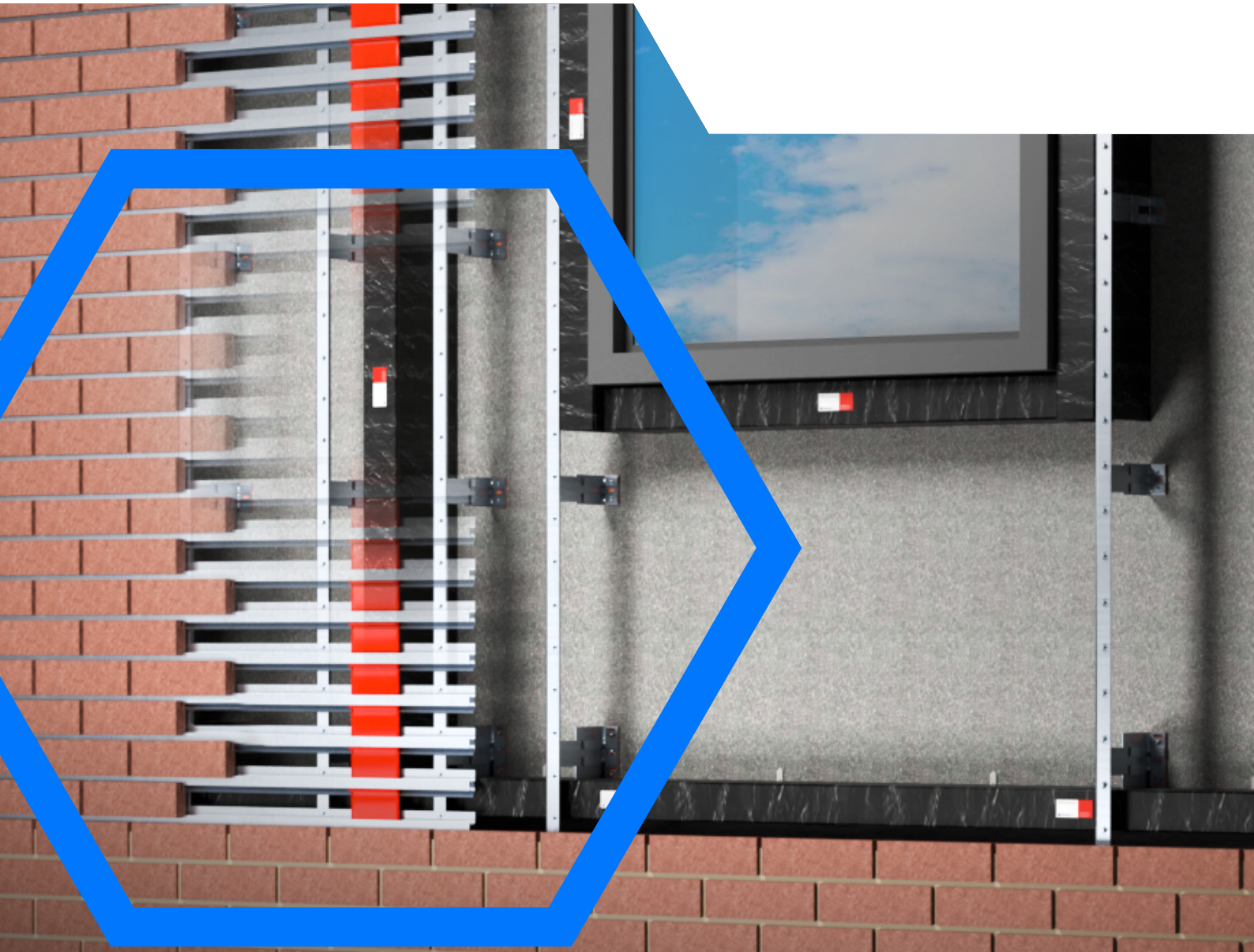
Tenmat

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Cavity Barrier Solutions for Brick Slip Systems

Tenmat's VFB Horizontal and VFB Vertical are cavity fire barriers specifically fire tested to offer fire resistance performance within brick slip cladding systems.

Passive Fire Protection

Product Description

Tenmat's VFB Horizontals are 'open state' cavity fire barriers for installation horizontally behind brick slip systems, designed to leave a 25mm air gap to allow for drainage and ventilation that is then sealed off in a fire situation.

The VFB Verticals are intumescent cavity fire barriers to be installed vertically behind brick slip systems, designed to be friction fit to the back of the horizontal rails with intumescent capabilities to seal any remaining gaps around rails to the back of the brick slips.

Each VFB Vertical is supplied with 13No. intumescent FF107 Rail Pads that expand to seal the void between the rails and rear of the Brick Slips.

The VFB Horizontals are 3rd party fire tested to ASFP TGD 19 (Fire Resistance Test for 'Open State' Cavity Barriers, whereas the VFB Verticals are tested to EN 1366-4 (Fire Resistance Test for Linear Joint Seals).

Each VFB variant consists of a specially formulated fire rated stone mineral wool section with an integral high expansion intumescent seal fixed to the leading edge.

In a fire situation the intumescent seal rapidly expands to seal off the air gap horizontally and seals vertically around the rails to the back of the brick slips.

Product Details

- 3rd Party Fire Tested behind brick slip systems
- Tests include Ash & Lacy NaturAL-X and Mechslip systems
- Fire Ratings of min. 90 minutes integrity and min. 30 minutes insulation for cavities up to 395mm
- Fire Tested on Steel Frame Systems (SFS), concrete, masonry and blockwork inner substrates
- Maintains a 25mm air gap horizontally
- Intumescent seals rails in vertical orientation
- Durability and Age Tested
- Fixing brackets included as standard

Sizes

Horizontal
Thickness (Total Cavity to back of rail less 25mm Air Gap) x 75mm x 1000mm

Vertical
Thickness (Total Cavity to back of rail) x 75mm x 1000mm

Fire Test Evidence

BS EN 1363-1 and to the principles of ASFP TGD19 (horizontal orientation)
EN 1366-4 (vertical orientation)

