Installation Guide
Phoenix - Vertical Fire Barrier

Guides

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Phoenix 120:0- Vertical Fire Barrier

INTRODUCTION

FIREFLY® Phoenix 120:0 is a lightweight flexible fire barrier designed to provide fire compartmentalisation of larger concealed spaces and voids within buildings, offering 120 minutes of Integrity only.

FIREFLY® Fire Barriers must be fixed into a substrate with a suitable fire rating.

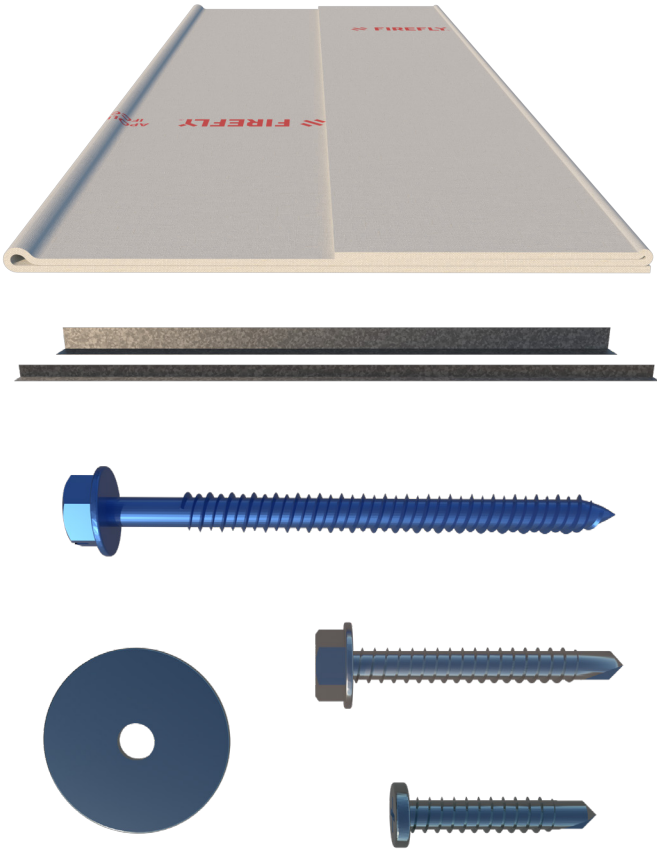
This example was created for the installation guide. FIREFLY® Phoenix can be installed 8m x 8m maximum, with its standard top, bottom and side fix. Or indefinitely with additional Supporting angles. See details (P-017 & P-018) for more information.

MATERIALS REQUIRED:

FIREFLY® Phoenix Barrier

FIREFLY® 50 x 50 x 0.7mm Supporting Angle
FIREFLY® 25 x 25 x 0.7mm Clamping Angle

FIREFLY® 8mm Staples
FIREFLY® 38mm TEK Screws
FIREFLY® 25mm Panhead TEK Screws
FIREFLY® Penny Washers
Suitable FIREFLY® Fixings for the substrate
(FIREFLY® 80mm Concrete Screws)

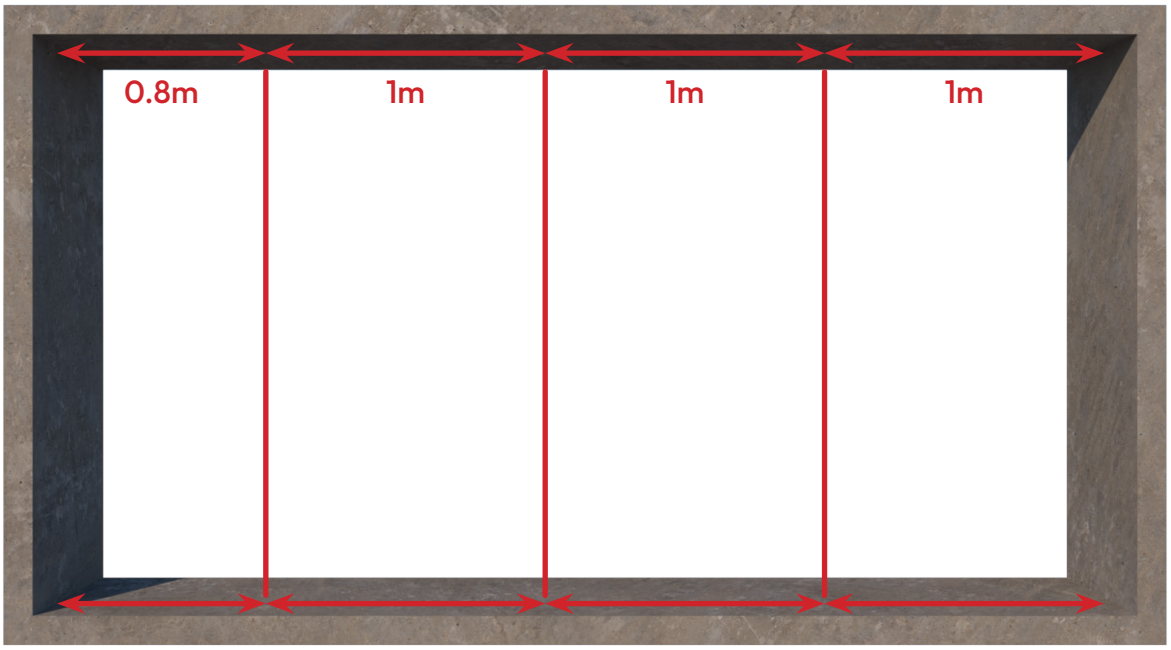


MEASURE & ASSESS

Its Important to know the space you're working with.
You will require enough 50 x 50 x 0.7mm Supporting Angle and 25 x 25 x 0.7mm Clamping Angle to completely cover the outer perimeter. (11.6m in this example)

FIREFLY® Phoenix fire barriers are supplied at 1.3m x 10m or 1.3m x 25m and require a 150mm nominal (100mm minimum) overlap on perimeter edges and a 50mm overlap when adjacent to other cuts of barrier to create a folded joint.

