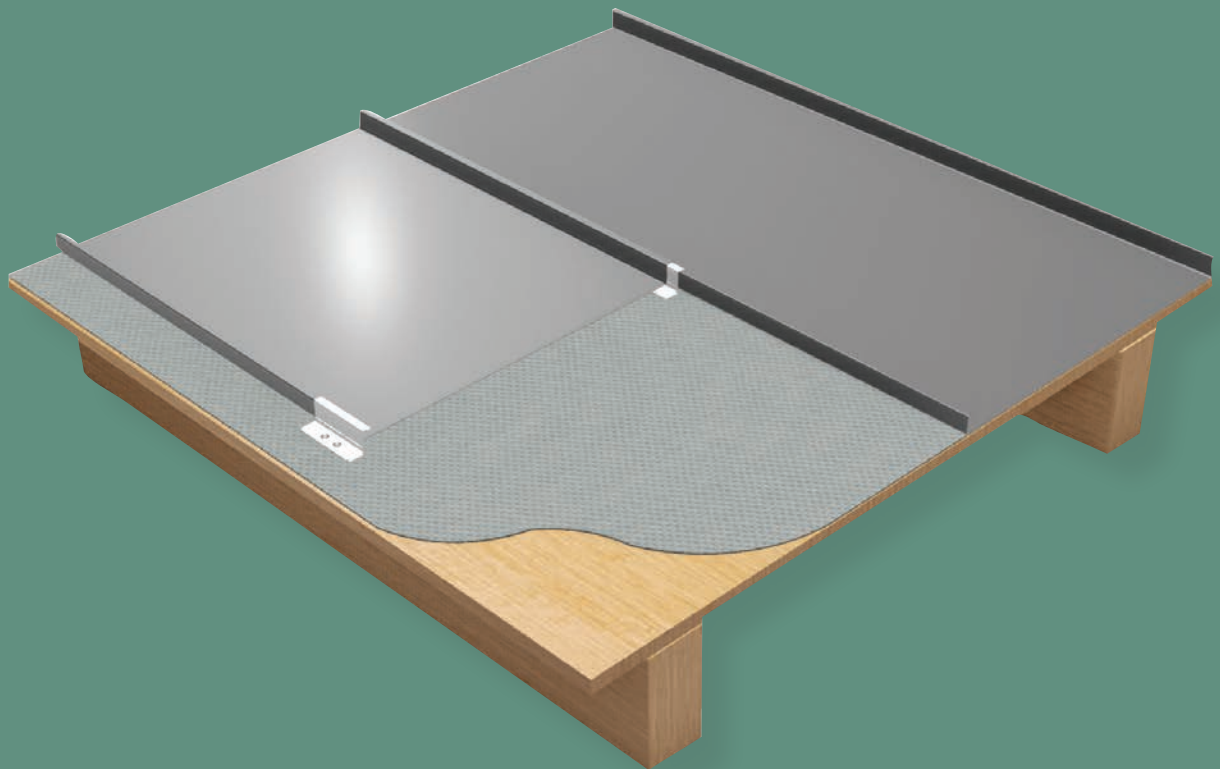




## Product Guidance

Cold Roof Application



Vieo> *noun* a stitch or seam.  
*Verb* to weave together, stitch, seam.  
Origin Latin. *Phonetic* Vee-oh.



## Product Information

The principle is simple and effective, Vieo is a metal roof covering that is mechanically fixed to provide a clean design with no hidden fixings and the look of a traditional metal roof, with the convenience of modern materials and manufacture.



A Vieo sheet features simple edges known as laps that fit over and undereach other, either side of the sheet. These laps sit over a stainless steel clip that is fixed to the substrate. The laps are mechanically folded over the clip to secure the roof.

## Vieo Profile

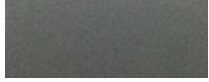
The profile is secured to the roof structure using a two part stainless steel clip with 2 stainless steel fixings each. The sliding clip allows thermal movement of the roof sheets up and down slope whilst firmly securing sheets against the elements. It is advised that this document is fully read before the installation process begins as once the Vieo sheets have been seamed up, they cannot be taken off and “re-seamed”.



# Vieo Materials

## Steel

Vieo is available in 0.7mm gauge Colorcoat Prisma® and Colorcoat HPS200 Ultra® pre-finished steel from Tata Steel.



Colorcoat Prisma®



Colorcoat HPS200 Ultra®

## VieoZinc

Vieo is available in 0.9mm aluminium substrate with a zinc-rich weathering coat designed to provide a cost-saving alternative to real zinc material. This is an exclusive Euroclad product



## Aluminium

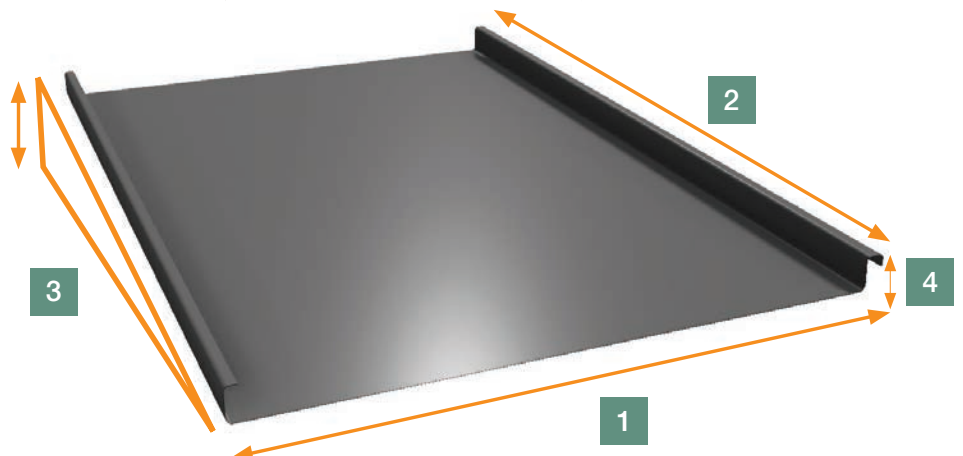
Vieo is available in 0.9mm precoated aluminium in a range of coatings and colours

Please contact Euroclad Sales regarding available coatings and colours in each range

# Vieo Product Parameters

N0:	PARAMETER	STEEL	ALUMINIUM
1	Standard cover width	454mm	454mm
2	Minimum straight sheet length	250mm	250mm
2	Maximum sheet length	14m delivered 20m site rolled	14m delivered 20m site rolled
3	Minimum installed pitch	1°	1°
3	Minimum recommended design pitch*	2.5°	2.5°
4	Upstand height	27mm	27mm

\* to allow for tolerance & settlement of structure, additional loads, free drainage, build-up of materials etc.'



Please contact Euroclad for further parameters

# Tools and Protective Equipment

(supplied by others)

N0:	COMPONENT	USE
1	Gloves	Protect hands during installation and when handling sheets and flashings
2	Drill and PH2 drive bit	To fix the Vieo fixings
3	Goggles	Protects eyes during installation and handling sheets and flashings
4	Measuring Tape	Measure relevant sections
5	Riveter	Fixing method for rivets in the flashings to closure pieces and to attach the drip angle, if required
6	Transformer	Provides energy source for mechanical seaming tools

1



2



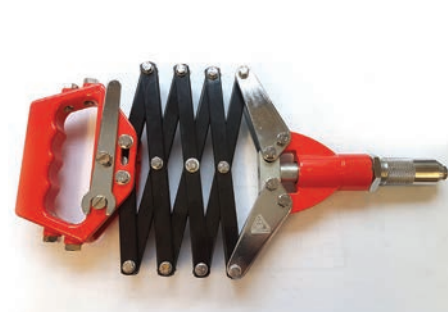
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6



## HANDLING AND SAFETY

Observe all normal safety precautions appropriate to the work being undertaken, for example:

Wear suitable protective gloves and protective footwear when carrying/handling sheets and flashings - cut edges can be sharp. The maximum weight limit for correct handling at hip level per adult male is currently advised as 20Kg.

Take extra care when handling materials in windy conditions.

Wear eye protection when cutting or drilling.

Consider all appropriate regulatory site safety issues including but not limited to Personal Protective Equipment, working at height, lifting/carrying etc.

Swarf

Swarf is loose metal produced when cutting or drilling. It is very hot when first produced and can burn items it initially contacts. It is also very sharp and abrasive. Steel swarf will rust when exposed to the elements.

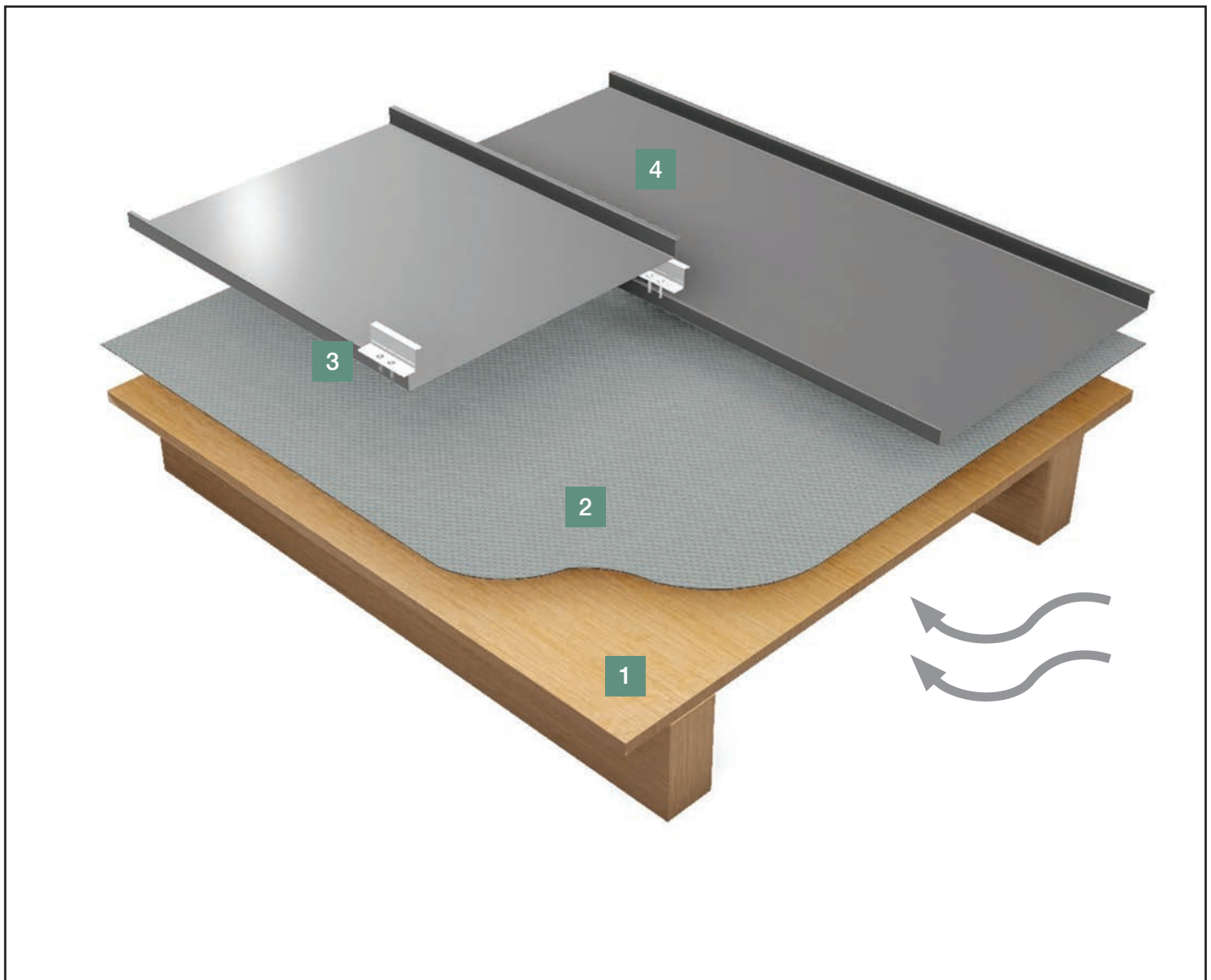
It is important to remove all swarf from the worksite as soon as possible.



# Vieo Cold Roof

## Vieo Cold Roof Section

Cold roofs are for fitting over ventilated lofts where the insulation is at ceiling level.



1	Minimum 18mm Ply or 15mm OSB 3 (supplied by others)
2	Breather Membrane
3	Vieo Stainless steel clips and stainless steel self –drilling fixings
4	Vieo external standing seam sheet

# Standard Components

NO:	ITEM	DESCRIPTION	USAGE
1	Vieo Clip	80mm long clip – comes in two separate pieces, ‘clip’ and ‘retainer’	The Vieo clip is used to connect the Vieo sheet to the substrate
2	Vieo Fixing	4.5mm x 25mm	Clip fixing, fixed point clip fixing, fixing through ridge closures and sheet to substrate as fixed point and verge closures to substrate.
3	Breather Membrane	1.5m x 50m (75m <sup>2</sup> )	Placed underneath Vieo sheet and above substrate. The installed breather membrane protects substrate from condensate
4	Closure Ridge and Verge	Pre cut pan width size (439mm) Or in 5m lengths	Used at the ridge (typically in standard width size) and at the verge over the profile upstand (typically 5m lengths and cut to suit)
5	Ridge Closure Filler	Pre cut pan width size (455mm) Or in 1m lengths	Ridge Closure filler is placed into the Ridge Closure
6	Rivet	AL/E 4.8mm x 11.4mm	Rivets are used at the eaves to fix the sheet to the drip angle (if required) Rivets are also used to fix the flashings to the closure pieces
7	Ridge Zed	Aluminium Zed 50mm wide	Fixed centrally to each ridge closure to allow for additional ventilation, if required
8	Vieo Sheet	Standard Nominal pan width of 454mm	The Vieo sheet is used to weather proof the roof

# Standard Components

1



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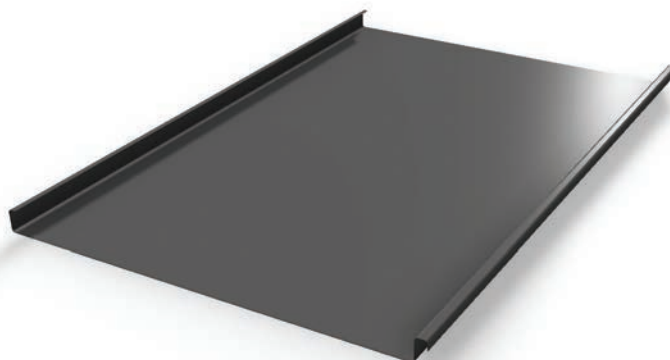
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# Euroclad Standard Tools

NO:	TOOL	INFORMATION
1	Hand Seamer OP1	Prepares the start of the first seam to allow the engagement of the OP1 MST tool. Also used to secure the sheet to the clips at the verge locations.
2	Hand Seamer OP2	Once first seaming is completed, the OP2 Hand seamer is used to prepare the seam for the OP2 MST tool which creates the double seam (aluminium only).
3	MST – OP1 (110v power)	Mechanical Seaming Tool OP1 creates the single seam form of the sheets from eaves to ridge.
4	MST – OP2 (110v power)	Mechanical Seaming Tool OP2 creates the double seam form of the sheets from eaves to ridge (aluminium only).
5	Turn up and down tool	The turn-up turn-down tool is one tool and the handle can be adjusted to accommodate the turn up at the ridge and the turn down at the eaves. This is assembled from two parts to allow for both turn up and turn down action.
6	Rubber Mallet	The rubber mallet is used when second seaming aluminium to encourage the folding process of the upstand in preparation for the OP2 hand seamer.
7	Raking hand Tool	For creating turn up / down on non standard pan width sheets or where the sheet is rake cut. Please see Additional Advice section for further information on cutting.



