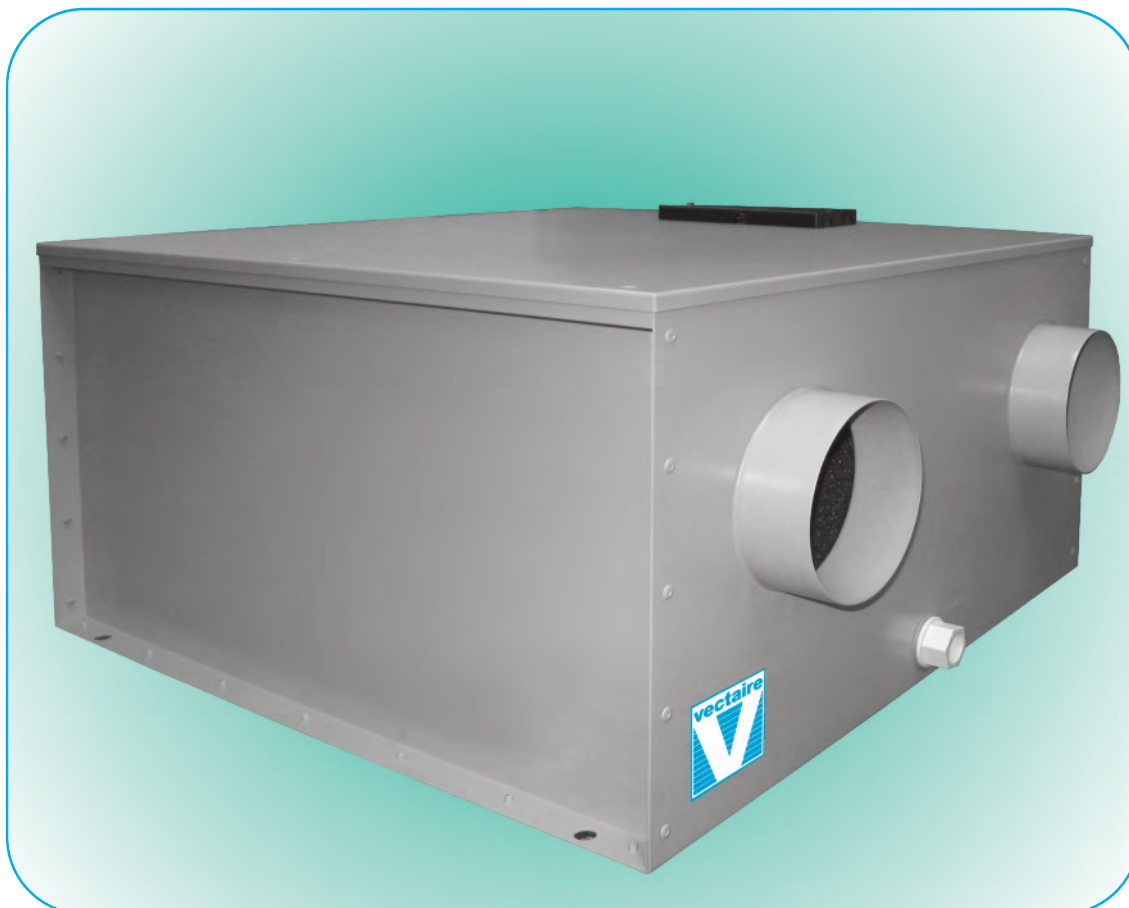


# Whole House Mechanical Ventilation with Heat Recovery - MVHR

## WHHR100/90DC-B Plus



This MVHR - WHHR100/90DC-B Plus is an EST Best Practice Performance Compliant, efficient, low energy solution to controlling condensation and pollution. It provides low level continuous ventilation in a kitchen and up to four wet rooms, extracting moist, polluted air and replacing it with fresh, filtered air - recovering up to 92% of the heat from the outgoing flow.

The user can to boost to maximum performance when required. The WHHR100/90DC-B Plus is easily installed in the loft or roof void, or in a cupboard. The noise level and running costs are extremely low, and it is compliant with Parts L and F of the Building Regulations



