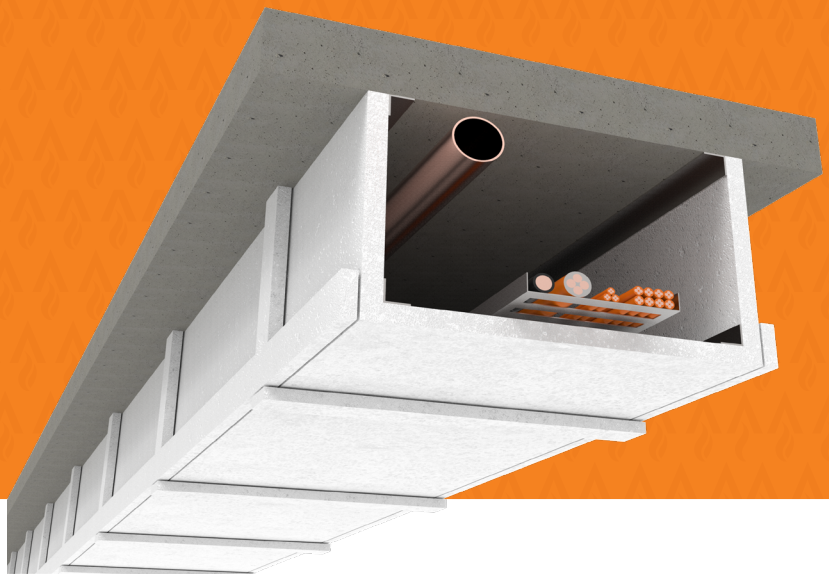
TRAFALGAR FIRE

FyreBOARD MAXILITE

FIRE RATED BULKHEAD & CEILINGS



FyreBOARD Maxilite is a thin, lightweight, high-performance fire resistant board that is suited to various applications. Maxilite is stable under high temperatures which makes it the perfect solution for constructing fire rated bulkheads, ceilings and enclosures and provide fire compartmentation around building services.

NCC 2022 READY

KEY FEATURES

- Full scale testing to AS1530.4-2014
- Simple construction
- Lightweight system for high FRL's
- Approved as an RISF ceiling
- Approved for 1 & 2-way FRL's
- Approved penetration systems
- Environmentally friendly
- Low VOC

APPLICATIONS

- Boxing out services from fire escapes
- 1, 2 & 3 sided bulkheads up to 2m wide spans
- Extended width bulkheads
- Separating services into separate fire compartments
- Box-out penetrations for one sided access
- Penetration systems

TRADES

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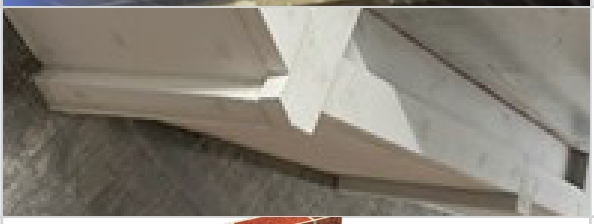
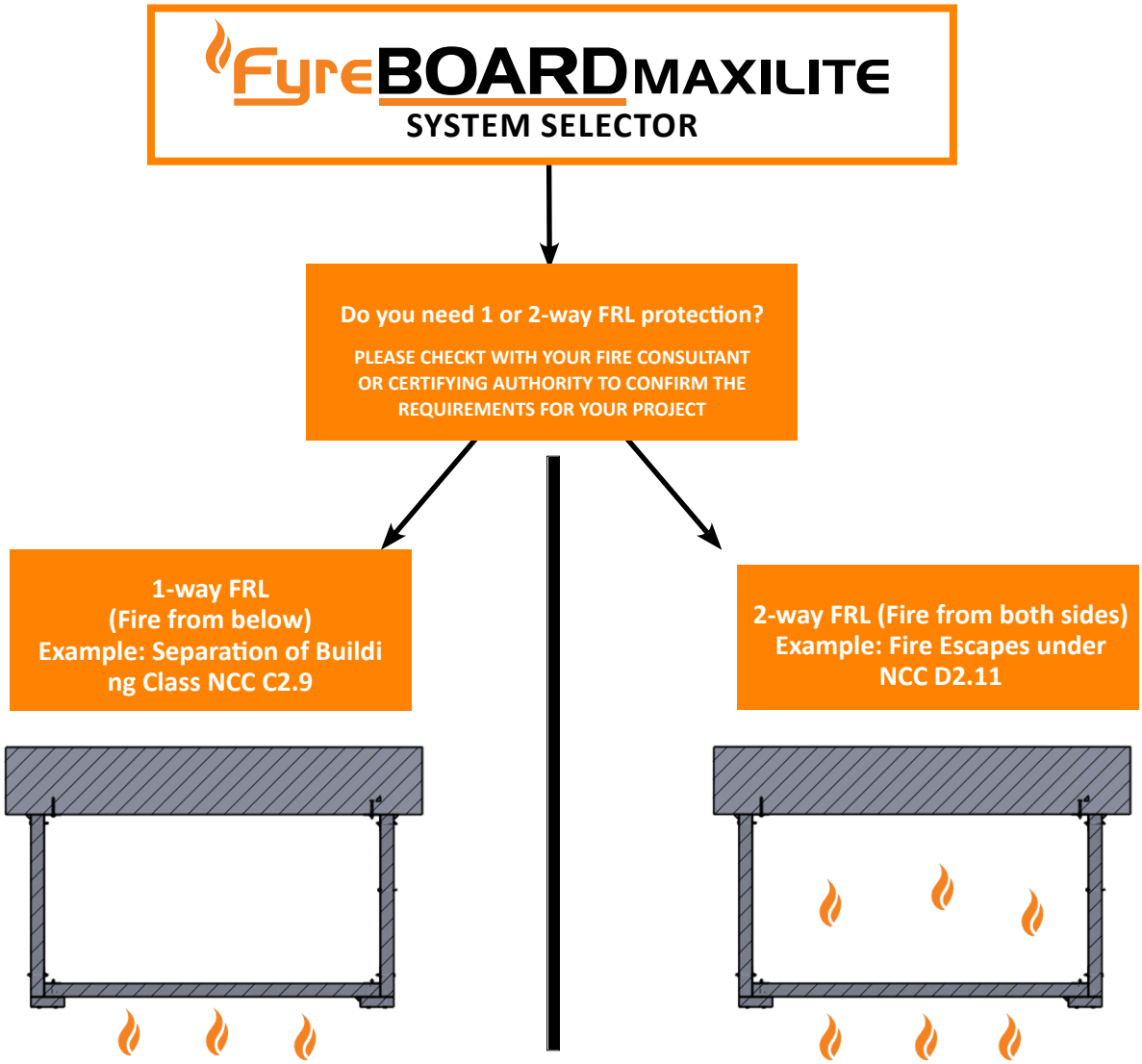
DEFINITIONS OF FIRE RATED CONSTRUCTIONS

To ensure strict compliance to the new NCC, the latest update of our Maxilite certification required the term “bulkhead” to be defined using terms that fit into the existing test methods and definitions that exist in AS1530.4-2014, which has driven many fundamental changes in how the industry should view fire rated bulkhead systems. The below table lists common bulkhead and encasement systems and our recommended solutions for each. Please note that this manual only relates to Maxilite systems.

Form of construction	Real-world description	Example	Recommended system
Ceilings	Horizontal fire barrier installed below a floor		Maxilite board bulkheads/ceilings
Horizontal Bulkhead	2 or 3-sided false **ceiling** to form a cavity that encloses or ‘boxes-out’ services from one fire compartment		Maxilite board bulkheads/ceilings
Vetical Bulkhead	Vertical 2, 3 or 4-sided barrier used to form a fire rated **shaft** or ‘riser’ allowing for the passage of services from floor to floor		Traflagar Corex Vertical bulkheads
Wall	Vertical fire barrier used to split two fire compartments		Traflagar Corex Solid partition walls
Ducts	Enclosure used to supply air or air flow from one place to another		FyreWrap Duct protection systems

SYSTEM SELECTOR



System	1-way FRL (120/120/120)	2-way FRL (-/120/120)
Maxilite board thickness	• 30mm board: 1-sided horizontal ceiling systems only • 40mm or 60mm Maxilite: 1, 2, 3 or Z-shaped systems	• 60mm Maxilite only: 1, 2, 3 or Z-shaped systems
RISF ratings (if required)	• 30mm or 40mm boards: 30-minutes of RISF • 60mm boards: 60 minutes of RISF	• 60mm board only: 60 minutes of RISF
Coverstrips	30mm Maxilite x 100mm (min) OR 15mm COREX x 100mm (min) at: • 90-degree board-to-board joints • Board-to-board butt joints	30mm Maxilite x 100mm (min) OR 15mm COREX x 100mm (min) at: • Board-to-board butt joints • 90-degree board-to-board joints • 90-degree board-to-walls or board-to-floor

FyreBOARD MAXILITE

Fire Rated Board

What is MAXILITE

FyreBOARD Maxilite is a lightweight, high performance fire rated board. It is calcium silicate-based material, bonded together with non-organic binders that meets all requirements for asbestos, volatile organic compounds (VOC's) and ozone depleting potential (ODP) compounds. It is a versatile product, providing numerous potential solutions in even the most difficult situations.

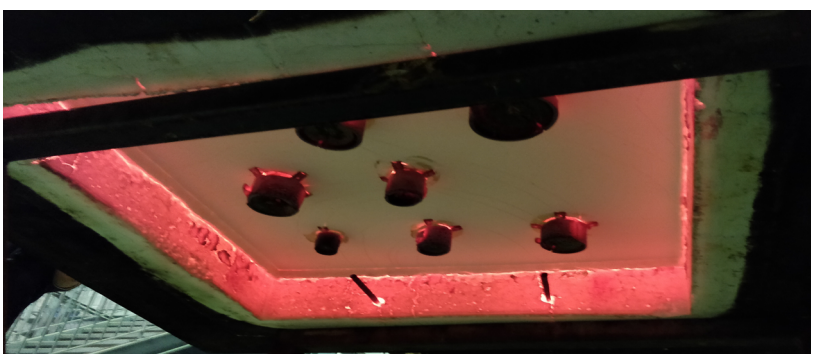
Maxilite boards are able to withstand high temperatures while remaining stable and crack free, making it an ideal product for fire protection. Particularly suited to constructing fire rated bulkheads or enclosures, **Maxilite has been tested to current AS1530.4 – 2014 as a fully compliant system for use as RISF rated ceilings and fire rated bulkheads for 1 and 2-way FRL's.**

Applications

FyreBOARD Maxilite systems are suitable for constructing fire rated enclosures with spans up to 2000mm wide with simple lightweight steel angles and coverstrips, that can be hung off concrete floor soffit's and interface with fire rated walls such as plasterboard, AAC and concrete/masonry walls. For 2-way FRL applications, additional steel framing and coverstrips are required.

Whilst this technical manual will focus only on how to construct ceilings and bulkheads, Maxilite can also be used for other applications including:

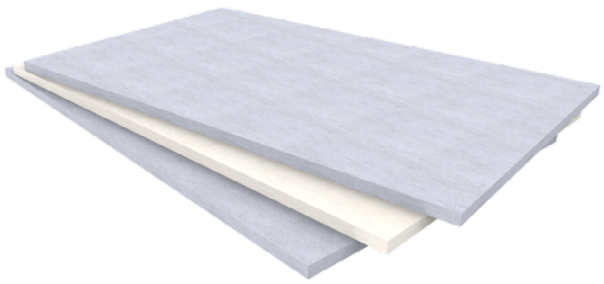
- FyreBOARD Maxilite 60mm penetration systems Technical Manual
- FyreBoard Maxilite Steel Protection Technical Manual
- FyreBOARD Maxilite Damper Upgrades Technical Manual



PRODUCT SPECIFICATIONS

NCC 2022 READY

Spec	Detail		
Thickness	30, 40 & 60mm		
Sheet size (half sheets available)	1500x1000mm (white) 2000x1220mm (blue)		
Density (avg, dry)	330Kg/m^3		
Board weight	30mm	1520x1000: 16Kg	2040x1220: 23Kg
	40mm	1520x1000: 22Kg	2040x1220: 30Kg
	60mm	1520x1000: 32Kg	2040x1220: 45Kg
Material	Calcium Silicate		
Combustible	Non-combustible (AS1530.1)		
Maximum service temp	1000 deg C		
Permeability to gasses	1.0 nPm		
Specific heat	0.84 KJ/(KgK)		
Thermal conductivity	0.09 W/(mK) at 200 deg C		
R-value	30mm	0.33m^2K/w	
	40mm	0.44m^2K/w	
	60mm	0.67m^2K/w	
Acoustic ratings	30mm: Rw30 (Rw+Ctr 28) 40mm: Rw31 (Rw+Ctr 28) 60mm: Rw33 (Rw+Ctr 30)		
Flexural strength	1.27MPa		
Asbestos content	0%		
Crystalline Silica conten	0%		
Storage	Store in a cool, dry environment Transport on pallets to avoid breakage		
Handling	Cuts easily with hand tools or power saws. Ensure the board is supported appropriately whilst cutting to avoid breakage		



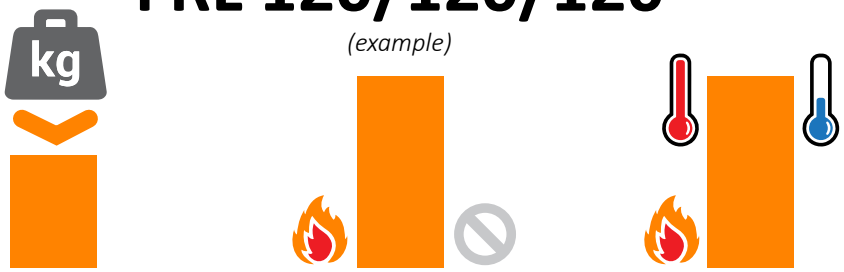
FRL DETAILS

FIRE RATING – HOW IS FIRE PERFORMANCE MEASURED?

