

ISSUE 4.0 | 03.20

Installation Guide

www.icotherm.co.uk

This guide is for the **Icoroof**
& **Icoview** roof systems.

icoroof

icoview



Contents

Tools	3
Setting the Eaves Beam	4
Soffit Fixing Detail	6
Setting The Ridge	8
Lean-to Roof Style Pod	9
Edwardian Roof Style Pod	10
Victorian Roof Style Pod	11
Pod Abutment	12
Wall Abutment	13
Eaves Protector Fixing Detail	14
Breather Membrane	15
Steel Boomerang	17
Insulation	18
Box Gutter	19
Lean-To-Vented Ridge Fixing Detail	20
Solid Hips	21
Icoview Pod	22

Tools required

All fixings supplied with roof kit. NB Fixings to house wall not supplied.

IMPORTANT: It is the installer's responsibility to make sure the correct access safety equipment is used during the installation of the Icotherm Solid Roof, such as access ladders and scaffolding.



Hand Saw



Rubber Mallet



13mm Auger Bit



Tape Measure



Cordless Drill



Acropop



Utility Knife



Pencil



Tin Snips



Clamp



Socket Wrench



Spirit Level



Angle Grinder



Expanding Foam & Gun

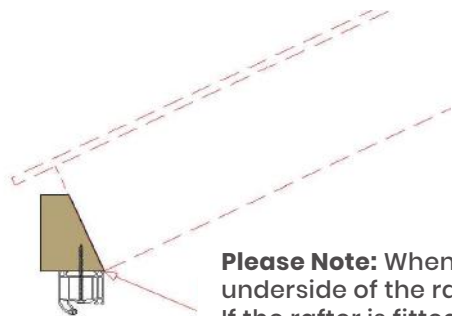
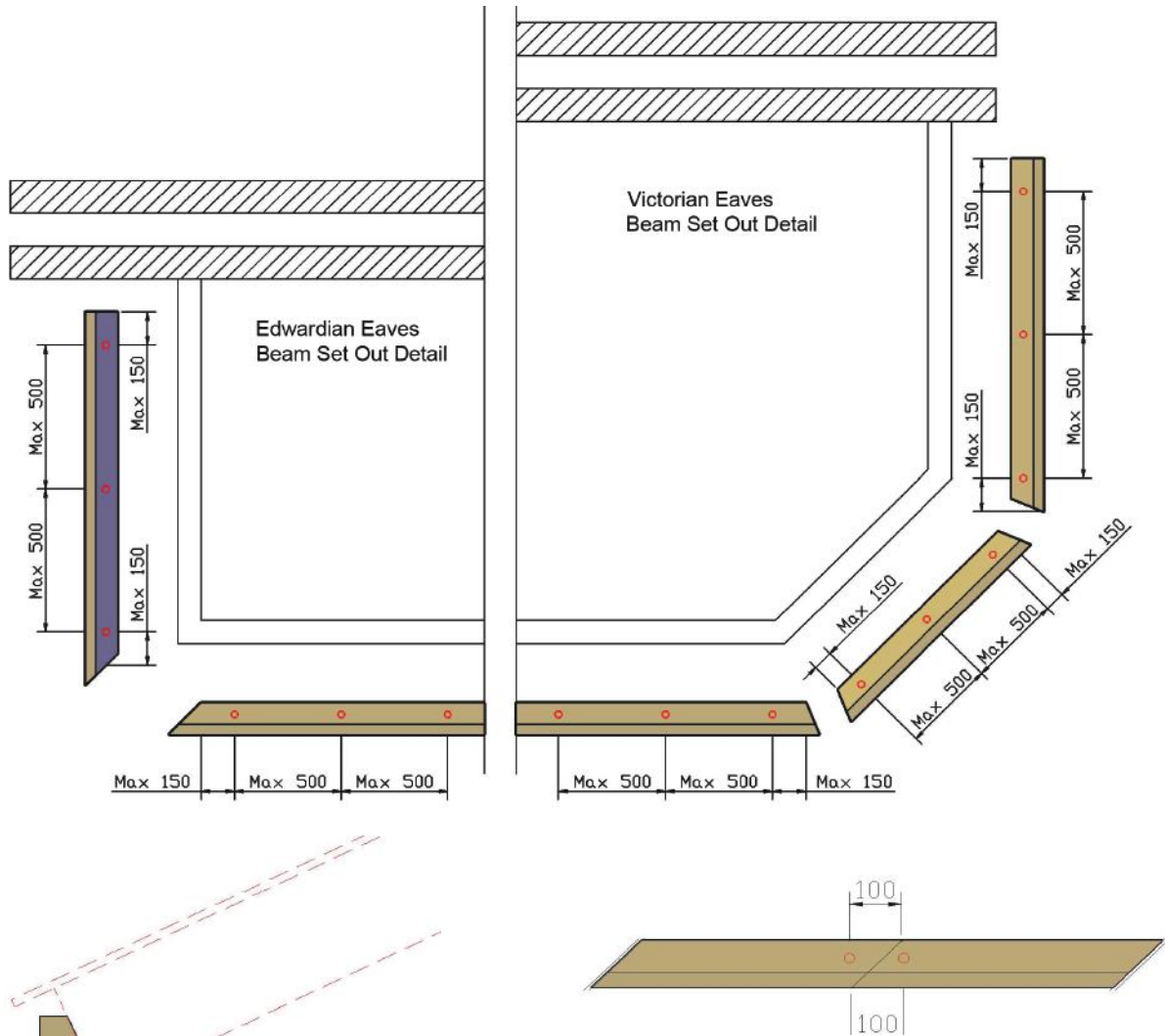


Roofing Stapler



Rip Saw

Setting the Eaves Beam



Please Note: When fitting the pods to the eaves make sure the underside of the rafter is level with the underside of the eaves. If the rafter is fitted lower, the roof will not fit.

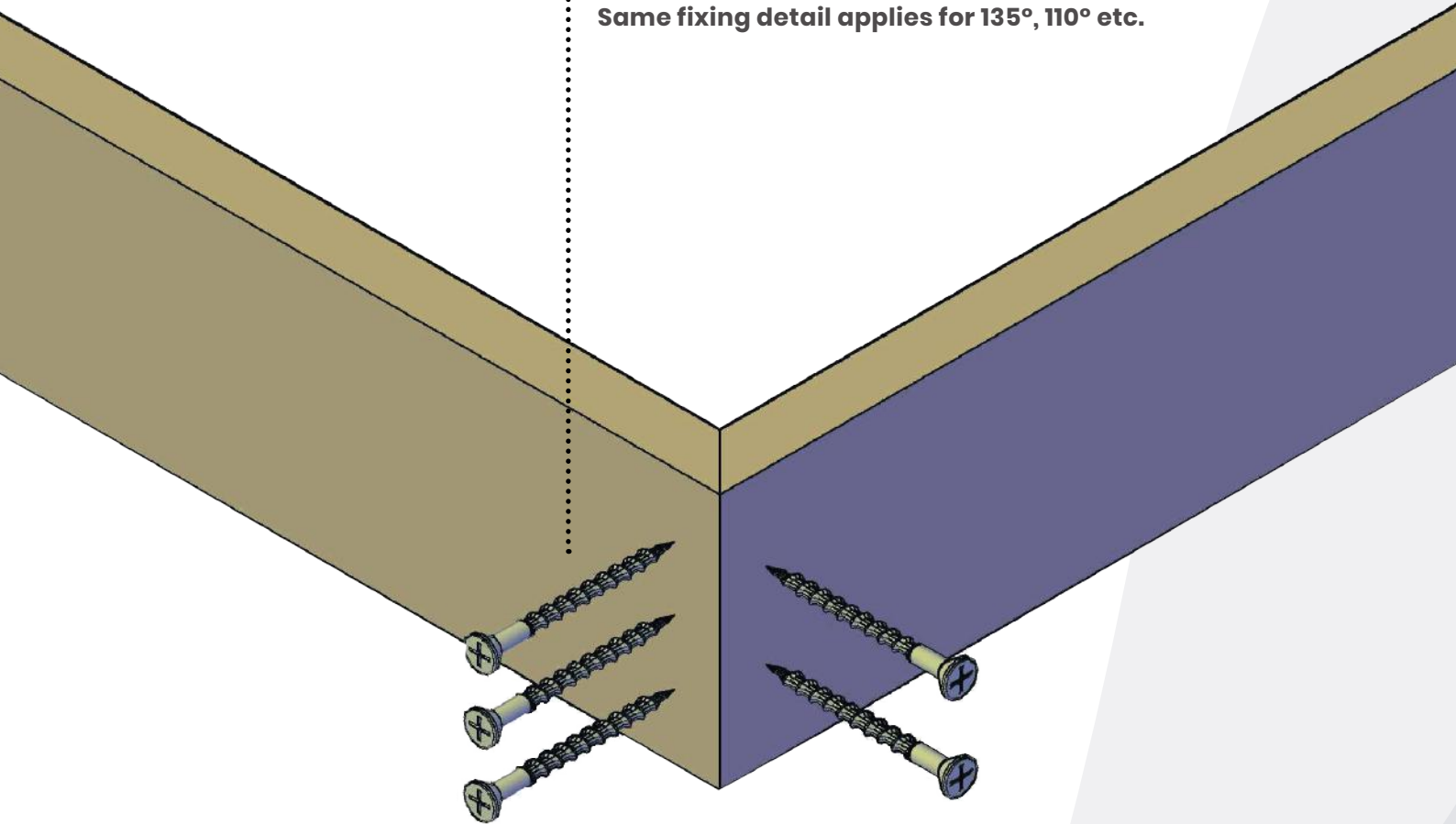
Fit the eaves to the top of the frames so the inside edge of the eaves is flush with the inside edge of the frame. Use M5 x 90 professional wood screws, fixing through the frame and into the eaves beam at MAX 500mm centres & MAX 150mm in from the ends of a single eaves.