## WHHR100/90DC-B Plus

### Technical Characteristics

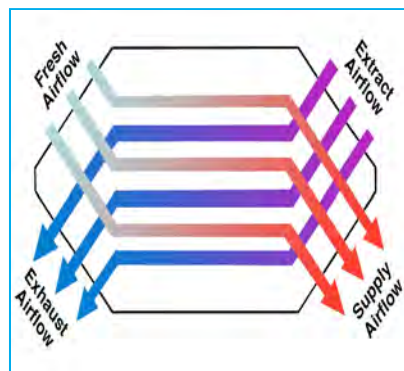


#### FEATURES

- **SAP Q eligible** (MVHR) residential whole house heat recovery unit for providing continuous ventilation in kitchen and up to 4 additional wet rooms
- maximum airflow 51.3 l/sec
- suitable for areas up to 170m<sup>2</sup>
- 92% of heat recovered from stale air extracted from warm, moist rooms replacing it with fresh, filtered, warmed air to create a constant, comfortable, healthy environment
- easy to install and maintain
- for fitting into lofts, voids, false ceilings or cupboards
- variable choice of low (trickle) speed and boost options for optimum setting at installation
- the boost speed can be triggered by a switched live connection from a range of devices:
  - PIRFF (passive infra red)\*
  - DRH240 (dynamic remote humidistat)\*
  - THM (thermostat)\*
  - a light switch (if more than one light switch is used, **each one must be a double pole switch**)
  - a remote switch/pull cord (\*PIRFF, DRH240 and THM may have integral over-run timer which controls the length of time that the fan will continue to operate at its boost speed after the boost has been switched off.)
- low noise levels
- low running costs
- gives extra security by removing need to open windows
- 3 year warranty
- Vectaire Ltd can supply all accessories for use with these units, including air filter cassettes, silencers, fire dampers, air valves, ducting, outside grilles and wall cowl

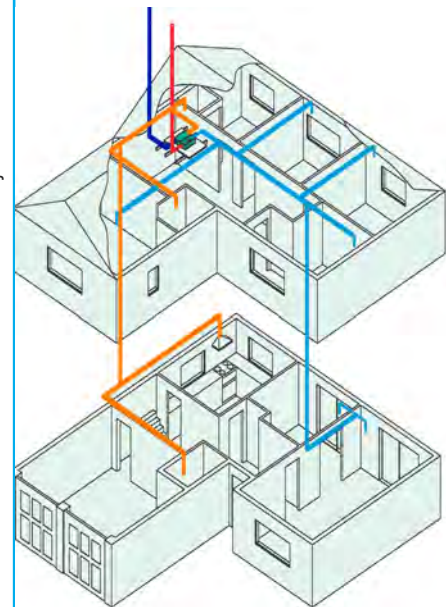
#### SPECIFICATION

- compact, low profile unit
- casing manufactured from galvanised sheet with an epoxy finish
- thermo-acoustic lining in polypropylene to prevent thermal bridging to outside
- low energy DC brushless motor for optimum combination of high performance, low noise levels and low energy consumption
- impellers are single width, single inlet, direct drive and forward curved for higher efficiency
- operates in temperatures up to 60°C
- pre-wired for easy electrical connection
- uses standard, disposable G3 filters
- counter flow heat exchanger for greater efficiency and increased separation of airflows



Vectaire Ltd offers a design service to ensure that the unit installed is the best possible to provide efficient, effective, low energy and low running cost ventilation. Vectaire can also organise installation and commissioning of these products

#### LOFT OR VOID INSTALLATION



	Incoming fresh air
	Warmed fresh air
	Extracted warm, moist, stale air
	Cooled outgoing stale air
	WHHR100/90DC-B

#### COMPLIES WITH

- Part L1A and L1B of Building Regulations for enhanced energy saving capability
- Part F of Building Regulations for reliable, efficient ventilation
- manufactured 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**
- **EST Best Practice Performance Compliant**



<b>RESULTS for SAP CALCULATIONS</b>				
ENERGY LEVEL PERFORMANCE - using rigid ducting only				
Exhaust Terminal Configuration	Fan Speed Setting	Specific Fan Power (W/l/s)	Heat Exchange Efficiency (%)	EST Best Practice Performance Compliant
Kitchen + <b>1</b> additional wet room	100% variable	<b>0.63</b>	<b>92</b>	<b>Yes</b>
Kitchen + <b>2</b> additional wet rooms	100% variable	<b>0.72</b>	<b>91</b>	<b>Yes</b>
Kitchen + <b>3</b> additional wet rooms	100% variable	<b>0.84</b>	<b>91</b>	<b>Yes</b>
Kitchen + <b>4</b> additional wet rooms	100% variable	<b>0.94</b>	<b>89</b>	<b>Yes</b>

