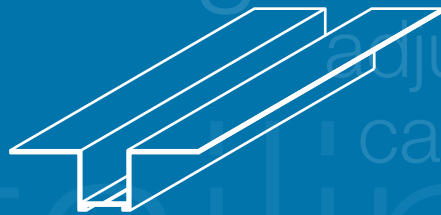


junctions

interchangeability

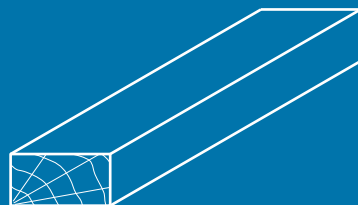
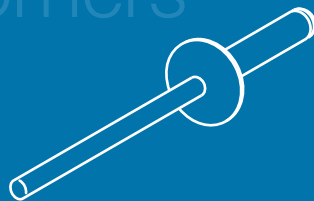
adjustable

cavity depths



detailing

internal corners



engineered
light weight
concealed fixing

Fixing systems

92-93	Introduction	112	Secret fix systems introduction
94-97	Timber battens	113-115	Site bonding structural adhesive
98-103	Omega and Zed	116-117	Mechanical secret fix for Natura, Textura and Pictura
104-107	Ventisol	118-119	Fixings and accessories
108-111	Ventispan		

Introduction

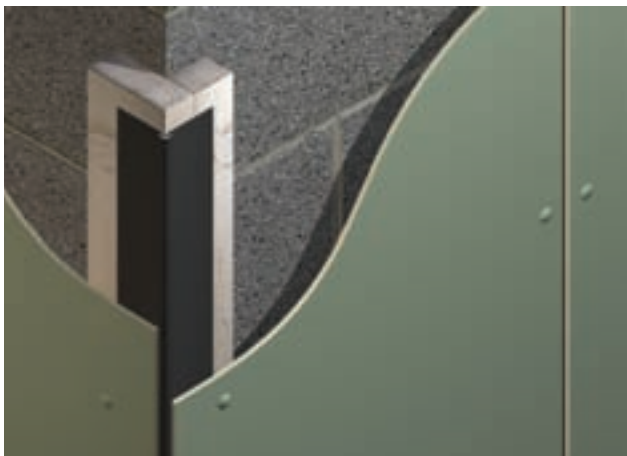
The variety of cladding panels available from Marley Eternit is matched by a comprehensive range of fixing systems.

The interchangeability of panel and system means that the design permutations are wide and careful choice of product and system will allow any specifications to be met.

The aesthetic end result of the various fixing options (i.e. whether panels are visibly fixed, edge retained or secret fixed) are discussed on page 27.

In addition to the fixing systems detailed on this page, there are a number of special systems and applications for Marley Eternit Cladding Panels such as tunnel lining, infill panels, balconies, portable buildings etc.

Visible fixing systems



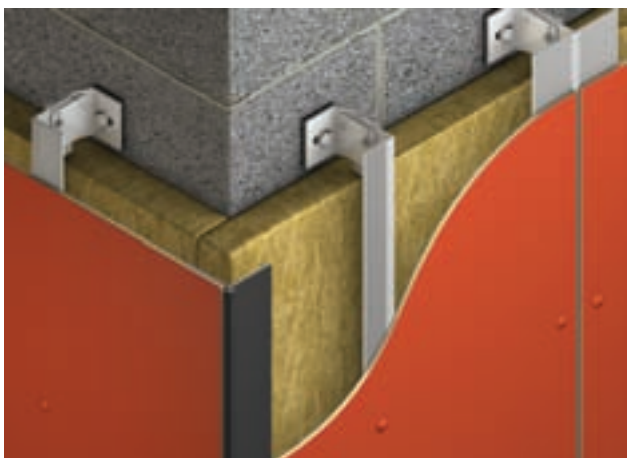
Timber battens (pages 94-97)

Economical and durable, timber battens are widely used for all applications from fascias and soffits to total cladding.



Omega and Zed (pages 98-103)

A simple metal component system easily installed in a similar fashion to timber battens with the added benefit of non-combustibility and a completely rot-proof construction.



Ventisol (pages 104-107)

A highly engineered system of top quality components specially developed for fixing to new or existing structures. The adjustment within the components allows a true plane to be easily achieved for the new cladding facade.



Ventispan (pages 108-111)

The Ventispan system provides a framework for the cladding of both concrete and steel framed structures, and is designed to be anchored to the structure at each floor level with vertical profiles spanning from floor to floor between anchor/bracket positions.

Application Instructions

Marley Eternit offer a full range of Application Instructions for their fixing systems, setting out detailed design and installation data.

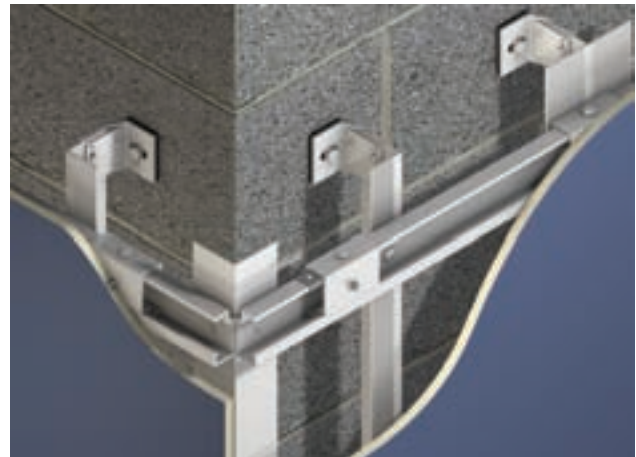
Please contact the Technical Advisory Service for further information on 01283 722588.

Secret fix systems



Site bonding structural adhesive (pages 113-115)

The structural bonding system utilises structural adhesives to fix internal and external cladding panels for a secret fix system.



Mechanical secret fix (pages 116-117)

This secret fix system is suitable for use with 12mm thick fibre cement panels and supports the cladding panels by means of aluminium profiles.

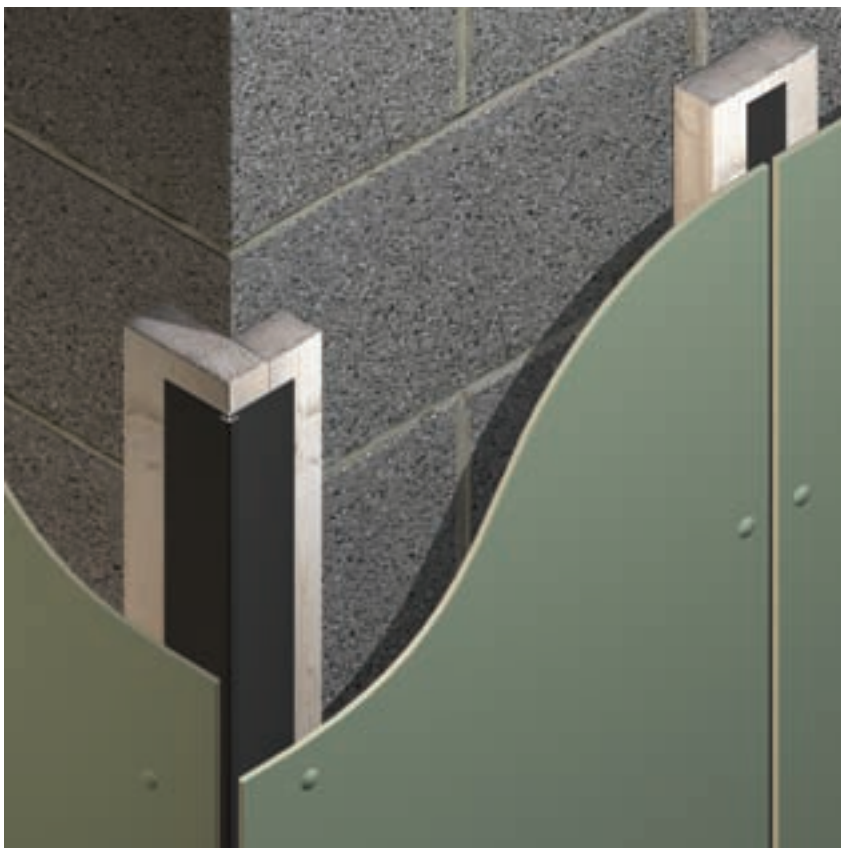
Fixings and accessories (pages 118-119)

Marley Eternit offer a comprehensive range of fitting and accessories purpose-designed to work with our cladding systems and to provide maximum design and fixing flexibility for all of the above fixing systems.

The range includes:

- Corner pieces
- Colour matched screws and rivets
- Horizontal joint trims
- Perforated closures
- Flexible jointing strips

Timber battens introduction



An economical method of application for Marley Eternit cladding panels is that of mounting on a timber framework using rainscreen construction principles.

Unless specific fire performance requirements or irregularities to the substrate are encountered (where other adjustable Marley Eternit Systems are employed), timber battens will provide an economical and speedy installation.

Timber protection

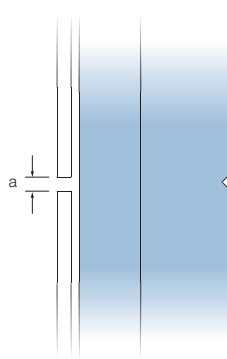
Timber battens can be protected against decay and insect attack in accordance with BS 5268: Part 5.

Horizontal joint alternatives

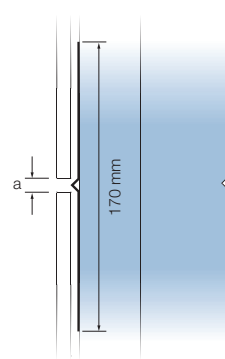
Horizontal joints may be formed using Marley Eternit horizontal joint profiles Type HJP or HZP. Alternatively, an open joint detail may be used.

Product	Dimension (mm)
	a
Natura*	*
Textura	10
Pictura	10
Operal	8

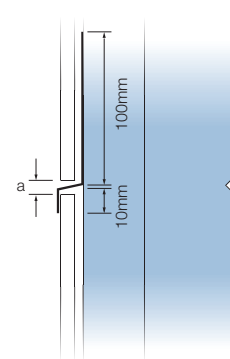
* Due to the different fixing methodology required for the Natura range, please contact the Technical Advisory Service for further information on 01283 722588.



Horizontal open joint



Horizontal joint profile type HJP



Horizontal zed profile type HZP

Timber battens vertical joints & corner profiles

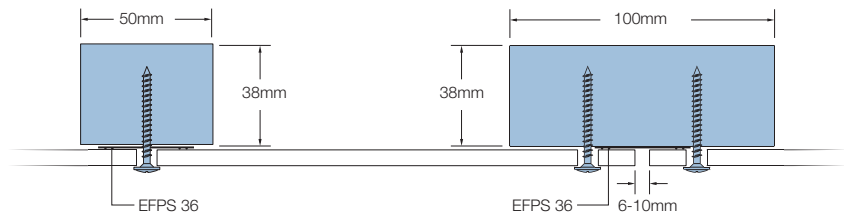
Vertical joint and intermediate panel fixing

Marley Eternit supply black flexible jointing strips to protect and close vertical joints.

EFPS 36mm – standard panel joints

EFPS 60mm – corner joints

Note: To ensure an even surface, an EFPS 36 strip should be placed behind intermediate panel fixing.