Where eaves beams are longer than 5.3 Mtr, they must be jointed at 45 degrees (pre cut in the factory) and fixed to the frame either side of the joint, 100mm apart.

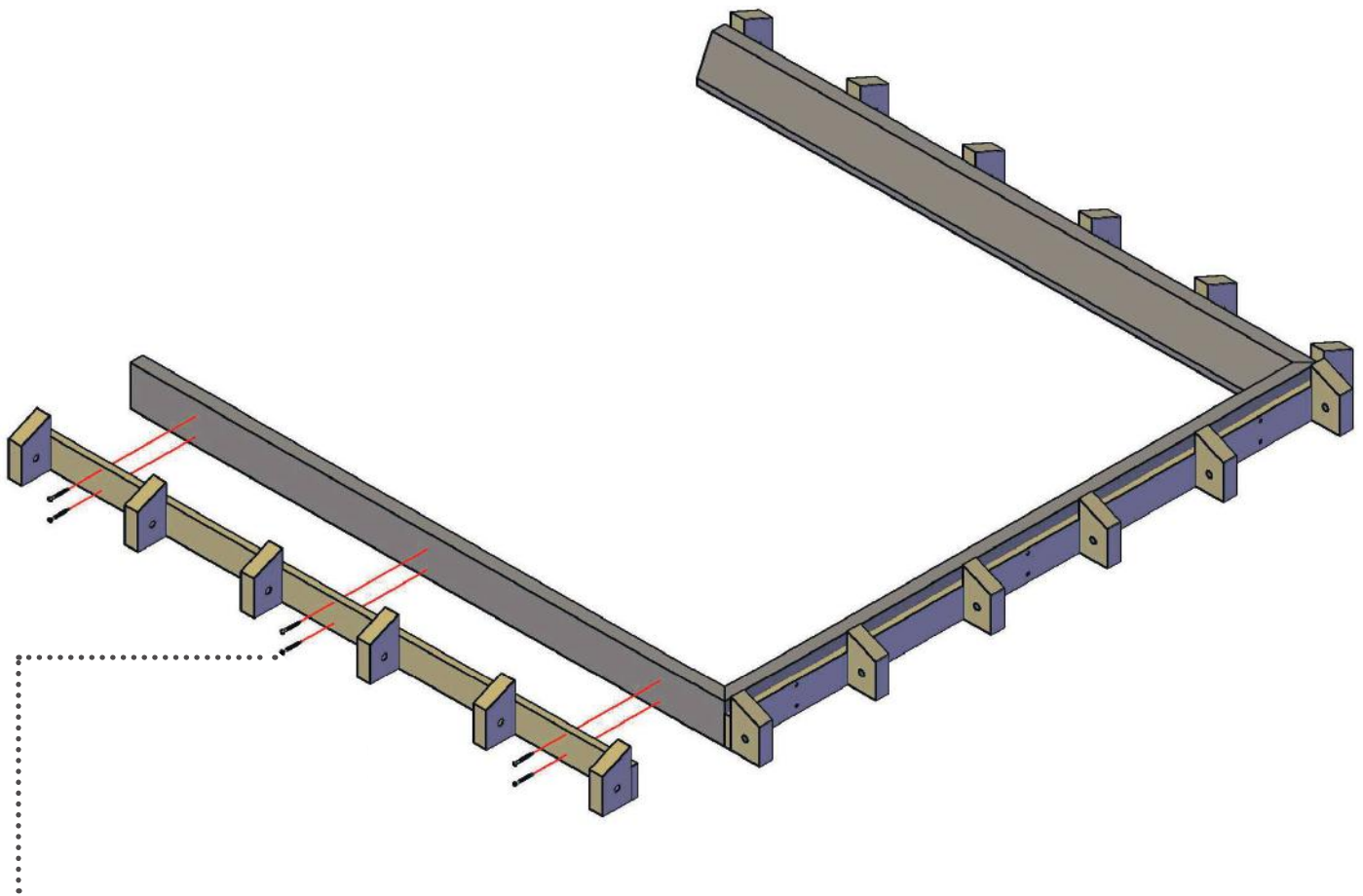
Eaves Beam Dovetail Fixing

..... Eaves beam to be dovetail screwed on every corner using M5 x 90mm professional wood screws supplied, 3 through one face and 2 through the opposite face 25mm from the external corner.

..... **Same fixing detail applies for 135°, 110° etc.**

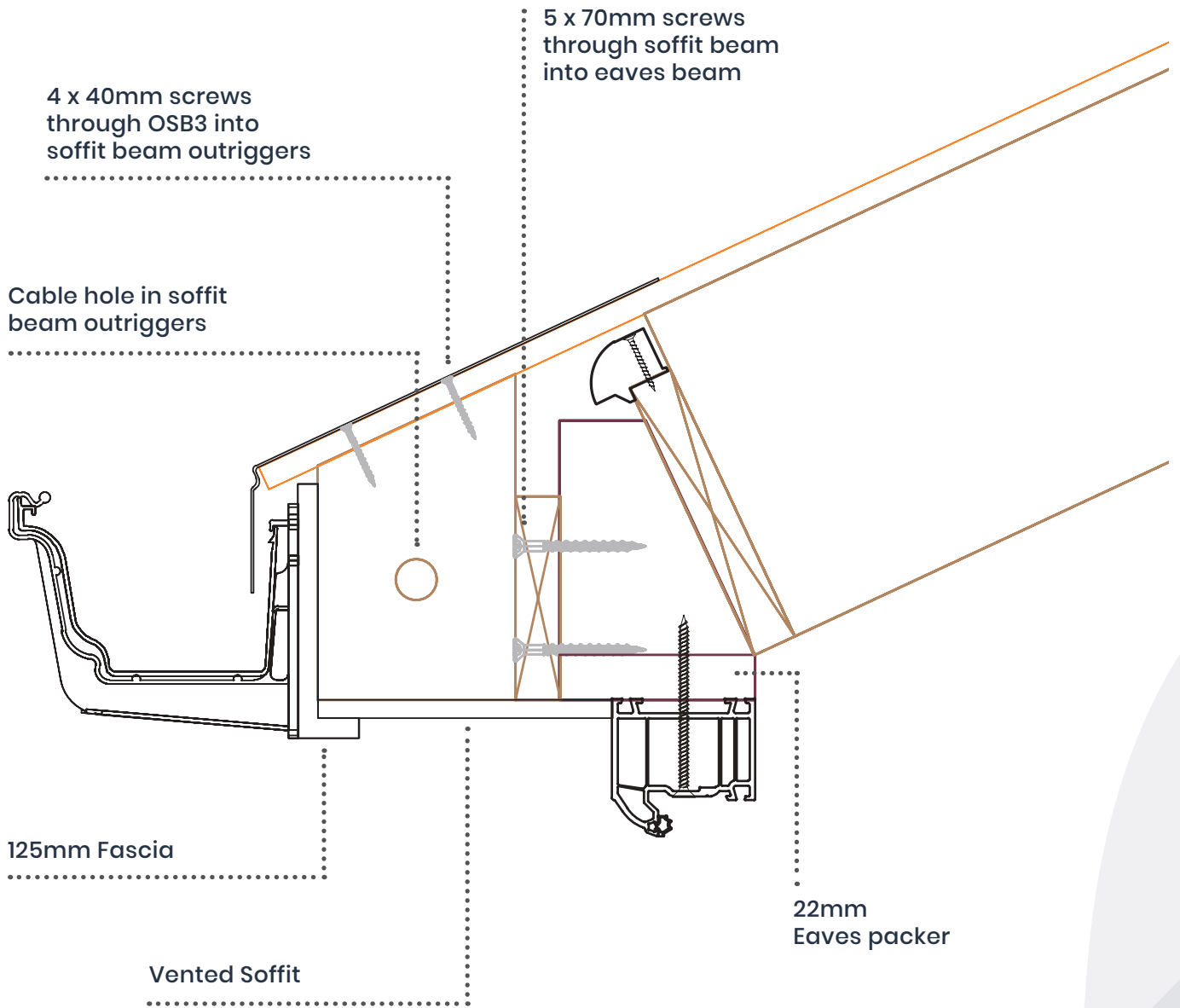


Soffit Fixing Detail (If Ordered)



Soffit Beam is supplied ready assembled and is the same length as the eaves beam.

Offer the beam up to the eaves flush with the bottom of the 22mm packer and screw every 800mm with 5 x 70mm screws. Provided with optional soffit (If Ordered).