Inner Leaf Substrate Type (facing cavity) with Appropriate Fire Resistance	Outer Leaf Substrate Type (facing cavity) With Appropriate Fire Resistance	Orientation	Insulation Type Within Cavity (interrupted)	Cavity Width*** (in mm)	Maximum Open State Air Gap (In mm)	Tested Product Reference	Product Fire Resistance Rating	
							Integrity	Insulation
Gypsum based sheathing board on SFS*, Aerated Concrete, Concrete, Blockwork & Masonry	Horizontal Brick Slip (Ash & Lacy NaturAL-X)	Horizontal	Stone Wool**	58-395	25	VFB Horizontal	120	60
Gypsum based sheathing board on SFS*, Aerated Concrete, Concrete, Blockwork & Masonry	Horizontal Brick Slip (Ash & Lacy Mechslip)	Horizontal	Stone Wool**	58-395	25	VFB Horizontal	90	60
Gypsum based sheathing board on SFS*, Aerated Concrete, Concrete, Blockwork & Masonry	Horizontal Brick Slip (Ash & Lacy NaturAL-X & Mechslip)	Vertical	Stone Wool**	Max 395	n/a	VFB Vertical with FF107 Rail Pads	120	30

3rd Party Fire Testing
Fire Test Report 540016A
Fire Test Report 540016B

* Tested sheathing board was Klasse G Board 12.5mm thick, tests included a layer of combustible breather membrane (T200 Thermo Insulating Breather Membrane)

** Tested cavity insulation was Rainscreen Duo Slab insulation, tested range 30-300mm

*** Cavity width is measured from the face of inner substrate to the rear of the brick slip rails

Min. protrusion of cavity barrier in front of cavity insulation must be 8mm or greater

Ash & Lacy NaturAL-X brick slips, 28mm thick, included a rear groove/frog of nominally 12.5mm depth

Ash & Lacy Mechslip brick slips, 28mm thick, which incorporated 14mm deep rear grooves

For vertical applications, 1No. intumescent FF107 Rail Pad must be installed within each horizontal rail centralised in line with VFB Vertical

Technical Information

Colour	Black (VFB Horizontal and VFB Vertical) Red (FF107 Rail Pad)
Finish	Polythene Wrap
Cuttability	Can be cut to length (VFBs only)
Storage	Dry, ambient
Transportation Storage Temperature	-20°C to +70°C
Durability	Type X intended for use in conditions exposed to weather (UV, rain, frost)
Fungal Resistance	Protected by polythene
Smoke/Halogen Content	Low Smoke / Zero Halogen
Minimum Total Working Life (Years)	Based on typical climatic conditions UK 60 years Australia 45 years France 60 years New Zealand 60 years Germany 60 years Hong Kong 40 years The Netherlands 60 years
Dimensional Tolerances (VFBs only)	Thickness +10/-0mm Width +5/-0mm Length +0/-5mm

Working life, durability, halogen content and smoke emission data refers to the active intumescent component.

General Design & Installation Considerations

Maximum free air gap for the VFB Horizontal cavity barrier is 25mm, the space in front of the intumescing strip on the face of the cavity barrier to the rear of the horizontal rails.

The VFB Vertical cavity barrier must be installed to abut the back of the horizontal rails with no clear air gap. It must be ensured that an FF107 Rail Pad is installed within each horizontal rail centralised in line with the VFB Vertical.

Install helping hand brackets as required (to brick slip manufacturer requirements), ensuring that the position of helping hands does not collide with the required position of either the horizontal or the vertical cavity barriers.

Install the VFB Vertical cavity barriers, at the positions required in the fire strategy, ensuring that they are sized to be at least flush finished with top or bottom of the horizontal cavity barriers, the cavity barriers must overlap (the vertical barriers may finish proud of the horizontal cavity barriers, but not shorter). The ends of the vertical cavity barriers must be fitted tightly abutted together, no gaps between the cavity barrier ends are permitted.

Horizontal Open state cavity barriers should be installed in a continuous run, (with the exception of abutting up to the vertical cavity barriers).

Where this is not possible, details should be agreed with the projects principal designer and or fire engineer.

Install the VFB Horizontal cavity barriers, at the positions required in the fire strategy, in-between the vertical cavity barriers, ensuring that any horizontal cavity barriers fitted between vertical cavity barriers are fitted to be at least flush finished with top or bottom of the vertical cavity barriers, the cavity barriers must overlap and be tightly abutted together. The ends of the horizontal cavity barriers must also be fitted tightly abutted together, no gaps between the cavity barrier ends are permitted.

Cavity barriers may be cut to length as required, adjacent lengths must be tightly abutted together.

The intumescing face of the cavity barrier should be unrestricted and free to expand in a fire situation to the back of the rails, it will then be capable of sealing any remaining gaps between the rail and the back of brick slip.

An identification label is attached to the intumescing face of the cavity barrier, ensure this faces out into the open cavity. Also ensure the label is visible and legible and reads the right way up.

Cavity barrier fixing brackets must not penetrate through the face of the cavity barrier. Screws for direct fixing and fixings to secure brackets are not supplied by Tenmat.

The brackets used to fix the horizontal cavity barriers must be installed with the bracket fixed above and not below the cavity barrier.

The use of tape is not required over the joints between the lengths of cavity barrier, and if used should not be applied over the face of intumescent material.

The cavity barriers must be installed following the installation methods described below. The cavity barriers must not be penetrated by any other mechanical or electrical services.

Fitting Instructions

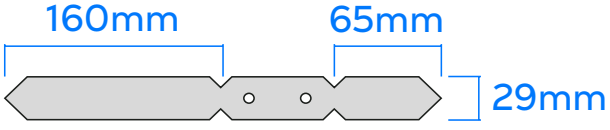
Horizontal - Fire Barrier Support Details

Cavity Size (mm)	Product Width (mm)	Fitting Option Number	Barrier Support Type	No. of support (brackets) fix-ings per metre	Maximum (brackets) Centres (mm)
40-100	15-75	1	Screw	4	N/A
101-115	76-90	2	MP Bracket	2	500
110-159	110-159	3	Type 2 Bracket	2	500
160-395	160-395	4	Type 2 Bracket*	2	500
116-240	91-215	3	MP Bracket	2	500
241-300	216-275	4	MP Bracket*	3	350
301-395	276-370	5	HP Bracket	2	500

