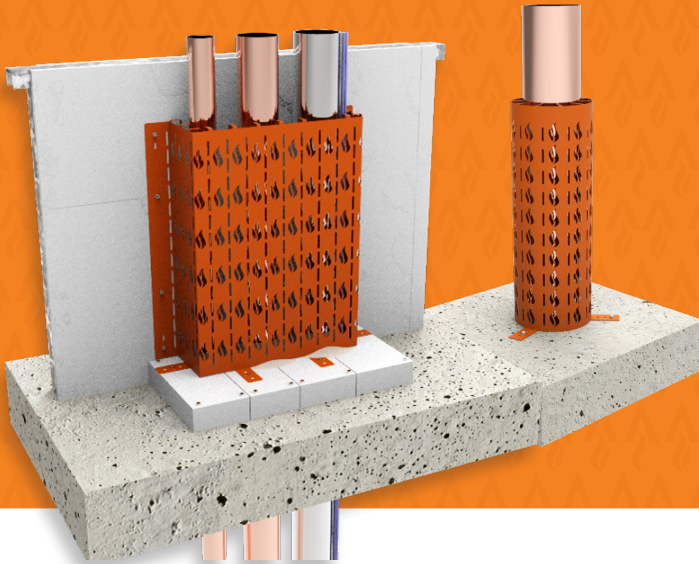
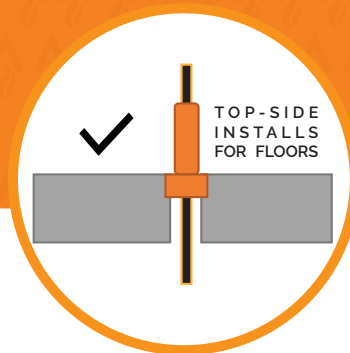


# UniGUARD™



Trafalgar Fire has developed an easier and quicker installation option for wrapping large metal pipes.

The UniGUARD™ system is tested for use around large metal pipe penetrations, where large amounts of insulation wrap are not practical to prevent heat transfer. The UniGUARD™ is a flat packed, easy to transport, insulation guard which gives an easy to install solution for fire stopping.



Click to Watch Installation Video



## KEY FEATURES



- Flat packed for easy shipping, transport and storage
- Simple and quick to install
- More cost effective than wrap systems for large pipes
- FRL's up to-/120/120 for large metal pipes (DN150)
- Equivalent heat transfer performance than wrap systems
- Quicker solution for large pipes that would typically need long lengths of insulation wrap (TWRAP™)
- Tested to AS1530.4-2014

## APPLICATIONS



- Metal pipe floor penetrations
- Multiple metal pipe penetrations hard against a riser wall
- Steel and copper pipes
- Tested for use in concrete slabs, FyreBATT™ and FyreBOARD Maxilite® substrates

## TRADES



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# UniGUARD™

## WHAT IS UniGUARD™?

The UniGUARD™ is a new insulation guard that does away with excessively long lengths of wrap products that are typically needed for large pipes.

UniGUARD™ is shipped flat for easy storage and transportation. Then simply folded around the pipes on site for installation.

## APPLICATIONS

Suitable for DN150 copper and steel pipes, it is only 600mm tall and a top-side only installation. With multiple use configurations, the UniGUARD™ is a single product with multiple uses dependent on the installation method used.

The UniGUARD™ can wrap around a single pipe as a free-standing guard, bolted to the floor through the pre-formed fixing tabs at the base.

Alternatively, for multiple services against a wall the UniGUARD™ can bend to a three sided guard. This is ideal for tight riser shafts with services tightly packed together with low access.

Please note that the UniGUARD™ achieves the insulation part of the FRL only, so the pipe must first be sealed with FyreFLEX® Sealant as it passes through the concrete floor slab (or through FyreBATT™ or FyreBOARD Maxilite™ floor penetration systems).



# UNIGUARD™

## 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 240/240/240

(example)



#### Structural Adequacy

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

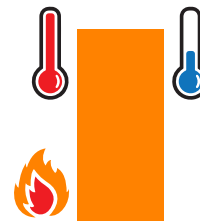
ie: a brick wall supporting a concrete floor slab above.



#### 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.

*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 metal pipes must first be sealed with FyreFLEX® sealant at the floor penetration to prevent the fire from physically spreading through the penetration before the UniGUARD™ can be installed. UniGUARD™ has also been tested with FyreBATT™ and FyreBOARD Maxilite® floor penetration systems.

