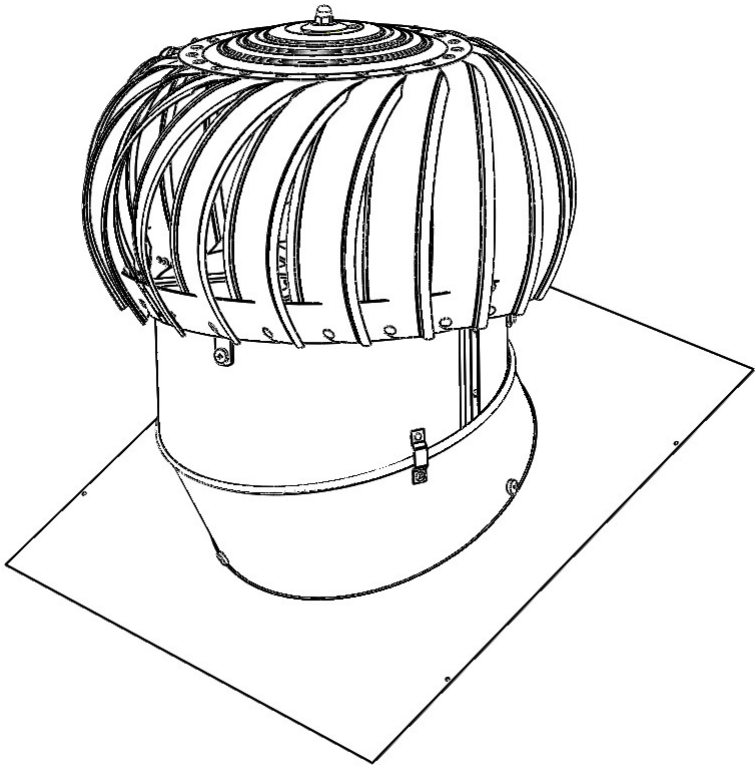


WindMaster BAL

Installation Manual

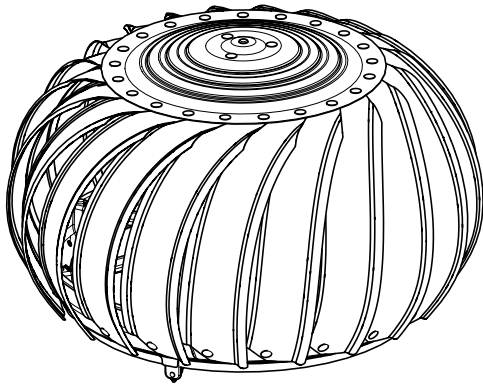


Item Checklist & Additional Tools Required For Installation

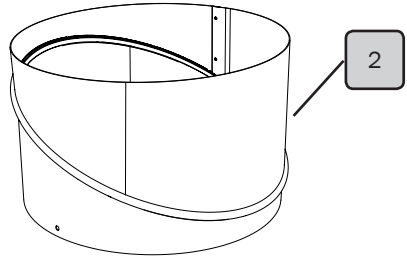
Included Parts:		Qty:
1	Windmaster Top	1
2	Varipitch	1
3	Flashing with Integrated Mesh	1
4	Fixing Strap	1
5	Screw Pack	1
6	Instruction Document	1
7	Warranty Document	1

Additional Parts & Tools Required (Not Supplied)

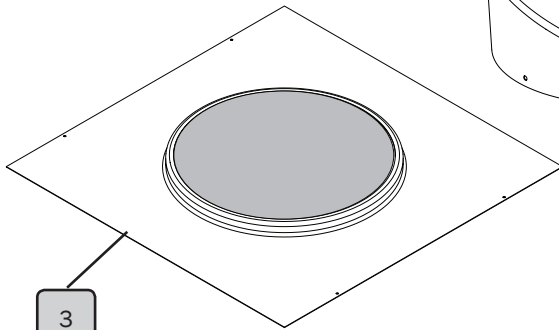
Soft Rubber Mallet
Caulking Gun
Weatherproofing Sealant
Hand tile cutter (Tile roof only)
Screw/Nail for fastening Fixing Strap (Tile roof only)
Knife
UltraTape or Hightack Tape (Sarked roof only)
Tin Snips
Nibbler or Similar Cutting Tool (Metal roof only)
10G Tek Screws or Sealed Rivets (Metal roof only)
Cordless Driver with #2 Phillips Bit
Combination Pliers



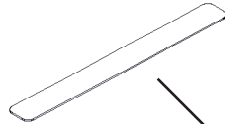
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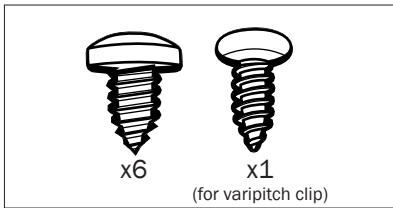
2



3



4



5

Warnings and Important Notices

WARNING:

Do not proceed with the installation until you have read the entire instruction manual, including these warnings.

The product warranty does not cover defects to the ventilators caused by faulty installation or modification without the authorisation of Bradford Ventilation.

