



## FyreSHIELD™ For Shafts



FyreSHIELD™ is a proudly Australian Made and Owned access panel system which has been designed and tested to be built into fire rated shafts or risers.

With improved fire and acoustic performance while maintaining the signature Trafalgar Fire quality, the FyreSHIELD™ Range is the only access panel worth specifying and installing!











### **KEY FEATURES**

- Fully fire tested in accordance with AS1530.4:2014
- Two way fire protection
- Fire tested in a range of common structural shafts
- No calcium silicate blocks required
- Australian made quality
- Fully concealed hinges
- Budget lock as standard
- Key- lockable option available



### **APPLICATIONS**

### Shafts

- Hebel®
- WALSC AAC Panel
- Speedpanel®
- Plasterboard
- Shaftliner
- Pronto Panel®
- Conrete/Masonry
- AlphaPanel®
- Trafalgar COREX

FyreSHIELD<sup>TM</sup> PLUS is also approved for plasterboard ceilings . Click to go to the Technical Manual.



### TRADES













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## **BENEFITS**FyreSHIELD™

### **BENEFITS**

The Trafalgar FyreSHIELD™ Range is the market leader for fire rated access panels. We are proud to be constantly improving and expanding the range of approvals.

Innovative and patented advancements have made it possible to achieve simple and compliant fire ratings for concealed-hinge fire rated access panels like never before. No cladding, no screw-fixed panels, no need for historical test data – just clever, hinged, as-tested design.

Manufactured in Australia, using high-quality Australian sourced materials wherever possible, and most importantly fire tested to AS1530.4:2014, the FyreSHIELD™ Range makes fire rated access simple and compliant.

### OTHER MANUFACTURERS CLAIM IT - WE TEST IT- DO THE COMPARISON

System	O FIRE	Other Brands
Fire tested to AS1530.4:2014	✓	?
Fire tested in Pronto Panel®	$\checkmark$	?
Fire tested in Speedpanel®	$\checkmark$	?
Fire tested in Hebel®	$\checkmark$	?
Fire tested up to 740 x 740mm size (barrier dependent)	$\checkmark$	?
Fire tested concealed hinged or screw fixed wall access panels	$\checkmark$	?
As-tested in both directions/two way fire protection	$\checkmark$	?
Confirmed acoustic performance (Rw32 + CTr26)	$\checkmark$	?
Australian Made and Owned Certified	✓	?
No additional cladding required	$\checkmark$	?







### **FYRESHIELD SELECTOR**

	Shafts	Walls	Ceilings
FyreSHIELD Hinged door	<b>✓</b>	×	*
FyreSHIELD Screw fixed door	*	<b>√</b>	*
FyreSHIELD-PLUS Hinged door	×	<b>√</b>	✓
FyreSHIELD-PLUS Screw fixed door	*	×	<b>✓</b>
FRL upto:	(-/120/30)	(-/120/120)	(-/120/120) + 60min RISF

<sup>\*</sup>Contact the Trafalgar Team to discuss if required for this application







## **COMPLIANCE** FyreSHIELD™



No one knows what side of the wall a fire will occur. Fire tested access panels must be tested in both directions, once with the hinges and locking exposed to fire and once with the panel and frame architrave exposed to fire. Only then can they comply with NCC for use in walls and shafts and claim a two way fire protection.

### **COMPLIANCE WITH THE NATIONAL CONSTRUCTION CODE (NCC)**

Formerly known as BCA

The Trafalgar FyreSHIELD™ Range has been tested extensively to AS1530.4:2014 and approved in accordance with AS4072.1:2005 for a range of barrier types and applications. Changes to access panel requirements now require both the frame and door leaf to achieve insulation performance.

The frame must not exceed a maximum temperature rise of more than 180°C during the test.

The leaf must not exceed an average temperature rise of more than 140°C during the test.

Fire tested in both directions in accordance with AS1530.4:2014.

NCC Clause C4 D14 allows a reduced insulation level for shaft applications of 30 minutes, reducing the complexity required for this application.