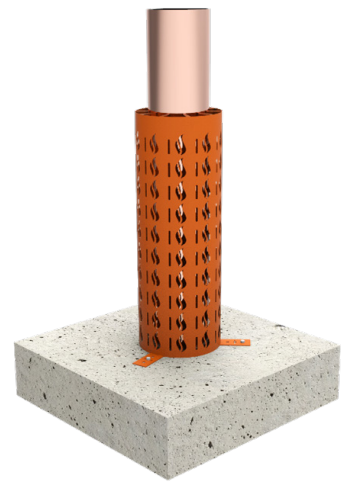
## INSULATION (TEMPERATURE RISE)

Heat transfer via conduction (or heat rise) will occur through the conductive parts of any penetration system. To limit the heat-rise through penetration systems, the UniGUARD™ allows for an air gap to the service, stopping contact of surrounding building elements with the service. This allows the UniGUARD™ system to achieve up to 2 hours of insulation performance.

## FRL Approvals Tables

### CONCRETE FLOOR SLAB

#### CORE-HOLE TO SUIT PIPE SIZE

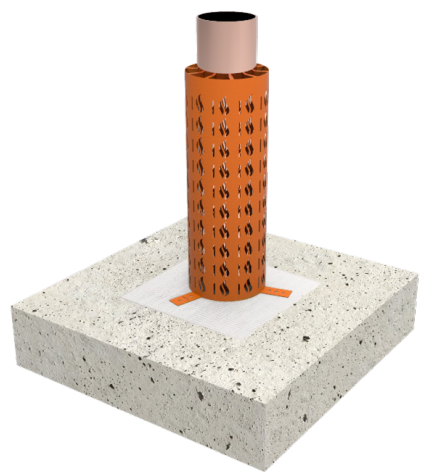


Service Type	Hole Size	FyreFLEX® Sealant	FRL	Test Reference
DN150 Copper Pipe	170mm (core hole)	50mm fill depth into the slab, finished with a 30x30mm fillet on the top side	-/90/90 -/120/120 -/180/120	FRT 200257
Up to NB150 Steel Pipe				

### CONCRETE FLOOR SLAB

#### OPENINGS UP TO 800X600mm

Oversized openings in concrete slabs can be closed-down with FyreBATT penetration systems, with the UniGUARD™ has been tested and approved.

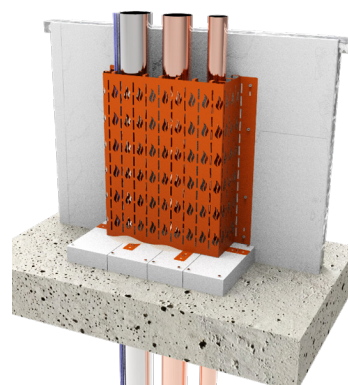


Service Type	Hole Size	FyreFLEX® Sealant	FRL	Test Reference
DN150 Copper Pipe	180mm (core hole in the Fyre-BATT))	Filled to full depth of FyreBATT™ with a 30x30mm fillet	-/90/90 -/120/120 -/180/180	FRT 200385
Up to NB150 Steel Pipe				

## FRL Approvals Tables

# CONCRETE FLOOR SLAB

Three sided applications with FyreBOARD Maxilite® Openings up to 1800 x 1000mm



Service Type	Maximum Hole Size (cut into FyreBOARD Maxilite®)	FyreFLEX® Sealant	FRL	Test Reference
DN100 Copper Pipe	135mm	Filled to the full depth of the FyreBOARD Maxilite® finished with a 50x50mm fillet on the top side	-/120/90	FRT 200385
DN65 Copper Pipe	85mm			
NB100 Steel Pipe	135mm			
1 x 3C&E Power	Cable must be in the same hole as above steel pipe			
1 x Fire Alarm Cable				

*The floor penetration system was tested against a non-fire rated plasterboard wall, simulating a non-fire rated riser shaft.*