INSTALL AT YOUR OWN RISK

The installation of this product may be dangerous and includes working at heights - appropriate safety precautions should be taken prior to commencing. Please be aware of the following before installing this product.

- Follow all State or Territory, Regulator or OH&S guidelines for working at height (e.g. roof work), electrical, working in confined space.
- Installation may require working at height and should only be undertaken with the correct safety equipment.
- Do not attempt to install this product if it is not safe to do so.
- Isolate power before installation.
- It is recommended that appropriate cut resistant gloves and safety glasses be worn whilst handling these products and during installation.
- Caution: The turbine head of this product can rotate without warning (even during installation) – always keep body parts away from moving components.
- **WARNING:** Before commencing the installation always check roofing and other building material for the presence of asbestos prior to cutting. If asbestos is present or the type of material is unable to be determined, do not proceed with the installation and seek expert advice.
- **WARNING:** Refrain from using a grinder to cut the roof tiles to avoid exposure to respirable crystalline silica dust. Instead, opt for a hand tile cutter. Refer to the CSR silica fact sheet for details : https://www.monier.com.au/roofing-information/-/media/monier/documents/2023-updates/monier-silica-fact-sheet_0523.pdf

Warnings and Important Notices

PRODUCT COMPLIANCE:

Compliance of this product to BAL requirements relies upon correct installation. It is recommended that installation is undertaken by a competent and licensed tradesperson to ensure that the product installation is in accordance with this Guide. In particular, care should be taken when forming the flashing to ensure that there are no gaps between the roofing material and the flashing greater than 2mm. Seal any gap less than 2mm with weatherproofing sealant for weatherproofing purposes.

IMPORTANT

Do Not Modify This Product: Compliance with BAL requirements is only achieved by the unmodified product as supplied.

MAINTENANCE

This product requires regular maintenance to maintain its performance - check and clean the emberguard (mesh) regularly to remove built-up residue.

PRODUCT SUITABILITY:

Always check product suitability and limitations of use prior to selection – refer to the Product Technical Statement (PTS) available online.

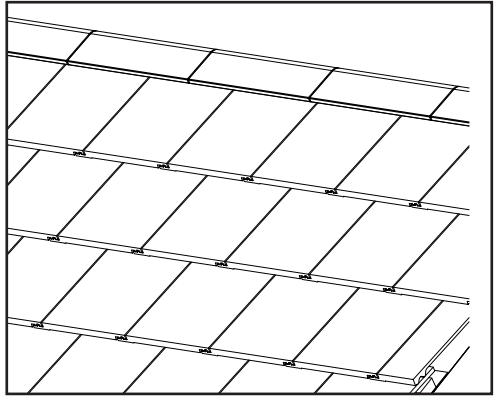


Installation - Tiled Roof

STEP 1

Select a suitable position along the roof that has no obstructions below the tiles (such as a rafter or cross brace).

IMPORTANT: It is recommended that the ventilator be installed along the 3rd or 4th row of tiles from the ridge. Lower positions will return lower vent performance and increase the risk of leakage in heavy rain.



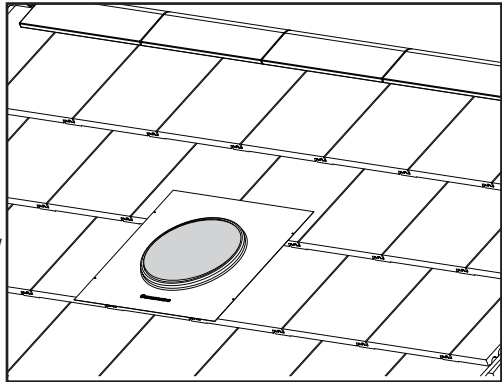
Installation higher than the third row of tiles down from the ridge may damage the ridge tile pointing and is NOT recommended.

STEP 2

Position the flashing in the desired location so that the tiles that need to be cut or removed can be determined.

Ensure the bottom edge of the flashing extends far enough beyond the lower tile edge to allow it to be folded downward toward the roof at a later stage.

Mark-out the position to either remove and/or cut the required tiles.



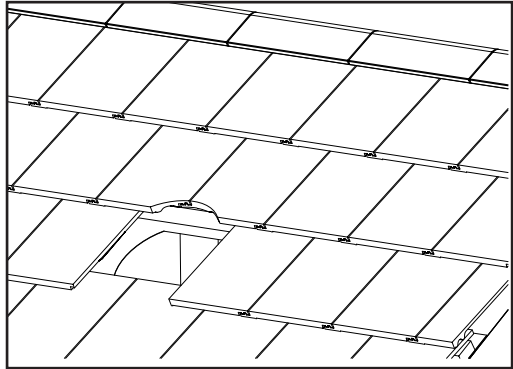
Ensure the flashing is positioned with the slots for the fixing strap located at 12 and 6 o'clock mark. This is crucial for fixing strap assembly (see Step 10).

Installation - Tiled Roof

STEP 3

Cut the tiles marked earlier using a hand tile cutter being careful not to crack the tile.

