



Assembly instructions

2022 | Classic profiles

Plannja Trend, Plannja Modern and
Plannja Traditional Profile plus
flashing and fittings

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Some words of advice

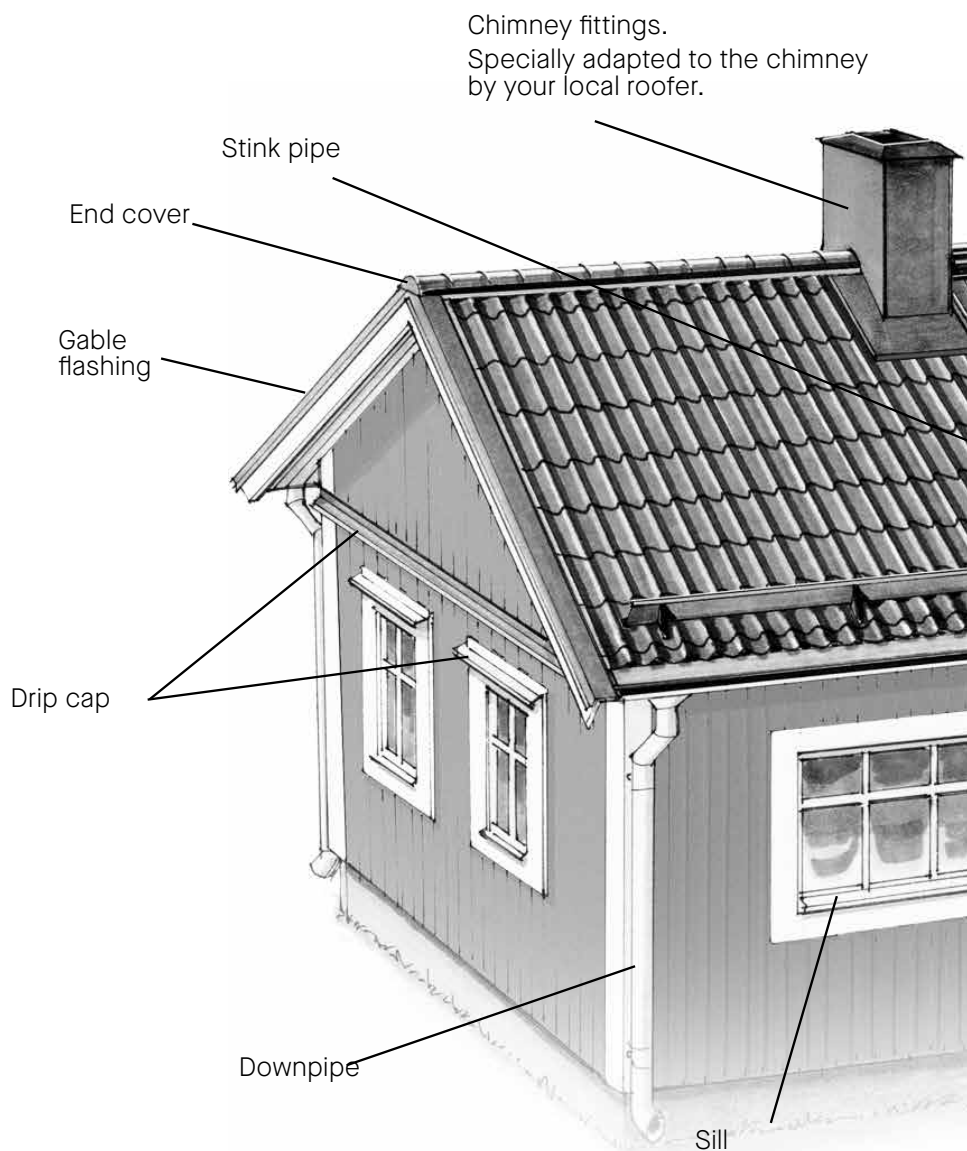
Plannja's assembly instructions were created to help both the private individual and the professional.

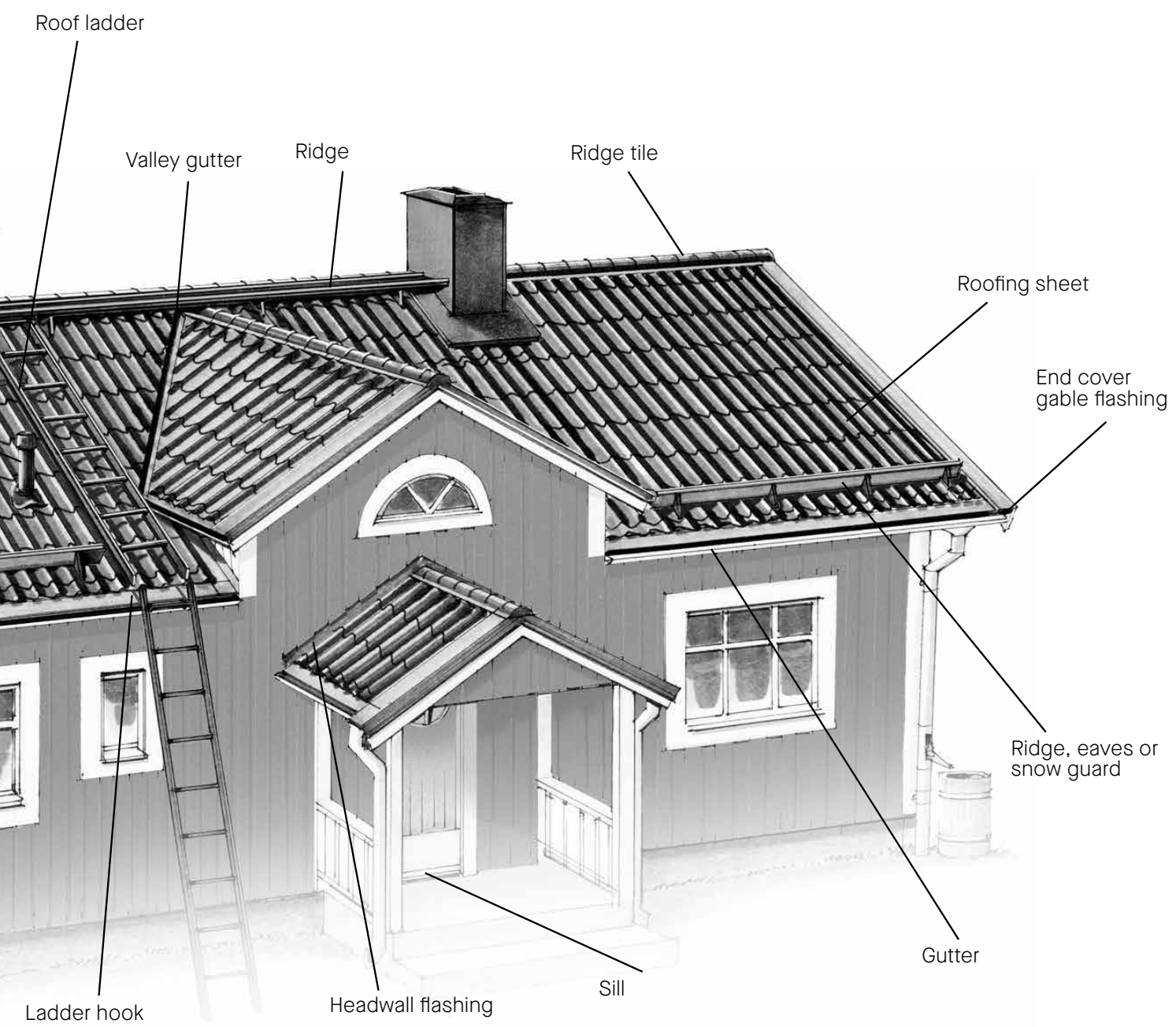
In order to make it easier for everyone to immediately find the instructions and the help they need, we have divided the assembly instructions into distinct sections. The first chapter – General preparations, roofing – is extremely important for those who have never laid a roof before.

Don't forget to stay calm and think through every step before you get to grips with the actual assembly. Good preparation and a methodical approach are the key to a perfect result. The assembly instructions must be followed for our warranty to be valid.

Plannja is Europe's leading manufacturer of thin sheet building materials. Our wide range of products means that we can provide product systems and total thin sheet solutions for almost any building project.

Roof components





Roof ladder

Valley gutter

Ridge

Ridge tile

Roofing sheet

End cover gable flashing

Ridge, eaves or snow guard

Gutter

Sill

Headwall flashing

Ladder hook

General preparations

Roofing



SHEET METAL ROOF



When taking delivery of roofing sheet

As far as possible, store Plannja construction paneling indoors. Cover the materials with tarpaulin when storing outdoors. If there is a risk of condensation store packages inclined. Make sure good ventilation is achieved. This applies to both steel and aluminium.

Avoid damage to the panelling!

Carry Plannja Roofing Tiles longer than 5 metres on edge or on a wooden frame. If they are carried flat the sheets will bend by their own weight and stretch. During subsequent assembly problems may be encountered with the fit between different sheets.

Sheet durability and walkability

The walkability of thin sheet profile panels is difficult to define. In general a certain degree of care must be taken when walking and working on thin sheet roofs. Walkable sheeting refers to profiled panels that will allow careful access without being damaged or suffering ugly indentations.

Walkability and strength are dependent on thickness

Thicker sheeting allows greater spacing between battens and provides improved walkability. For safety's sake always try to walk above or beside a batten. In the case of Plannja Roofing Tiles and Plannja Traditional Profile, always step in the profile valley when walking on the roof.

ALUMINIUM ROOF



Aluminium roofs are more sensitive

Aluminium is softer than steel. Therefore exercise extreme caution when walking on an aluminium roof. Note that Plannja 20-75 in aluminium is not walkable at all if batten spacing is the maximum 500 mm c/c.

IMPORTANT – ALUMINIUM ROOFS

A few things to remember when choosing an aluminium roof.

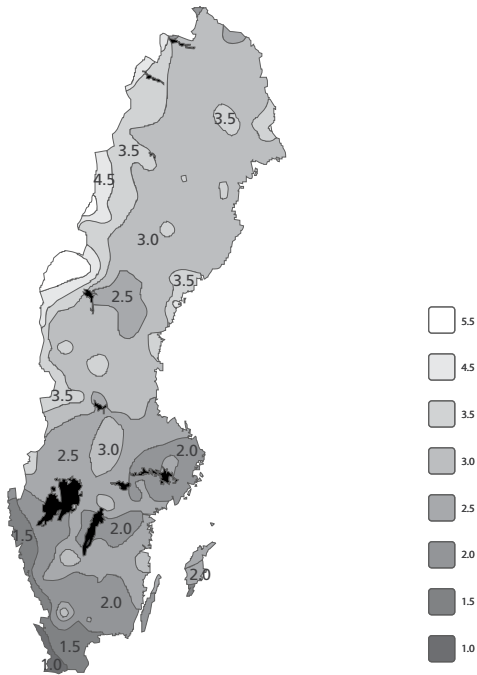
a) Aluminium moves more than steel with temperature changes. If the pitch of the roof is more than 6 metres expansion and contraction can be handled by pre-drilling the top sheet at each end overlap with an \varnothing 8 mm bit before fastening the sheet. Avoid pitches longer than 12 metres!

b) When using wooden battens, affix a strip of felt paper (see options selections) above the joists to avoid hearing a clicking noise during temperature changes. Not necessary when using Plannja Kombi battens or Renovation battens.

c) To prevent contraction/expansion movements, fasten all flashings without shared screws in overlaps, i.e. the screws may not pass through both flashings.



SNOW LOAD MAP

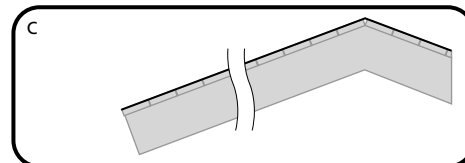
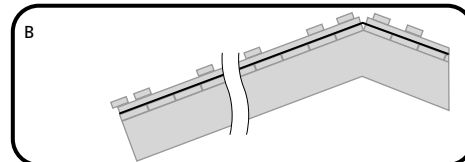
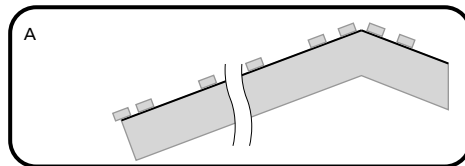


The snow load map shows snow volumes where you live. It also determines how the underlayment should look. If you live on the boundary between two different zones, choose the one with the most snow to guarantee durability. A more detailed map is available on Boverket's website. This applies to Sweden. Check the snow load for the area where your property is located.

1

UNDERLAYMENT FOR SHEET

The most common underlayments



A. ON TRUSSES

When building a new roof, it's usual to choose a light underlayment such as Plannja Anticon Coverall or tongue-and-groove planks/plywood, at least 17 mm thick with a felt paper underlay with a minimum quality of YAP2200 or Plannja Anticon Coverall. Read more under *Installing battens* for each type of product.

B. ON TONGUE-AND-GROOVE PLANKS/PLYWOOD

Remove the old roofing. If the existing battens and counter battens are used, the battens must be moved so that the spacing corresponds to the dimensions in the assembly instructions for the roofing tiles concerned. Replace defective battens.

C. ON SHINGLES, FELT PAPER, FLAT TILES

Allow the old roof to remain as underlayment. Seal any holes in the simplest manner. Roofing sheet can be laid directly on the old roof on the condition that the roof is watertight, even and that tongue-and-groove planking is in good enough condition for fasteners to hold the sheet down onto the underlayment, which must be at least 17 mm thick. However, we recommend the use of Plannja Kombi Battens, Plannja Renovation Battens or battens and counter battens.



HOW TO MEASURE THE ROOF

Types of roofs

Enter the dimensions indicated for your roof type. These are needed as support data for an offer or order for your roof. If your type of roof is missing and you need help, please contact Plannja for support.

We recommend a visit to Calculate My Roof at <http://beraknamittak.plannja.se> You can get help there with a price estimate for a complete roof including rainwater system and all the accessories to suit the dimensions of your roof.

This is my type of roof:

Saddleback roof, roof sides 1+2
Single-pitch roof, roof side 1:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

This is my type of roof:

● = Always downpipe
 ⊙ = Downpipe if eaves > 10 metres, otherwise every 10 metres.
 NOTE! All dimensions in mm.

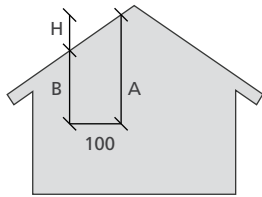


3

PITCH



Pitch angle should be checked to ensure selection of the right roofing product. Pitch angle may also affect the choice of underlayment, roof assembly and the assembly of flashings and fittings.



Calculating pitch. Use the table on the right to calculate pitch, or use a smartphone app for the calculation.

Dimension A minus dimension B gives H, which is the height difference for calculating pitch. See table.

Rise in cm (≈)	Pitch	Rise in cm (≈)	Pitch
25	14	75	37
30	17	80	39
36	20	84	40
40	22	90	42
45	24	100	45
49	26	104	46
53	28	111	48
58	30	119	48
62	32	133	53
67	34	143	55
73	36	173	60

POSSIBLE ROOFING PRODUCT SELECTIONS DEPENDING ON PITCH

Product	Pitch in degrees				
	3.6-5.7*	5.7-8	8-10	10-14	> = 14
	Seal in side and end overlap				
Plannja 20 -105		X	X	X	X
Plannja 20 -75		X	X	X	X
Plannja Sinus 18				X	X
Plannja 45 / 45R	X	X	X	X	X
Plannja Sinus 51				X	X
Plannja Traditional				X	X
Plannja Royal					X
Plannja Regent					X
Plannja Regal					X
Plannja Trend			X	X	X
Plannja Modern				X	X

* With attachment strip



MAINTENANCE



Plannja roofing tiles and wall cladding normally require very little maintenance. Deposits that are not washed away by rain should be removed with a soft brush and water. Cut edges and paint damage that occur during assembly should be immediately touched up with Plannja touch-up paint. After assembly, be careful to remove all drill swarf so that the profiles do not become discoloured.

Assembly instructions

Trend





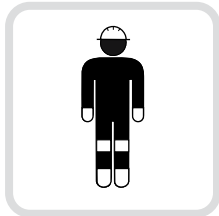
PREPARATION

Before you begin the assembly of your Plannja Roof it is important to read through the "General Preparations, roof laying" section. The section provides information and advice on how to measure your roof, what underlying materials are suitable, and much more besides.



DEGREE OF DIFFICULTY, INSTALLATION

When this symbol is shown, the assembly is such that a roofer or other specialist may be needed for advice or execution.



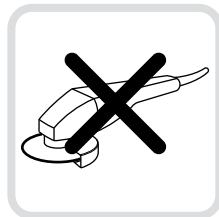
WORK SAFETY

Always follow applicable work safety legislation.