DETAIL A

<b>Drawing Name:</b> Overview				<b>Test Standard:</b> AS1530.4	<b>Codes:</b>	<b>Revision:</b>	<b>Date:</b>	<b>No.:</b> NOTICE
<b>Project Title:</b> UniGUARD and FyreBOARD Maxilite Install				<b>Fire resistance level:</b>	<b>Drawn By:</b> SM	NOTICE: ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED		
<b>Drawing No.:</b> 1	<b>Sheet:</b> 1 of 1	<b>Date:</b> 10/03/2021	<b>Scale:</b> NTS	<b>Based on Report No.:</b>	<b>Checked By:</b> JH	<b>STANDARD DRAWING</b>		

Service Type	Maximum Hole Size (cut into FyreBOARD Maxilite®)	FyreFLEX® Sealant	FRL	Test Reference
DN100 Copper Pipe	Cast-In	CHC 100 Cast-In Collar	-/240/120	FRT 210025

## FRL Approvals Tables

# CONCRETE FLOOR SLAB

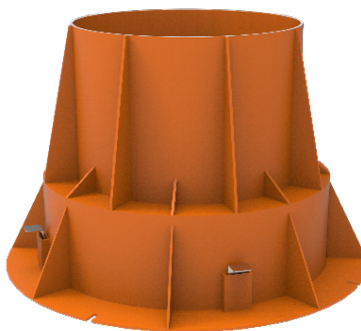
## FyreCOLLAR Cast-In Collar



Service Type	FyreCOLLAR Cast in type	Slab Thickness	Insulation	FRL
DN32 Copper or steel pipe	CHC40-65 CLC40	1. 150mm 2. 175mm	600mm Uniguard 30mm from pipe	1. -/180/120 2. -/240/120
DN40 Copper or steel pipe				
DN50 Copper or steel pipe	CHC40-65 CHC80-100 CLC50			
DN65 Copper or steel pipe	CHC80-100 CLC65			
DN80 Copper or steel pipe	CHC80-100 CLC80			
DN100 Copper or steel pipe	CHC80-100 CLC100			

## NEW BUILDS

The FyreCOLLAR Cast-in Stack Collar can be cast into the floor slabs on site for vertical runs of 100mm pipes. Once the pipe is in place, simply follow the installation steps in this manual to install the UniGUARD™.



For more information about FyreCOLLAR Cast-in Stack Collars, refer to the technical manual or contact [technical@tgroup.com.au](mailto:technical@tgroup.com.au)

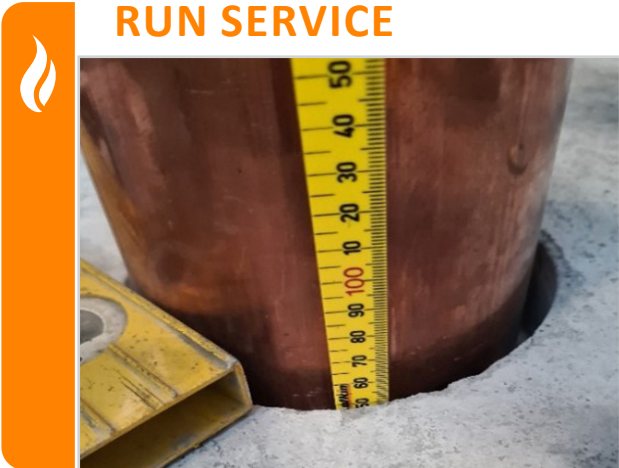
# INSTALLATION

## Core hole penetrations (hole cut to size in a concrete slab)

Click to Watch Installation Video



### RUN SERVICE



Form the correct sized hole per the approval's tables above, then the service can be run through the concrete slab.

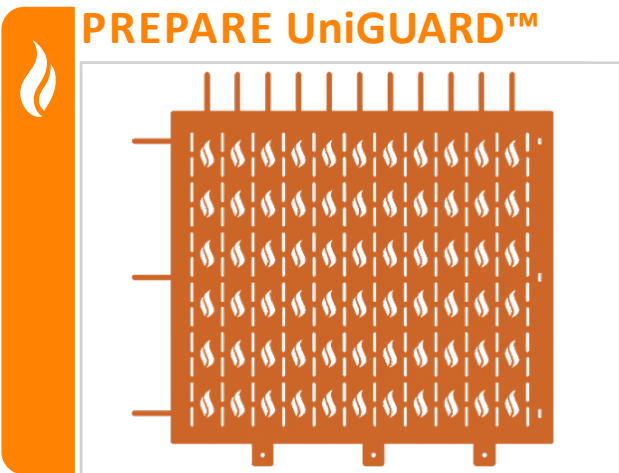
### SEAL



Apply FyreFLEX® Sealant to a depth of 50mm into the slab, then finish with a 30x30mm fillet on the top side. Backing rod may be used to set the correct depth.