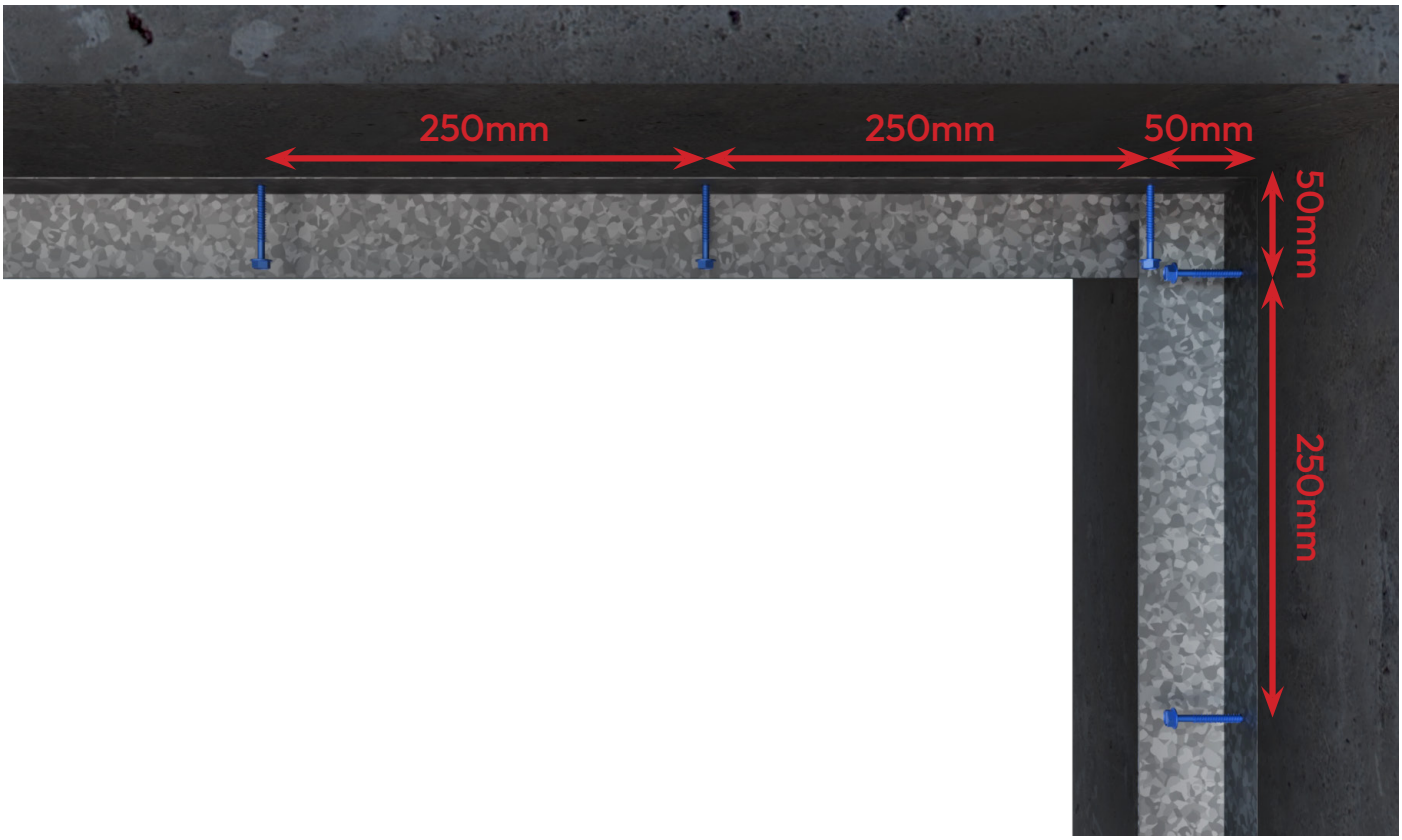
We can subdivide the area into approximately 1m x 2m length.
Meaning we'll need 3 cuts of 1.3m x 2.3m Phoenix barriers and a shorter cut at 1.1m x 2.3m

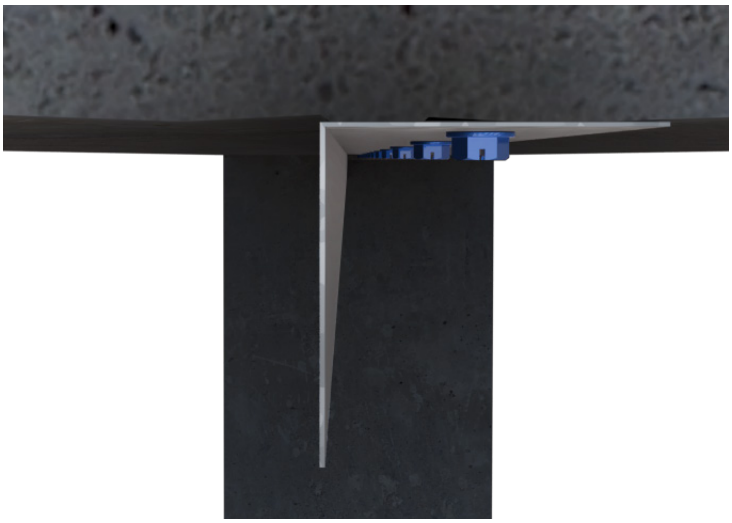


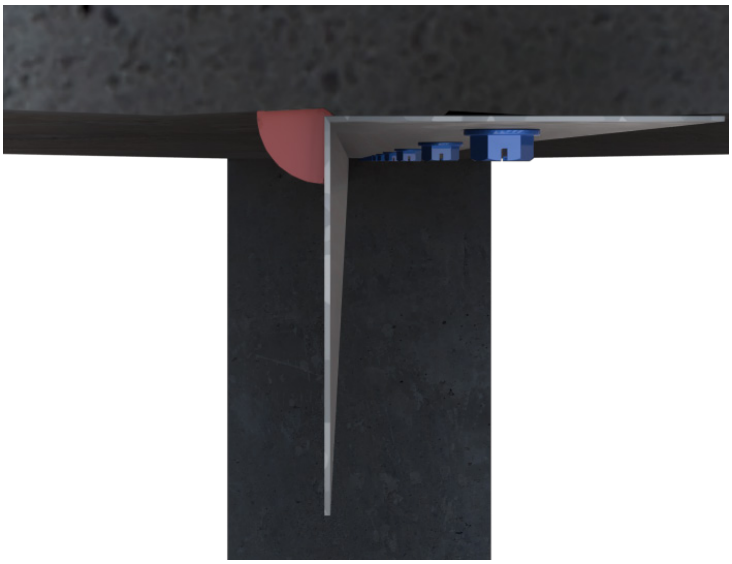
FIXING SUPPORTING ANGLE

FIREFLY® 50 x 50 x 0.7mm Supporting angle is fit around the outer perimeter and fixed with suitable FIREFLY® Fixings for the substrate at 250mm centres and 50mm from the edge of the wall.

