



Pitched Roof



# Installation Manual

V3 | 08.21

# Contents

<b>List Of Component</b> s.....	<b>2</b>
<b>Tools Required</b> .....	<b>3</b>
<b>Your Roof Pack</b> .....	<b>4</b>
<b>Slate Eaves Detail</b> .....	<b>5</b>
<b>Shingle Eaves Detail</b> .....	<b>6</b>
<b>Box Gutters</b> .....	<b>7-8</b>
<b>Eaves Beam</b> .....	<b>9</b>
<b>Eaves Beam Reinforcement</b> .....	<b>10</b>
<b>External Soffit</b> .....	<b>11</b>
<b>Eaves Corner Straps</b> .....	<b>12</b>
<b>Gable Support Beam</b> .....	<b>13</b>
<b>Setting Ridge</b> .....	<b>14</b>
<b>Setting Wall Plate</b> .....	<b>14</b>
<b>Fixing Detail</b> .....	<b>15</b>
<b>Solid Hips</b> .....	<b>16</b>
<b>Solid Valleys</b> .....	<b>17</b>
<b>Lean Too Assembly</b> .....	<b>18</b>
<b>Edwardian Assembly</b> .....	<b>19</b>
<b>Victorian Assembly</b> .....	<b>20</b>
<b>Gable Assembly</b> .....	<b>21</b>
<b>Double Hipped Edwardian Assembly</b> .....	<b>22</b>
<b>Truss Support</b> .....	<b>23</b>
<b>Bolt Fixings</b> .....	<b>24</b>
<b>Gable Ends</b> .....	<b>25</b>
<b>Eaves Protectors</b> .....	<b>26</b>
<b>Breather Membrane</b> .....	<b>26</b>
<b>Water Course</b> .....	<b>27</b>
<b>Starter Trim</b> .....	<b>27</b>
<b>Tile Mesh</b> .....	<b>28</b>
<b>Shingle Application</b> .....	<b>29-30</b>
<b>Slate Application</b> .....	<b>31-33</b>
<b>Fascia</b> .....	<b>34</b>
<b>Gutter</b> .....	<b>34</b>
<b>Internal Pelmet</b> s.....	<b>35</b>
<b>Plasterboard</b> .....	<b>35</b>

# List of components

## Screws

4.0mm x 30mm - Tile Screws  
5.0mm x 50mm - Eaves Ties  
5.0mm x 70mm - Pod Screws  
5.0mm x 90mm - Eaves Beam Fixings  
(corners + frame)  
7.5mm x 90mm - Wall Fixings  
4.2 x 75mm - Plasterboard Screws

## Bolts & Washers

75mm Bolts  
100mm Bolts  
130mm Bolts  
Flat Washers  
*(See attached sheet for colour coded usage chart)*

## Tile Components

Slate Tiles (Bundles of 25)  
Slate Ridge Tiles  
Slate Dry Verge

Shingle Tiles  
Shingle Hip/Ridge Tiles  
Shingle Hip Caps\*  
Shingle End Cap\*  
Shingle Barge Board\*  
Shingle Valley Tray\*

\* = If Applicable

## Gutter Components

Gutter Lengths  
Down Pipe  
Gutter Bends\*  
Down Pipe Clips  
Gutter Stop Ends

112° Pipe Bends  
Gutter Union\*  
Down Pipe Shoe  
Gutter Spigot  
Box Gutter\*  
Box Gutter Adapters\*

## Fascia Components

Fascia Board  
Flat Board \*  
Fascia Corners  
Fascia Pins  
Fascia Joins\*

## Other Components

Spiked Timber Connectors  
EPS / Insulated Plasterboard  
Hybrid Insulation (already installed)  
Breather Membrane  
Roof Vents\* *(see install manual inside vent packaging)*  
Telescopic Pole\*  
Steel Eaves Tie  
Tile Mesh



Some of the listed components may not be required or supplied with your roof. Refer to your 'Box Pick' within pack and delivery note for all supplied parts.

# Tools Required



IMPORTANT: It is the installer's responsibility to make sure the correct safety equipment is used throughout installation. The below tools are only advisable. Additional tools may be used.



Hand saw



Rubber Mallet



Hammer



Tape Measure



Pencil



Stanley Knife



Clamp



Adjustable Wrench



Drill bit 10mm



Cordless Drill



Acro Prop



Spirit Level



Roofing Stapler

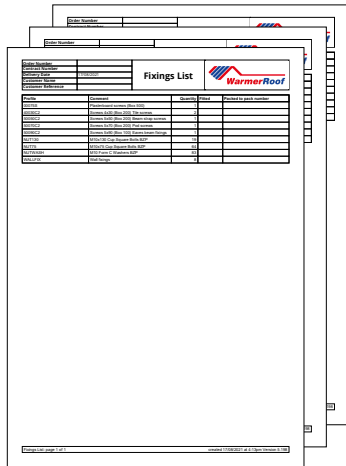


Angle Grinder

# Your Roof Pack

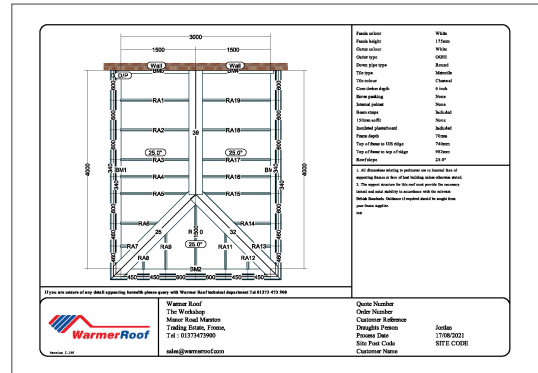


Your Roof Pack is generally placed within your box of gutter components. PDF versions can be sent via email upon request.



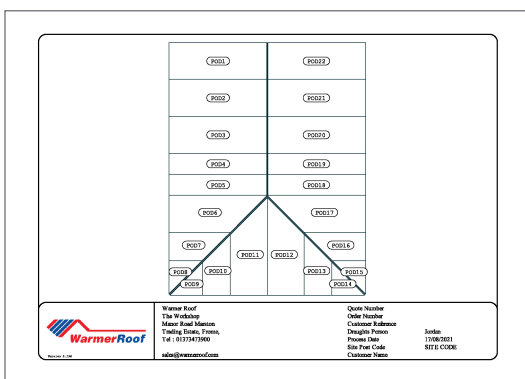
## Box Pick

Details and quantities of all components supplied with your roof kit. Box Pick usually consists of 5 pages.



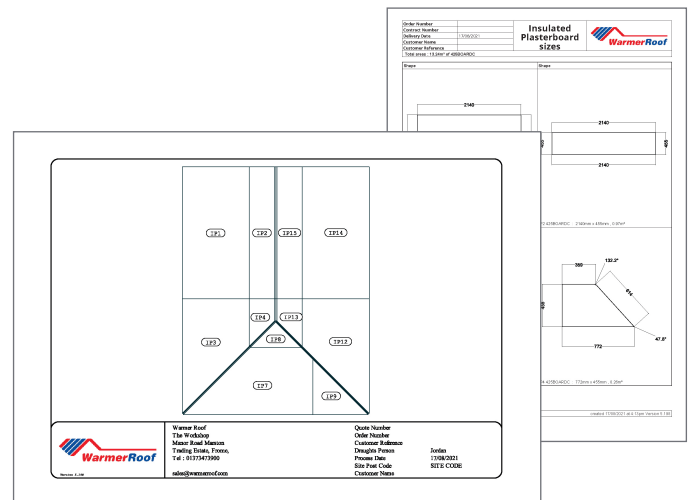
## 2D Roof Plan

Plan drawing outlining all roof details, including roof pitch and internal measurements. Internal ridge / wall plate height stated in column.



## Pod Location Drawing

All pod numbers correspond with the number which are etched into top of ply or OSB covering.

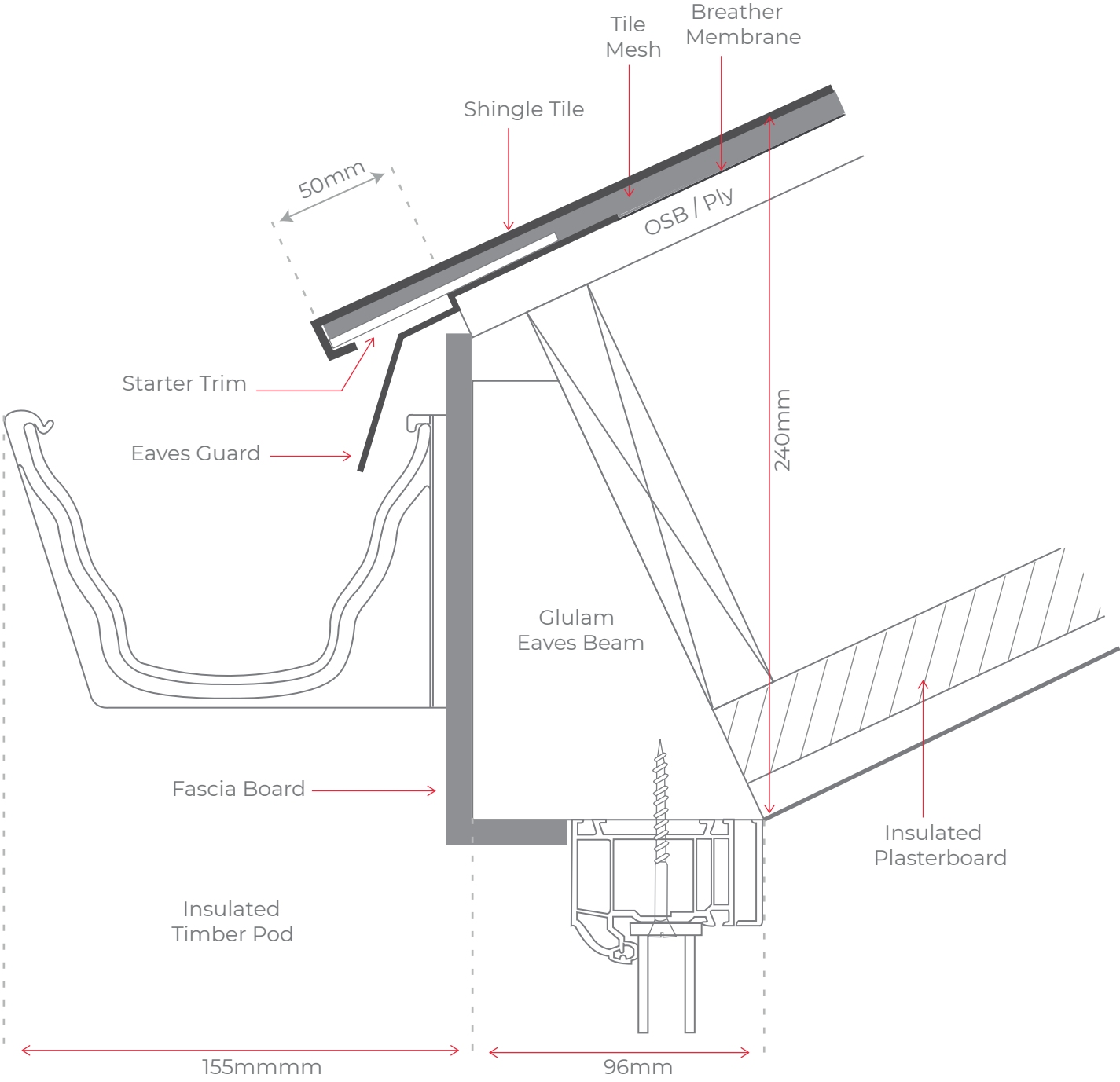


## Cut Plasterboard Sizes

Cut plasterboard sizes provided. Each board is given a specific reference which corresponds with top view.

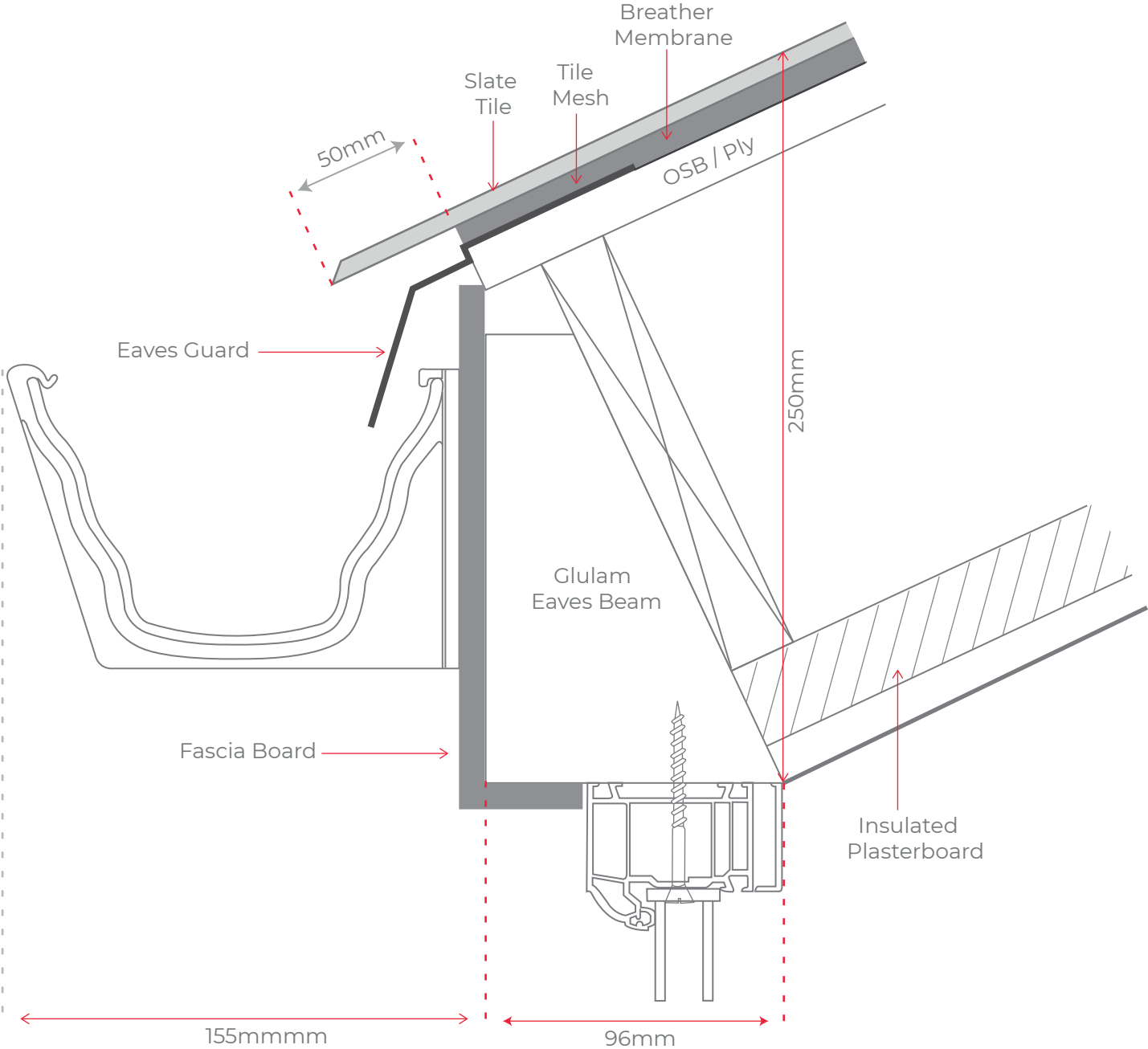
# Shingle

# Eaves Detail



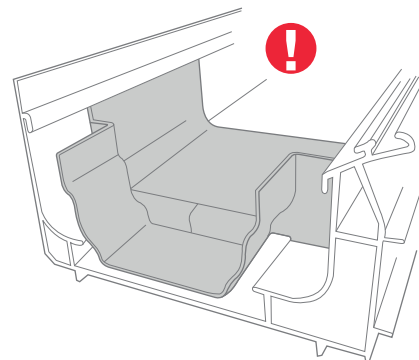
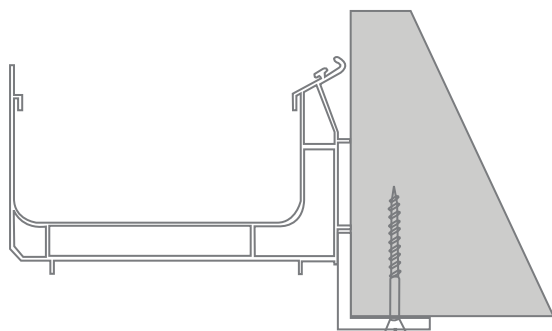
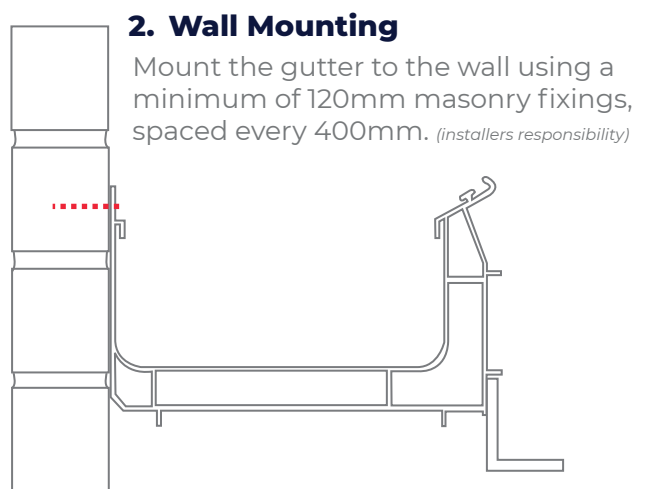
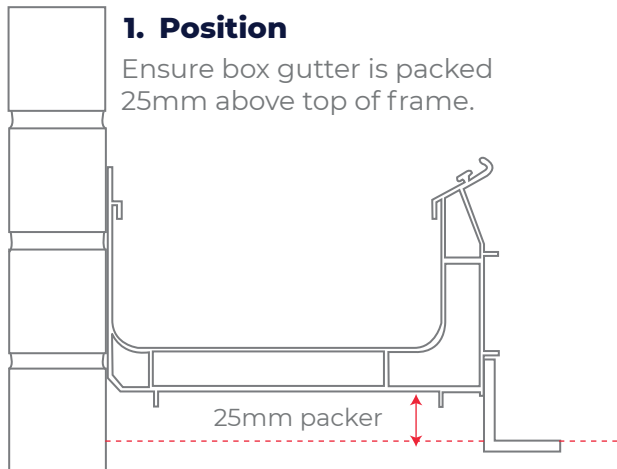
# Slate

# Eaves Detail



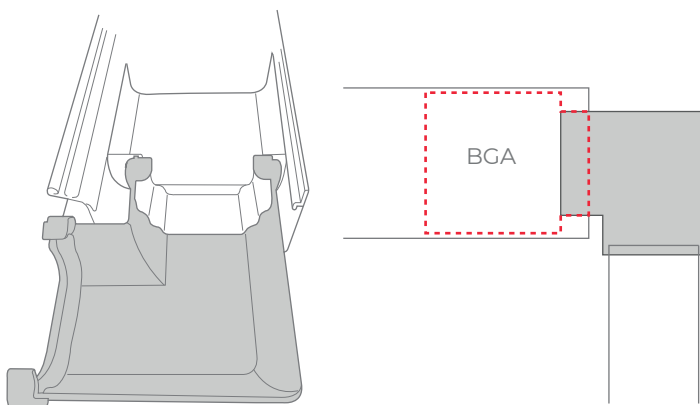
# Box Gutters

! If your box gutter spans more than 2500mm, Warmer Roof strongly recommends that gallows brackets or similar are used to support the roof (support is builders responsibility)



**3. Eaves Fixing**  
Position the eaves beam onto the lug brackets, attach using two 5.0mm x 90mm screws per lug.

**4. BGA**  
Insert box gutter adapters into each open end. Ensure BGA is pushed inside box gutter and is flush to outside edge.



