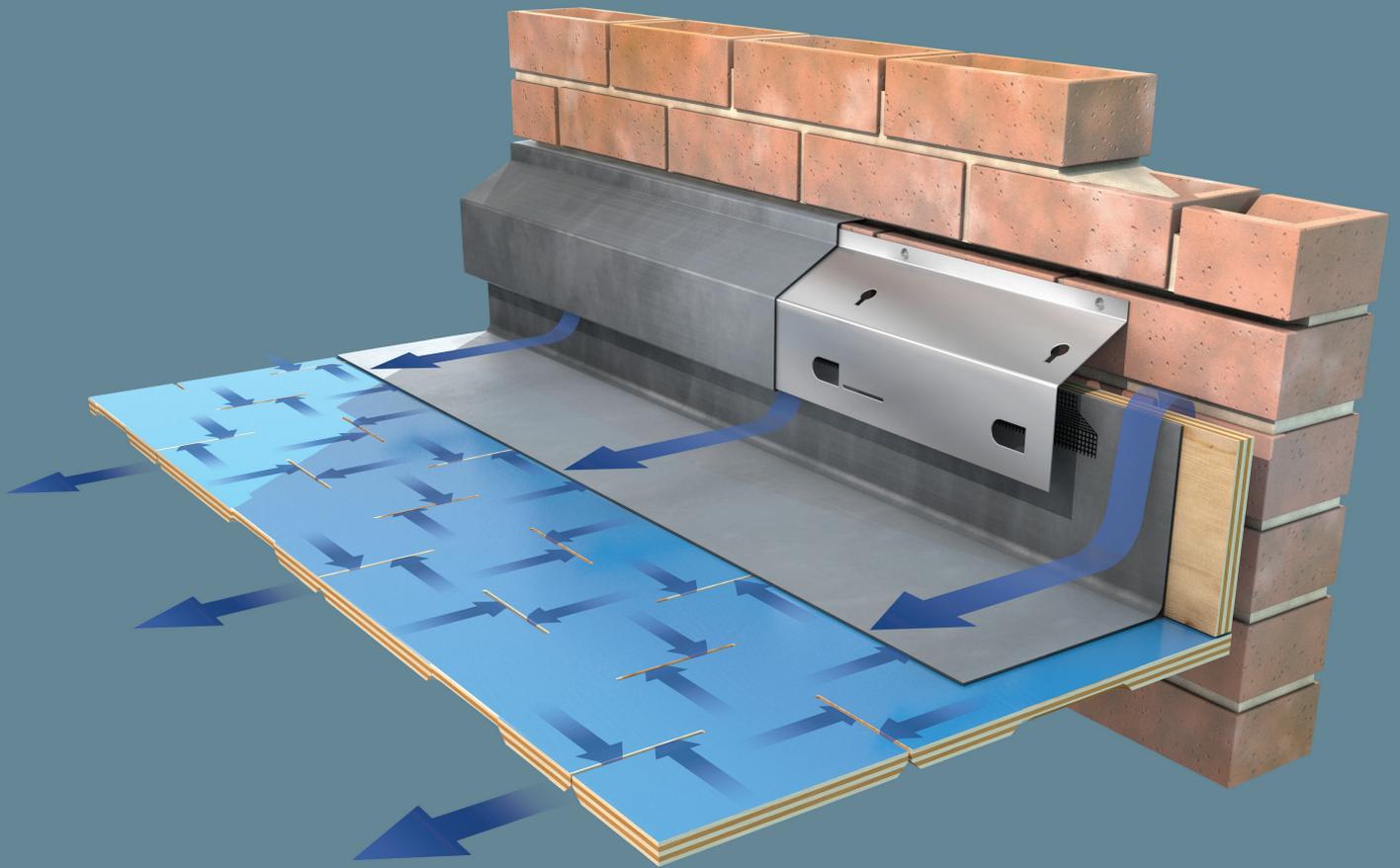


AIRTRAK™

roof void ventilation system



The AIRTRAK™ system

- A range of proprietary roof void ventilators designed specifically for the ventilation of roof voids.
- Assists specifiers, builders and specialist contractors alike in helping them meet the requirements of the Building Regulations in relation to the important issue of roof void ventilation.
- The simple answer to details that often prove difficult and challenging in their execution.

AIRTRAK™ is roof void ventilation... made simple!



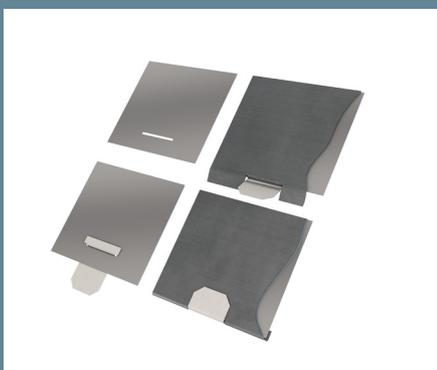
Point ventilators



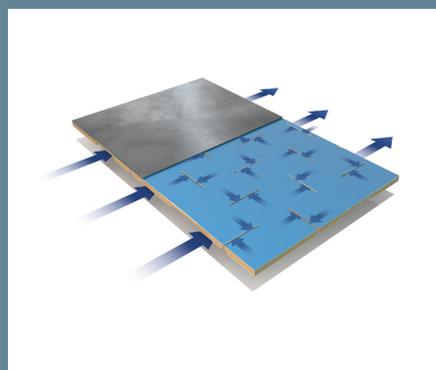
Linear ventilators for flat roofing



Linear ventilators for slate and tile roofing



Ventilation accessories



Ventilated roof deck for metal roofing

The AIRTRAK™ system – key features



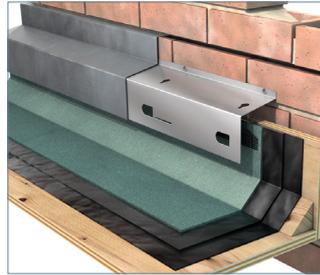
A proprietary product

The well established Airtrak brand provides peace of mind and is trusted in the roofing industry by specifiers, trade associations and contractors alike for delivering regulation compliant ventilation.



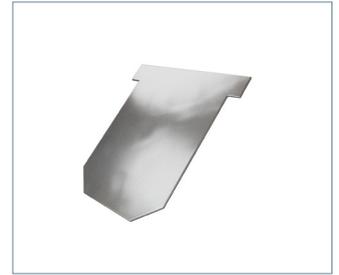
Economic to use

The Airtrak ventilators represent an economic solution to difficult details saving time both with design input and onsite labour.



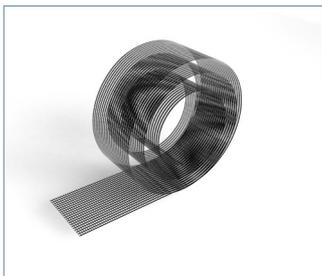
Strong and robust

Strong 304 grade 0.7mm stainless steel profile providing a neat and unobtrusive detail avoiding bulky plywood constructions. 316 grade stainless steel is available for coastal locations. The ventilators are compatible for use with all metal flashings, e.g. copper, lead, zinc, aluminium etc.



Unique Clipfast™ system

The unique Clipfast system of pre spaced stainless steel restraining clips can be used with all Airtrak linear ventilators providing a means to secure the lead flashings to the ventilator profiles and prevent them sliding off over the course of time.



Insect mesh pre-attached

Airtrak ventilators have insect mesh pre-attached. This high open area mesh with 2.5mm hole size is designed to provide maximum airflow whilst keeping out nuisance insects.



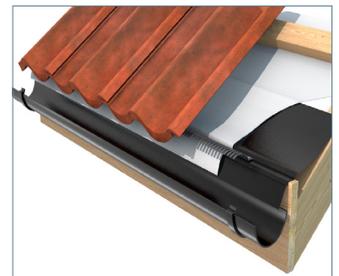
Pre-drilled and easy to install

All ventilators are pre-holed for secure fixing in position. Secondary fixing points are also provided to ensure resistance to wind uplift.



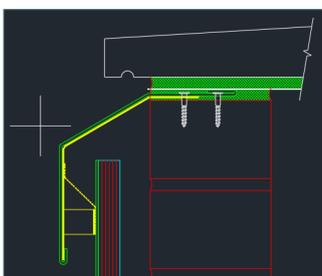
Specified air flow to regulation standards

All ventilators have sturdy spacer feet at 230mm centres which push out from the main body of the ventilators. These provide a continuous airgap helping to meet current regulations.



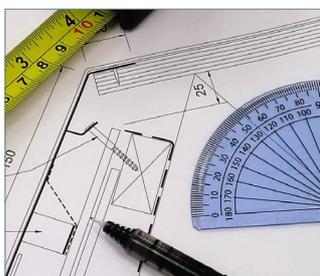
Easy to order

With a greatly expanded range of standard ventilators now available the Airtrak ventilators cover most of the commonly encountered ventilation details. All ventilators are supplied in convenient 1m lengths which can be trimmed to length and mitred at corners on site.



CAD files

PDF sections, DWG files and data sheets are available for all of the Airtrak ventilators. If you have an electronic version of this brochure they can be downloaded directly from the page. Otherwise, all are available on the Nicholson website.



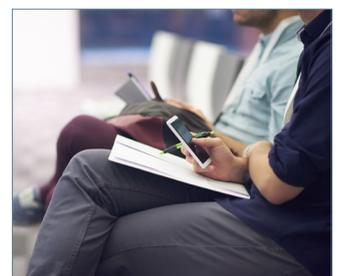
Bespoke ventilators

Bespoke ventilator profiles are easily obtained and usually available at short notice. Profiles can be produced to specific dimensions and angles to deal with non-standard situations.



Fast delivery

Airtrak ventilators are normally available ex stock and subject to demand, can usually be dispatched directly to your site or offices for delivery within one or two days from order.

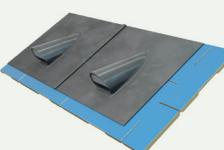


CPD

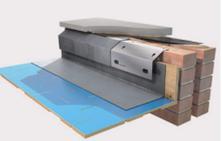
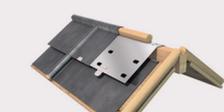
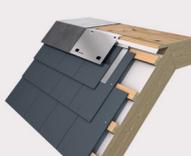
Nicholson also provides a CPD on roof void ventilation. For further information on this and other CPD's please call us or visit our website.

Airtrak Product Selector

Point ventilators for lead roofing

<p>Airtrak CV</p> 	<p>Airtrak PRV</p> 	<p>Airtrak LV9</p> 	<p>Airtrak LV15</p> 
<p>Cheek Ventilator</p> <p>page 9</p>	<p>Pitched Roof Ventilator</p> <p>page 10</p>	<p>Lead Roof Ventilator</p> <p>page 11</p>	<p>Lead Roof Ventilator</p> <p>page 12</p>

Linear ventilators for fully supported metal, liquid applied and membrane roofing

<p>Airtrak AB1</p> 	<p>Airtrak AB2</p> 	<p>Airtrak AB3</p> 	<p>Airtrak AB4</p> 	<p>Airtrak AB5</p> 	<p>Airtrak AB6</p> 
<p>Abutment Ventilator for supported metal, membrane and liquid</p> <p>page 14</p>	<p>Abutment Ventilator for built up roofing</p> <p>page 15</p>	<p>Abutment Ventilator for mastic asphalt - vertical kerb</p> <p>page 16</p>	<p>Abutment Ventilator for mastic asphalt - splayed kerb</p> <p>page 17</p>	<p>Abutment ventilator for hard metal roofing</p> <p>page 18</p>	<p>Parapet Abutment Ventilator</p> <p>page 19</p>
<p>Airtrak BRV1</p> 	<p>Airtrak BRV2</p> 	<p>Airtrak CL</p> 	<p>Airtrak VT</p> 	<p>Airtrak EA Range</p> 	<p>Airtrak IL Range</p> 
<p>Between Roll Ventilator Type 1</p> <p>page 20</p>	<p>Between Roll Ventilator Type 2</p> <p>page 21</p>	<p>Cladding Ventilator</p> <p>page 22</p>	<p>Ventilated Trim</p> <p>page 23</p>	<p>Eaves Ventilators</p> <p>page 24-25</p>	<p>Inline Ventilators</p> <p>page 26-27</p>
<p>Airtrak MV Slated Roofing</p> 	<p>Airtrak MV Tiled Roofing</p> 	<p>Airtrak PE Range</p> 	<p>Bespoke</p> 		
<p>Mansard Ventilator for slated roofing</p> <p>page 28-29</p>	<p>Mansard Ventilator for tiled roofing</p> <p>page 30-31</p>	<p>Pitched Eaves Ventilator</p> <p>page 32-33</p>	<p>Custom-made ventilators</p> <p>page 34</p>		

Linear ventilators for tiled and slated roofing

Airtrak LB20



Layboard Ventilator
for roof pitches >20°
slate only
page 36

Airtrak LB30



Layboard Ventilator
for roof pitches >30°
page 37

Airtrak LB45



Layboard Ventilator
for roof pitches >45°
page 38

Airtrak RTV



Ridge Tile Ventilator
Slate/Tile
page 39

Airtrak PV



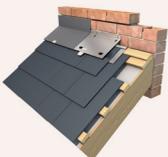
Pitched Valley
Ventilator
page 40

Airtrak PV-M



Pitched Valley
Ventilator- mortar
bed
page 41

Airtrak VA



Ventilated Apron
for Slated/Tiled
Roofing
page 42-43

Airtrak VR



Ventilated Ridge for
Slated/Tiled Roofing
page 44-45

Airtrak F10 and F25



Over Fascia
Ventilator
page 46

Airtrak CP



Change of Pitch
Ventilator
page 47

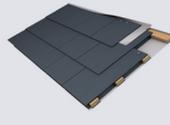
Airtrak ventilation accessories

Airtrak CF



Clipfast Clips
page 49

Airtrak LPS



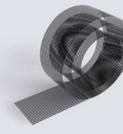
Low Pitch Soaker
page 50

Airtrak RV



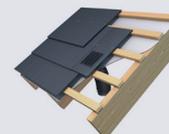
Roll Vent
page 51

Airtrak IM



Insect Mesh
page 52

Airtrak SLV/A



Slate Vent
page 53

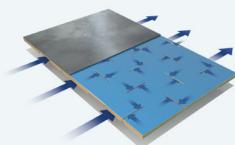
CS and EC



Comb Strip and
Eaves Carrier
page 54

Airboard roof deck

Airtrak Airboard



Decking for
Fully Supported
Metal Roofing
page 56-57

FAQs

Why should I use Airtrak?
Airtrak is an established and well known system that is designed and manufactured for the purpose of ventilating roof voids. It is a pre-fitted solution that is pre-fitted with insect mesh and durable whilst ensuring minimal impact on the character of the building.

How much ventilation do I need?
As a broad rule of thumb, flat roof requires 25,000mm² of continuous ventilation (25,000mm² on two opposing sides of a roof so the total area is 50,000mm²). Ideally these are the two longest sides of the roof for maximum ventilation efficiency. Pitched roofs require a similar amount of ventilation.

Frequently
asked questions

Ventilation – design considerations

General

The Airtrak range of proprietary ventilators provide a specified amount of ventilation and may be used to assist in achieving ventilation in line with the guidelines set out in BS 5250: 2011, Code of practice for control of condensation in buildings. Airtrak ventilators are suitable for use on building types that fall into internal humidity classes 1, 2 and 3 as defined in BS 5250.

Sources of moisture in roof constructions

- a) water incorporated during the construction process (including precipitation);
- b) precipitation after construction;
- c) water vapour arising from the occupants and their activities;
- d) atmospheric moisture, drawn into the roof during warm humid weather conditions.

Ceiling finishes beneath a roof void

BS5250, 2011 recognises that measures taken to make internal ceilings beneath roof voids less permeable to moisture can result in less ventilation of the roof void being required.

Detailed recommendations on achieving a “well-sealed ceiling” may be found in BS 9250: 2007, Code of Practice for design of the airtightness of ceilings in pitched roofs.

Roof pitches

Flat roofs are defined by BS 6229 as having a pitch of 10° or less.

Pitched roofs are defined by BS 5534 as having a pitch of greater than 10° and less than 75°.

Roofing underlays

BS 5250 recognises two categories of roofing underlay as follows:

HR underlay – a roofing membrane used under tiling and slating that provides high vapour resistance (i.e. greater than 0.25 MNs/g)

LR underlay – a roofing membrane used under tiling and slating that provides low vapour resistance (i.e. not exceeding 0.25 MNs/g)

Roof types

BS 5250 addresses various types of roof structure which require ventilation.

There are:

- cold pitched roof
- warm pitched roof
- hybrid pitched roof
- cold flat roof.

Cold pitched roofs

It is considered that there is a significant risk of interstitial condensation in this type of roof construction. It therefore essential when using a HR underlay that the roof void is ventilated.

If a LR underlay is used then less ventilation maybe required as per Figs 1, 2 and 3 on the next page. However where a LR underlay is laid on plywood or similar non permeable substrate the underlay should be treated as HR and the roof void ventilated accordingly.

Warm pitched roofs

With LR underlay

Designers should be aware that an underlay which offers low resistance to the passage of water vapour will tend to lower the risk of condensation in the loft but might increase the risk of condensation in the batten space, leading to damage to the roofing battens unless there is sufficient air movement through the external covering

A Vapour Control Layer (VCL) should be provided at ceiling line internally. If the external covering is sufficiently permeable it will allow vapour to be released to atmosphere and no ventilation of the batten space is recommended as shown in Fig 4. If it is not practicable to provide an VCL there might be some risk of interstitial condensation forming on the underside of the underlay. To avoid that risk ventilated void under the roofing membrane should be provided as shown for HR underlay in Fig 5.

Where an external covering (such as fibre cement slates) is relatively airtight there is a risk of interstitial condensation forming on the underside of the underlay and the external covering. To avoid that risk the batten space should be ventilated as shown in Fig 4.

It should also be noted that if LR underlay is laid over an impervious support such as plywood, it should be treated as if it were an HR underlay – see Fig 5.

With HR underlay

In roofs with an HR underlay there is a risk of interstitial condensation forming on the underside of the underlay. To avoid that risk, a VCL should be provided on the warm side of the insulation, and ventilated voids should be formed between the underside of the underlay and the insulation. Each void should be at least 25 mm deep and be vented at both high and low level. Openings at low level should have free area equivalent to 25 mm × the width of the void and those at high level 5 mm × the width of the void. Vents should be provided on both sides of any obstruction, e.g. a horizontal ridge, fire break wall, roof window or dormer windows – see Fig 5.

Ventilation – design considerations

Cold pitched roofs

HR underlay

5,000mm²/m if span is more than 10m

25,000mm²/m

Fig. 1

LR underlay

5,000mm²/m x longest horizontal roof dimension

7,000mm²/m or 3,000mm²/m for well-sealed ceilings

5,000mm²/m if pitch is over 35° or span more than 10m

10,000mm²/m

Fig. 2

5,000mm²/m

16-75° 10,000mm²/m
10-15° 25,000mm²/m

Fig. 3

Warm pitched roofs

LR underlay

Impermeable roof covering (25mm min. ventilation void)

5,000mm²/m

25,000mm²/m

Fig. 4

Permeable roof covering (no ventilation required)

HR underlay

Any roof covering
25mm min. ventilation path

5,000mm²/m

25,000mm²/m

Fig. 5

Cold flat roofs

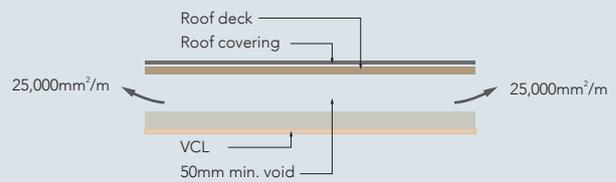


Fig. 6

Cold flat roofs

Designers should be aware that it is difficult to avoid interstitial condensation in cold flat roofs. To avoid the risk of interstitial condensation, a VCL should be provided on the warm side of the insulation and there should be a cross-ventilated void, not less than 50 mm deep, between the slab or roof deck and the insulation – see fig 6. Ventilation openings should be provided to every roof void along two opposite sides of the roof and should be equivalent in area to a continuous opening of not less than 25 mm at each side. For large roofs, the dimensions of the cross-ventilated void and the ventilation might have to be increased.

Fully supported metal roofing

The risk of surface condensation on the underside of fully supported metal roofing depends on the performance of the VCL below the insulation and the risk of moisture vapour ingress through unsealed joints in the roof covering. Fully supported metal roofs should include a separating layer between the metal and structural support (e.g. plywood), this separating layer should provide for moisture diffusion into the cross ventilated space and air circulation.

The Lead Sheet Association recommend that lead roofing should be ventilated in accordance with BS 5250 and BS 6229.

Chatsworth House, Bakewell, Derbyshire
Products used: Airtrak-LV15, Airtrak-LV9,
Airtrak-AB1 (bespoke to specification)



Point ventilators for lead roofing

Airtrak CV
Cheek ventilator

Download product files here

**Description**

A point ventilator fabricated from stainless steel and code 5 lead sheet which can be used to introduce ventilation into vertical lead cladding.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh, code 5 lead sheet to BS EN 12588.

Ventilation

2200 mm²

Dimensions

OA width 150mm, OA height 150mm

Compatibility

For use with lead cladding.

Installation

The CV Ventilator is fitted over an aperture in the vertical cladding 25mm high x 90mm wide. The lead cladding should be folded back into a welt on the lower edge to receive the free edge of the insect mesh. The free edge of the mesh is secured by dressing it into the welt and the CV is then welded to the vertical cladding on the top and sides.

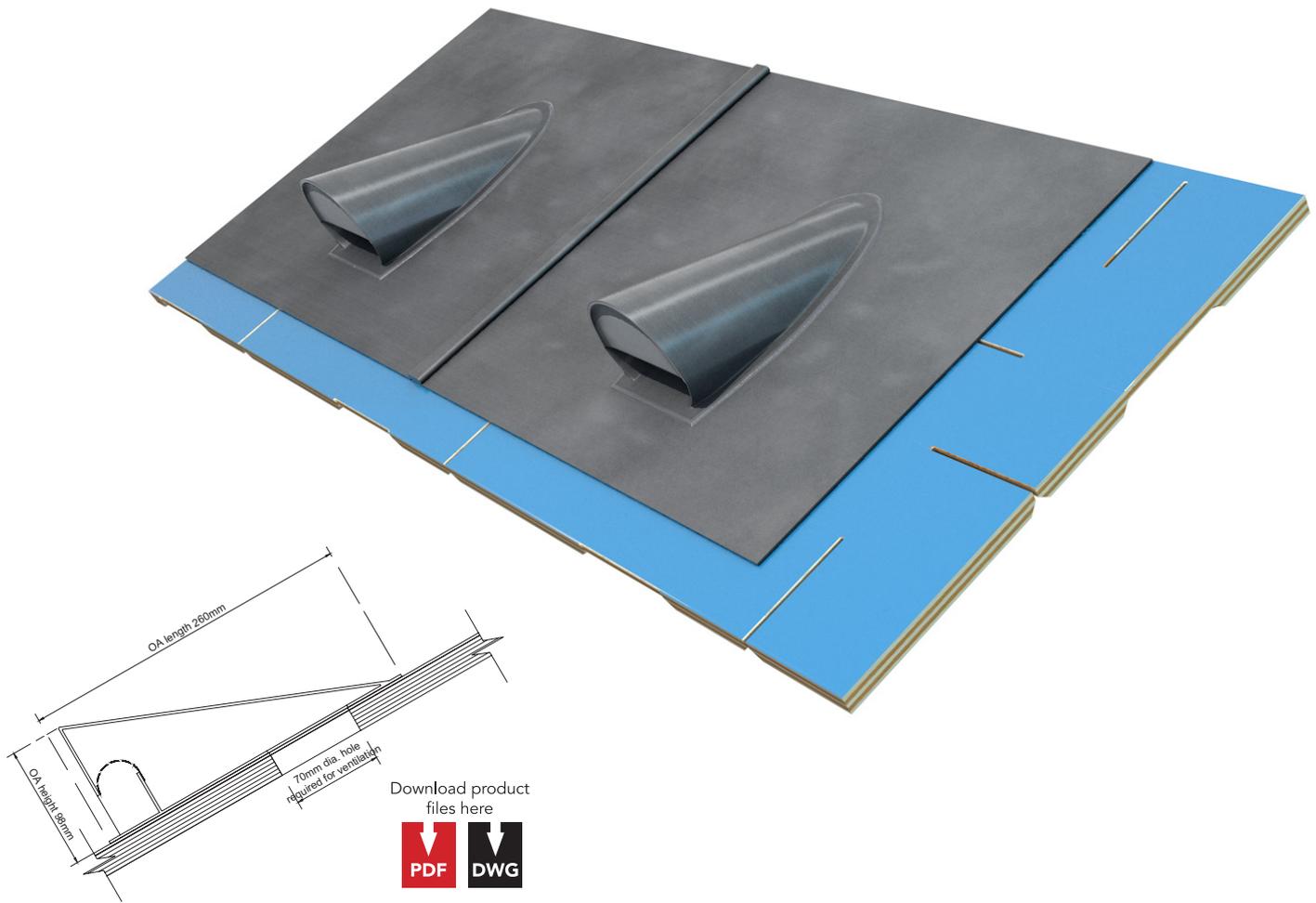
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak CV Cheek Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak PRV
Pitched roof ventilator



Description

The Pitched Roof Ventilator is designed for providing point ventilation to lead roofs and vertical cladding where appropriate. The traditional shape adopted is suitable for pitches of 30° and over. It has an integral fly screen of stainless steel woven mesh. The ventilator is positioned over a hole in the decking and lead covering and welded into position. A storm check is incorporated into the design to guard against water ingress in extreme conditions.