An FRL (fire resistance level) is a handy way of summarising the performance of a building element. It consists of 3 numbers, all given in minutes:

FRL 120/120/120

(example)



Structural Adequacy

The ability of the building element to support the weight of adjacent building elements.

ie: a brick wall supporting a concrete floor slab above.

Integrity

The ability of an element to prevent the passage of flames and hot gasses.

ie: a plasterboard wall remaining intact and not allowing holes to form.

Insulation

The ability of an element to resist heat transfer from the exposed face to the unexposed face.

ie: a bundle of cables remaining below a set temperature limit on the unexposed side of the wall penetration system.

Structural Adequacy

Structural adequacy can be assigned to floor/ceiling systems where the floor above the bulkhead is a structurally rated element like a concrete floor slab. In this instance, the combination of the fire rated bulkhead AND the floor above can provide load-bearing capacity to building elements above the floor, during fire conditions. If the bulkhead system is a 2-way FRL in isolation from the floor above, then it is not intended to be load bearing and has no structural adequacy (-/120/120).

Integrity

Maxilite systems can achieve the fire integrity performance when used in horizontal bulkhead/ceiling constructions, to physically stop the direct spread of fire in (or out) of the Maxilite enclosure for a 2 hour period. Higher integrity ratings are possible for service penetration systems (eg-/240/240).

Insulation (Temperature Rise)

Heat transfer through a fire barrier can potentially spread fire indirectly. The insulation rating measures the temperature rise on the top side of the fire rated ceiling (or floor/ceiling) and must stay below a 140 degree average temperature rise. Maxilite bulkhead/ceiling systems can maintain the insulation rating for 2 hours depending on the board thickness and the application it is used in.

RISF (Resistance to Incipient Spread of Fire)

RISF is an additional measure of fire spread that is called up in our NCC for 'floor-ceiling' and 'roof-ceiling' applications, and measures the temperatures in the cavity formed between the bulkhead/ceiling and the floor above. To make sure fire's don't spread via the ceiling cavities, the temperatures must stay below 250 degrees inside this cavity. **Note that all NCC requirements for RISF ceilings is a 60 minute RISF rating (eg a 120/120/120 FRL ceiling with a 60 minute RISF).**

MAXILITE BULKHEADS CHECKLIST

☐ 1. Am I installing against approved barrier types and is the size of my bulkhead or ceiling approved?

Check pages 9 and 10 for the approved barriers and their respective approved opening sizes

☐ 2. Do I need a 1 or 2 way FRL?

Check with your fire consultant or certifying authority to confirm the project's requirements.

If the box-out or ceiling is covering a wall penetration, you likely require a 2-way FRL, but if it's only covering a floor penetration you may only need a 1-way FRL. Refer to the flowchart on page 4 for more examples

☐ 3. Am I installing a SuperSTOPPER®?

SuperSTOPPER®s have slightly different installation requirements compared to other Trafalgar systems.

SuperSTOPPER®s **must be at least 100mm apart**, and there needs to be enough Maxilite board to support the weight of the installed SuperSTOPPER®.

See the Maxilite penetrations manual for more information about these requirements.

☐ 4. Am I installing a system that uses intumescent?

Penetrations protected by systems that use intumescent such as FyreCollars, SuperSTOPPER®es and FyrePEX will only achieve a 1-way FRL from outside the box if they are installed in a single side of a Maxilite bulkhead. See page 34 for an example of this configuration.

These systems must be installed as shown on page 36 to achieve a 2-way FRL.

Based on the application, 1-way FRLs are often acceptable. For example when boxing around a floor penetration.

☐ 5. Where am I allowed to penetrate the board?

Penetrations for services must be at least 50mm apart.

Penetrations must fall within the Penetration Zone shown on page 49 of the Maxilite penetrations manual.

☐ 6. What fixings do I need to use?

See page 12

☐ 7. Are my services approved in this board configuration (wall, floor, ceiling, bulkhead)?

See the FRL tables in the Maxilite penetrations technical manual and refer to FCO2586 Table 19 and 20.

☐ 8. Have I prepared my cover strips?

See page 13 or 14. Cover strips can either be 30mm Maxilite or 15mm COREX strips

☐ 9. Do I need ventilation through my Maxilite bulkhead?

More information about installing air transfer grilles can be found on page 16 of this technical manual

☐ 10. Do I need access for maintainence across the life of the building?

More information about installing access panels in Maxilite ceilings can be found on page 17 of this technical manual

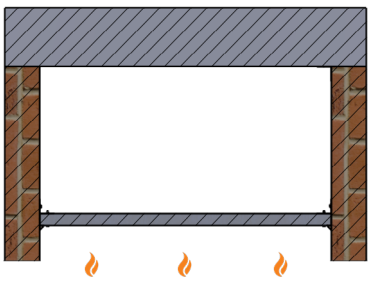
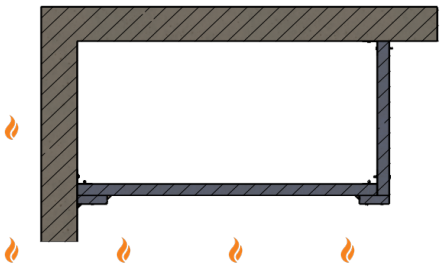
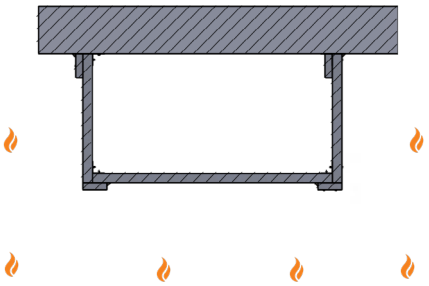
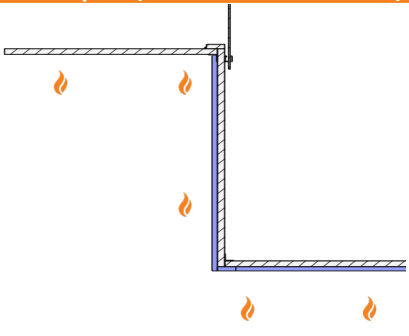
FRL Tables

1-WAY FRL SYSTEMS

The following FRL table applies to Maxilite bulkheads that are designed for use as a 1-way FRL only, such as a Floor-Ceiling (or Roof-Ceiling) systems. Note that threaded rods and service penetrations are approved to penetrate through Maxilite board constructions - refer to the Maxilite Penetrations manual for specific FRL's and treatments.

Board Thickness	FRL	RISF (if required)	Approved con-struction	Max. Size bulkhead	Approved Interfaces
30mm	120/120/120	30 mins	1-sided horizontal bulkheads only	Span (or drop) is limited to the length of Maxilite sheet: - Blue: 2000mm wide - White: 1500mm wide Length can extend the length of fire compartment as required. (Bulkheads can be extended to infinite spans with additional steel structure- see page 15)	• Plasterboard 64mm stud and CH-stud (shaft) walls • 75mm AAC panel walls • Concrete/masonry walls • Concrete floor slabs
40mm	120/120/120	Blue: 30 mins	1, 2, 3 and Z-shaped horizontal bulkheads		
		White: 60 mins			
60mm	120/120/120	Blue: 30 mins	1, 2, 3 and Z-shaped horizontal bulkheads		
		White: 60 mins			

The following system installation details can be found on pages 12 to 13:

1- Sided	2- Sided
	
3- Sided	**Z- Shaped (and inverted corners)**
	

FRL Tables

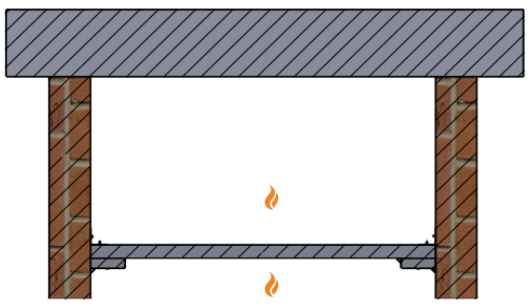
2-WAY FRL SYSTEMS

The following FRL table applies to Maxilite bulkhead/ceiling systems that are designed and require a 2-way FRL, such as a ceiling 'membrane'. Note that threaded rods, and service penetrations are approved to penetrate through Maxilite board constructions- refer to the Maxilite Penetrations manual for specific FRL's and treatments.

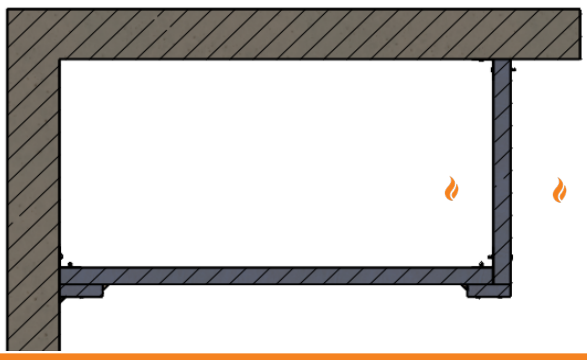
Board Thickness	FRL	RISF (if required)	Max Span	Forms of Construction	Approved Interfaces
60mm (or 2x 30mm)	-/120/120 (2-way)	60 mins	Span (or drop) is limited to the length of Maxilite sheet: - Blue: 2000mm wide - White: 1500mm wide Length can extend the length of fire compartment as required. (Bulkheads can be extended to infinite spans with additional steel structure- see page 15)	1, 2, 3 and Z-shaped horizontal bulkheads	• Plasterboard 64mm stud and CH-stud (shaft) walls • 75mm AAC panel walls • Concrete/masonry walls • Concrete floor slabs

The following system installation details can be found on page 14:

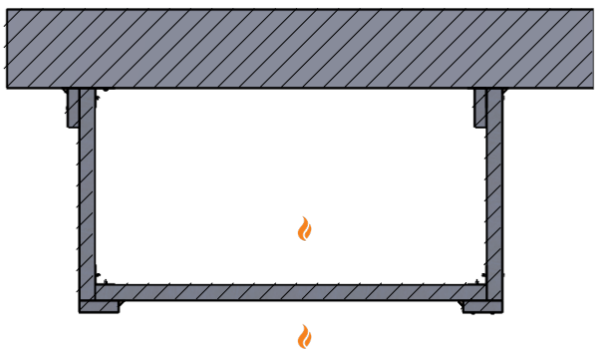
1- Sided



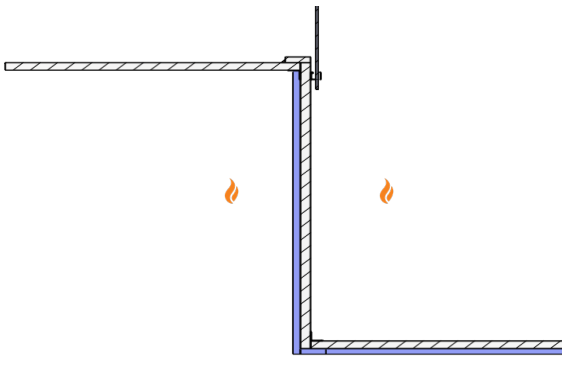
2- Sided



3- Sided

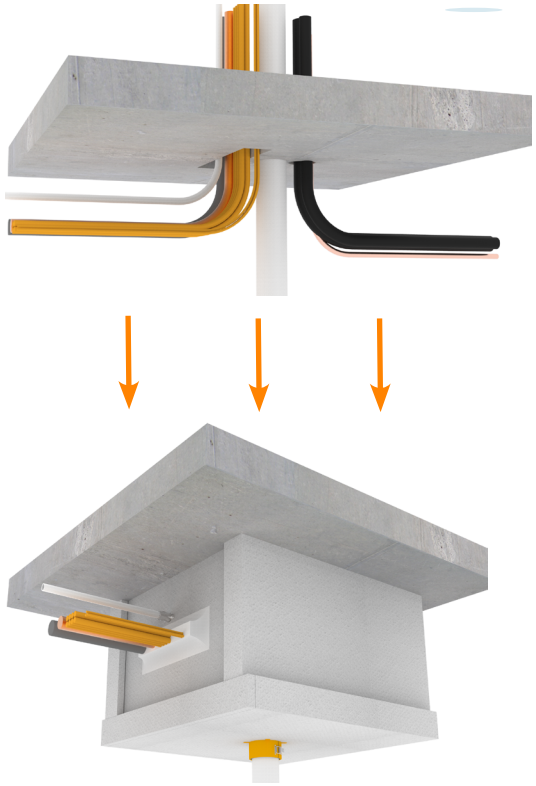


Z- Shaped (and inverted corners)



FRL Tables

BOX OUT PENETRATIONS



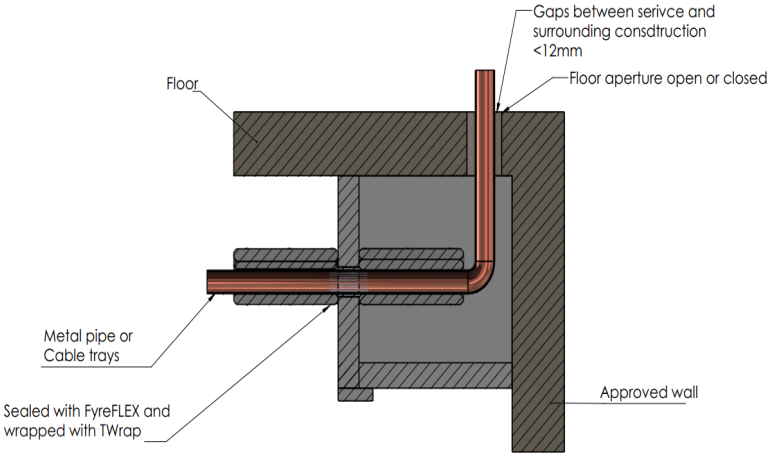
In many cases, a service penetration might not be able to be sealed directly at the wall or floor that it passes through. Perhaps there is no access on the floor above, or there are a complicated mix of service types and there is no 'tested system' available to treat the penetration directly.

In these cases, **Maxilite can be used to 'box-out' around the penetration with a small bulkhead**, so that the penetration can be moved away from the problem area and then sealed as the pipes and cables pass through the side walls of the Maxilite bulkhead using various Trafalgar penetration systems.