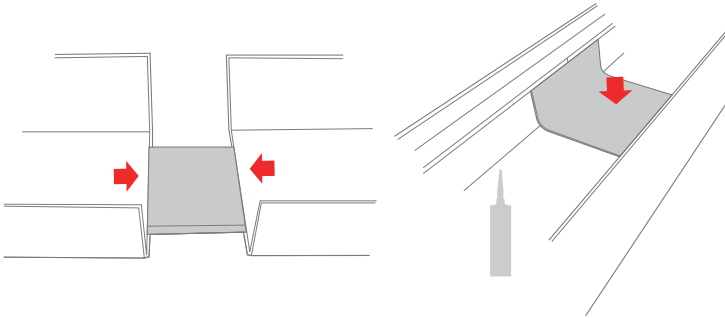
! **IMPORTANT:** If your roof style is Double Edwardian, ensure corner brackets are fixed to eaves beam before mounting to box gutter.

**IMPORTANT:** If BGA is not inserted all the way inside box gutter then standard guttering will not line up with fascia.

**5. Gutter Corners**  
Attach gutter corners and adjoining gutter lengths to box gutter.

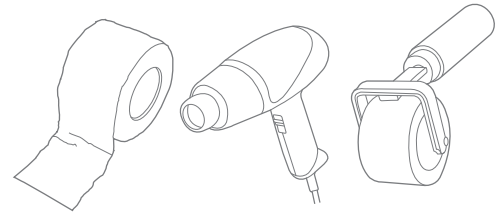


# Box Gutters



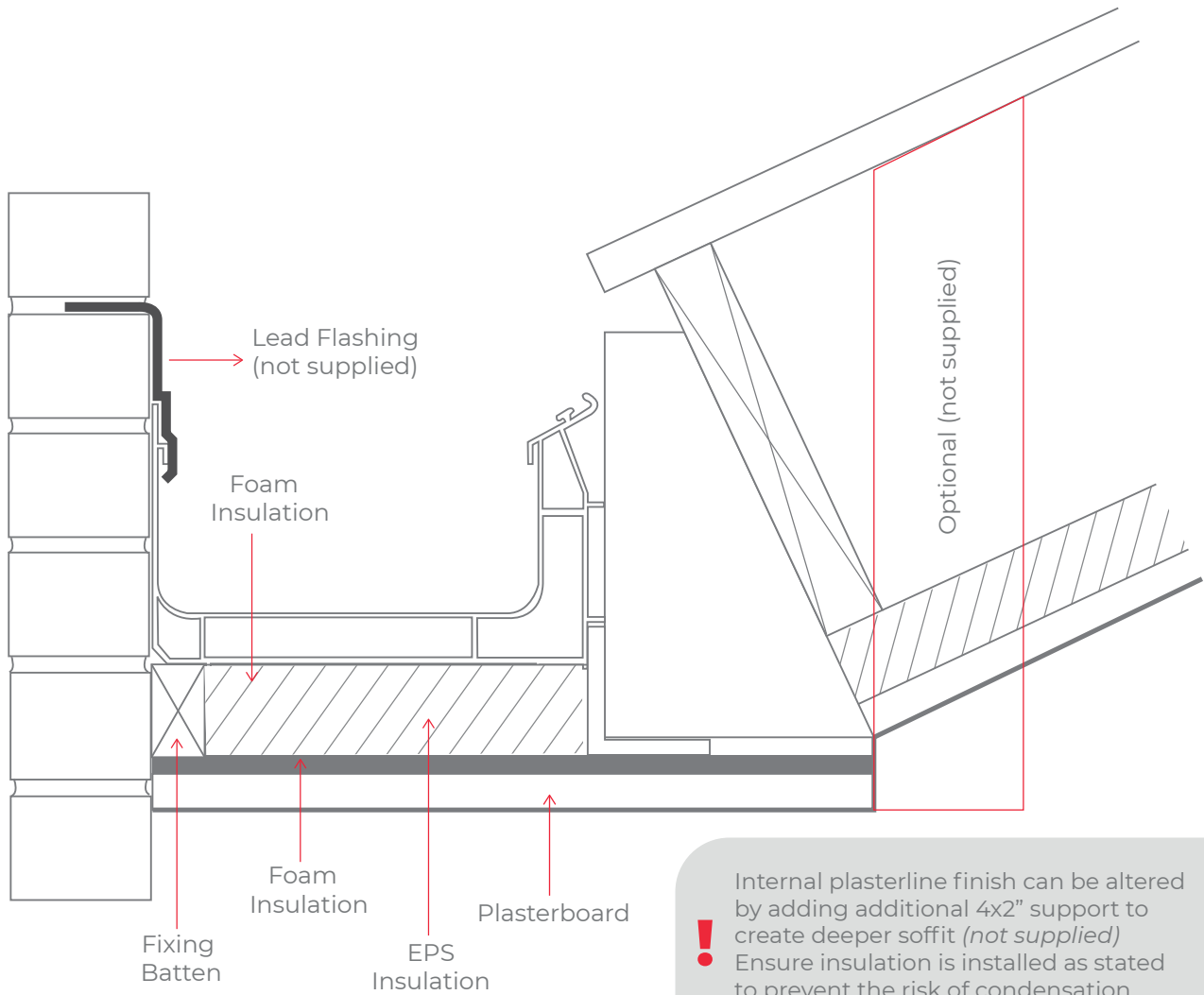
## Box Gutter Joiner

If joining is required, slide opposite end into joiner and fix into position. Add silicone to joint and clip joining cover into place.



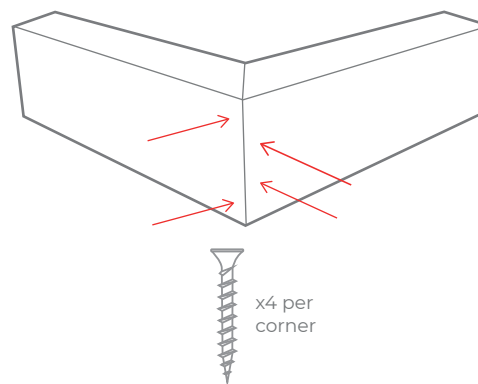
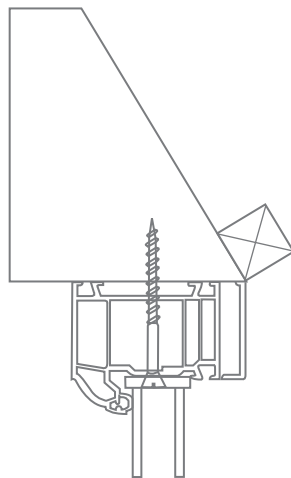
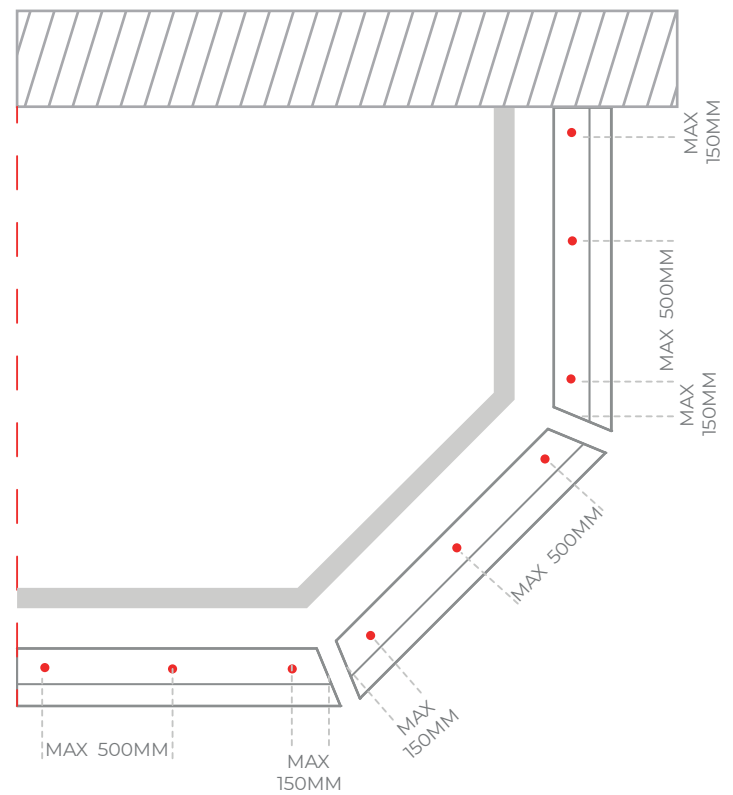
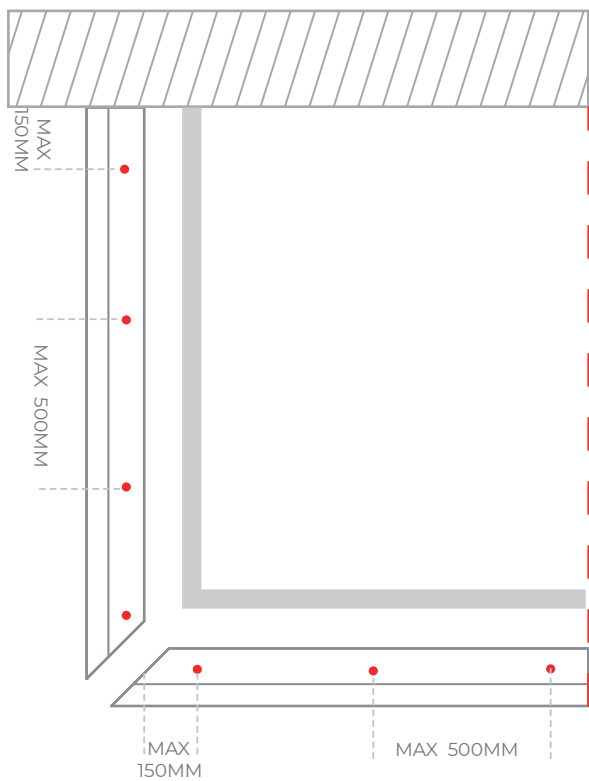
## Sealing

Add box gutter tape to ALL joins and box gutter adapters. Heat tape with hot air gun and roll until sealed.



**!** Internal plasterline finish can be altered by adding additional 4x2" support to create deeper soffit (not supplied). Ensure insulation is installed as stated to prevent the risk of condensation.

# Eaves Beam



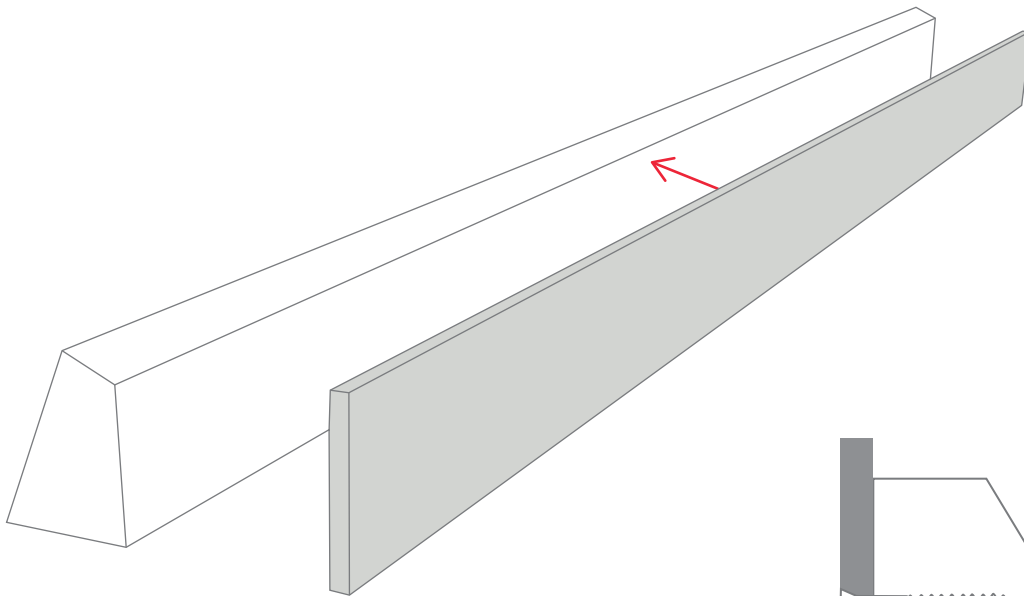
Fix eaves beam to frames using 5 x 90mm screws provided with a maximum of 500mm centres. Apply fixing 150mm from house wall AND 150mm from end of eaves beam. Ensure Eaves Beam is flush to internal frame. Cross fix each corner with (x4) 5 x 90mm fixings provided.



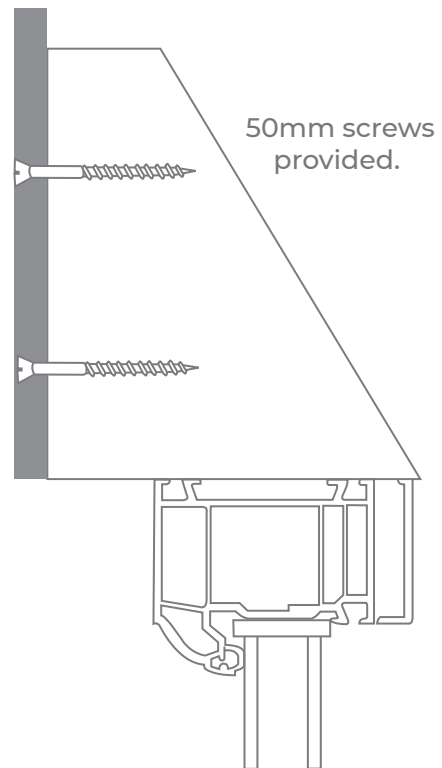
Maximum unsupported eaves beam spans will vary depending on size and style of your roof. If required seek advice from a member of staff.

## Eaves Beam

# Reinforcement



Fix steel reinforcement plate to FRONT face of eaves Beam using the pre drilled holes provided. Counter sink fixings to ensure screw head does not protrude past eaves. Pre drill holes for all gutter and fascia fixings.

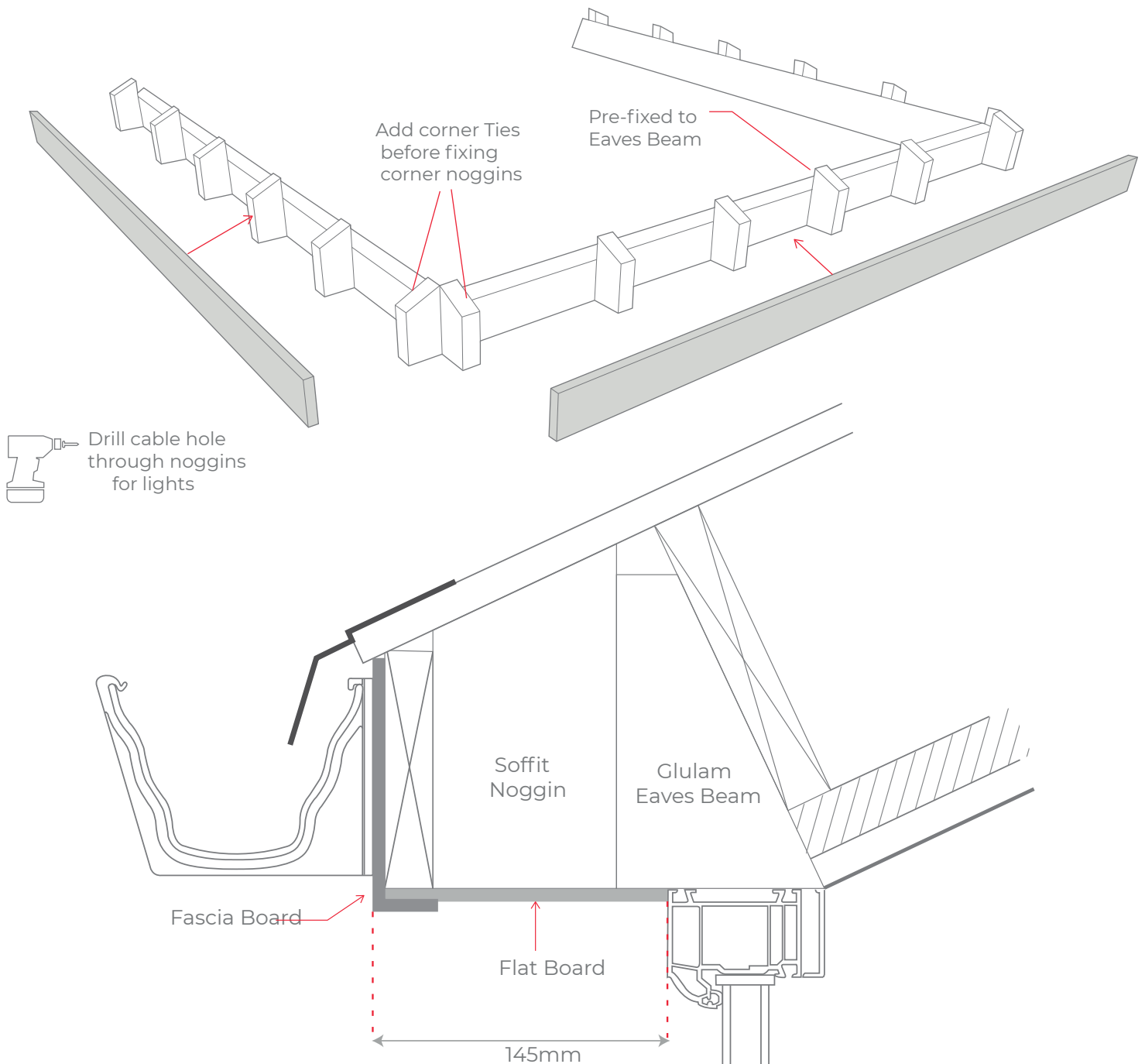


# External

# Soffit Detail

*(If ordered)*

External soffit is pre fixed to eaves beam. Drill cable holes if necessary then offer up outside beam. Ensure beam is flush with bottom of noggins - fix into position with 5 x 70mm screws provided. NOTE EXTERNAL SOFFIT ONLY PROVIDED IF ORDERED)

