Installation Guide
Apollo Lite - Vertical Fire Barrier

Guides

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INTRODUCTION

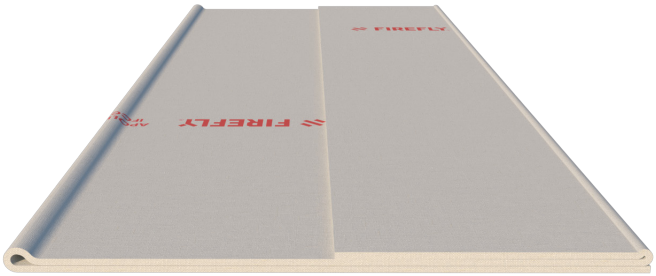
FIREFLY® Apollo Lite 30:30 is a lightweight flexible fire barrier designed to provide fire compartmentalisation of larger concealed spaces and voids within buildings, offering 30 minutes Integrity and 30 minutes Insulation.

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

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

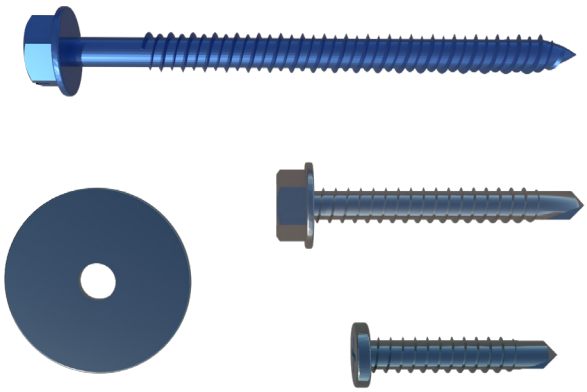
MATERIALS REQUIRED:

FIREFLY® APOLLO Lite Barrier



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

FIREFLY® 12mm Staples
FIREFLY® 38mm TEK Screws
FIREFLY® 25mm Panhead TEK Screws
FIREFLY® Penny Washers
Suitable FIREFLY® Fixings for the substrate
(FIREFLY® 80mm Concrete Screws)

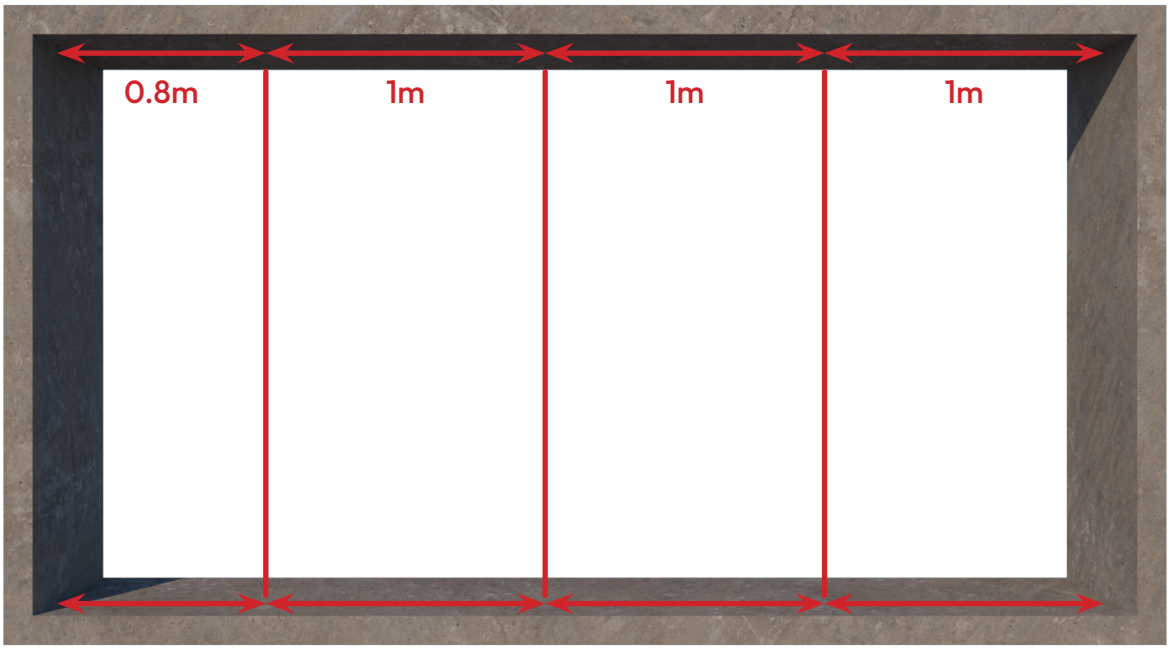


MEASURE & ASSESS

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® Apollo Lite fire barriers are supplied at 1.3m x 6m and require a 150mm nominal (100mm minimum) overlap on perimeter edges and a 75mm overlap when adjacent to other cuts of barrier to create a Butt joint.

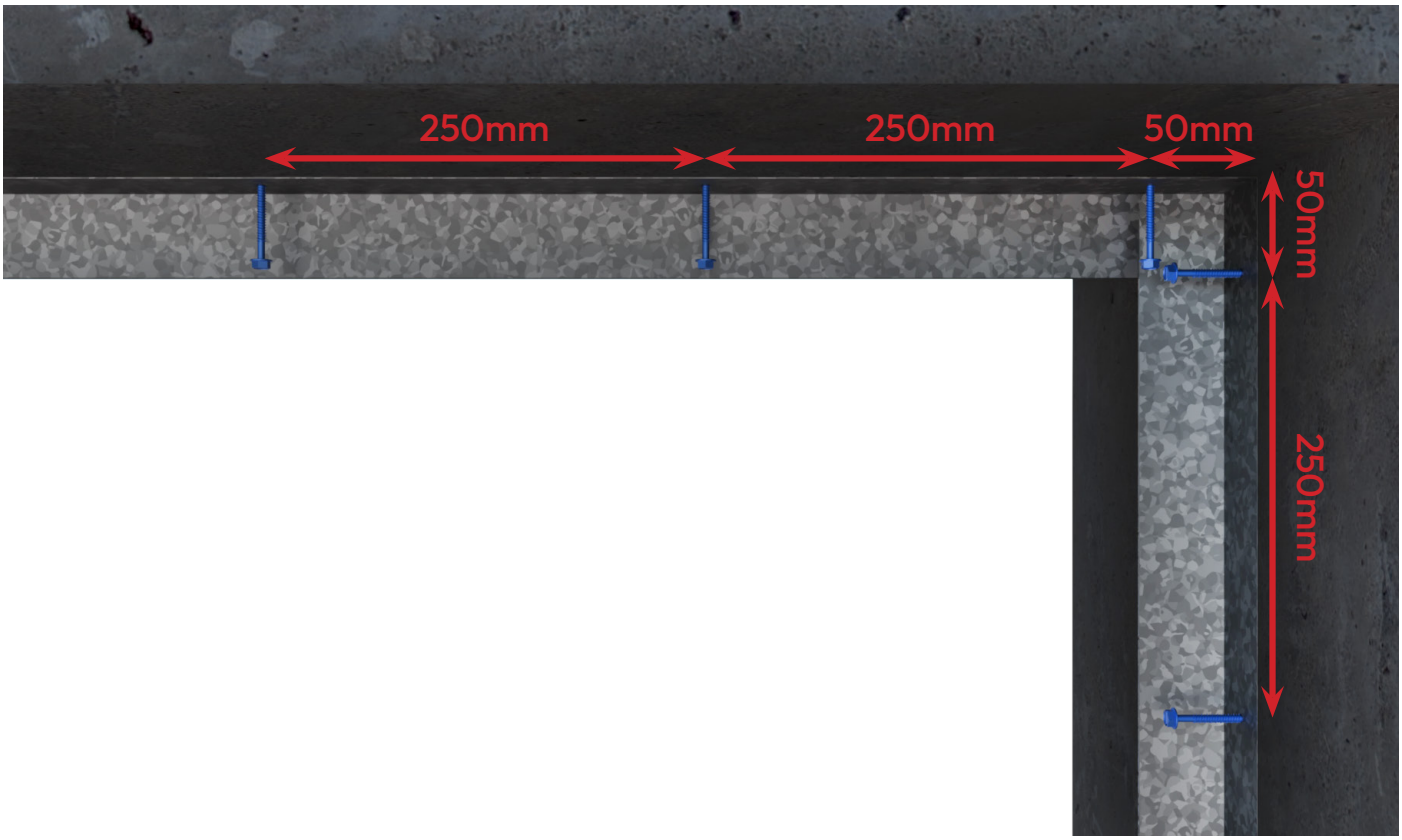
We can subdivide the area into approximately 1m x 2m length.
Meaning we'll need 3 cuts of 1.3m x 2.3m Apollo Lite barriers and a shorter cut at 1.1m x 2.3m