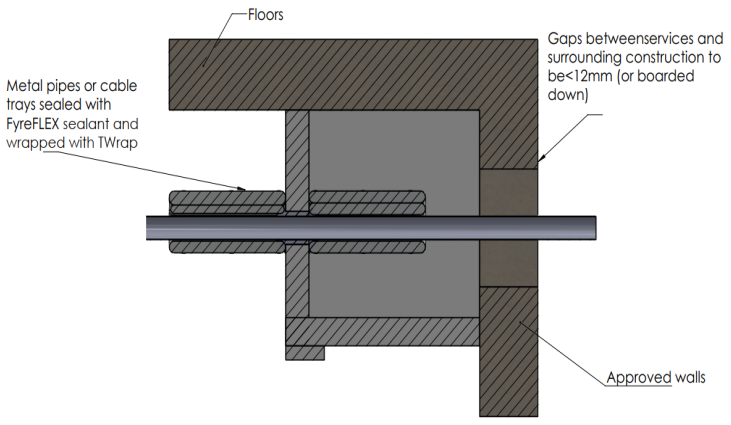
These systems are evaluated in accordance with section 10 of AS1530.4-2014 for an FRL as a penetration system with following FRL's:

Board Thickness	Max FRL		Max Size of Box-Out	Approved Penetration Systems in the Maxilite Box Out
60mm board must be used for the face with the penetration (or 2x30mm etc). 40mm board can be used on the other faces.	Services penetration floor:	-/120/120 1-way FRL construction	One sheet of Maxilite white or blue board per face	• Cables/trays: FyreFLEX sealant & TWrap • Metal pipes: FyreFLEX sealant & TWrap • Plastic pipes: FyreCOLLAR range • Mixed services: SuperSTOPPER® Maxi & Mini range
	Services penetration wall:	-/120/120 **2-way FRL construction required**		• Cables/trays: FyreFLEX sealant/TWrap • Metal pipes: FyreFLEX sealant/TWrap

Example of a floor penetration



Example of a wall penetration



Note: Intumescent based systems (collars and SuperSTOPPER®) can be sheilded in this configuration. Refer to drawings X for approved installation details.

INSTALLATION

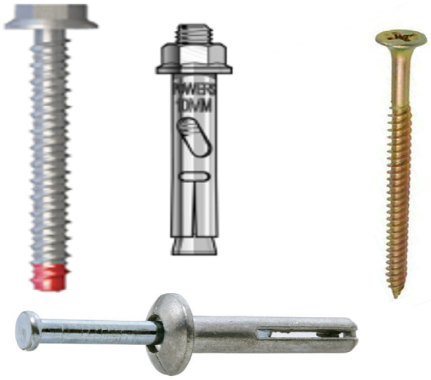
1-WAY FRL SYSTEMS

Please check that this system is applicable for your specific project before staring construction.

STEP 1
STEEL ANGLES

Install the 50x50x0.9mm steel angles to the floor (or wall) construction, in lengths of 1200mm. Be sure to leave 10-20mm gap between each angle for thermal expansion. Refer to drawings from page 24 & 25 for in-depth drawings.

STEP 2
FIXINGS INTO STEEL ANGLES



Concrete/masonry – M6x50mm every 400mm OR 6x50mm steel knock-in anchors
Plasterboard walls – 8gx50mm into stud (or 10g x38mm laminating screws away from studs) every 200mm
AAC panel wall – 8gx50mm every 200mm
Maxilite board – 8g screws at 1.5x the thickness of Maxilite at every 200mm (eg min. 90mm screws for a 60mm Maxilite board)
See page 23 for a list of fixings between all different materials

Tip: pre-fit the steel angle to the vertical Maxilite boards before they are hung!

STEP 3 -
CUTTING MAXILITE

Cut the Maxilite sheets to size using hand saws (timber saws) or power tools (jig-saw, plunge saws etc.) Ensure that the Maxilite is supported appropriately for cutting and do not to walk on or stress the Maxilite board. Dust extraction is recommended when using power tools.

STEP 4 -
HANG THE BOARD

Install screw fixings through the Maxilite board, to bite into the steel angles from the outside-in. Hang the side walls first, then complete the construction with the horizontal peice. Fill all joints with FyreFLEX Sealant (no need to seal over screw heads).

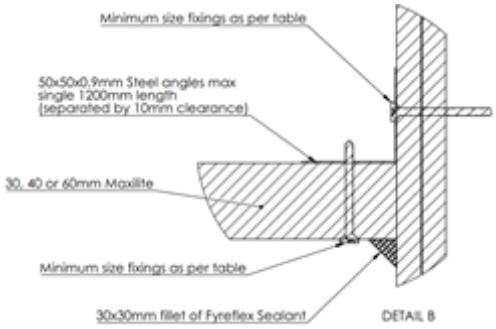
INSTALLATION

1-WAY FRL SYSTEMS (continued)

STEP 5
COVERSTRIPS

100mm wide coverstrips must be installed over all butt and corner joints, using minimum 30mm Maxilite board strips OR minimum 15mm COREX x 100mm. Fix the coverstrips with minimum 8gx50mm plasterboard screws in pairs every 200mm (one screw each side of the joint).

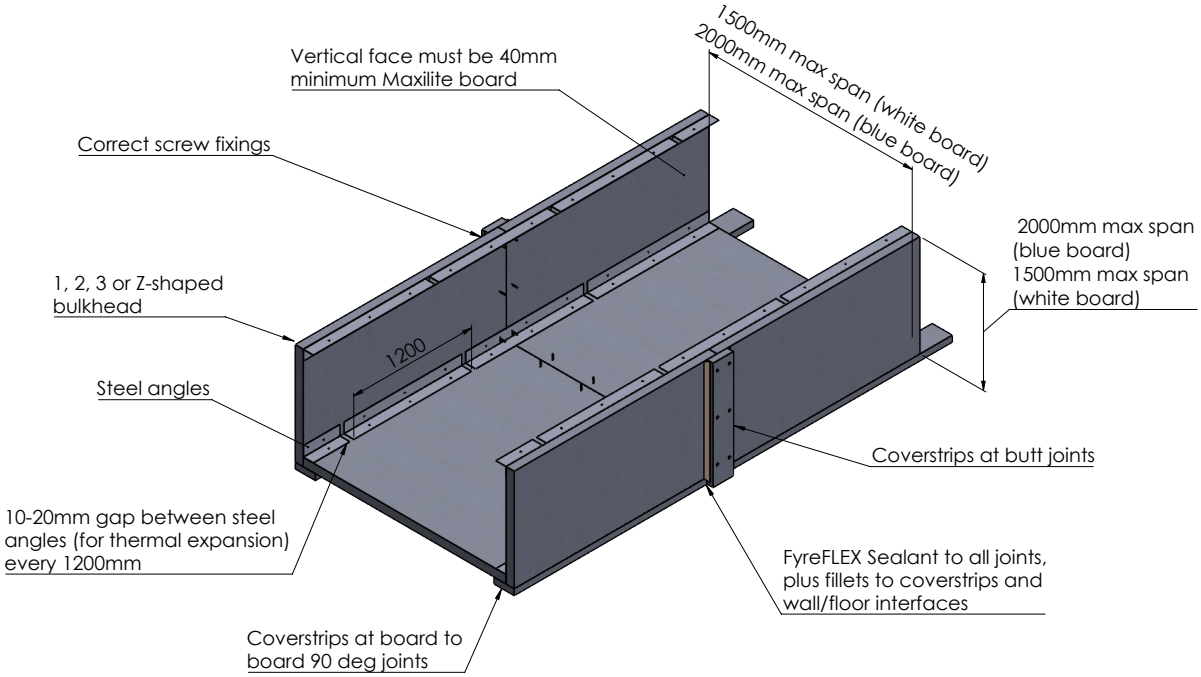
STEP 6
SEAL



Apply a fillet (or cone) of FyreFLEX Sealant to complete the bulkhead installation at the following dimensions:

- 10x10mm along the edges of the cover strips
- 15x15mm against floor slabs
- 30x30mm against walls

INSTALL TIP: Use offcuts of Maxilite board as your coverstrips to save material.

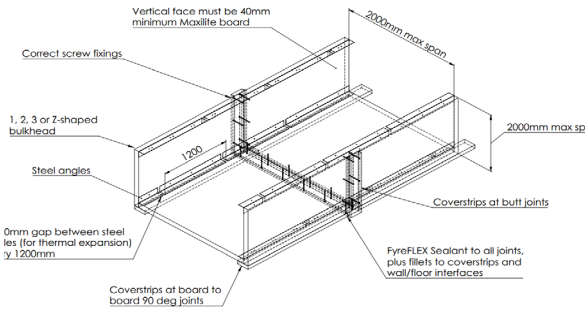


INSTALLATION

2-WAY FRL SYSTEMS

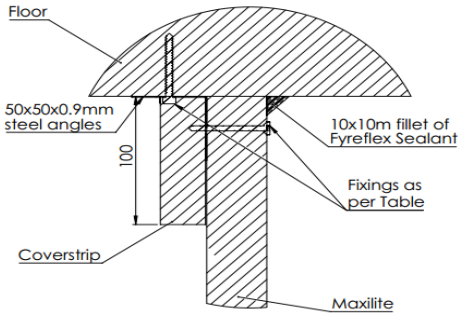
Please check that this system is applicable for your specific project before staring construction.

STEP 1
BASE CONSTRUCTION



Install the bulkhead systems following the same instructions for the 1-way FRL systems above.

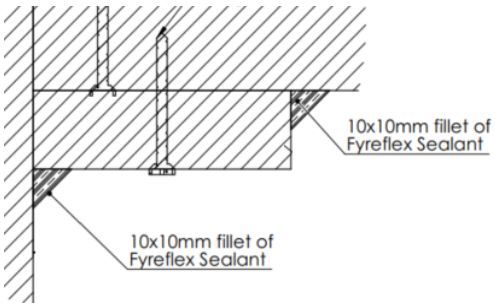
STEP 2 -
ADDITIONAL COVER STRIPS



2-way FRL constructions require an additional 30mm thick Maxilite OR 15mm COREX coverstrip be installed at the wall & floor interfaces to cover the steel angles.

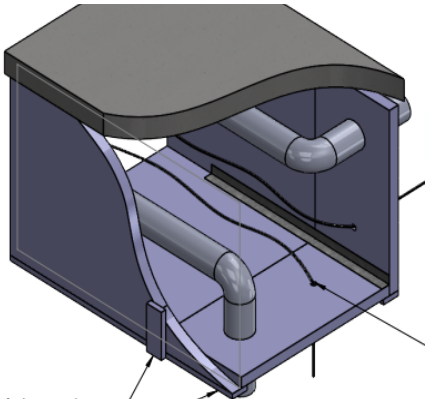
Additional steel support is not necessary for horizontal (one-sided) bulkhead ceilings.

STEP 3 -
SEAL



Apply a 10x10mm size fillet (or cone) to seal the coverstrips to the bulkhead and to the walls and floor.

STEP 4 -
SEAL PENETRATIONS



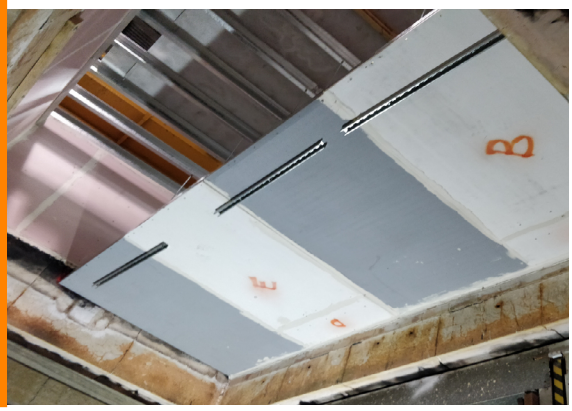
Services (pipes, cables & threaded rods) are permitted to penetrate bulkhead constructions, but must be sealed in accordance with the Maxilite Penetration Technical Manual. Access may be needed to both sides of the bulkhead to complete the penetrations so make sure to sequence the installation accordingly.

INSTALLATION

INCREASED SPANS > 2000MM

The increased span details are suitable for both 1 way FRL's as a Deemed to Satisfy system. 2-way FRL's require performance based design.

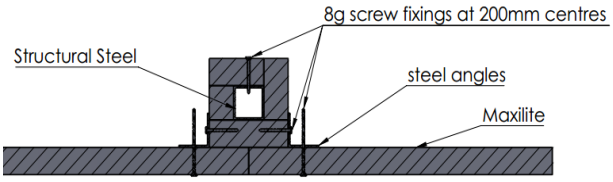
STEP 1
DESIGN FOR LARGER SPANS



For bulkheads that need to span (or drop) more than 2000mm, Maxilite bulkheads can be extended using structural steel at the board joints to create a 'modular' system.

The steel should be designed by a structural engineer with the steel supports placed every 2000mm max.

STEP 2 -
STRUCTURAL STEEL



Frame up the bulkhead using the structural steel framework, connected into the existing walls/ floors. The steel (and any threaded rod) supports must be designed for full fire exposure, and clad with Maxilite to provide structrual adequacy as per AS4100 approvals and requirements.

Refer to page 26 for an example system.

STEP 3
HANG THE MAXILITE

Hang the Maxilite board following the same instructions for the bulkhead systems shown on the above pages, sealing all joints with FyreFLEX Sealant.