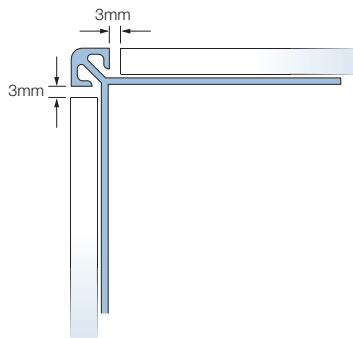


Corners

Corners are created using flat sheets and the appropriate jointing strips and corner profiles.

Universal corner profiles

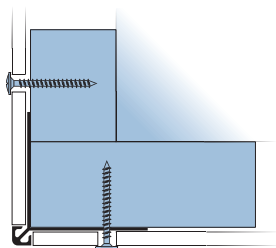
These are supplied black or mill finished as standard.



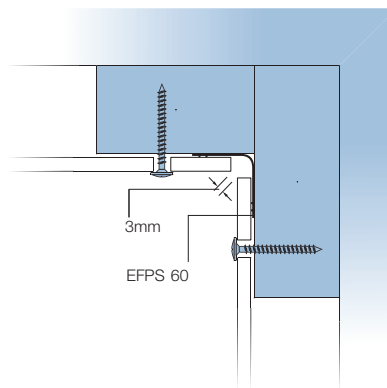
External corner

Universal corner profile – UCP

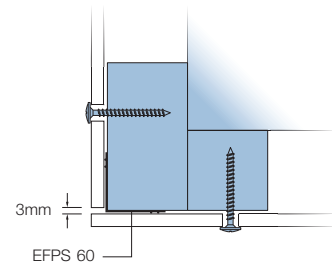
For good site practice it is necessary to vary the position of screw fixings to ensure that adequate penetration occurs. The example below illustrates a batten configuration employing 38mm deep battens and the respective screw positions



Open joint – internal

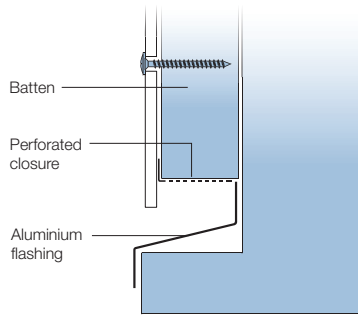


Open joint – external

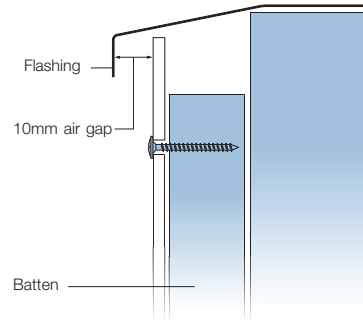


Timber battens cladding junctions

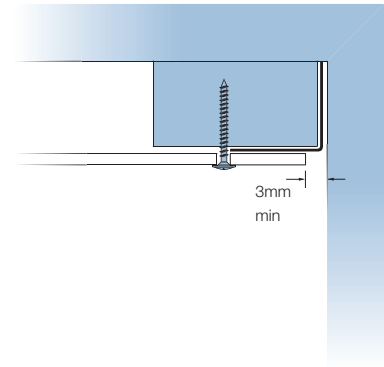
Base of cladding



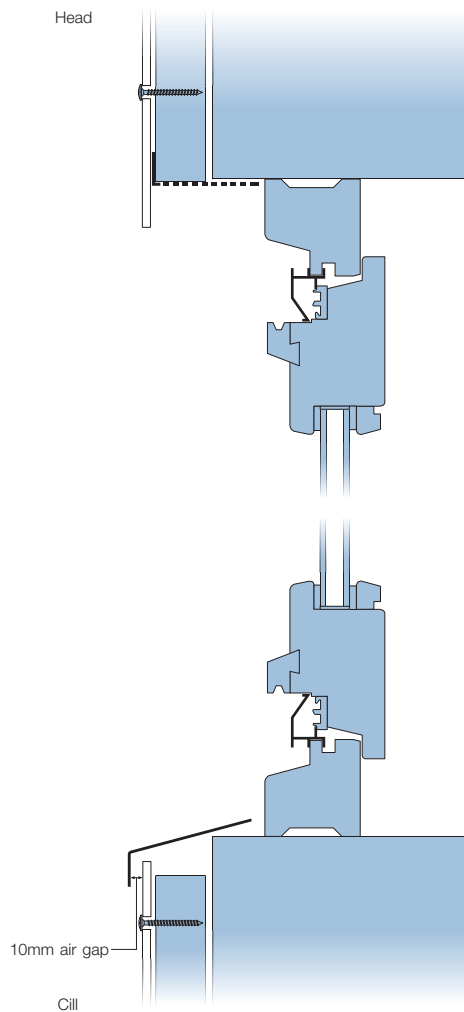
Top of cladding



Brickwork abutment

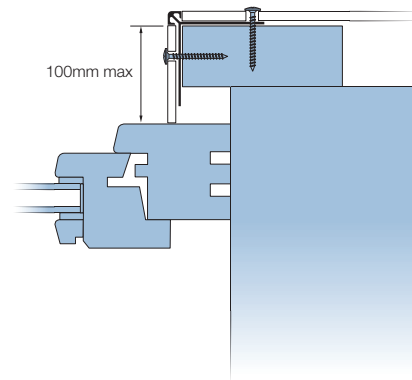


Typical window detail



Jamb

For all jambs in excess of 100mm, additional fixings are required.



Timber battens fixing details

Batten sizing

Screws

Panel joints min 100 x 38mm

Intermediate min 50 x 38mm

Larger battens are required if fixings are more than 25mm from the vertical edge.

High wind loadings or exceptional impact requirements

Should wind loading exceed $\pm 2.0 \text{ kN/m}^2$, please consult the Technical Advisory Service.

Where exceptional impact levels to cladding panels can be anticipated, i.e. low level applications near pedestrian access, schools, leisure facilities etc., additional timber battens, between the fixing batten, can be incorporated to increase the panel's resistance.

Screw holes

Pre-drilled holes dimensions for the panels are set out below:

Cladding	Fixed hole (if required)
Natura*	*
Textura	6mm
Pictura	7mm

* Due to the different fixing methodology required for the Natura range, please contact the Technical Advisory Service for further information on 01283 722588.

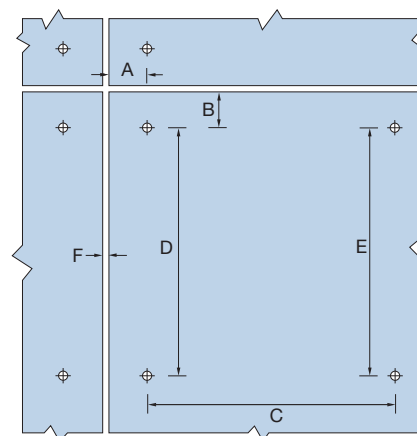
Surface mounted features

Where other building features, i.e. signs, gutters, canopies etc. are to be fixed then additional batten work should be included and clearance holes must be provided through the cladding. Under no circumstances should cladding panels receive any additional structural loads.

Fixing centres (all dimensions in mm)

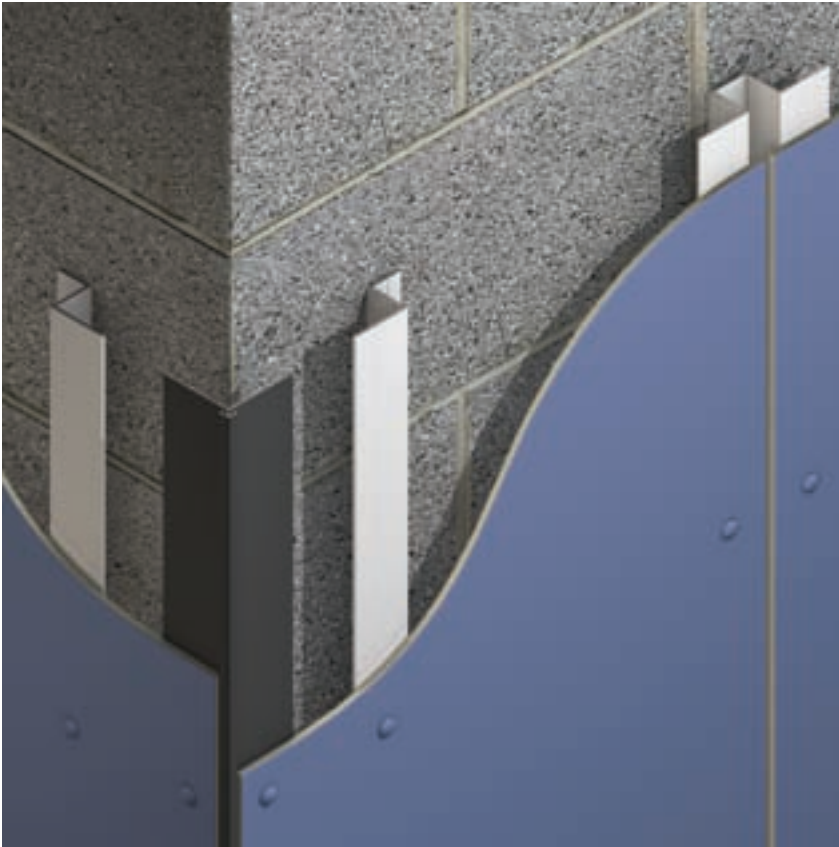
Product	Natura*	Textura	Pictura	Operal
	8mm	8mm	8mm	9mm
Max windload kN/m^2	1.5	1.5	1.5	1.5
Dims				
A	25-100	25-100	25-100	20
B	75-100	75-100	75-100	50
C	600	600	600	600
D	600	600	600	600
E	600	600	600	600
F	*	10	10	8
Fixing length	*	35	35	38

* Due to the different fixing methodology required for the Natura range, please contact the Technical Advisory Service for further information on 01283 722588.



N.B. In all cases it is important to have the corner fixings staggered at unequal spacings from the two edges.

Omega and Zed introduction

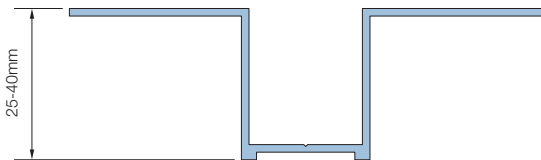


As an alternative to timber battens, particularly where there is a specific requirement for non-combustible frameworks, a lightweight aluminium framework can be used.

These can be fixed either directly to a concrete, brick or block wall, or to a purpose-designed rail system. Marley Eternit's cladding panels, Natura, Pictura and Textura can then be rivet-fixed to the Omega and Zed.

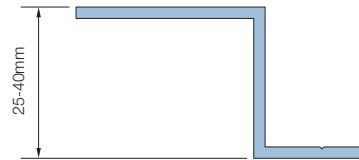
Omega profile

The Omega profile is supplied in 6m lengths and employed at panel joints. Weight = 1.1kg/lin. metre



Zed profile

The Zed profile, also supplied in 6m lengths, is used at intermediate, corner and abutment positions. Weight: 0.9kg/lin. metre



Omega and Zed horizontal joints

Fixing to horizontal joints

Where it is envisaged that Omega and Zed are fixed to a horizontal rail system please note:

- The rail centres should not exceed 1500mm
- A wind barrier should be sheathed over the front of the horizontal rails

All profiles and fixing accessories are carefully selected for their compatibility in normal atmospheric conditions.

Profiles

Material

Aluminium to BS 1474 Grade 6082 T6.

Finish

Mill finish.

Anchoring of Omega and Zed to building substrate

The profiles should be affixed adequately back to a wall/rail system with suitable proprietary anchors or fixings. The Omega and Zed profiles have been designed to span up to 1500mm where dynamic wind loadings do not exceed $\pm 2.0\text{kN/m}^2$.