This detail is repeated around the outer perimeter. Ensuring a tight fit between the Supporting Angle and the substrate.

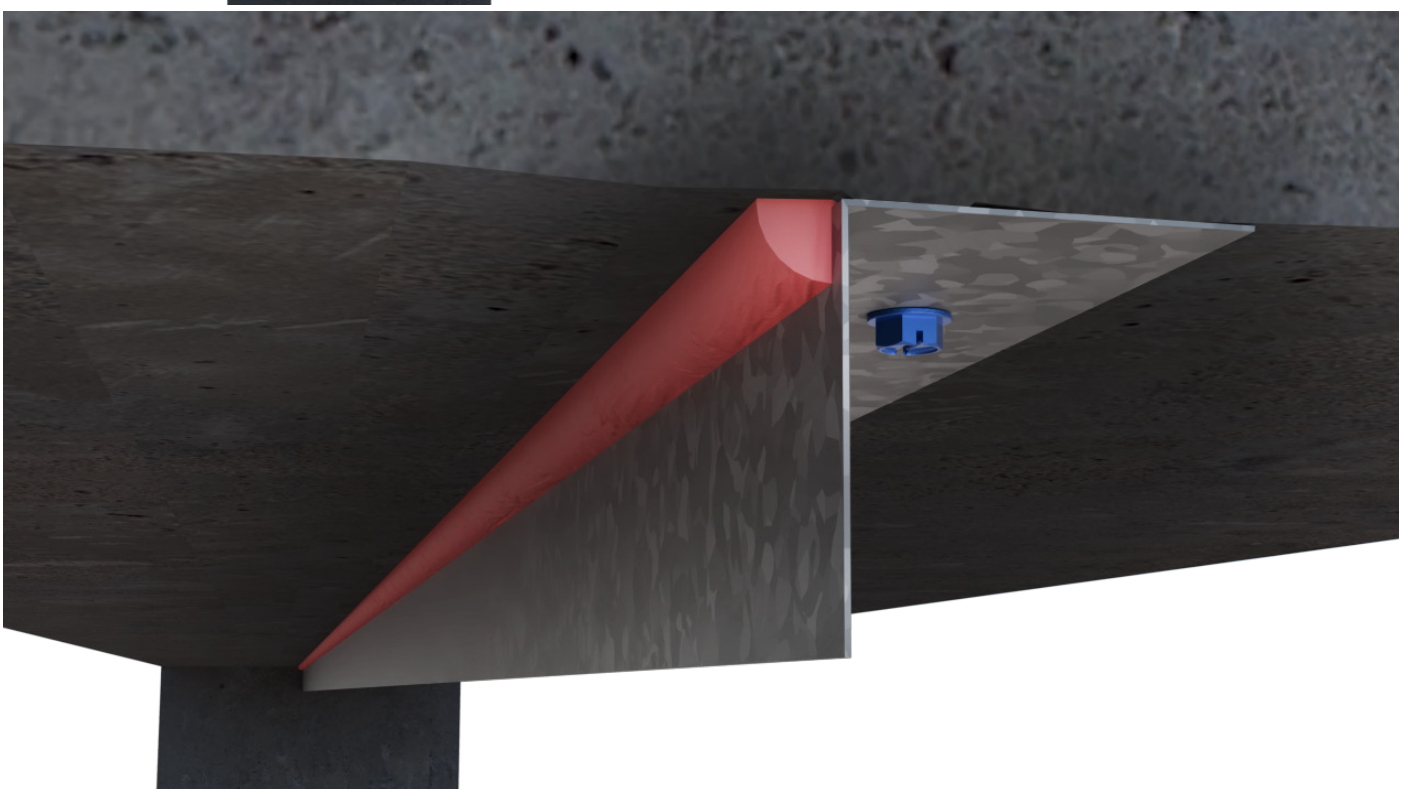






FIXING TO UNEVEN SURFACES

When fixing to uneven surfaces, a 6mm bead of FIREFLY® High Temperature Adhesive is applied at the top fix between the 50 x 50 x 0.7mm Supporting Angle and the uneven substrate to ensure a smoke seal.