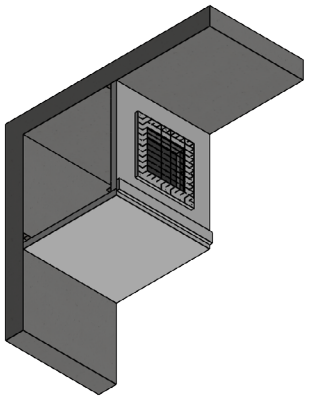
STEP 4 -
COVERSTRIPS AND SEALANT

Install the coverstrips to all butt and corner joints, then apply a fillet of FyreFLEX Sealant at the following dimensions:

- 10x10mm along the edges of the cover strips
- 15x15mm against floor slabs
- 30x30mm against walls

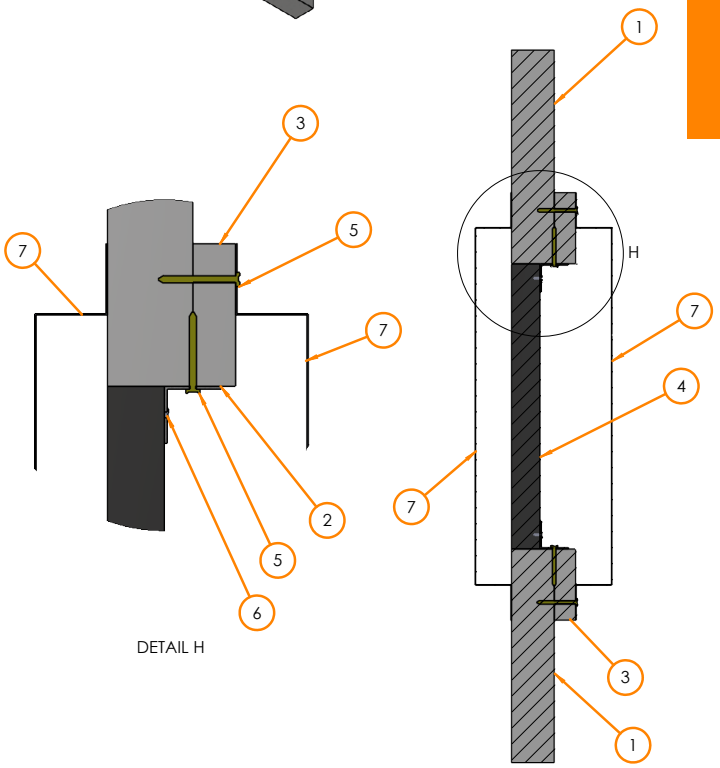
Fire Rated Air Transfer Grilles

Maxilite Bulkheads & Ceilings



Key Details

1	Maxilite Bulkhead/Ceiling, construction as per FCO 2586. Must be installed on a 60mm face
2	25 x 50 x 0.9mm Fixing angles, or angles otherwise approved by Lorient for the LVH44 system
3	30mm Maxilite Cover strip
4	LVH44 Lorient Air Transfer Grille. Maximum 10mm annular gaps permitted, to be filled with FyreFLEX
5	8g x 45mm screws at 200mm centres
6	Angles fixed to damper with steel fasteners at 150mm centres
7	12mm x 24mm wire mesh with 75mm projection and 40mm aperture overlap. Fixed to Maxilite with 8g x 45mm screws



LVH44 Air Transfer Grille

-/120/120 FRL in Maxilite Box-outs and Ceilings*

In accordance with:

AS1530.4:2014

Approval Reference:

FCO 2586 & EWFA 55202900

Max Size:

600 x 600mm Air Transfer Grille

* Note that this approval does not cover duct penetrations through Maxilite

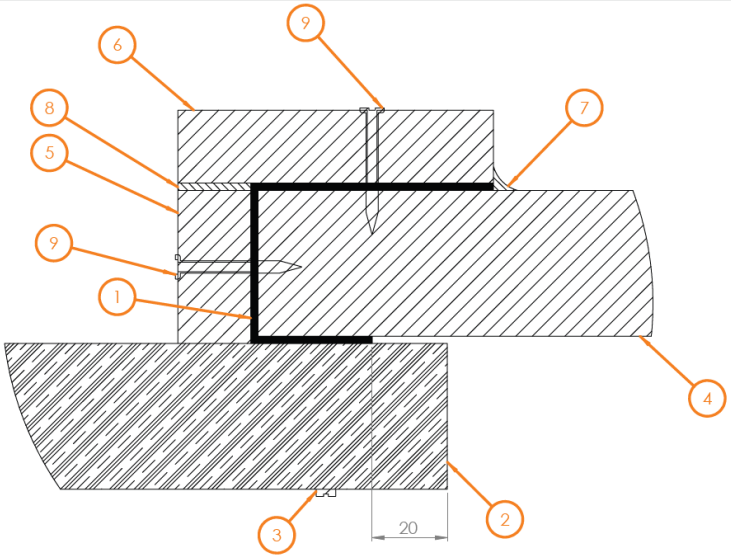
Installation Instructions

- Cut hole to desired dimension up to 620 x 620mm in Maxilite Ceilings Construction, refrencing FCO 2586 for limitations on the hole location. Must be installed on a 60mm face.
- Maximum 10mm annular gaps are permitted, which are too be filled with FyreFLEX sealant to the depth of the Maxilite
- Mechanically fix angle brackets, following the standard details for the damper cell as tested and approved by Lorient for the LVH44 system.
- Ensure 30mm Maxilite cover strips (item #3) are fitted to keep strict compliance with FCO 2586. These cannot be substituted with COREX cover strips.

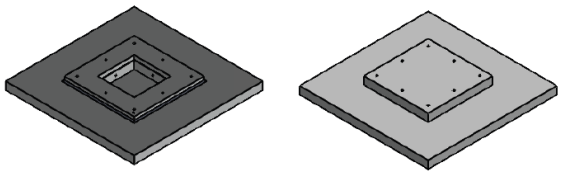
MAXILITE ACCESS PANELS

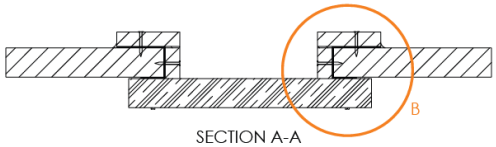
Maxilite Ceilings

ITEM	NAME	DESCRIPTION
1	Galvanised Steel Access Panel Frame	Minimum 0.8BMT- 50 x 64 x 75mm- Internal opening up to 500 x 500mm
2	60mm Maxilite Board (Door Panel)	Extending 20mm past steel frame (#1)
3	Maxilite Fixings Screws	Min. M6 machine screws secured to nutserts or speednuts in the frame (#1)
4	Maxilite Bulkhead or Ceiling Construction	As per section 3.2, 3.3, or 3.5 of report FCO 2586. Access panel must be installed on 60mm face.
5	30mm Maxilite Lining (130mm width)	Installed along the exposed angle (#1). Cannot be substituted for COREX
6	30mm Maxilite Lining (63mm width)	Installed along the exposed angle (#1). Cannot be substituted for COREX
7	FyreFLEX Sealant	Installed in a 10 x 10mm fillet
8	FyreFLEX Sealant	Filled to the full depth of the joint
9	8g x 50mm Screw	Secure Maxilite cover strip (#5, #6) and angle (#1) to the main Maxilite construction at 200mm centres



DETAIL B





SECTION A-A
Fire Exposure from both sides

FRL: -/120/120 FRL in Maxilite Ceilings

In accordance with: AS1530.4:2014

Approval reference: FCO 2586 Rev. E

Max Opening: 500 x 500mm

(larger sizes possible with reinforcement, contact technical@tgroup.com.au)

Installation Instructions

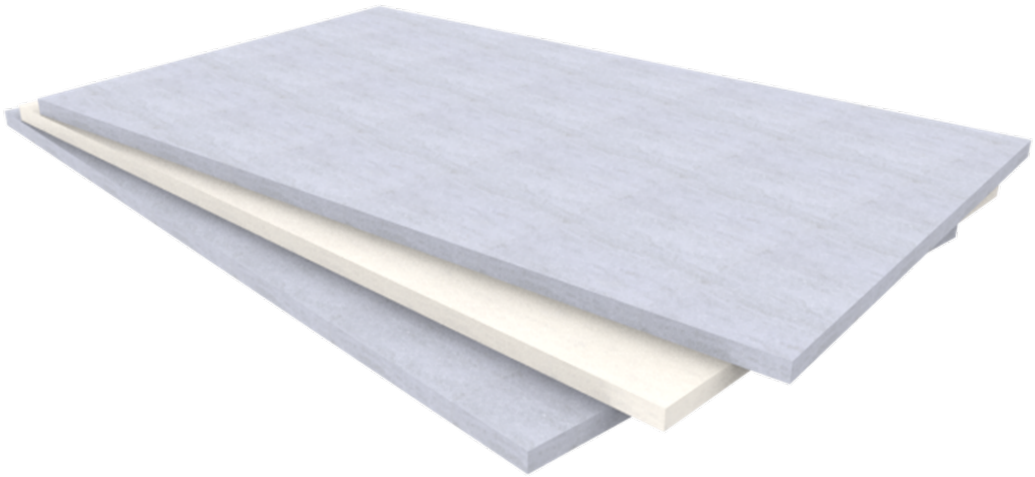
1. Cut an opening in the Maxilite construction at least 300mm from the edge of the sheet. Access panel must be installed on a 60mm face.
2. Reinforce the opening with 0.8 BMT 50 x 64 x 75mm steel J-track.
3. Install 30mm Maxilite cover strips to the back and internal of the opening. Seal the join between the two cover-strips with FyreFLEX Sealant.
4. Cut the 60mm Maxilite 'door' to overlap at least 20mm past the short leg of the j-track.
5. Install the Maxilite 'door' using 6g screws or M6 Machine screws & pre-installed nutserts or speednuts

PRODUCT RANGE

FyreBOARD MAXILITE

CLICKABLE CODES

Item number	Description	Min Order Qty	Pallet Qty	Weight Per Board
Maxilite White 30	Maxilite board 1525x1000x30 mm (white)	1x	30	16kg
Maxilite White 40	Maxilite board 1525x1000x40 mm (white)	1x	22	22kg
Maxilite White 60	Maxilite board 1525x1000x60 mm (white)	1x	12	32kg
Maxilite Blue 30	Maxilite board 2040x1220x30 mm (blue)	1x	35	23kg
Maxilite Blue 40	Maxilite board 2040x1220x40 mm (blue)	1x	23	30kg
Maxilite Blue 60	Maxilite board 2040x1220x60 mm (blue)	1x	17	45kg
Maxilite Half White 30	Maxilite board 1018x1220x30 mm (white)	1x	39	11.5kg
Maxilite Half White 40	Maxilite board 1018x1220x40 mm (white)	1x	10	15kg
Maxilite Half White 60	Maxilite board 1018x1220x60 mm (white)	1x	29	22.5kg
Maxilite Half Blue 30	Maxilite board 1018x1220x30 mm (blue)	1x	61	11.5kg
Maxilite Half Blue 40	Maxilite board 1018x1220x40 mm (blue)	1x	74	15kg
Maxilite Half Blue 60	Maxilite board 1018x1220x60 mm (blue)	1x	34	22.5kg
Maxilite Quarter White 40	Maxilite board 790 x497x 40mm (white)	1x	20	5kg
Maxilite Quarter White 60	Maxilite board 790 x497x60mm (white)	1x	20	7.5kg
Maxilite Quarter Blue 40	Maxilite board 790 x497x 40mm (blue)	1x	20	5kg
Maxilite Quarter Blue 60	Maxilite board 790 x497x 60mm (blue)	1x	20	7.5kg



PRODUCT RANGE

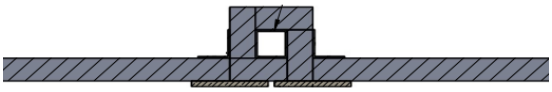
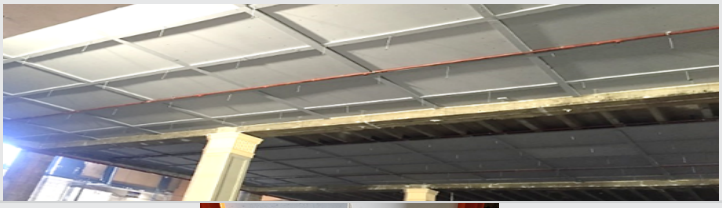
Related Systems

Item number	Description	Min Order Qty	Pallet Qty
FyreFLEX 300W FyreFLEX 300G	FyreFLEX® Sealant Cartridge 300ml White or Grey	20x	1920
FyreFLEX 600W FyreFLEX 600G	FyreFLEX® Sealant Sausage 600ml White or Grey	18x	1040
FyreFLEX 10W FyreFLEX 10G	FyreFLEX® Sealant Pail 10L White or Grey	1x	64
Maxilite Bulkhead Angle	Galvanized Angles- L Shape 50 x 50 x 1220mm, 0.9mm thick	1x	23

AUSTRALIAN MADE AND OWNED

TEST REPORTS

Due to the large range of applications, the compliance documentation for the various approved forms of Maxilite construction will vary based on the specific requirements of each specific application as summarized below. This manual details the constructions that are approved in FCO 2586 only.

Approved Maxilite System	System Images	Test/Assessment Reports
1, 2 & 3 Sided bulkheads and ceilings up to 2000mm wide		FCO 2586
Extended width/ modular bulkheads (additional steel framing)		
Service Penetration Systems	 	
Box-out penetrations (for one sided access)		
Floor boxes and slab upgrades		FAR 4844
Fire damper upgrades		FAR3600
4 hour Steel protection to AS4100		FAR 3555

FAQ?

Q Can I build vertical bulkheads with Maxilite board?

A A Corex board solid partitions are an now our recommended method of constructing thin and lightweight vertical bulkheads or shafts to enclose services, with FRL's of both -/90/90 and -/120/120. Contact Trafalgar for more information.

Q How do I know if I need a 1 or 2-way rated ceiling or bulkhead systems?

A Your site designers and/or certifiers will determine this based on the application as required through the building code (NCC).

Q Can I paint over Maxilite?

A Yes, it is possible to paint over the board. Maxilite is porous so multiple coats are recommended.

Q Do I need 1 or 2-way FRL for my project?