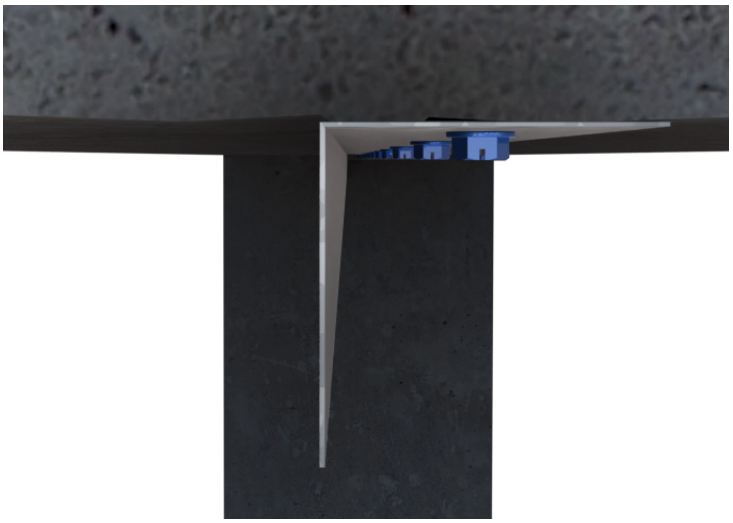


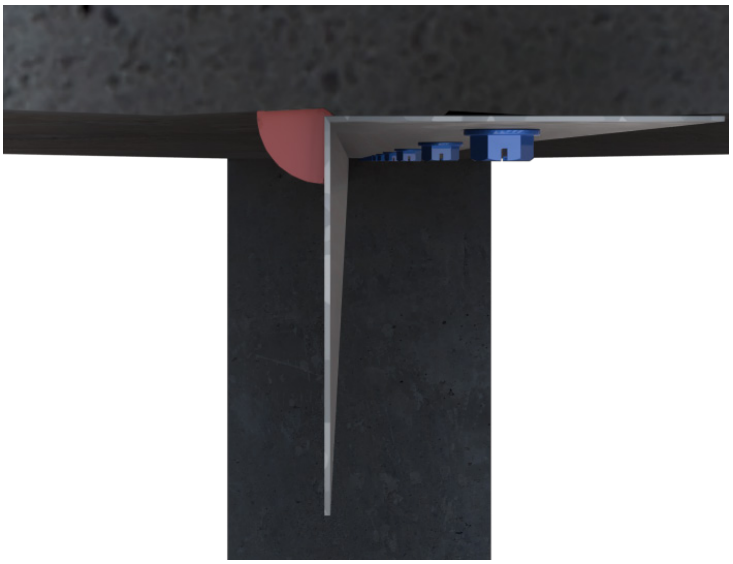
FIXING SUPPORTING ANGLE

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.

