

# Vent-Axia Sentinel® Multivent

## SAP Appendix Q

- allowing you to help the environment

### SAP Appendix Q

In order to make the right choice, developers and contractors should refer to Building Regulations Part L1a SAP 2005 and Appendix Q.



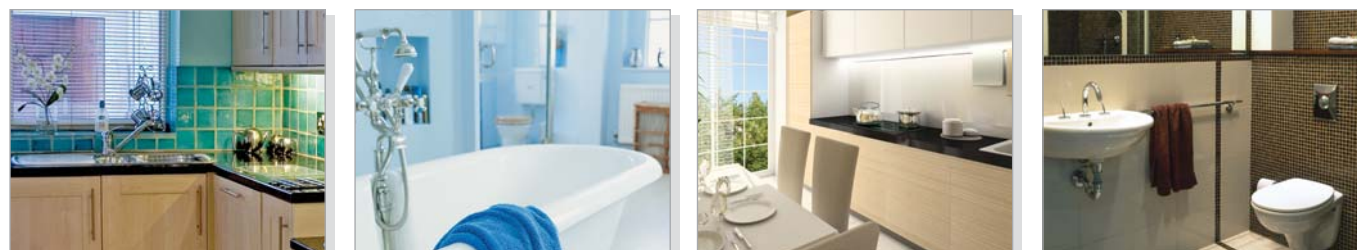
SAP Appendix Q was launched in June 2006 to reward innovative ventilation manufacturers by testing and listing energy efficient products that assist in helping developers meet their Target Emission Rates (TER).

SAP is the underpinning methodology behind the Energy Performance Certificates and is used to demonstrate compliance with Building Regulations for Dwellings - Part L (England and Wales), Section 6 (Scotland) and Part F (Northern Ireland). Appendix Q specifically relates to wholehouse ventilation systems and lists a number of Vent-Axia Mechanical Ventilation solutions which offer an improved SAP rating over and above the default for these product types.

### SAP Appendix Q Test Results

Exhaust Terminal Configuration	Total Flow Rate (l/s)	Specific Fan Power (W/l/s)
Kitchen + 1 additional wet room	21.0	0.19
Kitchen + 2 additional wet rooms	29.0	0.20
Kitchen + 3 additional wet room	37.0	0.24
Kitchen + 4 additional wet room	45.0	0.27
Kitchen + 5 additional wet rooms	53.0	0.32
Kitchen + 6 additional wet rooms	61.0	0.38

To assist developers and contractors Vent-Axia can provide detailed scheme designs together with installation guidance and training.



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.vent-axia.com](http://www.vent-axia.com)  
Email: [info@vent-axia.com](mailto:info@vent-axia.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.

### Sentinel Demand Ventilation

Sentinel is a demand ventilation system, designed to meet modern building management control principles. It responds to the exact ventilation requirements of a room at any one time providing supply or extract only when it is required and to the level that is required – therefore using only the energy that is required; no more no less.

This overcomes many of the issues encountered with a traditional fixed volume ventilation system that is either on or off irrespective of the number of people in the room, risking room over ventilation, burning valuable money and a wasteful use of energy.

### Vent-Axia Lo-Carbon™

Vent-Axia Lo-Carbon™ is an across the board initiative, featuring residential and commercial products, alongside heat recovery systems, air handing units and our Sentinel range of on-demand ventilation systems.

Within this comprehensive range we can calculate not just the energy savings that can be made when comparing these high efficiency products to ordinary ventilation units but also the carbon savings that can be achieved based on typical usage. Offering up to 90% energy saving and a carbon footprint reduction of up to 1795 kg per annum.

### Vent-Axia Mechanical Extract Ventilation

Other products within the MEV range from Vent-Axia.



MasterVent



Multivent AC



Multivent

wholehouse ventilation



## Sentinel Multivent Wholehouse Ventilation Solutions



# Vent-Axia Sentinel® Multivent

## Wholehouse Mechanical Extract Ventilation System

Ventilation **Lo-Carbon Energy saving solutions**

### Features and Benefits

- Reduces your carbon footprint
- SAP Appendix Q Listed
- Specific fan power 0.19 W/l/s (K+1)
- Suitable for use with external sensors and controllers
- Optional integral humidity sensor and wireless control available
- Ultra quiet - acoustically lined for low noise levels
- Complies with Building Regulations Part F (System 3)
- Manufactured in the UK from recyclable materials



### Your Carbon Footprint

The Carbon Footprint is a measure of the amount of carbon dioxide (CO<sub>2</sub>) emitted through the burning of fossil fuels. From a residential and commercial building perspective, it is the amount of carbon generated when you produce a kilowatt of electricity. Reducing a building's carbon footprint will ultimately reduce electricity bills and save money for every individual household or business. It will also help meet the UK target for the reduction of emissions, as well as allowing you to help the environment.