These ventilators may also be used in slated and tiled roofs where a more traditional look is required. The ventilator should be welded to a larger base sheet prior to being included in the slating or tiling.

Material

Code 5 lead, stainless steel woven insect mesh.

Ventilation

3000mm²

Dimensions

OA length 260mm, OA height 98mm

Compatibility

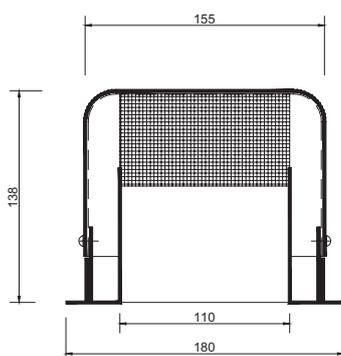
A point ventilator for lead roofing and slated and tiled roofing on pitches over 30°.

Installation

The PRV is welded to the completed lead bay over an aperture in the lead covering and roof deck of 70mm diameter. If desired, the PRV should be treated with patination oil in the normal manner. To use the PRV in a slated or tiled roof, it must first be welded to an appropriate sized lead sheet. It is then tiled or slated into the roof as tiling proceeds.

To specify

- Airtrak PRV Pitched Roof Ventilator
Supplied by Nicholson. Tel 0845 0098 980..

Airtrak LV9
Lead roof ventilator

Download product files here



Description

The LV9 Lead Roof Ventilator is a compact point ventilator for flat or pitched lead covered roofs up to 30°. It is useful for introducing ventilation into roof voids which cannot easily utilise the Airtrak linear ventilators.

The LV9 can also be supplied with a stainless steel insert inside the weathering hood. This provides extra strength and is recommended when the LV9 is sited where it might be vulnerable to mechanical damage. These areas would include roof walkways, escape routes and areas accessed by maintenance contractors. The LV9 can also be used as a termination for extract ducts. It can also be used for situations where additional ventilation is required or retrofitted to roofs where no ventilation was initially installed.

Material

Code 5 lead, 0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

9000mm². Used at 900mm centres = 10mm continuous air gap equivalent.

Dimensions

OA height 138mm, OA width 180mm

Compatibility

Point ventilator or extract terminal for lead roofing up to a pitch of 30°.

Installation

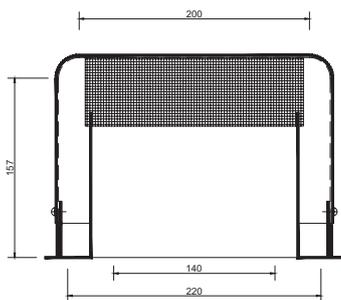
The LV9 is fitted to a completed lead roof. A 110mm diameter aperture is made in the lead roof covering and the roof decking below. The LV9 is placed centrally over the hole and welded to the lead bay. Avoid siting the LV9 where it could obstruct the flow e.g. gutters.

To specify

- Airtrak LV9 Lead Roof Ventilator
- Airtrak LV9-S Lead Roof Ventilator with stainless steel insert
- Airtrak LV9-X Lead Roof SVP or Extract Terminal – no insect mesh.

Supplied by Nicholson. Tel 0845 0098 980.

Airtrak LV15
Lead roof ventilator



Download product files here



Description

The LV15 Lead Roof Ventilator is a compact point ventilator for flat or pitched lead covered roofs up to 30 degrees. It is useful for introducing ventilation into roof voids which cannot easily utilise the Airtrak linear ventilators.

The LV15 can also be supplied with a stainless steel insert inside the weathering hood. This provides extra strength and is recommended when the LV15 is sited where it might be vulnerable to mechanical damage. These areas would include roof walkways, escape routes and areas accessed by maintenance contractors. The LV15 can also be used as a termination for extract ducts. It can also be used for situations where additional ventilation is required or retrofitted to roofs where no ventilation was initially installed.

Material

Code 5 lead, 0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

15,000mm². Used at 600mm centres = 25mm continuous air gap equivalent. Used at 1500mm centres = 10mm continuous airgap equivalent.

Dimensions

OA height 157mm, OA width 220mm

Compatibility

Point ventilator or extract terminal for lead roofing up to a pitch of 30 degrees.

Installation

The LV15 is fitted to a completed lead roof. A 140mm diameter aperture is made in the lead roof covering and the roof decking below. The LV15 is placed centrally over the hole and welded to the lead bay. Avoid siting the LV15 where it could obstruct the flow e.g. gutters.

To specify

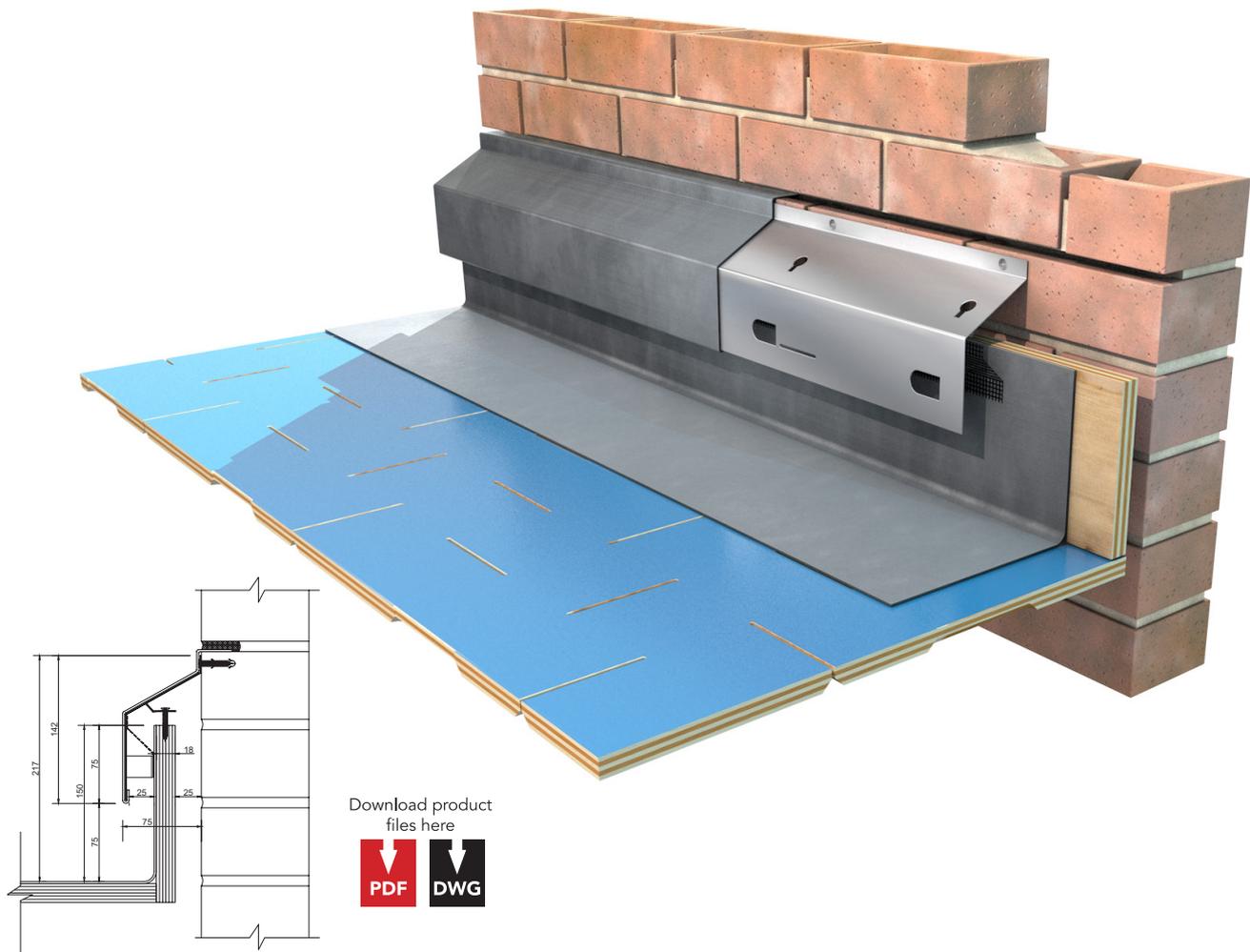
- Airtrak LV15 Lead Roof Ventilator
 - Airtrak LV15-S Lead Roof Ventilator with stainless steel insert
 - Airtrak LV15-X Lead Roof SVP or Extract Terminal – no insect mesh.
- Supplied by Nicholson. Tel 0845 0098 980.

Sandhurst Royal Military Academy, Sandhurst, Surrey
Products used: Airtrak-AB1, Airtrak-MV200, Airtrak-LB30
(bespoke to specification)



Linear ventilators for metal, liquid applied
and membrane roofing

Airtrak AB1 Abutment Ventilator for fully supported metal, membrane and liquid applied roofing



Description

The AB1 is a stainless steel profile which provides ventilation at the interface of a fully supported metal, membrane or liquid applied flat roof with an abutment such as a parapet or building wall. It has an integral fly screen and spacer feet to provide a continuous strip of ventilation to the roof void as required by current Building Regulations. It requires a cover flashing in a suitable material.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 180mm, length 1000mm

Compatibility

All roof coverings up to 4mm in thickness including liquid applied, single ply membranes and fully supported metal roof coverings.

Installation

The AB1 is fitted over the ventilated upstand and screwed to the abutment wall using suitable non ferrous fixings. Secondary non ferrous fixings should be installed to prevent wind uplift. Lengths should be butted together and can be mitred at corners or trimmed to length with a large pair of tin snips.

A flashing is required to the ventilator profile which should be installed in accordance with current industry best practice guidelines. The lower edge of the flashing should be welted around the bottom edge of the ventilator. The use of the CF Clipfast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

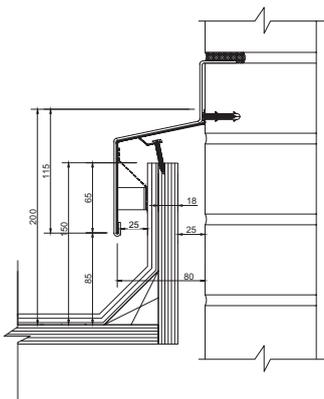
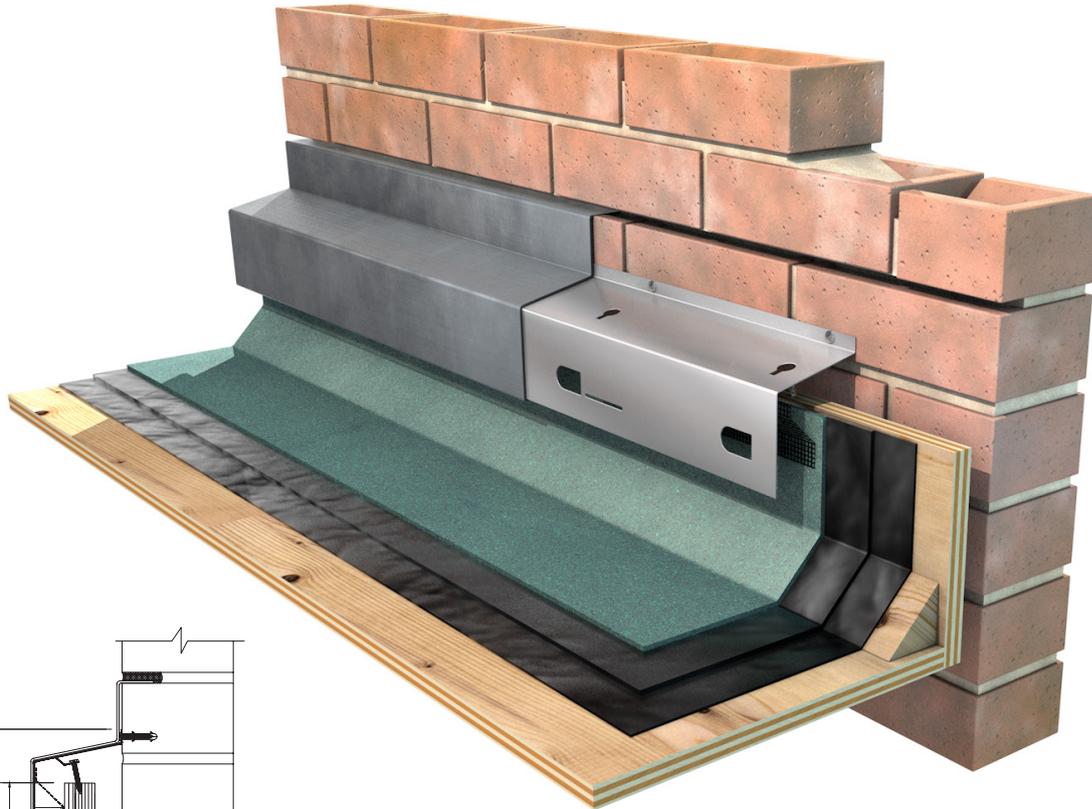
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak AB1 Abutment Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak AB2
Abutment Ventilator for
built up roofing



Download product files here



Description

The AB2 is a stainless steel profile which provides ventilation at the interface of a built up felt flat roof with an abutment such as a parapet or building wall. It has an integral flyscreen and spacer feet to provide a continuous strip of ventilation to the roof void as required by current Building Regulations. It requires a cover flashing in a suitable material.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 180mm, length 1000mm

Compatibility

Bitumen built up roofing membranes up to 10mm in thickness.

Installation

The AB2 is fitted over the ventilated upstand and screwed to the abutment wall using suitable non ferrous fixings. Secondary non ferrous fixings should be installed to prevent wind uplift. Lengths should be butted together and can be mitred at corners or trimmed to length with a large pair of tin snips.

A flashing is required to the ventilator profile which should be installed in accordance with current industry best practice guidelines. The lower edge of the flashing should be melted around the bottom edge of the ventilator. The use of the CF Clipfast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

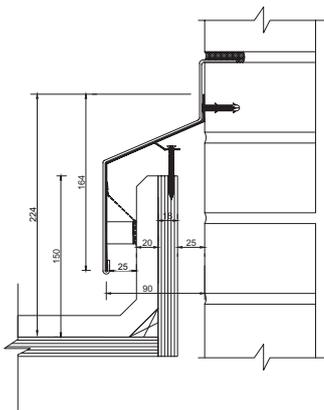
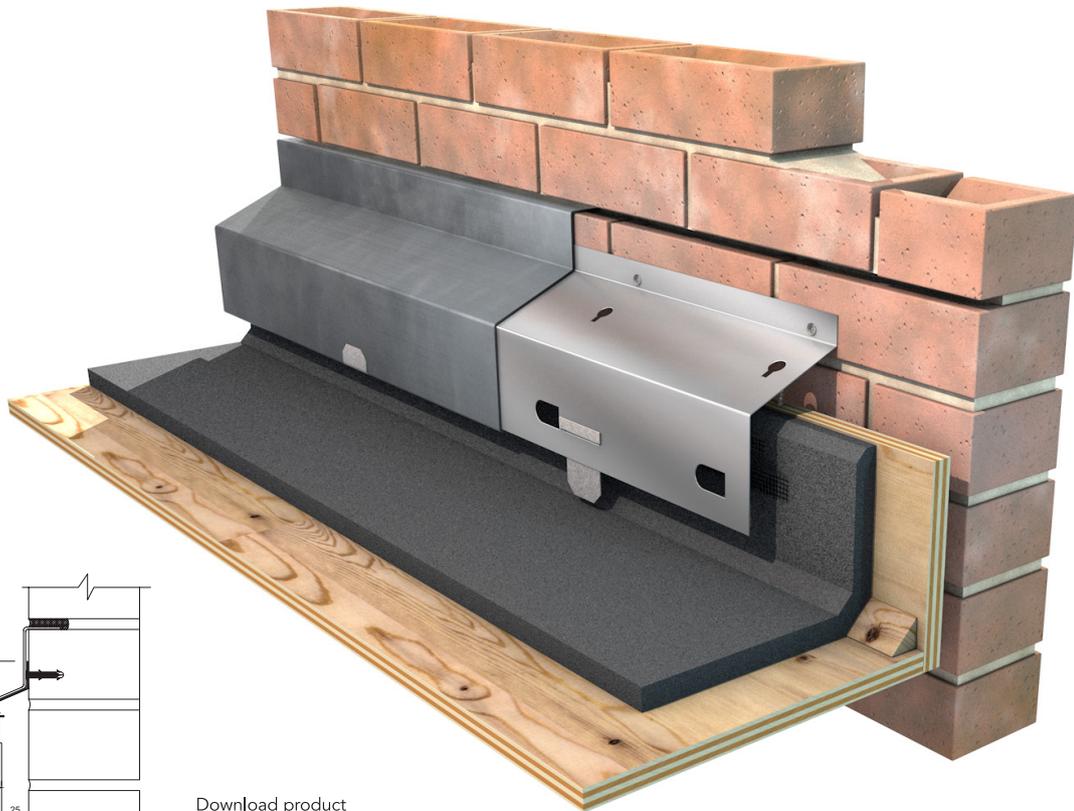
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak AB2 Abutment Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak AB3 Abutment Ventilator for mastic asphalt – vertical kerb



Download product files here



Description

The AB3 is a stainless steel profile which provides ventilation at the interface of a mastic asphalt roof with an abutment such as a parapet or building wall using a vertical ventilated kerb. It has an integral fly screen and spacer feet to provide a continuous strip of ventilation to the roof void as required by current Building Regulations. It requires a cover flashing in a suitable material.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 220mm, length 1000mm

Compatibility

Mastic asphalt roof covering up to 20mm thick – vertical kerb.

Installation

The AB3 is fitted over the ventilated upstand and screwed to the abutment wall using suitable non ferrous fixings. Secondary non ferrous fixings should be installed to prevent

wind uplift. Lengths should be butted together and can be mitred at corners or trimmed to length with a large pair of tin snips.

A flashing is required to the ventilator profile which should be installed in accordance with current industry best practice guidelines. The lower edge of the flashing should be welted around the bottom edge of the ventilator. The use of the CF Clipfast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

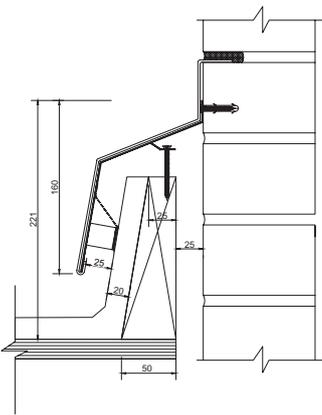
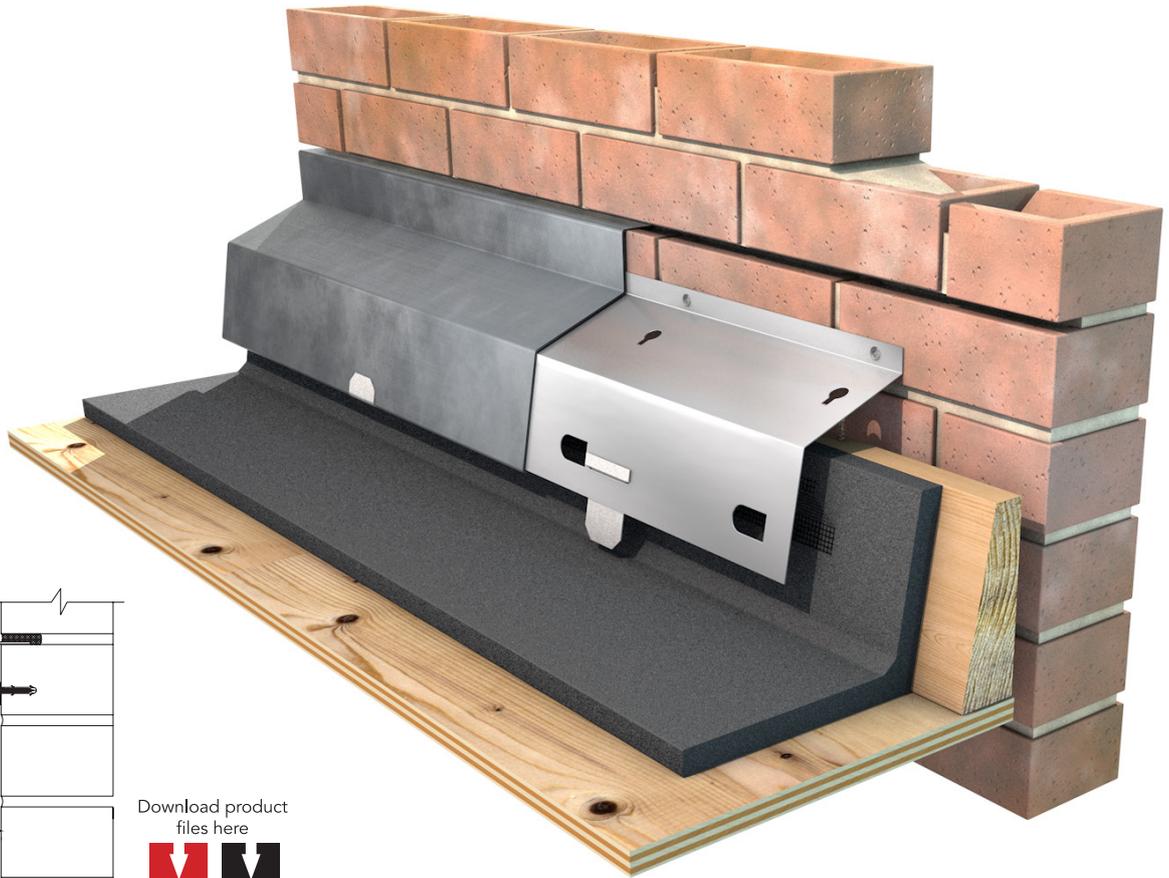
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak AB3 Abutment Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak AB4
Abutment Ventilator for
mastic asphalt – splayed kerb



Download product files here



Description

The AB4 is a stainless steel profile which provides ventilation at the interface of a mastic asphalt roof with an abutment such as a parapet or building wall using a splayed ventilated kerb. It has an integral fly screen and spacer feet to provide a continuous strip of ventilation to the roof void as required by current Building Regulations. It requires a cover flashing in a suitable material.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 220mm, length 1000mm

Compatibility

Mastic asphalt roof covering up to 20mm thick – splayed kerb.