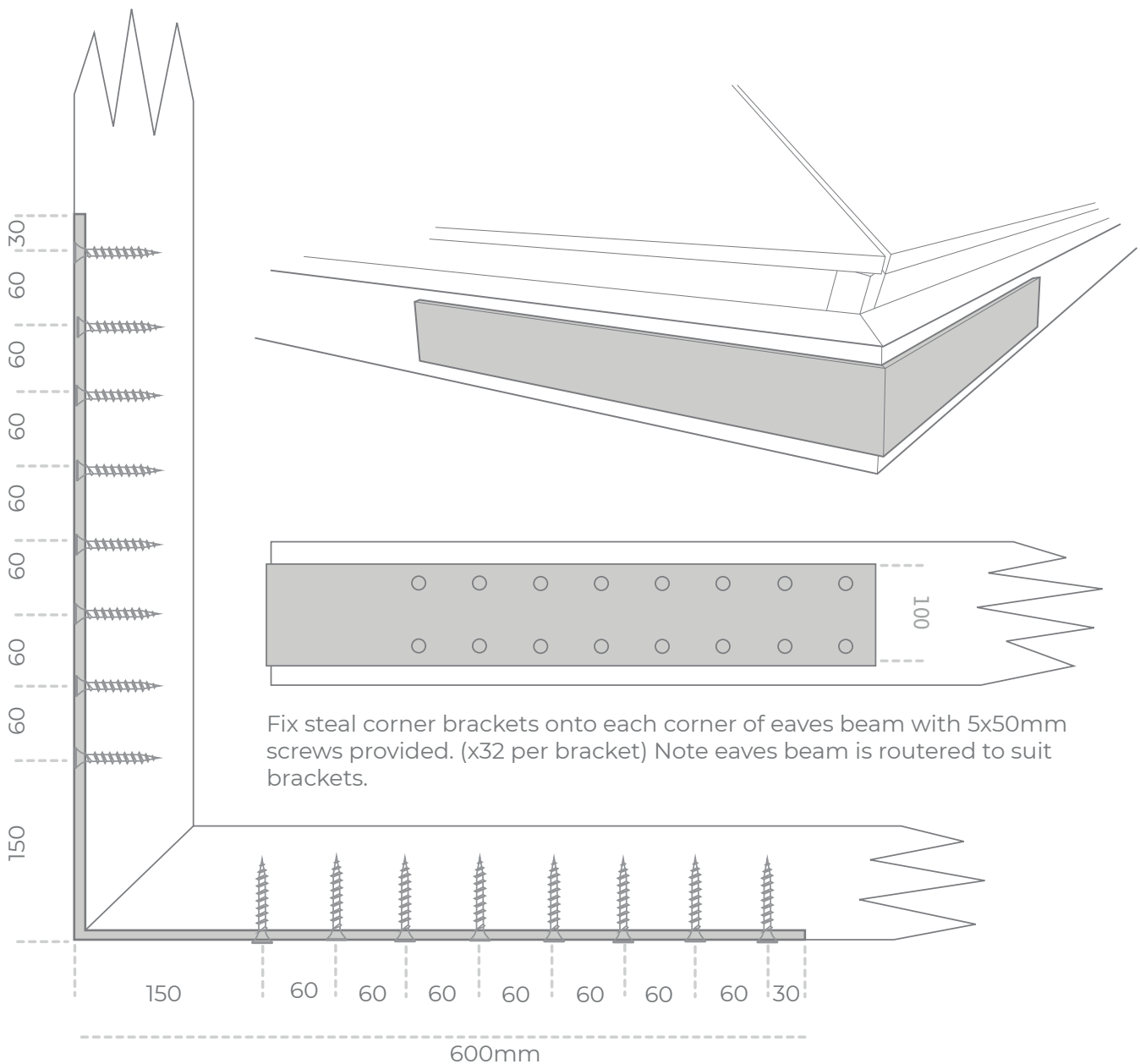


# Eaves

## Corner Straps



It is vital to the structural integrity that the Eaves Straps provided are positioned and fixed accordingly. Any alteration or failure to fit the brackets that are provided may void any warranty. Note: corner brackets are not required for lean-to style roofs.

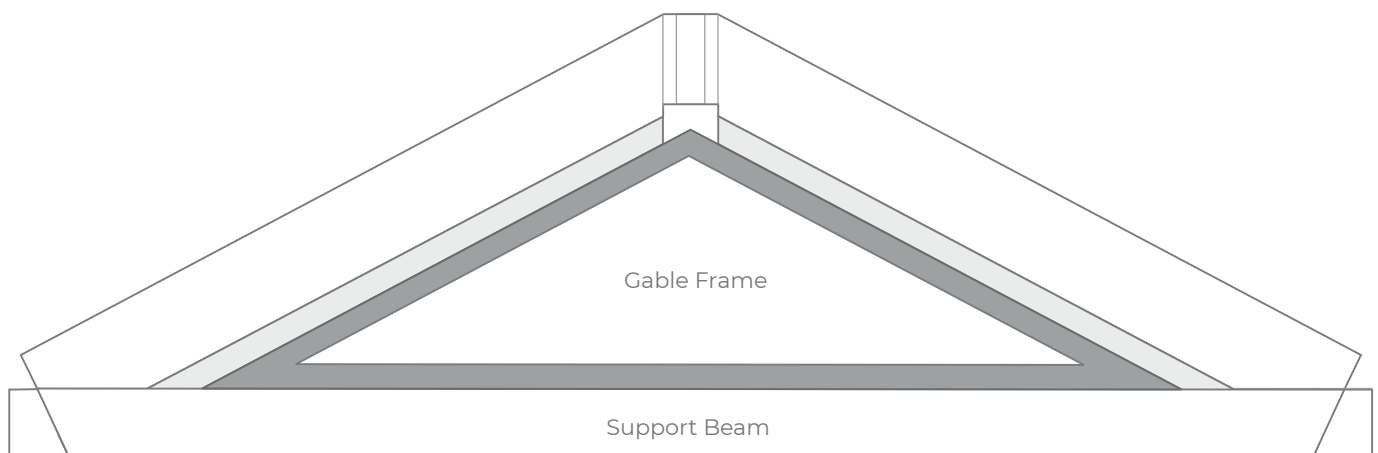
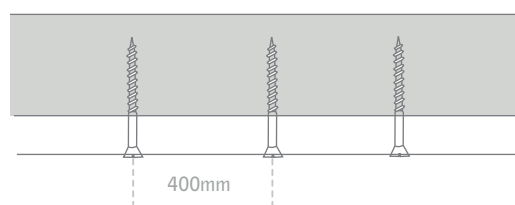
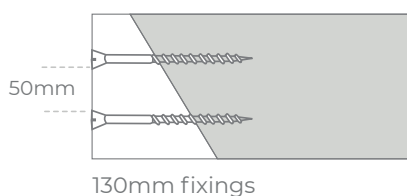
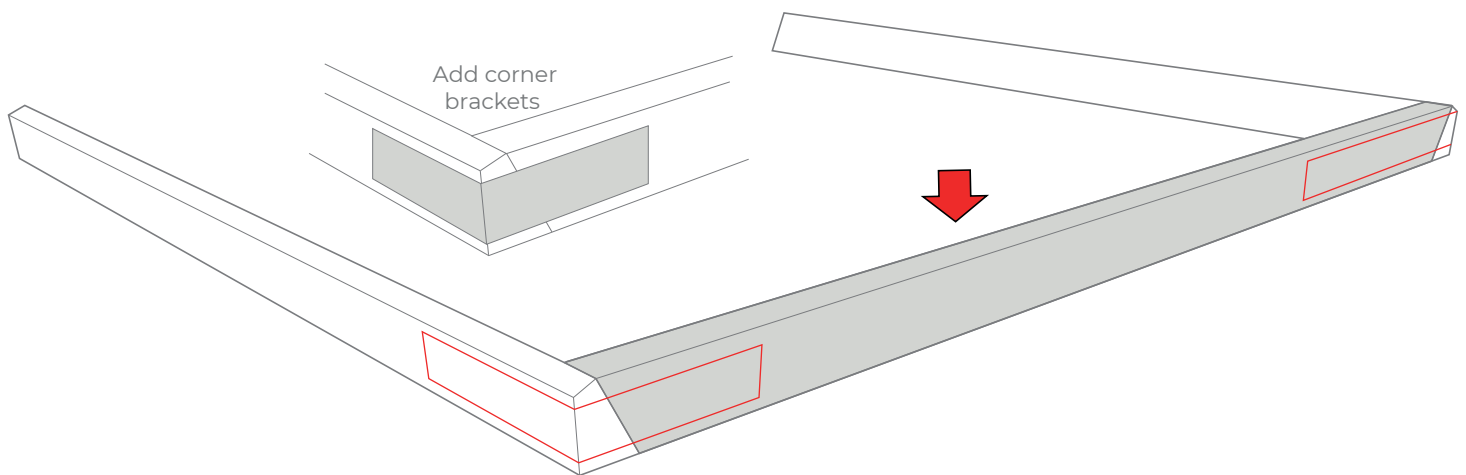


# Gable

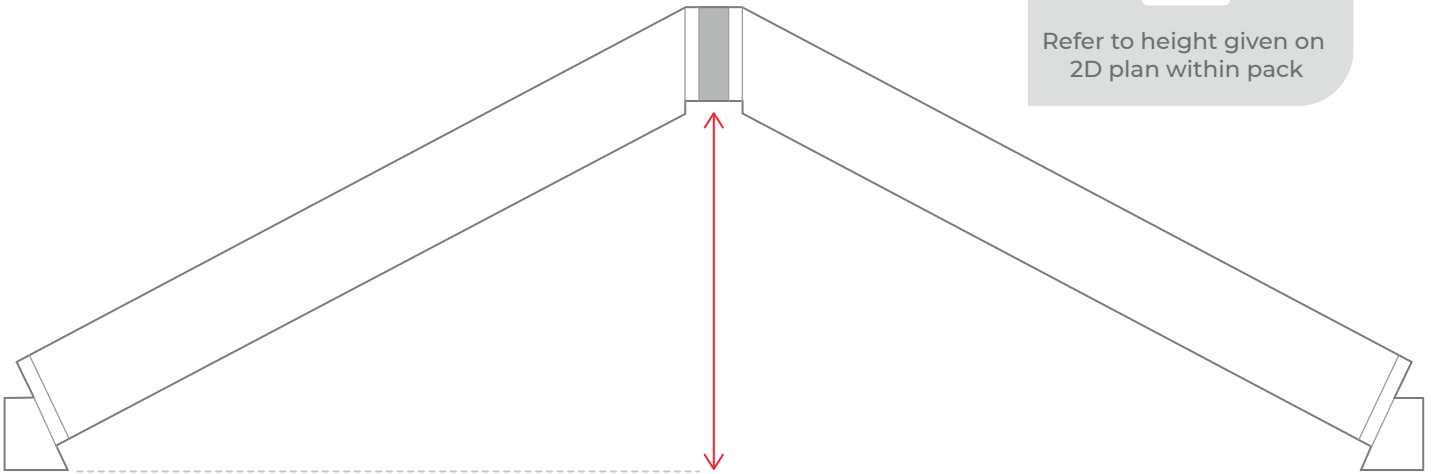
# Support Beam



It is vital to the structural integrity that the gable support (if supplied) is positioned and fixed accordingly with Corner Straps. Any alteration or failure to fit the beam and brackets that are provided may void any warranty.



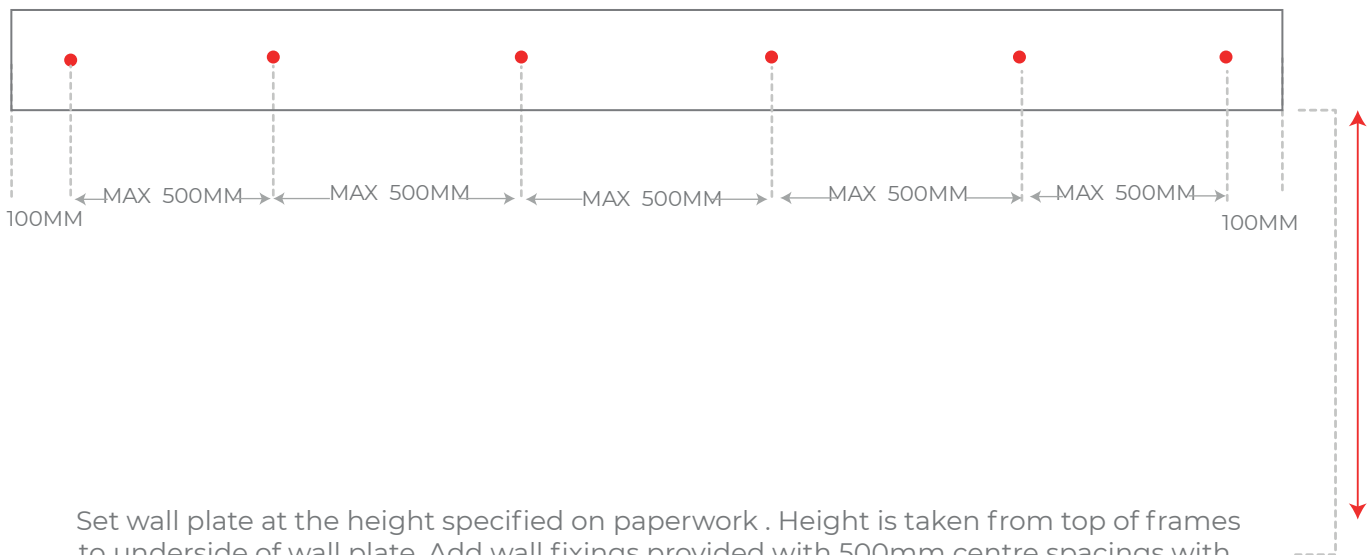
# Setting Ridge Height



Ridge to be propped up at the height given on paperwork. Height given is taken from top of frame to underside of ridge. Fix ridge to first pod when offering into position.

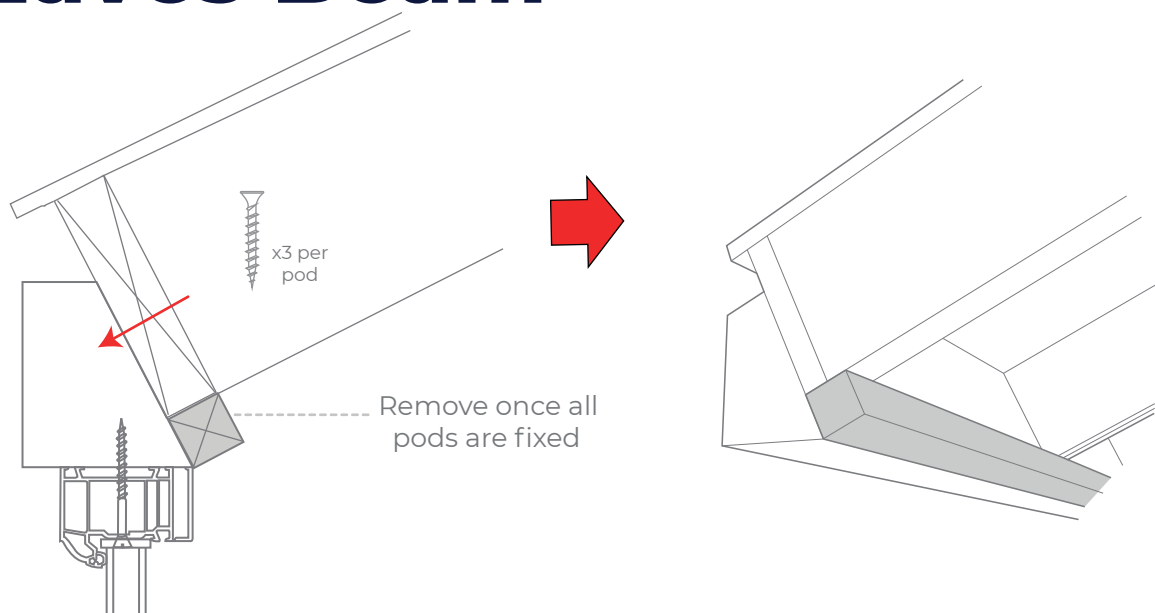
# Setting Wall Plate Height

Only applicable on Lean Too style roofs  
For Hipped Lean-Too's, ensure wall plate is fixed central to frames.



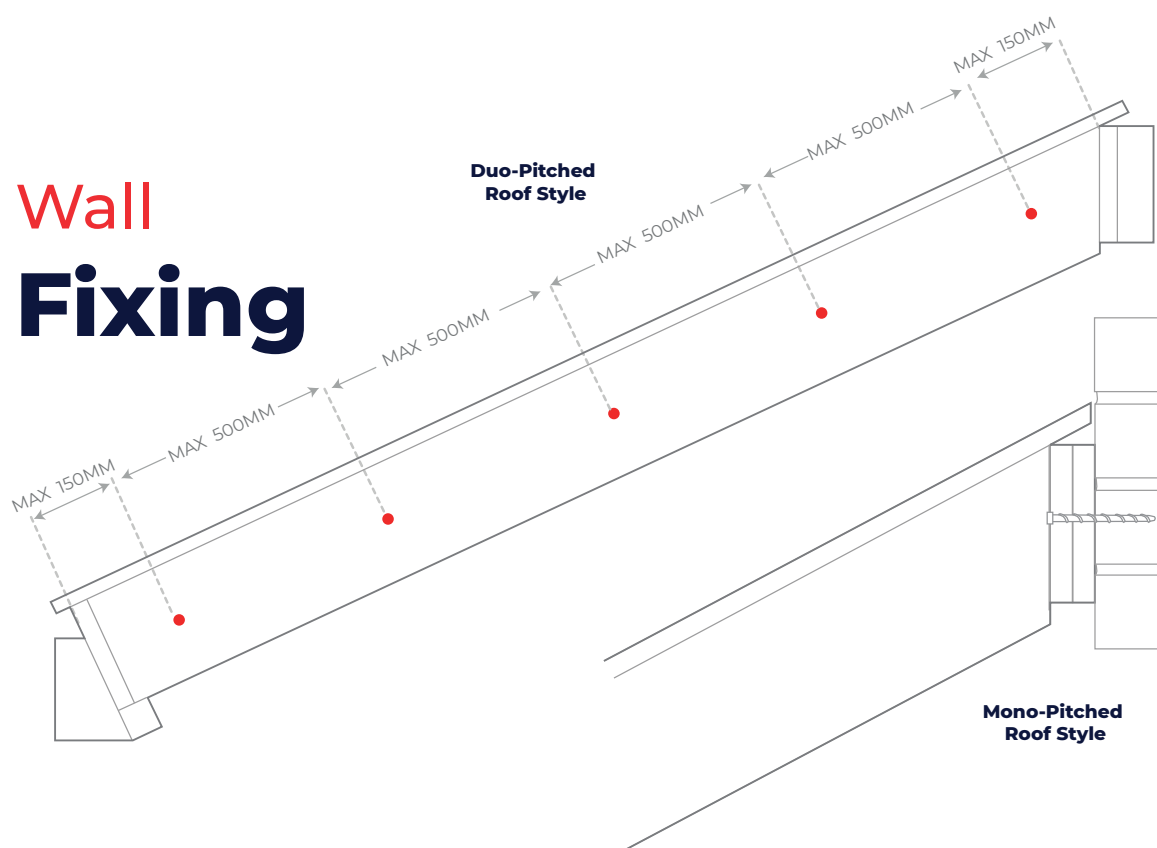
Set wall plate at the height specified on paperwork . Height is taken from top of frames to underside of wall plate. Add wall fixings provided with 500mm centre spacings with the last fixing 100mm from end of wall plate.

