

@Smile

the low carbon fan

- SAP Q Eligible
- for all domestic wet rooms
- high efficiency
- for walls or ceilings
- splashproof

Model ES1003

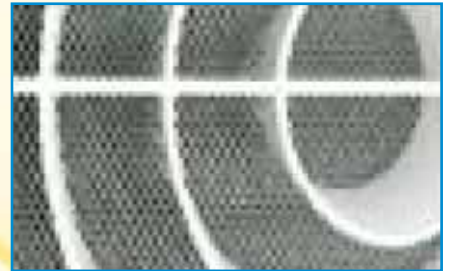




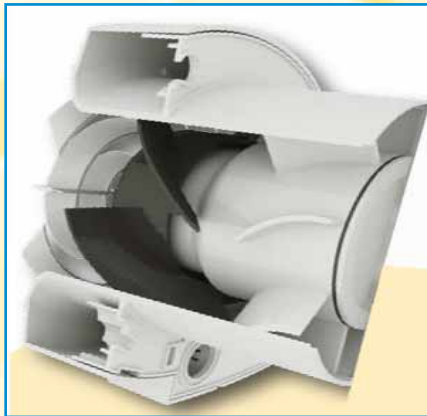
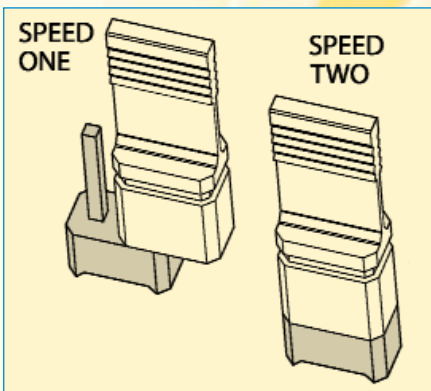
“ES1003” High Power Fan

- Ultra modern, technically innovative high power fan
- To exhaust air and fumes directly outside or through medium length ducting
- Suitable for any domestic wet room - toilets, shower-rooms, bathrooms, utility rooms and kitchens
- 3 Speed fan
- Runs continuously at pre-selectable choice of two lower speeds (fixed at installation)

- Carbon friendly
- Very quiet operation (min 16 dBA)
- Designed and constructed using recyclable and/or reusable materials and components for minimum ecological impact



- CE marked
- Vectaire Ltd can supply accessories for use with these fans, including ducting and metal filter, outside grilles and wall cowls (VWC)



- Designed using latest wind tunnel technology and CAD simulations
- Aerodynamic profile provided with deflectors designed to increase the fluid dynamics of the fan
- Fan casings from shockproof, high quality technopolymer
- Induction motor with thermal protection
- Motors (40,000 hour life) with maintenance free and long life ball bearings
- Easy to install in walls or ceilings - only three fixing points
- Operates in ambient temperatures up to 40°C
- Double insulated - no earth required



- The **ES1003** is factory set at Speed 1 (jumper switch with one pin covered to operate at 10 l/sec for bathrooms)
- Speed 2 (16 l/sec for kitchens) is easily obtainable by covering both pins of jumper switch
- User can boost speed to maximum performance by means of a:
 - remote switch
 - PIR sensor
 - humidistat
- The design of the **ES1003** allows it to be installed at any angle



ES1003: this **SAP Q Eligible** fan combines latest technology with energy saving efficiency. It is a quiet running 3 speed fan, designed to run continuously at a pre-selectable choice of 2 lower speeds (fixed at installation). The user can boost the fan speed to maximum performance by means of a remote switch, light switch, PIR sensor or humidistat. This fan can be used in all domestic wet rooms

Other Models:

- ES1003CLV - SELV - 12v model**
- ES1003CF - model c/w filter**



- All models with cord which can be removed to allow remote control
- Energy saving efficiency (min 3.8 watts)
- Extremely low running costs