*If a larger opening is present, FyreBATT™ can be cut to size to suit the opening and friction fit in. The service can then be installed into the batts to the specification of the approval's tables.*

### PREPARE UniGUARD™



The UniGUARD™ comes flat packed and can be simply bent into for a circle using the bend reliefs across the face of the guard.

Bend out the feet to 90 degrees, then wrap the UniGUARD™ around the pipe to form a neat circle.

### INSTALL UniGUARD™



Slide the 3x fixing tabs into the preformed slots, and bend them over to hold the UniGUARD™ together in shape.

Using the 3x feet tabs, fix the UniGUARD™ to the concrete floor with M6 masonry anchors (M6x50mm Dynabolts for example) or 90mm pigtail screws for FyreBATT installations.

Bend over top fingers ensuring a 30mm air gap around the pipe.

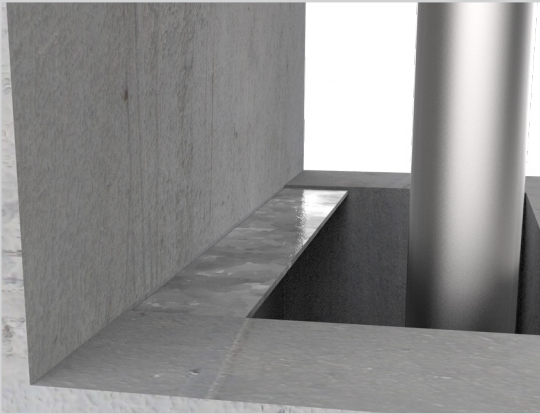
# INSTALLATION

## Large openings against a wall

Click to Watch Installation Video



### PREPARE OPENING



Run the services through a large opening, ensuring 50mm of separation between each service. Install a 50x50mm steel angle along the back edge to support the FyreBOARD Maxilite®.

### Fix FyreBOARD Maxilite®



The 60mm FyreBOARD Maxilite® can be pre-cut and joined around the service. Ensure the board overlaps the slab by 100mm and fix board to the slab with M6x100mm masonry anchors. Also fix the FyreBOARD Maxilite® down to the rear steel angle with 10g x 100mm plasterboard screws at max 400mm centers.

*The UniGUARD™ is made using thin sheet metal, making it easy to bend and manipulate when installing from its flat packed state.*

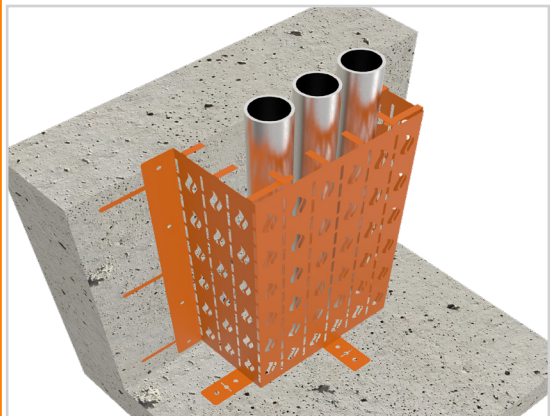
### APPLY SEALANT



Apply FyreFLEX® Sealant to the full depth of the FyreBOARD Maxilite®, then finish with a 50x50mm fillet.

A small bead of FyreFLEX® should also be installed around the perimeter of the FyreBOARD Maxilite®.

### INSTALL UniGUARD™



Four bends are required to form the three-sided UniGUARD™ configuration.

The side edges need to bend back to fix to the wall through the pre-formed fixing holes.

Bend over top fingers ensuring a 30mm air gap around the pipe.

