



The SSQ Weather Pro Roofing System **INSTALLATION GUIDE**



EXCLUSIVELY **NATURAL SLATE**

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Advantages

- Quick and easy to install
- As low as 12.5° pitch
- 50% less slate required
- Lightweight at only 19.7 kg / m²
- Fire rated
- High performance
- 20% less batten

Accreditation

Building Research Establishment (BRE)

Weather resistance tested:

Wind driven rain test to PD CEN/TR
15601:2012 18th May 2021

Fire rated: B_{roof}(t4) classification to BS
EN 13501-5





Site Safety

In all cases ensure a safe working environment. Site health and safety measures must be properly adhered to.

- Ensure a safe working at height platform is established prior to commencing work.
- Personal protective equipment must always be worn.
- Consideration should always be given when using the SSQ weather pro in weather conditions where the wind might lift the product into the air or destabilise

Storage

The SSQ weather pro is lightweight and must be stored flat and out of direct sunlight. SSQ weather pro must be secured to a stable area or platform or where it cannot be blown into the air by strong winds. Natural slates are very heavy when palletised and must be stored on a flat, even surface to avoid toppling over.

Requirements

The SSQ weather pro roofing system must be installed in accordance with this installation guide using only high quality SSQ products, including all fixtures and fittings provided.



Single lap slate system designed for installation on standard 50mm x 25mm roofing battens in the open roofing method.

SSQ weather pro 'P' type is a single lap slate system for installation in the fully boarded application such as warm roofs or Scottish practice. These alternative instructions can be found from page 14 onwards.

The SSQ weather pro roofing system allows natural slates to be installed in the single lap format (in a similar way tiles are installed) therefore eaves or ridge cut slates are not required. However, because the slates should be installed in the broken bond format (staggered vertical joints) the wider slate and halves must be used at the verge and in the valley and hips to avoid the use of slates smaller than 150mm in width.

- The SSQ weather pro GRP plate is a waterproofing system therefore, all gaps and holes must be properly sealed using a polyurethane mastic or lead flashing.
- Install in line with current British standards.

Eaves

- When installing roofing products at a roof pitch below 17.5° degrees the eaves tray cannot be allowed to rise upwards as it sits over the fascia which can create 'ponding'.

Fixing

- Slates should be fixed using 80mm 316 grade stainless steel spiked slate hooks.
- All of the slates installed at the perimeters and abutments should be twice mechanically fixed two courses in using a combination of SlateFix screws and in addition to slate hooks.

Roof Ventilation

The roof ventilation requirements should be established prior to the commencement of works and the fascia height set accordingly. Guidance on roof ventilation should always be sought from the appropriate roof

designer/architect. When used in conjunction with a vapour permeable roofing membrane, the area above the membrane and below the SSQ weather pro should be properly ventilated at the eaves and at the ridge.

Batten Gauge

Position the top of the first batten 250mm up from the outside edge of the fascia board. Add a second double batten below to accommodate fixings on the eaves course.

With consideration to the dry ridge system, the top batten should be positioned a minimum of 40mm down from the very apex of the rafters/truss.

The distance from the first batten to the second batten should be fixed at 220mm to allow for adequate headlap on the eaves course.

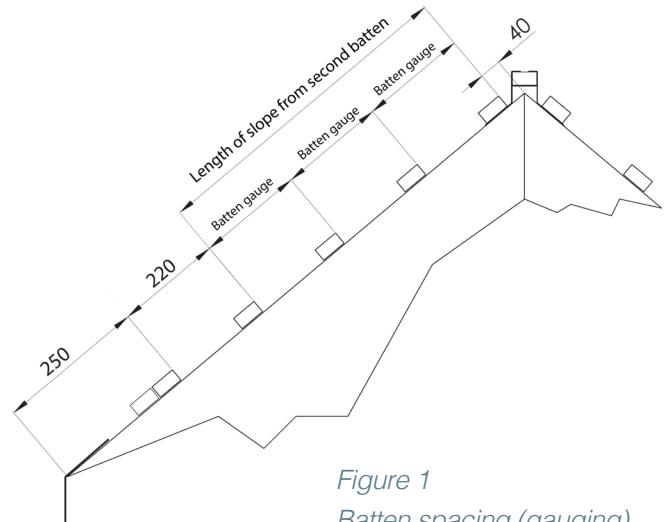


Figure 1
Batten spacing (gauging)