# Fixing Pod To Eaves Beam



Sit all pods on top of the pre-fixed batten to locate positioning. Fix to eaves beam with 5 x 70mm screws provided. Once all pods are fixed into position, batten can be removed to allow plasterboard to finish flush with head of frame.

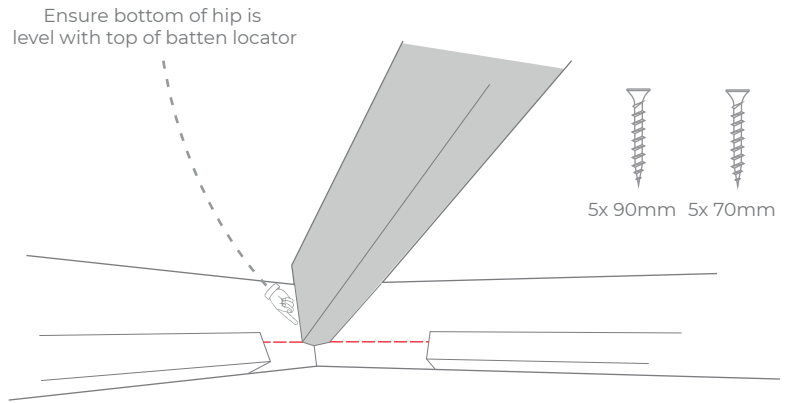
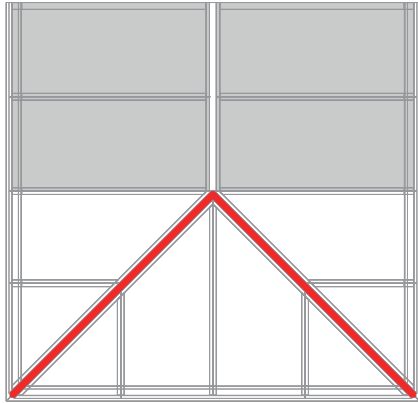
## Wall Fixing



Apply wall fixings to all pods against house wall. Ensure a maximum of 500mm centre spacings. Ensure fixing is applied no more than 150mm away from eaves beam and ridge. **IMPORTANT:** Ensure first 2 / 3 rows of pods and ridge and in position before fixing to house wall.



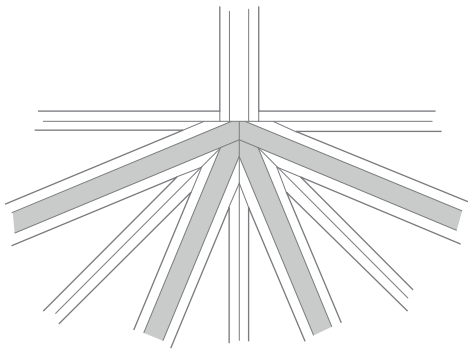
# Solid Hips



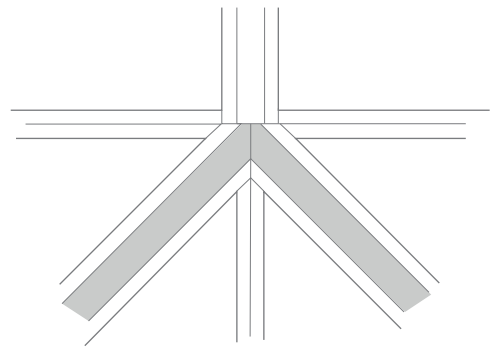
Once all rectangular pods are in position, fix angled pods into place that sit against the solid hips. Lower hips into position and fix to pods using 5 x 70mm screws provided. Fix at the ridge point and eaves with 5 x 90mm screws . Once remaining pods are fixed into position, apply bolts ( see bolts fixing page) for size and positioning.

# Standard Hip Arrangement

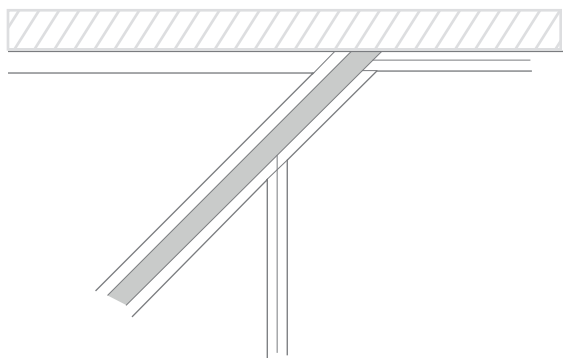
**3 FACET VICTORIAN**



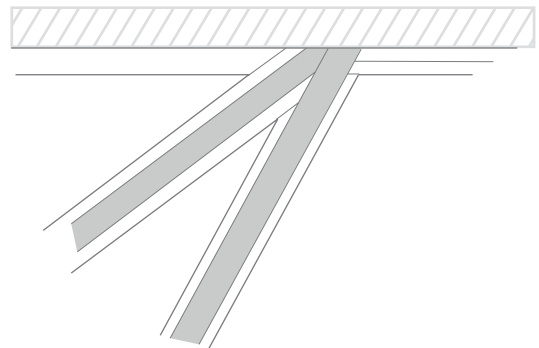
**EDWARDIAN**



**HIPPED LEAN TOO**

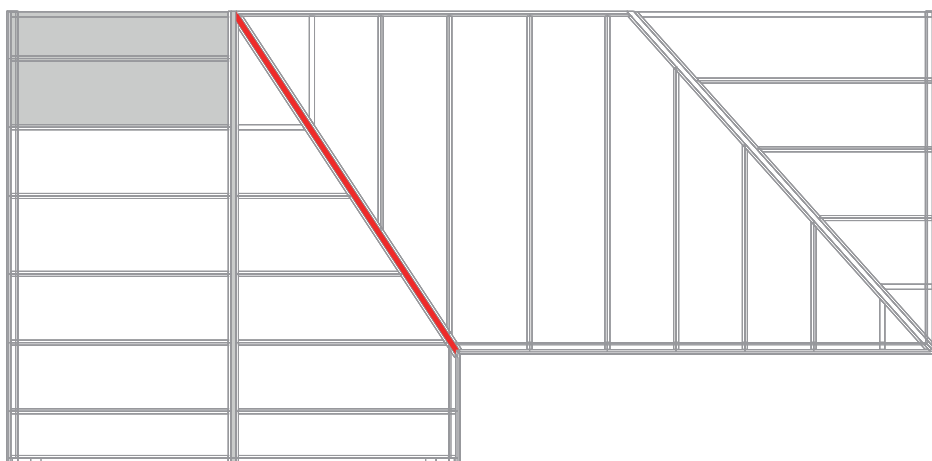


**DOUBLE HIPPED LEAN TOO**



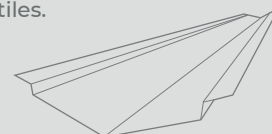
Please note these are the typical hip arrangements. Positioning AND angle of hips may change due to shape and size.

# Solid Valleys



## Shingle Tile

Fix valley tray into position screw down tight to OSB to partially remove lip from profile. Dress tile mesh OVER valley tray and apply tiles.

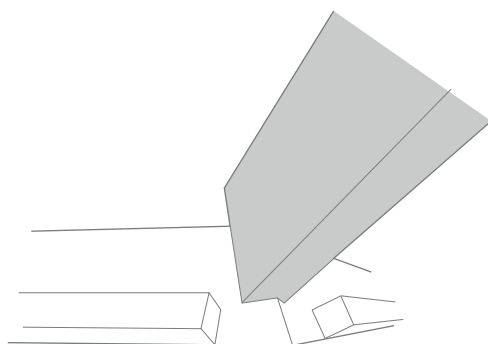


**!** Valley Trays only provided with Shingle Tile options.

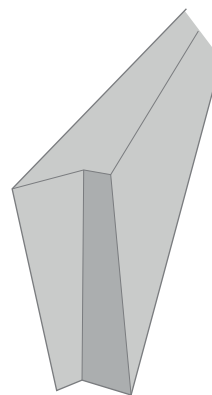
## Slate Tile

**!** If Slate tiles are used, valley is finished with lead flashing (lead not supplied with kit)

Prop ridge beam up at the correct height. Ensure first two pods against house wall are in position before pre fixing valley into position. Work around valley fixing remaining pods into with 5 x 70mm screws provided.



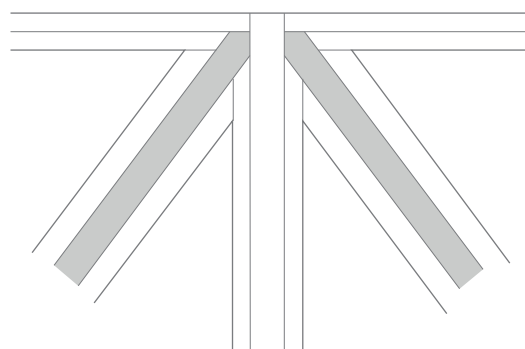
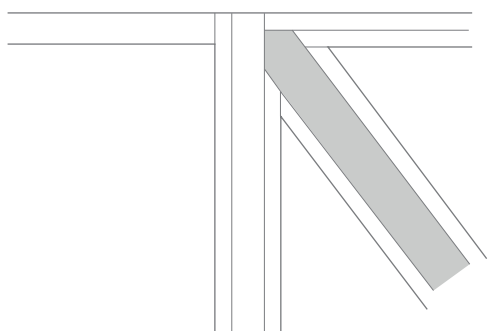
Pre fix into position with 5 x 90mm screws



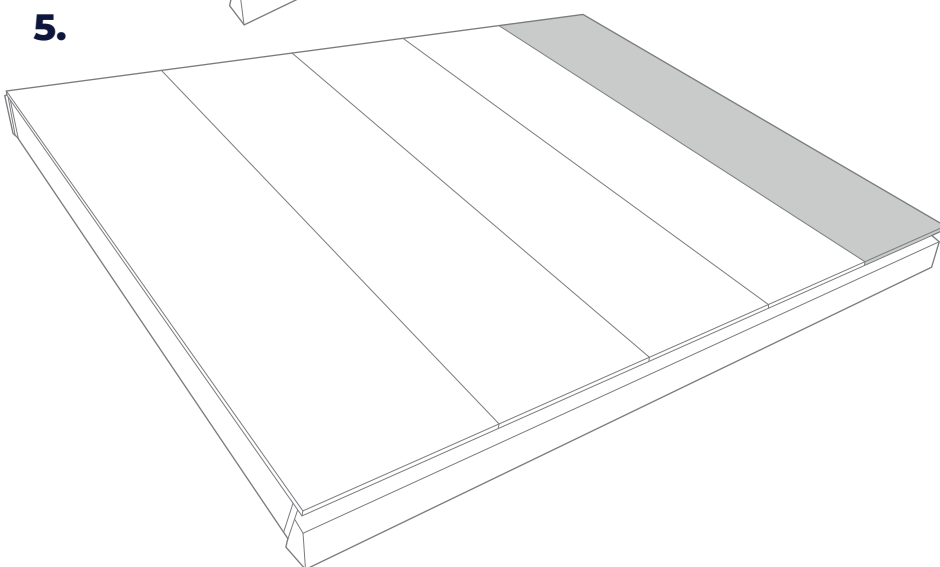
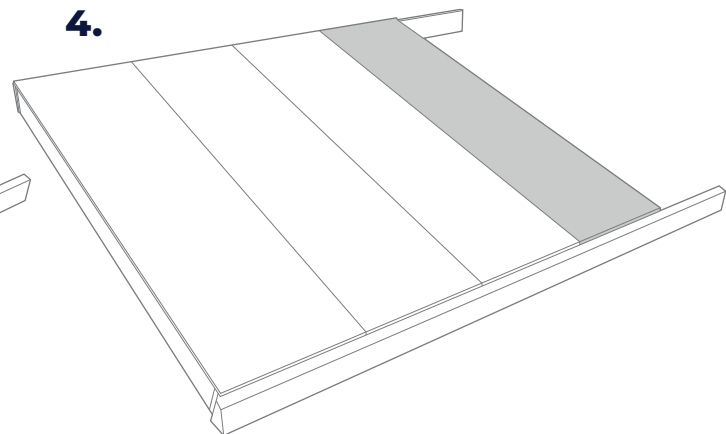
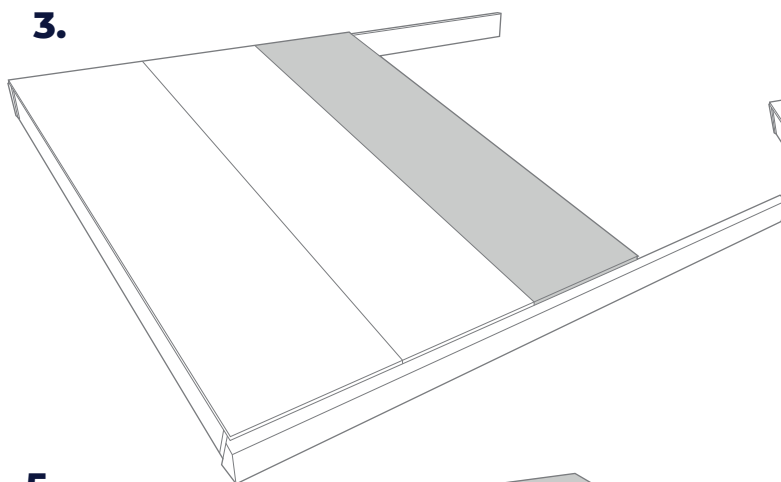
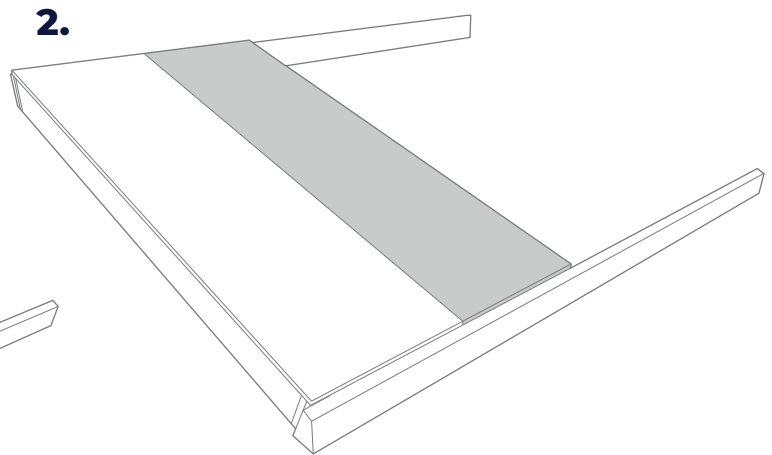
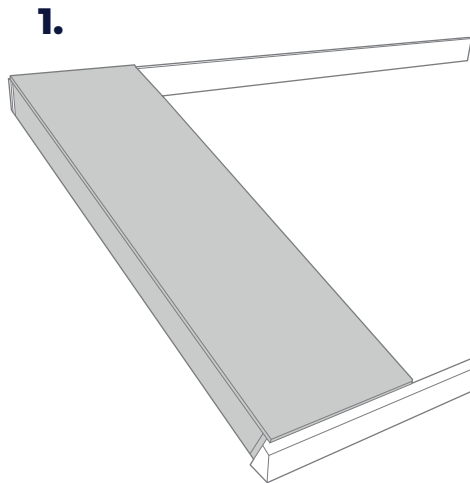
Birds Mouth cut sits into eaves beam

# Standard Valley Arrangement

Please note these are the typical hip arrangements - positioning AND angle of hips may change due to sizes.



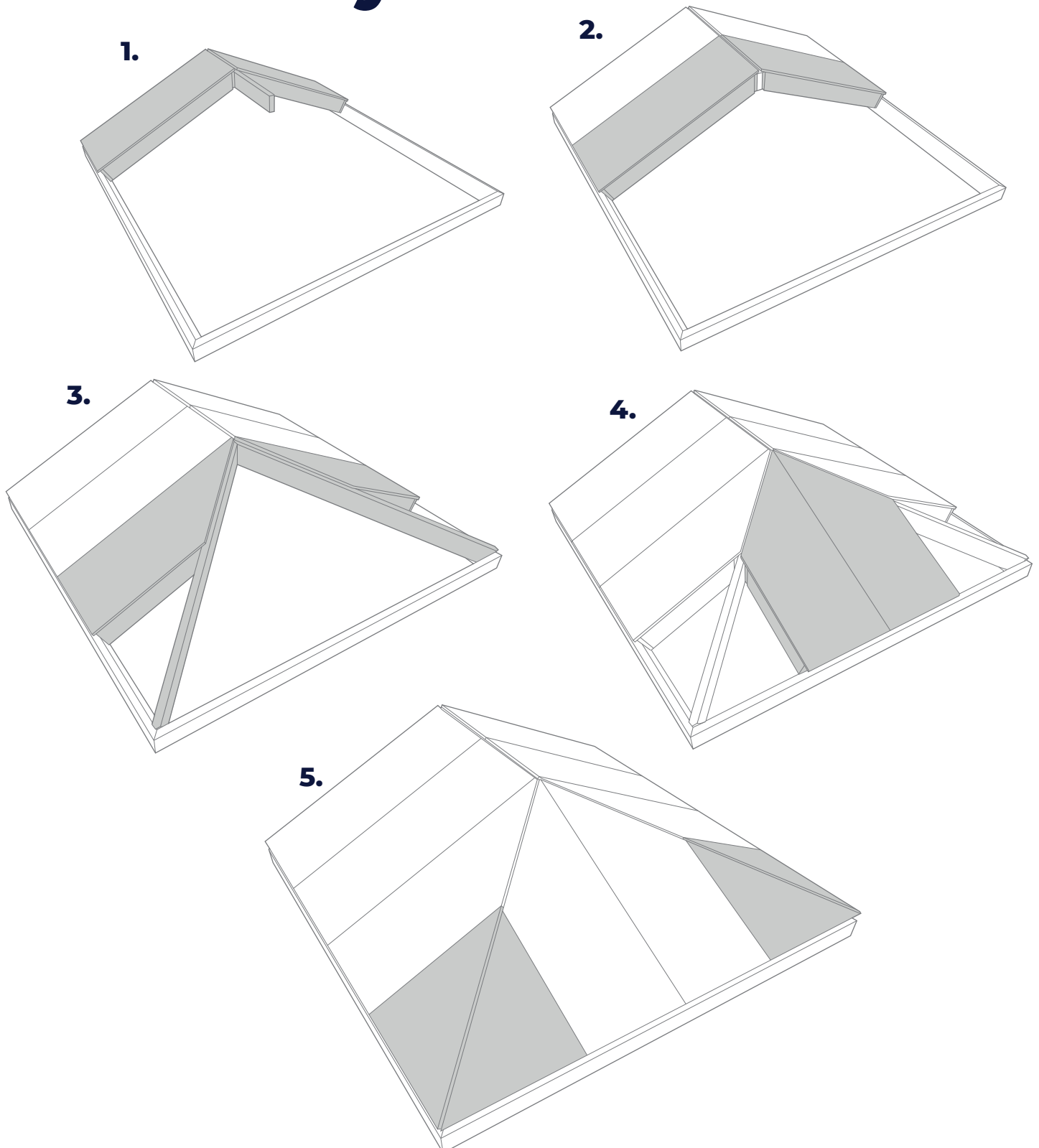
# Lean-To Pod Assembly



Temporarily fit the two end pods (left and right) to ensure the wall plate is parallel to the eaves Beam. Pack the wall plate where necessary