Installation

The AB4 is fitted over the ventilated upstand and screwed to the abutment wall using suitable non ferrous fixings. Secondary non ferrous fixings should be installed to prevent

wind uplift. Lengths should be butted together and can be mitred at corners or trimmed to length with a large pair of tin snips.

A flashing is required to the ventilator profile which should be installed in accordance with current industry best practice guidelines. The lower edge of the flashing should be weltd around the bottom edge of the ventilator. The use of the CF Clipfast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

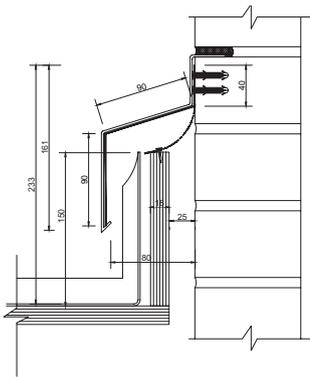
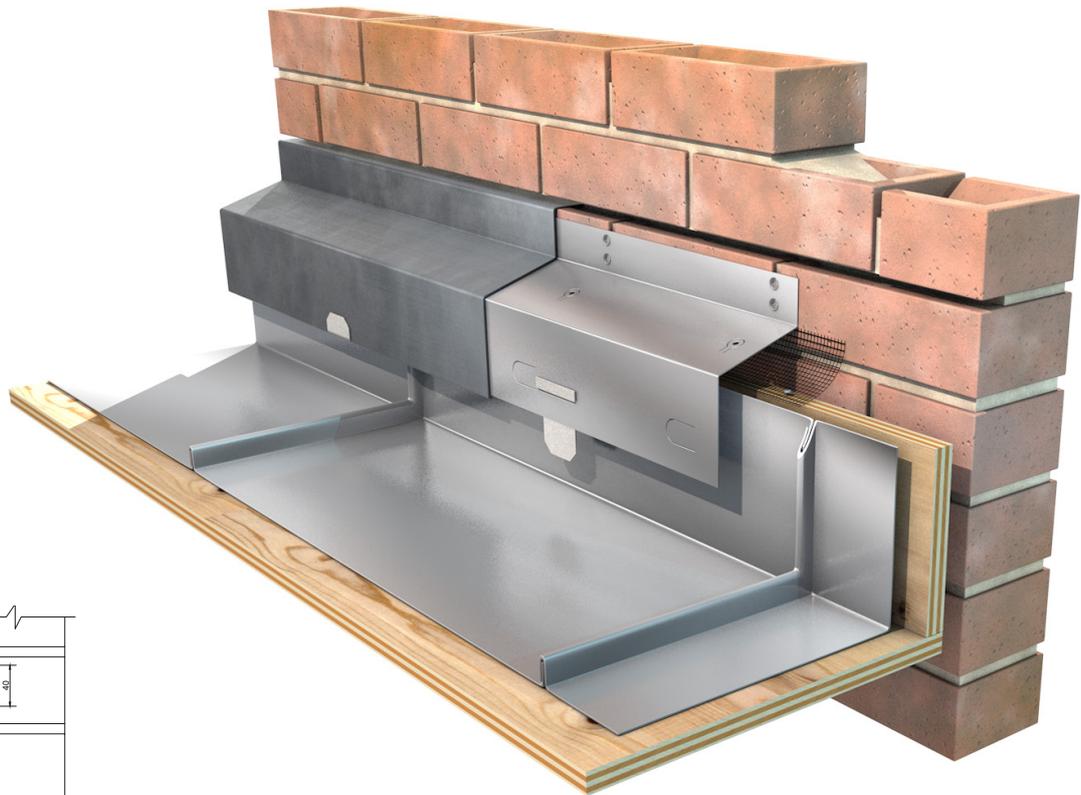
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak AB4 Abutment Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak AB5 Abutment Ventilator for hard metal roofing



Download product files here



Description

The AB5 is a stainless steel profile which provides ventilation at the interface of a fully supported hard metal roof with an abutment such as a parapet or building wall. It is supplied with a fly screen to provide a continuous strip of ventilation to the roof void as required by current Building Regulations. It allows the upstand of the metal roofing to move perpendicularly to the upstand as caused by the expansion and contraction normally associated with this type of roofing. It requires a cover flashing in a suitable material.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 220mm, length 1000mm

Compatibility

Hard metal roof coverings.

Installation

The flymesh supplied separately is nailed to the top of the ventilated upstand. The AB5 is fitted over the ventilated upstand and screwed to the abutment wall using suitable non ferrous fixings should be installed. Secondary non ferrous fixing should be installed to prevent wind uplift. Lengths should be butted together and can be mitred at corners or trimmed to length with a large pair of tin snips.

A flashing is required to the ventilator profile which should be installed in accordance with current industry best practice guidelines. The lower edge of the flashing should be welded around the bottom edge of the ventilator. The use of the CF Clipfast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

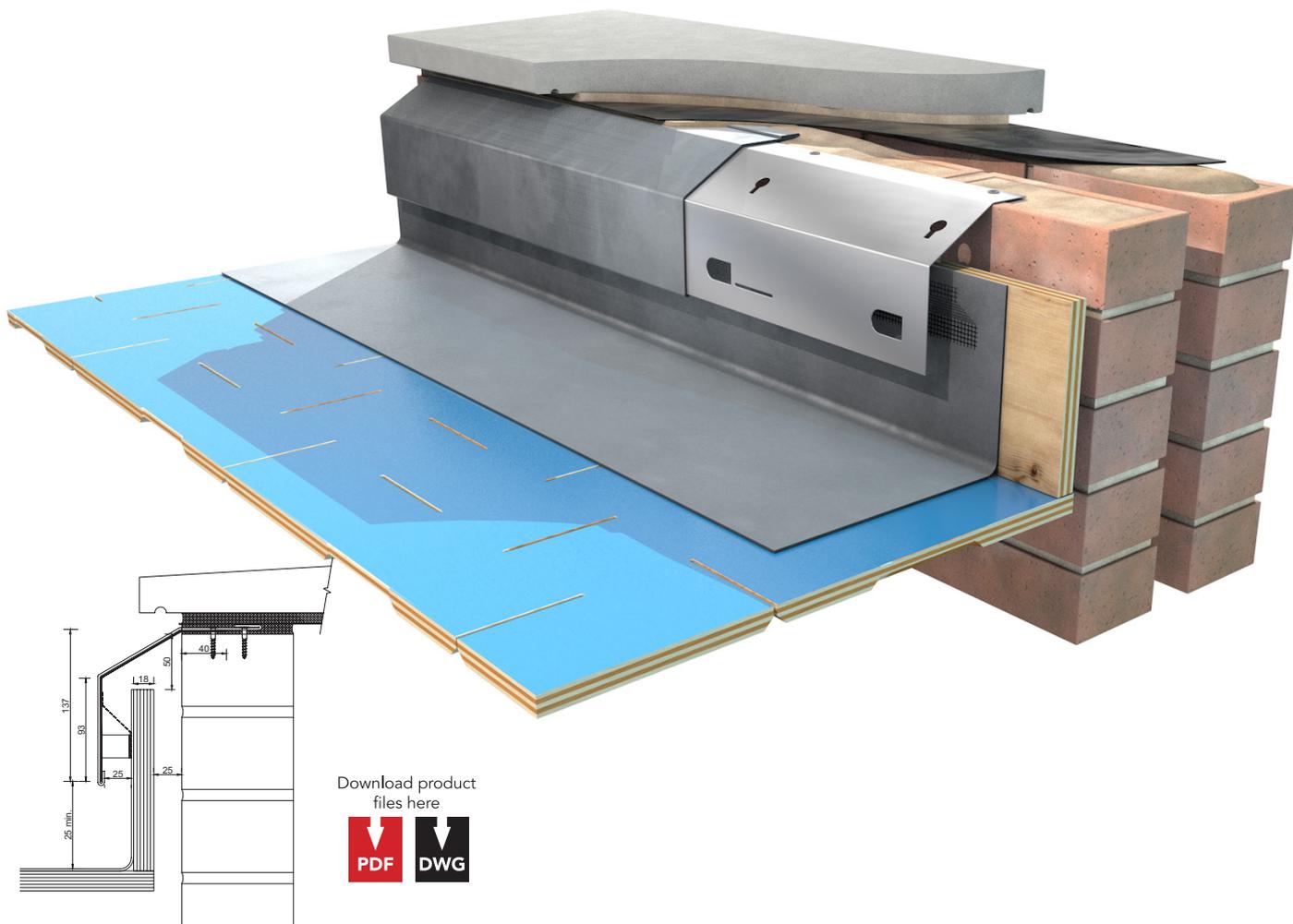
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak AB5 Abutment Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak AB6
Parapet Abutment
Ventilator



Download product files here



Description

The AB6 is a stainless steel profile which provides ventilation at the interface of a fully supported metal, membrane or liquid applied flat roof with a parapet wall abutment. The fixing tab turns horizontally and can be fixed into the top of the parapet wall. It has an integral fly screen and spacer feet to provide a continuous strip of ventilation to the roof void as required by current Building Regulations. It requires a cover flashing in a suitable material.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 220mm, length 1000mm

Compatibility

All roof coverings up to 10mm in thickness.

Installation

The AB6 is fitted over the ventilated upstand and screwed to the top of the parapet wall using suitable non ferrous fixings. Secondary non ferrous fixings should be installed to prevent

wind uplift. Lengths should be butted together and can be mitred at corners or trimmed to length with a large pair of tin snips.

A flashing is required to the ventilator profile which should be installed in accordance with current industry best practice guidelines. The lower edge of the flashing should be welded around the bottom edge of the ventilator. The use of the CF Clipfast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

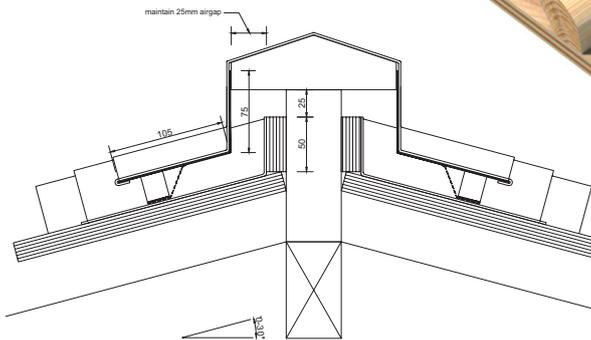
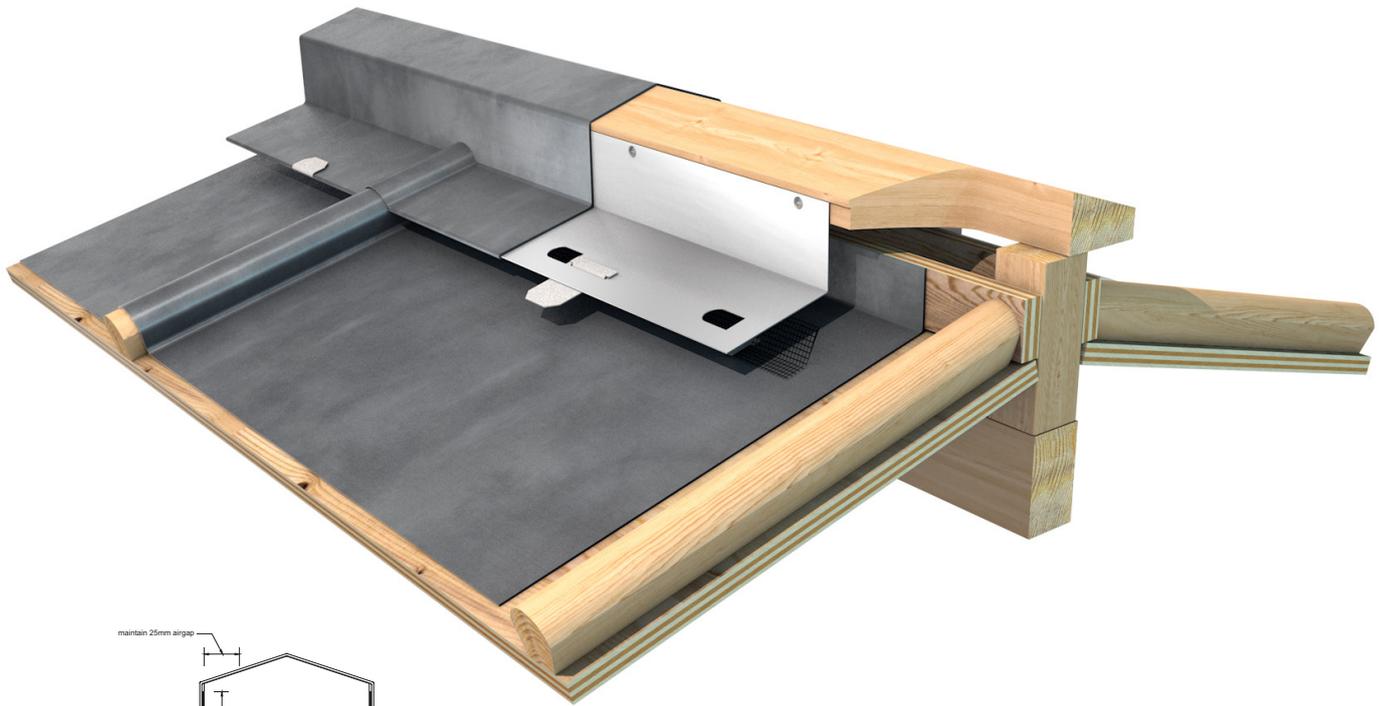
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak AB6 Abutment Ventilator
Supplied by Nicholson Tel 0845 0098 980.

Airtrak BRV1 Between Roll Ventilator Type 1



Download product files here



Description

The BRV1 ventilator is designed to ventilate the top of a pitched lead roof either at an abutment with a wall or at a ridge. It is designed for pitches from 0 to 30° and is located between the rolls and provides a ventilation path under the flashing. It provides an unobtrusive alternative to cumbersome timber constructions, especially on ridges.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 180mm, length 1000mm

Compatibility

For ventilating lead ridge details from 0 to 30°.

Installation

The top of the lead bay below the BRV1 is turned up 50mm in front of a ventilated upstand providing at least a 25mm air path into the roof void. The upstand should be welded to the over cloak and undercloak on each side of the bay and any

fixings in the head of the bay should be sealed with solder or lead welded dabs. The BRV1 is pre bent to the correct angle and is fixed to the ridge detail with non ferrous fixings. The ventilator is trimmed to length using a large pair of tin snips and sits between the rolls of the completed bays. A lead flashing is dressed over the central capping detail and down over the ventilator wetting around the bottom edge of the ventilator. The flashing should be clipped on the rolls to avoid the lead slipping down the ventilator in time.

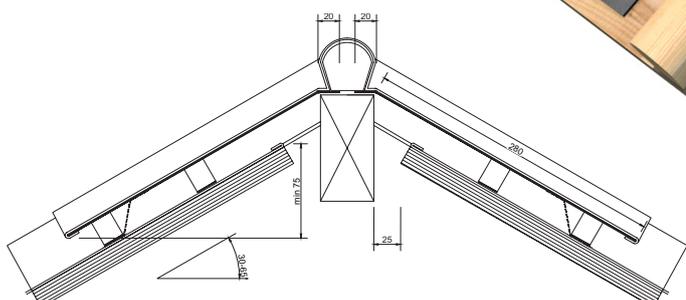
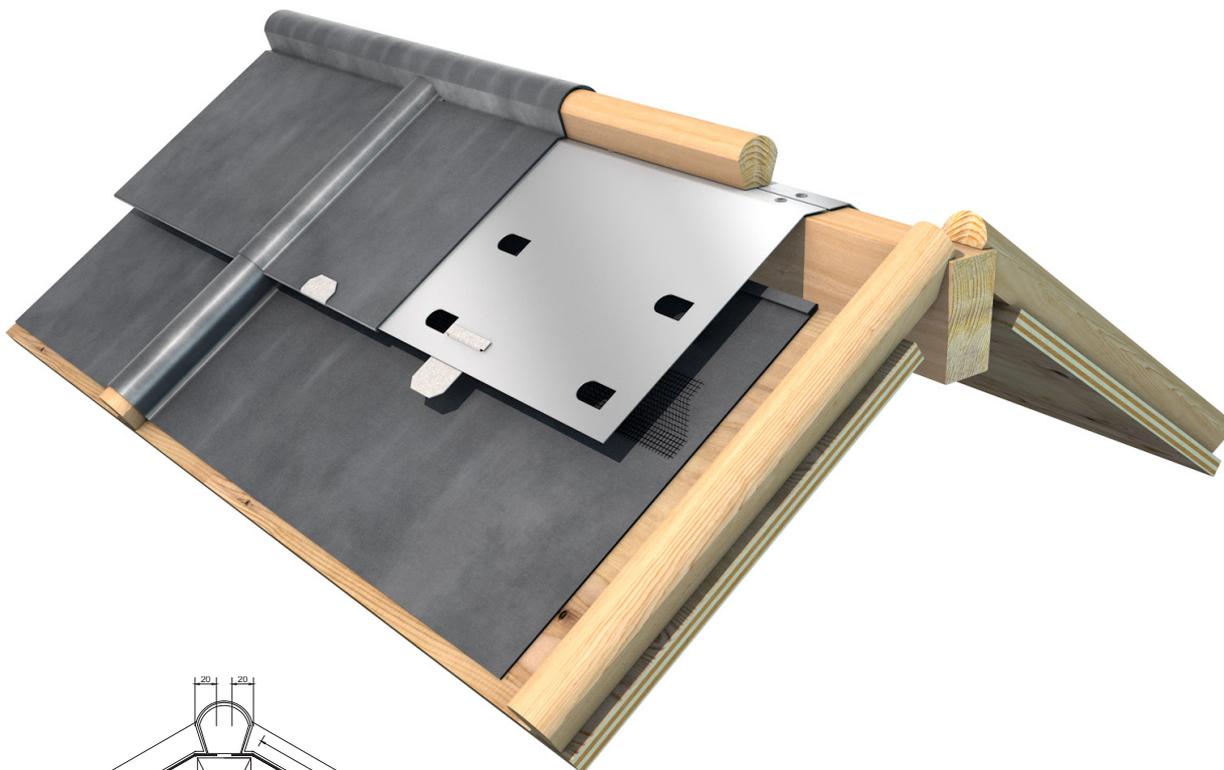
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak BRV1 Between Roll Ventilator for° roof pitch, Supplied by Nicholson. Tel 0845 0098 980.

Airtrak BRV2
Between Roll Ventilator Type 2



Download product files here



Description

The BRV2 ventilator is designed to ventilate the top of a pitched lead roof either at an abutment with a wall or at a ridge. It is designed for pitches from 31 to 65° and is located between the rolls and provides a ventilation path under the flashing. It provides an unobtrusive alternative to cumbersome timber constructions, especially on ridges.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 290mm, length 700mm

Compatibility

For ventilating lead ridge details from 31 to 65°.

Installation

The top of the lead bay below the BRV requires a welted return of at least 25mm which is welded to the roll upstands at each side of the bay. The BRV is pre bent to the correct angle and is fixed to the ridge detail with non ferrous fixings.

The fixing tab can be bent to a horizontal plane or vertical plane as required. The ventilator is trimmed to length using a large pair of tin snips and sits between the rolls of the completed bays. A lead flashing is dressed over the central roll detail and down over the ventilator welting around the bottom edge of the ventilator. The flashing should be clipped on the rolls to avoid the lead slipping down the ventilator in time.

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak BRV2 Between Roll Ventilator for° roof pitch, Supplied by Nicholson. Tel 0845 0098 980.

Airtrak CL Cladding Ventilator



Description

The CL Cladding Ventilator can be used to introduce ventilation into metal cladding from 60° pitch to vertical. It can be used in a horizontal or raking plane and provides a neat and unobtrusive airpath to ventilate the void behind the cladding.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 145mm, length 1000mm

Compatibility

For ventilating metal cladding from 60° to vertical plane.

Installation

The CL is fitted over a 25mm wide continuous opening into a 1mm x 25mm rebate on the top edge of the cladding above the aperture using non ferrous fixings. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The metal roof covering is dressed down the face of the ventilator and weltd around the bottom edge to prevent wind uplift.

The Airtrak CF Clipfast Clips can be used with the CL Cladding Ventilator to prevent flashing creep (see page 49).

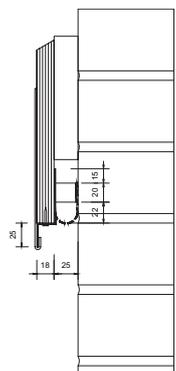
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

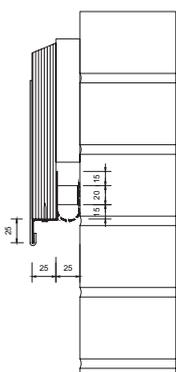
To specify

- Airtrak CL Cladding Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

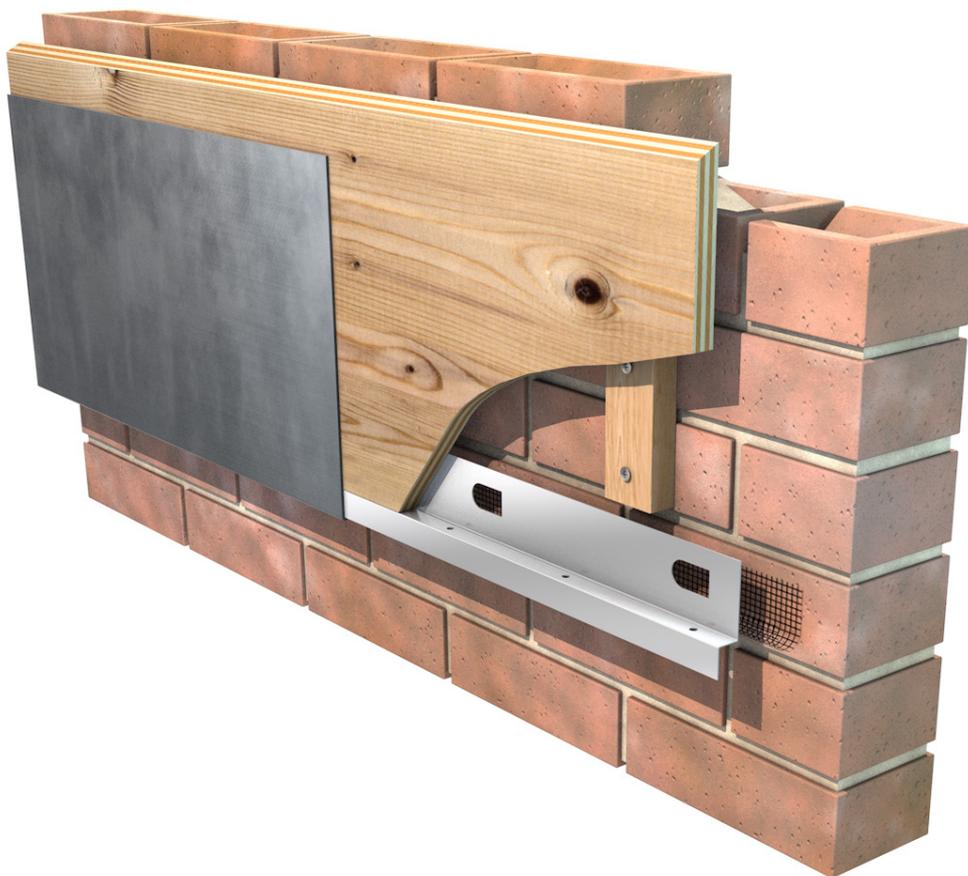
Airtrak VT18
Airtrak VT25
Ventilated Edge Trim



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Description

The VT Ventilated Edge Trim provides a continuous ventilation detail to the bottom edge of a plywood fascia or cladding. It protects the edge of the plywood from exposure to the weather and also provides a continuous clipped detail for the metal cladding. It is available in two versions for 18mm and 25mm thick plywood.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

VT18 for 18mm thick plywood

VT25 for 25mm thick plywood

Length 1000mm

Compatibility

For use with 18mm and 25mm plywood.

