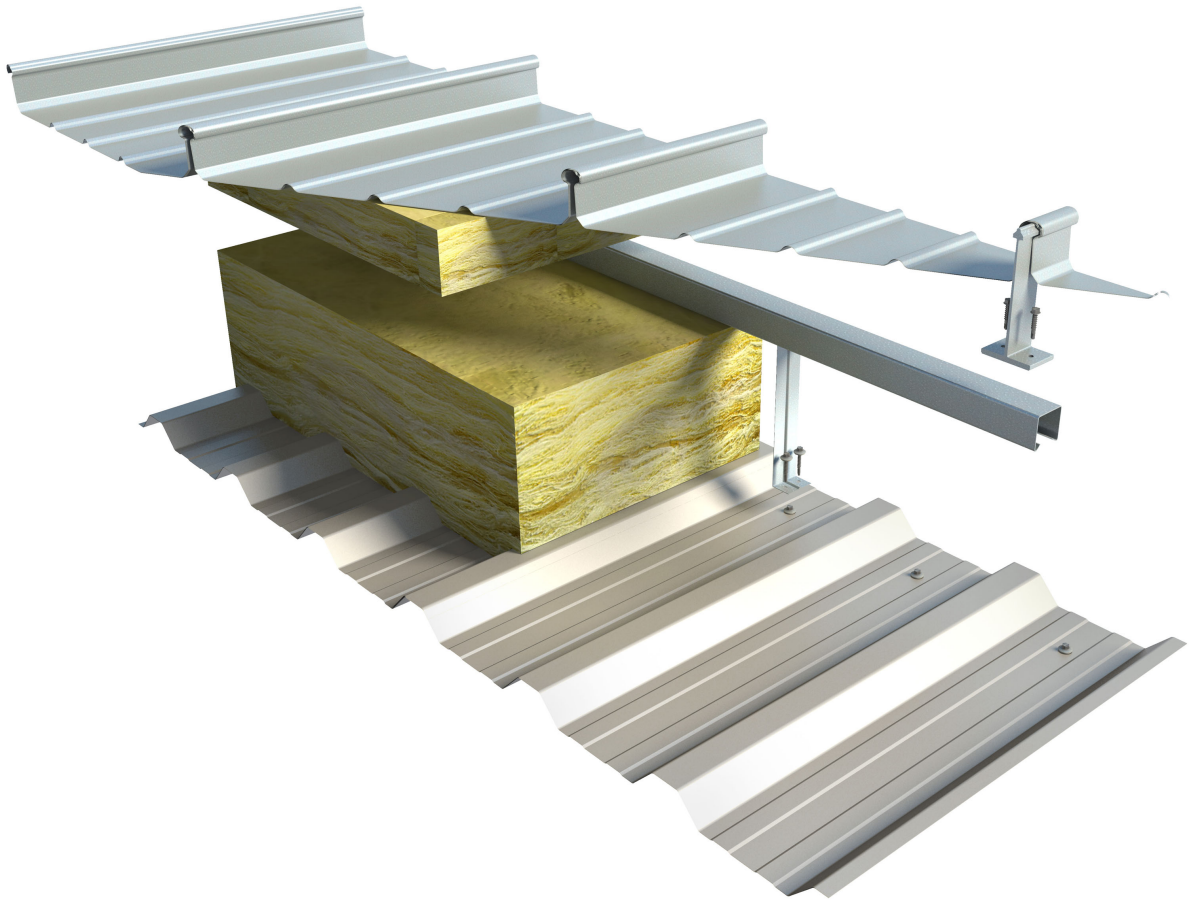
ArkZip Fixing and Handling Guide



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Safety:

1. These installation guidelines are for Arkzip standing seam profiles only.

2. The installer is responsible for safe roof access and other safety aspects.

3. Before installing Arkzip profiles, the installer needs to have correctly and safely installed the liner (or deck), applied seals and membranes as specified for the vapour control layer/air barrier, and installed the spacer and any ridge or anti sway bracing. The liner must be fully fixed to be rated as non-fragile.

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Delivery:

4. Arkzip profiles are delivered by road or manufactured on site at eaves or ground level.

5. Packs are banded in max 1t bundles using nylon banding.

6. Painted aluminium sheets will have protective strippable film that must be removed within 2 months after installation.