Improvements in the materials and designs for the FyreSHIELD™ range ensure compliance can be achieved without any additional materials, and that the key requirements for the access panels can be easily inspected after installation.

As with all passive fire installations, the fire stopping system used must be installed as per the manufacturer's instructions and test/assessment reports otherwise the end result will not be compliant. Please refer to each individual product manual for specific installation instructions which reflect how the systems have been tested and approved.

### **TEST AND ASSESSMENT REPORTS**

FyreSHIELD™ access panels (including FyreSHIELD™)- FAS200221- All Systems in one place.

Compliance will only be achieved when the installation on site mirrors the tested system and all elements are correct. Please refer to the barrier product manuals and reports as well as the  $FyreSHIELD^{m}$  system to ensure all aspects are correct.







## **SPECIFICATIONS**HINGED FyreSHIELD™





### SPECIFICATIONS

SPECIFICAT	IUNS
Fire rating	The hinged FyreSHIELD is suitable for use in 2 hour shafts as per NCC section C4 D14  Shaftwall Systems (CH-Style Plasterboard) Plasterboard single and double layer systems Hebel® Speedpanel® Pronto Panel® AlphaPanel® Concrete/Masonry WALSC AAC Panel Trafalgar COREX
Door Panel	Paintable panel incorporating FyreBOARD Maxilite™
Frame	Fully welded, fully primed, steel frame with polymeric flange
Cut-Out Size	Our panels are sized to suit the nominal opening size (Eg: 600 x 600mm panel is supplied 595x595mm)
Frame Type	Flanged Edge (Architrave/Picture Frame/Feathered Edge) Wet Wall (Set Bead/Concealed Frame) for plastering
Hinge	Fully concealed hinges
Lock	Budget square key lock as standard. Nightlatch and screw fixed options available as a custom order.
Also Available	Trafalgar can custom manufacture to meet your specifications. Trafalgar Access also supply a comprehensive range of metal, acoustic, customwood, security and speciality access panels-www.taccess.com.au





## FIRE RESISTANCE LEVEL FyreSHIELD™

### 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:





### **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.

Penetrations are not required to have a Structural Adequacy rating and is usually expressed as a dash. For example, a penetration through a 4-hour load bearing wall would be written as -/240/240.

### INTEGRITY

The FyreSHIELD<sup>TM</sup> system will achieve integrity performance for up to 2 hours physically stopping the direct spread of fire. For integrity, when FyreSHIELD<sup>TM</sup> is installed in a 60 minute wall the overall system FRL is reduced to 60 minutes.

### **INSULATION (TEMPERATURE RISE)**

AS1530.4:2014 requires that the access panel leaf (using the average temperature rise criteria of 140°C), as well as the frame itself (using the maximum temperature rise criteria of 180°C) must achieve insulation performance equal to the wall in which they are installed unless it is a shaft wall. This change has resulted in the need for fragile, unsightly, and often conveniently ignored additional cladding or insulation to the frame.

Before the launch of the patented FyreSHIELD™ range, there were no fire rated panels that could achieve full installation and two way fire protection and maintain these stringent temperature rise limits, without additional materials.

FyreSHIELD™'s patented design allows for increased insulation performance up to 30mins, and meets the NCC requirements (C4 D14) for shafts without the need for additional cladding. Higher insulation of 60mins is available with the FyreSHIELD™ variant.







### **FRL TABLES**

### **Approved Shafts**



The NCC clause C4 D14 gives a concession on the insulation rating for access panels installed into shafts of 30 minutes insulation.