Refrain from using a grinder to cut the roof tiles to avoid exposure to respirable crystalline silica dust. Instead, opt for a hand tile cutter.

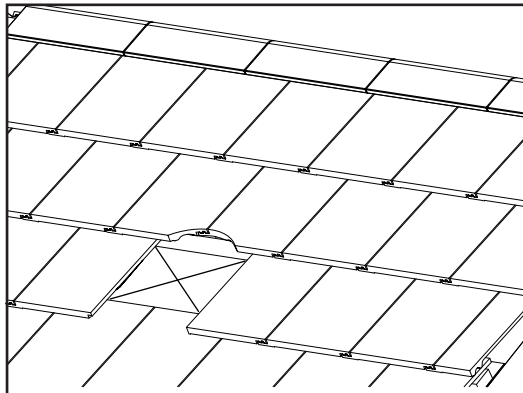


Depending on roof construction, a tile batten may be obstructing the throat opening of the vent. This batten can be left in place with the ventilator sitting above it.

STEP 4

If the roof is sarked, cut sarking in a cross and fold back onto itself to give an opening to match the vent's throat diameter.

Tape the corners to the top surface of surrounding sarking with a suitable tape to prevent them fouling the ventilator.



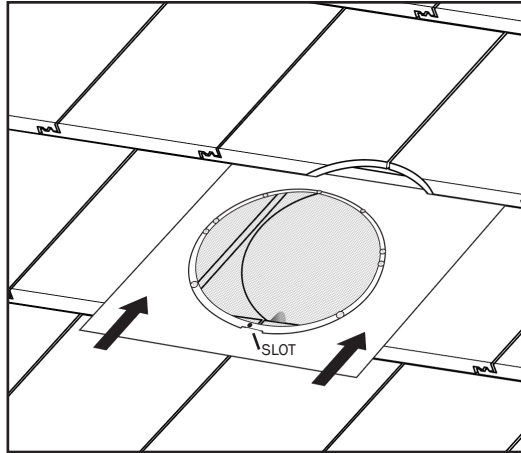
Folding the cut sarking flaps back on themselves results in a gutter arrangement that helps to prevent any water running down the sarking from entering through the opening.

Installation - Tiled Roof

STEP 5

Lift the higher row of tiles and use a piece of timber or similar to wedge to the tiles in the up position.

Return the flashing to the roof and place it under the upper row of tiles in the previously marked position (step 2).

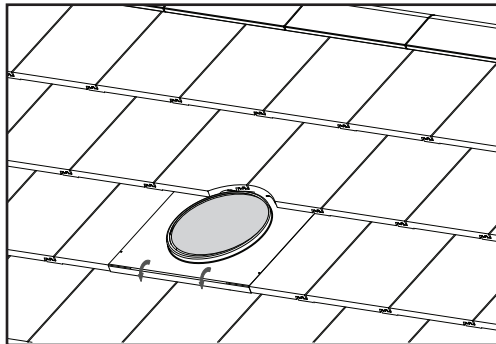


Take care to avoid unnecessary movement of the top row of tiles. Ensure the flashing is positioned with the slot for the fixing strap located at 6 o'clock mark

STEP 6

Using a soft hammer, form the flashing to conform with the lower tile profile.

Position the varipitch temporarily onto flashing and make any final adjustments to the flashing position. Turn the bottom edge of the flashing over the lower tiles. Form the bottom edge of the flashing so that the higher tiles can be replaced with minimal gaps. Remove the varipitch for next steps.



Care should be taken when forming the flashing so that the gaps between the roofing material and the flashing are less than 2mm.

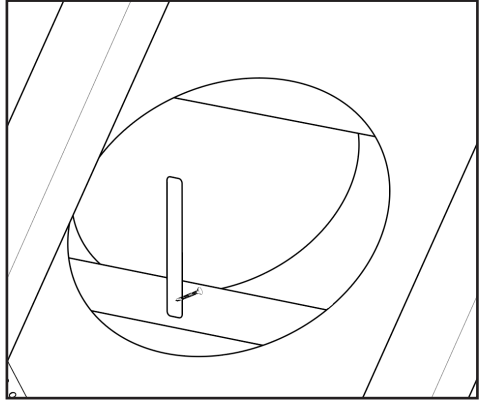
Installation - Tiled Roof

STEP 7

Remove the formed flashing.

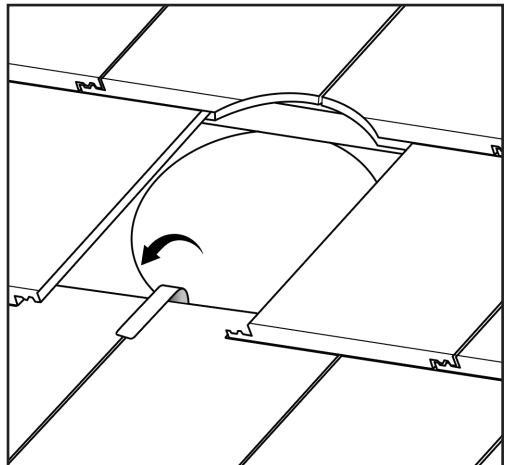
From above the roof, take the fixing strap and securely fix it to the vertical face of lower tile batten.