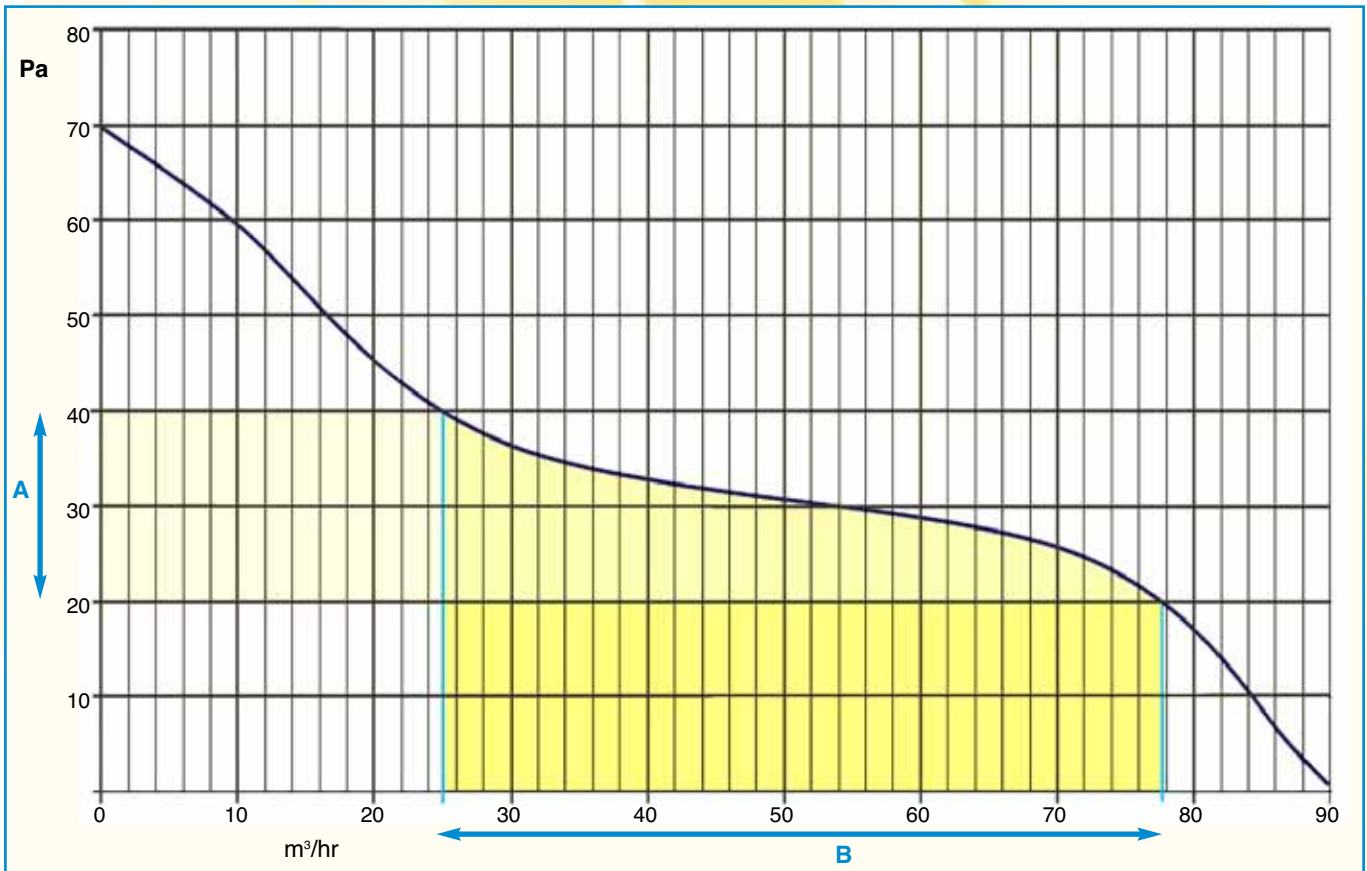
- **IPX4 - Splashproof** rated so can safely be installed in Zones I and II
- **ES1003** complies with IEC 60335-2-80, LVD2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility



