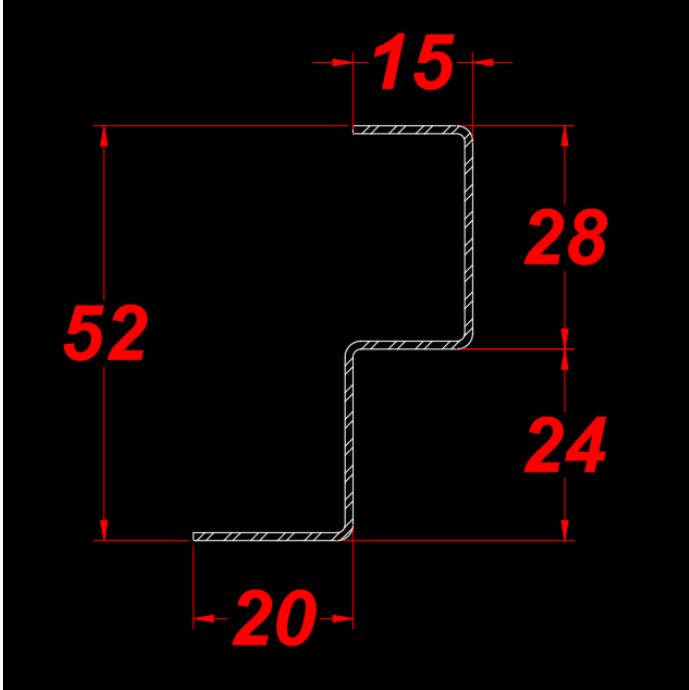
The frame design detailed below is approved by this assessment.

Fabrication of the frame must be as tested in WF393967 Issue 2 Specimen A. The table in the following section summarises the main components of the tested frame design. For full construction details, reference should be made to the full test report which is summarised in section 3.

Variations to size or materials of the frame construction are not permitted in this report.

6.1.1 Frame 1 – FlipFix Range - for 60 Minute Fire Resistance Integrity Performance

The successfully tested frame design consists of a four-sided single rebate frame construction, following the details given below.

Element	Material or Product	Dimensions (mm)
Frame	Zintec coated folded steel section	52mm deep with 35mm wide with a 20-25mm¹ wide integral architrave and 28mm wide x 15mm high integral stop x 0.9 thick sheet material 
Holes to Receive Retaining Bolts	N/A	10.5mm x 13mm holes installed at the locations of the retaining bolts.

¹ The architrave must be 25mm wide on hanging and closing edges as successfully tested. The top and bottom architraves were successfully tested at 20mm wide. On the basis of the methodology adopted within BS EN 15269-2: 2012 (Annex A clause B.2.1 to B.2.2), it is assessed that the integral architrave may be increased for the standard 20mm wide, up to 25mm wide, which was successfully tested on the hanging and closing edges.

6.2 Variations to Tested Frame

Frame cross section dimensions must remain as tested in WF393967 Issue 2 Specimen A, except for the variations which follow.

6.2.1 Frame material thickness

The testing conducted on this design evaluated a nominally **0.9mm** thick Zintec coated mild steel frame, it is considered (clause 13.2.2.2 of BS EN 1634-1: 2014+A1: 2018) that a maximum 25% increase in the thickness of the steel sheet is permitted.

It is the opinion of Warringtonfire that the thickness may not be reduced any further than the tested thickness.

The permitted thickness of frame material is therefore, as follows:

Maximum frame material thickness (without finishes) = **1.1mm**.

Minimum frame material thickness (without finishes) = **0.9mm** (as tested)

6.2.2 Galvanisation Process

It is the opinion of Warringtonfire, that the effect the use of a particular galvanisation process will have on the design tested, will be insignificant. Therefore, any of the galvanisation processes listed below are acceptable for the frame:

- Hot dip
- Electro-galvanisation
- Aluzinc.

6.3 Frame Joint

The head to jambs and threshold to jambs jointing must be a welded construction. A minimum of 2No. tack welds are required per joint (where the integral architraves join and the stop face) as well as a welded joint at the corners of the frame reveal. Joints must be tight and secure with no gaps. For further details reference should be made to the full test report summarised in section 3.

7 Perimeter Intumescent & Sealing Materials

No intumescent or smoke seals were included in the testing for this design and therefore no seals are permitted to be fitted.

8 Hardware

8.1 General

The following sections detail the permitted scope and constraints for fitting hardware to the steel access hatch design and consider what tested or assessed items of essential hardware can be used on the steel access hatch range.

Each section will consider the named item of hardware and detail if there are any limitations.

Hardware items should generally be fitted in accordance with the manufacturer's instructions. However, the parameters and requirements of this assessment always take precedence.

8.2 Intumescent to Hardware

Intumescent materials were not used to protect hardware during the tests and are not required or permitted.

8.3 Essential Hardware

The following table details the essential hardware items that are referenced in this assessment.

Essential Hardware
- Budget type latch - Pivot – M5 x 12mm long steel bolts (pivots) - Fire Door Keep Locked Shut sign - Door retaining bolts (as detailed in section 5.1.1)

Note:

1. Closer – the steel access hatch does not require self-closing devices since it must be kept locked shut. A metal 'Fire Door Keep Locked Shut' sign must therefore be fixed to the leaf face.
2. Lock – all leaves must be fitted with a latch system as tested or assessed, which must be engaged when the steel access hatch is in the closed position.
3. No other hardware is approved for use with this steel access hatch design.

8.4 Budget Latch

The permitted options for a latch/lock are as detailed below in the following sections. No other options for a latch/lock are permitted.

The lock must be engaged when the steel access hatch is in the closed position.