Figures from BRE test results

<b>RESULTS for Approved Document F</b>			
Exhaust Terminal Configuration	Fan Speed Setting	Total Exhaust Flow Rate (l/sec)	Total Supply Flow Rate (l/sec)
Kitchen + <b>1</b> additional wet room	100% variable	<b>15.0</b>	<b>15.0</b>
Kitchen + <b>2</b> additional wet rooms	100% variable	<b>21.0</b>	<b>21.0</b>
Kitchen + <b>3</b> additional wet rooms	100% variable	<b>27.0</b>	<b>27.0</b>
Kitchen + <b>4</b> additional wet rooms	100% variable	<b>33.0</b>	<b>33.0</b>

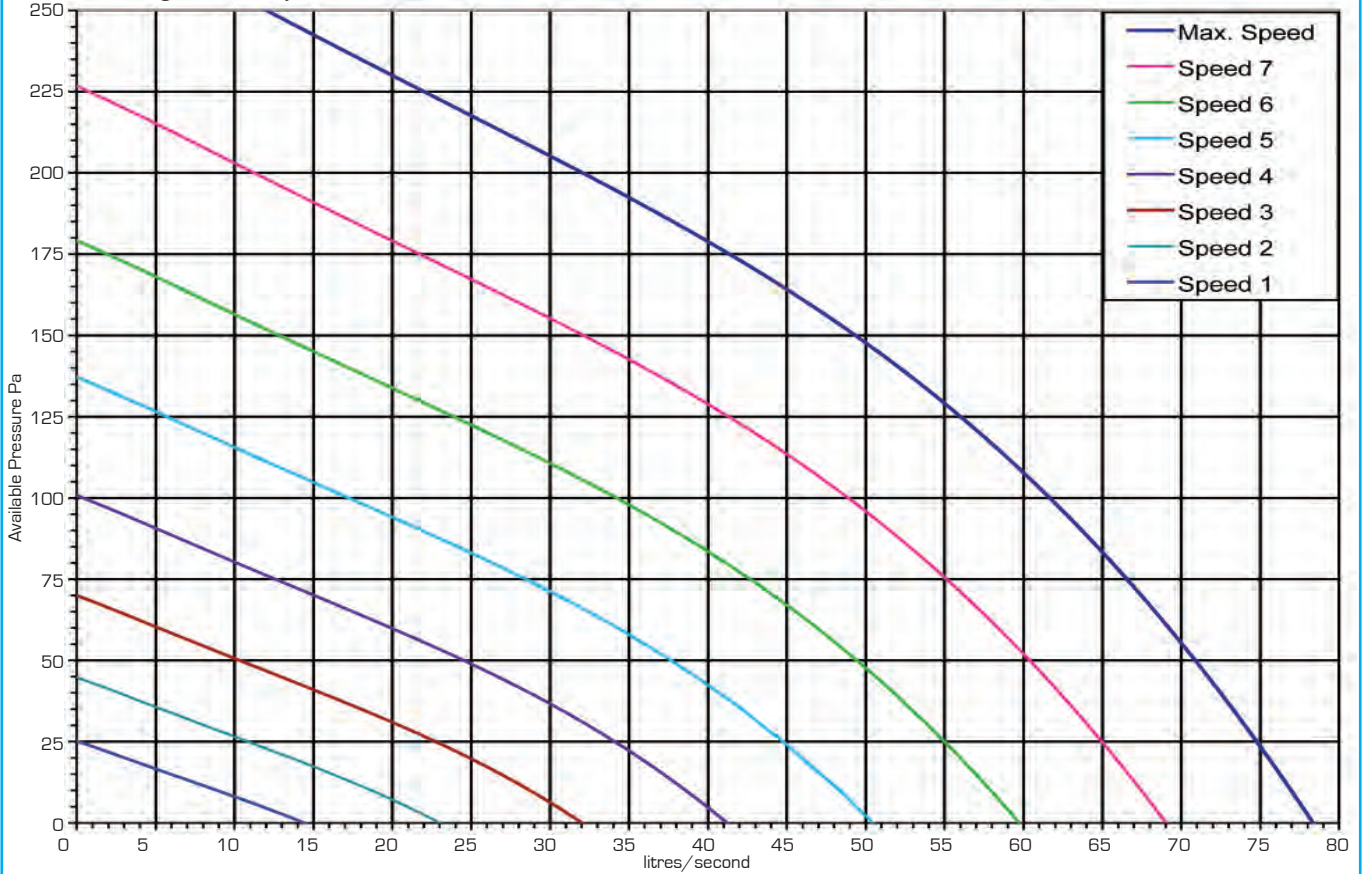
Figures from BRE test results

# WHHR100/90DC-B Plus

## Technical Characteristics - Performance & Dimensions



curves are for guidance only



### Dimensions (mm)