7. Packs carry labeling to identify the profiles and show the CE mark, number of sheets, material and length.

8. Straight sheets are packed face to face; 2No sheets nestled, 1No facing.

9. Protect plain aluminium from contamination and other trades. Natural aluminium will discolour on exposure to mud/ cement/ mortar etc

Lifting:

Note that the installer is responsible for the safe off loading and hoisting of products. Ark Profiles does NOT provide straps or lifting beams

10. Packs < 7.5m can be lifted by site forklift. Take care to avoid damage to the under sheet in a bundle.

11. Packs 7.5m to 12m can be offloaded and hoisted using 2 web slings at >45 degree angle

12. Packs >12m can be offloaded and hoisted using and a lifting beam and straps provided by the crane company.

13. Do not use chains to lift packs

14. Secure bundles on the roof against wind action and against slippage.

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Check list – liner/ spacer/ insulation:

Liner	✓
Fixings have 15mm dia washers	
Fixings- end laps/ ridge/ eaves: 5No per sheet	
Fixings- intermediate purlins: 3No per sheet	
Side lap sealant: 50mm butyl strips over laps	
End lap sealant: 5 x 6mm butyl in end lap	
End lap 60mm min	
Liner sealed to openings, rooflights, perimeters	
Under liner fillers bedded in sealant both sides	
Spacer	
Fixings have 15mm dia washers	
Min 2No fixings per bracket	
Brackets max 1m centres	
Inserted end of bar joggle within 150mm of a bracket	
Anti sways fitted if specified	
Insulation	
Insulation dry	
Insulation in 2 layers, over and under rail.	
Do not walk on insulation	
Pack insulation around brackets and rails, no gaps	
10% compression (ie, for eg, 220mm packed into 200mm)	
Insulation in ridge/ verge etc, no gaps	

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Installation - tolerances:

Tolerances for standing seam roofing are more exacting than for basic twin skin roofing due to thermal movement and long sheet lengths.

Structure tolerances

Typically, purlin out of position tolerance should be:

- mid span in plane: <20mm
- 90° to the slope: +/-L/200 (typically +/-7.5mm at 1.5m purlin spacings (L=purlin spacing, mm)

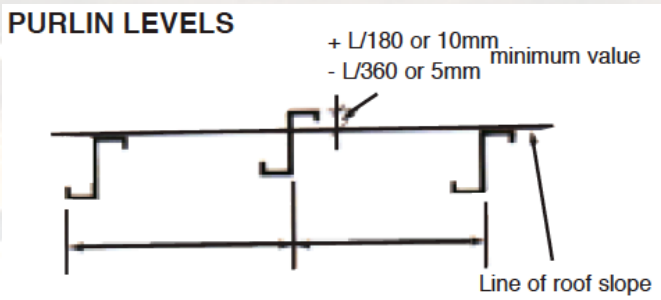
Halter tolerances

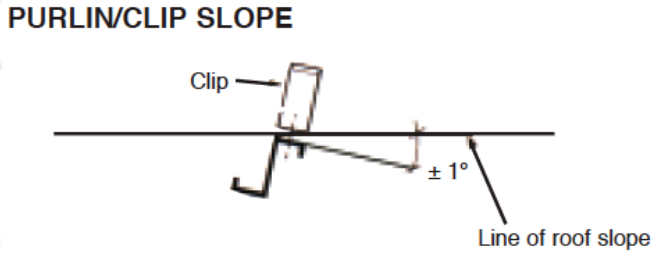
Use the gauging template provided

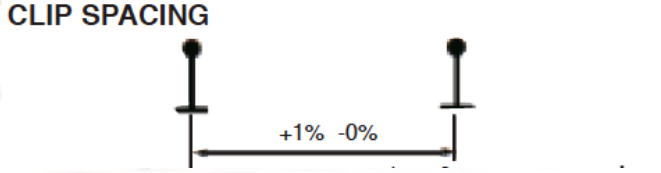
Curved sheeting has the gauging increased by 5mm.

Halters must align with the sheet ribs (+/-2°)

Halters must be true to the slope (+/-1°).