The design and selection of a specialist anchor to suit the substrate's characteristics should be based on engineering calculations and referred to reputable manufacturers such as Hilti, Fischer, Leibig, Rawplug, Buildex, Spit etc.

A 10mm expansion joint should be provided between vertically adjacent Omega and Zed profiles, with an anchor provided within 200mm of the ends of all profiles.

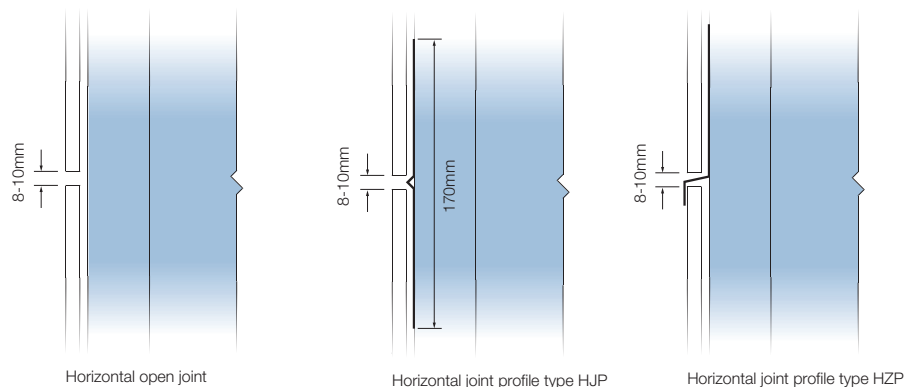
High wind loadings or exceptional impact requirements

Should wind loading exceed $\pm 2.0\text{kN/m}^2$, please consult the Technical Advisory Service. Where exceptional impact levels to cladding panels can be anticipated, i.e. low level applications near pedestrian access, schools, and leisure facilities, additional rails can be incorporated to increase the panel's resistance.

Horizontal joint alternatives

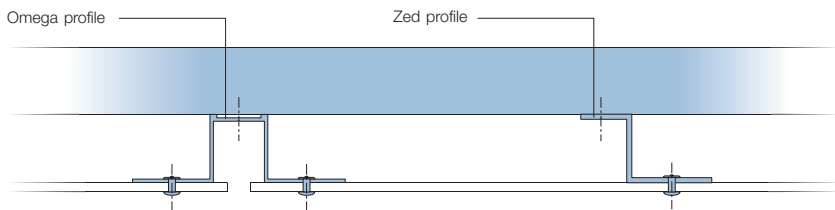
Horizontal joints may be formed using aluminium joint profiles type HJP or HZP. Alternatively, an open joint detail may be used.

With an open joint, the aluminium profiles will be visible between two panels. Black paint or PVC tape can be used to mask this effect.

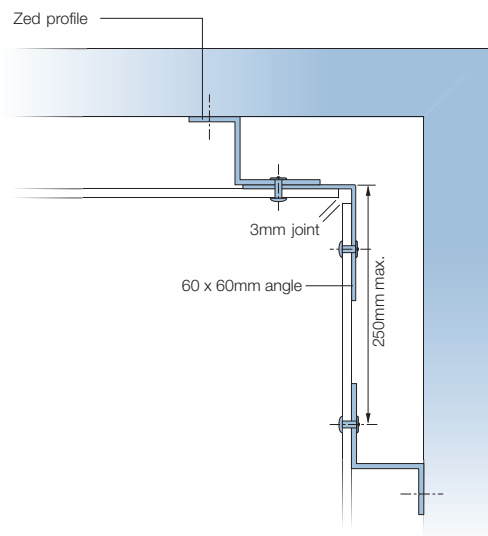


Omega and Zed vertical joints & corner profiles

Vertical joint and intermediate fixing

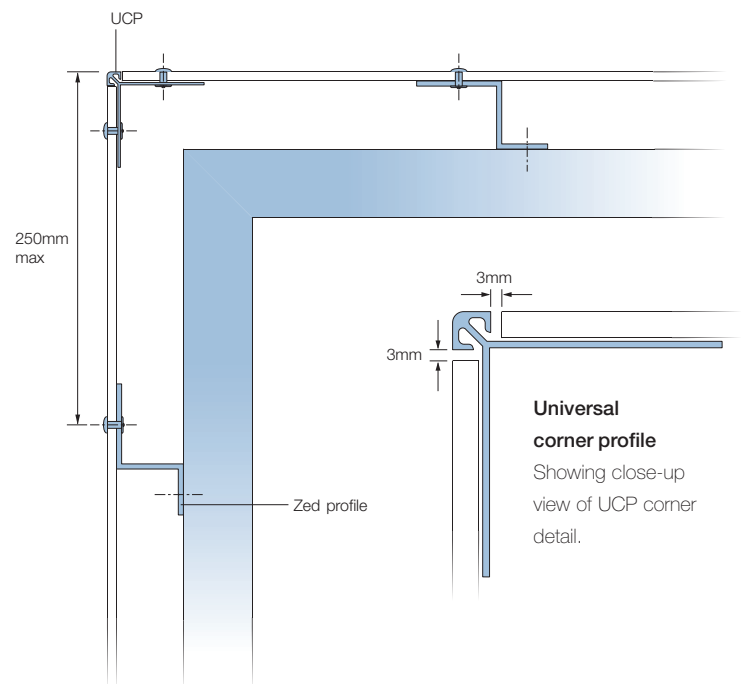


Internal corner



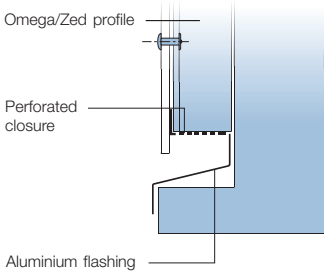
External corner

Universal corner profile (UCP)

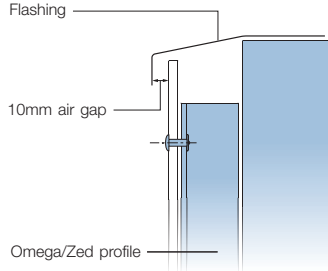


Omega and Zed cladding junctions

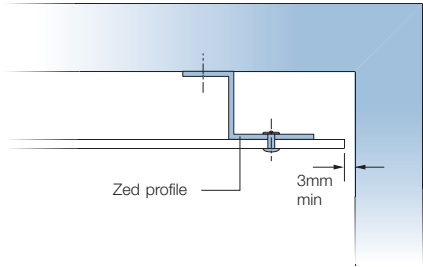
Base of cladding



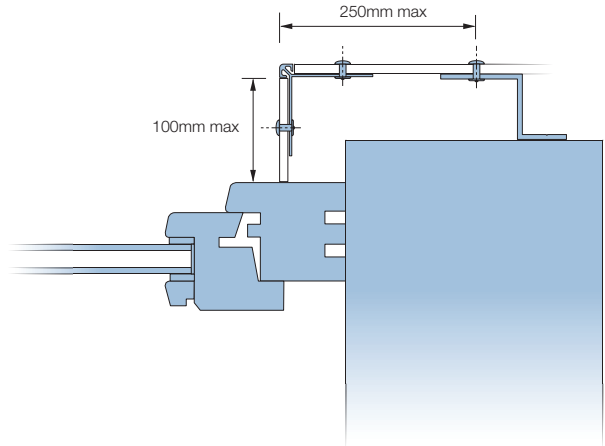
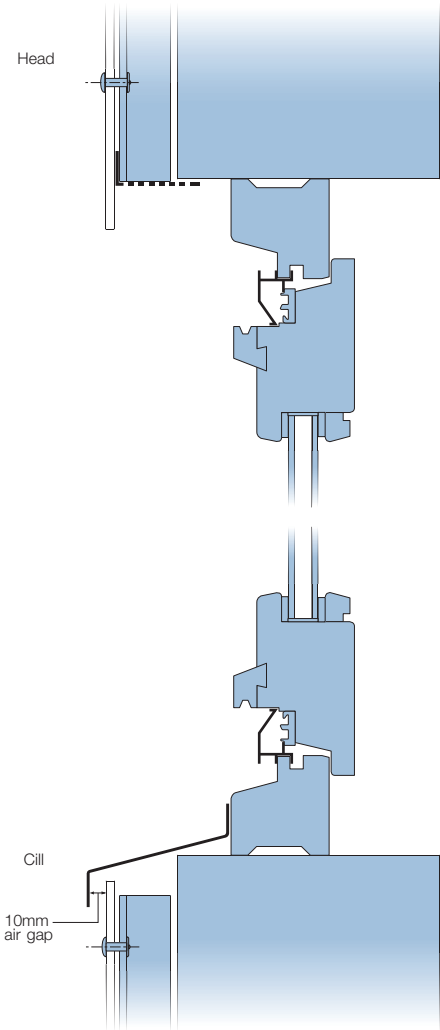
Top of cladding



Brickwork abutment



Typical window detail



Jamb

For all jambs in excess of 100mm, additional fixings are required.

Omega and Zed fixing details

Omega and Zed profile spacing

Profiles are spaced horizontally across the elevation to suit the panel requirements, up to maximum centres of 600mm.

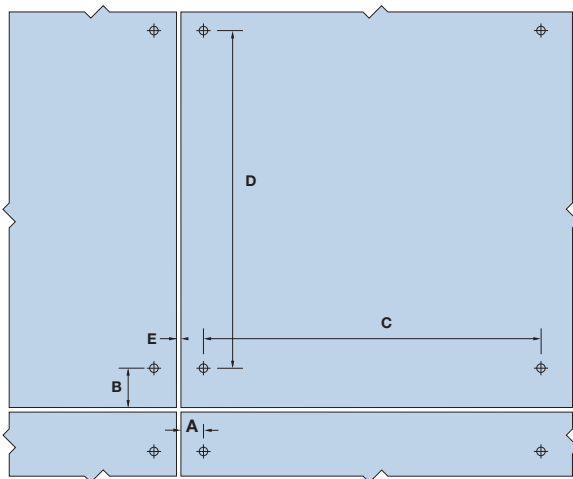
Universal corner profiles (aluminium)

These are supplied black or mill finished as standard.

Maximum panel rivet fixing centres (all dimensions in mm)

Product	Natura		Textura		Pictura	
Windload kN/m ²	up to 1.5	1.5 – 2.0	up to 1.5	1.5-2.0	up to 1.5	1.5-2.0
Dims						
A	40	40	40	40	40	40
B	75-100	75-100	75-100	75-100	75-100	75-100
C	600	500	600	500	600	500
D	600	500	600	500	600	500
E	*	*	10	10	10	10

* Due to the different fixing methodology required for the Natura range, please contact the Technical Advisory Service for further information on 01283 722588.



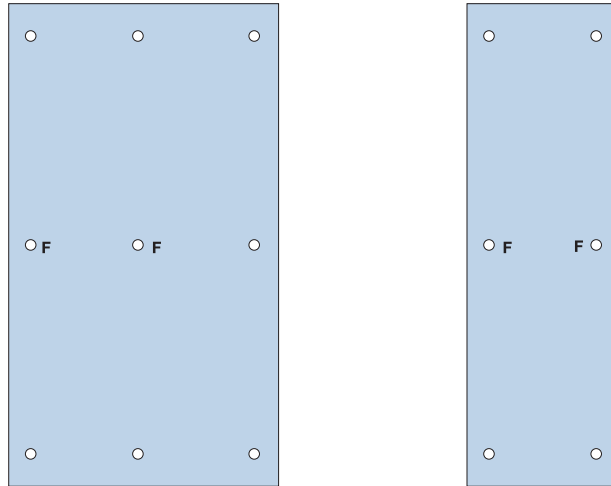
Rivet holes

Cladding panels are supplied by Marley Eternit Distributors with the fixing holes pre-drilled to an agreed pattern.