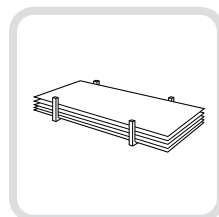
LABOUR

For safe assembly, we always recommend that at least two people perform the work.



TOOLS

No special tools are required for roofing sheet assembly. Nevertheless, a screwdriver can make the work considerably easier. Cut sheets using sheet metal shears, a nibbling machine or a circular saw. Never use a grinding disc. Sheet metal coatings can be damaged by swarf from the disc. A staple gun may be used for any dampening strip assembly.



TRANSPORT, STORAGE AND HANDLING

Plannja Trend is delivered in specially designed packaging; allow the sheets to remain in it until ready for use. Remember that long sheets may not be lifted by their ends; the best method is to carry them by the snap locks.

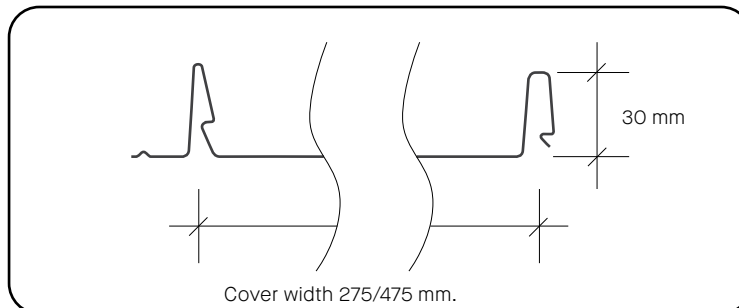




TECHNICAL INFORMATION

Material	Steel / Alu*
Coating	Hard Coat 50
	Hard Coat 25*
	GreenCoat Pro BT
	GreenCoat Mica BT
	Aluzinc
Sheet thickness	0,6 / 0,7* mm
Weight	7,4/6,3/2,5* m ²
Cover width	275/475 mm
Length 475	0,7-10,0 / 0,7-6,0* m
Length 275	0,7-7,0 m
Minimum recommended pitch	8° (1:7)
Seal in side overlap	8-14°

SHEET GEOMETRY



INSTALLATION SCREWS (*applies for alu)

4,2×25 / 4,2×25RF* For fastening through the punched holes

4,8×20 / 5,5×20* For fastening sheet-to-sheet

4,8×35 / 5,5×35* For fastening sheet to wood



Art. nr. 312001
4,8×20

Art. nr. 312411*
5,5×20



Art. nr. 312332N
4,2×25

Art. nr. 312332RF*
4,2×25



Art. nr. 312002
4,8×35

Art. nr. 312410*
5,5×35



RECYCLING

Take care to remove sheet clippings and screws from the roof, gutters and the ground on completion of assembly. The materials are 100 per cent recyclable and can be disposed of at recycling stations.

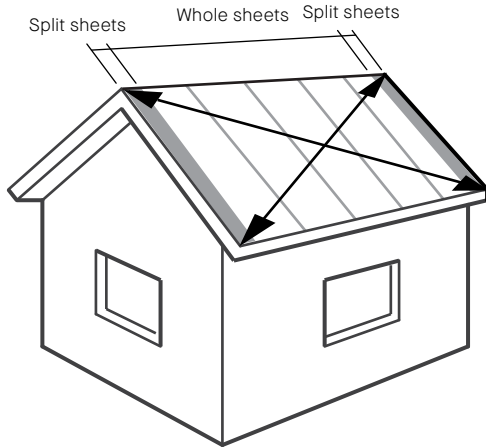
Remember to pick up or sweep up nibbling chips from the roofing sheets as they can otherwise cause damage to the coating.



1

ROOF MEASUREMENT

Diagonal measuring and symmetry



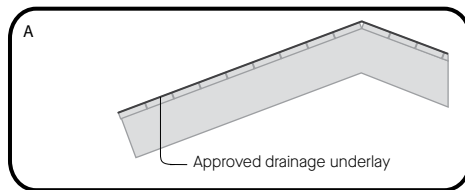
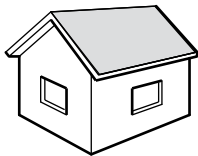
Begin by checking roof measurements by measuring the diagonals from corner to corner. If the distances are unequal, the roof is skewed. In this case lay the Plannja Trend so that its lower edge aligns with the eaves. Deviations of 20–30 mm can be concealed with gable flashings.

If you want the snap locks to be symmetrically distributed across the roof first measure the length of the roof in order to determine the widths of the first and last sheets. Remember to add around 30 mm to the cutting width to make the fold up to the bargeboard. Refer to step 8.

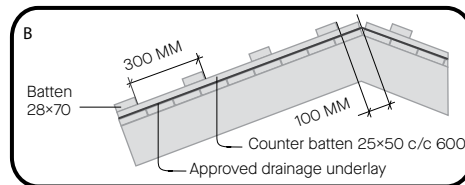
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UNDERLAYMENT FOR PLANNJA TREND

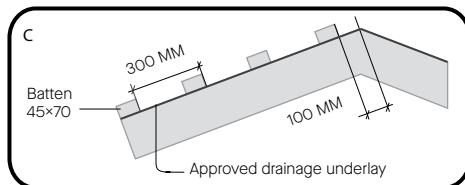
The assembly instruction illustrate alt. A



A. Steel/Alu: Lay Plannja Trend directly on tongue and groove boards /plywood, at least 17 mm thick and with an approved drainage underlay e.g. Plannja Anticon Coverall.



B. Steel: If you choose to lay the roof on battens the minimum batten width is 70 mm and max 300 mm c/c. The final batten should be installed around 100 mm from the ridge. Always use approved drainage underlay e.g. Plannja Anticon Coverall.



C. Steel: If your house has battens fixed directly to the trusses, the battens must be at least 45x70 and max 300 mm c/c. Lay a light underlayment beneath the batten e.g. Plannja Anticon Coverall.

For more information on alternatives B and C, visit www.plannja.com



3

DAMPENING STRIPS

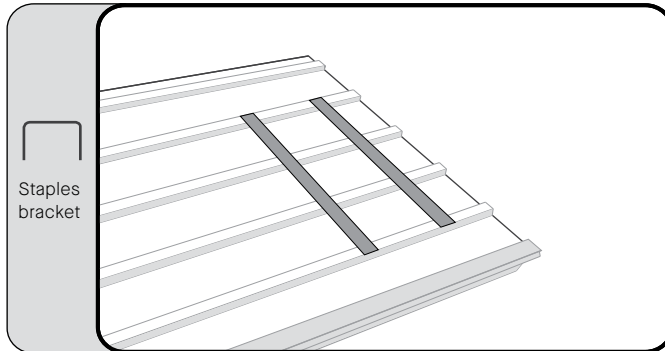
Assembly on battens

When installing Plannja Trend 475 onto battens, glue dampening strips in the centre of each sheet from eaves to ridge. The dampening strip should run from the second lowest to the second highest batten. The aim is to reduce any sound that may be caused by wind and rain. (Applies only to steel profiles, Aluminium is not recommended to be placed on battens, only on fully covered flat underlay)

Especially windy areas

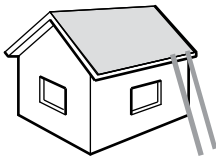
However, it is not certain that noise can be prevented in especially windy areas such as locations close to the coast. In such cases we recommend Plannja Trend with SoundControl, which is a Trend variant with felt on the underside. Remember to tear off or cut away around 100 mm of the felt at the end of the sheet that will abut the eave flashing before you install the sheet.

When installing Plannja Trend on a flat underlayment, staple dampening strips beneath the centre of each profile valley from eaves to ridge. The dampening strip should cover the major part of the underlayment. The aim is to reduce any sound that may be caused by wind and rain.



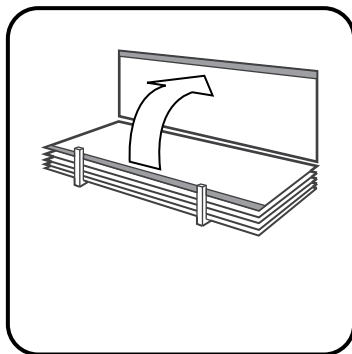
4

LIFTING SHEETS TO THE ROOF

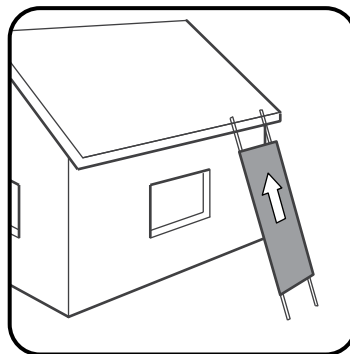


Remember that long sheets may not be lifted by their ends.

The best method is to carry them by the snap locks. The sheets can be slid up to the roof along a pair of beams, a ladder or similar.



Carry sheets long side up by holding the snap locks.

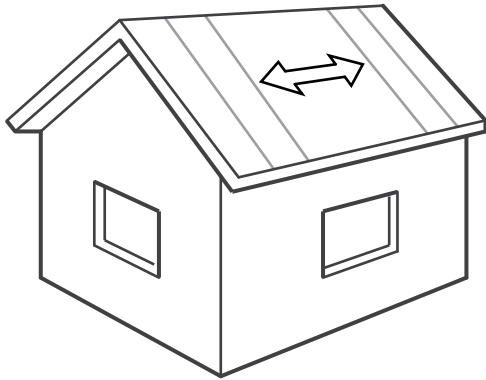


Use planks, a ladder or similar as a support on which to slide the sheets up onto the roof.



5

DIRECTION OF INSTALLATION



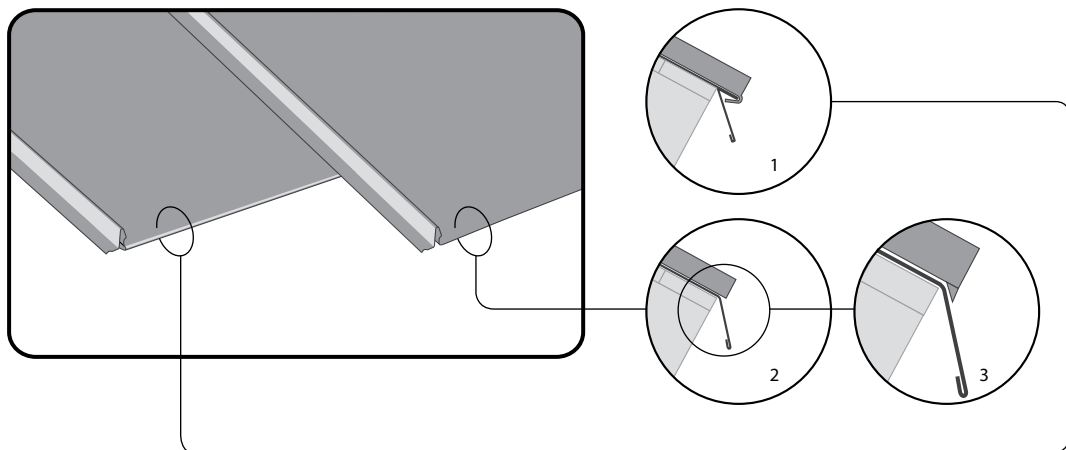
Plannja Trend is available for laying either from the left or the right. Install so that the stamped holes are on the sides facing the direction of assembly toward the centre of the roof.

6

CONNECTING AT THE EAVES
Hemmed or straight front edge

Plannja Trend is available in several variants for connecting at the eaves; these two are the most common:

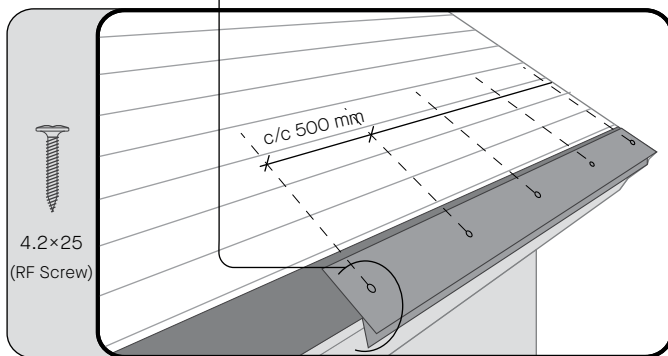
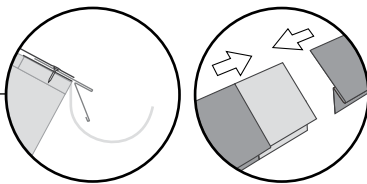
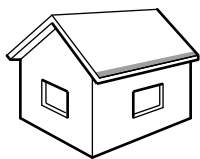
1. Hemmed for eaves. The hem is slid over the specially adapted eave flashing.
2. Straight front edge; the sheet is laid with a 10 mm protrusion over a standard eave flashing.
3. The protrusion must be bent down in the case of pitches between 8–14°.



7

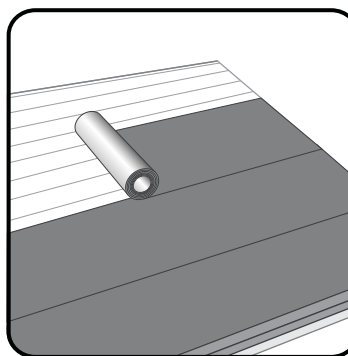
EAVE FLASHING

Trend with hem at eaves



4.2×25
(RF Screw)

Lay a strip of underlay covering before installing the eaves sheet.



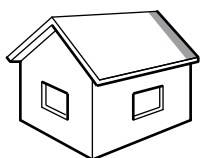
Lay the protective underlay covering so that it covers the screws on the eaves sheet.

Fasten the eave flashing with a screw (or galvanized nail) into the underlayment at a spacing of 500 mm. Bear in mind you may have to install gutter brackets before the eave flashing. Slot the flashings together when joining.

If you have chosen Plannja Trend with a straight front edge, join the eave flashings using 100 mm overlaps.

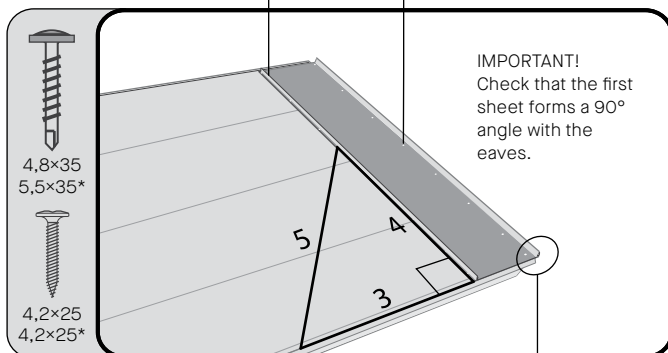
8

INSTALLING THE FIRST ROOFING SHEET



The left side is fastened with screws in punched holes.

Fasten with visible screws at the gable.

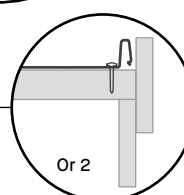
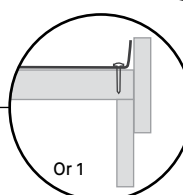
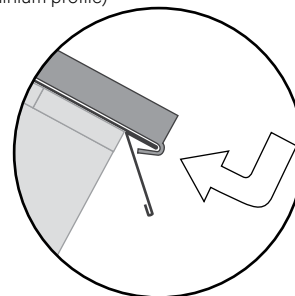


4.8×35
5.5×35*

4.2×25
4.2×25*

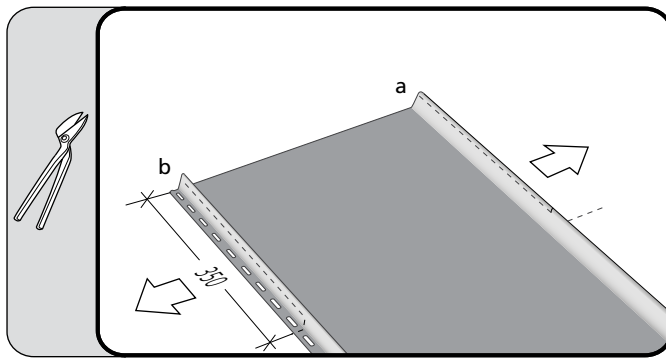
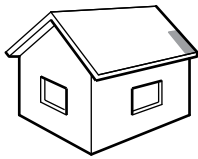
IMPORTANT!
Check that the first sheet forms a 90° angle with the eaves.