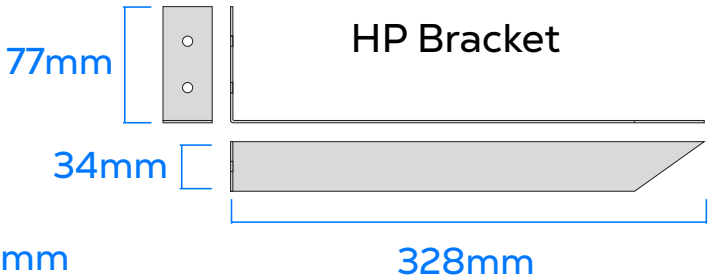
Vertical - Fire Barrier Support Details

Cavity Size (mm)	Product Width (mm)	Fitting Option Number	Barrier Support Type	No. of support (brackets) fix-ings per metre	Maximum (brackets) Centres (mm)
40-75	40-75	1	Screw	4	N/A
76-109	76-109	2	MP Bracket	2	500
110-159	110-159	3	Type 2 Bracket	2	500
160-395	160-395	4	Type 2 Bracket*	2	500

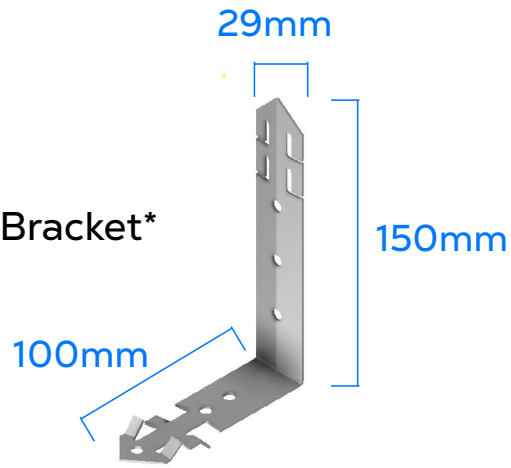
MP Bracket



HP Bracket



Type 2 Bracket*



*Type 2 Brackets can be used horizontally and vertically if required

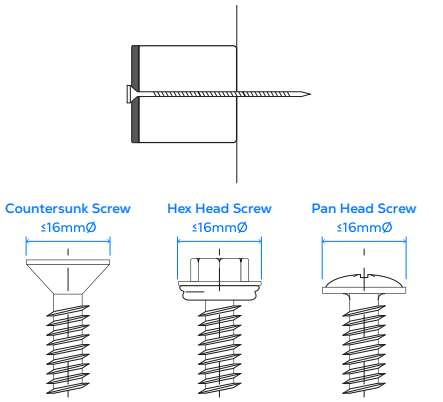
Installation Instructions



Option 1

VFB HORIZONTAL - Product width across cavity 15mm up to 75mm wide, directly face fixed.

VFB VERTICAL - Product width across cavity 40mm up to 75mm wide, directly face fixed.



Affix the product using stainless steel screws or nails at a maximum spacing of 250mm with a maximum head diameter of 16mm (screws can be countersunk, pan head, hex head as long as the overall diameter is max. 16mm).

Fixings must have an appropriate fixing depth for the substrate (with a minimum as specified by the fixing manufacturers guidance for their fixing type).

Ensure that the screw head does not fully penetrate the face of the cavity barrier, the screw head should sit flush or slightly proud.

Care should be taken not to over tighten as this may affect the performance of the intumescent seal.

Horizontal Orientation



Position the first screw fixing through the centre line of the face of the cavity barrier at a maximum 125mm from one end, continue to face fix through at maximum 250mm centres (4 screws per linear metre), ensuring that the final fixing is a maximum 125mm from the end of the cavity barrier. This will ensure that face fixings are positioned at 250mm centres across the continuous run of cavity barrier.

Vertical Orientation



Cut Sections
It must be ensured that if the cavity barriers are cut to length, sections 200mm or less must have one fixing in place, positioned centrally.

Sections 200 to 500mm must have minimum 2No. fixings in place, 500 to 750mm is 3No. and 750 to 1000mm is 4No. fixings and they must be equally spaced with not more than 250mm between fixings and not more than 125mm for either end.

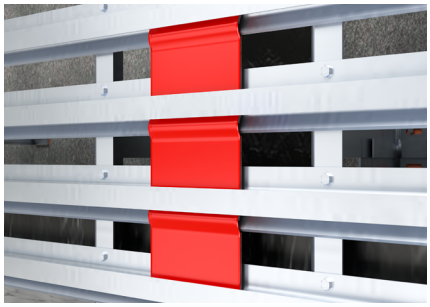
Slitting
If the intumescent face on the front face of the cavity barrier is slit to allow fitting around vertical rails, it must be ensured that every cut section has additional fixings to retain the intumescent material/product.

Vertical slits must be kept as small as practicable, ensuring no gaps remain and the depth of slit is to minimum the depth of the rail and maximum 10mm deeper than the rail.

Additional fixings at maximum 125mm to either side of each cut, and ensure that the other fixings are no more than 250mm centres from the additional fixings applied.

For VFB HORIZONTAL ensure that the maximum remaining air gap in front of the front face of the cavity barrier to the rear of the rails is 25mm.

For VFB VERTICAL ensure that the cavity barrier abuts the back of the rails and that FF107 Rail Pads are fitted within the horizontal rails.

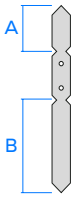


For installation of FF107 Rail Pad within horizontal rails in conjunction with VFB VERTICAL, see installation instructions at the end of this data sheet.

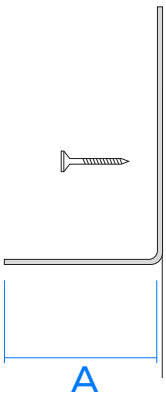
Option 2

VFB HORIZONTAL - Product width across cavity from 76mm up to 90mm wide, fixed using 2No. multi purpose (MP) 65mm brackets (per linear metre).

VFB VERTICAL - Product width across cavity from 76mm up to 109mm wide, fixed using 2No. multi purpose (MP) 65mm brackets (per linear metre).



MP brackets are supplied with 2 fixing spikes, one spike is 65mm long (A), the other is 160mm long (B), with a central pre drilled section for securing the bracket to the substrate.