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Installation – Arkzip sheets:

1. Install the 3m pan support sections onto the spacer at the ridge, fixed in place by halters and screws

2. Fix halters with the Ark supplied stainless steel fasteners, 2No per halter. Set out halters using the gauging template (400mm for 65/400 profile, increase by 5mm for natural curved sheets)

3. Set out verge halters to the required offset and at 90° to the eaves.

4. Isolate galv from aluminium

5. Install the verge sheet, male rib leading. Zip the female rib and install the verge tee components to provide security against wind action for the trailing edge.

6. Install the fixed point fasteners either side of ribs to the pan of the verge sheet, minimum 2No stainless steel fasteners.

7. Lay quilt insulation in two layers with joints staggered. Lay the second layer over the spacer bar with the halters pushed through the quilt. Cut and pack tightly under spacer. Ensure no gaps. Do not walk on insulation and ensure insulation is dry. The insulation must rise and fill the cavity with 10% compression (ie use say 220mm for a 200mm cavity).

8. Temporarily omit the insulation under the verge sheet to avoid it getting wet and install this insulation when the verge flashing is installed.

9. Install sheets ensuring that they sit over the halter heads. Zip up sheets as they are laid with maximum 10 sheets laid ahead. Check that halters are maintaining alignment upslope.

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10. Before setting the zipper on the ribs, squeeze 300mm of rib at each end of the sheet using hand pliers. For pre-painted roof sheets, using a cloth to protect the paint from the hand pliers.

11. Set the zipper over the rib and close the jaws before setting the zipper running.

12. Do not walk in the pan of the sheet or with the zipper.

13. The rib head should be 20mm – 22mm diameter after zipping and the overlap edge should be at “4 O’clock” or better.

14. Stainless steel zipper tools can be used for stucco aluminum painted steel and for painted aluminium with strippable film.

15. Take care of the zipper and keep the zipper tools clean. Swarf etc build up on the tooling will damage the roof sheets.

16. Install the fixed point fasteners as sheets are laid. Protect ridge details from allowing water to enter the roof and soak insulation.

17. Overnight or when strong winds are expected, secure the leading edge by installing verge hooks. Protect insulation from the wet.

18. Aluminium flashings must allow thermal movement. Position laps and butt straps of aluminium flashings to coincide with joints in lengths of ridge and verge extrusions.

19. Extrusions are able to move with temperature. Fix flashings with dead fix to extrusions. Where aluminium flashings are fixed to rigid supports (walls etc) use one dead fix and slotted holes for the remainder.

20. Ensure that flashing junctions are over extrusions junctions and that butt straps are fixed to one side only. At lap joints, do not fix through the lap.

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21. Allow 10mm gaps between AL sections

22. For curved roof sheets < 50m radius ask for slotted verge tee

23. Bend sheets to vertical at ridges using a turn-up tool.

24. Install ridge support extrusions, Bulbtite rivet to every crown.

25. Install shrouds over the fillers. Rotate shroud and filler under the ridge support. Place sealant to the back of the filler as required.

26. Install the eaves stiffener angle, toe towards the gutter, allowing a gap between the eaves angle and eaves flashing for thermal expansion of 1.2 x L mm where L is the length of the roof sheet in m, minimum gap 20mm.