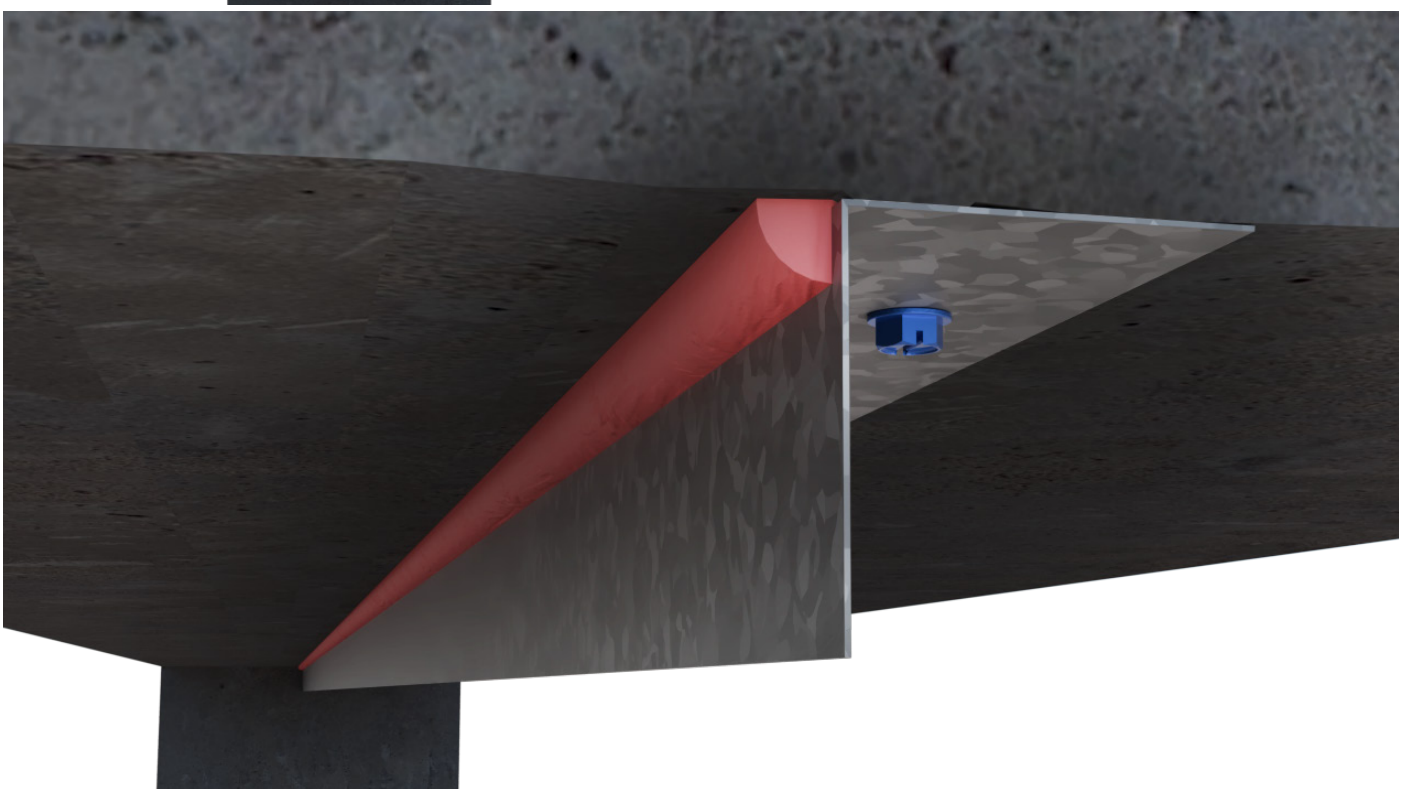


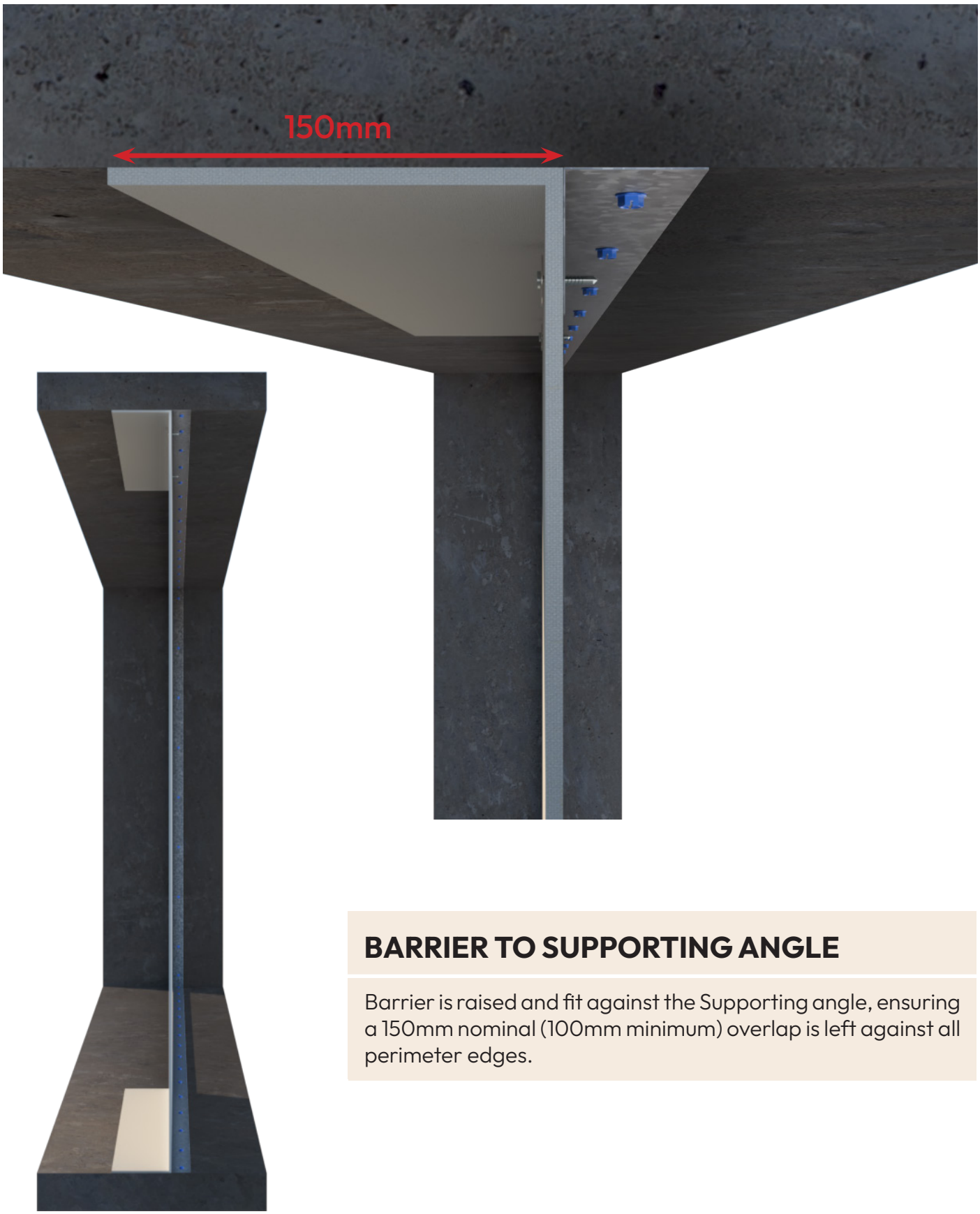




FIXING TO UNEVEN SURFACES

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.





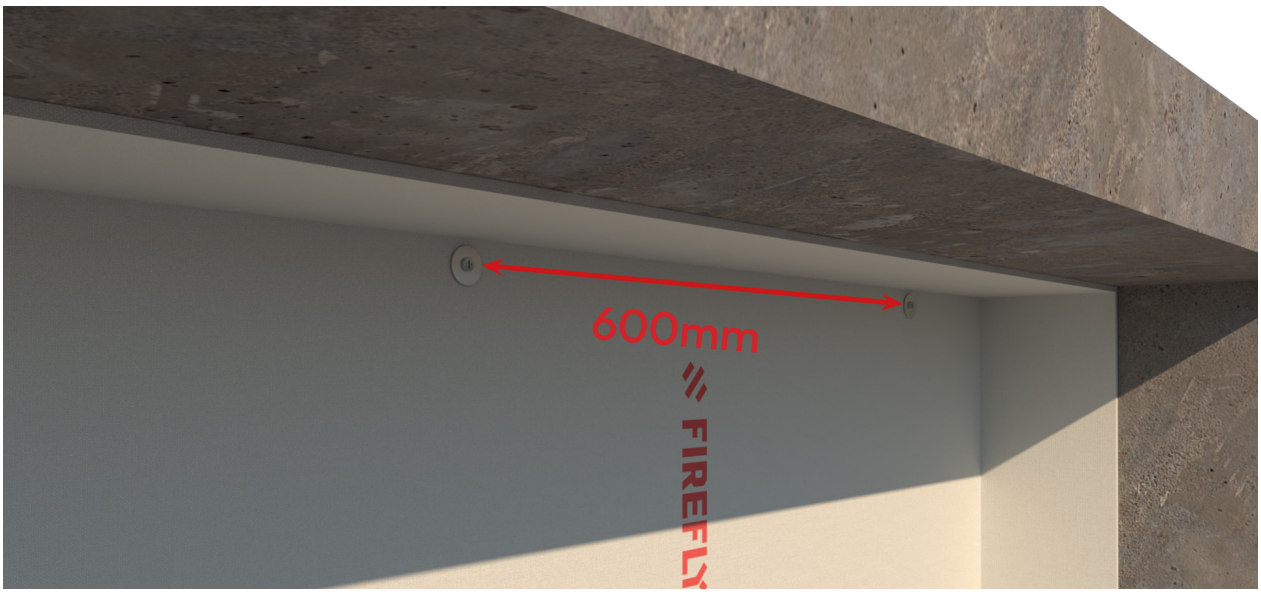
BARRIER TO SUPPORTING ANGLE

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.