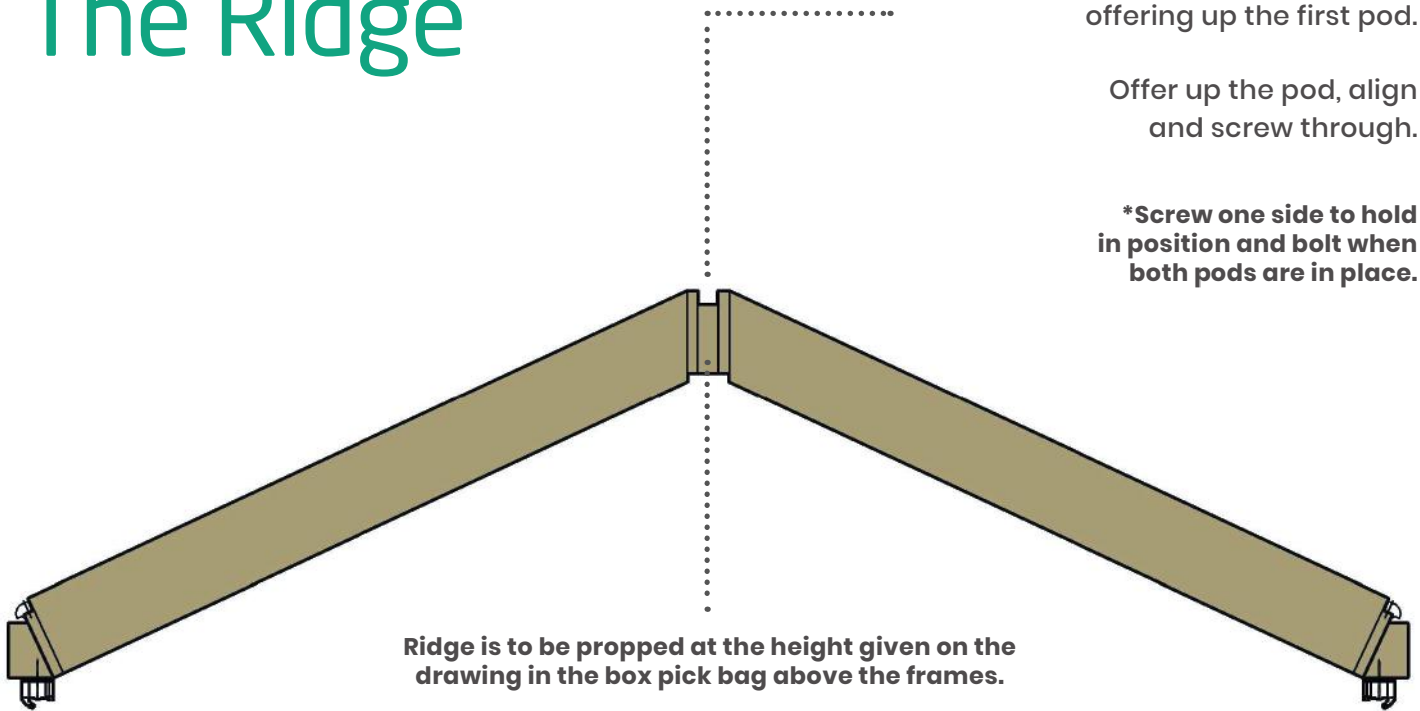


Setting The Ridge

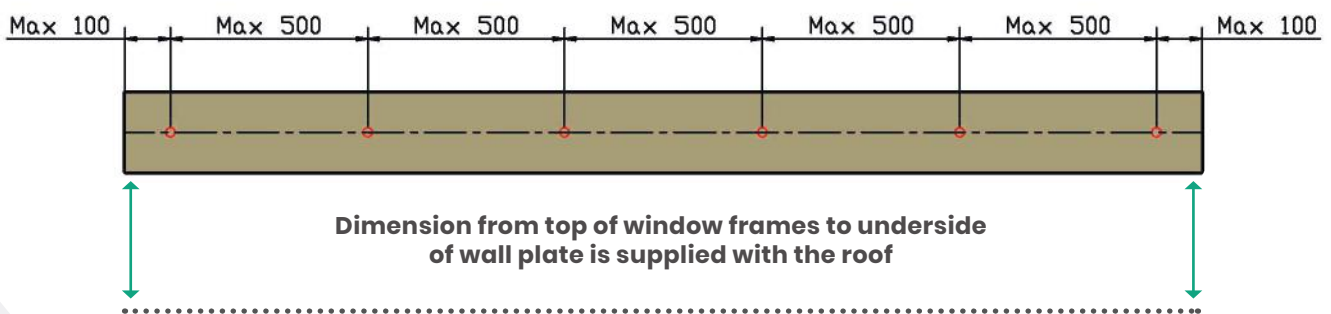
Ridge section to be propped at the height given on the drawing provided in box pick bag before offering up the first pod.

Offer up the pod, align and screw through.

***Screw one side to hold in position and bolt when both pods are in place.**



Wall Plate To Wall Fixing Detail

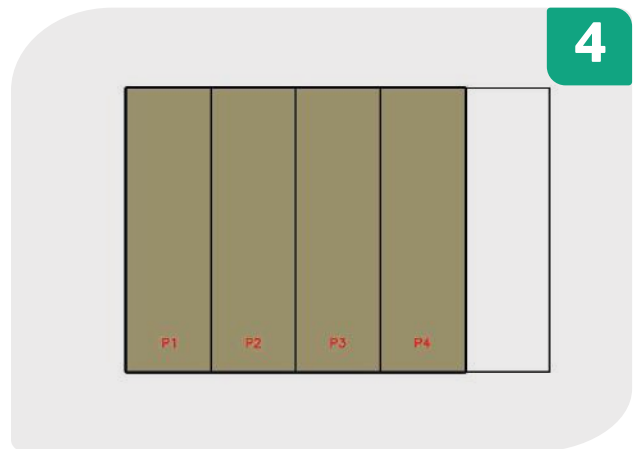
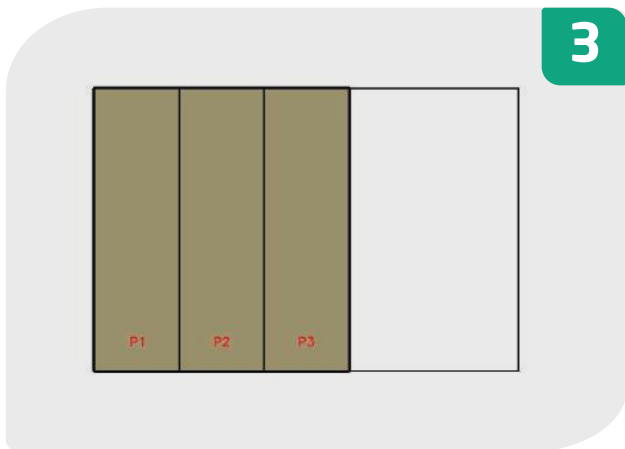
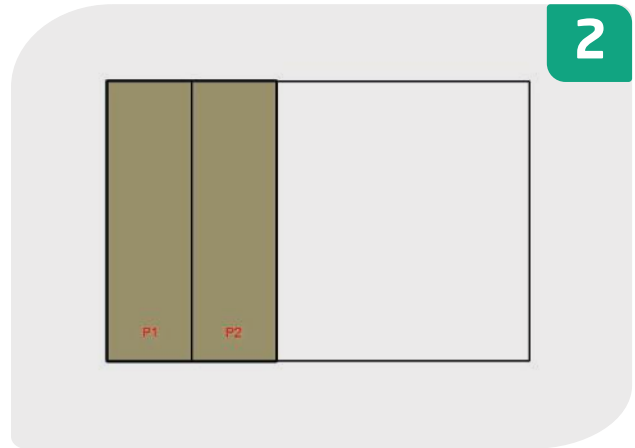
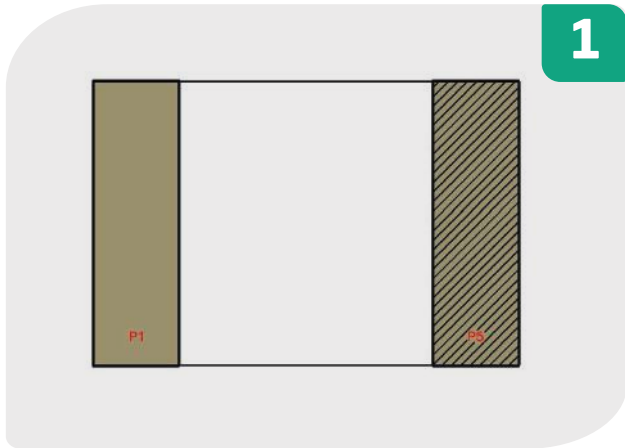


Concrete fixings through the wall plate 100mm in from either side and a max of 500mm centres.

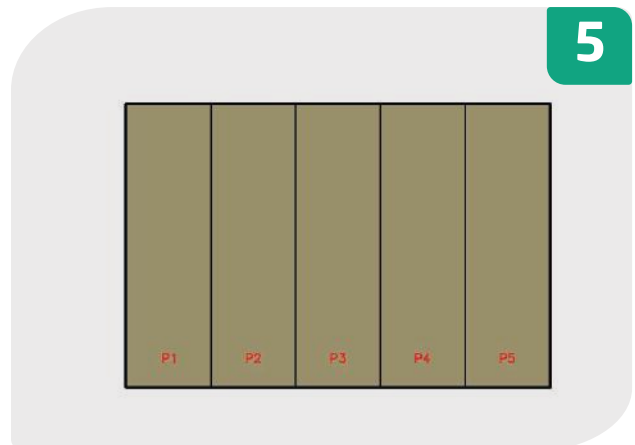
Please Note: Pack wall plate where necessary.

5. Lean-to Roof Style Pod Assembly Sequence

Temporarily fit the end pods to ensure the wall plate is parallel to the eaves. Pack the wall plate where necessary.