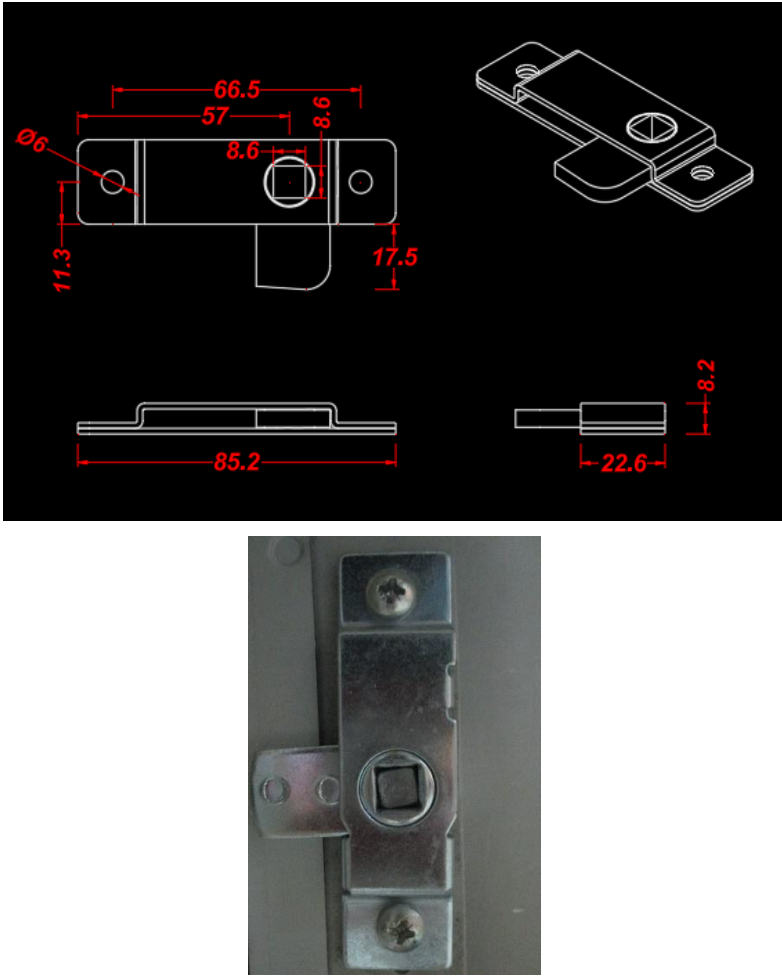
A minimum of 2No. latches must always be installed along the long edge. See table within section 8.4.1 for location requirements.

2No. single point locks are required on an individual doorset which must be of the same type.

When fitted the lock or latch body, it shall be installed within the closing edge of the leaf. For rectangular leaves this must be the longer edge of the leaf and when the steel access hatch is fitted in the vertical orientation this must also be a vertical edge of the leaf.

8.4.1 Budget locking system

The table below details the tested lock that is approved as tested in WF393967 Issue 2 Specimen A.

Element	Product Information
Latch/Lock	Budget locking system (case size 85mm x 22mm x 8mm), screwed in position using 2no. M5 x 8mm Bright Zinc Plated (BZP) Pan Pozi Head Cross Tritap Screws with the lock engaging over the frame profile. The square shaft keyhole measuring 8.6mm wide to accept the square shaft keyhole as shown in the picture below  The 2No. latches must be installed at $\frac{1}{4}$ positions within the length of the closing edge, as tested. The plastic grommet cover to the fire risk side is optional as this would be expected to melt or burn away in the early stages of the test (no integrity failures have been seen in the tested arrangements related to this component).

Note:

1. All lock positions must be engaged when the steel access hatch is in the closed position.
2. An insert must be used with the budget lock for this steel access hatch design.

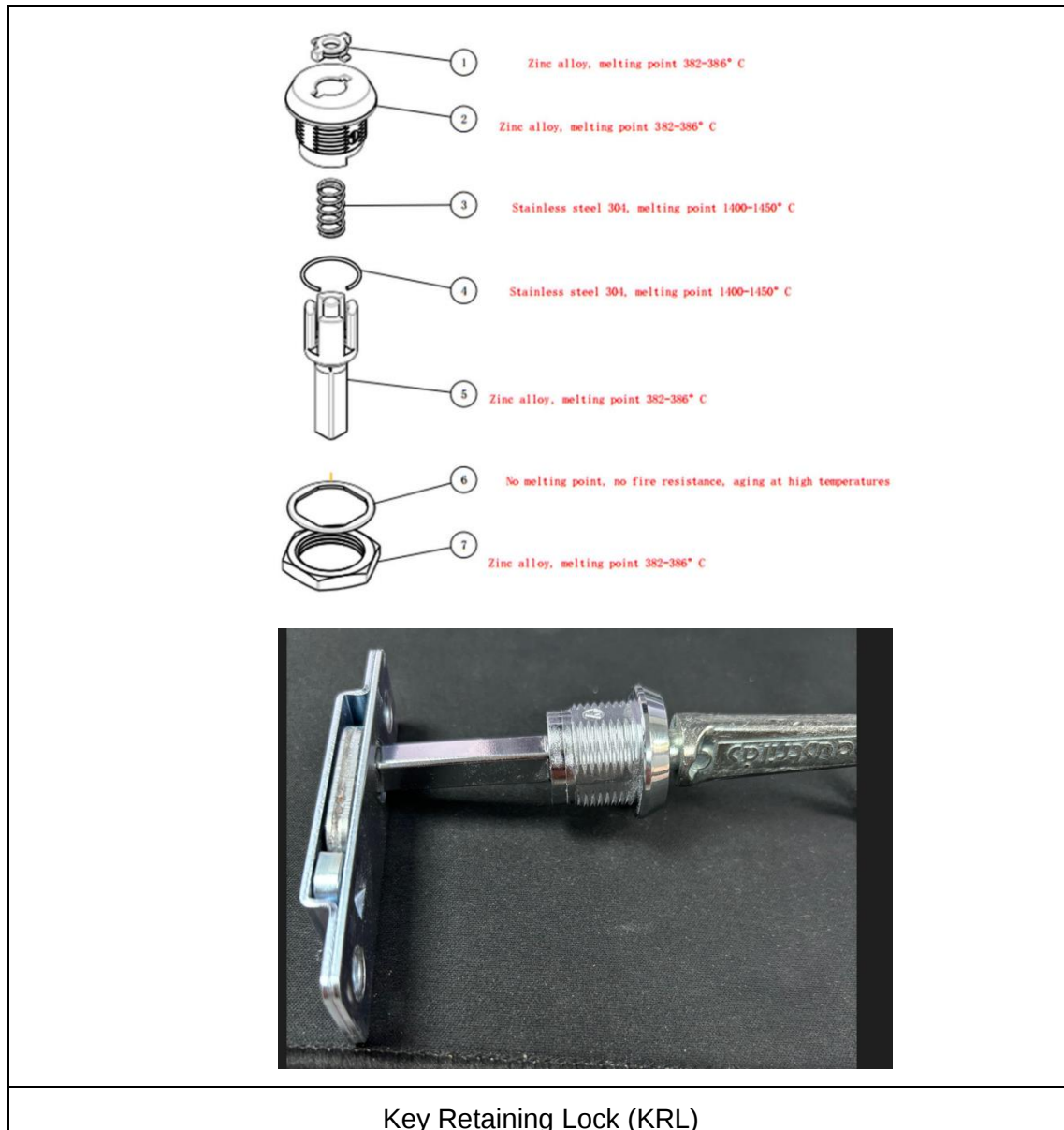
8.4.2 Budget Lock inserts

The budget latch was tested in all test references in section 3 with a standard lock mechanism as detailed in section 8.4.1.