For horizontal cavity barriers 76mm-90mm and for vertical cavity barriers 76mm-109mm (across cavity) use 2No. MP brackets and the 65mm (A) long spike.

To secure the bracket use nom. 6mm Ø stainless steel screws/fixings, with a maximum head diameter of 13mm and with a length and type suitable for the substrate. Recommended SFS SX5-5.5 or similar.

Ensure that the screw head sits as flush as possible with the substrate.

Minimum one fixing per bracket for horizontal barriers.

For vertical barriers, it is recommended to use two fixings per bracket as a minimum on the lowest bracket on each run/section of vertical cavity barriers to minimise any risk of the bracket pivoting on only one fixing.

It must be ensured that the brackets are secured so as to avoid the brackets pivoting.

Fixings must have an appropriate fixing depth for the substrate as specified by the fixing manufacturers guidance for their fixing type.

To help to ensure the horiztonal cavity barrier sits level once installed, angling the brackets upwards and then lowering the cavity barrier into position can be effective.

Cut Sections
Each metre length of cavity barrier is supplied with 4No. face fixings pre-installed underneath the polythene outer to hold the intumescent strip in place.

It must be ensured that if the cavity barriers are cut to length that sufficient face fixings are in place to hold the intumescent strip to the stonewool backing.

It is not allowable to have any cut sections without a face fixing in place.

For sections 200mm or less, each section must have minimum one face fixing in place, positioned centrally.

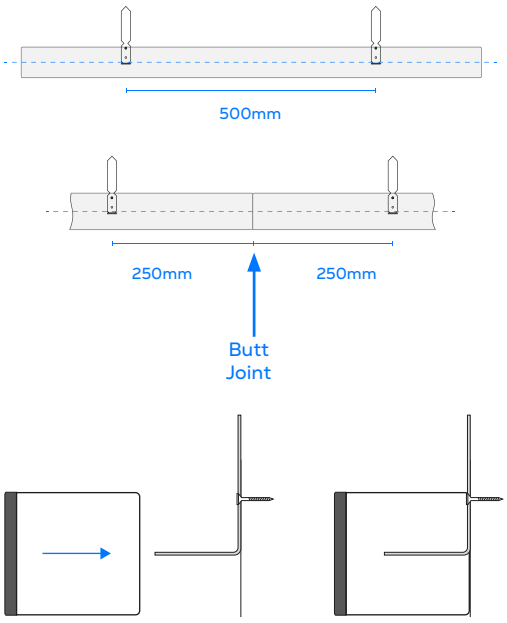
Sections 200 to 500mm must have minimum 2No. fixings in place, 500 to 750mm is 3No. and 750 to 1000mm is 4No. fixings and they must be equally spaced with not more than 250mm between fixings and not more than 125mm for either end.

Slitting
If the intumescent face on the front face of the cavity barrier is slit to allow fitting around vertical rails, it must be ensured that every slit section of cavity barrier has face fixings through the face of the intumescent material.

Vertical slits must be kept as small as practicable, ensuring no gaps remain and the depth of slit is to minimum the depth of the rail and maximum 10mm deeper than the rail.

Additional face fixings at maximum 125mm to either side of each cut, and ensure that the factory fitted face fixings are no more than 250mm centres from the additional fixing applied.

Suitable face fixings for cut or slit sections are 65mm long stainless steel pigtail screws or 50mm long stainless steel woodscrews.



VFB HORIZONTAL

Fix 2No. MP brackets, per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm.

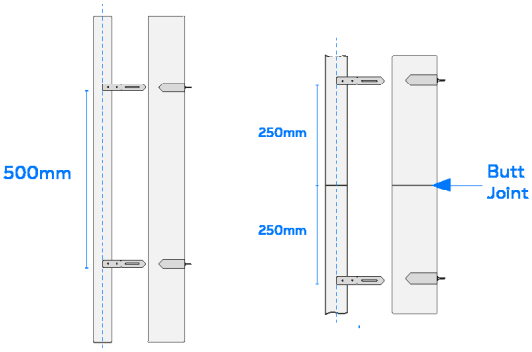
Where sections of cavity barrier are less than 1 linear metre in length, ensure that MP brackets are positioned at a maximum 250mm from each end. For cut sections of cavity barrier less than or equal to 500mm in length only one MP bracket is required.

Minimum one fixing per bracket.

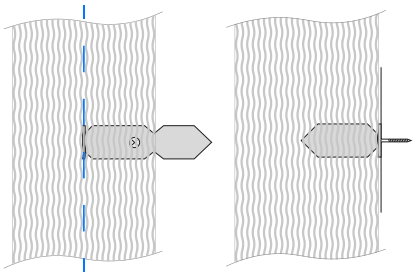
Push the cavity barrier onto the bracket spike, the brackets should impale the VFB HORIZONTAL at mid barrier depth and must not protrude through the intumescent element.

The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

The maximum remaining air gap from the front face of the cavity barrier to the back of the rail must be maximum 25mm.



Vertical Install
(horizontal brackets)



VFB VERTICAL

Fix 2No. MP brackets, per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm.

Brackets must be installed perpendicular/sideways on to the vertical cavity barrier (see image left)

Where sections of cavity barrier are less than 1 linear metre in length, ensure that MP brackets are positioned at a maximum 250mm from each end. For cut sections of cavity barrier less than or equal to 500mm in length only one MP bracket is required.

Minimum two fixings on the lowest bracket on each run/section of vertical cavity barriers, thereafter minimum one fixing per bracket. It must be ensured that the brackets are secured so as to avoid the brackets pivoting.

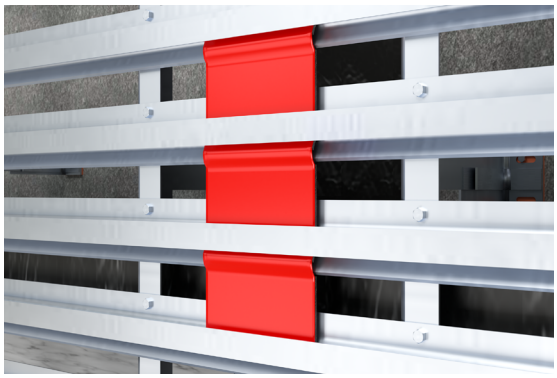
Push the cavity barrier onto the bracket spike, the brackets should impale the VFB VERTICAL to mid barrier depth and must not protrude through the intumescent element.