Batten Gauge Formula

The batten gauge is typically 240mm but should vary depending on the rafter length and must be calculated accordingly as follows:

Length of slope from second batten / 240 = number of courses (rounded to the nearest whole number)

Length of slope from second batten / number of courses = batten gauge

For example,

4896 / 240 = 20.4 - round off to the nearest whole number = 20 courses

4896 / 20 courses = 245 batten gauge

Membrane

SSQ weather pro can be used with a non-breathable membrane. Breathable membranes require ventilation at the eaves and ridge.

Unroll the roofing membrane over the rafters for the width of the roof. The membrane should be pulled into position and released prior to fixing so that the membrane is sufficiently draped across the rafters, allowing for a 10mm gap beneath the batten to ensure adequate water run off.

Position the lower edge along the line of the fascia and on top of the double-sided tape on the EPS, remove the tape backing.

When installing the valley, a runner strip of membrane should be first dressed up the line of the valley and lateral rolls of membrane dressed into the valley.

Valley runner battens should be installed equidistant on either side of the valley trough so that the valley outer flanges sit neatly on and between them. Remove the section of the fascia between the runner battens so that the valley can pass through the fascia and discharge into the guttering. Cut a 'V' into the end of the valley that follows the internal roof corner.

Insert the valley trough between the runner battens and pin into position by fixing through the outer flange only and into the runner batten, use no more than 25mm long valley flange fixings, as the fixings should not go through the membrane. Fixing should be spaced at approximately 500mm centres.



Eaves Above 17.5°

Because the first course of slates does not rest on a lower course of slates, the highest point of the fascia board or vent should be 7mm higher than the top of the battens so that the toe of the slates do not 'tip forward.' An even line of the slates should be maintained over the whole roof; the toe of the slates should not point downwards.

When installing a roof above 17.5 degrees the eaves protection system (EPS) or eaves tray should be installed in the usual manner, on top of the fascia or over fascia vent (OFV).

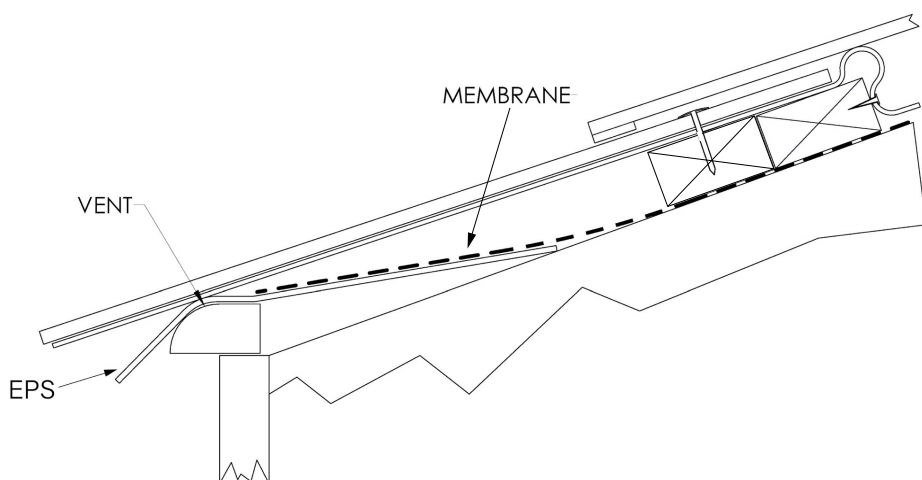


Figure 2a
Eaves tray installed on a roof
above 17.5°



Vent



Vent



EPS over vent

Eaves Below 17.5°

When installing a roof below 17.5° the inside edge of the fascia or vent should be level with the top of the batten. An eaves tray (EPS) should be installed directly onto the

rafter. An over fascia vent is then fitted directly on top of the front edge of the EPS and secured into position by screwing through the vent and EPS into the fascia board.