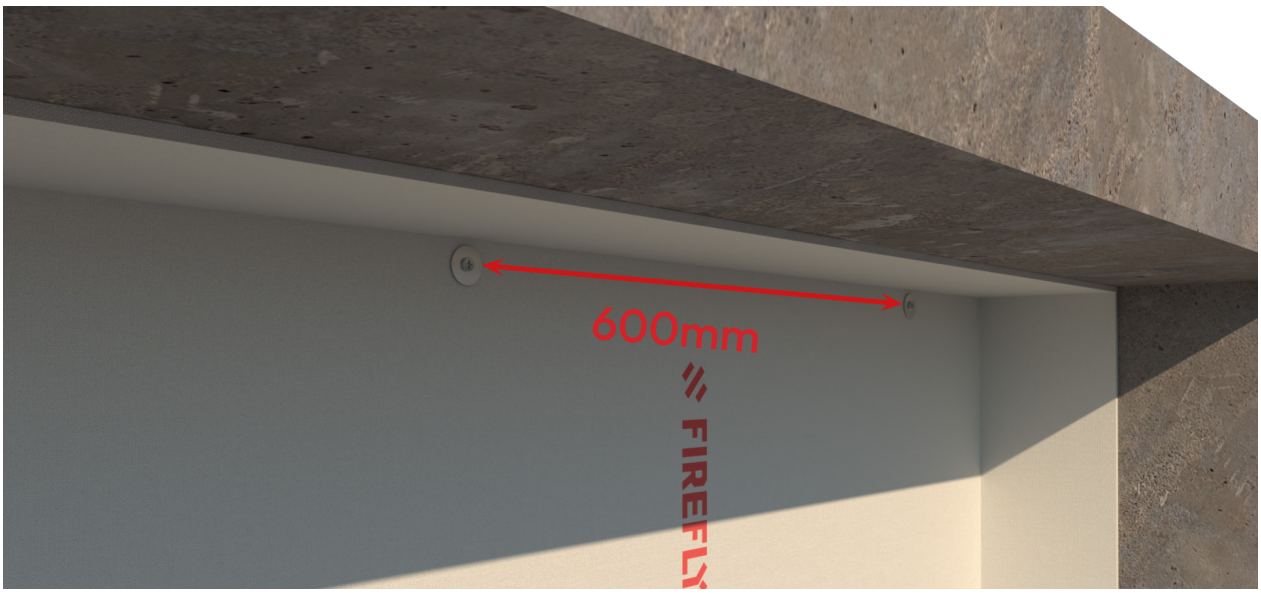
BARRIER TO SUPPORTING ANGLE

Barrier is raised and fit against the Supporting angle, ensuring a 150mm nominal (100mm minimum) overlap is left against all perimeter edges.

TEMPORARY FIXING BARRIER TO SUPPORTING ANGLE

Barrier is fixed to the Supporting angle with FIREFLY® Panhead Tek Screws at approx 600mm centres. This is typically suitable for a one man installation team.

Its worth noting that this step is a temporary fixture and is done to hold the barrier in place until it can be jointed, before being permanently clamped at a later stage.



Alternatively the barrier can be clamped in place with a FIREFLY® 25 x 25 x 0.7mm Clamping angle. Fixed with FIREFLY® Panhead Tek Screws as required. This will typically be easier for a two man installation team.

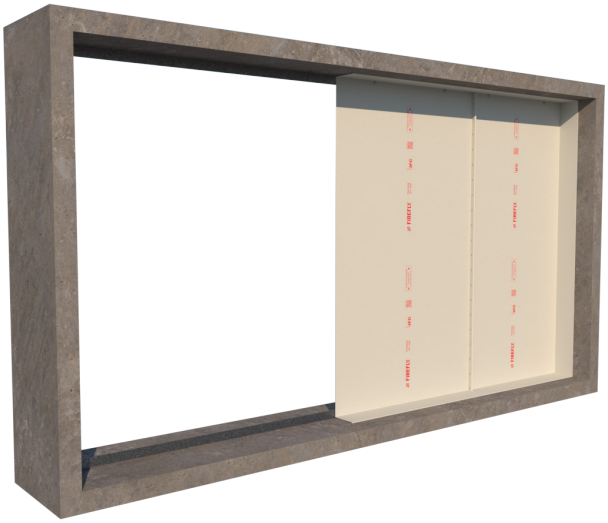
OVERLAYING BARRIER

Additional barrier is positioned in line with the previous barrier and is temporarily fixed to the Supporting angle. Ensuring 150mm (100mm minimum) overlap is left on all perimeter edges and a 100mm overlap wherever two separate cuts of barrier will join.

FOLDED JOINTS

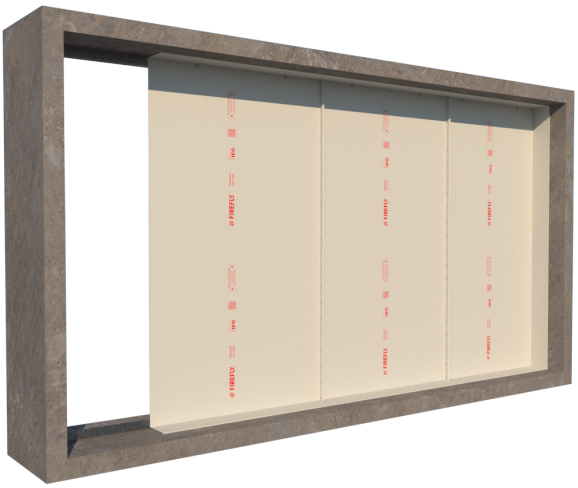
Of the 100mm Overlap between Barriers, 50mm from each barrier is brought forward and centred.

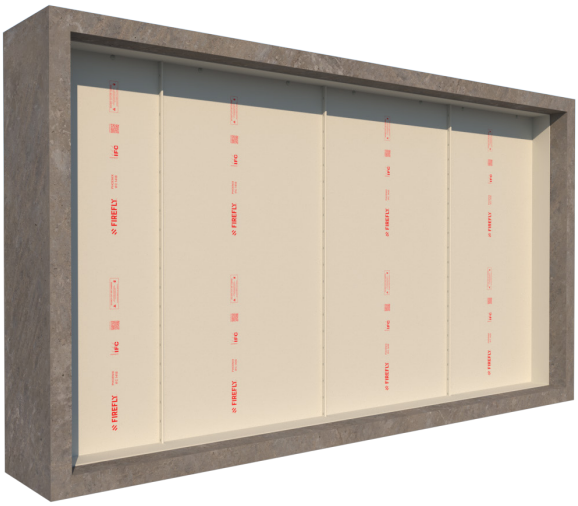
The joint is then stapled along the fold line with FIREFLY® 8mm Staples at 500mm centres.