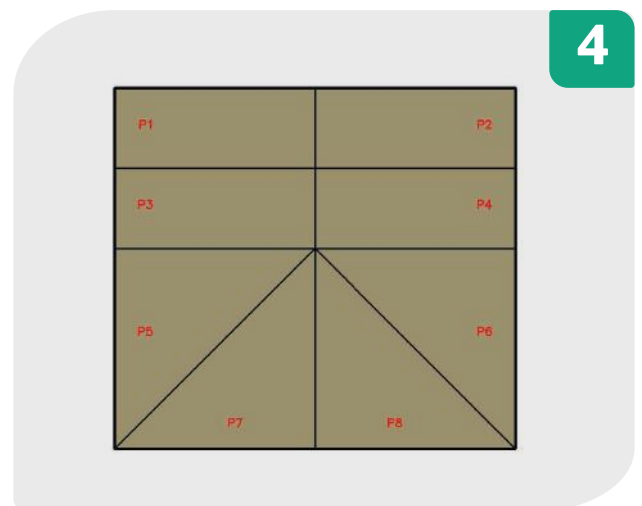
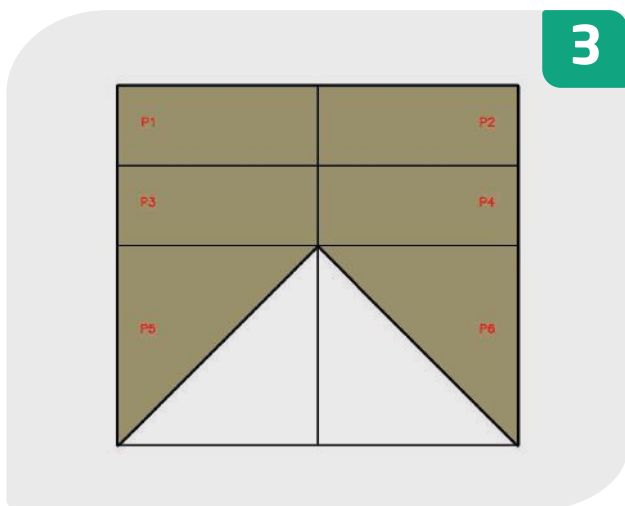
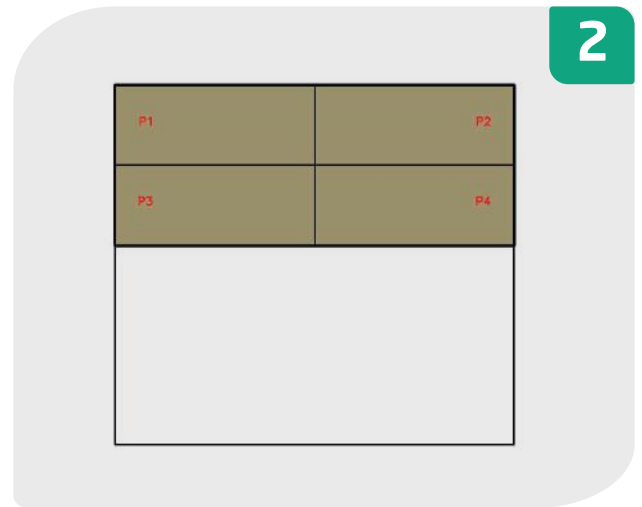
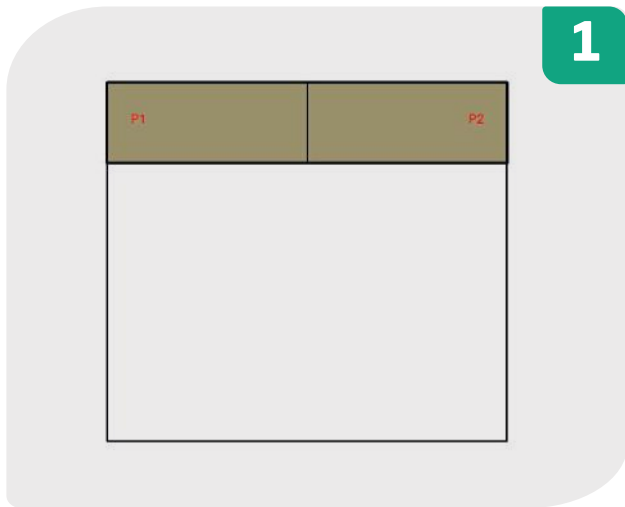


Once the eaves beam and wall plate have been fitted, follow this recommended pod assembly sequence for each pod before moving on to the next.



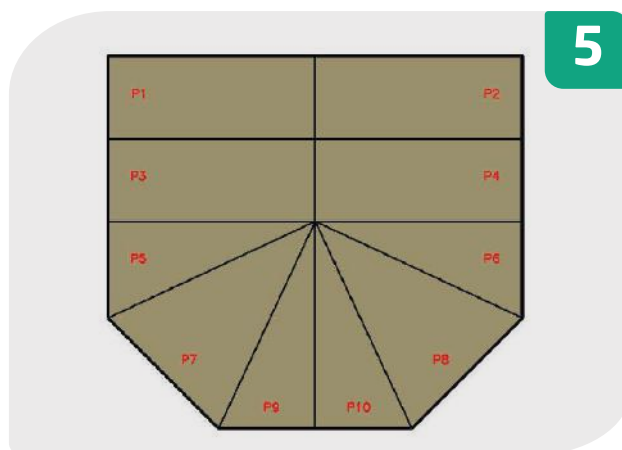
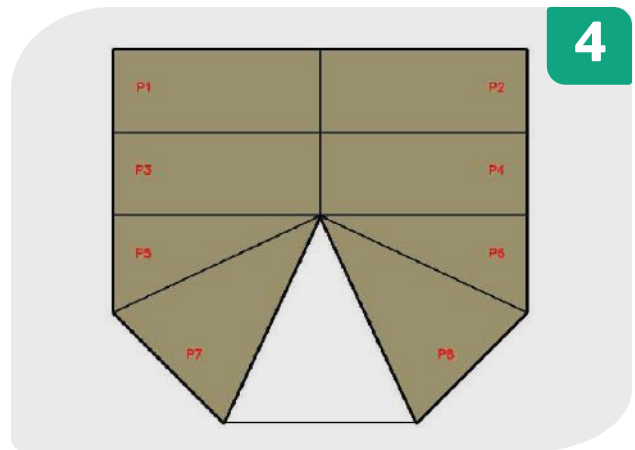
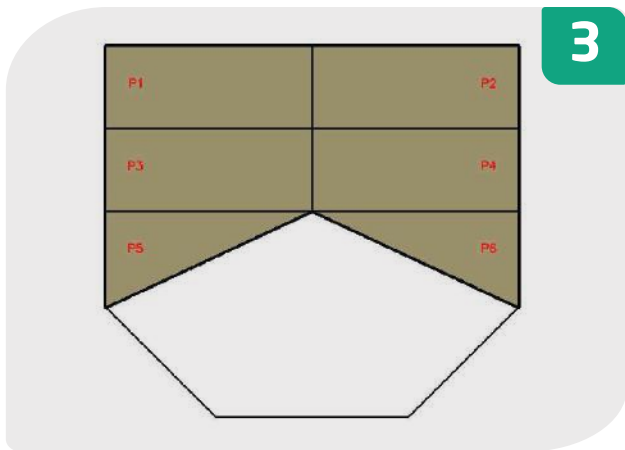
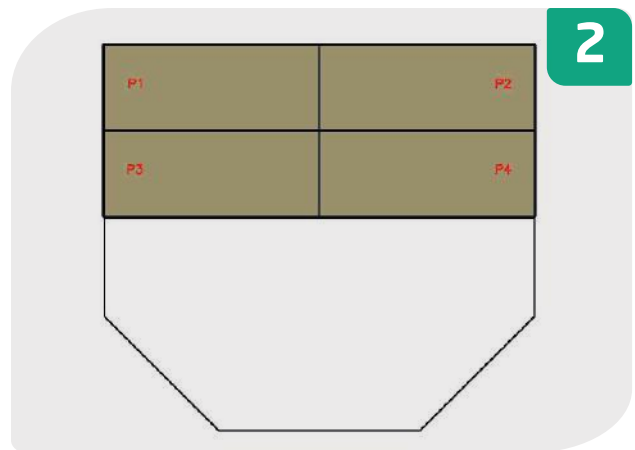
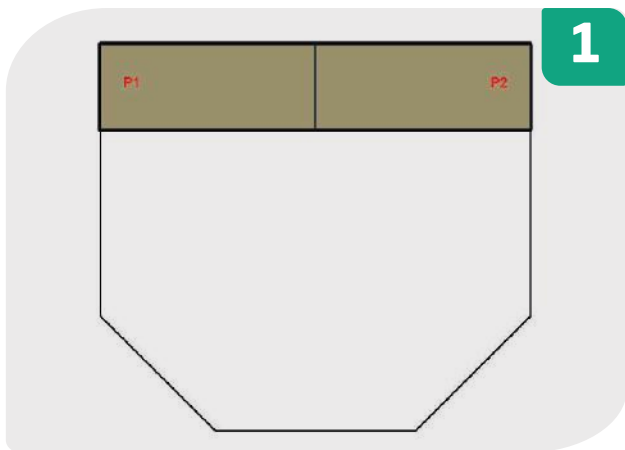
Edwardian Roof Style Pod Assembly Sequence

Once the eaves beam has been fitted follow the recommended pod assembly sequence below before moving on to the next pod.



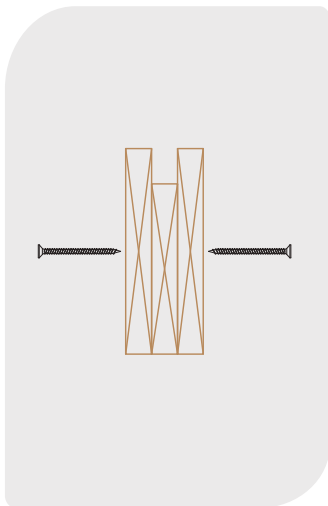
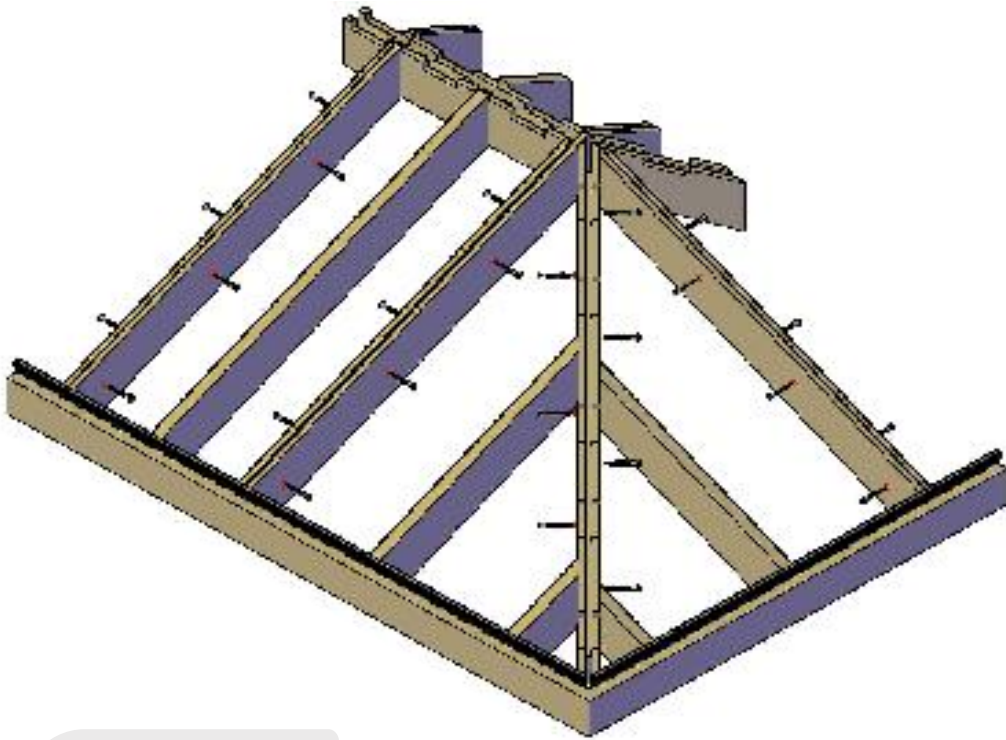
Victorian Roof Style Pod Assembly Sequence

Once the eaves beam has been fitted follow the recommended pod assembly sequence below before moving on to the next pod.