The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

If the bracket is removed from the barrier once the barbs have been bent, then it must be re-inserted in a new area of the barrier to maintain retention, ensuring the max. 500mm centres is not exceeded.

VFB VERTICAL must be abutting the rear of the horizontal rails.

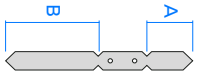
For installation of FF107 Rail Pad within horizontal rails in conjunction with VFB VERTICAL, see installation instructions at the end of this data sheet.



Option 3

VFB HORIZONTAL - Product width across cavity from 110mm up to 215mm wide, fixed using 2No. multi purpose (MP) 160mm brackets (per linear metre).

VFB VERTICAL - Product width across the cavity from 110 up to 159mm wide, fixed using 2No. Type 2 brackets (100mm leg) per linear metre.



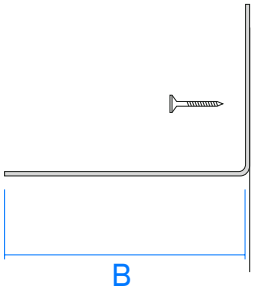
MP Bracket



Type 2 Bracket

MP brackets are supplied with 2No. fixing spikes, one spike is 65mm long (A), the other is 160m long (B), with a central section for securing the bracket to the substrate.

Type 2 brackets are supplied pre-bent with a short end at 100mm long and a long end at 150mm long, both ends have two rows of retention barbs to be bent to 45 degrees (see images on next page).





Type 2 Bracket

For horizontal cavity barriers 91mm-215mm wide (across cavity) use 2 MP brackets and the 160mm (B) long spike.

For vertical cavity barriers 110mm-159mm use Type 2 Brackets and the 100mm long end.

To secure the bracket use nom. 6mm Ø stainless steel screws/fixings, with a maximum head diameter of 13mm and with a length and type suitable for the substrate. Recommended SFS SX5-5.5 or similar.

Ensure that the screw head sits as flush as possible with the substrate.

Minimum one fixing per bracket for horizontal barriers.

For vertical barriers, it is recommended to use two fixings per bracket as a minimum on the lowest bracket on each run/section of vertical cavity barriers to minimise any risk of the bracket pivoting on only one fixing.

It must be ensured that the brackets are secured so as to avoid the brackets pivoting.

Fixings must have an appropriate fixing depth for the substrate (as specified by the fixing manufacturers guidance for their fixing type).

To help to ensure the horizontal cavity barrier sits level once installed, angling the brackets upwards and then lowering the cavity barrier into position can be effective.

Cut Sections
Each metre length of cavity barrier is supplied with 4No. face fixings pre-installed underneath the polythene outer to hold the intumescent strip in place.

It must be ensured that if the cavity barriers are cut to length that sufficient face fixings are in place to hold the intumescent strip to the stonewool backing.

It is not allowable to have any cut sections without a face fixing in place.

For sections 200mm or less, each section must have minimum one face fixing in place, positioned centrally.

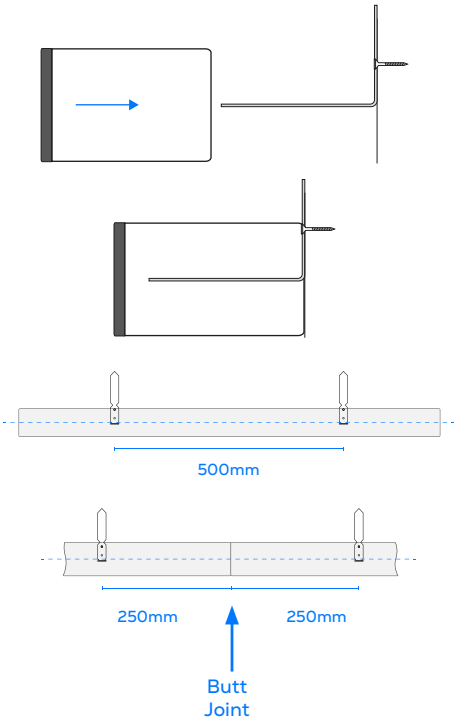
Sections 200 to 500mm must have minimum 2No. fixings in place, 500 to 750mm is 3No. and 750 to 1000mm is 4No. fixings and they must be equally spaced with not more than 250mm between fixings and not more than 125mm for either end.

Slitting
If the intumescent face on the front face of the cavity barrier is slit to allow fitting around vertical rails, it must be ensured that every cut section has face fixings through the face of the intumescent material.

Vertical slits must kept as small as practicable, ensuring no gaps remain and to minimum the depth of the rail and maximum 10mm deeper than the rail.

Additional face fixings at maximum 125mm to either side of each cut, and ensure that the factory fitted face fixings are no more than 250mm centres from the additional fixing applied.

Suitable face fixings are 65mm long stainless steel pigtail screws or 50mm long stainless steel woodscrews.



VFB HORIZONTAL

For cavity barriers 91mm-215mm wide (across cavity) use 2 MP brackets and the 160mm long spike. The 160mm spike will require cutting to size, if used in barriers less than 165mm wide, to ensure that the spike does not pierce through the face of the intumescing material, the bracket should be cut to provide a minimum projection through the barrier to 58% of the cavity barrier width and to a maximum of 25mm behind the face of the intumescing strip.

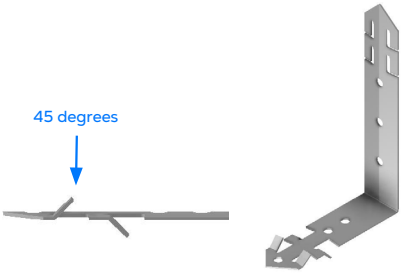
Fix 2 number MP brackets, per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm. Where sections of cavity barrier are less than 1 linear metre in length, ensure that MP brackets are positioned at a maximum 250mm from each end. Where the cavity barrier is less than or equal to 500mm in length 1 MP bracket may be used.