			FRL
Shaft Type	Barrier Specification	Maximum Size	Shafts FyreSHIELD™
Hebel® and WALSC AAC Panel	75mm Hebel® panel 75mm WALSC AAC panel	600 x 600mm	-/90/30
Speedpanel®	78mm Speedpanel®	600 x 600mm	-/120/30
Pronto Panel®	60mm Pronto Panel®	600 x 600mm	-/90/30
Plasterboard	1 x 13mm FR plasterboard on a 64mm stud (13/64/13 wall)		-/60/30
	1 x16mm FR plasterboard on a 64mm stud (16/64/16 wall)		-/90/30
	Minimum 2 x 13mm FR plasterboard on a 64mm stud (13/13/64/13/13 wall)	x 13mm FR plasterboard on a 64mm cud (13/13/64/13/13 wall) 600 x 600mm	
	CH type shaftwall construction (min 25/64/13/13 wall)		-/90/30
	CH type shaftwall construction (min 25/64/16/16 wall)		-/120/30

Note: For walls and ceiling options refer to <u>FyreSHIELD PLUS™ for walls and ceilings</u>









### **FRL TABLES**





The NCC clause C4 D14 gives a concession on the insulation rating for access panels installed into shafts of 30 minutes insulation.

		FRL
Barrier Specification	Maximum Size	Shafts FyreSHIELD™
Minimum 116mm Concrete/Masonry wall	600 x 600mm	-/120/30
35mm AlphaPanel + 16mm FR plasterboard		-/90/30
35mm Alphapanel + 40mm Top hat + 16mm FR plasterboard	C00 v C00 mm	-/90/30
35mm AlphaPanel + 20mm Cavity + 35mm AlphaPanel	600 x 600mm	-/120/30
35mm AlphaPanel + 50mm Cavity + 35mm AlphaPanel		-/120/30
2x15mm Corex on one side of 64mm stud		-/60/30
2x20mm Corex on one side of 64mm stud	600 x 600mm	-/90/30
2x25mm Corex on one side of 64mm stud		-/120/30
	Minimum 116mm Concrete/Masonry wall  35mm AlphaPanel + 16mm FR plasterboard  35mm Alphapanel + 40mm Top hat + 16mm FR plasterboard  35mm AlphaPanel + 20mm Cavity + 35mm AlphaPanel  35mm AlphaPanel + 50mm Cavity + 35mm AlphaPanel  2x15mm Corex on one side of 64mm stud  2x20mm Corex on one side of 64mm stud	Minimum 116mm Concrete/Masonry wall  35mm AlphaPanel + 16mm FR plasterboard  35mm AlphaPanel + 40mm Top hat + 16mm FR plasterboard  35mm AlphaPanel + 20mm Cavity + 35mm AlphaPanel  35mm AlphaPanel + 50mm Cavity + 35mm AlphaPanel  2x15mm Corex on one side of 64mm stud  2x20mm Corex on one side of 64mm stud  600 x 600mm

Note: For walls and ceiling options refer to <u>FyreSHIELD PLUS™ for walls and ceilings</u>









### **INSTALLATION**

### **ALL SHAFTS**

### PLASTERBOARD & COREX WALLS



Frame and line the opening to protect the wall cavity per manufacturers instructions. See drawings at the end of the manual for specific details for Corex.

### **AAC WALLS (HEBEL®, WALSC)**



Per manufacturers instructions, line the opening with the supporting Hebel® angles to the perimeter of the opening.

For a FyreSHIELD<sup>m</sup> listed as 600 x 600mm, the frame size is 595 x 595mm. 600 x 600mm represents the ideal cut out size for the barrier it is being installed into.

### SPEEDPANEL® & ALPHAPANEL®



For Speedpanel® only, line the opening with C-Track per manufacturers instructions. For both AlphaPanel® and Speedpanel® the wall must be locally thickened with plasterboard for 100mm around the penetration as per drawings at the end of this manual.

### CONCRETE/MASONRY



Simply cut the correct size opening in a concrete/masonry wall. For hollow masonry walls the core must be backfilled around the penetration.



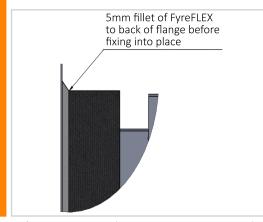


### **INSTALLATION**

### **ALL SHAFTS**



### **STEP 2 - SEAL**



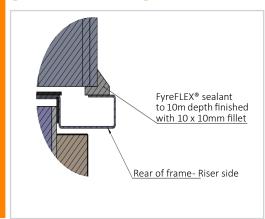
Before inserting the FyreSHIELD™ into the opening, apply a nominal bead of FyreFLEX® sealant to the back of the flanges to provide a fire, smoke and acoustic seal.



