

Duplexvent 90 SE



An advanced ventilation unit with heat recovery for homes.

Duplexvent 90SE designed to provide ventilation levels that meet the latest **Building Regulations 2010 (PART F)**.

The DUPLEXVENT series recovers warmth from extracted air which would otherwise go to waste, filters it and returns it to the building mixed with incoming fresh air.

The unit is controlled by an intelligent Duplexvent SED control system, compatible with external CO₂ and humidity sensors (sold separately). The system can also be individually tailored according to the needs of residents by means of the time clock control function.

Key Features

- 3 year warranty
- Heat recovery efficiency is more than 80%
- Extracts up to 306 m³/hr@50 Pa
- Energy efficient DC fans
- SAP-APPENDIX Q eligible

Application

For use in small and medium sized family homes and terraced houses

DV90SER (Right hand connections)

Part No: 9041080

DV90SEL (Left hand connections)

Part No: 9041081



DV90 SE is a ventilation unit with state-of-the-art technology. Designed to provide both essential ventilation and to save you money through its intelligent heat recovery system, this is a cost effective and environmentally friendly option for residential and light commercial applications

Features:

- For dwelling-specific ventilation
- Supply and extract air ventilation with heat recovery
- Heat recovery efficiency of the cross-counter flow cell up to 80%
- Electronic control panel with LCD display
- Week clock control as a standard feature
- Humidity control (optional)
- Carbon dioxide control (optional)
- Maintenance reminder
- Good filtering
- Summer / winter automation
- Fixed air flow measuring outlets.

A unit providing both superior ventilation and excellent heat recovery of at least 80%...

Duplexvent 90 SE



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SAP Appendix Q Testing Results

Central mechanical supply and exhaust ventilation system packages with heat recovery used in a single dwelling

Brand Name		Airflow
Model		90 Duplexvent
Model Qualifier (if applicable)		
Current Manufacturer and Contact Details	Name	Airflow Developments Ltd
	Address	Lancaster Road Cressex Business Park High Wycombe HP12 3QP
	Telephone	01494 525252
	Website	www.airflow.co.uk
Original Manufacturer (if different)		
First Year of Manufacture		2008
Last Year of Manufacture		
Testing Body		BRE
Date of test		10/04/2008
Serial Number of Product Tested		2204
MVHR to outside grille duct types and size		150 & 125 mm diameter rigid plastic and 200 mm diameter rigid plastic
Duct types and sizes used for supply and exhaust		150 & 125 mm diameter rigid plastic and 200 mm diameter rigid plastic

Results of leakage tests

Table Q1

Internal	Pass
External	Pass

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Results for SAP calculations (at minimum flow rate condition)

This product has only been tested with rigid ductwork and the data are not applicable for SAP calculations if installed with flexible ductwork.

Table Q2 – Systems with **rigid** ductwork only

Exhaust terminal configuration	Fan speed setting	Specific fan power (W/l/s)	Heat exchange efficiency (%)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	100% Variable	0.73	81	No
Kitchen + 2 additional wet rooms	100% Variable	0.72	82	No
Kitchen + 3 additional wet rooms	100% Variable	0.80	82	No
Kitchen + 4 additional wet rooms	100% Variable	0.91	83	No
Kitchen + 5 additional wet rooms	100% Variable	1.06	82	No
Kitchen + 6 additional wet rooms	100% Variable	1.21	81	No
Kitchen + 7 additional wet rooms	100% Variable	1.45	81	No

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Standard Assessment Procedure – Appendix Q MVHR Product Data 18/07/2008

These figures are entered into either:

- (a) In the case of SAP software amended to SAP 2005 version 9.81 allowing direct entry of MVHR data, the SAP software, or
- (b) In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of MVHR data, the SAP Q MVHR Calculation Spreadsheet v9.81 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 MVHR Calculation Spreadsheet v9.80 and the results from the spreadsheet into the Special Features part of the SAP 9.80 software. They must **NOT** be entered directly into SAP 2005 version 9.80 software

Table Q3 – Systems with **flexible** ductwork only

Exhaust terminal configuration	Fan speed setting	Specific fan power (W/l/s)	Heat exchange efficiency (%)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	N/A	N/A	N/A	N/A

These figures are entered into either:

- (a) In the case of SAP software amended to SAP 2005 version 9.81 allowing direct entry of MVHR data, the SAP software, or
- (b) In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of MVHR data, the SAP Q MVHR Calculation Spreadsheet v9.81 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 MVHR Calculation Spreadsheet v9.80 and the results from the spreadsheet into the Special Features part of the SAP 9.80 software. They must **NOT** be entered directly into SAP 2005 version 9.80 software