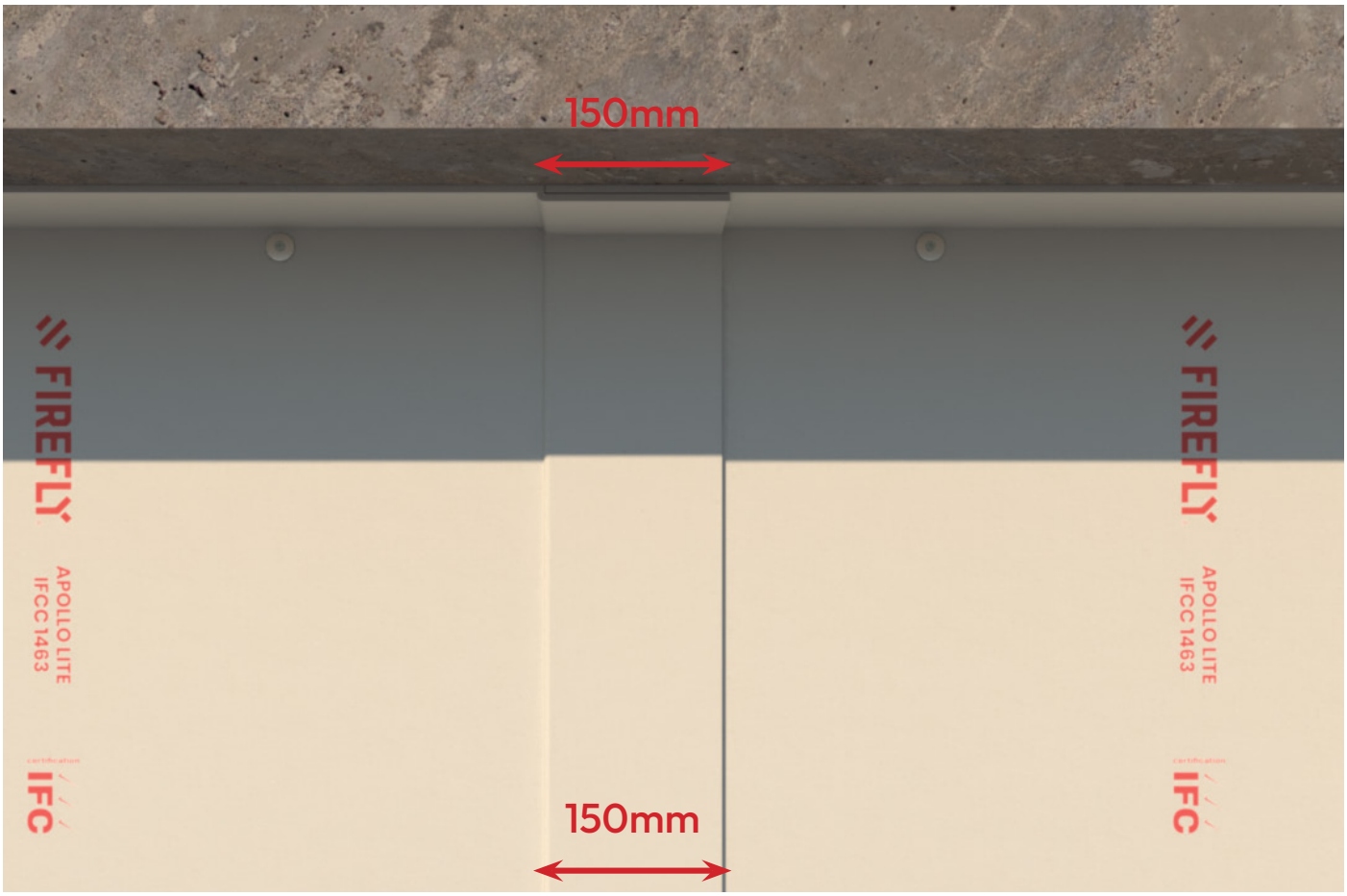
Its worth noting that this step is a temporary fixture and is done to hold the barrier in place until it can be Butt jointed, before being permanently clamped at a later stage.



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 150mm overlap wherever two separate cuts of barrier will join.