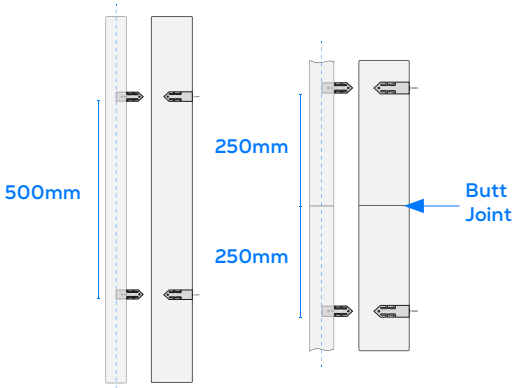
Push the cavity barrier onto the bracket spike, the brackets should impale the VFB HORIZONTAL to mid barrier depth and must not protrude through the intumescent element.

The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

The maximum remaining air gap from the front face of the cavity barrier to the back of the rail must be maximum 25mm.

Type 2 Bracket Retension Barbs





VFB VERTICAL

For cavity barriers 110mm-159mm wide (across cavity) use 2No. Type 2 Brackets and the 100mm long end.

Prior to insertion into the barrier, the retention barbs on the end must be bent to nominally 45 degrees, the end pair of barbs to be bent upwards and the pair behind to be bent downwards. Barbs must be bent with each pair in the opposite direction (see image left).

The barbs will securely hold the barrier in place once inserted, care should be taken to ensure the barrier and bracket location is correct prior to securing onto the raised barbs.

Fix 2No. Type 2 Brackets, per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm. Bracket must be installed perpendicular/sideways on to the vertical cavity barrier (see image left). Where sections of cavity barrier are less than 1 linear metre in length, ensure that brackets are positioned at a maximum 250mm from each end. Where the cavity barrier is less than or equal to 500mm in length one bracket may be used.

Push the cavity barrier onto the bracket spike, the brackets should impale the VFB VERTICAL to mid barrier depth and must not protrude through the intumescent element.

The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

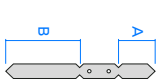
The barbs will securely hold the barrier in place once inserted, care should be taken to ensure the barrier and bracket location is correct prior to securing onto the raised barbs.

For installation of FF107 Rail Pad within horizontal rails in conjunction with VFB VERTICAL, see installation instructions at the end of this data sheet.

Option 4

VFB HORIZONTAL - Product width across cavity from 216mm up to 275mm wide, fixed using 3No. multi purpose (MP) 160mm brackets per linear metre).

VFB VERTICAL - Product width across the cavity from 160mm-395mm, fixed using 2No. Type 2 brackets (150mm leg) per linear metre.



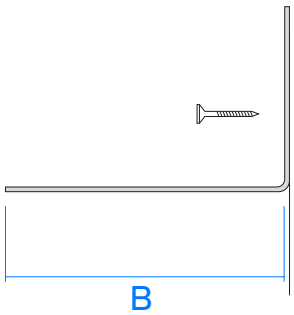
MP Bracket



Type 2 Bracket

MP brackets are supplied with 2No. fixing spikes, one spike is 65mm long (A), the other is 160mm long (B), with a central section for securing the bracket to the substrate.

Type 2 brackets are supplied pre-bent with a short end at 100mm long and a long end at 150mm long, both ends have two rows of retention barbs to be bent to 45 degrees (see images on next page).



For horizontal cavity barriers 216mm-275mm wide (across cavity) use 3 MP brackets and the 160mm (B) long spike. To secure the bracket use nom. 6mm Ø stainless steel screws/fixings, with a maximum head diameter of 13mm and with a length and type suitable for the substrate. Recommended SFS SX5-5.5 or similar.

Ensure that the screw head sits as flush as possible with the substrate.

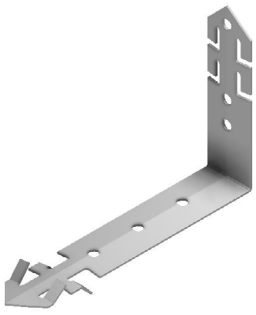
Minimum one fixing per bracket for horizontal barriers.

For vertical barriers, it is recommended to use two fixings per bracket as a minimum on the lowest bracket on each run/section of vertical cavity barriers to minimise any risk of the bracket pivoting on only one fixing.

It must be ensured that the brackets are secured so as to avoid the brackets pivoting.

Fixings must have an appropriate fixing depth for the substrate (as specified by the fixing manufacturers guidance for their fixing type).

To help to ensure the horizontal cavity barrier sits level once installed, angling the brackets upwards and then lowering the cavity barrier into position can be effective.



Type 2 Bracket

To help to ensure the cavity barrier sits level once installed, angling the brackets upwards and then lowering the cavity barrier into position can be effective.

Cut Sections
Each metre length of cavity barrier is supplied with 4No. face fixings pre-installed underneath the polythene outer to hold the intumescent strip in place.

It must be ensured that if the cavity barriers are cut to length that sufficient face fixings are in place to hold the intumescent strip to the stonewool backing.

It is not allowable to have any cut sections without a face fixing in place.

For sections 200mm or less, each section must have minimum one face fixing in place, positioned centrally.

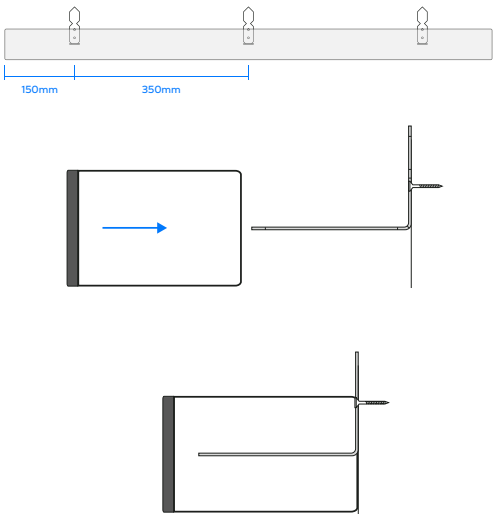
Sections 200 to 500mm must have minimum 2No. fixings in place, 500 to 750mm is 3No. and 750 to 1000mm is 4No. fixings and they must be equally spaced with not more than 250mm between fixings and not more than 125mm for either end.

Slitting
If the intumescent face on the front face of the cavity barrier is slit to allow fitting around vertical rails, it must be ensured that every cut section has face fixings through the face of the intumescent material.