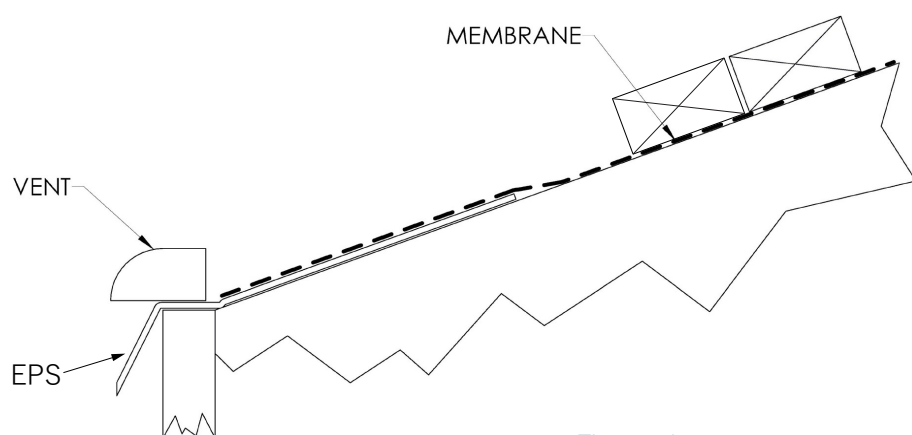


Figure 2b
Eaves tray installed on a roof
below 17.5°

Eaves Protection System

Securely fix through the top section of the EPS into position on the rafters. Lengths of the EPS/starter trim should be lap joined on top of a supporting rafter. Apply the double-sided tape along the lower edge of the EPS.

Ridge Batten

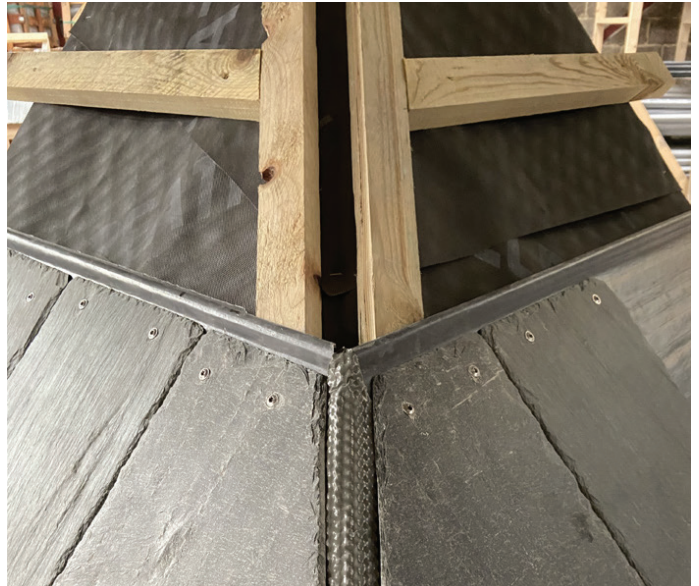
If a vented ridge is required, the membrane should be cut along the centre line of the ridge to make an air gap of at least 10mm.

Fix the ridge runner brackets over the rafters or truss. Fit the timber runner batten into the brackets.



Hip Battens

Hip runner battens should also be fitted to either side of the central batten to ensure that mitred battens and cut slates are securely double fixed. Cut slates can be re-drilled to ensure a double fixing.



Insect mesh

Installation of SSQ Weather Pro

Install the first length of SSQ weather pro by hooking the SSQ weather pro over the top edge of the first batten.



An optional fixing can be applied by fixing through SSQ weather pro into the top edge of the batten so as to hold the plate in place whilst working (see fig 3).