Screw (not supplied) the fixing strap to the batten, this will secure the lower part of the flashing in future steps.



STEP 8

Gently bend the upper part of the strap so that it is facing down the roof and is approximately the height of the flashing above the surrounding roof tiles.

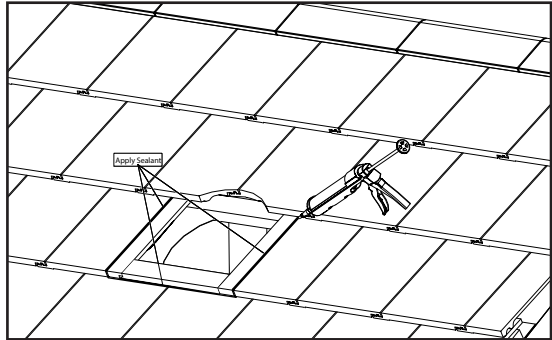


Installation - Tiled Roof

STEP 9

Install the cut portion of the tile so that it is inline with the lower edges of the surrounding tiles.

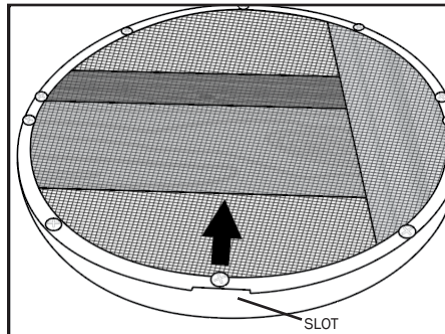
Using a weatherproofing sealant, apply a 15-20mm wide bead of sealant around the perimeter of the flashing area.



Ensure sufficient weatherproofing sealant applied in tile troughs. This helps prevent any water entering from adjacent tiles.

STEP 10

Remove the screw from the lower part of the flashing - this screw should be located adjacent to a cut-out slot.



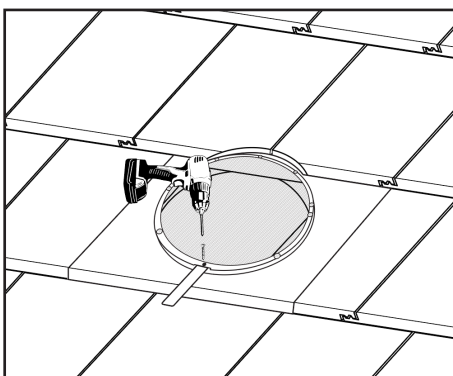
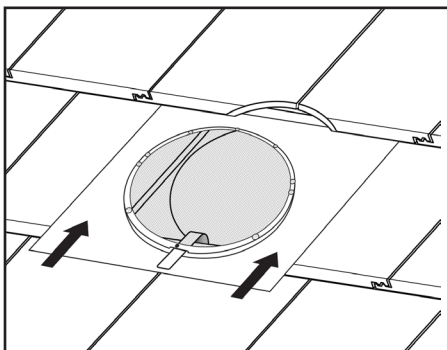
Installation - Tiled Roof

STEP 11

Position the flashing to the marked position and slide the fixing strap between the mesh and flashing.

Once the flashing is in its correct position, pull the strap tight and then screw the strap to the flashing using the screw previously removed.

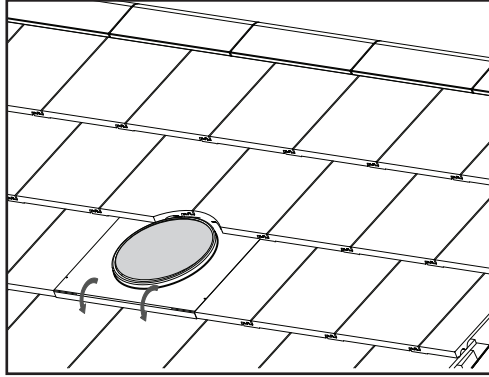
Cut the excess length of strap flush with the edge of the mesh ring before proceeding.



Installation - Tiled Roof

STEP 12

Check that the bottom edge of the flashing is neatly bent over the lower tiles and there are no gaps greater than 2mm. If required, form the flashing using a rubber mallet so it matches the profile of roofing tiles as close as possible.



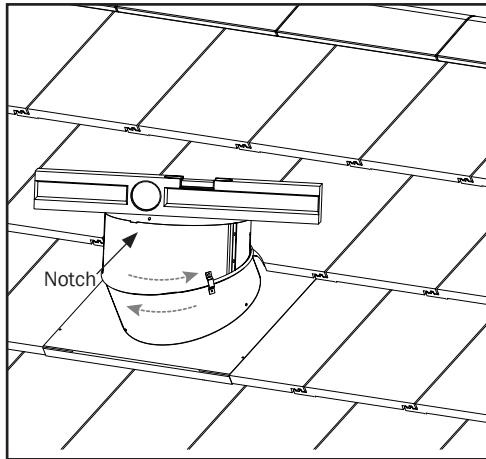
Care should be taken when forming the flashing so that the gaps between the roofing material and the flashing are less than 2mm. Seal the gaps less than 2mm with weatherproofing sealant.