Installation

The VT Ventilator is fitted to the edge of the plywood prior to it being fixed in position into the edge of the plywood using non ferrous fixings. The lead cladding to the ventilator is welded around the edge of the ventilator to prevent wind uplift. Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips.

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak VT18 Ventilated Edge Trim for 18mm plywood
 - Airtrak VT25 Ventilated Edge Trim for 25mm plywood
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak EA75 Eaves Ventilator
 Airtrak EA100 Eaves Ventilator
 Airtrak EA120 Eaves Ventilator
 Airtrak EA150 Eaves Ventilator



EA100 Eaves Ventilator

Description

The EA ventilators provide a 25mm ventilation path into the roof void at the eaves or edge of a flat roof. They are available with different vertical downstand drip dimensions for various locations such as drip edges to parapets, dormer roofs, flat roofs etc etc.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

EA75 75mm downstand
 EA100 100mm downstand
 EA120 120mm downstand
 EA150 150mm downstand
 All 1000mm in length

Compatibility

For ventilating metal, membrane or liquid roof coverings.

Installation

The EA is fitted into a 1mm x 25mm rebate on the leading edge of the roof deck using non ferrous fixings.

The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The metal roof covering is dressed down the face of the ventilator and welted around the bottom edge to prevent wind uplift. For membrane and liquid applied roof coverings, a suitable metal flashing material should be used to cover the ventilator welting around the lower edge and extending onto the roof to facilitate a lap joint in accordance with the manufacturers instructions. The use of the CF Clip Fast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

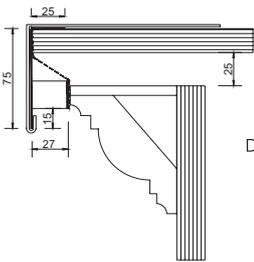
To specify

- Airtrak EA75 Eaves Ventilator
 - Airtrak EA100 Eaves Ventilator
 - Airtrak EA120 Eaves Ventilator
 - Airtrak EA150 Eaves Ventilator
- Supplied by Nicholson. Tel 0845 0098 980.

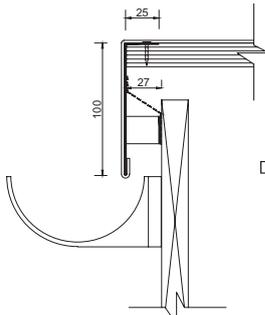
Airtrak EA75 Eaves Ventilator
Airtrak EA100 Eaves Ventilator
Airtrak EA120 Eaves Ventilator
Airtrak EA150 Eaves Ventilator



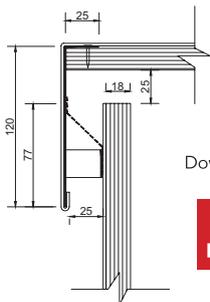
EA120 Eaves Ventilator



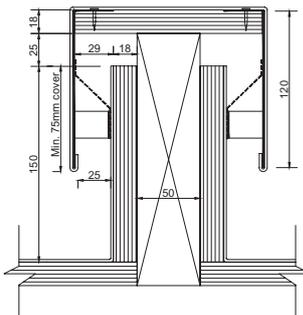
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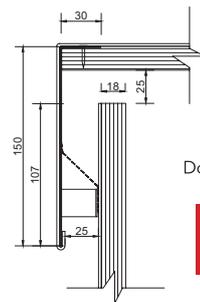
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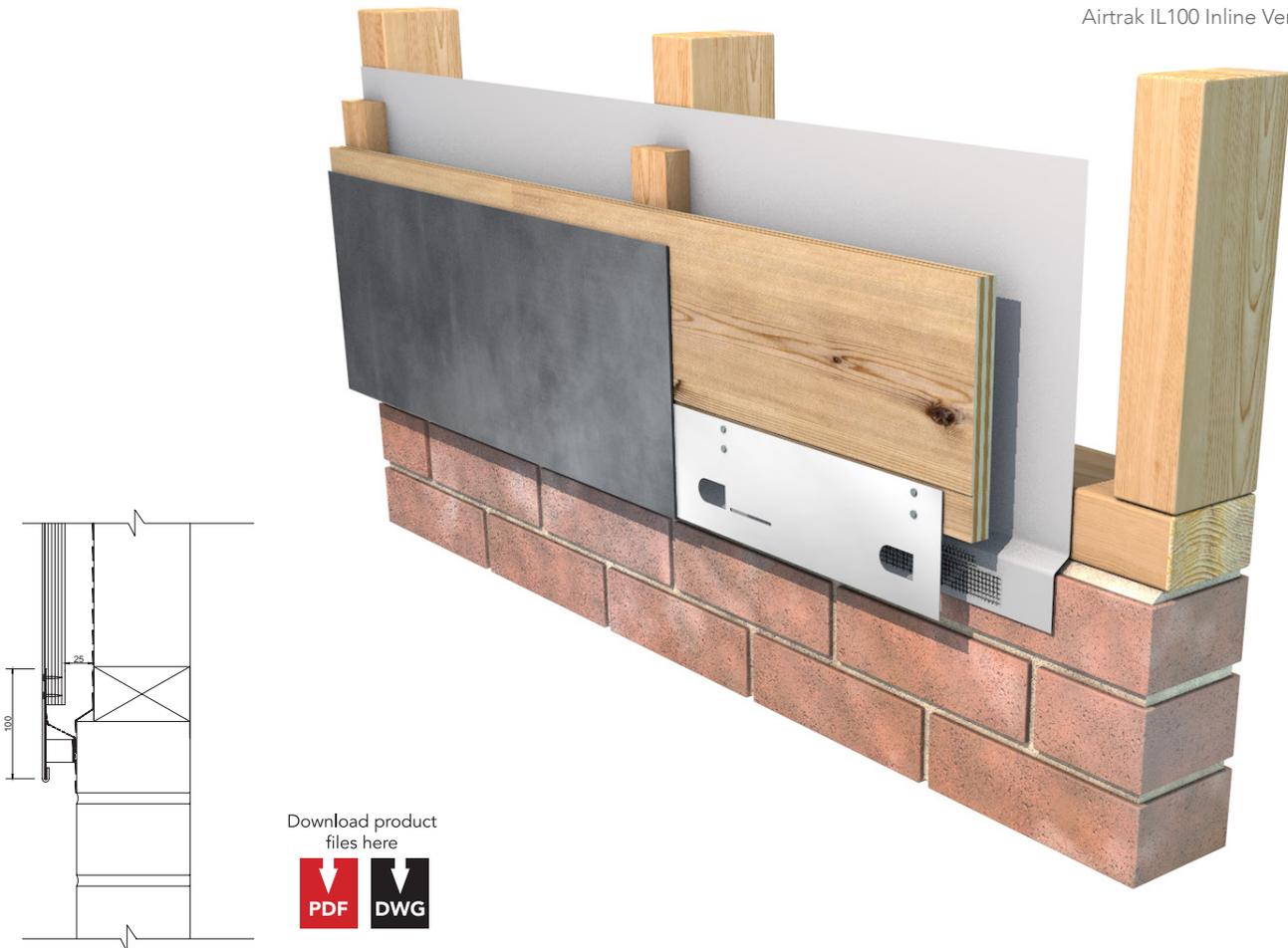


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Airtrak IL100 Inline Ventilator
 Airtrak IL145 Inline Ventilator
 Airtrak IL180 Inline Ventilator

Airtrak IL100 Inline Ventilator



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Description

The IL can be used at the foot or head of vertical or pitched cladding to provide a continuous airgap for ventilation. It's inconspicuous profile allows effective ventilation whilst keeping the visual impact of the detail to a minimum.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

IL100 OA girth 100mm

IL145 OA girth 145mm

IL180 OA girth 180mm

All 1000mm in length

Compatibility

For use with lead and hard metal roofing for various ventilation details.

Installation

The IL is a flat profiled ventilator that can be fixed with non ferrous fixings to raking and straight edges to introduce a drip edge and ventilation. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. Ensure that a minimum of 25mm airflow is achieved throughout the ventilation detail.

The IL can be formed to a curved substrate in the horizontal plane.

Severe exposure

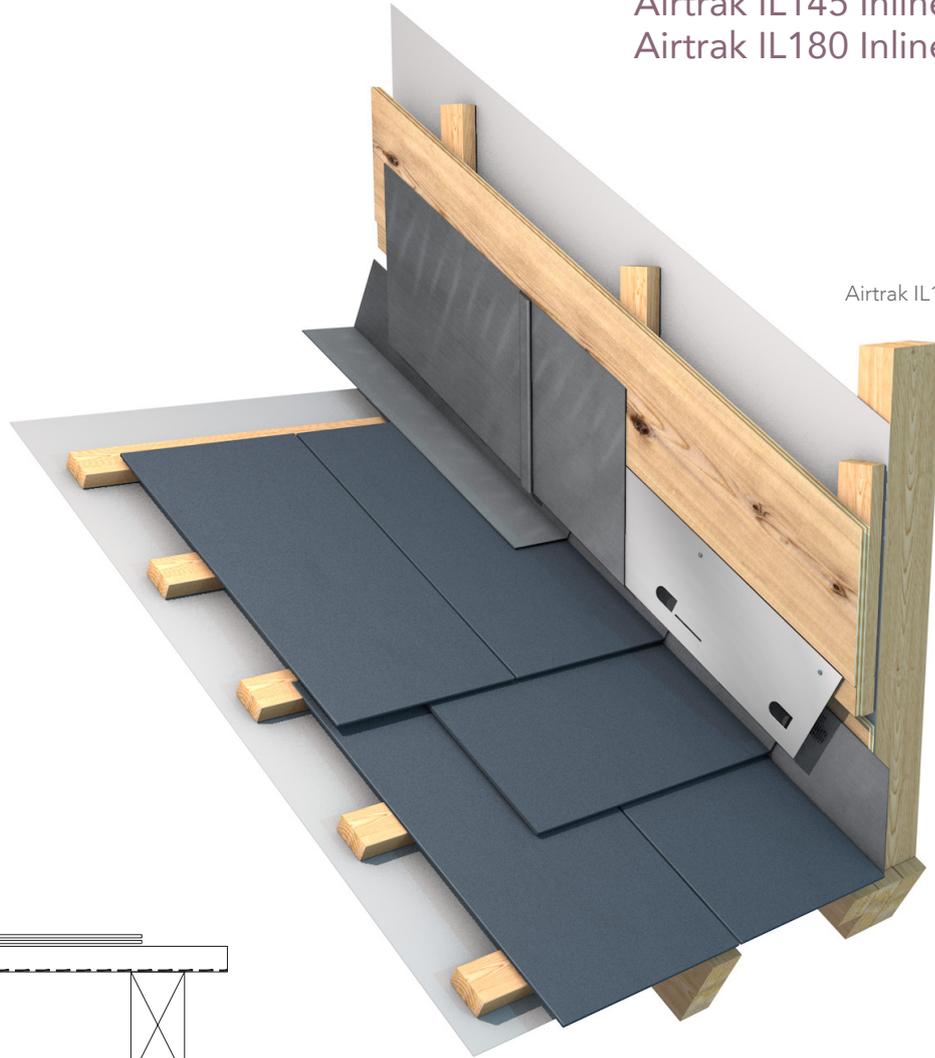
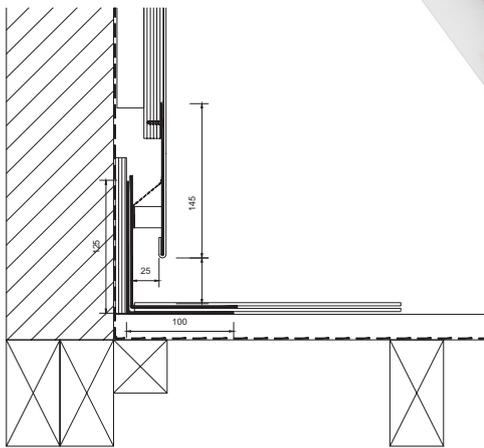
For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak IL100 Inline Ventilator
 - Airtrak IL145 Inline Ventilator
 - Airtrak IL180 Inline Ventilator
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak IL100 Inline Ventilator
Airtrak IL145 Inline Ventilator
Airtrak IL180 Inline Ventilator

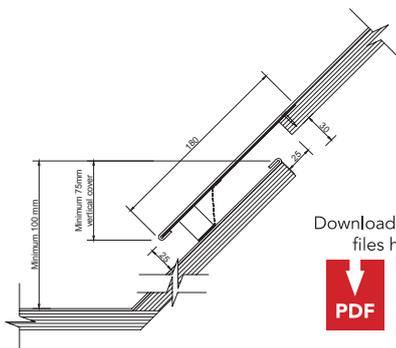
Airtrak IL145 Inline Ventilator



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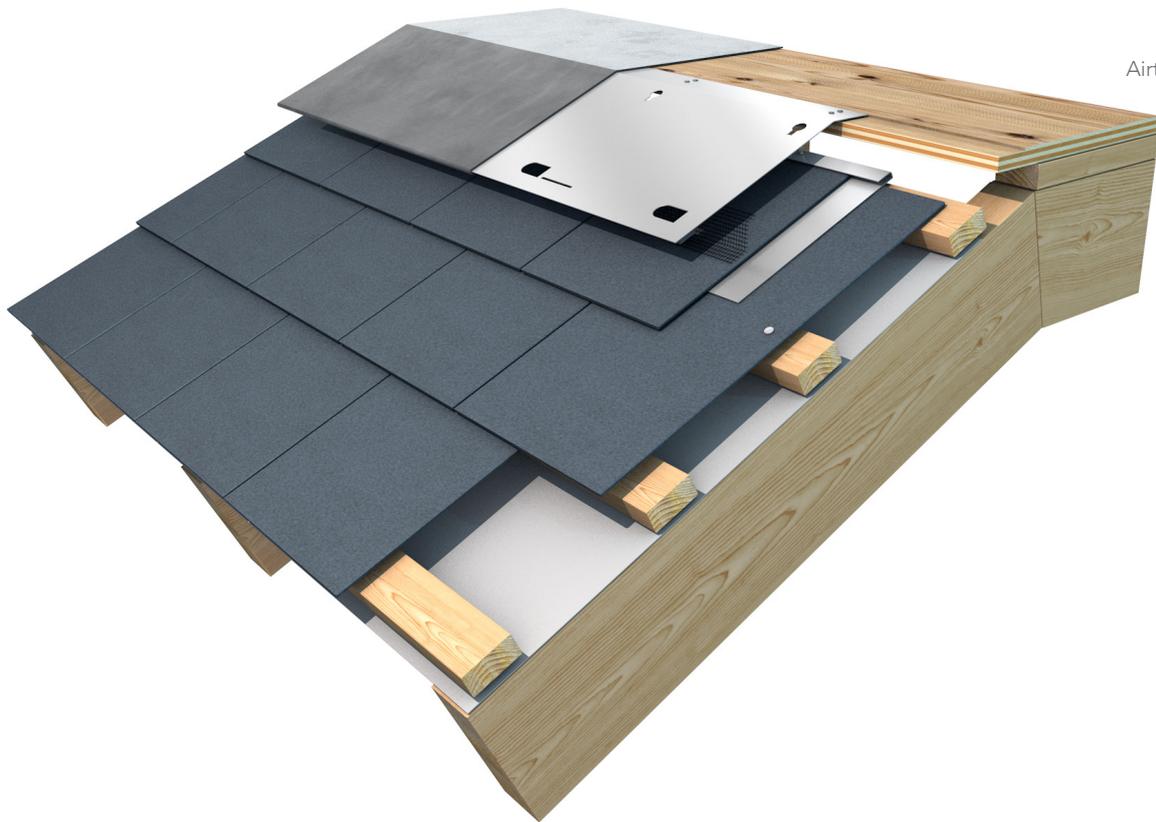
Airtrak IL180 Inline Ventilator



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Airtrak MV Mansard Ventilator for Slated Roofing



Airtrak MV225

Description

The MV Mansard Ventilator for slated roofing is used to introduce ventilation into a flat roof where it falls out onto a slated pitched roof. The stainless steel profile is covered by the flat roofing material or flashing. To maintain the integrity of the detail as the pitch reduces, the MV Mansard Ventilator is used with the LPS225 Low Pitch Soaker (page 50).

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

Cover to roof pitch:

MV150 150mm

MV200 200mm

MV225 225mm

All ventilators are 1000mm long

Compatibility

For use at the junction of a slated roof with metal, membrane or liquid roof coverings.

Pitch Airtrak MV Ventilator

60 to 90° MV150

45 to 59° MV200

35 to 44° MV200 + LPS225

25 to 34° MV225 + LPS225

Installation

Where required, the LPS225 Low Pitch Soaker is installed underneath the eaves course of the slating. The top edge is welted over the top of the eaves course to provide a check

for wind blown rain. The MV Mansard Ventilator is fitted to a 1mm rebate in the edge of the flat roof with non ferrous fixings and extends down over the slates. Additional secondary fixings should be used to provide resistance to wind uplift. Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The ventilator should be parallel to the surface of the top slate. For lead roof coverings, the lead covering is dressed down the face of the ventilator and welted around the lower edge. For membrane and liquid applied roof coverings, a suitable metal flashing material should be used to cover the ventilator welting around the lower edge and extending onto the roof to facilitate a lap joint in accordance with the manufacturers instructions. These flashings should not be installed in lengths exceeding 1m and have a minimum lap of 150mm at the joints. The use of the CF Clip Fast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

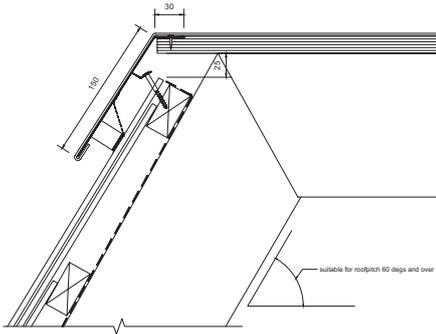
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

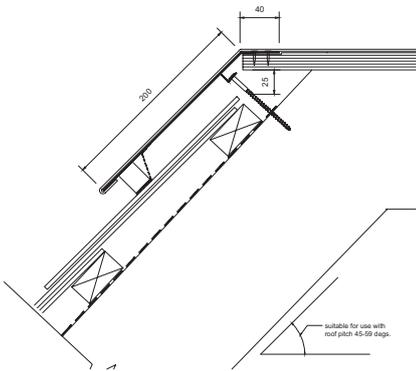
To specify

- Airtrak MV150 Mansard Ventilator to suit ____° slated pitch
 - Airtrak MV200 Mansard Ventilator to suit ____° slated pitch
 - Airtrak MV200 Mansard Ventilator + LPS225 Low Pitch Soaker to suit ____° slated pitch
 - Airtrak MV225 Mansard Ventilator + LPS225 Low Pitch Soaker to suit ____° slated pitch
- Supplied by Nicholson. Tel 0845 0098 980.

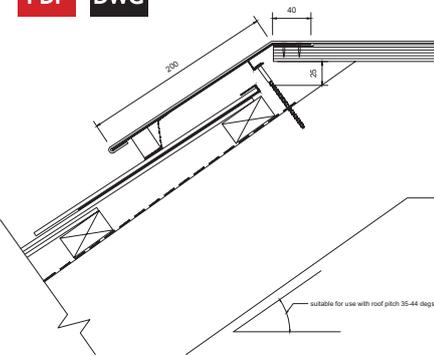
Airtrak MV Mansard Ventilator for Slated Roofing



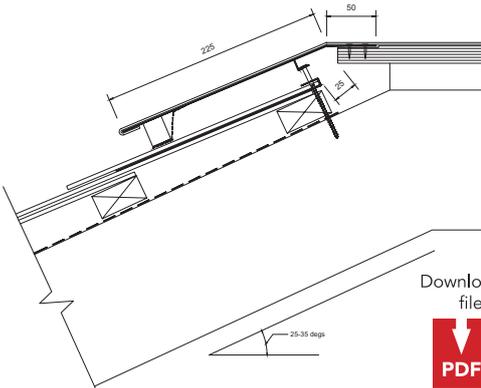
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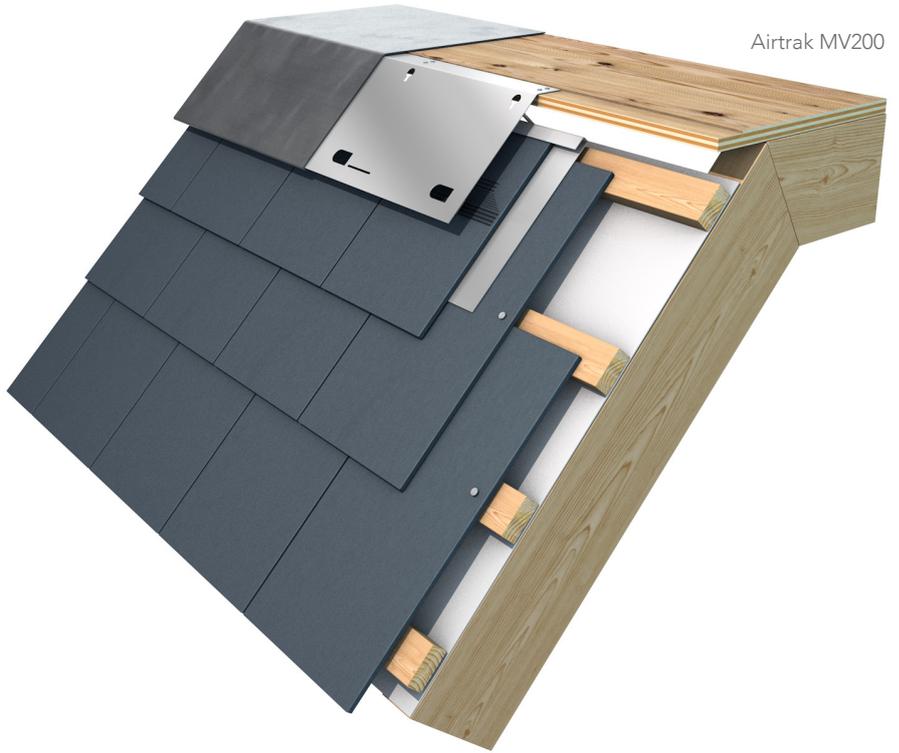
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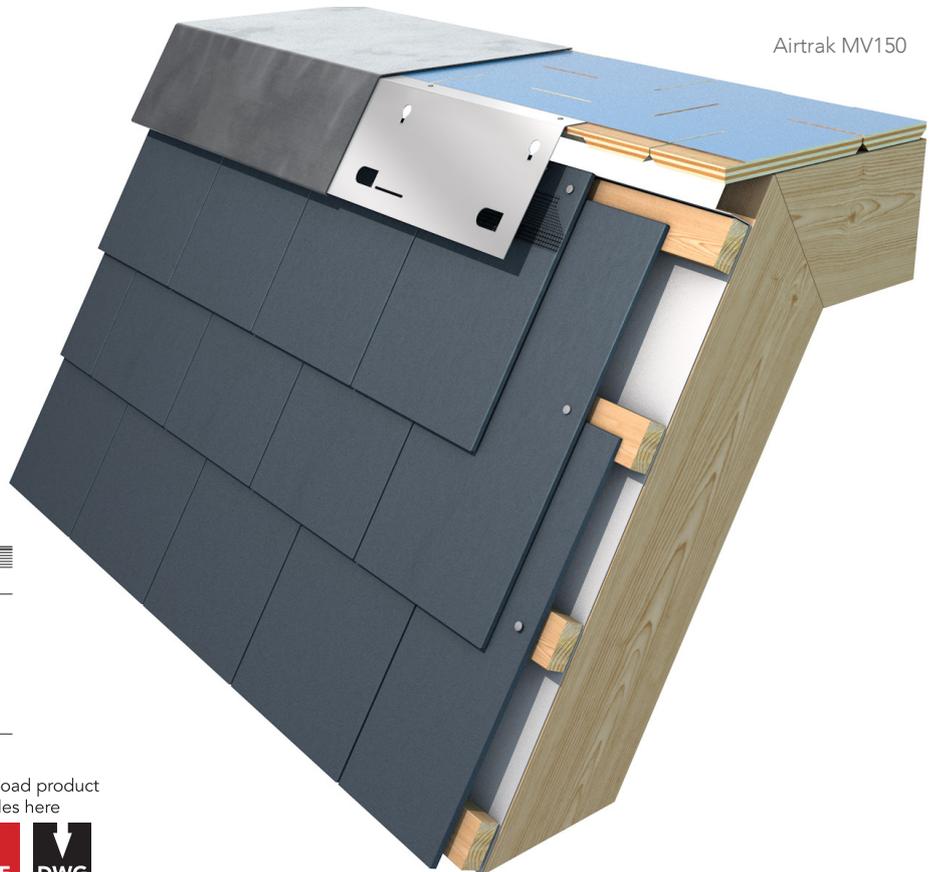
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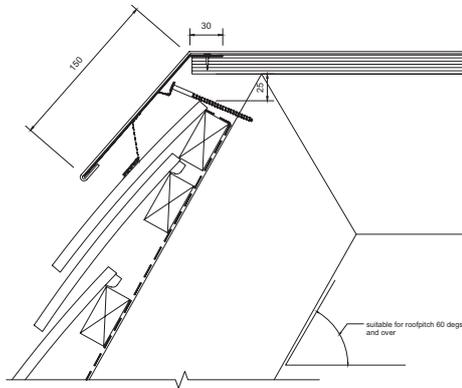
Airtrak MV200



Airtrak MV150

Airtrak MV Mansard Ventilator for Tiled Roofing

Airtrak MV150



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Description

The MV Mansard Ventilator for tiled roofing is used to introduce ventilation into a flat roof where it falls out onto a tiled pitched roof. The stainless steel profile is covered by the flat roofing material or flashing. To maintain the integrity of the detail as the pitch reduces, the MV Mansard Ventilator is used with the LPS Low Pitch Soaker (page 53).