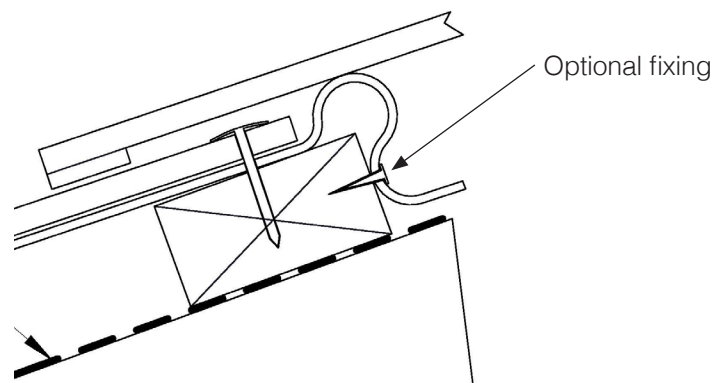


Figure 3
Optional fixing through the top of SSQ weather pro

The SSQ weather pro must always be side lapped by at least 50mm. Ensure the lap is clean, dry and free from dust. Remove the protection tape from the self-adhesive side strip and press the side lap join firmly together to ensure a permanent seal. Joins in the SSQ weather pro must always be properly sealed.

In unusual circumstances a good quality polyurethane adhesive may also be used to seal joins or damage in the SSQ weather pro. Offcuts at the end of a course can be carried to start off the next course to eliminate waste and to 'carry over' the pre-applied adhesive tape. Ensure that the lap tape is always used to seal the lap.

PLEASE NOTE: SSQ weather pro side lap tape is designed to chemically weld the GRP laps. The user should be aware that once installed, it is not possible to break the bond or remove a previously installed piece without causing damage.

Installing the Slates

Slates that are cut to less than 150mm wide should not be used on the roof. When cut slates are required the smaller slates should be replaced by using the slate and half (or double slates). By this method the small cuts are incorporated into the larger slate.

Slate and halves should always be used at the verge edges, hip cuts and into the valley.

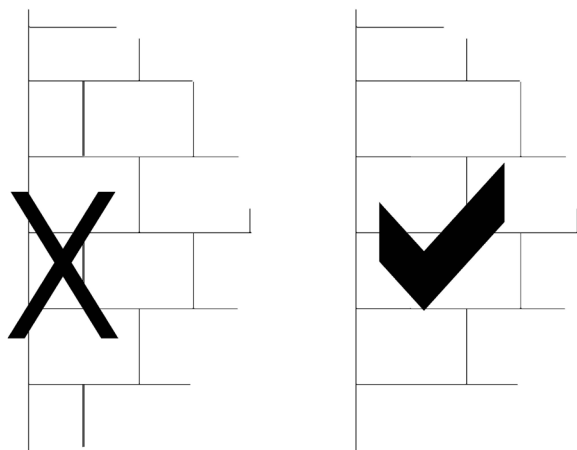


Figure 4

Verge detail

Slate and halves should be used to avoid using small cut slates on the edge of the roof.

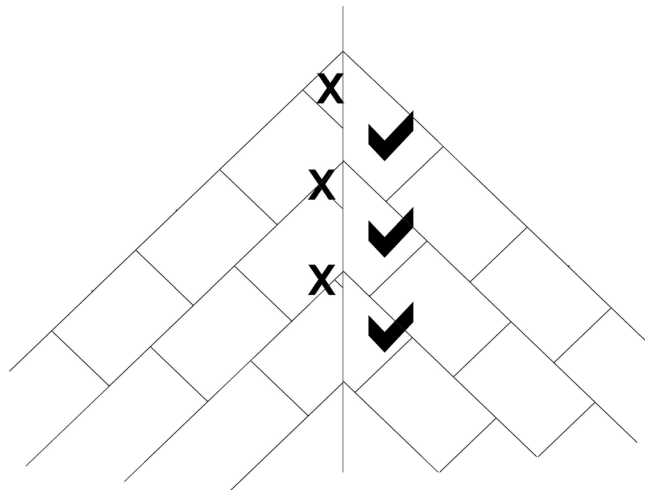


Figure 5

Valley cuts

Slate and halves should be used to avoid using small cut slates in the valley.

All slates installed at the perimeters and abutments should be twice mechanically fixed two courses in using a combination of SlateFix screws in addition to slate hooks.

Using SlateFix screws:

Install the first slates by positioning them onto the SSQ weather pro just down from the upper curve, and screw them into position through the top of the slate using 2 x SlateFix screws through the pre-drilled holes in the slate.