“ES1003” Technical Characteristics

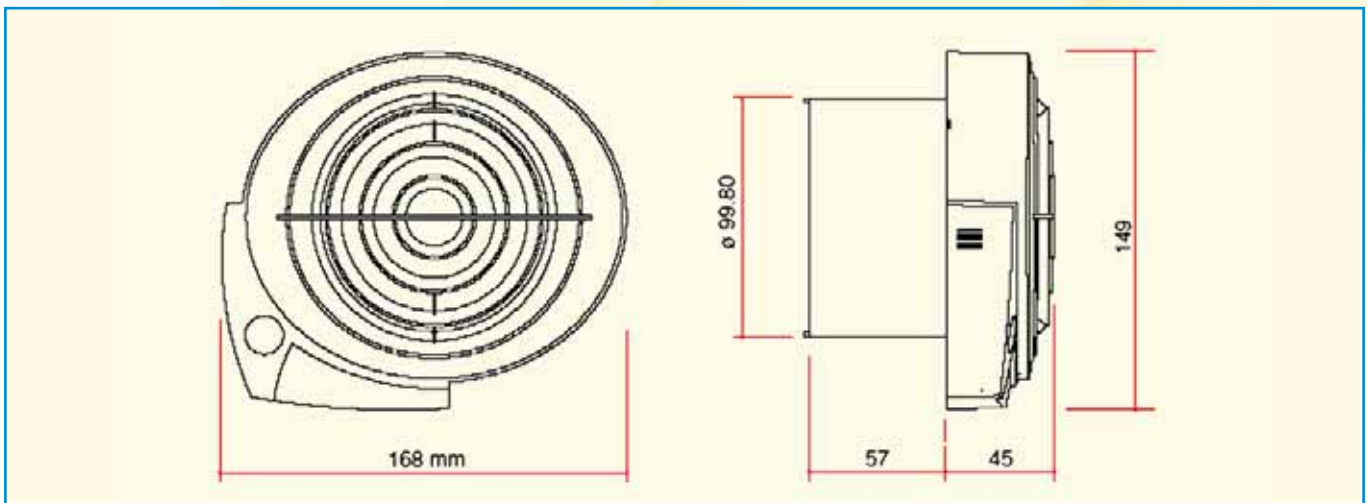
Model	Airflow m ³ /hr			Airflow l/sec			Power - Watts			Sound Pressure dBA(@ 3m in open field)		
	Speed 1	Speed 2	Boost	Speed 1	Speed 2	Boost	Speed 1	Speed 2	Boost	Speed 1	Speed 2	Boost
ES1003	36	60	92	10	16	26	3.8	5.3	7.5	16	19	29

“ES1003” Pressure Curve



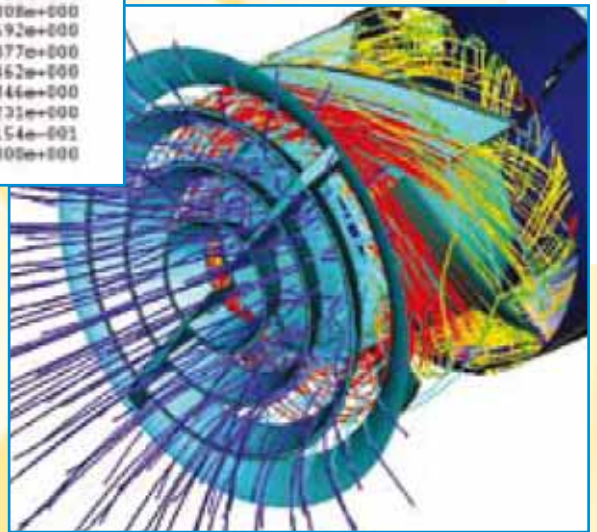
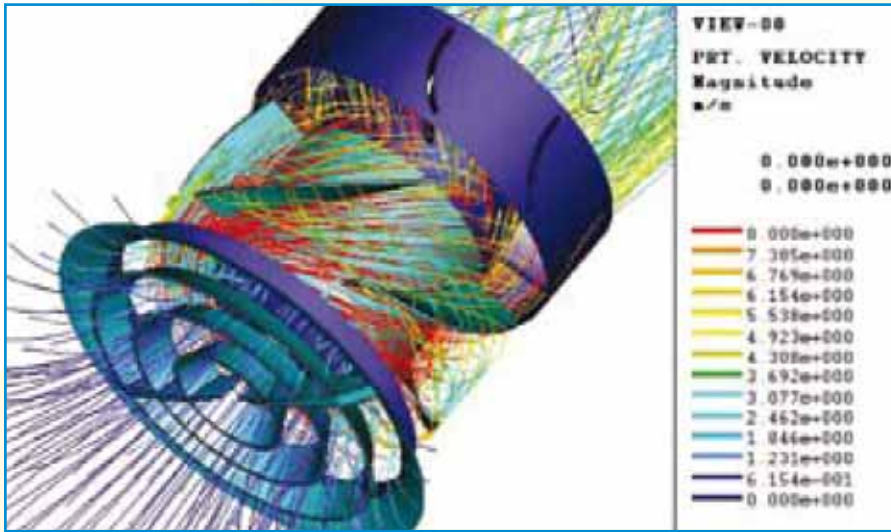
A = working point pressure when fan is installed. B = performance

