



By Appointment to H.M. The Queen
Suppliers of Unit Ventilation Equipment
Vent-Axia, Crawley, West Sussex

Vent-Axia®

VENT-AXIA CONTACT NUMBERS

Free technical, installation and sales advice is available

Sales Centre:

Domestic & Commercial

Sales Tel: 0844 856 0590
Sales Fax: 01293 565169
Tech Support Tel: 0844 856 0594
Tech Support Fax: 01293 539209

Industrial

Sales Tel: 0844 856 0591
Sales Fax: 01293 534898
Tech Support Tel: 0844 856 0595
Tech Support Fax: 01293 455197

Web: www.ventaxia.com
Email: info@ventaxia.com

SUPPLY & SERVICE

All sales made by Vent-Axia Limited are made only upon the terms of the Company's Conditions of Sale, a copy of which may be obtained on request.

As part of the policy of continuous product improvement Vent-Axia reserves the right to alter specifications without notice.

CI/SfB

| (57.7) |

1st edition

Wholehouse Heat Recovery



Air Minder Plus

Wholehouse Heat Recovery

Indoor Air Quality/Heat Recovery

Wholehouse Ventilation Systems

Vent-Axia®



Vent-Axia Air Minder Plus

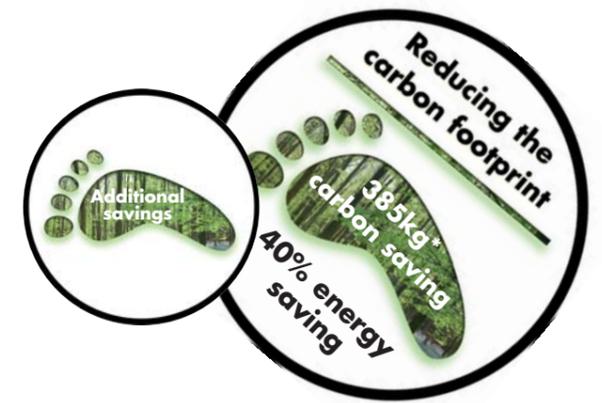
The Ultimate Heat Recovery Unit



Wholehouse Heat Recovery Systems

Features and Benefits

- Air Minder Plus meets future European directives for efficiency and air leakage.
- 90% heat recovery whilst controlling condensation.
- Meets new Building Regulations.
- LoWatt Energy Saving, constant volume, DC fans.
- Automatic summer bypass and defrost functions.
- Washable EU3 Filters.



- Let your home breathe

Model	Stock Ref:
AM Plus Midi F	42 58 09
AM Plus Maxi F	42 58 10
AM Plus Midi FB	42 58 11
AM Plus Maxi FB	42 58 12

Air Minder Plus is the next generation of wholehouse heat recovery ventilation systems. It will effortlessly remove your home's polluted air and provide a constant supply of clean filtered air, allowing you and your family to live in an ideal indoor environment. Air Minder Plus is available in two models; F (Filter) and FB (Filter and Summer Bypass).

Sized correctly, it will gently ventilate the property at a rate of about half an air change per hour, removing moist air and unpleasant smells from the kitchen, bathrooms and toilets and extracting it to the outside. Fresh filtered air is drawn into living spaces such as bedrooms and living rooms, providing continuous ventilation even when the house is sealed up for the day. By keeping humidity levels low and introducing warmed fresh filtered air to replace contaminated air, the quality of the internal environment is significantly improved. Continuous wholehouse ventilation can help reduce relative humidity to below 70% RH, which inhibits the ideal living and breeding conditions of the house dust mite.

The Developers Choice

Designed for the UK Market

- Air Minder Plus has been designed to meet the exacting and specific demands of the UK market.
- SAP Appendix Q listed.
- Available in 2 performance models (290 and 375) has 4 house volume settings ranging from 265m³ to 600m³, with flow rates from 60m³/h to 380m³/h.
- Constant volume LoWatt DC motors within the unit ensure that balanced input and extract air volumes are automatically maintained. Ventilation rates can be boosted manually or via a remote sensor.
- Optional automatic summer bypass and defrost functions.

Energy Conservation

- The unique heat exchanger cube offers a high level of heat recovery – up to 90% of the temperature based differential of the out going air.
- Allows cooler fresh air to be drawn into the property during warmer summer months, eliminating the need to leave windows open.
- Provides free night time cooling reducing the internal building temperature to the required Comfort Temperature.
- User adjustable Comfort Temperature setting (16° to 30°C).