The following alternate lock insert for use with the budget lock has been assessed.

8.4.2.1 Key Retaining Lock (KRL) insert with Budget Lock

The below illustration, supplied by Panel Technologies Limited, details the components of the KRL lock insert.

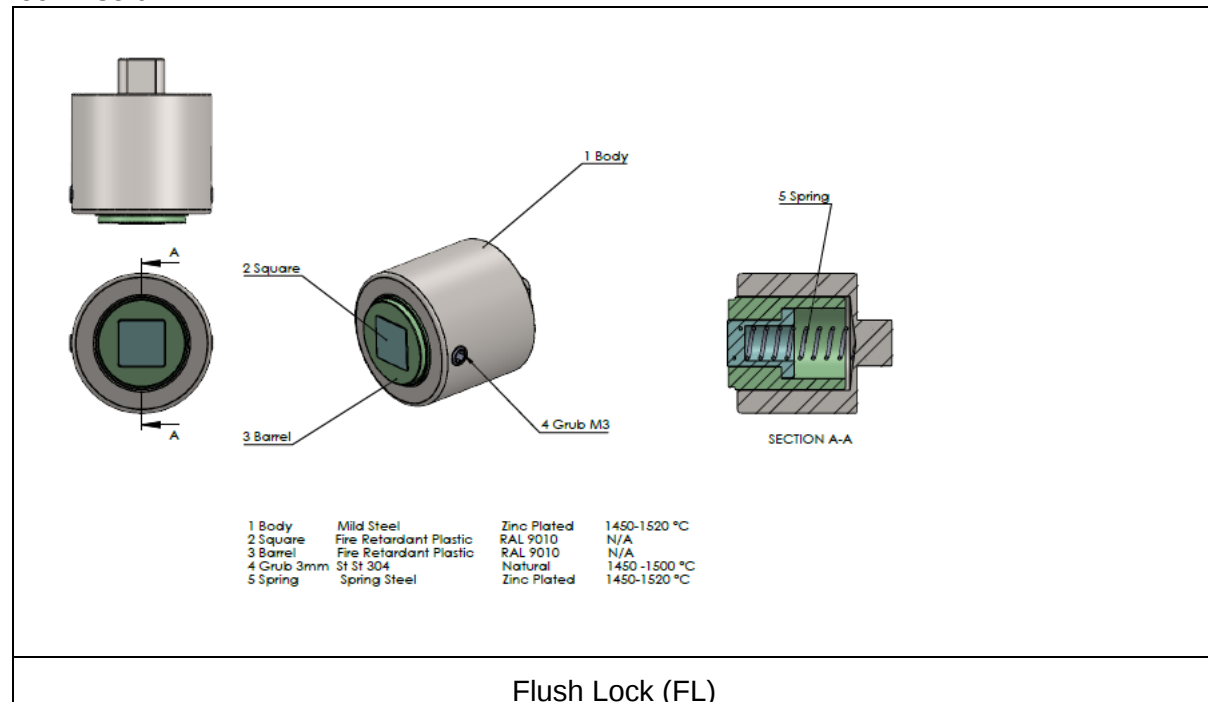


Key Retaining Lock (KRL)

The KRL is proposed to be fitted to the fire risk side of the budget latch and has been declared to be constructed from metallic components. The positioning is instead of the plastic grommet cover with the shaft engaging into the budget latch. The zinc alloy of the KRL, with a stated melting point of 382 to 386°C, would be expected to remain in position and provide a barrier from fire attack for a period, greater than the tested budget latch without the key retaining lock insert, therefore plugging the hole for a period of time. Should the KRL melt and fall away during the test, the engagement of the budget latch with the frame would not be expected to change. It is the opinion of Warringtonfire that this modification is acceptable, when fitted to the fire risk side of the budget latch.

8.4.2.2 Flush Lock (FL) insert for budget latch

The below illustration, supplied by Panel Technologies Ltd, details the components of the FL lock insert.



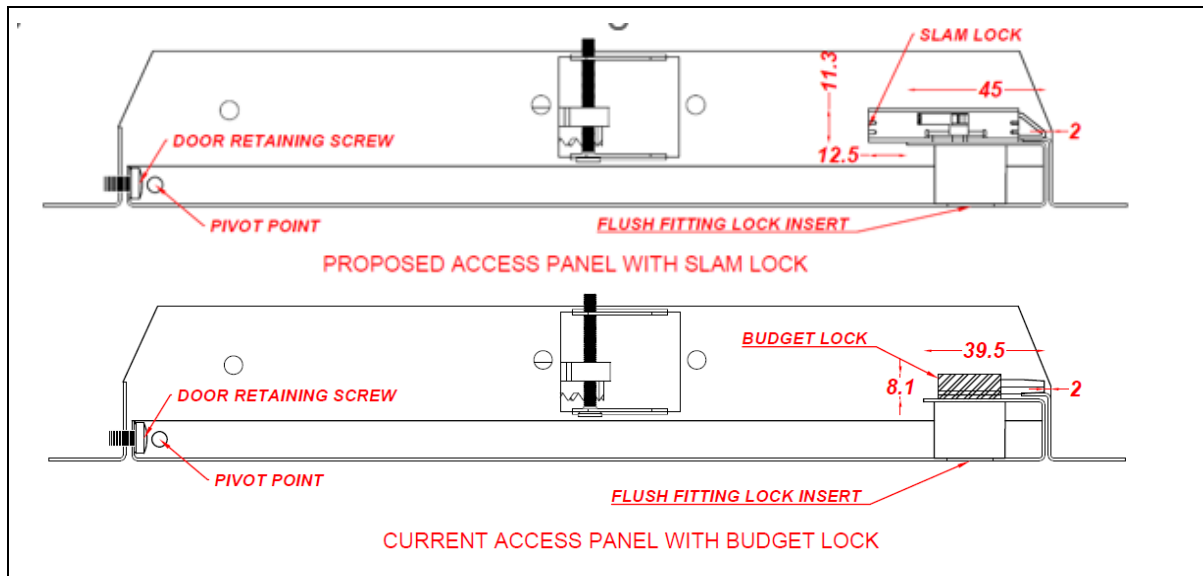
The FL is proposed to be fitted to the fire risk side of the budget latch and has been declared to be constructed from metallic and plastic components. The positioning is instead of the plastic grommet cover with the shaft engaging into the budget latch.