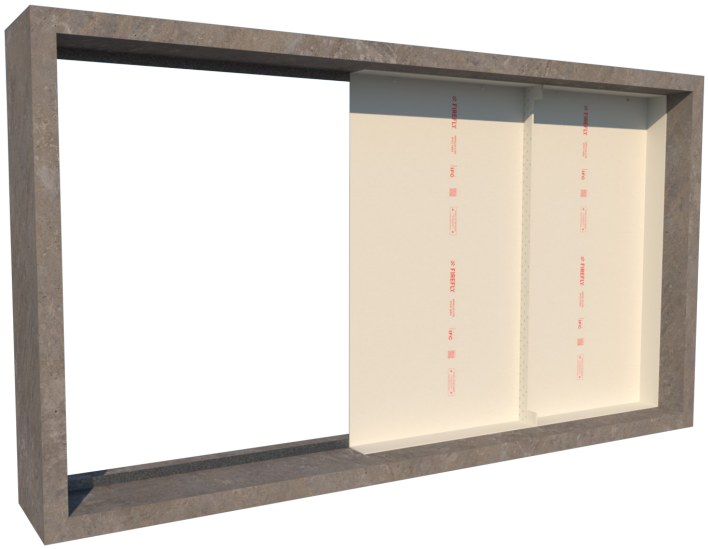


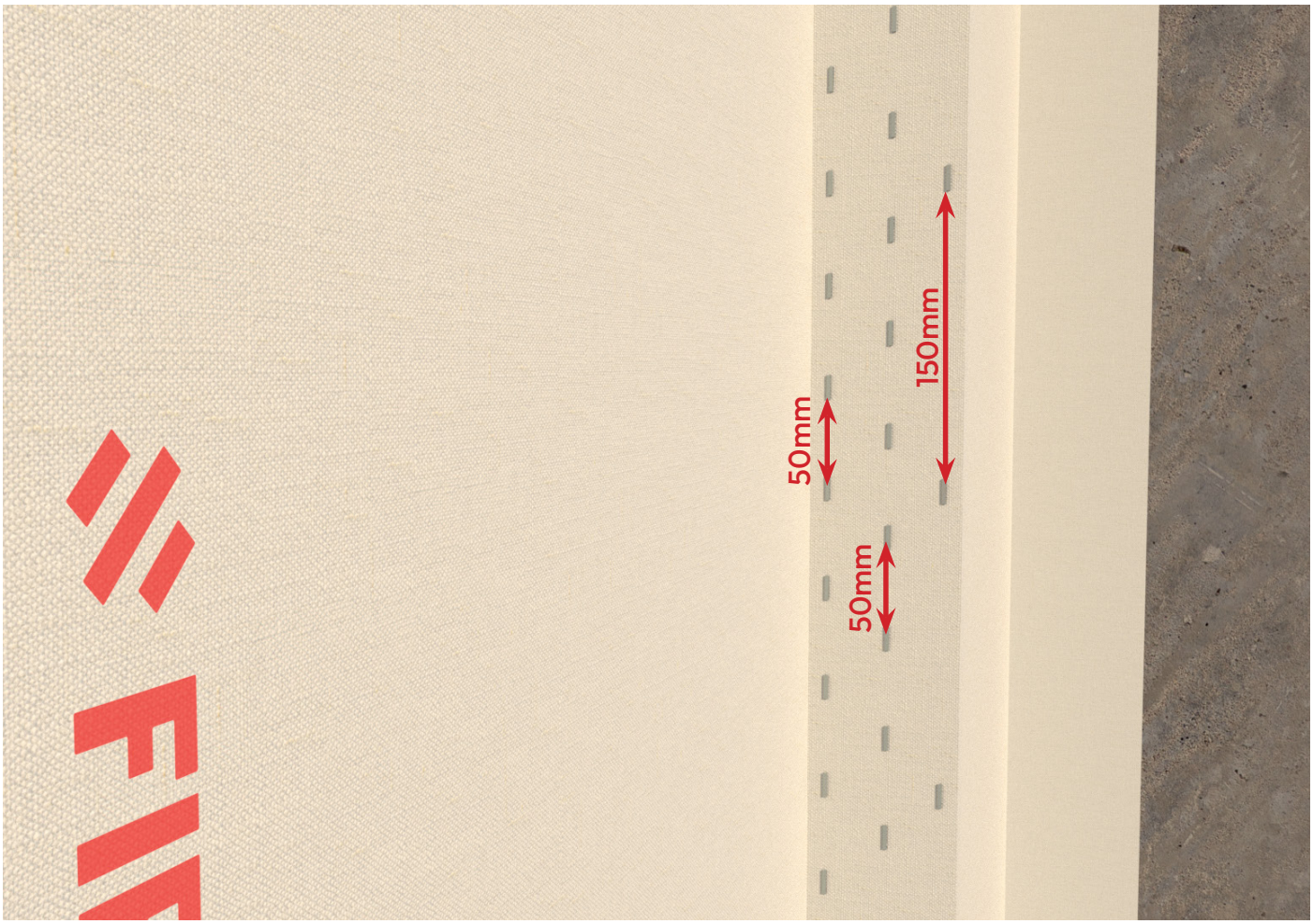
BUTT JOINTS

Of the 150mm Overlap between Barriers, 75mm from each barrier is brought forward, centred and stapled along the fold line with FIREFLY® 12mm Staples at 50mm centres.

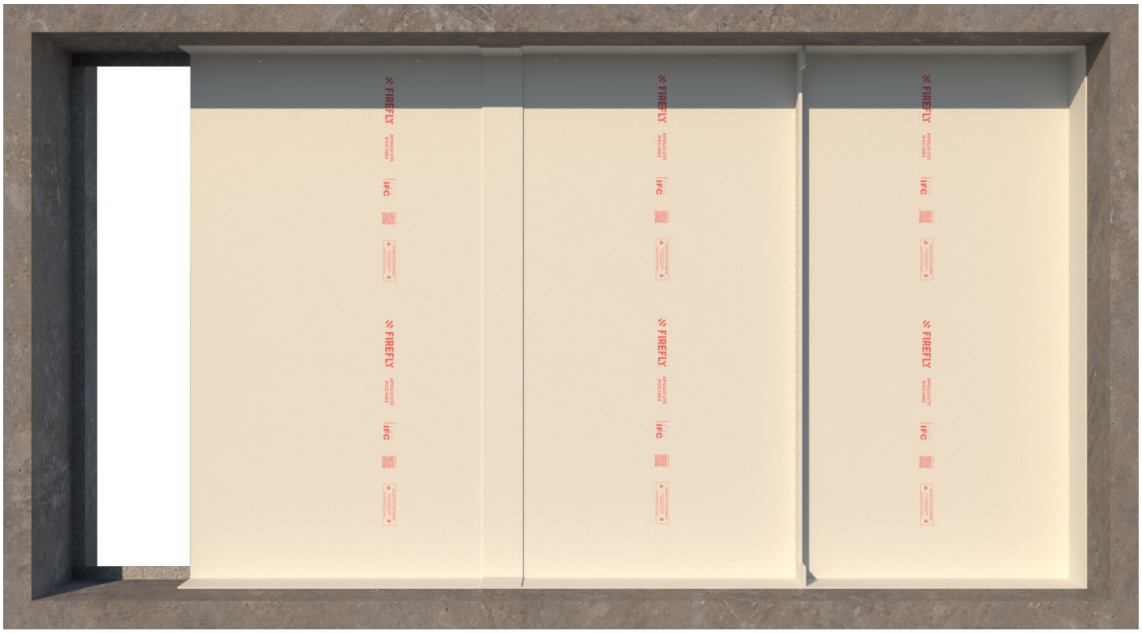
A second, staggered, row of staples at 50mm centres is fixed 25mm away from the first.

Finally a closing row of staples to seal the Butt joint at 150mm centres.





Stapling off the Butt joint is the most labour intensive part of the installation, the speed of which can be vastly improved with the use of a FIREFLY® B16 Stapler or a FIREFLY® FF Pneumatic Staple Gun.



BUTT JOINTS

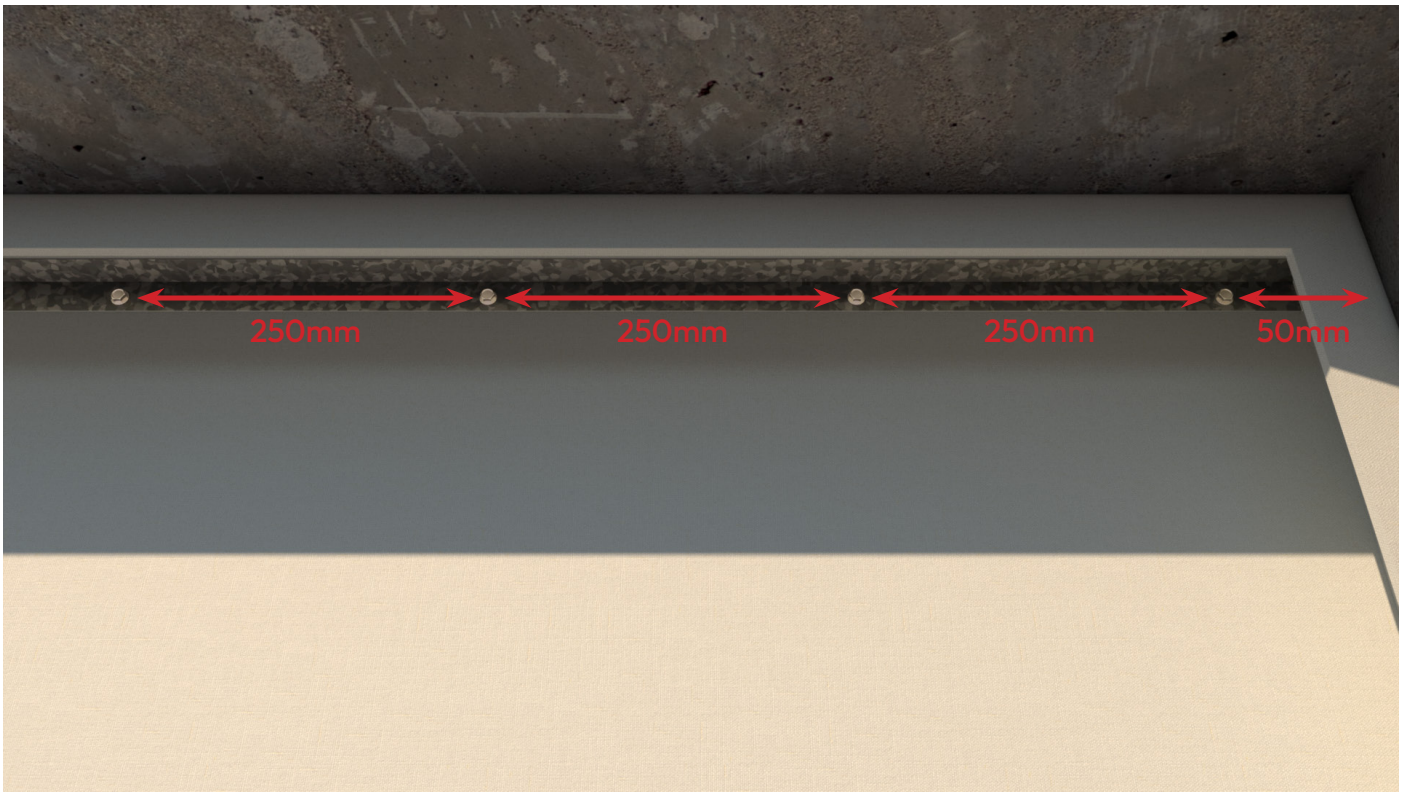
Additional Barrier is overlaid and Butt jointed as per the previous details until the void is closed and the compartment is complete.