27. At pitches <10° install the sheet turn down as well as the eaves stiffener angle.

28. At different roof sheet lengths, split the AL eaves angle at the change of length, to allow movement

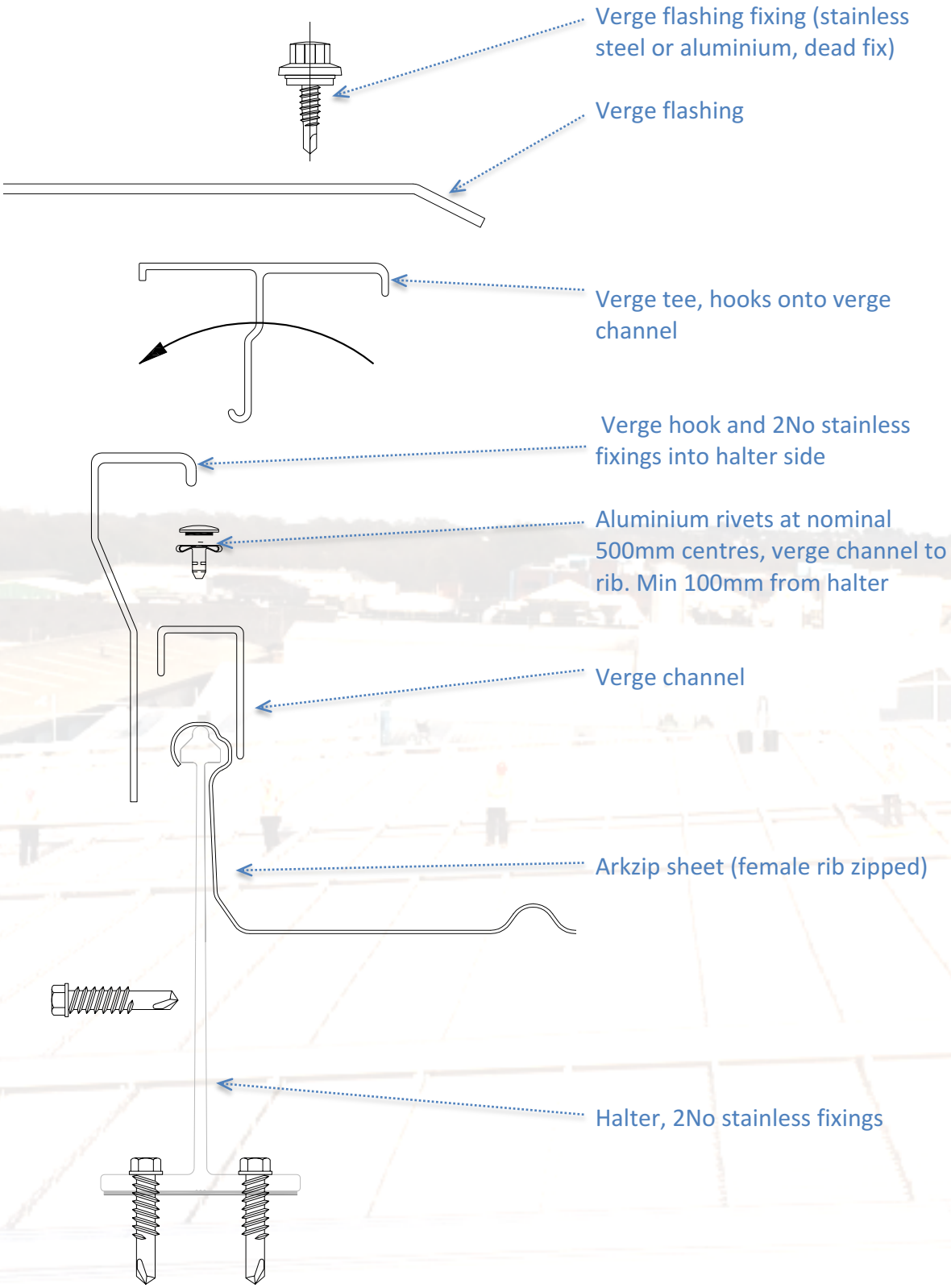
29. Ark supplied components must be used.