- allowing you to help the environment by reducing your carbon footprint

Sentinel Multivent continuous mechanical extract ventilation, C-MEV is designed for the simultaneous ventilation of separate areas in the home or as a multi-point extraction system for a wide range of commercial applications such as stalls in lavatories, fitting rooms and kiosks. The units can be installed at any angle. Where the ambient air has a high humidity content condensate drains are provided.

Sentinel Multivent meets the latest requirements of the [Building Regulations Document F 2006](#) (System 3) for wholehouse system ventilation.

#### In support of Sentinel Multivent, Vent-Axia offers:

- Practical advice on product selection and installation
- Guidance on solutions to meet legislation requirements
- Project management and site deliveries
- After sales support and maintenance information

#### The need to save energy costs

Rising fuel prices are placing an increasing burden on organisations as they seek to reduce consumption.

- Energy efficient EC/DC motors - 1/3 less energy lost to heat than a conventional AC motor
- Low Specific Fan Power (SFP) making it one of the most efficient products on the market

#### The need to improve efficiency

Sentinel Multivent has been designed to meet the exacting demands of developers, installers and users offering advanced control options and easier installation and commissioning.

- Demand Control – enables precise ventilation rate to be set based on property size within 1° of PWM.
- Integral LCD display allows installer to select appropriate low, normal and boost speeds to meet demand

- Manual and automatic control options
- Integral adjustable overrun timer and delay on timer
- Plug-n-Play automatic sensor detection
- Switched live and SELV connections
- Dry Out setting – Option set at installation, Sentinel Multivent will run on boost for 1 week to assist in removing moisture
- Optional Wireless Control – up to 4 controllers on any one system

#### The need to meet legislation

Through the Code for Sustainable Homes Level 3 the UK is designed to deliver a 25% reduction in CO<sub>2</sub> levels compared to the 2006 Building Regulations.

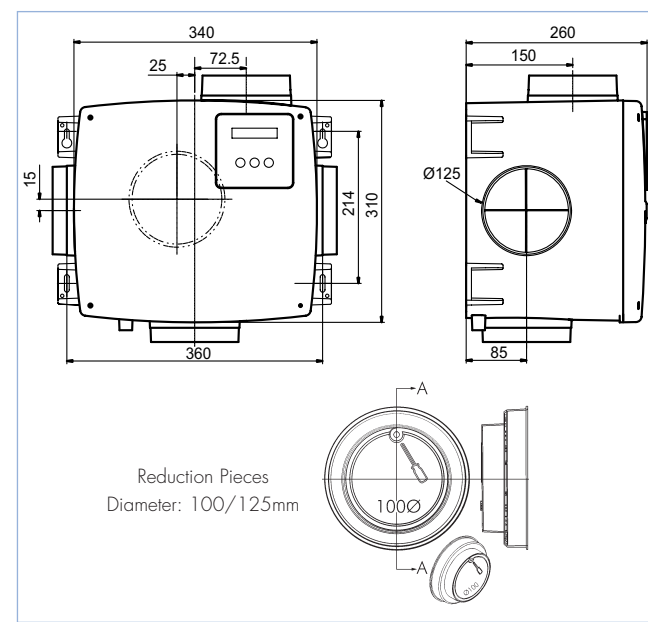
- Meets Building Regulations Part F (System 3)
- SAP Appendix Q listed up to kitchen + 6 wet rooms
- Meets carbon footprint reduction targets
- Lowest SFP figures of any demand control MEV system

#### The need for better health

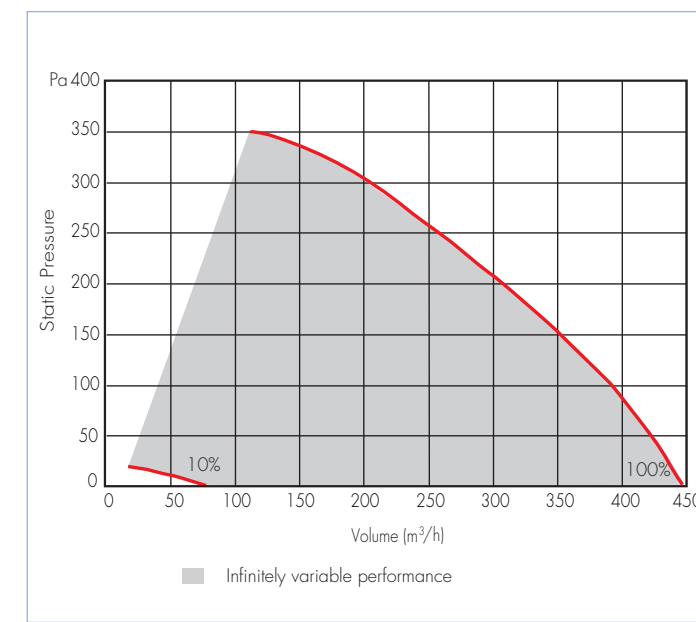
Removal of pollutants, such as moisture, carbon dioxide and external fumes are all important factors in maintaining indoor air quality, helping to create a better living environment.