The steel parts of the FL have stated melting points in excess of 1450°C. The specified heating regime of EN 1634-1 test method reaches 1049°C at 120 minutes, whereas the steel hatches fire resistance performance required in this report is only 60 minutes. The steel parts of the FL would be expected to remain in position for the duration of the test and the engagement of the budget latch with the frame would not be expected to change.

The performance of the plastic square and barrel components have not been declared. On the basis that the plastic components are to the fire risk side, any melting or burning would be expected to be isolated from the non-fire risk side by the mild steel body. It is the opinion of Warringtonfire that this modification is acceptable, when fitted to the fire risk side of the budget latch.

8.4.3 Slam Lock (SL)

The SL is proposed to be fitted to the non-fire risk side of the leaf instead of the tested budget latch. The below snip from a drawing supplied by Panel Technologies Ltd, shows an example with the differences in fitting between the proposed slam lock and the tested budget lock.



Please note the above drawing is only an example drawing of the proposed slam lock and budget lock. The construction of the hatch must be as per the requirements given in the wording of this report.

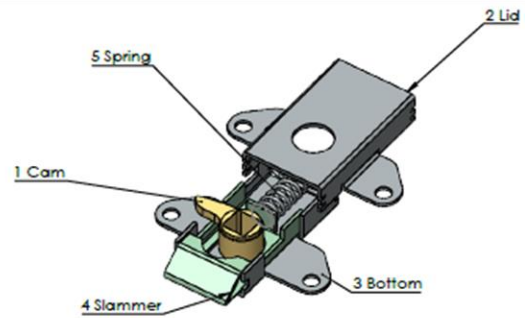
The below illustration, supplied by Panel Technologies Ltd, details the components of the SL lock insert. The SL is stated to be constructed of steel plate or steel cast with stated melting points in excess of 1425°C. The slammer of the Slam Lock is engaged by the action of the spring and unlatched by use of the key. An engaged slammer would not be expected to disengage without the use of a key if the lock included in an access panel design was subject to a fire resistance test. The above illustration shows that the engagement distance of the SL with the frame is similar to the budget lock.

It is the opinion of Warringtonfire that this alternative to the tested budget latch, when fitted to the non-fire risk side of the leaf, is permitted and is suitable in the following applications only:

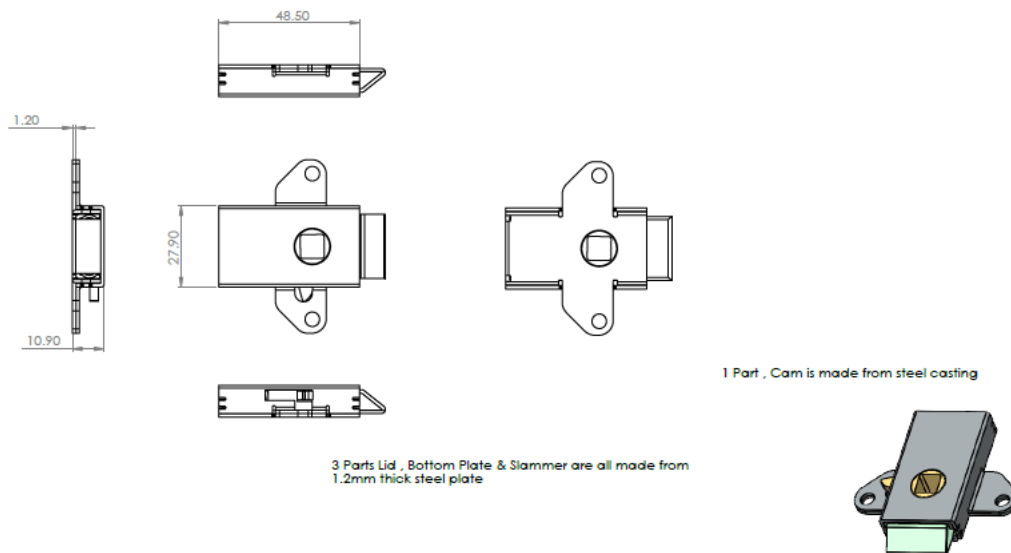
The table below details the assessed alternative latch/lock that is approved.

Slam Lock (48.5mm x 28mm) central to the edge opposite to the hinge or pivoted edge, engaging over the frame profile. Must be fitted so the engagement over the frame profile is at least as much as was tested with the budget lock.

The return on the leaf to accommodate the fixings for the lock must be increased from the tested dimension to 45mm as proposed when using the Slam Lock.



1 Cam	Cast Steel	Zinc Plated	1426-1540 °C
2 Lid	1.2mm Cold rolled	Zinc Plated	1500 °C
3 Bottom	1.2mm Cold rolled	Zinc Plated	1500 °C
4 Slammer	1.2mm Cold rolled	Zinc Plated	1500 °C
5 Spring	Spring Steel	Zinc Plated	1425-1500 °C



Slam Lock (SL)