STEP 13

Position the varipitch over the flashing upstand.

Using a spirit level for guidance, rotate the two varipitch halves until the top of the varipitch is horizontal in all directions. Varipitch adjustments are best made off the flashing and then returned to check the position.

Ensure the varipitch is the correct way up by keeping the notched edge to the top.



Ensure the top of the varipitch is horizontal relative to both the lateral axis across the roof and the longitudinal axis in-line with the roof pitch.

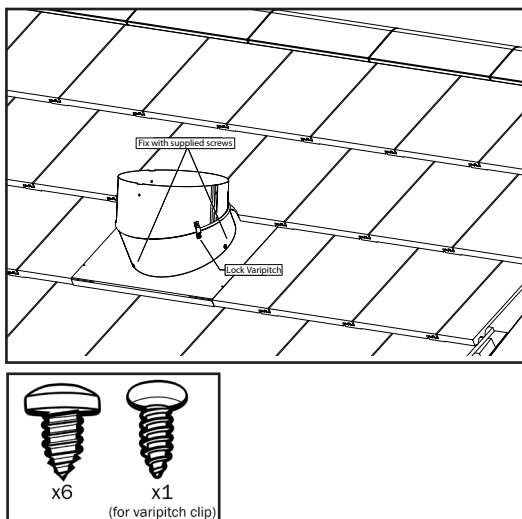
Installation - Tiled Roof

STEP 14

Check the varipitch level again and ensure it is still level across all directions.

Screw the varipitch to the flashing with the three screws provided at the pre-drilled holes on the varipitch.

Lock the varipitch by screwing the fixing clip into the lower half with the one small single screw provided in the screw pack.



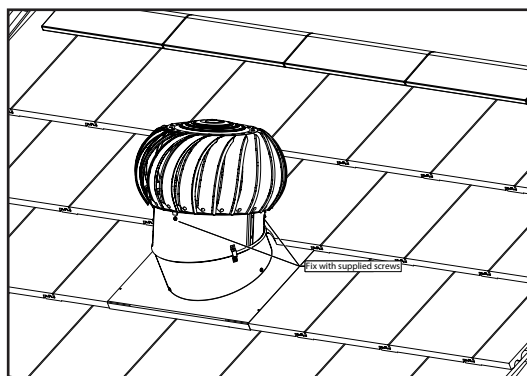
Apply weatherproofing sealant internally to the varipitch seam and the four screws. **Do not seal the varipitch to the flashing.**

STEP 15

Position the ventilator top onto the top of the varipitch.

The three arms on the bottom of the turbine must align with the three notches on the varipitch with the arms positioned on the outside face of the varipitch.

Fix the ventilator top to the varipitch with the three screws provided through the pre-drilled holes.



Ensure the mounting points are properly secured on the top and bottom ring of the varipitch.

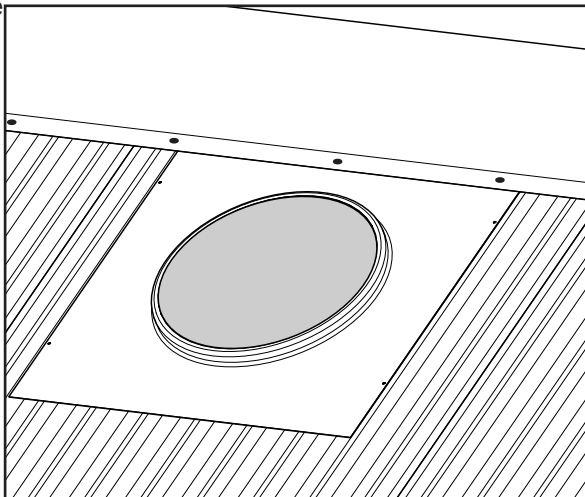
Installation - Metal Roof

STEP 1

Select a suitable position for the ventilator along the ridge line of the roof.

Remove the nearby screws from the ridge cap to allow the flashing to be slipped under it. Slip the top edge of the flashing under the ridge cap to mark the size and position of the round (300mm diameter) cutout by lifting and marking the roof repeatedly - alternatively use a 300mm diameter cardboard template to mark the hole.

The vent must be installed to the ridge cap. Any other installation requires a competent and licensed tradesperson.

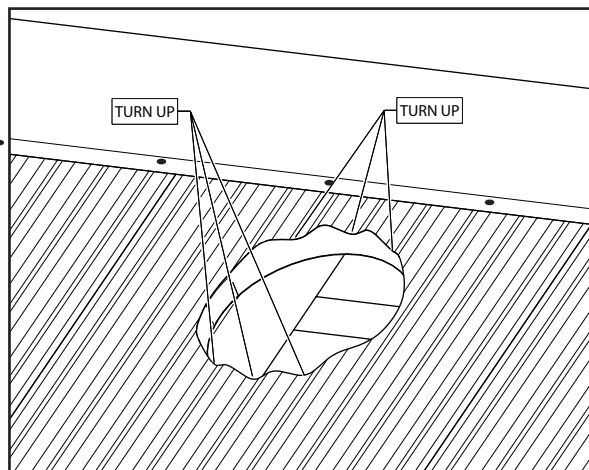


Ensure that the flashing covers the roof corrugations or ribs equally and that it is located between roof rafters.