Hole sizes

Pre-drilled holes in the panels shall be as described in the relevant Application Instructions.

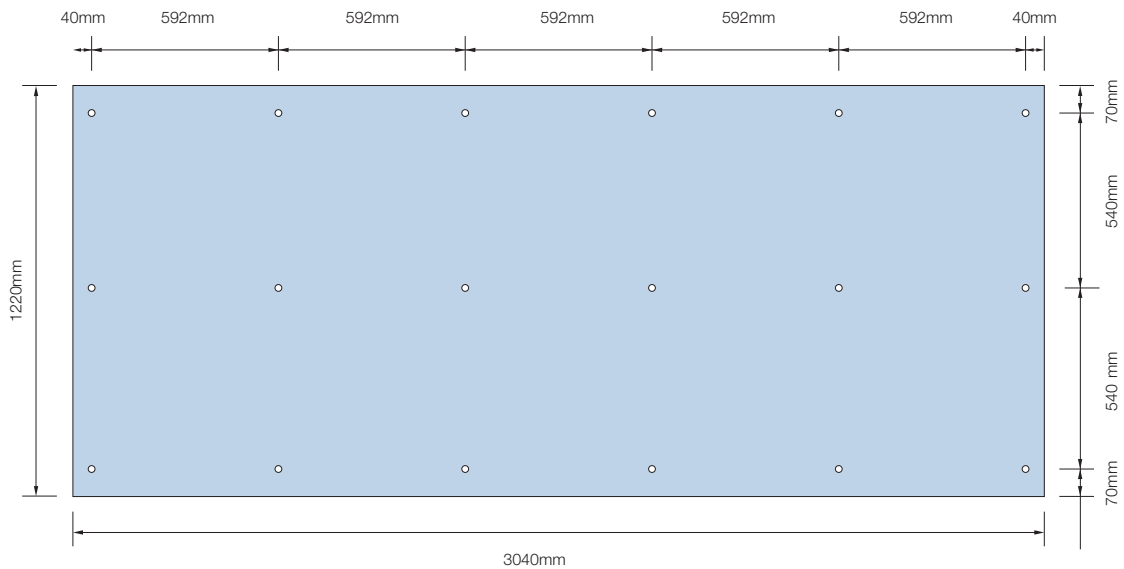
For full fixing information, please refer to the Technical Advisory Service.



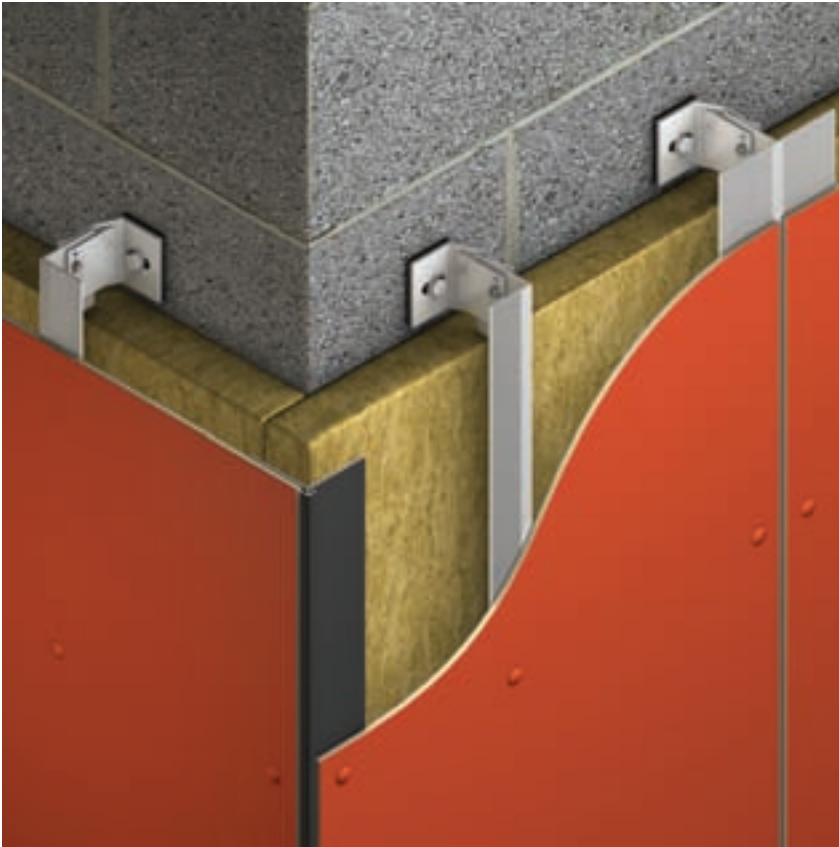
F = fixed point

Typical panel/holing layout

Example using Natura.



Ventisol introduction

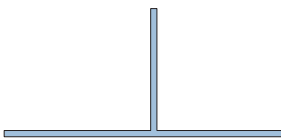


An aluminium frame fixing system able to provide adjustable void depths to accommodate insulation, and able to overcome irregularities in the supporting substrate.

Components



'L' profile

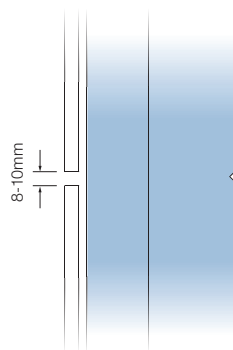


'T' profile

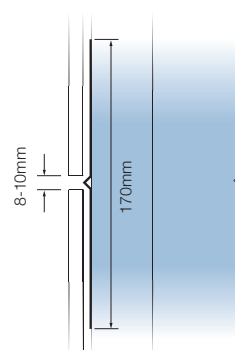
Horizontal joint alternatives

Horizontal joints may be formed using aluminium joint profiles type HJP or HZP. Alternatively, an open joint detail may be used.

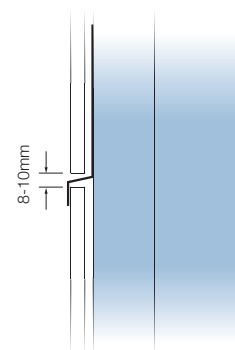
With an open joint, the aluminium profiles will be visible between two panels. Black paint or PVC tape can be used to mask this effect.



Horizontal open joint



Horizontal joint profile type HJP



Horizontal joint profile type HZP

Ventisol

application instructions

Anchoring of the Ventisol framework to the existing structure

The choice of the appropriate anchor, based on the substructure and calculated loadings, should be decided in consultation with a reputable fixings manufacturer, such as Fischer, Hilti, Rawlbolt, Leibig and their recommendations must be adhered to.

The vertical spacing of the anchor points will depend upon the windload calculations as noted below. For combination of Marley Eternit Support Rail system and Ventisol please contact Technical Advisory Service.

Horizontal spacing of the anchor points will be determined by the panel and rail layout, and the maximum rivet spacing of 600mm.

Each length of vertical cladding rail must be anchored to the building at a minimum of two points.

No vertical rail should oversail its last bracket/clamp assembly anchored to the wall by more than 250mm.

Maximum anchor bracket spacing

Rail centres	400mm	600mm
Positive wind pressure kN/m²		
3.5	1.10m	0.89m
3.0	1.18m	0.96m
2.5	1.29m	1.05m
2.0	1.44m	1.18m
1.5	1.67m	1.36m
1.0	1.80m	1.67m
0.5	1.80m	1.80m
0	1.80m	1.80m

Rail centres	400mm	600mm
Negative wind pressure kN/m²		
0.5	1.80m	1.80m
1.0	1.80m	1.67m
1.5	1.67m	1.11m
2.0	1.25m	0.83m
2.5	1.00m	0.67m
3.0	0.83m	0.55m
3.5	0.71m	0.47m

Choice and fixing of support brackets

The choice of brackets will depend upon the required spacing between the face of the existing building and the back of the cladding panel.

By intermixing brackets, a total range of 75-275mm is obtainable.

Contact the Technical Advisory Service for further information.

Attaching vertical cladding rails to the brackets

Cladding panel horizontal joints should always coincide with expansion joints in the Ventisol Profiles. Under no circumstances should any cladding panel be riveted to two different 'T' and 'L' profiles in the vertical plane.

Assembly and alignment

Vertical alignment of the cladding rail and the standoff distance from the back of the cladding panel to the existing building should be set in accordance with the specifier's instructions.

In setting this standoff distance, check that it will be possible to maintain it across the elevation without exceeding a tolerance true in either plane – variation not to exceed 1 in 300, i.e. 2mm over 600mm, non-accumulating.

Note: Although irregularities in the face of the existing building may result in the specified standoff being exceeded in some areas, the standoff must never be reduced to a figure less than the total of the thickness of the insulation plus the specified ventilation void.

No additional load must be imposed upon the cladding panels or framework without written agreement or specified design from the Technical Advisory Service. Where service vents or grills are to be installed on the face of the cladding panels, specific guidance should be sought from Marley Eternit Ltd.

Ventisol

application instructions

Insulation

The type and make of insulation will be chosen by the specifier, and must be fastened direct to the building in accordance with the manufacturer's instructions.

The insulation must be packed closely around the support brackets to minimise any potential cold bridge situation. Insulation slabs must be closely abutted at all edges so that they form a continuous cover on all walls. Where services have to penetrate the cladding, the insulation must be packed closely around them at the point where they exit from the building. No gaps should be left in the insulation.

Cavity fire barriers

Where specified on the contract drawing, cavity fire barriers should be incorporated into the overcladding system. As these components will form a continuous barrier horizontally (and/or vertically) at the specified location, provision for interrupting the Ventisol Profiles and/or the panels will have to be made. It is difficult to generalise about the installation of the cavity fire barrier components as each project will have its own inherent details. Specific reference to the installation of the Cavity Fire Barrier should be noted on the Contract Drawings.

Fixing the cladding panels

It is essential that the panels are fixed correctly if subsequent damage is to be avoided. Horizontal and vertical panel joints must be carefully aligned for aesthetic reasons.

Installers may have their own preferred method of locating the panels correctly, and providing the fixing recommendations are strictly adhered to, Marley Eternit will have no objection to this.

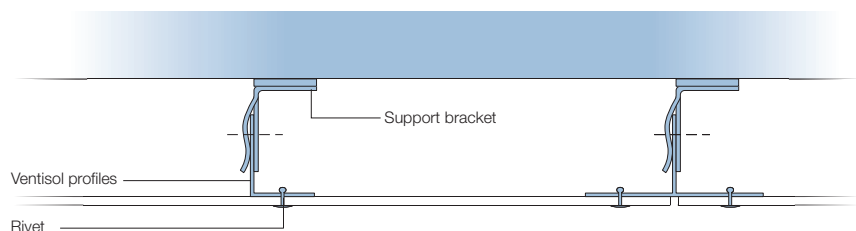
Fixing details

The contractor is to supply to the cladding distributor the necessary information for cutting, drilling and delivery of the panels. A list of distributors can be supplied on request.

Rivet holes should be located in accordance with the specifier's drawings, and specific Marley Eternit product literature. Fixing centre of the rivets will depend upon the windload calculations, but must not exceed 600mm. All rivet holes should be designed to align vertically and horizontally to give the neatest appearance.