# Euroclad Standard Tools



1



2



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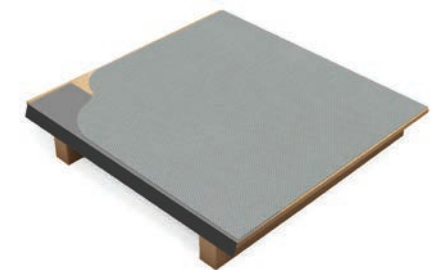
# Application Stages Before Applying Vieo

## Support Substrate (supplied by others)

Recommended substrate is minimum 18mm Ply or 15mm OSB 3 Board

### TIPS

- Make sure the centres of support for the boarding are recommended for application by the supplier
- The board should be free of dust, swarf, debris, grease and other harmful matter e.g. render or concrete
- Check that there are no protruding fasteners
- Use substrate recommended as suitable for use in this application – do not use materials that are susceptible to damage by moisture such as chipboard or mdf



## Breather Membrane

Breather membrane is laid across the roof starting at the eaves, keeping the material as taut as possible. Overlap subsequent runs of membrane by 150mm as they are laid up the roof.

### TIPS

- The use of an eaves protection strip flashing\* is recommended to provide protection to the timber construction elements and to ensure that the breather membrane is supported and drains to the gutter. This should be fitted prior to the breather membrane and the membrane lapped over it by 50mm. It can be fixed at max 450mm centres along the eaves or temporarily fixed and then secured by fixing the Vieo clips at the eaves onto it and through into the substrate.
- The membrane does not need to be sealed.
- Make sure the membrane is secured to the substrate if left exposed.
- The membrane can be secured with staples



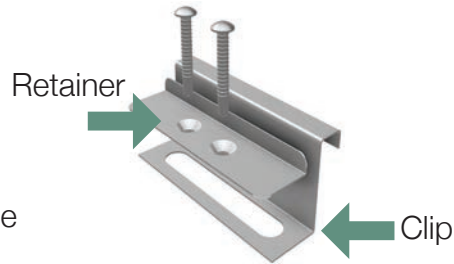
\*Please see Flashings section at the end of this document and eaves detailing.

# Application Stages - Vieo Clips

## Vieo Clips and Fixings

The Vieo Clip comes in two parts;  
**Clip and Retainer**

Sliding clips are generally fixed with the fixings positioned centrally to the slot.



## Installing the first Row of clips:

You must install the first row of clips onto the roof structure before installing the first Vieo sheet.

You should not assume that the building edge is square ready to accept the roof sheets. You should always check to get a straight line. Mark the line for the clips up the slope prior to fixing. Ensure that the line for clips is at least 65mm from the outer edge of the substrate.

## Assemble the clip for installation

- Push the two clip parts together ensuring that the retaining clip can slide freely over the clip base. Align your first clip onto the roof, install at the appropriate centres ensuring the first line of clips is straight – lined up with any specific datum point on the roof area.



## Clip frequency

The first clip positions should be maximum 150mm from sheet ends. As a guide use 660mm clip centres for the rest of the roof area.

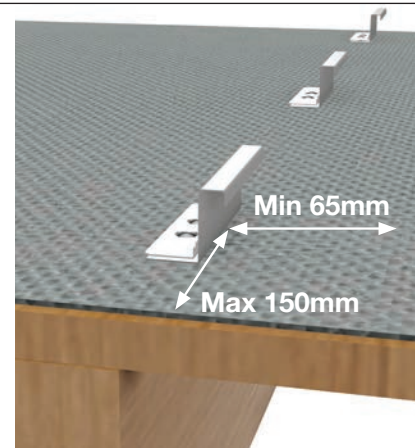
Please contact Euroclad if the application proposed is in an exposed location or if project specific wind loadings have been calculated.

Metal standing seam sheets such as Vieo will expand and contract in length in relation to temperature. This movement is allowed for with the sliding clips however a fixed point is required at one point in the sheet length.

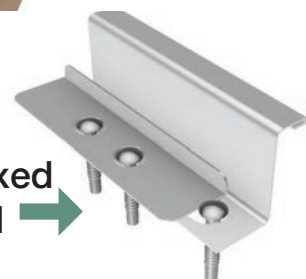
This is usually achieved with the standard ridge detail after the sheets and clips are installed by fixing through the sheet to the substrate.

An alternative fixed point can also be created elsewhere along the length of the sheet if required using the Vieo clip and an additional fixing to lock the clip in place. If using this method use a sliding ridge detail.

For aluminium sheets longer than 10m, consider creating the fixed point in the middle of the roof slope using this method.



## Alternative fixed point method



# Application Stages - Vieo Sheets

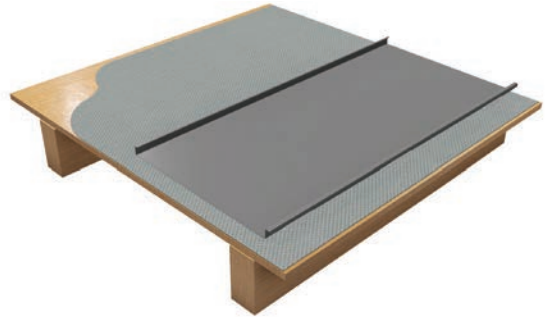
## Vieo Sheets; Hand Seaming Tool

The Vieo standing seam upstands are seamed to the clips using hand tools and then MSTs. Hand tools can be used on their own for short sheets or small areas.

Before laying any sheets ensure that the Breather Membrane is clean and free of any potentially damaging debris - in particular ensure that there is no cement, render, lime or swarf present.

### Installing the first sheet:

Lower the sheet into place pushing the sheet overlap onto the first row of clips by hand



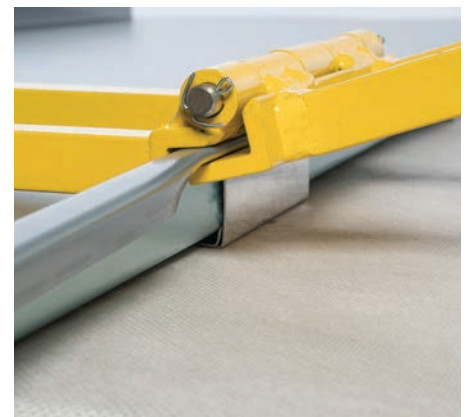
#### TIPS

- Ensure the sheet is placed in its intended position on the slope allowing for the planned position of ridge detailing and gutter. Allow for approx. 50mm of sheet to extend over the gutter.
- If the sheet end will sit onto the deck at the ridge you may consider turning up the sheet prior to fitting.



### Hand seaming process

The larger flat plate of the tool should be vertical and the smaller bar is used to fold the overlap leg under in to position. Place the tool flat against the sheet profile and apply pressure to hold the seam up stand straight while pushing the other tool handle down towards the sheet to form the OP1 overlap.





# Application Stages - Vieo Sheets

## Vieo Sheets; Hand Seaming Tool

Use the Handseamer OP1 to seam the overlap onto the clips. Use the full extent of the tool to complete the hand seaming process.



When in place, push down on the one side of the tool to create the seam.

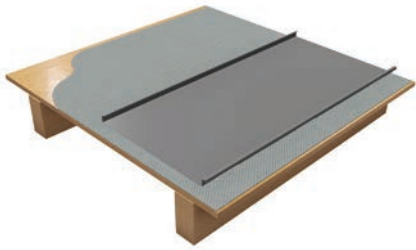
All clips at the verge location should be hand seamed to the sheet.

Hand seaming is also required at the eaves location. Please see Eaves Detailing section



# Application Stages - Vieo Sheets

## Vieo sheets; laying out of clips



Apply the clips to the underlap (leading) edge of the sheet and fix ready to receive the next sheet.

The two part clip should be pushed right up against the upstand of the previous sheet.

This will assist in maintaining the cover width across the roof and will provide ease in the seaming process.

Fixing the clips at an angle is not recommended and can cause issues when seaming.

Fixing the clips at an angle can cause the sheets to step out of the planned sheet width across the roof and can change flashing dimensions at the verge locations.

If creating the fixed point at the mid point of the sheet do this before fixing the next sheet (refer to "Vieo Clips")





# Application Stages - Vieo Sheets

## Vieo Sheet Film

Vieo aluminium and Colorcoat Prisma(r) pre-finished steel are filmed to protect the product surface prior to installation. Euroclad recommend leaving the film on the sheet during installation to reduce the chances of sheet scratching and scuffing of the coating.

Prior to seaming the sheet, protective film (if present) should be removed from the sheet upstands. This is recommended to avoid trapping the film within the seam, preventing it from being removed subsequently.

Protective film should be stripped from the product as soon as possible after installation. When stripping film from VieoZinc be

aware that the natural weathering and colour variation of the material begins as soon as the film is stripped and the surface is exposed to the air and water. This can lead to quite noticeable shade variation in a relatively short period.

## Vieo sheets; laying the sheets

Move across the roof, putting the overlap of the sheet onto the clips and the underlap of the previous sheet.

Check that you are happy with the alignment of the first sheet before proceeding as all subsequent sheets will follow

the line set at this stage. Once seamed, sheets cannot be deseamed and repositioned. Lay each subsequent sheet in place, putting the overlap of the sheet onto the clips and underlap of the previous sheet. The sheet is ready to accept the mechanical seaming tool.

### TIP

Seaming each sheet as laid, when working from the adjacent substrate helps to avoid unnecessary foot traffic on the sheets. Once the leading edge clips are fitted the sheets are secured.



# Application Stages - Vieo Sheets

## Vieo Sheets; Mechanical Seaming Tool

Select the OP1 Mechanical to begin the seaming process and seam.

Ensure that the tool you are using is marked up as OP 1 & that the start of the sheet is handseamed using OP 1 handseamer process. The first 150mm of each sheet upstand should be hand seamed.

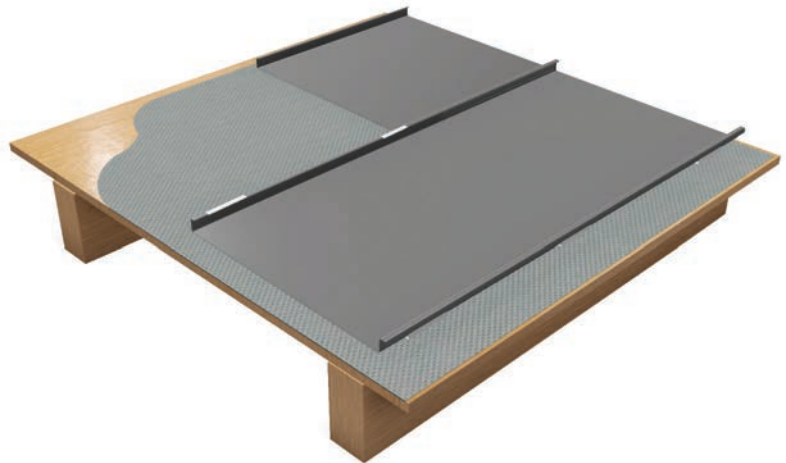
Offer the tool onto the Vieo sheets guiding the roller wheels on to the lap detail. The MST is placed onto the sheet where hand seamed at the eaves location.

### TIP

Using a 3mm packer under the sheet underlap edge while hand seaming will help the underlap to engage properly.

The large form rolls underneath the tool should sit under the seam.

The small rollers sit onto the upstand of the seam.