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Arkzip installation

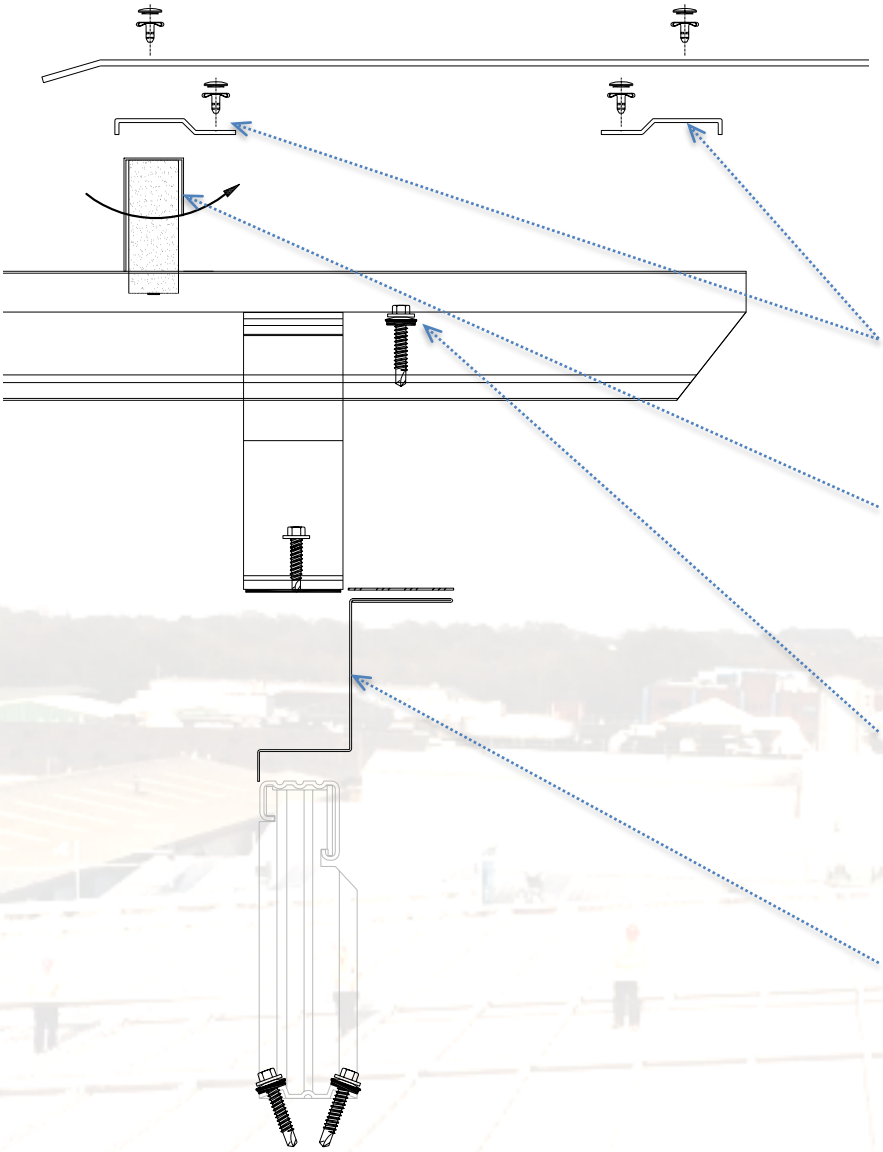
Verge detail:



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Arkzip installation

Ridge detail:



Ridge flashing with 2No rivets into the ridge shroud retainer, per sheet width.

Ridge shroud retainer and ridge support, aluminium Bulbtite rivet into rib

Shroud and filler. Place shroud and filler under retainer and rotate in. Seal at back of filler if required