STEP 2

Remove the flashing and cut a square or round opening around the centre of the position marks. (Minimum 300mm diameter)

Turn up the corrugations or pans on both the low and high sides. This will help to prevent water ingress.

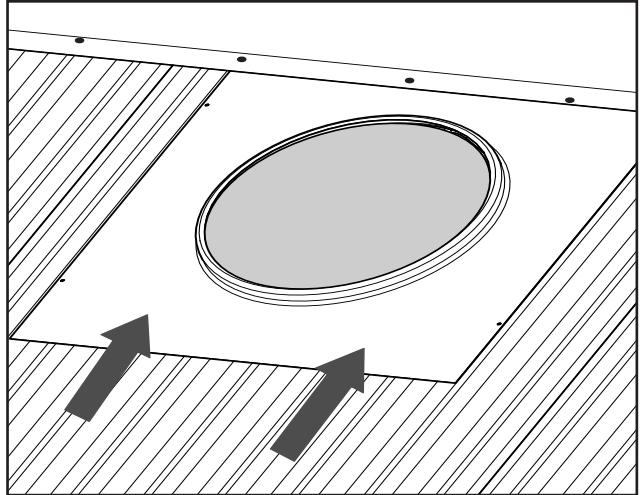


Installation - Metal Roof

STEP 3

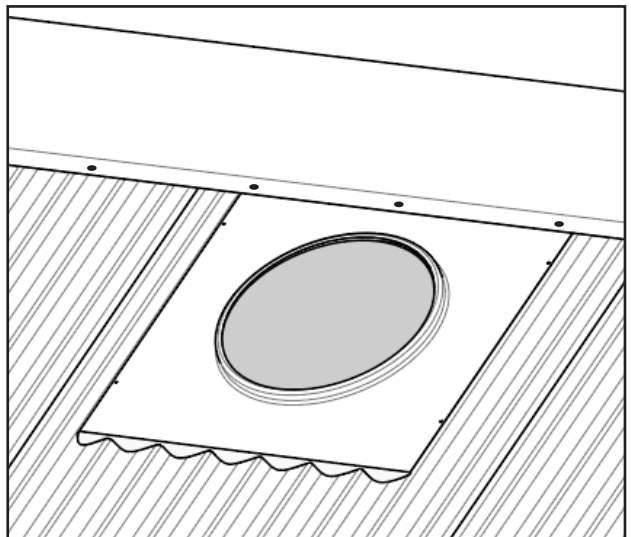
Return the flashing to the roof, positioning it over the cutout. Ensure that the top of the flashing is slipped under the ridge capping. Remove ridge cap screws as required.

For lower pitched roofs, turn up the top edge of the flashing before slipping under ridge capping. This will help prevent water ingress.



STEP 4

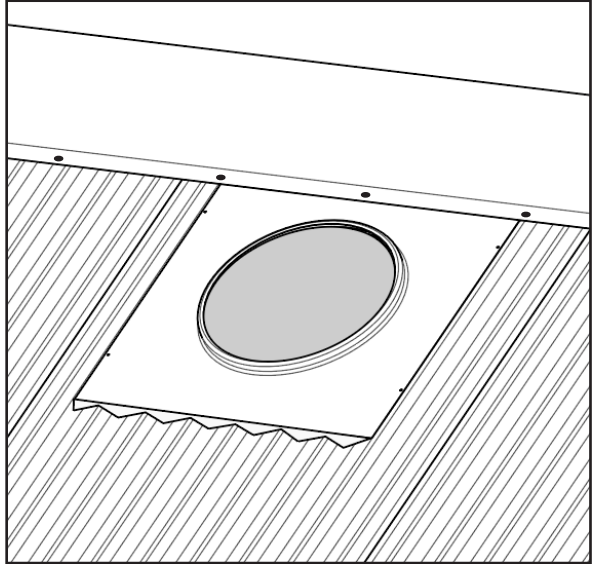
Using a pair of tin snips, cut the bottom edge of the flashing to match the roof profile (waveform shape). This will help ensure the lower profile of the roof covered by the flashing.