# TWRAP™ Vs UniGUARD™

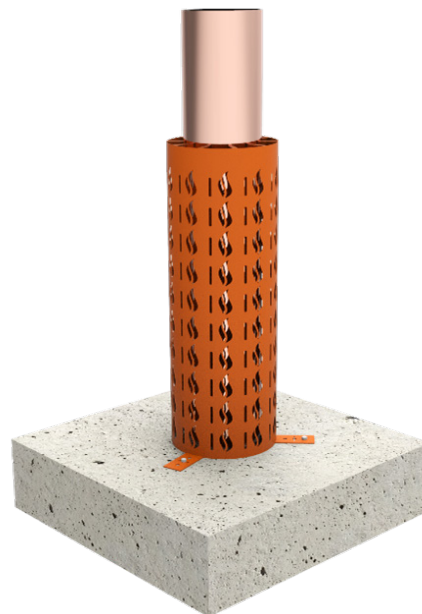


The UniGUARD™ is an alternate method to wrapping services with our TWRAP™. It might be preferred to TWRAP™ for larger services which typically need a large amount of Wrap. For example, for a DN150 copper pipe in a concrete slab treated with FyreFLEX®, the usual amount of TWRAP™ required is 850mm to achieve-/120/120. The same pipe can achieve-/180/120 with the UniGUARD™, which is only 600mm tall. On the other hand, smaller copper pipes may only need 300mm of TWRAP™ so the UniGUARD™ would not be suitable.

# APPROVED FIXINGS

	Fixed into	Approved Fixing
UniGUARD™	Concrete Floor Slab	M6 Masonry Anchors
	Walls (3 sided applications)	Screws appropriate for the wall type (plasterboard screws, masonry anchors etc.)
	FyreBOARD Maxilite®	8g x 50mm plasterboard screws
	FyreBATT™	10g x 90mm Pig tail screw

# SYSTEM RANGE



Item Number	Description	Min Order Qty
UniGUARD150	600 x 690 x 0.6mm Powder Coated Orange	1



## UniGUARD™ ACCESSORIES

Item Number	Description	Min Order Qty	Pallet QTY
FyreFLEX 300W FyreFLEX 300G	FyreFLEX sealant Sausage 300ml White or Grey	1	1920
FyreFLEX 600W FyreFLEX 600G	FyreFLEX sealant Sausage 600ml White or Grey	1	1040
FyreBATT 60mm	Coated mineral fibre Batt 60x600x1000	4	N/A
FyreBOARD Maxilite L 60	2040 x 1220 x 60mm (Blue)	1	17
FyreBOARD Maxilite Half L 60	1020 x 1220 x 60mm (Blue)	1	34
FyreBOARD Maxilite 60	1525 x 1000 x 60mm (White)	1	15
FyreBOARD Maxilite Half 60	760 x 1000 x 60mm (White)	1	30
FyreCOLLAR CISC-H80-100	FyreCOLLAR Cast-In Stack High Cast Collar 80-100	1	-