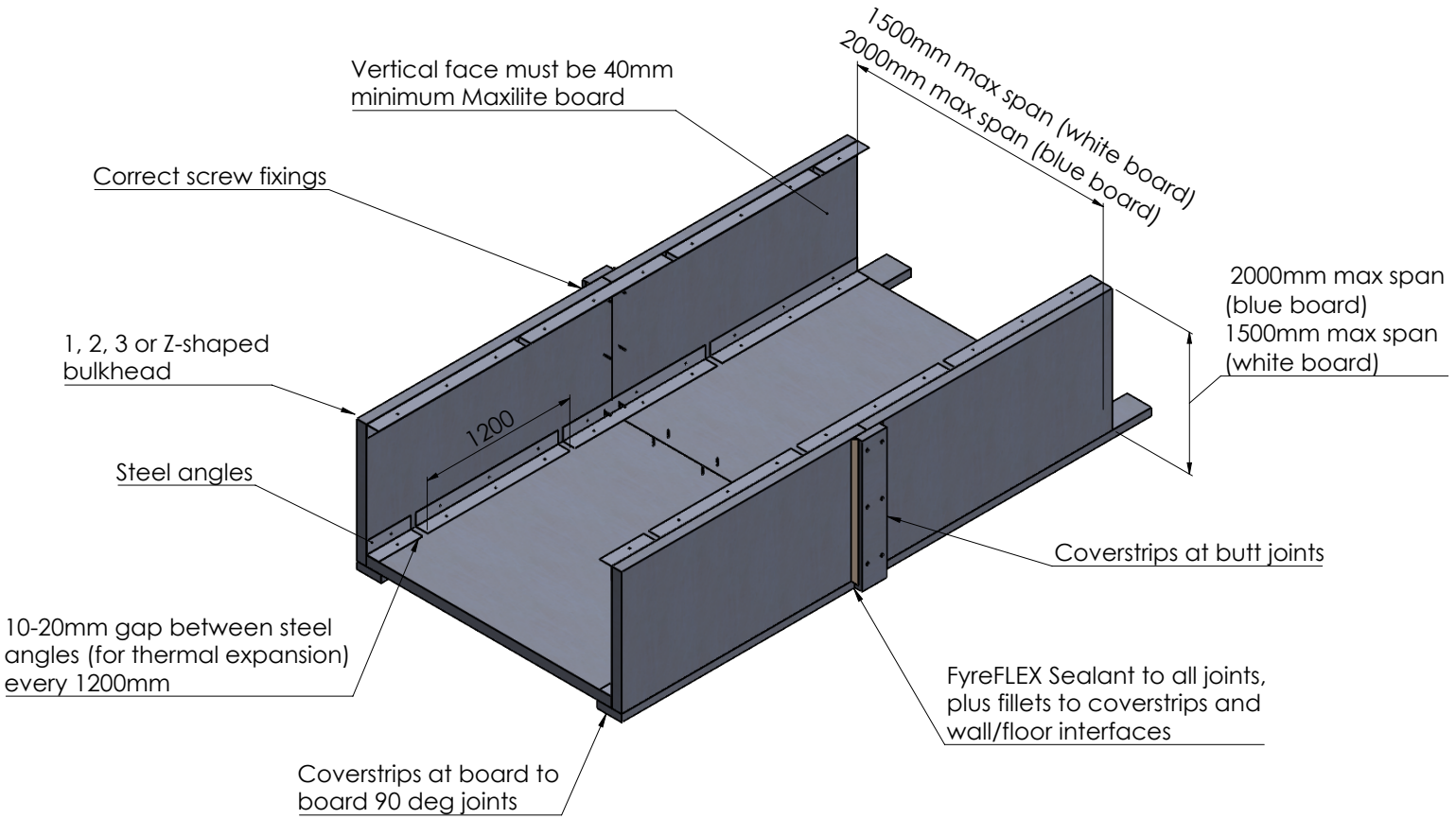
A Every building is different, and we advise that you should have the requirements confirmed from the site designers, fire consultants, certifying body or fire engineers.

Q How can I put service penetrations into a bulkhead?

A Maxilite is a unique system, as it has approved service penetration systems which can maintain the FRL of the bulkhead using various sealants, wraps, fire collars and SuperSTOPPER®'s. Refer to the Maxilite Penetrations Technical Manual for specific approvals.

SOCIAL MEDIA

LinkedIn YouTube



Drawing Name: Completed 1-way bulkhead	**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:**
Project Title: FCO2586 - Figures 1-17	**Fire resistance level:**	**Drawn By:** JH				NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Date: 7/06/2022 scale	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: info@tfire.com.au W: www.tfire.com.au

Element 1	Element 2	Min Fixings Specification	Fixing Centres
Steel Angle	Maxilite Board	30mm Maxilite: 8g x 45mm 40mm Maxilite: 8g x 60mm 60mm Maxilite: 8g x 80mm	200mm
Maxiltie Cover strip	Maxilite Board		
Unistrut	Maxilite Board		
Maxilite overlapping the opening	Plasterboard	8g x 100mm	200mm
Maxilite overlapping the opening	Concrete/Masonry	M6 x 100mm	400mm
Maxilite overlapping the opening	Hebel/AAC Walls	10g x 100mm	200mm
Steel Angle	Plasterboard	8g x 45mm	200mm
Steel Angle	Concrete/Masonry	M6 x 50mm	400mm
Steel Angle	Hebel/AAC Walls	8g x 45mm	400mm

Drawing Name: Table 1 - Fixings

Project Title: 1. Maxilite Bulkheads Drawings

Date: 30/06/2022

Scale: NTS

Test Standard: AS1530.4

Fire resistance level:

Based on Report No.:

Codes:

Drawn By: SM

Checked By: JH

Revision:

Date:

No.:

NOTICE:

NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)

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☐ PROJECT DRAWING

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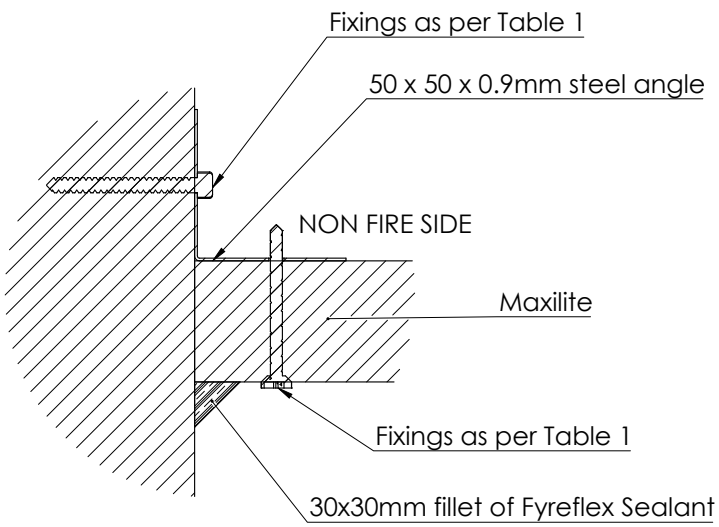
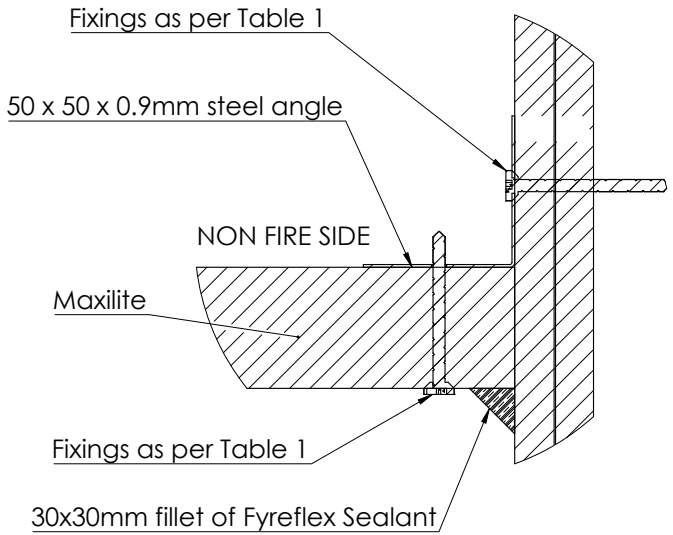
One-way FRL, fire from underside only

DETAIL A



DETAIL B



Drawing Name: 1-Way FRL Joints 1			**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**
Project Title: 1. Maxilite Bulkheads Drawings			**Fire resistance level:**	**Drawn By:** JH			
	Date: 30/06/2022	**Scale:**	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING		

NOTICE:

NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)

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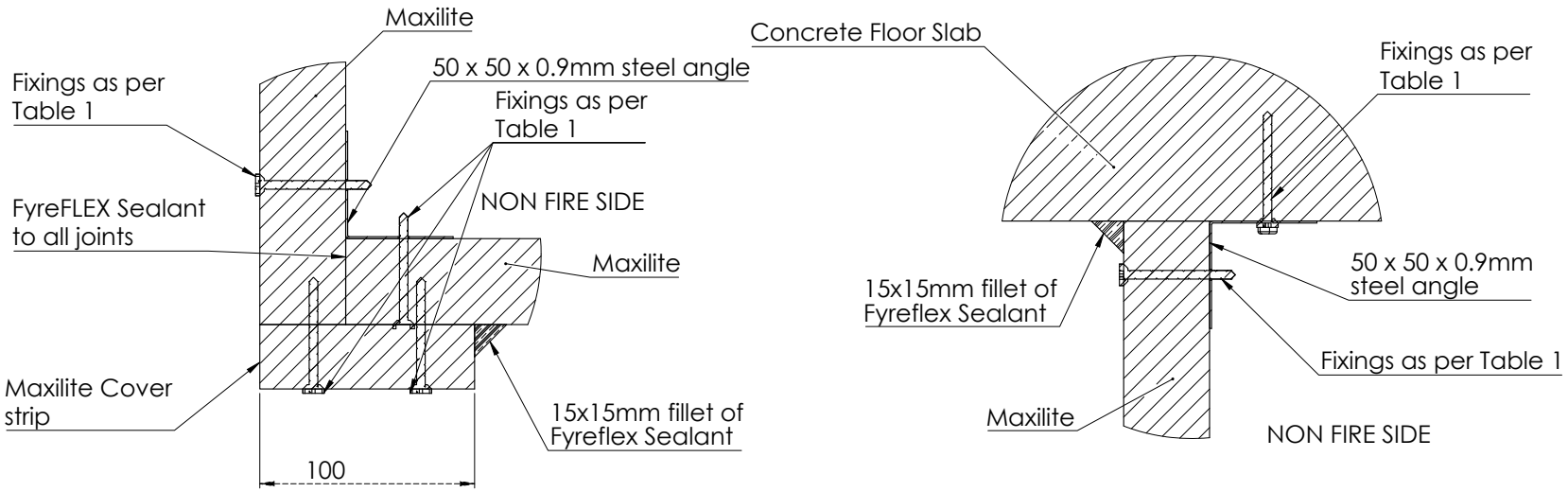
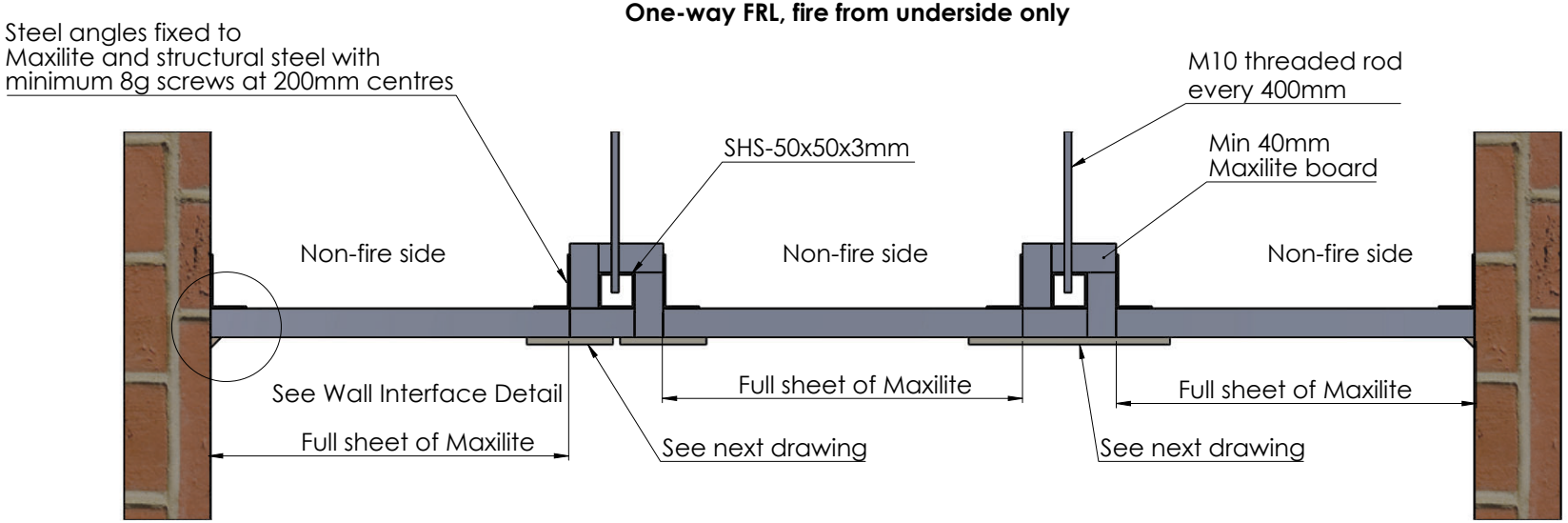
One-way FRL, fire from underside only