Lay the first sheet in position. Check that it forms a 90° angle with the eaves. A margin of error of 20–30 mm at the eaves can be concealed later with the gable flashing. Lay the first sheet so that its seam slots over the eave flashing and then slide up the sheet. Align the sheet and fasten using a 4.2×25 / 4.2×25* screw at the bottom corner and then at 300 mm c/c intervals to the ridge, and with visible 4.8×35 alt. 5.5×35* screws at 300 mm c/c intervals to the gable. The screws in the punched holes must be centred in the holes and may not be tightened so hard that sheet heat expansion is hindered. (*applies to aluminium profile)



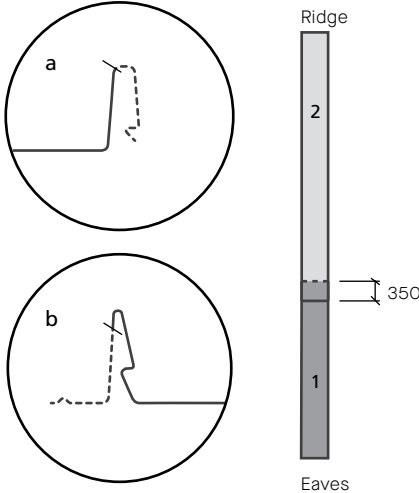
9

JOINING TREND Adapting the lower roofing sheet



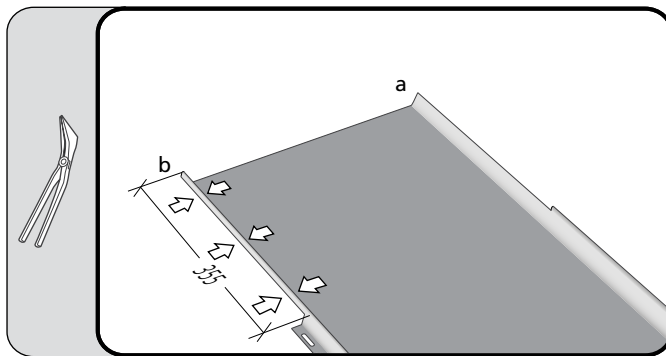
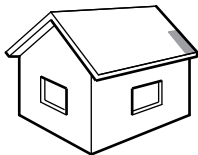
Avoid joining Trend; order instead sheets in the full length of the pitch. When the maximum length is exceeded, joining is necessary. Cut away 350 mm from both sides of the top edge on sheet number 1, as illustrated.

Note. None of the sheets should be shorter than 2000 mm.

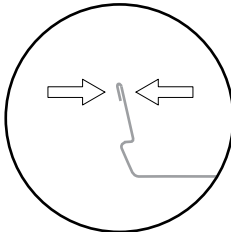


10

JOINING TREND Adapting the lower roofing sheet



Crimp together what remains of the snap lock (b) throughout the cut section, plus 5 mm. Seaming tongs are a useful tool for this.

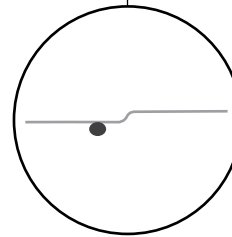
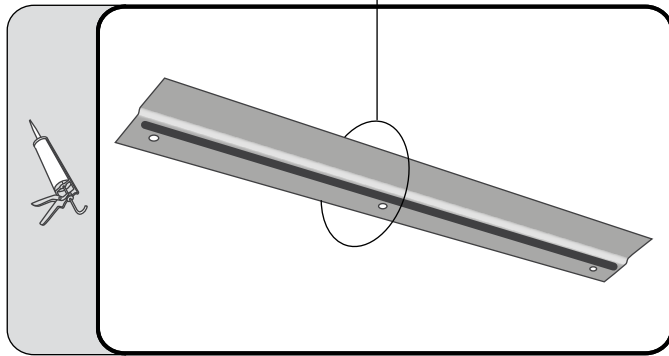
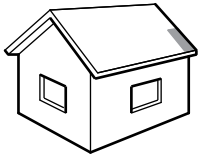


11

JOINING TREND

Joint flashing

Apply a bead of sealing compound, e.g. Plannja SPS, on the underside of the joint flashing where the three holes are located.

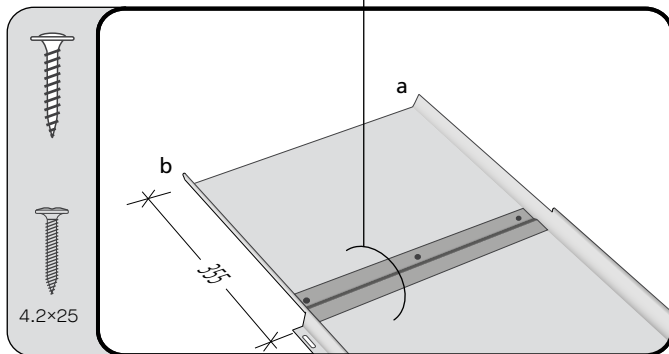
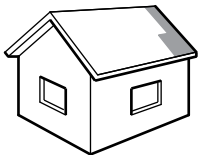


12

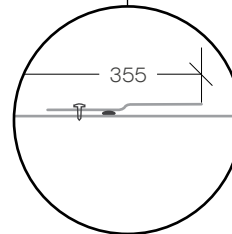
JOINING TREND

Installing joint flashing

Place the joint flashing with its front edge 5 mm below the notch, i.e. 355 mm from the top of the sheet. Fasten the joint flashing using three assembly screws.

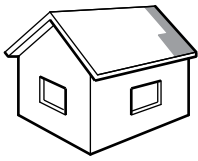


(*Screw for alu.)

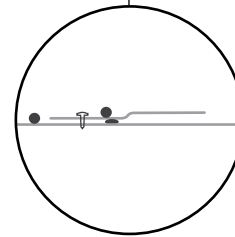
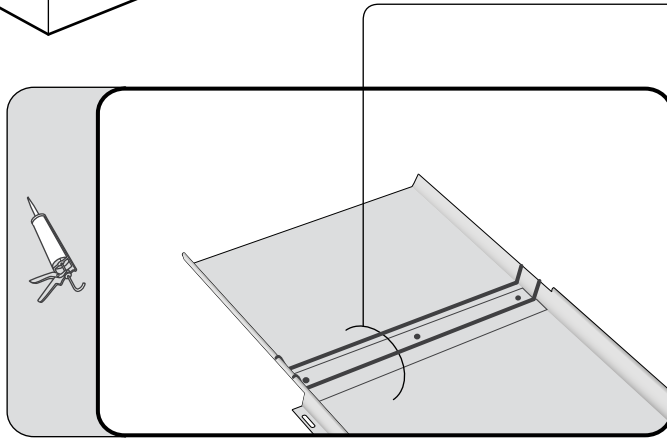


13

JOINING TREND
Installing joint flashing

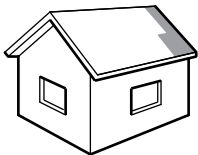


Apply a bead of sealing compound on and above the joint flashing along the length of the profile valley above the snap lock.

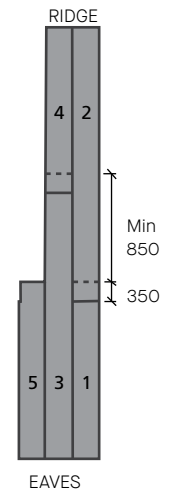
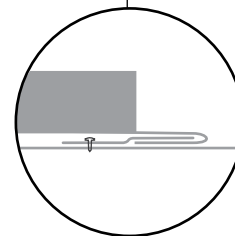
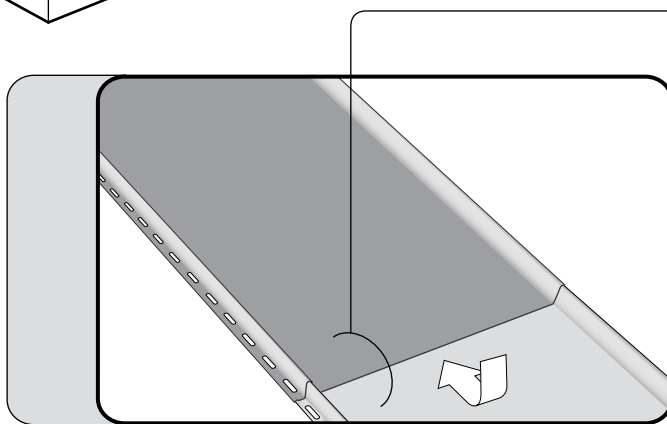


14

JOINING TREND
Installing the top sheet

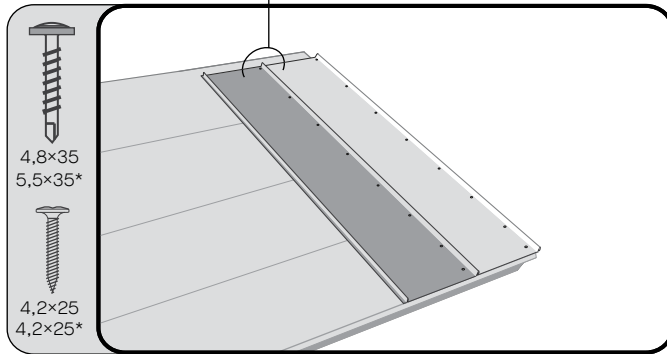
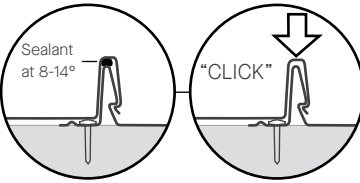
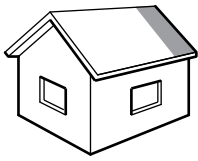


Install plate number 2; slide the hem beneath the joint flashing and then fasten the sheet with screws as usual. Remember that the joint in the next row must be staggered by at least 850 mm.



15

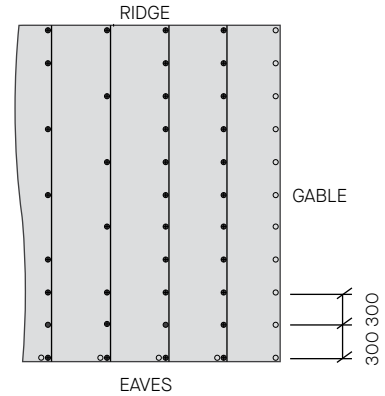
SUBSEQUENT SHEETS



(*Screw for alu.)

Remove the protective tape from the snap lock on the sheet already installed. If the pitch is between 8–14°, run a bead of sealing compound e.g. Plannja SPS in the side overlap. Attach subsequent sheets using our click system. Lay the new sheet on the first sheet so that its seam slots over the eave flashing and then slide up the sheet. Press the snap lock into place from eaves to ridge. Remember to ensure that the bottom edge is straight. Fasten the sheet with 4.2x25 screws in the stamped holes c/c as per the assembly plan.

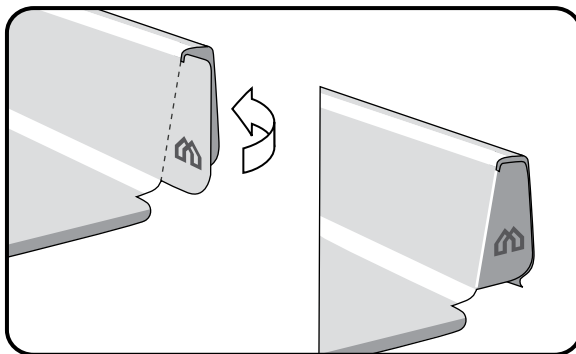
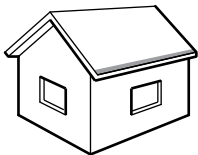
In the case of Trend without front edge seams, fasten using the visible 4.8x35 screw at the eaves approx. 20 mm from the snap lock.



- Screw 4.2x25 CONCEALED
- Screw 4.8x35, (5.5x35* *Screw for alu) VISIBLE

16

SNAP LOCK END COVERS

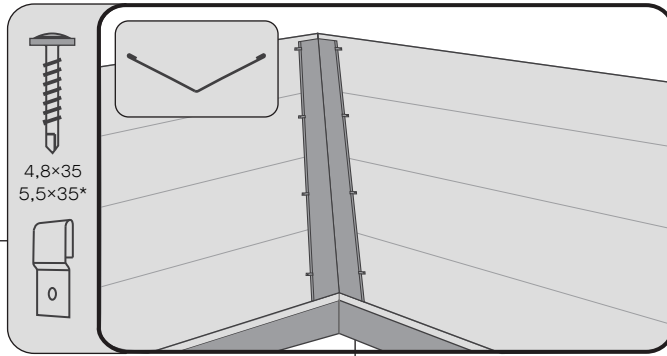
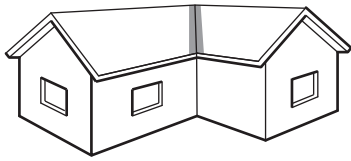


Fold the tab at the bottom of the sheet through 90° to form a neat end cover at the eaves.



17a

VALLEY GUTTER
Standard

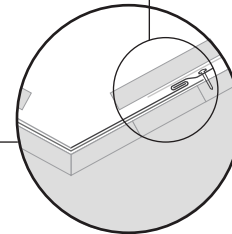
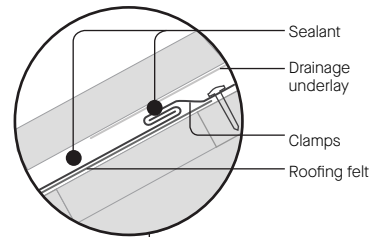


(*Screw for alu.)

Clamps are easily made by shaping a piece of sheet.

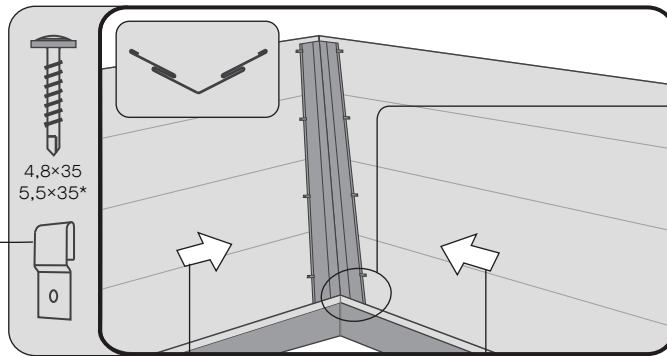
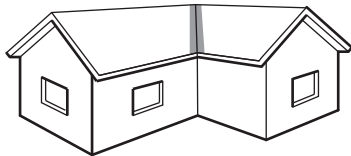
Attach the valley gutter to the underlayment with the aid of brackets or step brackets. The sheet must protrude at least 150 mm beyond the edge of the valley. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.

Run a bead of sealant e.g. Plannja SPS, between the sheet and the valley gutter, and a bead between the drainage underlay and the gutter seam.



17b

VALLEY GUTTER
For hemmed sheets



(*Screw for alu.)

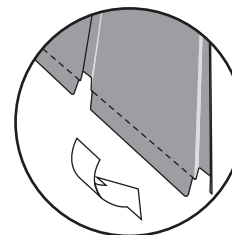
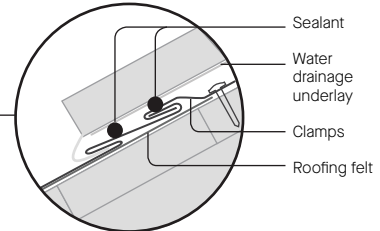
NOTE: Sheet assembly direction for connecting to gutter.

Clamps are easily made by shaping a piece of sheet.

Cut the sheet and hem it to fit the valley gutter.

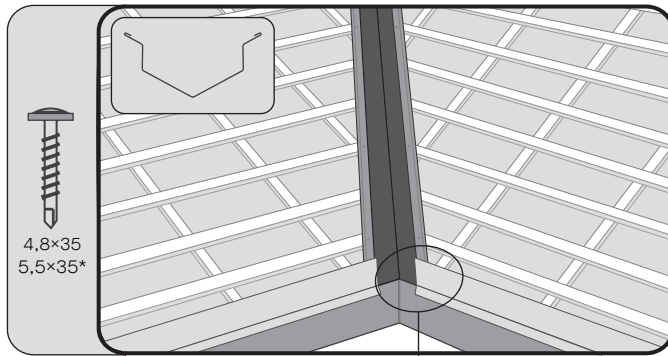
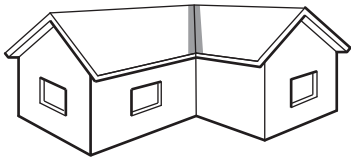
Attach the valley gutter to the underlayment with the aid of brackets or step brackets. Cut the sheet to allow a hem to be made using seaming tongs. This step can be difficult; it can be a good idea to engage a tradesman for the best execution. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.

Run a bead of sealant e.g. Plannja SPS, between the sheet and the valley gutter, and a bead between the drainage underlay and the gutter seam.