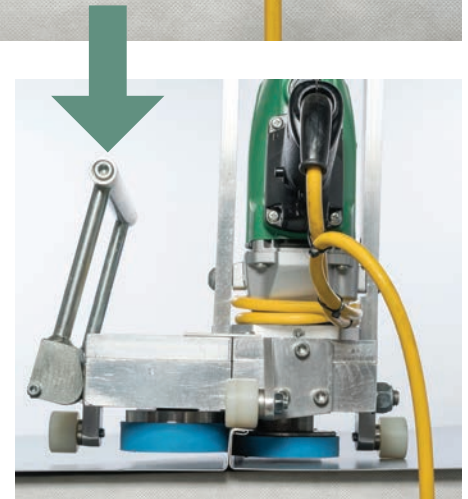
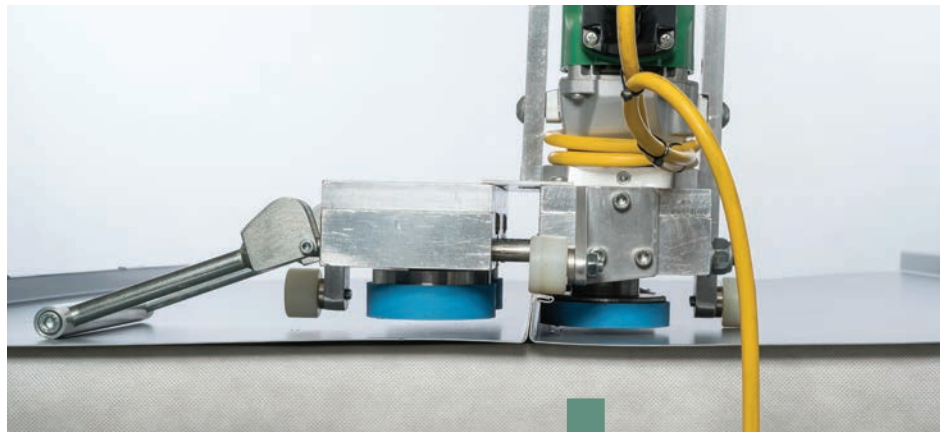
# Application Stages - Vieo Sheets

## Vieo Sheets; Mechanical Seaming Tool

Pull the MST handle to push the seaming tool wheels together. If you have to force the handle, check the alignment of the wheels against the overlap.

Engage the two roller wheels on the top of the overlap. If the rollers are in the correct alignment you will be able to close the handle on the tool with only slight resistance.

Pull the MST handle to push the seaming tool wheels together. If you have to force the handle, check the alignment of the wheels against the overlap. Engage the two roller wheels on the top of the overlap. If the rollers are in the correct alignment you will be able to close the handle on the tool with only slight resistance.



## Seaming Tool Safety

The extension lead should be slotted into the connector securely.

The power supply connection should be elevated when seaming to avoid the lead getting caught.

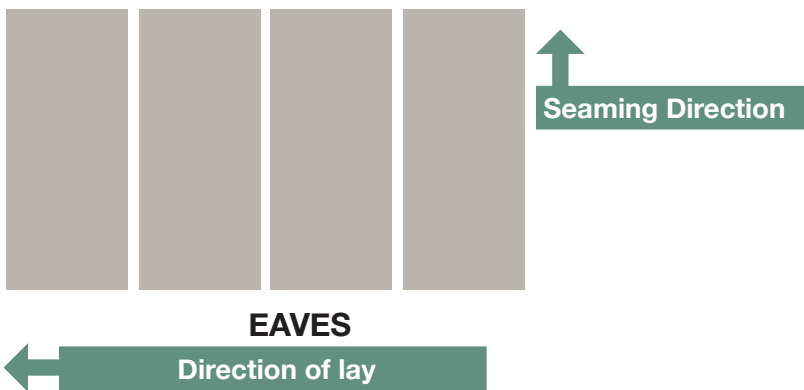
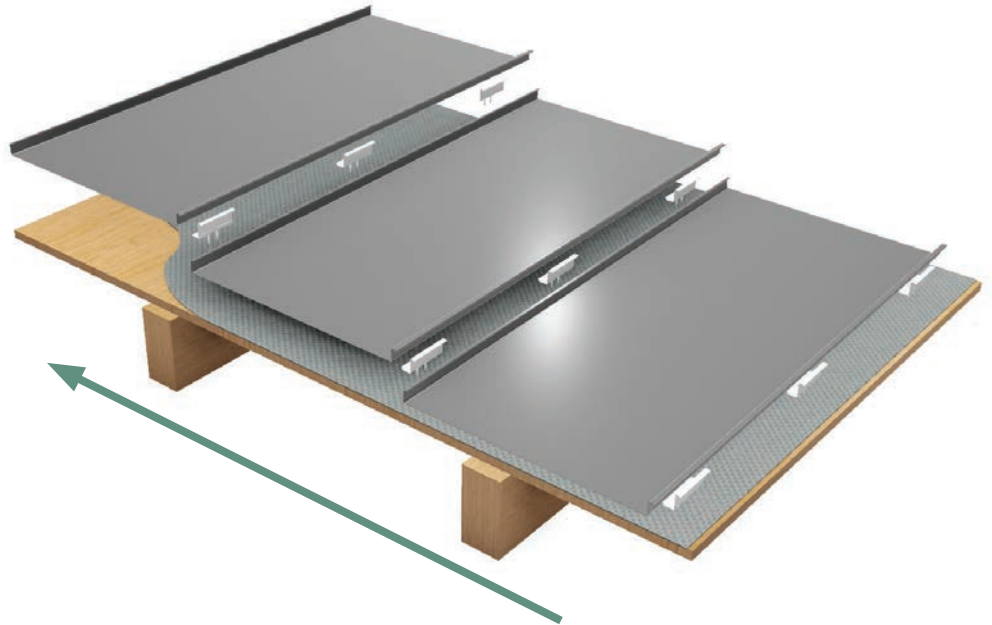


# Application Stages - Vieo Clips

## Seaming Vieo Sheets

The Mechanical seaming tool will only correctly seam the sheets in one direction

It is advised if possible to lay sheets right to left when viewed from the eaves, as this will mean that seaming will be undertaken upslope. However, in exposed locations on pitches below 5° it is advised to lay the folded sides of the seams away from the direction of the prevailing weather.



When ready to start the seaming process, the trigger on the tool can be pressed to start the seaming tool running. We always recommend that the tool is not allowed to travel on its own. Downward pressure should be kept on the tool during the seaming process.

While seaming up sheets across a roof area check the installed cover width every sheet to avoid sheet creepage and to maintain the squareness of the sheet.





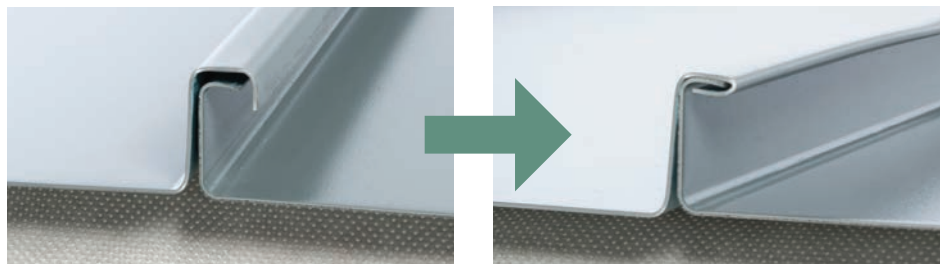
# Application Stages - Vieo Sheets

## Seaming Steel Vieo Sheets

Seaming tools required



Stage 1 Seam



The single seaming process mechanically folds the upstands to secure the steel profile to the clips.

## Seaming Aluminium Vieo Sheets

If using Aluminium Vieo sheets, the upstands require a second seaming process with additional tools.



Stage 2 Seam



The single seaming and double seaming process mechanically folds the upstands to secure the aluminium profile to the clips.

# Application Stages - Vieo Sheets

## Additional steps When Seaming Aluminium Vieo Sheets

Aluminium sheeting requires additional seaming to secure the sheeting to the clips.

Begin the second seaming process by preparing the overlap after OP1 seam to accept the OP2 MST.

Use the rubber mallet to push the overlap down towards the profile upstand. Pressure is applied to the free side of the upstand to encourage the bend of material.



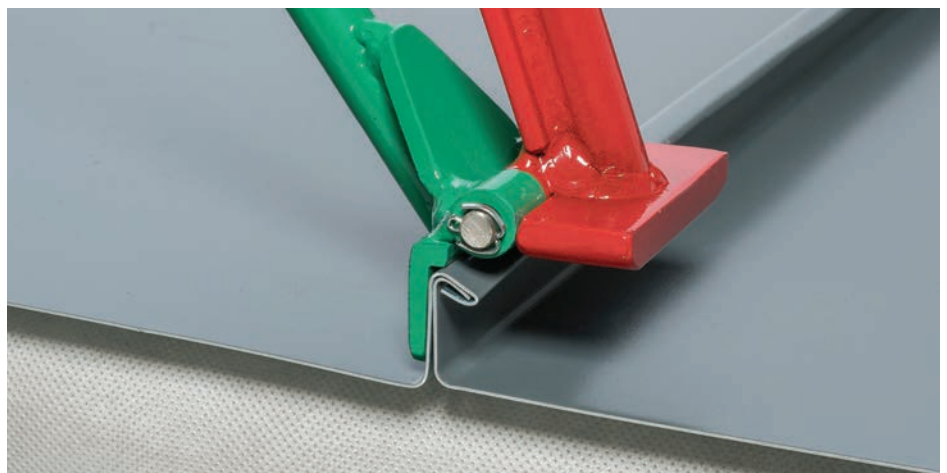


# Application Stages - Vieo Sheets

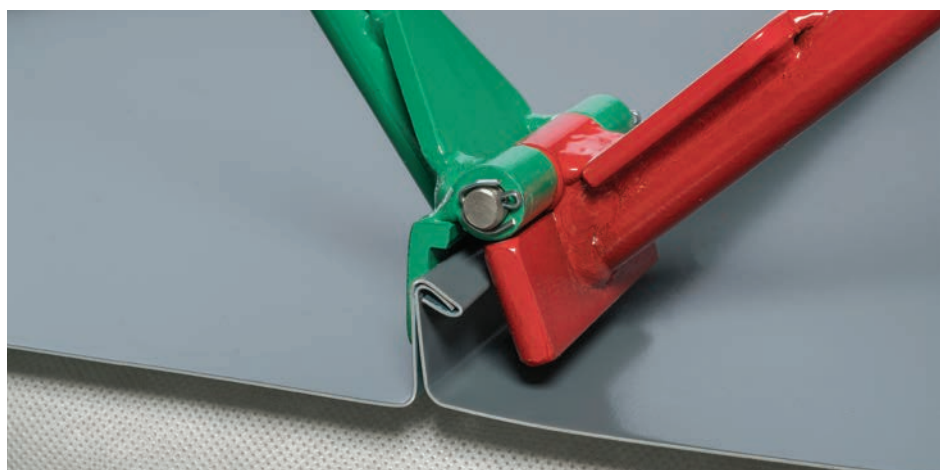
## Additional steps When Seaming Aluminium Vieo Sheets

After creating the initial bend with the rubber mallet, continue to push the overlap together using the OP2 hand seaming tool for approx. 150mm.

The green angled part of the handle presses against the flat side of the upstand whilst the red part of the handle pushes gently to create the fold. This fold creates an additional 30 degree fold of the upstand.



The OP2 Hand tool allows for the OP2 MST tool to be applied.



# Application Stages - Vieo Sheets

## Additional steps When Seaming Aluminium Vieo Sheets

Once the OP2 Hand Tool has seamed the beginning of the sheet correctly, sit the second operation tool over the seam.

The nose of the tool should sit under the upstand of the sheet.

The tool's white front roll should be 250mm away from the edge of the sheet.

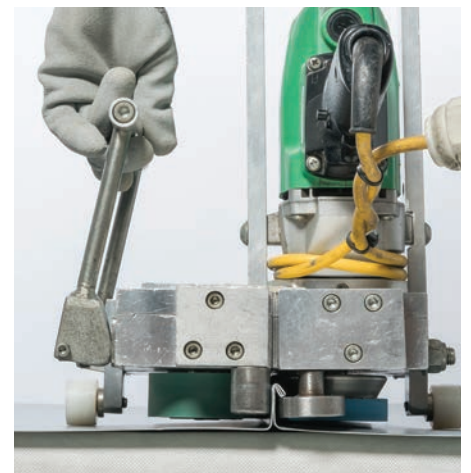


When the tool is in position along the length of the sheet, the handle may now be closed. Please note that the tool should not be forced to close. If the handle does not close easily, please remove the Mechanical tool and re-apply the hand tool to provide the correct starting seam.

The trigger can be pressed in to start the seaming tool running. We always recommend that the tool is not allowed to travel on its own.

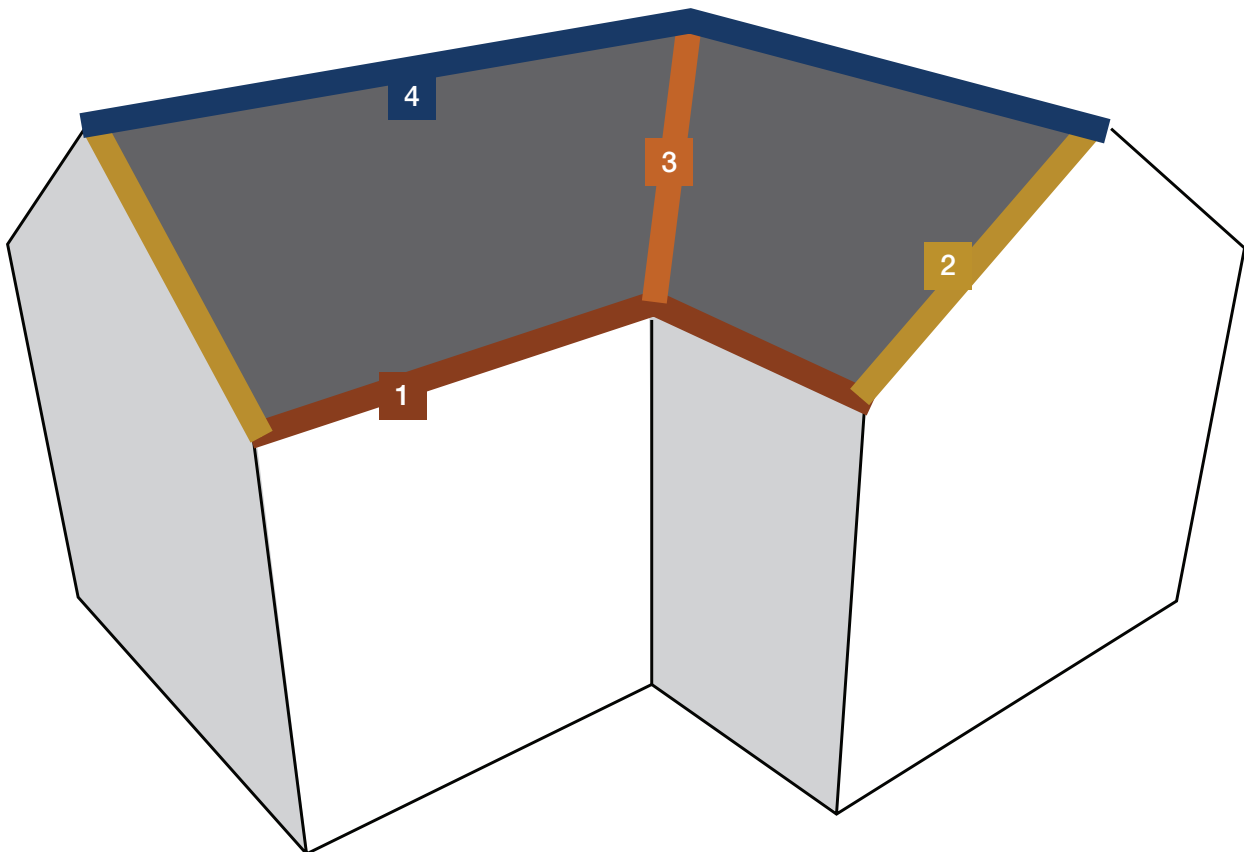
Downward pressure should be kept on the tool during the seaming process.