## FAQ

**Q Do I need to apply TWRAP™ to these pipes?**

**A** No, UniGUARD™ is used as an alternate to traditional wrap products.

**Q Do I need to apply sealant to the services?**

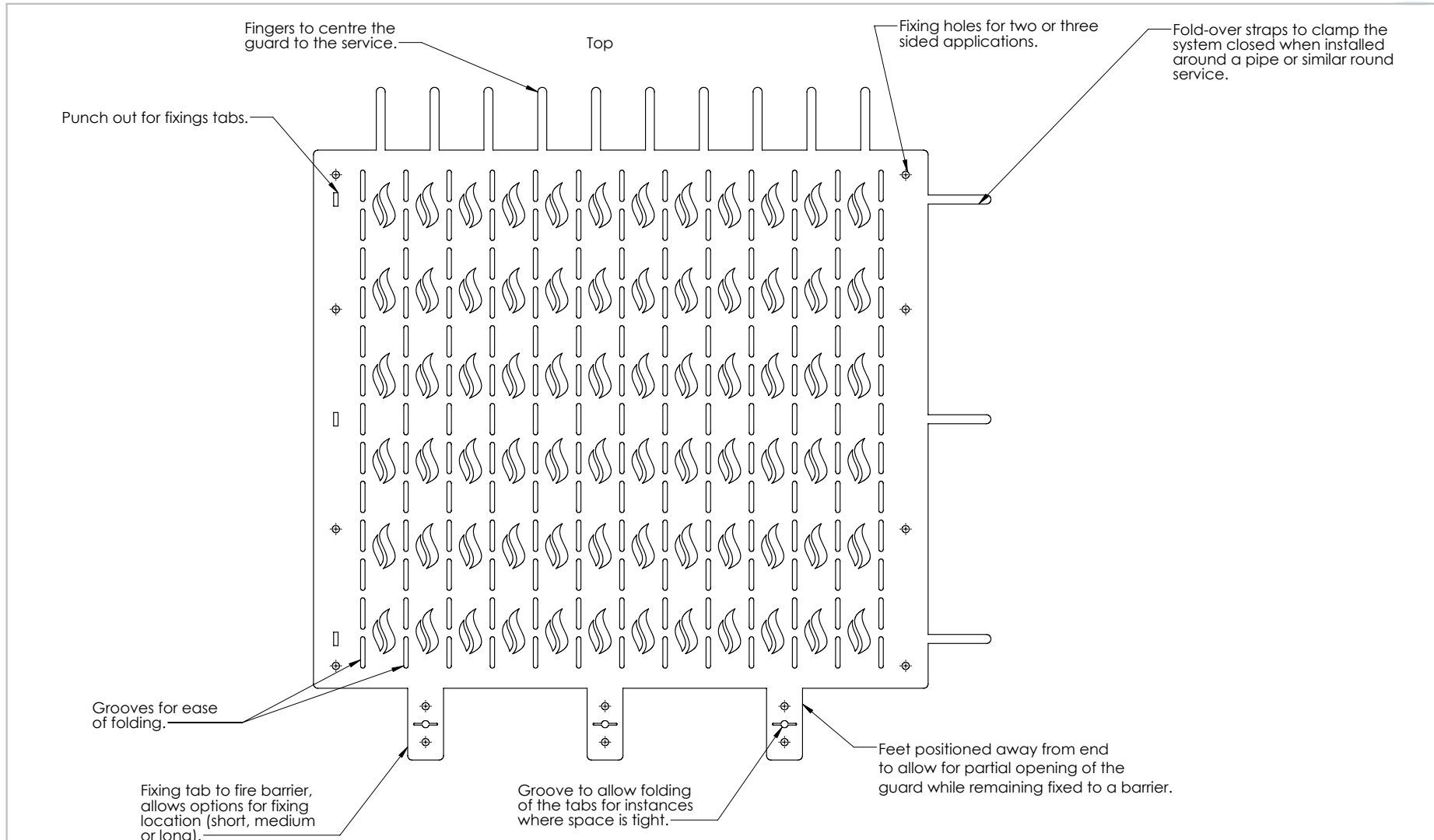
**A** Yes, the services still need to be sealed with FyreFLEX® Sealant through the slab/FyreBATT/FyreBOARD Maxilite®.