Fix the panel into the frame using appropriate fixings for the barrier. Refer to the fixing table below for fixing details.



### STEP 4 - FINISH



FyreFLEX® sealant must now be applied to the rear of the panel in a 10 x 10mm fillet to seal the frame to the barrier. Refer to the drawings at the end of the manual for details.



Complete the installation sticker on the  $\mathsf{FyreSHIELD^{TM}}$ .

### **FIXINGS TABLE**

Barrier Type	Minimum fixings specification	Spacings
Hebel®/WALSC AAC Panel	8g x 100mm screws	300mm
Speedpanel®	10g x 40mm self-tapping screws	200mm
Pronto Panel®	10g x 100mm screws	200mm
Plasterboard	10g x 100mm plasterboard screws	200mm
Concrete/Masonry	M6 Masonry Anchor	150mm
AlphaPanel	11x50 Bugle Head Tek Screw	200mm
Trafalgar Corex	10g x 100mm plasterboard screws	150mm







# Frame Type FLANGED EDGE (FEATHERED EDGE)

Picture Frame







Frame detail Panel installed (TLM Shown)

STANDARD STOCK									
Model	Panel FE (MDF Panel + picture frame primed white)	Lock Options	Item Number	Dimensions	Frame Profile 87mm				
		Hinged Door-Budget Lock (as standard)	FYRESHIELD-300-FE	300 x 300mm	✓				
) Fyre <b>SHIE</b> LD		Screw Fixed (optional)	FYRESHIELD-400-FE	400 x 400mm	✓				
	Hinged Door- Kaba Nightlatch (optional)	FYRESHIELD-450-FE	450 x 450mm	✓					
		Lockwood 001 Deadlatch	FYRESHIELD-600-FE	600 x 600mm	✓				
		(optional)	FYRESHIELD-CUSTOM-FE	Any size up to 600x600 hinged and 740x740 screw fixed (depending on barrier). Nightlatch also available for hinged panels.	✓				

Note: Suitable for 2 hour fire rated shaft walls as per the NCC requirements in C4 D14.





# Frame Type WET WALL (SET BEAD)

Concealed Frame







CLICKABLE									
STANDARD STOCK									
Model	Panel WW (MDF Panel + picture frame primed white)	Lock Options	Item Number	Dimensions	Frame Profile 87mm				
		Hinged Door- Budget Lock (as standard)	FYRESHIELD-300-WW	300 x 300mm	✓				
<sup>≬</sup> Fyr∈SHIELD		Screw Fixed (optional)	FYRESHIELD-400-WW	400 x 400mm	✓				
	Hinged Door- Kaba Nightlatch (optional)	FYRESHIELD-450-WW	450 x 450mm	✓					
		Lockwood 001 Deadlatch	FYRESHIELD-600-WW	600 x 600mm	<b>√</b>				
		(optional)	FYRESHIELD-CUSTOM-WW	Any size up to 600x600 hinged and 740x740 screw fixed (depending on barrier). Nightlatch also available for hinged panels.	✓				

Note: Suitable for 2 hour fire rated shaft walls as per the NCC requirements in C4 D14.









### **CUSTOM ORDER FORM**

Please complete this form for each size panel required. All panels will be manufactured 5mm smaller than the opening size in wall or ceiling to a tolerance of +/-2mm.