The end result provides a smooth formed upstand.



# General Detailing

Please consider the visual representation of general detailing areas below;



## 1 Eaves

The Eaves is the lowest point of a pitched roof and usually includes guttering

## 2 Verge

The verge is the edge or side of the roof (gable end)

## 3 Hip Valley

The hip valley is an internal angle formed where adjacent pitched roofs meet

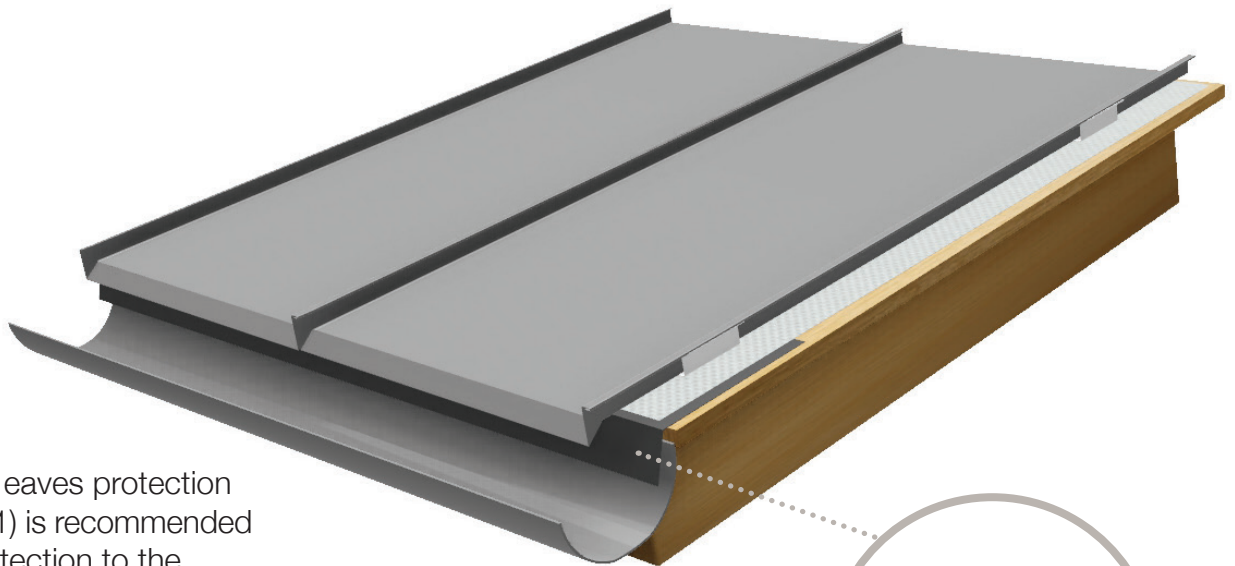
## 4 Ridge

The ridge is the highest point of a pitched roof. The ridge line usually runs parallel with the eaves line.

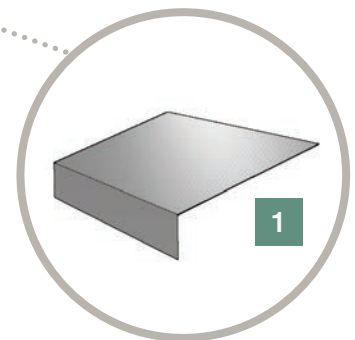
# General Detailing

## Eaves

At the Eaves Location, the Vieo sheet is typically laid over a gutter. The centre of the first clip up the slope should be a maximum of 150mm from the end of the sheet.



The use of an eaves protection strip flashing (1) is recommended to provide protection to the timber construction elements and to ensure that the breather membrane is supported and drains to the gutter. This should be fitted prior to the breather membrane and the membrane lapped over it by minimum 50mm. It can be fixed at max 450mm centres along the eaves or temporarily fixed and then secured by fixing the Vieo clips at the eaves onto it and through the substrate.



On the first clip position up the slope, continue until you have seamed up 150mm.

Proceed along the roof ensuring that each sheet is pulled taut and remains square and parallel.





# General Detailing

## Eaves

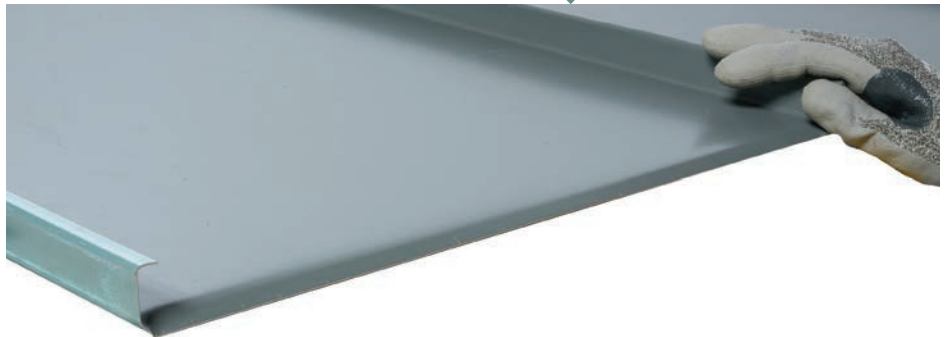
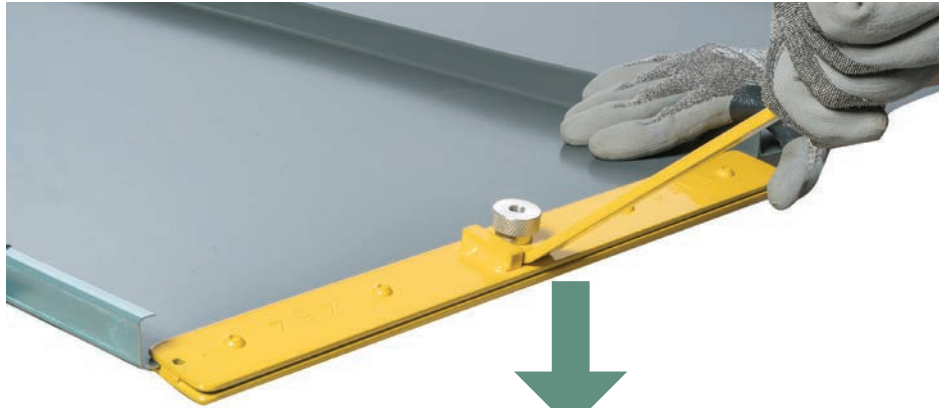
At the Eaves Location, the Vieo sheet end is 'turned down' using the Turn Up/ Turn Down tool.

The turn down should be approximately 20 degrees and is created with the smaller slot end. Little pressure is needed here to turn down the sheet.

The turn up/ turn down tool arrives in two parts that are assembled to allow for both the 'turn down' and 'turn up' process.

The turn down at the eaves directs any rainwater into the gutter and stiffens the profile pan.

The turn up/ turn down tool has an adjustment nut to allow for changing the handle direction.



### TIP

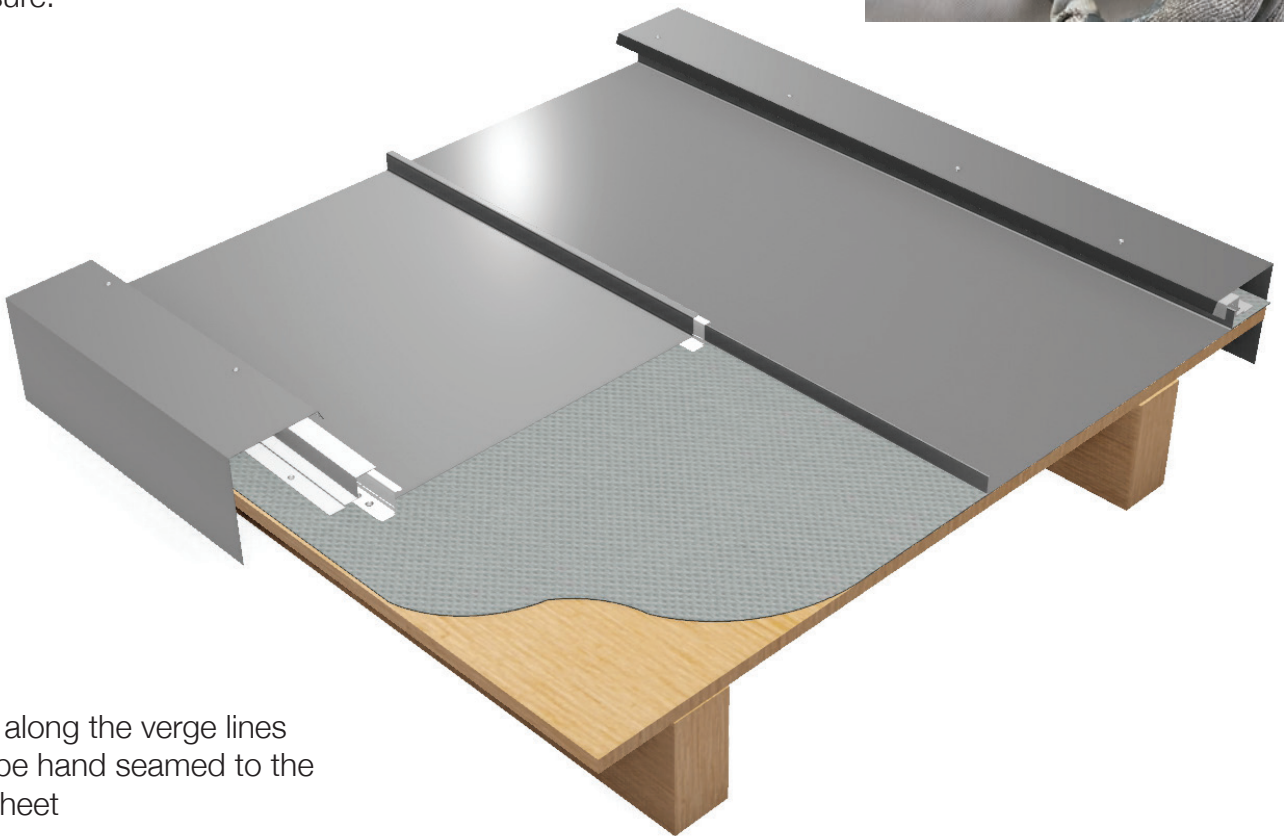
A drip angle (2) can be placed immediately behind the sheet turn down and can help to improve the visual appearance of the eaves line if required. The drip angle can be manufactured from the same material as the sheet and is 25 x 25mm with a 15mm "welt" (returned leg) on the bottom edge. It should be fixed with 2 rivets in each sheet or at max 250mm centres if the sheet edge is rake cut. Rivets with coloured heads to blend with the sheet finish are available.

# General Detailing

## Verge

At the Verge location, a Verge Closure component is placed over the seamed sheet upstand to allow for fixing of the Verge flashings. This closure is fixed down to the substrate. The closures along the verge are available in 5m lengths and can be cut down on site to suit the required length.

A minimum of 65mm should be allowed for from each of the verge lines to the first clip positions to allow for the placement of the closure.



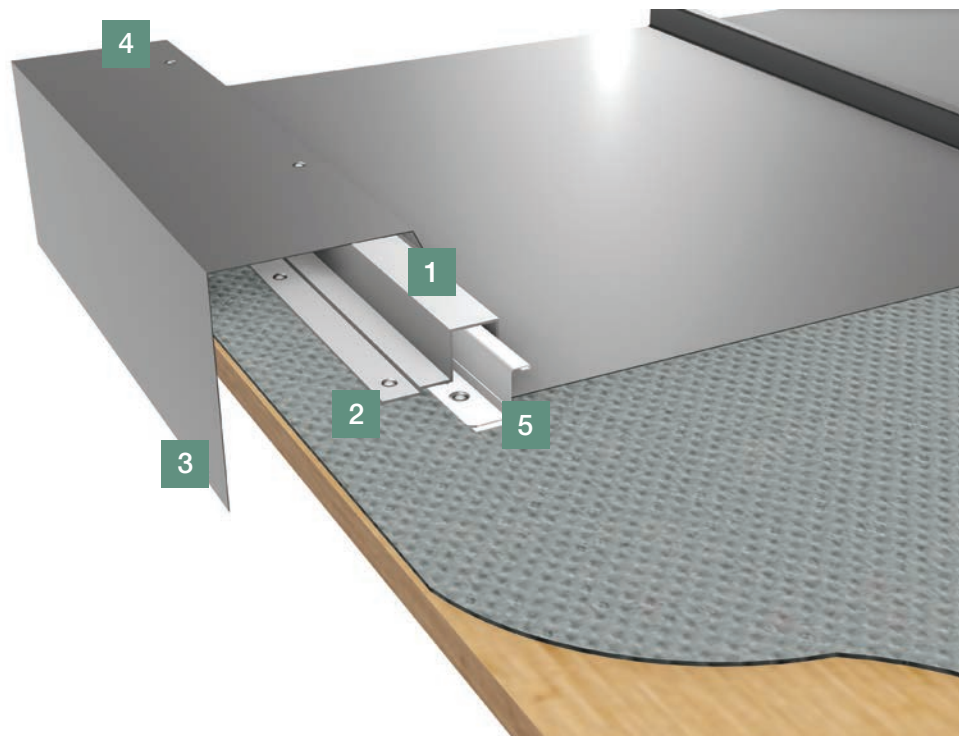
All clips along the verge lines should be hand seamed to the profile sheet





# General Detailing

## Verge



### 1. Verge Closure

The Vieo Verge Closure is available in 5m maximum lengths and can be cut down on site to suit project specific lengths. Allowing a minimum of 65mm from clip to the verge line gives room for the closure. The Verge closure should be pushed right up to the upstand.