Once the eaves beam and wall plate are fixed into position, follow the pod sequence ensuring all pods are fixed together using the screws provided. Once all pods are in position fix together with bolts ( see page 19 for size and positioning )

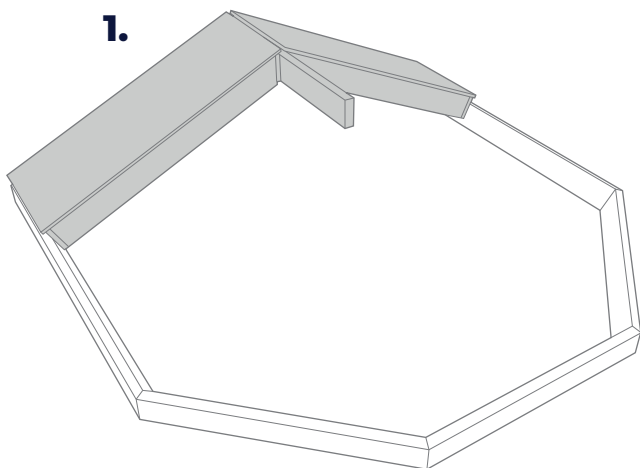
# Edwardian Pod Assembly



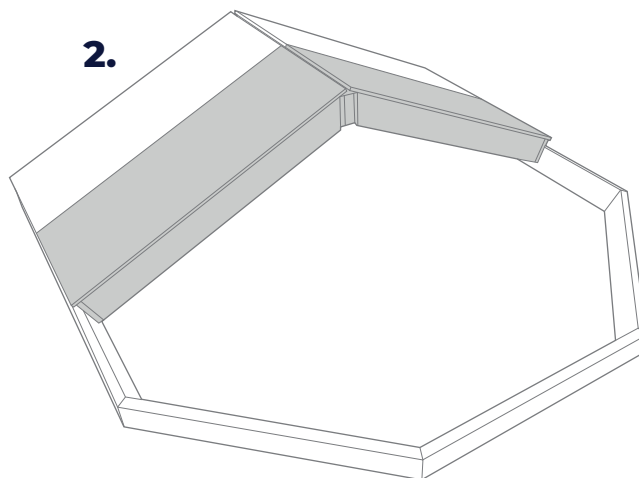
Once the eaves beam is fixed into position, follow the pod sequence ensuring all pods are fixed together using the screws provided. Once all pods are in position fix together with bolts ( see page 19 for size and positioning )

# Victorian Pod Assembly

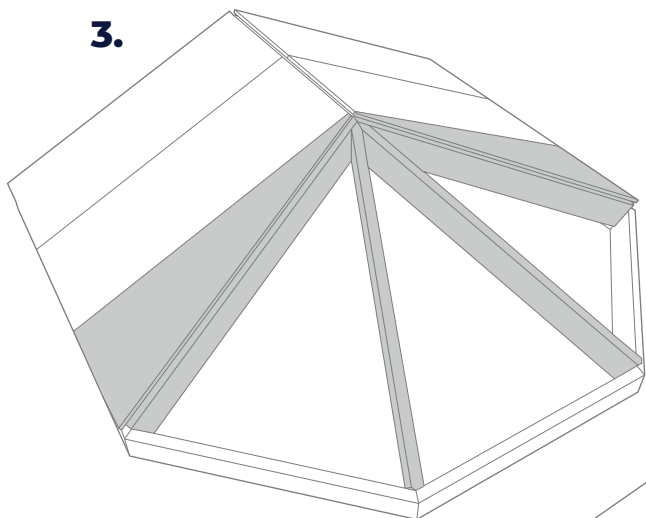
1.



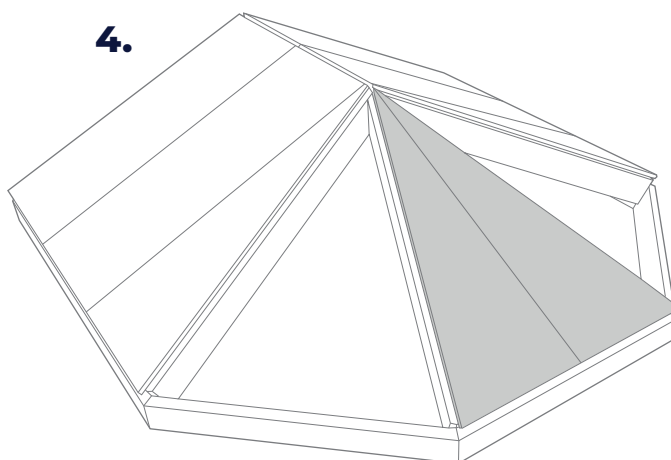
2.



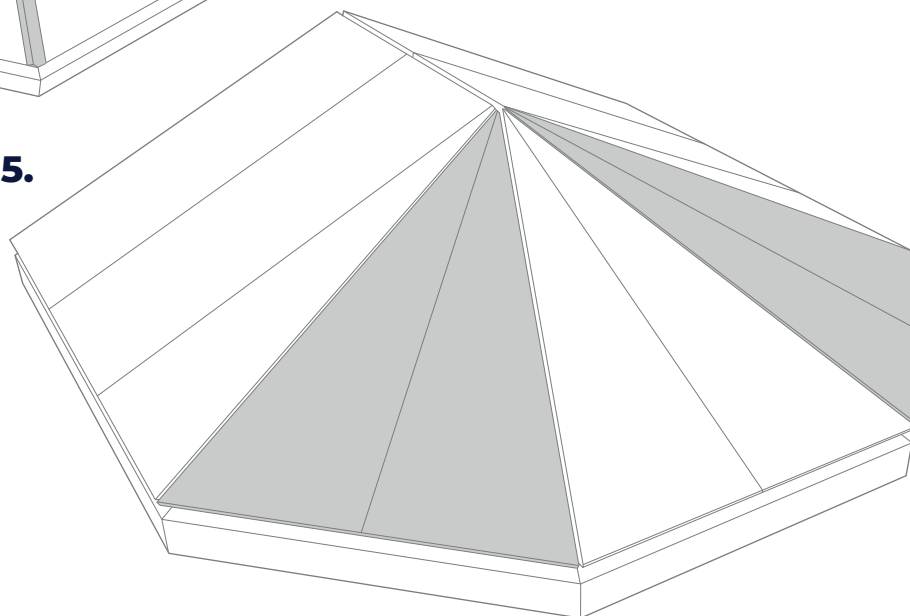
3.



4.



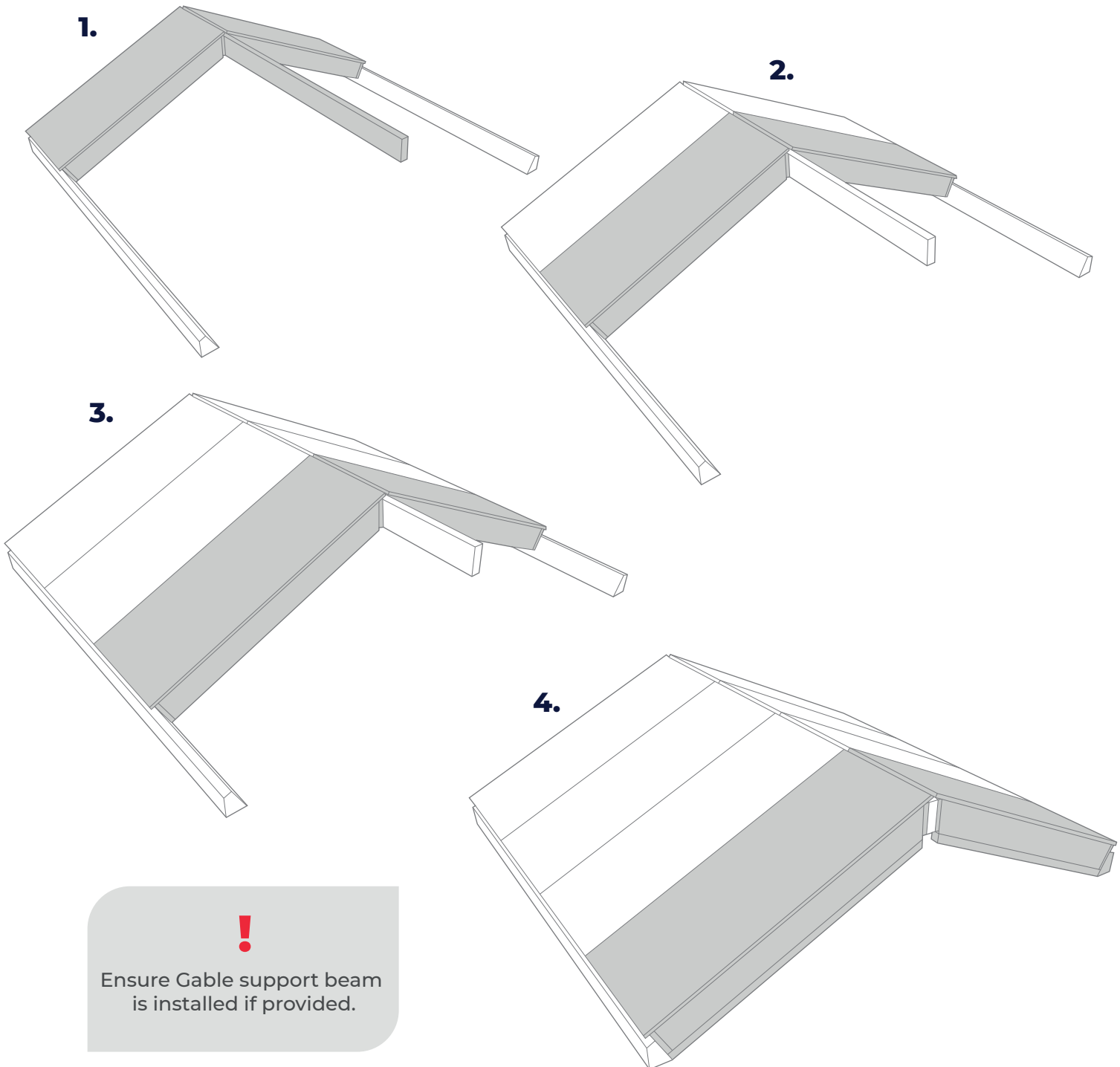
5.



Once the eaves beam is fixed into position, follow the pod sequence ensuring all pods are fixed together using the screws provided. Once all pods are in position fix together with bolts ( see page 24 for size and positioning )

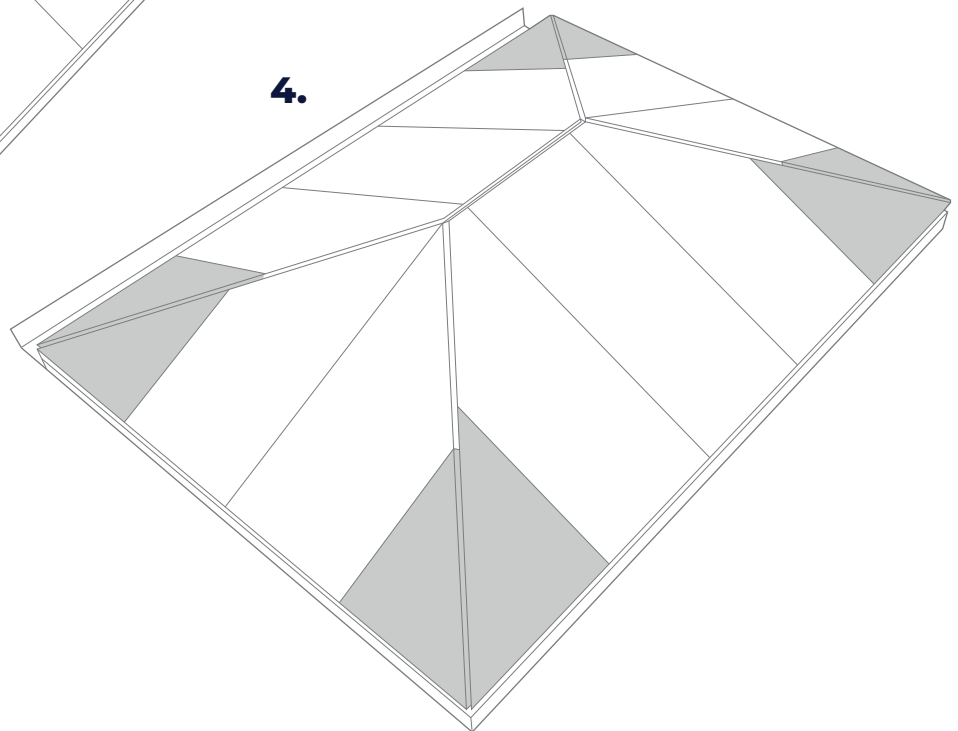
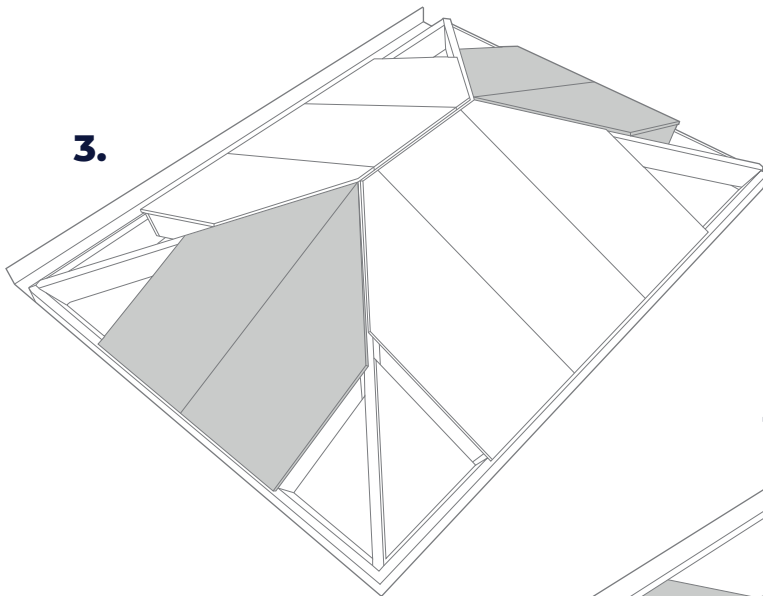
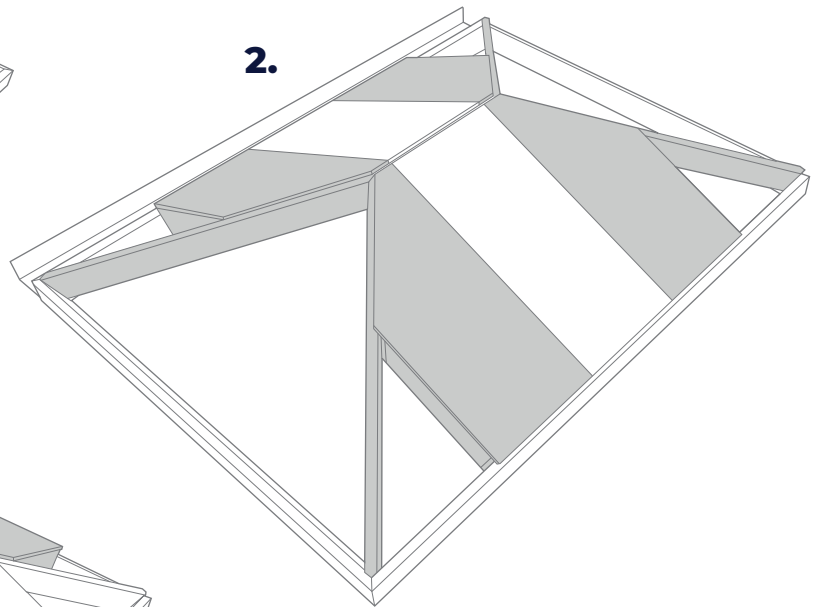
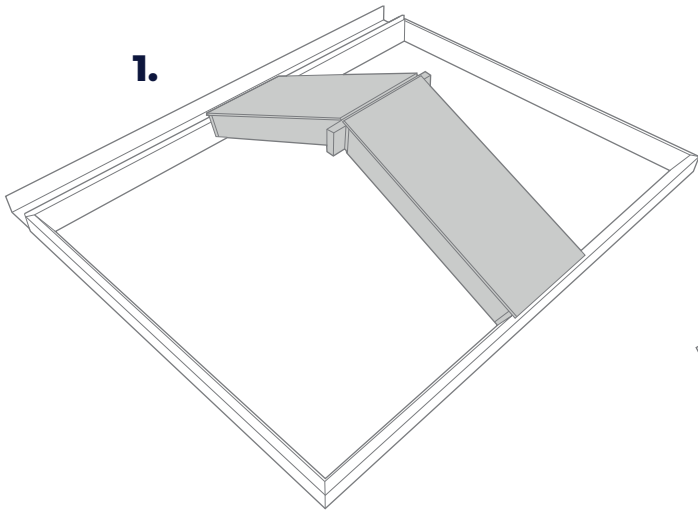
## Gable Pod

# Assembly



Once the eaves beam is fixed into position, follow the pod sequence ensuring all pods are fixed together using the screws provided. Once all pods are in position fix together with bolts ( see page 24 for size and positioning )

# Double-Hipped Edwardian Assembly



**IMPORTANT:** Remember to fix all 4 corner brackets to eaves beam before fixing to box gutter

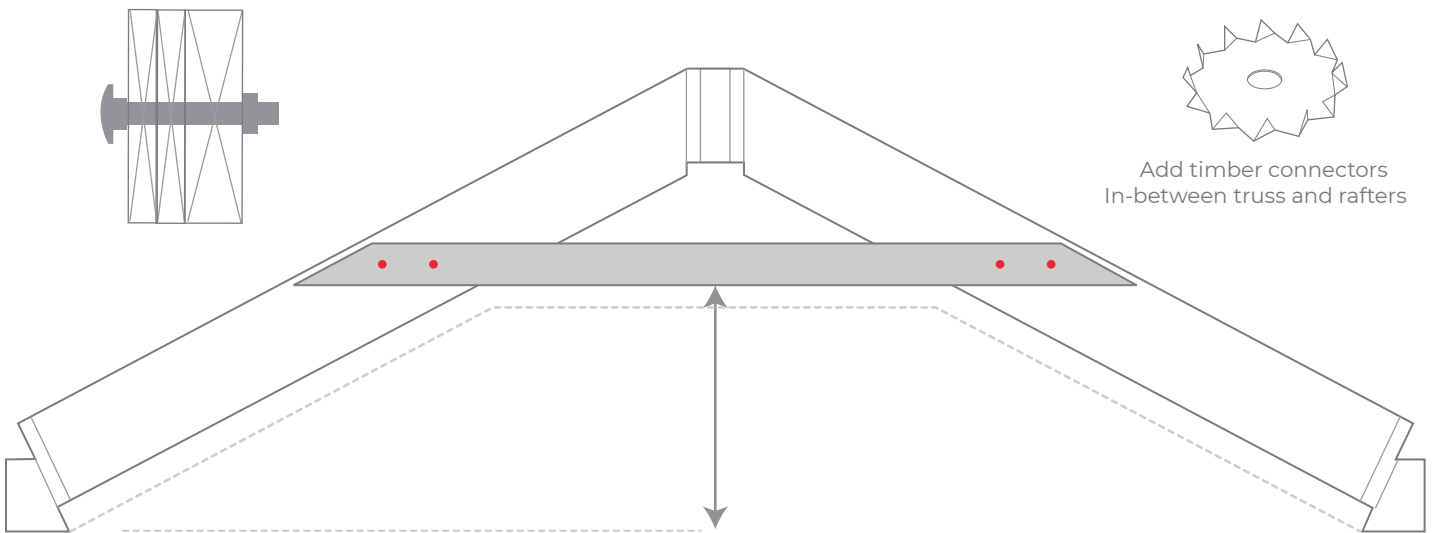
Once the eaves beam is fixed into position, follow the pod sequence ensuring all pods are fixed together using the screws provided. Once all pods are in position fix together with bolts ( see page 24 for size and positioning )

# Truss Support



Ensure all truss supports are installed BEFORE climbing onto roof to finish exterior.