- The integral humidity sensor increases fan speed in proportion to relative humidity levels, saving energy and reducing noise. The sensor also reacts to small but rapid increases in humidity, even if the normal trigger threshold is not reached. This unique feature ensures adequate ventilation, even for the smallest wetroom.
- Night time relative humidity increment setback feature suppresses nuisance tripping as humidity gradually increase with falling temperature
- Acoustically lined - low noise levels only 18.1 dB(A) @3m

### Dimensions (mm)



### Performance



### Performance Guide

Sentinel Multivent Stock Ref. No.	MIN					MAX				
	Casing Breakout dB(A) @ 3m	Inlet Duct dB(A)	Speed (pwm)	FID l/s	Power Watts	Casing Breakout dB(A) @ 3m	Inlet Duct dB(A)	Speed (pwm)	FID l/s	Power Watts
437601	18.1	17	10%	17	4	36.8	35	100%	125	50

Sound levels are based on standard product with no additional acoustic materials @ 3m.

### Sound Data

Speed (PWM)		Induct sound power levels dB								dB(A) @ 3m
		63	125	250	500	1K	2K	4K	8K	
10%	Breakout	43.6	37	36.9	30.6	26.2	22.8	23.6	30.4	18.1
	Extract	43.8	39.9	36.1	30.4	24.6	21.8	22	30.3	17.8
28%	Breakout	44	44.4	43.3	39	31.1	26.1	24.3	30.1	22
	Extract	42.2	40.1	42.2	40.5	32	23.3	23.4	30.5	22
46%	Breakout	45	42.8	46.7	44.1	38.8	35.6	26.7	30.6	25.8
	Extract	40.8	42.5	46.4	44.4	41	31.1	25.3	30.3	26
82%	Breakout	46.3	48.3	50	52.1	48.4	47.7	37.8	32.4	33.7
	Extract	46.7	49.6	48.9	54.3	51.8	42.7	38.1	34.2	36.1

### Controllers and Sensors

Sentinel Multivent can be used with a wide range of Vent-Axia controllers and sensors. Ranging from integral humidistats, through wireless controllers to wired remote sensors.



#### Integral Humidistat

- ✓ Simple Plug-n-Play installation
  - ✓ Eliminates the need for additional controllers or sensors
  - ✓ Reacts to any rapid increases in relative humidity or relative humidity above 60%
  - ✓ Future proof – can be fitted after installation
  - ✓ Self programming
- Stock Ref. No. 437598



#### Wireless Transmitter Controller Receiver Kit

- ✓ Manual boost
  - ✓ Adjustable overrun timer
  - ✓ Easy wire-less installation
  - ✓ Reduces installation time
  - ✓ Future proof - add more controllers at any time
- Stock Ref. No. 439352



#### Wireless Transmitter Controller

- ✓ Additional controller for 439352
  - ✓ A maximum of 4 controllers can be used per system
  - ✓ Can be connected to other accessories (eg Humidistat) to send a boost signal wirelessly
- Stock Ref. No. 437827



#### 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
  - ✓ 220-240V AC
  - ✓ Will fit single gang box for surface mounting
- Stock Ref. No. 563550A



#### Ecoetric Humidity Sensor

- ✓ Set Point adjustable
  - ✓ Maximum switching load 1 amp inductive
  - ✓ Pullcord override indicator
  - ✓ Ambient operating temp. 0°C to 40°C
  - ✓ Supply voltage 220-240V
- Stock Ref. No. 563532A



#### Air Quality Sensor

- ✓ Ambient operating temp. 0°C to 50°C
  - ✓ Min - Max mode or direct damper control
  - ✓ Surface mounted
  - ✓ 1 - 25 min O/R timer
  - ✓ Supply voltage 220-240V
- Stock Ref. No. 563506B



#### 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. range 0°C to 50°C
- Stock Ref. No. 459623A



#### CO<sub>2</sub> + Temp Room Sensor

- ✓ 240V DC
  - ✓ 0 - 2000ppm CO<sub>2</sub> working range.
  - ✓ 0 - 50°C working range
  - ✓ Auto-calibrating NDIR CO<sub>2</sub> absorption sensor
  - ✓ Thin film platinum temperature sensor for high accuracy
- Stock Ref. No. 433257



#### Ventwise

- ✓ Automatically boosts fan when temperature of the supply pipe to a shower or bath increases
  - ✓ Automatically boosts fan when electric hob is switched on
  - ✓ Can be used in conjunction with manual override input
  - ✓ Adjustable overrun timer
  - ✓ Two sensor options available.
- Stock Ref. No. 435960