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

Cover to roof pitch:

MV150 150mm

MV200 200mm

MV225 225mm

All ventilators are 1000mm long

Compatibility

For use at the junction of a slated roof with metal, membrane or liquid roof coverings.

Pitch Airtrak MV Ventilator

60 to 90° MV150

45 to 59° MV200

35 to 44° MV200 + LPS

30 to 34° MV225 + LPS

Installation

Where required, the LPS Low Pitch Soaker is installed underneath the eaves course of the tiling. The top edge is welted over the top of the eaves course to provide a check for

wind blown rain. The MV Mansard Ventilator is fitted to a 1mm rebate in the edge of the flat roof with non ferrous fixings and extends down over the slates. Additional secondary fixings should be used to provide resistance to wind uplift. Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The ventilator should be parallel to the surface of the top tile. For lead roof coverings, the lead covering is dressed down the face of the ventilator and welted around the lower edge. For membrane and liquid applied roof coverings, a suitable metal flashing material should be used to cover the ventilator welting around the lower edge and extending onto the roof to facilitate a lap joint in accordance with the manufacturers instructions. These flashings should not be installed in lengths exceeding 1m and have a minimum lap of 150mm at the joints. The use of the CF Clip Fast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

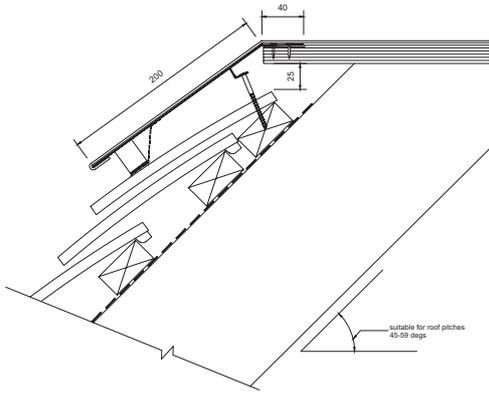
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

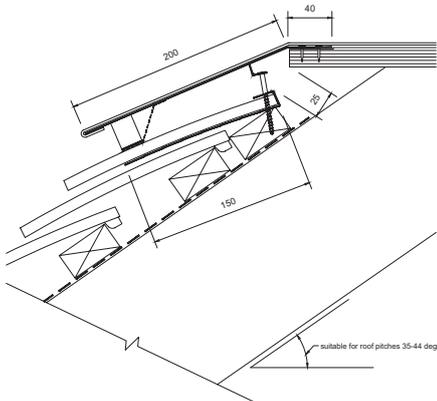
To specify

- Airtrak MV150 Mansard Ventilator to suit ____° tiled pitch
 - Airtrak MV200 Mansard Ventilator to suit ____° tiled pitch
 - Airtrak MV200 Mansard Ventilator + LPS Low Pitch Soaker to suit ____° tiled pitch
 - Airtrak MV225 Mansard Ventilator + LPS Low Pitch Soaker to suit ____° tiled pitch
- Supplied by Nicholson. Tel 0845 0098 980.

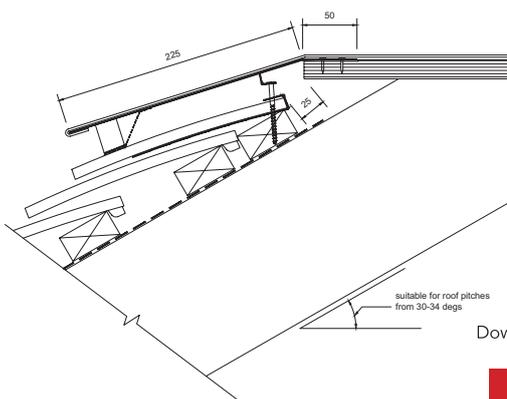
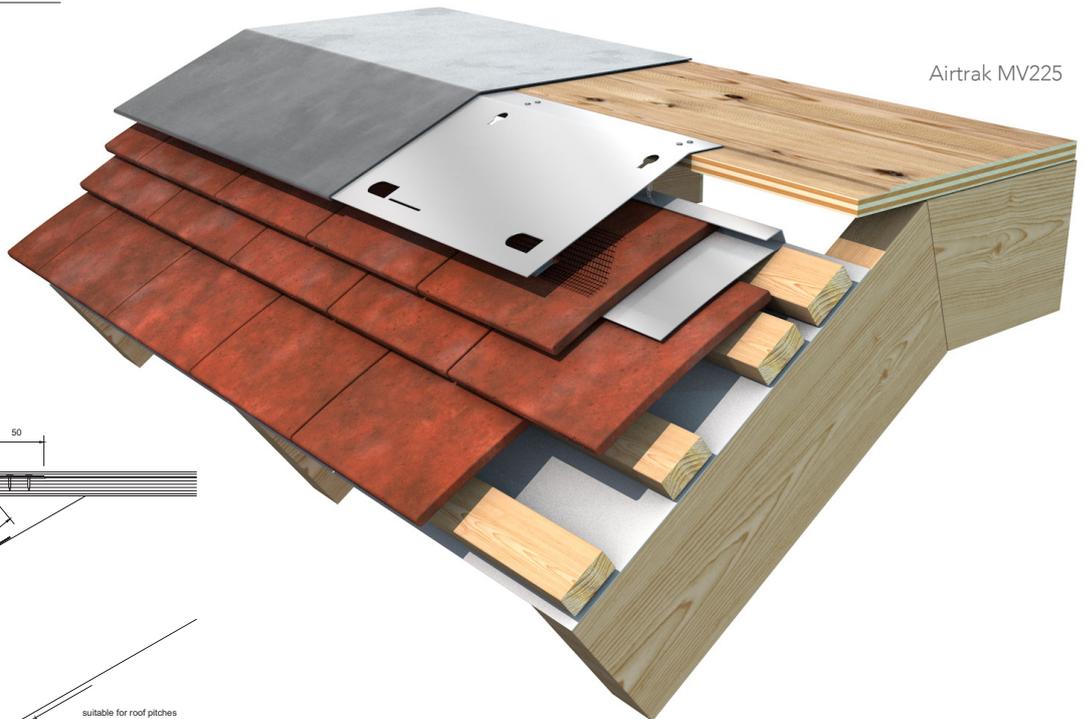
Airtrak MV Mansard Ventilator for Tiled Roofing



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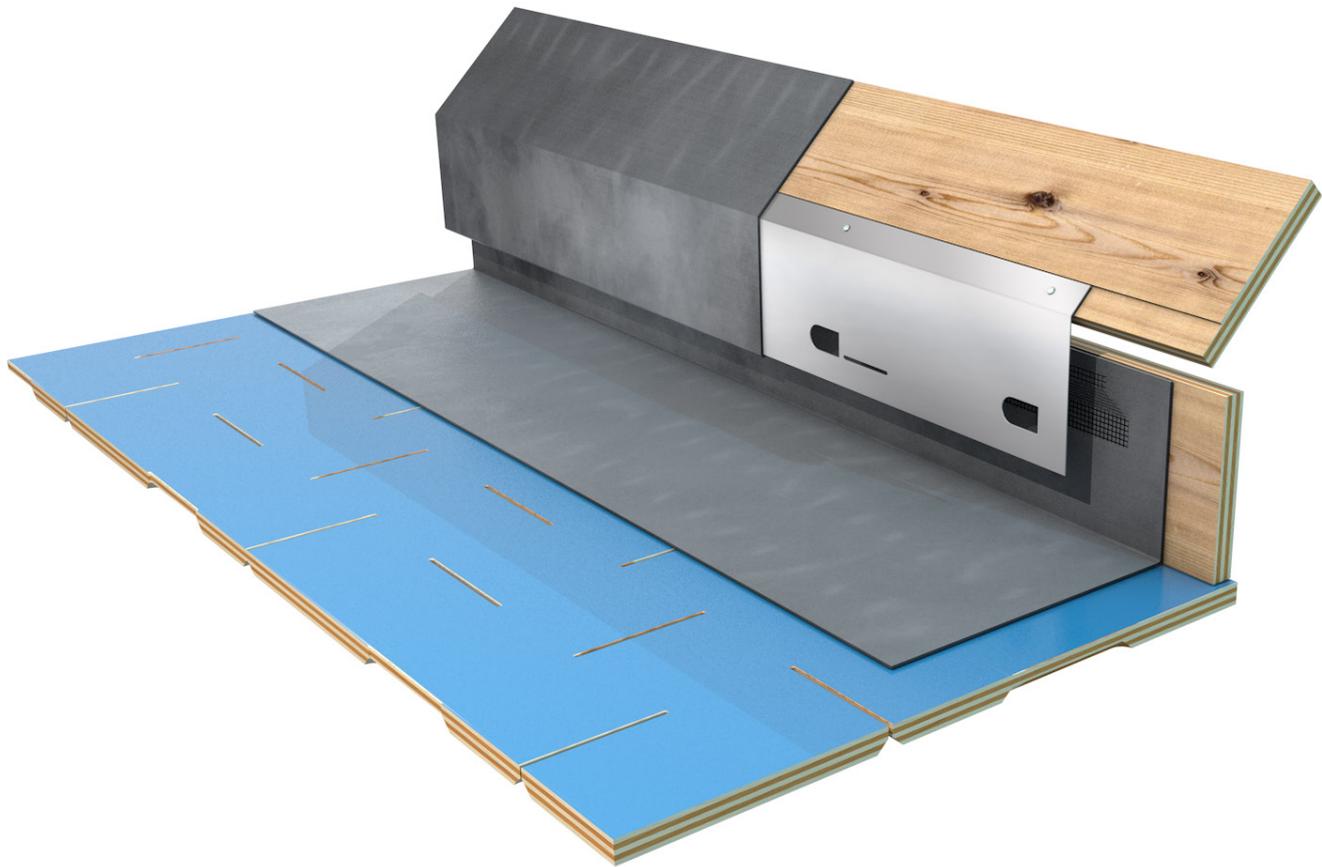
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Airtrak PE100
Airtrak PE120
Airtrak PE150
Pitched Eaves Ventilator



Description

The PE Pitched Eaves Ventilator provides an unobtrusive ventilation path into the roof void at the bottom of a pitched roof slope. It is covered by the flashing or roofing material and is available in different downstand dimensions and supplied pre bent to a specified angle.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

Downstand dimension:

PE100	100mm
PE120	120mm
PE150	150mm

All 1000mm in length

Compatibility

For providing ventilation in metal, membrane and liquid roof coverings.

Installation

The PE Pitched Eaves Ventilator is fitted to a 1mm rebate in the edge of the pitched roof deck with non ferrous fixings and extends down over a ventilated upstand. Additional

secondary fixings should be used to provide resistance to wind uplift. Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The metal roof covering is dressed down the face of the ventilator and welted around the lower edge. For membrane and liquid applied roof coverings, a suitable metal flashing material should be used to cover the ventilator welting around the lower edge and extend onto the roof to facilitate a lap joint in accordance with the manufacturers instructions. The use of the CF Clip Fast Clips should be considered where it is possible that the flashing might slip off the ventilator over time and the welt disengage from the lower edge (see page 49).

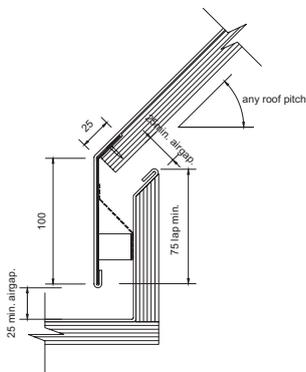
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

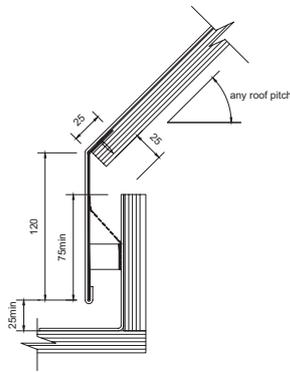
To specify

- Airtrak PE100 Pitched Eaves Ventilator for roof pitch of°
 - Airtrak PE120 Pitched Eaves Ventilator for roof pitch of°
 - Airtrak PE150 Pitched Eaves Ventilator for roof pitch of°
- Supplied by Nicholson. Tel 0845 0098 980.

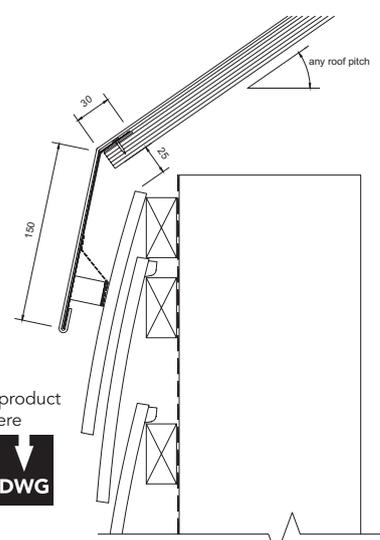
Airtrak PE100
Airtrak PE120
Airtrak PE150
Pitched Eaves Ventilator



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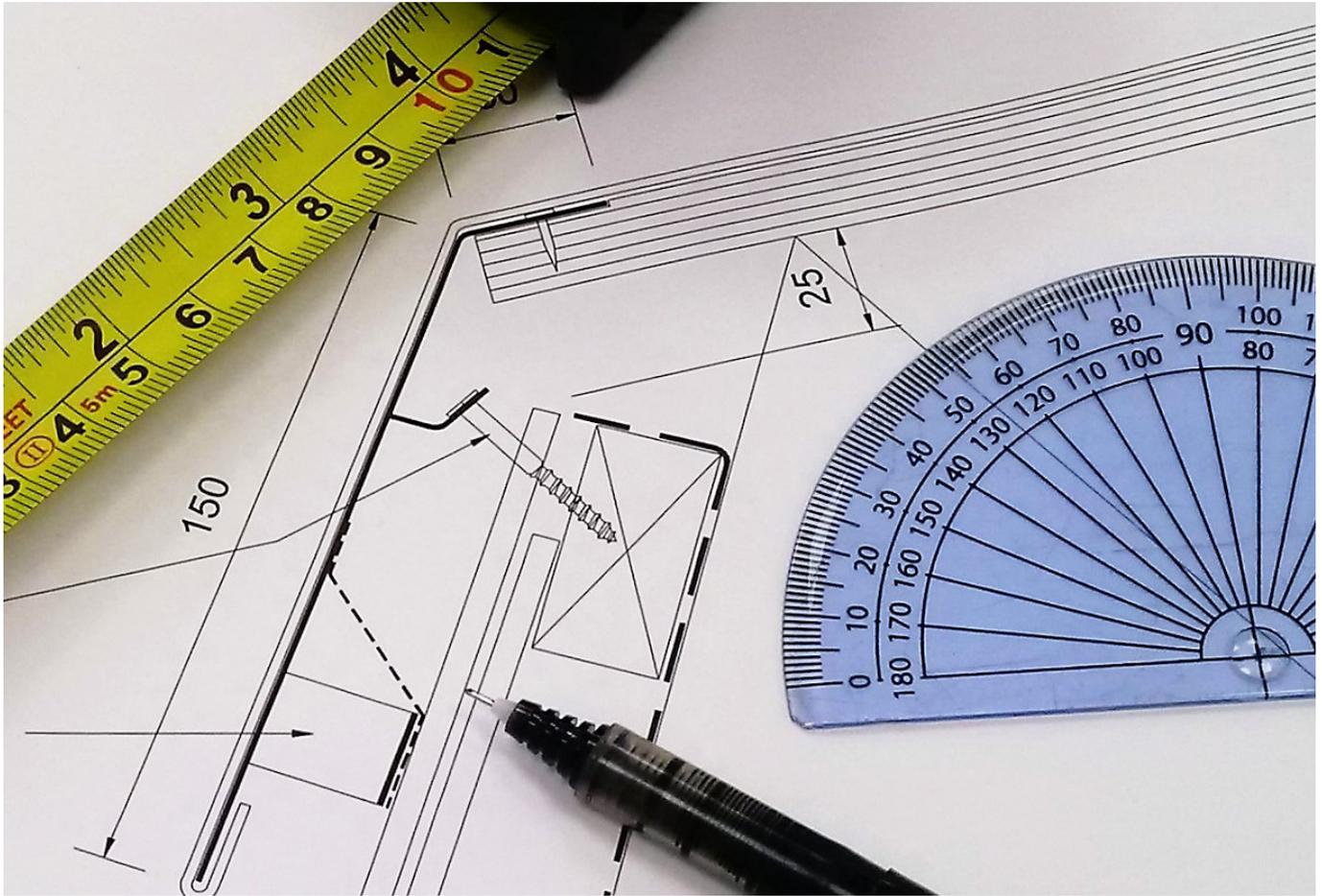
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Airtrak Bespoke Ventilators



Bespoke ventilators

Whilst the Airtrak range of ventilators provide a proprietary solution for many of the commonly encountered roof ventilation details, it is recognised that it is not possible to cover every situation that will arise. Consequently, Nicholson provides a popular service whereby bespoke Airtrak ventilators can quickly and easily be specified and obtained to ensure that an effective ventilation detail is achieved.

For designers and specifiers

If this service is required at design or specification stage, an enquiry should be made of the Airtrak Technical team who will assist in providing a solution to the requirement. If necessary, a unique specification reference can be provided for inclusion on drawings and in specifications. This helps to ensure that the correct ventilator is the subject of tendering and ordering processes and that the correct ventilator arrives on site when required.

For contractors

Commonly, the need for a bespoke ventilator often only comes to light once on site as the ventilator needs to integrate with the existing or 'as built' parameters of the actual site conditions. Again, the Airtrak Technical team are willing to work with contractors to achieve the best solution.

Availability

Bespoke ventilators can normally be produced within a day or two of the design being agreed with a majority being despatched for a next day delivery. Using our CNC controlled fabrication processes we can fabricate to virtually any design within the capabilities of the stainless steel sheet metal we use.

Bespoke ventilator enquiries

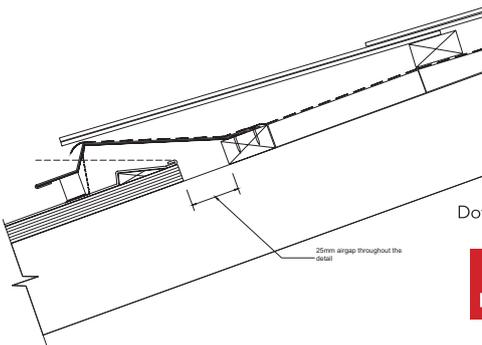
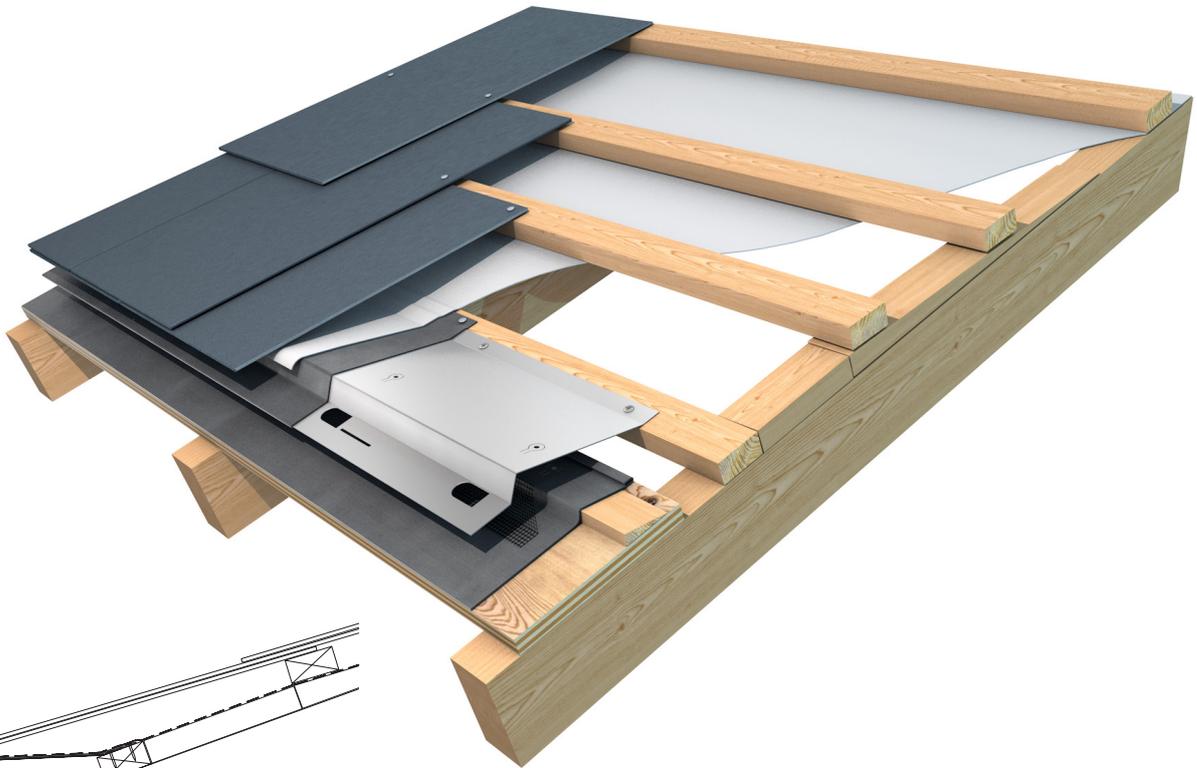
It is recommended that the initial enquiry is made by email to technical@nicholsonsts.com accompanied by a section or drawing showing the requirement. The Airtrak Technical Team will then respond accordingly.