Installation - Metal Roof

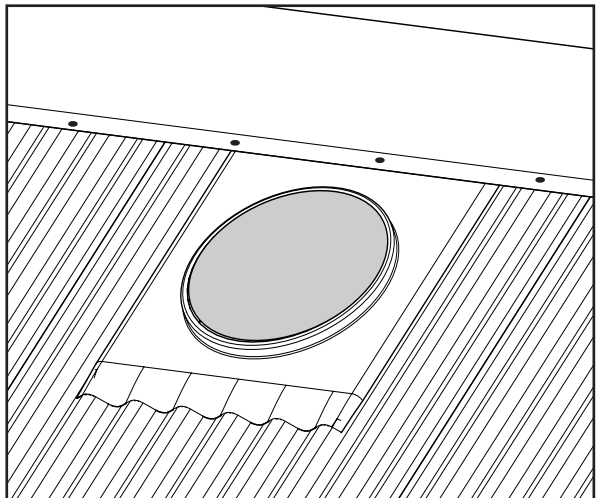
STEP 4 a

Alternatively the bottom edge of the flashing can be cut in triangular wave shape.



STEP 5

Using a soft rubber hammer, carefully work around the sides and lower edge of the flashing to form it into the corrugations of the metal sheeting profile.



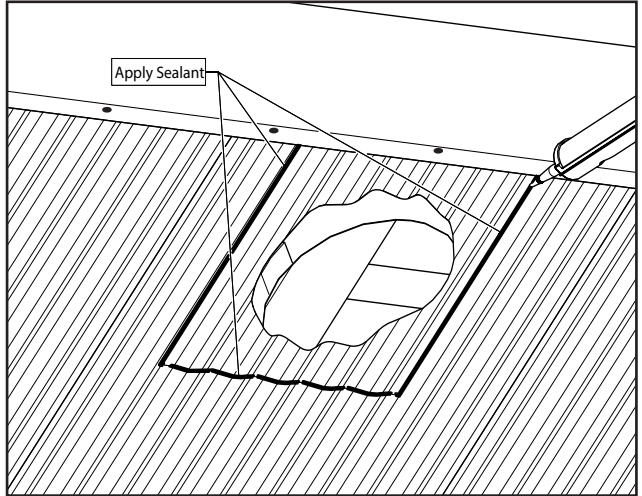
Care should be taken when forming the flashing so that the gaps between the roofing material and the flashing are less than 2mm.

Installation - Metal Roof

STEP 6

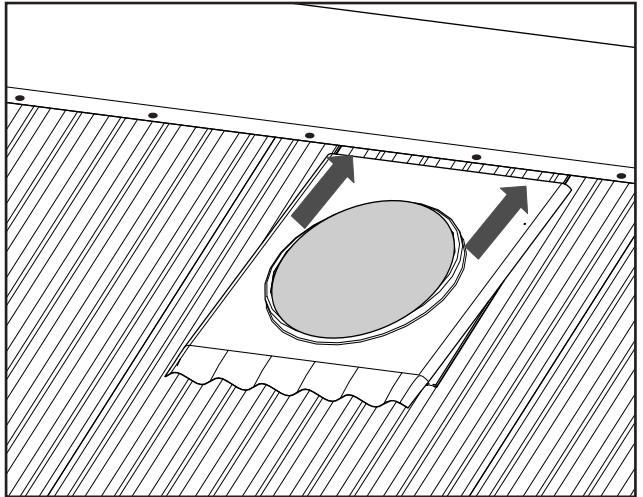
Remove the formed flashing off the roof sheeting.

Apply a 15-20mm wide bead of weatherproofing roofing sealant to the roof approximately 20mm in from the edge of the flashing.



STEP 7

Return the flashing to the roof. Slide it under the ridge capping and press it down onto the weatherproofing sealant.



Care should be taken when forming the flashing so that the gaps between the roofing material and the flashing are less than 2mm. Seal the gaps less than 2mm with weatherproofing sealant.

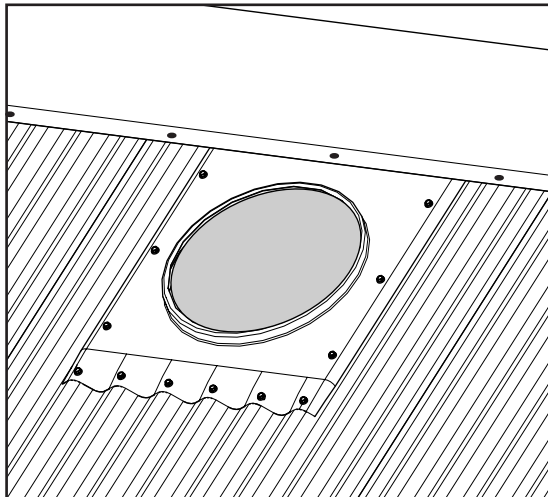
Installation - Metal Roof

STEP 8

Secure the flashing to the metal sheeting with 10G Tek screws or sealed rivets along the 3 exposed edges of the flashing. Approximately 12 fasteners are required (not supplied). Use weatherproofing sealant to seal the screws.

Ensure the flashing top edge is fixed via existing ridge capping screws. This prevents gaps forming due to thermal expansion and prevents ingress of rain or embers during a bushfire event.

Ensure the gaps between the roofing material and the flashing are less than 2mm. Seal the gaps less than 2mm with weatherproofing sealant.