FOLDED JOINTS

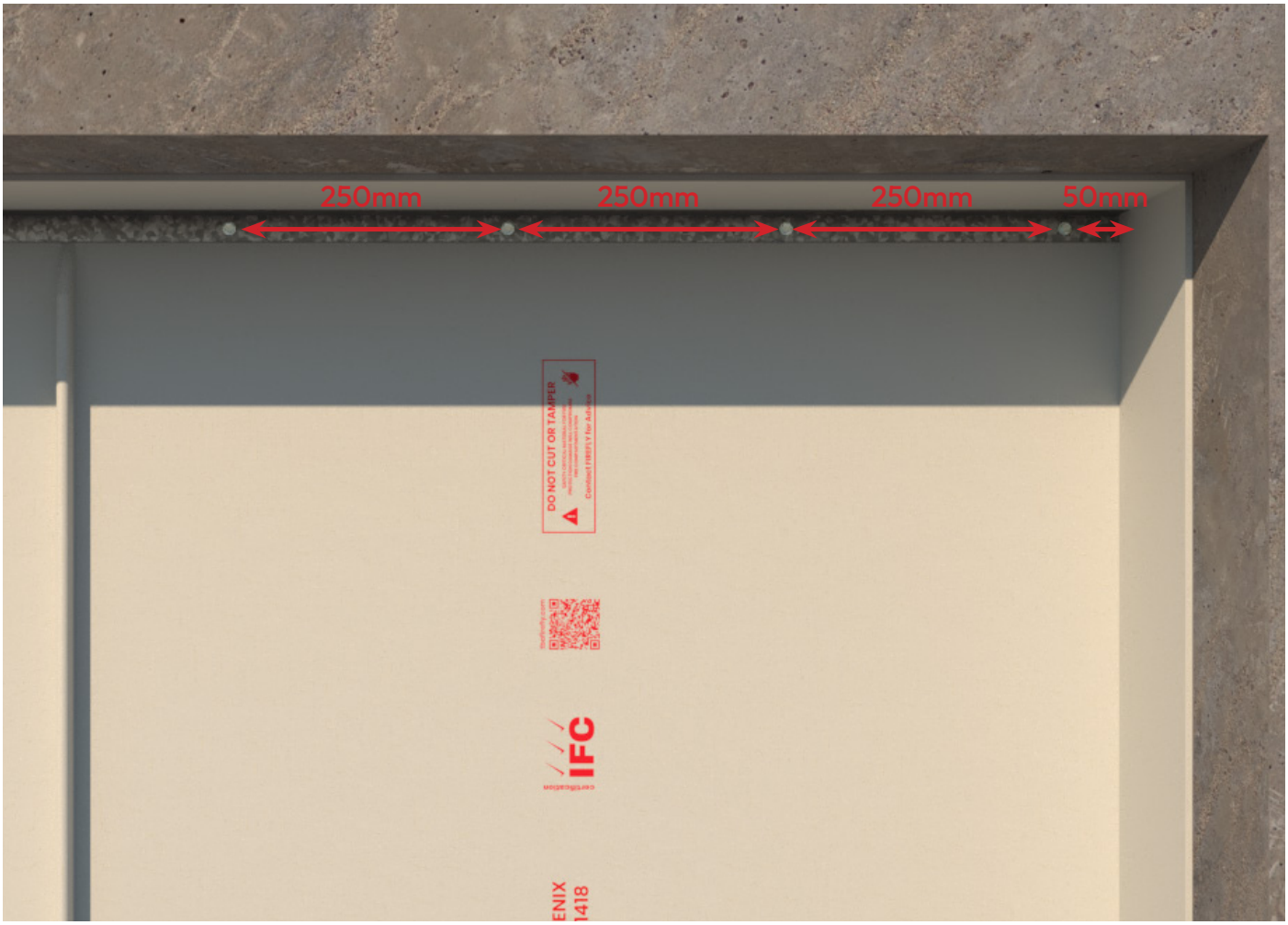
The overlap is then folded over and stapled with FIREFLY® 8mm staples at 100mm centres.





FOLDED JOINTS

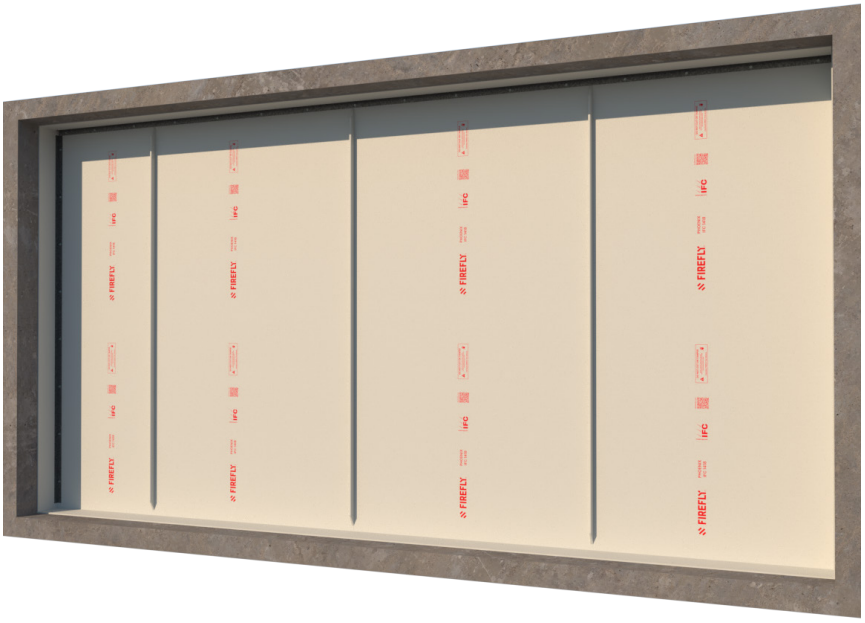
Additional Barrier is overlaid and jointed as per the previous details until the void is closed and the compartment is complete.