Flexibility

- Simple clip together modular design – fits through standard 600mm square loft access even through a 450mm square access hatch.
- New vertical mounting kit – extends the mounting options even further allowing Air Minder Plus to be located in the most convenient position.
- Simple clip together modular design – fits through standard 600mm square loft access.
- New vertical mounting kit – extends the mounting options even further allowing Air Minder Plus to be located in the most convenient position to suit the building design – airing cupboards, lofts and roof voids.

Air Quality

- Suitable for use on brown field sites and close to traffic routes – balanced air flow eliminates the need for trickle vents reducing noise ingress.
- Integral washable EU3 filters effectively filter the incoming air to remove allergens and air borne particulates ensuring the indoor air quality is maintained whatever the season.
- Controller displays the words 'check filter' every 3 months - prompting a check on the filters, if necessary, to be cleaned or replaced.

The Installers Choice

Easy Installation

- Unique 270° rotation on duct turrets – facilitates connecting straight onto a duct from any angle without creating resistance or reducing airflow.
- Open flue appliance mode – set at installation, for systems where negative pressure is not permitted. When the external temperature drops below -1°C the summer bypass will open and the supply fan will continue to run, allowing external air to bypass the heat exchanger and enter the dwelling. This unique safety feature prevents products of combustion being drawn back into a dwelling.

Simple to Commission

- Suitable for house volumes from 265m³ to 600m³ – simple to configure via 4 dipswitches.
- Easy to commission via the digital controller – allows installer details to be entered for future reference and service calls.

The Homeowners Choice

Energy Conservation

- Energy recovery – up to 90% of the energy from the extracted air can be recovered from the unique heat exchanger cube.
- Constant volume energy efficient LoWatt DC motors within the unit ensure that balanced input and extract air volumes are automatically maintained.
- Control options – monitor indoor air quality – automatically boosting Air Minder Plus.
- Automatic 'heating failure detection' – switches Air Minder Plus off when the internal temperature drops below 5°C. This helps prevent frost damage as a result of heating failure. Automatic reset - Every 60 minutes the unit will run for a short period to measure the temperature. Once the temperature has risen above 5°C the unit will resume normal operation.

* Savings are based on continuous running

Comfort Control (FB models only)

- Allows cooler fresh air to be drawn into the property during warmer summer months, eliminating the need to leave windows open.
- Provides free night time cooling helping to reduce the internal building temperature to the required Comfort Temperature.
- User adjustable Comfort Temperature setting (16° to 30°C).

Designed for life

- Long life DC motors are designed with a life of 70'000 hours.
- Manufactured by the leading heat recovery systems manufacturer in the UK.

System Protection

- Reduces the risk of frost forming in the heat exchanger when the external air temperature drops below 0°C. The supply fan gradually reduces airflow – switching off at -5°C.
- Open flue interlock - the supply fan continues to run during defrost mode.

Air Quality

- Integral washable EU3 filters effectively filter the incoming air to remove allergens and air borne particulates ensuring the indoor air quality is maintained whatever the season.
- Controller displays the words 'check filter' every 3 months - prompting a check on the filters, if necessary, to be cleaned or replaced.

Vent-Axia Air Minder Plus

Wholehouse Heat Recovery Systems

- the great indoors

Controllers and Sensors

Air Minder Plus can be used with a wide range of Vent-Axia controllers and sensors. Ranging from remote controllers to wired remote sensor Air Minder Plus can control your indoor air quality letting your home breathe.

Controller



- Manual boost
- Integral clock – 7 day display
- User programmable – set switching times to suit lifestyle
- Set indoor comfort level temperature
- Elapsed time meter - hours run indicator
- Filter check indicator
- System indicator – details of the service provider

Ambient Response Humidity Sensor

- Pullcord override and neon indicator
- Changeover relay switch
- Operating range: 30% - 90%RH
- Ambient operating temp. 5°C to 40°C
- 240V DC
- Dimensions (mm): 87 x 87 x 33 (H x W x D)
- Will fit single gang box for surface mounting



Stock Ref. No. 563550

Ecotronic Humidity Sensor

- Set Point adjustable
- Maximum switching load 1 amp inductive
- Pullcord override indicator
- Ambient operating temp. 0°C to 40°C
- Dimensions (mm): 87 x 87 x 33 (H x W x D)
- Supply voltage 240V DC