### **Custom Dimensions (mm) Application Frame Type** WET WALL (SET BEAD) Code: FYRESHIELD-CUSTOM -WW Height FYRESHIELD-SCREWFIXED-CUSTOM-WW Shafts FyreSHIELD is suitable for shafts Width Budget where NCC C4 D14 concession applies (30min insulation Set Bead for Plastering requirement). For full FRL applications refer to FyreSHIELD Plus. **WALLS:** up to -/120/120 with Screw Fixed door. (Refer to FRL Tables **Special Instructions** in Technical Manual) Kaba Nightlatch Panel installed **Frame Profile** FLANGED EDGE (FEATHERED EDGE) HINGED Code: FYRESHIELD-CUSTOM -FE **PROFILE** 89MM FYRESHIELD-SCREWFIXED-CUSTOM-FE Screw Fixed Picture Frame Lockwood 001 Deadlatch Panel installed

### **CUSTOMER DETAILS**

Please complete this form for each size panel you require and submit for quotation to sales@tgroup.com.au

By accepting this custom product quote, you are agreeing to the manufacture of a custom product which is subject to **Trafalgar's Terms and Conditions.** 

Contact Name

Quantity | Date

E-mail | Phone

Signature

Company Name







### **FAQ**

### **Q** Why do I need a FyreSHIELD™?

A Changes to both the NCC and AS1530.4:2014 require insulation on the frame and two way fire protection.

### Q What is different between the previous FRC/FRW and FyreSHIELD™ range?

A FyreSHIELD™ incorporates a polymeric flange system to ensure the frame will maintain the maximum temperature rise requirements in accordance with AS1530.4:2014. Previous systems required additional architraves for full insulation performance whereas the FyreSHIELD™ is a "complete" system.

### **Q** What is the difference between the FyreSHIELD™ and FyreSHIELD™?

A In addition to the polymeric flange, the FyreSHIELD™ includes the patent pending RAKBACK to improve both fire and acoustic performance. These innovations allow Trafalgar Fire to apply a **hinged fire-rated access panel that can achieve the full insulation performance** required by the NCC. The FyreSHIELD™ is also approved for plasterboard ceilings.

### Q Do I need to buy other products?

A No, the FyreSHIELD™ systems are bundled with a cartridge of FyreFLEX® sealant for your convenience and to ensure compliance of the system when installed. No additional cladding is required for FyreSHIELD™.

### Q I need a two-way fire-rated access panel – Can I use FyreSHIELD™?

A Yes, the FyreSHIELD™ systems have been tested in both directions to AS1530.4:2014.

### **Q** Will a FyreSHIELD™ PLUS installed into a plaster board ceiling achieve a RISF rating?

A Yes, 60 minutes RISF, refer to the FyreSHIELD™ for ceilings manual.

### Q Does the FyreSHIELD access panel open to 90°?

A Due to the required operation of the concealed hinge and the thickness of the door panel, to maintain FRL the door will open to a maximum of 85°



### SOCIAL MEDIA











Wall Type	Fixings	Centres	Aperture Details					
Plasterboard	10g x 100mm plasterboard screws	150mm centres	Frame/Line as per plasterboard manufacturers instructions					
Concrete/Masonry	M6 x 100mm Bolts	150mm Centres	N/A					
Hebel	8g x 100mm plasterboard screws	300mm centres	Face	e of wall thicke	enned with a 13mm x	( 100mm FR F	Plasterboard	i
Speed Panel	10g x 40mm self drilling screws	200mm	Wall U-channel lining	g per wall mau	ufacturers instructions 100mm FR Plasterb	. Face of wa oard	ıll thickenne	d with a 13mm x
Pronto Panel	10g x 100mm bugle head needle point screws	200mm	Face of wall thickenned with a 13mm x 100mm FR Plasterboard				i	
Alpha Panel	10g x 100mm plasterboard screws (through frame)/M6 x 50mm Bolts (through Alpha Panel)	150mm	Frame/Line as per drawings and front and/or rear of wall thickenned with FR Plasterboard as per drawings				Plasterboard as	
Corex	10g x 100mm plasterboard screws	150mm	Frame/Line as per drawings					
Drawing Name: Install	ation Guide		Test Standard: AS1530.4	Codes:	Revision:	Date:	No.: NOTI	CE:
Project Title: FyreSHIEL	D in Various Wall Type	es	Fire resistance level: Wall Dependant	Drawn By: SM	-	<b>●</b> TR	NOTE: ALL D	IMENSIONS ARE IN MILLIMETRES (mm)  Trafalgar Head Office:  PO BOX 545