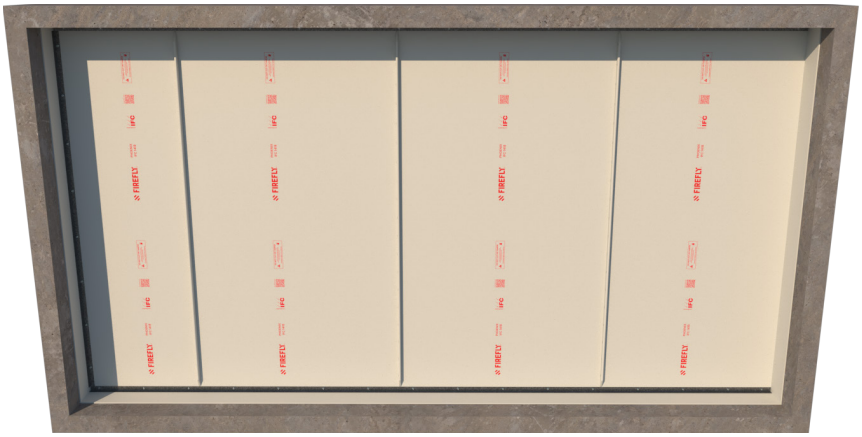


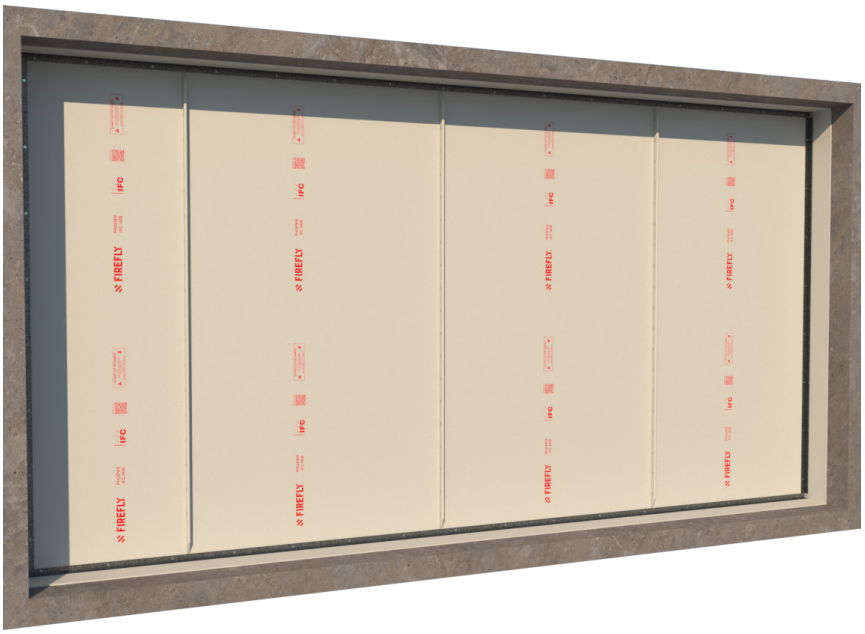
CLAMPING ANGLE

FIREFLY® 25 x 25 x 0.7mm Clamping Angle is used to clamp the barrier as flush to the soffit as possible. Before being fixed into the FIREFLY® 50 x 50 x 0.7mm Supporting Angle with FIREFLY® 38mm TEK Screws at 250mm centres and 50mm from the end of the Angle.

Where two FIREFLY® 25 x 25 x 0.7mm Clamping Angles connect, they should be overlapped by 25mm with a central fixing.