Stock Ref. No. 563532

Air Quality Sensor

- Ambient operating temp. 0°C to 50°C
- MIN - MAX mode or direct Damper control
- Dimensions: 87 x 157 x 47mm (H x W x D)
- Surface mounted
- 1 - 25 min O/R timer
- Supply voltage 240V DC



Stock Ref. No. 563506

Visonex PIR Sensor

- Fits any UK single gang mounting box
- Adjustable timer overrun (5 - 25 mins)
- Range of detection up to 10 metres
- Designed to meet IP43
- Ambient operating temp. 0°C to 50°C
- Supply voltage 240V DC



Stock Ref. No. 459623

Easy Installation



Dimensions (mm)

Vertical Installation

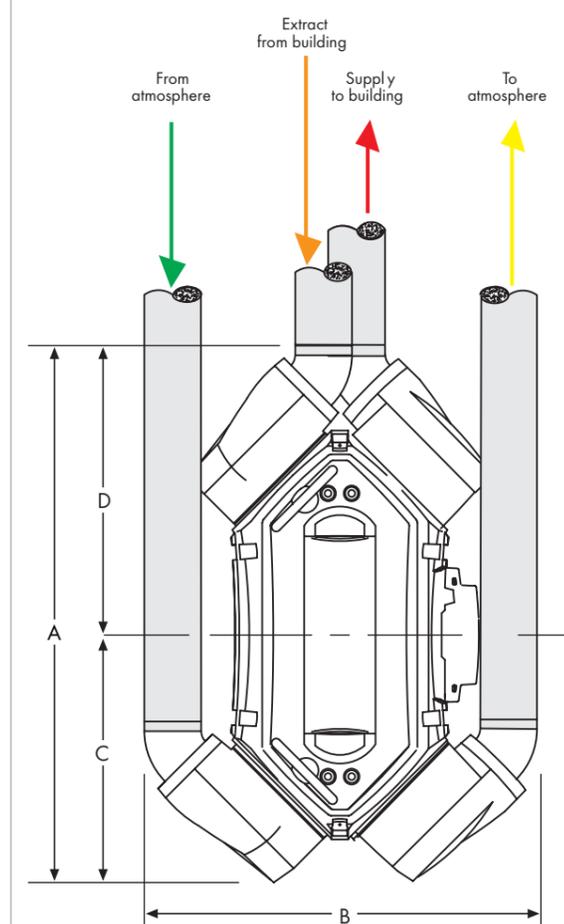
Model	A	B	C	D	Assembled Weight Kg
Air Minder Plus Midi	1290	1050	570	720	28
Air Minder Plus Maxi	1320	1050	570	750	29

AM Plus Midi Spigot diameter 150mm.
Vent-Axia 150mm Insulated Duct fits this spigot diameter.

AM Plus Maxi Spigot diameter 200mm.

Vertical Mounting Kit. Midi Stock Ref. No. 436243
Maxi Stock Ref. No. 436244

Plan View



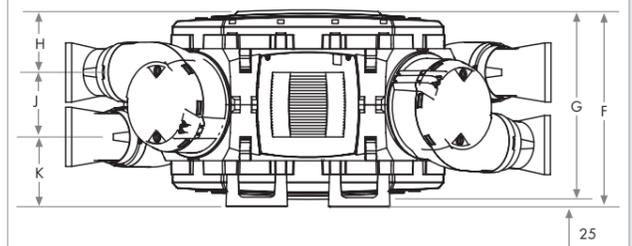
Horizontal Installation

Model	A	B	C	D	E	F	G	H	J	K	Assembled Weight Kg
Air Minder Plus Midi	1440	700	945	507	150	525	500	150	200	175	28
Air Minder Plus Maxi	1500	700	945	507	150	605	580	215	150	230	29

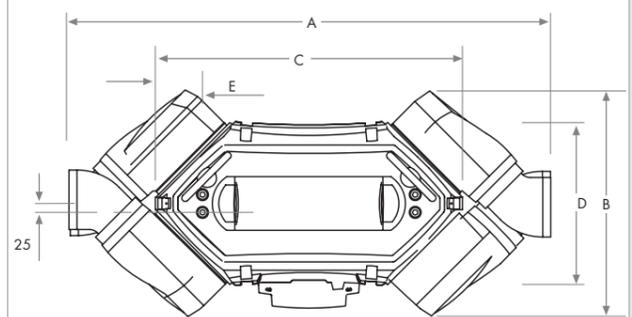
AM Midi Plus Spigot Plus 290 diameter 150mm.
Vent-Axia 150mm Insulated Duct fits this spigot diameter.