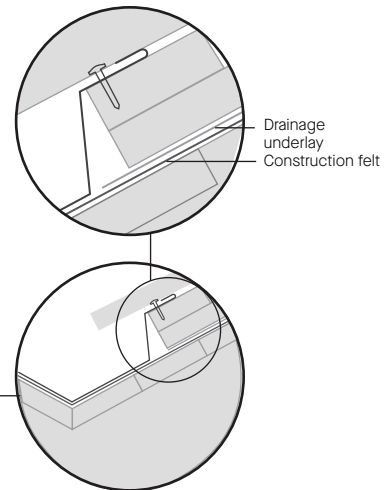
17c

VALLEY GUTTER
On battens



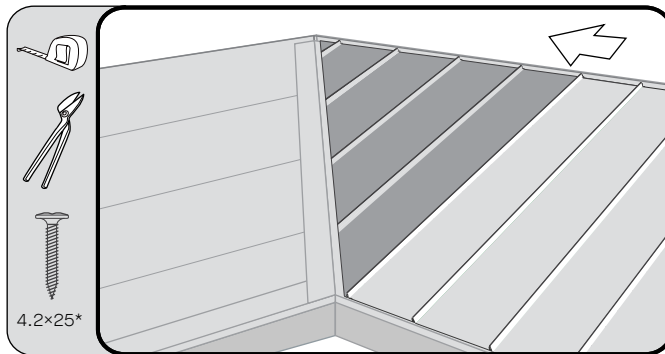
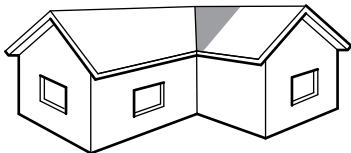
(*Screw for alu.)

The sheet must protrude at least 150 mm beyond the edge of the valley. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.



18

VALLEY GUTTER
For hemmed sheets



(*Screw for alu.)

Attach the valley gutter to the underlayment with the aid of brackets or step brackets. Cut the sheet to allow a hem to be made using seaming tongs. This step can be difficult; it can be a good idea to engage a tradesman for the best execution. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.

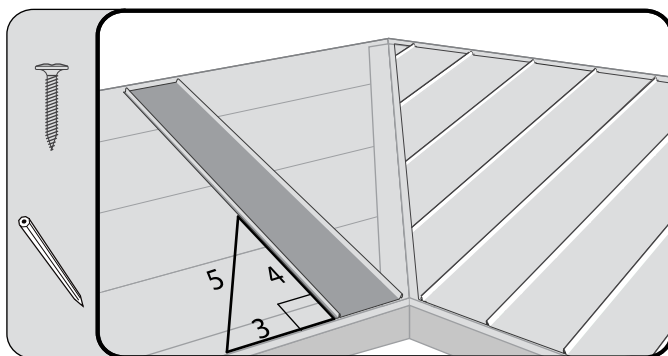
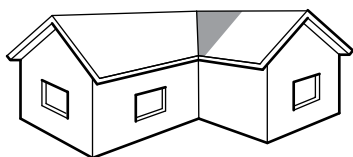
Run a bead of sealant e.g. Plannja SPS, between the sheet and the valley gutter, and a bead between the drainage underlay and the gutter seam.



19

VALLEY GUTTER

Installing roofing sheet



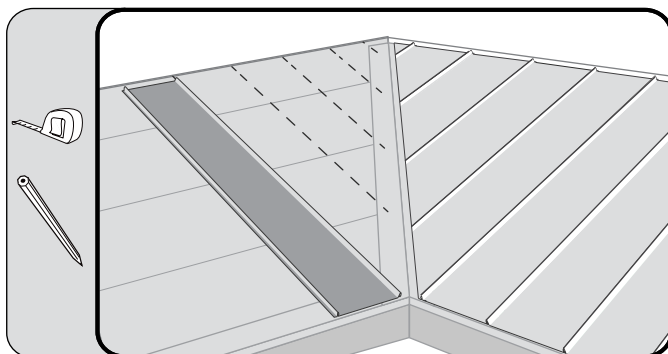
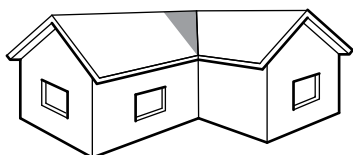
IMPORTANT!
Check that the sheet forms a 90° angle with the eaves.

Lay out a full length sheet as an assembly aid at the inner corner of the eaves on the next roof section. Align the sheet to form a right angle; see also step 8. Fasten the sheet temporarily using 4.2x25 screws and draw a guideline on the underlayment along the roofing sheet edge.

20

VALLEY GUTTER

Installing roofing sheet



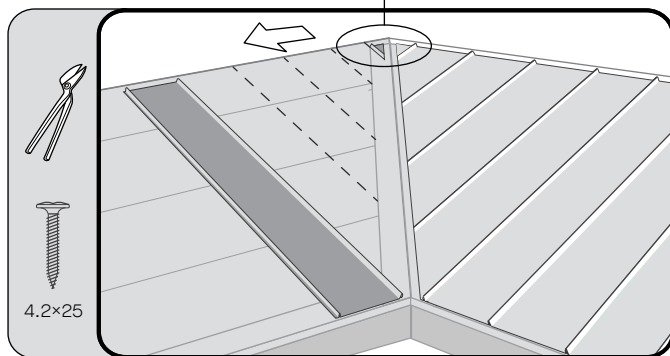
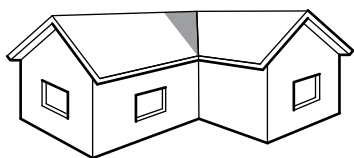
Measure and mark out sheet c/c spacing to the valley gutter.



21

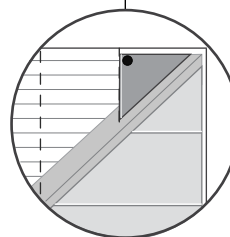
VALLEY GUTTER

Installing roofing sheet



Cut the first roof sheet to the right size and angle, fasten it closest to the roof ridge using 4.2x25 screws in pre-punched holes.

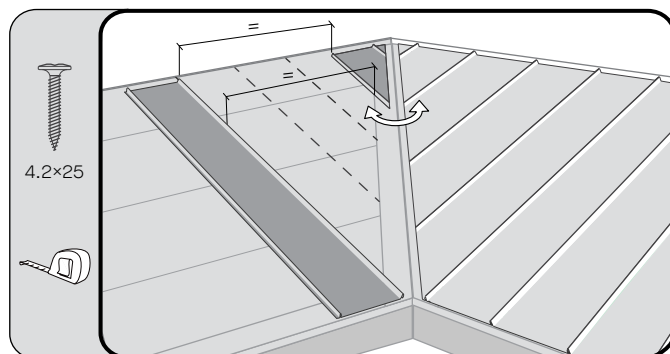
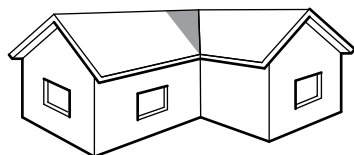
(*Screw for alu.)



22

VALLEY GUTTER

Installing roofing sheet



Snap the next roof sheet into the fold on the previous sheet making sure that the distance from the sheet's top and bottom edges to the first full-length sheet are equal by rotating the attached sheets around the screw before fastening the other 4.2x25 screws.

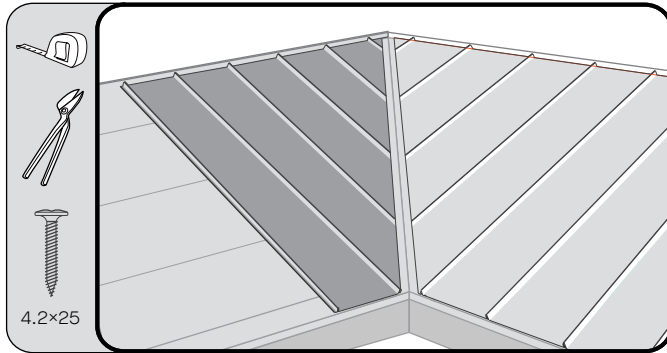
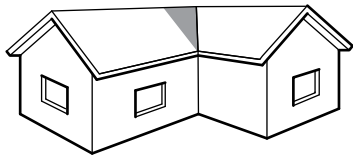
(*Screw for alu.)



23

VALLEY GUTTER

Installing roofing sheet

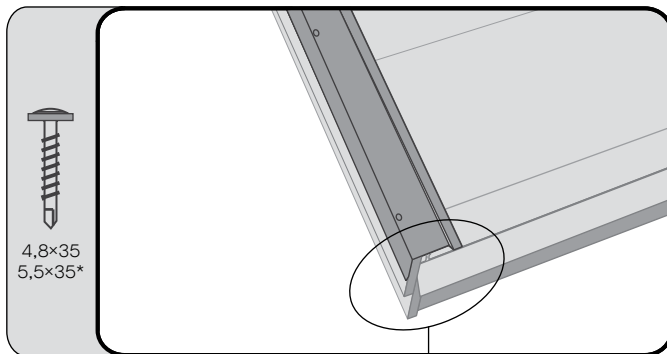
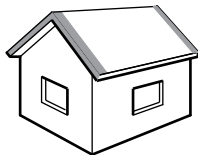


(*Screw for alu.)

Measure, cut and install the rest of the roof sheets that will adjoin the valley gutter. Using the guidelines as an aid, always check the distance between the next sheet for assembly and the first full-length sheet to ensure they are properly aligned. Remove the full-length sheet and then reinstall it according to step 15.

24

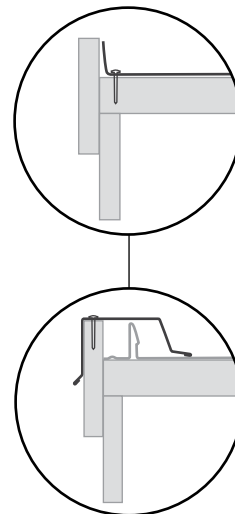
GABLE FLASHING



(*Screw for alu.)

The gable flashing is installed above the sheet edge and screwed to the bargeboard with 300 mm c/c spacing.

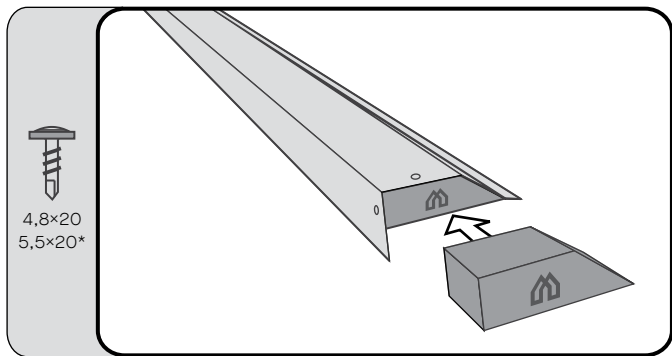
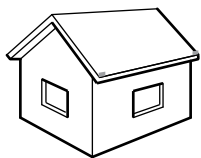
If the sheet must be cut, always make a final fold up out toward the gable.



25

GABLE FLASHING END COVERS

Press the end cover into place at the bottom of the gable flashing and fasten with two screws.

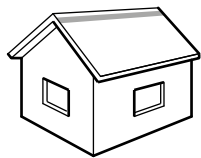


(*Screw for alu.)

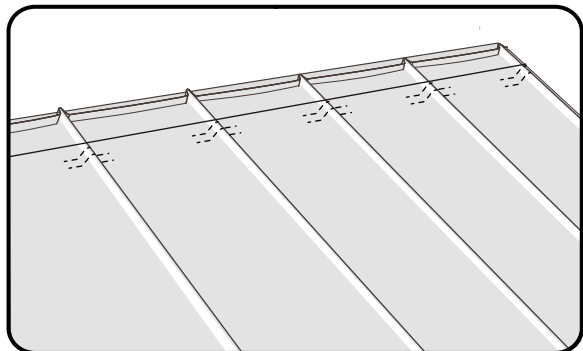
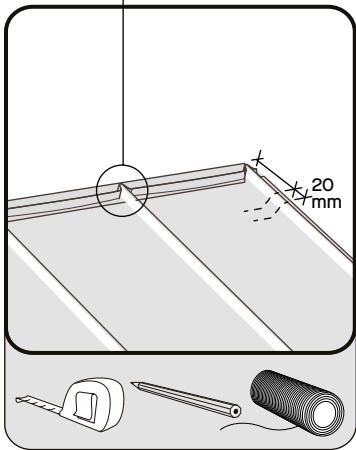
26

RIDGE SUPPORT Marking

Check the coverage of the ridge plate, then measure the distance from the ridge apex for the location of the Ridge support/ventilation flashing. The ridge plate must be oversized to fully cover the ridge support and possibly the ventilation flashing's two sections.



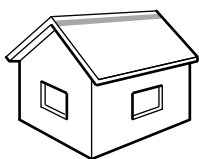
Fold up the profile valley as illustrated.



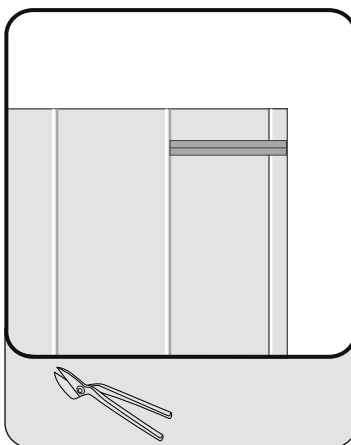
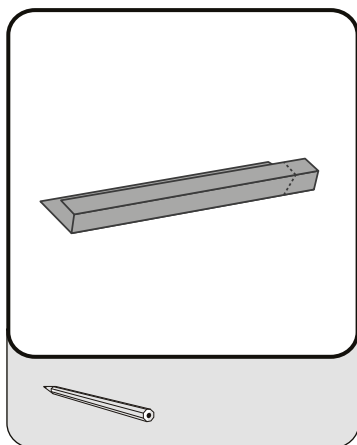
27

RIDGE SUPPORT

Fitting ridge support



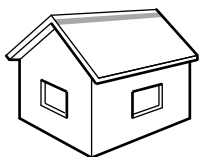
The ridge supports closest to the gables must be adapted to the gable flashing. Begin by marking the gable flashing's inclination toward the ridge support. Then clip away excess sheet using metal shears.



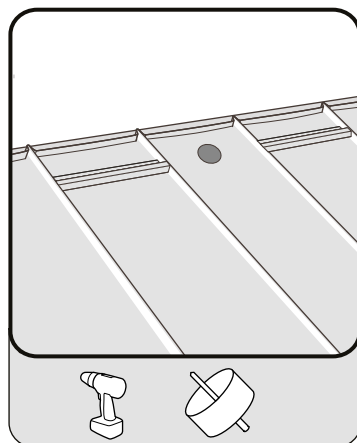
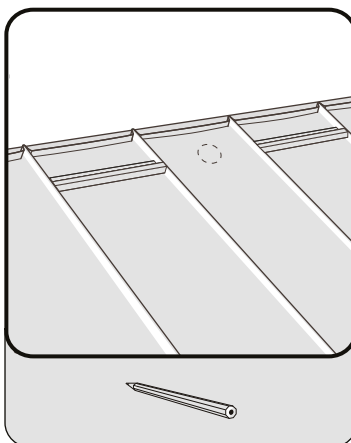
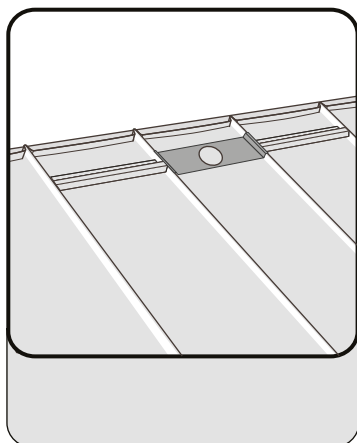
28

VENTILATION FLASHINGS

Holes, bottom section



Place the lower section of the ventilation flashing on the lower marking and mark the penetrations for the ventilation hole in the roof sheet. Then use a suitable tool for making the hole.



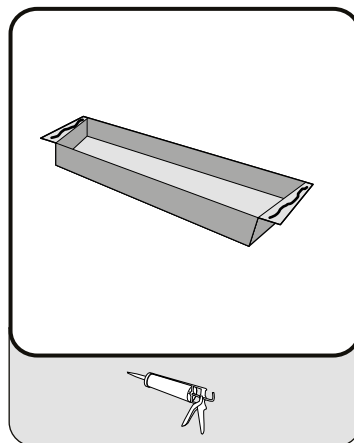
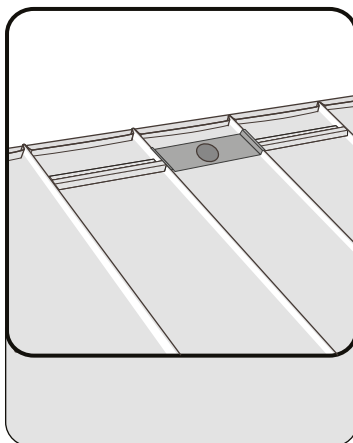
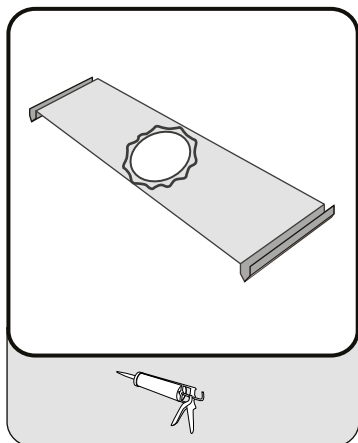
29

VENTILATION FLASHINGS

Fitting bottom section



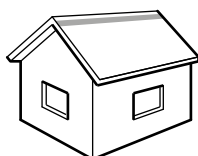
Apply a bead of silicone around the hole on the underside of the ventilation flashing's bottom section. Place the bottom section in the position shown on the roof sheet. Next, apply two beads of silicone on the underside of the ventilation flashing's top section as illustrated. Then join the two sections together.



