

# Installations Instructions

## All AIRTRAK linear stainless steel profiles

### General

- Fitting Instructions should be read and understood prior to undertaking installation of ventilators
- Installation of AIRTRAK products should be undertaken by a competent person with a good understanding of general roofing and weathering principles.
- All roofing should be undertaken in accordance with relevant British standards including but not limited to BS5250, BS6229 & BS5534

### Health & Safety

- Wear suitable PPE whilst handling and installing AIRTRAK ventilators. Specifically gloves should be worn to prevent cuts from sharp edges and eye protection should be worn whilst cutting or trimming ventilators.
- Take care when moving and lifting AIRTRAK ventilators, specifically care must be taken should packs of ventilator profiles be lifted or hoisted to roof level, to ensure that ventilators cannot slip out or come free during the lifting procedure.
- Trimmed ventilators can leave very sharp pieces of metal. These should be carefully collected at the end of every day and disposed of for recycling.

### Storage

- AIRTRAK goods and ancillary items should be stored at ground level until they are ready to be fixed in position at roof level.
- Do not store AIRTRAK goods on the roof or scaffold.
- Where AIRTRAK items are kept at roof level whilst installation takes place, care should be taken to ensure the goods cannot blow off the roof or scaffold.
- AIRTRAK goods and ancillary items should be kept dry.

### Installation

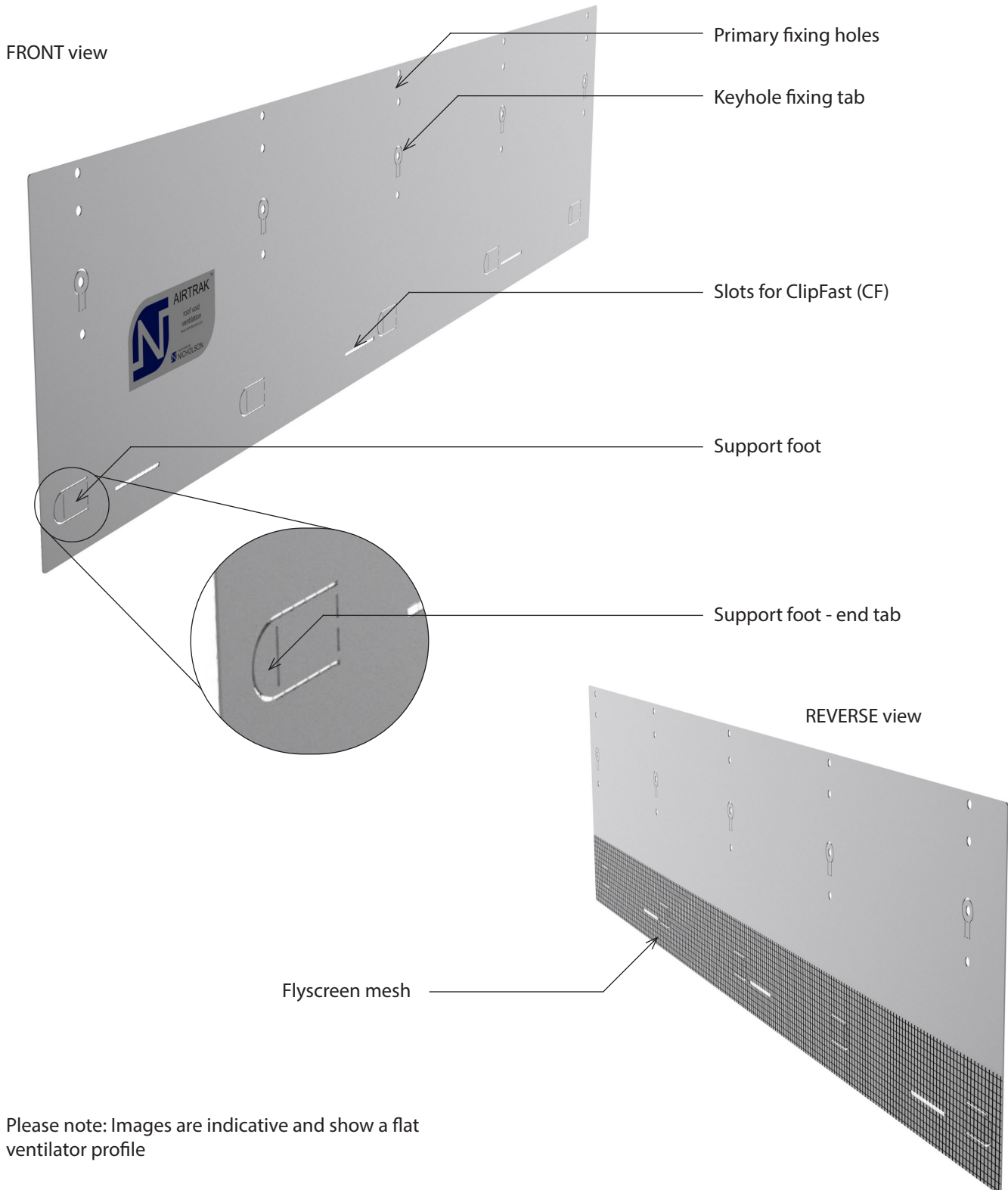
- Linear AIRTRAK ventilators should be installed so that they are butted end to end.
- AIRTRAK ventilators may be cut using a pair of large metal snips or an angle grinder with a metal cutting blade.
- It is important that AIRTRAK goods are fixed to the structure using suitable non-ferrous screw fixings. Linear ventilators should be fixed at the head of the ventilator with five fixings per 1m length and in the body of the ventilator through the keyhole fixing tab with five fixings per 1m length. Where ventilators are cut to length, the ventilator should be secured using all of the available fixing locations. In some instances the ventilator may need to have extra fixing holes drilled on site to ensure it is adequately secured to the structure.
- The support feet must be used to provide the required ventilation admittance gap. All available support feet should be utilised.
- Flyscreen mesh should be positioned so that it is trapped by the support feet against the substrate. The flyscreen mesh should be adjusted to make sure it sits flat against the substrate for the duration of the detail.
- AIRTRAK ventilation section details include a vertical lap distance. It is important that this distance is achieved in order to maintain the weather resistance of the detail.
- Standard AIRTRAK details assume moderate weather conditions. Small amounts of moisture may be admitted under heavy storm conditions. Where more severe weather conditions are likely, consideration should be given to increasing the vertical overlap dimension to upstands and to slating or tiling to improve the integrity of the weathering detail. For slate and tile details we also recommend the use of the AIRTRAK LPS Low Pitch Soakers where appropriate. Contact Nicholson for further technical help.
- Take care to ensure that fixing for the AIRTRAK profiles do not penetrate the waterproofing layers below.