Drawing No.:

PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500

: technical@tgroup.com.au W: www.tfire.com.au

STANDARD DRAWING

PROJECT DRAWING

Scale: NTS

**Date:** 26/04/2023

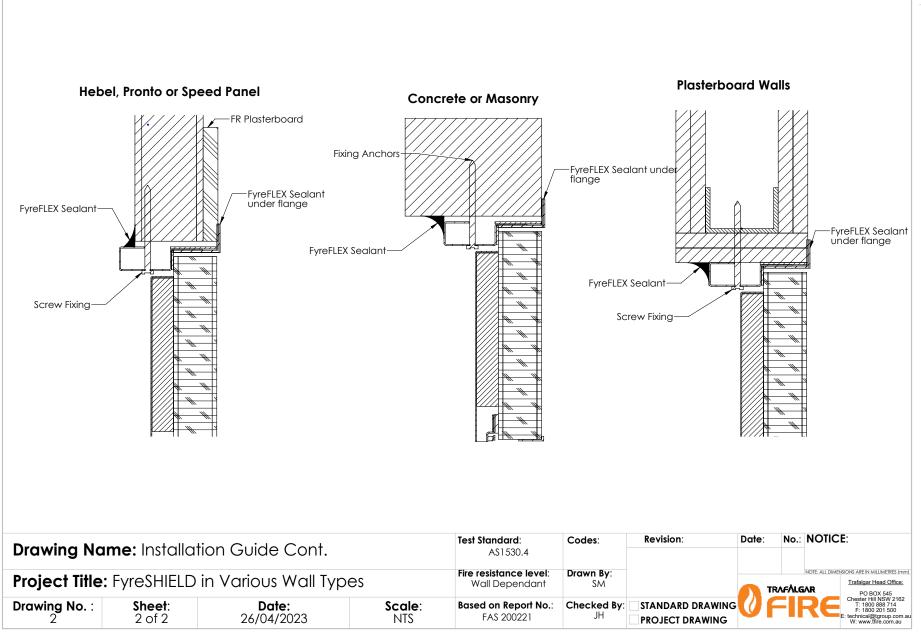
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FAS 200221

