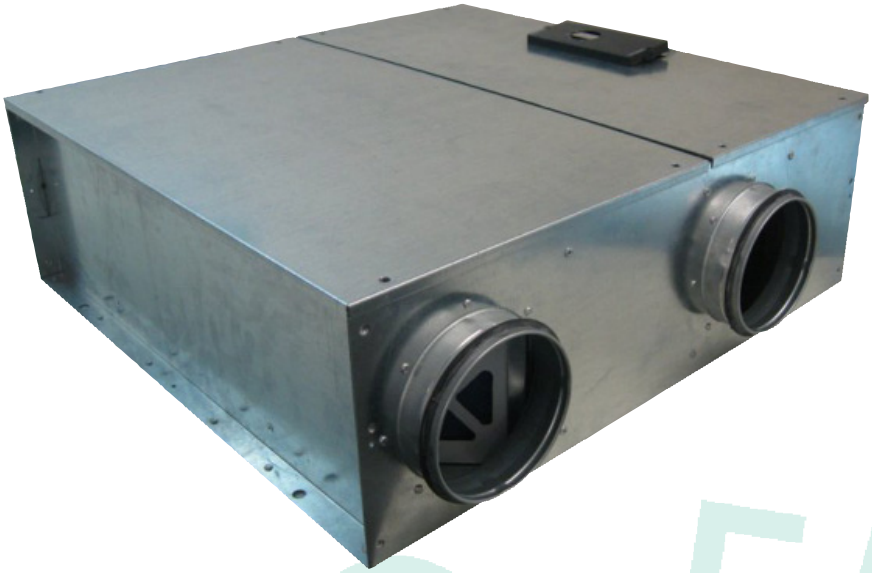
WHHR100/90DC

SAP Q Eligible

WHOLE HOUSE HEAT RECOVERY UNIT



FEATURES

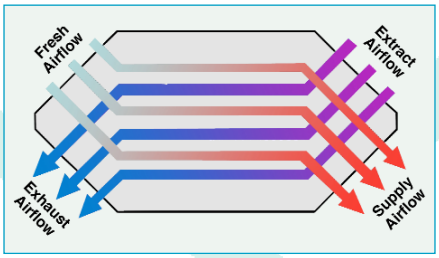
- Highly efficient, low energy solution to condensation and pollutant control
- Continuous ventilation in kitchen plus up to 6 additional wet rooms
- Up to 79% heat exchange efficiency
- Low noise levels
- Building Regulations Part L and Part F compliant

GENERAL

- **SAP Q eligible** whole house heat recovery unit for homes and offices
- continuous ventilation in kitchen and up to 6 additional wet rooms
- maximum airflow 274m³/hr
- suitable for areas up to 185m²
- up to 79% of heat is recovered from air extracted from warm, moist rooms to create a stable, comfortable, healthy environment
- easy to install and maintain
- for fitting into lofts, voids, false ceilings or cupboards (can be angled horizontally or vertically)
- multiple choice low (trickle) speed and boost options - factory set at most usual requirement but can be adjusted by installer
- boost speed obtainable by user via remote switch/pull cord (ie a volt free contact switch - not supplied) **or** by a humidistat, thermostat, or PIR sensor using an intermediate, external relay (available separately)
- has integral over-run timer for boost speed
- low noise levels
- low running costs
- gives extra security by removing need to open windows
- guaranteed for 3 years
- Vectaire Ltd can supply all accessories for use with these units, including ducting and metal filters, outside grilles and wall cowls