“ES1003” Dimensions

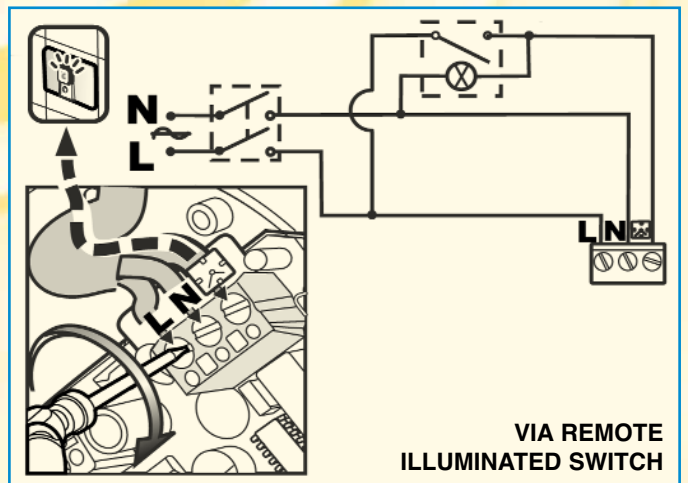
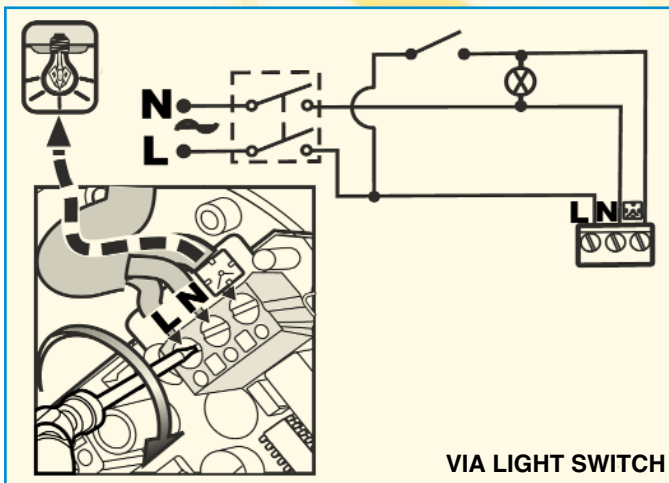




“ES1003” CFD Analysis



“ES1003” Wiring Diagrams



Vectaire Ltd
 Lincoln Road
 Cressex Business Park
 High Wycombe
 Buckinghamshire
 HP12 3RH
 Tel: +44(0)1494 522333
 Fax: +44(0)1494 522337
 Email: sales@vectaire.co.uk
 Web: www.vectaire.co.uk



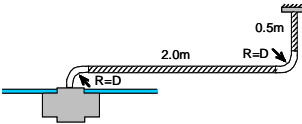
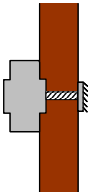
SAP Appendix Q Test Results
Decentralised mechanical exhaust ventilation system
packages used in a single dwelling – rigid ductwork

Brand Name		Vectaire
Model		ESmile
Model Qualifier (if applicable)		
Current Manufacturer and Contact Details	Name	Vectaire Ltd
	Address	Lincoln Road Cressex Business Park High Wycombe Bucks HP12 3RH
	Telephone	01494 522333
	Website	http://vectaire.co.uk/
Original Manufacturer (if different)		
First Year of Manufacture		2008
Last Year of Manufacture		
Testing Body		BRE
Date of test		10/06/08
Serial Number of Product Tested		1708
Ductwork Type and Size		100mm diameter rigid plastic & 100mm rectangular rigid plastic or larger

Results for SAP calculations (at minimum flow rate condition)