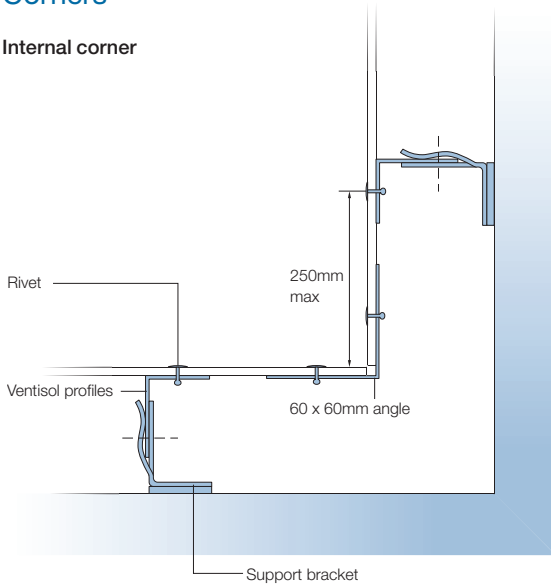
Marley Eternit high performance fibre cement cladding panels are normally supplied cut and drilled by specialist distributors. If limited cutting or drilling has to be actioned on site refer to the Technical Advisory Service for specific cutting advice.

Vertical joint and intermediate fixing

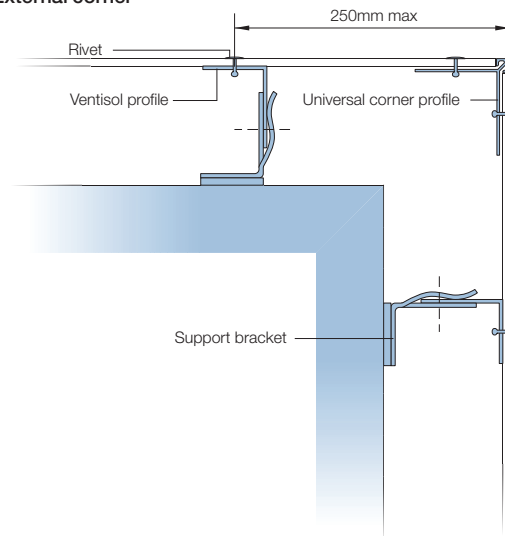


Corners

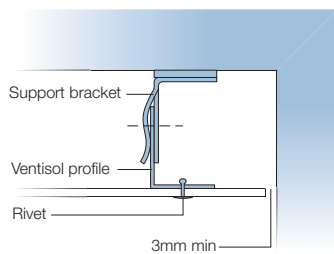
Internal corner



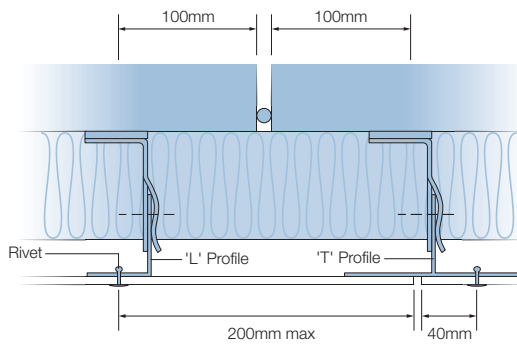
External corner



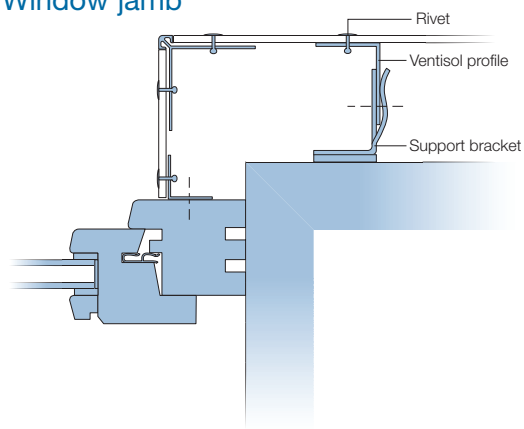
Brickwork abutment



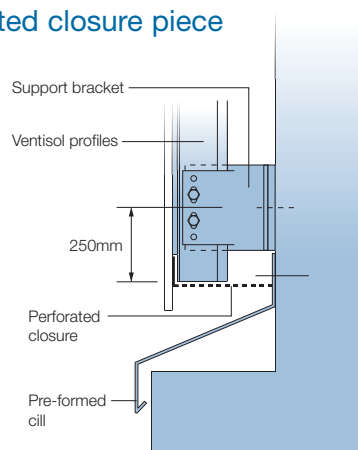
Expansion joint



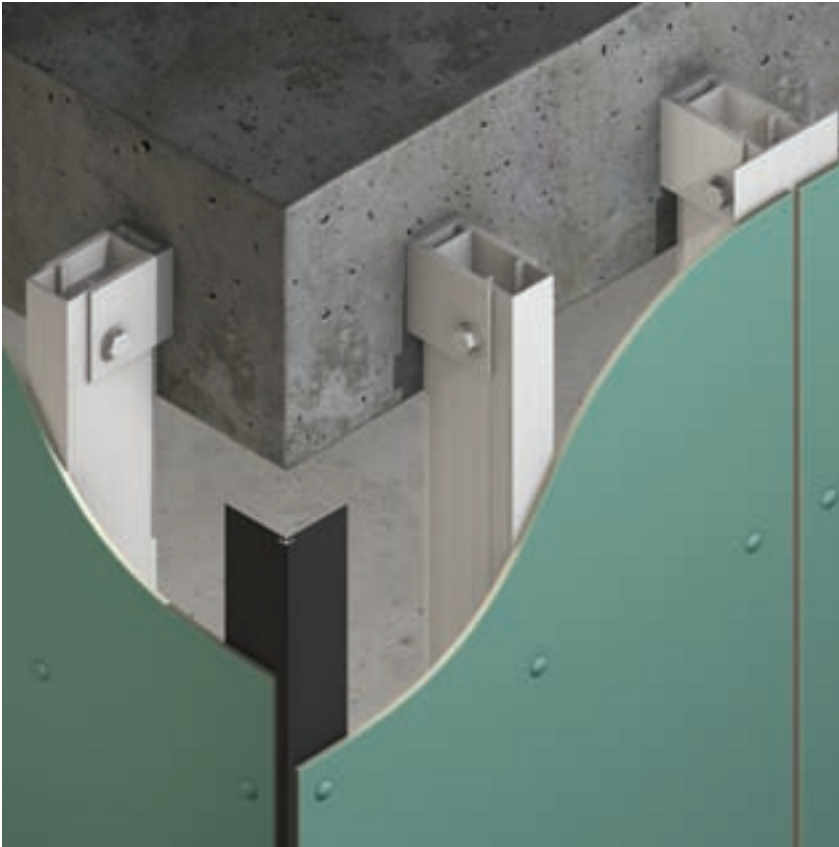
Window jamb



Perforated closure piece

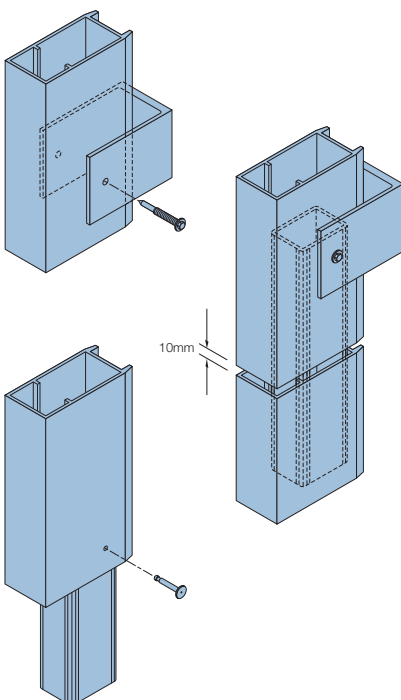


Ventispan introduction



A highly adjustable system allowing for irregularities in substrate surface, Ventispan is ideal where poor quality infill material on existing buildings dictates that fixings can only be secured at floor slab positions.

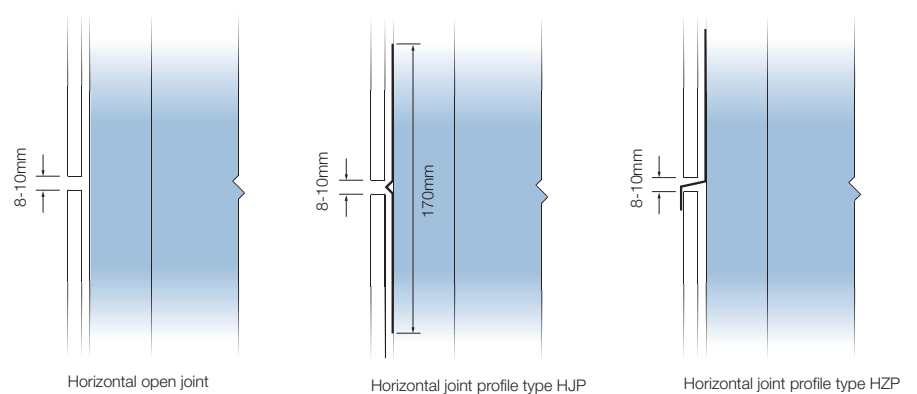
Components



Horizontal joint alternatives

Horizontal joints may be formed using aluminium joint profiles type HJP or HZP. Alternatively, an open joint detail may be used.

With an open joint, the aluminium profiles will be visible between two panels. Black paint or PVC tape can be used to mask this effect.



Ventispan application instructions

Anchoring Ventispan to the existing structure

The system is designed to be anchored into floor slabs. The choice of appropriate anchor based on the substructure and calculated loadings should be decided in consultation with a reputable fixings manufacturer.

Pull out tests of primary anchors must be compared with the system's design requirements, with an adequate factor of safety. Formal certification of any testing should be kept.

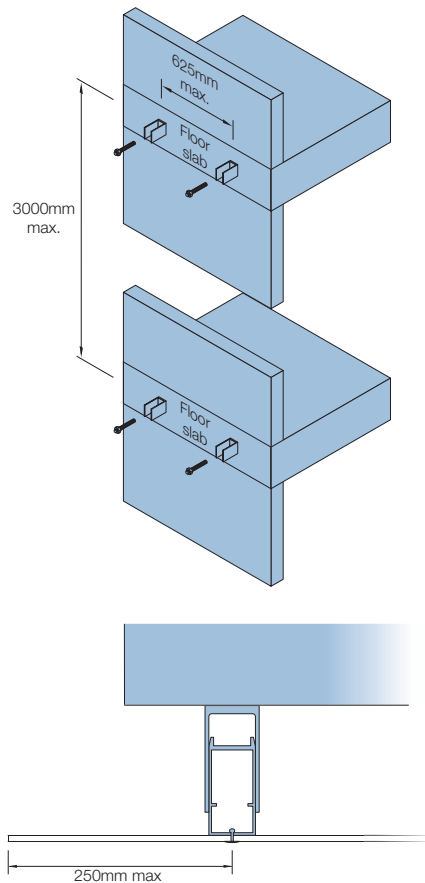
The vertical spacing of the brackets anchor points will depend upon wind load calculations, which should be undertaken by a competent engineer. The vertical spacing must not exceed 3 metres without the written approval of Marley Eternit.

The horizontal spacing of bracket anchor points across the facade will depend on wind loadings, choice of panel material and panel layout but will not normally exceed 625mm. Spacings in excess of this can be permitted but only with the use of stiffened panels and the prior approval of Marley Eternit.