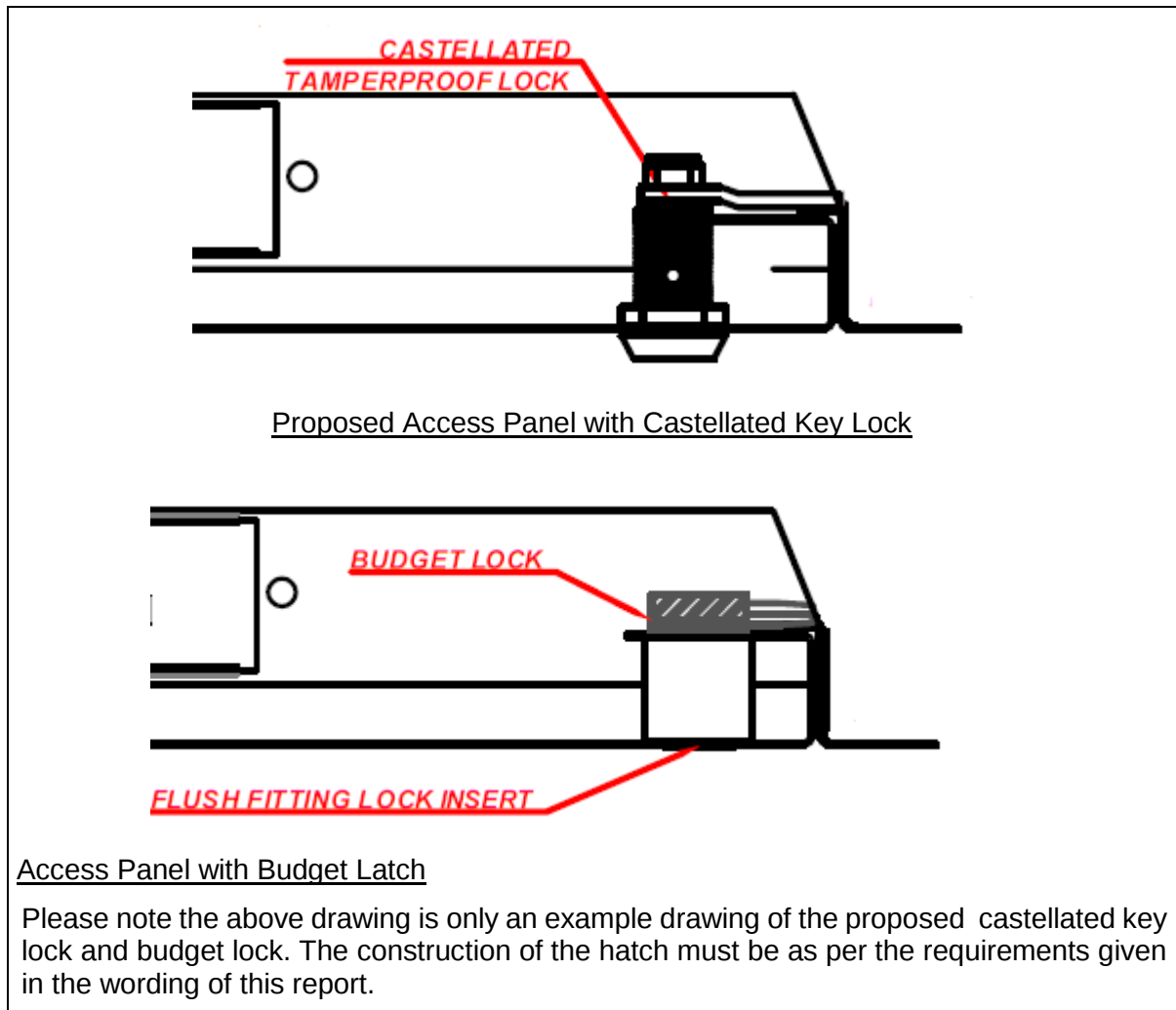
All lock positions must be engaged when the access panel is in the closed position.

The number and locations of single point engagement locks must be as detailed in section 8.4.1.

8.4.4 Castellated Key Lock (CKL)

The CKL is proposed to be fitted, through the leaf with the key side to the fire risk side instead of fitting the tested budget latch and plastic grommet cover. It has been declared to be constructed from metallic components.

The below snip from a drawing supplied by Panel Technologies Ltd, shows an example with the differences in fitting between the proposed Castellated Key Lock and the tested budget lock.



The below illustration, supplied by Panel Technologies Ltd, details the components of the CKL lock insert. The CKL is stated to be constructed of brass and steel with stated melting points of 1193°C and 1500°C respectively. The specified heating regime of EN 1634-1 test method reaches 1049°C at 120 minutes, whereas the steel hatches fire resistance performance required in this report is only 60 minutes. The steel and brass components of the CKL, have melting points in excess of those reached during test at 120 minutes.

The CKL is positioned with the lock body through a hole in the risk side face of the leaf and held in position with a nut. The proposed hole dimensions are shown in the below illustration. It is the opinion of Warringtonfire that this hole is a sufficiently tight fit and that with a tightly fitted nut, that this lock would be expected to remain in position if the lock included in an access panel design was subject to a fire resistance test for 60 minutes. It is also the opinion of Warringtonfire that as the hole is a sufficiently tight fit that this would not permit the passage of flames.

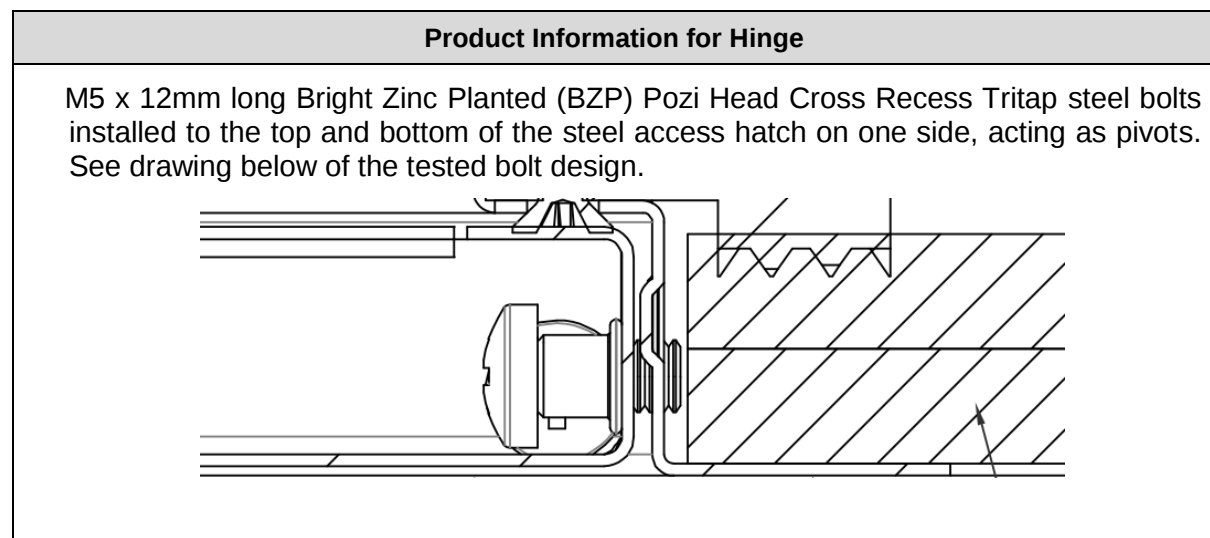
It is the opinion of Warringtonfire that this alternative to the tested budget latch, when fitted with the key to the fire risk side of the leaf, is permitted and is suitable in the following applications only:

[illegible]

The number and locations of single point engagement locks must be as detailed in section 8.4.1.