Based on Report No.: Checked By: JH



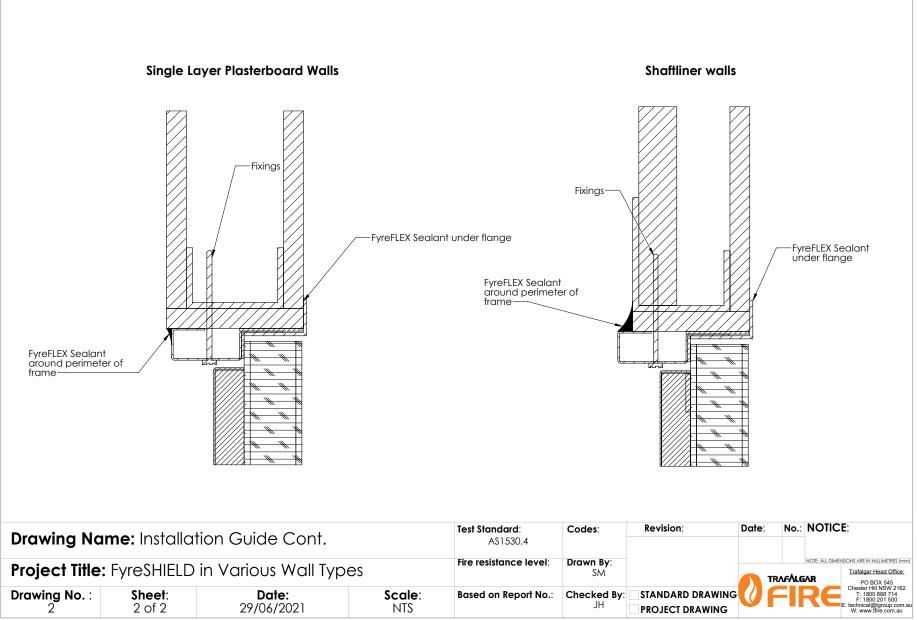












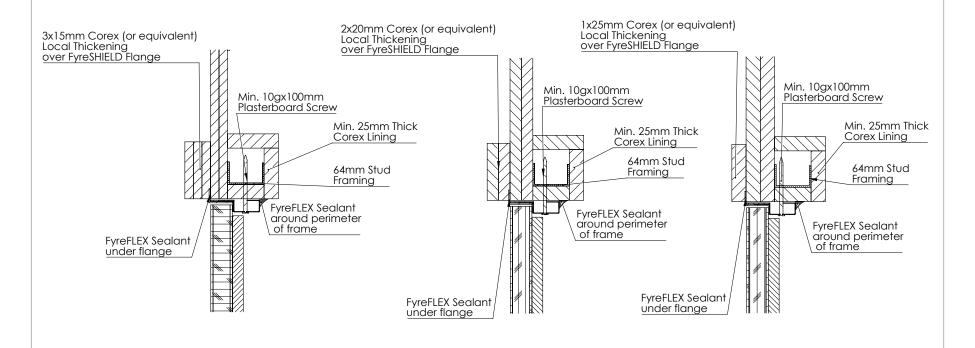




### **60 Minute** Corex Wall (2x15mm)

### 90 Minute Corex Wall (2x20mm)

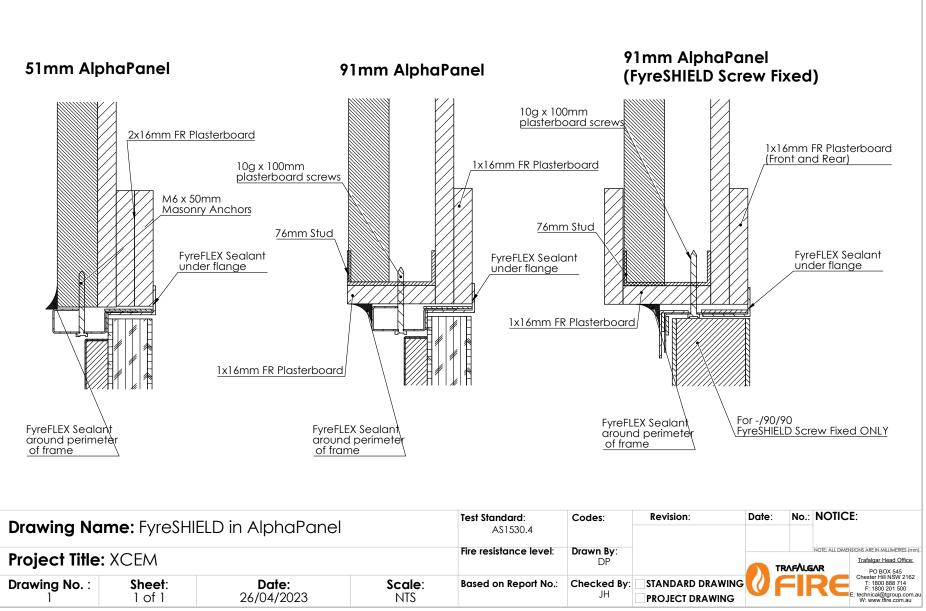
### 120 Minute Corex Wall (2x25mm)



Drawing Na	<b>me:</b> Instalation	on Guide Cont.		Test Standard: AS1530.4	Codes:	Revision:	Date:	No.:	NOTICE:	
Project Title: FyreSHIELDs in Corex Shaft			Fire resistance level:	Drawn By:		TR	νεγια	Т	S ARE IN MILLIMETRES (mm) rafalgar Head Office; PO BOX 545	
Drawing No. :         Sheet:         Date:         Scale:           2         2 of 2         26/04/2023         NTS				Based on Report No.:	Checked By:	STANDARD DRAWING	Uf	=	<b>TE</b> E: te	hester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 chnical@tgroup.com.au V: www.tfire.com.au