Choice and fixing of support brackets

The choice of bracket type will initially depend upon the required cavity spacing of the installation.

Brackets allow a cavity range from 95-225mm



Attaching rails to the brackets

Ventispan rails can be installed either from the top of the structure working down or from the bottom of the structure working up. Experience has shown the latter to be more common practice.

The brackets are designed to grip the rails via the "helping hand" principle. Thus the rails can be easily aligned by tapping in or out of the "helping hand" prior to fixing.

Anchoring

All brackets should be secured to the structure with one anchor in the central slot (which allows for some sideways adjustment). Where a single anchorage cannot be made, alternative brackets provide for dual anchors in side wings.

The brackets must be installed at $90^\circ \pm 2$ to the structure with plumb alignment.

If the existing structure's surface is irregular, local concrete repairs should provide a flat base for the bracket.

Isolation membranes are required where brackets are in contact with new concrete pads, repairs.

At external corners the bracket/rail position must accommodate the maximum over sail of the panels 250mm.

Due consideration should be given to the positioning of primary anchors to achieve minimum edge dimensions.

Anchor bolts should not protrude so as to foul fitting of the rails.

The rails are connected together with a splice sleeve which can also be secured with the bracket rail fixing.

There must be a 10mm gap at rail connections and this splice sleeve must only be fixed one side of the connection to allow for expansion.

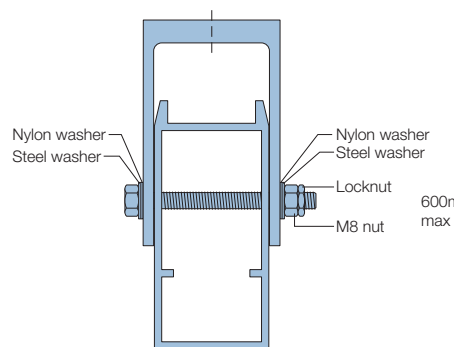
Note: For safety reasons it is preferred, unless otherwise required, to pre-rivet the splice sleeve into the bottom of each rail before positioning.

Ventispan application instructions

Bracket to rail fixings

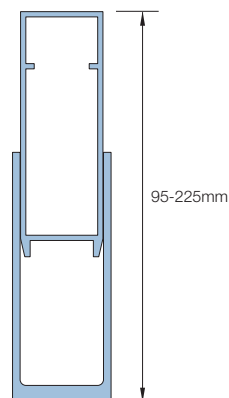
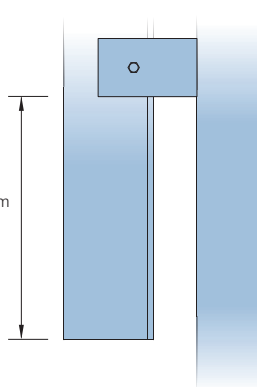
Sliding Bracket Fixing

Inevitably one Ventispan rail, usually at the top, will have to be fixed to two brackets. To allow for possible thermal expansion a special slotted bracket should be used.

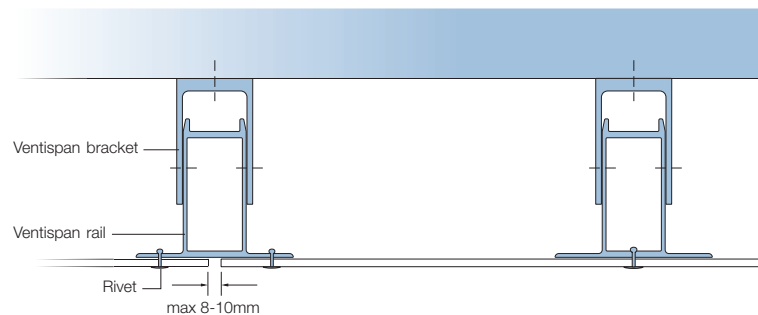


Oversail

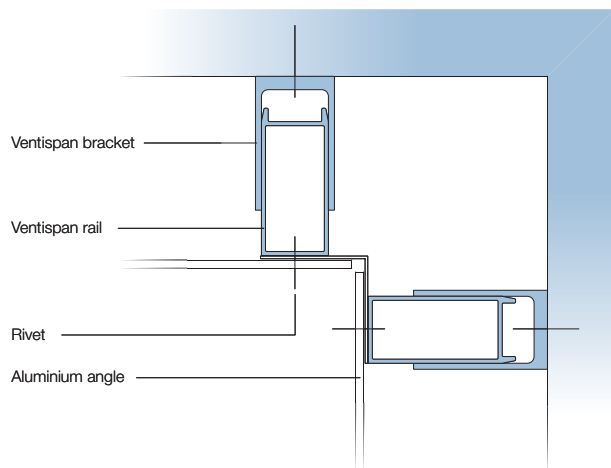
Maximum rail oversail from support brackets 600mm. The rails must fit into the brackets a minimum of 40mm leaving a maximum 70mm visible depth of rail.



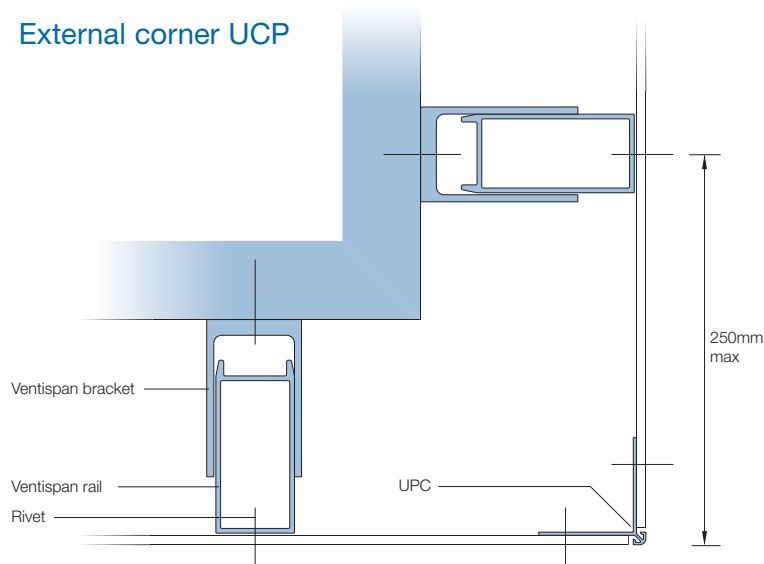
Vertical joint and intermediate fixing



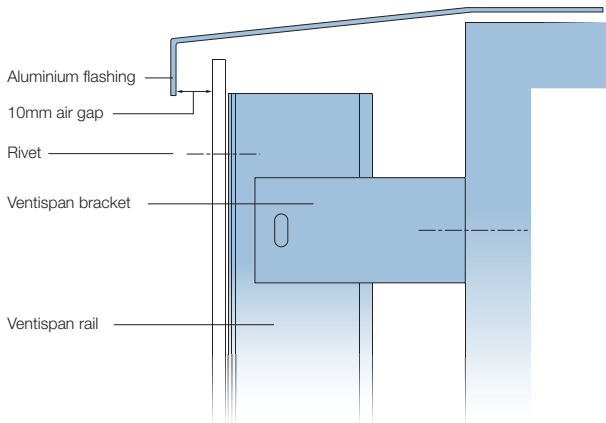
Internal corner



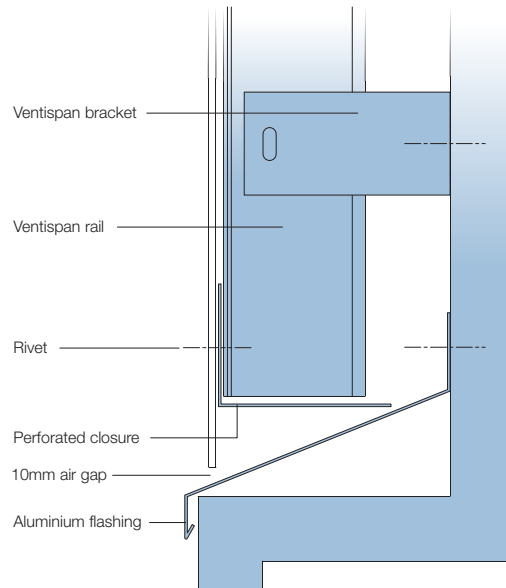
External corner UCP



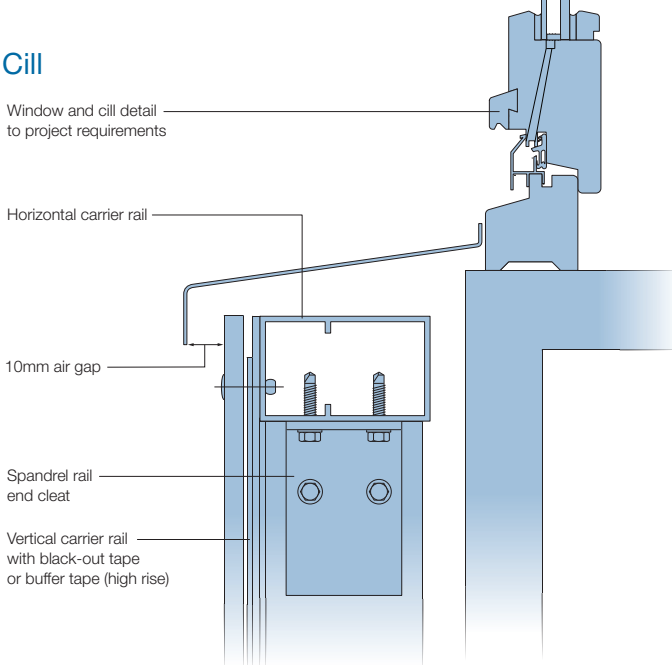
Top of cladding



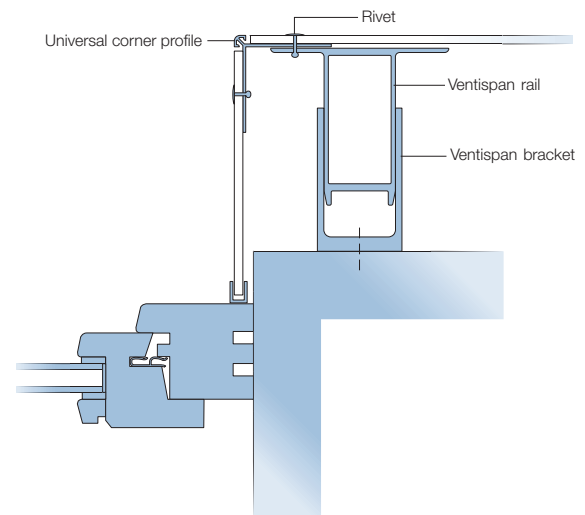
Base of cladding



Cill



Jamb



Insulation

The type and make of insulation will be chosen by the specifier, and must be fastened direct to the building in accordance with the manufacturers' instructions. Insulation should be vapour permeable to allow water vapour to migrate from the structure into the cavity.

The insulation must be packed closely around the support brackets to minimise any potential cold bridge situation.

Insulation slabs must be closely abutted at all edges so that they form a continuous cover on all walls. Where services have to pass through the cladding zone, the insulation must be packed closely around them at the point where they exit from the building. No gaps should be left in the insulation.

Cavity fire barriers

Cavity fire stops may be required to be installed on any multi-storey structure. Placement of these will be as required by the specification and/or as detailed on the drawings.