**Q Can UniGUARD™ be used for other sized pipes?**

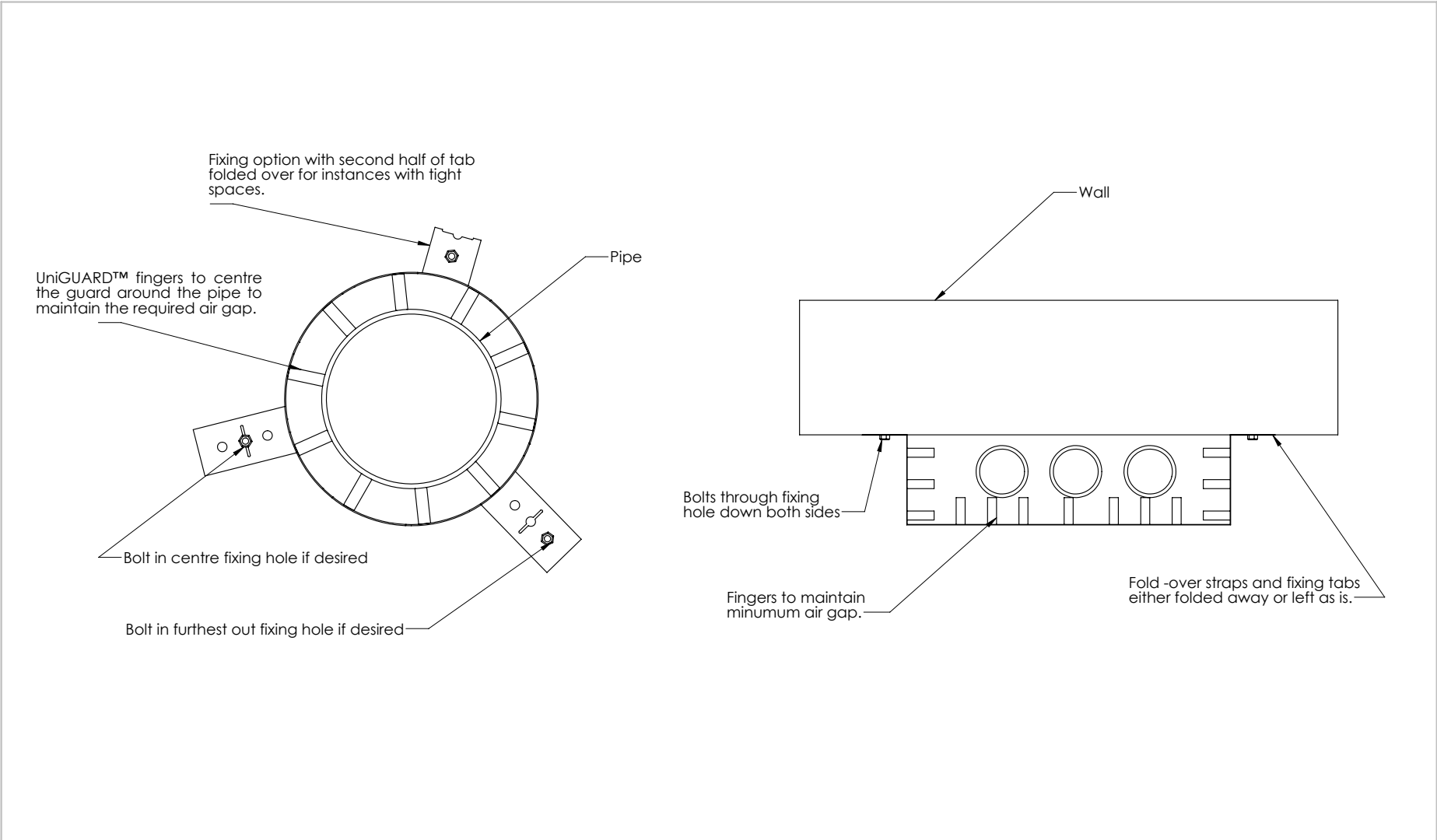
**A** Not at the moment, however further testing is underway to increase the approvals for this product.