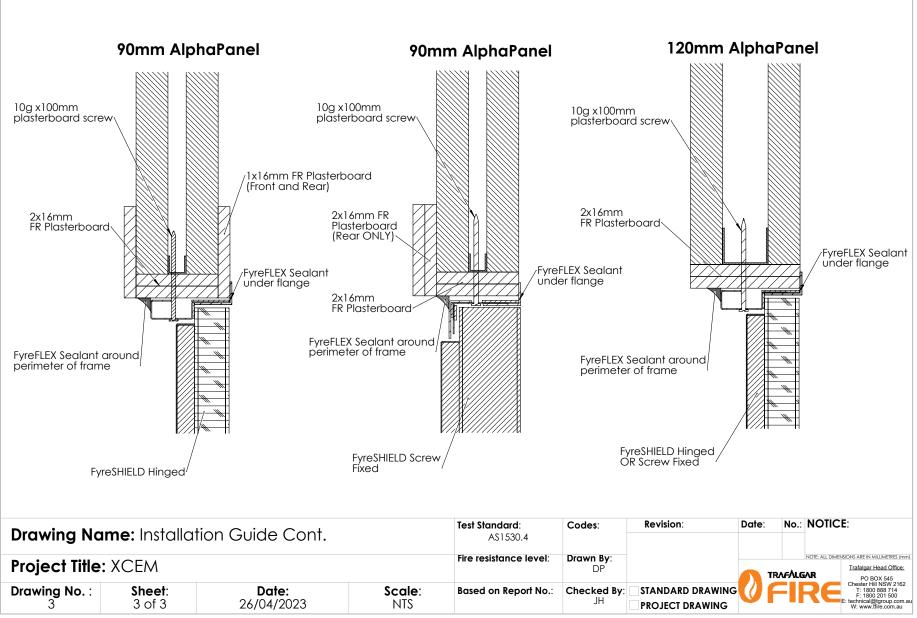






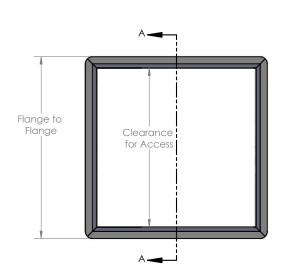


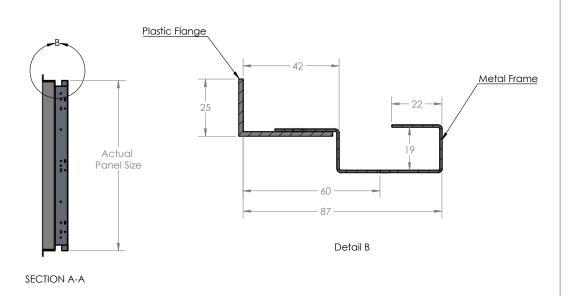












Opening in wall/ceiling	Actual Panel size	Depth	Flange to Flange	Clearance opening for access
600 x 600	595 x 595	87mm	635 x 635	555 x 555
550 x 550	545 x 545	87mm	585 x 585	505 x 505
450 x 450	445 x 445	87mm	485 x 485	405 x 405
400 x 400	395 x 395	87mm	435 x 435	455 x 455
300 x 300	295 x 295	87mm	335 x 335	255 x 255

Drawing Name: FyreSHIELD Range				Test Standard: AS1530.4	Codes:	Revision:	Date:	No.:	NOTICE:
Project Title: FyreSHIELD - Clear Openings				Fire resistance level:	<b>Drawn By</b> : RK		NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm).  Trafalgar Head Office: PO BOX 545		
Drawing No. :	<b>Sheet</b> : 1 of 1	<b>Date:</b> 29/07/2021	Scale: NTS	Based on Report No.:	Checked By:	STANDARD DRAWING	<b>V</b> f	=11	Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@tgroup.com.au W: www.tfire.com.au





