

NEW

VORT HR 200



HEAT RECOVERY UNIT
APPENDIX Q ELIGIBLE

VENTILATION
AIR CONDITIONING
AIR CLEANING
HEATING



VORT HR 200

(Code 11805)

- Appendix Q Eligible - Up to 93% Efficient
- Quiet Effective Ventilation in Full Compliance with Current Building Regulations
- Compact Dimensions - Can be Located Where Space is Limited
- Horizontal and Vertical Mount (Horizontal Fitting Kit needed - code 22364)
- Lowers Heating Requirements of the Dwelling
- Two speeds
- Easy Commissioning via External Radio Frequency Device (Optional - codes 22362 and 22315)



DESCRIPTION

Vort HR 200 is a centralised continuous mechanical supply and extract ventilation unit with an extremely high heat recovery designed to comply not only with current Building Regulations but also with the requirements of the Code for Sustainable Homes.

The appliance can be installed in a horizontal or vertical position and ensures the silent and continuous ventilation of the home. The Vort HR 200 removes the “stale” air from all wet rooms and creates a permanent air path, through the property, from the dry habitable rooms. Air, drawn into the dwelling by a fan driven by one of the two low consumption DC motors, is routed through an integral high efficiency synthetic heat exchanger where warmth from the extracted air is transferred to the incoming fresh air before it is supplied to the habitable rooms.

The volumes required are detailed in current regulations; during normal operation the total volumes of air extracted and air supplied are essentially the same. The unit must be properly commissioned by fan speed and room duct valve adjustment in order to set - up the machine for its correct use. The environmental conditions in the dwelling are maintained constant, while energy consumption is reduced.

The incoming and outgoing air flows are separate and suitably filtered. During the cold season the heat of the expelled air is transferred to the incoming air flow, with a very high thermal efficiency. The condensation created in the process, which is collected inside the product, is then drained away from the unit via a siphon pipe which must be connected to the unit by the installer.



MATERIAL INFORMATION

- Heat Exchanger - Counter-Flow type, made of PE (Polyethylene)
- External Casing – Mild steel, powder coated white
- Internal Scrolls – made of PPE (Polypropylene polyfoam)
- Impellers – Hot-dip galvanised sheet steel
- Casing Containing the PCB and the Controls – made of PP (Polypropylene)
- Spigots – made of PP (Polypropylene)

SPECIFIC INFORMATION FROST PROTECTION

When the temperature and relative humidity of both indoor and outdoor air streams are at a condition whereby frost may form on the heat exchanger surface, the motor control frost protection system automatically operates to correct the situation.

FILTERS

The Vort HR 200 includes two G3 filters, fitted inside the unit near the heat exchanger. These are easily accessible by removing the front panel. They protect against impurities entering both the dwelling and the heat exchanger. A further optional filter, class F5, (part code 22368) which can be installed into the unit, assures additional filtering capabilities.

APPENDIX Q ELIGIBILITY

The Vort HR 200 with its low energy DC motors and innovative design has been independently tested by the Building Research Establishment (BRE) to the appropriate SAP Appendix Q methodology and is Appendix Q Eligible in all configurations from Kitchen + 1 to Kitchen + 3 additional wet rooms.