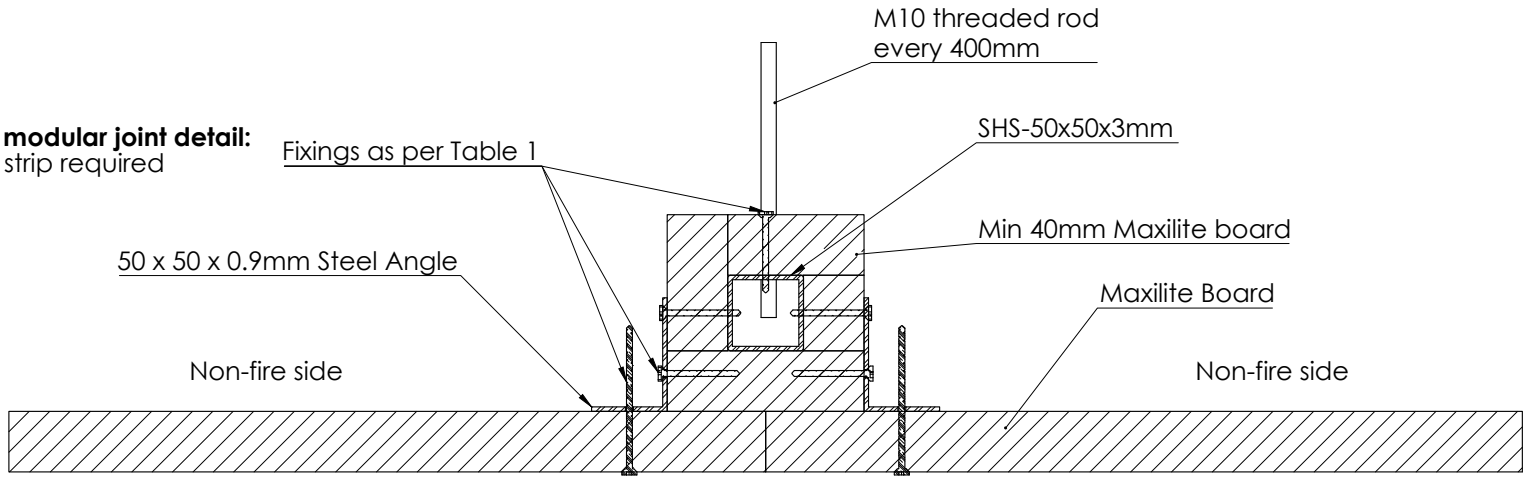


Drawing Name: 1-Way FRL Joints 2	**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:**
Project Title: 1. Maxilite Bulkheads Drawings	**Fire resistance level:**	**Drawn By:** JH				NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Date: 30/06/2022 **Scale:**	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: info@tfire.com.au W: www.tfire.com.au

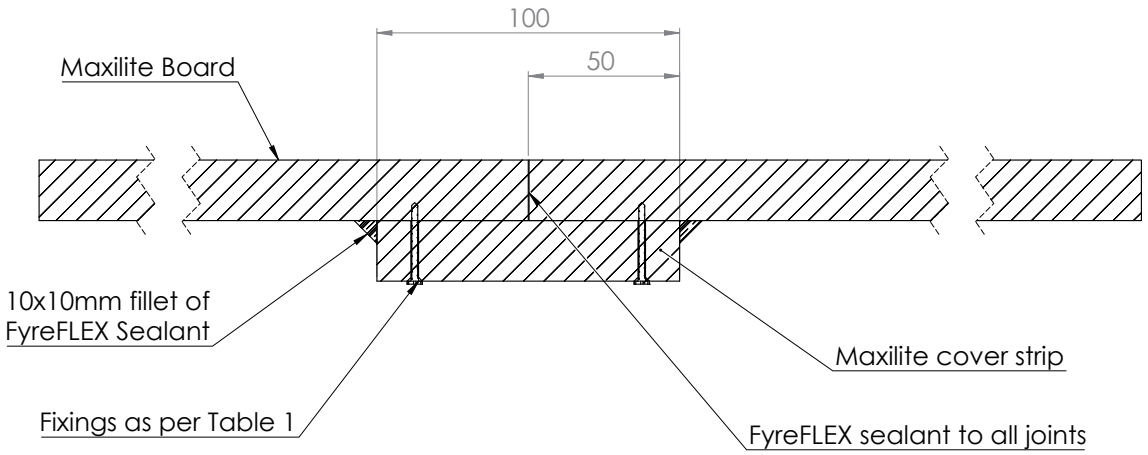
One-way FRL, fire from underside only



Alternate modular joint detail:
No cover strip required

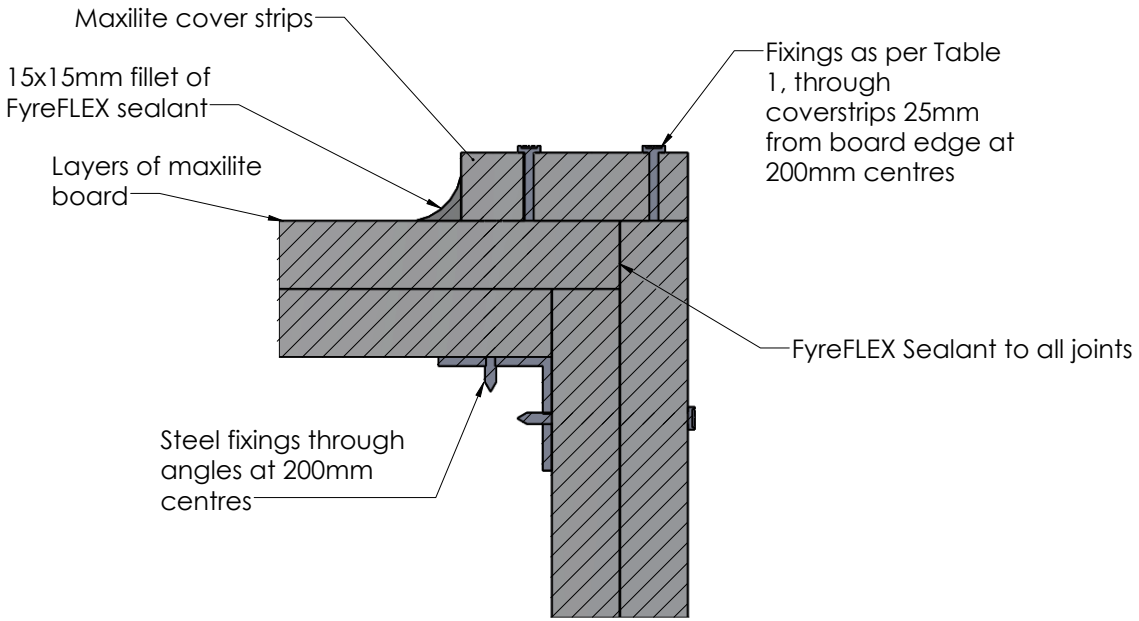


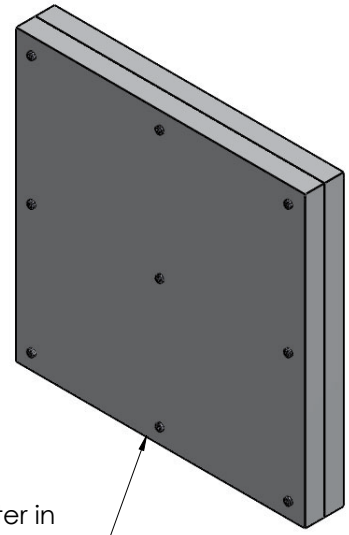
Drawing Name: 1-Way FRL Joints 3		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:**
Project Title: 1. Maxilite Bulkheads Drawings		**Fire resistance level:**	**Drawn By:** JH				NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
	Date: 30/06/2022 **Scale:**	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: info@tfire.com.au W: www.tfire.com.au



Drawing Name: Coverstrip Detail		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:**
Project Title: 1. Maxilite Bulkheads Drawings		**Fire resistance level:**	**Drawn By:** JH				NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
	Date: 30/06/2022 scale	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: info@tfire.com.au W: www.tfire.com.au

Two Way FRL, fire exposure from either side

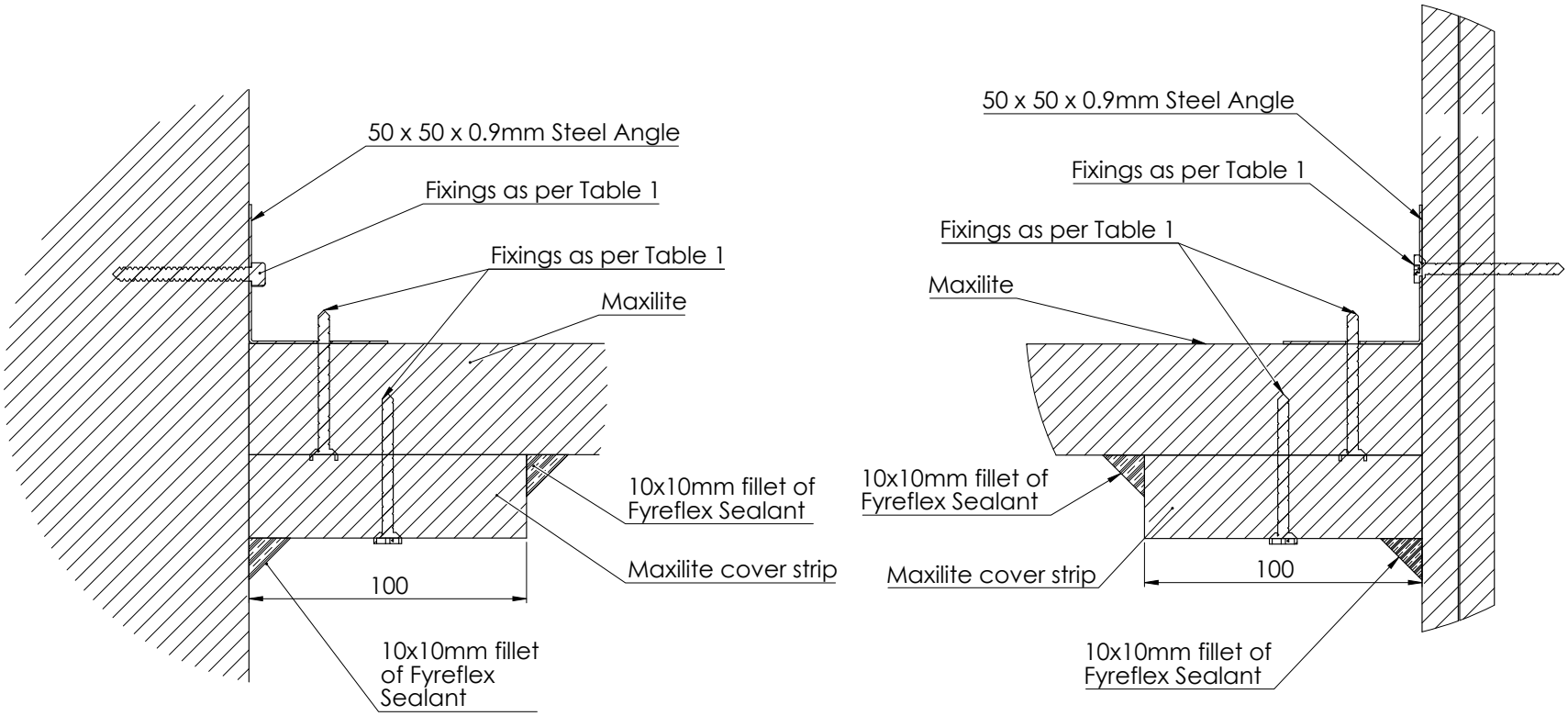




Laminated boards fixed togeter in a 200x200mm grid along the face of the board with steel fixings (length to suit board thickness)

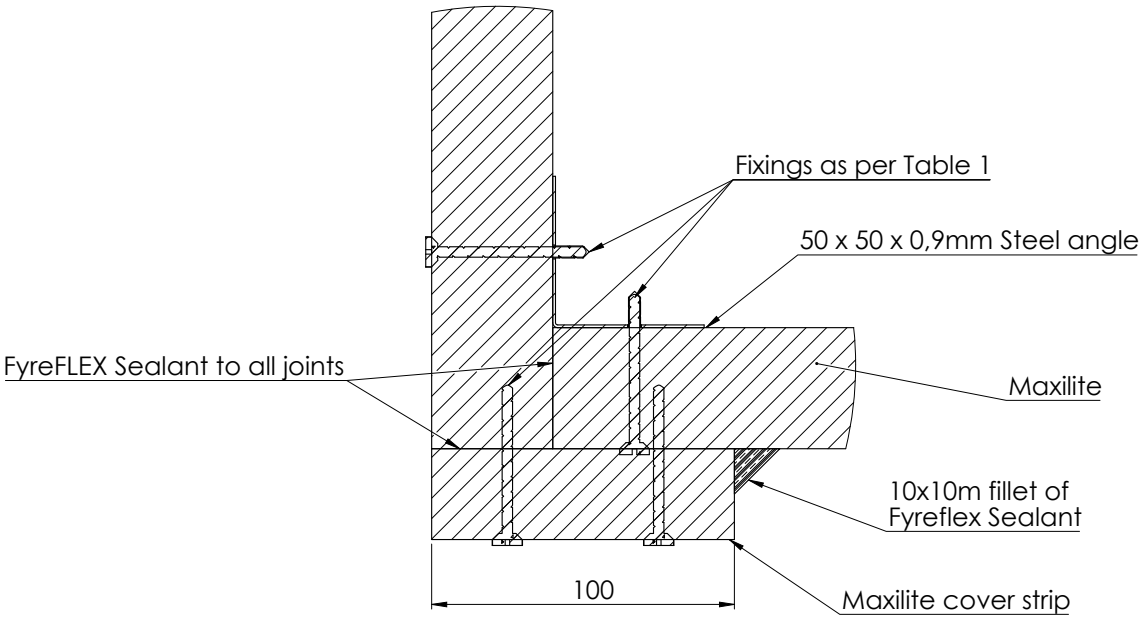
Drawing Name: Laminated Board Construction		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: 1.1 Maxilite Bulkhead Drawings		**Fire resistance level:**	**Drawn By:** SM				
	Date: 30/06/2022	**Scale:** NTS	**Based on Report No.:**	**Checked By:** JH	☐ STANDARD DRAWING ☐ PROJECT DRAWING	TRAFALGAR FIRE	Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@tgroup.com.au W: www.tfire.com.au

Two-Way FRL, fire from either direction



Drawing Name: Wall Interface Details	**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:**
Project Title: 2. Maxilite Bulkhead Drawings	**Fire resistance level:**	**Drawn By:** JH				NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Date: 30/06/2022 **Scale:**	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: info@tfire.com.au W: www.tfire.com.au

Two-Way FRL, fire from either direction



Drawing Name: Corner Details		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**
Project Title: 2. Maxilite Bulkhead Drawings		**Fire resistance level:**	**Drawn By:** JH			
	Date: 30/06/2022	**Scale:**	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING	