SlateFix screw



Using slate hooks:

The slates on the rest of the roof can be installed using slate hooks. Locate a slate hook at the top of the abutment join between the slates and install the next slate.



Slate hooks

Installation of the Slates

When installing slates on the main part of the roof (not around the edges) only slate hooks are required. Install the slates using slate hooks in the usual manner: insert slate into the hook and add another slate hook next to it ready for the next course. Slate and halves or double slates must always be used at the verge and hip or into the valley. This will avoid using small cut slates that can't be twice fixed.

The roof should be fully covered with slates.

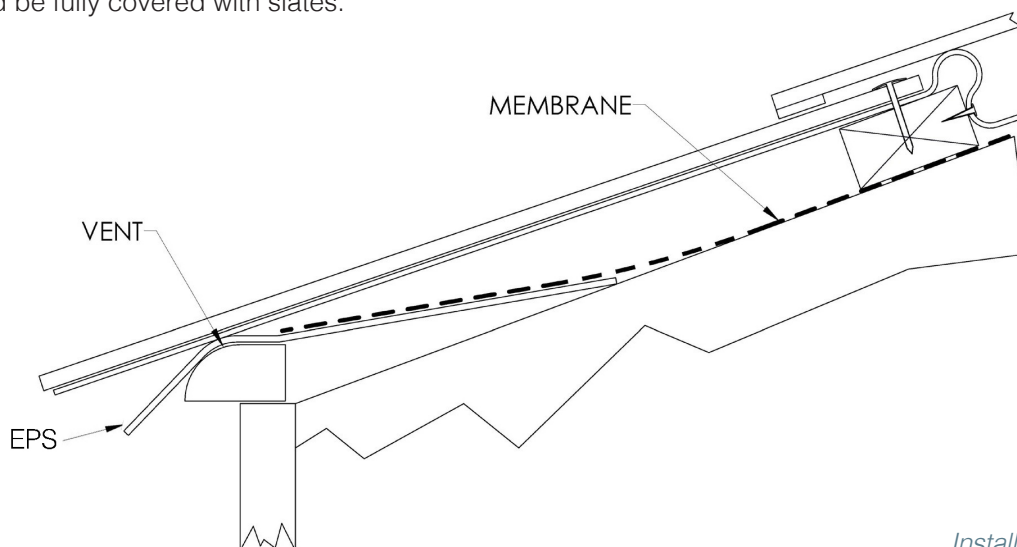


Figure 6
Installation at the eaves

Apron Flashing Below 17.5°

At a roof pitch above 17.5°, a standard 150mm lead cover flashing can be used. At roof pitches below 17.5° the lead Flashing should be used under or in place of the apron flashing in the 'lean to' application or chimneys etc to prevent rain being driven under the front of the apron.