Pod Abutment Fixing Detail

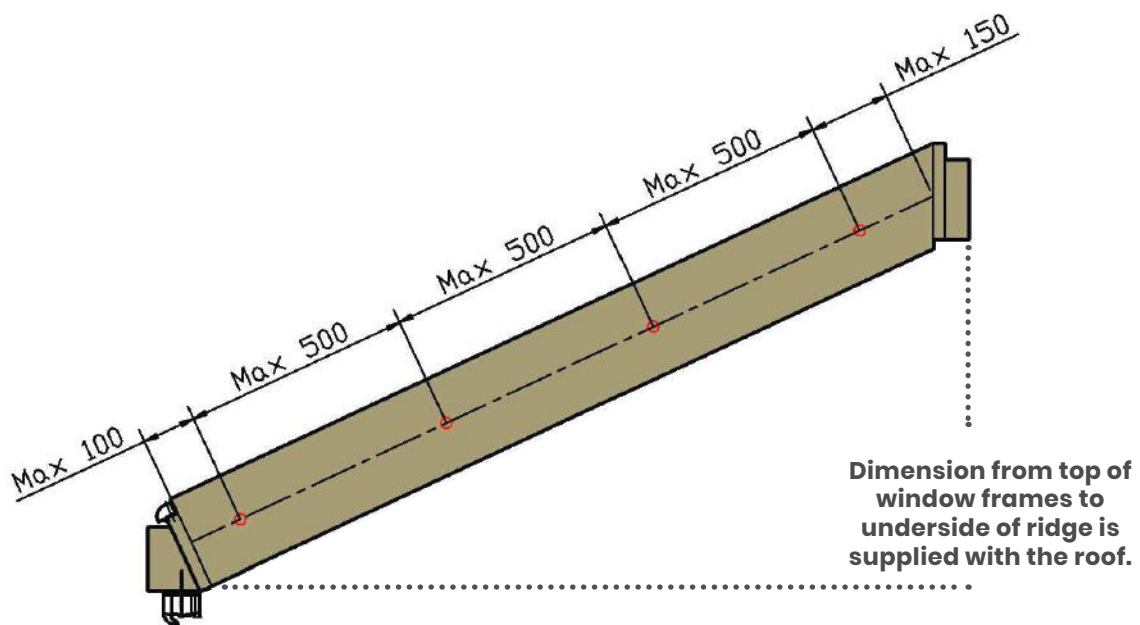
Screws should be staggered from one side to another through all joining pod rafters, hips & valleys. Maximum dimensions of 4.8M x 6.4M for Victorian style roofs.



Roof Size	Staggered Screw Centres
4.9M x 5.3M	250mm
5.4M x 6.4M	170mm

Wall Abutment Fixing Detail

Ridge section to be propped at the height given on the drawing provided in box pick bag before offering up the first pod. Offer up the pod at the ridge and screw through.

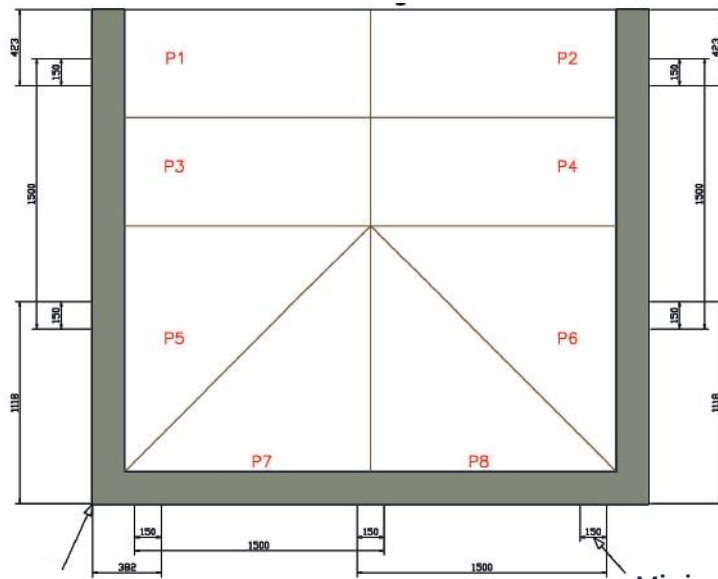


Important:
only fit to house wall after all the pods are up and fixed together.

Concrete fixings through the end rafter of the first pod, 100mm up from the bottom, 150mm from the top and a max of 500mm centres.

If you have selected the Icoview option, please go to Page 22 for the correct instructions.

Eaves Protector Fixing Detail

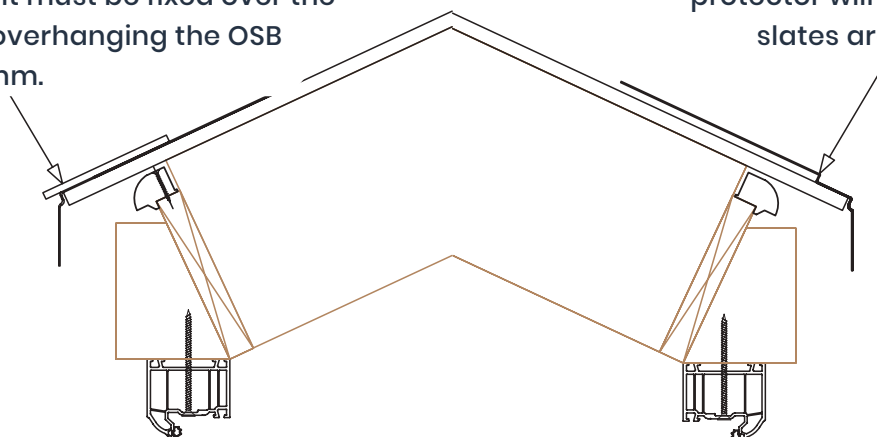


When continuing around a corner cut a diagonal in the top face of the eaves protector and bend around so the face protecting the eaves is continuous, staple in position and trim any over hanging parts.

Minimum of 150mm overlap where eaves protectors are joining.

65mm White Plastic Tile Starter is supplied for the steel tiles. It must be fixed over the eaves protector overhanging the OSB roof board by 15mm.

This bend in the eaves protector will flatten when the slates are screwed down.

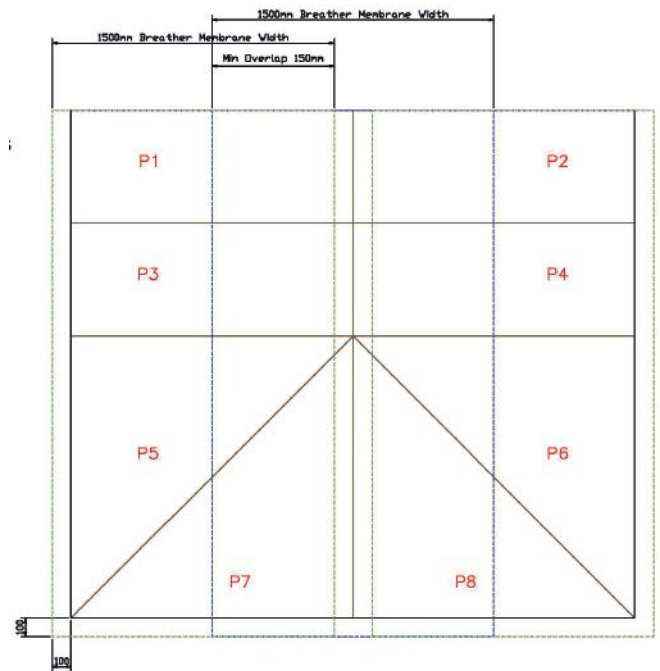


Icotile Section Showing Eaves Protector Position.

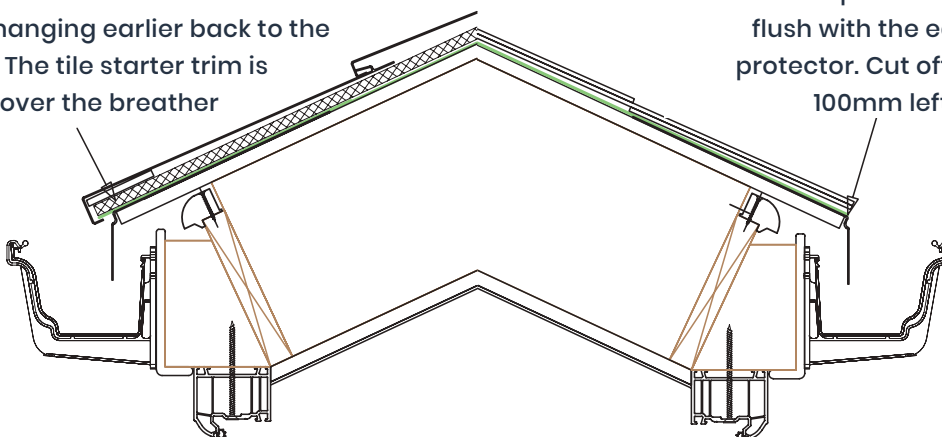
Icoslate Showing Eaves Protector Position.