### 2. Closure Fixing

The clip fixing is used to fix the Verge Closure into the timber substrate. Fixings should be maximum 330mm centres for application to timber substrate.

### 3. Verge Flashing

The Verge flashing can be created in the same material as the Vieo sheet. Euroclad Flashings department can consider manufacture after receiving project specific dimensional drawings. Avoid flat leg dimensions without stiffening fold greater than 250mm

### 4. Rivet

Aluminium body closed end rivets with stainless mandrel are used to fix the Verge Flashing to the Verge Closure. Fixings should be maximum 450mm centres

Do fix the rivet through the closure to the weather side of the seam. Don't fix the rivet through the sheet upstand of the sheet. This allows free movement of the sheet.

### 5. Vieo Sliding Clip

The clips at the verge location are covered by the verge closures. Hand seam the side row of clips to the verge sheets

# General Detailing

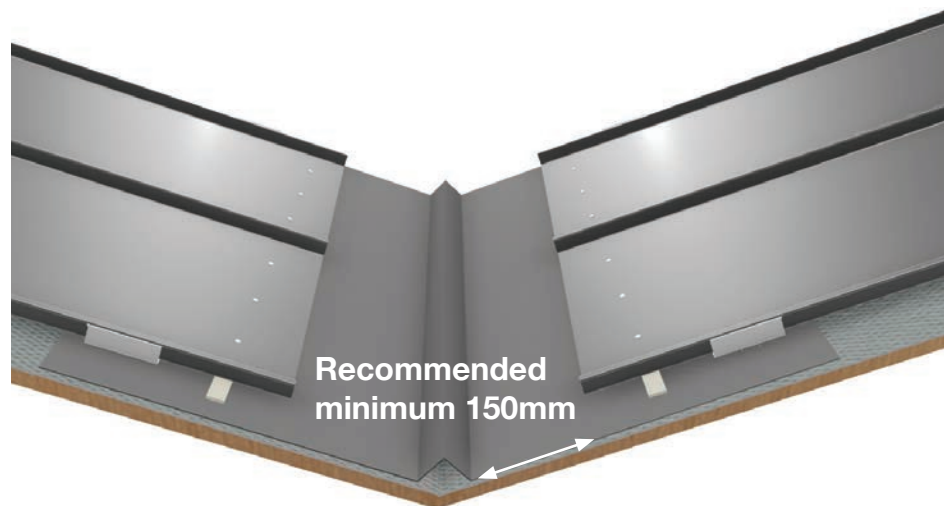
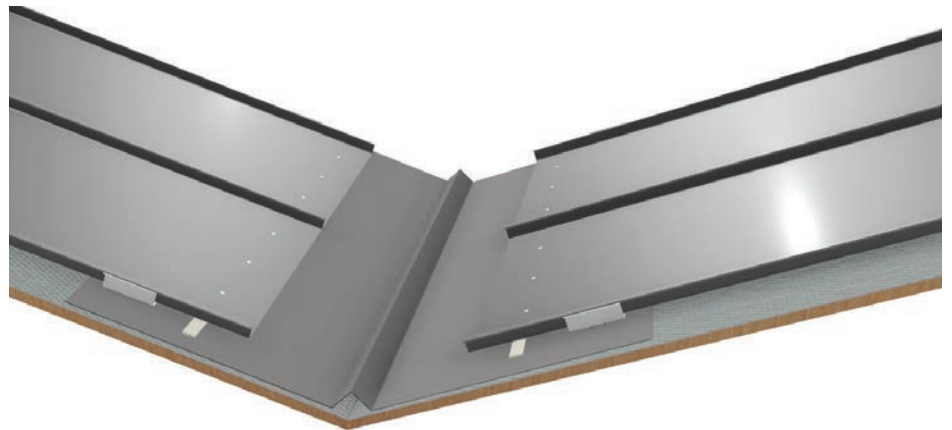
## Hip Valley

At the Hip Valley location, a mastic seal detail should be applied if the pitch of the roof slope is greater than 5 degrees. If 5 degrees or lower, a site applied membrane must be used to reduce any chances of water ingress through both the sheet ends and the seams. Please contact the relevant Site Service companies for further information on site applied membranes.

If you have a hip valley detail on your roof, a fixed point should be created here. Creating a fixed point at the hip valley means that expansion/contraction should be allowed for at the ridge. Please refer to system drawings for further information on hip valleys and ridge expansion detailing.

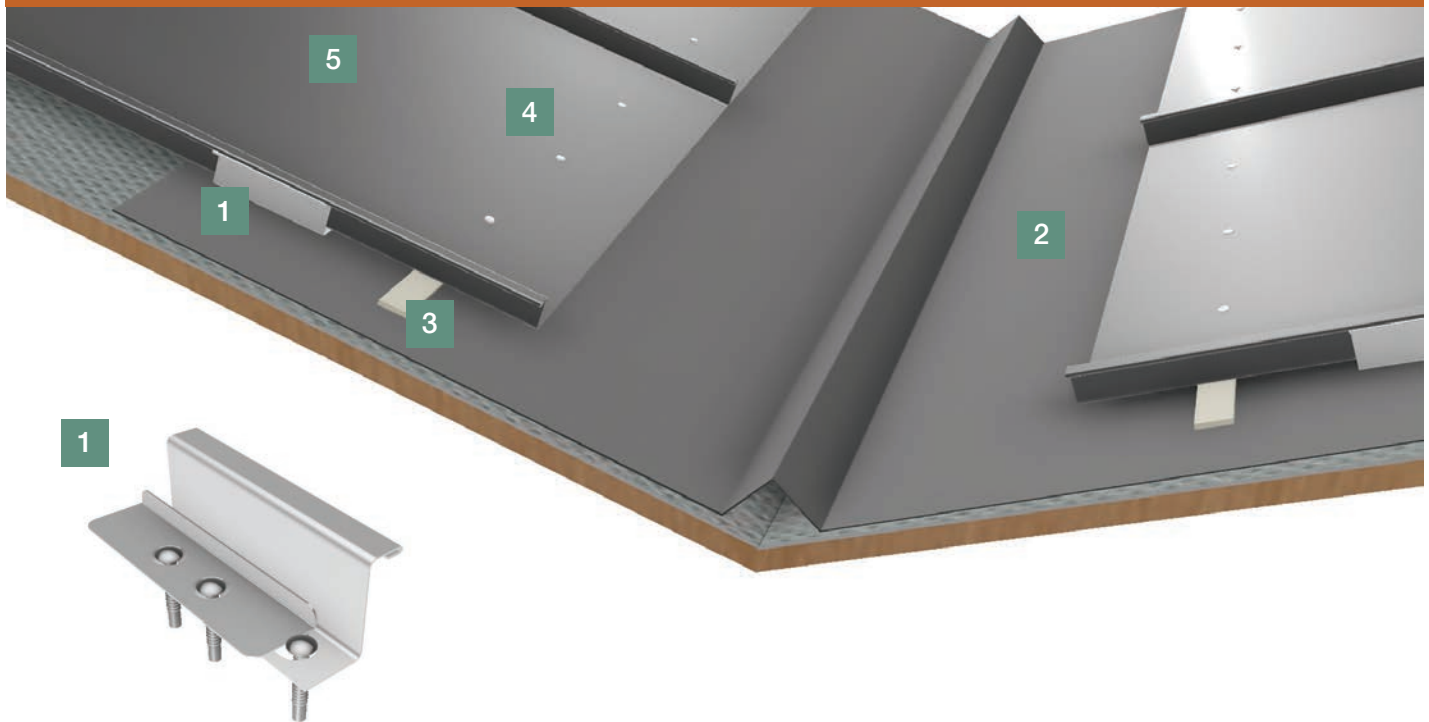
The width of the valley flashing is dependant on roof pitch and slope dimensions and should be created to provide sufficient drainage.

Euroclad would recommend a minimum of 150mm from the end of the sheet to the centre of the valley.



# General Detailing – Hip Valley

## Hip Valley



### 1. Fixed Point Clip

The Vieo clip is placed between 40mm and 75mm from the end of the sheet. The clip is fixed in place using three Vieo fixings. One fixing is placed outside of the retainer to lock the clip in place.

The ridge expansion detail should be considered at the opposite end of the sheet.

### 2. Valley Flashing

The valley flashing should be designed to adequately drain down to gutter level. The valley flashing may be manufactured in the same material as the Vieo sheets.

It is recommended that a 25 x 25 fold be placed in the centre of the valley flashing to encourage the water to drain directly downslope. The fold reduces chances of water over running the adjacent seam.

### 3. 9 x 2mm Class A Mastic

The continuous strip of 9 x 2mm Class A mastic is placed between 10mm – 15mm from the sheet edge. Apply this mastic to the inside face of the underlap upstand prior to seaming the sheet.

### 4. Rivet

Aluminium body closed end rivets with stainless mandrel are used to secure the sheet to the valley flashing. The sheet should be secured with 3 rivets per sheet pan at sealant position.

### 5. Vieo Sheet

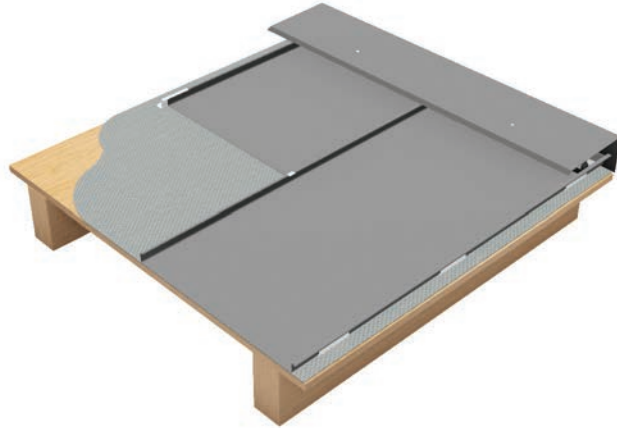
At the Valley location, it is common that the sheet will need to be rake cut to accommodate the geometry. Please see advice on sheet cutting.

# General Detailing – Ridge

## Ridge

At the Ridge location, a ridge flashing piece covers the top of the sheets to reduce the risk of water ingress.

At the Ridge location before the Ridge components are applied, the Vieo sheet end is 'turned up' using the Turn Up/ Turn Down tool. If the sheet end will land over the supporting decking or it will meet an abutment detail you may wish to perform the turn up prior to laying the sheet.



The sheet turn up should be approximately 90 degrees and created with the larger slotted end of the tool.



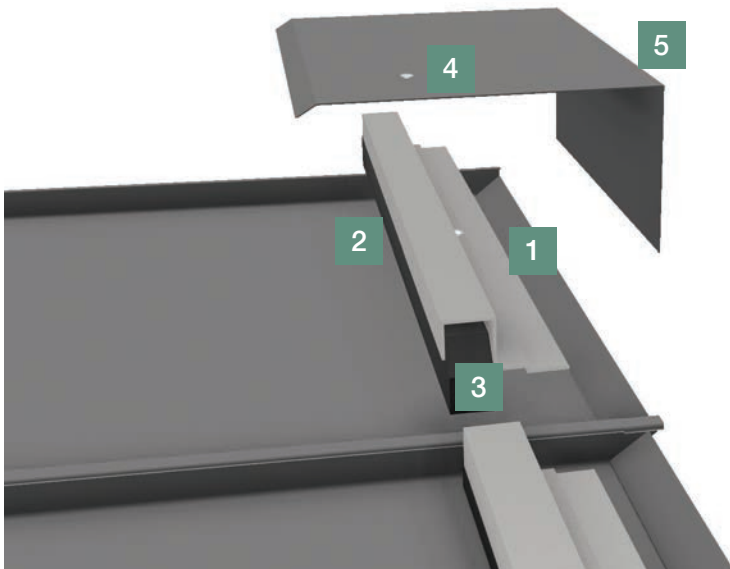
Little pressure is required to turn up the material and care should be taken when doing this.



# General Detailing – Ridge

## Ridge

At the Ridge location, a Ridge Closure with an encapsulated filler piece is placed at the top of the slope (downslope of the turn up)



### 1. Closure Fixing

The Vieo clip fixing can be used to fix the Ridge Closure through the sheet pan into the timber substrate. The ridge filler should be inserted into the closure prior to fixing with the notched edges to the top.

Fixings should be at least 1 per sheet pan. Additional fixings should be used when using rake cut closures to max 450mm centres. The fixing from closure, through sheet and into substrate is the most commonly used fixed point method.

### 2. Ridge Closure

The Vieo Ridge Closure is available in pre cut lengths to suit the standard 454mm Vieo sheet width and 5m maximum

lengths that can be cut down on site for alternative pan widths or rake cuts.

### 3. Ridge Closure Filler

The Vieo Ridge Closure filler is available in pre cut lengths to suit the standard Vieo 454mm sheet width. 1m lengths are available and can be cut down on site to suit alternative pan widths or rake cuts. The filler should be inserted into the closure prior to fixing with the notched edges to the top.



### 4. Rivet

Aluminium body closed end rivets with stainless mandrel are used to fix the Ridge Flashing or Zed to the Ridge Closure. Fixings should be at least 1 per sheet pan or at maximum 450mm centres on raked details.

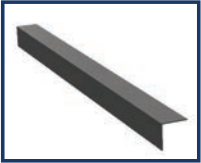
### 5. Ridge Flashing

The Ridge flashing can be formed from the same material as the Vieo sheet. Euroclad Flashings department can consider manufacture after receiving project specific dimensional cross section drawings of flashings lengths and quantities..