VORTICE PRODUCT CODES AND DESCRIPTIONS

Accessory Type	Code	Description
Unit and Specific Accessories	11805	Vort HR 200 Unit
	22362	Vort HR 200 RF Remote Control
	22315	External RF Module
	22329	External Filter Box
	22342	F5 Filter (FOR EXTERNAL FILTER BOX)
	22367	G3 Filter x1 (FOR HR 200 UNIT)
	22368	F5 Filters
	22369	Heat Exchanger
	22364	Horizontal Fitting Kit
	22366	Silencer
External Terminal Components (Duct to External = 125mm Round Rigid or 204 x 60mm Flat Duct)	22020	Fixed Grille, Grey, 125/150mm 5"/6"dia., 197mm sq
	8223	Fixed Grille, White, 125mm/5"dia., 154mm sq
	8226	Fixed Grille, Brown, 125mm/5"dia., 154mm sq
	8229	Fixed Grille, Beige, 125mm/5"dia., 154mm sq
	8232	Fixed Grille, Terracotta, 125mm/5"dia., 154mm sq
	8173	Wall Liner, 125mm/5"dia., 350mm, plastic
	8135	Spigot Plate, 125mm/5"dia., 175mm sq, metal
	8434	FD200 (204x60mm) Double Airbrick Adaptor (requires 2 x SD225 (225x25mm) Airbrick Inserts)
	8440	SD225 (225x25mm) Airbrick Insert White
	8441	SD225 (225x25mm) Airbrick Insert Brown
	8442	SD225 (225x25mm) Airbrick Insert Beige
	8443	SD225 (225x25mm) Airbrick Insert Terracotta
Room Terminal	8049	Duct Valve 125mm dia.
FD200 (204 x 60mm) Flat Duct	8433	FD200 (204x60mm) 1m Rigid Duct
	8430	FD200 (204x60mm) 1.5m Rigid Duct
	8406	FD200 (204x60mm) Connector
	8412	FD200 (204x60mm) Horizontal T - Piece
	8417	FD200 (204x60mm) Round-Square 90° Bend, 125mm ID
	8409	FD200 (204x60mm) Round-Square Adaptor, 125mm ID
	8414	FD200 (204x60mm) Horizontal 90° Bend
	8420	FD200 (204x60mm) Horizontal 45° Bend
	8408	FD200 (204x60mm) Vertical 90° Bend
	8418	FD200 (204x60mm) Adjustable PVC Flexible Bend
	8419	FD200 (204x60mm) Mounting Straps
		8815
	8932	FD200 (204x60mm) Firewrap Sleeve
Round Rigid 125mm Duct	9362	Round Rigid Duct, 125mm/5"dia., 1.5m Length, plastic
	8415	Round Rigid Duct Connector, 125mm/5" dia., plastic
	9361	Round Rigid Duct 90° Bend, 125mm/5"dia., plastic
	9363	Round Rigid Duct 45° Bend, 125mm/5"dia., plastic
	9360	Round Rigid Duct 'T' piece, 125mm/5"dia., plastic
	9364	Round Rigid Duct Support Clip, 125mm/5"dia., plastic
	8862	Ceiling Fire Stop Intumescent 125mm dia.

VORTICE PRODUCT CODES AND DESCRIPTIONS

Accessory Type	Code	Description
Thermally Insulated Flexible Duct (Only short off cuts of flexible duct can be used)	8342	Insulated Flexible Aluminium Duct, 4m, 125mm/5" dia.
	8333	Insulated Flexible Aluminium Duct, 10m, 125mm/5" dia.
Additional Ducting Components	8040	Worm Drive Clip 125mm dia.
	8041	Worm Drive Clip 150mm dia.
	8682	Y Piece, 125mm/5" dia., metal
	9238	Reducer, 150-125mm dia., plastic
	8020	PVC Sealing Tape 33m x 50mm



Requires x 2 per unit

EXTERNAL FILTER BOX - CODE 22329

Galvanised filter box (F5) designed to simplify maintaining the Vort HR 200.

The filter box is fitted to the outside of the appliance and protects the intake and outlet ducts serving various rooms (replacing standard filters). Time spent on maintenance is less (thanks to a specially sized filter that guarantees perfect filtering characteristics even when the unit is used for long periods), and maintenance work is simplified as direct access to the unit is not required. Please note if the external filter boxes are fitted then reducers code 9238 are required.



These products are for commissioning only

RADIO FREQUENCY DEVICES RF CONTROLLER - (CODE 22362) EXTERNAL RF MODULE - (CODE 22315)