Eton College, Windsor, Berkshire
Products used: Airtrak-VA200, Airtrak-VR200



Linear ventilators for slated and tiled roofing

Airtrak LB20
Layboard Ventilator
 for slated roof pitches of 20 to 30°



Download product files here



Description

The LB20 Layboard Ventilator is for slated roofs from pitch 20° and over. The ventilator introduces 25mm ventilation over the layboard into the roof void and acts as a rest for the eaves course. The LB20 requires a lead cover flashing and should be laid in a line parallel to the slate coursing.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 240mm, length 1000mm

Compatibility

For use at the junction of a slated roof with a leadlined gutter or flat roof. For roof pitches of 20° and above.

Installation

The LB20 is fitted to a 25mm batten running parallel with the layboard and the slate coursing battens. Note that this ventilator should be installed in a straight line which remains parallel to the slating battens. If the ventilator is installed so that it follows the rake of the gutter sole or steps up as the gutter widens, the kick produced by the ventilator can cause

the slates to sit unevenly. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The LB20 should be covered with a code 4 or 5 lead flashing which is nailed to the batten and welted around the bottom edge of the ventilator. To minimise the kick effect that the LB20 has on the slates at the eaves, a 25mm sprocket can be used under the lower roofing battens as shown in the section on this page.

The roofing membrane should be routed over the ventilator before the slating is commenced. Some support for the roofing membrane may be required to prevent backfall and ponding occurring. Ensure that a minimum of 25mm airflow is achieved throughout the detail.

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak LB20 Layboard Ventilator for slated roof pitch of 20° and over
 Supplied by Nicholson. Tel 0845 0098 980.

Airtrak LB30
Layboard Ventilator
for roof pitches of 30° and over



Description

The LB30 Layboard Ventilator is for slated or tiled roofs from pitch 30° and over. The ventilator introduces 25mm ventilation over the layboard into the roof void and acts as a rest for the eaves course. The LB30 requires a lead cover flashing and should be laid in a line parallel to the slate coursing.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 180mm, length 1000mm

Compatibility

For use at the junction of a slated roof with a leadlined gutter or flat roof. For roof pitches of 30° and above.

Installation

The LB30 is fitted to a 25mm batten running parallel with the layboard and the slate coursing battens. Note that this ventilator should be installed in a straight line which remains

parallel to the slating battens. Any deviation will cause the slates to sit unevenly. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The LB30 should be covered with a code 4 or 5 lead flashing which is nailed to the batten and welded around the bottom edge of the ventilator. To minimise the kick effect that the LB30 has on the slates at the eaves, a 25mm sprocket can be used under the lower roofing battens as shown in the section on this page.

The roofing membrane should be routed over the ventilator before the slating is commenced. Some support for the roofing membrane may be required to prevent backfall and ponding occurring. Ensure that a minimum of 25mm airflow is achieved throughout the detail.

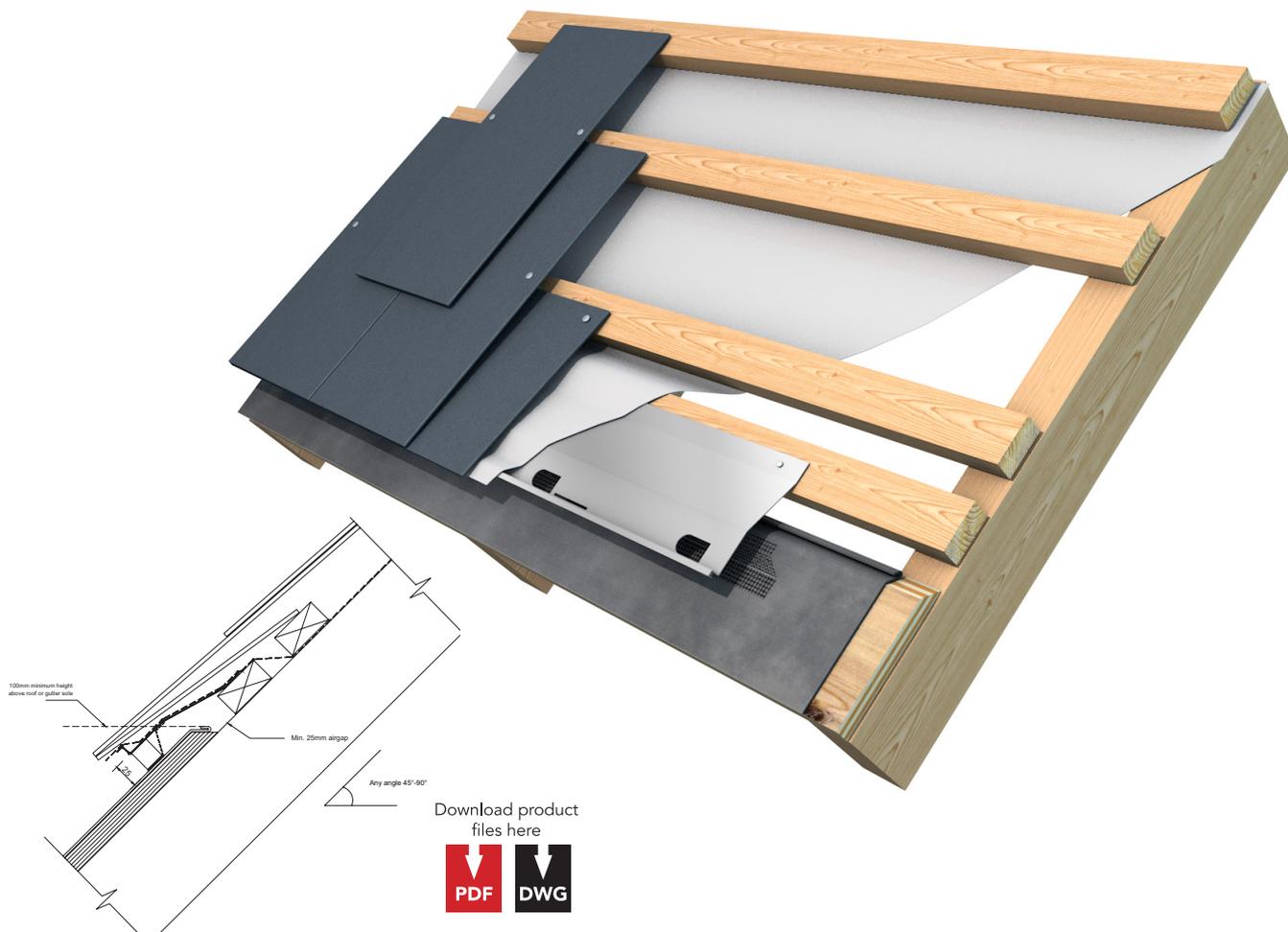
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak LB30 Layboard Ventilator for slated roof pitch of 30° and over
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak LB45
Layboard Ventilator
 for roof pitches of 45° and over



Description

The LB45 Layboard Ventilator is for slated and tiled roofs and can be used to introduce ventilation over the layboard into the roof void. It acts as a rest for the eaves course and provides ventilation with minimal visual effect.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 145mm, length 1000mm

Compatibility

For use at the junction of a slated or tiled roof with a leadlined gutter or flat roof. For roof pitches of 45° and above.

Installation

The LB45 is fitted to a 25mm batten running parallel with the layboard and the slate coursing battens. Note that this ventilator should be installed in a straight line which remains parallel to the slating battens. Any deviation will cause the

slates to sit unevenly. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips.

The roofing membrane should be routed over the ventilator before the slating is commenced. Some support for the roofing membrane may be required to prevent backfall and ponding occurring. Ensure that a minimum of 25mm airflow is achieved throughout the detail.

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

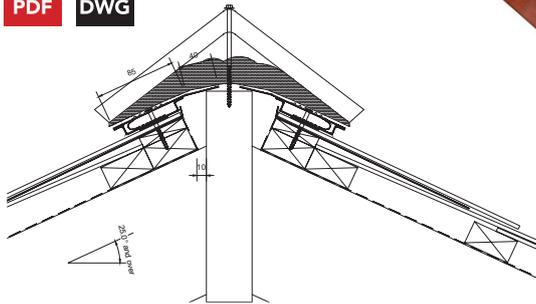
To specify

- Airtrak LB45 Layboard Ventilator for tiled and slated roof pitches of 45° and over
 Supplied by Nicholson. Tel 0845 0098 980.

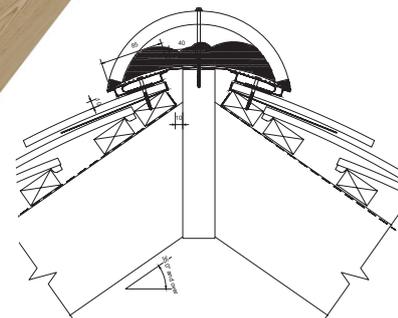
Airtrak RTV
Ridge Tile Ventilator



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Download product files here



Description

The RTV Ridge Tile Ventilator enables the ventilation of most ridge tiles using traditional wet laid methods. This is especially useful where the existing ridge needs to be retained or on heritage properties where a dry ridge system may be inappropriate.

The RTV has a certified and storm rated weather strip to the underside. This serves to check wind driven rain on face of the tile or slates and also to seal any fixings through into the top batten. An expanded stainless steel mesh on the face of the RTV provides a key for the mortar bedded ridge tiles.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh, stainless steel expanded metal lath, neoprene closed cell expanded foam weather strip.

Ventilation

5mm continuous air gap equivalent.

Dimensions

OA girth 125mm, length 1000mm.

Compatibility

Providing ventilation to a tiled or slated roof ridge at a pitch of over 25° in conjunction with the Airtrak LPS Low Pitch Soaker.

Installation

The roofing membrane under the slates or tiling should be turned up the back of the topmost batten to reveal a 10mm air gap into the ventilated roof void. The Airtrak LPS Low Pitch Soaker is installed underneath the top course of slates or tiles with the 25mm bend facing upwards. The top course of slates or tiles are then fixed in position through the LPS. The 25mm section of the LPS is the welted over the top of the slates or tiles to form a welted return to catch any wind driven rain on the surface of the slates or tiles.

The RTV is positioned over the top row of tiles or slates to suit the size of ridge tile being used. The fixing tab can be bent to the correct angle allowing it to be secured with non ferrous fixings into the ridge. Further fixing should be made into the top batten using the holes provided in the RTV and drilling through the slates or tiles. The ridge tiles are then cemented into position in the traditional way.

Severe exposure

The Airtrak RTV may not be suitable for situations of severe exposure.

To specify

- Airtrak RTV Ridge Tile Ventilator
 - Airtrak LPS Low Pitch Soaker for tiled roofing
 - Airtrak LPS225 Low Pitch Soaker for slated roofing
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak PV10
Airtrak PV10-M
Pitched Valley Ventilator



Description

The PV10 and PV10M Pitched Valley Ventilators provide a 10mm continuous ventilation detail to a pitched valley between two roof pitches. The PV10M has an additional expanded metal mesh element for where the verge of the valley needs to be bedded on cement.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh, stainless steel expanded metal mesh.

Ventilation

10mm continuous air gap equivalent.

Dimensions

OA girth 170mm, length 1000mm.

Compatibility

For providing ventilation in a tiled or slated pitched valley down to 40° pitch. Lower pitches may be accommodated depending upon using wider slates or tiles if available.

Installation

The valley boards must be laid between the rafters and the valley lining should terminate over a 10mm water check batten. The PV Ventilator is fitted to a 25mm batten running parallel to the valley but set back by 10mm to allow the

ventilation into the rafter void. Lengths should be butted together. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips.

For the PV10 Ventilator a code 4 or 5 lead flashing is dressed to the ventilator wetting around the exposed edge and being nailed to the timber batten. Ensure that the roofing battens are stopped short of the valley batten by 10mm to allow drainage. The roofing membrane should be brought out over the ventilator and trimmed back after tiling or slating. For the PV10-M Ventilator, the valley verge tiling is bedded on cement on the expanded metal mesh.

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak PV10 Pitched Valley Ventilator
- Airtrak PV10-M Pitched Valley Ventilator with mesh for a bedded verge

Supplied by Nicholson. Tel 0845 0098 980.

Airtrak PV25
Airtrak PV25-M
Pitched Valley Ventilator



Description

The PV25 and PV25M Pitched Valley Ventilators provide a 25mm continuous ventilation detail to a pitched valley between two roof pitches. The PV25M has an additional expanded metal mesh element for where the verge of the valley needs to be bedded on cement.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh, stainless steel expanded metal mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 180mm, length 1000mm.

Compatibility

For providing ventilation in a tiled or slated pitched valley down to 40° pitch. Lower pitches may be accommodated depending upon using wider slates or tiles if available. It should be noted that 25mm counterbattens are required for this product – see sections.

Installation

The valley boards must be laid between the rafters and the valley lining should terminate over a 25mm water check

batten. The PV Ventilator is fitted to a 25mm batten running parallel to the valley but set back by 25mm to allow the ventilation into the rafter void. Lengths should be butted together. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips.

For the PV25-M Ventilator a code 4 or 5 lead flashing is dressed to the ventilator welting around the exposed edge and being nailed to the timber batten. Ensure that the roofing battens are stopped short of the valley batten by 10mm to allow drainage. The roofing membrane should be brought out over the ventilator and trimmed back after tiling or slating.

For the PV25-M Ventilator, the valley verge tiling is bedded on cement on the expanded metal mesh.

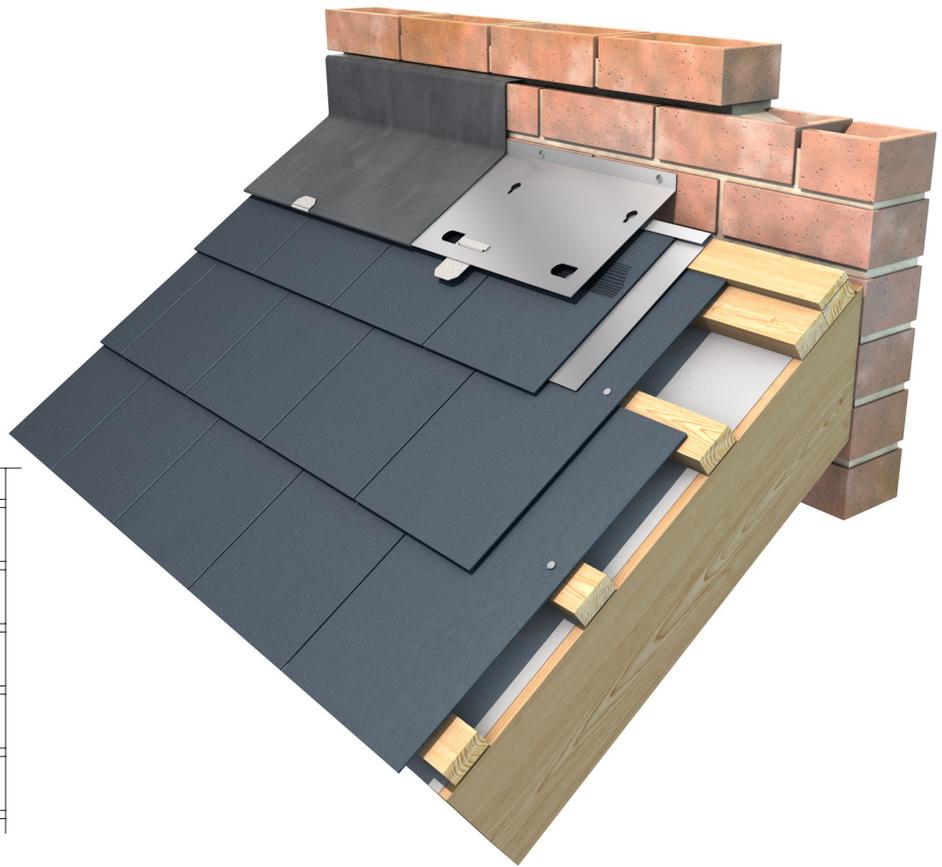
Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak PV25 Pitched Valley Ventilator
 - Airtrak PV25-M Pitched Valley Ventilator with mesh for a bedded verge
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak VA
Ventilated Apron for
slated and tiled roofing



Download product files here



Description

The VA Ventilated Apron is used to introduce ventilation at the head of slated or tiled pitch where it abuts a wall. The stainless steel profile is supplied pre bent to suit the roof pitch and is fixed to the abutment wall and covered with a flashing. To maintain the integrity of the detail as the pitch reduces, the VA Ventilated Apron is used with the LPS Low Pitch Soaker (see page 50).

The VA Ventilated Apron is supplied pre bent to the correct angle which should be advised at the time of order.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

10mm continuous air gap equivalent .

Dimensions

Cover to roof pitch
VA200 200mm
VA250 250mm
Ventilator length 1000mm

Compatibility

For use at the junction of a slated or tiled roof with an abutment.

Slate pitch	Model
35 to 65°	VA200
25 to 34°	VA200 + LPS225
20 to 24°	VA250 + LPS225
Tile pitch	Model
45 to 65°	VA200
28 to 44°	VA200 + LPS

Installation

Where necessary, the LPS Low Pitch Soaker is installed underneath the eaves course of the slating. The top edge is welded over the top of the eaves course to provide a check for wind blown rain. The VA Ventilated Apron is fitted to the abutment wall using non ferrous fixings and extends down over the slates or tiles. Additional secondary fixings should be used in the ventilator to provide resistance to wind uplift. Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The ventilator should be parallel to the surface of the top slate. A metal flashing should be used to weather the ventilator and chased into the wall above the ventilator. The flashing is dressed down the face of the ventilator and welded around the lower edge. The use of the CF Clipfast Clips is recommended to restrain the flashing from slipping down the face of the ventilator (see page 49).

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

To specify

- Airtrak VA200 Ventilated Apron to suit ____° pitch
 - Airtrak VA250 Ventilated Apron to suit ____° pitch
 - Airtrak LPS for tiled roofing
 - Airtrak LPS225 for slated roofing
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak VA Ventilated Apron for slated and tiled roofing

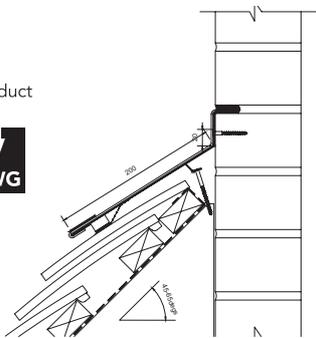
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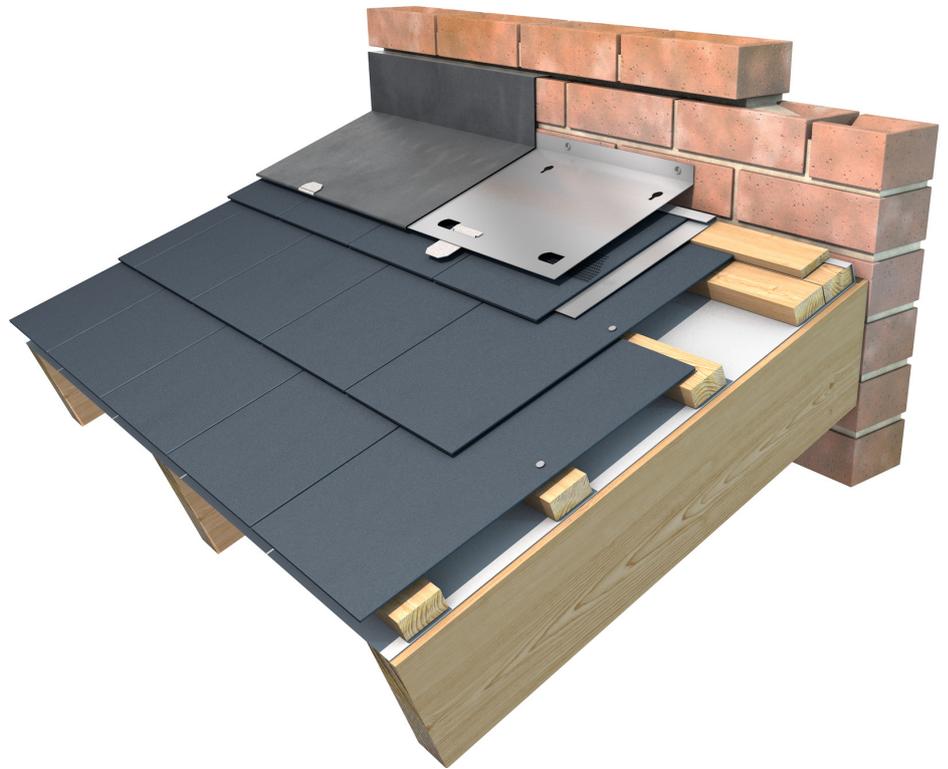
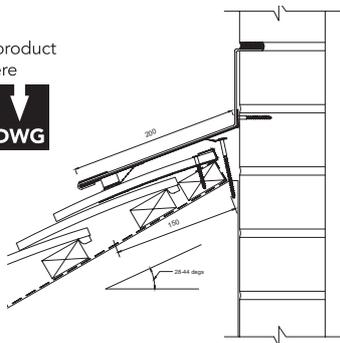
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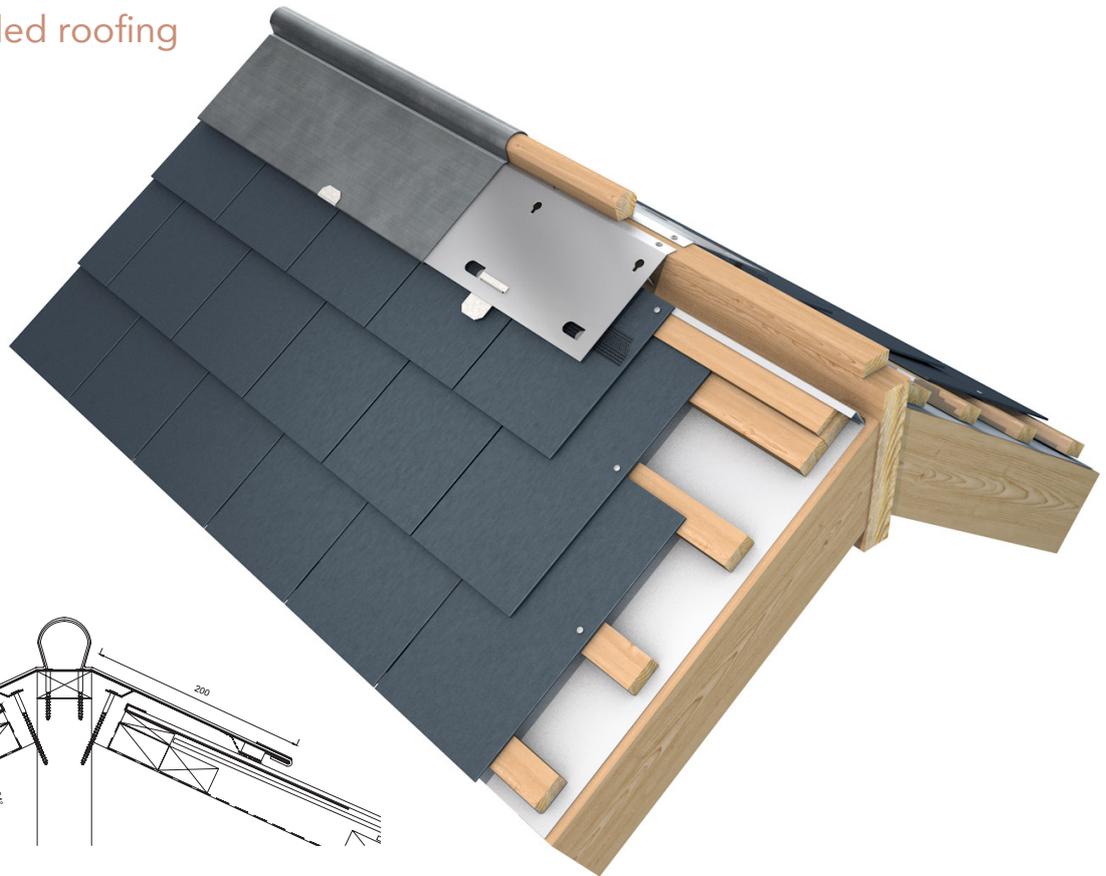
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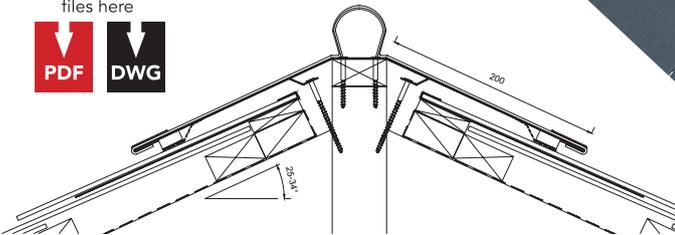
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Airtrak VR
Ventilated Ridge
for slated and tiled roofing



Download product files here



Description

The VR Ventilated Ridge is used to introduce ventilation at the head of slated or tiled pitch where it reaches the ridge. The stainless steel profile is supplied pre bent to suit the roof pitch and is fixed to the ridge timber and covered with the ridge flashing. To maintain the integrity of the detail as the pitch reduces, the VR Ventilated Ridge is used with the LPS Low Pitch Soaker (see page 50).