AM Plus Maxi Spigot diameter 200mm.

Front Elevation



Side Elevation



Cleaning and Maintenance

Cleaning intervals depend largely upon the location. Air filters and air supply, extract grilles and the heat exchanger cube will need to be cleaned at regular intervals. Fan impellers can be inspected, and cleaned if necessary, when the heat exchanger is cleaned.

- Please refer to the Air Minder Plus user guide for full details.

Design considerations

Wholehouse Heat Recovery Systems

for your home

- allowing you to help the environment

Air flow and air distribution

The air supply and extract rates must be specified to meet the requirements of Building Regulations Part F (Tables 1.1a and 1.1b). Considerations must also be given to the design guidance in the Building Regulations Part L1A (Conservation of fuel and power). As a rule of thumb, a ventilation rate of 0.3 ACH (Air Changes per Hour) based on the volume of the dwelling will keep water vapour and other pollutants below accepted maxima. In UK dwellings, supply and extract rates should be kept to a minimum, particularly during winter months.

To maximise the effect of mechanical ventilation incorporating heat recovery in domestic dwellings it is important that a balanced ventilation is achieved to ensure that air migrates throughout the property.

Step 1

First consider the location of the Air Minder Plus unit itself. Air Minder Plus may be sited either in an existing cupboard or in the loft area. The unit may be sited anywhere in the dwelling provided there is adequate access for cleaning and maintenance, and that any noise produced by the system will not disturb the occupants or their neighbours. It can be installed either vertically or horizontally. Give careful consideration to the positioning of the unit as it may radically affect the routing, length and number of bends necessary for the ducting system.

A condensate pipe is provided with the unit. It will be necessary to drain the condensation to the dwellings foul water drainage system. A 240 volt single phase connection unit will be required complete with a 3amp fuse to be sited adjacent to the heat recovery unit.

The ducts extracting stale air to atmosphere and supplying fresh air to the heat recovery unit may terminate either through an end gable wall using wall kits, or via the soffit grilles. Alternatively, roof tile vents can be used, or roof terminals with a free area on AM Plus Midi of 180cm² and on AM Plus Maxi of 310cm².