At the required fire stop location the support angle is fixed to the structure at 500mm centres along the angle up stand. The slotted fire stop is then positioned with the leading edge flush with the face of the rails and rivet fixed to the support angle at 300mm centres.

Where Ventispan rails pass through the fire barrier, it should be neatly trimmed and intumescent foam used to close all gaps.

Secret fix systems introduction

The fixing method chosen can have a fundamental and dramatic effect upon the final appearance of the clad building. Employing a secret fix method will result in a sheer, smooth facade unobstructed by fixings.

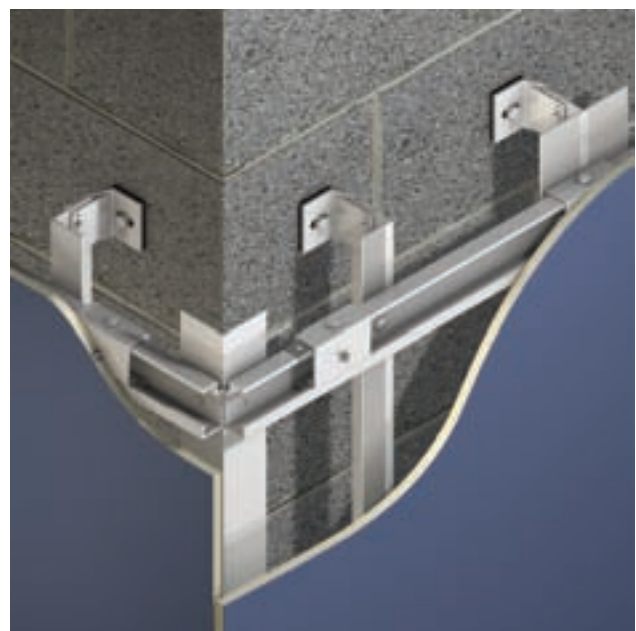
In practice many versions of secret fixing exist, including infill or composite panels.

This design guide however provides details for two specially developed Factory fabricated systems, and also a structural bonding system developed for on site use.

Site bonding is limited to application within the temperature range 5°C to 35°C and only in dry weather (check with adhesive manufacturer).



Structural bonding



Mechanical secret fix (for Natura, Textura and Pictura)

Site bonding structural adhesive introduction

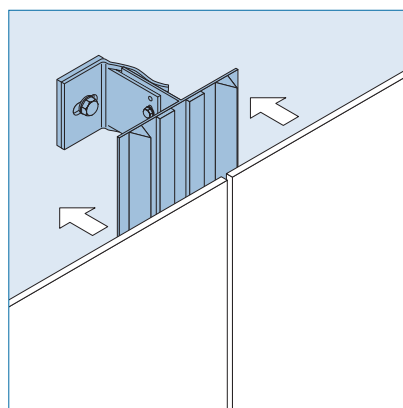
The structural bonding system utilises structural adhesive to fix both internal and external cladding panels to a support framework. It will bond panels to either a timber or aluminium framework.

The system employs a combination of double sided tape and continuous beads of adhesive to fix the panels.

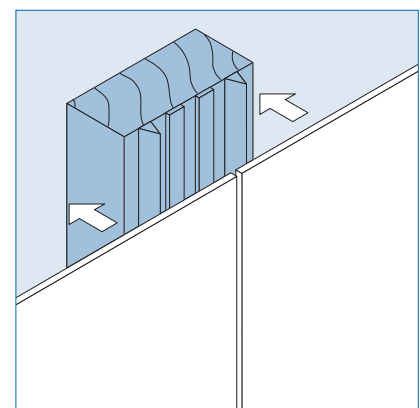
The double sided tape controls the spread of adhesive as the panel is applied and provides initial contact retention whilst the adhesive cures.

Extensive testing by participating companies has demonstrated the performance of the structural adhesive in several important areas.

- Laboratory testing indicates that the structural adhesive will have an expected life in excess of 40 years
- The adhesive remains permanently flexible during the life of the product, accommodating hydro-thermal movements in the structure and the cladding panel
- Factors of safety, both short and long term, indicate that both static and dynamic loads can be more than adequately resisted. In fact, the safety factors are many times greater than traditional methods of fixing.



Panels bonded on Marley Eternit aluminium framework



Panels bonded on timber substrate

Fixing centres

	Framework centres (mm) for max 2kNm ² windload
Pictura 8mm	500
Textura	500
Natura	500

* Restrictions apply, please contact the Technical Advisory Service for further information on 01283 722588.

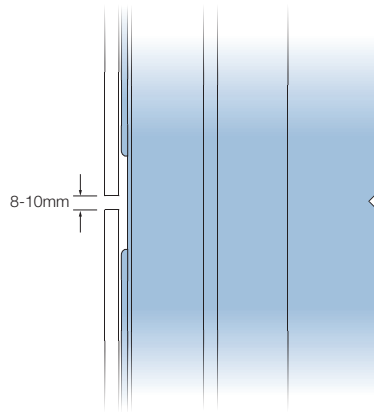
Site bonding structural adhesive design details

Horizontal joint alternatives

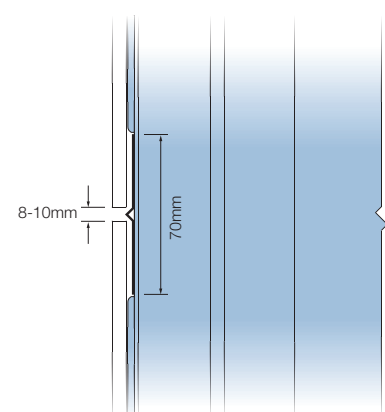
Horizontal joints may be formed using aluminium joint profiles type HJP 70. Alternatively, an open joint detail may be used.

With an open joint, the aluminium profiles or timber will be visible between the panels. Black paint or PVC tape can be used to mask this effect.