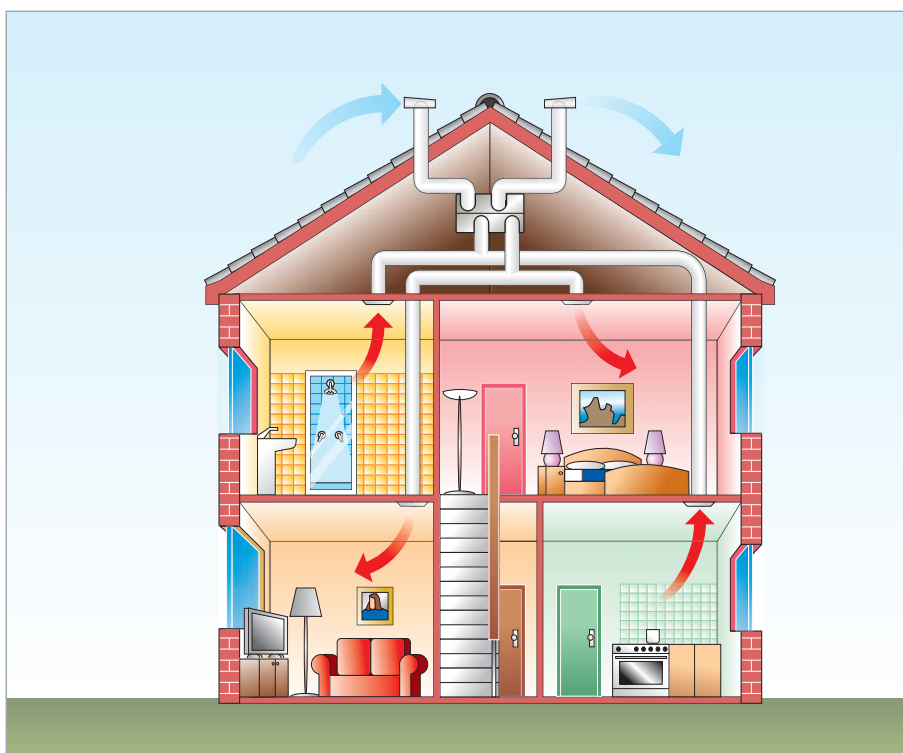
An optional radio frequency (RF) remote control (code 22362) and radio frequency RF device (code 22315) including a connection cable are available as optional accessories. The 2-way transmission allows the unit to be adjusted by the installer: Initial setup of Minimum and Maximum speed values can therefore be set remotely by the installer without the need for return visits to the unit from each room. In this way the initial setup procedure, balancing the unit in accordance with the Building Regulations, consisting of the simultaneous regulation of fan motor speeds and air valves adjustment, is extremely easy. Alternatively in the absence of these devices the fan motor speeds can be regulated by trimmers located on the control board integral to the Vort HR 200 unit.

BUILDING REGULATIONS DOCUMENT F1 2006

SYSTEM 4

CONTINUOUS MECHANICAL SUPPLY & EXTRACT VENTILATION WITH HEAT RECOVERY

A continuous balanced mechanical central supply and extract system to be positioned in loft or cupboard space. An integral heat exchanger recovers a large percentage of heat energy that would have otherwise been lost. In employing this type of system, there is no need to install background ventilators in the dwelling.



CONTINUOUS SUPPLY AND EXTRACT

- Determine the whole building ventilation rate from **Table 1.1 b**. Allow for infiltration by subtracting
 - for multi storey dwellings: $0.04 \times$ gross internal volume of dwelling heated space (m^3).
 - for single storey dwellings: $0.06 \times$ gross

internal volume of dwelling heated space (m^3).

- Calculate the whole dwelling extract rate at maximum operation by adding the individual room rates for "minimum high rate" from **Table 1.1 a**.

- The required air flow rates are as follows:
 - **Maximum extract rate (boost)** is the greater of step 1 and 2 above. The maximum individual room extract rates should be at least those given in Table 1.1 a for minimum high rate.

- **Minimum air supply rate** should be at least the whole building ventilation rate in step 1 above.

- No background ventilators are required with System 4.

TABLE 1.1 a

Room	Minimum intermittent extract rate	Continuous rate	
		Minimum high rate	Minimum low rate
Kitchen	30 l/s (adjacent to hob, 60 l/s elsewhere)	13 l/s	Total extract rate must be at least the whole building ventilation rate in Table 1.1B
Utility room	30 l/s	8 l/s	
Bathroom	15 l/s	8 l/s	
Sanitary Accommodation	6 l/s	6 l/s	

TABLE 1.1 b

	Number of bedrooms in dwelling				
	1	2	3	4	5
Whole building ventilation rate (l/s)	13	17	21	25	29
Minimum value in any dwelling of 0,3 l/s per m^2 floor area					

Code 5.170.084.989

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