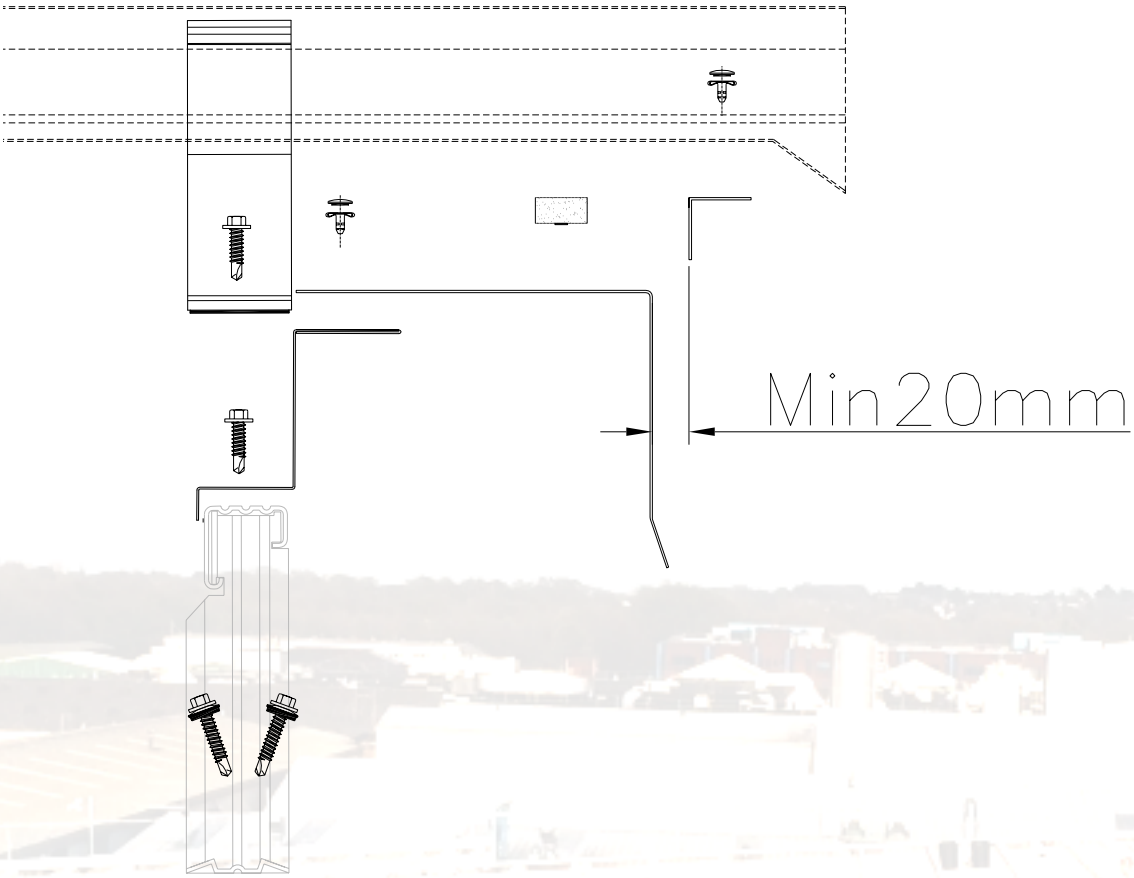
Fixed point stainless screw with 15/19mm sealer washers, min 2No per sheet, position 50mm each side of ribs

Pan support section, plastisol steel

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Arkzip installation

Eaves detail:



Notes:

Turn down (optional at pitches over 10°)

Eaves stiffener angle, minimum 2No aluminium rivets per sheet, even spacing (ie 200mm centres for a 400mm sheet). At different roof sheet lengths, split angles at rib position.

Movement gap between eaves angle and flashing = 1.2xLmm, min 20mm (L = length of roof sheet)

Eaves self adhesive compressed foam strip 12mm x 20mm x8m, no rib filler needed.

Eaves flashing on pan support section (isolate dissimilar metals if not plastisol steel)

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ArkZip installation check list

	✓
Pan support sections installed	
Isolate galv from AL	
Correct number of fixings per halter (minimum 2No)?	
Gauging of halters as specified, +5mm for natural curved sheets?	
Are halters/ clips in line looking upslope?	
Are halters true to line of rib?	
Are halters true to pitch?	
Verge halters installed?	
Insulation, 2 layers, dry, compressed, no gaps?	
Sheets long enough to drain into the gutter?	
Direction of lay away from prevailing wind?	
Ribs sit properly onto halters/ clips	
Hand tongs used at start of rib, 300mm, before setting seamer on rib?	
Rib head 20 – 22mm dia?	
Rib zipped correctly (rib edge to 4 O'clock or beyond)?	

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Arkzip installation

	✓
Ribs locked together consistently for entire length, to sheet end?	
Verge assembly, verge hooks, 2 screws per hook?	
Verge channel Bulbtite rivets, 500mm cts, min 100mm rom halters?	
Fixed point fastener installed?	
Halter to sheet end 125 – 300mm?	
Ridge retainer extrusion Bulbtite rivet to every rib?	
Shroud and filler in every trough, seal behind?	
Ridge flashing fixed to retainer next to every rib?	
10mm movement gap between extrusions and at butt strap joints?	
AL flashing joints set over butt joints in AL extrusions?	
Flashing laps/ butt joints allow movement?	
Flashing dead fix to AL extrusions, slotted fix to rigid supports?	
Eaves angle, min 20mm gap?	
Eaves filler strip installed?	
Eaves turn down at pitches less than 10 degrees?	
Eaves angle split at changes in roof sheet length?	

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