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

Table Q4

Exhaust terminal configuration	Fan speed setting	Total exhaust flow rate (l/s)	Total supply flow rate (l/s)
Kitchen + 1 additional wet room	100% Variable	15.0	15.0
Kitchen + 2 additional wet rooms	100% Variable	21.0	21.0
Kitchen + 3 additional wet rooms	100% Variable	27.0	27.0
Kitchen + 4 additional wet rooms	100% Variable	33.0	33.0
Kitchen + 5 additional wet rooms	100% Variable	39.0	39.0
Kitchen + 6 additional wet rooms	100% Variable	45.0	45.0
Kitchen + 7 additional wet rooms	100% Variable	51.0	51.0

Comments

Only figures from Table Q2 or Table Q3, not both, should be used with the SAP Q Calculation Spreadsheet for this technology type.

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

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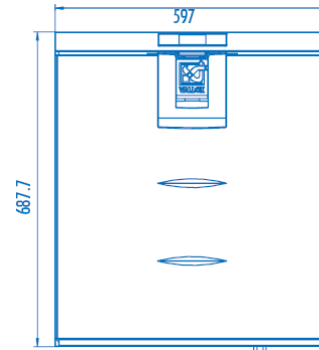
Why Ventilate?

AIRFLOW fans exceed the requirements of the latest building regulations helping to combat the harmful effects of dampness and condensation and by extracting airborne pollutants such as odours, cooking smells, humid and stale air. The potential hazards to health for occupants and possible damage to the fabric of the building can be largely eliminated.

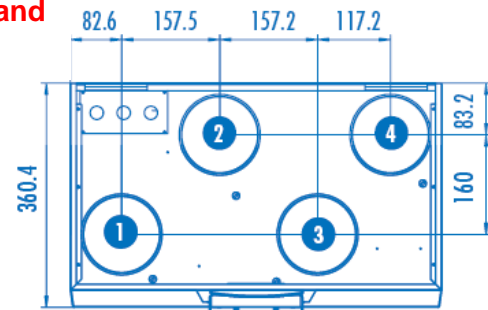
Model	DV90SE (with dc fans)
Max extract air m3/hr	306@50 Pa
Max supply air m3/hr	259@50 Pa dc
Control	Digit SED
Fan Input (W)	20-200w <i>dc</i>
Electrical Supply	230v / 1PH / 50Hz
Heat Exchanger	
CR-Cross Flow	
CO-Counter Flow	CO
Heat Recovery	>80%
Summer by-pass	Automatic
Supply Air Filter	G3 + F7
Extract Air Filter	G3
Anti Frost	Standard
Pre-Heater	900w standard
After Heater	900w standard
Duct Connections x4	125mm Ø
Overall Dimensions	668 x 595 x 345
H x W x D mm	
SAP APPENDIX Q ELIGIBLE	✓



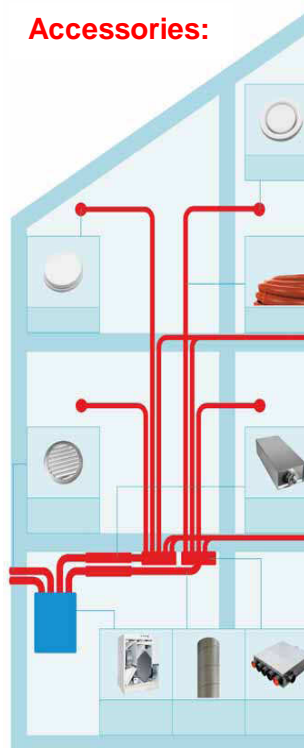
Unit Dimensions (mm)



Right Hand Model



Accessories:



Airflex Pro

- Flexible ducting for air distribution from and to all rooms.
- Zero leakage ensures performance.
- Save up to 70% on installation time.
- Robust and flexible.
- Smooth bore for hygiene and easy cleaning.
- Very low noise transmission between rooms.
- Highly efficient, connects each room individually.
- Compact, suits narrow joists and/or screeded floors.
- Constant air distribution throughout.

Airflex ISO

- Insulated round ducting.
- Quick and easy assembly.
- Pre-Insulated one-piece.
- Tough, durable, anti-static EPP-foam.
- Fire retardant to B2
- Sound absorbing, smooth bore pipe
- Avoids condensation build up.
- Choice of components to suit any layout.
- Compatible with *Airflex Pro* air distribution box.

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