Vertical slits must kept as small as practicable, ensuring no gaps remain and to minimum the depth of the rail and maximum 10mm deeper than the rail.

Additional face fixings at maximum 125mm to either side of each cut, and ensure that the factory fitted face fixings are no more than 250mm centres from the additional fixing applied.

Suitable face fixings are 65mm long stainless steel pigtail screws or 50mm long stainless steel woodscrews.



VFB HORIZONTAL

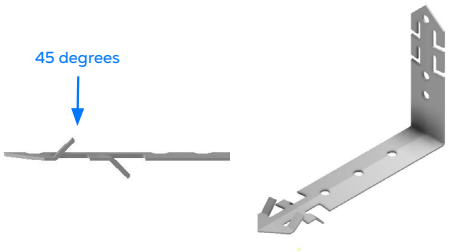
For cavity barriers 216-275mm wide (across cavity) use 3 MP brackets and the 160mm long spike.

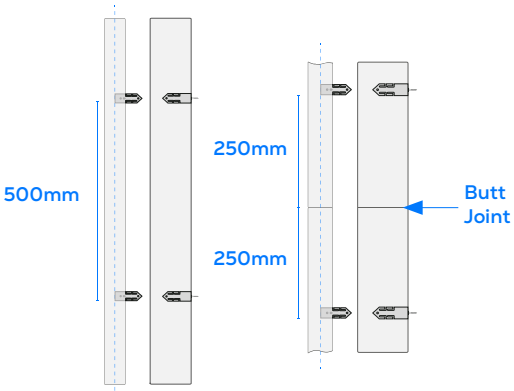
Fix 3 number MP brackets, per linear metre, to the substrate at maximum 150mm from the end of the cavity barrier, with a maximum spacing between brackets of 350mm. Where sections of cavity barrier are less than 1 linear metre in length, ensure that MP brackets are positioned at a maximum 150mm from each end. Where the cavity barrier is less than or equal to 350mm in length 1 MP bracket may be used.

Push the cavity barrier onto the bracket spike, the brackets should impale the VFB HORIZONTAL to mid barrier depth and must not protrude through the intumescent element.

The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

The maximum remaining air gap from the front face of the cavity barrier to the back of the rail must be maximum 25mm.





VFB VERTICAL

For vertical cavity barriers 160mm-395mm wide (across cavity) use 2No. Type 2 Brackets and the 150mm long end.

Prior to insertion into the barrier, the retention barbs on the end must be bent to nominally 45 degrees, the end pair of barbs to be bent upwards and the pair behind to be bent downwards. Barbs must be bent in pairs and each pair must point in opposite directions (see image left).

Fix 2No. Type 2 Brackets per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm.

Brackets must be installed perpendicular/sideways on to the vertical cavity barrier (see image left)

Where sections of cavity barrier are less than 1 linear metre in length, ensure that the brackets are positioned at a maximum 250mm from each end. Where the cavity barrier is less than or equal to 500mm in length one bracket may be used.

Push the cavity barrier onto the bracket spike, the brackets should impale the VFB VERTICAL to mid barrier depth and must not protrude through the intumescent element.

The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

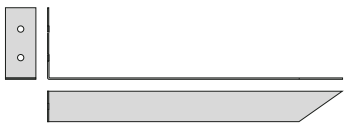
The barbs will securely hold the barrier in place once inserted, care should be taken to ensure the barrier and bracket location is correct prior to securing onto the raised barbs.

For installation of FF107 Rail Pad within horizontal rails in conjunction with VFB VERTICAL, see installation instructions at the end of this data sheet.

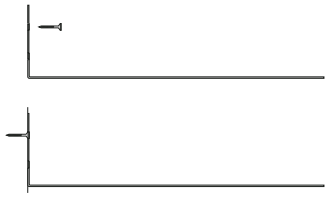
Option 5

VFB HORIZONTAL - Product width across cavity from 276mm-370mm wide, fixed using 2 high performance (HP) 328mm brackets (per linear metre).

VFB VERTICAL - See Option 4



HP brackets are supplied with a single fixing spike, at 328mm long with a 90° return angle for securing the bracket to the substrate.



The 328mm spike will require cutting to size, if used in barriers less than 350mm wide, to ensure that the spike does not pierce through the face of the intumescing material.

The bracket should be cut to provide a minimum projection through the barrier to 3/4 of the cavity barrier width and to a maximum of 25mm behind the face of the intumescing strip.

To secure the bracket use nom. 6mm Ø stainless steel screws/fixings, with a maximum head diameter of 13mm and with a length and type suitable for the substrate. Recommended SFS SX5-5.5 or similar.

Ensure that the screw head sits as flush as possible with the substrate.

Minimum one fixing per bracket required.

Fixings must have an appropriate fixing depth for the substrate (as specified by the fixing manufacturers guidance for their fixing type).

To help to ensure the cavity barrier sits level once installed, angling the brackets upwards and then lowering the cavity barrier into position can be effective.

Cut Sections
Each metre length of cavity barrier is supplied with 4No. face fixings pre-installed underneath the polythene outer to hold the intumescent strip in place.

It must be ensured that if the cavity barriers are cut to length that sufficient face fixings are in place to hold the intumescent strip to the stonewool backing.

It is not allowable to have any cut sections without a face fixing in place.

For sections 200mm or less, each section must have minimum one face fixing in place, positioned centrally.

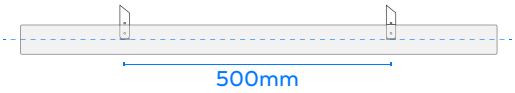
Sections 200 to 500mm must have minimum 2No. fixings in place, 500 to 750mm is 3No. and 750 to 1000mm is 4No. fixings and they must be equally spaced with not more than 250mm between fixings and not more than 125mm for either end.

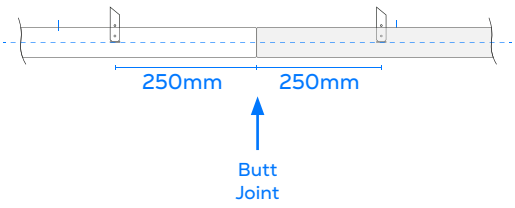
Slitting
If the intumescent face on the front face of the cavity barrier is slit to allow fitting around vertical rails, it must be ensured that every cut section has face fixings through the face of the intumescent material.