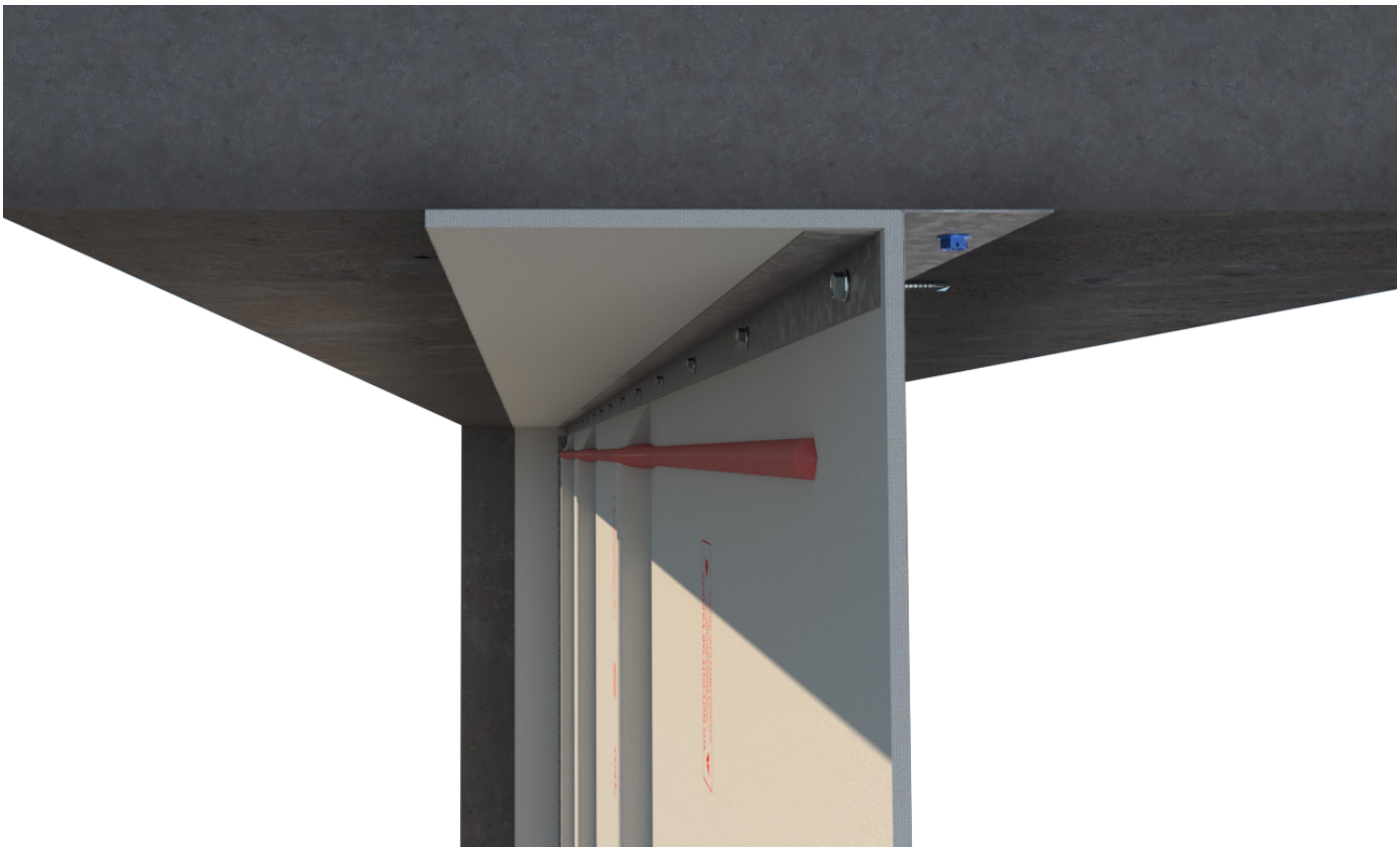


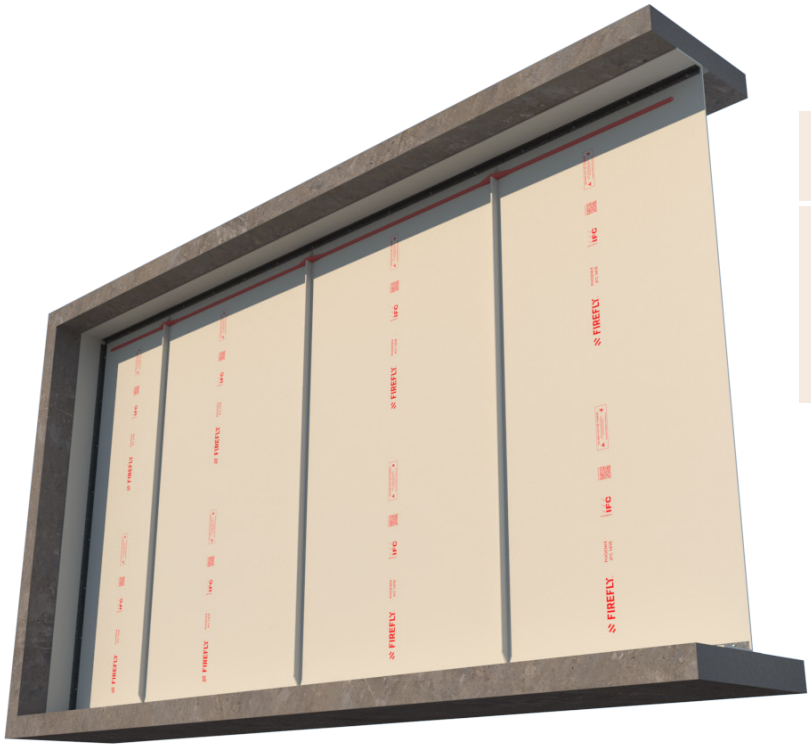


CLAMPING ANGLE

This detail is repeated on all sides, until all outer edges are clamped in place, creating a top, side and bottom fix.

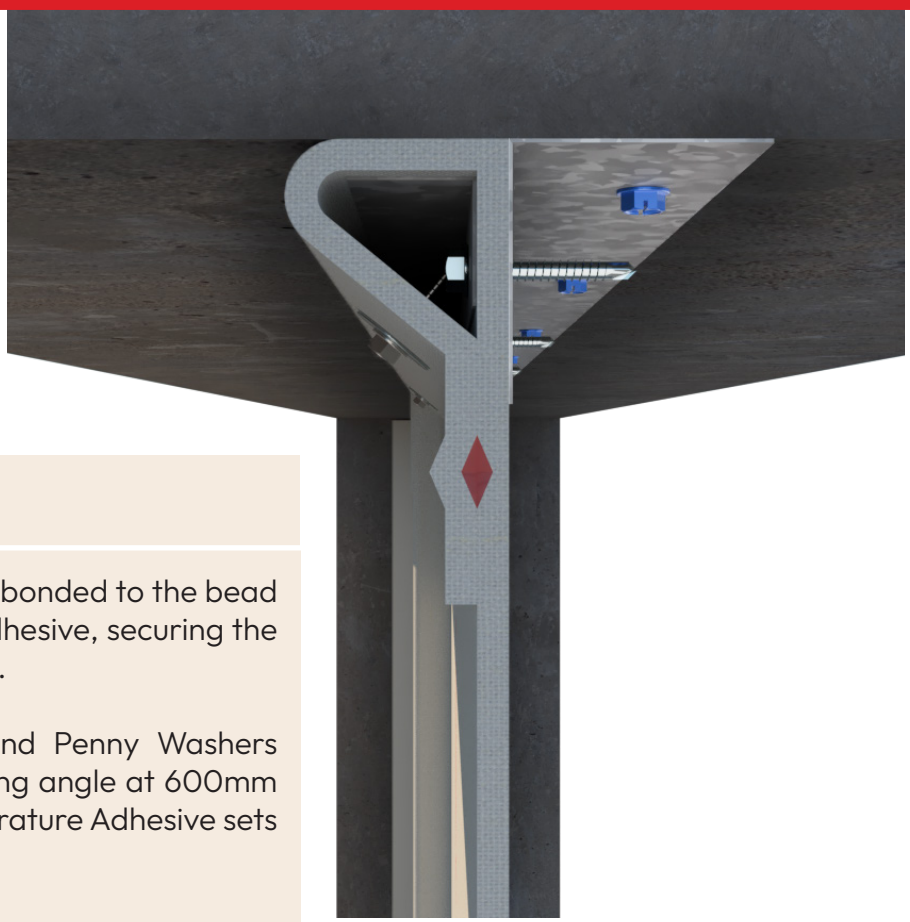
FIREFLY® 25 x 25 x 0.7mm Clamping Angle is used to clamp the barrier as flush to the Supporting Structure as possible, before being fixed into the FIREFLY® 50 x 50 x 0.7mm Supporting Angle with FIREFLY® 38mm TEK Screws, at 250mm centres and 50mm from the edge of the angle.





WRAPPING ANGLE

A 6mm bead of FIREFLY® High Temperature Adhesive is applied just below the Clamping angle, in line with the overlap.