# General Detailing

## Ridge

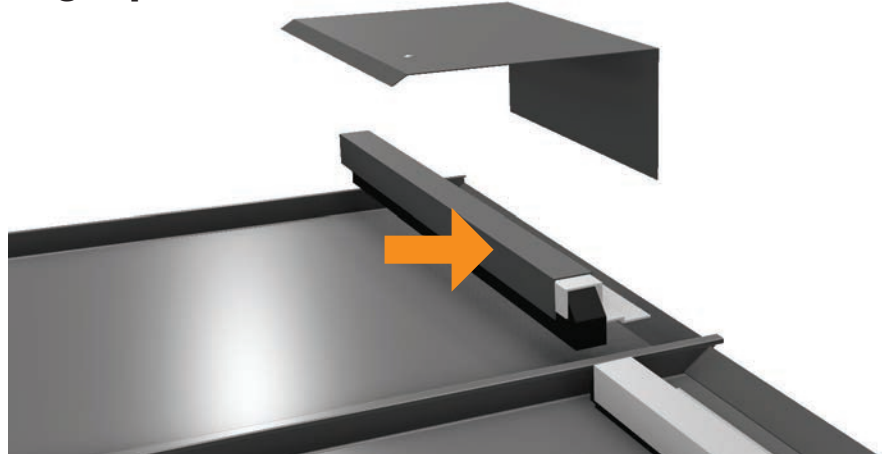
### Additional Ridge Detailing Options



#### Closure Cover

At the Ridge location, a small cover flashing can be placed over the ridge closure to hide the plain aluminium material if this is likely to be visible and of concern.

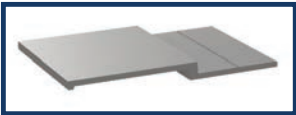
The closure cover can be manufactured in the same material as the Vieo sheet to provide a matching finish. This is typically used for low pitched roofs or when the ridge line is adjacent to a line of sight.



The closure cover can be manufactured on request with our Flashings department. The closure cover is a 27mm x 27mm 90° angle with external colour, supplied in 440mm

lengths (also supplied in 3m lengths to cut on site for raked ridges if required).

### Additional Ridge Detailing Options

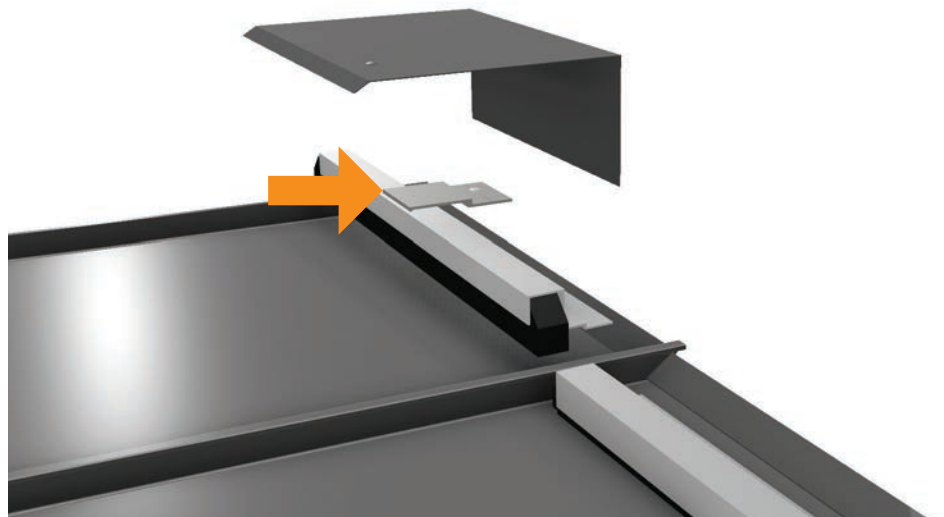


#### Ridge Zed

At the Ridge location, a small aluminium zed piece can be riveted to the closure to create an additional ventilation space.

The 'zed' piece can elevate the ridge flashing piece to allow for a larger gap to provide a greater air flow if required.

The flashing piece is then riveted to the 'zed'. Zeds and flashing should be fixed at maximum 454mm centres.





# Additional Advice

## Cutting Sheets

If cutting the Vieo sheet to the desired angle to suit the roof geometry, tools that do not impart heat should be used. Tools such as a nibbler punch and tin snips are commonly used to create the rake cut. The sheets cannot be factory cut to a rake.

Site cut edges on steel material require edge protection lacquer to be applied to the cut edge to maintain performance. Aluminium site cuts can be left untreated.

These methods may be required if building geometry has details involving rake cuts or steps being cut into the sheet or if the sheet has to be cut on site to an adjusted length for example.

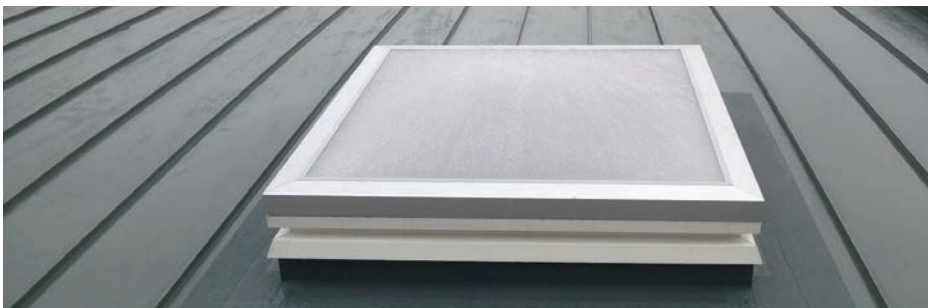
When the roof sheet has to be cut at an angle to fit the geometry, a

rake hand tool may be used to perform the necessary turn up / turn down process at the ridge and eaves line.

At ridge and hip locations where the sheets may be rake cut, closures and filler piece may need to be ordered at a longer length and cut down on site with a hacksaw to suit the project specific requirements.



## Penetrations, Roof lights or Hatches



If including a rooflight or hatch into the roof area, a specialist site applied membrane should be used to bond the flashing, sheet and seam upstands.

This is suitable for all pitches. Site welding is possible with Vieo aluminium only.

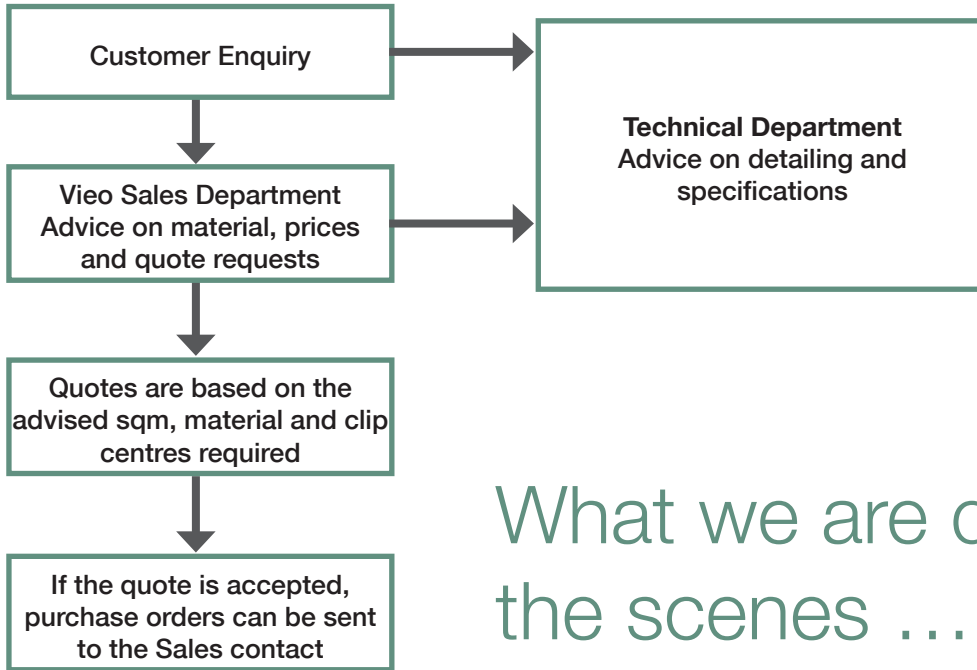
Please consider the Site Services contacts for further information on site applied membrane and welding options.

The breather membrane should be detailed to the penetration. The Vieo sheet ends and seams should be at least 150mm away

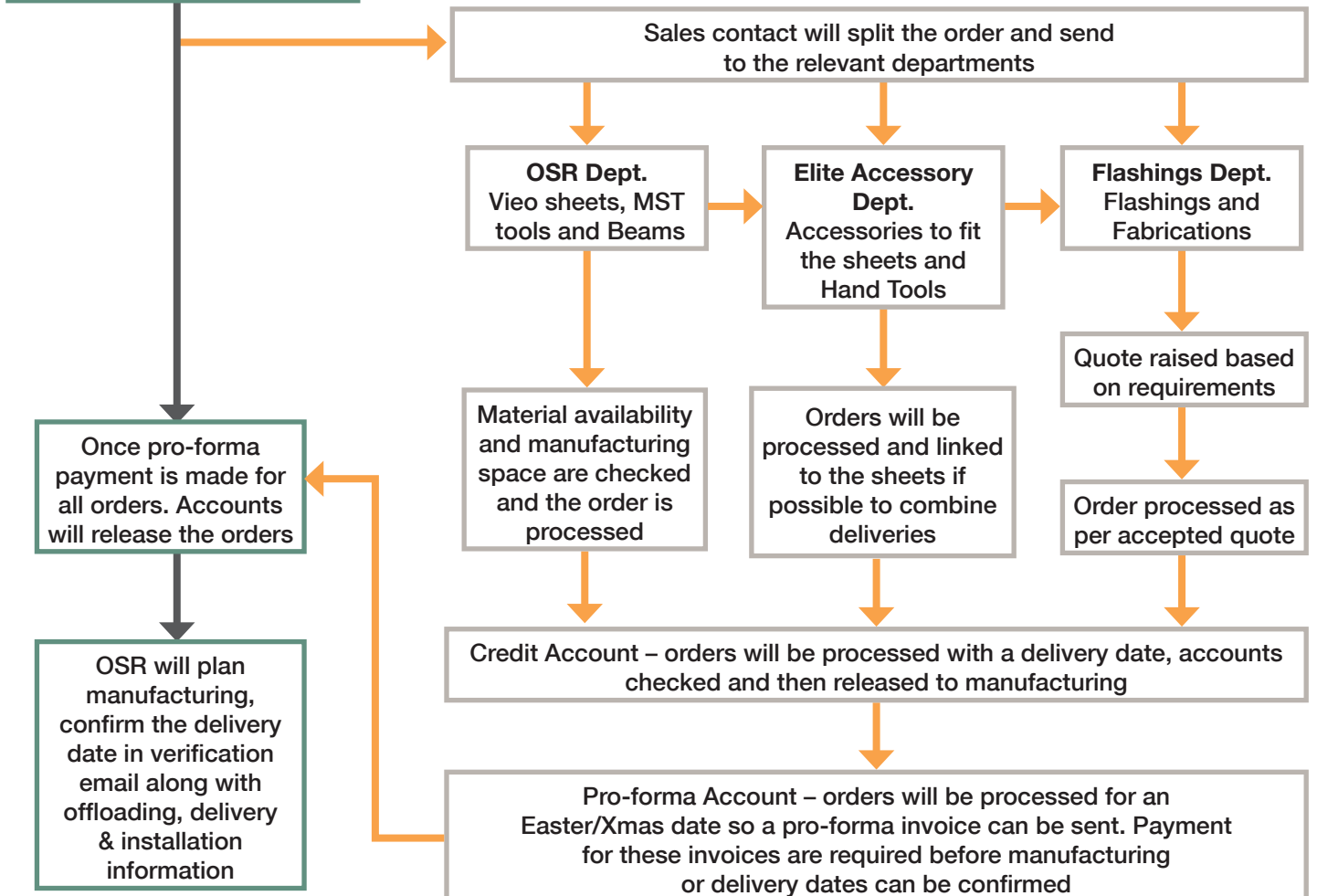
from the detail and the rooflight upstand is recommended to be at least 150mm in height.

The clip fixed point method should be created upslope and downslope of the rooflight or penetration to help reduce sheet thermal movement placing stress on the detail. Expansion should be allowed for at the ridge and the eaves in this case. Please contact Euroclad for information on the ridge expansion detail. Alternatively an external soaker upstand that can move with the sheet can be used.

# Enquiry, Quote and Invoices



What we are doing behind the scenes ...



# Euroclad Quote Example

Euroclad offer a Vieo Quotation for the supply of materials for your project. The quotation provides supply rates for the main components of the build up used in general areas.

## We only need a few details to give you a quick quotation

### Square Meterage

### Project Location

### System Build Up

### Material/ Colour Required

The Vieo Quotation is easy to read and provides general pricing information.

The highlighted red line on the first page of the quote gives a general estimate based on your square meter quantity. The general square meter price and general total system rate are clearly shown .

The first page of the quotation gives a breakdown of the main components in the system.

The price for each main component (Vieo Clip, Vieo fixings, Vieo Membrane and Vieo Profile) is displayed and general total rate for each.

A breakdown of accessory, tools and delivery pricing information is provided in the quote for you to decide what else will be needed for the installation.

Please be aware that flashings will be required to provide a weather resistant barrier.