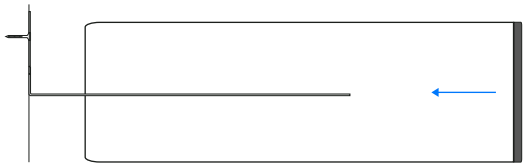
Vertical slits must kept as small as practicable, ensuring no gaps remain and to minimum the depth of the rail and maximum 10mm deeper than the rail.

Additional face fixings at maximum 125mm to either side of each cut, and ensure that the factory fitted face fixings are no more than 250mm centres from the additional fixing applied.

Suitable face fixings are 65mm long stainless steel pigtail screws or 50mm long stainless steel woodscrews.







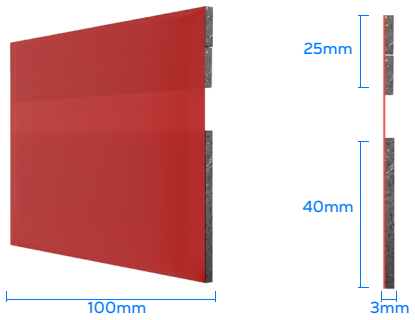
VFB HORIZONTAL

Fix 2 number HP brackets, per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm.

Where sections of cavity barrier are less than 1 linear metre in length, ensure that MP brackets are positioned at a maximum 250mm from each end. Where the cavity barrier is less than or equal to 500mm in length 1 HP bracket may be used.

Push the cavity barrier onto the bracket spike, the brackets should impale the VFB HORIZONTAL to approximately mid barrier depth and must not protrude through the intumescent element. The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate, at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

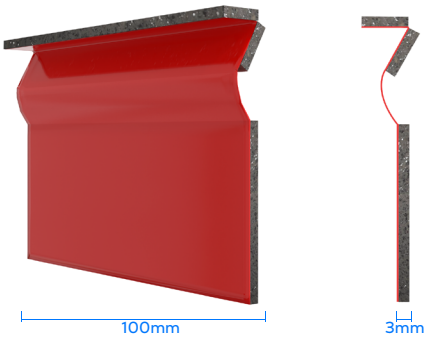
Fitting Instructions



The FF107 Rail Pad consists of three intumescent strips bonded to a red carrier material.

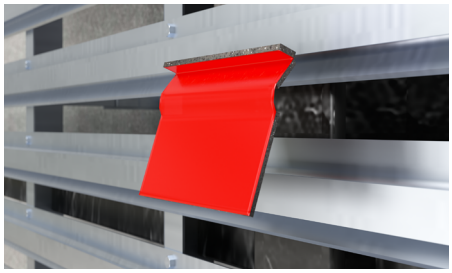
The upper two strips combined measure 3x25x100mm (2 x 12.5mm wide)

The lower strip is 3x40x100mm.



The FF107 Rail Pad must be installed with the red carrier material facing outwards.

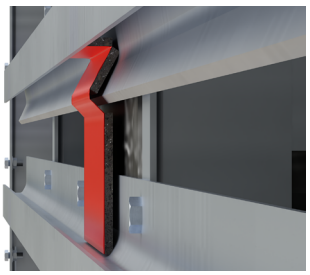
The upper two strips sit to the top and the wider lower strip at the bottom of the rail.



Push the upper most 12.5mm wide strip so that it sits flat up into the top of the rail.

The lower 12.5mm wide strip will sit flat against the back of the upper part of the rail.

Ensure the lower strip sits down onto the bottom of the rail.

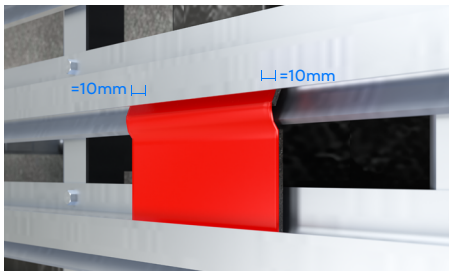


Ensure the upper strip stays positioned up flat against the top side of the upper rail.

Ideally the lower strip should sit back to the lower rail, however the brick slip will move this into position once fitted.

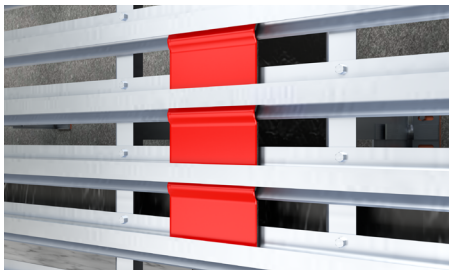
Ensure the lower intumescent pad is set to the bottom of the rail, if it is positioned too high it could restrict the fitting of the brick slips.

Fitting Instructions

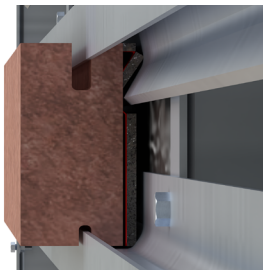


Ensure that the FF107 Rail Pad is centralised in line with the VFB VERTICAL that sits tightly up to the back of the horizontal rails.

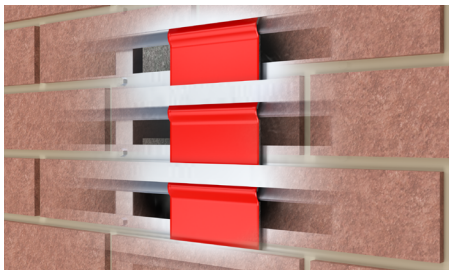
I.e. nominally 10mm of the FF107 Rail Pad should protrude past either side of the VFB VERTICAL.



An FF107 Rail Pad must be fitted into each horizontal rail that crosses the VFB VERTICAL cavity barrier location.



Ensure the pad is located into the upper rail and sat on the lower rail prior to fitting the brick slip in position.



If installed correctly into the upper rail, the brick slips can be installed as normal.

If a brick slip is difficult to insert, check the upper strips of the FF107 Rail Pad are inserted in the top and rear of the upper rail only and the lower intumescent strip is sat down on the lower rail not blocking the path for the brick slip to be lifted up into the rail.

Cavity Barrier Solutions for Brick Slip Systems

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