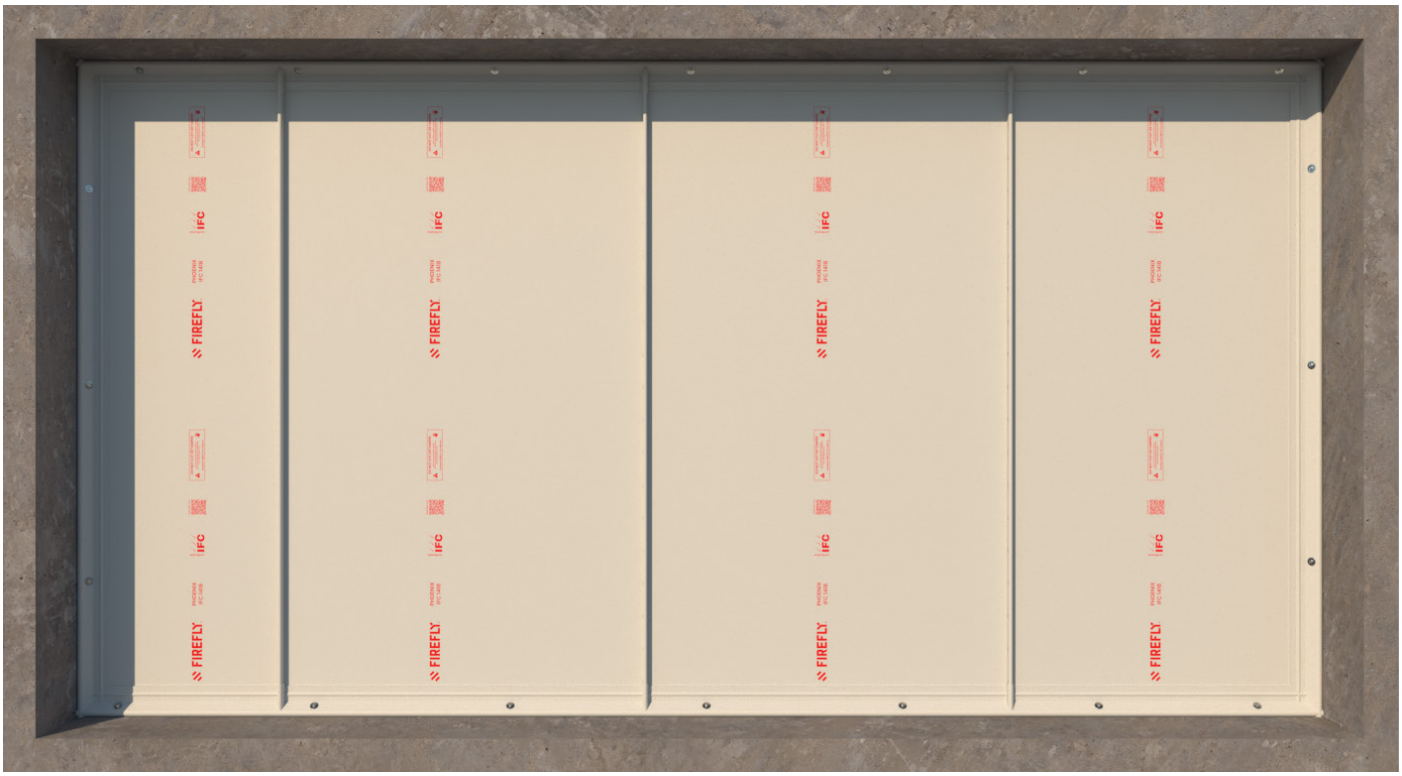


WRAPPING ANGLE

The overlap is brought down and bonded to the bead of FIREFLY® high temperature adhesive, securing the overlap to the body of the barrier.

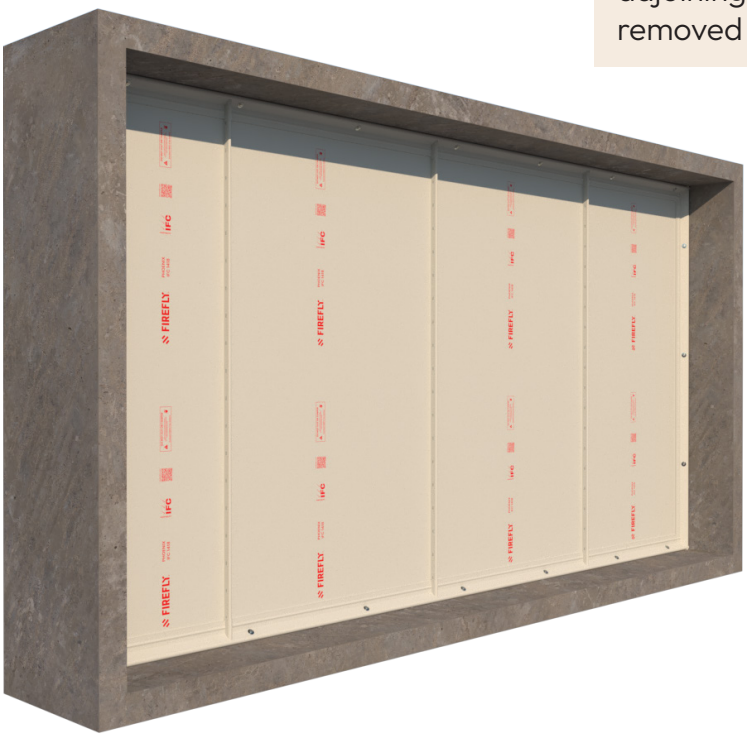
FIREFLY® 38mm TEK Screws and Penny Washers secure the overlap to the Clamping angle at 600mm centres to ensure the High Temperature Adhesive sets properly.

Clamping fixings at 600mm centres is a recommendation to ensure the High Temperature Adhesive sets properly and is not required for certification purposes as long as the High temperature Adhesive sets properly.



INSTALLATION COMPLETE

The Phoenix Fire Barrier should be clamped flush to its adjoining surfaces. Any torn/damaged barrier must be removed and replaced.



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