**VIEO**  
VIEO ZINC - PRODUCT SPECIFIC QUOTATION  
More information available at [www.vieoroof.com](http://www.vieoroof.com)

Quotation Reference : 120319 / Issue Date : 07/04/2018  
Project Ref: Sample Page 1 of 5

**FAQ:**  
Euroclad  
Wentlog Corporate Park, Cardiff, CF3 2FR  
Fax:  
Dear ,  
Thank you for the opportunity to quote for the supply of material to this project. This quotation provides best supply rates for a general area with clip centres at 650mm, but does not consider local areas such as perimeters or high wind loads. Additional components such as flashings, clips for closed centres, fixings and delivery charges must be allowed for at order stage and is the responsibility of the purchaser.  
\*\*This is an estimate only and will not be the total project cost\*\*

**Quotation Details:**

<b>Vieo Cold Roof - Class 0 650mm Centre Veebuck</b>	<b>£24.06</b>	Per m <sup>2</sup>	x 1,000	=	<b>£24,064.97</b>
<b>Vieo Clip</b>					
Vieo -SC-SLIDING - Stainless Steel Vieo Seam Sliding Clip	£0.57	Each	x 3,447	=	£1,964.79
<b>Vieo Fixing</b>					
Vieo -CL-FX - Clip Ring (807 J73-872 4.5x25)	£15.22	Box	x 69	=	£1,060.18
All fixings are supplied in bags/boxes of 100. Orders placed will be rounded up to the next whole bag/box.					
<b>Vieo Membrane</b>					
Breather Membrane 50m x 1.5m	£72.00	Per Roll	x 15	=	£1,080.00
<b>Vieo Profile Vieo - Straight VieoTuc</b>					
0.5mm - Euroclad Vieo - 25/454mm	£19.97	m <sup>3</sup>	x 1,000	=	£19,970.00
<b>Deliveries</b>					
<b>Vieo Delivery</b>					
Vieo Delivery - Up to 14 metre long sheet	£999.00	Total Cost			
Vieo ACCDEL - Vieo Accessory Delivery	£80.00	Each			
<b>454mm Pan Width Accessory Price List</b>					

ISO 14001 Environmental Management  
ISO 9001 Quality Management  
OHSAS 18001 Occupational Health and Safety Management

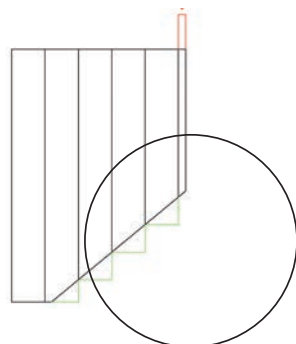
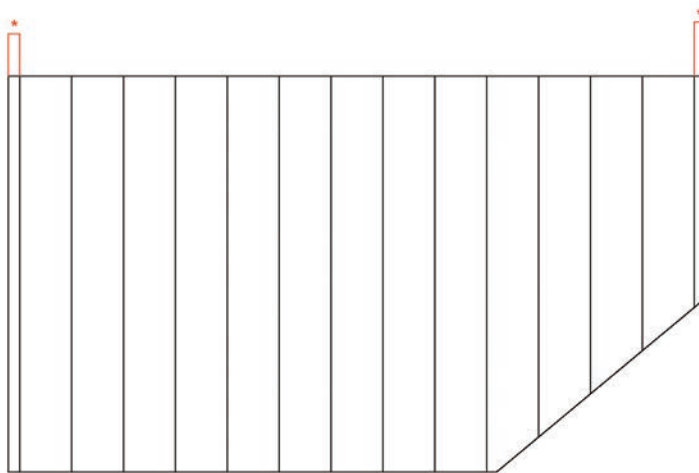
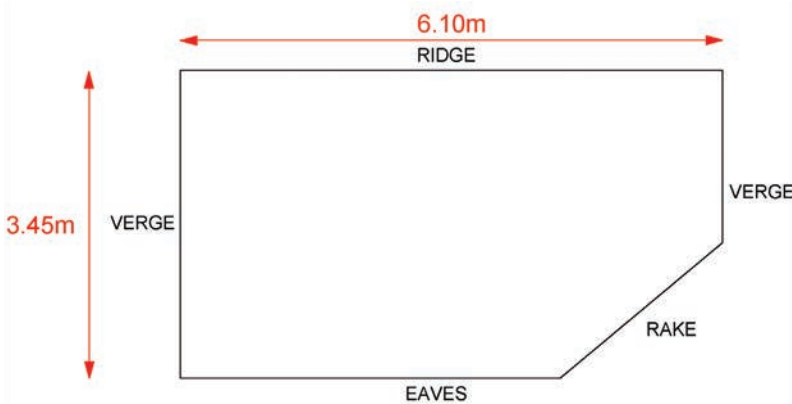
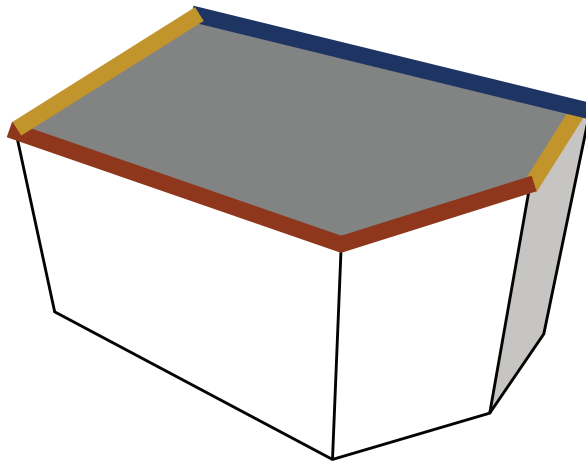
Euro Clad Ltd, Wentlog Corporate Park, Wentlog, Cardiff, CF3 2FR  
Tel : 02922 016161 | Web : [www.vieoroof.com](http://www.vieoroof.com)

General quote is based on standard assumptions. You should allow for variations required for your specific project.

Please see the flashings section for further information on what we need to help you and to provide a quote..

**Please contact a member of the Euroclad Team for further assistance.**

# Plan Your Roof



## Measure the roof

Check the square ness of the verges to the eaves and having done so choose and mark your baseline.

## Plan

Vieo standard pan width is 454mm. Divide the length (in mm) of the ridge by 454 .The whole number is the number of sheets required. The remaining amount is to be covered by flashings either side of the roof (at the verge locations).

## Example

$6100\text{mm} / 454\text{mm} = 13.43$   
**13 whole sheets**  
 $13 \times 454\text{mm} = 5.90$   
 $6.10\text{m} - 5.90\text{m} = 0.2\text{m}$  (200mm)  
 This leaves 200mm to be covered by flashings  
 Divide this by 2 ( 2 verge locations)  
**100mm either side**

## Symmetry

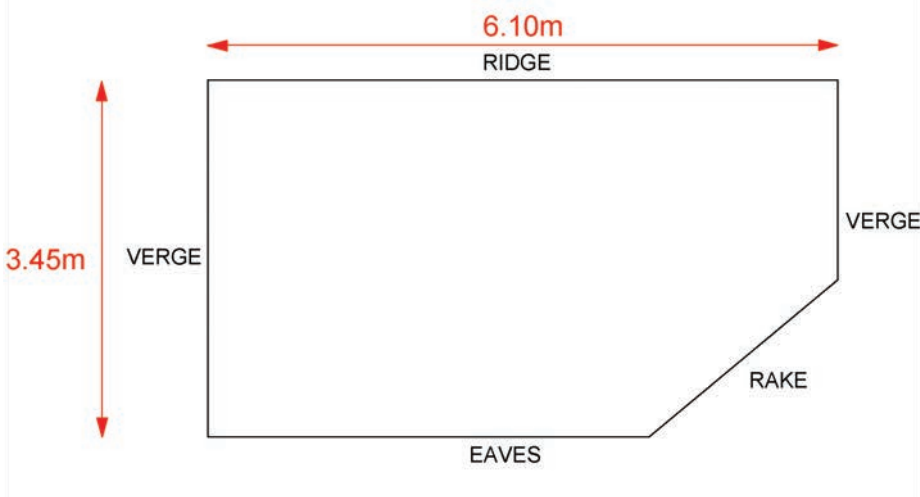
Typically a symmetrical look is preferred so the remaining amount (200mm in this case) is halved to create a 100mm space either side of the roof to be covered by flashings. Euroclad recommend a minimum of 65mm space to be left either side of the first and last seam (\*) to allow for closure components.

## Thinking ahead

Consider sheet length carefully allowing for overhang to gutter taking into account for any raked areas of the roof. These sheets will have to be ordered longer to accommodate the rake and be cut back on site to the desired angle.



# Example Roof take off



This is an example roof take off which provides approximate amount of items required for a roof of this size assuming that the fixed point location will be based at the ridge line.

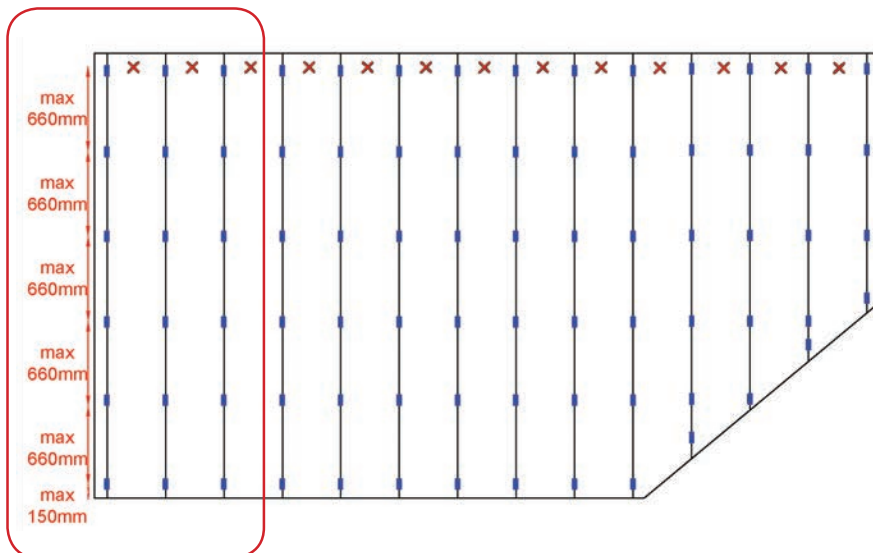
## Gather Measurements

Carefully measure the roof and think about what will be needed. Before the Vieo sheeting and clips are applied, Breather membrane will be needed to cover the roofing area allowing for sufficient amount to drape at the eaves line and overlaps of 150mm.

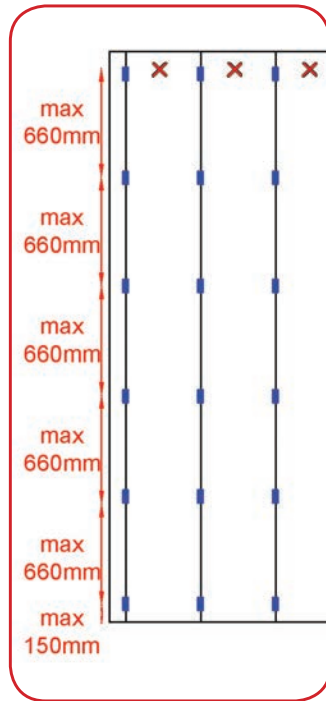
The roof area for this example is  $21.045\text{m}^2$  ( $6.10\text{m} \times 3.45\text{m}$ ). Only one roll of  $75\text{m}^2$  Breather membrane is required.

## Sheets

13 Vieo sheets are required. 50mm is typically added to the sheet length to allow for water to drain into the gutter (dependent on gutter size & placement) and also allows clearance for the drip angle if required. If the roof has raked areas such as this example, shorter lengths sheets can be ordered to accommodate the length. Please remember to order the longest length of the sheet.



# Example Roof take off



## Clips

Clips (in Blue) are needed to attach the sheets to the substrate. A row of clips should be placed no further than 150mm from the sheet ends.

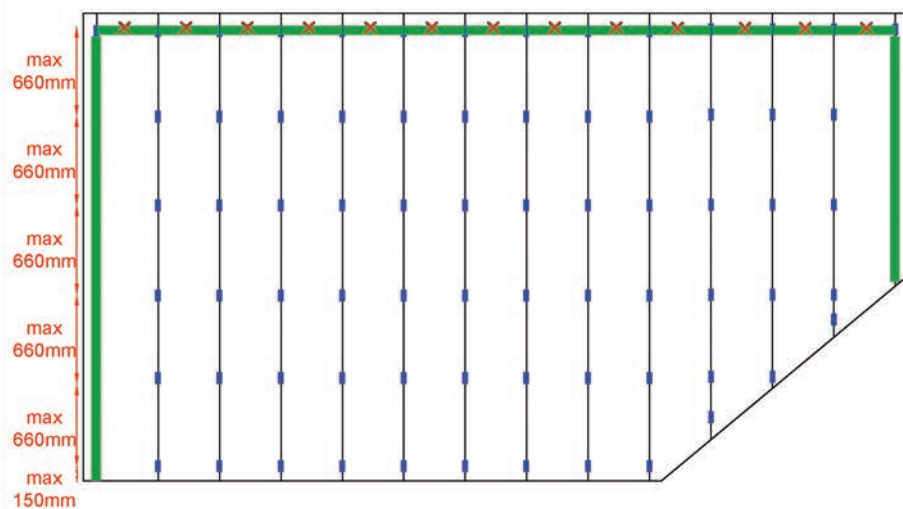
As a guide use maximum 660mm clip centres for the rest of the roof area. Please contact Euroclad if the application proposed in an exposed location or if project specific wind loadings have been calculated. 80 clips will be needed in this example.

The red 'x' marks in the example below signify the fixed point locations at the ridge point. This will allow expansion of the metal sheet at the eaves line. The fixed point in this situation will be created by fixing through the ridge closure and sheet into the substrate. Other fixed point locations such as mid slope or at details require the alternative "fixed clip" method.

## Closure Components

Closures components will surround the roof to allow for the appropriate flashings to be fixed with rivets. Closures (shown on the left) will run down the verge upstands and will be placed within every sheet pan at the ridge.

13 standard ridge closures with 13 standard ridge fillers will be required and two 5m lengths of closure to be cut down to suit the verge length measurements. 13 ridge fillers will be needed.