SPECIFICATION

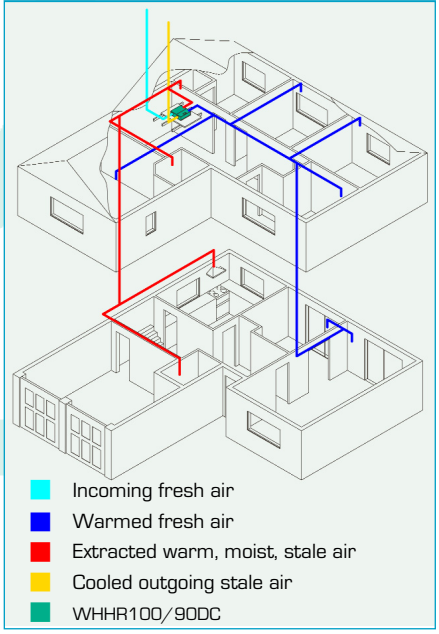
- compact, low profile unit
- casing manufactured from sheet steel lined with 25mm thick acoustic "O" class foam
- low energy DC external rotor motor has sealed for life bearings
- impellers are single width, single inlet, direct drive and backward curved for higher efficiency
- will not overload when encountering ductwork pressure
- easy plug-in connection cable
- operates in temperature up to 80ºC
- uses standard, disposable G3 filters
- counter flow heat exchanger with aluminium plates for greater efficiency, superior separation of air and longer life



COMPLIES WITH

- Part L of Building Regulations for enhanced energy saving capability
- Part F of Building Regulations for reliable, efficient ventilation
- built to BS EN ISO 9001
- complies with IEC 60335-2-80, LVD2006/95/CE and EMC 2004/108/CE European Directive against radio interference and electro-magnetic compatibility
- CE marked
- **SAP Q eligible**