In most cases corner steel corner straps are substantial, however IF trusses are supplied please ensure they are installed accordingly. It is vital to the structural integrity of the roof that the trusses are positioned as directed. Any alteration to truss height or quantity may void any warranty.



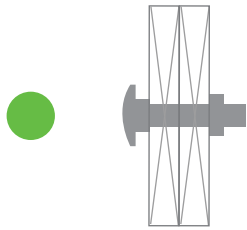
Fix truss into position with x2 130mm bolts at each end. Please Note if the truss is placed on a pod that has an opening vent - 160mm bolts will be required. Height given on paperwork is taken from top of frames to underside of truss.

Plasterboard underneath truss to create flat spot OR leave exposed for a traditional feature



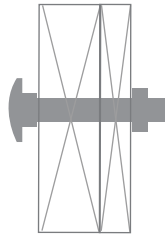
# Bolt Fixings

! Only apply bolts when ALL pods, ridge, hips and valleys are in position. Pre Drill holes with 10mm drill bit.



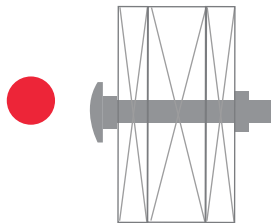
22mm + 22mm = 75mm Bolts  
Typical rafter connection

Ensure centre spacings are no more than 500mm. Ensure bolt is added 150mm from eaves and 150mm away from ridge



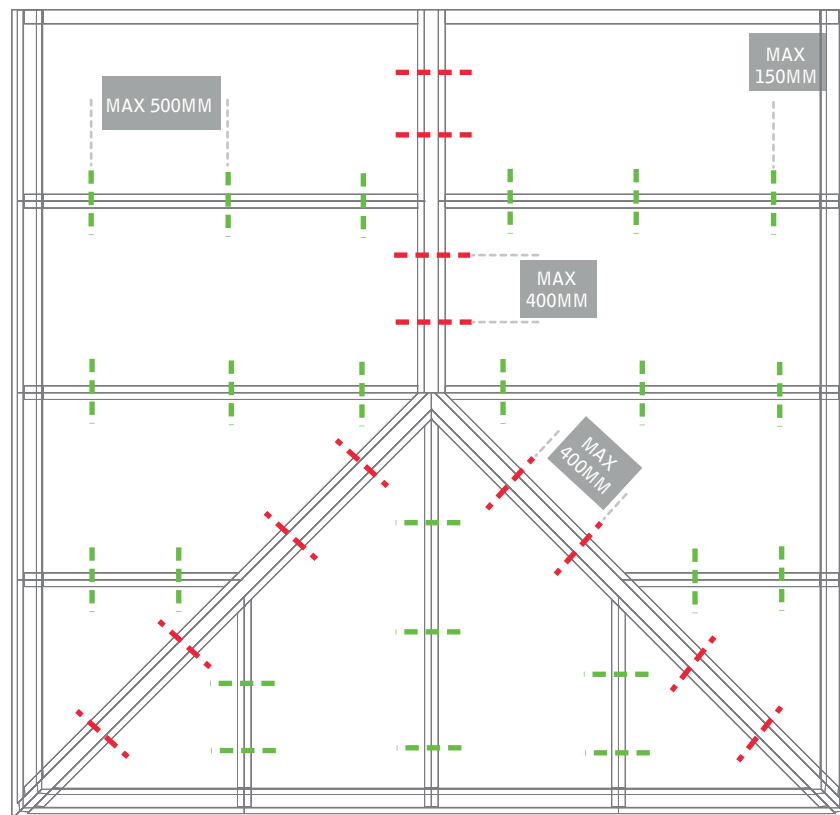
22mm + 45mm = 100mm Bolts  
Typical rafter connection with opening vent.

Ensure centre spacings are no more than 500mm. Ensure bolt is added 150mm from eaves and 150mm away from ridge



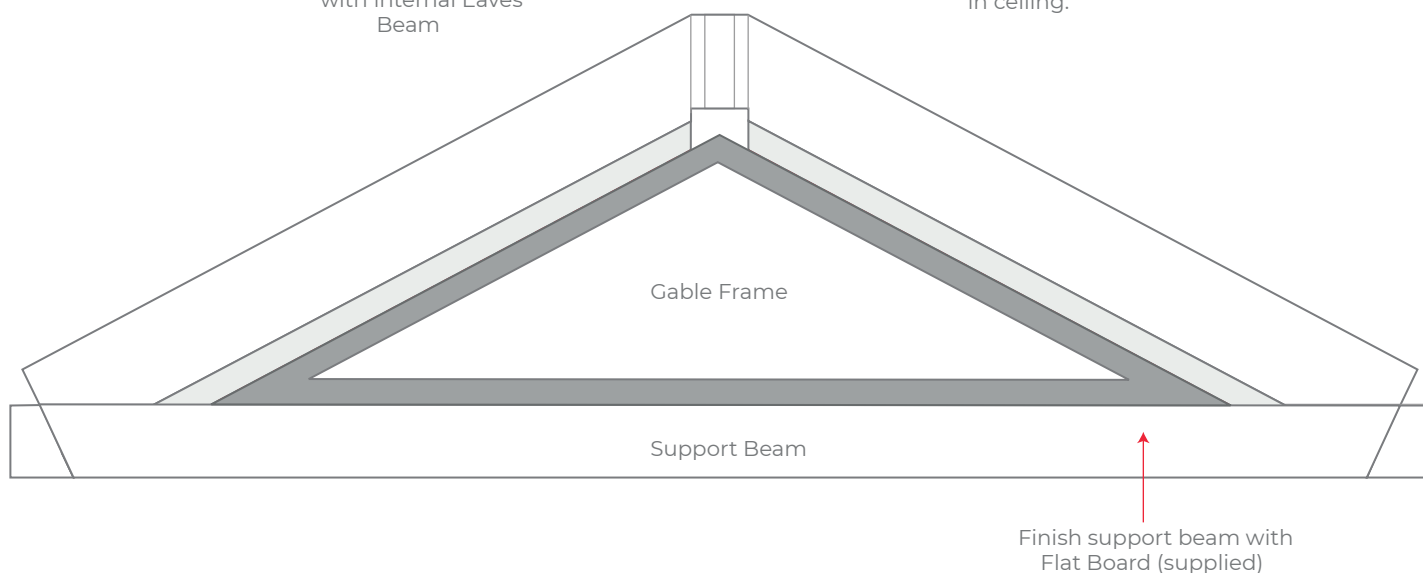
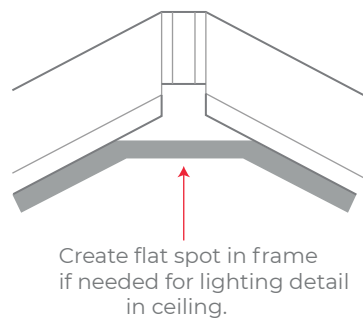
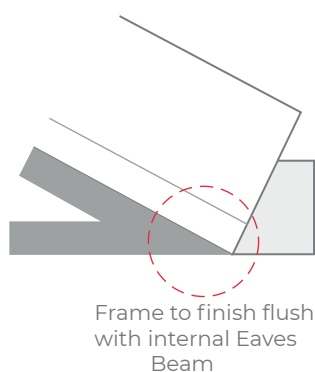
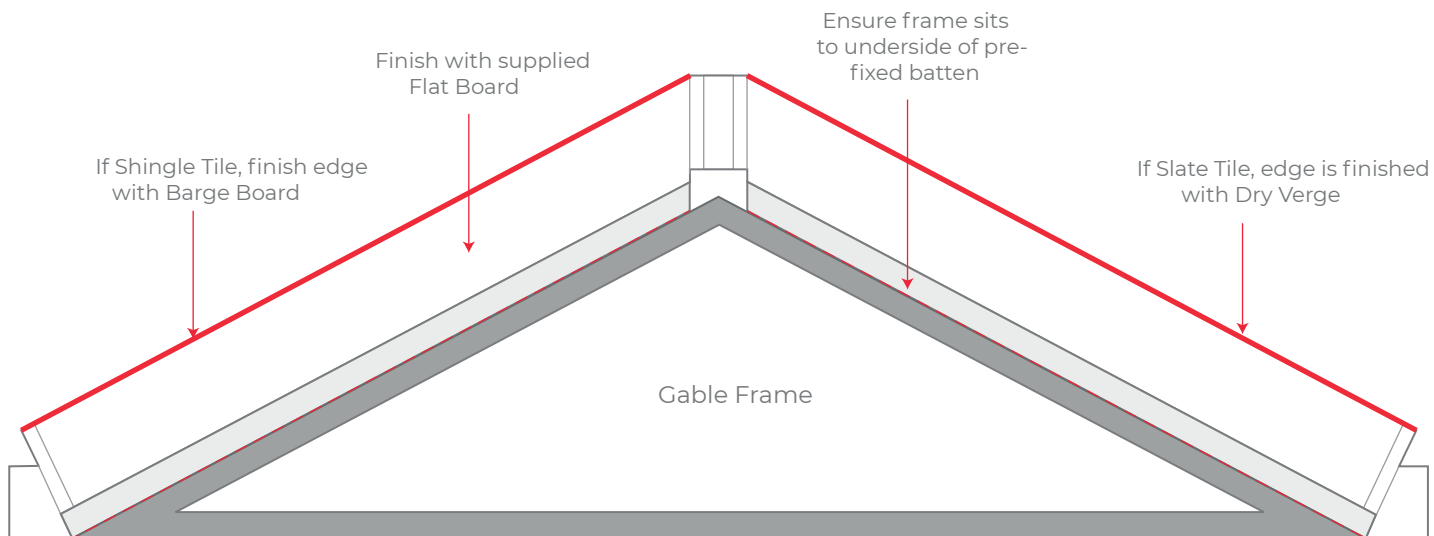
22mm + 22mm + 45mm = 130mm Bolts  
Typical ridge AND hip connections

For ridge and hip connection use a minimum of x2 bolts per pod. Maximum 400mm centre spacings.



Note: This is not a true representation of your roof and is purely to show typical bolt positioning. Number of bolts will vary due to size of roof.

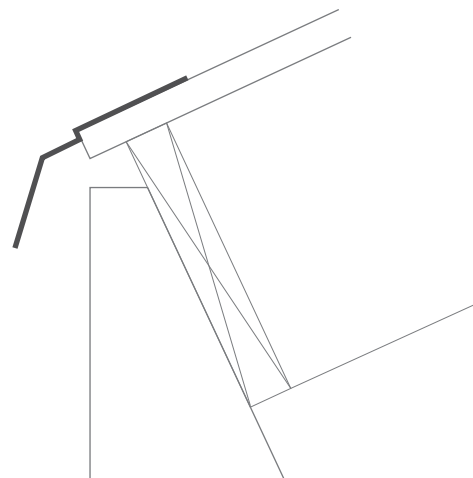
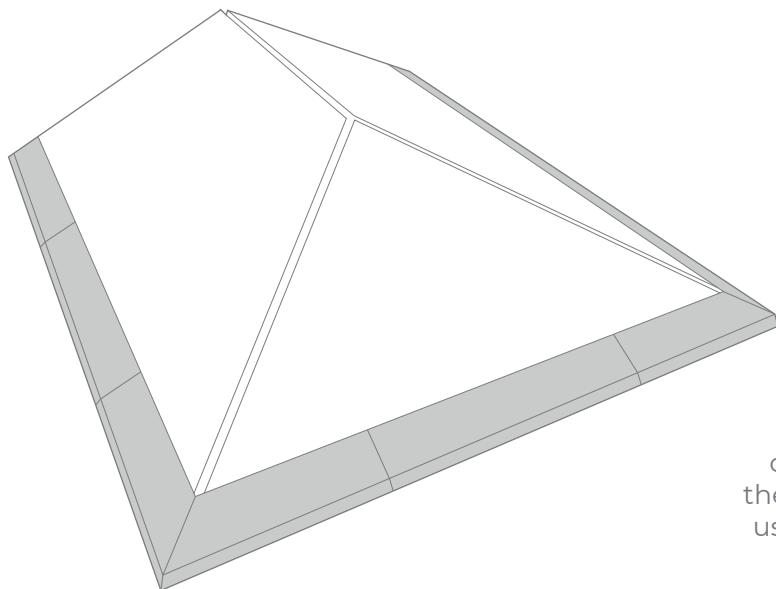
# GABLE ENDS



If supplied, gable frame to sit directly on top of support beam ( see page 13 for fixing detail). Ensure frame sits to underside of pre-fixed batten. (underside of rafter)

## Eaves

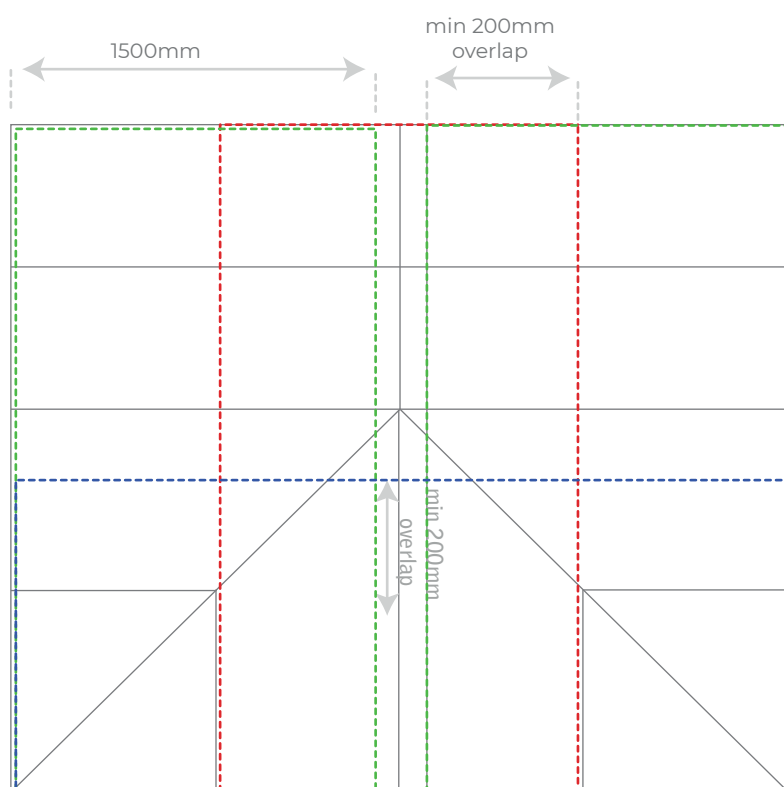
# Protector



Fix black eaves protectors into place, overlapping by 150mm at each join. Ensure the eaves protectors are positioned correctly by using the bend profile (see above image), and mitre the corners to finish.

## Breather

# Membrane



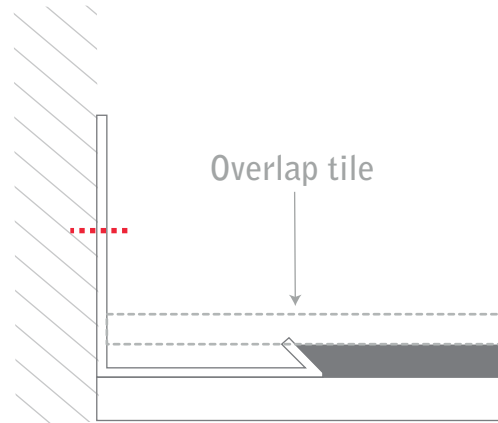
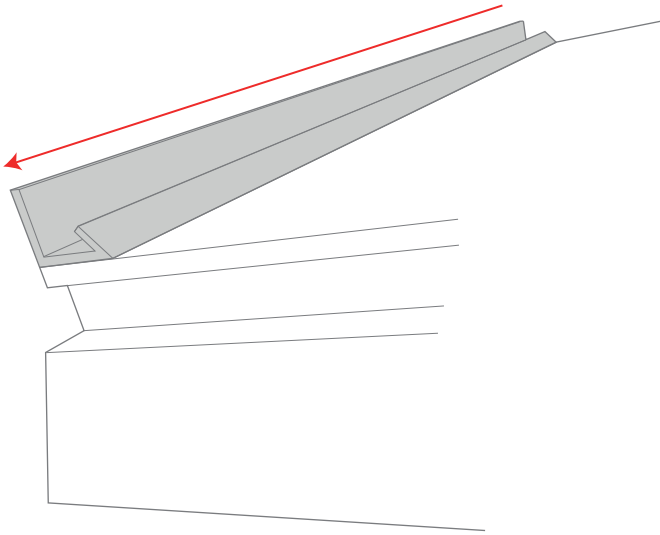
Lay the membrane so that any joins are running horizontally to the pitch of the roof and stable into position. Ensure overlap on joins is minimum 200mm. Ensure membrane runs to outside of eaves protector and leave 100mm excess to run up the house wall. Ensure all hips and ridges are completely covered with overlap of at least 150mm



The membrane is waterproof however, if the roof is to be left un-tiled overnight, we advise using additional tarpaulins to cover the roof.

# Water Course

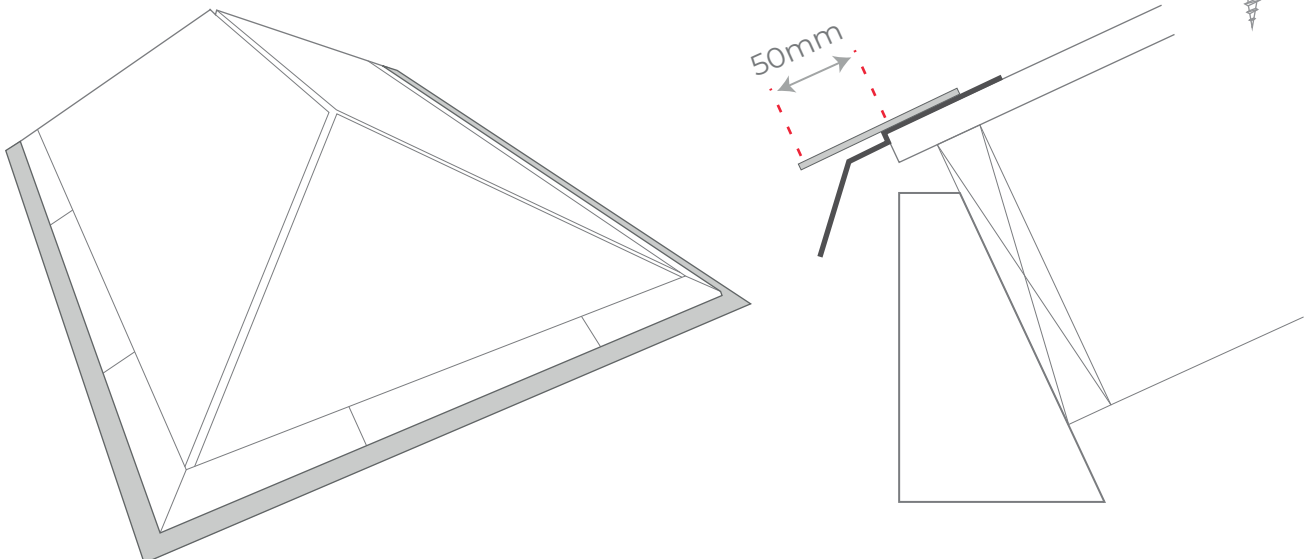
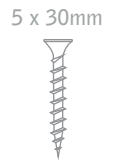
**!**  
Water Course only applicable with Shingle Tiles.