NOTICE:

NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)

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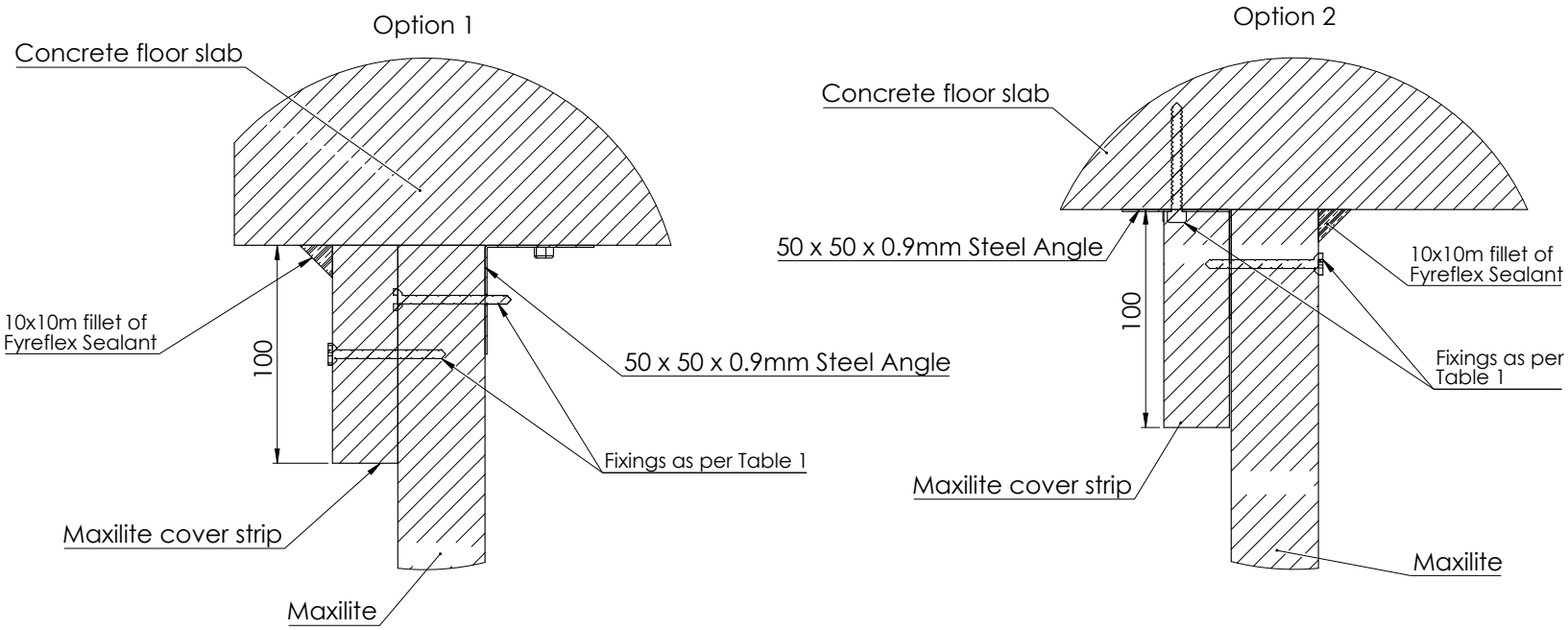
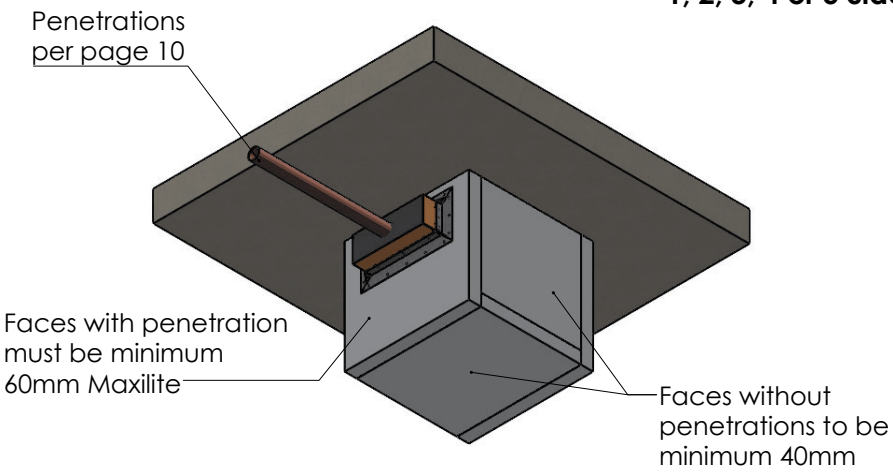
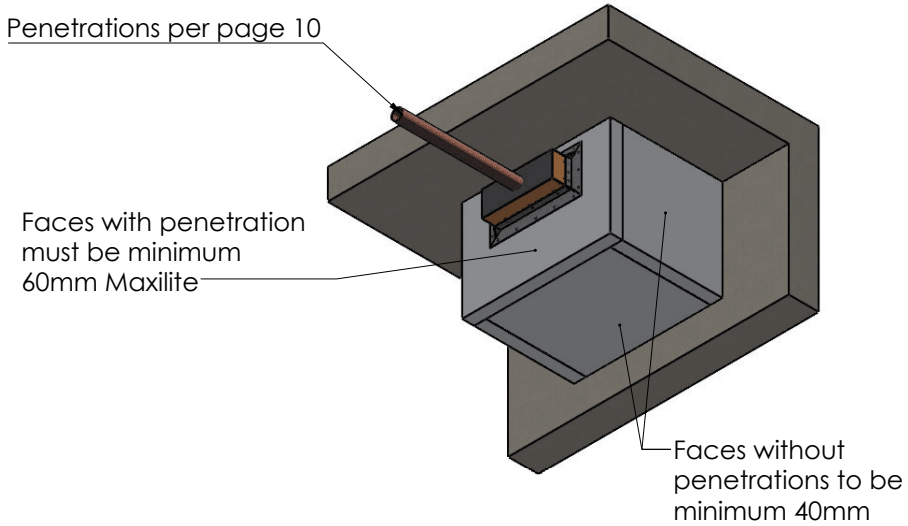
Two-Way FRL, fire from either direction

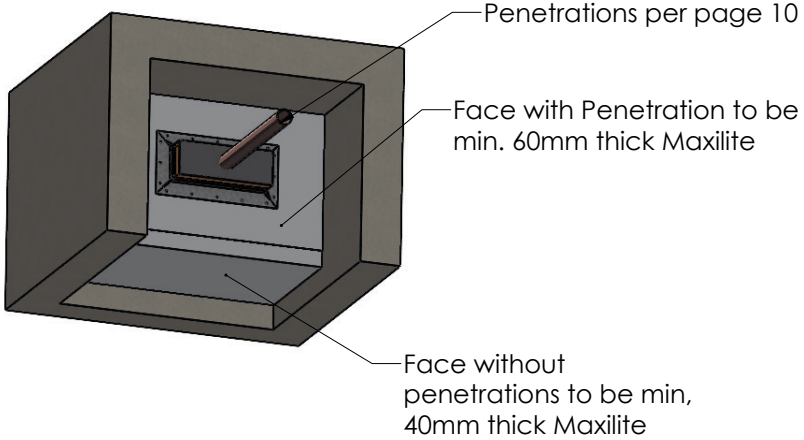


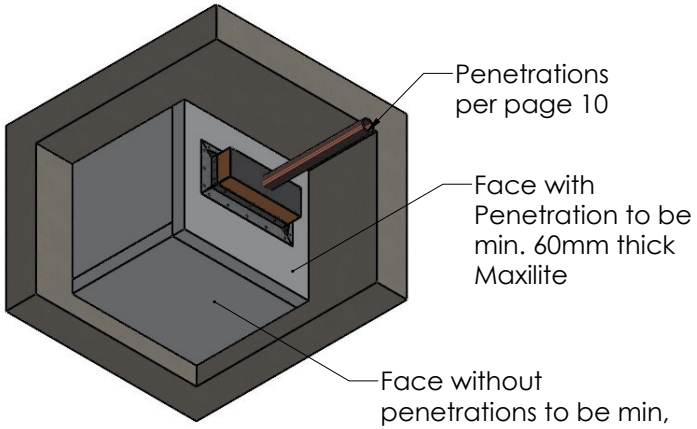
Drawing Name: Soffit Interface Detail	**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:**
Project Title: 2. Maxilite Bulkhead Drawings	**Fire resistance level:**	**Drawn By:** JH				NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Date: 30/06/2022	**Scale:**	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING		Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: info@tfire.com.au W: www.tfire.com.au

1, 2, 3, 4 or 5 Sided Box Outs



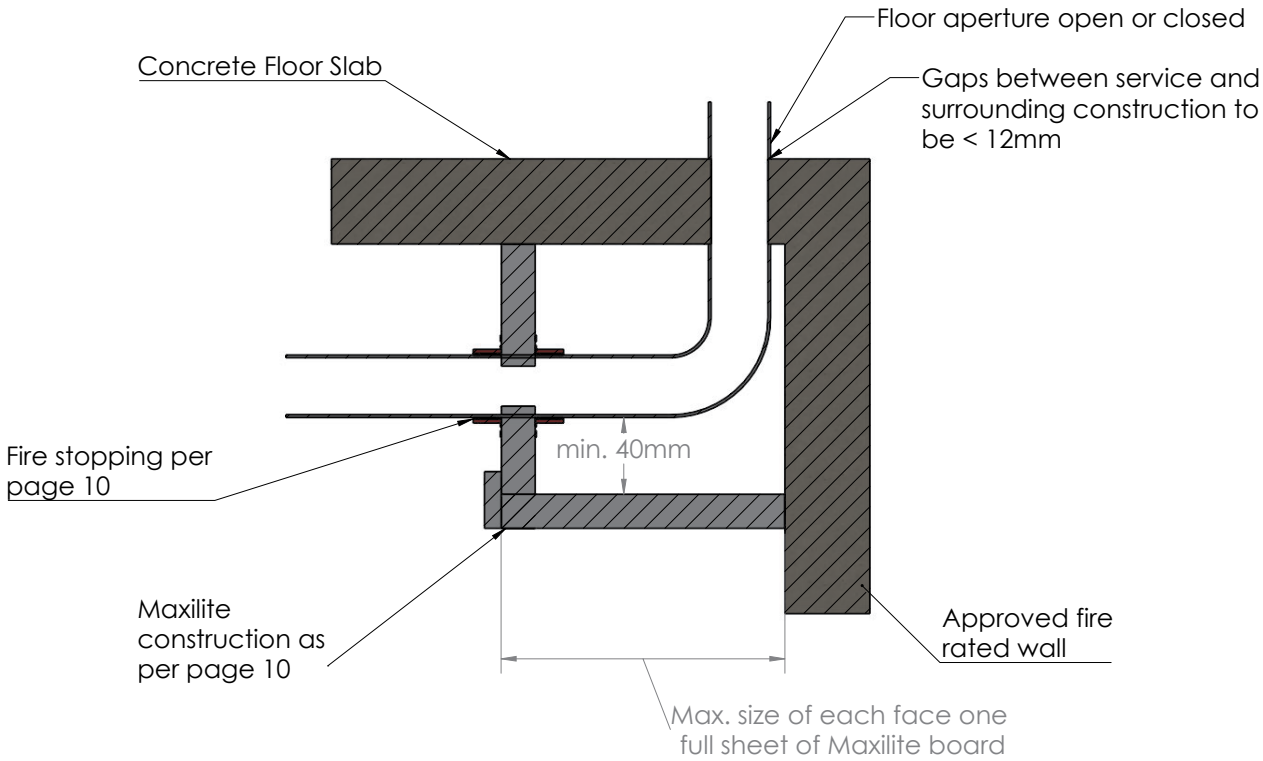






Drawing Name: Overview		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: Maxilite Bulkhead Systems		**Fire resistance level:**	**Drawn By:** RK				
	Date: 30/06/2022 **Scale:** NTS	**Based on Report No.:**	**Checked By:** JH	☐ **STANDARD DRAWING** ☐ **PROJECT DRAWING**	TRAFALGAR FIRE		Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@tgroup.com.au W: www.tfire.com.au