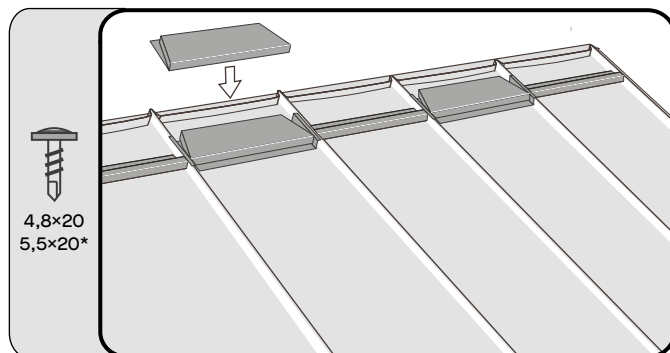
30

VENTILATION FLASHINGS

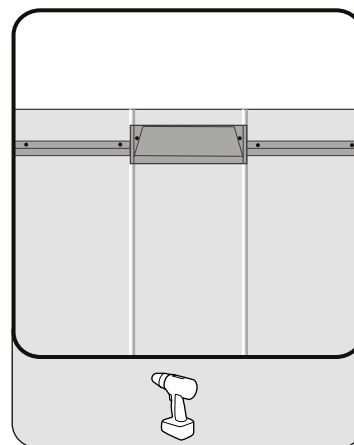
Fitting top section

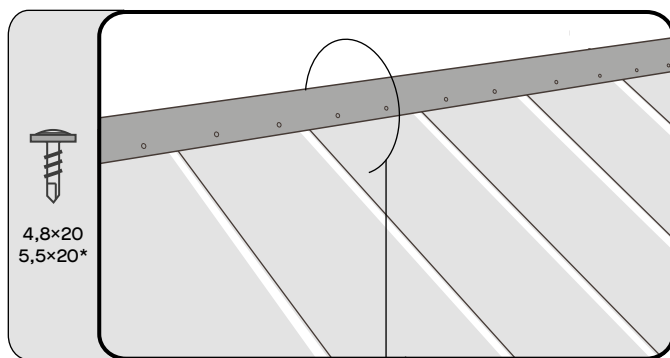
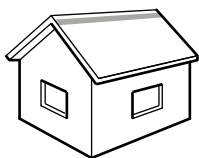


Fasten the two ventilation flashing sections using two 4.8x20 through bolts on either side of the upper ventilation flashing section.



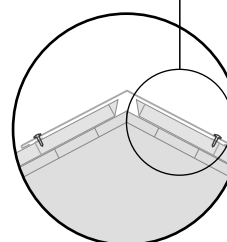
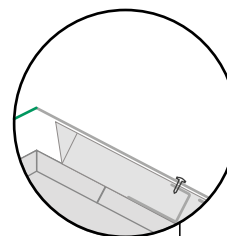
(*Screw for alu.)





(*Screw for alu.)

Fasten Plannja Trend 475 ridge flashings using two screws at each ridge support/ventilation flashing. Use one screw per ridge support for Plannja Trend 275. Join the flashings using 200 mm overlaps.



Assembly instructions

Modern

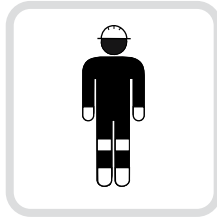


Plannja 



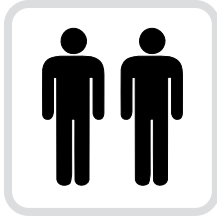
PREPARATION

Before you begin the assembly of your Plannja Roof it is important to read through the "General Preparations, roof laying" section. The section provides information and advice on how to measure your roof, what underlying materials are suitable, and much more besides.



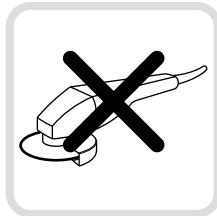
WORK SAFETY

Always follow applicable work safety legislation.



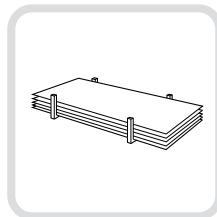
LABOUR

Assembly can be done by one person. For safe assembly, we always recommend that at least two people perform the work.



TOOLS

No special tools are required for roofing sheet assembly. Nevertheless, a screwdriver can make the work considerably easier. Cut sheets using sheet metal shears, a nibbling machine or a circular saw. Never use a grinding disc. Sheet metal coatings can be damaged by swarf from the disc.



TRANSPORT, STORAGE AND HANDLING

As far as possible, store Plannja Modern panelling indoors. Cover the materials with tarpaulin when storing outdoors. If there is a risk of condensation store packages inclined. Make sure good ventilation is achieved.



WALKABILITY

The walkability of thin sheet profile panels is difficult to define. In general a certain degree of care must be taken when walking and working on thin sheet roofs. Walkable sheeting refers to profiled panels that will allow careful access without being damaged or suffering ugly indentations. For safety's sake always try to walk above or beside a batten. In the case of Plannja Flex, always step in the profile valley when walking on the roof.

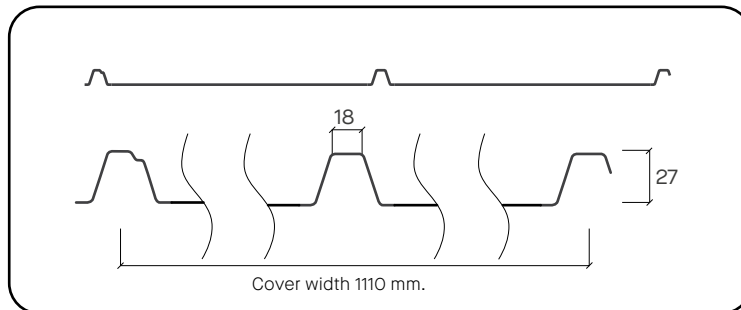




TECHNICAL INFORMATION

Material	Steel
Coating	Hard Coat 50
Profile / Max height	27 mm
Min length	400 mm
Max length	8000 mm
Sheet thickness	0.60 mm
Weight	5.4 kg/m ²
Cover width	1110 mm.
Minimum recommended pitch	10° (1:9)
Seal at side and end overlap	10-14°

SHEET GEOMETRY



INSTALLATION SCREWS

4.8×20 For sheet-to-sheet fastening.

4.8×35 For fastening in profile valley and fittings; sheet to wood.

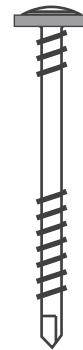
4.8×65 For fastening in profile apex, sheet to wood.



Part number 312001
312008
4.8×20



Part number 312002
4.8×35



Part number
4.8×65



RECYCLING

Take care to remove sheet clippings and screws from the roof, gutters and the ground on completion of assembly.

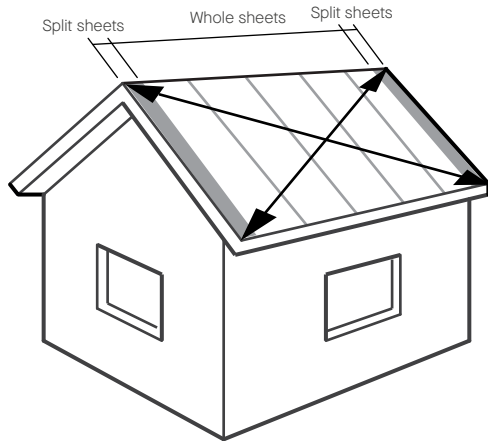
The materials are 100 per cent recyclable and can be disposed of at recycling stations. Remember to pick up or sweep up nibbling chips from the roofing sheets as they can cause damage to the coating.



1

ROOF MEASUREMENT

Diagonal measuring and symmetry



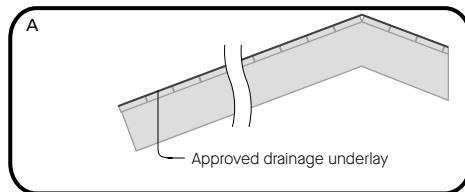
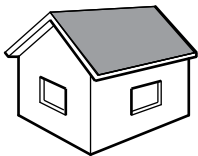
Begin by checking roof measurements by measuring the diagonals from corner to corner. If the distances are unequal, the roof is skewed. In this case, lay the sheet so that its lower edge aligns with the eaves. Deviations of 20–30 mm can be concealed with gable flashings.

If you want the folds to be symmetrically distributed across the roof, first measure the length of the roof in order to determine the widths of the first and last sheets. Remember to add around 30 mm to the cutting width to make the fold up to the bargeboard. Refer to step 8. Minimum pitch for Plannja Modern is 1:4 (10 degrees).

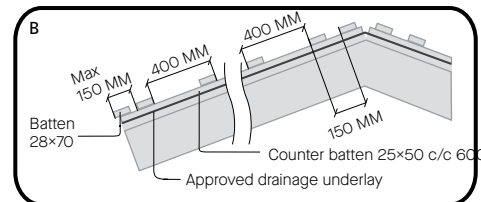
2

UNDERLAYMENT

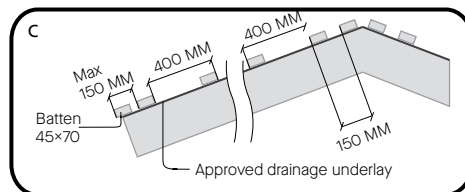
The assembly instruction illustrate alt. A



A. Lay Plannja Modern directly on tongue and groove boards /plywood, at least 17 mm thick and with an approved drainage underlay e.g. Plannja Anticon Coverall.



B. If you choose to lay the roof on battens the minimum batten width is 70 mm and max 400 mm c/c. Batten spacing closest to the free end of the flashing (at the eaves, ridge and high section connection) and at any overlap may not be greater than 150 mm. Use approved drainage underlay e.g. Plannja Anticon Coverall.



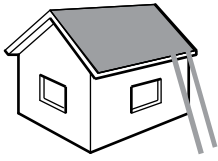
C. If your house has battens fixed directly to the trusses, the battens must be at least 45x70 and max 400 mm c/c. Lay a light underlayment beneath the batten e.g. Plannja Anticon Coverall.

For more information on alternatives B and C, visit www.plannja.com

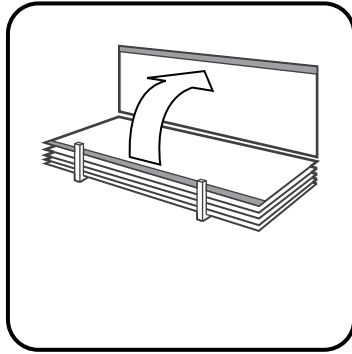


3

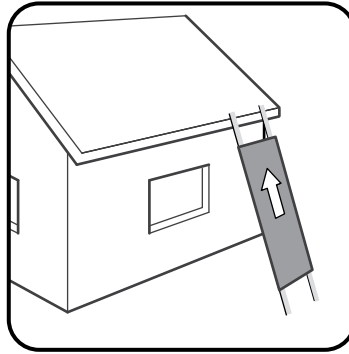
LIFTING SHEETS TO THE ROOF



Remember that long sheets may not be lifted by their ends. The best method is to carry them by holding the long sides. The sheets can be slid up to the roof along a pair of beams, a ladder or similar.



Carry sheets upright by holding the long sides.

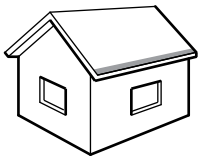


Use planks, a ladder or similar as a support on which to slide the sheets up onto the roof.

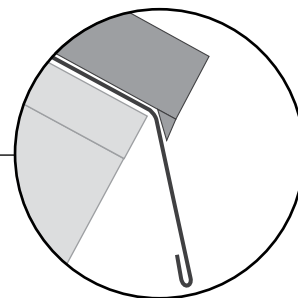
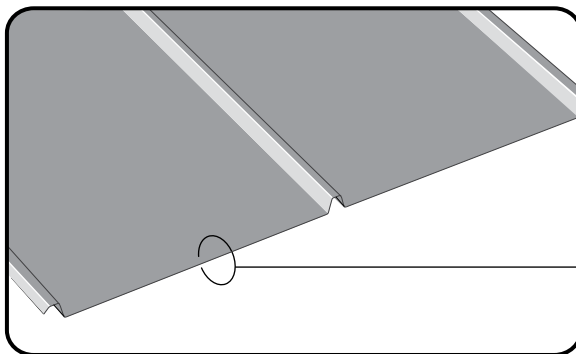
4a

CONNECTING AT THE EAVES

Sheet with straight front edge



Straight front edge; lay sheet with a 10 mm protrusion over a standard eave flashing. The protrusion must be bent down in the case of pitches between 10–14°.

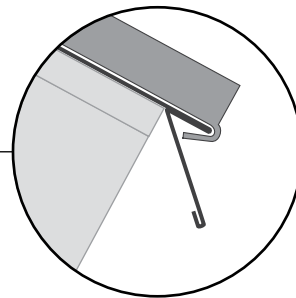
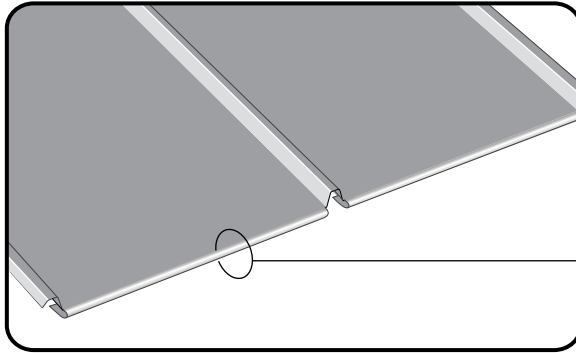
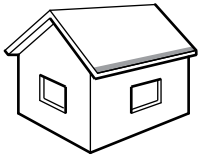


4b

CONNECTING AT THE EAVES

Sheet with seam at front edge

Hemmed for eaves. The hem is slid over the specially adapted eave flashing.

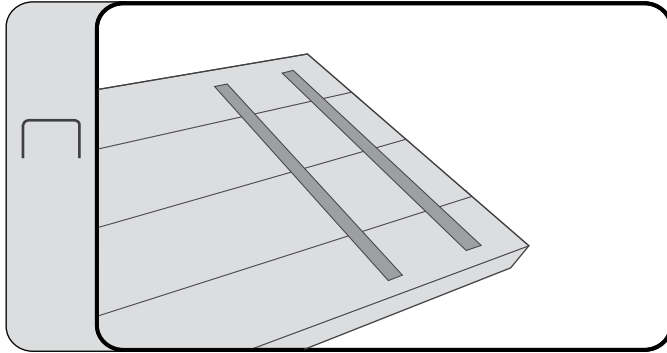


5a

DAMPENING STRIPS

When installing on a flat underlayment

When installing Plannja Modern on a flat underlayment, staple dampening strips beneath the centre of each profile valley from eaves to ridge. The dampening strip should cover the major part of the underlayment. The aim is to reduce any sound that may be caused by wind and rain.