Table Q1 – Systems with rigid ductwork installation only

These results are only applicable for SAP Appendix Q if the whole system is installed with rigid ductwork throughout. If a combination of flexible and rigid ductwork is specified only results from Table Q3 are applicable

Unit configuration	Location	Fan speed setting	Specific fan power (W/l/s)
In room 	Kitchen	3	0.55
	Wet room	2	0.61
Through wall 	Kitchen	2	0.37
	Wet room	1	0.45

These figures are entered into either:

- (a) In the case of SAP software amended to SAP 2005 version 9.81 and allowing direct entry of decentralised MEV data, the SAP software, or
- (b) In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of decentralised MEV data, the SAP Q Decentralised MEV Calculation Spreadsheet v9.81 for Rigid Ductwork and the results from the spreadsheet into the Special Features part of the SAP 9.81 software, or
- (c) In the case of SAP software to SAP 2005 version 9.80, the SAP Q Decentralised MEV Calculation Spreadsheet v9.80 for Rigid Ductwork and the results from the spreadsheet into the Special Features part of the SAP 9.80 software.

Results for Approved Document F (at minimum flow rate condition)

Table Q2 – Systems with rigid ductwork installation only

Unit configuration	Location	Fan speed setting	Flow rate (l/s)	Flow rate – wind condition (l/s)	% reduction of total flow rate (%)
In room	Kitchen	3	14.2	12.8	10
	Wet room	2	11.1	10.2	8
Through wall	Kitchen	2	15.5	14.0	10
	Wet room	1	9.7	8.9	8

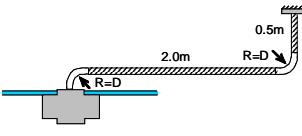
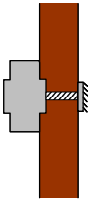
SAP Appendix Q Test Results
Decentralised mechanical exhaust ventilation system
packages used in a single dwelling – flexible or mixed
ductwork

Brand Name		Vectaire
Model		ESmile
Model Qualifier (if applicable)		
Current Manufacturer and Contact Details	Name	Vectaire Ltd
	Address	Lincoln Road Cressex Business Park High Wycombe Bucks HP12 3RH
	Telephone	01494 522333
	Website	http://vectaire.co.uk/
Original Manufacturer (if different)		
First Year of Manufacture		2008
Last Year of Manufacture		
Testing Body		BRE
Date of test		10/06/08
Serial Number of Product Tested		1708
Ductwork Type and Size		100mm diameter flexible or larger

Results for SAP calculations (at minimum flow rate condition)

Table Q3 – Systems with flexible or mixed ductwork installation only

These results are only applicable for SAP Appendix Q if the whole system is installed with flexible ductwork throughout **OR** a combination of flexible and rigid.

Unit configuration	Location	Fan speed setting	Specific fan power (W/l/s)
In room 	Kitchen	3	0.57
	Wet room	2	0.61
Through wall 	Kitchen	2	0.37
	Wet room	1	0.45

These figures are entered into either:

- (a) In the case of SAP software amended to SAP 2005 version 9.81 and allowing direct entry of decentralised MEV data, the SAP software, or
- (b) In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of decentralised MEV data, the SAP Q Decentralised MEV Calculation Spreadsheet v9.81 for Flexible Ductwork and the results from the spreadsheet into the Special Features part of the SAP 9.81 software, or
- (c) In the case of SAP software to SAP 2005 version 9.80, the SAP Q Decentralised MEV Calculation Spreadsheet v9.80 for Flexible Ductwork and the results from the spreadsheet into the Special Features part of the SAP 9.80 software.

Results for Approved Document F (at minimum flow rate condition)

Table Q4 - Systems with flexible or mixed ductwork installation only

Unit configuration	Location	Fan speed setting	Flow rate (l/s)	Flow rate – wind condition (l/s)	% reduction of total flow rate (%)
In room	Kitchen	3	13.0	11.7	10
	Wet room	2	10.3	9.5	8
Through wall	Kitchen	2	15.5	14.0	10
	Wet room	1	9.7	8.9	8

Comments

Only figures from Table Q1 or Table Q3 should be used with the SAP Q Calculation Spreadsheet for this product.

Table Q2 and Table Q4 results are only applicable for Approved Document F requirements.