Step 2

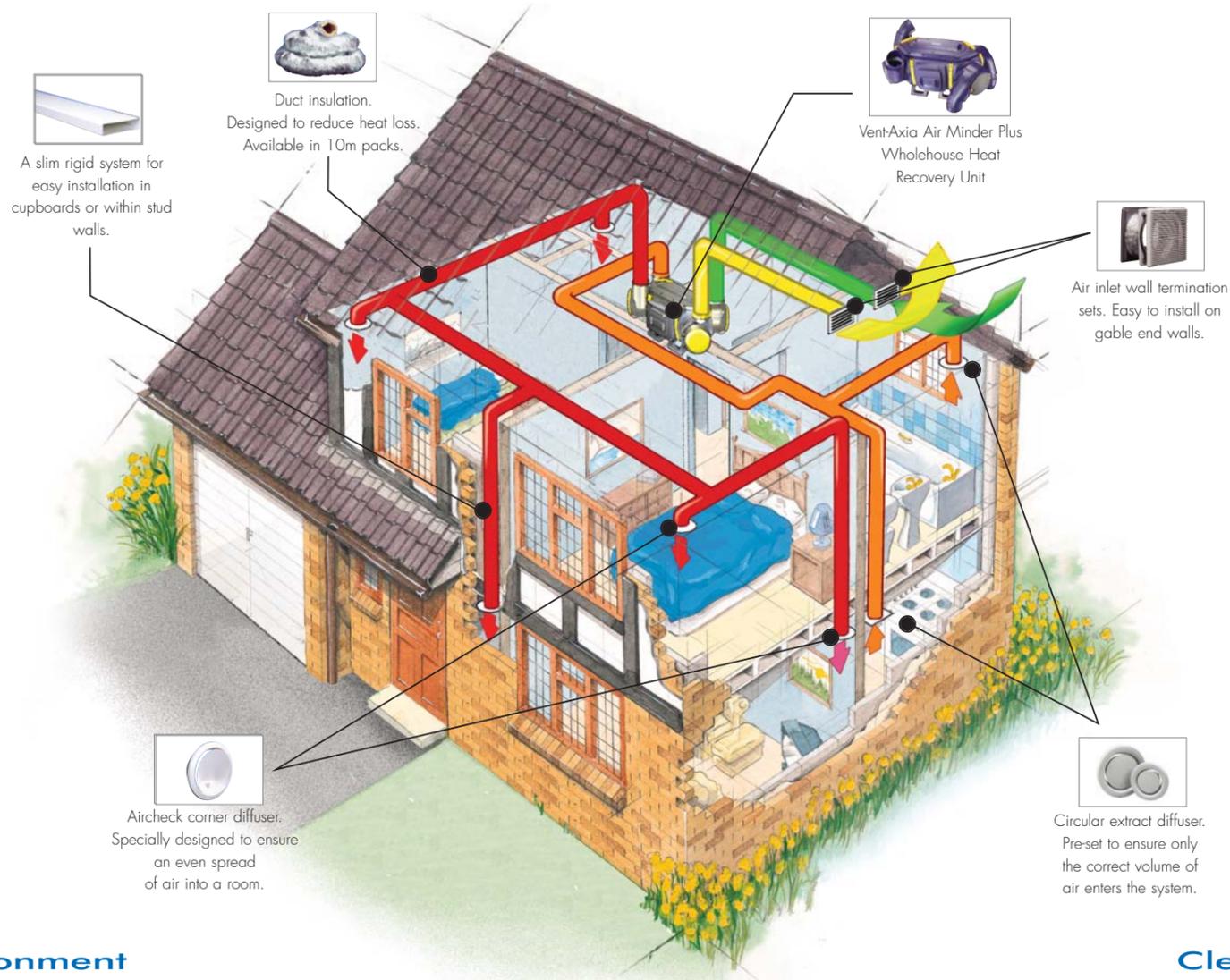
Consider the extract side of the system. Particularly well-insulated buildings will require very low levels of comfort heating. In this situation the heat output of the oven and hob may exceed that of the entire dwelling, leading to over heating. The temptation is to utilise this heat using a recirculating filtered cooker hood. It is often better to extract this contaminated air at source directly to the outside using a cooker hood with a further extract point at a high level capturing the hot air that rises to the ceiling produced by radiant heat. Ideally, site the extract grille diagonally opposite the door to the kitchen to provide good cross flow of air close to the source of moisture.

Similarly, in the toilet, bathroom or shower, site the extract grille furthest away from the air replacement or directly over a shower and ensure that there is a minimum 10mm gap under the door for air replacement or that a door grille is fitted. For bathrooms we recommend Aircheck Grilles.

The ducts from bathrooms, toilets, shower rooms, kitchens and utility rooms should join close to the Air Minder Plus unit.

Step 3

Consider the supply side of the system. To ensure that warmed fresh air is delivered throughout the property into bedrooms, living room, dining room, etc. This is achieved by using a circular supply diffuser in each room, using rigid plastic, flexible ducting and fittings. The diffusers should be positioned in the corner of the room diagonally from the door. All ducting in unheated areas, such as the loft space or between roof timbers, should be insulated.



Advisory Notes

Ductwork

Size the duct system and terminal fittings, taking into account the air flow rate and pressure performance available from the Air Minder Plus unit.

All joints should be properly sealed to avoid air leaks into or out of the ducts. In unheated areas insulated ducting should be used. Use of flexible ducting should be kept to a minimum.

The air supply duct between the fresh air intake and the heat exchanger must be insulated and wrapped with a vapour barrier where it passes through heated areas.

The fresh-air intake fitting must be installed away from boiler and chimney or flue outlets, foul and surface water drain vents and contaminated air outlets. Normal practice for separation between drain vent pipes, chimneys, etc and windows/air brick should be followed, please refer to BS5440 (eg

balanced flue terminals). The present minimum vertical separation distance is 600mm. It is advisable not to locate the intake above a wall-mounted flue outlet.

A louvre, cowl or similar device is recommended to prevent rain, birds, large insects and rodents from entering the duct system.

Sound Levels

Air Minder Plus units are extremely stable and transmit very little vibration. It is good practice to site the unit over the hall and away from bedroom areas. For very sensitive applications additional vibration insulation may be selected.

Speed dB(A) @ 3m

Night	19
Day	40
Boost	50

Air Minder Midi House Volume Setting 1