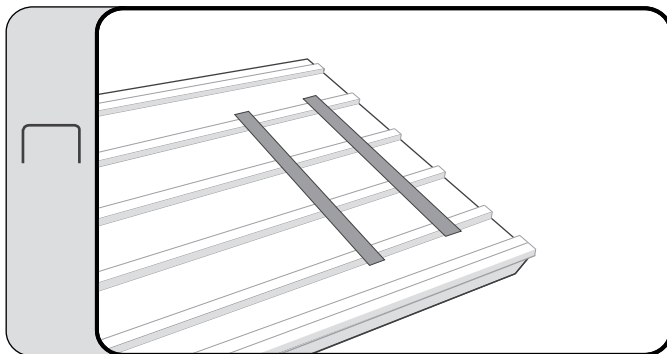


5b

DAMPENING STRIPS

Assembly on battens

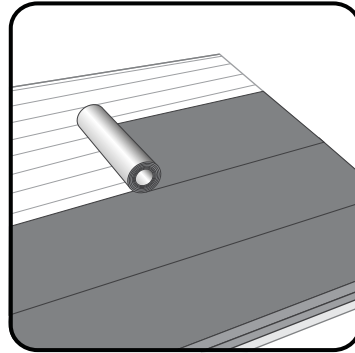
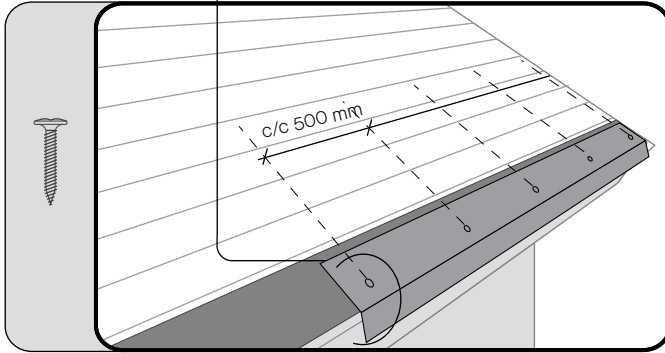
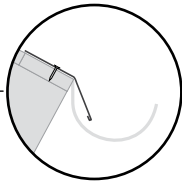
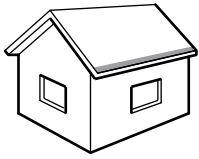
When installing Plannja Modern onto battens, staple dampening strips beneath the centre of each profile valley from eaves to ridge. The dampening strip should run from the second lowest to the second highest batten. The aim is to reduce any sound that may be caused by wind and rain.



6a

EAVE FLASHING

For roofing sheet with straight front edge



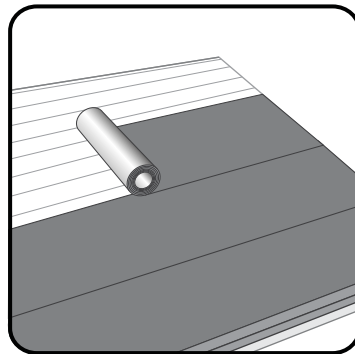
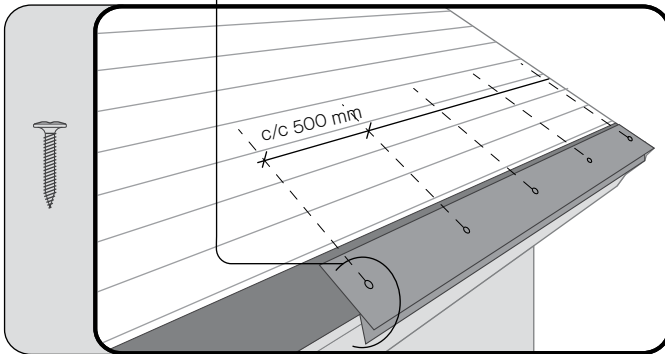
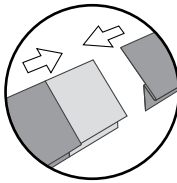
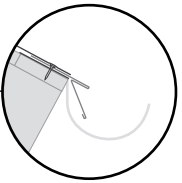
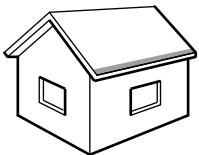
Install Plannja Modern with a straight front edge with a 10 mm protrusion on a standard eaves fitting. Join the eave flashing using 100 mm overlaps.

Fasten the eave flashing with a screw (or galvanized nail) into the underlayment at a spacing of 500 mm. Bear in mind you may have to install gutter brackets before the eave flashing.

6b

EAVE FLASHING

For roof sheets with seams at front edge



Fasten the eave flashing with a screw (or galvanized nail) into the underlayment at a spacing of 500 mm. Bear in mind you may have to install gutter brackets before the eave flashing. Slot the flashings together when joining.

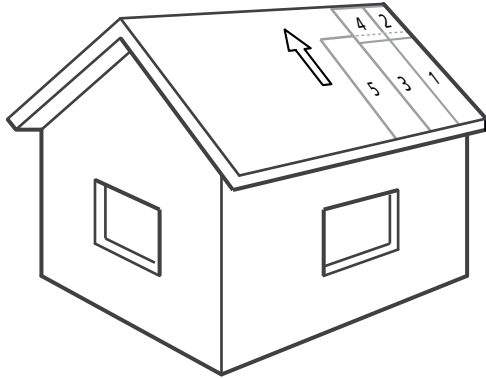
Lay a strip of underlay covering before installing the eaves sheet.

Lay the protective underlay covering so that it covers the screws on the eaves sheet.



7

DIRECTION OF INSTALLATION

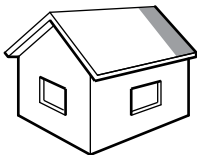


Lay Plannja Modern from right to left. Start by laying the first sheet at the bottom of the outer edge of the roof. Attach the sheet at right angles to the eaves. Sequence as per schematic. Sheet number 2 must overlap sheet number 1 by at least 200 mm.



8

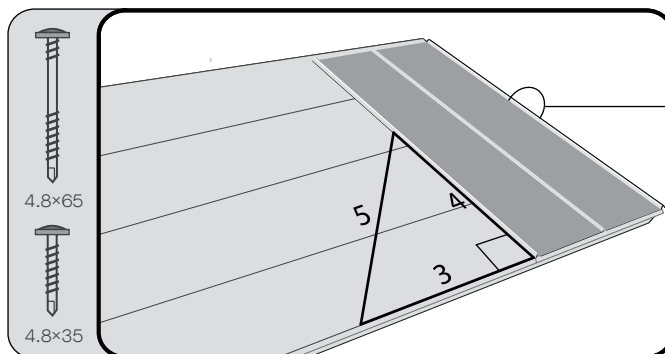
INSTALLING THE FIRST SHEET



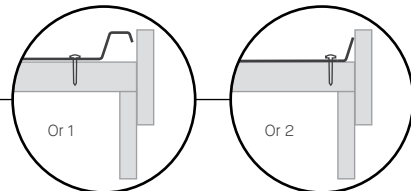
IMPORTANT!
Check that the first sheet forms a 90° angle with the eaves.

Lay the first sheet in position. Check that it forms a 90° angle with the eaves.

A margin of error of 20–30 mm at the eaves can be concealed later with the gable flashing. When laying seamed sheets, lay the first sheet so that its seam slots over the eave flashing and then slide up the sheet. Align the sheet and fasten using screws as shown in the diagram in steps 9a or 9b, depending on the underlayment.



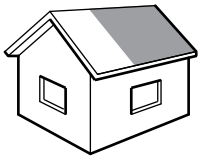
Check the angle using the 3-4-5 method, as illustrated.



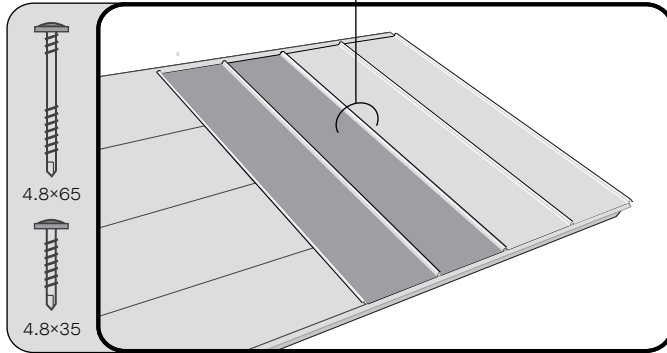
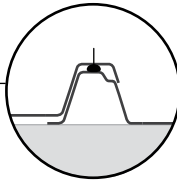
9a

SUBSEQUENT SHEETS

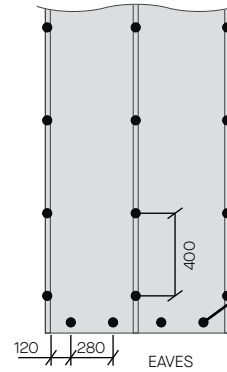
When installing on a flat underlayment



Sealing compound
at 10-14°

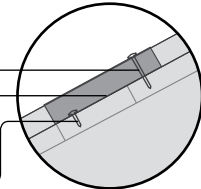


When installing sheet on a flat substrate, fasten it through the profile apexes using screws 4.8x65 with 400 mm spacing. Supplement at the eaves with 4 pcs 8x35 in the profile valley as shown in the fastening diagram below. Use sealing compound in the joints on roofs with 10-14° pitches.



Sheet with a folded front edge, complemented with custom eaves do not need to be screwed in the forefront

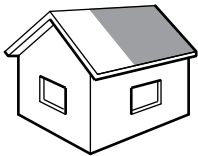
Lengthwise joints:
1 screw / profile apex
One bead of sealing compound
2 screws / profile valley



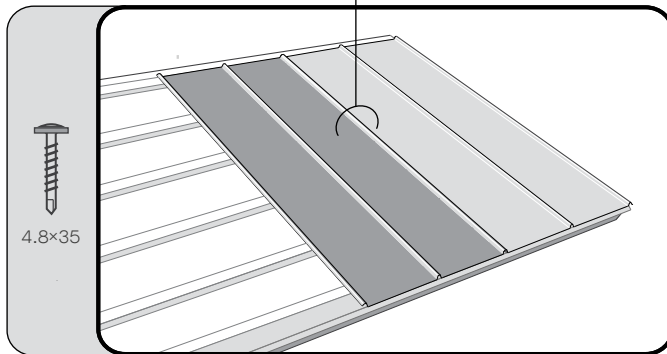
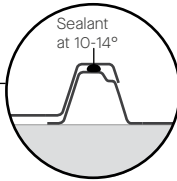
9b

SUBSEQUENT SHEETS

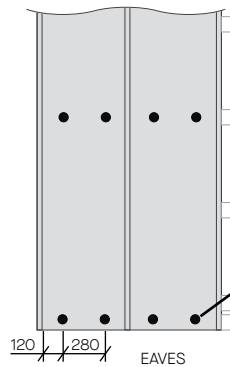
Installing on battens



Sealant
at 10-14°

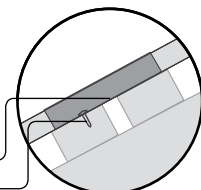


When installing on battens, fasten the sheet through the profile valleys on every other batten using 4.8x35 screws as shown in the fastening diagram below. Use sealing compound in the joints on roofs with 10-14° pitches.



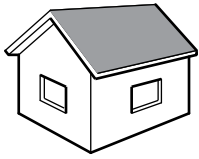
Sheet with a folded front edge, complemented with custom eaves do not need to be screwed in the forefront.

Lengthwise joints:
One bead of sealing compound
2 screws / profile valley

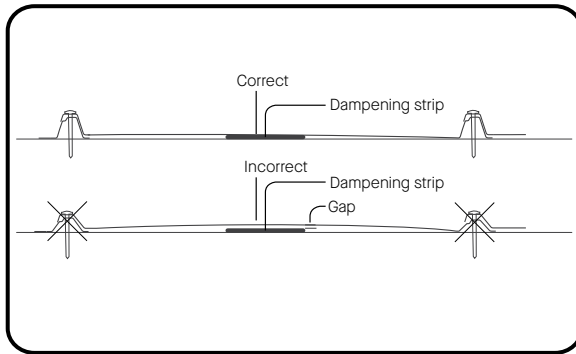


10

FIXING



Do not tighten the screw in the profile peak too hard. There is a risk that profile shape will be distorted as illustrated on the left, creating a gap between the sheet and the dampening strip.



11

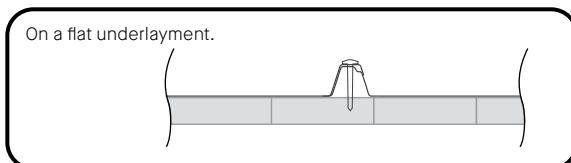
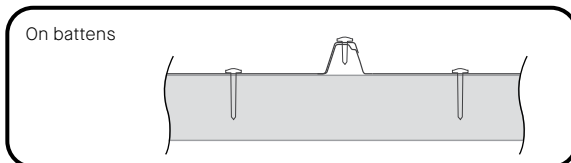
SIDE OVERLAP

Fastening and sealing



Roof slope 10–14°
Run a bead of sealant e.g. Plannja SPS, along the lower profile's flange. A 3×10 mm self-adhesive seal strip or grease may also be used as a seal. When installing on battens, rivet or screw the side overlap at 300 mm c/c intervals.

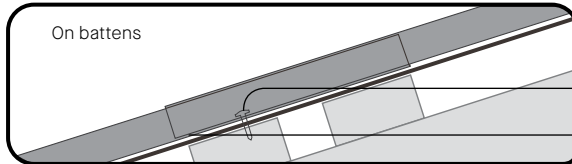
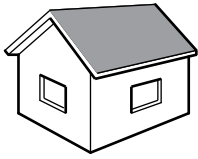
Roof slopes greater than 14°
When installing on battens, especially windy locations, rivet or screw the side overlap with a c/c spacing of 800 mm (in line with the screws in profile valley).



12

END OVERLAPS & FLASHINGS

Fastening and sealing



On battens

End overlap

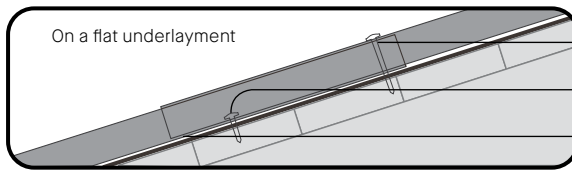
The end overlap must be at least 200 mm and be on two battens. If the pitch is 10–14°, the end overlap must be at least 500 mm and be sealed in the same manner as the side overlap. If the slope exceeds 12 m, shape the end overlaps so that the upper and lower sheet rows can slide in relation to one another when expanding/contracting.

Eaves, gable and ridge flashings

In order to reduce contraction/expansion movements, fasten all flashings without shared screws in overlaps, i.e. screws may not pass through both flashings.

2 screws / profile valley

A bead of sealant, e.g. Plannja SPS, between sheets



On a flat underlayment

1 screw / profile apex

2 screws / profile valley

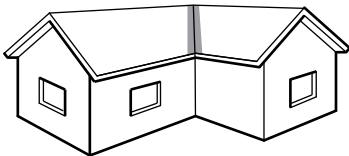
A bead of sealant, e.g. Plannja SPS, between sheets



13a

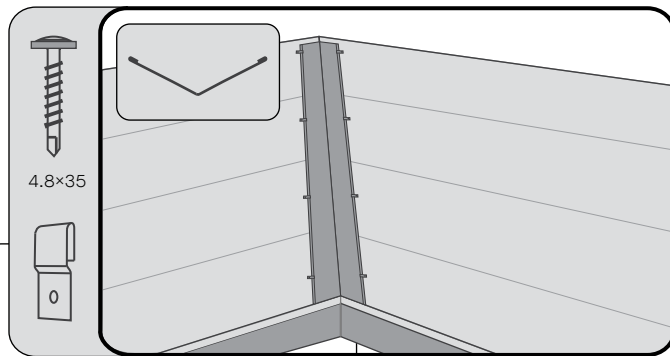
VALLEY GUTTER

Standard



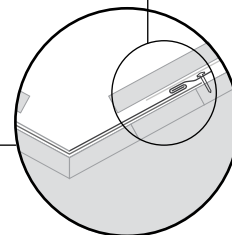
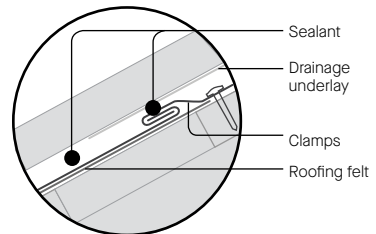
Attach the valley gutter to the underlayment with the aid of brackets or step brackets. The sheet must protrude at least 150 mm beyond the edge of the valley. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.

Run a bead of sealant e.g. Plannja SPS, between the sheet and the valley gutter, and a bead between the drainage underlay and the gutter seam.



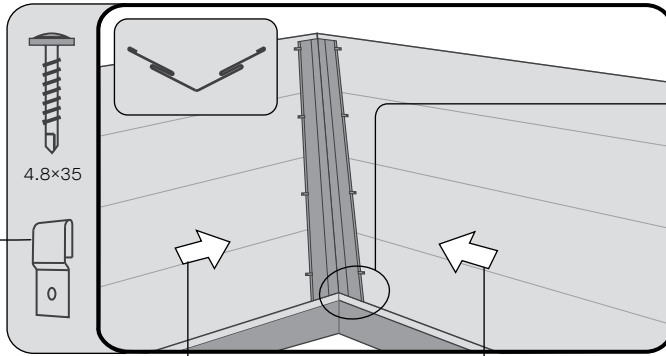
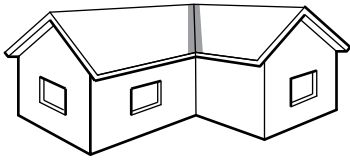
4.8x35

Clamps are easily made by shaping a piece of sheet.