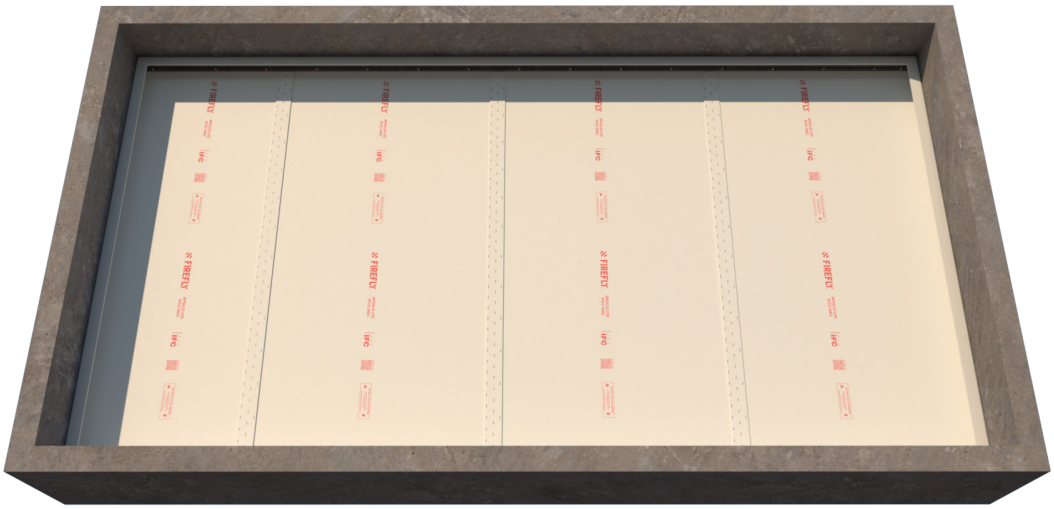
After Stapling is complete the newly formed Butt joints should be flattened, as flush to the body of the barrier as possible.

CLAMPING ANGLE

FIREFLY® 25 x 25 x 0.7mm Clamping Angle is used to clamp the barrier as flush to the soffit. 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.

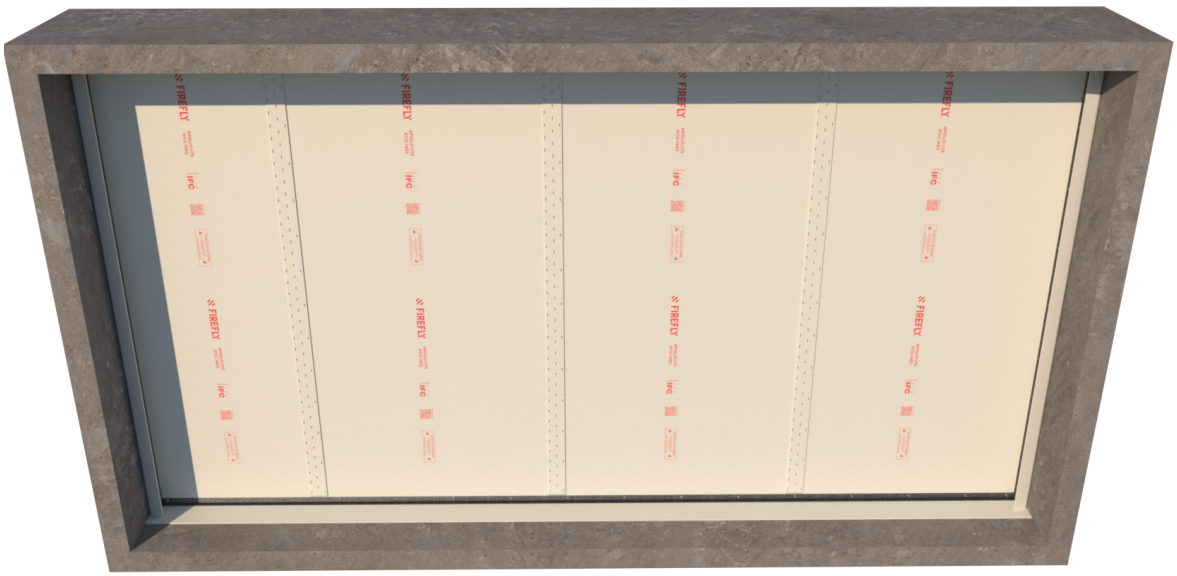




CLAMPING ANGLE

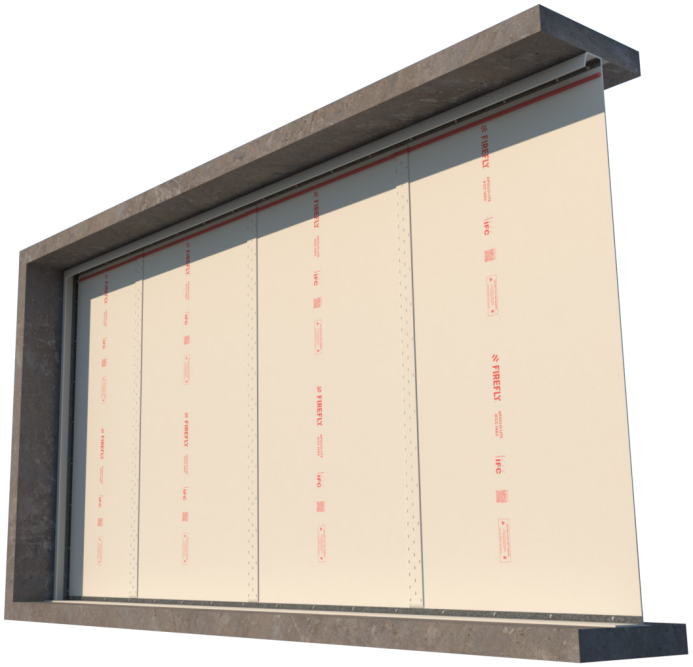
This detail is repeated on all sides, until all outer edges are clamped in place, creating a top, side and bottom fix.