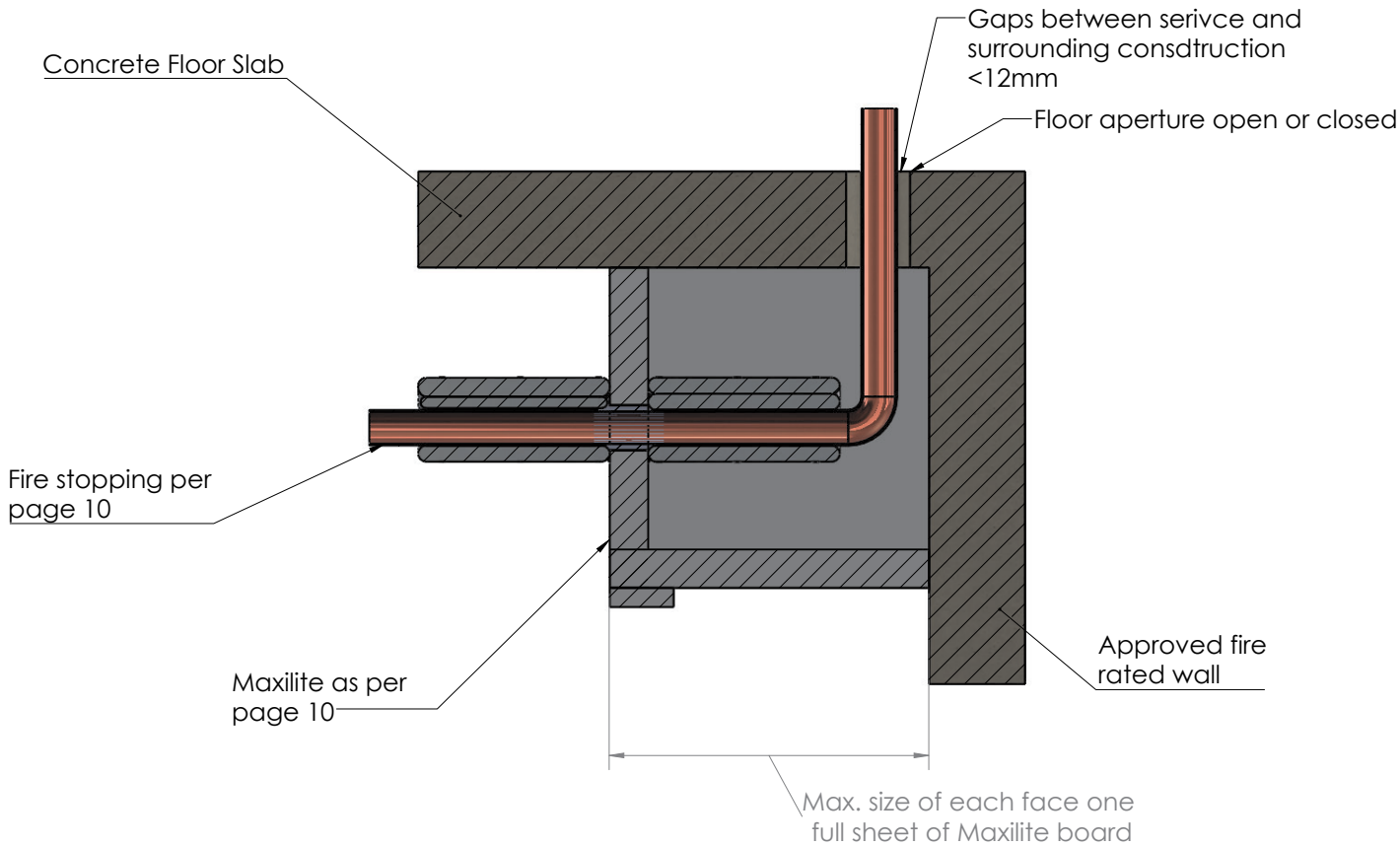
Floor Penetrations - Boxout



Notes:
- penetrations are permitted in any face of the Maxilite construction

Drawing Name: Box Out Floor Penetration 1	**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: 3.3 Maxilite Bulkhead Drawings	**Fire resistance level:**	**Drawn By:** JH				
Date: 30/06/2022	**Scale:** NTS	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING	TRAFALGAR FIRE	Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@tgroup.com.au W: www.tfire.com.au

Floor Penetrations - Boxout - Non-reactive fire stopping



Notes:
- penetrations are permitted in any face of the Maxilite construction

Drawing Name: Box Out Floor Penetration 2		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: Maxilite Bulkhead systems		**Fire resistance level:**	**Drawn By:** JH				
	Date: 30/06/2022 **Scale:** NTS	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			

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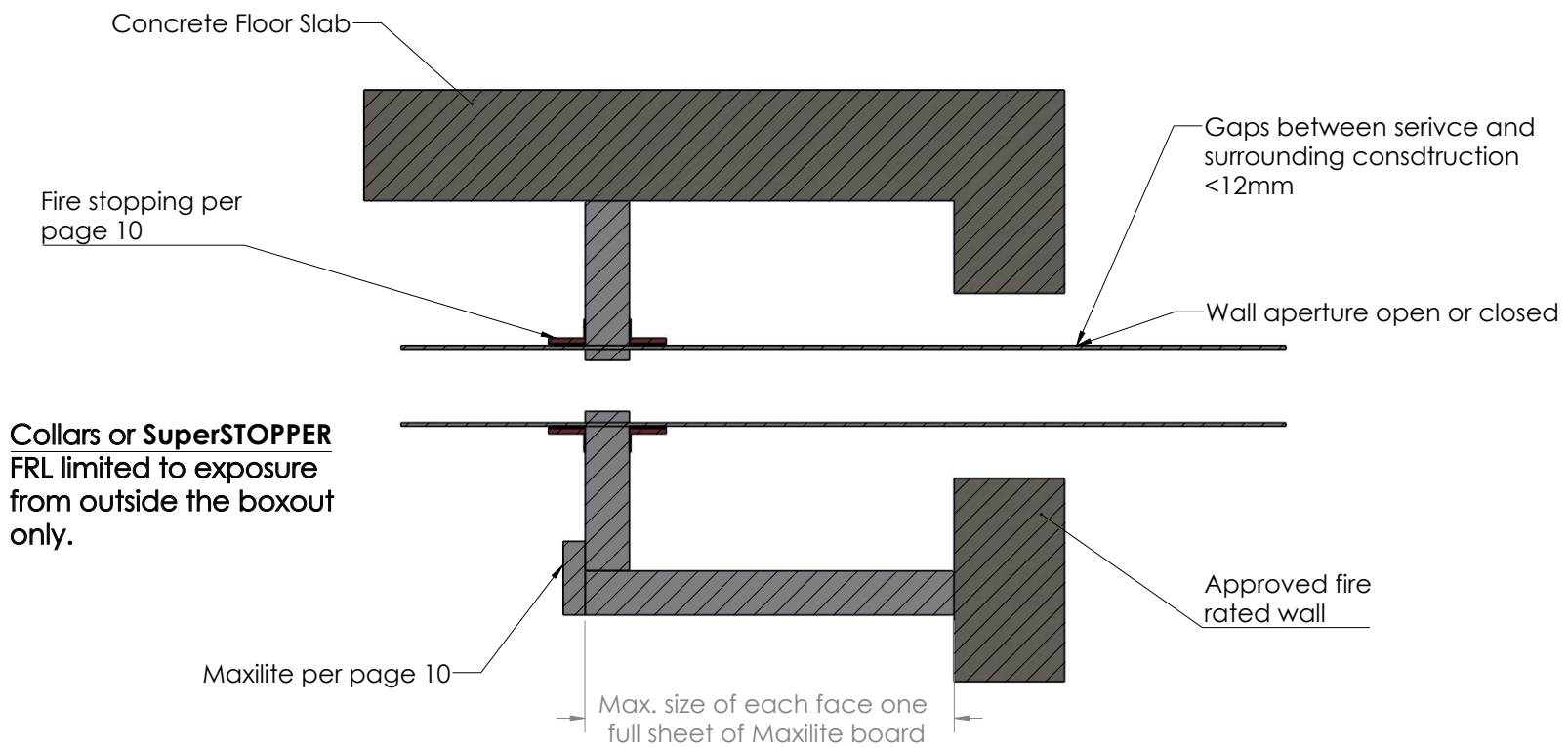
Wall Penetration - Boxout - Reactive fire stopping



Notes:
- penetrations are permitted in any face of the Maxilite construction

Drawing Name: Box Out Wall Penetration 1		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: 3.3 Maxilite Bulkhead Drawings		**Fire resistance level:**	**Drawn By:** JH				
	Date: 30/06/2022	**Scale:** NTS	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING		

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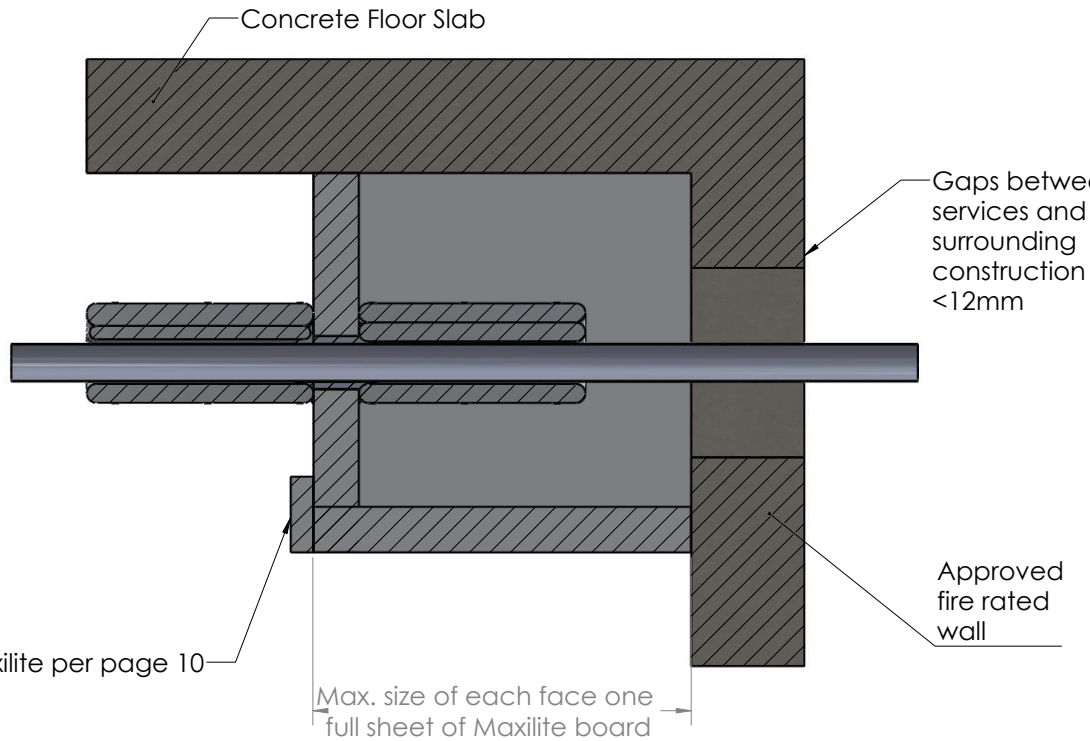
Wall Penetration - Boxout - Non-reactive fire stopping



Cables and Metal Pipes:
Services sealed with FyreFLEX + TWrap on both sides of Maxilite board for 2-way FRL

Notes:
- penetrations are permitted in any face of the Maxilite construction

Drawing Name: Box Out Wall Penetration 2		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: Maxilite Bulkhead systems		**Fire resistance level:**	**Drawn By:** JH				
	Date: 30/06/2022 **Scale:** NTS	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING			

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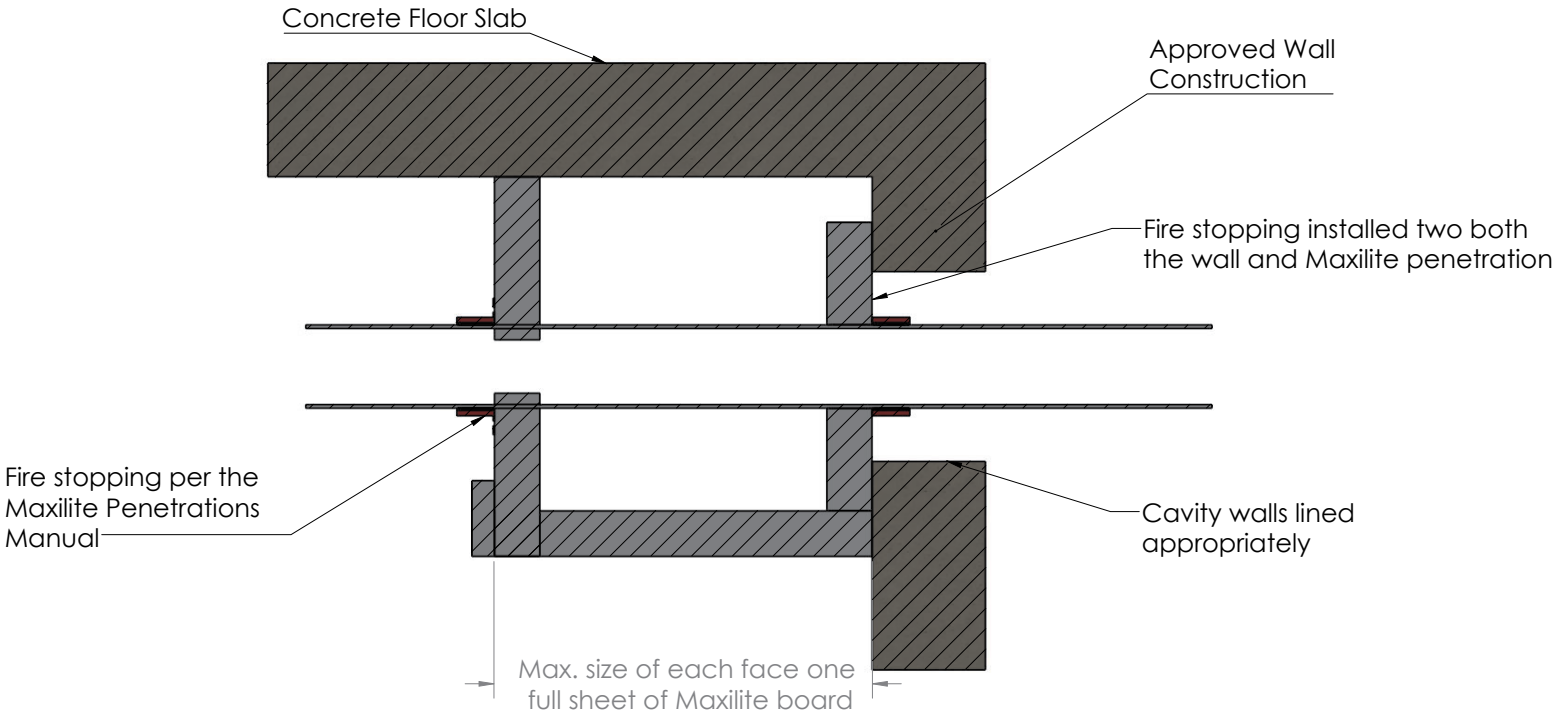
Wall Penetration - Boxout
Two Way FRL, fire from either side of the wall



Notes:
- penetrations are permitted in any face of the Maxilite construction

Drawing Name: Box Out Wall Penetration 3		**Test Standard:** AS1530.4	**Codes:**	**Revision:**	**Date:**	**No.:**	**NOTICE:** NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)
Project Title: 3.3 Maxilite Bulkhead Drawings		**Fire resistance level:**	**Drawn By:** JH				
	Date: 30/06/2022 **Scale:** NTS	**Based on Report No.:**	**Checked By:** CT	☐ STANDARD DRAWING ☐ PROJECT DRAWING	TRAFALGAR FIRE		Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@tfgroup.com.au W: www.tfire.com.au