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

10mm continuous air gap equivalent.

Dimensions

Cover to roof pitch
VR200 200mm
VR250 250mm
Ventilator length 1000mm

Compatibility

For use at the junction of a slated or tiled roof to provide ventilation at the ridge.

Slate pitch	Model
35 to 65°	VR200
25 to 34°	VR200 + LPS225
20 to 24°	VR250 + LPS 225
Tiled pitch	Model
45 to 65°	VR200
28 to 44°	VR200 + LPS

Installation

Where necessary, the LPS Low Pitch Soaker is installed underneath the eaves course of the slating or tiling. The top edge is welded over the top of the eaves course to provide a check for wind blown rain. The VR Ventilated Ridge is fitted to the ridge timbers using non ferrous fixings and extends down over the slates or tiles. Additional secondary fixings should be used in the ventilator to provide resistance to wind uplift.

Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips. The ventilator should be parallel to the surface of the top slate. A metal flashing should be used to weather the ridge and dressed down over the ventilator and welded around the lower edge. The use of the CF Clipfast Clips is recommended to restrain the flashing from slipping down the face of the ventilator (see page 49).

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

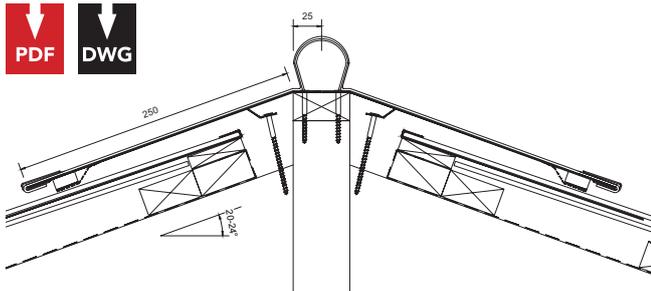
To specify

- Airtrak VR200 Ventilated Ridge to suit ____° pitch
 - Airtrak VR250 Ventilated Ridge to suit ____° pitch
 - Airtrak LPS for tiled roofing
 - Airtrak LPS225 for slated roofing
- Supplied by Nicholson. Tel 0845 0098 980.

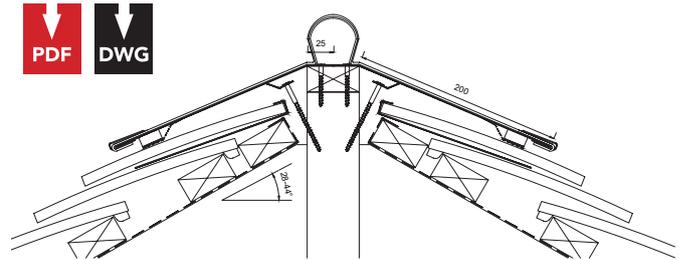
Airtrak VR
Ventilated Ridge
for slated and tiled roofing



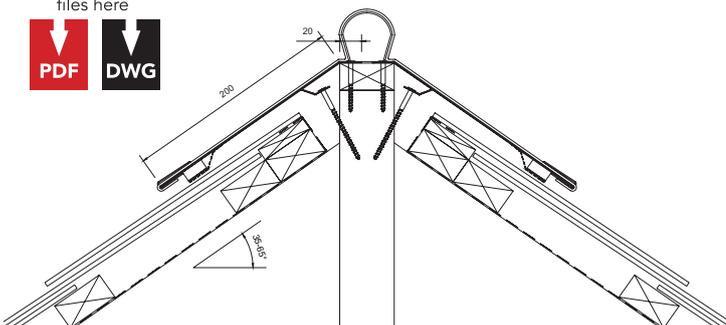
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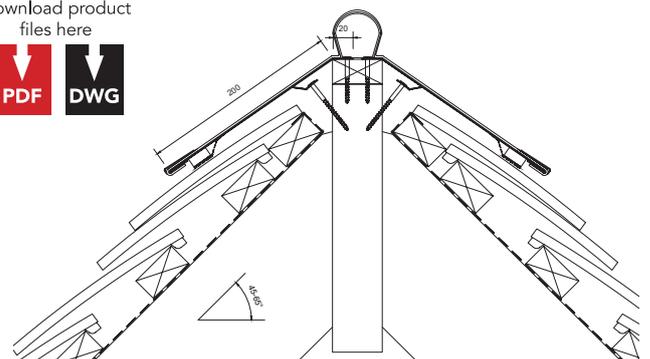
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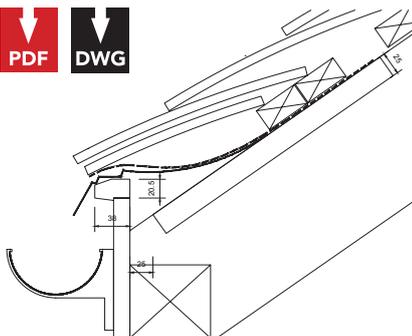
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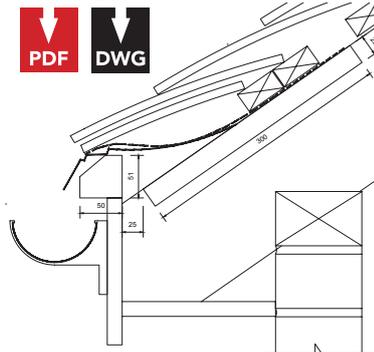
Airtrak F10
Airtrak F25
Fascia Ventilator



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Description

The F10 and F25 Fascia Ventilators provide regulation meeting ventilation to the roof void over the eaves fascia board avoiding unsightly soffit ventilation. They include an integral insect excluder.

Material

Black polypropylene.

Ventilation

F10 10mm continuous ventilation equivalent.
F25 25mm continuous ventilation equivalent.

Dimensions

F10 35mm wide x 22mm high x 1000mm long.
F25 50mm wide x 51mm high x 1000mm long.

Compatibility

Use the F10 at the eaves for roof pitches of 16 to 90°.
Use the F25 at the eaves for roof pitches of 1 to 15° or any roof where living accommodation is contained within the roof space.

Installation

The F10 and F25 are fixed to the top of the fascia board using non ferrous nails or screws butting the lengths end to end. It is advisable to provide a support for the roofing felt behind the ventilator to avoid it sagging and blocking the airpath into the roof void. The Airtrak EC Eaves carrier may be used for this purpose.

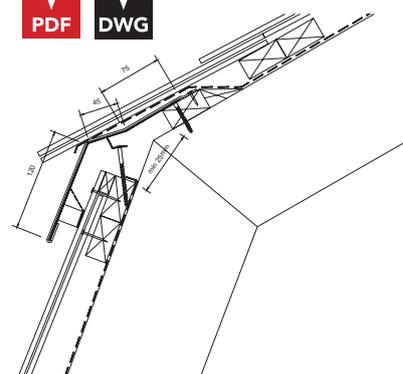
To specify

- Airtrak F10 Fascia Vent - 10mm continuous ventilation
 - Airtrak F25 Fascia Vent - 25mm continuous ventilation
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak CP
Change of Pitch Ventilator



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Description

The CP can be used to introduce ventilation at the change of pitch in a slated or tiled mansard roof. The profile is bent to a specific angle which allows it to be included at this point in the roof.

Material

0.7mm stainless steel, vinyl coated GRP insect mesh.

Ventilation

25mm continuous air gap equivalent.

Dimensions

OA girth 240mm, length 1000mm

Compatibility

For use with tiled and slated roofing.

Installation

The CP Ventilator is fitted over the change of pitch and fixed to the lowest batten with non ferrous fixings. Additional secondary fixings should be used in to provide resistance to wind uplift. Lengths should be butted together or lapped by 10mm if required. The ventilator can be mitred at corners and trimmed to length with a large pair of tin snips The CP Ventilator should be covered with a code 4 or 5 lead flashing which is fixed to a timber batten at the top and welded around the lower edge of the ventilator. Ensure that the roofing membrane comes over the top of the ventilator using timber fillets as necessary to avoid ponding.

Severe exposure

For coastal and very exposed locations this ventilator can be supplied in 1.0mm thick 316 grade stainless steel. Where extreme weather conditions are likely, consideration should be given to providing more weathering cover to upstands and slating or tiling to improve the integrity of the detail.

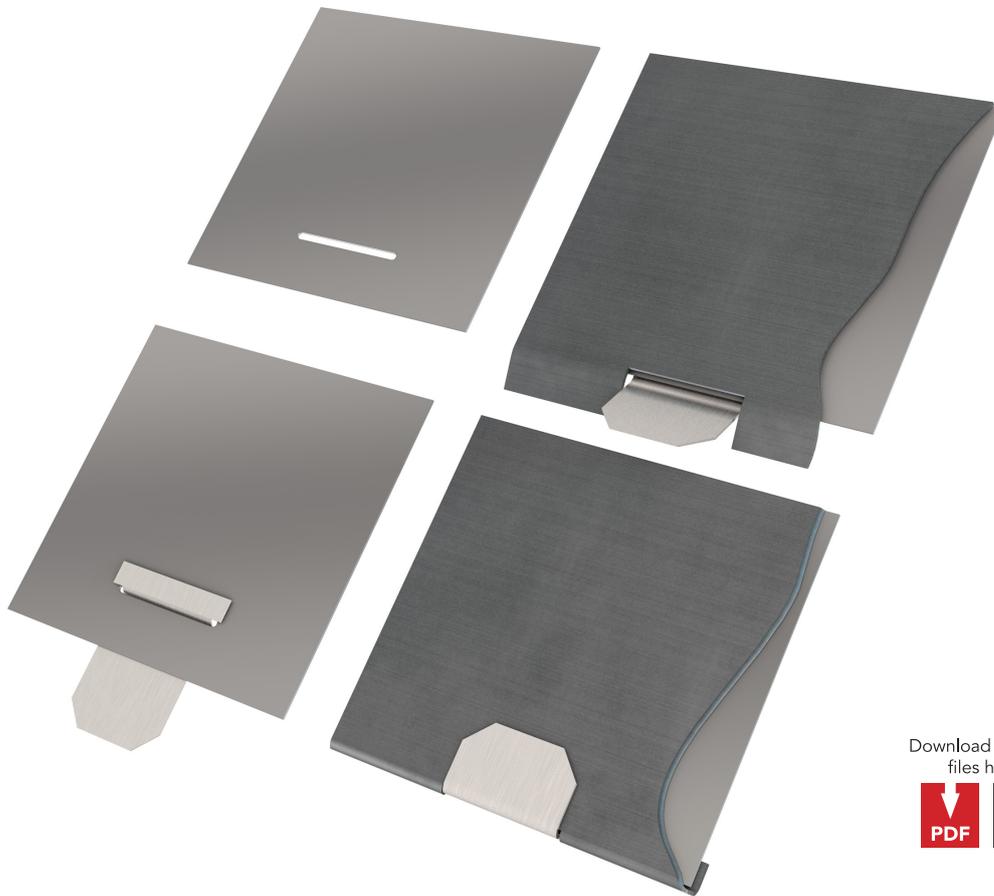
To specify

- Airtrak CP Change of Pitch Ventilator
Supplied by Nicholson. Tel 0845 0098 980.

German Gymnasium Restaurant, Kings Cross, London
Products used: Airtrak-VR200



Airtrak ventilation accessories

Airtrak CF
ClipFast Clips

Download product
files here

**Description**

The CF Clipfast Clips are used in situations where the flashing to the ventilator could slip or creep and the welted edge become disengaged in the process of time. They are available in stainless steel and copper and locate in the slots found in the lower edge of the ventilators. These slots are spaced at approximately 330mm centres. The CF is particularly recommended for use with the Airtrak VA and VR ventilators.

Material

0.5mm stainless steel or 0.6mm copper.

Dimensions

OA length 70mm, OA width 60mm.

Compatibility

Fixing clip for securing lead flashings to the Airtrak ventilators to prevent flashing creep over time.

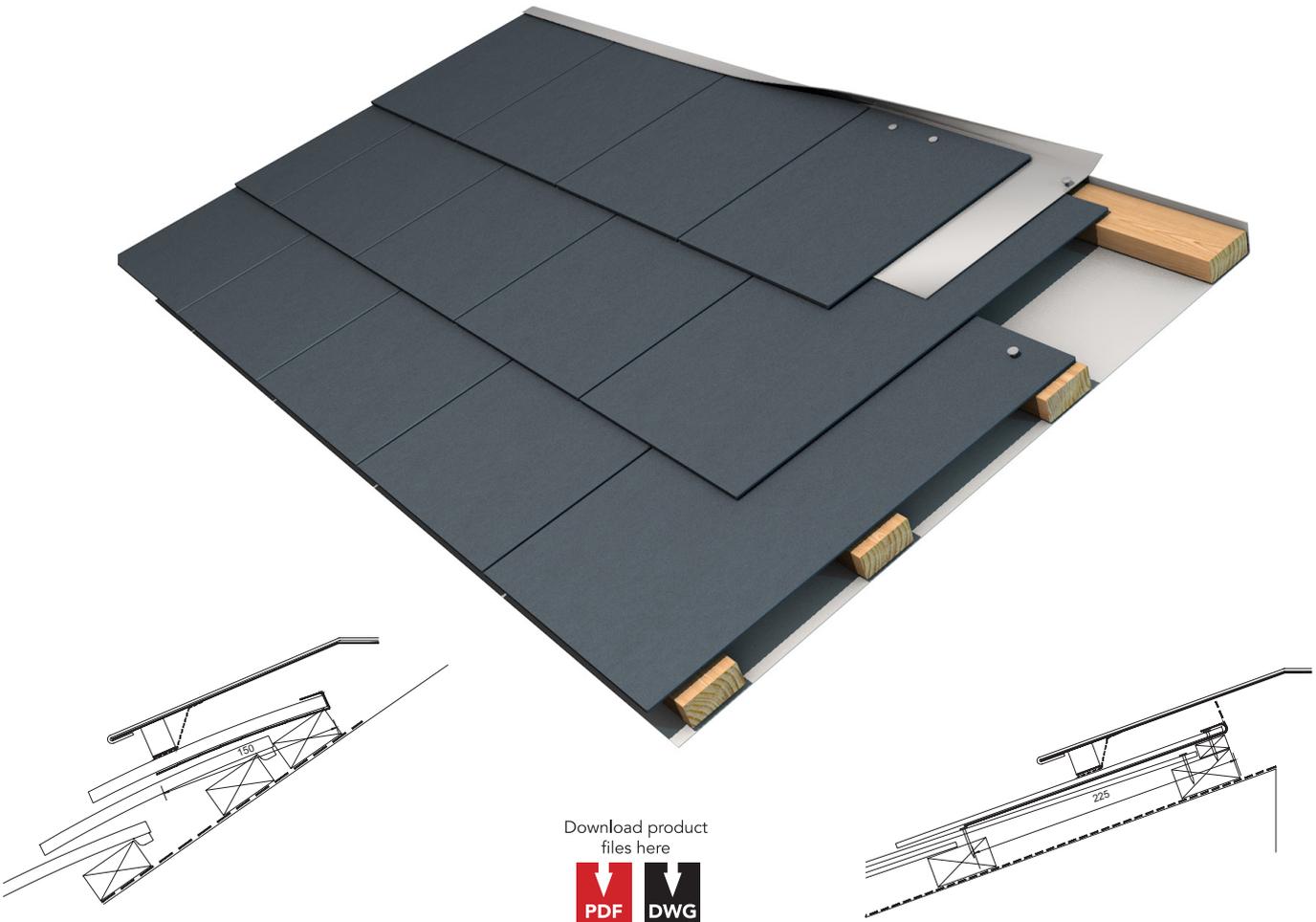
Installation

The Airtrak ventilators are pre slotted at 330mm centres to receive the CF Clipfast Clips. The CF should be dropped into the slots from the front prior to dressing the flashing over the ventilator. 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. 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

To specify

- Airtrak CF Clipfast Clips,
3 no. required per 1000mm length
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak LPS Low Pitch Soaker
 LPS for tiled roofing
 LPS225 for slated roofing



Description

The LPS is an additional flashing used with low pitch roofing to increase the weatherproofness of the ventilation detail at the head of slating or tiling.

Material

0.5mm aluminium.

Ventilation

n/a

Dimensions

LPS OA girth 175mm, length 1000mm.

LPS225 OA girth 250mm, length 1000mm.

Compatibility

For use in slated and tiled roofs.

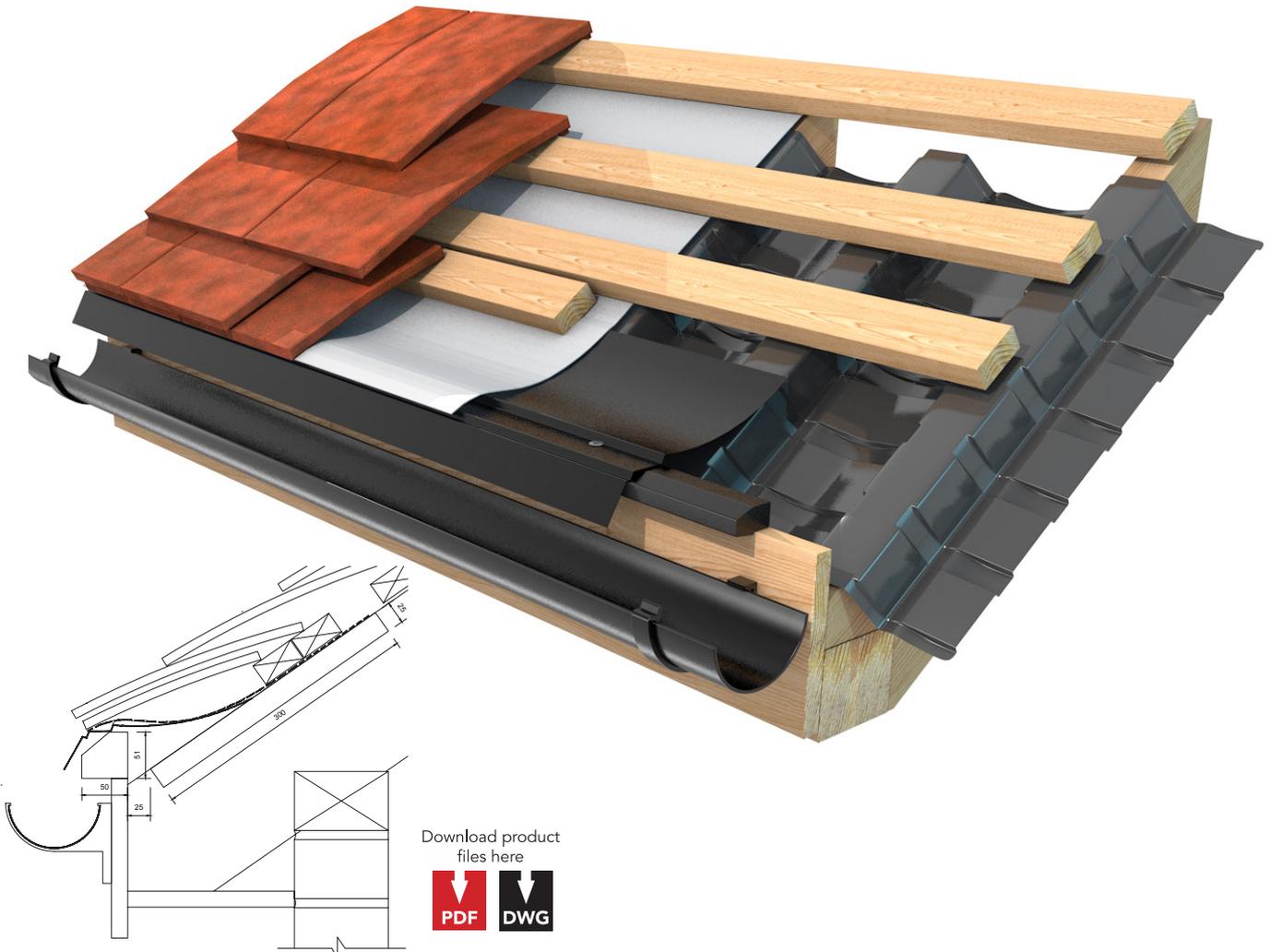
Tiled roofs	LPS
Slated roofs	LPS225

Installation

The LPS is supplied pre bent with a 25mm tab folded to 90 degrees. 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. 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. Once the eave course is fixed, the 25mm tab is dressed down over the top of the eave course to form a loose welt.

To specify

- Airtrak LPS Low Pitch Soaker for tiled roofing
 - Airtrak LPS225 Low Pitch Soaker for slated roofing
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak RV
Roll Vent**Description**

The RV Roll Ventilator ensures that the airpath at the eaves is unobstructed by the insulation where it sits above the wall plate.

Material

Black UPVC.

Ventilation

25mm continuous airpath.

Dimensions

35mm high x 350mm wide x 6000mm long.

Compatibility

Use the RV at the eaves of a roof over 15° where the roof void is to be ventilated. The RV can be used with rafters at 400mm and 600mm centres.