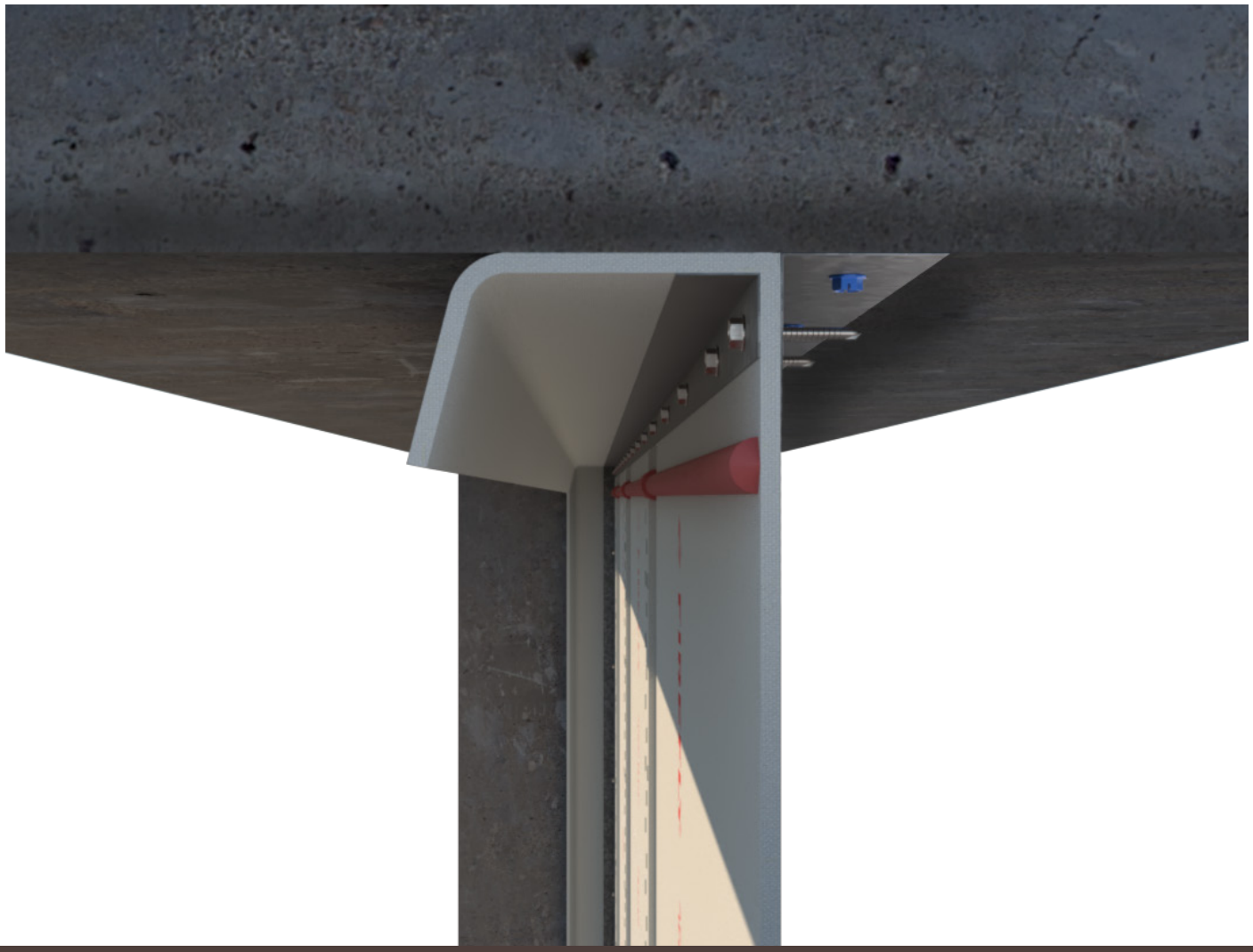
FIREFLY® 25 x 25 x 0.7mm Clamping Angle is used to clamp the barrier as flush to the Supporting Structure as possible, before being fixed into the FIREFLY® 50 x 50 x 0.7mm Supporting Angle with FIREFLY® 38mm TEK Screws, at 250mm centres and 50mm from the edge of the angle.