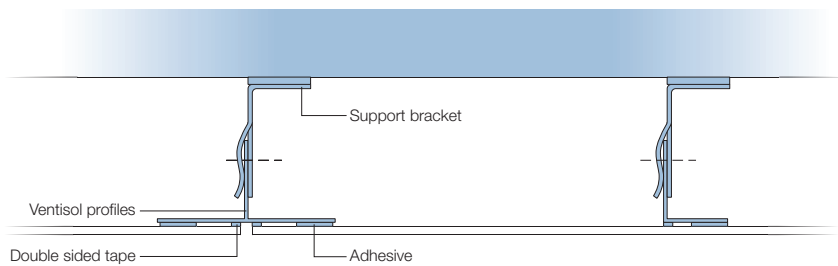
Horizontal open joint



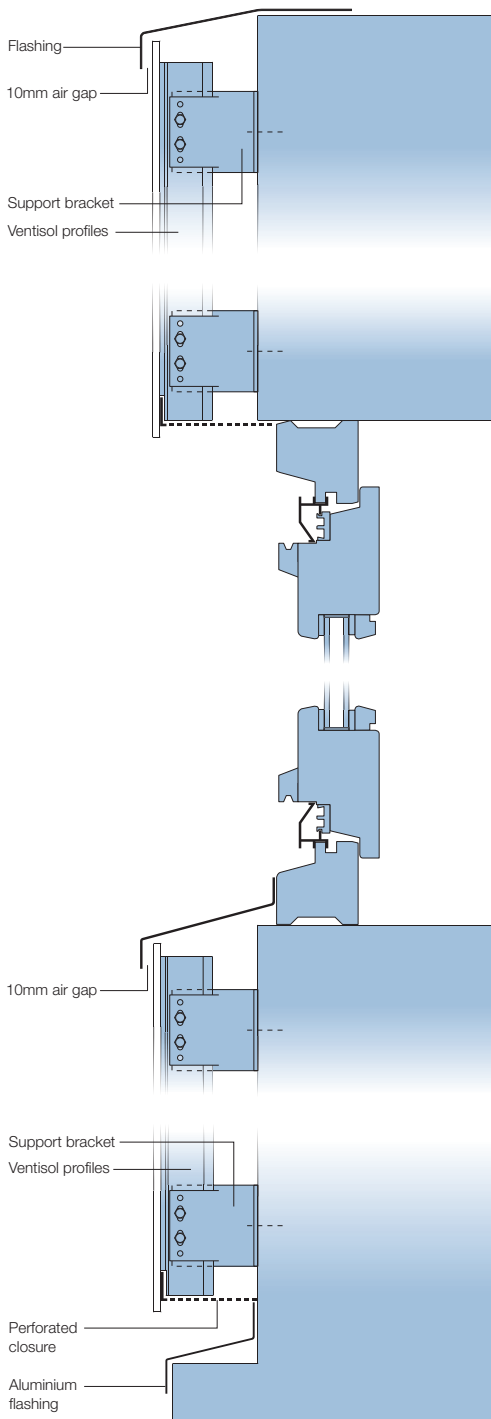
Horizontal joint profile type HJP70



Vertical panel joint and intermediate fixing

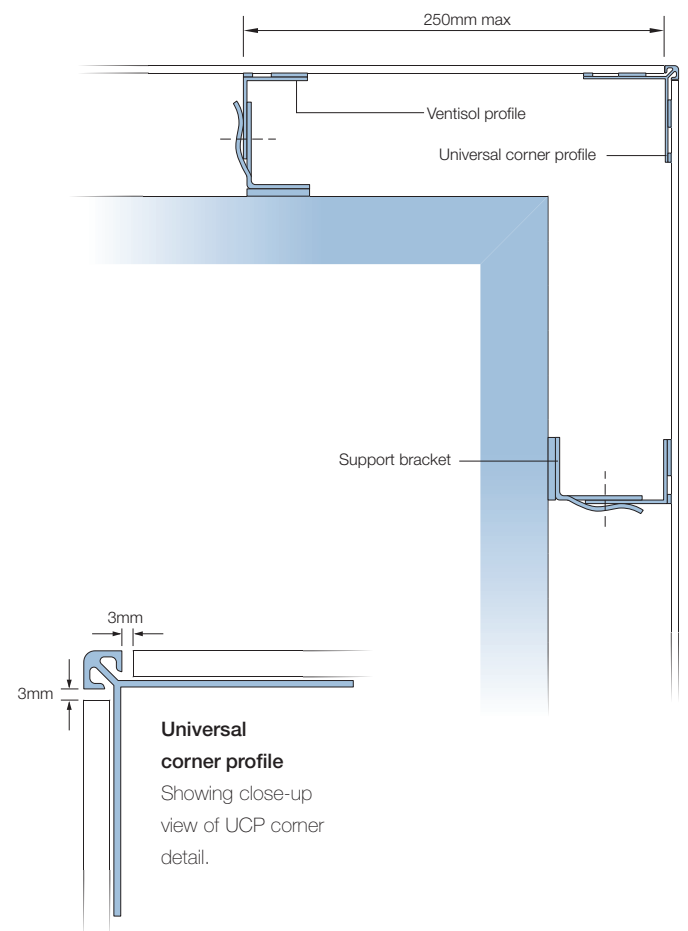


Typical details showing panels fixed to the Ventisol system

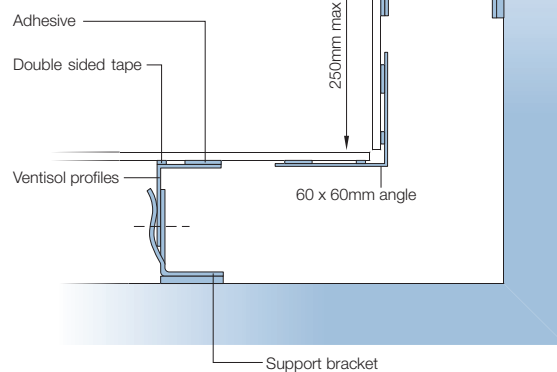


Corners

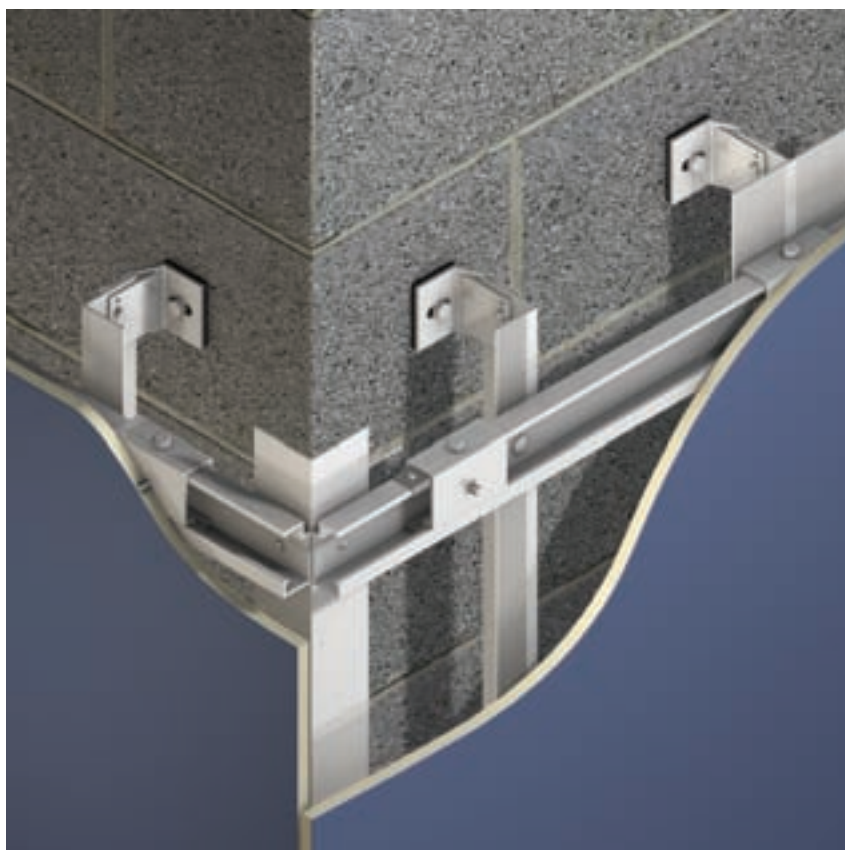
External corner



Internal corner



Mechanical secret fix for Natura, Textura and Pictura



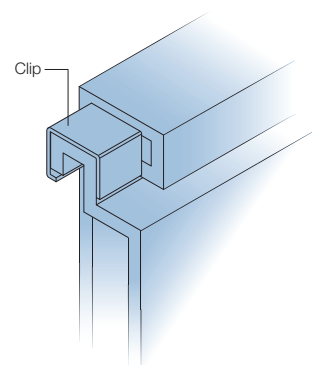
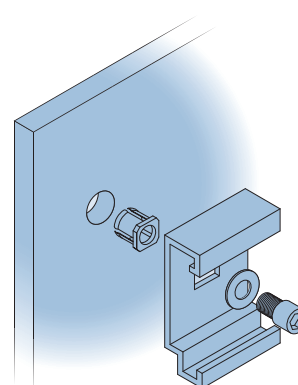
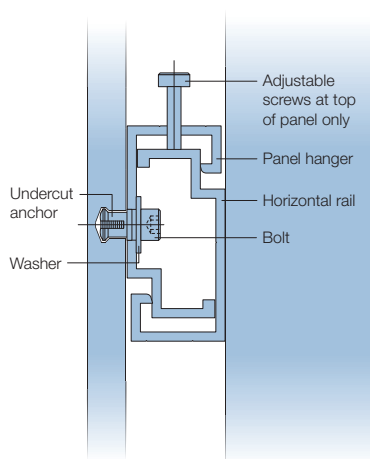
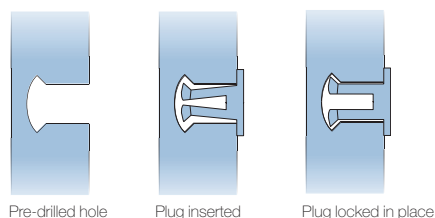
In facade applications where a smooth unbroken surface is required, Marley Eternit offer a concealed mechanical fixing system. Hangers are fixed to the rear face of 12mm thick Natura, Textura and Pictura panels. The hangers hook onto horizontal rails, which, in turn, are fixed to vertical rails.

Fixing centres

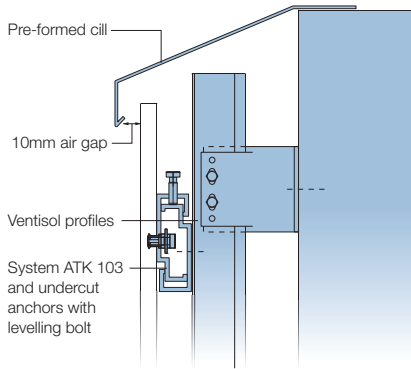
Wind load kN/m ²	Max anchor/rail spacing
0.5	750mm
1.0	620mm
1.5	500mm
2.0	420mm

Undercut anchors

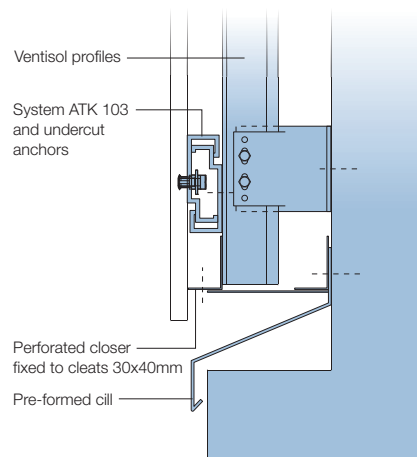
Marley Eternit supply specially designed plugs for fixing into pre-drilled holes in the backs of the panels. These ensure a positive fixing for bolts into the panels. The special plugs also have square collars to provide more secure location in the square or rectangular holes in the hangers.



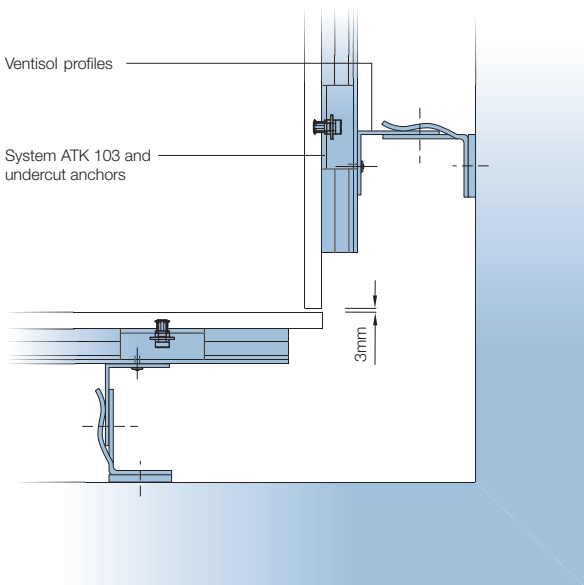
Top of cladding



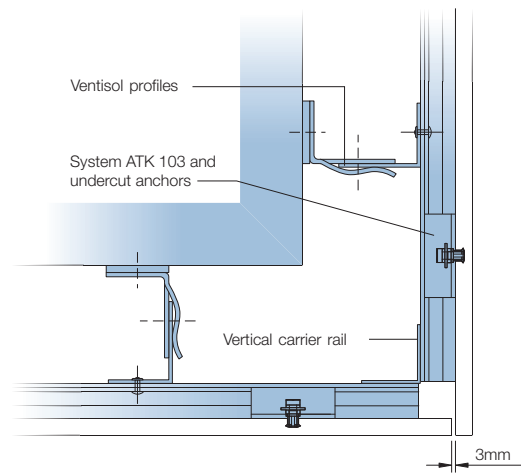
Base of cladding



Internal corner

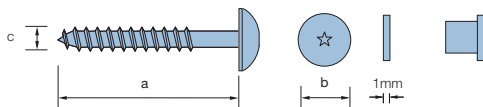


External corner



Fixings and accessories

Screws (colour matched)

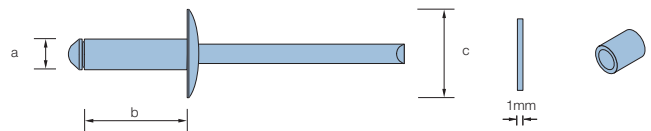


Screw dimensions

Dimensions (mm)	a	b	c	gasket	sleeve
Natura*	*	*	*		
Textura	35	11	5.5	No	No
Pictura	35	15	5.5	No	Yes
Operal	38	12	4.8	No	No

* Due to the different fixing methodology required for the Natura range, please contact the Technical Advisory Service for further information on 01283 722588.

Rivets (colour matched)

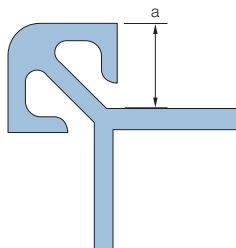


Rivet dimensions

Dimensions (mm)	a	b	c	gasket	spacer	rivet-setting tool
Natura*	*	*	*			
Textura	4.0	18	15	No	Yes	No
Pictura	4.0	18	15	No	Yes	Yes

* Due to the different fixing methodology required for the Natura range, please contact the Technical Advisory Service for further information on 01283 722588.

Universal corner profiles (black and mill finish)

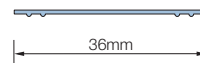


Universal corner profile dimensions

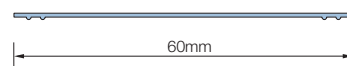
Dimensions (mm)	a
Natura	8
Textura	8
Pictura	8
Operal	10.5

Available in 2.5m lengths.

EFPS Profiles (black)



EFPS 36



EFPS 60

Marley Eternit supply two flexible jointing strips to protect and close vertical joints when using timber battens.

EFPS 36 - standard panel joints

EFPS 60 - corner joints

Available in 100m rolls.

Perforated closures

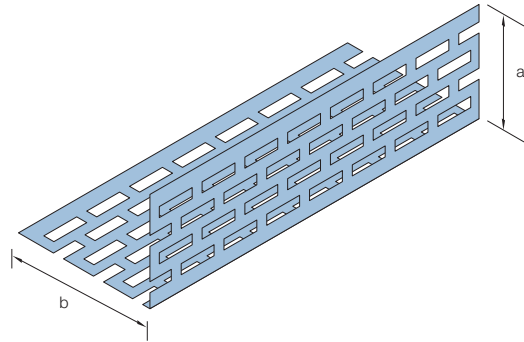
Perforated closures are installed at the base of rainscreen cladding constructions and can be selected to accommodate varying thicknesses of insulation.

The perforations maintain airflow, whilst minimising ingress of birds, insects and vermin.

Perforated closure dimensions

Dimensions (mm)	a	b
	30	40
	30	50
	30	70
	30	100

Available in 2.5m lengths.



Horizontal joint alternatives (black)

Horizontal joints may be formed using aluminium joint profiles type HJP or HZP. Alternatively, an open joint detail may be used.

With an open joint, the aluminium profiles will be visible between two panels. Black paint or PVC tape can be used to mask this effect.

Available in 2.5m lengths*

* HJP 70mm only used with structural adhesive.