### Weathering The Ventilator

- AIRTRAK ventilators normally need be weathered by dressing a roofing or flashing material over the profile in accordance with current standards of good practice.
- The roofing or flashing material should be secured to the profile by means of a return welt around the lower edge of the ventilator and in some cases it is recommended that the AIRTRAK-Clipfast retaining clips are also used.
- Clipfast Clips should always be used where there is a possibility that a welt might become disengaged from the ventilator over time – e.g. AIRTRAK-VR Ventilated Ridge detail.
- In a way that will affect the weathering integrity or stop expansion and contraction.

### Detail Drawings

- Please see dimensioned detail drawings for suggested install set up.



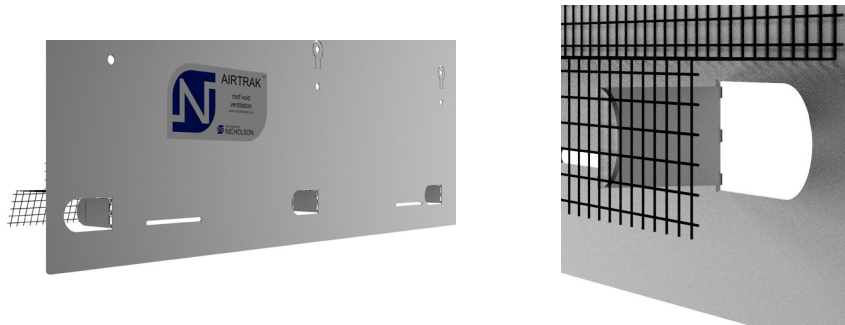
Please note: Images are indicative and show a flat ventilator profile

### Setting up the support feet

1. Hold the ventilator profile with the front face towards you and the support feet at the bottom.
2. Push the support feet away from you, through 90 degrees towards the flyscreen mesh as shown in the images



3. To each support foot turn the end tab through 90° to create a flat foot to rest against the substrate.



4. When installing the AIRTRAK profile each support foot can be adjusted to compensate for an uneven or undulating substrate. Support feet should not be folded in and out multiple times at this may weaken the foot connection. Flyscreen mesh should be checked on installation of the profile, that it is trapped under the support feet and that it lies flat against the substrate forming an effective barrier against the entry of insects.