## SOCIAL MEDIA

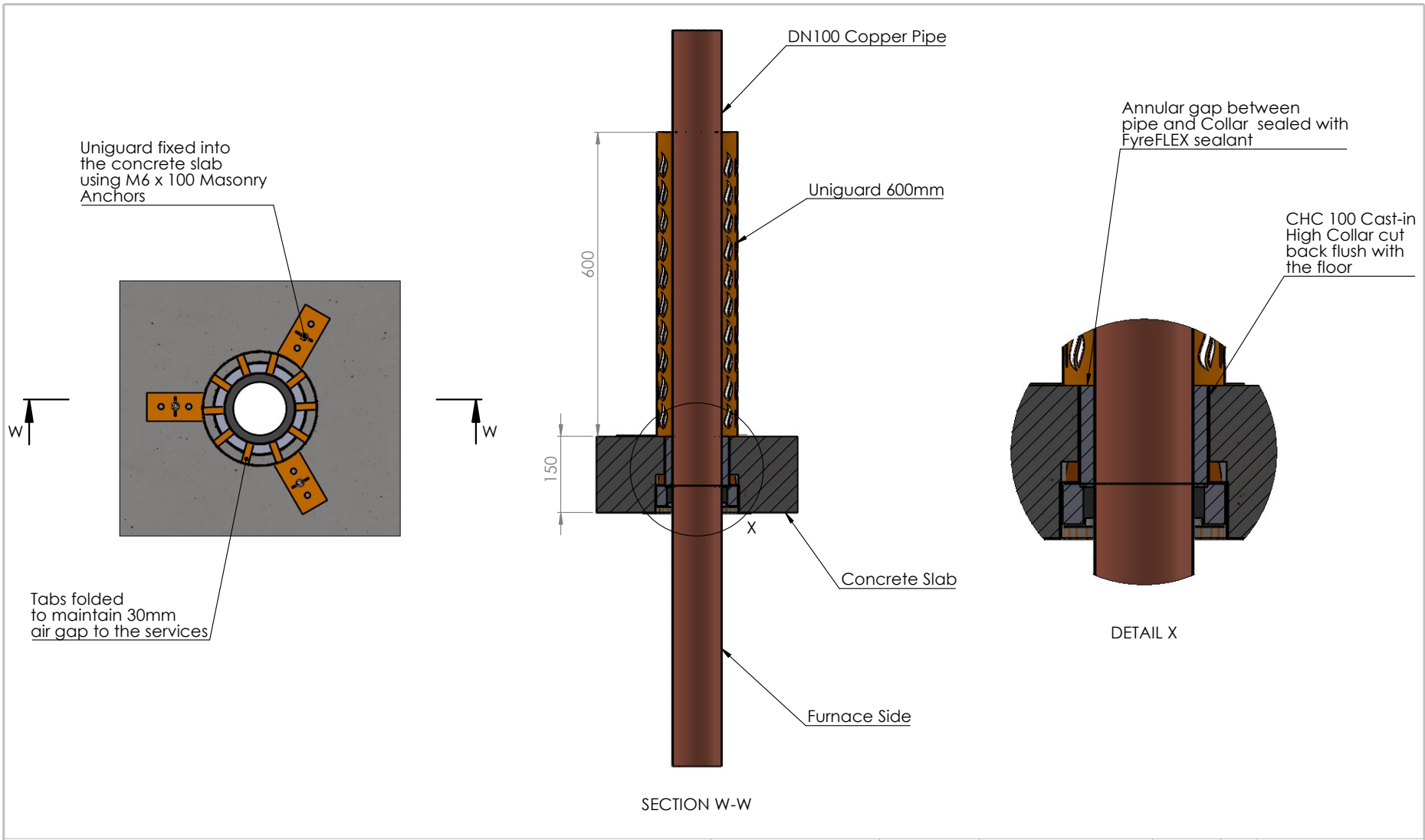





<b>Drawing Name:</b> Overview				<b>Test Standard:</b> AS1530.4	<b>Codes:</b>	<b>Revision:</b>	<b>Date:</b>	<b>No.:</b>	<b>NOTICE:</b>
<b>Project Title:</b> Uni-Guard				<b>Fire resistance level:</b>	<b>Drawn By:</b> SM	<small>NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)</small>			
<b>Drawing No. :</b> 1	<b>Sheet:</b> 1 of 2	<b>Date:</b> 18/02/2021	<b>Scale:</b> NTS	<b>Based on Report No.:</b>	<b>Checked By:</b> JR	<input type="checkbox"/> STANDARD DRAWING	 <p><b>TRAFALGAR FIRE</b>                  PO BOX 545                  Chester Hill NSW 2162                  T: 1800 888 714                  F: 1800 211 500                  E: technical@tgroup.com.au                  W: www.tfire.com.au</p>		
						<input type="checkbox"/> PROJECT DRAWING			



<b>Drawing Name:</b> Installation Configurations				<b>Test Standard:</b> AS1530.4	<b>Codes:</b>	<b>Revision:</b>	<b>Date:</b>	<b>No.:</b>	<b>NOTICE:</b>
<b>Project Title:</b> UniGUARD™				<b>Fire resistance level:</b>	<b>Drawn By:</b> SM	<small>NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)</small>			
<b>Drawing No. :</b> 2	<b>Sheet:</b> 2 of 2	<b>Date:</b> 21/10/2020	<b>Scale:</b> NTS	<b>Based on Report No.:</b>	<b>Checked By:</b> JH	<input type="checkbox"/> STANDARD DRAWING	 <p><small>Trafalgar Head Office:</small> PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@group.com.au W: www.tfire.com.au</p>		
						<input type="checkbox"/> PROJECT DRAWING			



<b>Drawing Name:</b> Uniguard - cast-in collar				<b>Test Standard:</b> AS1530.4	<b>Codes:</b>	<b>Revision:</b>	<b>Date:</b>	<b>No.:</b>	<b>NOTICE:</b>
<b>Project Title:</b>				<b>Fire resistance level:</b>	<b>Drawn By:</b> RK	<small>NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)</small>			
<b>Drawing No. :</b> 13	<b>Sheet:</b> 13 of 13	<b>Date:</b> 4/06/2021	<b>Scale:</b> NTS	<b>Based on Report No.:</b>	<b>Checked By:</b> JH	<input type="checkbox"/> STANDARD DRAWING	 <p><b>TRAFALGAR FIRE</b></p> <p><small>Trafalgar Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@group.com.au W: www.tfire.com.au</small></p>		
						<input type="checkbox"/> PROJECT DRAWING			