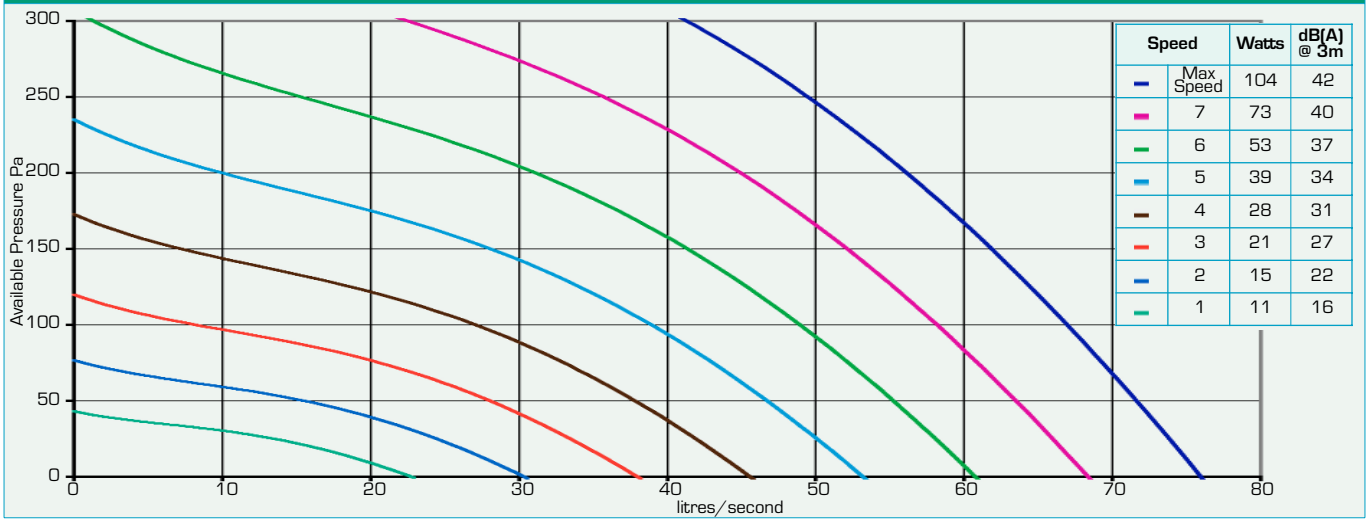
LOFT OR VOID INSTALLATION



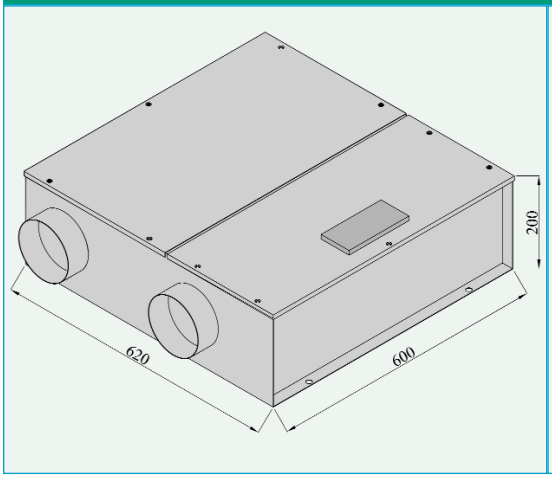
WHHR100/90DC - TECHNICAL INFORMATION

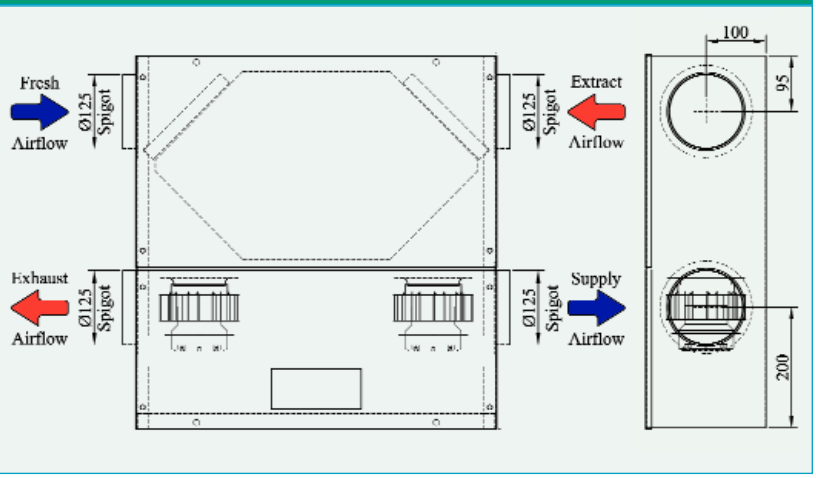
ENERGY LEVEL PERFORMANCE - using rigid ducting			
Exhaust Terminal Configuration	**Fan Speed Setting**	**Specific Fan Power (W/l/s)**	**Heat Exchange Efficiency (%)**
Kitchen + **1** additional wet room	100% variable	**0.71**	**79**
Kitchen + **2** additional wet rooms	100% variable	**0.78**	**79**
Kitchen + **3** additional wet rooms	100% variable	**0.91**	**78**
Kitchen + **4** additional wet rooms	100% variable	**0.99**	**78**
Kitchen + **5** additional wet rooms	100% variable	**1.22**	**78**
Kitchen + **6** additional wet rooms	100% variable	**1.39**	**77**
Figures from BRE test results			

PERFORMANCE



DIMENSIONS - mm





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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		Vectaire
Model		WHHR100/90DC
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	www.vectaire.co.uk
Original Manufacturer (if different)		
First Year of Manufacture		2008
Last Year of Manufacture		
Testing Body		BRE
Date of test		22/01/09
Serial Number of Product Tested		0001
MVHR to outside grille duct types and size		125 & 150mm diameter rigid plastic & 200mm rectangular rigid plastic
Duct types and sizes used for supply and exhaust		125 & 150mm diameter rigid plastic & 200mm rectangular rigid plastic

Results of leakage tests

Table Q1

Internal	**Pass**
External	**Pass**

Results for SAP calculations

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	**0.71**	**79**	No
Kitchen + 2 additional wet rooms	100% variable	**0.78**	**79**	No
Kitchen + 3 additional wet rooms	100% variable	**0.91**	**78**	No
Kitchen + 4 additional wet rooms	100% variable	**0.99**	**78**	No
Kitchen + 5 additional wet rooms	100% variable	**1.22**	**78**	No
Kitchen + 6 additional wet rooms	100% variable	**1.39**	**77**	No

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

Results for Approved Document F

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 room	100% variable	45.0	45.0

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.