Breather Membrane Application

1. Lay the first layer of Breather Membrane leaving no less than 100mm overhang around the edges and no less than 100mm up the abutment wall and staple to the roof.
2. Lay the second layer in the same way, overlapping the first layer and/or ridge no less than 150mm, staple in position.
3. Repeat until roof is covered, making sure that the layer above is always overlapping the layer below to allow any water/moisture to run down and over the membrane and off the roof.
4. There is no need to double up the Breather Membrane on the hips as this could reduce the performance of the roof.
5. If Icotile is being used then the drainage mat must be put over the breather in a similar way but does not need overlapping and can be pieced together.



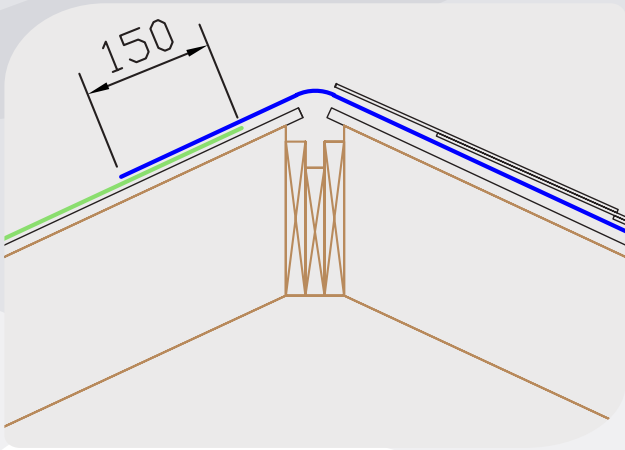
Breather Membrane covers the roof board and eaves protector. Trim the excess from the 100mm left overhanging earlier back to the eaves protector. The tile starter trim is then fixed down over the breather and drainage mat the first tile then hooks over the starter trim.



Icotile Section Showing Breather Membrane.

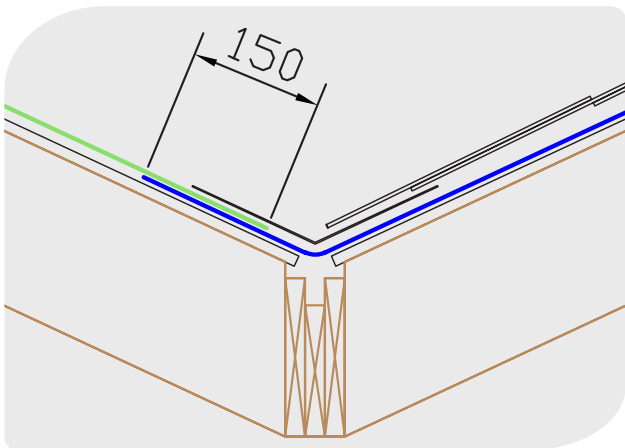
Breather Membrane covers the roof board and eaves protector, the first tile is fitted flush with the edge of the ply / eaves protector. Cut off any excess from the 100mm left overhanging earlier.

Icoslate Section Showing Breather Membrane.



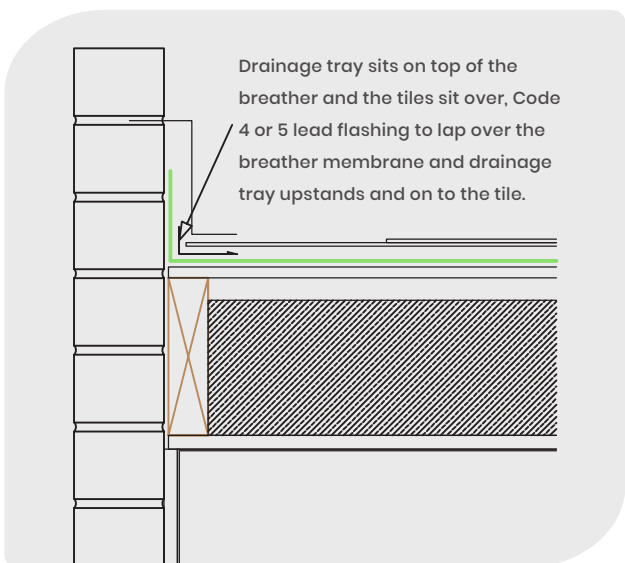
Ridges & Hips

- Lay Breather Membrane over the ridge / hip by no less than 150mm.
- Tile to be cut level with the top of the plywood roof board.



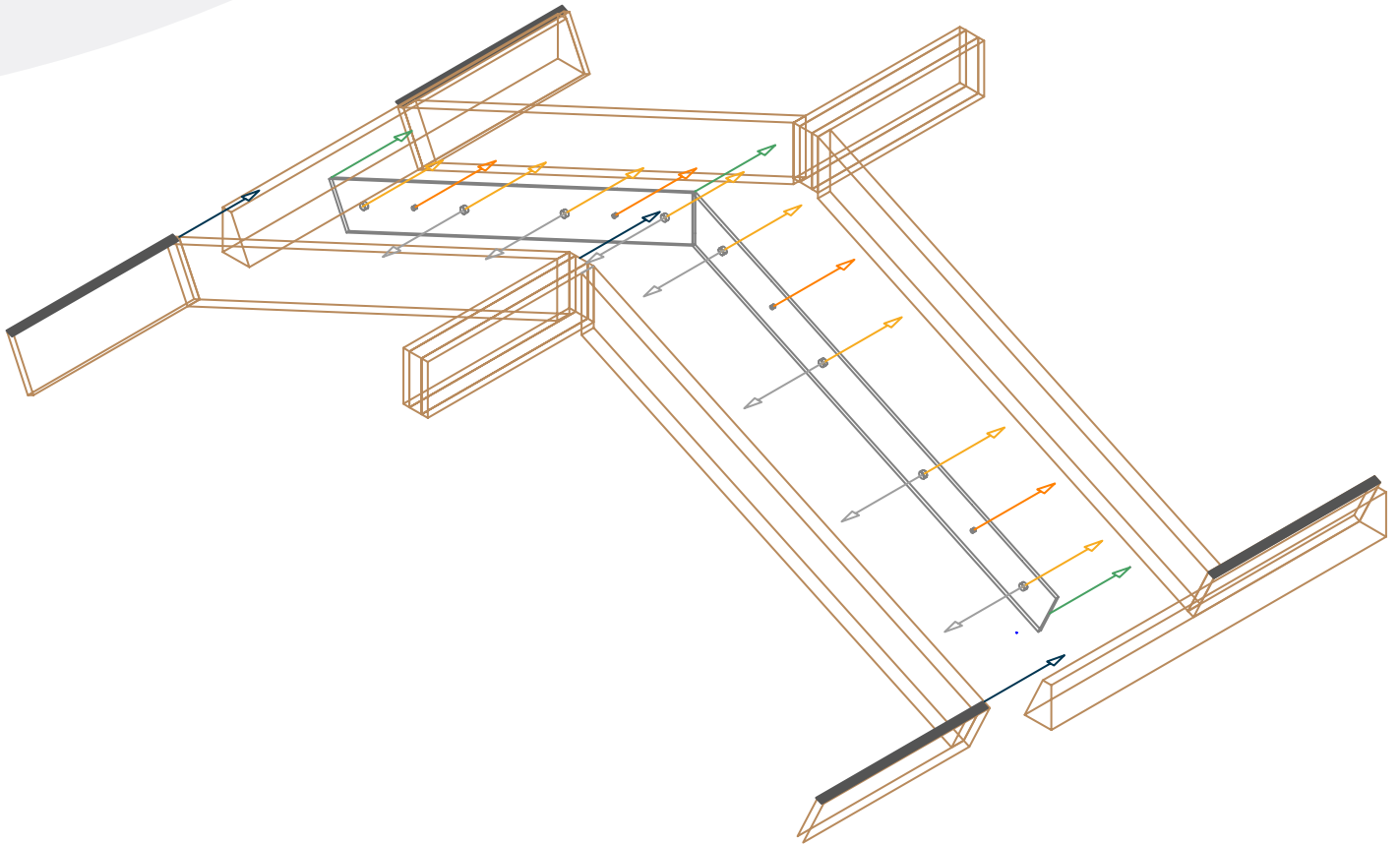
Valleys with valley tray

- Lay Breather Membrane running in and out of the valley overlapping by no less than 150mm where necessary.
- Fit the valley tray over the Breather Membrane and overlap the valley trays by no less than 150mm if needed. Valley tray to be fixed in position on the outer most edges.
- Ensure the tile is no less than 100mm over the valley tray.



Abutments

- Turn Breather Membrane up against abutment wall by no less than 100mm.
- Fit drainage channel over the Breather
- Membrane trapping it between the roof board and abutment wall.
- Tile over the drainage channel being careful not to screw through it.
- Fix lead flashing Code 4 or 5, in accordance with current Codes of Practice & manufacturers recommendations.