13b

VALLEY GUTTER For hemmed sheets



4.8x35

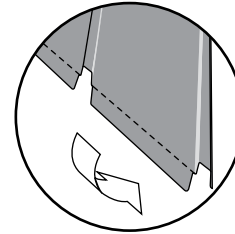
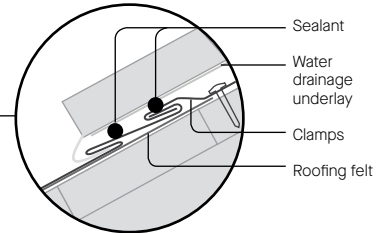
NOTE: Sheet assembly direction for connecting to gutter.

Clamps are easily made by shaping a piece of sheet.

Cut the sheet and hem it to fit the valley gutter.

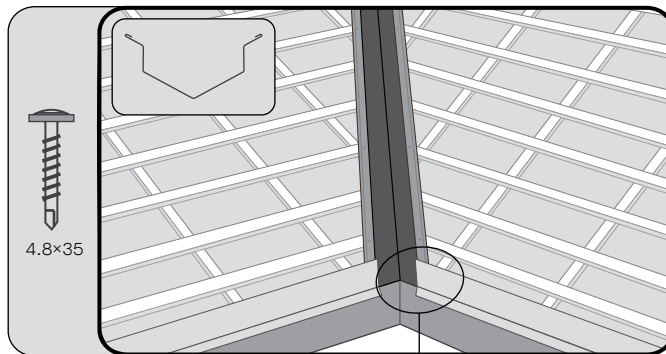
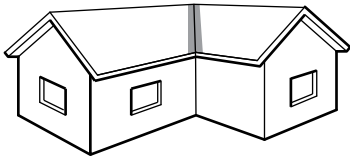
Attach the valley gutter to the underlayment with the aid of brackets or step brackets. Cut the sheet to allow a hem to be made using seaming tongs. This step can be difficult; it can be a good idea to engage a tradesman for the best execution. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.

Run a bead of sealant e.g. Plannja SPS, between the sheet and the valley gutter, and a bead between the drainage underlay and the gutter seam.



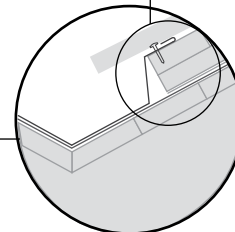
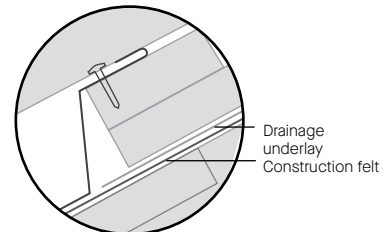
13c

VALLEY GUTTER On battens



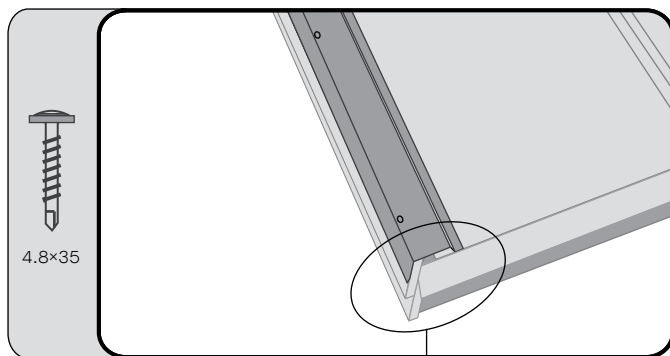
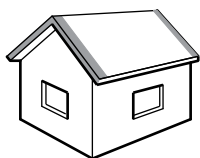
4.8x35

The sheet must protrude at least 150 mm beyond the edge of the valley. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.



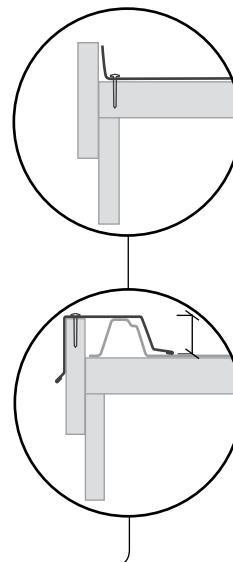
14

GABLE FLASHING



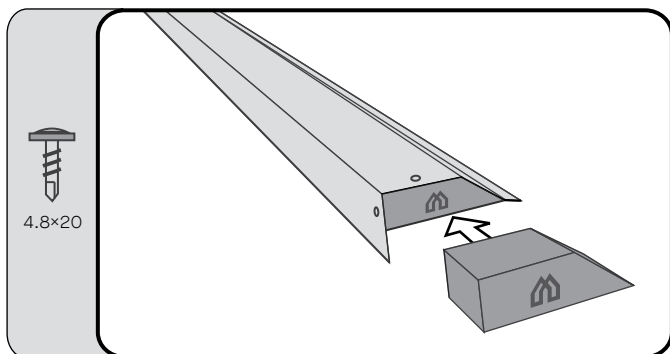
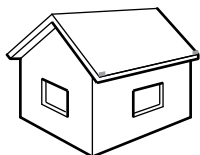
The gable flashing is installed above the sheet edge and screwed to the bargeboard with 300 mm c/c spacing.

If the sheet must be cut, always make a final fold up out toward the gable.



15

GABLE FLASHING END COVERS



Press the end cover into place at the bottom of the gable flashing and fasten with two screws.

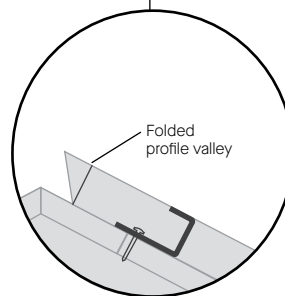
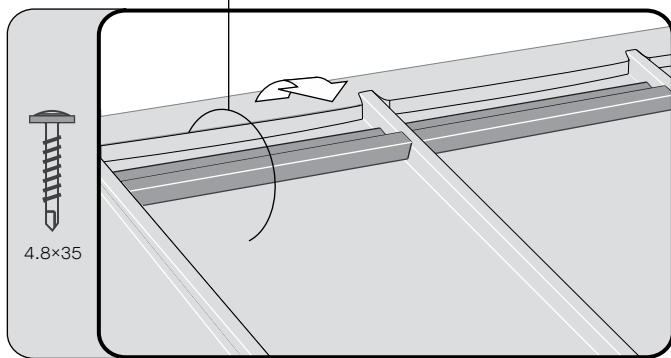


16

RIDGE SUPPORT



Apply a bead of sealing compound to the underside of the ridge support and affix it to the substrate using two screws through the roof sheet. Fold up the profile valley as illustrated.

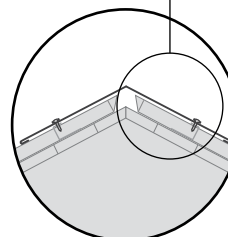
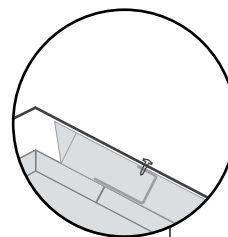
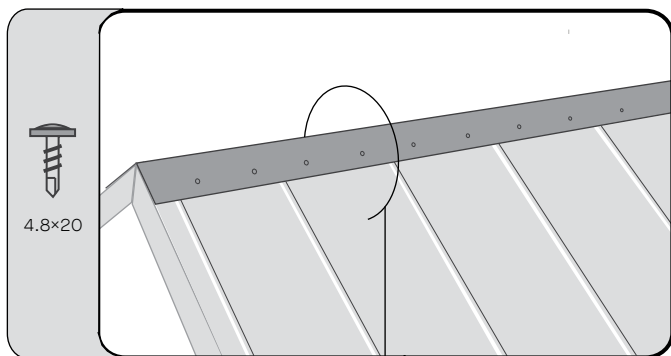


17

RIDGE FLASHINGS



Fasten Plannja Modern ridge flashings using two screws at each ridge support. Join the flashings using 200 mm overlaps.



Assembly instructions

Traditional Profile



Plannja 



PREPARATION

Before you begin the assembly of your Plannja Roof it is important to read through the “General Preparations, roof laying” section. The section provides information and advice on how to measure your roof, what underlying materials are suitable, and much more besides.



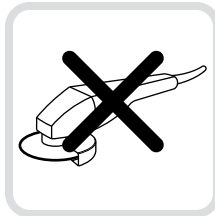
WORK SAFETY

Always follow applicable work safety legislation.



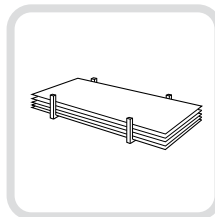
LABOUR

Assembly can be done by one person. For safe assembly, we always recommend that at least two people perform the work.



TOOLS

No special tools are required for roofing sheet assembly. Nevertheless, a screwdriver can make the work considerably easier. Cut sheets using sheet metal shears, a nibbling machine or a circular saw. Never use a grinding disc. Sheet metal coatings can be damaged by swarf from the disc.



TRANSPORT, STORAGE AND HANDLING

As far as possible, store Plannja construction panelling indoors. Cover the materials with tarpaulin when storing outdoors. If there is a risk of condensation store packages inclined. Make sure good ventilation is achieved.



WALKABILITY

The walkability of thin sheet profile panels is difficult to define. In general a certain degree of care must be taken when walking and working on thin sheet roofs. Walkable sheeting refers to profiled panels that will allow careful access without being damaged or suffering ugly indentations. For safety's sake always try to walk above or beside a batten. In the case of Plannja Traditional Profile, always step in the profile valley when walking on the roof.

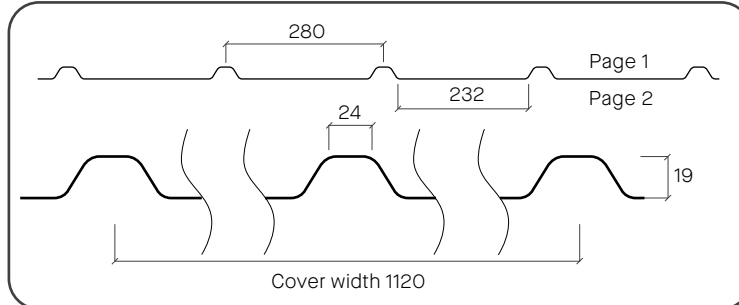




TECHNICAL INFORMATION

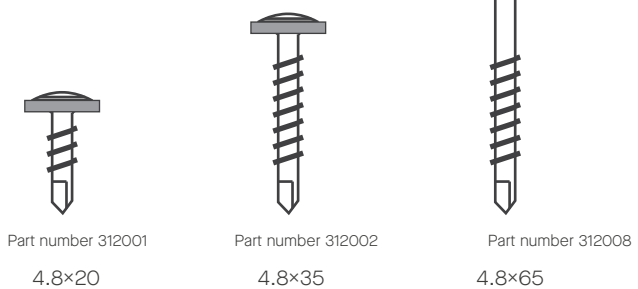
Material	Steel / Aluminium
Coating	Hard Coat 50
	Hard Coat 25
Profile / Max height	19 mm
Min length	1500 mm
Max length	8000 mm
Sheet thickness	0.60 mm / 0.70mm
Weight	5.2 kg/m ² / 2.3 kg/m ²
Cover width	1120 mm.
Minimum recommended pitch	10° (1:9)
Seal at side and end overlap	10-14°

SHEET GEOMETRY



INSTALLATION SCREWS

- 4.8×20 For sheet-to-sheet fastening.
- 4.8×35 For fastening in profile valley and fittings; sheet to wood.
- 4.8×65 For fastening in profile apex, sheet to wood.



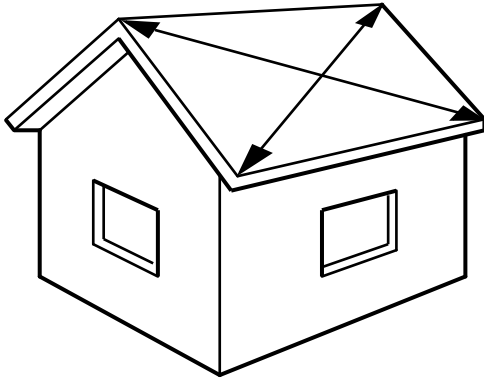
RECYCLING

Take care to remove sheet clippings and screws from the roof, gutters and the ground on completion of assembly. The materials are 100 per cent recyclable and can be disposed of at recycling stations. Remember to pick up or sweep up nibbling chips from the roofing sheets as they can otherwise cause damage to the coating.



1

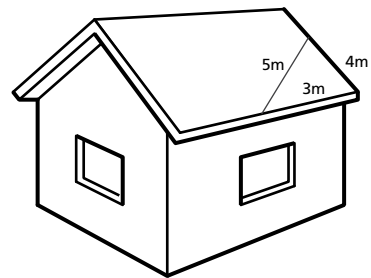
ROOF MEASUREMENT



HOW TO MEASURE THE ROOF

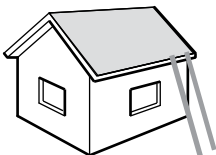
Begin by checking that the roof is straight. Measure diagonally from corner to corner. If the distances are unequal, the roof is skewed. Deviations of 20–30 mm can be adjusted with gable flashings.

Alternatively, the angle can be checked using a 3-4-5 triangle as illustrated.

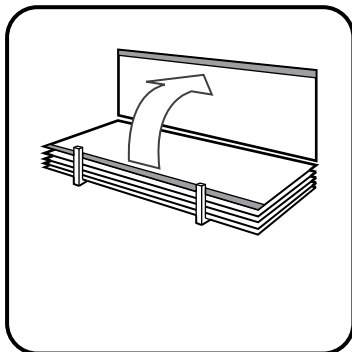


2

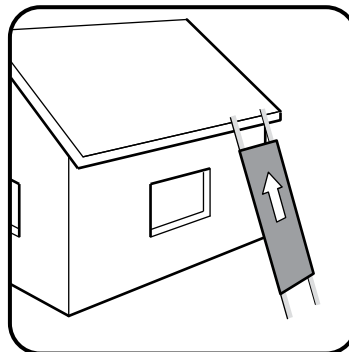
LIFTING SHEETS TO THE ROOF



Remember that long sheets may not be lifted by their ends. The best method is to carry them by holding the long sides. The sheets can be slid up to the roof along a pair of beams, a ladder or similar.



Carry sheets upright by holding the long sides.

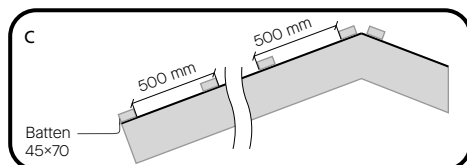
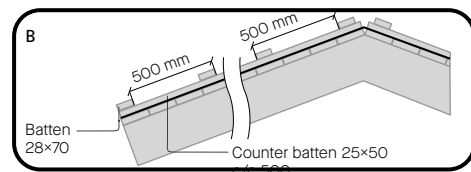
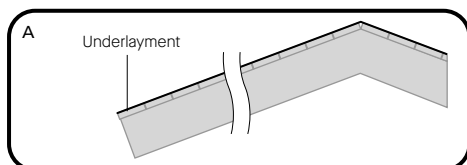
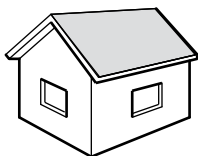


Use planks, a ladder or similar as a support on which to slide the sheets up onto the roof.



3

UNDERLAYMENT FOR PLANNJA TRADITIONAL PROFILE



Plannja Traditional Profile must be installed on a flat underlayment with underlayment felt (A). It can be installed on battens with underlayment (B or C), but because there is a high risk the joists will show through, Plannja recommends the choice of Traditional Profile with ribs in such cases. Plannja Traditional Profile with ribs may be installed directly onto battens. Max batten spacing with regard to sheet walkability is 500 mm.

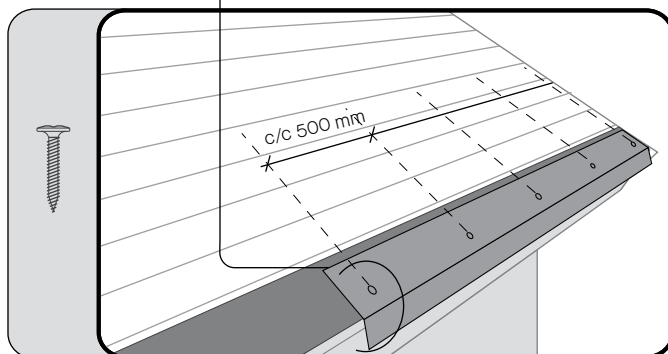
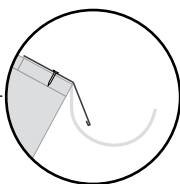
A. Lay Plannja Traditional profile directly on tongue and groove boards /plywood, at least 17 mm thick and with underlayment felt equivalent to minimum YAP2200 or Plannja Acticon Coverall.