8.5 Pivot

This item, when fitted as tested in WF393967 Issue 2 Specimen A, is suitable within the steel access hatch design:



8.6 Signage

A metal 'Fire Door Keep Locked Shut' sign is required to be fixed to the leaf face.

Surface mounted components with the following specification are deemed acceptable as in the opinion of Warringtonfire they will not significantly affect the fire resistance performance of the design being considered. This is on the basis of the items being surface mounted away from the edge of the leaf, therefore unlikely to influence the junction between leaf and frame. Furthermore, they are generally of lightweight construction, meaning that they are unlikely to destabilise the steel access hatch assembly and therefore cause adverse deflection under test conditions.

Approved specification:

- Steel, stainless steel, aluminium or bronze signage may be fitted to the steel face of the leaf providing they are fitted no closer than 75mm from the leaf edge and are no greater than 80mm diameter. A maximum of 2No. signs may be fitted and must be positioned at least 100mm apart.
- Permitted fixing methods are as follows:
 - Surface-fixed with adhesive.
 - Steel signage of the above specification may be welded to the face of the leaf.
 - Signage may be bolted to the face of the leaf, with the holes for the bolts kept to a minimum and backed with washer and nut.
- When applied to a door leaf the plate shall be surface mounted to the face without removing material from the leaf.

9 Installation

9.1 General

The steel access hatch must be installed on the face of the supporting construction with the leaf opening towards the same direction as the integral architrave is fitted, as tested.

This section considers the installation of steel access hatches. This section considers:

- the frame installation
- the requirements for the supporting construction
- the fire stopping between the frame and the supporting construction
- the fixing requirements
- the requirements for door edge gaps

9.2 Frame installation and sealing to structural opening

The frame must be installed as supported by the test evidence cited herein.

The frame incorporates an integral architrave that returns across the face of the supporting construction. Installation of the frame must ensure the architrave is a tight fit against the face of the supporting construction, leaving no gaps.

Fitting of the frame to the structural opening must be as tested with the aperture providing a tight sliding fit to the edges of the door frame. Provided the details above are complied with, no further fire-stopping is required.

9.3 Wall Types, Structural Opening & Fixity

9.3.1 Ceiling Type

Test WF393967 Issue 2 Specimen A included the steel access hatch fitted within an aperture in a suspended ceiling.

It is assessed that steel access hatch designs are approved for use with the following ceiling type:

- a) Board clad non-loadbearing suspended ceilings, utilising a minimum 2No layers of a minimum 10mm thick Saint Gobain Glasroc F Multiboard on the underside.

The above ceiling type must have supporting fire resistance test evidence which demonstrates that it is capable of staying in place and intact for a minimum of 60 minutes fire resistance (60 minutes integrity and insulation) classified to EI 60 to BS EN 13501-2. This supporting test evidence must show that the ceiling can tolerate openings for penetration designs or similar doorsets/access hatch fitted to the boards/plasterboards in a similar manner. The steel access hatch design to be fitted must require no larger an aperture and be no heavier than the tested fitting supported by the supporting test evidence for the ceiling.

9.3.2 Partition Types

It is the opinion of Warringtonfire that the following wall types are suitable for this steel access hatch design:

- a) Non-loadbearing plasterboard clad timber stud partitions, with minimum 2 layers 'Type F' plasterboard (EN520) applied to each side (minimum thickness 12.5mm per layer).
- b) Non-loadbearing plasterboard clad steel stud partitions, with minimum 2 layers 'Type F' plasterboard (EN520) applied to each side (minimum thickness 12.5mm per layer)

Wall types a & b above must have supporting fire resistance test evidence which demonstrates that it is capable of staying in place and intact for a minimum of 60 minutes fire resistance (classified to E 60 or EI 60 to BS EN 13501-2) supporting a doorset design/access hatch, of the same or greater size than the steel access hatch covered in this report. The supporting evidence must incorporate an aperture that isn't framed and lined. This supporting test evidence must show that the wall can tolerate access panels or doorset designs fitted to the boards/plasterboards in a similar manner. The steel access panel design to be fitted must require no larger an aperture than the tested fitting supported by the supporting test evidence for the wall.

All wall types detailed above shall provide a suitable medium to permit adequate fixity, it is anticipated that for:

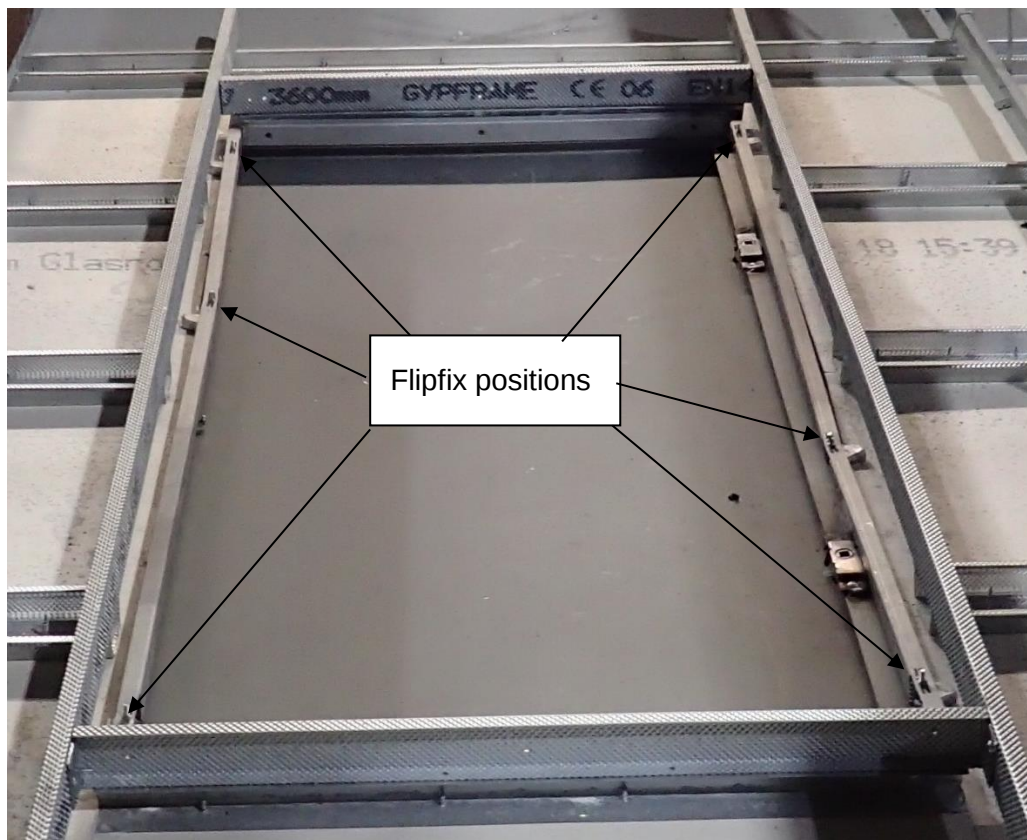
9.3.3 Structural Opening

For all ceiling and wall types the structural opening shall be square and plumb to facilitate installation of the steel access hatch.

For board clad wall and ceiling types the structural opening must be prepared in line with the test evidence provided by the wall or ceiling manufacturer.

9.4 FlipFix Fixings

The successfully tested steel access hatch incorporated 6no. FlipFix fixings, at the locations shown in the picture below, which must be used to fix the steel access hatch in all cases.



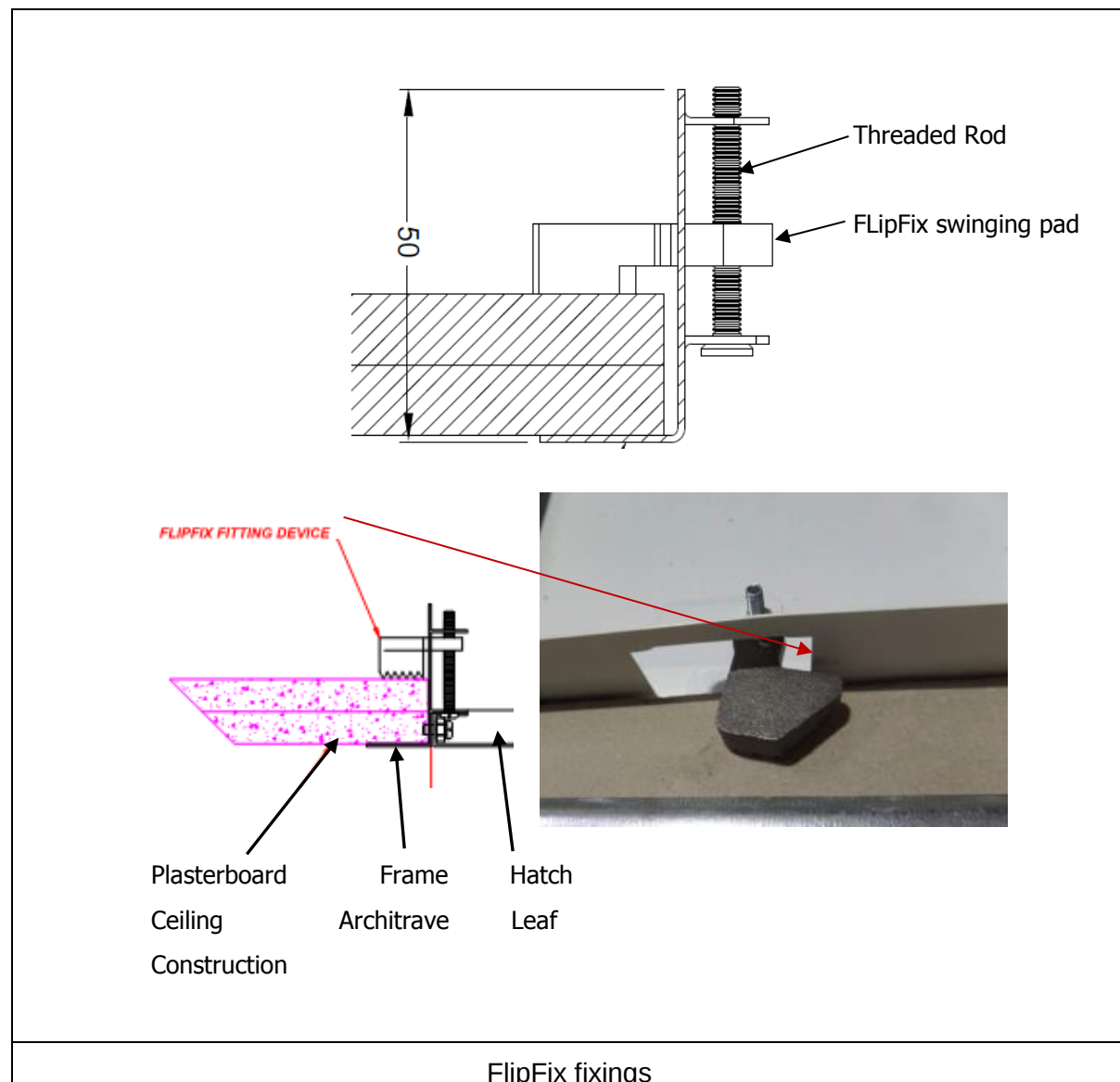
In all instances the fixing position must be such that it provides adequate restraint to the element of construction throughout the exposure to fire.

For hatches up to a maximum dimension on one side of 350mm, 2No FlipFix fixings (total) must be used to retain the hatch. The FlipFix fixings must be fitted centrally within the width of the steel access hatch on the hatch frame sides which incorporate the latch and the side opposite to the latch.

For hatches with any side greater than 350mm long, 4No FlipFix fixings (total) must be used to retain the hatch. The FlipFix fixings must be fitted 50-100mm from the corners of the steel access hatch on the hatch frame sides which incorporate the latch and the side opposite to the latch.