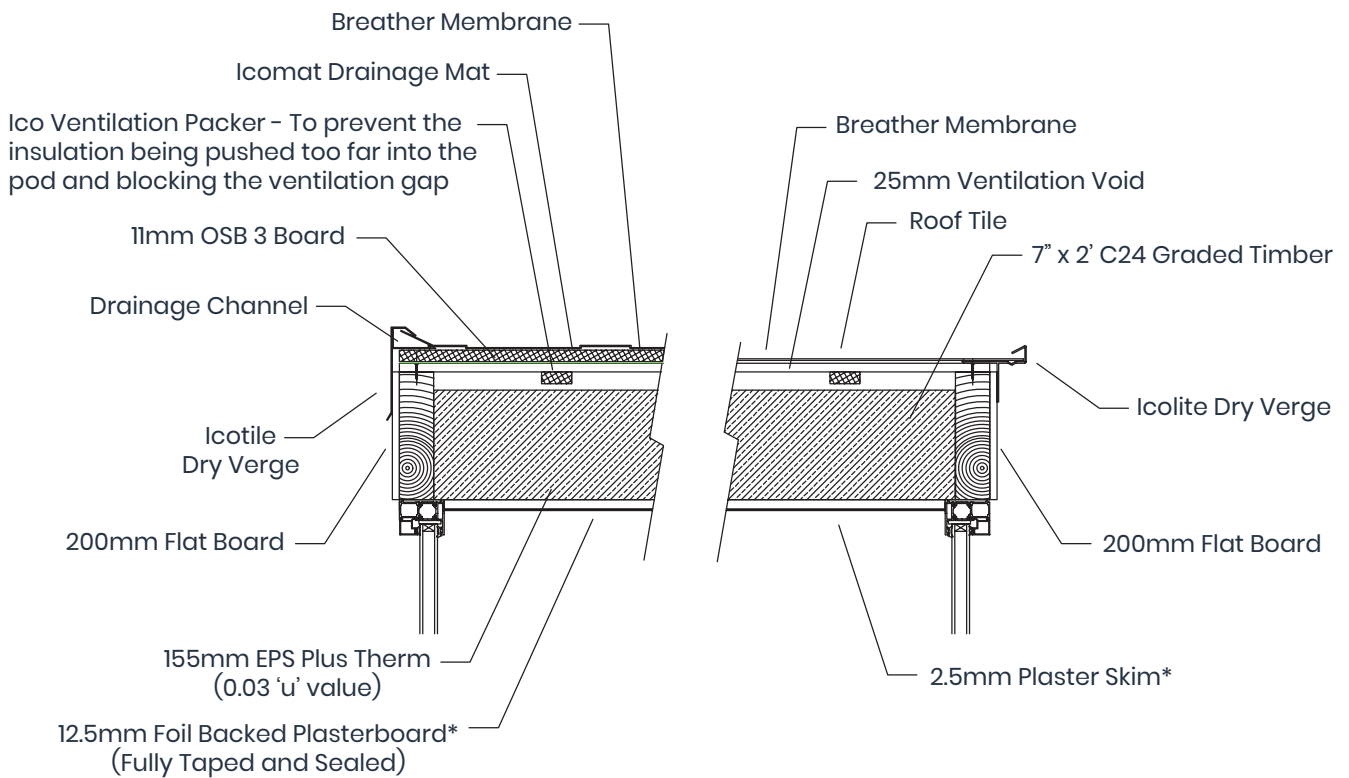


Steel Boomerang

- 1.** Offer up the welded steel boomerang so it is central to the pod rafter.
- 2.** Hold in position and screw in place through the pre drilled 5mm holes.
- 3.** Drill through the 13mm pre drilled holes and through the rafter the steel is screwed too.
- 4.** Fit the next pod so it is tight up to the steel and screw in position at the eaves.
- 5.** Drill through the 13mm holes so you can bolt through the pods, sandwiching the steel between the pods.

Insulation

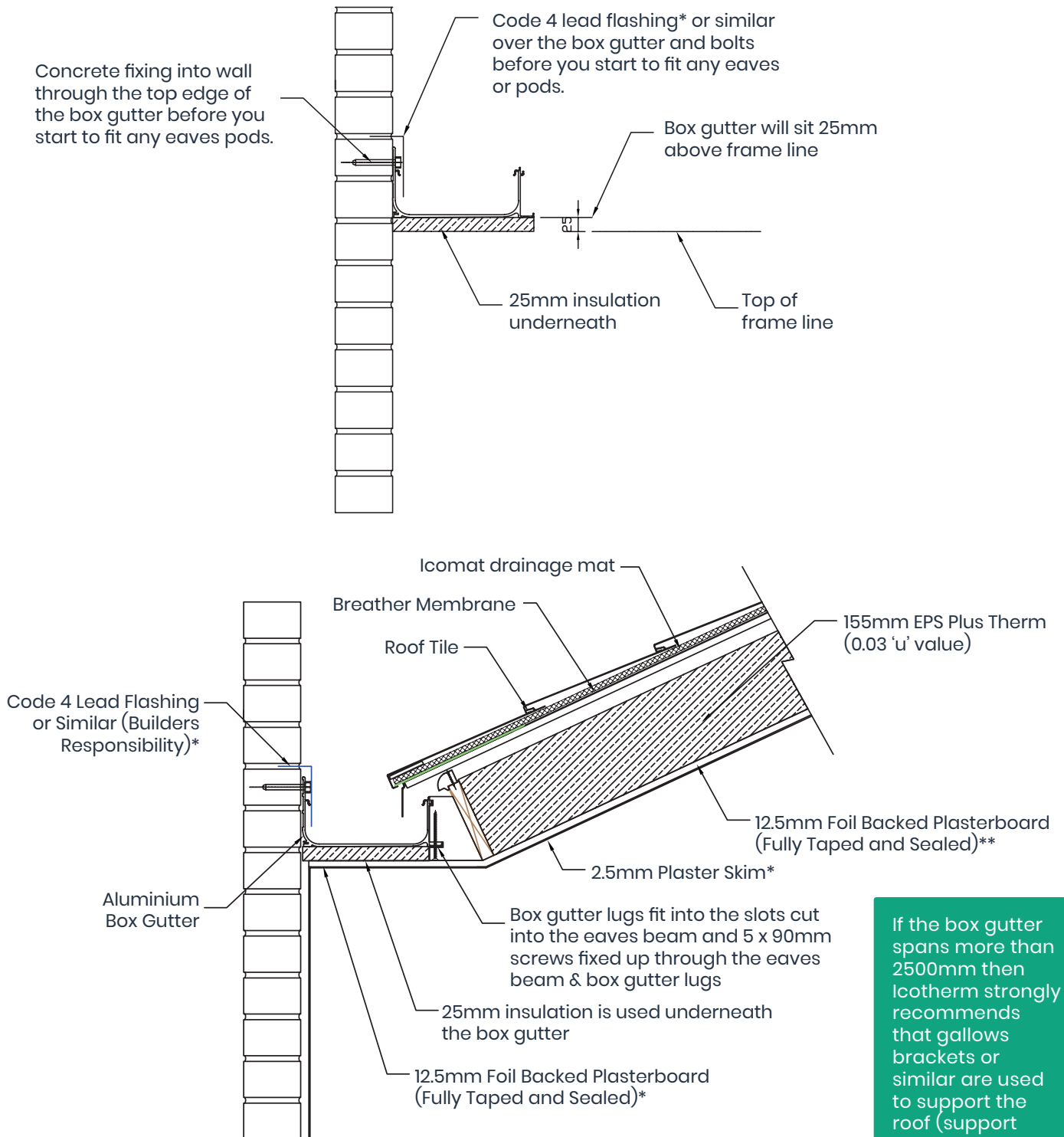
Void must not be obstructed.



EPS board to be fitted flush with the bottom of the timber rafters.

NB. All EPS board should be tight. Any gaps to be filled with foam, being careful not to overfill and obstruct the ventilation gap.

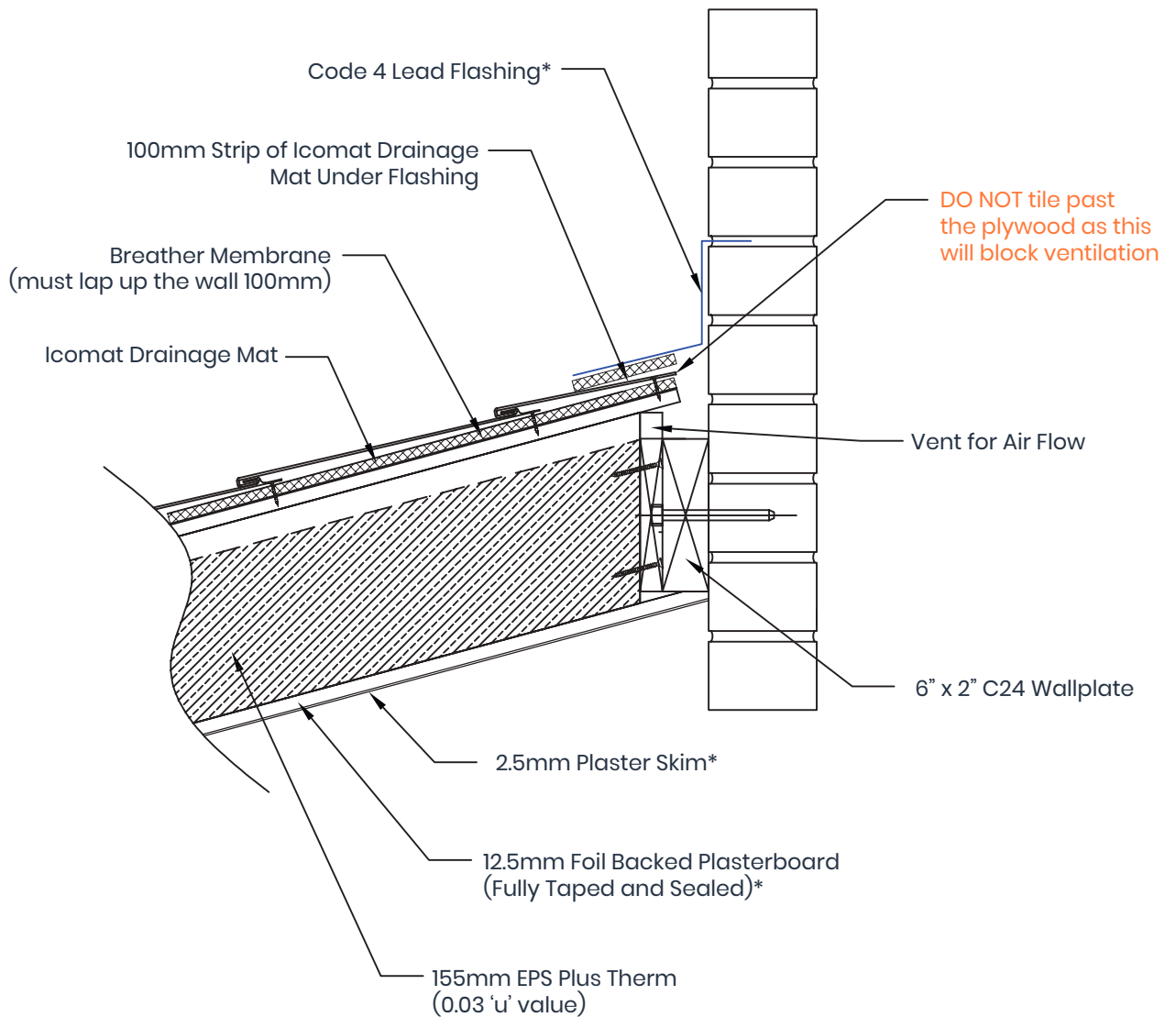
Box Gutter Detail



If the box gutter spans more than 2500mm then Icotherm strongly recommends that gallow brackets or similar are used to support the roof (support is the builder's responsibility).