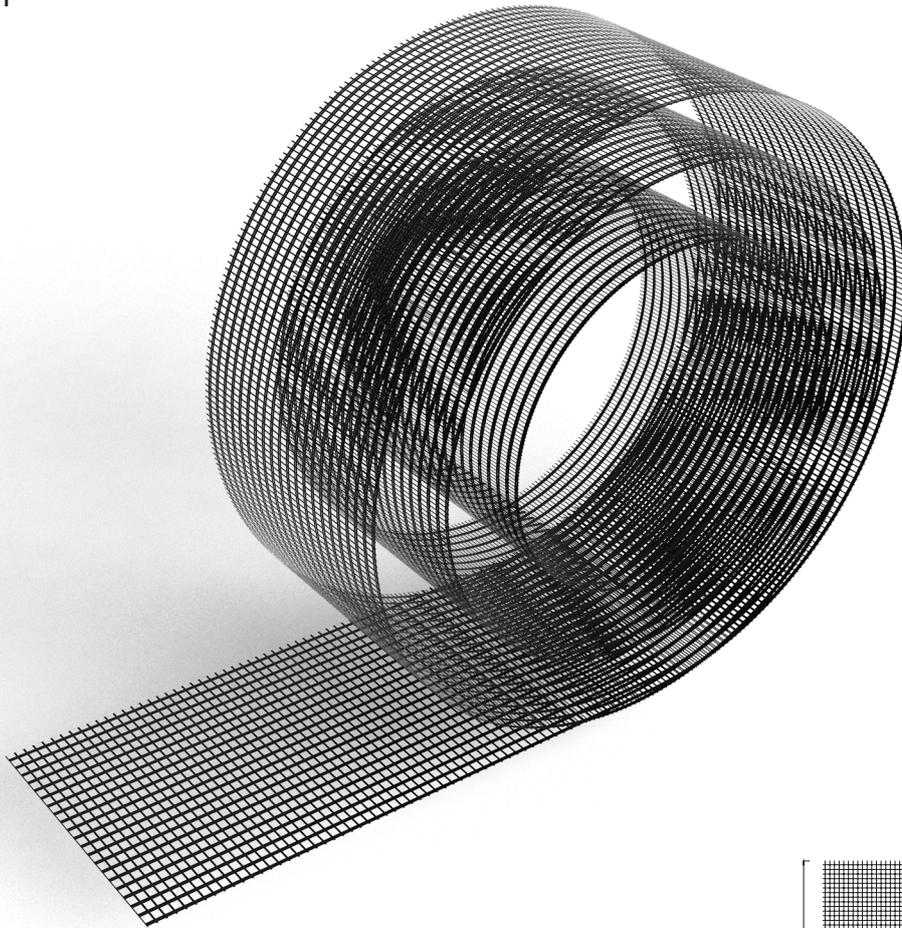
Installation

The RV is rolled out over the rafters directly over the wall plate and nailed in position. For deepfill loft insulation two rows of the RV may be required to maintain the ventilation path.

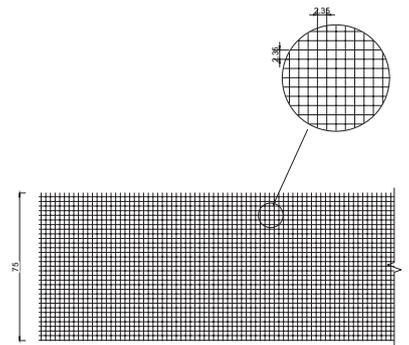
To specify

- Airtrak RV Roll Vent
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak IM Insect Mesh



Download product files here



Description

The Airtrak IM Insect mesh is supplied in a handy 75mm wide strip and can be ordered by the metre. The increased size of the mesh provides optimum airflow whilst excluding unwanted insects from the roof void.

Material

Black vinyl coated GRP insect mesh

Ventilation

Free open area = 66% OA

Dimensions

75mm wide available to purchase by the metre

Compatibility

All roof ventilation apertures.

Installation

The Airtrak Insect mesh should be cut to the required length and fastened into position using non ferrous staples or nails.

To specify

- Airtrak IM1000 Insect mesh 75mm wide
- Supplied by Nicholson Tel 0845 0098 980

Airtrak SLV/A
Slate Vent

Download product files here

**Description**

An inconspicuous low profile roof ventilator designed to replace one slate providing ventilation to the roof void behind. The SLV can also be used as a terminal for a mechanical extract or a soil vent pipe by using the SLV-A Slate Vent Adaptor.

Material

Polypropylene, anthracite colour.

Ventilation

9000mm².

Dimensions

610mm x 305mm.

Compatibility

The SLV is designed for use in slated roofing and replaces either a standard 600mm x 300mm slate or a 500mm x 225mm slate.

Installation

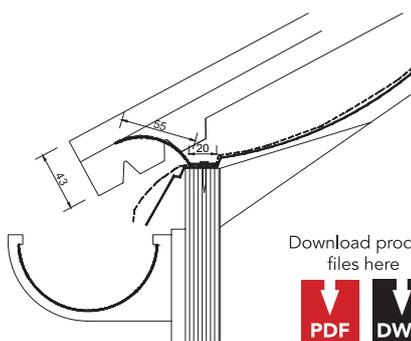
The SLV replaces one normal slate (trim to guidelines provided for 500mm x 225mm slates). The slates directly below the SLV should be cut away to accommodate the felt penetration sleeve on the rear of the slate vent. Cut a cross in the roofing felt and fold back the corners upwards and nail to the top of the roof battens.

Position the ventilator and nail into position using the nail holes provided. Secure the front of the ventilator against wind uplift using a copper disc rivet.

To specify

- Airtrak SLV Slate Ventilator
 - Airtrak SLV-A Slate Ventilator Adaptor for extract fan and SVP termination
- Supplied by Nicholson. Tel 0845 0098 980.

Airtrak CS Comb Strip Airtrak EC Eaves Carrier



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Description

The CS Comb Strip is designed to prevent the entry of birds and vermin into the batten void beneath profiled tiles. Its is nailed to the top of the fascia board and has flexible excluder which accommodates the profile in the tile.

The EC Eaves Carrier is a support profile which is nailed to the top of the fascia and extends backwards to prevent ponding caused by a backfall in the roofing membrane.

Material

CS Comb Strip	Black polypropylene
EC Eaves carrier	Dark grey extruded UPVC

Ventilation

n/a

Dimensions

Airtrak CS Comb Strip:
55mm high, 1000mm in length

Airtrak EC Eaves Carrier:
Extends 200mm from fascia, 1.5m lengths

Compatibility

Airtrak CS Comb Strip can be used with all profiled tiles to exclude birds and insects at the eaves.

Airtrak EC Eaves Carrier is suitable for all eaves applications.

Installation

The CS Comb strip should be nailed to the top of the fascia board on which the profiled tiles rest. Lengths should butted together.

The EC Eaves carrier is nailed to the top of the fascia and the support flap folded down to meet the roof pitch.

To specify

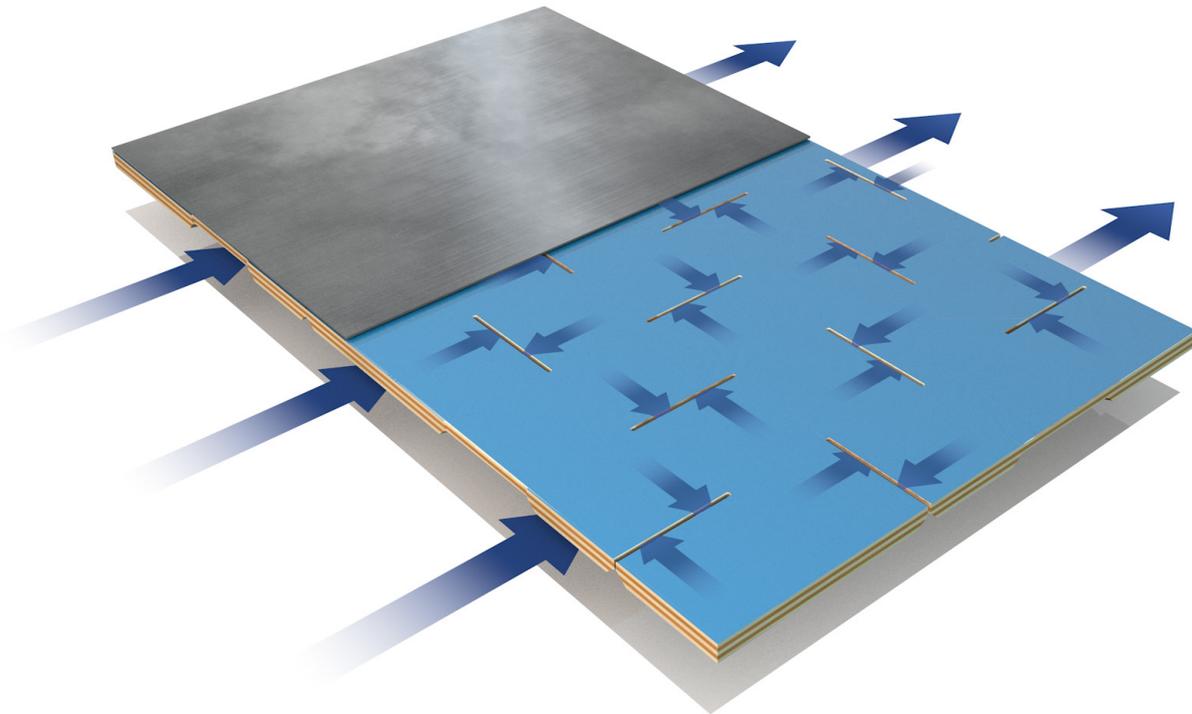
- Airtrak CS Comb Strip
 - Airtrak EC Eaves Carrier
- Supplied by Nicholson. Tel 0845 0098 980.

Clifton Cathedral, Clifton Park, Bristol
Products used: Airtrak-IL145, Airtrak-IL180,
Airtrak-MV200



Airboard roof deck for fully supported
metal roofing

Airtrak Airboard Roof decking for fully supported metal roofing



Description

The Airtrak Airboard decking system has been developed specifically for fully supported metal roofing and can be used in conjunction with the range of Airtrak ventilators. The patent pending protected design features perforations in hardwood sheet plywood to ensure that the ventilation of the roof void also extends to the underside of the metal roofing, the point where condensation is most likely to occur.

Due to the configuration of the slots, no part of the underside of the metal roof is further than 50mm from a ventilation slot ensuring that this area has a direct and quantifiable connection with the ventilated zone beneath the decking. This is important as any moisture ingress into fully supported metal roofing through the expansion joints can be become trapped between the roofing deck and the metal roof covering where there is no direct connection to the ventilated void below.

Airtrak Airboard combines the advantage of a smooth engineered board finish with a direct connection to the ventilated zone beneath, only otherwise achievable using the traditional 'penny gap' boarding method. The effects of warping and twisted boards showing through the metal roof covering, often associated with the penny gap boarding method, are avoided and a consistent and quantifiable amount of ventilation through to the underside of the roof deck is achieved.

It may be used with or without a separating membrane between the plywood and the roofing material. Airboard has a liquid applied impervious coating to the uppermost face. This protects the board from damage by weather during the construction process and also prevents the migration of any chemicals and other compounds from the plywood towards the metal roofing.

Material

18mm hardwood plywood, barrier coating

Ventilation

Approximately 14,800mm²/m²

Dimensions

1220mm x 1220mm

1220mm x 2440mm

Compatibility

A support deck for all fully supported metal roofing applications.

Installation

Airtrak Airboard is fitted over the roofing structure in the normal way spanning the supporting trusses or joists. All joints should be either over a rafter, firing or trimming piece unless spanning between joists at not more than 400mm centres. Take care to ensure that the ventilation void of 50mm is maintained below the Airboard.

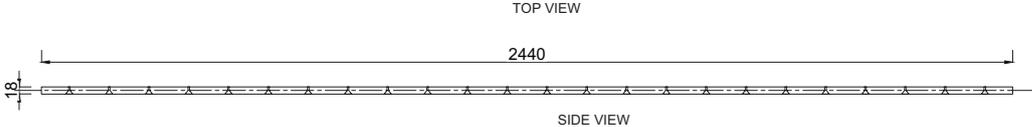
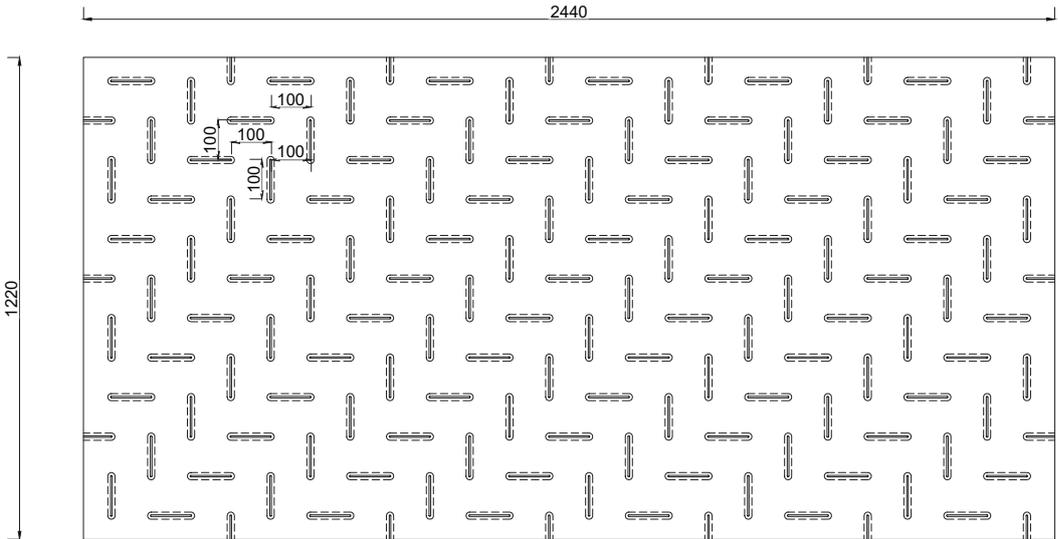
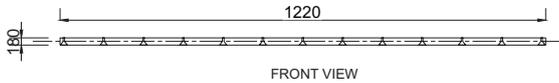
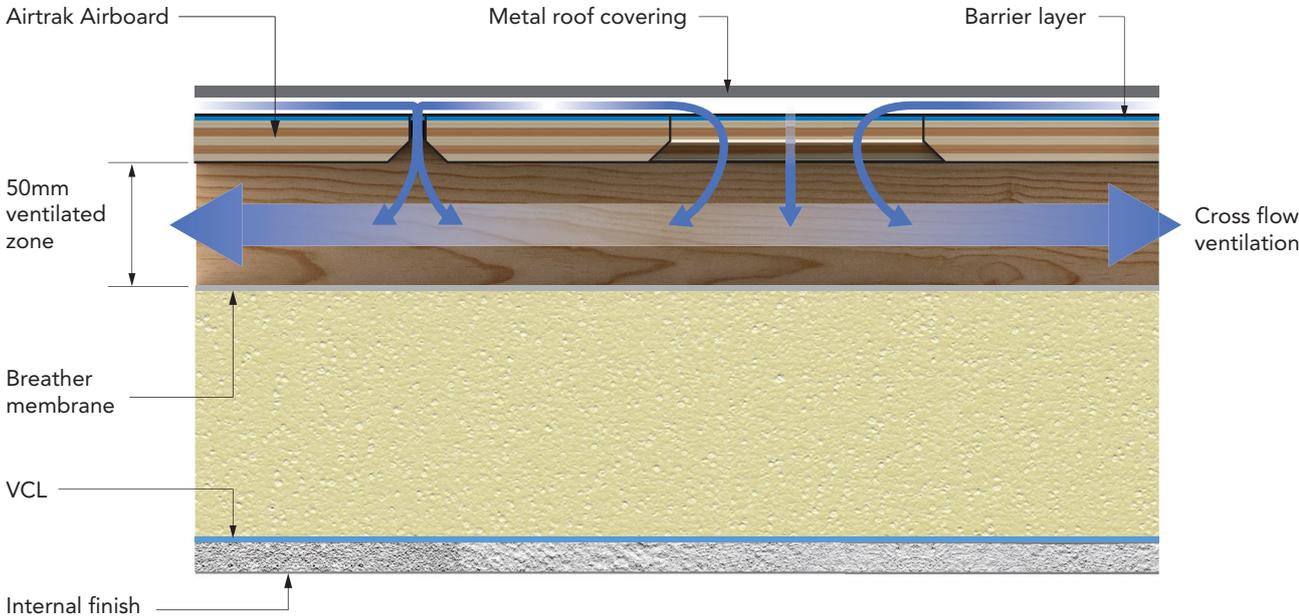
Airboard should be laid in such a way that no piece has a dimension smaller than 400mm where possible. Secure in place with non ferrous fixing screws which should be finished slightly below the surface of the plywood. The fully supported metal roofing may be laid directly over the board with no further membrane or separating layer required.

To specify

- Airtrak Airboard roof deck
Supplied by Nicholson. Tel 0845 0098 980.

Airtrak Airboard Roof decking for fully supported metal roofing

Typical ventilated warm roof



Download product files here



Airtrak – Frequently Asked Questions

Why should I use Airtrak?

Airtrak is an established and well known proprietary ventilation system that is designed and manufactured specifically for the purpose of ventilating roof voids. It provides an easily obtainable solution that is pre-fitted with insect mesh and avoids adhoc on-site construction. The stainless steel linear ventilators are strong and durable whilst ensuring minimal aesthetic impact on the character of the building.

How much ventilation do I need?

As a broad rule of thumb, flat roof areas require the equivalent of 25mm continuous ventilation (25,000mm² per linear metre) along two opposing sides of a roof so that cross ventilation is achieved. Ideally these are the two longest sides to ensure maximum ventilation efficiency. Pitched roofs with a fully supported metal roof covering also require a similar amount of ventilation.

Slated and tiled pitched roofing require differing amounts of ventilation affected by whether they are of a warm or cold construction, the roof pitch and the type of roof membrane used. Further details can be found on pages 6 & 7 of this brochure.

Is it best to use point ventilators or linear ventilators?

Generally speaking, the use of linear ventilators is a more efficient, economical and visually acceptable way of ventilating a roof void. The Airtrak linear ventilators deliver regulation meeting amounts of ventilation. This amount of ventilation is hard to replicate using point ventilators as so many are usually required. Another benefit of perimeter linear ventilators is that they cross all the roof/rafter voids whereas point ventilators will only ventilate the roof/rafter void they are located over.

However, where a roof has already been installed or the existing ventilation provisions need increasing, point ventilators provide a viable and effective way of introducing ventilation.

Can I use the Airtrak ventilation system with all types of roof coverings?

The Airtrak roof void ventilation system can be used with most types of roof coverings. This includes lead, copper, zinc and other hard metals as well as all membrane and liquid applied roof coverings. As the ventilators are stainless steel there is no danger of any significant bi-metallic corrosion.

How do I ventilate a parapet or tapering box gutter?

Parapet and tapering box gutters are often constrained in width as they progress to their outfall sometimes making ventilation difficult. The use of point ventilators in narrow gutters and valleys is not recommended as these can become a point at which leaves and other debris can collect and ultimately cause a potential restriction to the free draining of the gutter.

The ideal arrangement is to have a linear ventilator under the slating or tiling on the layboard coupled with a ventilator along the parapet where there is sufficient gutter width to do so. Where there is not enough width it could arguably be the case that the layboard ventilator will be sufficient to avoid a build up of moisture vapour in that area.

Which side of the roofing membrane in a pitched roof should be ventilated?

This depends on the use of the roof void and the type of roofing membrane that is being used. Normally the ventilation should be on the underside of the roofing membrane as this is where the moisture vapour is likely to condense. However, where a LR roofing membrane (low resistance to moisture vapour) is being used in a warm roof situation and the external roof covering is relatively airtight (eg man made slates), it may be advisable to ventilate the batten void above the roofing membrane. More detail on this is available on pages 6 & 7.

Can lead roofing be laid on a warm roof construction?

Lead roofing can be laid on warm roof constructions but should still have a 50mm ventilation zone under the roof deck supporting the lead covering. It is not acceptable to lay lead roofing directly on insulation in a warm roof construction.

I can't see the ventilator that I require in this brochure

Please get in touch with our Airtrak Technical team by phone, email or via our website where you can upload details of your requirement and send them to us. It is very likely that we can provide a bespoke ventilator to meet your requirement.

Where can I purchase Airtrak?

Airtrak can be purchased directly from Nicholson with most card payments being accepted. Failing this, a number of the leading builders and roofing merchants have accounts with Nicholson and the Airtrak range can be purchased through these outlets.

Is there a minimum number of ventilators that can be purchased?

No. We will supply your requirement down to one ventilator.

Can I get a sample?

Samples may be requested. They are normally supplied on a sale or return basis. Our accurate sections provide critical installation dimensions which should in most cases enable the purchaser to establish whether the chosen ventilator is suitable.

Can I return ventilators once purchased?

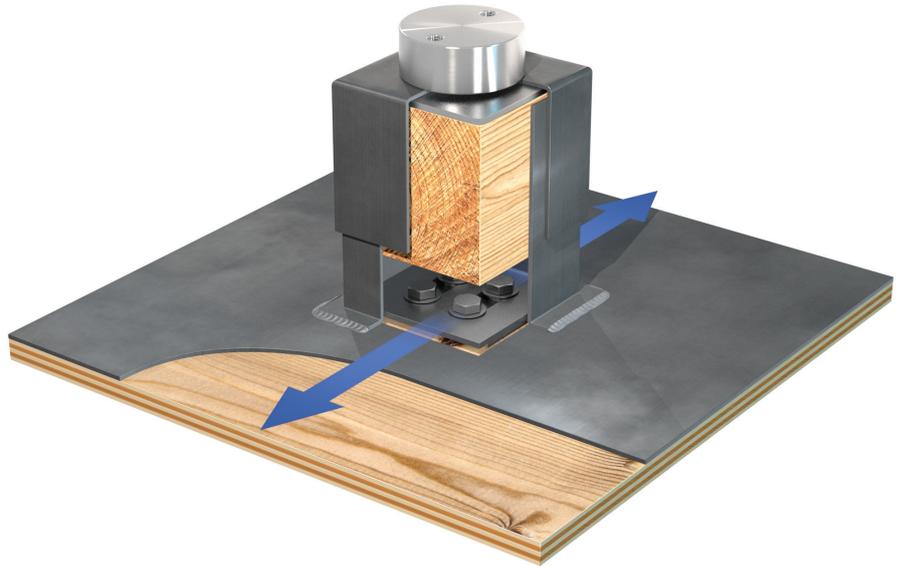
Nicholson operates a returns policy – details are available on our website. Standard ventilators may be returned subject to a restocking charge. However, ventilators that have been fabricated to customers specific requirements may not be refundable.

Other related Nicholson products

Rooftrak IFP-MR Integrated Fixing Point for Metal Roofing

The Rooftrak IFP-MR Integrated Fixing Point for metal roofing is part of the Rooftrak IFP family providing fixing points without compromising the integrity of the weathering membrane.

Metal roofing poses a challenge when it comes to fixing points as the natural expansion and contraction of the metal with temperature fluctuations has to be accommodated. The IFP-MR is a unique fitting that can move with any expansion and contraction of the metal roof by up to 30 mm. The IFP-MR can be factory fitted with a lead, zinc, copper (or any other sheet metal weathering flange) so that it integrates with the roof in question.



Roofport MRO Metal Roof Outlet

The Roofport MRO metal roof outlet is a 110mm diameter stainless steel outlet with a factory attached lead flange piece. The MRO can be used for internal outlets within lead roofs and gutters providing a firm spigot to which a watertight connection can easily be made.

The 110mm stainless steel spigot can be connected to the discharge pipework beneath the outlet via a standard 110mm push fit sealing socket or a timesaver type clamp. This ensures that the discharge pipework has a definite seal to the lead roof – particularly important for internally draining areas of the roof.





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