For hatches with any side greater than 600mm long, 6No FlipFix fixings (total) must be used to retain the hatch. The FlipFix fixings must be fitted 50-100mm from the corners of the steel access hatch and with the centre fixing approximately equispaced between the other fixings on the hatch frame sides which incorporate the latch and the side opposite to the latch.

The figure below shows an example detail of the tested installation using FlipFix fixings. This is an adjustable (by means of tightening the threaded rod) clamp device, which uses the frame architrave of the access hatch frame as one side of the clamp and the swinging pad element as the opposing clamp arm.



FlipFix fixings

The drawings are provided as a generalised illustration of the frame installation only; actual installation must be as per the text within this document.

9.5 Post Production (Onsite) Size Adjustment

Post production adjustment of the steel access hatch assemblies is not permitted.

9.6 Leaf to Frame Gaps

Based on the test evidence WF393367 Issue 2 Specimen A, the leaf edge to frame gaps on all edges must be controlled to between 1.5 to 2.5mm.

Note: Leaf must not be proud of the frame by more than 1mm.

If substantially different gaps are employed, the fire resistance performance of these steel access hatch designs may change.

10 Insulation Performance

Insulation performance may not be claimed for steel access hatches to these designs.

11 Conclusion

If the Panel Technologies Limited, FlipFix Range steel access hatch design, constructed in accordance with the specification documented in this field of application were to be tested horizontally as part of a proven suspended ceiling system (as given in section 9.3.1) in accordance with BS EN 1364-2: 2018, it is our opinion that they would provide a minimum of 60 minutes integrity performance (based on integrity criteria of gap gauge and continuous flaming) subject to the steel access hatch being fitted opening into the fire risk side.

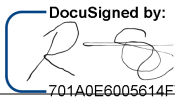
If the Panel Technologies Limited, FlipFix Range steel access hatch design, constructed in accordance with the specification documented in this field of application were to be fitted vertically as part of a proven partition system (as given in section 9.3.2) and tested in accordance with BSEN 1634-1: 2014 +A1: 2018, it is our opinion that they would provide a minimum of 60 minutes integrity performance (based on integrity criteria of gap gauge and continuous flaming), subject to the steel access hatch being fitted opening into the fire risk side.

In both cases the latch/lock(s) must be engaged with the steel access hatch in the closed position.

12 Declaration by the Applicant

- 1) We the undersigned confirm that we have read and comply with obligations placed on us by the Passive Fire Protection Forum (PFPF) Guide to undertaking technical assessments and engineering evaluations based on fire test evidence 2021 Industry Standard Procedure
- 2) We confirm that any changes to a component or element of structure which are the subject of this assessment have not to our knowledge been tested to the standard against which this assessment has been made.
- 3) We agree to withdraw this assessment from circulation should the component or element of structure, or any of its component parts be the subject of a failed fire resistance test to the standard against which this assessment is being made.
- 4) We understand that this assessment is based on test evidence and will be withdrawn should evidence become available that causes the conclusion to be questioned. In that case, we accept that new test evidence may be required.
- 5) We are not aware of any information that could affect the conclusions of this assessment. If we subsequently become aware of any such information, we agree to ask the assessing authority to withdraw the assessment.

(In accordance with the principles of FTSG Resolution No. 82: 2001)

Signed:  701A0E6005614F7...

Name: Ross Stokes

Position: Technical Manager

Date: 30-Sep-2024

For and on behalf of: Panel Technologies Limited

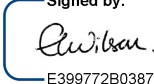
13 Limitations

The following limitations apply to this assessment:

- 1) This field of application addresses itself solely to the elements and subjects discussed and do not cover any other criteria or modifications. All other details not specifically referred to should remain as tested or assessed.
- 2) This field of application report is issued on the basis of test data and information to hand at the time of issue. If contradictory evidence becomes available to Warringtonfire, the assessment will be unconditionally withdrawn, and the applicant will be notified in writing. Similarly, the assessment evaluation is invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence.
- 3) This field of application has been carried out in accordance with Fire Test Study Group Resolution No. 82: 2001.
- 4) Opinions and interpretation expressed herein are outside the scope of UKAS accreditation.
- 5) This field of application relates only to those aspects of design, materials and construction that influence the performance of the element(s) under fire resistance test conditions, against the ISO 834 time/temperature curve that is stipulated in the standard this assessment concludes to. It does not purport to be a complete specification ensuring fitness for purpose and long-term serviceability. It is the responsibility of the client to ensure that the element conforms to recognised good practice in all other respects and that, with the incorporation of the guidance given in this field of application, the element is suitable for its intended purpose.
- 6) This field of application report represents our opinion as to the performance likely to be demonstrated on a test in accordance with BSEN 1634-1: 2014 +A1: 2018 (when fitted vertically) or BS EN 1364-2: 2018 (when fitted horizontally as part of a proven suspended ceiling system), on the basis of the test evidence referred to in this report. We express no opinion as to whether that evidence, and/or this field of application would be regarded by any Building Control authorities or any other third parties as sufficient for that or any other purpose.
- 7) This report may only be reproduced in full. Extracts or abridgements of reports shall not be published without permission of Warringtonfire. All work and services carried out by Warringtonfire Testing and Certification Limited are subject to, and conducted in accordance with, the Standard Terms and Conditions of Warringtonfire Testing and Certification Limited, which are available at <https://www.element.com/terms/terms-and-conditions> or upon request.
- 8) The version/revision stated on the front of this Field of Application supersedes all previous versions/revisions and must be used to manufacture steel access hatch from the stated validity date on this front cover. Previous revisions of the Field of Application cannot be used once an updated Field of Application has been issued under a new revision.

14 Validity

- 1) The assessment is initially valid for five years after which time it is recommended to be submitted to Warringtonfire for re-appraisal.
- 2) This assessment report is not valid unless it incorporates the declaration given in Section 12 duly signed by the applicant.

Position:	Assessor	Reviewer
Signature:	Signed by:  E92E9BDA6AE6488...	Signed by:  E399772B03874B1...
Name:	Liam Dunk *	Emma Wilson *
Title:	Senior Product Assessor	Senior Product Assessor

* For and on behalf of Warringtonfire

Appendix A: Revisions

Rev.	WF Ref.	Date	Description
A	WF529553	20/09/2024	Review and revalidation of the document including the removal of rigid supporting construction types, option for screw fixing and the use on a single lock. The inclusion of signage, additional lock designs and retention bolts and updated to supporting construction section.