## Example Roof take off – Make a list

Please see the list of components/ fixing required for this example take off;

COMPONENT	QUANTITY	LENGTH/INFO
Breather Membrane	1 roll	Size roll of 75m <sup>2</sup>
Vieo 0.7mm steel sheets	13 sheets (454mm standard coverwidth)	<p>Full Length; 3.45m + allowance for gutter (= approx. 0.05m/50mm dependent on gutter size &amp; placement) x 9</p> <p>Sheets to be cut on site to accommodate rake; 3.45 + allowance for gutter (= approx. 0.05m/50mm dependent on gutter size &amp; placement) x 1 3.148 + allowance for gutter (= approx. 0.05m/50mm dependent on gutter size &amp; placement) x 1 2.277 + allowance for gutter (= approx. 0.05m/50mm dependent on gutter size &amp; placement) x 1 2.394 + allowance for gutter (= approx. 0.05m/50mm dependent on gutter size &amp; placement) x 1</p>
Clips (2 parts)	80 clips	
Vieo fixings 4.5mmx25mm	190 fixings	<p>160 required for the clip positions (80 x 2) 17 required for verge fixing (1 every 330mm). 13 required for fixing through ridge closure and sheet to substrate or additional clip fixing for fixed points. Total; 190</p>
Ridge Closure	13	439mm to suit pan width (cut to standard size)
Ridge Filler	13	439mm to suit pan width (cut to standard size)
Verge Closure	2	5m
Rivets	Total; 52 rivets	<p>Drip angle attachment; 26 Rivets (if required) Ridge Closure; 13 Rivets Verge Closure; 13 Rivets</p>





# Flashings

Flashings are folded additional metal accessories that complete a cladding covering and create a weather resistant barrier.

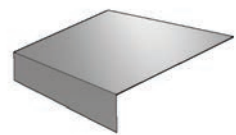
Flashings are formed from material matching the sheeting in 3m lengths as standard. Ridge, verge, verge abutment flashings and flashing edges exposed to the weather should have “welted” edges and are joined using an internal butt strap between lengths. Simple “open” flashing shapes without welt edges such as eaves protection strips and hip valley flashings can be overlapped with each other.



Duo Ridge Flashing



Verge Flashing



Eaves Protection Flashing



Verge Abutment Flashing



Mono Ridge Flashing



Valley Flashing

# Welts

A Welt is commonly used to stiffen the edge of a flashing and to conceal cut edges. This is sometimes called a ‘Safe Edge’. This is where the edge of the flashing along its length is bent over itself.



The standard welt size is 15mm.

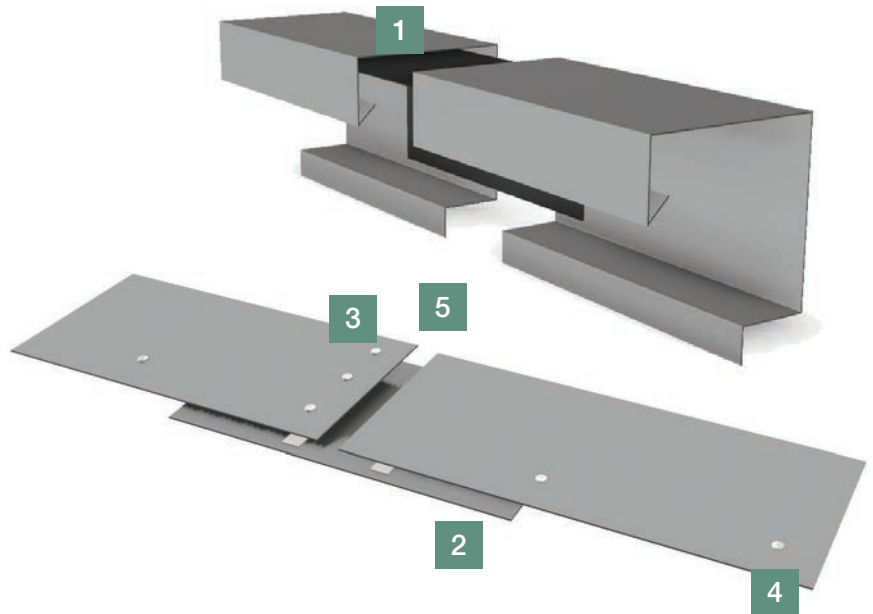
# Flashings laps/junctions

A closed flashing is a shape of fabrication that does not nest and therefore cannot be lapped.

The Butt Strap (1) is used to join two flashings. Butt straps should fit within the flashing profile with allowance for sealant thickness.

- (2) Minimum butt strap length 150mm
- (3) Stitch laps at 75-100mm centres
- (4) Primary Fixing at maximum 450mm centres
- (5) Recommended 3mm gap. Typically no provision for thermal movement is required for 0.7mm steel sheet and 0.9mm aluminium sheet however as a general guide a 3mm gap is left

Open flashings which are overlapped and exposed to weathering should be overlapped by at least 150mm.



2 rows of 9 x 3mm Class A Butyl mastic should be used for lap joints and butt strap joints. Sealant can be ordered from Euroclad. Note that hip valley flashings with pitches less than 5° should be joined using liquid applied membrane.

### TIPS: Sealant

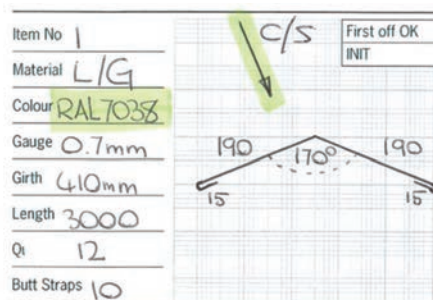
Sealants should be applied to dry, clean surfaces and run continuously. Do not use normal bathroom type sealants or any sealant containing acetic acid.

## What we need to help you....

Euroclad cannot design the flashings but we can provide a schedule sheet for you to put flashing dimensions on to. We need the following details to assist;

Material	Gauge
Colour	Girth
Butt Strap	Length
Drawing	Quantity

This information can be put into the Euroclad Flashing Schedule sheet with the relevant detail drawing with dimensions and angles.



EUROCLAD		FLASHING DRAWING	
Euro Clad Architecture Limited, Buntingford Corporate Park, Widdow Road, Cambridgeshire, CB23 2SL, UK		Customer name:	
T: 020 2201 0101 F: 020 2201 0122 W: www.euroclad.com			
Item No	First off OK	Item No	First off OK
Material	INIT	Material	INIT
Colour		Colour	
Gauge		Gauge	
Girth		Girth	
Length		Length	
Quantity		Quantity	
Butt Straps		Butt Straps	
Item No	First off OK	Item No	First off OK
Material	INIT	Material	INIT
Colour		Colour	
Gauge		Gauge	
Girth		Girth	
Length		Length	
Quantity		Quantity	
Butt Straps		Butt Straps	
Item No	First off OK	Item No	First off OK
Material	INIT	Material	INIT
Colour		Colour	
Gauge		Gauge	
Girth		Girth	
Length		Length	
Quantity		Quantity	
Butt Straps		Butt Straps	

## Vieo Contacts

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Please contact a member of the Euroclad Team for further assistance. We are here to help so email us or call us today!

**Internal Vieo Sales**

02922 010100

vieo.sales@euroclad.co.uk

**Technical**

02922 010188

vieo.technical@euroclad.co.uk

**Flashings**

02922 010166

Flashings.sales@euroclad.co.uk

**Vieo in house training is available upon request. Call our sales team for available dates!**



## Site Service Companies

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If considering a detail which may require the use of site applied membrane or welding, we recommend using one of the following site services companies who are very helpful and may be able to provide further information and recommendation.

**MR Site Services**  
**01905 755055**

**Sureweld**  
**01905 641104**

**Tigweld**  
**01905 640377**



## A little bit extra..

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### Vieo Clamps for solar panel attachment.

Vieo clamps are available to purchase as an PV accessory component. These clamps provide a non penetrative form of attachment from the PV array to the upstand of the Vieo sheet.





# Euroclad Frequently Asked Questions

## Technical FAQs

### What are the recommended fixing substrates and thicknesses?

18mm Ply or 15mm OSB 3 board

### What is the minimum pitch?

Euroclad recommend a design of minimum 2.5 degrees

### Can I use the same details as a zinc or lead roof?

Vieo is supplied in steel or aluminium which do not lend themselves to on-site fabricated details which are possible with soft metals like zinc and lead. Vieo standard details are based on the principle of pre-folded elements with limited need for site forming which require less specialist knowledge and tools.

### What should my upstand height be at penetration details?

Standard is to have a minimum upstand height of 150mm

### How do I seal penetrations?

If including a rooflight or hatch into the roof area, a specialist site applied membrane should be used to bond the flashing, sheet and seam upstands. This is suitable for all pitches. Site

welding is possible with Vieo aluminium only. Please consider the Site Servies contacts for further information on site applied membrane and welding options.

### Do you offer a design and build service?

Euroclad as the Vieo manufacturer can assist with providing detail drawings and relevant specification for your project however we do not offer a project specific design and build service. We can also provide a list of sub contractors in your local area who will be able to assist.

## Payments/ Accounts FAQs

### Can I pay by credit card?

Yes, once you have placed your order we will be able to send you details for paying via credit / debit card

### Once I have made payment, when will I receive my delivery?

This will depend on material and manufacturing capacity once the order is released to live (payment paid)

### Why do I receive separate pro forma invoices?

Euroclad has separate departments for top sheets, accessories and Flashings, therefore, you will receive a separate invoice for the Top sheets, accessories, tools and flashings. However, you can pay in one lump sum.

## Quoting FAQs

### What details do you require for a quote?

We would generally require:

- Sqm quantity of your project
- Material colour required
- Project title / location
- Build up required ie warm or cold. If warm which u value you were looking to achieve.

Build up required ie warm or cold. If warm which u value you were looking to achieve

### Am I able to be sent samples?

Yes, if you confirm your postal address and the sample type you require we can organise for a profile sample to be sent out to you

# Euroclad Frequently Asked Questions

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## **How do I know which material /colour I require for quoting?**

If you speak to the sales office directly, we will happily discuss your material and colour options with you

## **Can you offer insulation as part of the system in the quote?**

Vieo can be offered as a cold or warm built up system. If you require insulation above the ply board, this is a warm roof system. Please confirm the proposed construction and we will be able to provide advice and a quotation. A separate guidance document covers additional components and installation for warm roofs.

## **Does the Vieo quote include for flashings?**

The Vieo quote does not include for the flashings. You will need to speak to the flashings department directly to request a quotation as these are bespoke items.

## **Delivery/ Collection FAQs**

### **How will my order be delivered?**

Your quote will have 2 delivery options; a palletise and transship non-timed delivery –

this will be on a Curtain Sided Articulated vehicle and is not dedicated. Or a dedicated timed delivery (normally at 10am) on a flat bed articulated vehicle. Smaller vehicles can be sourced, (POA) however, this needs to be stated on your cut length order as they are subject to availability.

### **Can I collect from Euroclad?**

You can collect from Euroclad, we will provide you with a collection time bracket, and you will be required to have PPE and a suitable vehicle. Please collect your sheets on a suitable vehicle (no long wheelbase transit vans) as we cannot load these type of vehicles with Profile sheet/ Flashing.

### **I have very restricted access, what are my options for delivery?**

We can source smaller vehicles, however, they are subject to availability and POA. If access is very restricted a collection from Euroclad may be easier. All delivery restrictions must be noted on the cut length order.

### **Will my accessories, tools and sheets be delivered on the same vehicle?**

If you would like a combined delivery please note this on your

cut length order and if there is space on the vehicle we will arrange this internally between each department.

## **Manufacturing/ Lead Time FAQs**

### **What are the standard lead times for the material you offer?**

Why For stocked materials general lead times from receipt of cut lengths are approx 2-3 weeks however this is dependent on each individual order and manufacturing capacity

### **Is there a delay between placing my order and receiving the pro-forma invoice?**

Please see page 34 for the order process diagram as each order is bespoke material availability and slitting of the coil (we order coil at wider widths) has to be looked at first, the order is then entered and quality check prior to releasing to accounts. If you have concerns on the order please speak to your Sales contact.

# Euroclad Frequently Asked Questions

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## **Offloading/ Lifting FAQs**

### **How do I offload my Vieo sheets?**

The offloading of the delivery vehicle is your responsibility. With regards to the Vieo sheets Euroclad advise that sheet lengths over 6m should be offloaded by a lifting beam/crane. If you handball or use a forklift to offload extra care must be taken to fully support the sheets during lifting to avoid damage.

### **Do you provide hi-abs or moffet offload?**

We do not offer either option as they are not suitable to lift the Vieo sheets and can cause more damage.

### **How will my sheets be packed?**

For sheets under 6m in most cases these will be packed onto a pallet, over 6m they will be banded and placed on bearers on the bed of the vehicle. Please note we do not pack over 1 tonne in weight and approx. 30 sheets per pack. (Depending on sheet length/weight)

## **Tools/ Accessories FAQs**

### **Can I order accessories to match the colour of my sheets?**

We can offer some accessories to suit the colour of your sheets, however, these are POA and carry a lead time to source. Please speak to your Sales contact for more information.

### **How do I return the tool kit?**

Please contact the sales Department in writing confirming the offhire and the collection address, contact and date of collect. We will then arrange for a courier to collect the tool kit.

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This document provides general guidance information on detailing and use of tools when installing a Vieo Cold Roof System.

This is an overview of the components and tooling required to perform a Vieo Cold Roof installation. The images and photography included in the guidance document are to provide a visual representation of the product.

This guidance document is to be used in conjunction with our standard detail drawings and specifications which can be downloaded from our Vieo website; [www.vieorooft.com](http://www.vieorooft.com)

It is advised that this document is fully read before the installation process begins as once seamed up the sheets cannot be taken off and “re-seamed”.

Any damage caused to the sheets as a result of the processes not being adhered to or the advice given not having been followed will negate any liability on Euroclads behalf to replace or warrant the material concerned.

Vieo is not a flat pan product and undulations are to be expected. On installed product, the clip may create a shadow in the seam itself.

Please contact the Euroclad department prior to installing if you have any queries/ questions with regards to installation. Please Note: Whilst every effort is made to ensure that this document is accurate and up to date, Euroclad will not be liable for any errors or omissions that it may contain.

This document tries to cover all the basic requirements for Vieo, but should you have any further questions after reading this document then please contact us.

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**Disclaimer:** The details and information contained in this publication are correct at time of going to to production. Euroclad reserves the right to change details and specifications without prior notice. No responsibility is assumed for errors or misinterpretations resulting from the information contained in this publication. Typical construction details are illustrative only and no liability is accepted.

All gauges are nominal. Latest information is available at [www.euroclad.com](http://www.euroclad.com)