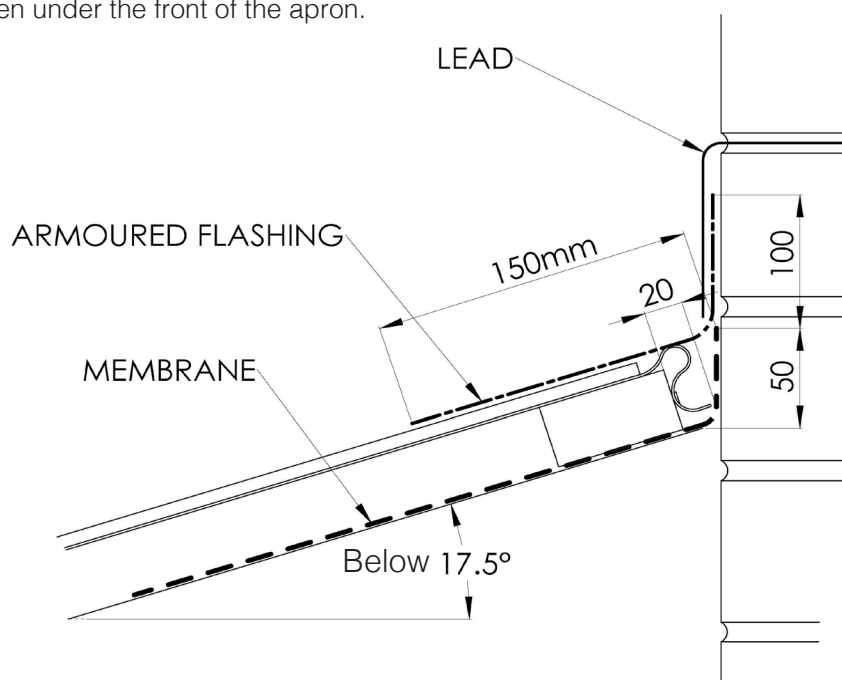


Figure 7
Apron flashing detail

Verge Detail



We recommend the use of Weather pro verge. Weather pro verge has been specially designed using real slate, for use with the SSQ weather pro system. The unique preformed design is easily installed below the edge of SSQ weather pro and fixes directly onto the batten. By removing the protective tape covering, Weather pro verge will bond to the underside of SSQ weather pro providing a permanent weatherproof seal.

Weather pro verge are handed left and right and can be easily cut to a mitre at the ridge.

When installing at the verge, the curved section of SSQ weather pro that hooks over the batten should be removed to accommodate a continual dry slate verge system.

Please refer to full installation instructions for Weather pro verge .



Cutaway section of SSQ weather pro to illustrate the installation of Weather pro verge.

Abutment

If the product is fitted against a wall or upstand then the lead flashing should be fitted onto the SSQ weather pro and dressed up the wall. The flashing must be well adhered to all substrates and the surfaces should be clean, dry and free from dust before application.

Flashing should be the full length and covering at least 100mm of SSQ weather pro and rise up the wall by at least 100mm. A flat wheeled roller should be used to press the lead flashing into position and ensure good adhesion.

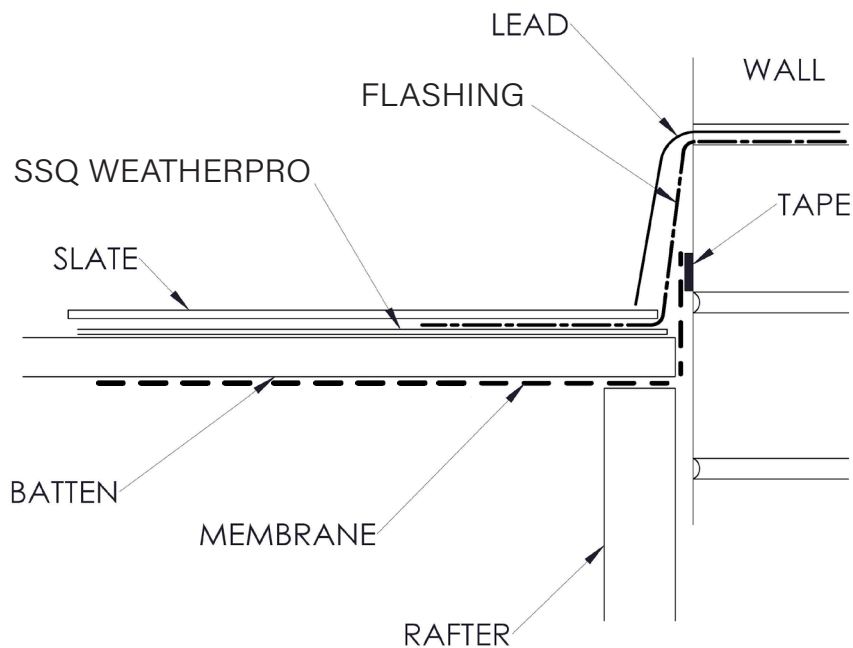


Figure 8
Abutment detail

Valley

Valley runner battens should be installed equidistant on either side of the valley trough so that the valley outer flanges sit neatly on and between them. Remove the section of the fascia between the runner battens so that the valley can pass through the fascia and discharge into the guttering. Cut a 'V' into the end of the valley that follows the internal roof corner.