B. If you choose to lay the roof on battens the minimum batten width is 70 mm with max 300 mm spacing. Use underlayment felt equivalent to minimum YAP2200 or Plannja Acticon Coverall.

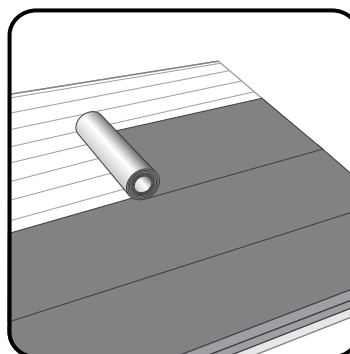
C. If your house has battens fixed directly to the trusses, the battens must be at least 45x70 and max 500 mm c/c. Install an underlayment of board or Plannja Acticon Coverall below the battens.

4

EAVE FLASHING



Lay a strip of underlay covering before installing the eaves sheet.



Lay the protective underlay covering so that it covers the screws on the eaves sheet.

Install Plannja Traditional Profile with a straight front edge with a 10 mm protrusion on a standard eaves flashing. Join eave flashings using 100 mm overlaps.

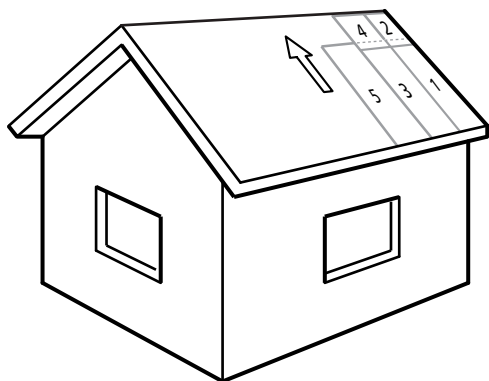
Fasten the eave flashing with a screw (or galvanized nail) into the underlayment at a spacing of 500 mm. Bear in mind you may have to install gutter brackets before the eave flashing.



5

DIRECTION OF INSTALLATION

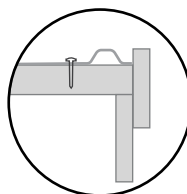
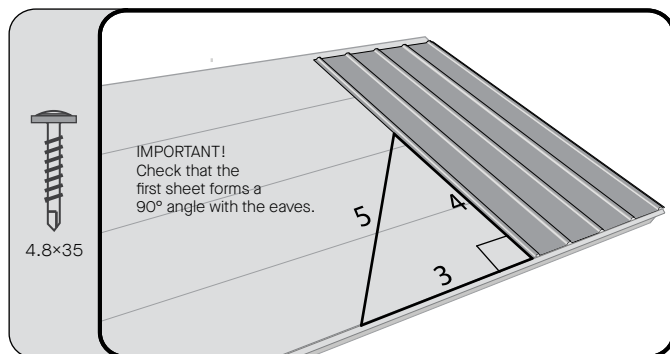
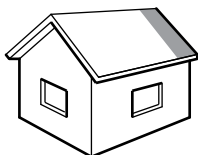
Lay Plannja Traditional Profile from right to left. Start by laying the first sheet at the bottom of the outer edge of the roof. Attach the sheet at right angles to the eaves. Sequence as per schematic. Sheet number 2 must overlap sheet number 1 by at least 200 mm.



6

INSTALLING THE FIRST ROOFING SHEET

Lay the first sheet in position. Check that it forms a 90° angle with the eaves. A margin of error of 20–30 mm at the eaves can be concealed later with the gable flashing. Align the sheet and fasten using screws as shown in the diagram in step 7.



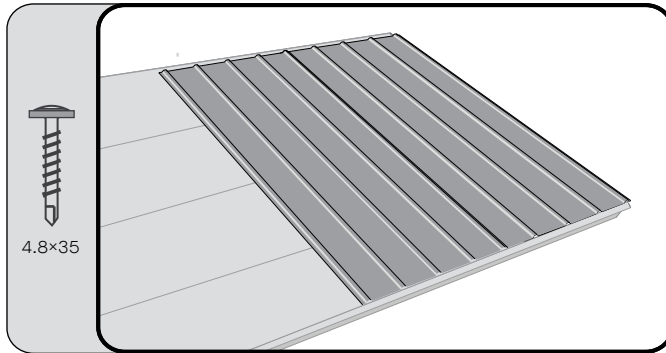
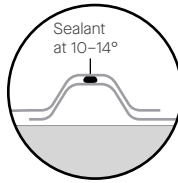
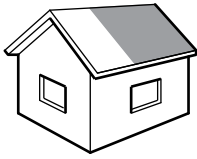
Check the angle using the 3-4-5 method, as illustrated.



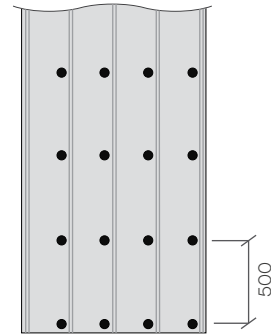
7

SUBSEQUENT SHEETS

When installing on a flat underlayment



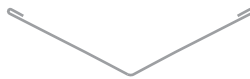
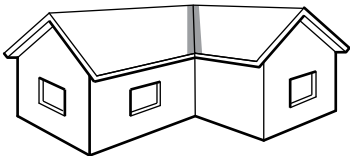
Fasten Plannja Traditional Profile with or without ribs using 4.8x35 screws in every profile valley c/c 500 mm; see below. Alternatively, fasten every profile apex using 4.8x65 screws, however always with one 4.8x35 screw in every profile valley at the eaves and ridge. Screw Plannja Traditional Profile with ribs to each batten through each profile valley. Use sealing compound and screws in the side overlap c/c 300 mm on roofs with 10–14° pitches.



8

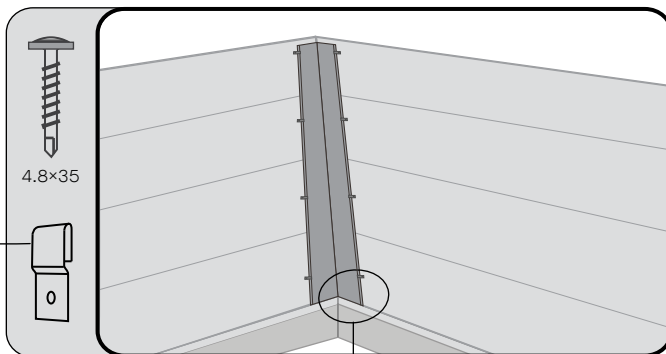
VALLEY GUTTER

Standard

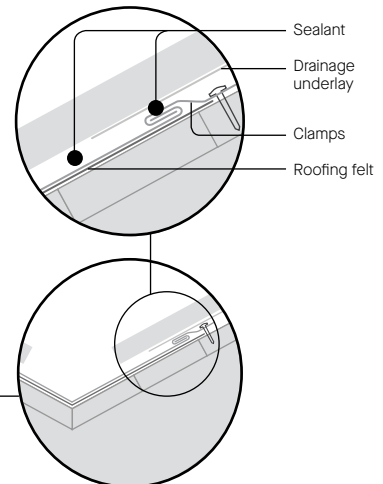


Attach the valley gutter to the underlayment with the aid of brackets or step brackets. The sheet must protrude at least 150 mm beyond the edge of the valley. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.

Run a bead of sealant e.g. Plannja SPS, between the sheet and the valley gutter, and a bead between the drainage underlay and the gutter seam.



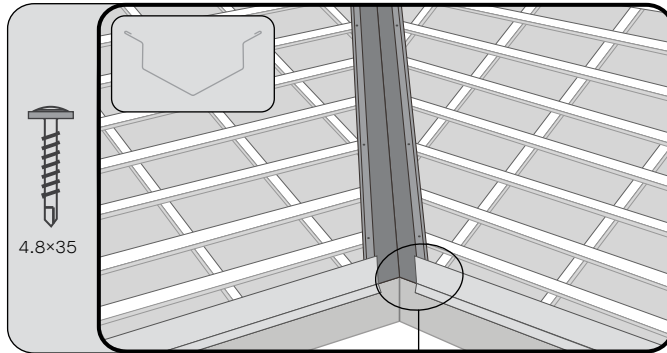
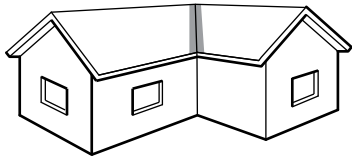
Clamps are easily made by shaping a piece of sheet.



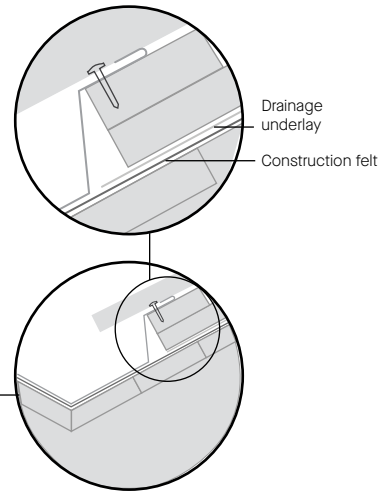
9

VALLEY GUTTER

On battens

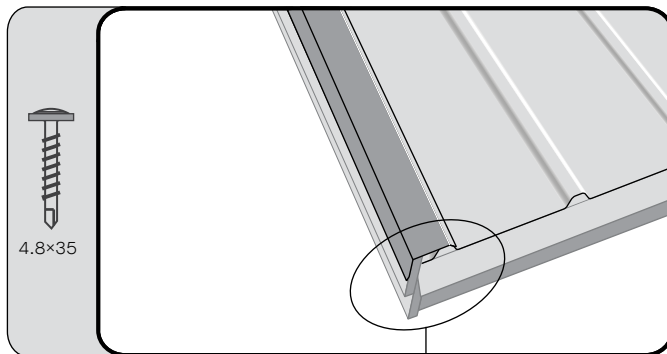
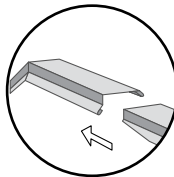
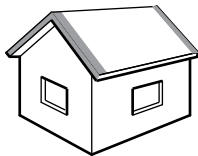


The sheet must protrude at least 150 mm beyond the edge of the valley. Fasten all sheets next to the valley gutter using screws on the outside of the gutter. Overlap gutter joints by at least 200 mm.



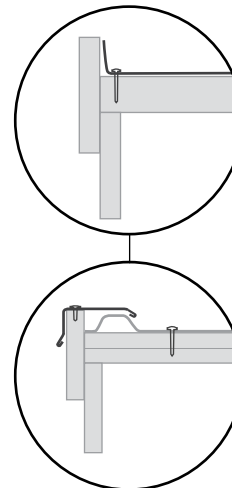
10

GABLE FLASHING



Screw the gable flashing to the bargeboard using screws 4.8x35 c/c 300 mm. When joining, cut the lower part as illustrated below and overlap joints 100 mm.

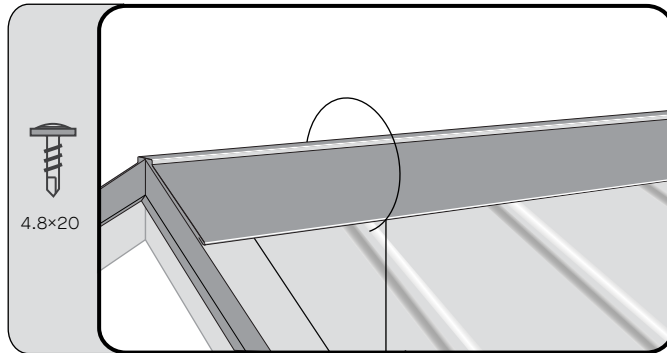
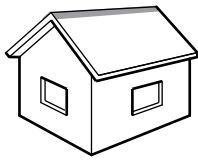
If the sheet must be cut, always make a final fold up out toward the gable.



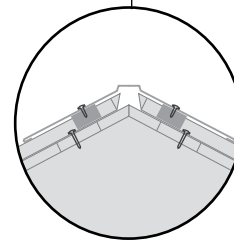
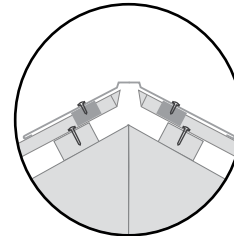
11

RIDGE FLASHINGS

Ridge flashing



Position the seal strip and screw the ridge flashing into every other profile apex. Join using 200 mm overlaps. Fold the profile bottom up at the top.



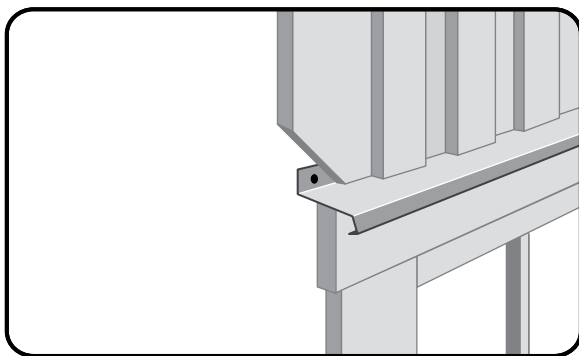
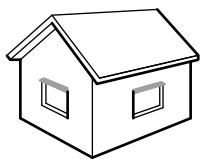
Assembly instructions

Flashings and fittings



INSTALLING WINDOW FLASHINGS

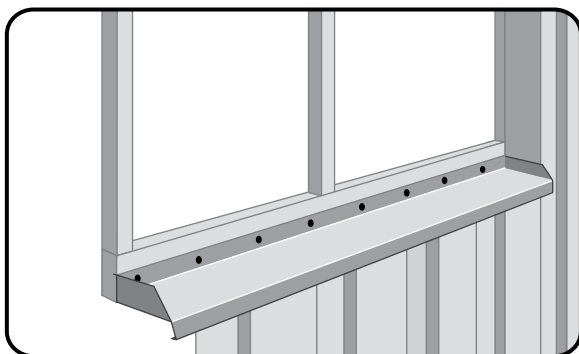
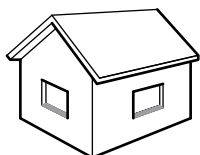
Drip cap



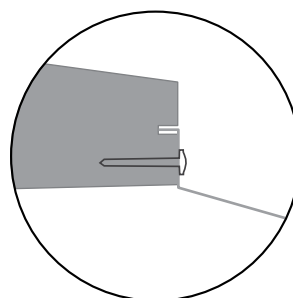
Installed above the window case. Prevents water forcing its way into the structure. Screw or nail down the drip cap every 10 cm.

INSTALLING WINDOW FLASHINGS

Sill

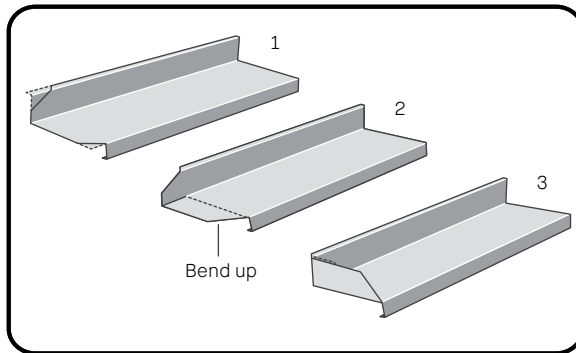
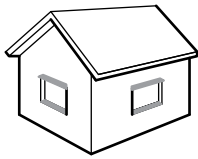


Install it in the window frame's routed groove. Prevents water and snow forcing their way behind the façade cladding.



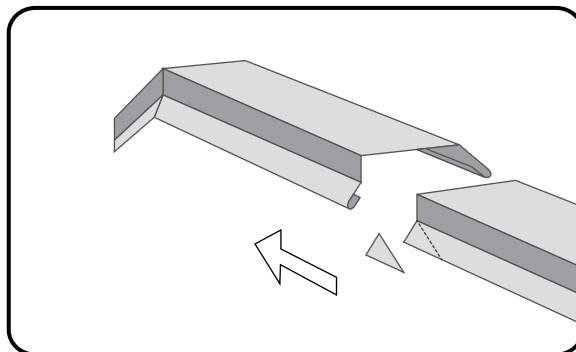
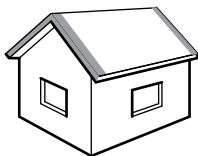
INSTALLING WINDOW FLASHINGS

Assembly tips



Cut to correct length, 30 mm longer than the groove in the window frame. Clip out an angled notch at the front and back edges. Bend up an approx. 10 mm tab at both ends and fold in the back edge as illustrated. Press the back edge into the frame groove. Screw or nail the sill every 10 cm.

INSTALLING GABLE FLASHINGS



When joining gable flashings, cut away the corners of the underlying flashing so that the lower can be slid under the upper. The joint will then form a better seal and be less visible.





One Plannja telephone number is all you need: +46 10-516 10 00

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