*Not supplied with the roof.

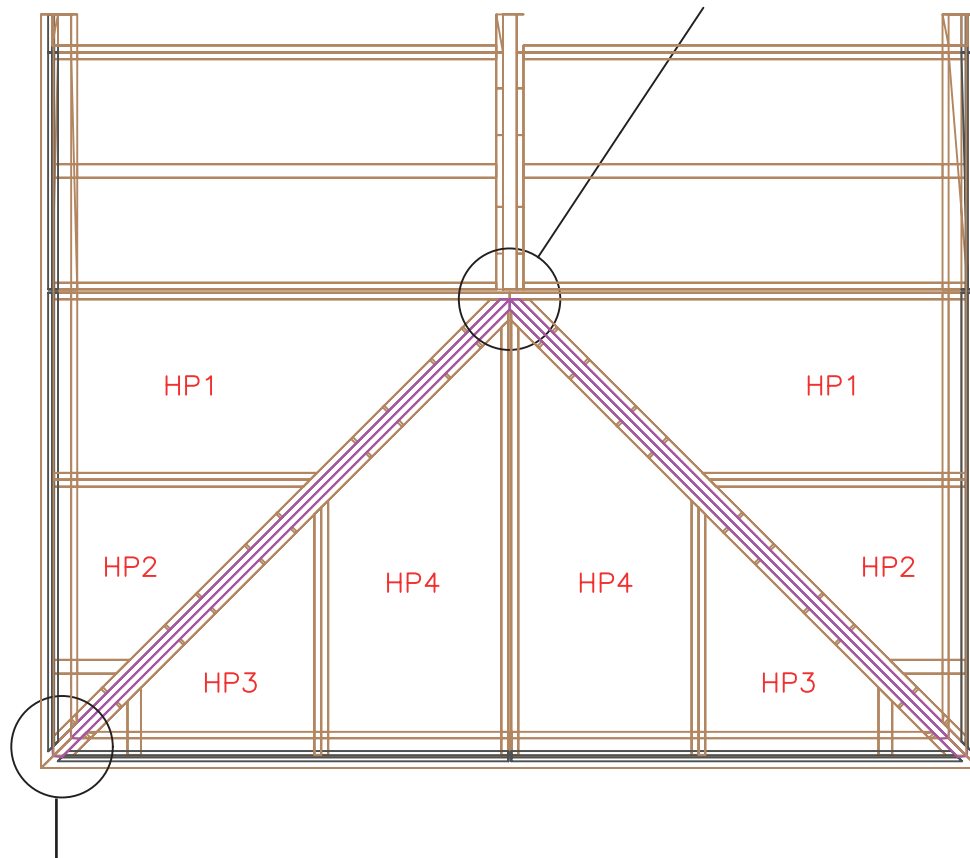
Lean-to Vented Ridge Finishing Detail



Solid Hips

Once the rectangles are up and bolted in position you must fit HP1 on both sides before you fit the solid hip. This will give you the correct position to set the solid hips. Tack both to pod HP1 with 5 x 70mm screws supplied, screw top and bottom as indicated below. Install the remaining pods in this order - HP2, HP3 & HP4. Once all the pods are in place you can bolt through the entire hip assembly with the M10 X 130mm bolts supplied.

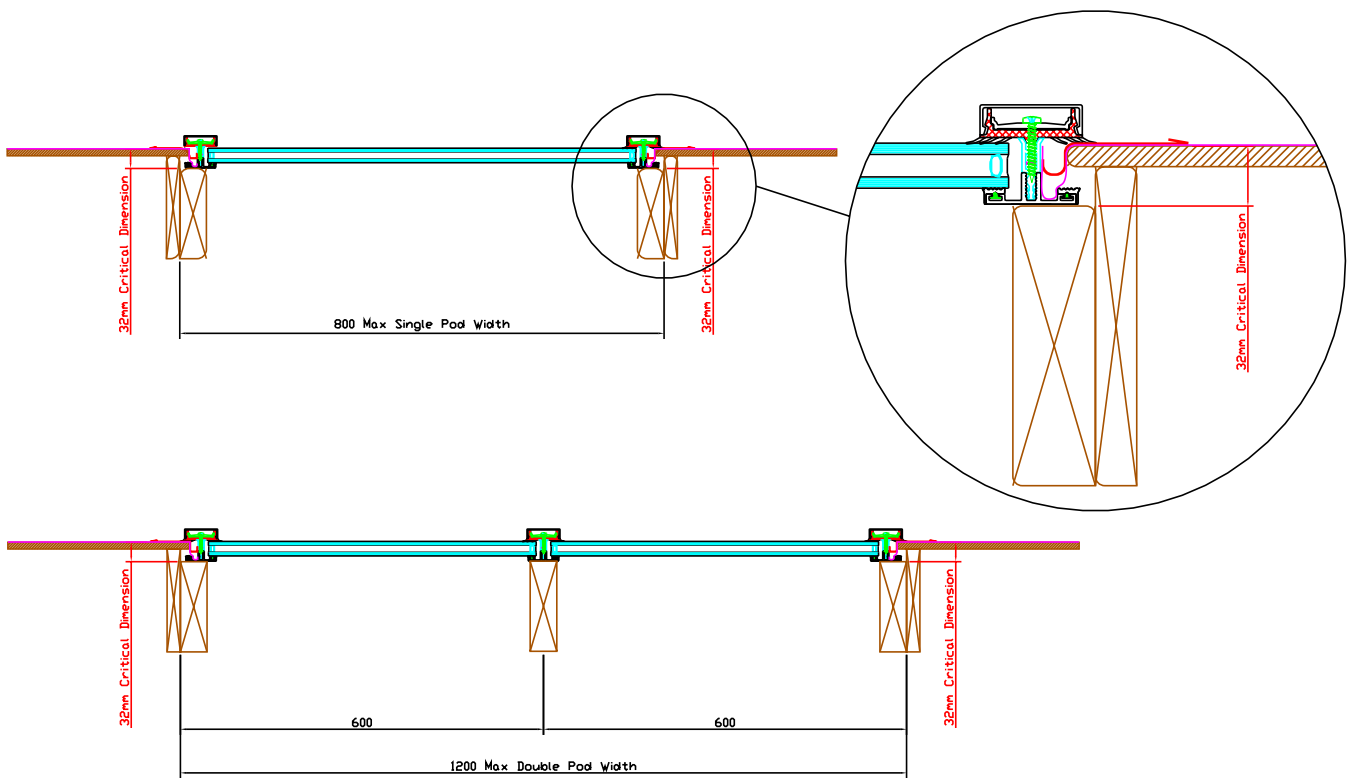
Top of the solid hips fit tight up to the ridge point rafter and should be fixed by screwing through the solid hips and into the ridge point rafters and ridge using 5 x 90mm screws supplied.



Bottom of the solid hips fit tight up to the internal corner of the eaves, you should fix them by screwing through the front of the eaves and into the solid hips using 5 x 90mm screws supplied.

Icoveview Pod Fitting Detail

The Icoveview pod comes fully built with the glazing bars fitted (unglazed). Fit the pod so that top of the IcoView timber rafter is exactly 32mm from the top of the adjacent standard pod's bare OSB. This will ensure that the tiles run in line with the finishing top cap when complete.



Glazing

Fit the glass so that the end of the double glazed unit (with the widest blacked out area) is at the bottom. Wet the gasket and slide the glass unit into place, temporarily fit the rafter glass stops.

Insert the IcoView Drain channel over the OSB and breather membrane and put the gasket pressure bar in place over the channel and glass, with the V guide locating into the rafter bar V slot (see diagram).

Screw the metal spreader plates where the holes are in the pressure bar, using a low torque setting on your driver to avoid over tightening and distort the gasket on the glass.

Knock the powder coated top caps down and remove the rafter glass stops so you can begin tiling.

Tiling

Start from the IcoView pod top caps outwards. The tiles should be set approximately 3mm away from your top cap to allow water to trickle into the drain channel. The tiles should overhang at the eaves to be inline with the end of the rafter bar.

Once the area around the front of the Icoview pod is tiled re-fit the rafter glass stop which caps the end of the tile as well as the glass.

Ridge Caps

Ridge caps are fitted in exactly the same way as a standard Icotherm roof, with the addition of 2 strips of comriband at the top of the glass unit, above the blacked- out glass.

This weatherproofs the gap between the glass and the underside of the tile or tile batton.

Note: Dual Icoview pods come fully built with an engineered timber to support the central glazing bar and is fitted in exactly the same way.



For more information on this guide,
please call our team on **01204 773 040**

Icotherm Roof Systems

Trading name of Iconservatories Limited

Units 8 & 9, Hurstwood Court, Mercer Way,
Shadsworth Business Park, Blackburn, BB1 2QU

www.icotherm.co.uk