Fix watercourse to all slopes against house wall. Ensure flat edge sits against wall and lip is facing tile edge.

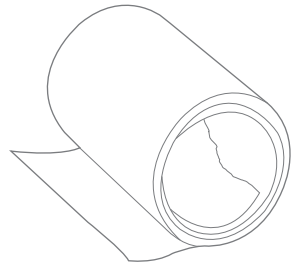
# Tile Starter Trim

**!**  
Starter Trim only applicable with Shingle Tiles.



Before applying Shingle Tile, attach starter trim around perimeter of roof to the correct 50mm overhang from edge of OSB. Use 30mm screws provided.

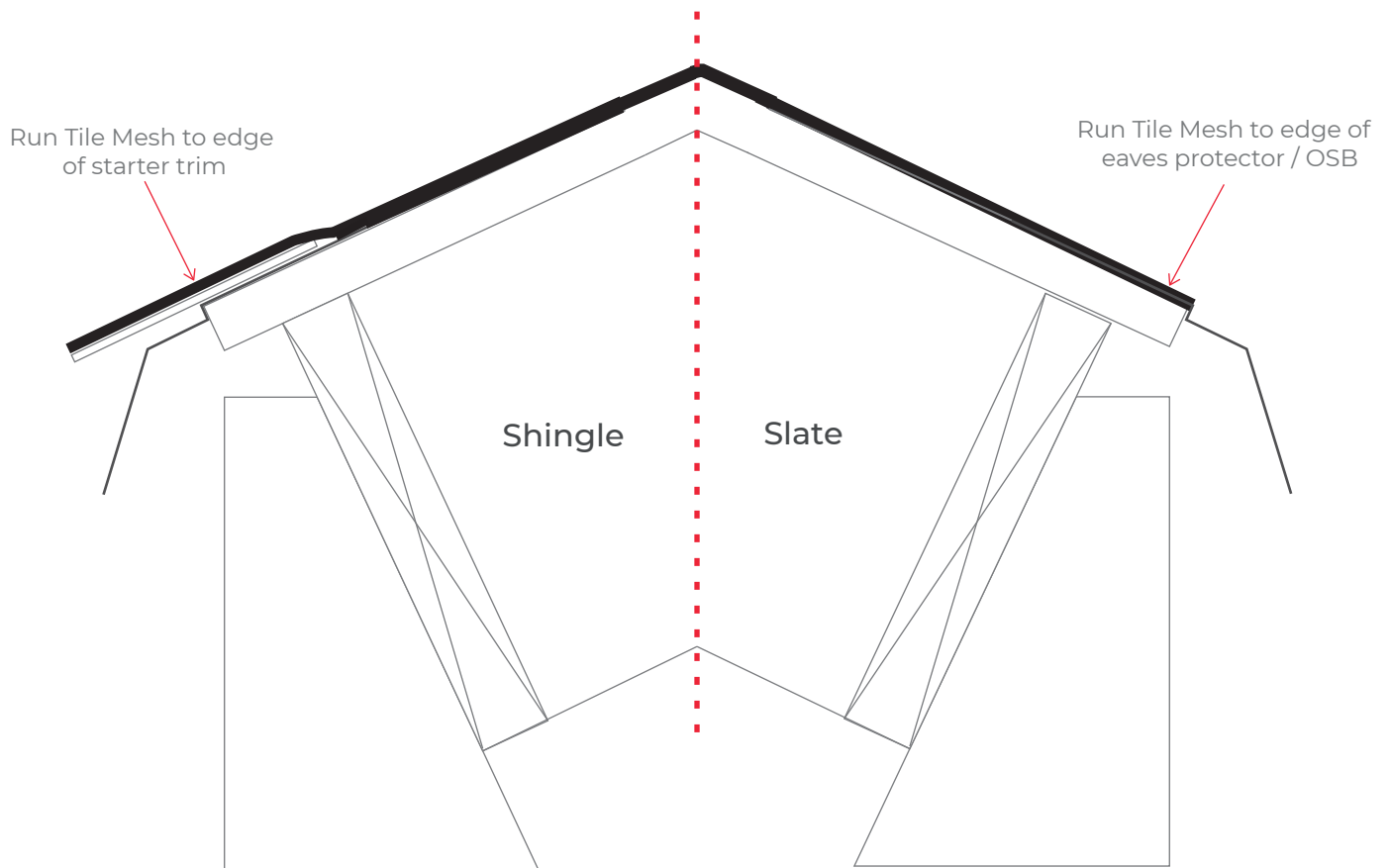
# Tile



# Mesh

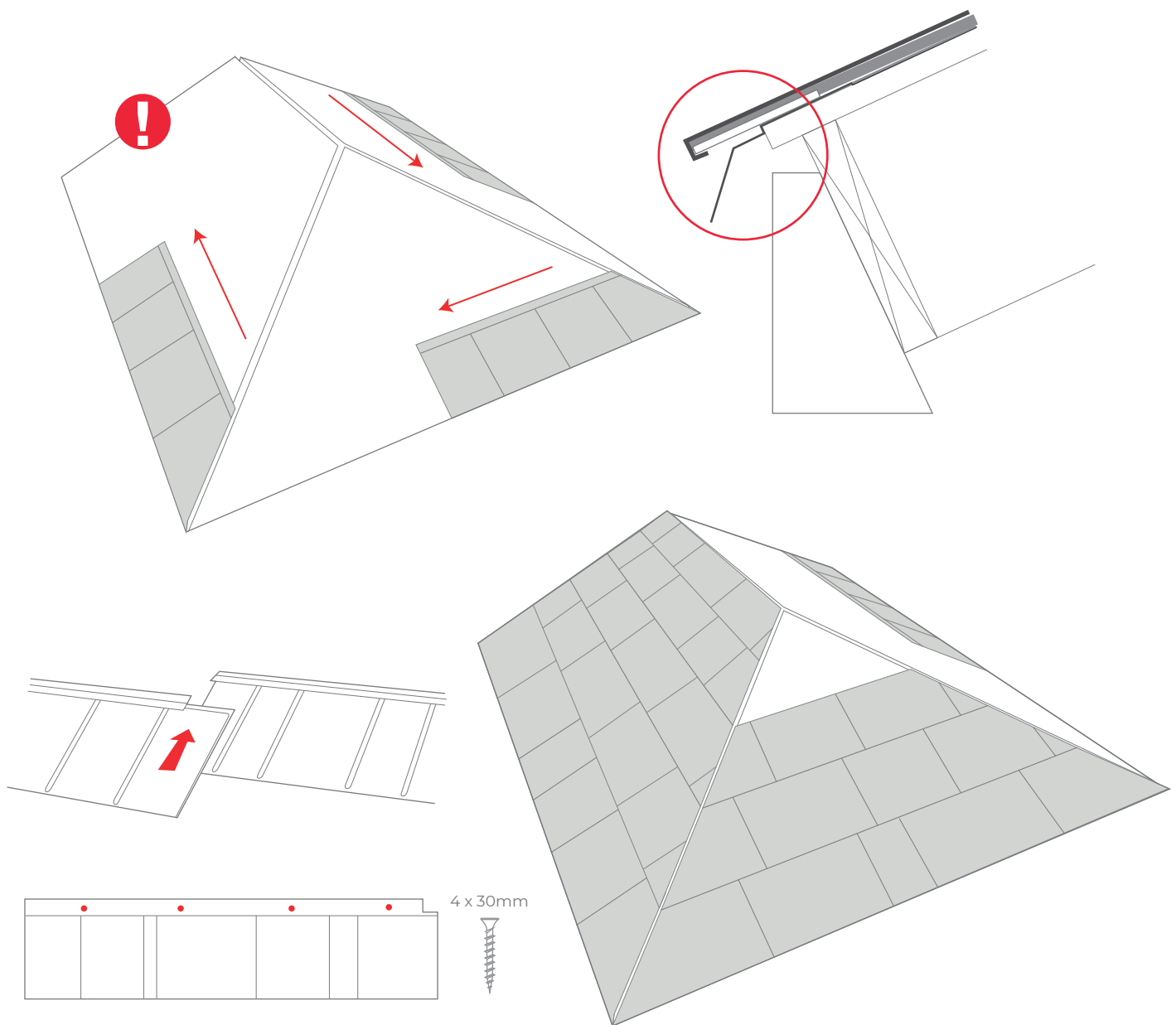


Ensure Tile Mesh is fitted for both Shingle and Slate tile finishes



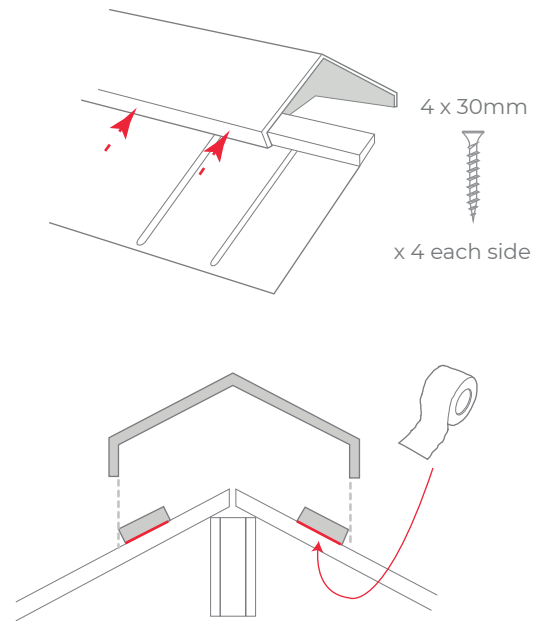
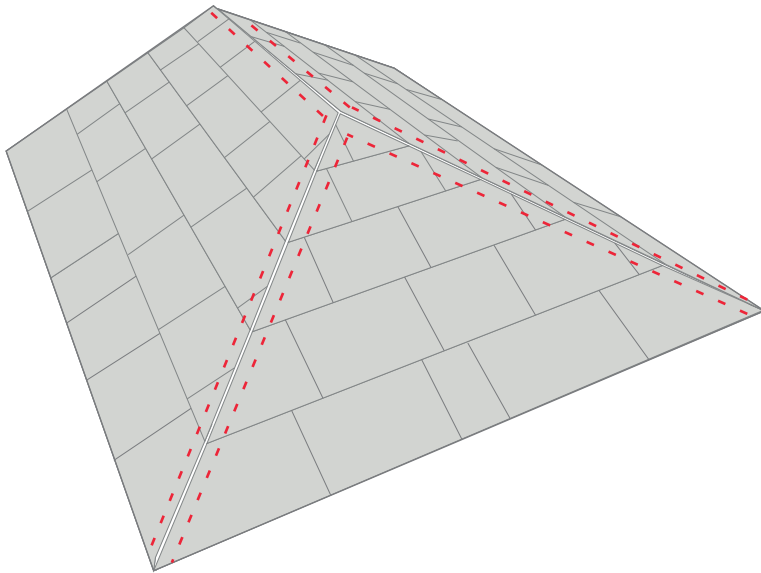
Apply tile mesh to roof and staple into place

# Shingle Application



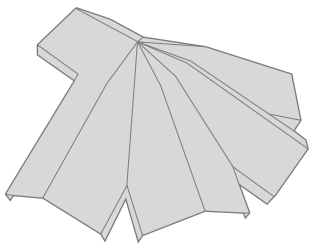
Always start tiling from right to left. Hook tile over edge of starter trim AND tile mesh.  
Continue procedure , interlocking tiles. Fix with 4 x 30mm fixings provided.

# Shingle Hip / Ridge Tiles



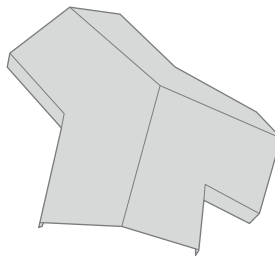
Add battens up each side for all hips and ridges. Apply expanding tape to underside of batten before fixing.

## Shingle Components



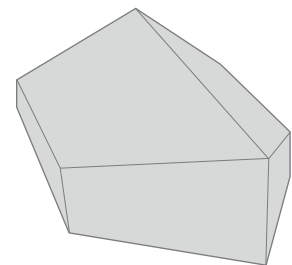
5-Way Junction

**!** 5 way junction will only fit if ALL facet sizes are equal. If not, mitre hip tiles to meet at ridge point



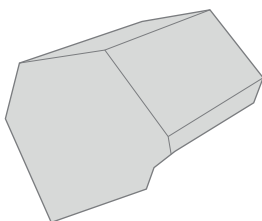
Y-Junction

Typically used on standard Edwardian style roofs.



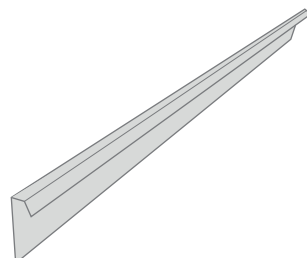
Hip End Cap

(90 / 135 degrees)



Ridge End Cap

Typically used on Gable front



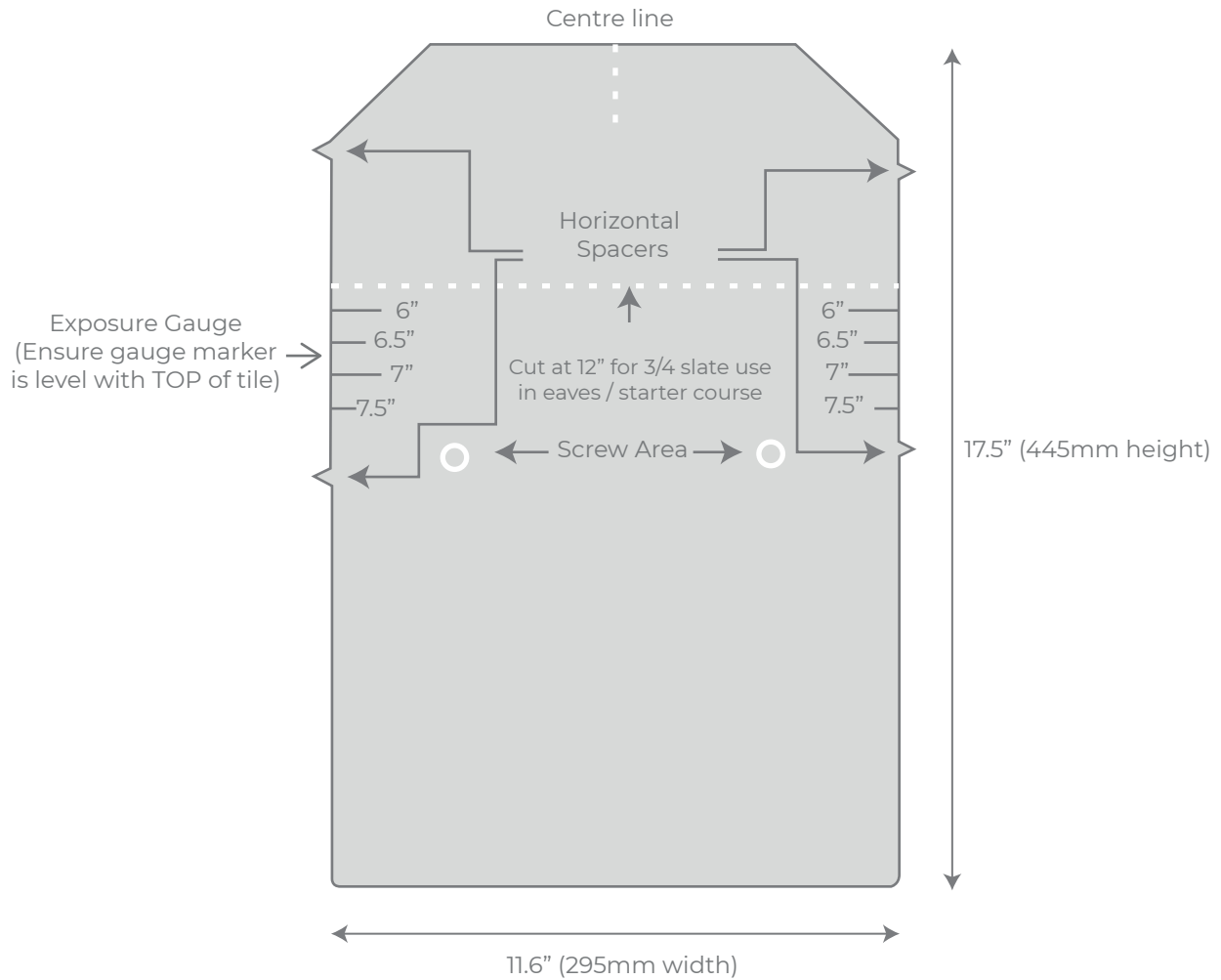
Barge Board

Typically used on lean-too/  
Gable ends

**!**  
These components are NOT supplied with Slate Tiles.

# Slate

# Application

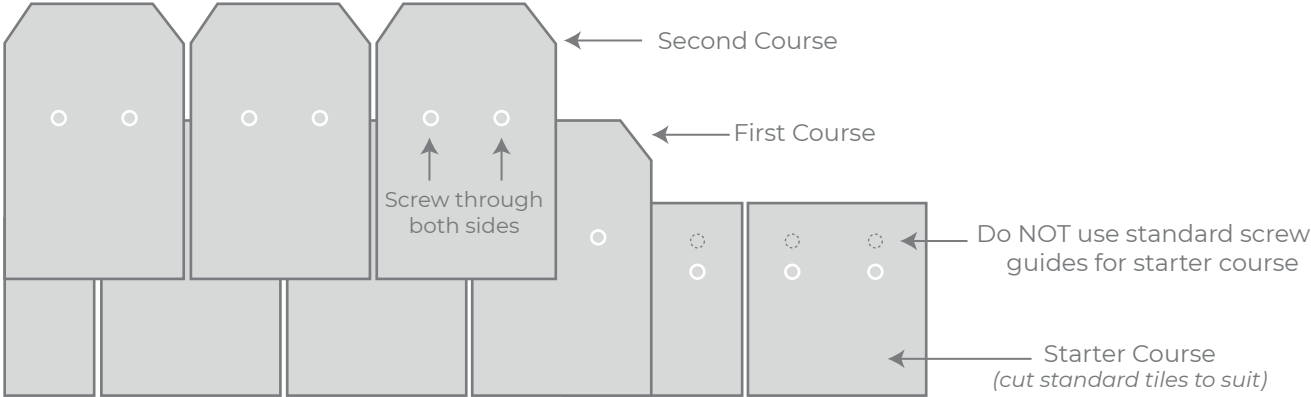


**!**

To ensure you use the correct amount of tiles provided, please follow the correct gauge depending on the pitch of your roof.