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SSQ Weather pro installed using the Heritage Valley trough and Riverstone slate ridge

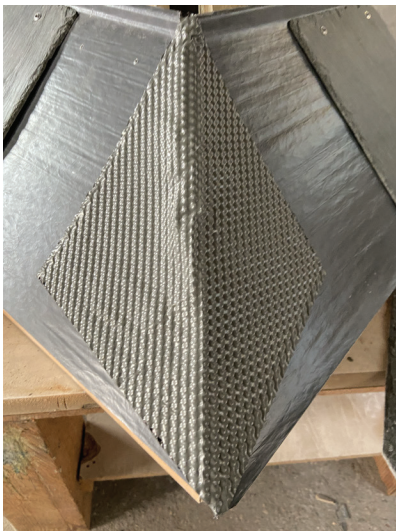
Prepare Hip Detail

Remove the upper section of SSQ weather pro so that it can carry over the hip runner battens.

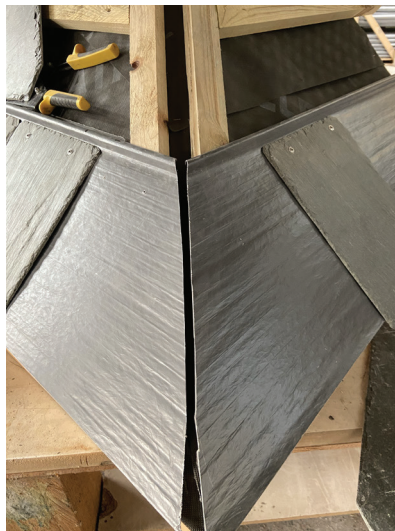


Installation of Hip Detail

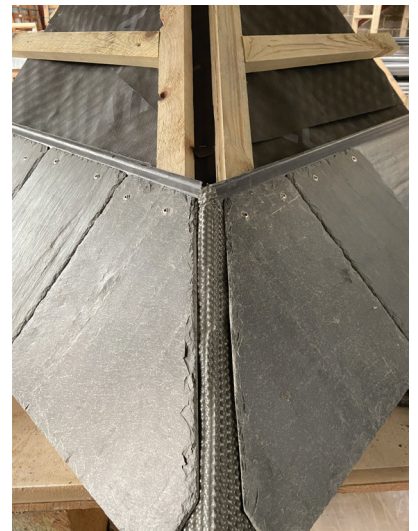
Mitre the SSQ weather pro plate along the central line of the hip.



Cut and apply Lead Flashing chevron over the mitre cut.



Install the cut slates at the hip.



Repeat each course up the hip.



1.



2.



3.

Finally, install RiverStone slate ridge at the hip.



Installation Of Riverstone Slate Ridge



Please see the full installation guide for detailed instructions on installing the Riverstone slate ridge and hip system, the perfect finish to your slate roof.

Riverstone Slate Ridge is an overlap ridge system that uses real slates chemically and mechanically bonded to a GRP waterproofing layer. The unique, invisible RidgeFix fixing method easily and permanently fixes the ridge into position. The Riverstone Slate Ridge system does not require an additional roll-out ridge fixing kit offering a considerable saving in materials and labour.



Product Specification

SSQ Weather Pro

UV stable GRP
preformed sheeting



Colour:	Blue grey RAL 7015
Length:	1500mm
Thickness:	1mm
Weight:	2.33kg/m
Finish:	Matt finish
Resistance:	Resistant to infestation and degradation
Fire rating:	SAB, Class 3 to BS476 parts 3 & 7

SlateFix Screws

Stainless steel screw



Size:	4.9 x 32mm CSK cleat screw
Type:	Locking serration, short drill tip, CE, stainless steel, A4/316, driver bit

SSQ Tape

EDPM adhesive foam tape

Size:	2mm x 20mm
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Pre-applied to SSQ weather pro component

Slate Hooks

Stainless steel spike



Size:	80mm x 2.75mm
Material:	Grade 316 stainless steel

Recommended ancillaries

Lead Flashing

Aluminium sheet on self-adhesive butyl

Roll size:	250mm wide 6m long rolls
Thickness:	1.77mm
Colour	RAL 7024 - grey