5. Fixing the ventilator profile.

AIRTRAK profiles should be fixed using non-ferrous screws of a suitable length to ensure maximum pull-out from the substrate.

Primary fixings should be installed to the head of the ventilator. A minimum of 5no. Fixings should be used for a 1m length of profile.

Secondary fixings should be installed in the body of the ventilator to resist wind uplift using the keyhole fixing tabs. 3no. fixings per 1m length should be used. The screws used should be inserted and tightened until head of the fixing pulls down below the face level of the ventilator.

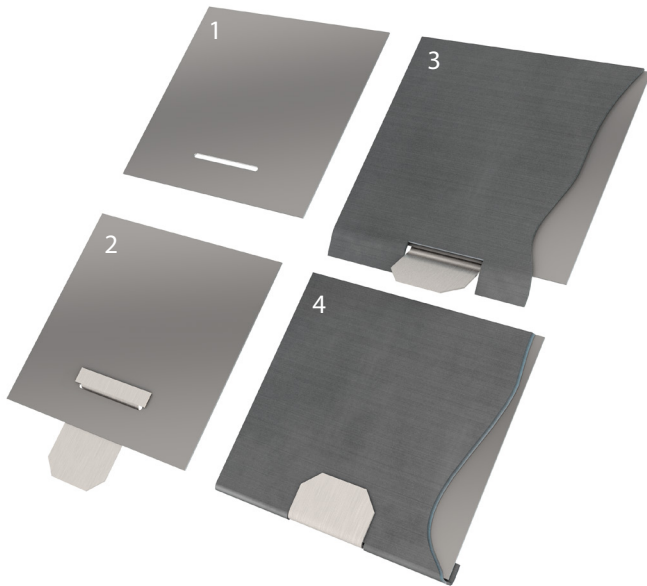
Contractors should satisfy themselves that the ventilator is securely fixed to the substrate and will resist wind uplift. In some cases additional fixing holes may have to be drilled to enable a suitable fixing detail.



6. Ventilators should be fitted according to the relevant section detail, taking care to ensure that there is sufficient lap to the substrate to resist ingress of wind driven rain. For highly exposed locations it may be necessary to increase the lap or use the a low pitch soaker.

### Using AIRTRAK - CF (Clipfast)

AIRTRAK-CF ClipFast clips are used to provide a quick and secure connection between the weathering material and the stainless steel ventilator whilst allowing for thermal expansion. These are particularly necessary in situations where the flashing or weathering material could slip or creep and the welded edge become disengaged in the process of time.

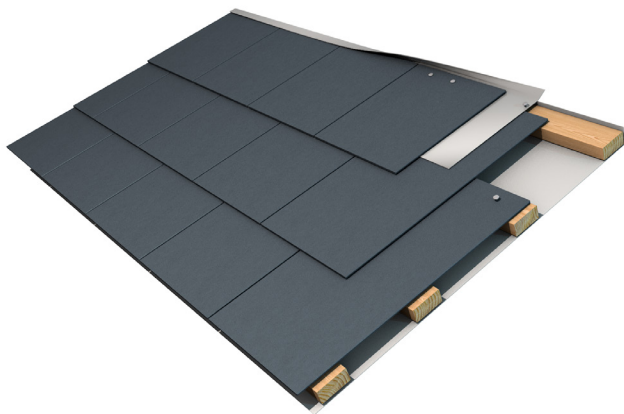


#### Installation

1. The AIRTRAK ventilators are pre slotted at 330mm centres to receive the CF Clipfast Clips
2. The CF should be dropped into the slots from the front, prior to dressing the flashing over the ventilator
3. The flashing should extend 25mm past the lower edge of the ventilator and a 55mm cut out should be made where the CF Clips are located
4. Once the flashing has been welted around the ventilator, the CF clips can be welted and crimped on to the face of the flashing using seaming pliers

### Using AIRTRAK - LPS (Low pitch soaker)

The LPS150 / LPS225 is an additional flashing used with low pitch roofing to increase the weather-proofness of the ventilation detail at the head of slating or tiling. The LPS is used specifically on lower pitched roofs but can also be added to any pitched detail to help increase resistance against potential ingress during storm conditions.



#### Installation

1. The LPS is supplied pre bent with a 25mm tab folded to 90°. It is installed underneath the top row of slates or tiles (eaves course) and is positioned so that the 25mm fold will turn up just above the head of the eave course.
2. The LPS should be lapped by 100mm and can be trimmed to length using metal snips. The eave course is then fixed through the LPS.
3. Once the eave course is fixed, the 25mm tab is dressed down over the top of the eave course to form a loose welt.