WRAPPING ANGLE

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



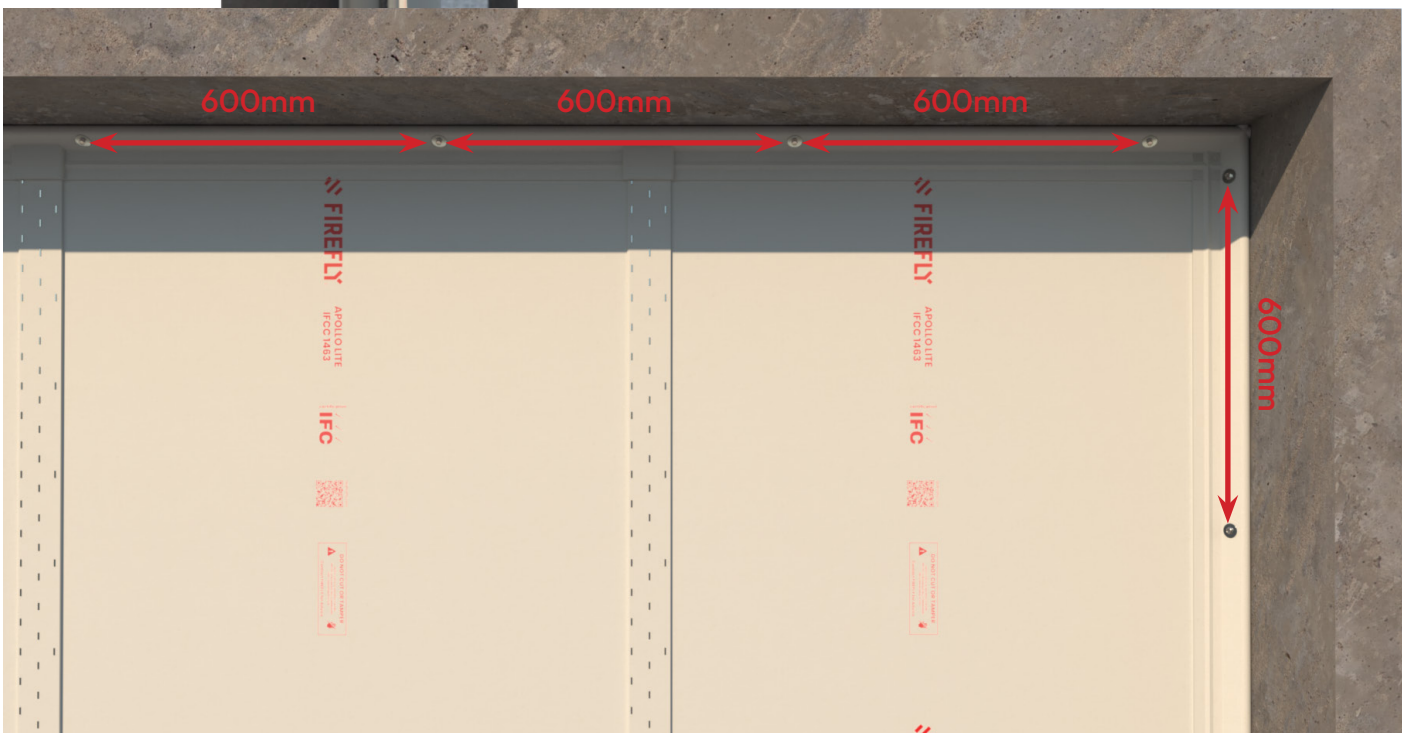


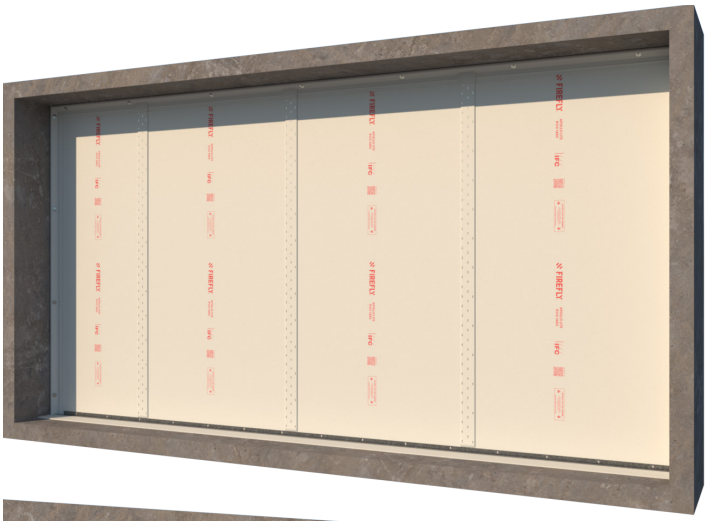
WRAPPING ANGLE

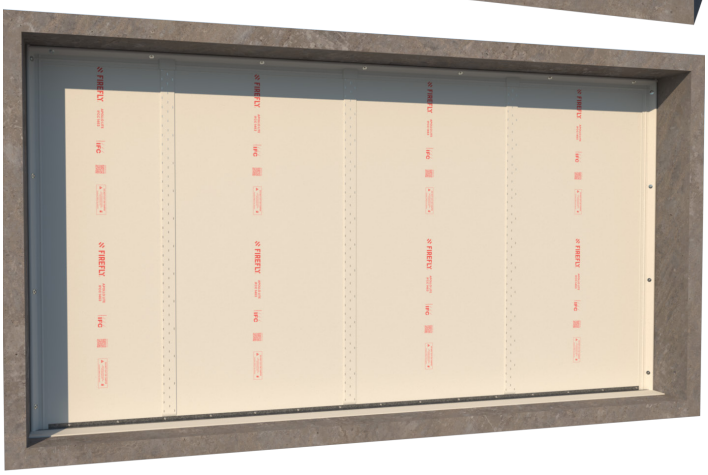
The overlap is brought down and bonded to the bead of FIREFLY® high temperature adhesive, securing the overlap to the body of the barrier.

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.



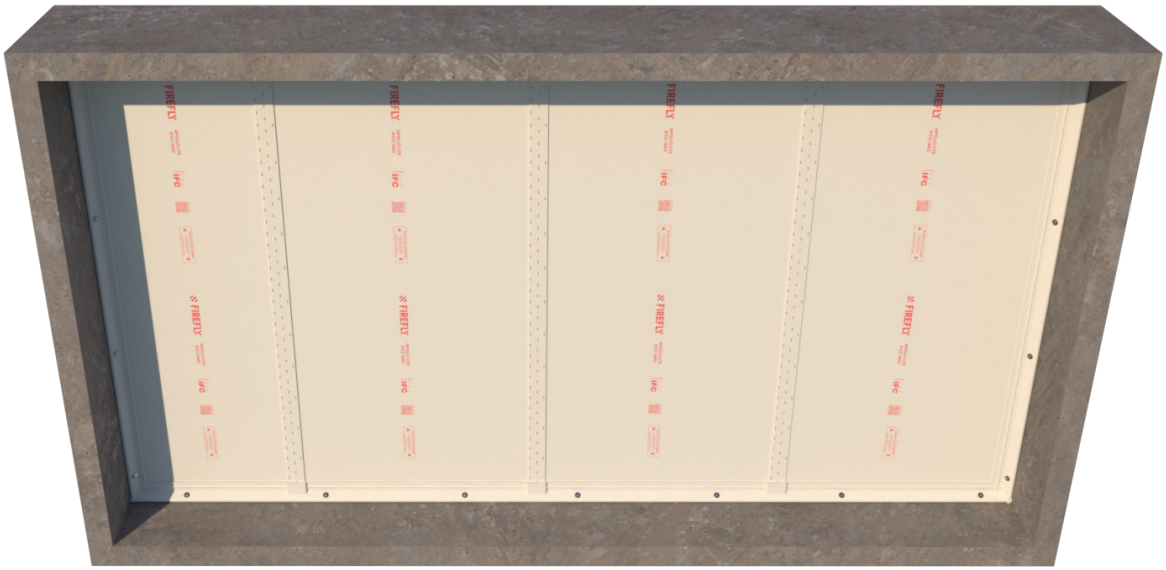


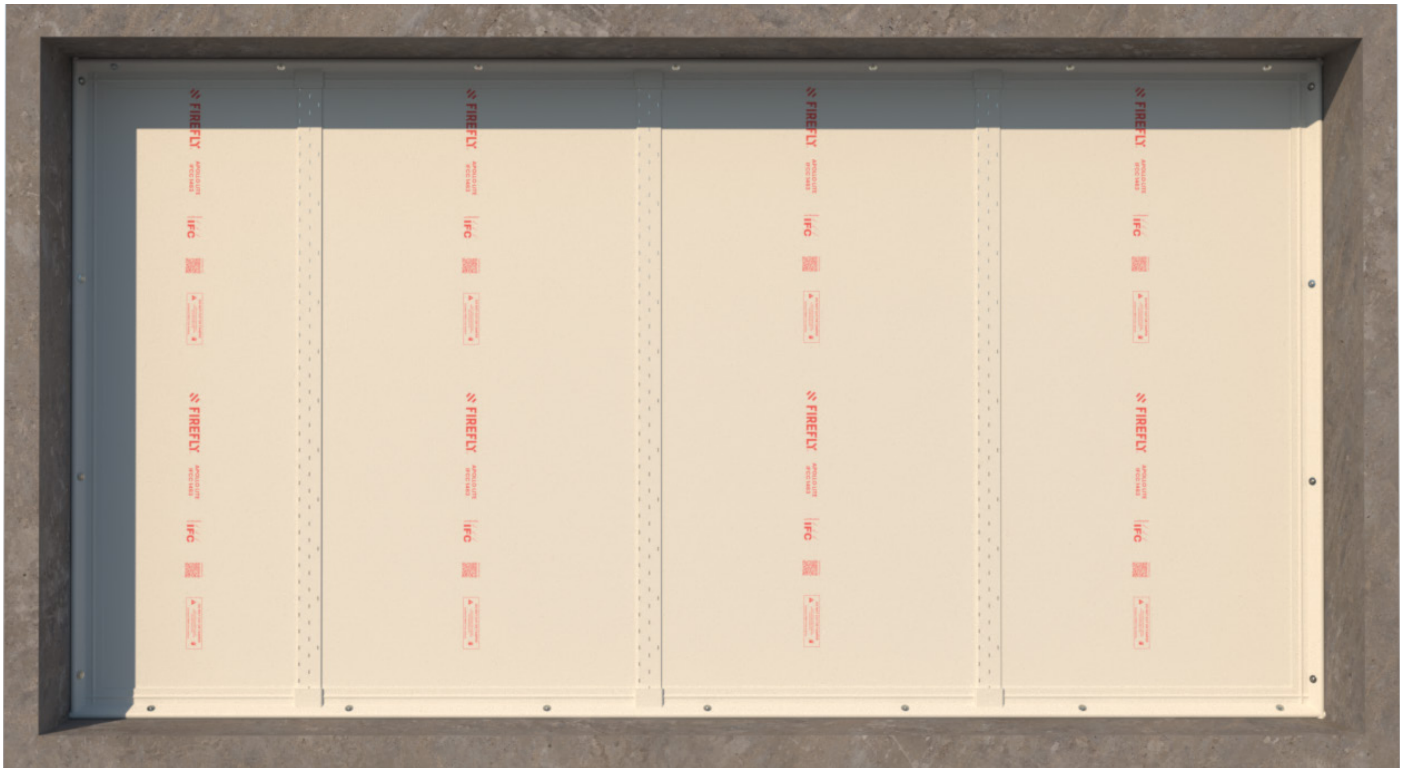


WRAPPING ANGLE

This detail is repeated until all 25 x 25 x 0.7mm Clamping Angles are wrapped.

Sealed with a 6mm bead of FIREFLY® high temperature adhesive and secured with FIREFLY® 38mm TEK Screws at 600mm centres while the high temperature adhesive dries/sets.





INSTALLATION COMPLETE

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

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