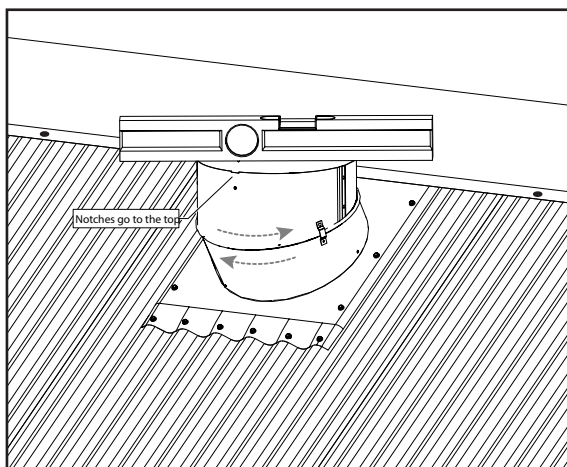


STEP 9

Using a spirit level for guidance, rotate the two varipitch halves until the top of the varipitch is horizontal.

Varipitch adjustments are best made off the flashing and then returned to check the position.

Ensure the varipitch is the correct way up by keeping the notched edge to the top.



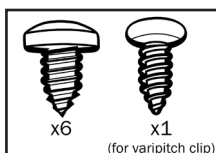
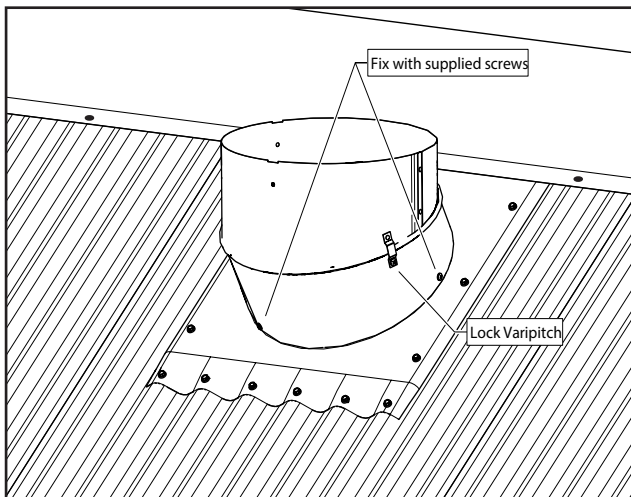
Installation - Metal Roof

STEP 10

Check the varipitch level again and ensure it is still level across all directions.

Screw the varipitch to the flashing with the three screws provided at the pre-drilled holes on the varipitch.

Lock the varipitch by screwing the fixing clip into the lower half with the one small screw provided in the screw pack.



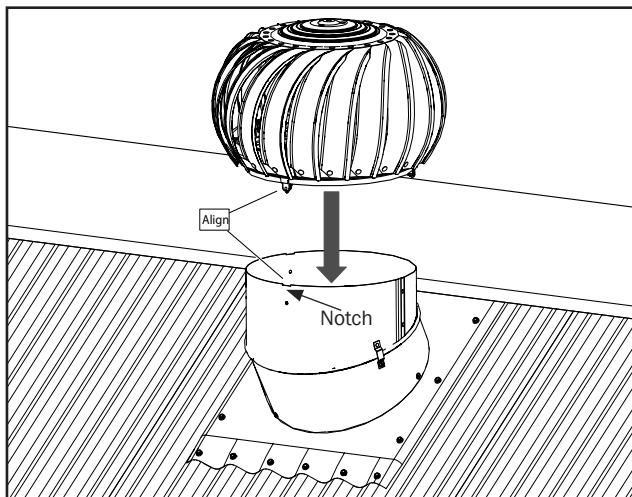
Apply sealant internally to the varipitch seam, varipitch locking screw and the three screws securing the varipitch to the flashing.
Do not seal the varipitch to the flashing.

Installation - Metal Roof

STEP 11

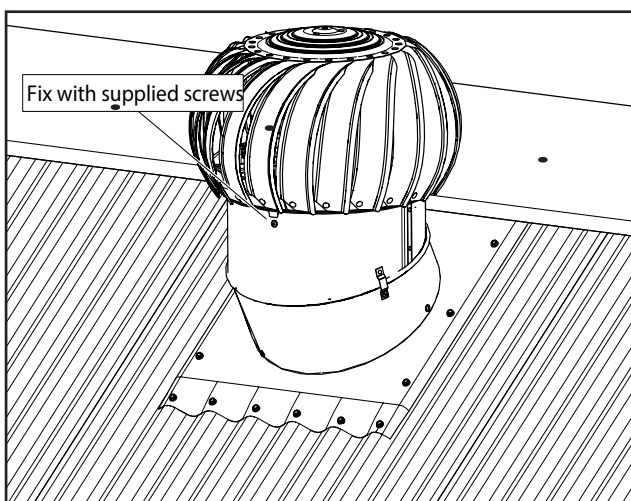
Position the ventilator top onto the top of the varipitch.

The three arms on the bottom of the turbine must align with the three notches on the varipitch.



STEP 12

Fix the ventilator top to the varipitch with the three screws provided through the pre-drilled holes.



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