### Exposure Gauge

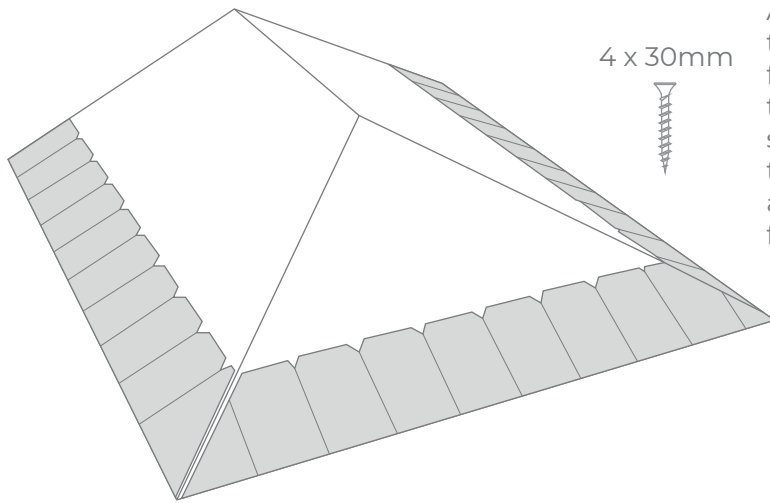
- 14.5 to 24.9 degrees - 6" (152mm)
- 25 to 27.4 degrees- 6.5" (165mm)
- 27.5 to 30 degrees -7" (178mm)
- above 30 degrees- 7.5" (191mm)





# Slate

## Application

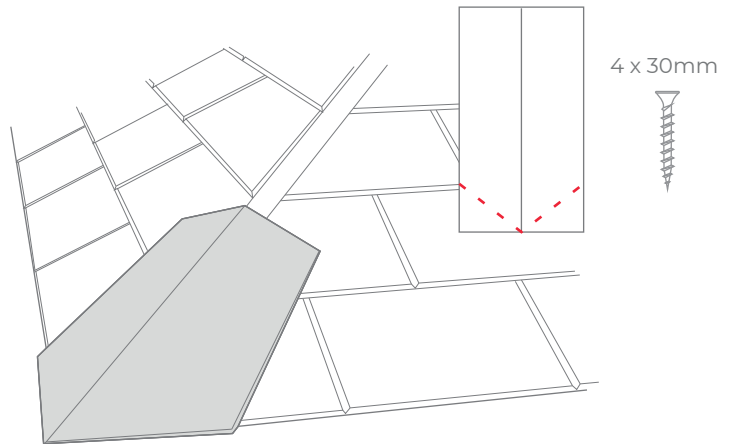


Apply the starter course of tiles maintaining the 6mm spacing in-between. (start with a full tile) The first row of tiles should overhang the eaves by 50mm. Use two 4.0mm x 30mm screws in the guides provided to secure. Offset the first course of tiles over the starter course and fix into position. Continue procedure until fully tiled.

# Slate

## Hip Tiles

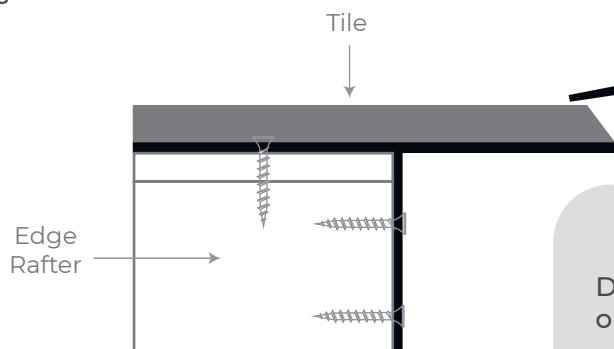
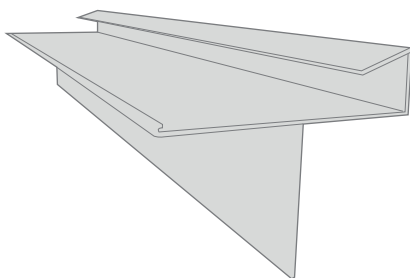
Start the hip tiles at the bottom. Cut a full tile to the correct angle and fix into position using two 4.0mm x 30mm screws in the marker holes provided.



# Dry

## Verge

Only applicable for Gable / lean -To ends



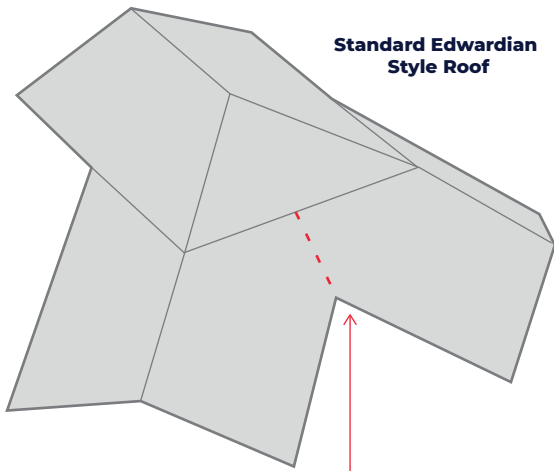
**!**  
Dry Verges are only applicable Slate Tiles

Fix Dry Verge onto end rafter on gable front / lean-to edge. Dress tiles into lip.

# Slate Ridge Ends

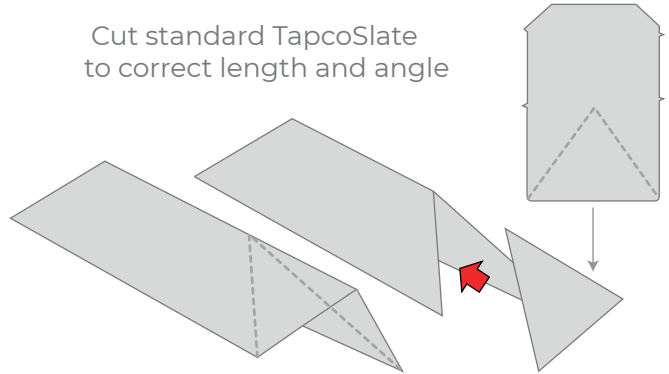


Ridge tiles to be cut to suit intersection - NO pre formed ridge to Hip caps are supplied.

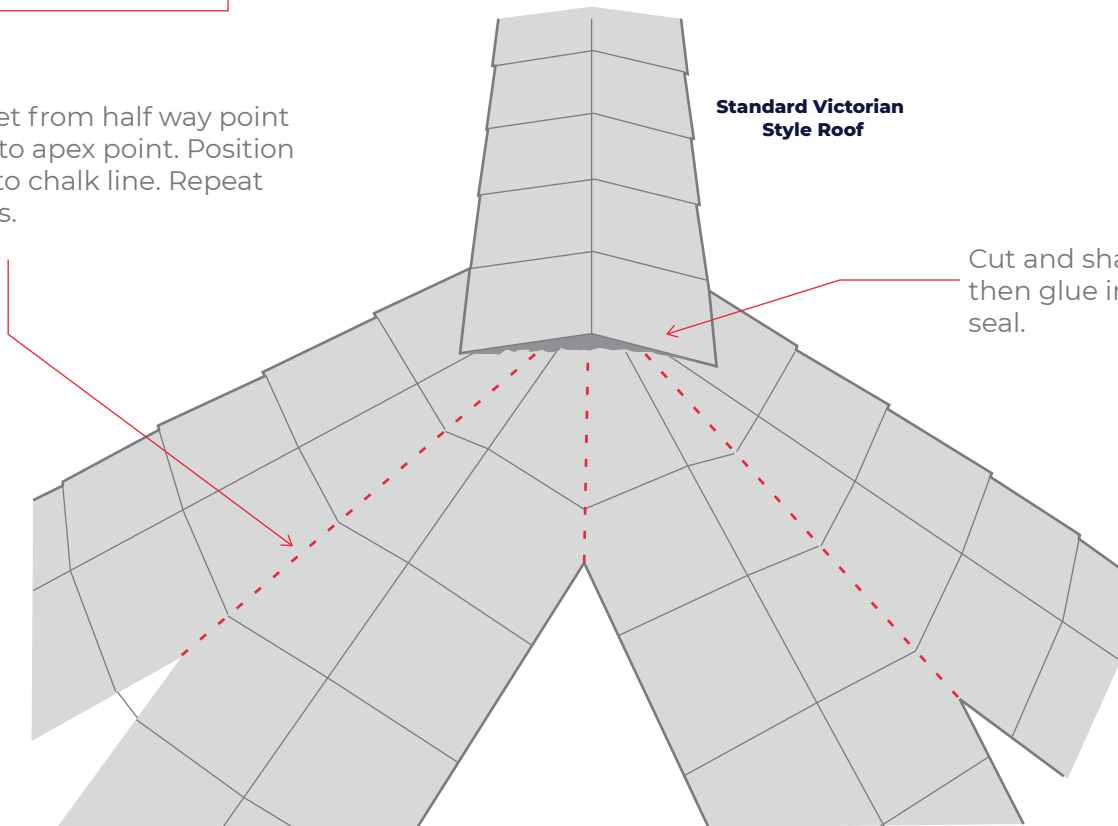


**Standard Edwardian Style Roof**

Cut standard TapcoSlate to correct length and angle



Chalk line set from half way point of 'triangle' to apex point. Position Ridge Tiles to chalk line. Repeat for all angles.



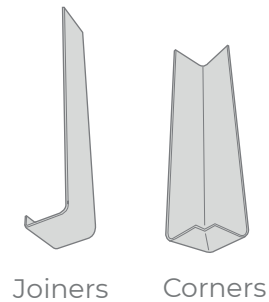
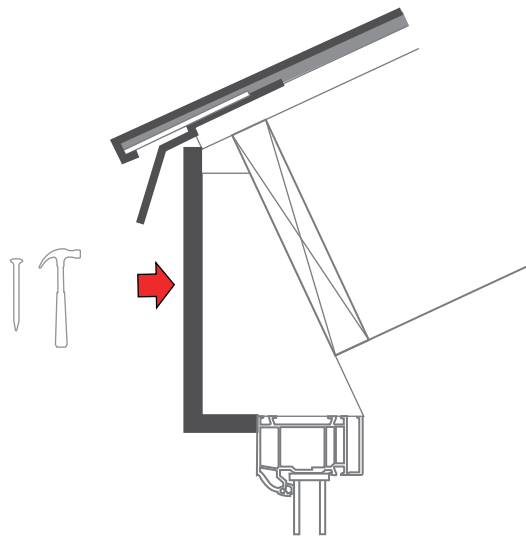
**Standard Victorian Style Roof**

Cut and shape Slate, then glue into end to seal.



Warmer Roof recommends a protective saddle under slates to further weatherproof ridge-to-hip intersection.

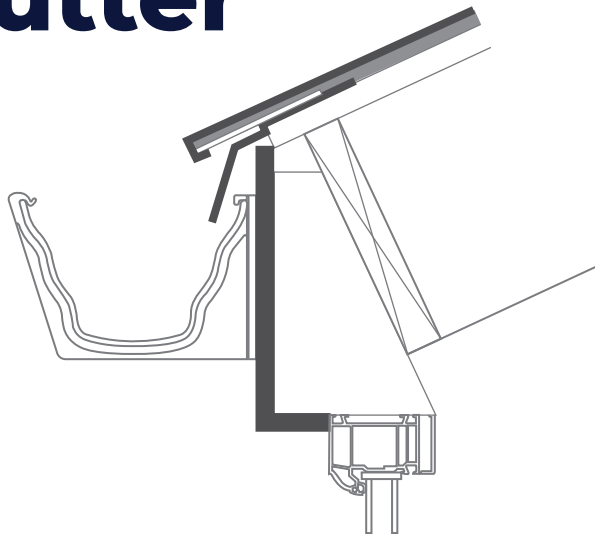
# Fascia



Joiners      Corners

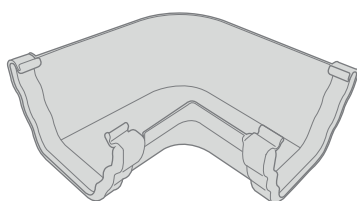
Cut fascia to size and fix to eaves beam using the pins provided. Space fascia pins evenly - approx every 500mm. Use joiners where needed and attach corners with appropriate adhesive OR pins.

# Gutter

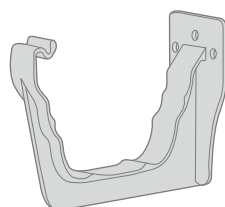


**!**  
It is advisable to incorporate a slight fall when attaching gutter to encourage water to find the outlet(s)  
Gutter spigots are provided with all downpipes.

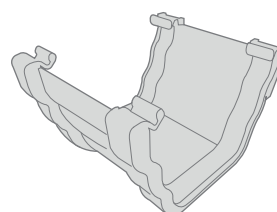
Secure gutter brackets onto fascia (approx 500mm spacings). Ensure gutter is set at the correct height so that eaves protector sits inside gutter profile. Attach gutter angles accordingly and add unions to join gutter were needed.



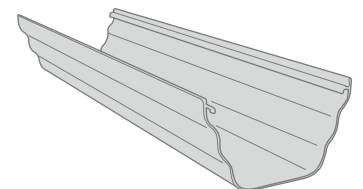
Gutter Corners  
90 / 135 degrees



Gutter Brackets  
500mm spacing

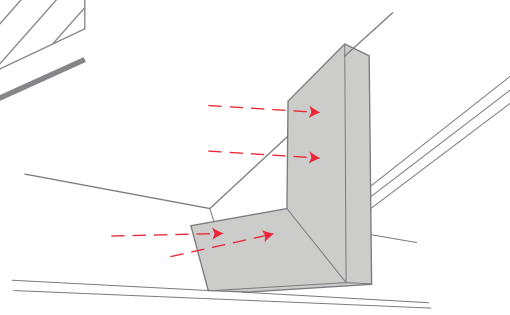
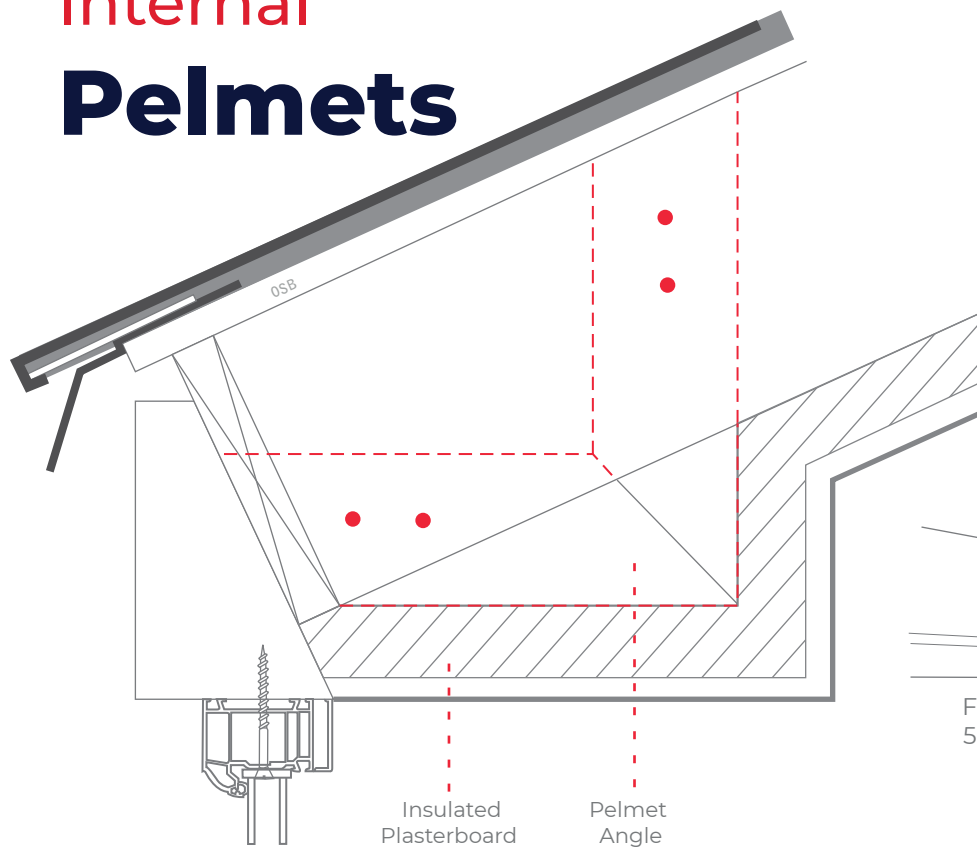


Gutter Union  
( used for joining  
gutter lengths )



Gutter length  
4000mm

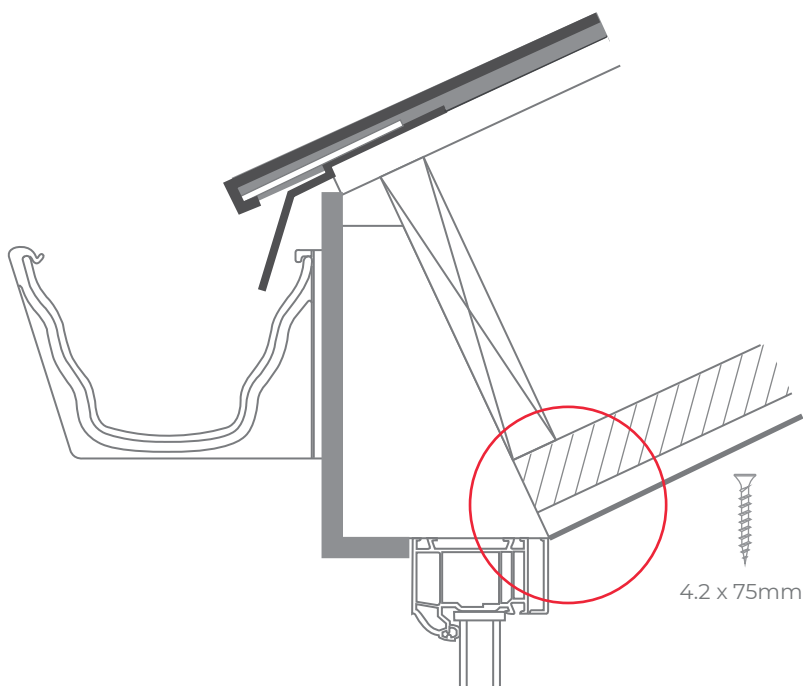
# Internal Pelmet



Fix onto every rafter with  
5 x 90mm screws provided

Refer to sizes  
in pack

# Standard Plasterboard



Plasterboard sizes are provided in  
Roof Pack. Ensure planning  
is allowed to minimise board  
wastage. Please double check  
all sizes provided.

Fix insulated plasterboard to underside of rafters with screws provided. Use optional plasterboard sizes provided in pack. Remember to remove pre-fixed batten to enable plasterboard to run through to eaves beam and flush with head of frame.



E: [sales@tcrderby.com](mailto:sales@tcrderby.com)

T: 01332 208206

[www.tcrderby.com](http://www.tcrderby.com)